# AIRCRAFT CHARACTERISTICS
# AIRPORT AND MAINTENANCE PLANNING

# AC

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## HIGHLIGHTS

## Revision No. 34 - Dec 01/25

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| FIGURE Ground Clearances | R | ADDED THE FLAG NOTE "EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION)" IN THE ILLUSTRATION. |
| FIGURE Ground Clearances | R | ADDED THE FLAG NOTE "EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION)" IN THE ILLUSTRATION. |
| FIGURE Ground Clearances | R | ADDED THE FLAG NOTE "EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION)" IN THE ILLUSTRATION. |
| FIGURE Ground Clearances | R | ADDED THE FLAG NOTE "EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION)" IN THE ILLUSTRATION.<br>ILLUSTRATION REVISED |
| FIGURE Ground Clearances | R | ADDED THE FLAG NOTE "EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION)" IN THE ILLUSTRATION.<br>ILLUSTRATION REVISED |
| Section 2-9 | | |
| Subject 2-9-0 | | |
| Landing Gear | R | |

| LOCATIONS | CHG CODE | DESCRIPTIONS OF CHANGE |
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| FIGURE Tow Truck Power (With Electric Box 8GH Installed) | R | DELETED THE NOTE FROM THE ILLUSTRATION.<br>UPDATED THE ILLUSTRATION TO SHOW THE CONNECTION BETWEEN THE CONNECTOR (5GCB) AND THE ELECTRIC BOX (8GH).<br>ADDED "(WITH ELECTRIC BOX 8GH INSTALLED)" IN THE ILLUSTRATION TITLE.<br>ILLUSTRATION REVISED |
| FIGURE Tow Truck Power (Without Electric Box 8GH Installed) | N | ADDED THE ILLUSTRATION "TOW TRUCK POWER (WITHOUT ELECTRIC BOX 8GH INSTALLED)".<br>ILLUSTRATION ADDED |
| Section 2-11<br>Subject 2-11-0 | | |
| FIGURE Antennas and Probes - Location | R | ADDED THE DETAILED VIEW OF THE NOSE SECTION IN THE ILLUSTRATION. |
| FIGURE Antennas and Probes - Location | R | ADDED THE DETAILED VIEW OF THE NOSE SECTION IN THE ILLUSTRATION. |
| FIGURE Antennas and Probes - Location | R | ADDED THE DETAILED VIEW OF THE NOSE SECTION IN THE ILLUSTRATION. |
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| FIGURE Engine and Nacelle - Nacelle Dimensions - TRENT 7000 | R | |

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# SCOPE

## 1-1-0 Purpose

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Introduction

1. General

The A330 AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING (AC) manual is issued for the A330-200, A330-200F, A330-300, A330-800 and A330-900 basic versions to give necessary data to airport operators, airlines and Maintenance/Repair Organizations (MRO) for airport and maintenance facilities planning.

This document is not customized and must not be used for training purposes.

The A330 Family – with Passenger, Freighter, VIP and Military Transport/Tanker variants - is one of the most widely-used, versatile and economic wide-bodies in service and has more than 120 operators flying to over 400 airports worldwide.

The latest member of the A330 family is the A330neo, incorporating the latest-generation Rolls-Royce Trent 7000 engines and powerplant system along with a new wing, new sharklet wingtip devices and a new airspace designed by Airbus interiors. These latest technologies deliver new generation fuel burn (14 percent per seat lower than the A330) and new generation economics combined with the versatility and reliability of the A330. Most recently, the MTOW of both the A330-800 and A330-900 has been increased by 9 000 kg (19 842 lb) to 251 000 kg (553 360 lb) giving over 600 nm (1 111 km) more range than the 242 000 kg (533 519 lb) version and typically up to 1 500 nm (2 778 km) more than current generation A330s.

The A330-800 and A330-900 along with the A330-200 and A330-300 offer several payload capabilities, ranging from 200 passengers in a high-comfort multi-class layout up to 440 passengers in a high efficiency configuration. The NEO two versions, A330-800NEO and A330-900NEO, share the same fuselage length as today A330-200 and A330-300 current engine option jetliners respectively.
The new generation mid-size freighter, the A330-200F, has up to 70 000 kg (154 324 lb) payload and a range of up to 4 000 nm (7 408 km). It offers better payload, range and economics than previous generation freighters.
The ACJ330 offers true space and comfort while delivering a non-stop to the worldspace for corporate, VIP and government operators.

The A330 MRTT is the most capable in-flight refuelling platform available.

All A330's combine maturity and reliability with the most up-to-date technology. The fleet consistently achieves an average dispatch reliability of over 99% and annual utilization of up to 6 000 flight hours. At the same time, it is continuously improved by incorporating the latest technologies, to lower operating costs, increase efficiency, improve safety, enhance the passenger product (pioneering the 240-minute ETOPS, introducing RNP to wide-bodies, increasing the MTOW to 242 000 kg (533 519 lb), being the first aircraft to have line-fit connectivity for passengers) and be fully compatible with the Airbus Skywise digital platform.

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## 1-2-1 Glossary

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Glossary

1. List of Abbreviations

| | |
|---|---|
| A/C | Aircraft |
| ACN | Aircraft Classification Number |
| ACR | Aircraft Classification Rating |
| AMM | Aircraft Maintenance Manual |
| APU | Auxiliary Power Unit |
| B/C (except A330-200F) | Business Class |
| C/L | Center Line |
| CBR | California Bearing Ratio |
| CC | Cargo Compartment |
| CG | Center of Gravity |
| CKPT | Cockpit |
| E | Young’s Modulus |
| ELEC | Electric, Electrical, Electricity |
| ESWL | Equivalent Single Wheel Load |
| F/C (except A330-200F) | First Class |
| FAA | Federal Aviation Administration |
| FDL | Fuselage Datum Line |
| FR | Frame |
| FSTE | Full Size Trolley Equivalent |
| FWD | Forward |
| GPU | Ground Power Unit |
| GSE | Ground Support Equipment |
| HYD | Hydraulic |
| ICAO | International Civil Aviation Organisation |
| IDG | Integrated Drive Generator |
| ISA | International Standard Atmosphere |
| L | Radius of relative stiffness |
| LCN | Load Classification Number |
| LD | Load Device |
| LD | Lower Deck |
| L/G | Landing Gear |
| LH | Left Hand |
| LPS (except A330-200F) | Last Pax Seating |

| | |
|---|---|
| MAC | Mean Aerodynamic Chord |
| MAX | Maximum |
| MD | Main Deck |
| MDCC (A330-200F only) | Main Deck Cargo Compartment |
| MIN | Minimum |
| MLG | Main Landing Gear |
| NLG | Nose Landing Gear |
| OAT | Outside Air Temperature |
| PAX (except A330-200F) | Passenger |
| PB/D (except A330-200F) | Passenger Boarding/Deboarding |
| PBB | Passenger Boarding Bridge |
| PCA | Portland Cement Association |
| PCN | Pavement Classification Number |
| PCR | Pavement Classification Rating |
| PRM (except A330-200F) | Passenger with Reduced Mobility |
| RH | Right Hand |
| ULD | Unit Load Device |
| US | United States |
| WV | Weight Variant |
| Y/C (except A330-200F) | Economy Class |

2. Design Weight Terminology

- Maximum Design Ramp Weight (MRW):
  Maximum weight for ground maneuver (including weight of taxi and run-up fuel) as limited by aircraft strength and airworthiness requirements. It is also called Maximum Design Taxi Weight (MTW).
- Maximum Design Landing Weight (MLW):
  Maximum weight for landing as limited by aircraft strength and airworthiness requirements.
- Maximum Design Take-Off Weight (MTOW):
  Maximum weight for take-off as limited by aircraft strength and airworthiness requirements. (This is the maximum weight at start of the take-off run).
- Maximum Design Zero Fuel Weight (MZFW):
  Maximum permissible weight of the aircraft without usable fuel.
- Maximum Seating Capacity:
  Maximum number of passengers specifically certified or anticipated for certification.
- Usable Volume:
  Usable volume available for cargo, pressurized fuselage, passenger compartment and cockpit.
- Water Volume:
  Maximum volume of cargo compartment.
- Usable Fuel:

Fuel available for aircraft propulsion.

# AIRCRAFT DESCRIPTION

## 2-1-1 General Aircraft Characteristics Data

****ON A/C A330-200 A330-300 A330-800 A330-900**

General Aircraft Characteristics Data

****ON A/C A330-300**

1. The following table provides characteristics of A330-300 Models, these data are specific to each Weight Variant:

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV000 | WV001 | WV002 | WV003 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 212 900 kg<br>(469 364 lb) | 184 900 kg<br>(407 635 lb) | 212 900 kg<br>(469 364 lb) | 215 900 kg<br>(475 978 lb) |
| Maximum Take-Off Weight (MTOW) | 212 000 kg<br>(467 380 lb) | 184 000 kg<br>(405 650 lb) | 212 000 kg<br>(467 380 lb) | 215 000 kg<br>(473 994 lb) |
| Maximum Landing Weight (MLW) | 174 000 kg<br>(383 604 lb) | 174 000 kg<br>(383 604 lb) | 177 000 kg<br>(390 218 lb) | 177 000 kg<br>(390 218 lb) |
| Maximum Zero Fuel Weight (MZFW) | 164 000 kg<br>(361 558 lb) | 164 000 kg<br>(361 558 lb) | 167 000 kg<br>(368 172 lb) | 167 000 kg<br>(368 172 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV004 (a) | WV010 | WV011 | WV012 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 209 900 kg<br>to 215 900 kg<br>(462 750 lb<br>to 475 978 lb) | 217 900 kg<br>(480 387 lb) | 212 900 kg<br>(469 364 lb) | 218 900 kg<br>(482 592 lb) |
| Maximum Take-Off Weight (MTOW) | 209 000 kg<br>to 215 000 kg<br>(460 766 lb<br>to 473 994 lb) | 217 000 kg<br>(478 403 lb) | 212 000 kg<br>(467 380 lb) | 218 000 kg<br>(480 608 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg<br>to 177 000 kg<br>(401 241 lb<br>to 390 218 lb) | 179 000 kg<br>(394 627 lb) | 177 000 kg<br>(390 218 lb) | 182 000 kg<br>(401 241 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV004 (a) | WV010 | WV011 | WV012 |
| Maximum Zero Fuel Weight (MZFW) | 172 000 kg to 167 000 kg (379 195 lb to 368 172 lb) | 169 000 kg (372 581 lb) | 167 000 kg (368 172 lb) | 172 000 kg (379 195 lb) |

NOTE : (a) Linear MTOW/MZFW trade-off relationship.

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV013 | WV014 | WV020 | WV022 | WV024 |
| Maximum Taxi Weight (MTW) Maximum Ramp Weight (MRW) | 215 900 kg (475 978 lb) | 205 900 kg (453 932 lb) | 230 900 kg (509 047 lb) | 233 900 kg (515 661 lb) | 205 900 kg (453 932 lb) |
| Maximum Take-Off Weight (MTOW) | 215 000 kg (473 994 lb) | 205 000 kg (451 948 lb) | 230 000 kg (507 063 lb) | 233 000 kg (513 677 lb) | 205 000 kg (451 948 lb) |
| Maximum Landing Weight (MLW) | 177 000 kg (390 218 lb) | 182 000 kg (401 241 lb) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) | 185 000 kg (407 855 lb) |
| Maximum Zero Fuel Weight (MZFW) | 167 000 kg (368 172 lb) | 172 000 kg (379 195 lb) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) | 173 000 kg (381 400 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV025 | WV026 | WV027 | WV030 | WV031 |
| Maximum Taxi Weight (MTW) Maximum Ramp Weight (MRW) | 217 900 kg (480 387 lb) | 217 900 kg (480 387 lb) | 198 900 kg (438 499 lb) | 199 900 kg (440 704 lb) | 199 900 kg (440 704 lb) |
| Maximum Take-Off Weight (MTOW) | 217 000 kg (478 403 lb) | 217 000 kg (478 403 lb) | 198 000 kg (436 515 lb) | 199 000 kg (438 720 lb) | 199 000 kg (438 720 lb) |
| Maximum Landing Weight (MLW) | 179 000 kg (394 627 lb) | 185 000 kg (407 855 lb) | 185 000 kg (407 855 lb) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 169 000 kg (372 581 lb) | 173 000 kg (381 400 lb) | 173 000 kg (381 400 lb) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV032 | WV033 | WV034 | WV035 | WV039 |
| Maximum Taxi Weight (MTW) Maximum Ramp Weight (MRW) | 190 900 kg (420 862 lb) | 190 900 kg (420 862 lb) | 205 900 kg (453 932 lb) | 205 900 kg (453 932 lb) | 217 900 kg (480 387 lb) |
| Maximum Take-Off Weight (MTOW) | 190 000 kg (418 878 lb) | 190 000 kg (418 878 lb) | 205 000 kg (451 948 lb) | 205 000 kg (451 948 lb) | 217 000 kg (478 403 lb) |
| Maximum Landing Weight (MLW) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) | 187 000 kg (412 264 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV032 | WV033 | WV034 | WV035 | WV039 |
| Maximum Zero Fuel Weight (MZFW) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) | 175 000 kg (385 809 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV050 | WV051 | WV052 | WV053 | WV054 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 230 900 kg (509 047 lb) | 212 900 kg (469 364 lb) | 233 900 kg (515 661 lb) | 205 900 kg (453 932 lb) | 235 900 kg (520 070 lb) |
| Maximum Take-Off Weight (MTOW) | 230 000 kg (507 063 lb) | 212 000 kg (467 380 lb) | 233 000 kg (513 677 lb) | 205 000 kg (451 948 lb) | 235 000 kg (518 086 lb) |
| Maximum Landing Weight (MLW) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) | 187 000 kg (412 264 lb) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) | 175 000 kg (385 809 lb) | 173 000 kg (381 400 lb) | 173 000 kg (381 400 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV055 (b) | WV056 | WV057 | WV058 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 235 900 kg (520 070 lb) | 205 900 kg (453 932 lb) | 184 900 kg (407 635 lb) | 215 900 kg (475 978 lb) |
| Maximum Take-Off Weight (MTOW) | 235 000 kg (518 086 lb) | 205 000 kg (451 948 lb) | 184 000 kg (405 650 lb) | 215 000 kg (473 994 lb) |
| Maximum Landing Weight (MLW) | 187 000 kg (412 264 lb) | 187 000 kg (412 264 lb) | 174 000 kg (383 604 lb) | 187 000 kg (412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 173 000 kg to 175 000 kg (381 400 lb to 385 809 lb) | 175 000 kg (385 809 lb) | 164 000 kg (361 558 lb) | 173 000 kg (381 400 lb) |

NOTE : (b) Dynamic Payload between WV052 and WV054.

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV059 | WV060 | WV080 | WV081 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 217 900 kg (480 387 lb) | 198 900 kg (438 499 lb) | 238 900 kg (526 684 lb) | 242 900 kg (535 503 lb) |
| Maximum Take-Off Weight (MTOW) | 217 000 kg (478 403 lb) | 198 000 kg (436 515 lb) | 238 000 kg (524 700 lb) | 242 000 kg (533 519 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV059 | WV060 | WV080 | WV081 |
| Maximum Landing Weight (MLW) | 185 000 kg (407 855 lb) | 185 000 kg (407 855 lb) | 187 000 kg (412 264 lb) | 187 000 kg (412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 173 000 kg (381 400 lb) | 173 000 kg (381 400 lb) | 175 000 kg (385 809 lb) | 171 000 kg (376 990 lb) |

| Aircraft Characteristics | | |
|---|---|---|
| | WV082 (c) | WV083 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 242 900 kg (535 503 lb) | 240 900 kg (531 093 lb) |
| Maximum Take-Off Weight (MTOW) | 242 000 kg (533 519 lb) | 240 000 kg (529 109 lb) |
| Maximum Landing Weight (MLW) | 187 000 kg (412 264 lb) | 187 000 kg (412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 171 000 kg to 175 000 kg (376 990 lb to 385 809 lb) | 173 000 kg (381 400 lb) |

NOTE : (c) Dynamic Payload between WV080 and WV081.

****ON A/C A330-900**

2. The following table provides characteristics of A330-900 Models, these data are specific to each Weight Variant:

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV900 (d) | WV901 | WV902 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 242 900 kg (535 503 lb) | 242 900 kg (535 503 lb) | 238 900 kg (526 684 lb) |
| Maximum Take-Off Weight (MTOW) | 242 000 kg (533 519 lb) | 242 000 kg (533 519 lb) | 238 000 kg (524 700 lb) |
| Maximum Landing Weight (MLW) | 191 000 kg (421 083 lb) | 191 000 kg (421 083 lb) | 191 000 kg (421 083 lb) |
| Maximum Zero Fuel Weight (MZFW) | 177 000 kg to 181 000 kg (390 218 lb to 399 037 lb) | 177 000 kg (390 218 lb) | 181 000 kg (399 037 lb) |

NOTE : (d) Dynamic Payload between WV901 and WV902.

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV903 | WV904 | WV905 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 234 900 kg<br>(517 866 lb) | 230 900 kg<br>(509 047 lb) | 220 900 kg<br>(487 001 lb) |
| Maximum Take-Off Weight (MTOW) | 234 000 kg<br>(515 882 lb) | 230 000 kg<br>(507 063 lb) | 220 000 kg<br>(485 017 lb) |
| Maximum Landing Weight (MLW) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) |
| Maximum Zero Fuel Weight (MZFW) | 181 000 kg<br>(399 037 lb) | 181 000 kg<br>(399 037 lb) | 181 000 kg<br>(399 037 lb) |

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV906 | WV907 | WV908 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 215 900 kg<br>(475 978 lb) | 210 900 kg<br>(464 955 lb) | 205 900 kg<br>(453 932 lb) |
| Maximum Take-Off Weight (MTOW) | 215 000 kg<br>(473 994 lb) | 210 000 kg<br>(462 971 lb) | 205 000 kg<br>(451 948 lb) |
| Maximum Landing Weight (MLW) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) |
| Maximum Zero Fuel Weight (MZFW) | 181 000 kg<br>(399 037 lb) | 181 000 kg<br>(399 037 lb) | 181 000 kg<br>(399 037 lb) |

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV910 | WV911 | WV912 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 245 900 kg<br>(542 117 lb) | 245 900 kg<br>(542 117 lb) | 241 900 kg<br>(533 298 lb) |
| Maximum Take-Off Weight (MTOW) | 245 000 kg<br>(540 132 lb) | 245 000 kg<br>(540 132 lb) | 241 000 kg<br>(531 314 lb) |
| Maximum Landing Weight (MLW) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) |
| Maximum Zero Fuel Weight (MZFW) | 177 000 kg<br>to 181 000 kg<br>(390 218 lb<br>to 399 037 lb)<br>(Depending on<br>actual TOW ) (e) | 177 000 kg<br>(390 218 lb) | 181 000 kg<br>(399 037 lb) |

NOTE : (e) The MZFW is a function of the Actual Takeoff Weight (ATOW).
For ATOW equal to or less than 241 000 kg (531 314 lb) the MZFW is 181 000 kg (399 037 lb).
For ATOW between 241 000 kg (531 314 lb) and 245 000 kg (540 132 lb) the MZFW is calculated as follows:
MZFW (kg) = 181 000 (kg) – [ATOW (kg) – 241 000 (kg)]
or
MZFW (lb) = 399 037 (lb) – [ATOW (lb) – 531 314 (lb)].

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV920 (f) | WV921 | WV922 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 251 900 kg<br>(555 344 lb) | 251 900 kg<br>(555 344 lb) | 247 900 kg<br>(546 526 lb) |
| Maximum Take-Off Weight (MTOW) | 251 000 kg<br>(553 360 lb) | 251 000 kg<br>(553 360 lb) | 247 000 kg<br>(544 542 lb) |
| Maximum Landing Weight (MLW) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) | 191 000 kg<br>(421 083 lb) |
| Maximum Zero Fuel Weight (MZFW) | 177 000 kg<br>to 181 000 kg<br>(390 218 lb) to<br>(399 037 lb) | 177 000 kg<br>(390 218 lb) | 181 000 kg<br>(399 037 lb) |

NOTE : (f) Dynamic Payload between WV921 and WV922.

****ON A/C A330-300 A330-900**

3. The following table provides characteristics of A330-300 and A330-900 Models, these data are common to each Weight Variant:

| Aircraft Characteristics | | |
|---|---|---|
| Standard Seating Capacity<br>(in a two class layout) | A330-300 : 300<br>A330-900 : 310 | |
| Usable Fuel Capacity<br>(density = 0.785 kg/l) | 97 530 l<br>(25 765 US gal) | 139 090 l *<br>(36 744 US gal) * |
| | 76 561 kg<br>(168 787 lb) | 109 185 kg *<br>(240 711 lb) * |
| Pressurized Fuselage Volume (A/C non equipped) | 1 056 $m^3$<br>(37 292 $ft^3$) | |
| Passenger Compartment Volume | 372 $m^3$<br>(13 137 $ft^3$) | |
| Cockpit Volume | 12 $m^3$ | |

| Aircraft Characteristics | |
|---|---|
| | (424 ft³) |
| Usable Volume, FWD CC<br>(Based on LD3) | 78 m³<br>(2 754 ft³) |
| Usable Volume, AFT CC<br>(Based on LD3) | 60.7 m³<br>(2 142 ft³) |
| Usable Volume, Bulk CC | 19.7 m³<br>(695 ft³) |
| Water Volume, FWD CC | 107 m³<br>(3 789 ft³) |
| Water Volume, AFT CC | 85.7 m³<br>(3 026 ft³) |
| Water Volume, Bulk CC | 22.7 m³<br>(802 ft³) |

NOTE : * OPTION: WV08X and A330-900 (all WV).

****ON A/C A330-200**

4. The following table provides characteristics of A330-200 Models, these data are specific to each Weight Variant:

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV020 | WV021 | WV022 | WV023 | WV024 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 230 900 kg (509 047 lb) | 230 900 kg (509 047 lb) | 233 900 kg (515 661 lb) | 233 900 kg (515 661 lb) | 202 900 kg (447 318 lb) |
| Maximum Take-Off Weight (MTOW) | 230 000 kg (507 063 lb) | 230 000 kg (507 063 lb) | 233 000 kg (513 677 lb) | 233 000 kg (513 677 lb) | 202 000 kg (445 334 lb) |
| Maximum Landing Weight (MLW) | 180 000 kg (396 832 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 180 000 kg (396 832 lb) | 180 000 kg (396 832 lb) |
| Maximum Zero Fuel Weight (MZFW) | 168 000 kg (370 376 lb) | 170 000 kg (374 786 lb) | 170 000 kg (374 786 lb) | 168 000 kg (370 376 lb) | 168 000 kg (370 376 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV025 | WV026 | WV027 | WV050 | WV051 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 220 900 kg | 192 900 kg | 220 900 kg | 230 900 kg | 192 900 kg |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV025 | WV026 | WV027 | WV050 | WV051 |
| | (487 001 lb) | (425 272 lb) | (487 001 lb) | (509 047 lb) | (425 272 lb) |
| Maximum Take-Off Weight (MTOW) | 220 000 kg (485 017 lb) | 192 000 kg (423 287 lb) | 220 000 kg (485 017 lb) | 230 000 kg (507 063 lb) | 192 000 kg (423 287 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg (401 241 lb) | 180 000 kg (396 832 lb) | 180 000 kg (396 832 lb) | 180 000 kg (396 832 lb) | 180 000 kg (396 832 lb) |
| Maximum Zero Fuel Weight (MZFW) | 170 000 kg (374 786 lb) | 168 000 kg (370 376 lb) | 168 000 kg (370 376 lb) | 168 000 kg (370 376 lb) | 168 000 kg (370 376 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV052 | WV053 | WV054 | WV055 | WV056 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 233 900 kg (515 661 lb) | 210 900 kg (464 955 lb) | 230 900 kg (509 047 lb) | 192 900 kg (425 272 lb) | 233 900 kg (515 661 lb) |
| Maximum Take-Off Weight (MTOW) | 233 000 kg (513 677 lb) | 210 000 kg (462 971 lb) | 230 000 kg (507 063 lb) | 192 000 kg (423 287 lb) | 233 000 kg (513 677 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg (401 241 lb) | 180 000 kg (396 832 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 180 000 kg (396 832 lb) |
| Maximum Zero Fuel Weight (MZFW) | 170 000 kg (374 786 lb) | 168 000 kg (370 376 lb) | 170 000 kg (374 786 lb) | 170 000 kg (374 786 lb) | 168 000 kg (370 376 lb) |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV057 | WV058 | WV059 | WV060 | WV061 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 236 900 kg (522 275 lb) | 238 900 kg (526 684 lb) | 202 900 kg (447 318 lb) | 220 900 kg (487 001 lb) | 230 900 kg (509 047 lb) |
| Maximum Take-Off Weight (MTOW) | 236 000 kg (520 291 lb) | 238 000 kg (524 700 lb) | 202 000 kg (445 334 lb) | 220 000 kg (485 017 lb) | 230 000 kg (507 063 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 240 lb) | 182 000 kg (401 240 lb) |
| Maximum Zero Fuel Weight (MZFW) | 170 000 kg | 168 000 kg | 170 000 kg | 170 000 kg | 168 000 kg |

| Aircraft Characteristics | | | | | |
|---|---|---|---|---|---|
| | WV057 | WV058 | WV059 | WV060 | WV061 |
| | (374 786 lb) | (370 376 lb) | (374 786 lb) | (374 786 lb) | (370 376 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV062 (g) | WV063 | WV064 | WV080 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 238 900 kg (526 684 lb) | 192 900 kg (425 272 lb) | 217 900 kg (480 387 lb) | 238 900 kg (526 684 lb) |
| Maximum Take-Off Weight (MTOW) | 238 000 kg (524 700 lb) | 192 000 kg (423 287 lb) | 217 000 kg (478 403 lb) | 238 000 kg (524 700 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) |
| Maximum Zero Fuel Weight (MZFW) | 168 000 kg to 170 000 kg (370 376 lb to 374 786 lb) | 168 000 kg (370 376 lb) | 168 000 kg (370 376 lb) | 170 000 kg (374 786 lb) |

NOTE : (g) Dynamic Payload between WV057 and WV058.

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV081 | WV082 (h) | WV083 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 242 900 kg (535 503 lb) | 242 900 kg (535 503 lb) | 240 900 kg (531 093 lb) |
| Maximum Take-Off Weight (MTOW) | 242 000 kg (533 519 lb) | 242 000 kg (533 519 lb) | 240 000 kg (529 109 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) | 182 000 kg (401 241 lb) |
| Maximum Zero Fuel Weight (MZFW) | 166 000 kg (365 967 lb) | 166 000 kg to 170 000 kg (365 967 lb to 374 786 lb) | 168 000 kg (370 376 lb) |

NOTE : (h) Dynamic Payload between WV080 and WV081.

****ON A/C A330-800**

5. The following table provides characteristics of A330-800 Models, these data are specific to each Weight Variant:

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV800 (j) | WV801 | WV802 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 242 900 kg<br>(535 503 lb) | 242 900 kg<br>(535 503 lb) | 238 900 kg<br>(526 684 lb) |
| Maximum Take-Off Weight (MTOW) | 242 000 kg<br>(533 519 lb) | 242 000 kg<br>(533 519 lb) | 230 000 kg<br>(507 063 lb) |
| Maximum Landing Weight (MLW) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) |
| Maximum Zero Fuel Weight (MZFW) | 172 000 kg<br>to 176 000 kg<br>(379 195 lb<br>to 388 013 lb) | 172 000 kg<br>(379 195 lb) | 176 000 kg<br>(388 013 lb) |

NOTE : (j) Dynamic Payload between WV801 and WV802.

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV803 | WV804 | WV805 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 234 900 kg<br>(517 866 lb) | 230 900 kg<br>(509 047 lb) | 220 900 kg<br>(487 001 lb) |
| Maximum Take-Off Weight (MTOW) | 234 000 kg<br>(515 882 lb) | 230 000 kg<br>(507 063 lb) | 220 000 kg<br>(485 017 lb) |
| Maximum Landing Weight (MLW) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) |
| Maximum Zero Fuel Weight (MZFW) | 176 000 kg<br>(388 013 lb) | 176 000 kg<br>(388 013 lb) | 176 000 kg<br>(388 013 lb) |

| Aircraft Characteristics | | | | |
|---|---|---|---|---|
| | WV806 | WV807 | WV808 | WV809 |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 215 900 kg<br>(475 978 lb) | 210 900 kg<br>(464 955 lb) | 205 900 kg<br>(453 932 lb) | 200 900 kg<br>(442 909 lb) |
| Maximum Take-Off Weight (MTOW) | 215 000 kg<br>(473 994 lb) | 210 000 kg<br>(462 971 lb) | 205 000 kg<br>(451 948 lb) | 200 000 kg<br>(440 924 lb) |
| Maximum Landing Weight (MLW) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) |
| Maximum Zero Fuel Weight (MZFW) | 176 000 kg<br>(388 013 lb) | 176 000 kg<br>(388 013 lb) | 176 000 kg<br>(388 013 lb) | 176 000 kg<br>(388 013 lb) |

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV820 (k) | WV821 | WV822 |
| Maximum Taxi Weight (MTW) | 251 900 kg | 251 900 kg | 247 900 kg |

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV820 (k) | WV821 | WV822 |
| Maximum Ramp Weight (MRW) | (555 344 lb) | (555 344 lb) | (546 526 lb) |
| Maximum Take-Off Weight (MTOW) | 251 000 kg<br>(553 360 lb) | 251 000 kg<br>(553 360 lb) | 247 000 kg<br>(544 542 lb) |
| Maximum Landing Weight (MLW) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) | 186 000 kg<br>(410 060 lb) |
| Maximum Zero Fuel Weight (MZFW) | 172 000 kg<br>to 176 000 kg<br>(379 195 lb) to<br>(388 013 lb) | 172 000 kg<br>(379 195 lb) | 176 000 kg<br>(388 013 lb) |

NOTE : (k) Dynamic Payload between WV821 and WV822.

****ON A/C A330-200 A330-800**

6. The following table provides characteristics of A330-200 and A330-800 Models, these data are common to each Weight Variant:

| Aircraft Characteristics | |
|---|---|
| Standard Seating Capacity<br>(in a two class layout) | A330-200 : 247 |
| | A330-800 : 257 |
| Usable Fuel Capacity<br>(density = 0.785 kg/l) | 139 090 l<br>(36 744 US gal) |
| | 109 185 kg<br>(240 711 lb) |
| Pressurized Fuselage Volume (A/C non equipped) | 950 $m^3$<br>(33 548 $ft^3$) |
| Passenger Compartment Volume | 335 $m^3$<br>(11 830 $ft^3$) |
| Cockpit Volume | 12 $m^3$<br>(424 $ft^3$) |
| Usable Volume, FWD CC<br>(Based on LD3) | 60.7 $m^3$<br>(2 142 $ft^3$) |
| Usable Volume, AFT CC<br>(Based on LD3) | 52 $m^3$<br>(1 836 $ft^3$) |
| Usable Volume, Bulk CC | 19.7 $m^3$<br>(695 $ft^3$) |
| Water Volume, FWD CC | 84.6 $m^3$<br>(2 988 $ft^3$) |
| Water Volume, AFT CC | 71.1 $m^3$ |

| Aircraft Characteristics | |
|---|---|
| | (2 511 ft³) |
| Water Volume, Bulk CC | 22.7 m³<br>(802 ft³) |

**ON A/C A330-200F

General Aircraft Characteristics Data

1. The following table provides characteristics of A330-200F Models, these data are specific to each Weight Variant:

| Aircraft Characteristics | | | |
|---|---|---|---|
| | WV000 | WV001 | WV002* |
| Maximum Taxi Weight (MTW)<br>Maximum Ramp Weight (MRW) | 233 900 kg<br>(515 661 lb) | 227 900 kg<br>(502 433 lb) | 233 900 kg<br>(515 661 lb) |
| Maximum Take-Off Weight (MTOW) | 233 000 kg<br>(513 677 lb) | 227 000 kg<br>(500 449 lb) | 233 000 kg<br>(513 677 lb) |
| Maximum Landing Weight (MLW) | 182 000 kg<br>(401 241 lb) | 187 000 kg<br>(412 264 lb) | 187 000 kg<br>(412 264 lb) |
| Maximum Zero Fuel Weight (MZFW) | 173 000 kg<br>(381 400 lb) | 178 000 kg<br>(392 423 lb) | 173 000 kg<br>to 178 000 kg<br>(381 399 lb<br>to 392 422 lb) |
| Estimated Maximum Payload PW 4000 | 64 742 kg<br>(142 732 lb) | 69 742 kg<br>(153 755 lb) | 64 742 kg to 69 742 kg<br>(142 732 lb<br>to 153 755 lb) |
| Estimated Maximum Payload TRENT 700 | 65 000 kg<br>(143 300 lb) | 70 000 kg<br>(154 324 lb) | 65 000 kg to 70 000 kg<br>(143 300 lb<br>to 154 324 lb) |

NOTE : * Dynamic Payload between WV000 and WV001

2. The following table provides characteristics of A330-200F Models, these data are common to each Weight Variant:

| Aircraft Characteristics | |
|---|---|
| Supernumerary area | 6 |
| Usable Fuel Capacity (density = 0.785 kg/l) | 97 530 l<br>(25 765 US gal) |
| Pressurized Fuselage Volume (A/C non equipped) | 900 $m^3$<br>(31 783 $ft^3$) |

| Aircraft Characteristics | |
|---|---|
| Cockpit Volume | 12 $m^3$<br>(424 $ft^3$) |
| Main Deck Cargo Compartment Usable Volume (Based on 96"x125" pallet) | 336.8 $m^3$<br>(11 894 $ft^3$) |
| Main Deck Cargo Compartment Water Volume | 466.5 $m^3$<br>(16 474 $ft^3$) |
| Usable Volume, FWD CC (Based on LD3) | 60.7 $m^3$<br>(2 142 $ft^3$) |
| Usable Volume, AFT CC (Based on LD3) | 52 $m^3$<br>(1 836 $ft^3$) |
| Usable Volume, Bulk CC | 19.7 $m^3$<br>(695 $ft^3$) |
| Water Volume, FWD CC | 84.6 $m^3$<br>(2 988 $ft^3$) |
| Water Volume, AFT CC | 71.1 $m^3$<br>(2 511 $ft^3$) |
| Water Volume, Bulk CC | 22.7 $m^3$<br>(802 $ft^3$) |

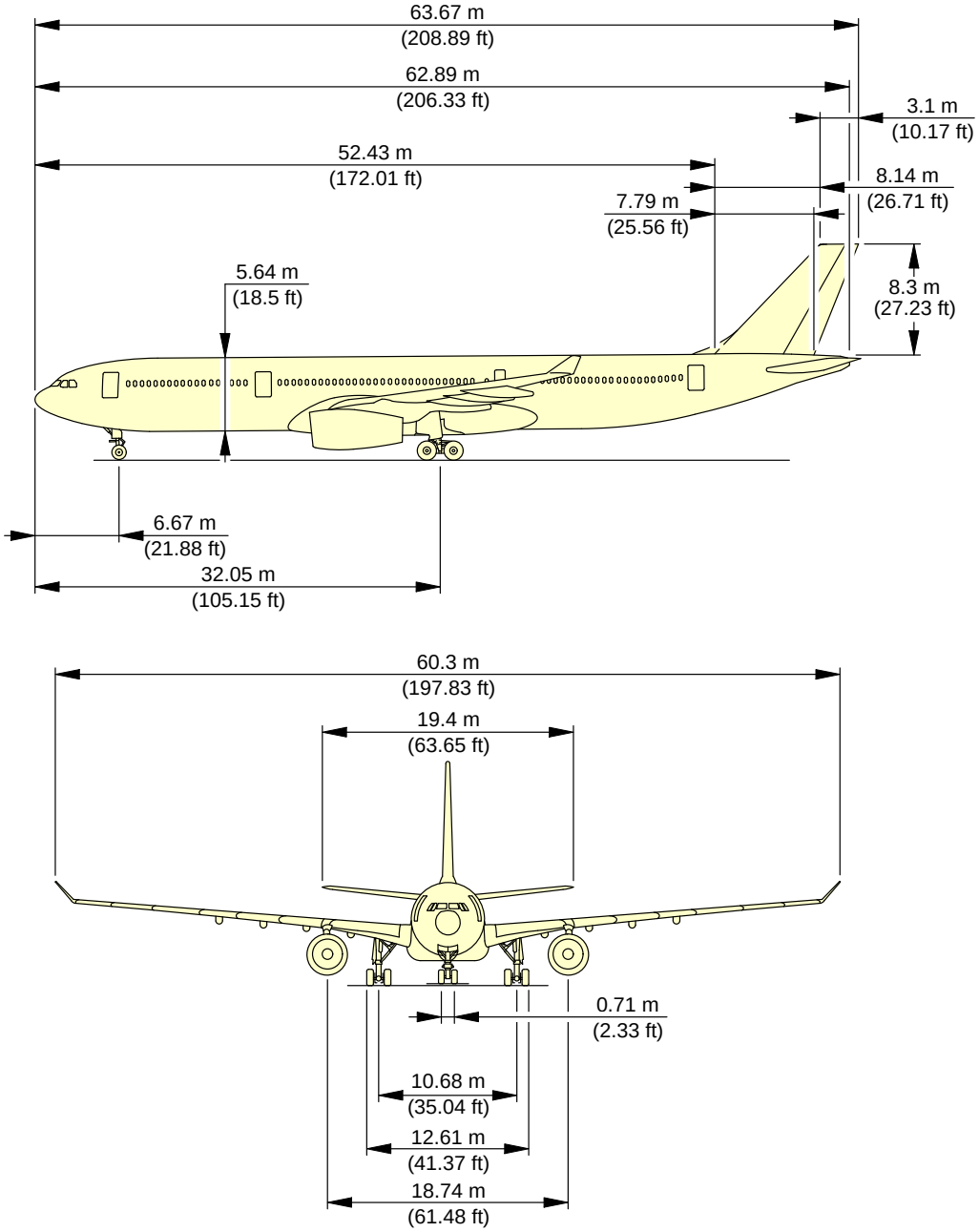
## 2-2-0 General Aircraft Dimensions

****ON A/C A330-200 A330-300 A330-800 A330-900**

General Aircraft Dimensions

1. This section provides general aircraft dimensions for pax version.

**ON A/C A330-300

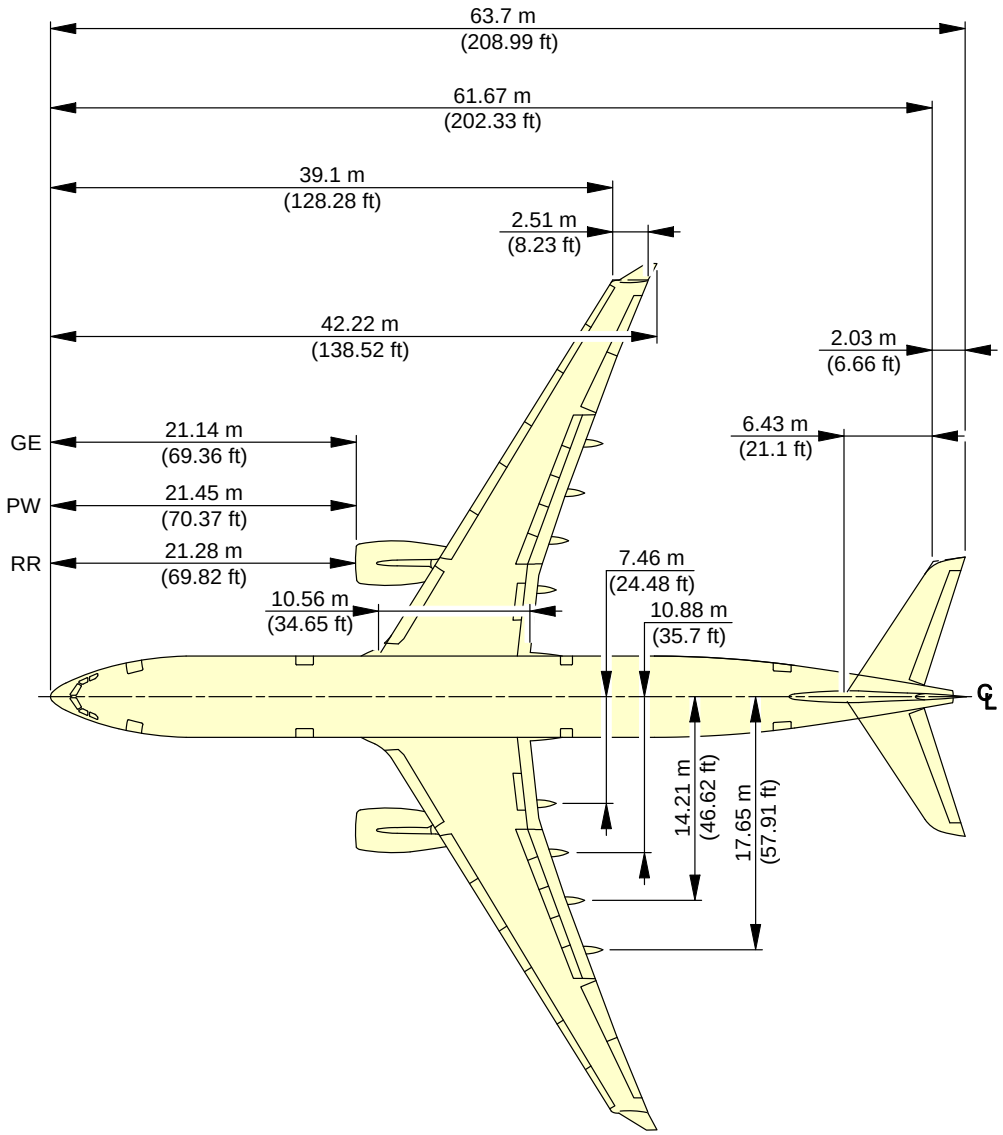



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0010101_01_02

General Aircraft Dimensions
(Sheet 1 of 2)
FIGURE-2-2-0-991-001-A01

**ON A/C A330-300

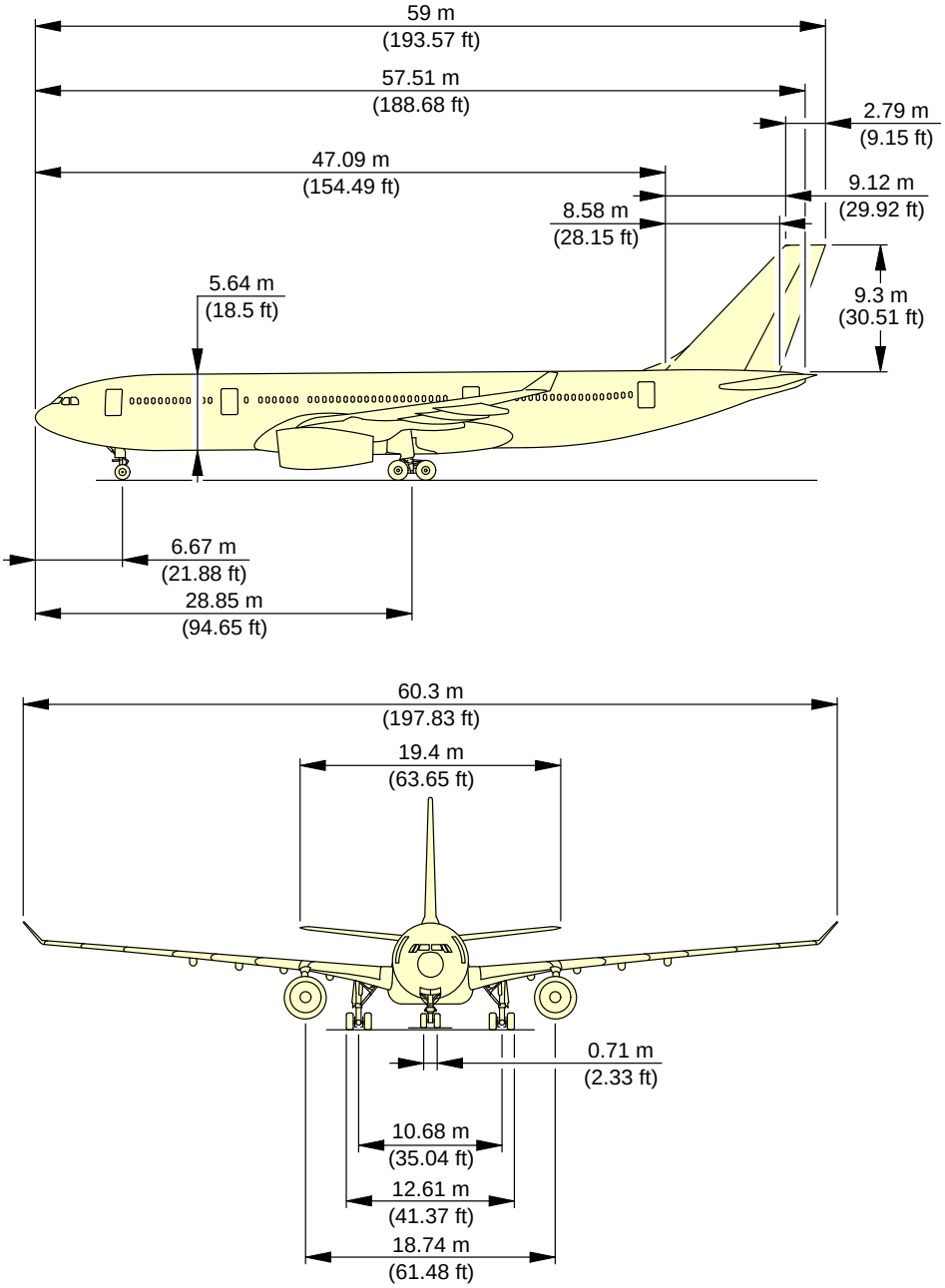



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0010104_01_00

General Aircraft Dimensions
(Sheet 2 of 2)
FIGURE-2-2-0-991-001-A01

****ON A/C A330-200**

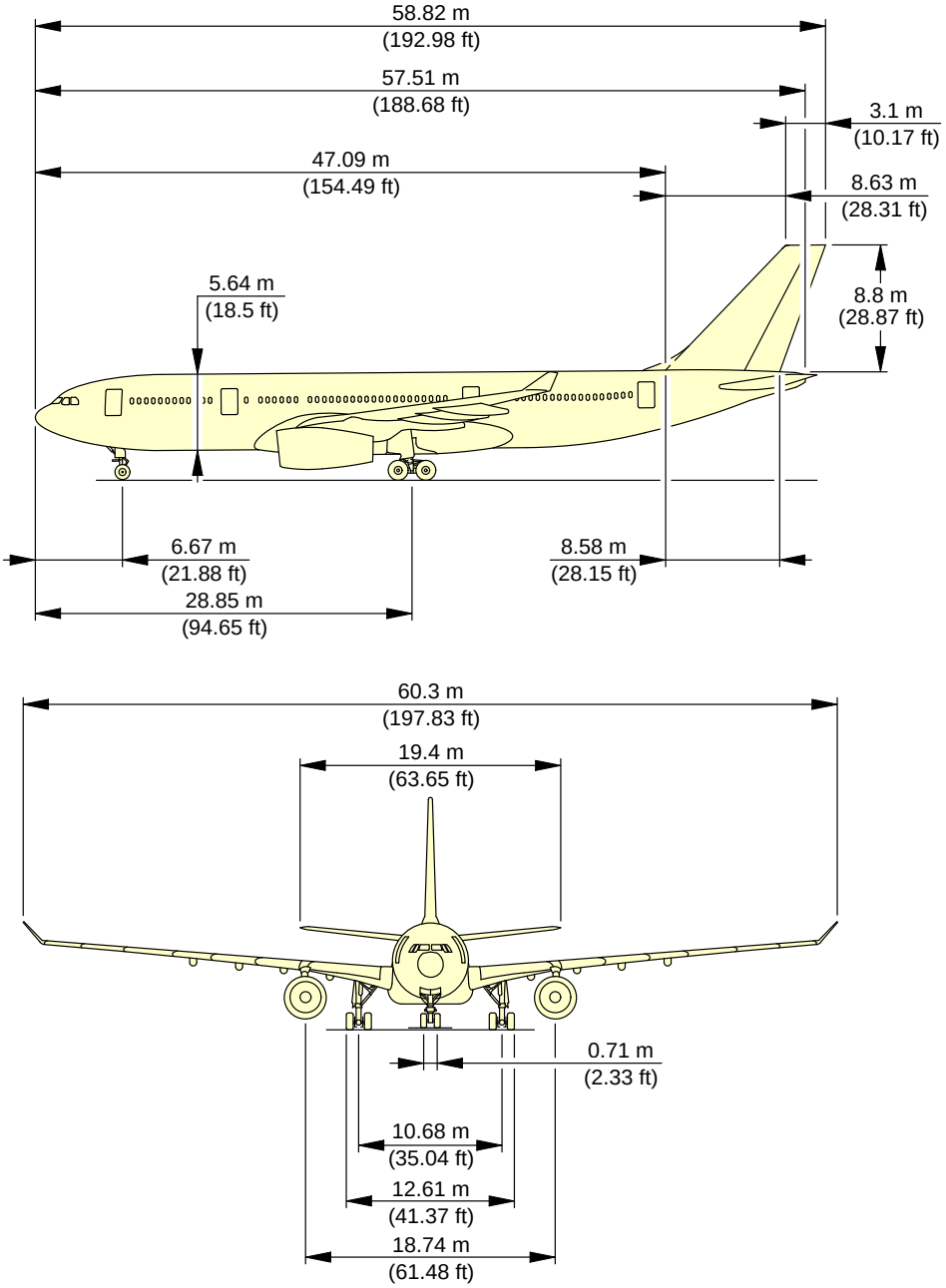



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0020101_01_02

General Aircraft Dimensions
(Pre Mod 48979) (Sheet 1 of 3)
FIGURE-2-2-0-991-002-A01

**ON A/C A330-200

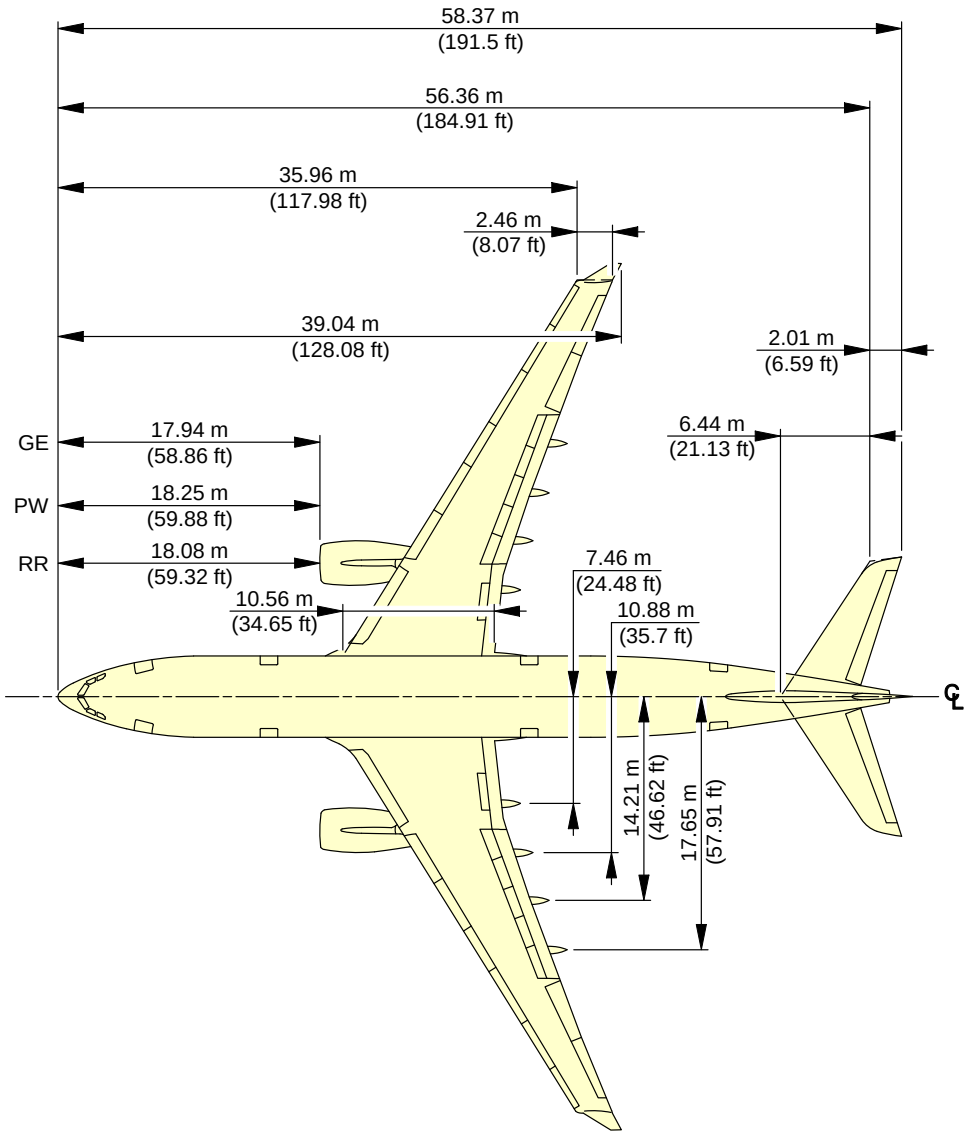



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0020103_01_00

General Aircraft Dimensions
(Post Mod 48979) (Sheet 2 of 3)
FIGURE-2-2-0-991-002-A01

**ON A/C A330-200

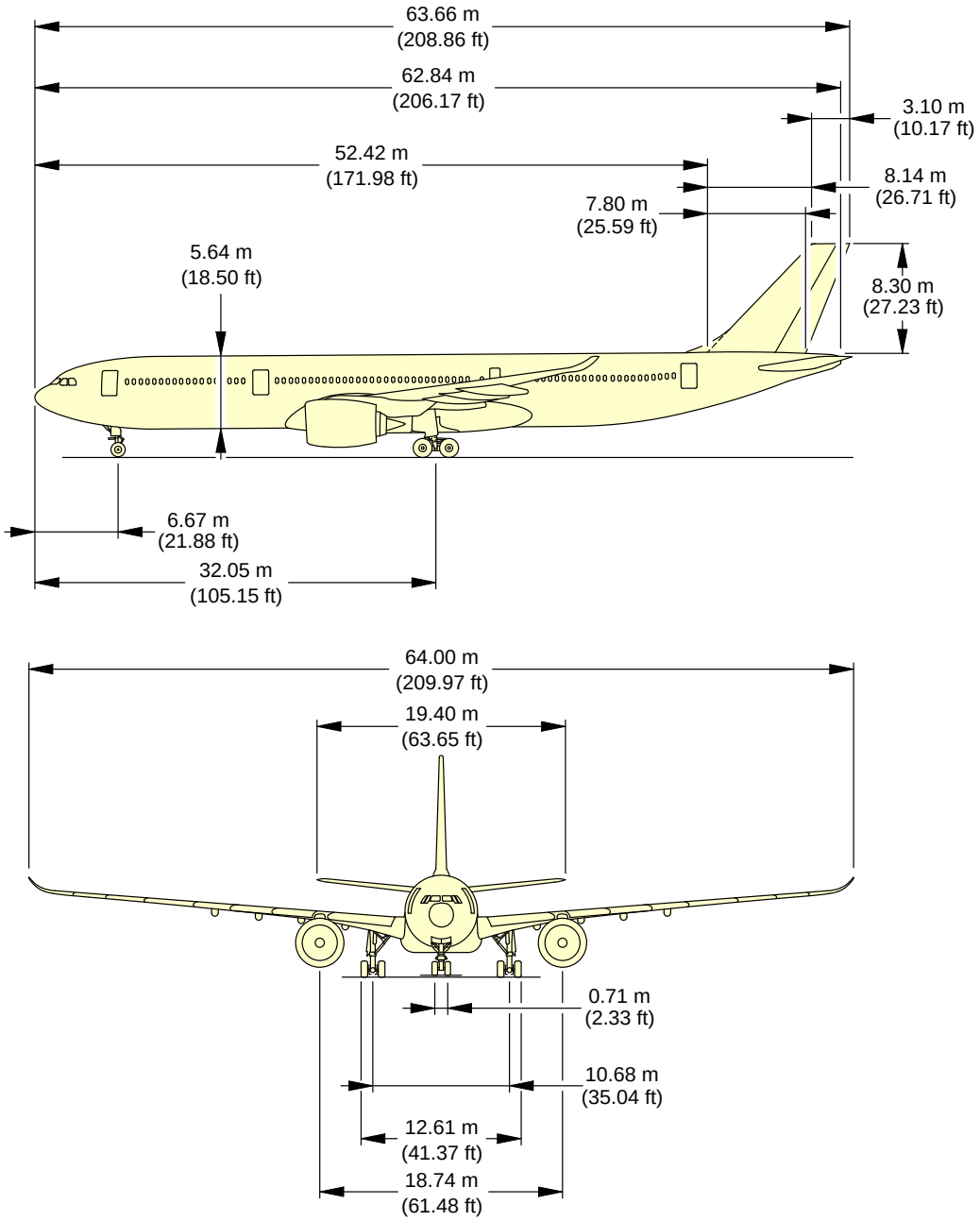



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0020102_01_00

General Aircraft Dimensions
(Sheet 3 of 3)
FIGURE-2-2-0-991-002-A01

****ON A/C A330-900**

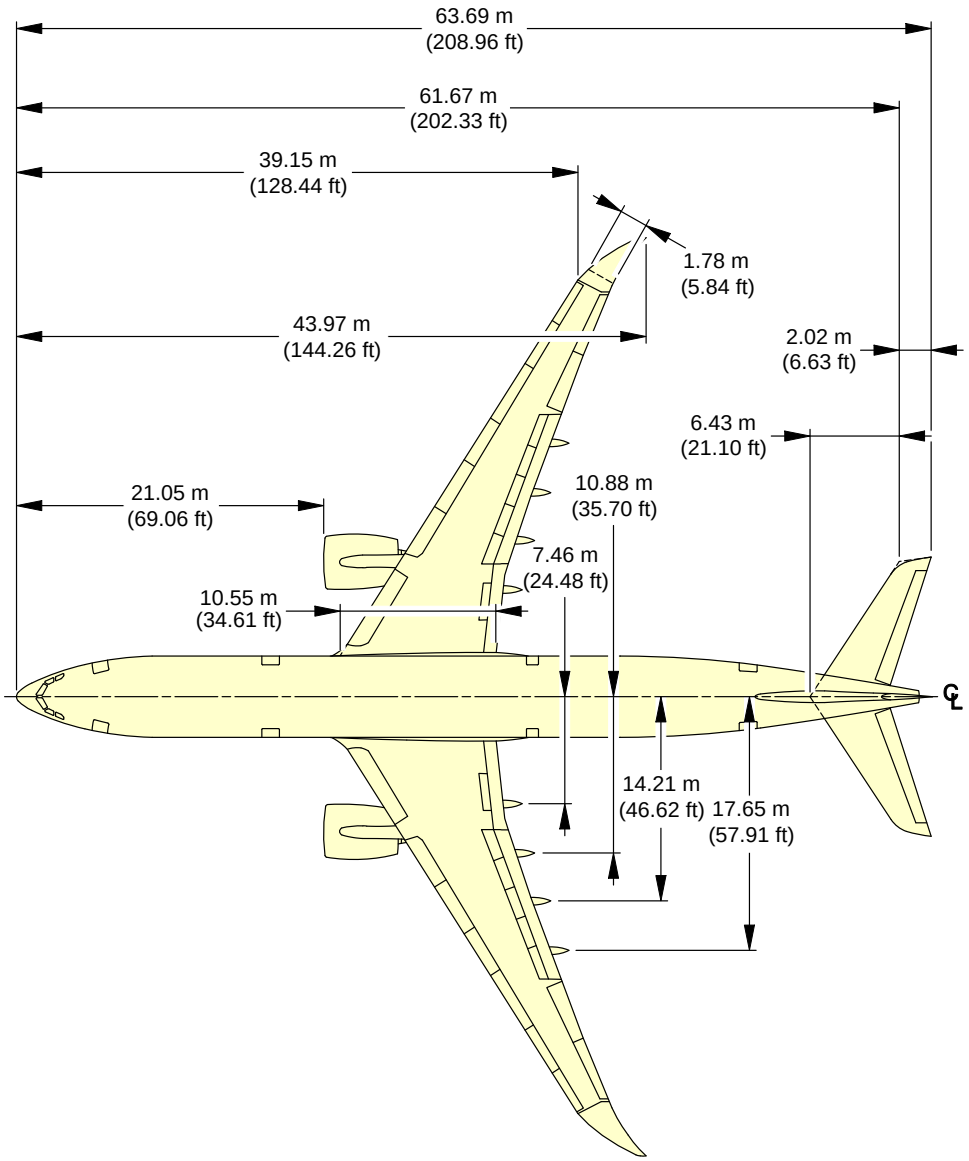



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0110101_01_00

General Aircraft Dimensions
(Sheet 1 of 2)
FIGURE-2-2-0-991-011-A01

****ON A/C A330-900**

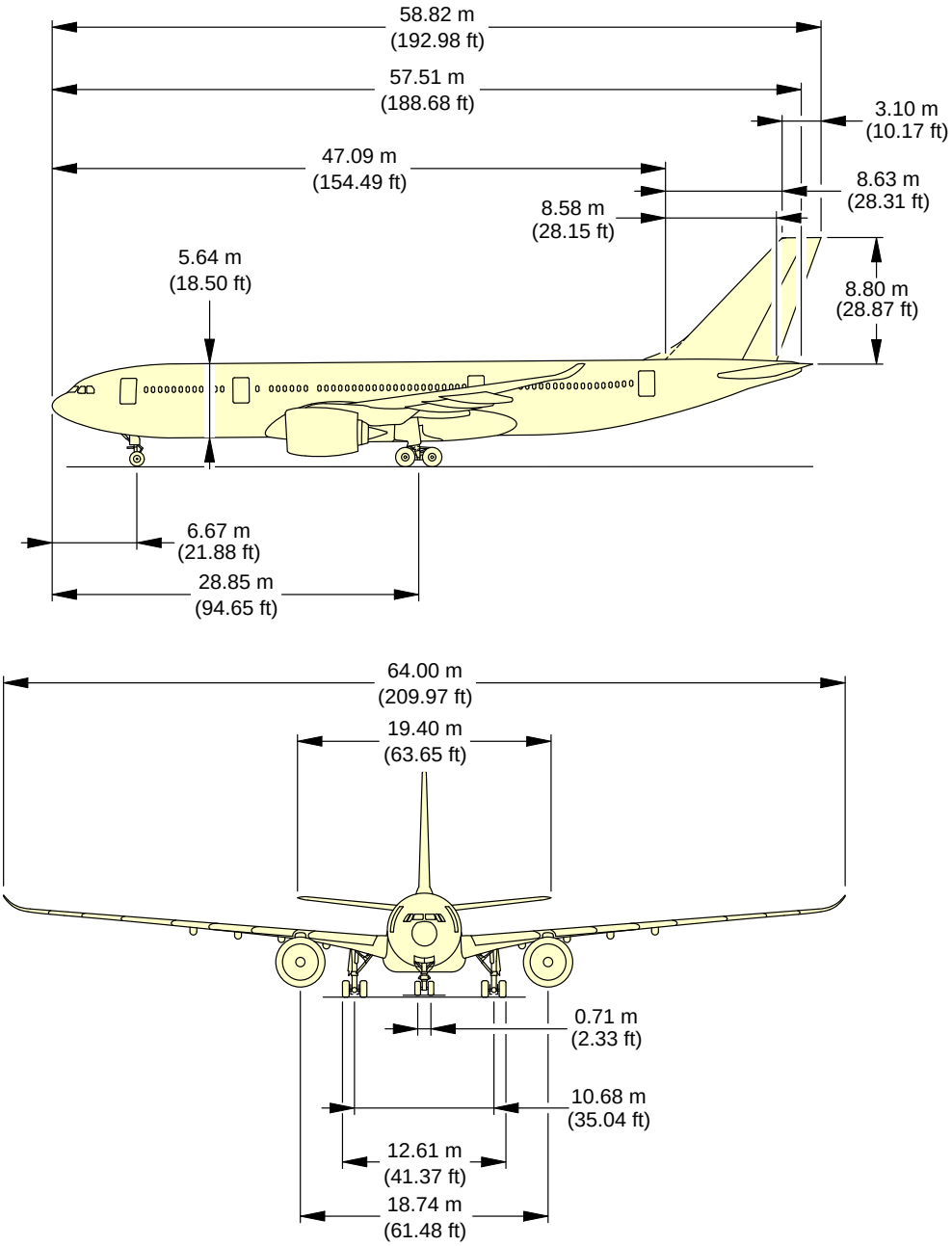



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0110102_01_00

General Aircraft Dimensions
(Sheet 2 of 2)
FIGURE-2-2-0-991-011-A01

****ON A/C A330-800**

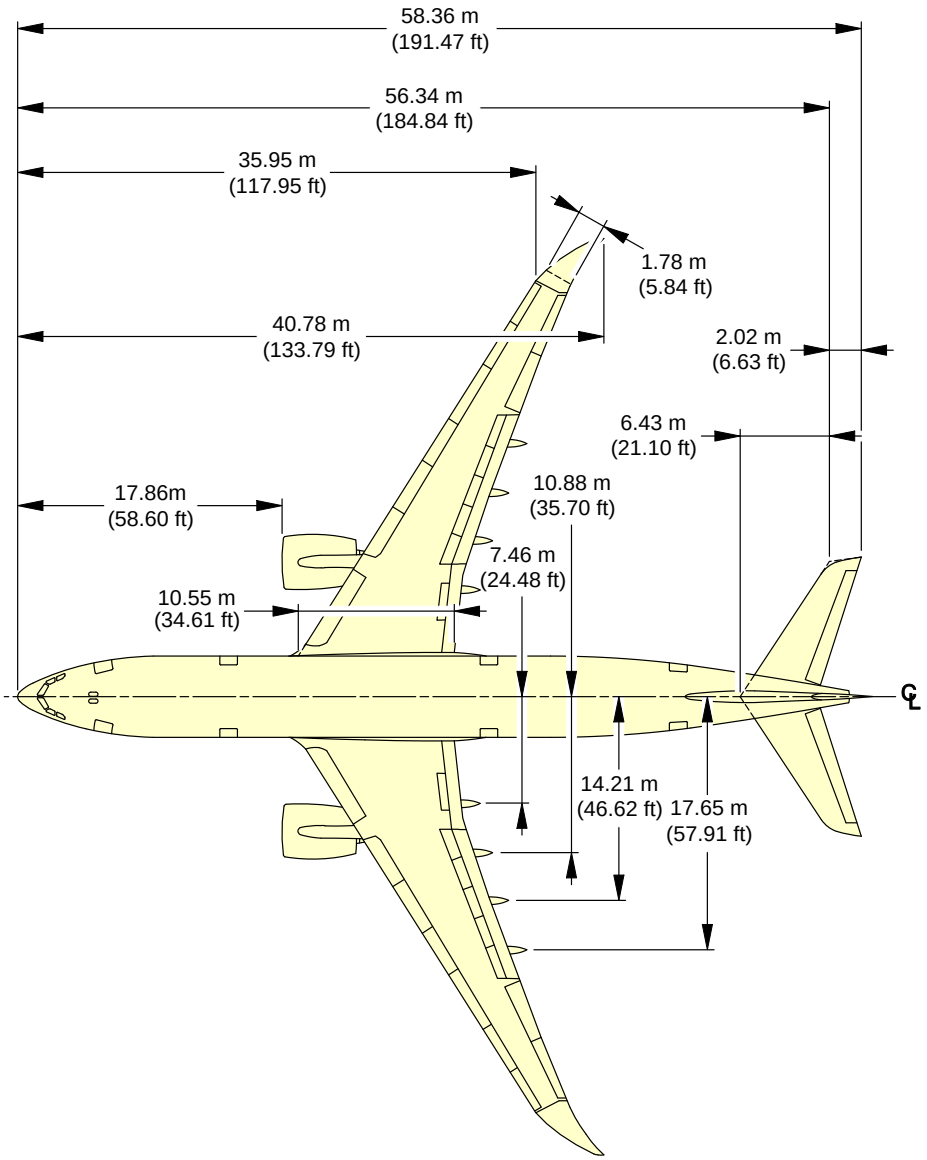



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0120101_01_00

General Aircraft Dimensions
(Sheet 1 of 2)
FIGURE-2-2-0-991-012-A01

****ON A/C A330-800**




**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0120102_01_00

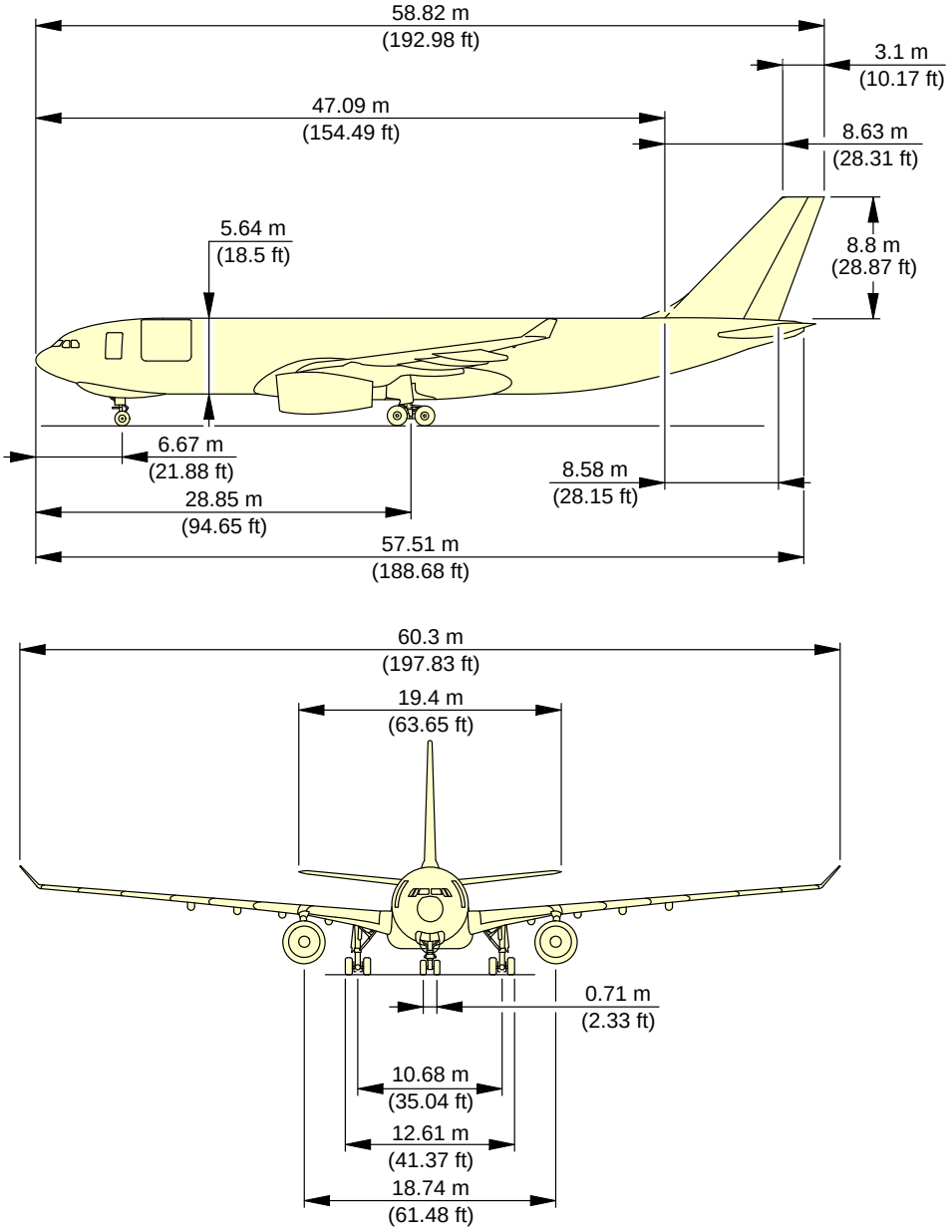
General Aircraft Dimensions
(Sheet 2 of 2)
FIGURE-2-2-0-991-012-A01

****ON A/C A330-200F**

General Aircraft Dimensions

1. This section provides general aircraft dimensions for cargo version.

****ON A/C A330-200F**

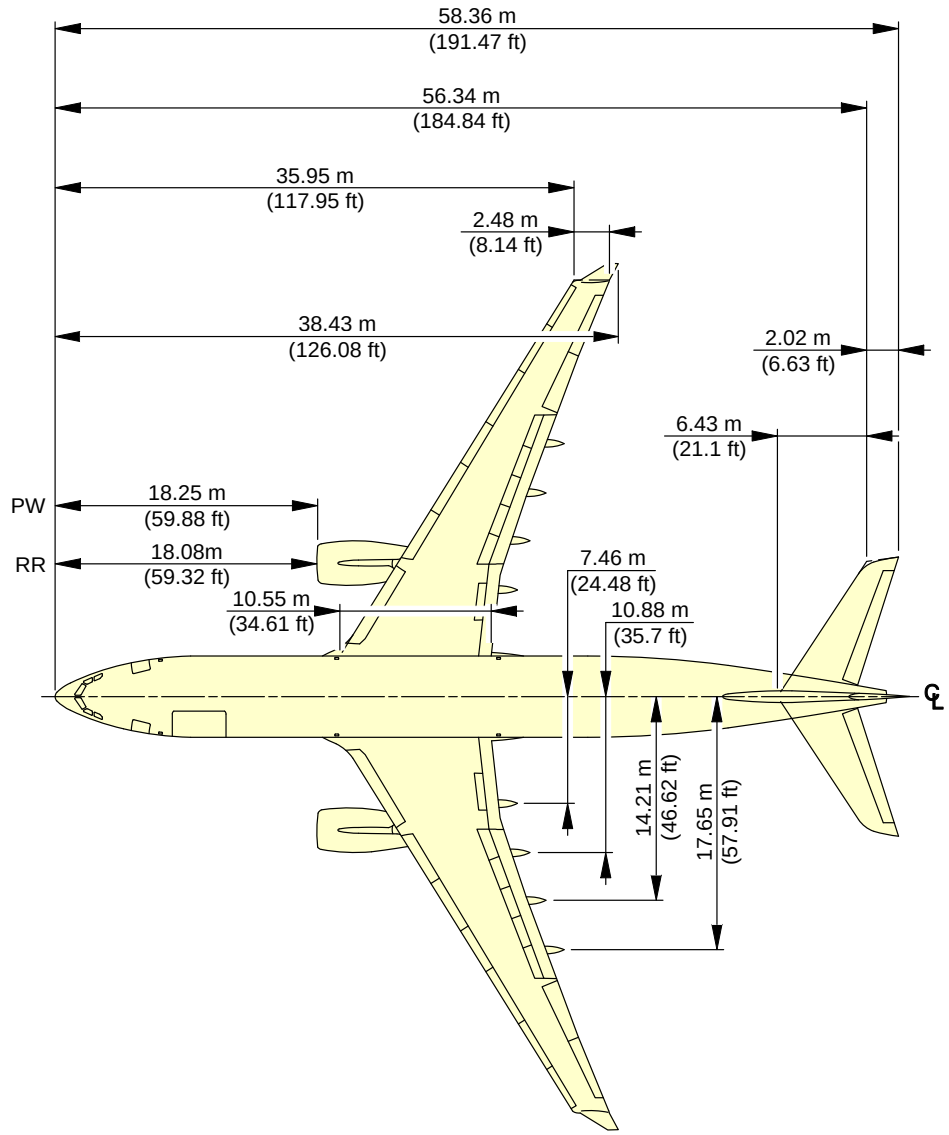



**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0030101_01_02

General Aircraft Dimensions
(Sheet 1 of 2)
FIGURE-2-2-0-991-003-A01

**ON A/C A330-200F




**NOTE:**
RELATED TO AIRCRAFT ATTITUDE AND WEIGHT.

F_AC_020200_1_0030102_01_00

General Aircraft Dimensions
(Sheet 2 of 2)
FIGURE-2-2-0-991-003-A01

## 2-3-0 Ground Clearances

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Ground Clearances

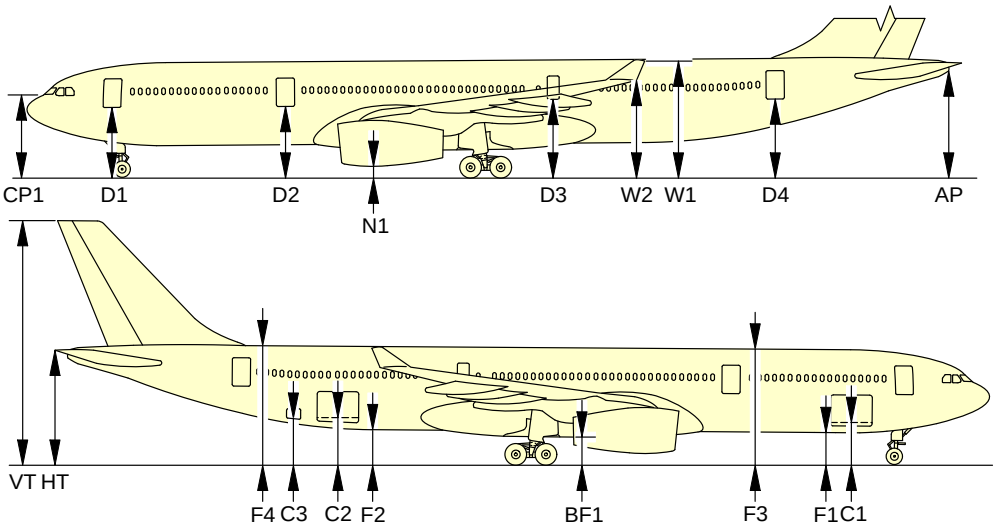
1. This section gives the height of various points of the aircraft, above the ground, for different aircraft configurations.

   Dimensions in the tables are approximate and will vary with tire type, weight and balance and other special conditions.

   The dimensions are given for:
   - A light weight, for an A/C in maintenance configuration with a mid CG,
   - An aircraft at Maximum Ramp Weight with a FWD CG and an AFT CG,
   - Aircraft on jacks, FDL at 6.50 m (21.33 ft).

   NOTE : Passenger and cargo door ground clearances are measured from the center of the door sill and from floor level.

**ON A/C A330-300




| AIRCRAFT CONFIGURATION | | MRW | | | | 119 000 kg (262 350 lb) 01 | | AIRCRAFT JACKED FDL = 6.50 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG | | AFT CG | | MID CG | | | |
| | | m | ft | m | ft | m | ft | m | ft |
| DOORS | D1 | 4.41 | 14.46 | 4.55 | 14.92 | 4.55 | 14.92 | 6.32 | 20.73 |
| | D2 | 4.67 | 15.32 | 4.73 | 15.51 | 4.83 | 15.84 | 6.32 | 20.73 |
| | D3 | 5.31 | 17.42 | 5.20 | 17.06 | 5.34 | 17.52 | 6.43 | 21.10 |
| | D4 | 5.55 | 18.20 | 5.41 | 17.75 | 5.77 | 18.93 | 6.53 | 21.42 |
| | C1 | 2.55 | 8.36 | 2.66 | 8.72 | 2.70 | 8.85 | 4.14 | 13.58 |
| | C2 | 3.22 | 10.56 | 3.13 | 10.27 | 3.43 | 11.25 | 4.24 | 13.91 |
| | C3 | 3.46 | 11.35 | 3.35 | 11.00 | 3.68 | 12.07 | 4.39 | 14.40 |
| FUSELAGE | F1 | 2.10 | 6.88 | 2.14 | 7.02 | 2.28 | 7.48 | 3.68 | 12.07 |
| | F2 | 2.54 | 8.33 | 2.45 | 8.03 | 2.74 | 8.99 | 3.68 | 12.07 |
| | F3 | 7.58 | 24.86 | 7.67 | 25.16 | 7.74 | 25.40 | 9.32 | 30.58 |
| | F4 | 8.31 | 27.26 | 8.19 | 26.87 | 8.53 | 28.00 | 9.32 | 30.58 |
| | BF1 | 1.86 | 6.10 | 1.85 | 6.07 | 2.04 | 6.70 | 3.26 | 10.70 |
| | CP1 | 5.22 | 17.12 | 5.43 | 17.81 | 5.41 | 17.75 | 7.10 | 23.30 |
| WINGS | W1 | 7.70 | 25.26 | 7.61 | 24.96 | 8.05 | 26.41 | 8.96 | 29.40 |
| | W2 | 6.13 | 20.11 | 6.06 | 19.88 | 6.46 | 21.20 | 7.55 | 24.77 |
| TAILPLANE | HT | 8.09 | 26.54 | 7.88 | 25.85 | 8.33 | 27.32 | 9.23 | 30.28 |
| | AP | 7.24 | 23.76 | 7.03 | 23.06 | 7.48 | 24.54 | 8.10 | 26.57 |
| | VT | 16.94 | 55.58 | 16.72 | 54.85 | 17.18 | 56.36 | 17.62 | 57.81 |
| ENGINE/ NACELLE | N1 (GE) | 0.76 | 2.49 | 0.79 | 2.59 | 0.94 | 3.08 | 2.34 | 7.67 |
| | N1 (PW) | 0.72 | 2.36 | 0.75 | 2.46 | 0.90 | 2.95 | 2.29 | 7.51 |
| | N1 (RR) | 0.69 | 2.26 | 0.72 | 2.36 | 0.87 | 2.85 | 2.21 | 7.25 |

**NOTE:**

PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

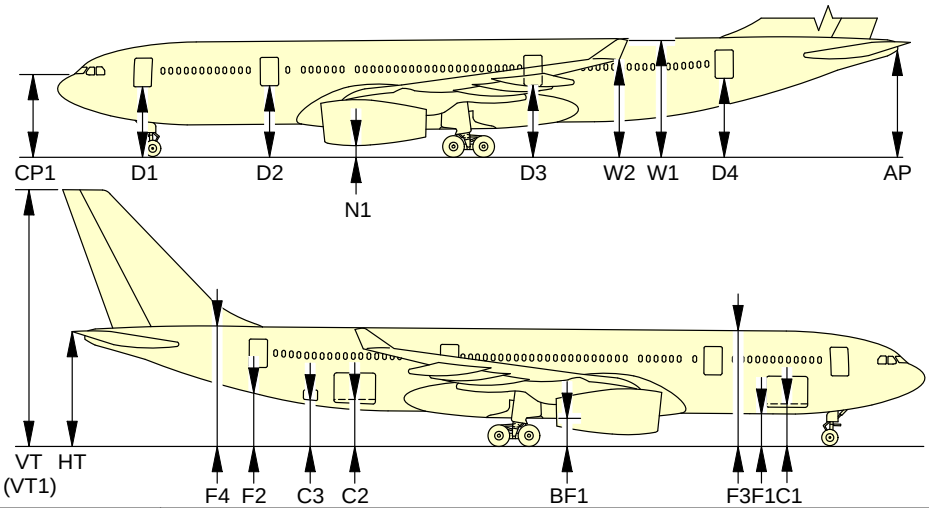
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0010101_01_06

Ground Clearances
FIGURE-2-3-0-991-001-A01

**ON A/C A330-200




| AIRCARFT CONFIGURATION | | MRW | | | | 176 000 kg (388 013 lb) 01 | | AIRCARFT JACKED FDL = 6.50 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG | | AFT CG | | MID CG | | | |
| | | m | ft | m | ft | m | ft | m | ft |
| DOORS | D1 | 4.44 | 14.56 | 4.63 | 15.19 | 4.63 | 15.19 | 6.32 | 20.73 |
| | D2 | 4.66 | 15.30 | 4.78 | 15.70 | 4.86 | 15.94 | 6.36 | 20.87 |
| | D3 | 5.15 | 16.90 | 5.10 | 16.73 | 5.36 | 17.60 | 6.46 | 21.20 |
| | D4 | 5.51 | 18.07 | 5.35 | 17.55 | 5.74 | 18.83 | 6.53 | 21.42 |
| | C1 | 2.58 | 8.46 | 2.74 | 8.99 | 2.78 | 9.12 | 4.14 | 13.58 |
| | C2 | 3.27 | 10.73 | 3.16 | 10.36 | 3.50 | 11.48 | 4.24 | 13.91 |
| | C3 | 3.43 | 11.25 | 3.30 | 10.82 | 3.66 | 12.01 | 4.39 | 14.40 |
| FUSELAGE | F1 | 2.03 | 6.66 | 2.12 | 6.95 | 2.23 | 7.31 | 3.68 | 12.07 |
| | F2 | 2.48 | 8.13 | 2.40 | 7.87 | 2.70 | 8.86 | 3.68 | 12.07 |
| | F3 | 7.56 | 24.80 | 7.69 | 25.23 | 7.75 | 25.42 | 9.32 | 30.58 |
| | F4 | 8.31 | 27.26 | 8.16 | 26.77 | 8.54 | 28.02 | 9.32 | 30.58 |
| | BF1 | 1.81 | 5.93 | 1.83 | 6.00 | 2.02 | 6.63 | 3.26 | 10.70 |
| | CP1 | 5.22 | 17.12 | 5.43 | 17.81 | 5.41 | 17.75 | 7.10 | 23.30 |
| WINGS | W1 | 7.71 | 25.29 | 7.61 | 24.96 | 8.08 | 26.51 | 8.96 | 29.40 |
| | W2 | 6.14 | 20.14 | 6.05 | 19.85 | 6.48 | 21.26 | 7.55 | 24.77 |
| TAILPLANE | HT | 8.05 | 26.41 | 7.77 | 25.49 | 8.30 | 27.23 | 9.23 | 30.28 |
| | AP | 7.23 | 23.72 | 6.97 | 22.86 | 7.47 | 24.51 | 8.10 | 26.57 |
| | VT | 17.98 | 58.99 | 17.71 | 58.10 | 18.23 | 59.81 | 18.62 | 61.09 |
| | VT1 | 17.48 | 57.35 | 17.21 | 56.46 | 17.73 | 58.17 | 18.12 | 59.45 |
| ENGINE/ NACELLE | N1 (GE) | 0.74 | 2.42 | 0.79 | 2.59 | 0.94 | 3.08 | 2.34 | 7.67 |
| | N1 (PW) | 0.70 | 2.29 | 0.75 | 2.46 | 0.90 | 2.95 | 2.29 | 7.51 |
| | N1 (RR) | 0.67 | 2.19 | 0.72 | 2.36 | 0.87 | 2.85 | 2.21 | 7.25 |

**NOTE:**
- VT1= POST MOD 48979 (SHORTER FIN INSTALLATION).
- PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

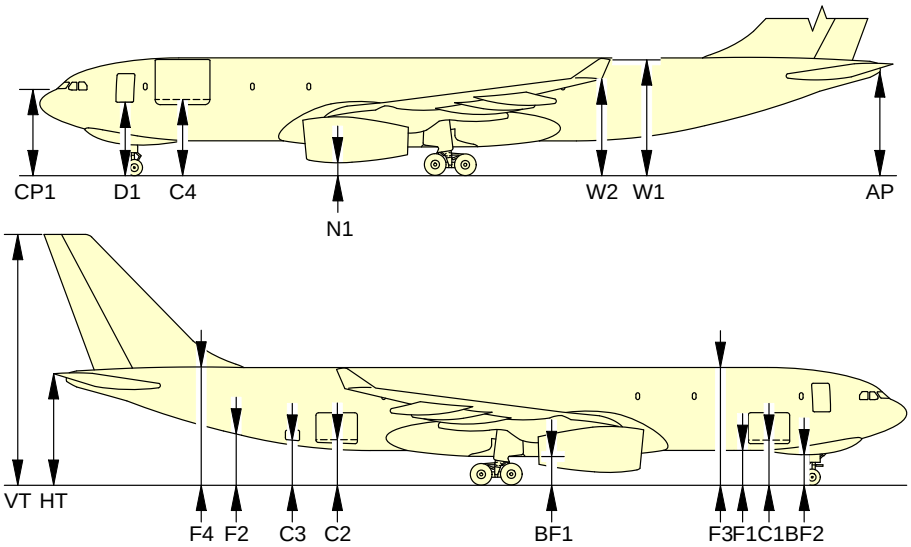
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0010202_01_04

Ground Clearances
FIGURE-2-3-0-991-001-B01

**ON A/C A330-200F




| AIRCRAFT CONFIGURATION | | MRW | | | | 115 000 kg (253 531 lb) 01 | |
|---|---|---|---|---|---|---|---|
| | | FORWARD CG | | AFT CG | | MID CG | |
| | | m | ft | m | ft | m | ft |
| DOORS | D1 | 4.82 | 15.81 | 5.00 | 16.40 | 4.98 | 16.34 |
| | C1 | 2.93 | 9.61 | 3.08 | 10.10 | 3.11 | 10.20 |
| | C2 | 3.15 | 10.33 | 3.04 | 9.97 | 3.52 | 11.55 |
| | C3 | 3.25 | 10.66 | 3.12 | 10.24 | 3.61 | 11.84 |
| | C4 | 4.88 | 16.01 | 5.03 | 16.50 | 5.06 | 16.60 |
| FUSELAGE | F1 | 2.26 | 7.41 | 2.35 | 7.71 | 2.47 | 8.10 |
| | F2 | 2.37 | 7.78 | 2.29 | 7.51 | 2.70 | 8.86 |
| | F3 | 7.87 | 25.82 | 8.01 | 26.28 | 8.06 | 26.44 |
| | F4 | 8.06 | 26.44 | 7.91 | 25.95 | 8.44 | 27.69 |
| | BF1 | 1.89 | 6.20 | 1.91 | 6.27 | 2.16 | 7.09 |
| | BF2 | 2.06 | 6.76 | 2.24 | 7.35 | 2.22 | 7.28 |
| | CP1 | 6.08 | 19.95 | 6.29 | 20.64 | 6.22 | 20.41 |
| WINGS | W1 | 8.88 | 29.13 | 8.78 | 28.81 | 9.23 | 30.28 |
| | W2 | 7.46 | 24.48 | 7.36 | 24.15 | 7.80 | 25.59 |
| TAILPLANE | HT | 7.85 | 25.75 | 7.57 | 24.84 | 8.31 | 27.26 |
| | AP | 7.46 | 24.48 | 7.19 | 23.59 | 7.92 | 25.98 |
| | VT | 16.95 | 55.61 | 16.67 | 54.69 | 17.41 | 57.12 |
| ENGINE/ NACELLE | N1 (PW) | 0.89 | 2.92 | 0.95 | 3.12 | 1.13 | 3.71 |
| | N1 (RR) | 0.82 | 2.69 | 0.87 | 2.85 | 1.06 | 3.48 |

**NOTE:**

CREW AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

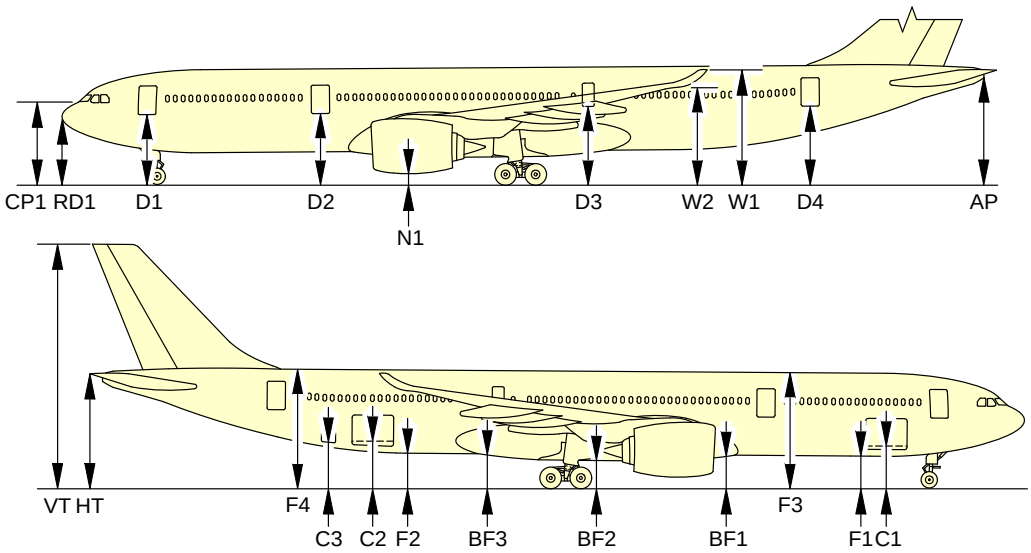
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0010301_01_04

Ground Clearances
FIGURE-2-3-0-991-001-C01

**ON A/C A330-900




| AIRCRAFT CONFIGURATION | | MRW 238 900 kg (526 684 lb) | | | | 140 000 kg (308 647 lb) 01 | | | | AIRCRAFT JACKED FDL = 6.5 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG (25%) | | AFT CG (33.2%) | | FORWARD CG (20%) | | AFT CG (40%) | | | |
| | | m | ft | m | ft | m | ft | m | ft | m | ft |
| DOORS | D1 | 4.53 | 14.87 | 4.62 | 15.17 | 4.63 | 15.19 | 4.73 | 15.52 | 6.34 | 20.79 |
| | D2 | 4.74 | 15.54 | 4.78 | 15.69 | 4.88 | 16.01 | 4.92 | 16.16 | 6.34 | 20.79 |
| | D3 | 5.05 | 16.56 | 5.02 | 16.48 | 5.26 | 17.25 | 5.22 | 17.12 | 6.33 | 20.78 |
| | D4 | 5.52 | 18.11 | 5.44 | 17.84 | 5.79 | 18.99 | 5.67 | 18.62 | 6.55 | 21.48 |
| | C1 | 2.60 | 8.52 | 2.68 | 8.78 | 2.71 | 8.89 | 2.79 | 9.16 | 4.34 | 14.23 |
| | C2 | 3.24 | 10.63 | 3.18 | 10.45 | 3.48 | 11.43 | 3.40 | 11.16 | 4.38 | 14.38 |
| | C3 | 3.31 | 10.84 | 3.24 | 10.62 | 3.56 | 11.69 | 3.46 | 11.37 | 4.40 | 14.43 |
| FUSELAGE | F1 | 1.96 | 6.44 | 2.04 | 6.68 | 2.08 | 6.83 | 2.16 | 7.08 | 3.68 | 12.06 |
| | F2 | 2.49 | 8.18 | 2.45 | 8.02 | 2.73 | 8.95 | 2.66 | 8.72 | 3.68 | 12.06 |
| | F3 | 7.70 | 25.25 | 7.75 | 25.42 | 7.83 | 25.70 | 7.89 | 25.87 | 9.33 | 30.60 |
| | F4 | 8.27 | 27.13 | 8.19 | 26.89 | 8.53 | 28.00 | 8.43 | 27.65 | 9.33 | 30.60 |
| | BF1 | 2.12 | 6.95 | 2.16 | 7.07 | 2.27 | 7.45 | 2.30 | 7.56 | 3.68 | 12.07 |
| | BF2 | 1.86 | 6.10 | 1.86 | 6.10 | 2.05 | 6.71 | 2.03 | 6.68 | 3.26 | 10.70 |
| | BF3 | 2.38 | 7.81 | 2.35 | 7.72 | 2.60 | 8.53 | 2.55 | 8.36 | 3.64 | 11.96 |
| | CP1 | 5.36 | 17.58 | 5.47 | 17.94 | 5.44 | 17.84 | 5.56 | 18.25 | 7.24 | 23.75 |
| | RD1 | 4.31 | 14.15 | 4.43 | 14.53 | 4.39 | 14.39 | 4.52 | 14.82 | 6.22 | 20.40 |

**NOTE:**

PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0350101_01_03

Ground Clearances
(Sheet 1 of 2)
FIGURE-2-3-0-991-035-A01

**ON A/C A330-900

| AIRCRAFT CONFIGURATION | | MRW 238 900 kg (526 684 lb) | | | | 140 000 kg (308 647 lb) 01 | | | | AIRCARFT JACKED FDL = 6.5 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG (25%) | | AFT CG (33.2%) | | FORWARD CG (20%) | | AFT CG (40%) | | | |
| | | m | ft | m | ft | m | ft | m | ft | m | ft |
| WINGS | W1 | 7.50 | 24.59 | 7.44 | 24.42 | 7.74 | 25.39 | 7.66 | 25.12 | 8.65 | 28.37 |
| | W2 | 6.14 | 20.15 | 6.10 | 20.03 | 6.37 | 20.88 | 6.31 | 20.69 | 7.37 | 24.18 |
| TAILPLANE | HT | 8.07 | 26.49 | 7.95 | 26.08 | 8.39 | 27.52 | 8.22 | 26.97 | 8.91 | 29.23 |
| | AP | 7.49 | 24.59 | 7.37 | 24.17 | 7.81 | 25.63 | 7.64 | 25.06 | 8.32 | 27.29 |
| | VT | 16.81 | 55.16 | 16.68 | 54.73 | 17.13 | 56.20 | 16.95 | 55.63 | 17.62 | 57.82 |
| ENGINE/ NACELLE | N1 | 0.67 | 2.18 | 0.69 | 2.27 | 0.83 | 2.72 | 0.85 | 2.78 | 2.17 | 7.13 |
| | N1 WITH DRAIN MAST | 0.64 | 2.10 | 0.66 | 2.17 | 0.80 | 2.62 | 0.82 | 2.69 | 2.14 | 7.02 |

**NOTE:**
THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

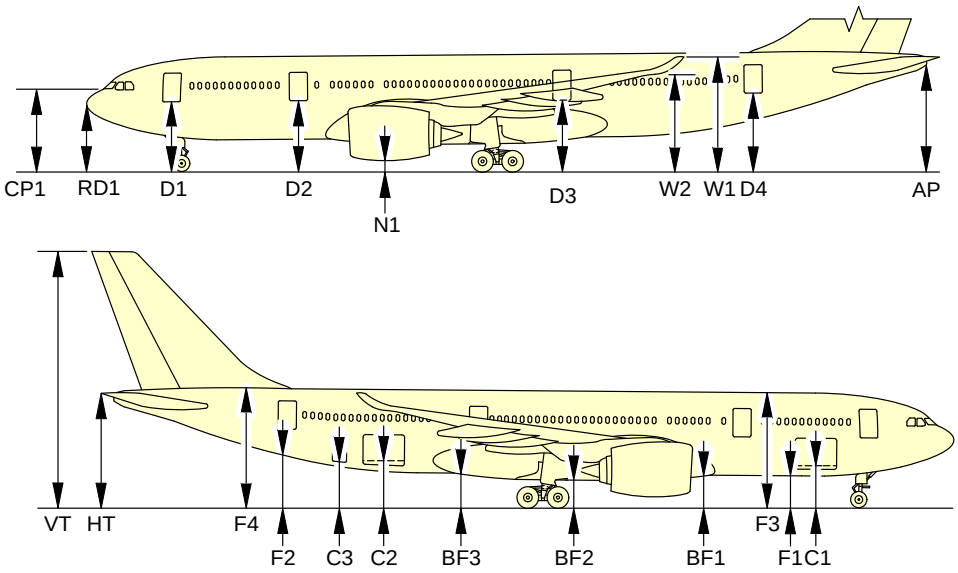
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0350102_01_00

Ground Clearances
2 of 2)
2-3-0-991-035-A01

**ON A/C A330-800




| AIRCRAFT CONFIGURATION | | MRW 238 900 kg (526 684 lb) | | | | 135 000 kg (297 624 lb) 01 | | | | AIRCRAFT JACKED FDL = 6.5 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG (25%) | | AFT CG (33.2%) | | FORWARD CG (20%) | | AFT CG (40%) | | | |
| | | m | ft | m | ft | m | ft | m | ft | m | ft |
| DOORS | D1 | 4.49 | 14.74 | 4.58 | 15.01 | 4.59 | 15.06 | 4.71 | 15.45 | 6.34 | 20.79 |
| | D2 | 4.68 | 15.34 | 4.73 | 15.50 | 4.82 | 15.82 | 4.88 | 16.02 | 6.33 | 20.78 |
| | D3 | 5.07 | 16.63 | 5.04 | 16.55 | 5.31 | 17.41 | 5.25 | 17.23 | 6.34 | 20.79 |
| | D4 | 5.56 | 18.24 | 5.48 | 17.99 | 5.86 | 19.23 | 5.72 | 18.78 | 6.55 | 21.49 |
| | C1 | 2.57 | 8.44 | 2.64 | 8.67 | 2.69 | 8.83 | 2.79 | 9.14 | 4.34 | 14.23 |
| | C2 | 3.26 | 10.69 | 3.21 | 10.52 | 3.53 | 11.57 | 3.43 | 11.26 | 4.39 | 14.40 |
| | C3 | 3.32 | 10.90 | 3.26 | 10.70 | 3.61 | 11.83 | 3.49 | 11.46 | 4.39 | 14.40 |
| FUSELAGE | F1 | 1.95 | 6.39 | 2.01 | 6.59 | 2.07 | 6.80 | 2.16 | 7.08 | 3.68 | 12.06 |
| | F2 | 2.49 | 8.18 | 2.45 | 8.05 | 2.75 | 9.02 | 2.67 | 8.76 | 3.68 | 12.06 |
| | F3 | 7.63 | 25.04 | 7.69 | 25.22 | 7.77 | 25.48 | 7.84 | 25.72 | 9.33 | 30.60 |
| | F4 | 8.30 | 27.25 | 8.23 | 27.01 | 8.60 | 28.21 | 8.47 | 27.79 | 9.33 | 30.60 |
| | BF1 | 2.07 | 6.79 | 2.11 | 6.92 | 2.23 | 7.30 | 2.27 | 7.46 | 3.68 | 12.07 |
| | BF2 | 1.85 | 6.07 | 1.85 | 6.08 | 2.05 | 6.74 | 2.04 | 6.70 | 3.26 | 10.70 |
| | BF3 | 2.41 | 7.90 | 2.38 | 7.80 | 2.65 | 8.70 | 2.59 | 8.49 | 3.64 | 11.96 |
| | CP1 | 5.30 | 17.38 | 5.40 | 17.72 | 5.37 | 17.63 | 5.52 | 18.12 | 7.24 | 23.75 |
| | RD1 | 4.25 | 13.93 | 4.35 | 14.29 | 4.32 | 14.16 | 4.47 | 14.68 | 6.22 | 20.40 |

**NOTE:**

PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0360101_01_03

Ground Clearances
(Sheet 1 of 2)
FIGURE-2-3-0-991-036-A01

**ON A/C A330-800

| AIRCRAFT CONFIGURATION | | MRW 238 900 kg (526 684 lb) | | | | 135 000 kg (297 624 lb) 01 | | | | AIRCARFT JACKED FDL = 6.5 m (21.33 ft) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FORWARD CG (25%) | | AFT CG (33.2%) | | FORWARD CG (20%) | | AFT CG (40%) | | | |
| | | m | ft | m | ft | m | ft | m | ft | m | ft |
| WINGS | W1 | 7.97 | 26.16 | 7.91 | 25.97 | 8.25 | 27.07 | 8.14 | 26.72 | 9.06 | 29.74 |
| | W2 | 6.70 | 21.97 | 6.65 | 21.81 | 6.96 | 22.85 | 6.87 | 22.54 | 7.84 | 25.71 |
| TAILPLANE | HT | 8.26 | 27.11 | 8.14 | 26.69 | 8.63 | 28.31 | 8.41 | 27.59 | 8.98 | 29.47 |
| | AP | 7.77 | 25.48 | 7.64 | 25.07 | 8.13 | 26.67 | 7.91 | 25.96 | 8.50 | 27.88 |
| | VT | 17.92 | 58.79 | 17.79 | 58.36 | 18.29 | 60.00 | 18.06 | 59.27 | 18.62 | 61.09 |
| ENGINE/ NACELLE | N1 | 0.65 | 2.12 | 0.67 | 2.20 | 0.82 | 2.69 | 0.85 | 2.77 | 2.18 | 7.14 |
| | N1 WITH DRAIN MAST | 0.62 | 2.03 | 0.65 | 2.12 | 0.79 | 2.60 | 0.82 | 2.69 | 2.16 | 7.07 |

**NOTE:**
THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

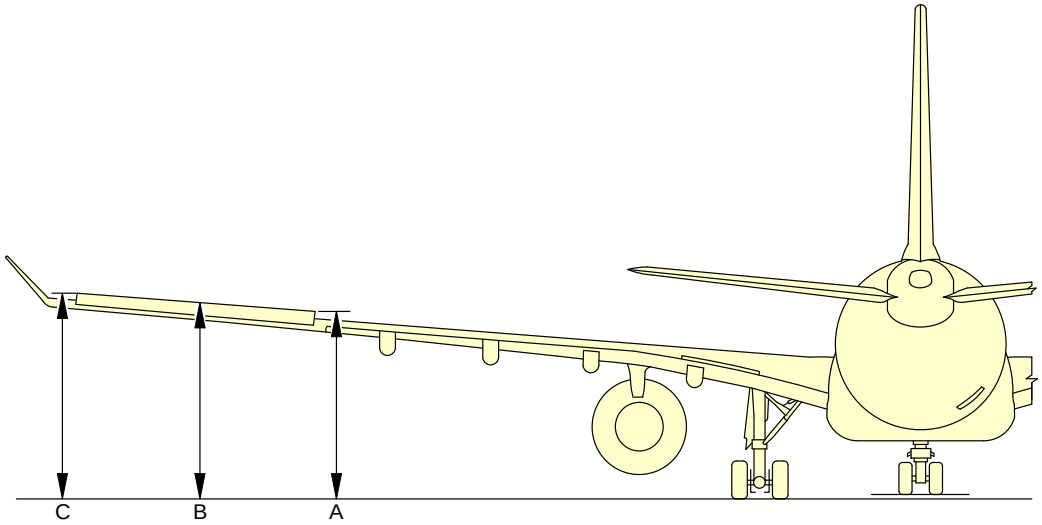
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 EMPTY WEIGHT FOR MAINTENANCE (DEPENDING ON THE AIRCRAFT CONFIGURATION).

F_AC_020300_1_0360102_01_00

Ground Clearances
2 of 2)
2-3-0-991-036-A01

**ON A/C A330-200 A330-200F A330-300



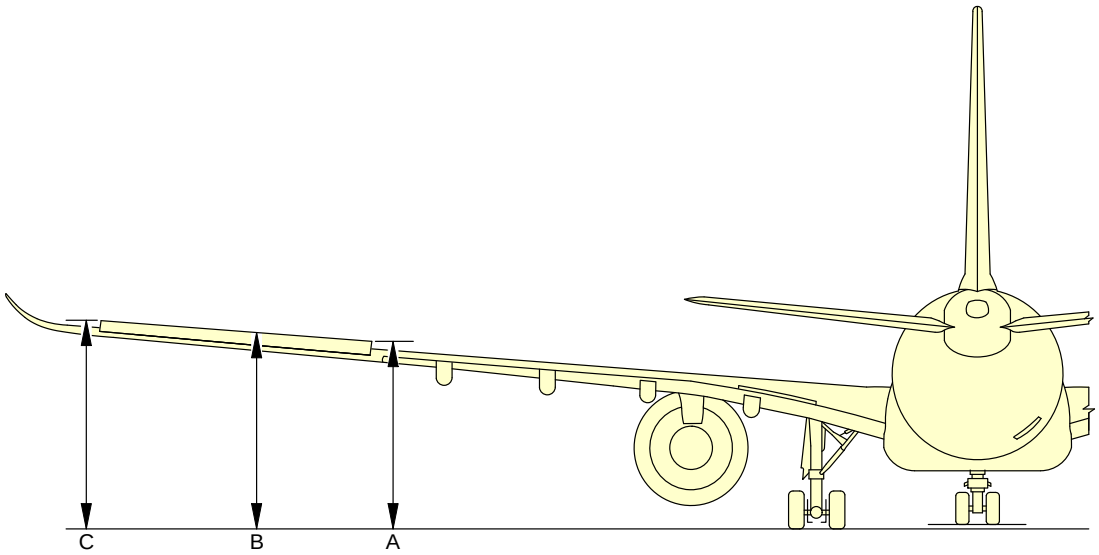

| AILERONS UP | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| AILERON 1 INBD | A | 6.38 | 20.93 | 6.07 | 19.91 | 6.02 | 19.75 |
| AILERON 1/2 | B | 6.58 | 21.59 | 6.26 | 20.54 | 6.20 | 20.34 |
| AILERON 2 OUTBD | C | 6.85 | 22.47 | 6.50 | 21.33 | 6.42 | 21.06 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0150101_01_02

Ground Clearances
Ailerons – Up
FIGURE-2-3-0-991-015-A01

**ON A/C A330-800 A330-900




| AILERONS UP | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | AILERON 1 INBD | A | 6.21 | 20.37 | 6.18 | 20.28 |
| | AILERON 1/2 | B | 6.40 | 21.00 | 6.36 | 20.87 |
| | AILERON 2 OUTBD | C | 6.64 | 21.78 | 6.58 | 21.59 |
| 01 A330-800 | AILERON 1 INBD | A | 6.17 | 20.24 | 6.16 | 20.21 |
| | AILERON 1/2 | B | 6.36 | 20.87 | 6.34 | 20.80 |
| | AILERON 2 OUTBD | C | 6.60 | 21.65 | 6.56 | 21.52 |

**NOTE:**

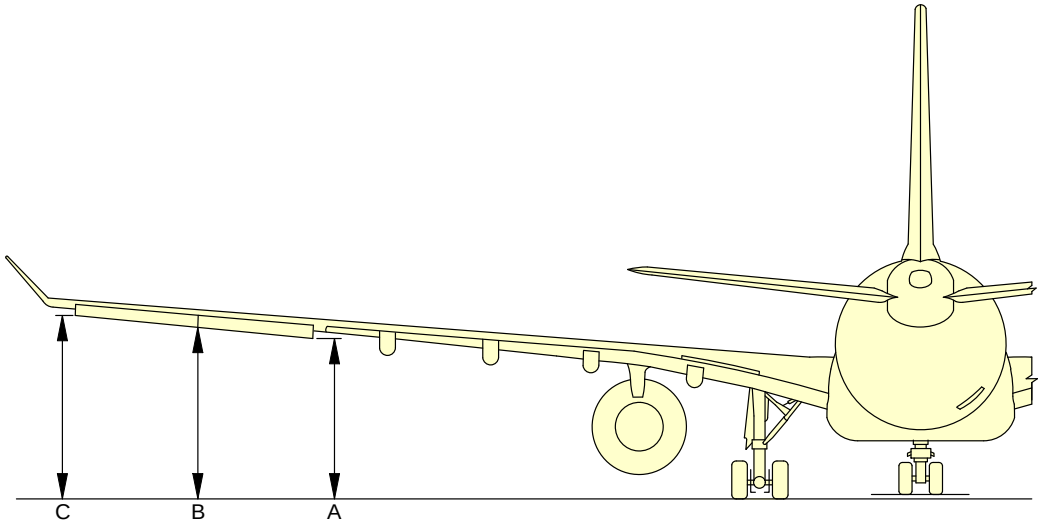
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0400101_01_02

Ground Clearances
Ailerons – Up
FIGURE-2-3-0-991-040-A01

**ON A/C A330-200 A330-200F A330-300



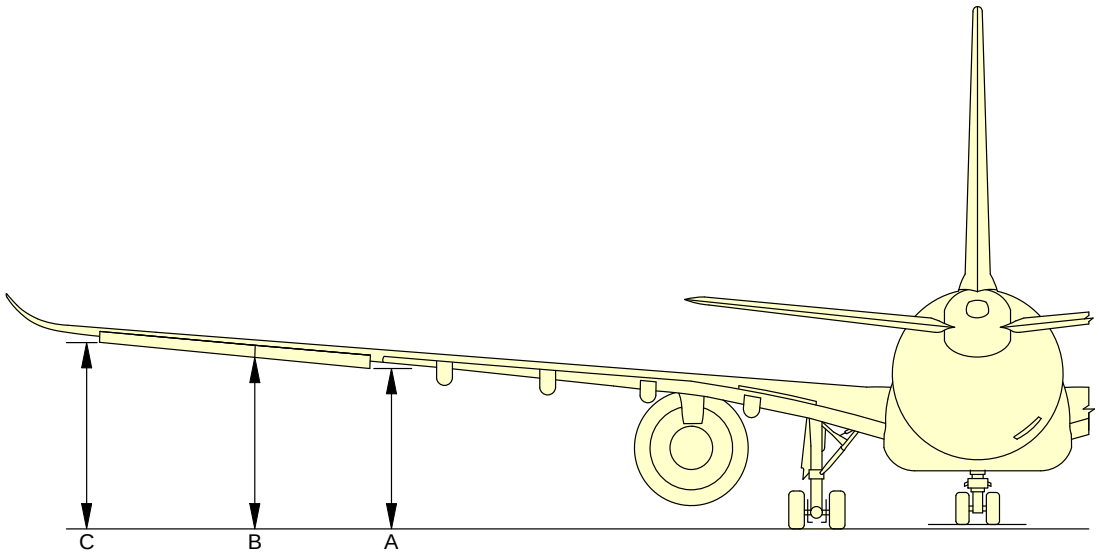

| AILERONS DOWN | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| AILERON 1 INBD | A | 5.47 | 17.95 | 5.17 | 16.96 | 5.11 | 16.77 |
| AILERON 1/2 | B | 5.83 | 19.13 | 5.51 | 18.08 | 5.44 | 17.85 |
| AILERON 2 OUTBD | C | 6.30 | 20.67 | 5.94 | 19.49 | 5.87 | 19.26 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0160101_01_02

Ground Clearances
Ailerons – Down
FIGURE-2-3-0-991-016-A01

**ON A/C A330-800 A330-900




| AILERONS DOWN | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | AILERON 1 INBD | A | 5.31 | 17.42 | 5.27 | 17.29 |
| | AILERON 1/2 | B | 5.65 | 18.54 | 5.60 | 18.37 |
| | AILERON 2 OUTBD | C | 6.08 | 19.95 | 6.03 | 19.78 |
| 01 A330-800 | AILERON 1 INBD | A | 5.27 | 17.29 | 5.25 | 17.22 |
| | AILERON 1/2 | B | 5.61 | 18.41 | 5.58 | 18.31 |
| | AILERON 2 OUTBD | C | 6.04 | 19.82 | 6.01 | 19.72 |

**NOTE:**

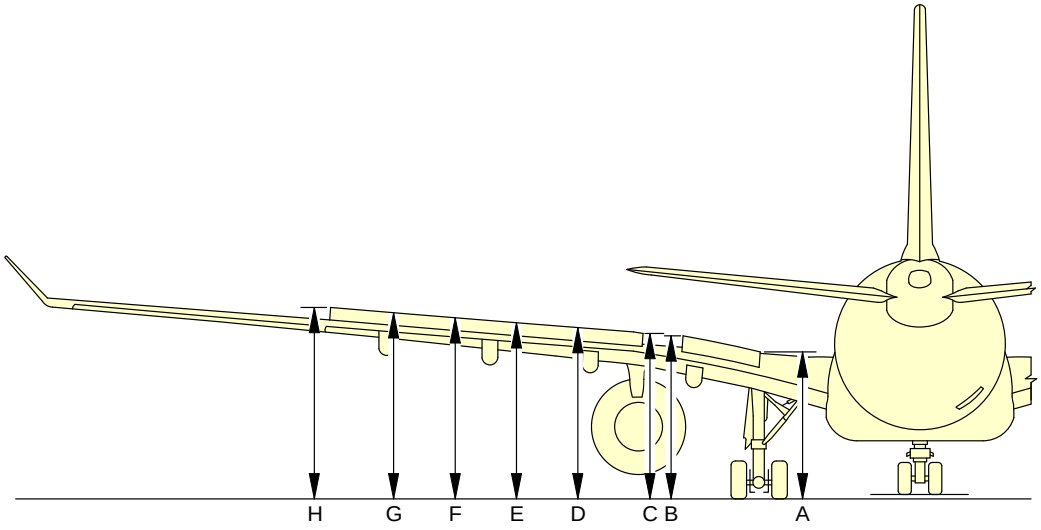
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0410101_01_02

Ground Clearances
Ailerons – Down
FIGURE-2-3-0-991-041-A01

**ON A/C A330-200 A330-200F A330-300



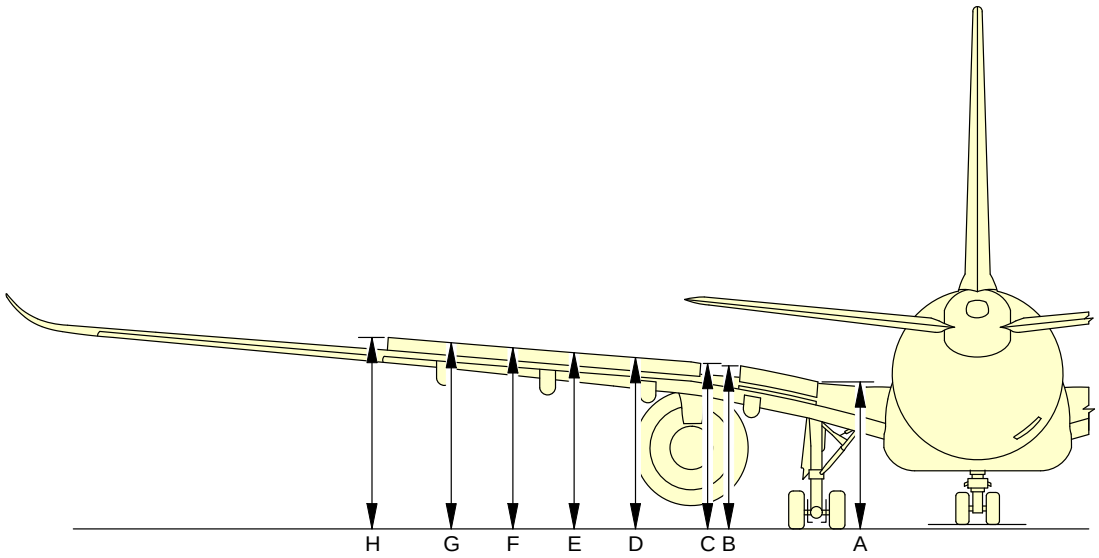

| SPOILERS EXTENDED | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| SPOILER 1 INBD | A | 4.76 | 15.62 | 4.58 | 15.03 | 4.55 | 14.93 |
| SPOILER 1 OUTBD | B | 5.31 | 17.42 | 5.10 | 16.73 | 5.07 | 16.63 |
| SPOILER 2 INBD | C | 5.72 | 18.77 | 5.51 | 18.08 | 5.48 | 17.98 |
| SPOILER 2/3 | D | 5.93 | 19.46 | 5.71 | 18.73 | 5.68 | 18.64 |
| SPOILER 3/4 | E | 6.12 | 20.08 | 5.89 | 19.32 | 5.86 | 19.23 |
| SPOILER 4/5 | F | 6.29 | 20.64 | 6.04 | 19.82 | 6.00 | 19.69 |
| SPOILER 5/6 | G | 6.44 | 21.13 | 6.18 | 20.28 | 6.13 | 20.11 |
| SPOILER 6 OUTBD | H | 6.60 | 21.65 | 6.31 | 20.70 | 6.26 | 20.54 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0170101_01_02

Ground Clearances
Spoilers – Extended
FIGURE-2-3-0-991-017-A01

**ON A/C A330-800 A330-900




| SPOILERS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | SPOILER 1 INBD | A | 4.72 | 15.49 | 4.71 | 15.45 |
| | SPOILER 1 OUTBD | B | 5.24 | 17.19 | 5.23 | 17.16 |
| | SPOILER 2 INBD | C | 5.65 | 18.54 | 5.64 | 18.50 |
| | SPOILER 2/3 | D | 5.85 | 19.19 | 5.84 | 19.16 |
| | SPOILER 3/4 | E | 6.03 | 19.78 | 6.02 | 19.75 |
| | SPOILER 4/5 | F | 6.18 | 20.28 | 6.16 | 20.21 |
| | SPOILER 5/6 | G | 6.32 | 20.73 | 6.29 | 20.64 |
| | SPOILER 6 OUTBD | H | 6.45 | 21.16 | 6.42 | 21.06 |

**NOTE:**

THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0420101_01_02

Ground Clearances
Spoilers – Extended (Sheet 1 of 2)
FIGURE-2-3-0-991-042-A01

**ON A/C A330-800 A330-900

| SPOILERS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-800 | SPOILER 1 INBD | A | 4.68 | 15.35 | 4.69 | 15.39 |
| | SPOILER 1 OUTBD | B | 5.20 | 17.06 | 5.21 | 17.09 |
| | SPOILER 2 INBD | C | 5.61 | 18.41 | 5.62 | 18.44 |
| | SPOILER 2/3 | D | 5.81 | 19.06 | 5.82 | 19.09 |
| | SPOILER 3/4 | E | 5.99 | 19.65 | 6.00 | 19.69 |
| | SPOILER 4/5 | F | 6.14 | 20.14 | 6.14 | 20.14 |
| | SPOILER 5/6 | G | 6.28 | 20.60 | 6.27 | 20.57 |
| | SPOILER 6 OUTBD | H | 6.41 | 21.03 | 6.40 | 21.00 |

**NOTE:**

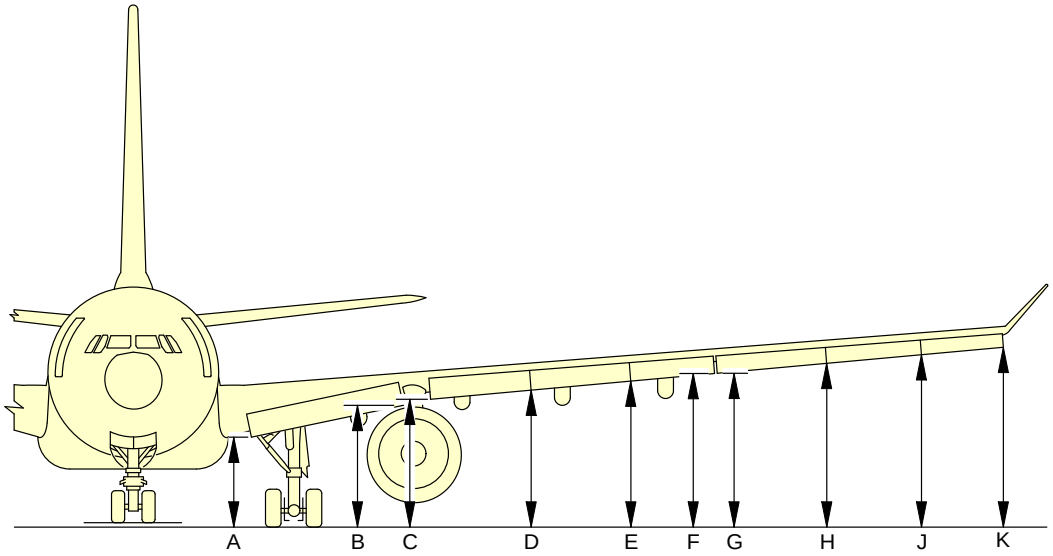
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0420102_01_02

Ground Clearances
Spoilers – Extended (Sheet 2 of 2)
FIGURE-2-3-0-991-042-A01

**ON A/C A330-200 A330-200F A330-300



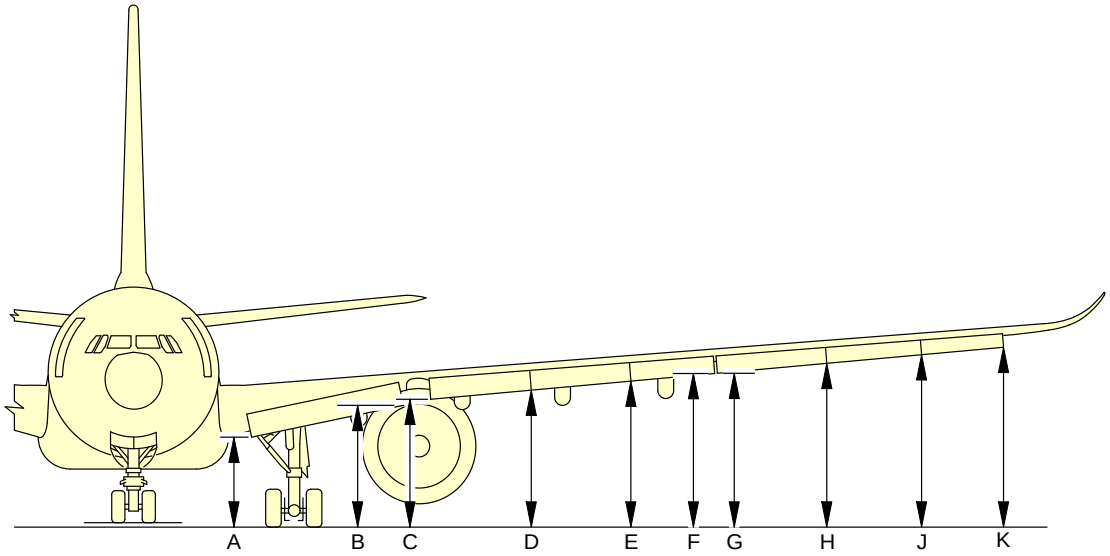

| LEADING EDGE SLATS EXTENDED | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| SLAT 1 INBD | A | 3.46 | 11.35 | 3.28 | 10.76 | 3.31 | 10.86 |
| SLAT 1 OUTBD | B | 4.25 | 13.94 | 4.09 | 13.42 | 4.10 | 13.45 |
| SLAT 2 INBD | C | 4.28 | 14.04 | 4.10 | 13.45 | 4.11 | 13.48 |
| SLAT 2/3 | D | 4.65 | 15.26 | 4.45 | 14.60 | 4.45 | 14.60 |
| SLAT 3/4 | E | 4.99 | 16.37 | 4.77 | 15.65 | 4.76 | 15.62 |
| SLAT 4 OUTBD | F | 5.30 | 17.39 | 5.06 | 16.60 | 5.03 | 16.50 |
| SLAT 5 INBD | G | 5.37 | 17.62 | 5.12 | 16.80 | 5.09 | 16.70 |
| SLAT 5/6 | H | 5.65 | 18.54 | 5.37 | 17.62 | 5.33 | 17.49 |
| SLAT 6/7 | J | 5.91 | 19.39 | 5.61 | 18.41 | 5.56 | 18.24 |
| SLAT 7 OUTBD | K | 6.16 | 20.21 | 5.82 | 19.09 | 5.76 | 18.90 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0180101_01_02

Ground Clearances
Leading Edge Slats – Extended
FIGURE-2-3-0-991-018-A01

**ON A/C A330-800 A330-900




| LEADING EDGE SLATS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | SLAT 1 INBD | A | 3.42 | 11.22 | 3.47 | 11.38 |
| | SLAT 1 OUTBD | B | 4.23 | 13.88 | 4.26 | 13.98 |
| | SLAT 2 INBD | C | 4.24 | 13.91 | 4.27 | 14.01 |
| | SLAT 2/3 | D | 4.59 | 15.06 | 4.61 | 15.12 |
| | SLAT 3/4 | E | 4.91 | 16.11 | 4.92 | 16.14 |
| | SLAT 4 OUTBD | F | 5.20 | 17.06 | 5.19 | 17.03 |
| | SLAT 5 INBD | G | 5.26 | 17.26 | 5.25 | 17.22 |
| | SLAT 5/6 | H | 5.51 | 18.08 | 5.49 | 18.01 |
| | SLAT 6/7 | J | 5.75 | 18.86 | 5.72 | 18.77 |
| | SLAT 7 OUTBD | K | 5.96 | 19.55 | 5.92 | 19.42 |

**NOTE:**

THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0430101_01_02

Ground Clearances
Leading Edge Slats – Extended (Sheet 1 of 2)
FIGURE-2-3-0-991-043-A01

**ON A/C A330-800 A330-900

| LEADING EDGE SLATS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-800 | SLAT 1 INBD | A | 3.38 | 11.09 | 3.45 | 11.32 |
| | SLAT 1 OUTBD | B | 4.19 | 13.75 | 4.24 | 13.91 |
| | SLAT 2 INBD | C | 4.20 | 13.78 | 4.25 | 13.94 |
| | SLAT 2/3 | D | 4.55 | 14.93 | 4.59 | 15.06 |
| | SLAT 3/4 | E | 4.87 | 15.98 | 4.90 | 16.08 |
| | SLAT 4 OUTBD | F | 5.16 | 16.93 | 5.17 | 16.96 |
| | SLAT 5 INBD | G | 5.22 | 17.13 | 5.23 | 17.16 |
| | SLAT 5/6 | H | 5.47 | 17.95 | 5.47 | 17.95 |
| | SLAT 6/7 | J | 5.71 | 18.73 | 5.70 | 18.70 |
| | SLAT 7 OUTBD | K | 5.92 | 19.42 | 5.90 | 19.36 |

**NOTE:**

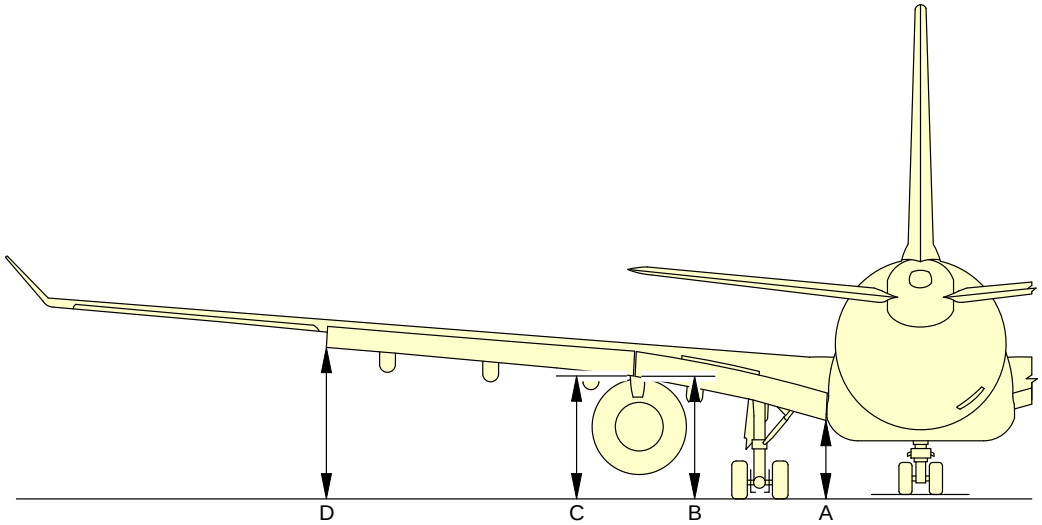
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0430102_01_02

Ground Clearances
Leading Edge Slats – Extended (Sheet 2 of 2)
FIGURE-2-3-0-991-043-A01

**ON A/C A330-200 A330-200F A330-300



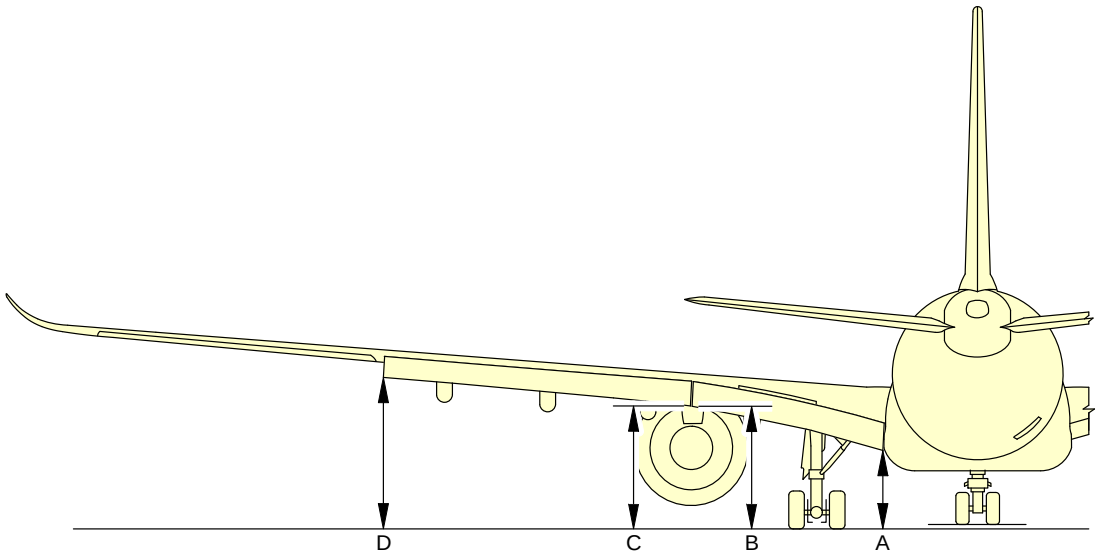

| FLAPS EXTENDED | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| FLAP 1 INBD | A | 2.71 | 8.89 | 2.52 | 8.27 | 2.49 | 8.17 |
| FLAP 1 OUTBD | B | 4.00 | 13.12 | 3.80 | 12.47 | 3.76 | 12.34 |
| FLAP 2 INBD | C | 4.00 | 13.12 | 3.79 | 12.43 | 3.75 | 12.30 |
| FLAP 2 OUTBD | D | 5.21 | 17.09 | 4.91 | 16.11 | 4.85 | 15.91 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0190101_01_02

Ground Clearances
Trailing Edge Flaps – Extended
FIGURE-2-3-0-991-019-A01

**ON A/C A330-800 A330-900




| FLAPS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | FLAP 1 INBD | A | 2.66 | 8.73 | 2.65 | 8.69 |
| | FLAP 1 OUTBD | B | 3.94 | 12.93 | 3.92 | 12.86 |
| | FLAP 2 INBD | C | 3.93 | 12.89 | 3.91 | 12.83 |
| | FLAP 2 OUTBD | D | 5.05 | 16.57 | 5.01 | 16.44 |
| 01 A330-800 | FLAP 1 INBD | A | 2.62 | 8.60 | 2.63 | 8.63 |
| | FLAP 1 OUTBD | B | 3.90 | 12.80 | 3.90 | 12.80 |
| | FLAP 2 INBD | C | 3.89 | 12.76 | 3.89 | 12.76 |
| | FLAP 2 OUTBD | D | 5.01 | 16.44 | 4.99 | 16.37 |

**NOTE:**

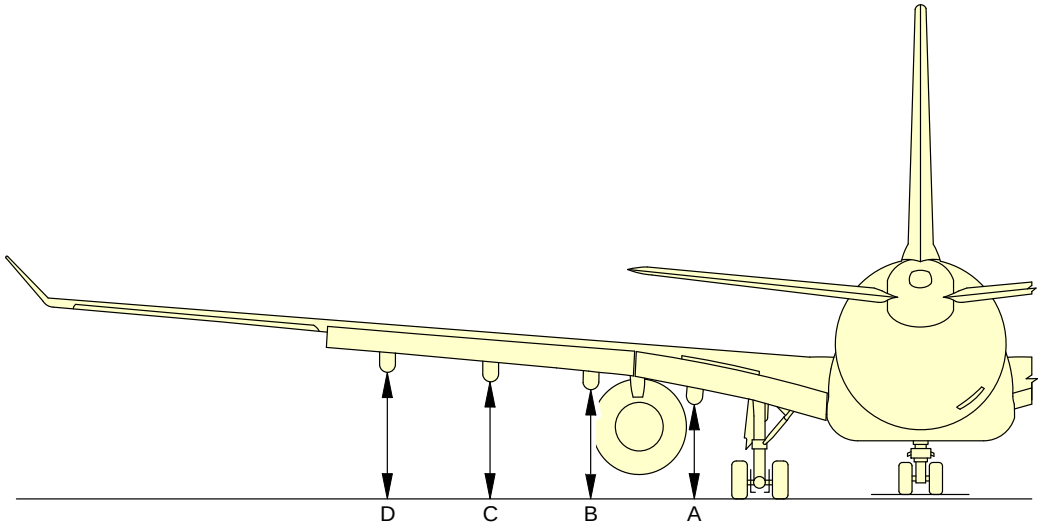
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0440101_01_02

Ground Clearances
Trailing Edge Flaps – Extended
FIGURE-2-3-0-991-044-A01

**ON A/C A330-200 A330-200F A330-300



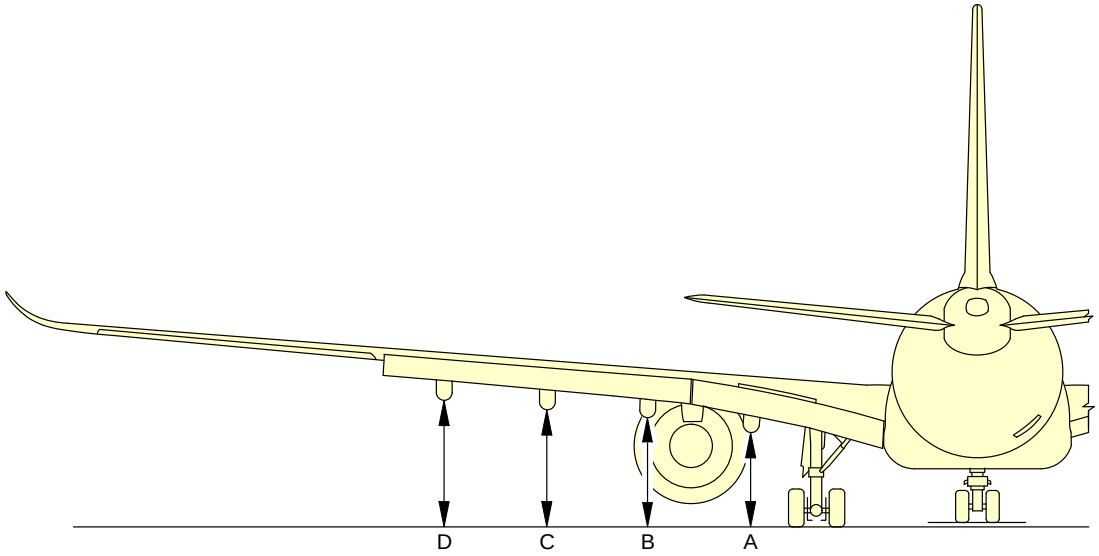

| FLAP TRACKS EXTENDED | | | | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | m | ft | m | ft | m | ft |
| FLAP TRACK 2 | A | 2.95 | 9.68 | 2.75 | 9.02 | 2.71 | 8.89 |
| FLAP TRACK 3 | B | 3.48 | 11.42 | 3.29 | 10.79 | 3.24 | 10.63 |
| FLAP TRACK 4 | C | 3.73 | 12.24 | 3.53 | 11.58 | 3.48 | 11.42 |
| FLAP TRACK 5 | D | 4.08 | 13.39 | 3.88 | 12.73 | 3.82 | 12.53 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0200101_01_02

Ground Clearances
Flap Tracks – Extended
FIGURE-2-3-0-991-020-A01

**ON A/C A330-800 A330-900




| FLAP TRACKS EXTENDED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | FLAP TRACK 2 | A | 2.80 | 9.19 | 2.79 | 9.15 |
| | FLAP TRACK 3 | B | 3.43 | 11.25 | 3.38 | 11.09 |
| | FLAP TRACK 4 | C | 3.71 | 12.17 | 3.67 | 12.04 |
| | FLAP TRACK 5 | D | 4.07 | 13.35 | 4.03 | 13.22 |
| 01 A330-800 | FLAP TRACK 2 | A | 2.77 | 9.09 | 2.75 | 9.02 |
| | FLAP TRACK 3 | B | 3.35 | 10.99 | 3.31 | 10.86 |
| | FLAP TRACK 4 | C | 3.62 | 11.88 | 3.60 | 11.81 |
| | FLAP TRACK 5 | D | 4.12 | 13.52 | 4.10 | 13.45 |

**NOTE:**

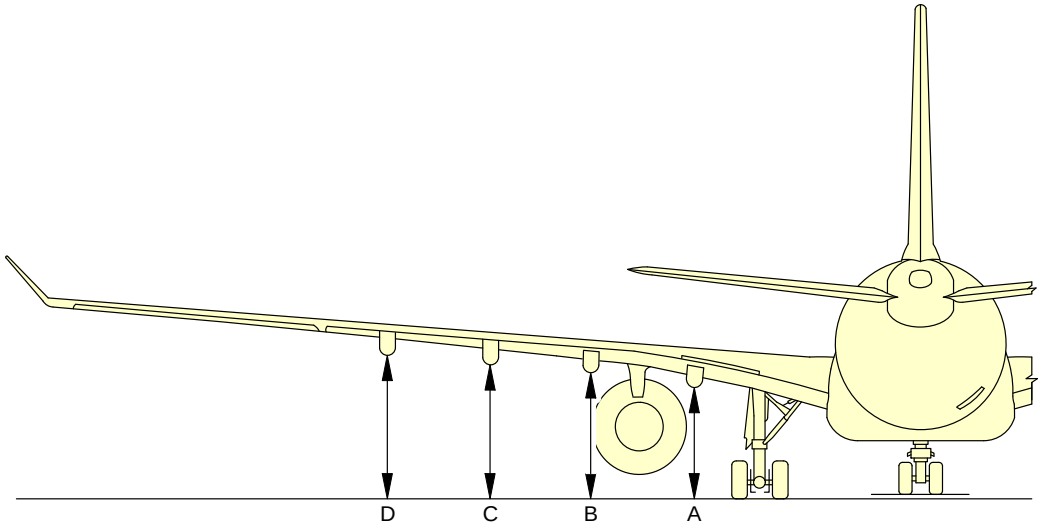
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0370101_01_02

Ground Clearances
Flap Tracks – Extended
FIGURE-2-3-0-991-037-A01

**ON A/C A330-200 A330-200F A330-300



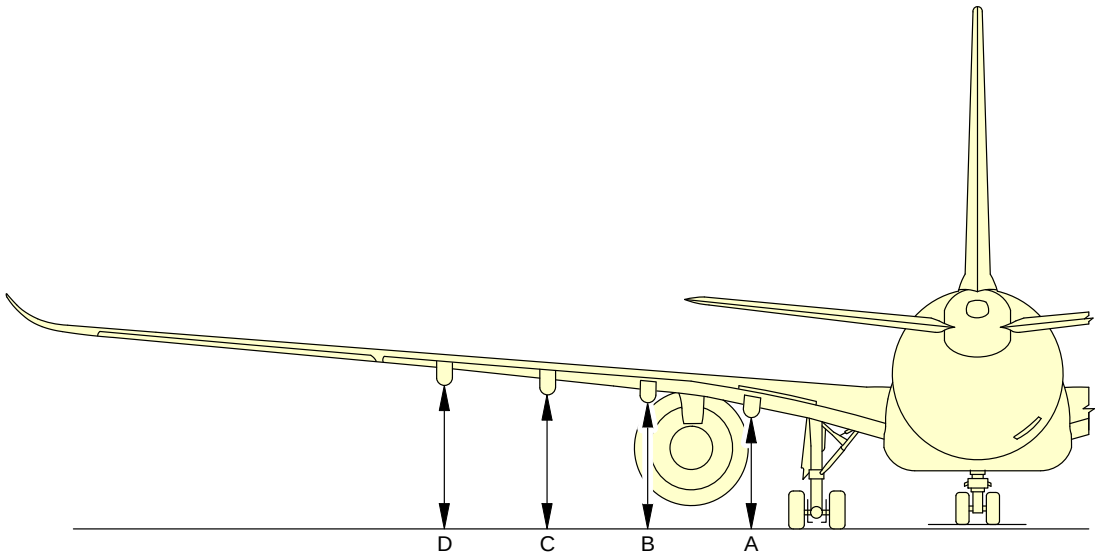

| FLAP TRACKS RETRACTED | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft | m | ft |
| A330-300 | FLAP TRACK 2 | A | 3.87 | 12.70 | 3.68 | 12.07 | 3.64 | 11.94 |
| | FLAP TRACK 3 | B | 4.33 | 14.20 | 4.13 | 13.55 | 4.11 | 13.48 |
| | FLAP TRACK 4 | C | 4.64 | 15.22 | 4.41 | 14.46 | 4.37 | 14.33 |
| | FLAP TRACK 5 | D | 4.97 | 16.30 | 4.72 | 15.48 | 4.67 | 15.32 |
| A330-200 | FLAP TRACK 2 | A | 3.89 | 12.76 | 3.67 | 12.04 | 3.64 | 11.94 |
| | FLAP TRACK 3 | B | 4.35 | 14.27 | 4.13 | 13.55 | 4.11 | 13.48 |
| | FLAP TRACK 4 | C | 4.63 | 15.19 | 4.42 | 14.50 | 4.37 | 14.33 |
| | FLAP TRACK 5 | D | 4.95 | 16.24 | 4.73 | 15.52 | 4.67 | 15.32 |
| A330-200F | FLAP TRACK 2 | A | 2.74 | 8.99 | 2.44 | 8.00 | 2.41 | 7.89 |
| | FLAP TRACK 3 | B | 2.98 | 9.79 | 2.69 | 8.83 | 2.67 | 8.75 |
| | FLAP TRACK 4 | C | 2.92 | 9.59 | 2.63 | 8.62 | 2.60 | 8.53 |
| | FLAP TRACK 5 | D | 3.02 | 9.91 | 2.70 | 8.86 | 2.64 | 8.66 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0290101_01_01

Ground Clearances
Flap Tracks – Retracted
FIGURE-2-3-0-991-029-A01

**ON A/C A330-800 A330-900




| FLAP TRACKS RETRACTED | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | FLAP TRACK 2 | A | 3.73 | 12.25 | 3.72 | 12.20 |
| | FLAP TRACK 3 | B | 4.27 | 14.00 | 4.25 | 13.95 |
| | FLAP TRACK 4 | C | 4.59 | 15.05 | 4.56 | 14.97 |
| | FLAP TRACK 5 | D | 4.91 | 16.11 | 4.88 | 16.02 |
| 01 A330-800 | FLAP TRACK 2 | A | 3.69 | 12.11 | 3.68 | 12.08 |
| | FLAP TRACK 3 | B | 4.19 | 13.76 | 4.18 | 13.72 |
| | FLAP TRACK 4 | C | 4.51 | 14.79 | 4.49 | 14.73 |
| | FLAP TRACK 5 | D | 4.97 | 16.32 | 4.95 | 16.24 |

**NOTE:**

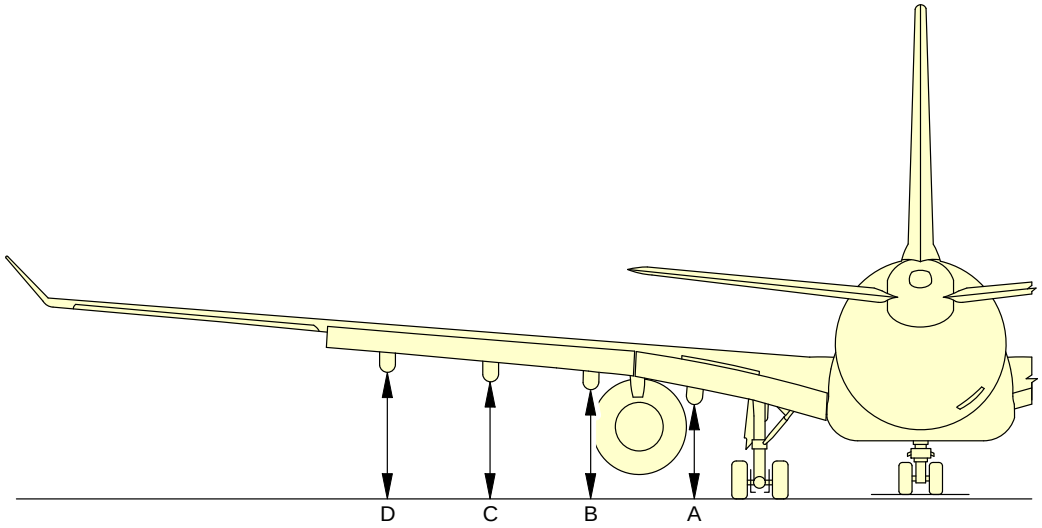
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0380101_01_02

Ground Clearances
Flap Tracks – Retracted
FIGURE-2-3-0-991-038-A01

**ON A/C A330-200 A330-300



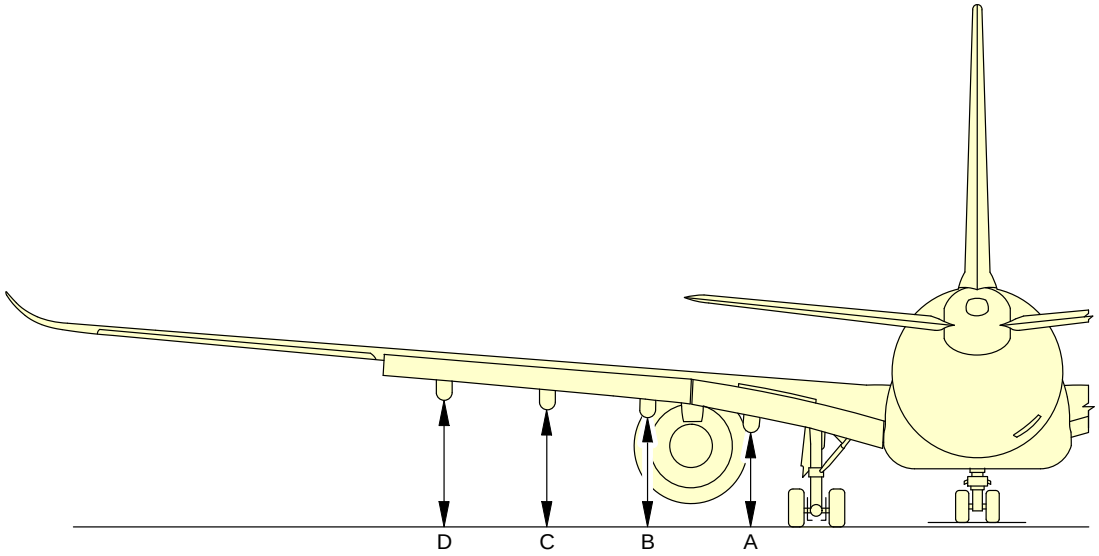

| FLAP TRACKS 1+F | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | A/C IN MAINTENANCE CONFIGURATION MID CG | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft | m | ft |
| A330-300 | FLAP TRACK 2 | A | 3.50 | 11.48 | 3.31 | 10.86 | 3.27 | 10.73 |
| | FLAP TRACK 3 | B | 3.96 | 12.99 | 3.76 | 12.34 | 3.74 | 12.27 |
| | FLAP TRACK 4 | C | 4.27 | 14.01 | 4.04 | 13.25 | 4.00 | 13.12 |
| | FLAP TRACK 5 | D | 4.60 | 15.09 | 4.35 | 14.27 | 4.30 | 14.11 |
| A330-200 | FLAP TRACK 2 | A | 3.52 | 11.55 | 3.30 | 10.83 | 3.27 | 10.73 |
| | FLAP TRACK 3 | B | 3.98 | 13.06 | 3.76 | 12.34 | 3.74 | 12.27 |
| | FLAP TRACK 4 | C | 4.26 | 13.98 | 4.05 | 13.29 | 4.00 | 13.12 |
| | FLAP TRACK 5 | D | 4.58 | 15.03 | 4.36 | 14.30 | 4.30 | 14.11 |

**NOTE:**
THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

F_AC_020300_1_0320101_01_01

Ground Clearances
Flap Tracks – 1 + F
FIGURE-2-3-0-991-032-A01

**ON A/C A330-800 A330-900




| FLAP TRACKS 1+F | | | | | | |
|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | DESCRIPTION | | MRW FWD CG | | MRW AFT CG | |
| | | | m | ft | m | ft |
| 01 A330-900 | FLAP TRACK 2 | A | 3.36 | 11.02 | 3.35 | 10.99 |
| | FLAP TRACK 3 | B | 3.90 | 12.80 | 3.88 | 12.73 |
| | FLAP TRACK 4 | C | 4.22 | 13.85 | 4.19 | 13.75 |
| | FLAP TRACK 5 | D | 4.54 | 14.90 | 4.51 | 14.80 |
| 01 A330-800 | FLAP TRACK 2 | A | 3.32 | 10.89 | 3.31 | 10.86 |
| | FLAP TRACK 3 | B | 3.82 | 12.53 | 3.81 | 12.50 |
| | FLAP TRACK 4 | C | 4.14 | 13.58 | 4.12 | 13.52 |
| | FLAP TRACK 5 | D | 4.60 | 15.09 | 4.58 | 15.03 |

**NOTE:**

THE VALUES GIVEN IN THE TABLE DEPEND ON THE POSITION OF THE CENTER OF GRAVITY (CG) AND ON THE AIRCRAFT WEIGHT.

01 THE GROUND CLEARANCES ARE GIVEN FOR INDICATION ONLY. DISTANCES DEPEND ON MASS, CG AND AIRCRAFT CONFIGURATION.

F_AC_020300_1_0390101_01_02

Ground Clearances
Flap Tracks – 1 + F
FIGURE-2-3-0-991-039-A01

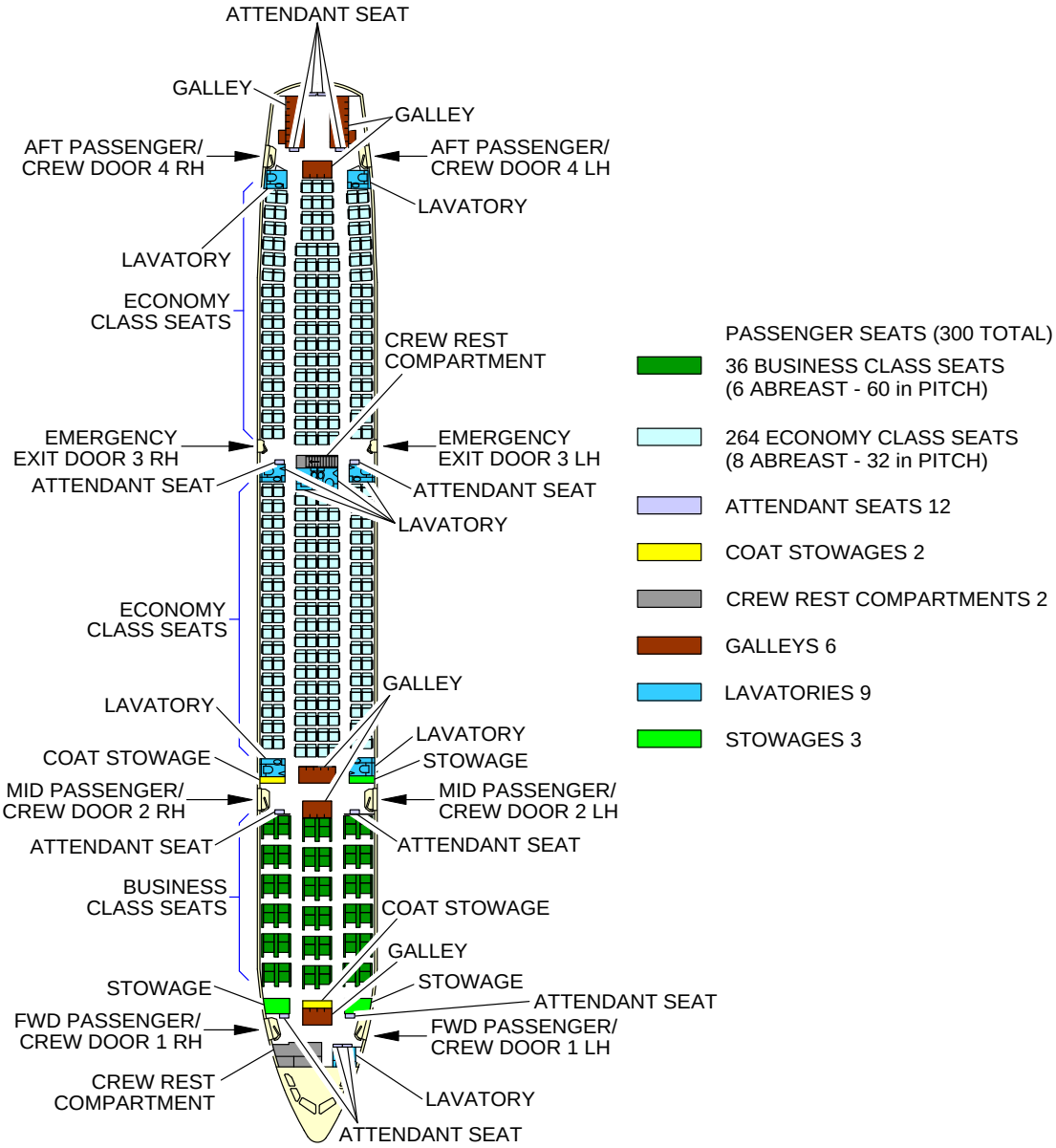
## 2-4-1 Interior Arrangements - Plan View

****ON A/C A330-200 A330-300 A330-800 A330-900**

Interior Arrangements - Plan View

1. This section provides the typical interior configuration.

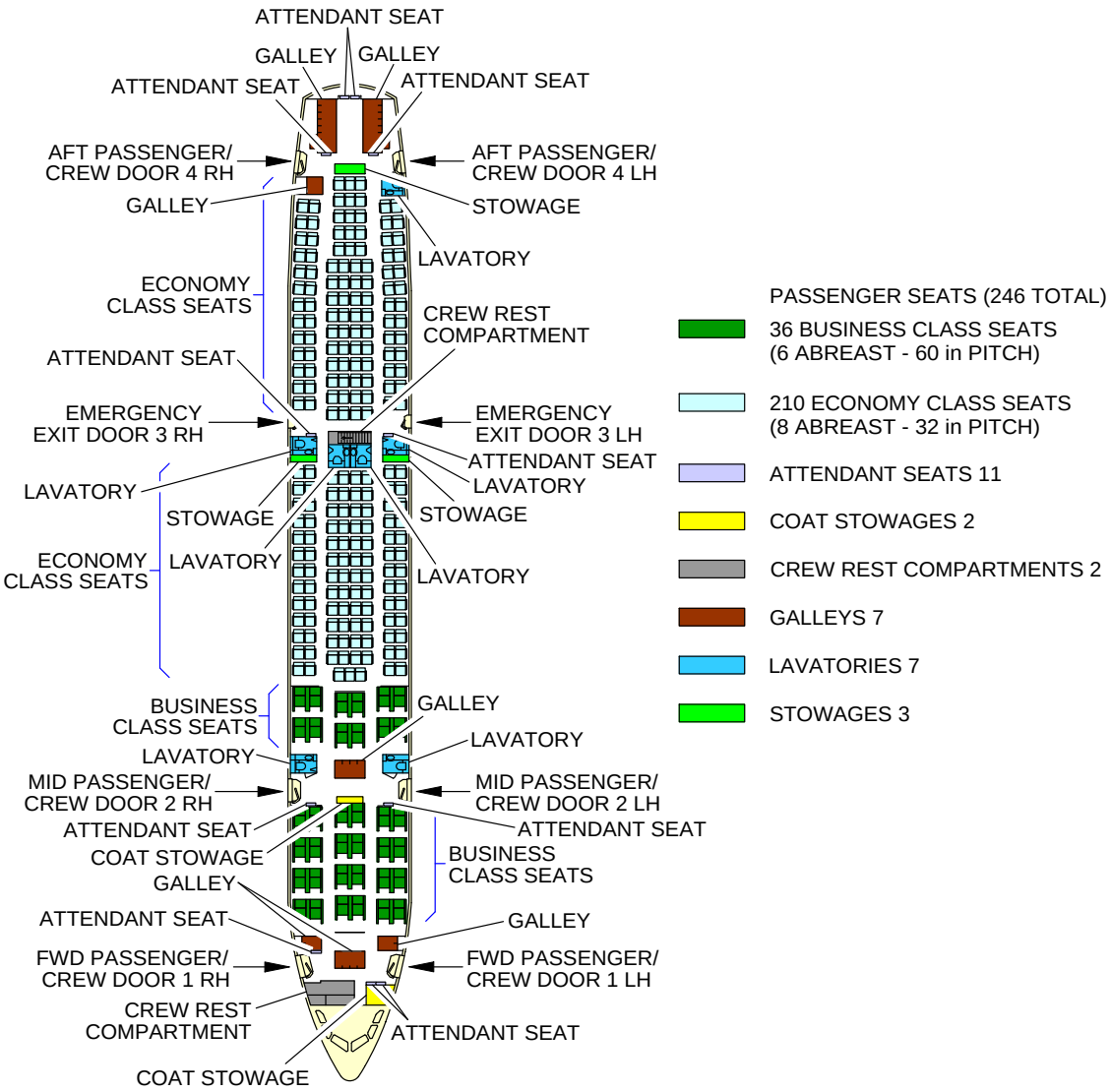
**ON A/C A330-300 A330-900




F_AC_020401_1_0010101_01_02

Interior Arrangements - Plan View
Typical Configuration
FIGURE-2-4-1-991-001-A01

**ON A/C A330-200 A330-800




F_AC_020401_1_0020101_01_02

Interior Arrangements - Plan View
Typical Configuration
FIGURE-2-4-1-991-002-A01

## 2-5-0 Interior Arrangements - Cross Section

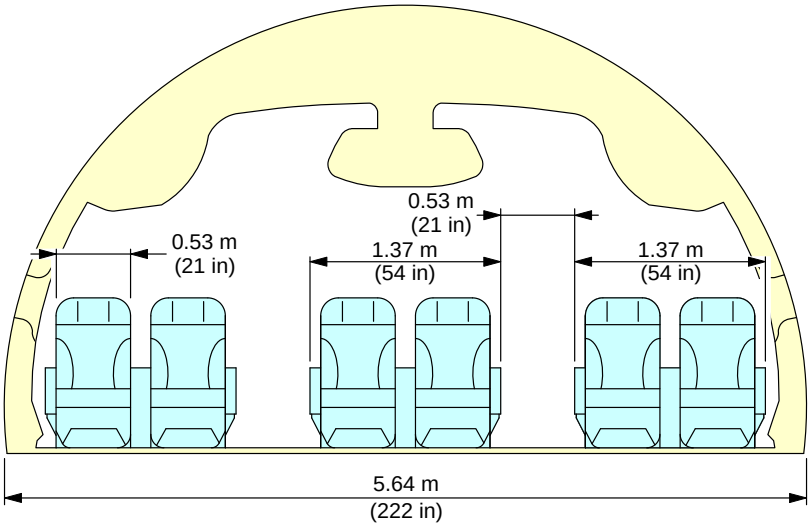
****ON A/C A330-200 A330-300 A330-800 A330-900**

Interior Arrangements - Cross Section

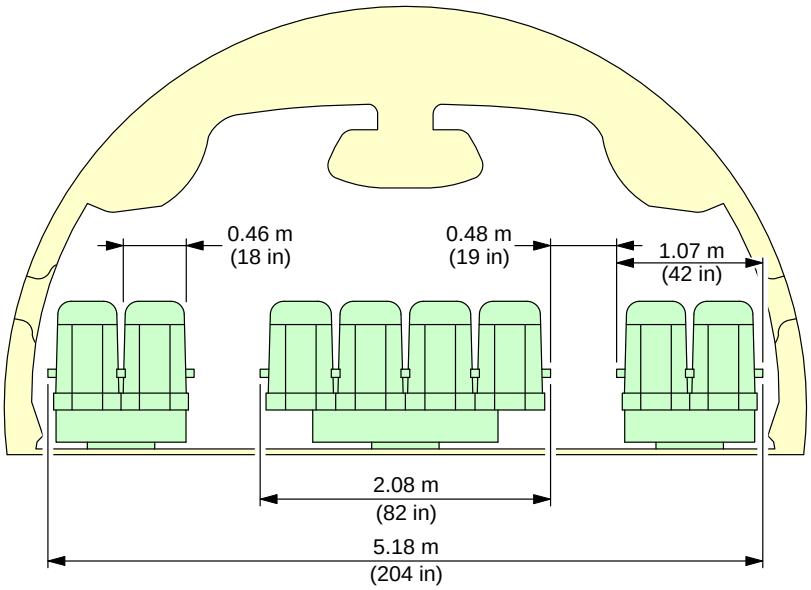
1. This section gives the typical configuration of A330 pax version.

**ON A/C A330-200 A330-300 A330-800 A330-900

BUSINESS CLASS, 6 ABREAST




ECONOMY CLASS, 8 ABREAST




F_AC_020500_1_0010101_01_01

Interior Arrangements - Cross Section
Typical Configuration
FIGURE-2-5-0-991-001-A01

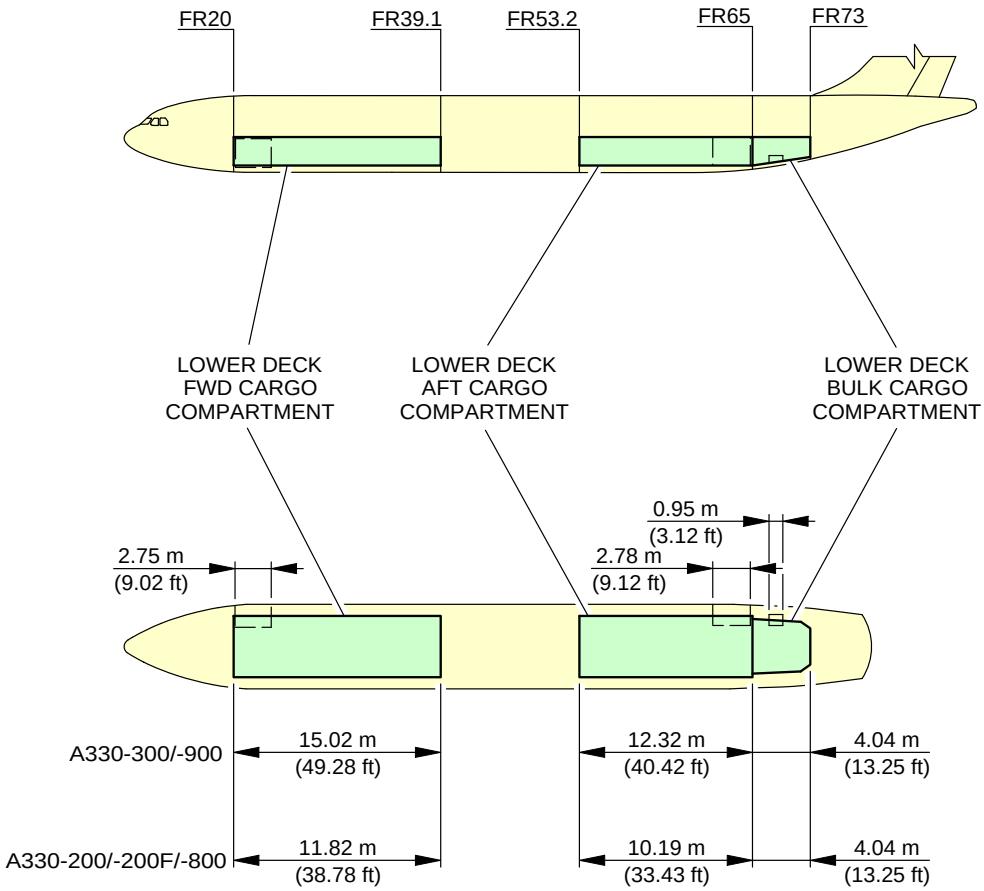
## 2-6-1 Lower Deck Cargo Compartments

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Lower Deck Cargo Compartments

1. This section provides the following data about lower deck cargo compartments:
   - Location and dimensions
   - Loading combinations.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900

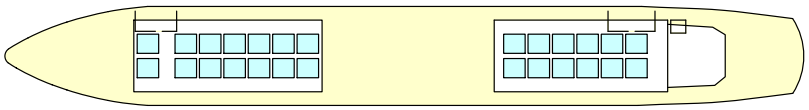


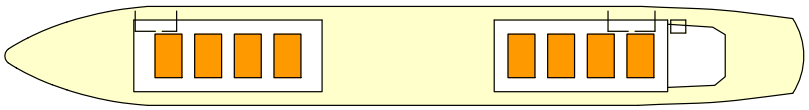

**NOTE:**
APPROXIMATE DIMENSIONS DEPENDING ON AIRCRAFT CONFIGURATION.

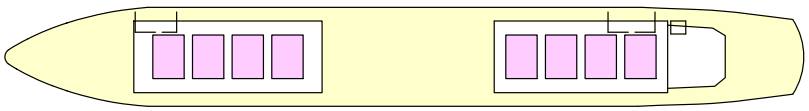
F_AC_020601_1_0030101_01_02

Lower Deck Cargo Compartments
Location and Dimensions
FIGURE-2-6-1-991-003-A01

**ON A/C A330-200 A330-200F A330-800



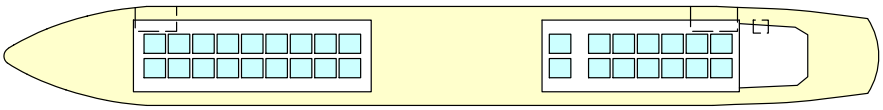




F_AC_020601_1_0040101_01_04

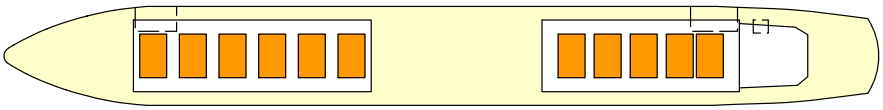
Lower Deck Cargo Compartments
Loading Combinations
FIGURE-2-6-1-991-004-A01

**ON A/C A330-300 A330-900



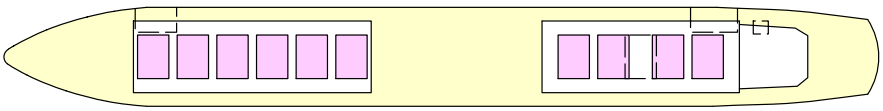
18 LD3 60.4 in X 61.5 in

14 LD3 60.4 in X 61.5 in



6 PALLETS 88 in X 125 in

5 PALLETS 88 in X 125 in



6 PALLETS 96 in X 125 in

4 PALLETS 96 in X 125 in

F_AC_020601_1_0040201_01_02

Lower Deck Cargo Compartments
Loading Combinations
FIGURE-2-6-1-991-004-B01

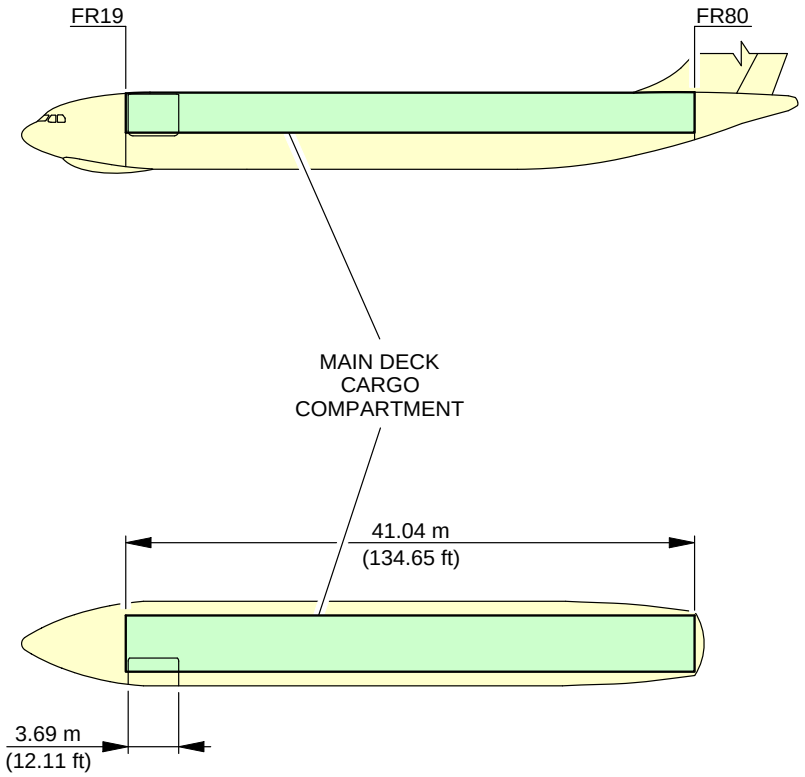
## 2-6-2 Main Deck Cargo Compartments

****ON A/C A330-200F**

Main Deck Cargo Compartment

1. This section gives the following data about the main deck cargo compartment:
   - Location and dimensions
   - Loading combinations.

**ON A/C A330-200F

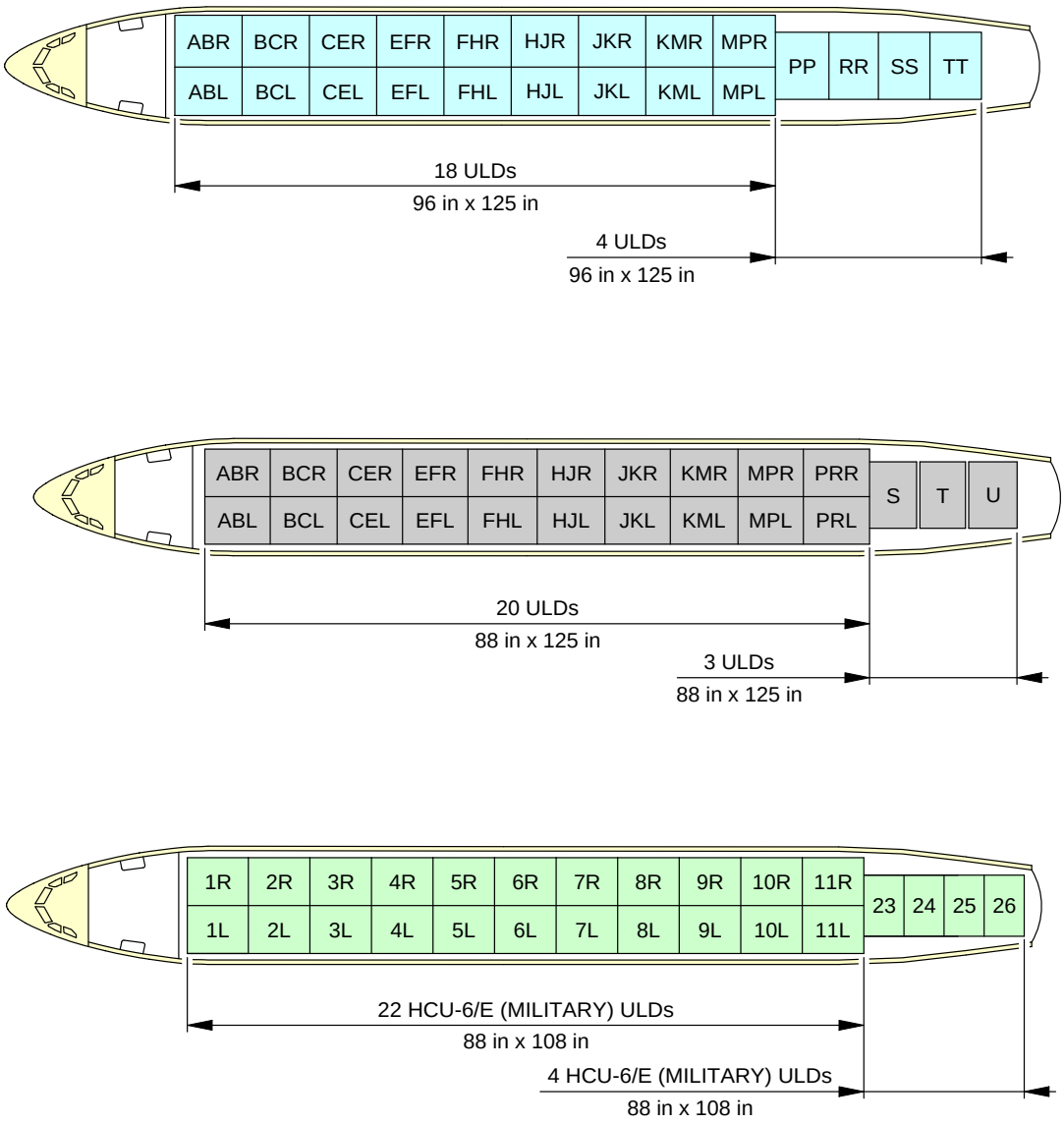



**NOTE:**
DEPENDING ON A/C CONFIGURATION.

F_AC_020602_1_0060101_01_00

Main Deck Cargo Compartment
Location and Dimensions
FIGURE-2-6-2-991-006-A01

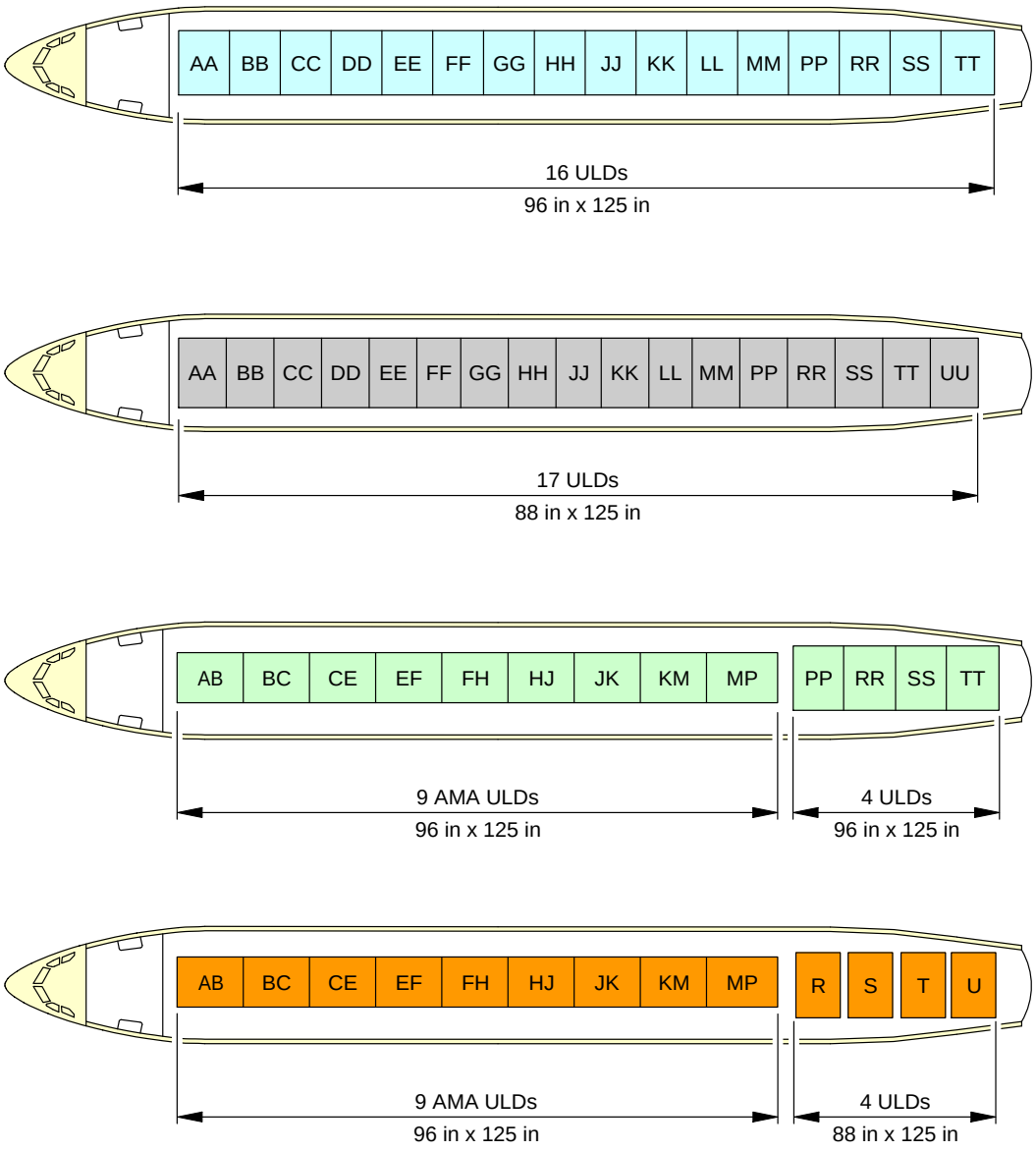
**ON A/C A330-200F




F_AC_020602_1_0010101_01_01

Main Deck Cargo Compartment
Loading Combinations
FIGURE-2-6-2-991-001-A01

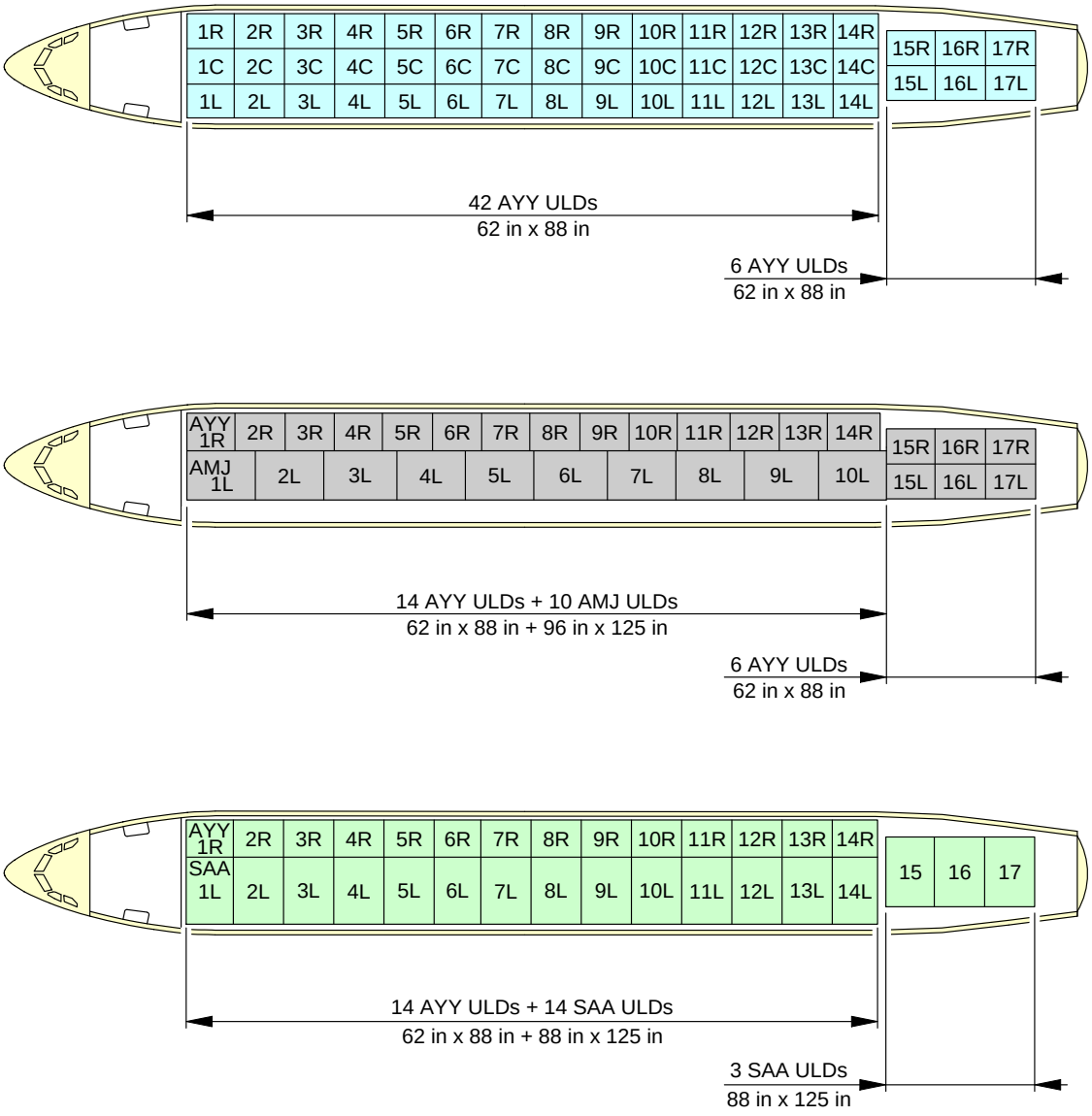
**ON A/C A330-200F




F_AC_020602_1_0020101_01_01

Main Deck Cargo Compartment
Loading Combinations
FIGURE-2-6-2-991-002-A01

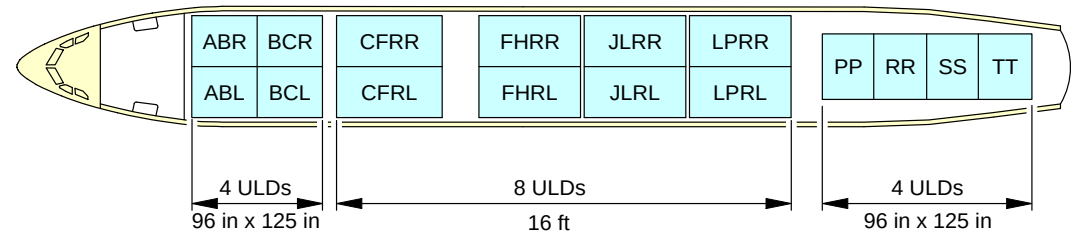
**ON A/C A330-200F

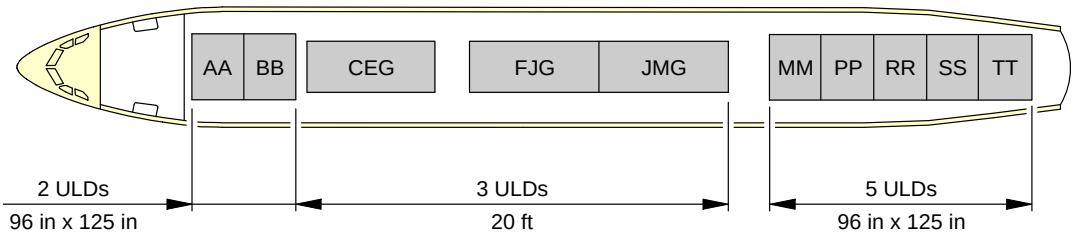


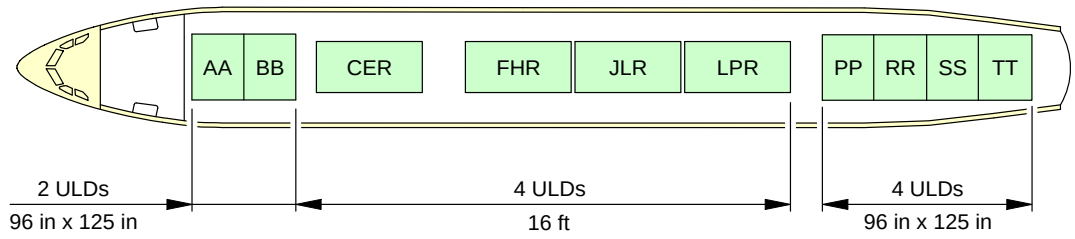

F_AC_020602_1_0030101_01_03

Main Deck Cargo Compartment
Loading Combinations
FIGURE-2-6-2-991-003-A01

**ON A/C A330-200F




F_AC_020602_1_0050101_01_00

Main Deck Cargo Compartment
Loading Combinations
FIGURE-2-6-2-991-005-A01

## 2-6-3 Main and Lower Deck Cross-sections

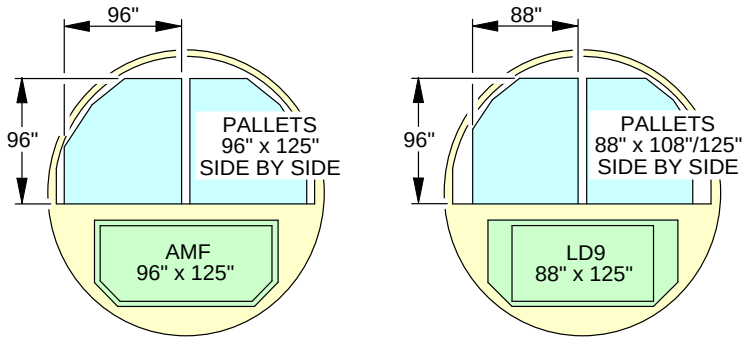
****ON A/C A330-200F**

Main and Lower Deck Cross-sections

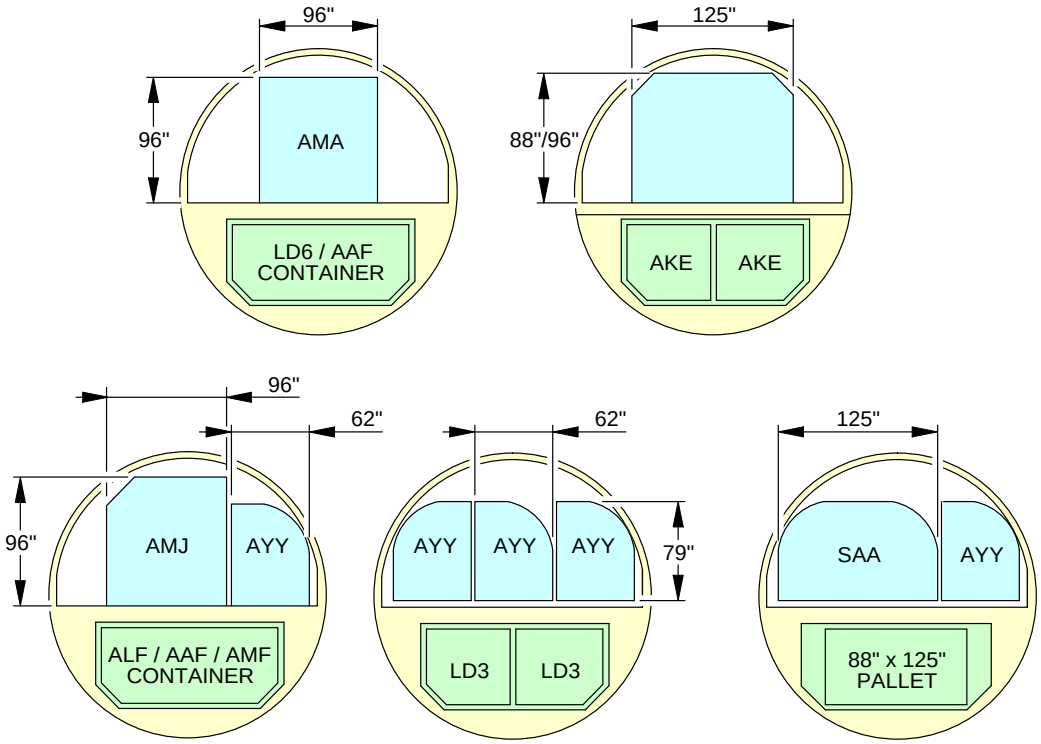
1. This section gives Main and Lower Deck Cross-sections for cargo version.

**ON A/C A330-200F

REFERENCE CARGO CONFIGURATION LAYOUT




OPTIONAL CARGO CONFIGURATIONS




F_AC_020603_1_0010101_01_01

Main and Lower Deck Cross-sections
FIGURE-2-6-3-991-001-A01

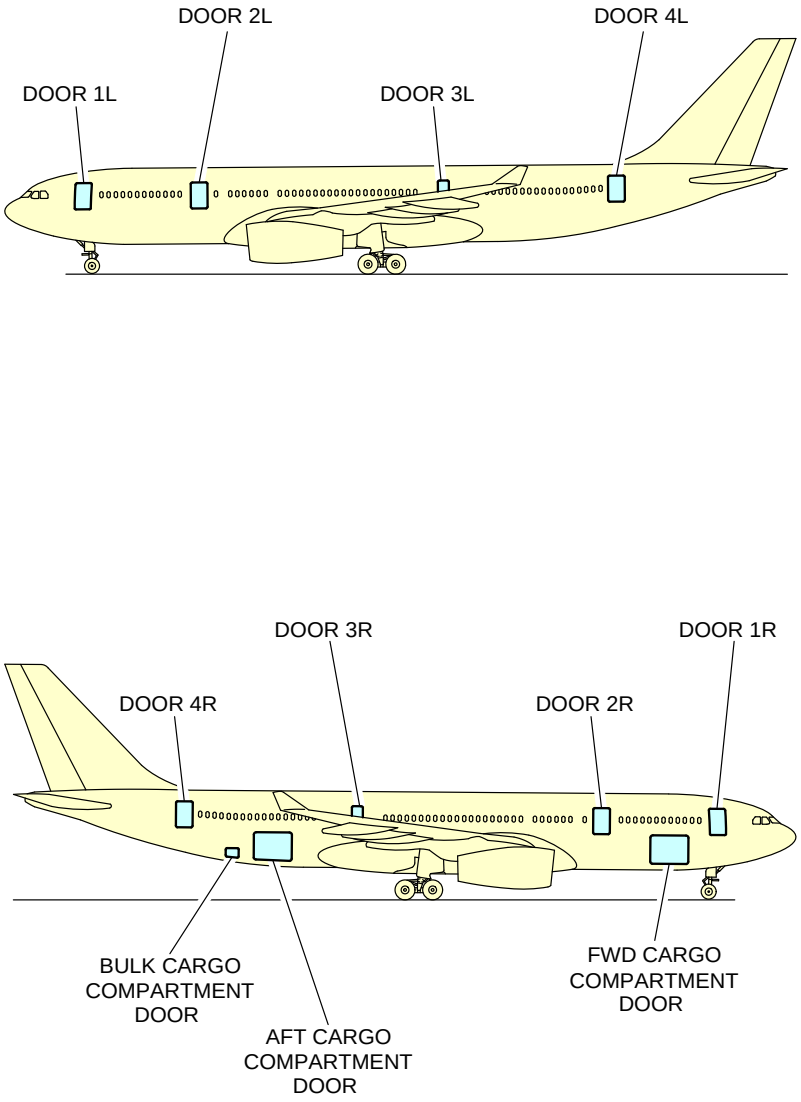
## 2-7-0 Door Clearances

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Door Clearances

1. This section provides door location, identification and clearances.

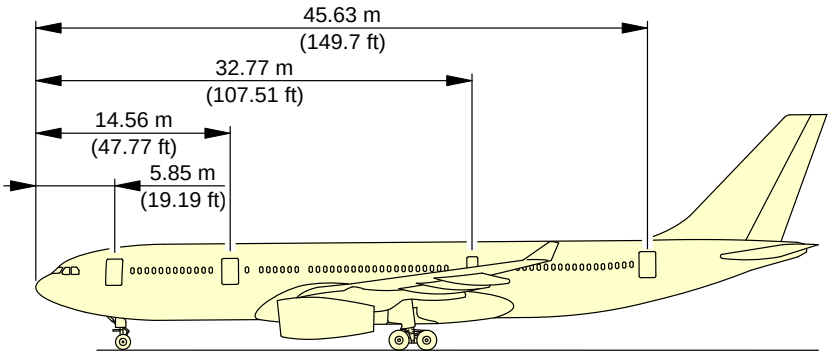
**ON A/C A330-200 A330-800

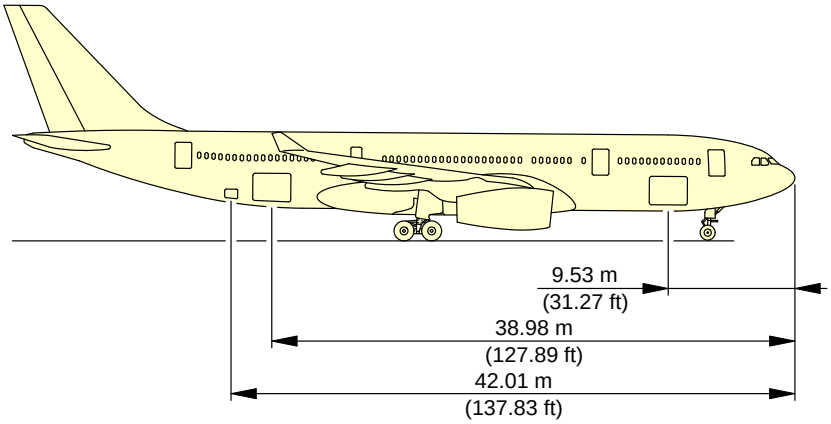



F_AC_020700_1_0060101_01_02

Door Clearances
Door Identification (Sheet 1 of 2)
FIGURE-2-7-0-991-006-A01

**ON A/C A330-200 A330-800

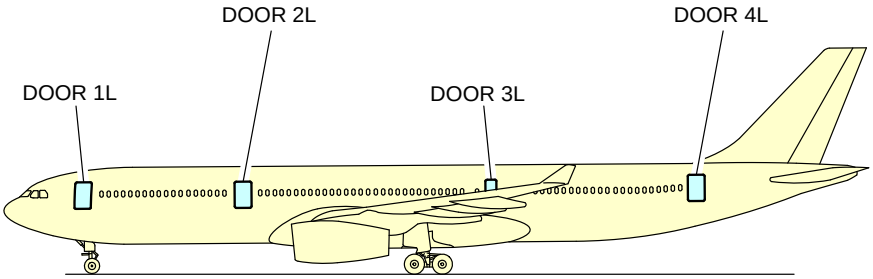


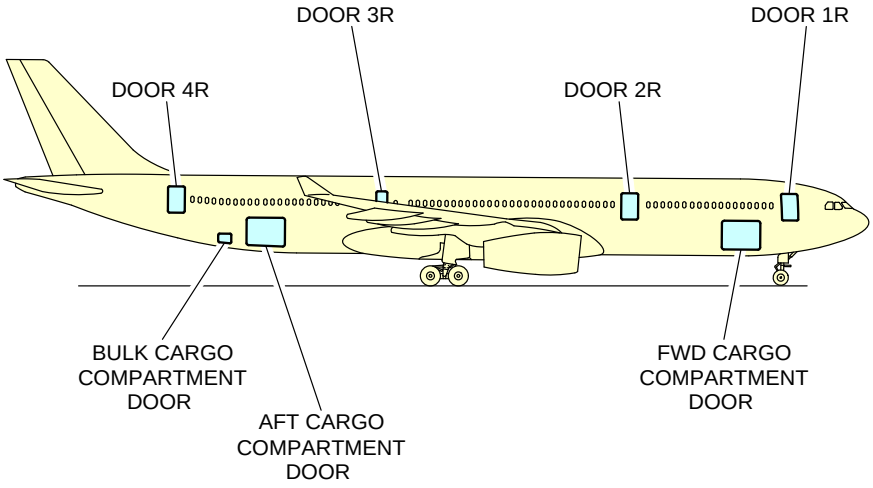




F_AC_020700_1_0060102_01_01

Door Clearances
Door Location (Sheet 2 of 2)
FIGURE-2-7-0-991-006-A01

**ON A/C A330-300 A330-900

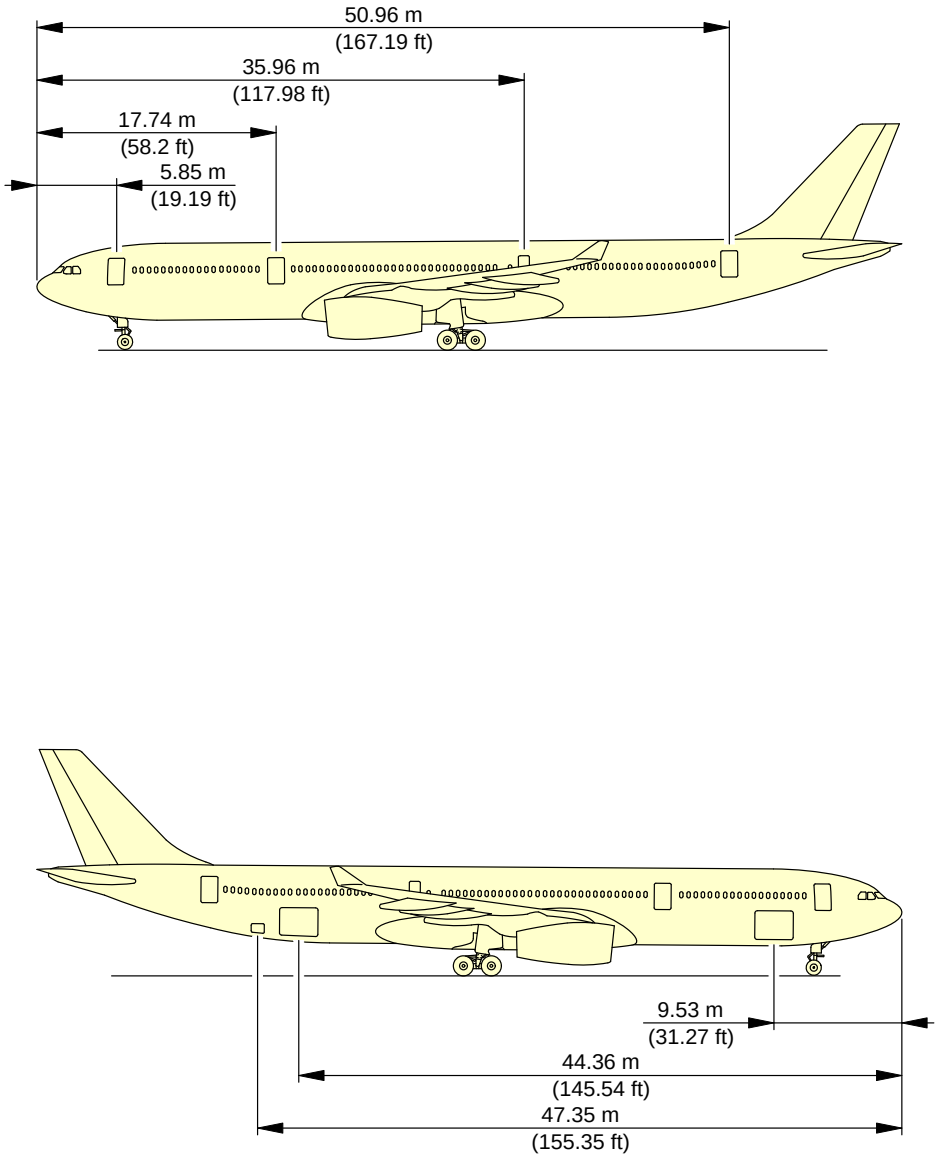



F_AC_020700_1_0060201_01_01

Door Clearances
Door Identification (Sheet 1 of 2)
FIGURE-2-7-0-991-006-B01

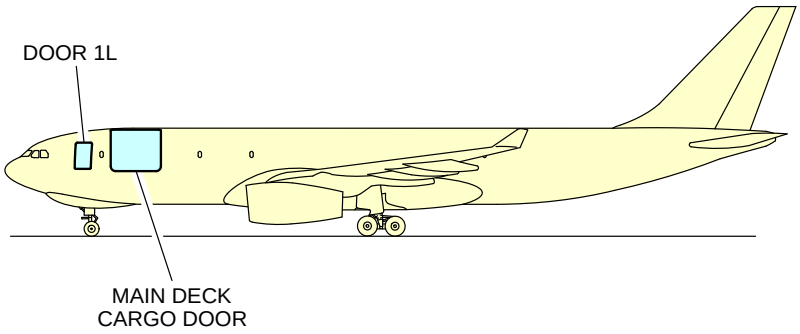
**ON A/C A330-300 A330-900

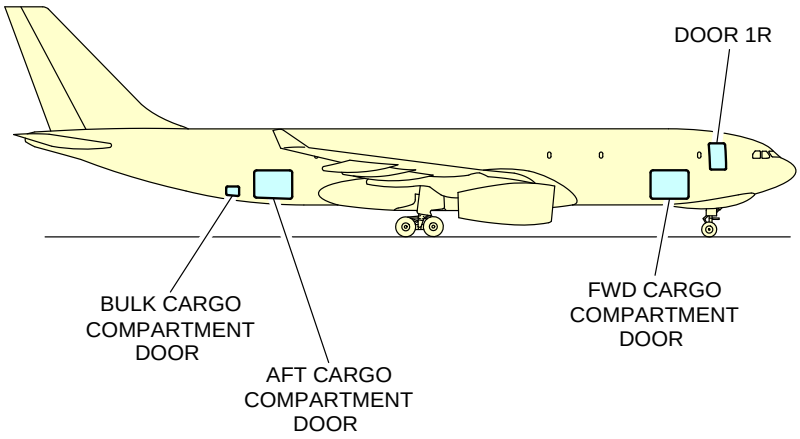



F_AC_020700_1_0060202_01_00

Door Clearances
Door Location (Sheet 2 of 2)
FIGURE-2-7-0-991-006-B01

**ON A/C A330-200F

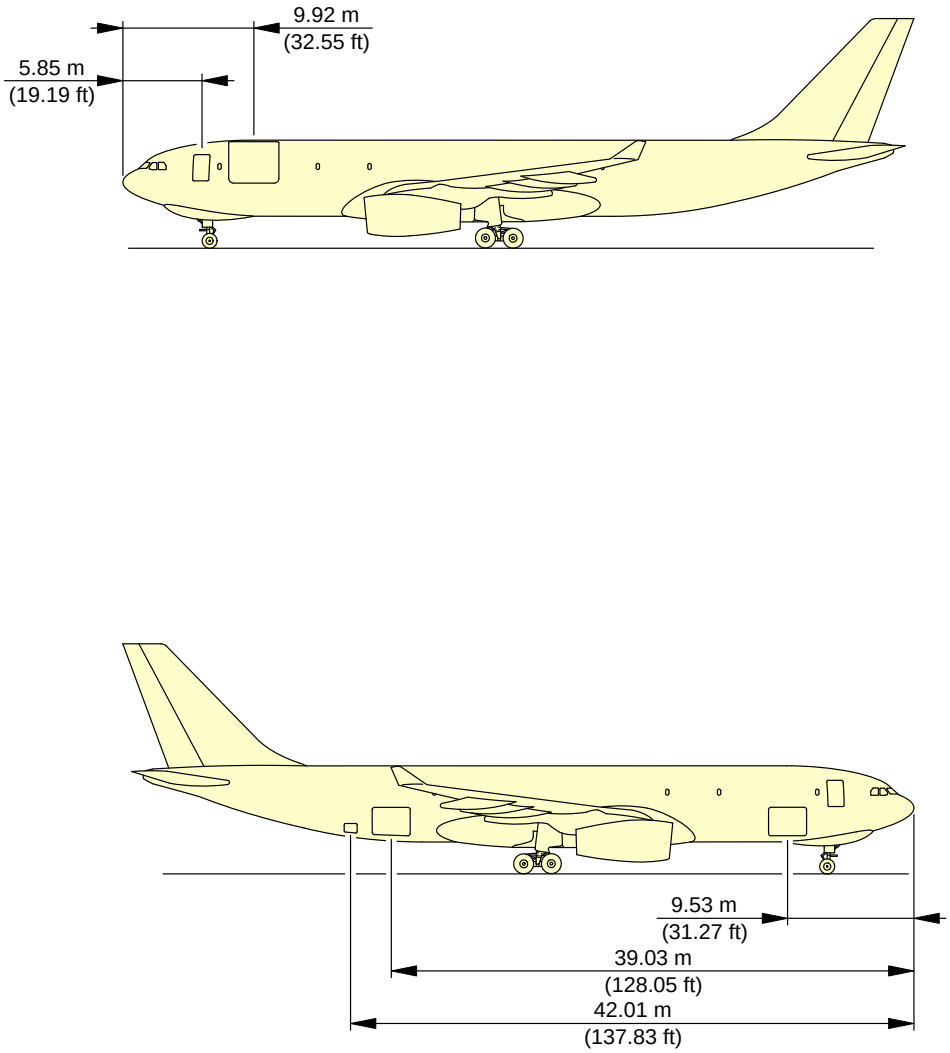



F_AC_020700_1_0060301_01_01

Door Clearances
Door Identification (Sheet 1 of 2)
FIGURE-2-7-0-991-006-C01

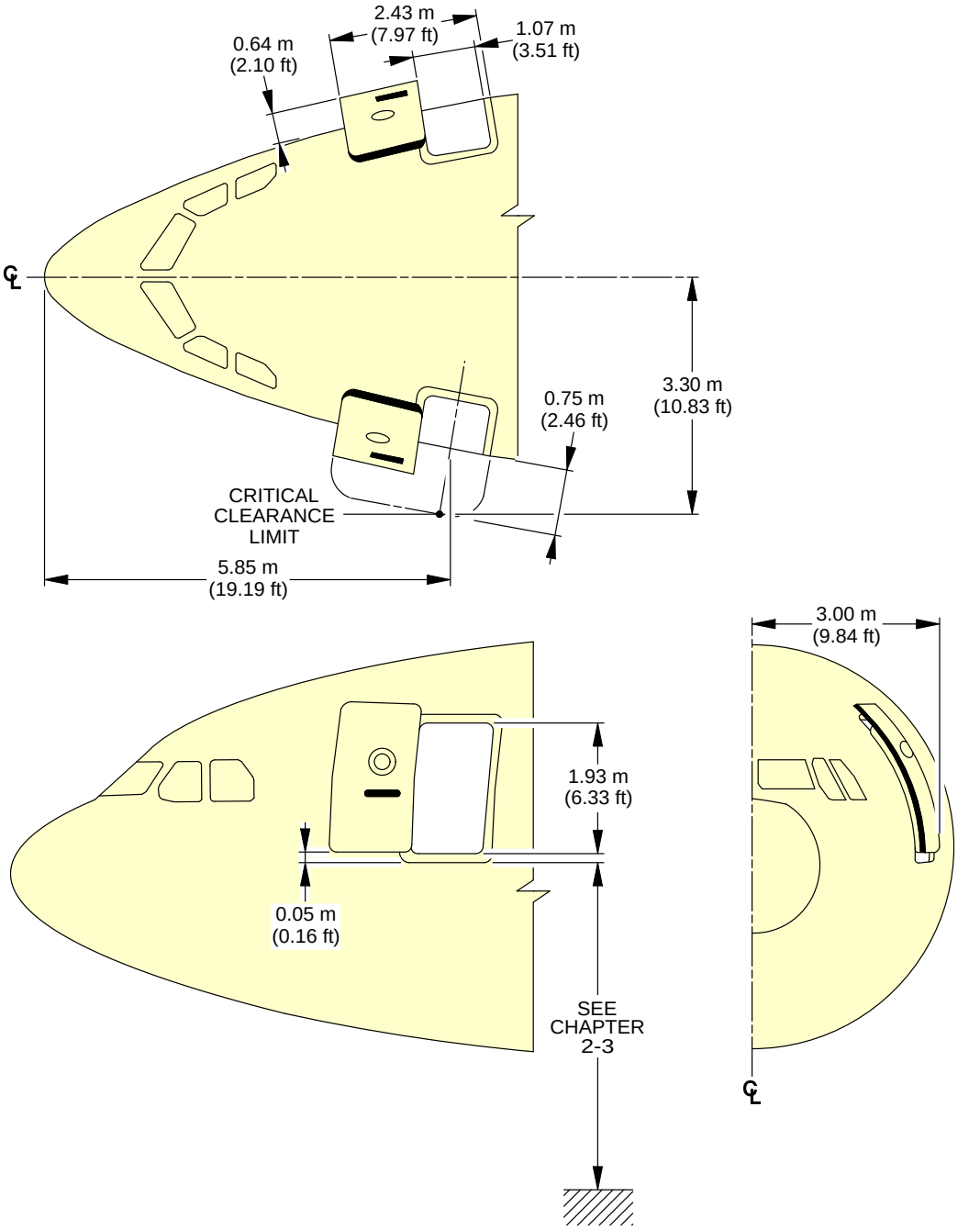
**ON A/C A330-200F




F_AC_020700_1_0060302_01_00

Door Clearances
Door Location (Sheet 2 of 2)
FIGURE-2-7-0-991-006-C01

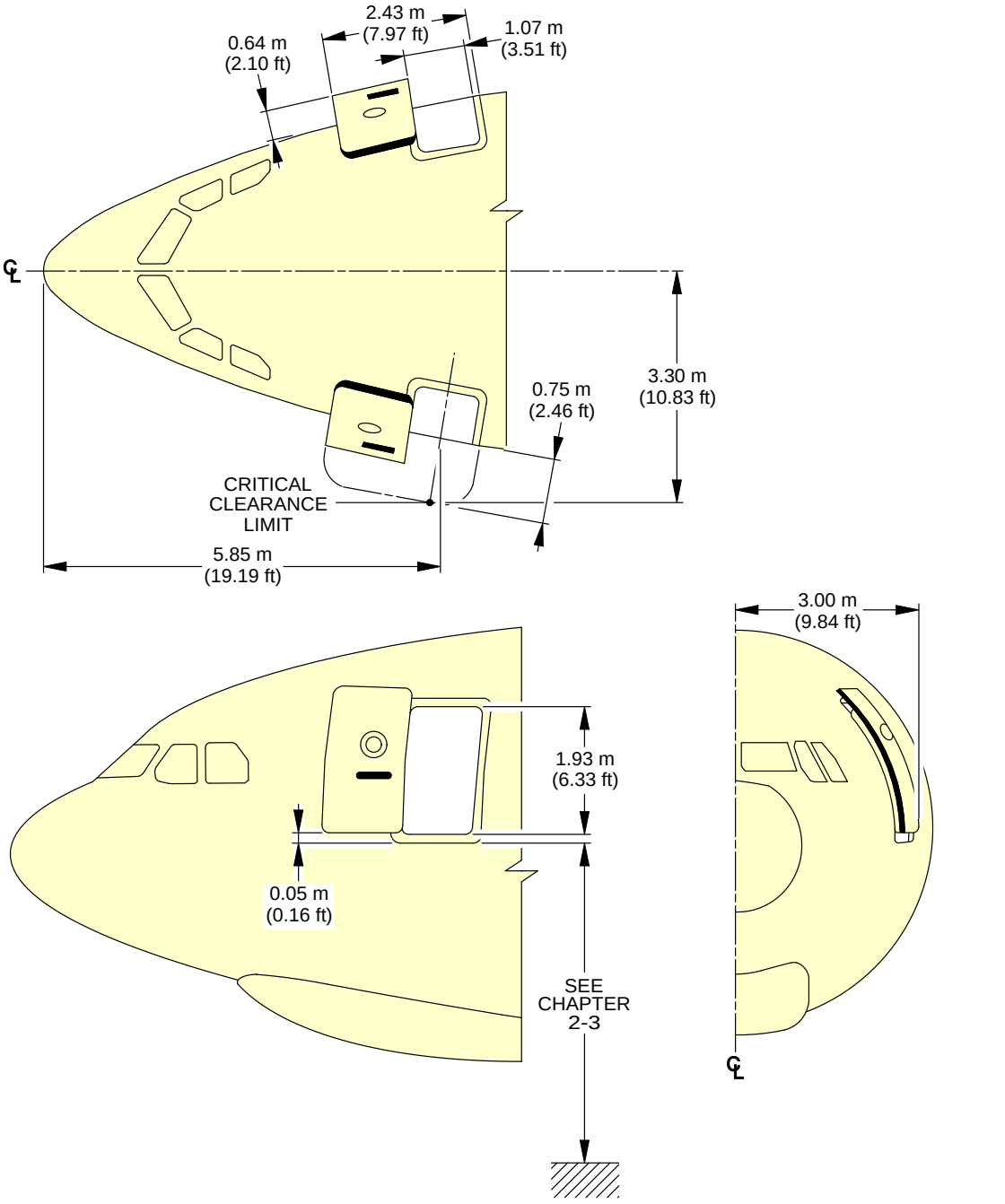
**ON A/C A330-200 A330-300 A330-800 A330-900




F_AC_020700_1_0120101_01_00

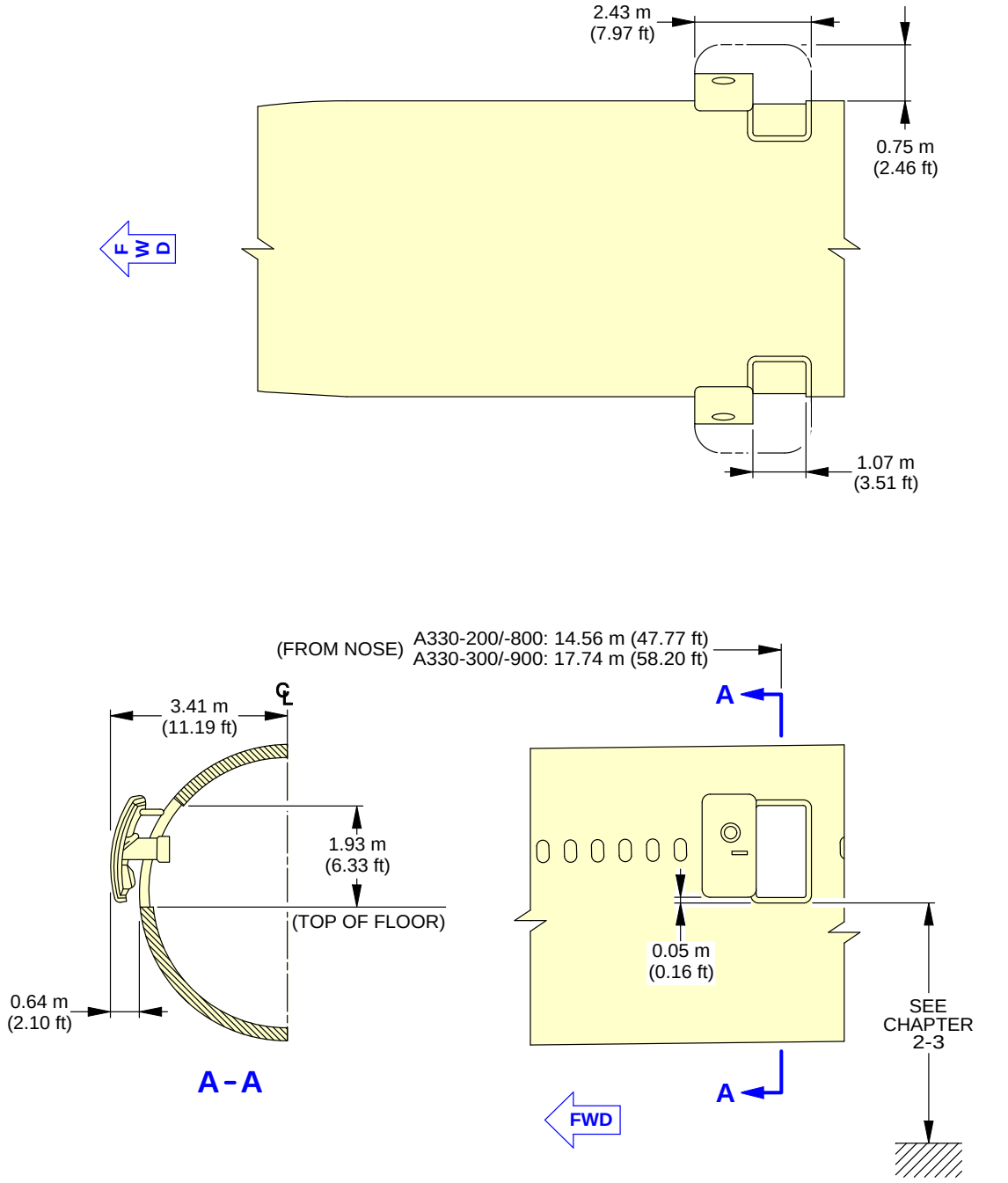
Door Clearances
Forward Passenger/Crew Doors
FIGURE-2-7-0-991-012-A01

**ON A/C A330-200F



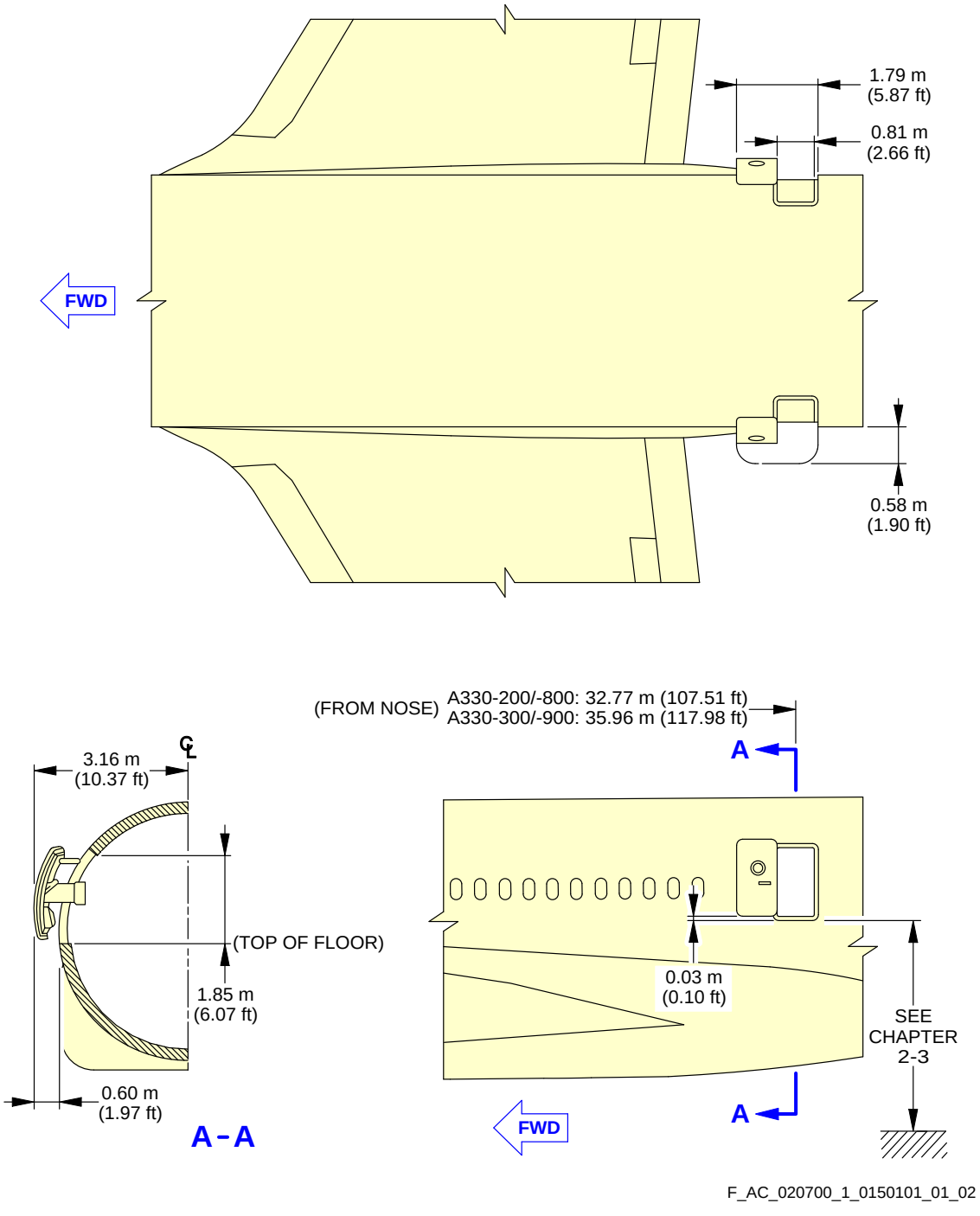

Door Clearances
Forward Crew Doors
FIGURE-2-7-0-991-013-A01

**ON A/C A330-200 A330-300 A330-800 A330-900



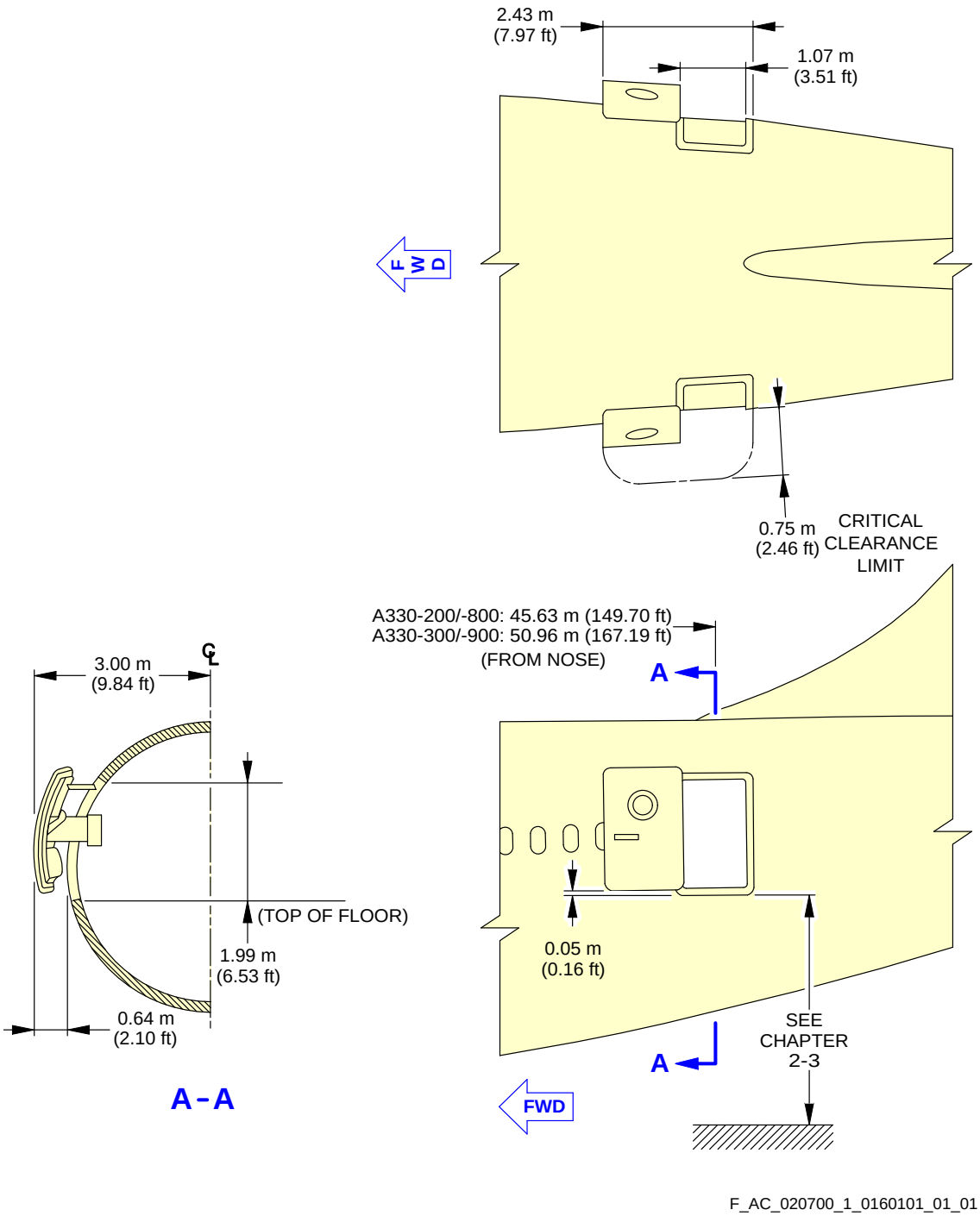

Door Clearances
Mid Passenger/Crew Doors
FIGURE-2-7-0-991-014-A01

**ON A/C A330-200 A330-300 A330-800 A330-900



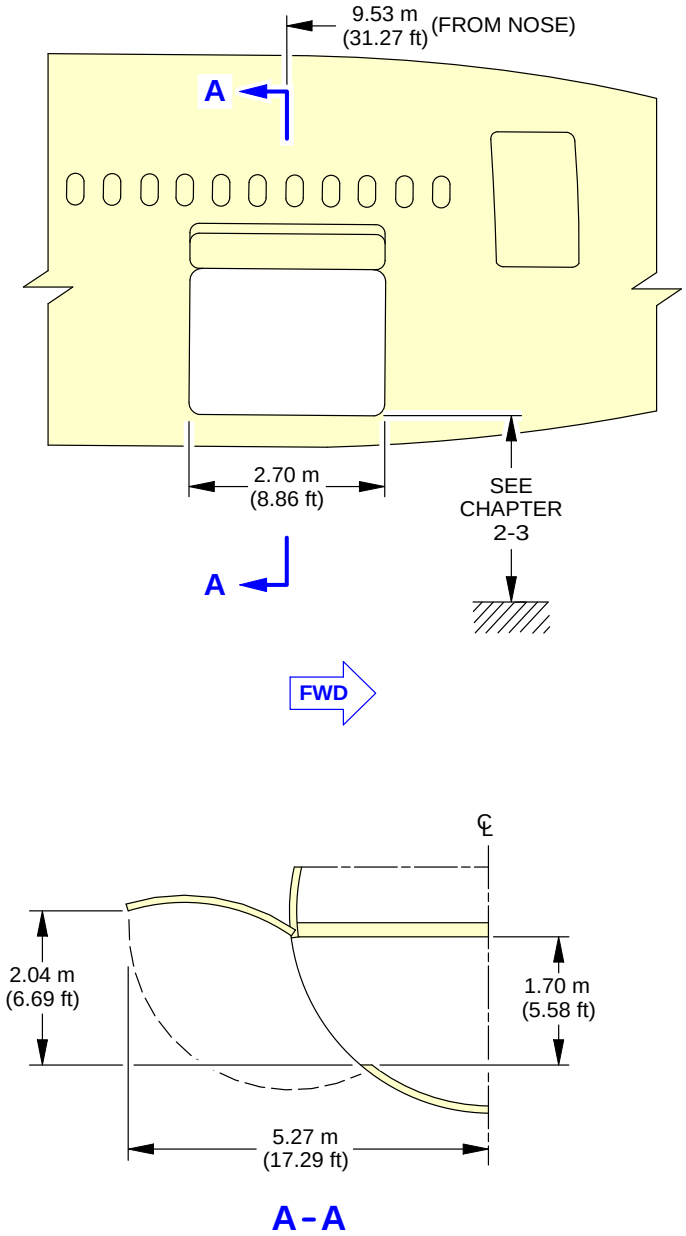

Door Clearances
Emergency Exits
FIGURE-2-7-0-991-015-A01

**ON A/C A330-200 A330-300 A330-800 A330-900




Door Clearances
Aft Passenger/Crew Doors
FIGURE-2-7-0-991-016-A01

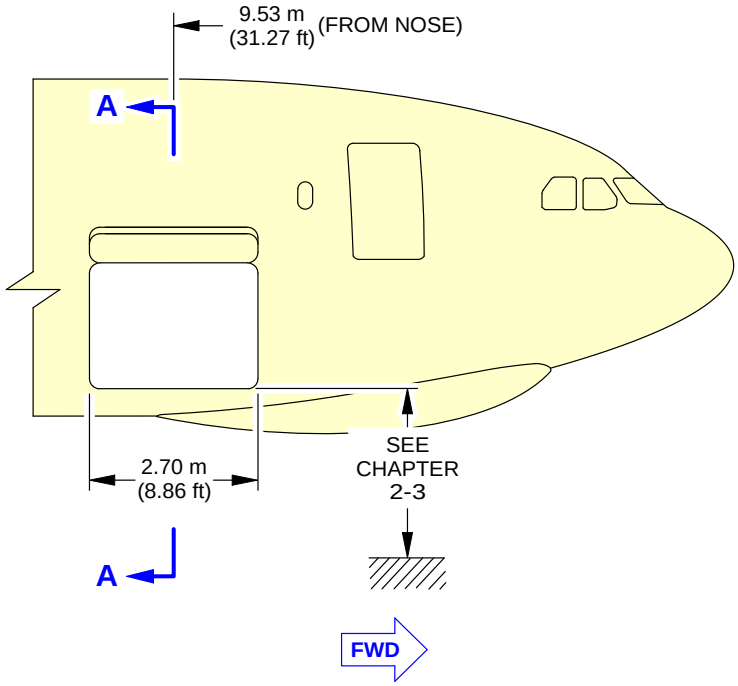
**ON A/C A330-200 A330-300 A330-800 A330-900

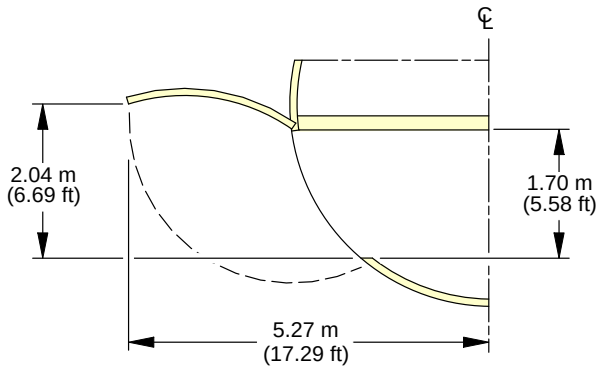



F_AC_020700_1_0170101_01_00

Door Clearances
Forward Cargo Compartment Door
FIGURE-2-7-0-991-017-A01

**ON A/C A330-200F



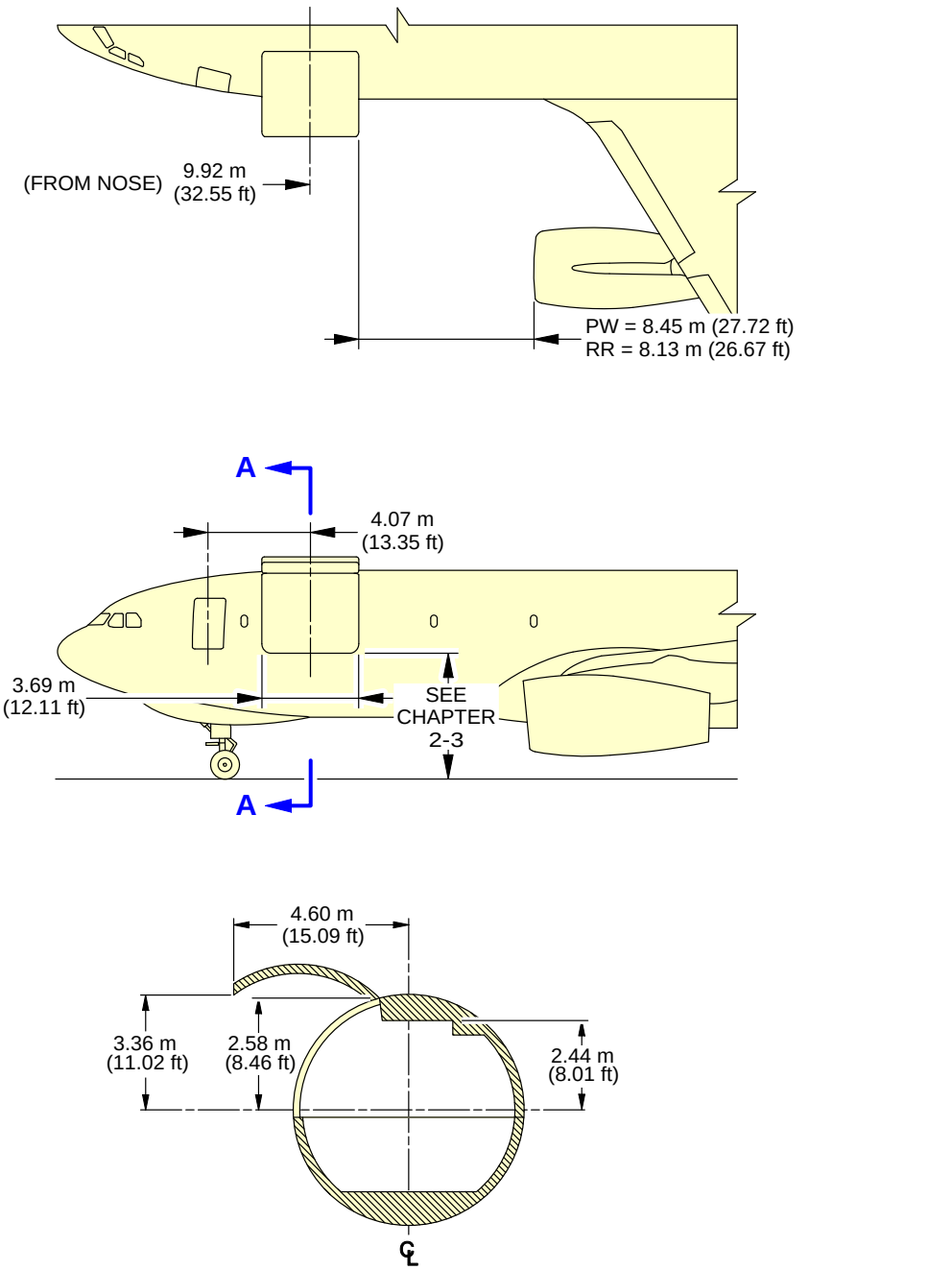




A-A

F_AC_020700_1_0180101_01_00

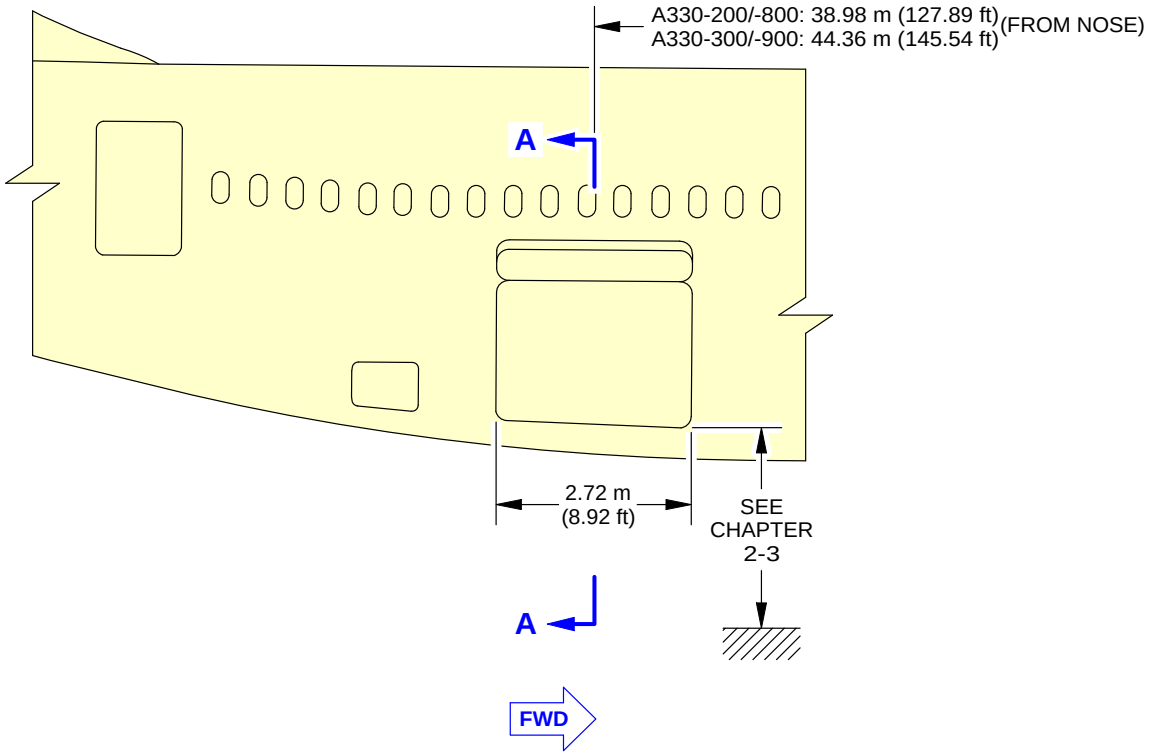
Door Clearances
Forward Cargo Compartment Door
FIGURE-2-7-0-991-018-A01

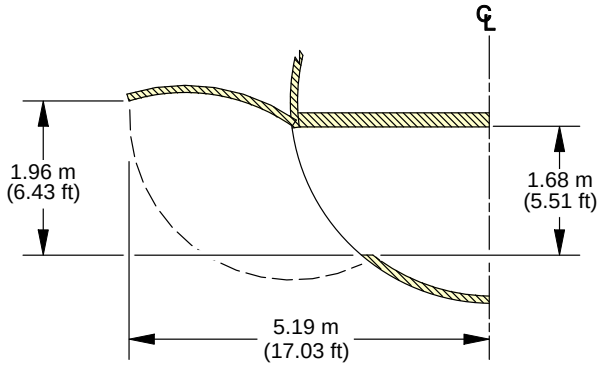
**ON A/C A330-200F




Door Clearances
Main Deck Cargo Compartment Door
FIGURE-2-7-0-991-019-A01

**ON A/C A330-200 A330-300 A330-800 A330-900



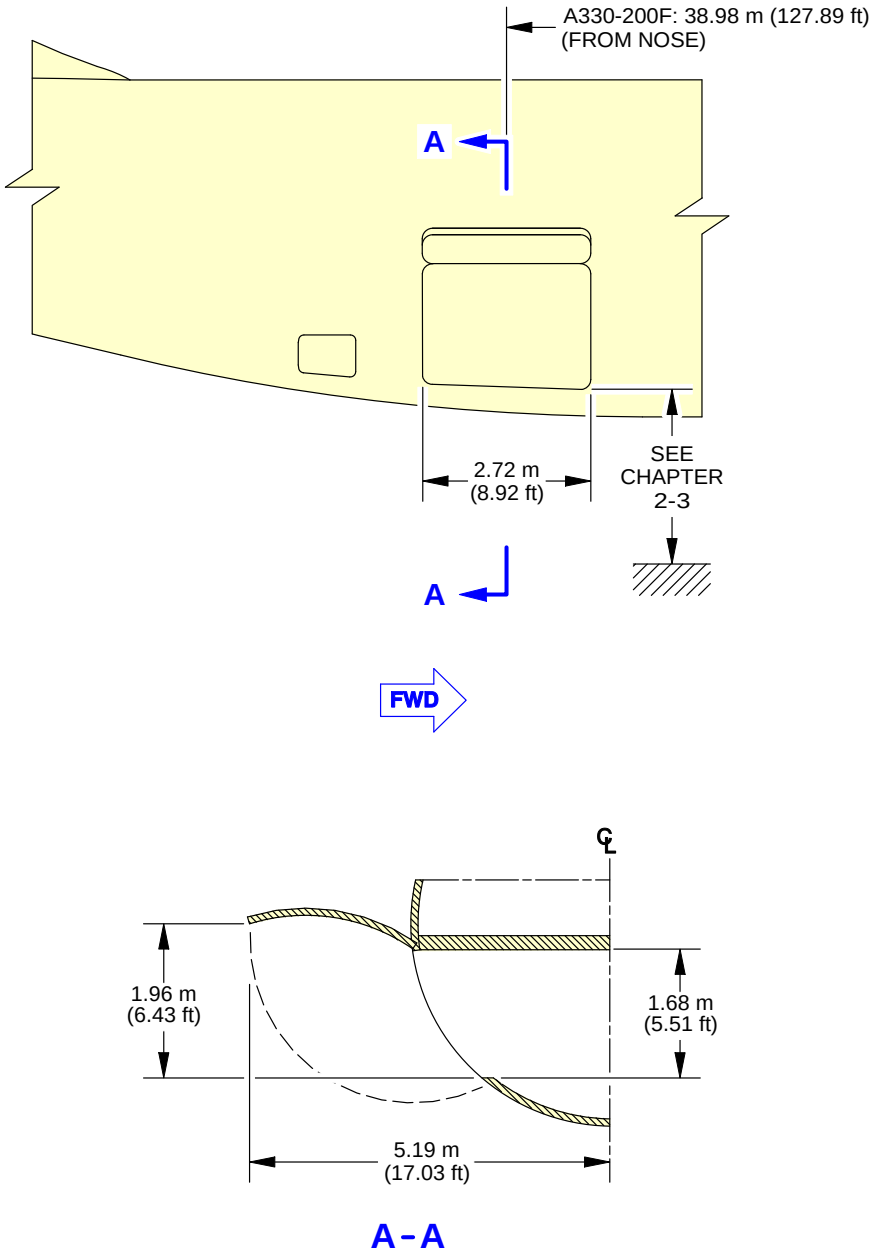




A-A

F_AC_020700_1_0200101_01_02

Door Clearances
Aft Cargo Compartment Door
FIGURE-2-7-0-991-020-A01

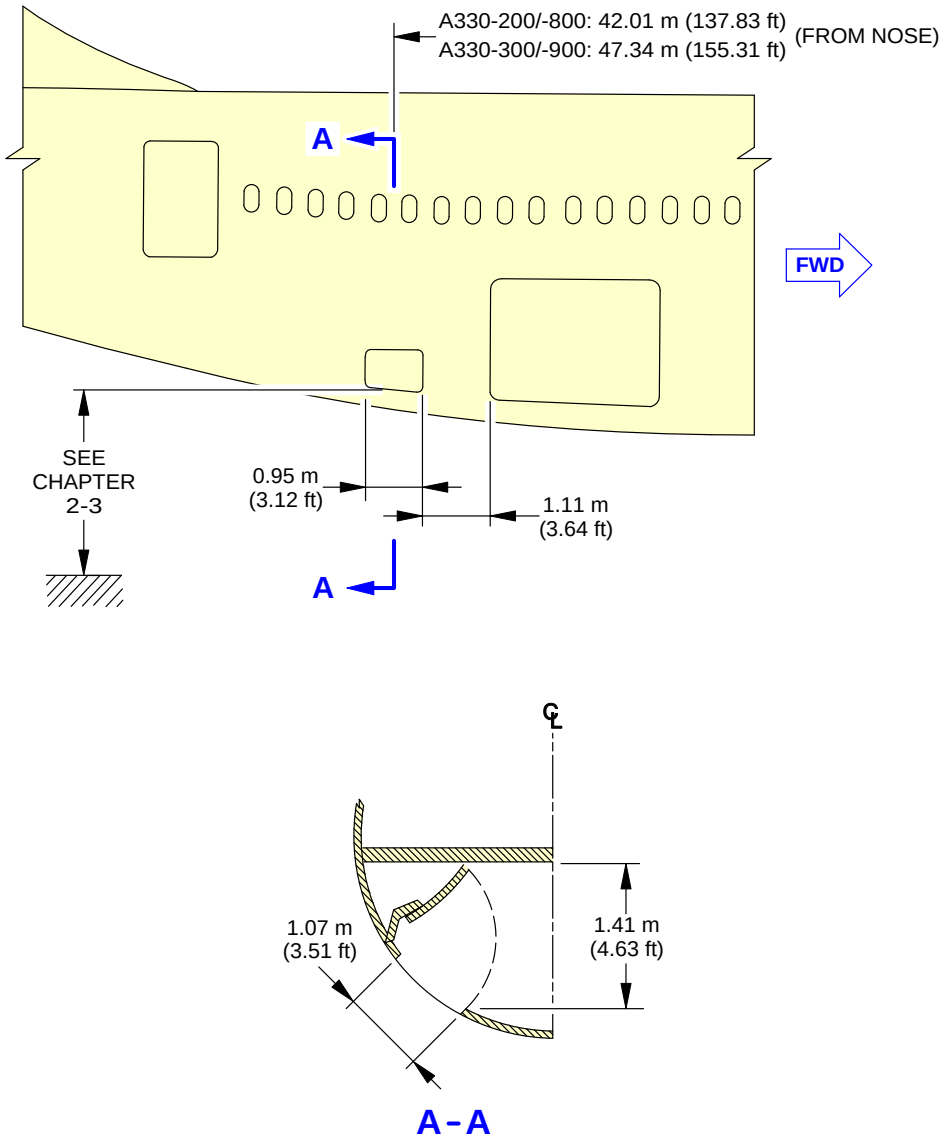
**ON A/C A330-200F




F_AC_020700_1_0210101_01_01

Door Clearances
Aft Cargo Compartment Door
FIGURE-2-7-0-991-021-A01

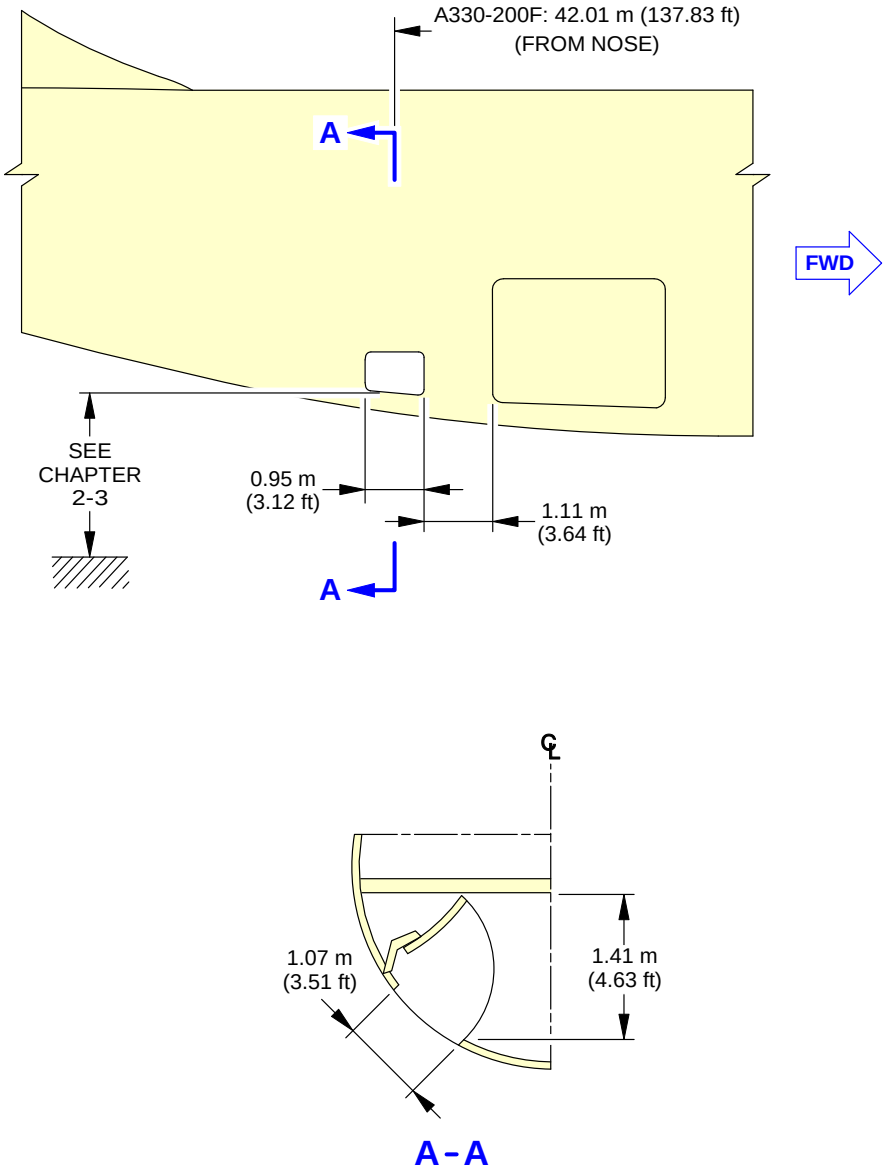
**ON A/C A330-200 A330-300 A330-800 A330-900




F_AC_020700_1_0220101_01_01

Door Clearances
Bulk Cargo Compartment Door
FIGURE-2-7-0-991-022-A01

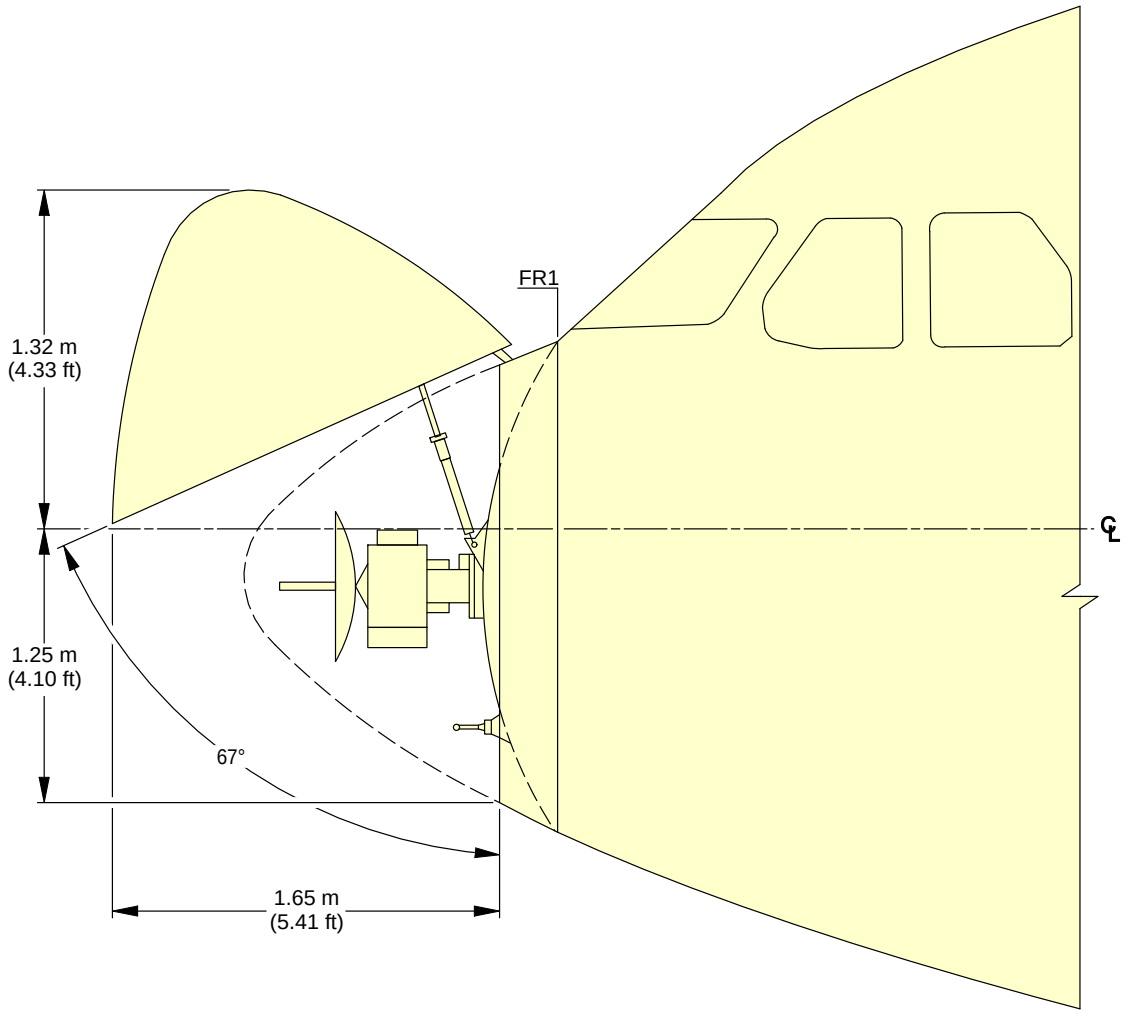
**ON A/C A330-200F




F_AC_020700_1_0230101_01_00

Door Clearances
Bulk Cargo Compartment Door
FIGURE-2-7-0-991-023-A01

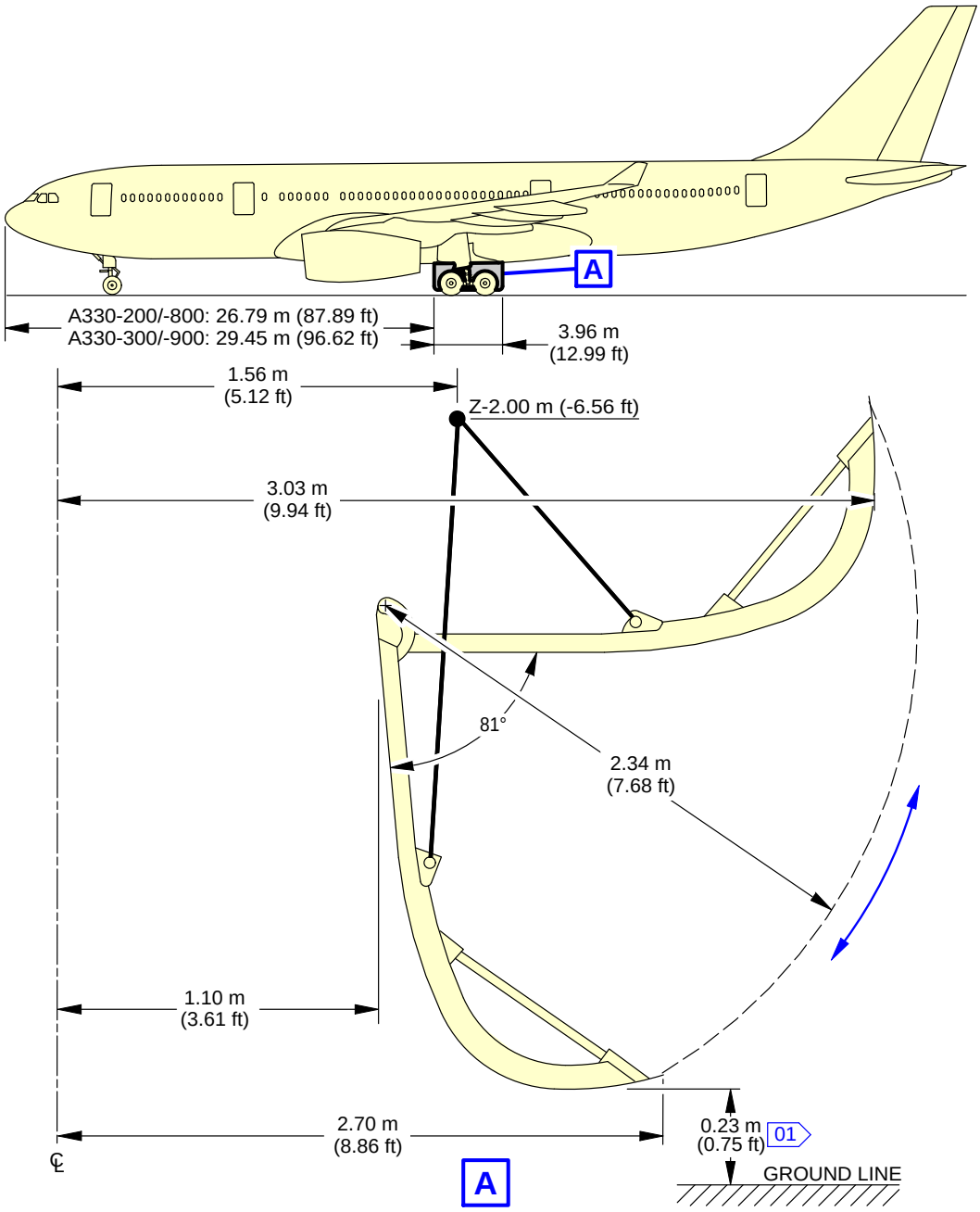
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




F_AC_020700_1_0240101_01_00

Door Clearances
Radome
FIGURE-2-7-0-991-024-A01

**ON A/C A330-200 A330-300 A330-800 A330-900



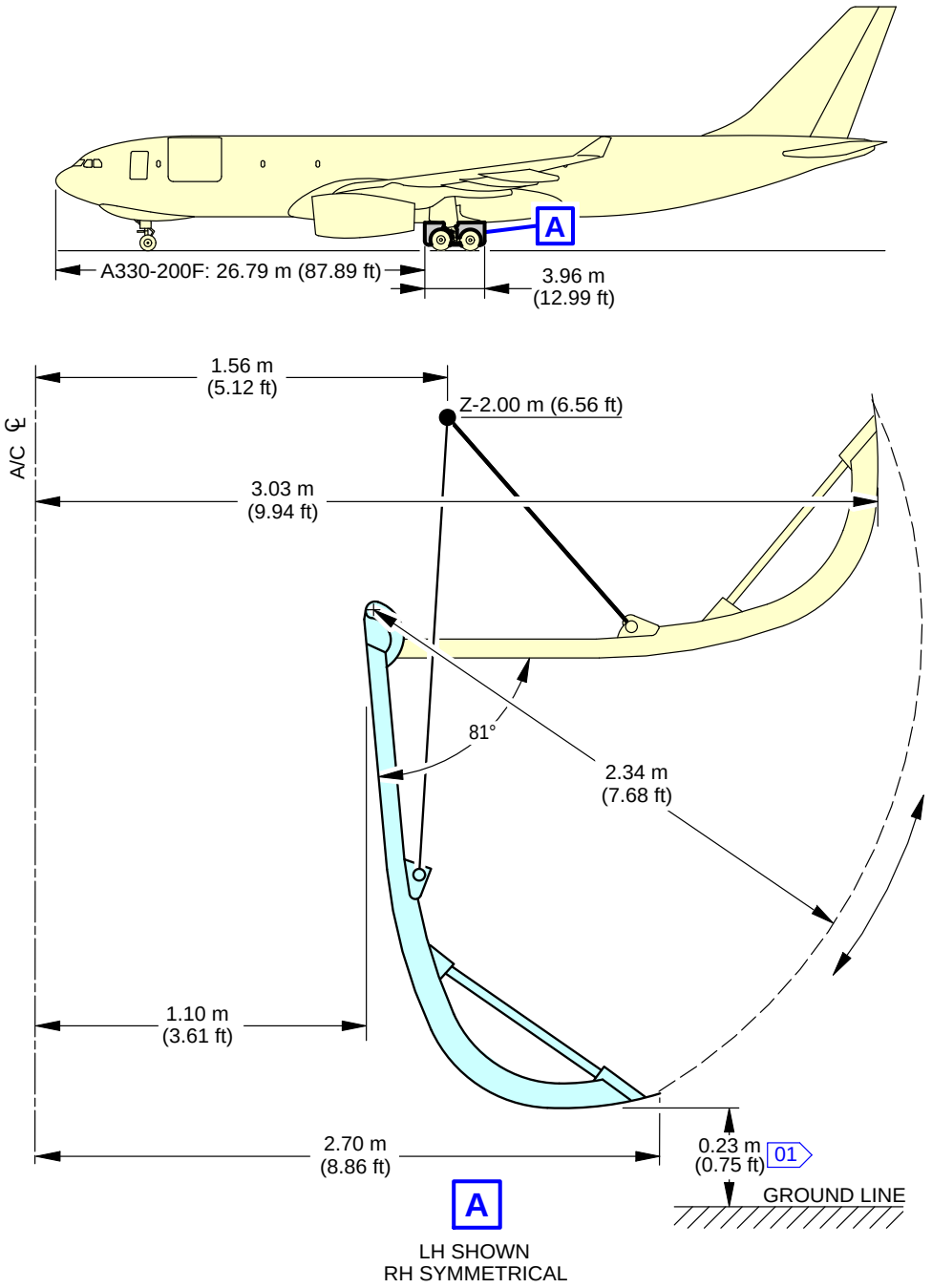

**NOTE:**

01 DEPENDING ON CG POSITION AND AIRCRAFT WEIGHT.

F_AC_020700_1_0250101_01_01

Door Clearances
Main Landing Gear Doors
FIGURE-2-7-0-991-025-A01

**ON A/C A330-200F



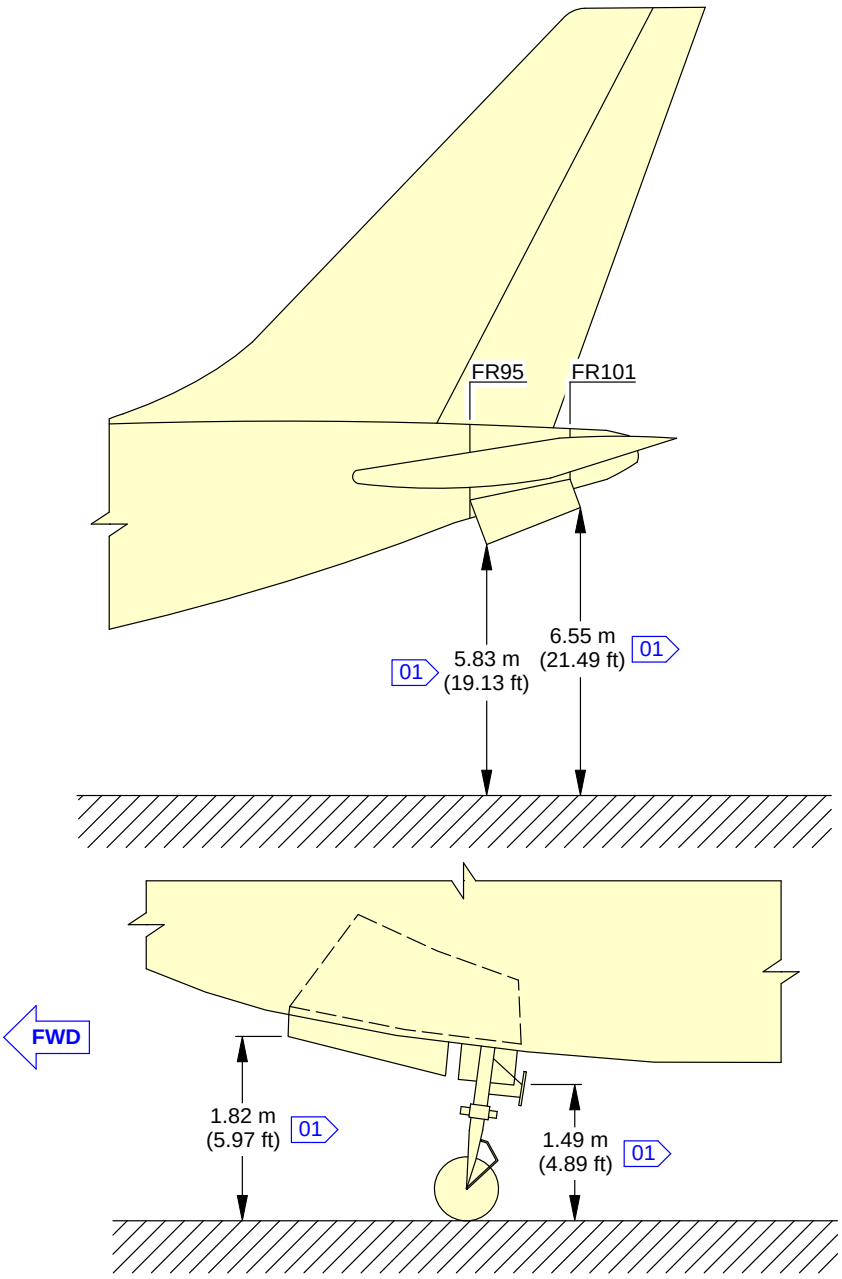

**NOTE:**

01 DEPENDING ON CG POSITION AND AIRCRAFT WEIGHT.

F_AC_020700_1_0260101_01_00

Door Clearances
Main Landing Gear Doors
FIGURE-2-7-0-991-026-A01

**ON A/C A330-200 A330-300 A330-800 A330-900

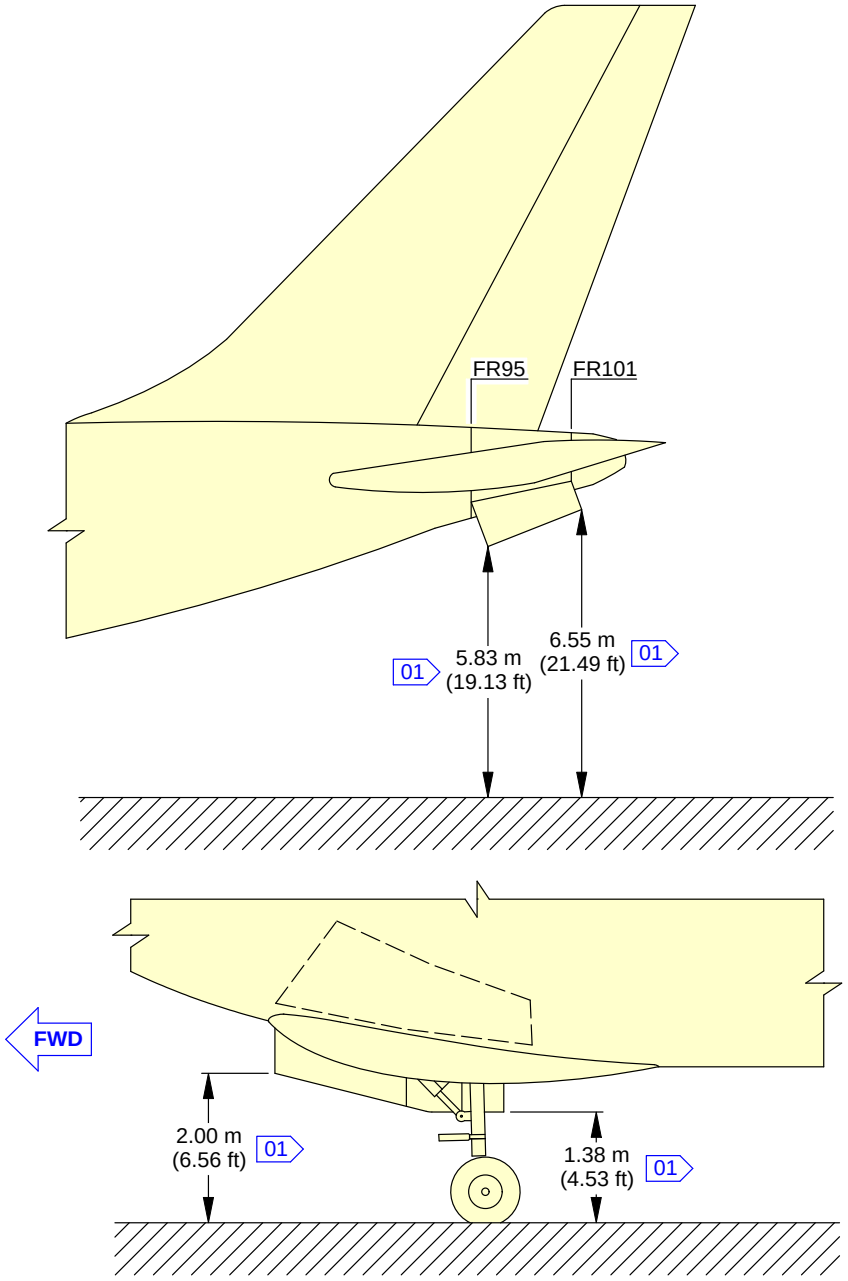



**NOTE:**
01 DEPENDING ON CG POSITION AND AIRCRAFT WEIGHT.

F_AC_020700_1_0270101_01_00

Door Clearances
APU and Nose Landing Gear Doors
FIGURE-2-7-0-991-027-A01

**ON A/C A330-200F




**NOTE:**
01 DEPENDING ON CG POSITION AND AIRCRAFT WEIGHT.

F_AC_020700_1_0280101_01_00

Door Clearances
APU and Nose Landing Gear Doors
FIGURE-2-7-0-991-028-A01

## 2-8-0 Escape Slides

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Escape Slides

1. General

   This section provides the location of the cabin escape facilities and their related clearances.

****ON A/C A330-200 A330-300 A330-800 A330-900**

2. Location

   Slides/rafts facilities are provided at the following locations:

   A. Door Slides/Rafts Facilities
   - One dual-lane slide/raft at each door 1, 2 and 4 (total six)
   - One single-lane slide at each door 3 (total two).

   The slides are installed in a container in the lower part of the door.

****ON A/C A330-200F**

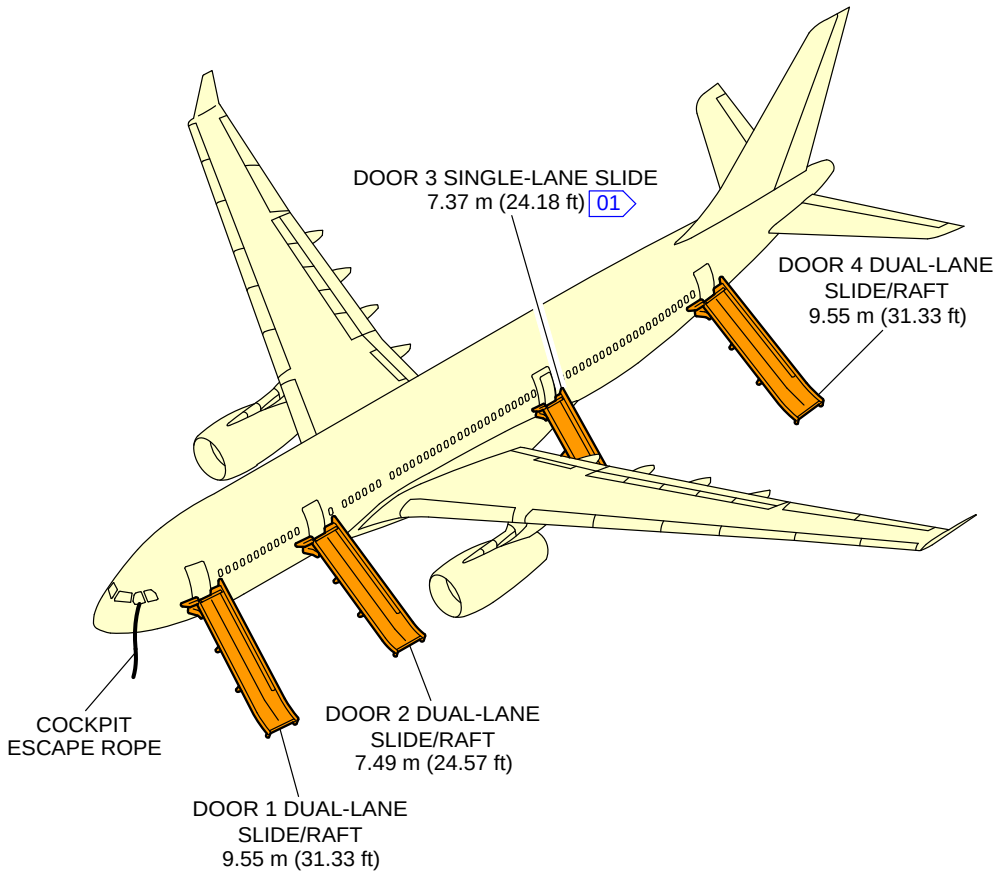
3. Location

   Slides/rafts facilities are provided at the following locations:

   A. Door Slides/Rafts Facilities
   - One dual-lane slide/raft at each door 1 (total two).

   The slides are installed in a container in the lower part of the door.

**ON A/C A330-200 A330-800



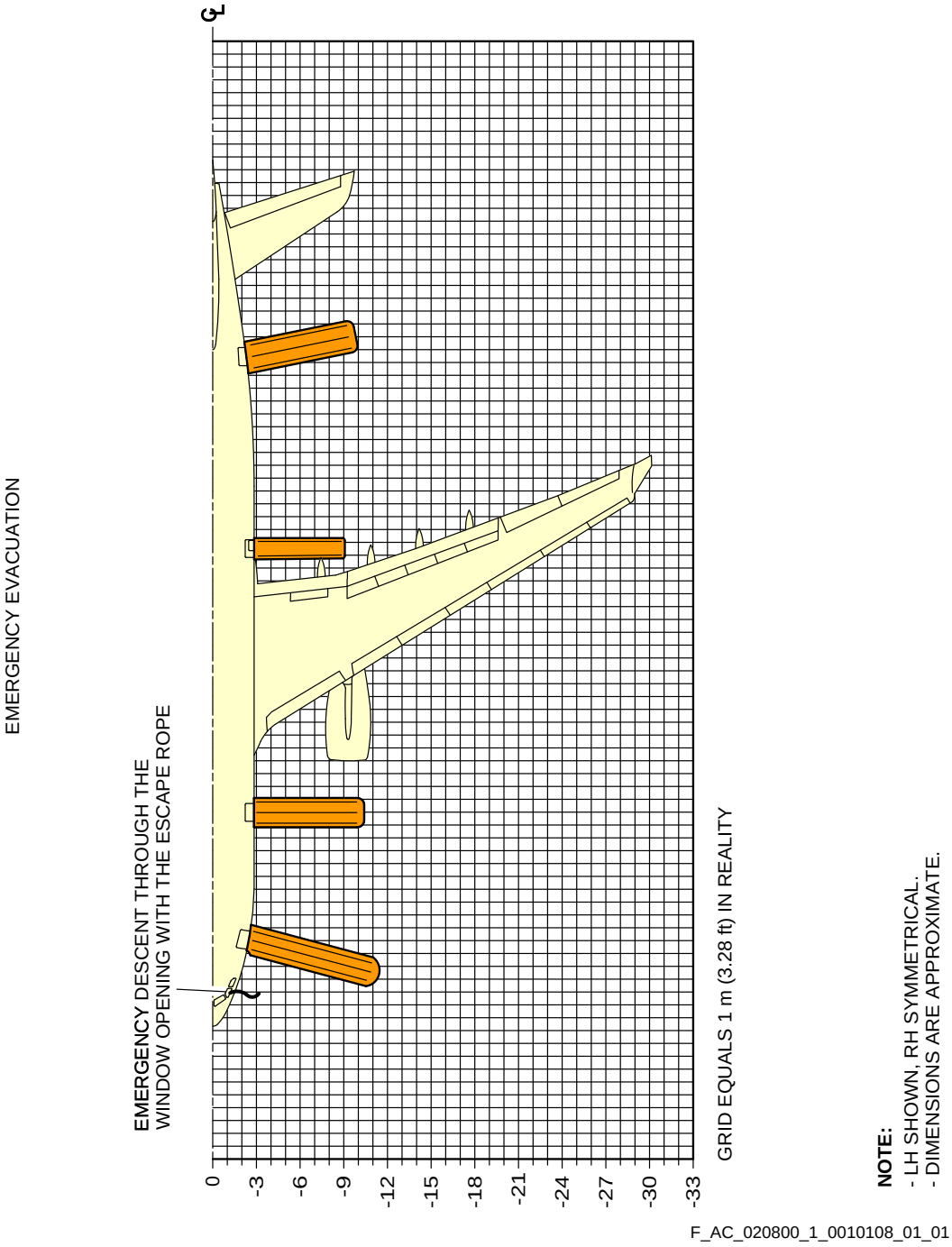

**NOTE:**
LH SHOWN, RH SYMMETRICAL.

01 THE SINGLE LANE SLIDE SHOWN IS FOR A TYPE "1" DOOR.
A DUAL LANE SLIDE/RAFT IS AVAILABLE FOR AIRCRAFT FITTED WITH A TYPE "A" DOOR.

F_AC_020800_1_0010101_01_02

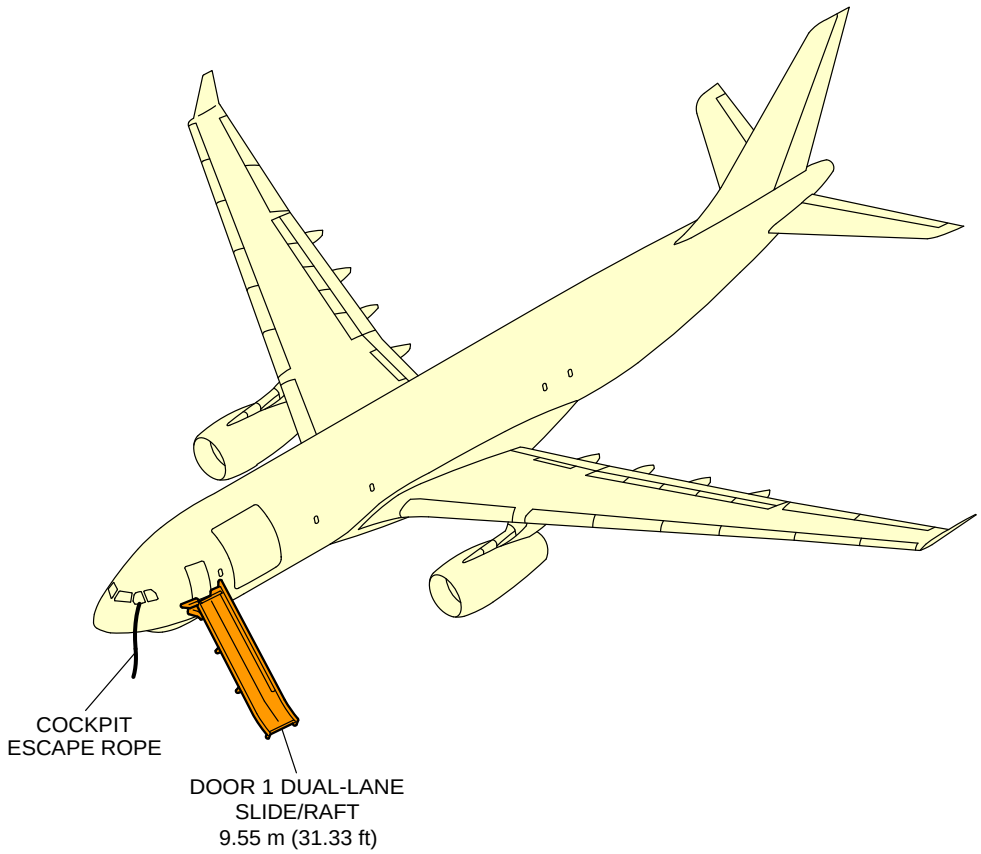
Escape Slides
Location (Sheet 1 of 2)
FIGURE-2-8-0-991-001-A01

**ON A/C A330-200 A330-800




Escape Slides
Dimensions (Sheet 2 of 2)
FIGURE-2-8-0-991-001-A01

**ON A/C A330-200F

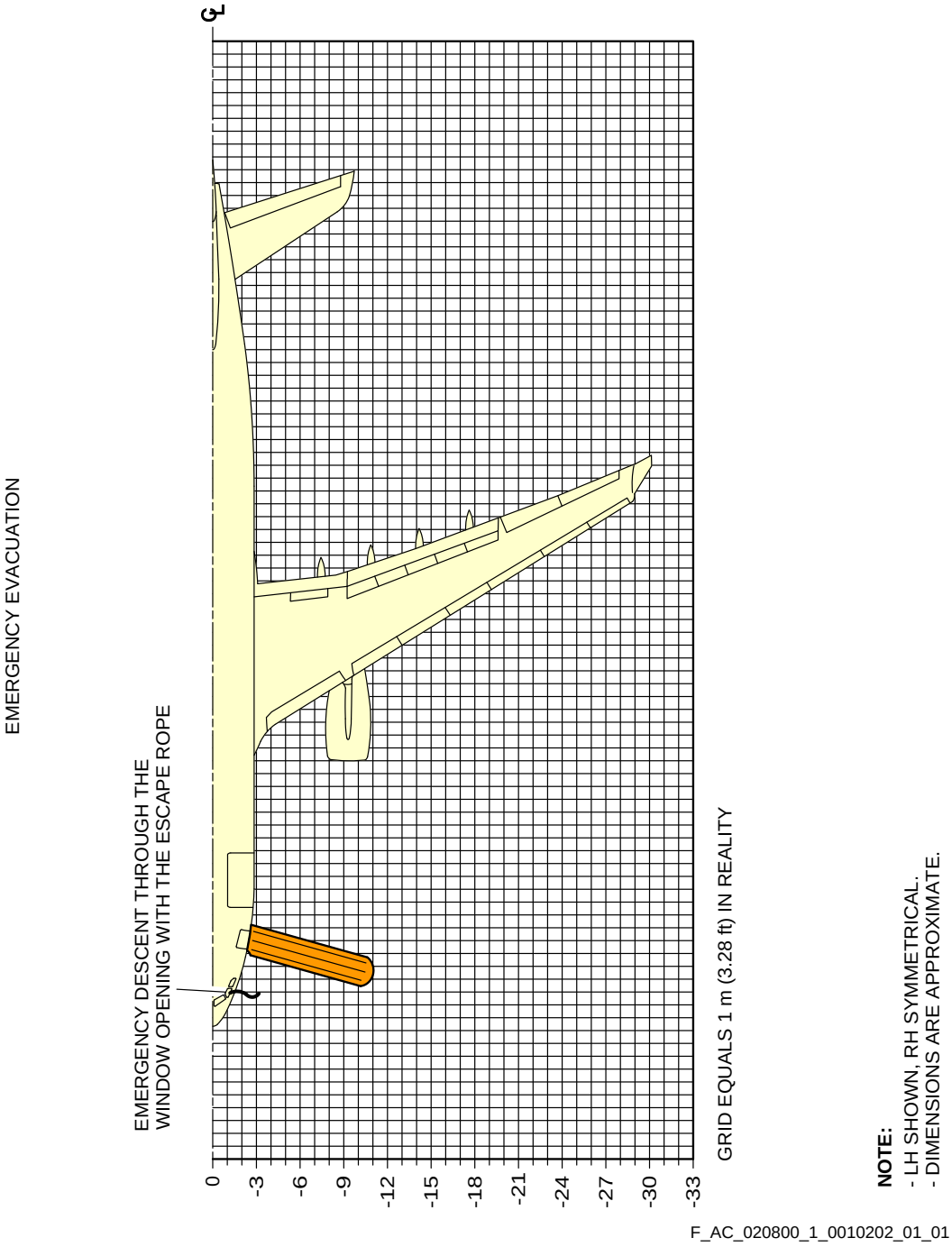



**NOTE:**
LH SHOWN, RH SYMMETRICAL.

F_AC_020800_1_0010201_01_02

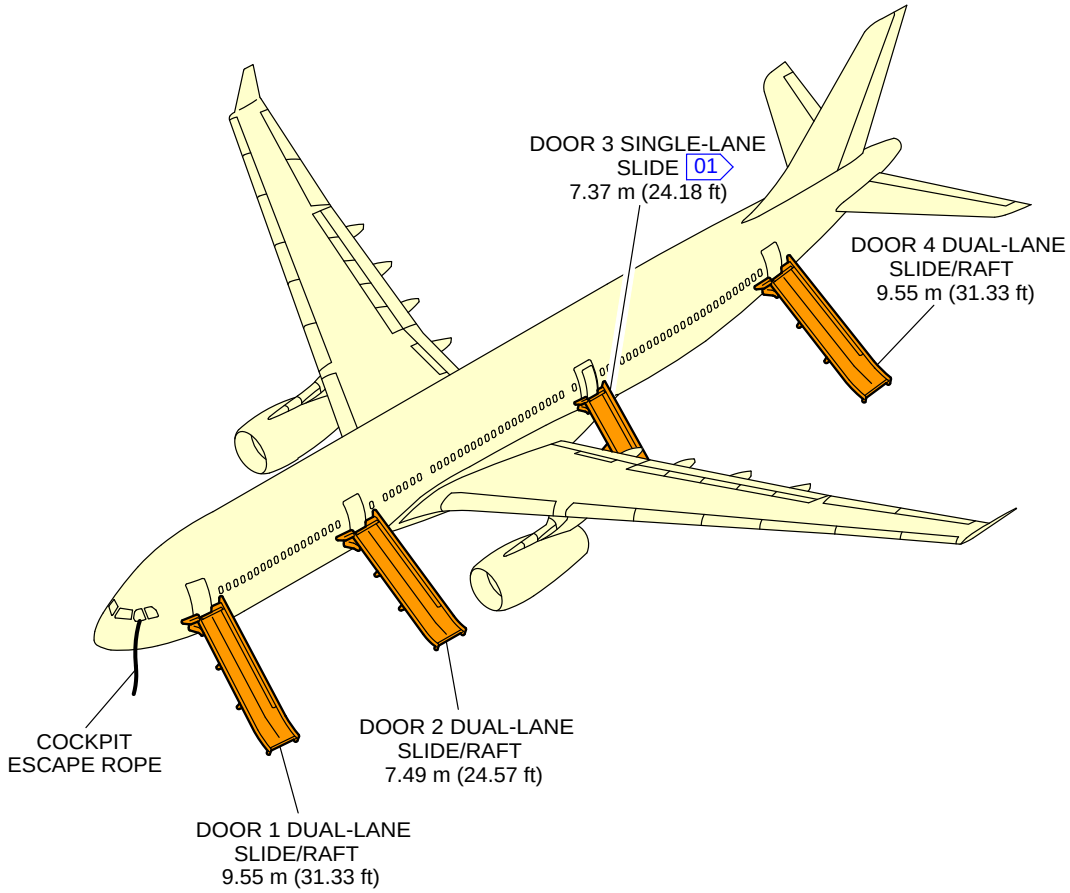
Escape Slide
Location (Sheet 1 of 2)
FIGURE-2-8-0-991-001-B01

**ON A/C A330-200F




Escape Slide
Dimensions (Sheet 2 of 2)
FIGURE-2-8-0-991-001-B01

**ON A/C A330-300 A330-900

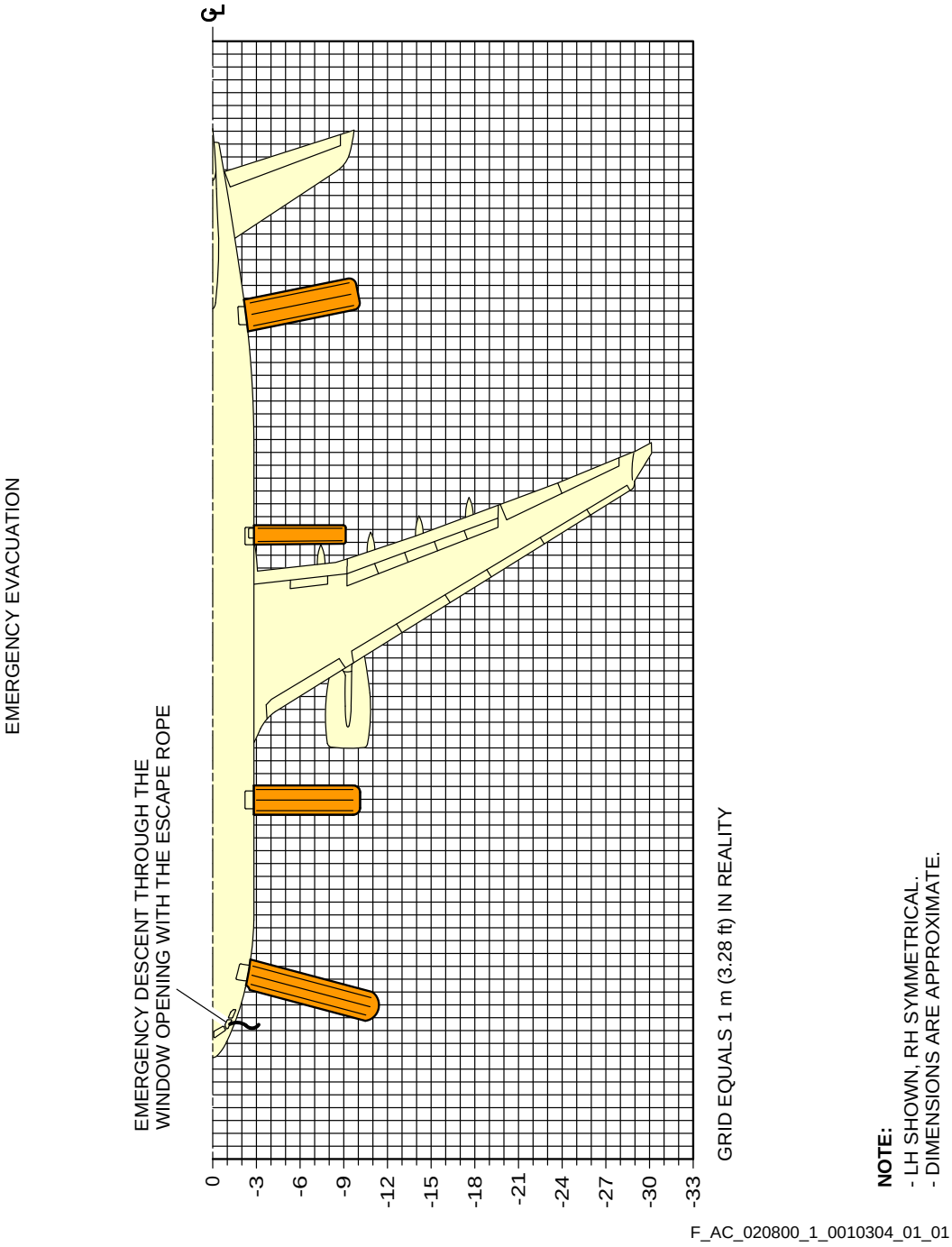



**NOTE:**
LH SHOWN, RH SYMMETRICAL.
01 THE SINGLE LANE SLIDE SHOWN IS FOR A TYPE "1" DOOR.
A DUAL LANE SLIDE/RAFT IS AVAILABLE FOR AIRCRAFT FITTED WITH A TYPE "A" DOOR.

F_AC_020800_1_0010301_01_02

Escape Slides
Location (Sheet 1 of 2)
FIGURE-2-8-0-991-001-C01

**ON A/C A330-300 A330-900




Escape Slides
Dimensions (Sheet 2 of 2)
FIGURE-2-8-0-991-001-C01

## 2-9-0 Landing Gear

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Landing Gear Maintenance Pits

1. General

The minimum maintenance pit envelopes for the main landing gear shock absorber removal are shown in Figures 1 and 2.

All dimensions shown are minimum dimensions with zero clearances.

The dimensions for the pits have been determined for these design factors:
- The length and width of the pits allow the gear to rotate as the weight is taken off the landing gear
- The depth of the pits allow the shock absorber to be removed when all the weight is taken off the landing gear.

Dimensions for elevators and associated mechanisms must be added to those in Figures 1 and 2.

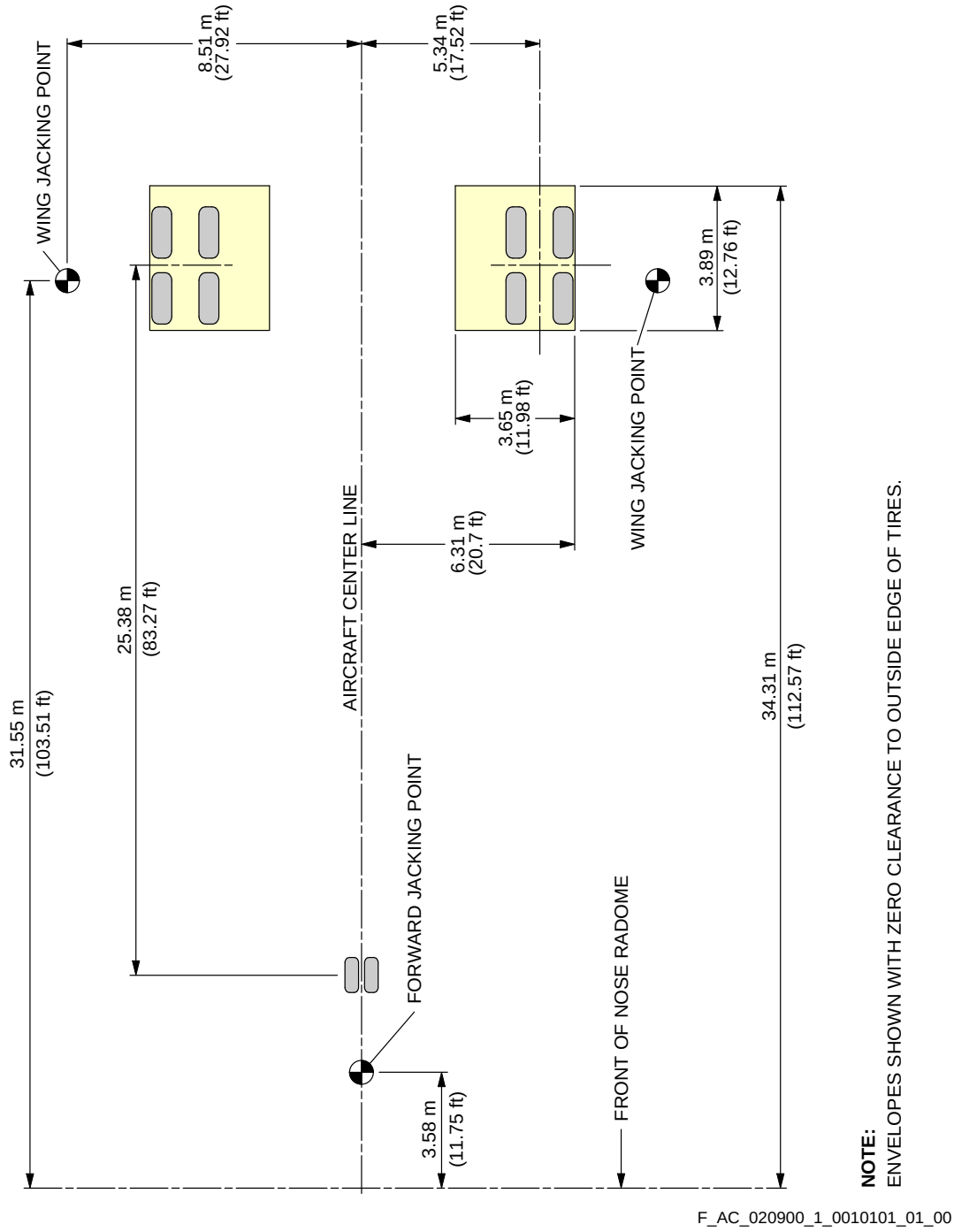
A. Elevators

These can be either mechanical or hydraulic. Elevators are used to:
- permit easy movement of persons and equipment around the main landing gears
- lift and remove the landing gear assemblies out of the pits.

B. Jacking

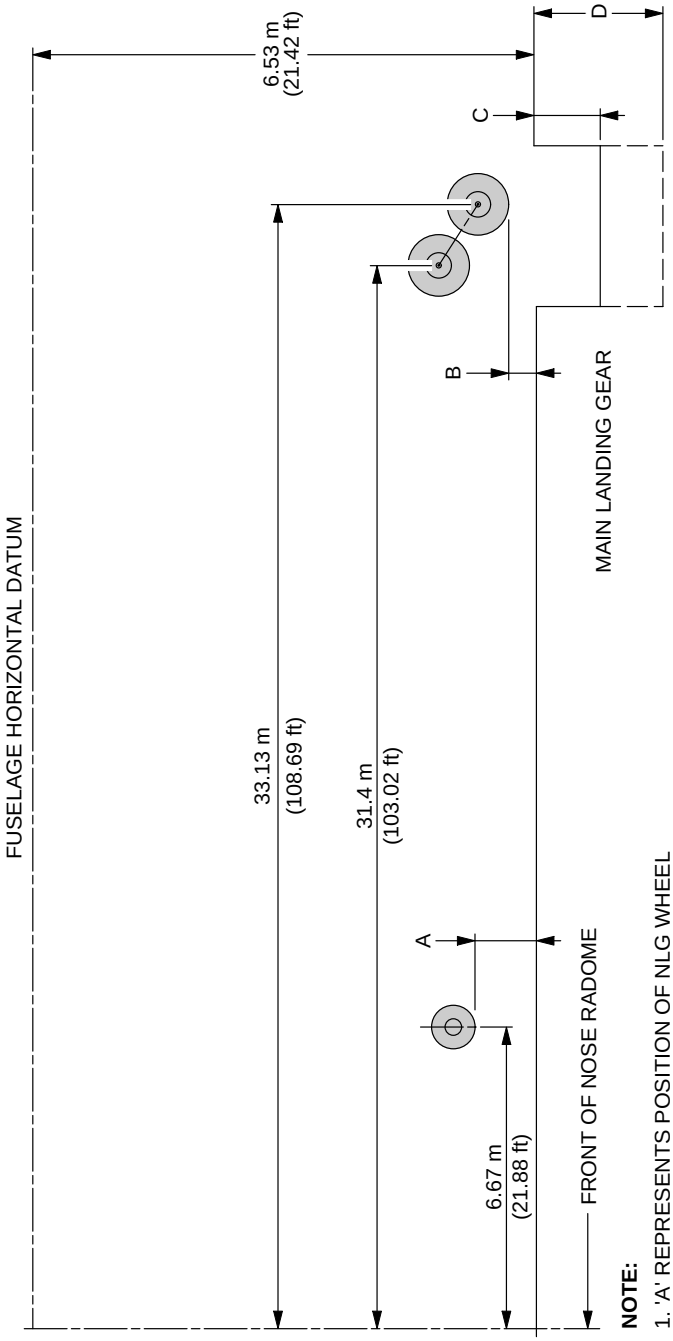
The aircraft must be in position over the pits to put the gear on the elevators. Jacks must be installed and engaged with all the jacking points (Ref. Section 2-14 for Jacking).
Jacks must support the total aircraft weight i.e. when the landing gears do not touch the elevators on retraction/extension tests.
When tripod support jacks are used, the tripod-base circle radius must be limited because the locations required for positioning the jacks are close to the sides of the pits.

**ON A/C A330-300 A330-900




Landing Gear Maintenance Pits
Maintenance Pit Envelopes (Sheet 1 of 2)
FIGURE-2-9-0-991-001-A01

****ON A/C A330-300 A330-900**




| DIMENSIONS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| A | | B | | C | | D | | | |
| m | ft | m | ft | m | ft | m | ft | | |
| 1.56 | 5.12 | 0.2 | 0.66 | 0.81 | 2.66 | 1.53 | 5.02 | | |

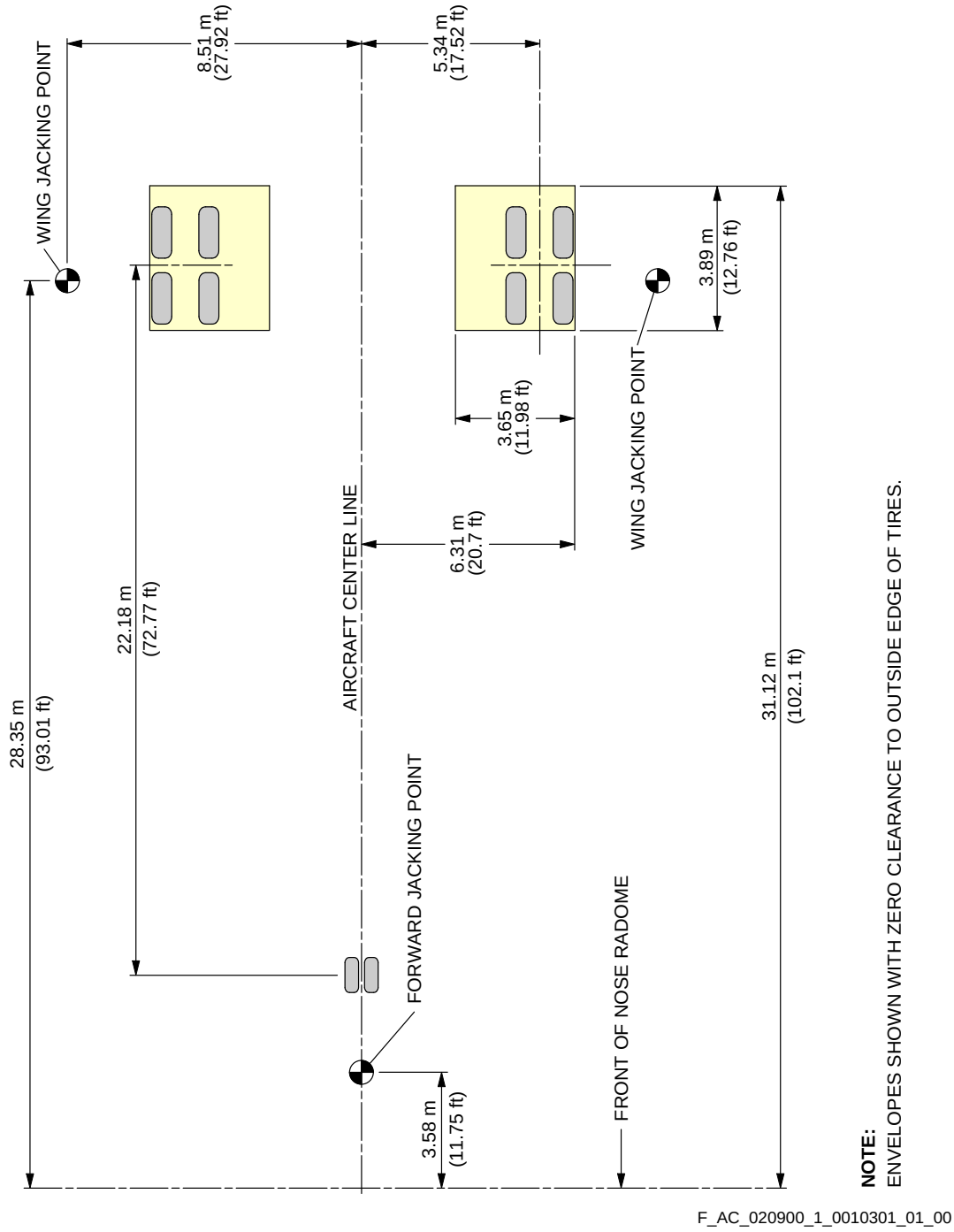
**NOTE:**

1. 'A' REPRESENTS POSITION OF NLG WHEEL ABOVE STATIC GROUND LINE WITH AIRCRAFT LEVELLED AND JACKED. A PIT IS NOT REQUIRED FOR THE NLG.
2. 'B' REPRESENTS POSITION OF LOWEST MLG MAIN WHEEL ABOVE STATIC GROUND LINE WITH AIRCRAFT JACKED IN TO POSITION ABOVE HYDRAULIC OR MECHANICAL ELEVATOR, FOR RETRACTION/EXTENSION TESTS.
3. 'C' REPRESENTS POSITION OF HYDRAULIC OR MECHANICAL ELEVATOR WITH THE MLG SHOCK ABSORBER IN THE DEFLATED AND COMPRESSED CONDITION FOR SHOCK ABSORBER REMOVAL.
4. 'D' REPRESENTS POSITION OF HYDRAULIC OR MECHANICAL ELEVATOR WITH THE MLG SHOCK ABSORBER IN THE EXTENDED CONDITION FOR SHOCK ABSORBER REMOVAL.

F_AC_020900_1_0010104_01_00

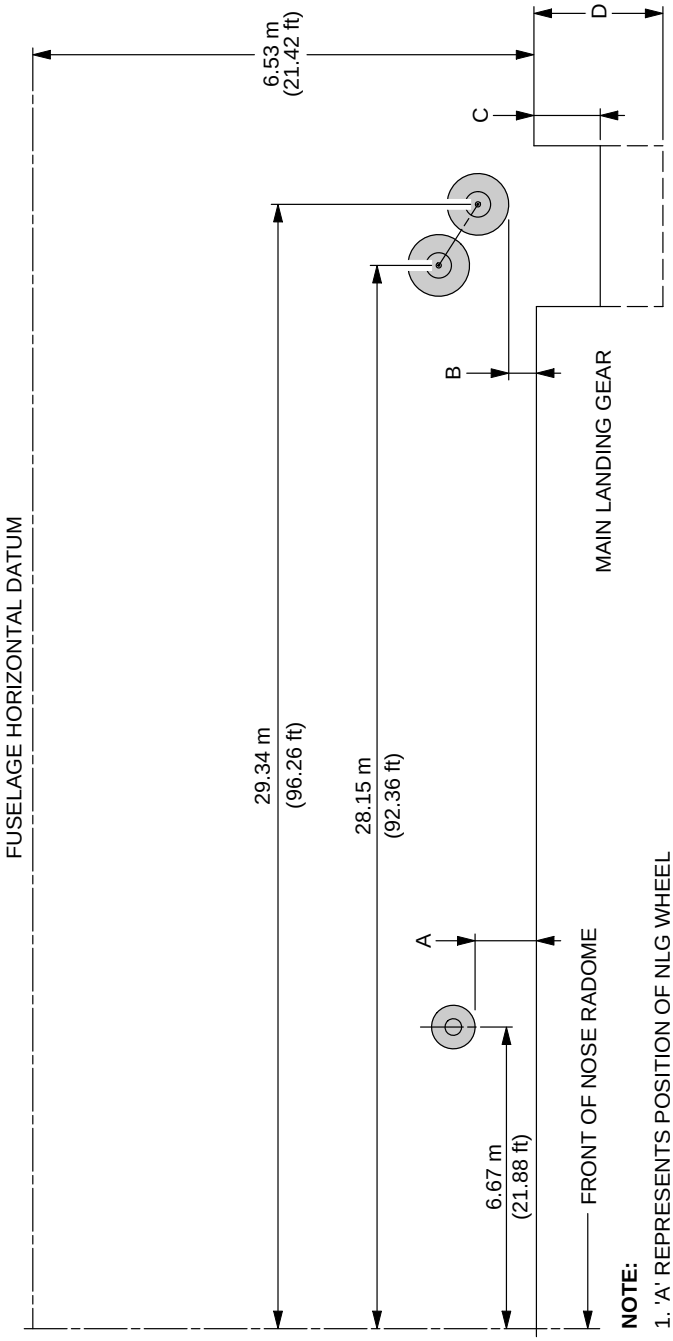
Landing Gear Maintenance Pits
Maintenance Pit Envelopes (Sheet 2 of 2)
FIGURE-2-9-0-991-001-A01

**ON A/C A330-200 A330-200F A330-800




Landing Gear Maintenance Pits
Maintenance Pit Envelopes (Sheet 1 of 2)
FIGURE-2-9-0-991-001-C01

****ON A/C A330-200 A330-200F A330-800**




| DIMENSIONS | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | | B | | C | | D | |
| m | ft | m | ft | m | ft | m | ft |
| 1.56 | 5.12 | 0.2 | 0.66 | 0.81 | 2.66 | 1.53 | 5.02 |

**NOTE:**

1. 'A' REPRESENTS POSITION OF NLG WHEEL ABOVE STATIC GROUND LINE WITH AIRCRAFT LEVELLED AND JACKED.
   A PIT IS NOT REQUIRED FOR THE NLG.
2. 'B' REPRESENTS POSITION OF LOWEST MLG MAIN WHEEL ABOVE STATIC GROUND LINE WITH AIRCRAFT JACKED IN TO POSITION ABOVE HYDRAULIC OR MECHANICAL ELEVATOR, FOR RETRACTION/EXTENSION TESTS.
3. 'C' REPRESENTS POSITION OF HYDRAULIC OR MECHANICAL ELEVATOR WITH THE MLG SHOCK ABSORBER IN THE DEFLATED AND COMPRESSED CONDITION FOR SHOCK ABSORBER REMOVAL.
4. 'D' REPRESENTS POSITION OF HYDRAULIC OR MECHANICAL ELEVATOR WITH THE MLG SHOCK ABSORBER IN THE EXTENDED CONDITION FOR SHOCK ABSORBER REMOVAL.

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Landing Gear Maintenance Pits
Maintenance Pit Envelopes (Sheet 2 of 2)
FIGURE-2-9-0-991-001-C01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900

Landing Gear

1. General

The aircraft has:
- Two Main Landing Gears (MLG) with four wheel bogie assembly and related doors,
- A Nose Landing Gear (NLG) with twin wheel assembly and related doors.

The main landing gears are located under each wing and retract sideways towards the fuselage centerline.
The nose landing gear retracts forward into a fuselage compartment below the cockpit.
The retraction and extension of the landing gears and landing gear doors are operated hydraulically and mechanically. The control, sequence and indication are electrical.
In abnormal operation, the landing gears can be extended by gravity.

For the dimensions of the landing gear footprint and tire size, refer to 07-02-00.

2. Main Landing Gear and Doors

Each MLG has a leg assembly and a four-wheel bogie beam. The MLG leg includes a shortening mechanism, a bogie pitch trimmer and an oleo-pneumatic shock absorber. In-flight, with the MLG extended, the bogie is held in a trailing condition (rear wheels low) by an articulation linkage and a pitch trimmer. The folding sidestay is locked mechanically by a lockstay (which is operated by the downlock actuator) when the MLG is fully extended.

Each MLG bay has the following doors:
- A hydraulically-operated main door,
- A mechanically-operated hinged door,
- A fairing door on the MLG leg.

All the doors close when the MLG retracts. When the MLG is extended the main door closes and the hinged door stays open. A manually operated mechanism (for maintenance personnel) lets the main doors be opened for access to the MLG bay when the aircraft is on the ground.

3. Nose Landing Gear and Doors

The NLG includes a twin-wheel axle assembly and an oleo-pneumatic shock absorber. The NLG is supported longitudinally by a two-piece dragstay. The dragstay is locked mechanically by the lock links when the NLG is fully extended.

Each NLG bay has the following doors:
- Two hydraulically-operated FWD doors,
- Two mechanically-operated AFT doors,
- A fixed fairing door on the NLG leg.

All the doors close when the NLG retracts. When the NLG is extended the FWD doors close and the AFT doors stay open. A door opening mechanism lets the FWD doors be opened on the ground for access to the NLG bay.

4. Nose Wheel Steering (NWS)

Nose wheel steering system is a computer controlled electro-hydraulic system. The system uses the green main hydraulic power system to operate the hydraulic components.
The steering is controlled by two hand wheel transmitters in the cockpit, which supply the primary steering inputs to the BSCU (Brake and Steering Control Unit).
A steering disconnection box is installed on the NLG to disconnect the steering for towing.

For the operation and control of nose wheel steering, refer to AMM 32-51-00.
For the steering angle limits, refer to AMM 09-10-00.

5. Tow Truck Power

Electric power to the navigation lights can be provided through the tow truck power connector on the 5GC or 8GH service panel, see FIGURE 2-9-0-991-015-A and for connector definition, see 05-04-04.

6. Landing Gear Servicing Points

A. General
Fluid filling and gas charging of the MLG and NLG shock absorbers are accomplished through MS28889 standard valves.

B. Charging Pressures
For charging of the landing gear shock absorbers, refer to AMM 12-14-32.

7. Landing Gear Control

The landing gear and door operation is controlled electrically by one of the two Landing Gear Control and Interface Units (LGCIU). Control changes from one LGCIU to the other after each extension cycle.

In normal operation, the landing gears and doors are operated by the green hydraulic system. In abnormal operation, the landing gears can be extended by the operation of electro-mechanical free-fall system. The related electrical switches in the cockpit disengages the doors and the landing gear uplocks. The landing gears then extend by free-fall and the downlock links of each landing gear (L/G) are locked in position by springs.

8. Braking

A. General

Carbon multi-disc brakes are installed on each wheel of the MLG. Each brake assembly has two wear indicators installed.

The braking system has four braking modes with autobrake and anti-skid systems:
- Normal braking with anti-skid,
- Alternate braking with anti-skid,
- Alternate braking without anti-skid,
- Parking brake with full brake pressure.

B. In-Flight Wheel Braking

Braking occurs automatically during the retraction of the landing gears. This stops the rotation of the MLG wheels before the landing gears go into their related bays.
The wheels of the NLG are braked by spring loaded pads.

9. Tire Pressure Indicating System (TPIS)

The TPIS automatically monitors the tire pressures and shows these values on Test Equipment (BITE) and also supplies other data and warnings on the WHEEL page of the System Display (SD).

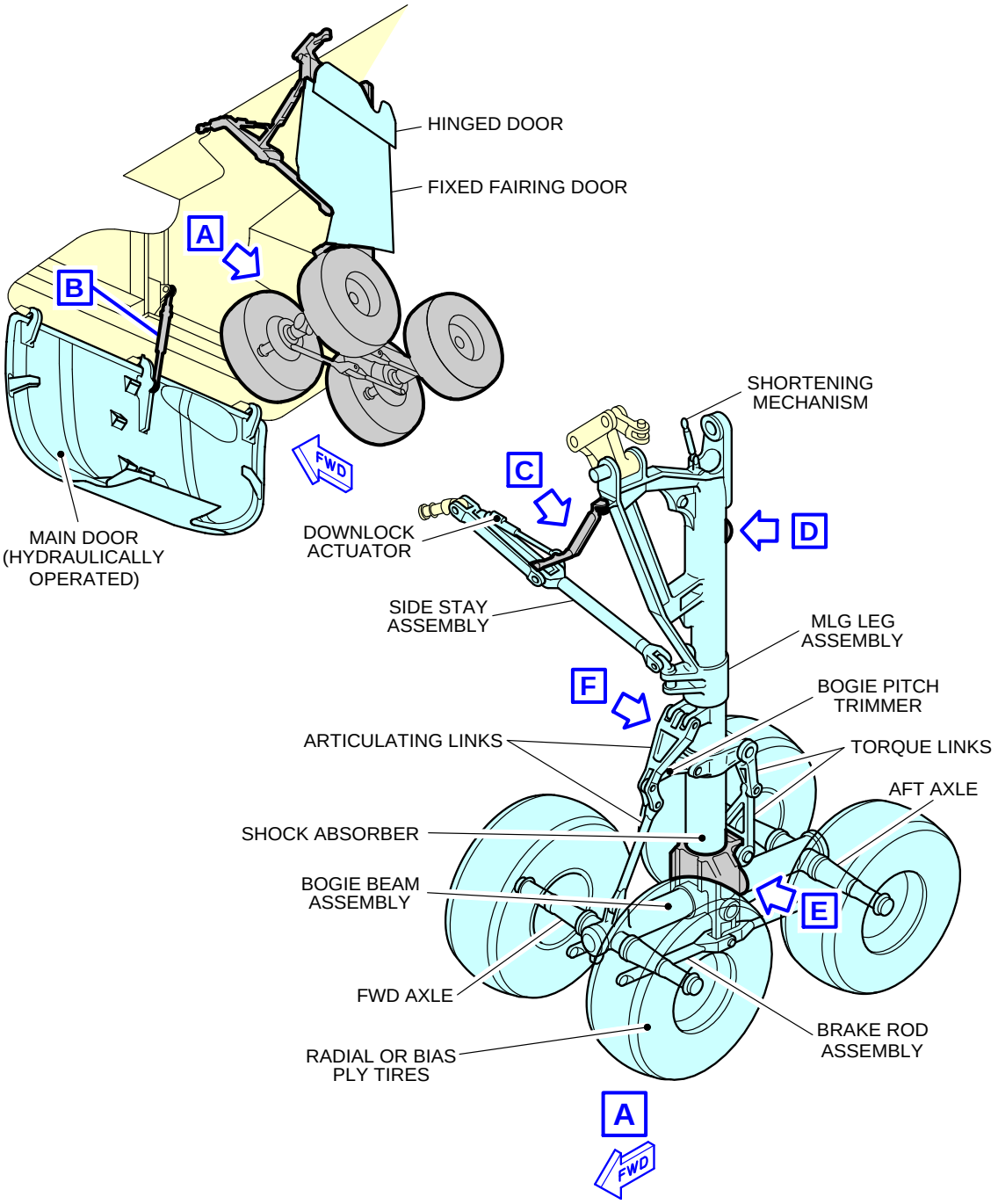
10. Built In Test Equipment (BITE)

The BITE has hardware and software for these functions:
- to automatically do a self test at power-up,
- to continuously monitor the related systems for failures,
- to continuously monitor the interface with other specified systems in the aircraft,
- to keep a record of each failure and defect and send this data to other systems in the aircraft,
- to automatically do a functional test of some related systems before a landing,
- to do specified system tests during ground maintenance.

The BITE for the following systems is described in these chapters:

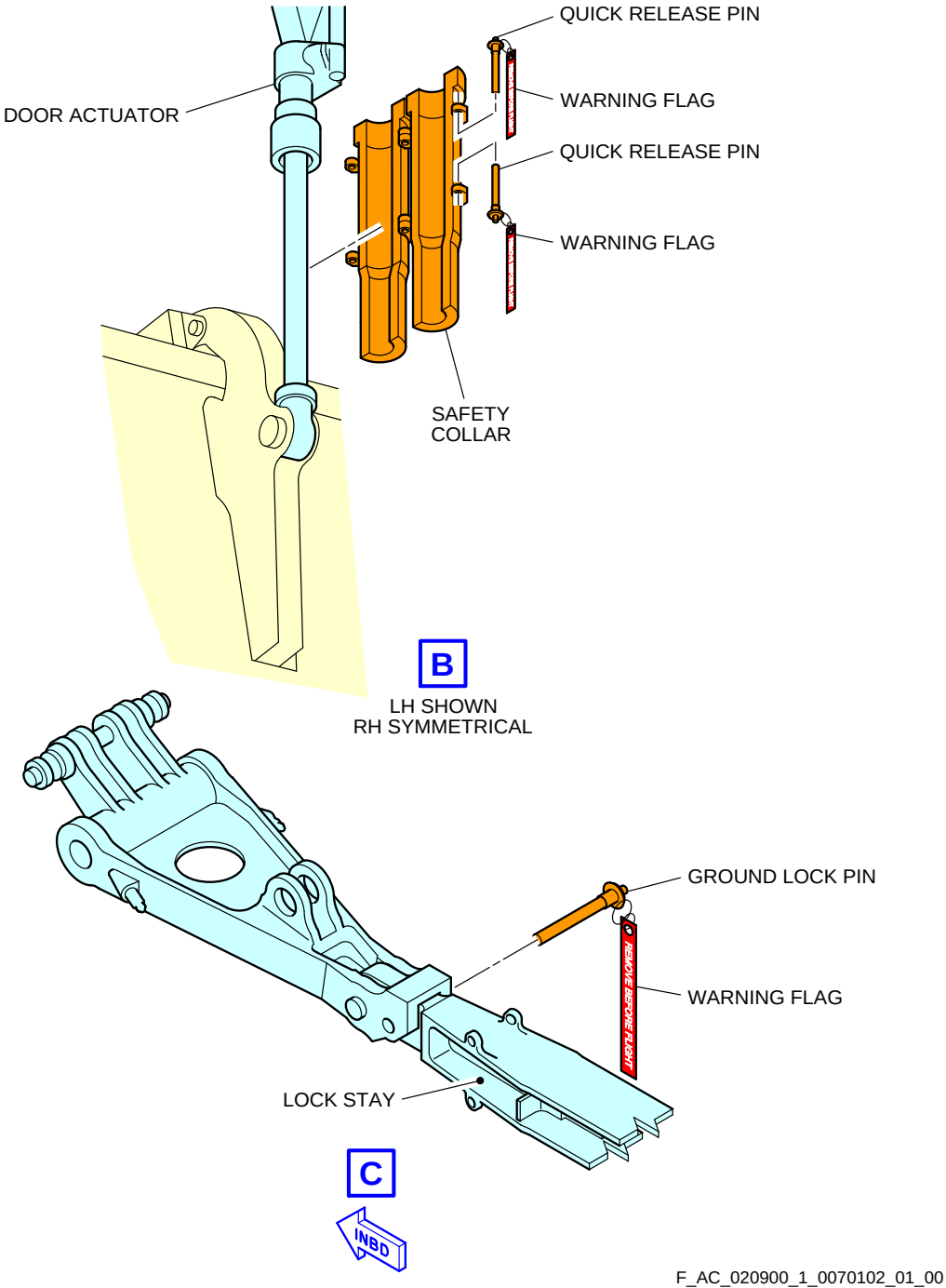
- The Brakes and Steering AMM 32-46-00,
- The TPIS AMM 32-49-00,
- The Landing GearAMM 32-69-00.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



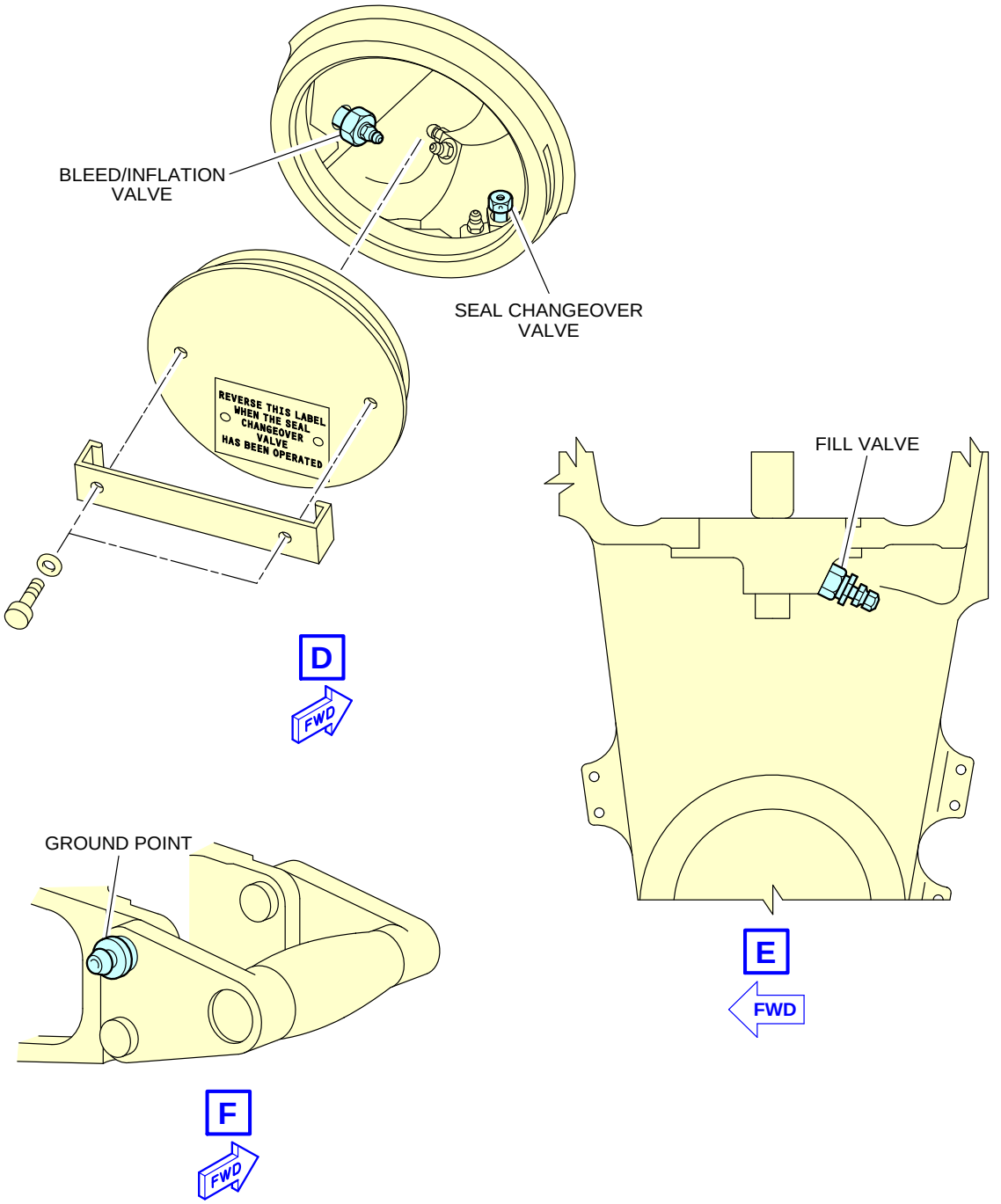

Main Landing Gear
General (Sheet 1 of 3)
FIGURE-2-9-0-991-007-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



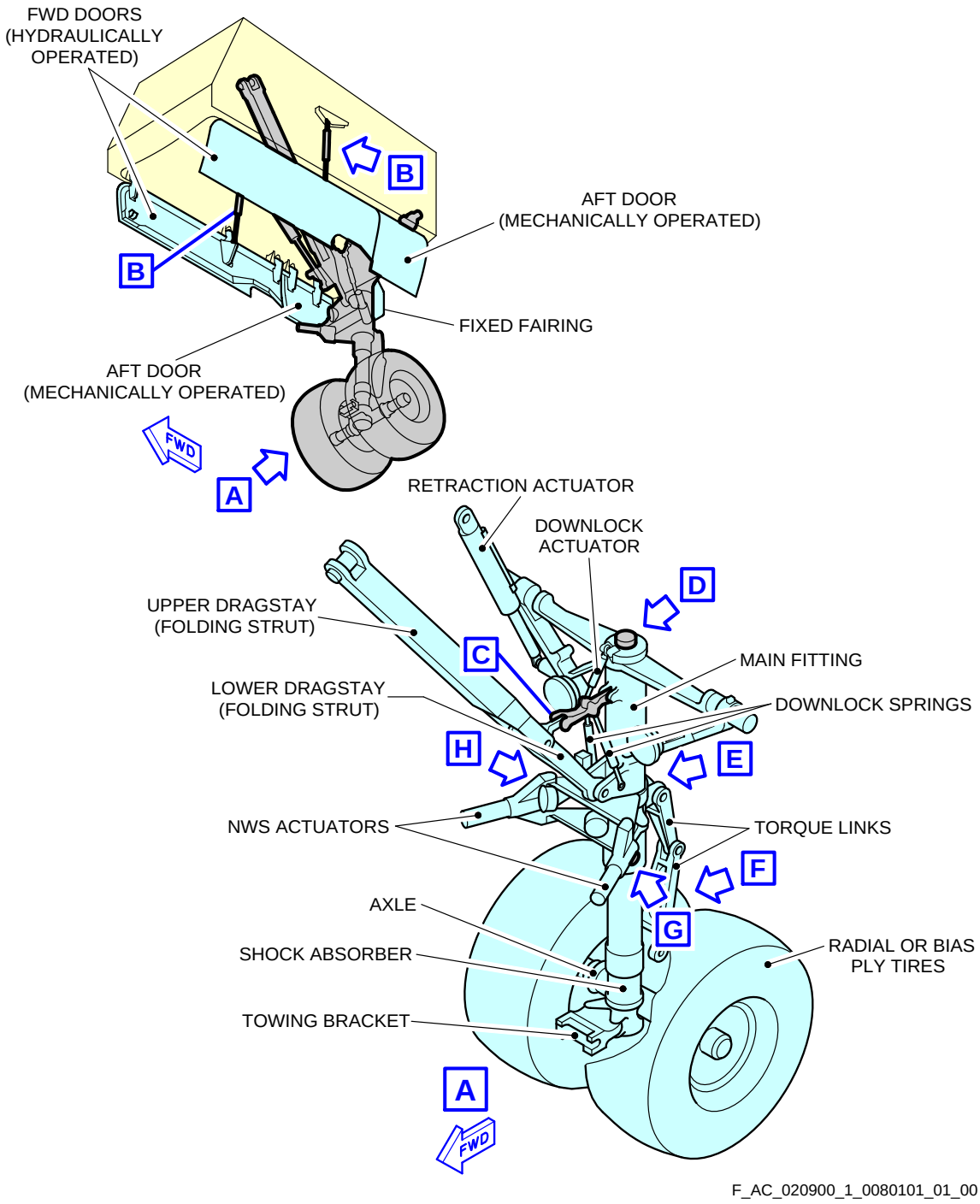

Main Landing Gear
Safety Devices (Sheet 2 of 3)
FIGURE-2-9-0-991-007-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



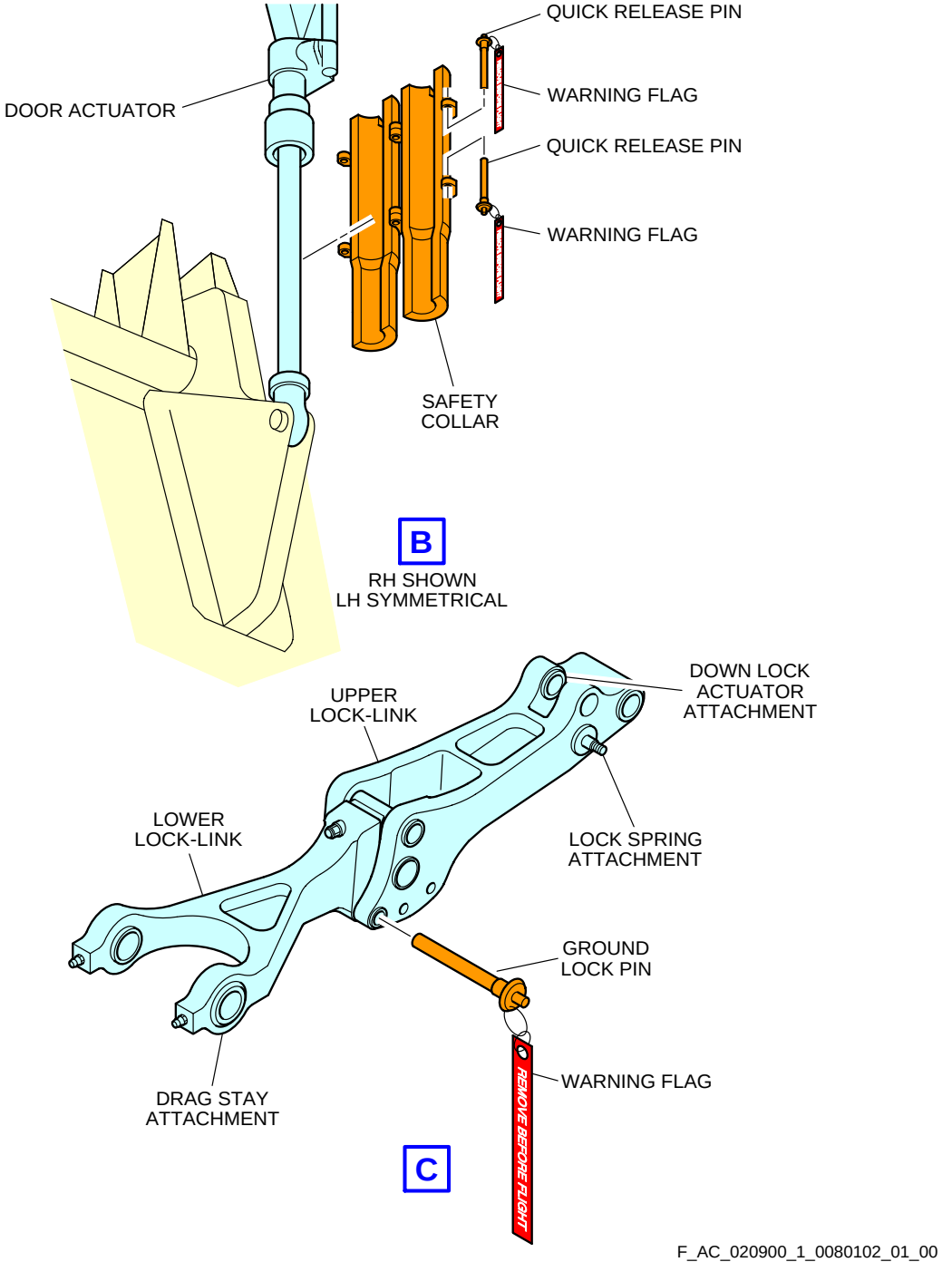

Main Landing Gear
Servicing (Sheet 3 of 3)
FIGURE-2-9-0-991-007-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



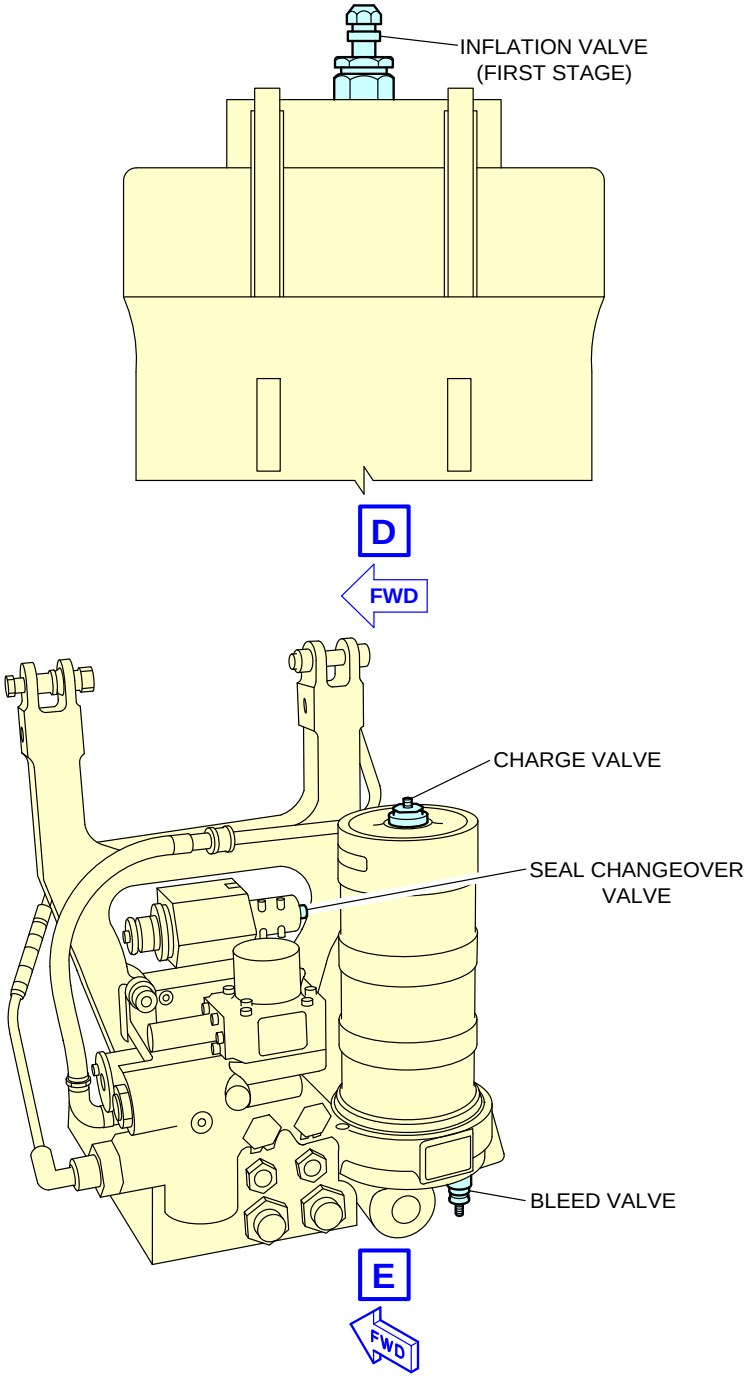

Nose Landing Gear
General (Sheet 1 of 4)
FIGURE-2-9-0-991-008-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Nose Landing Gear
Safety Devices (Sheet 2 of 4)
FIGURE-2-9-0-991-008-A01

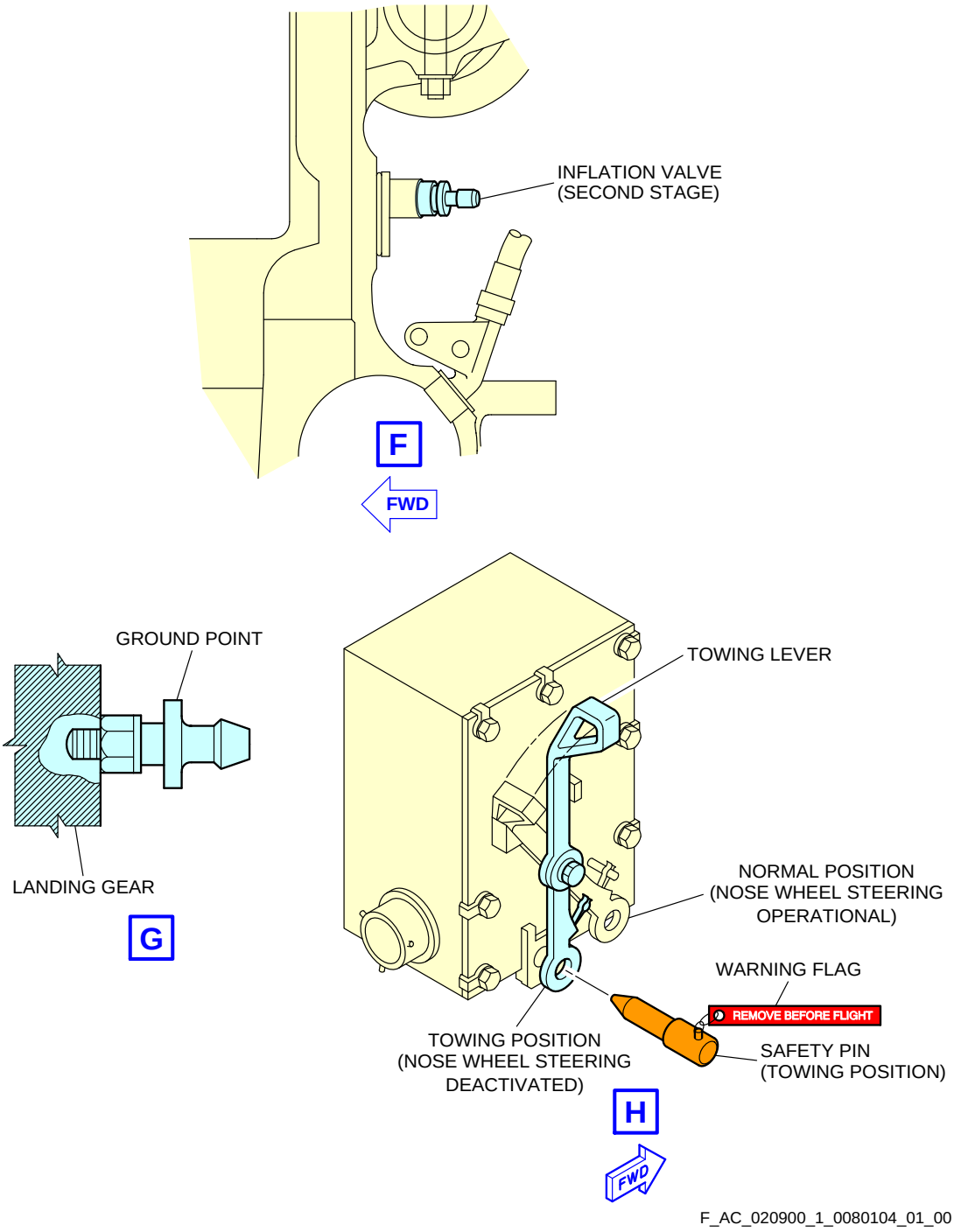
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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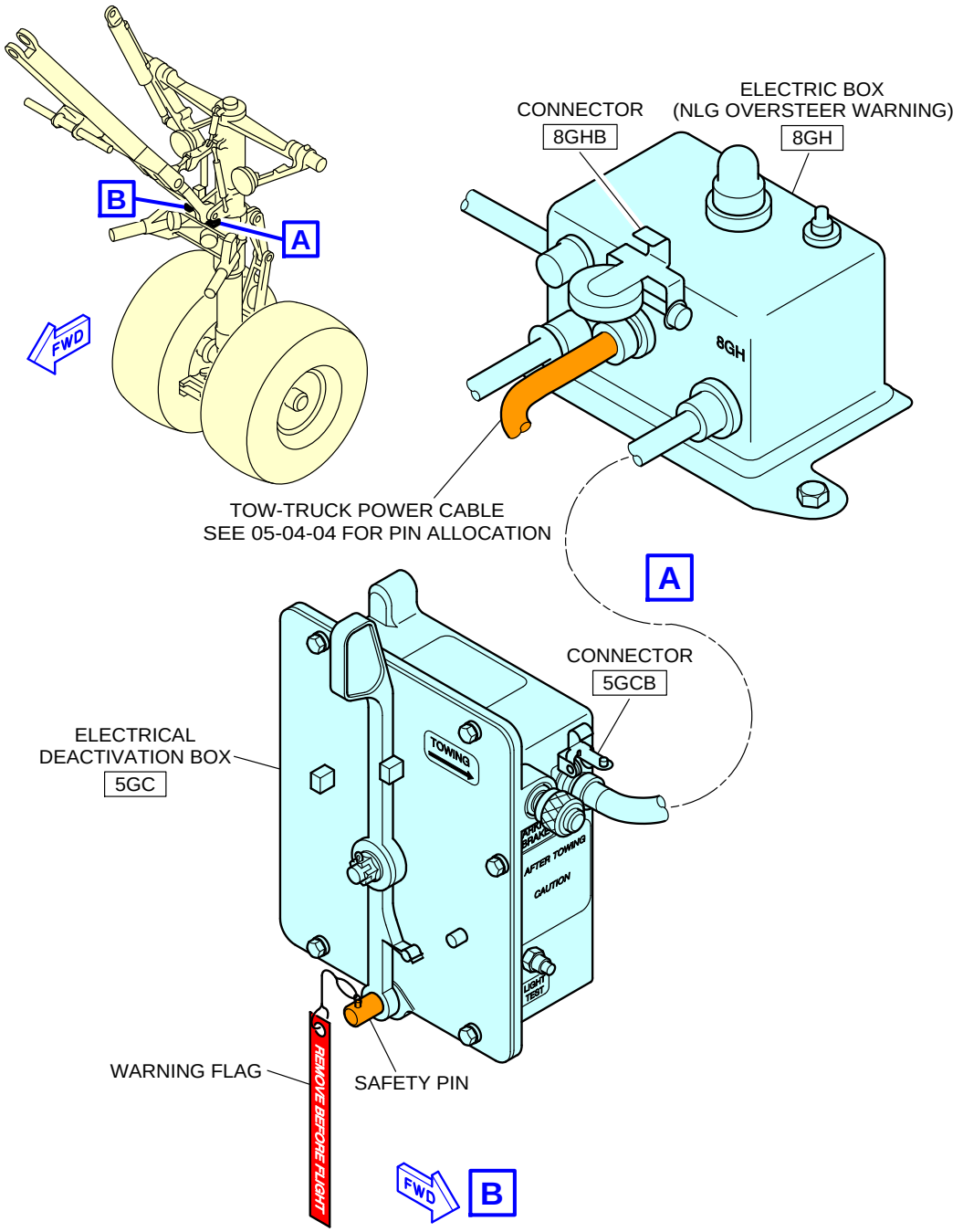
Nose Landing Gear
Servicing (Sheet 3 of 4)
FIGURE-2-9-0-991-008-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



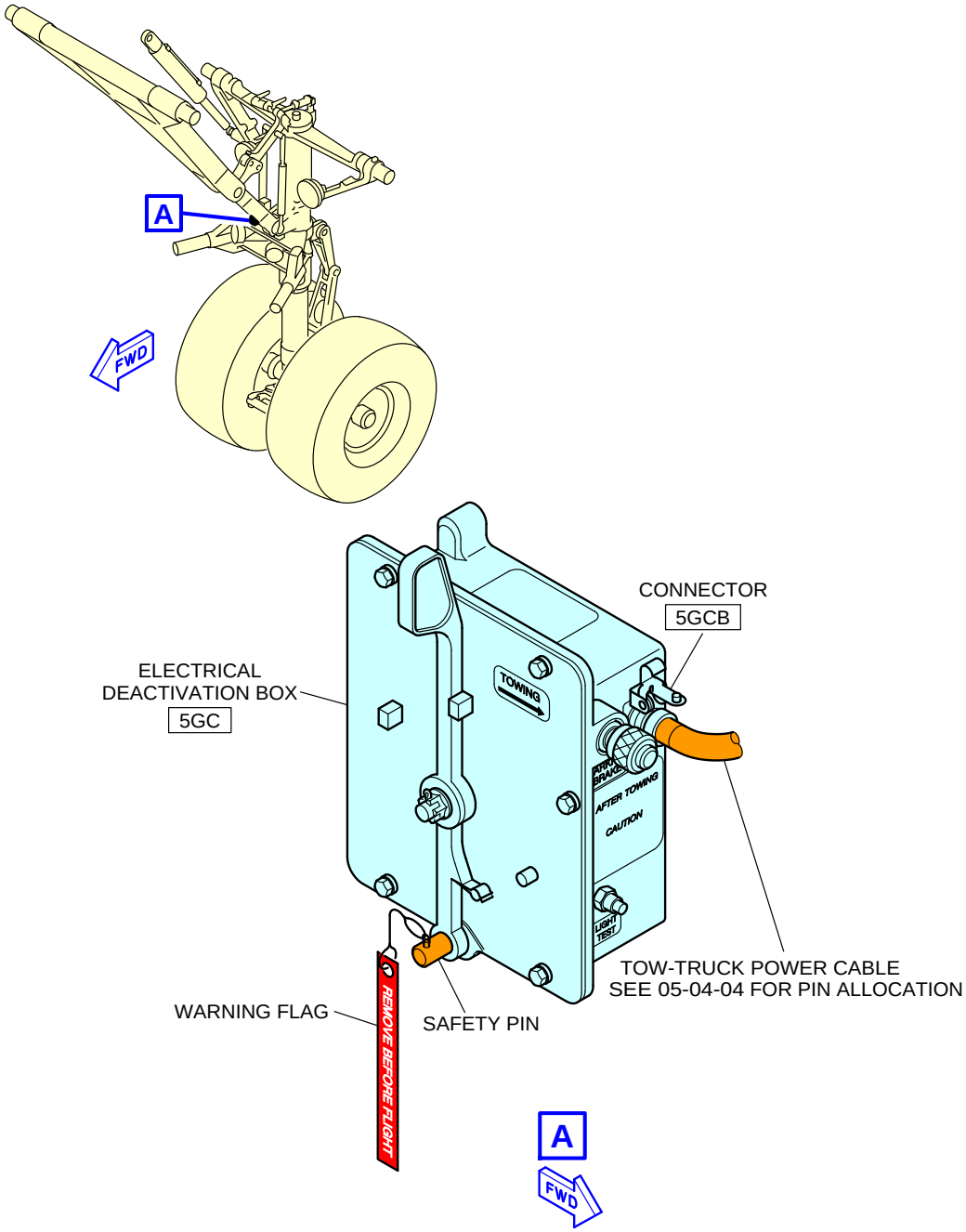

Nose Landing Gear
Servicing and Steering Disconnection Box (Sheet 4 of 4)
FIGURE-2-9-0-991-008-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Tow Truck Power (With Electric Box 8GH Installed)
FIGURE-2-9-0-991-015-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Tow Truck Power (Without Electric Box 8GH Installed)
2-9-0-991-025-A01

## 2-10-0 Exterior Lighting

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

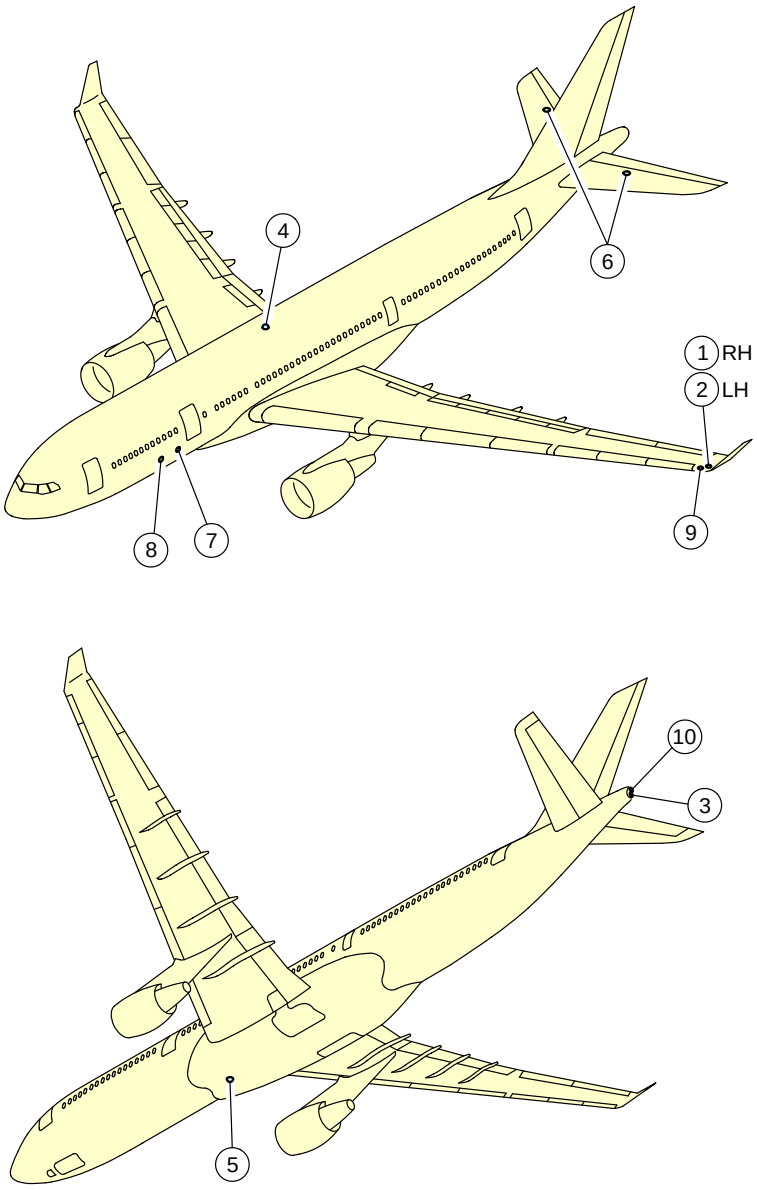
Exterior Lighting

1. General

This section provides the location of the aircraft exterior lighting.

| EXTERIOR LIGHTING | |
|---|---|
| ITEM | DESCRIPTION |
| 1 | RIGHT NAVIGATION LIGHT (GREEN) |
| 2 | LEFT NAVIGATION LIGHT (RED) |
| 3 | TAIL NAVIGATION LIGHT (WHITE) |
| 4 | UPPER ANTI-COLLISION LIGHT/BEACON (RED) |
| 5 | LOWER ANTI-COLLISION LIGHT/BEACON (RED) |
| 6 | LOGO LIGHTS |
| 7 | ENGINE SCAN LIGHTS |
| 8 | WING SCAN LIGHTS |
| 9 | WING STROBE LIGHT (HIGH INTENSITY, WHITE) |
| 10 | TAIL STROBE LIGHT (HIGH INTENSITY, WHITE) |
| 11 | LANDING LIGHTS |
| 12 | RUNWAY TURN-OFF LIGHTS |
| 13 | TAXI LIGHTS |
| 14 | TAKE-OFF LIGHTS |
| 15 | CARGO COMPARTMENT FLOOD LIGHTS |
| 16 | LANDING GEAR BAY/WELL LIGHTS (DOME) |
| 17 (A330-200F only) | CARGO COMPARTMENT FLOOD LIGHTS - MAIN DECK |

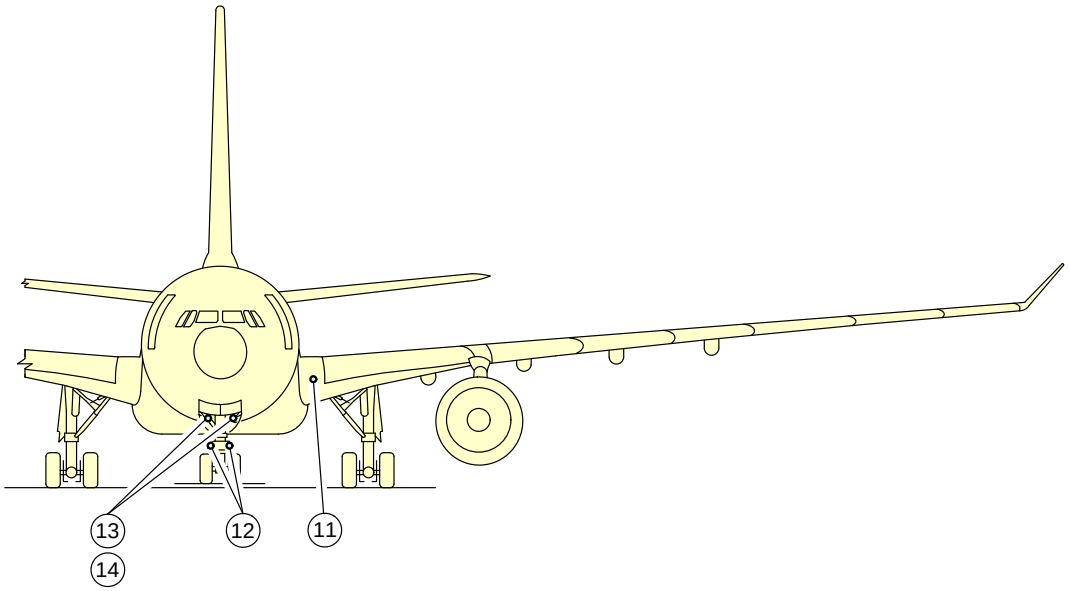
**ON A/C A330-200




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Exterior Lighting
(Sheet 1 of 5)
FIGURE-2-10-0-991-001-A01

**ON A/C A330-200

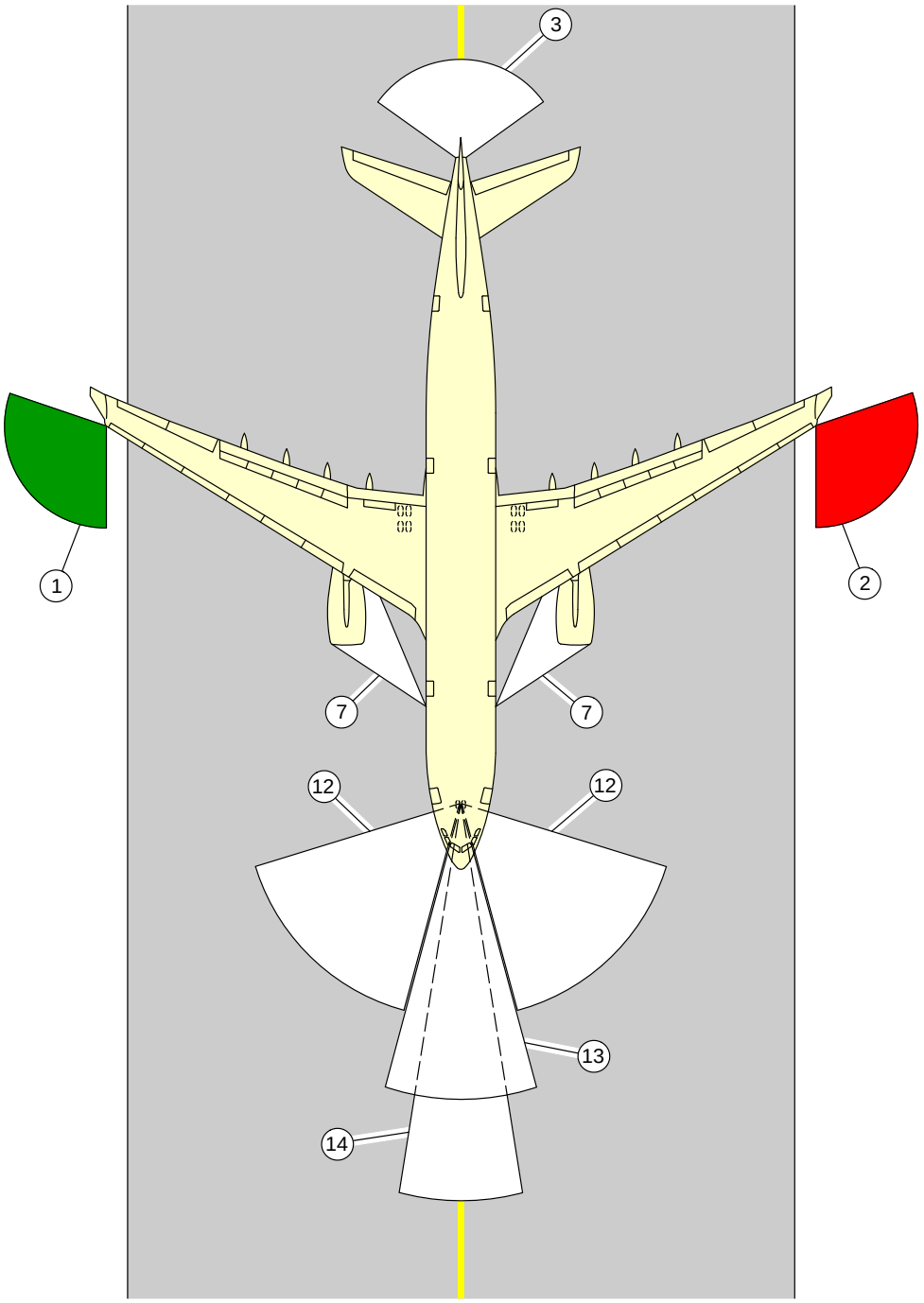



**NOTE:**
LIGHTS 13 AND 14 ARE THE SAME, BUT THEY OPERATE WITH DIFFERENT POWER SETTINGS.

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Exterior Lighting
(Sheet 2 of 5)
FIGURE-2-10-0-991-001-A01

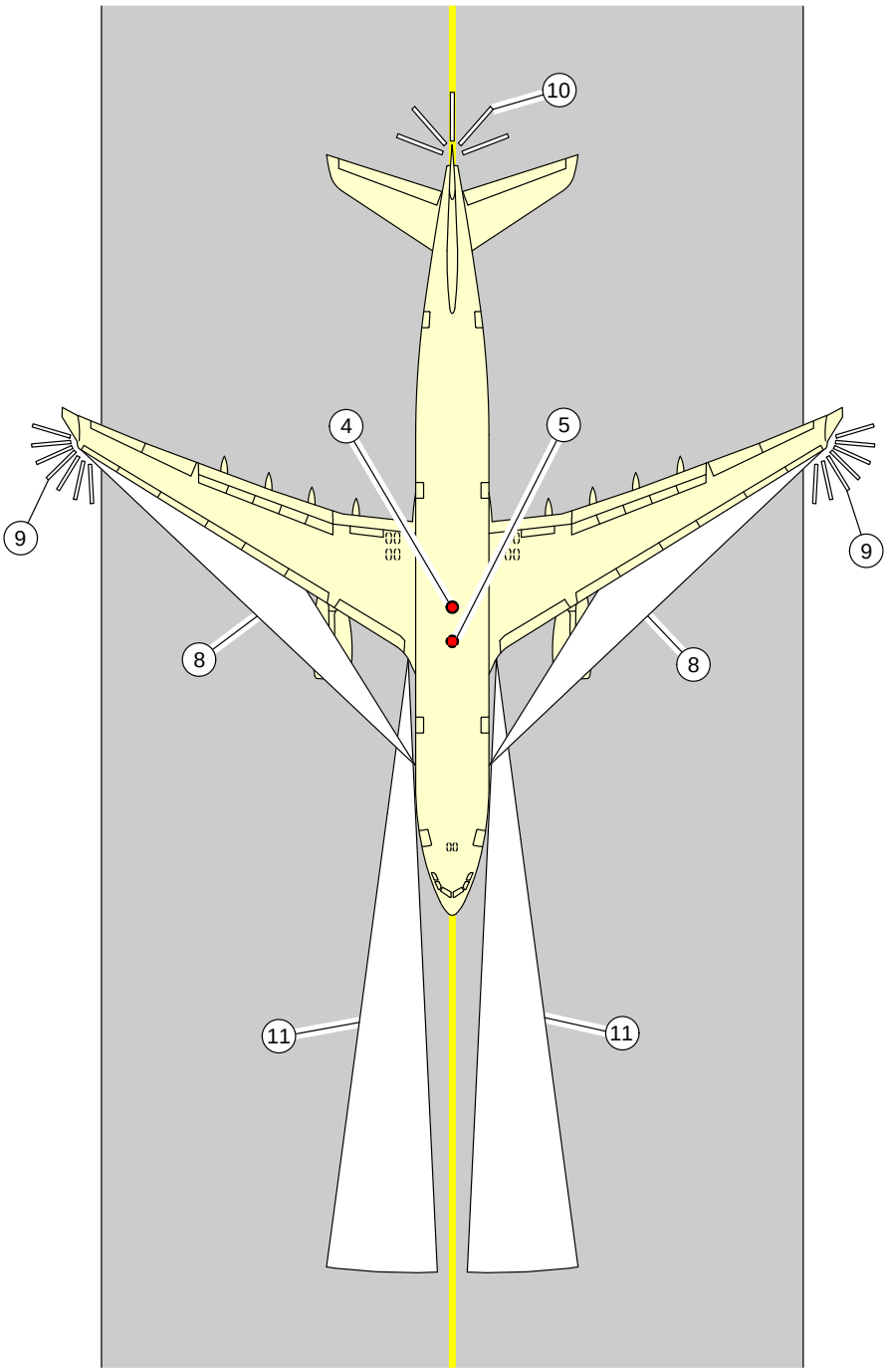
**ON A/C A330-200




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Exterior Lighting
(Sheet 3 of 5)
FIGURE-2-10-0-991-001-A01

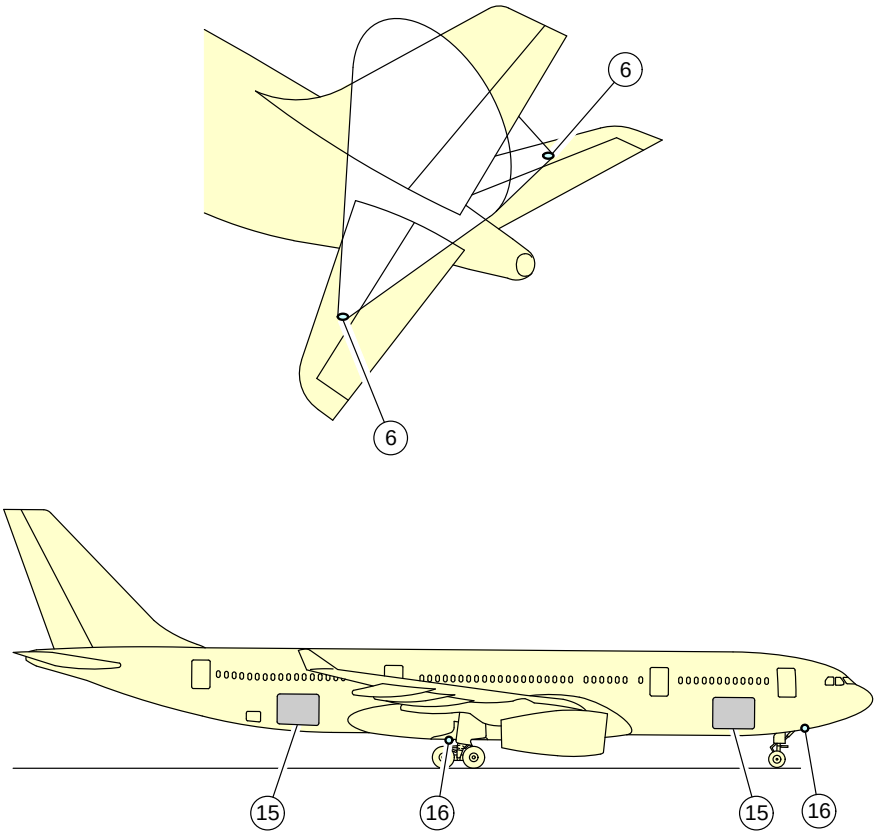
**ON A/C A330-200




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Exterior Lighting
(Sheet 4 of 5)
FIGURE-2-10-0-991-001-A01

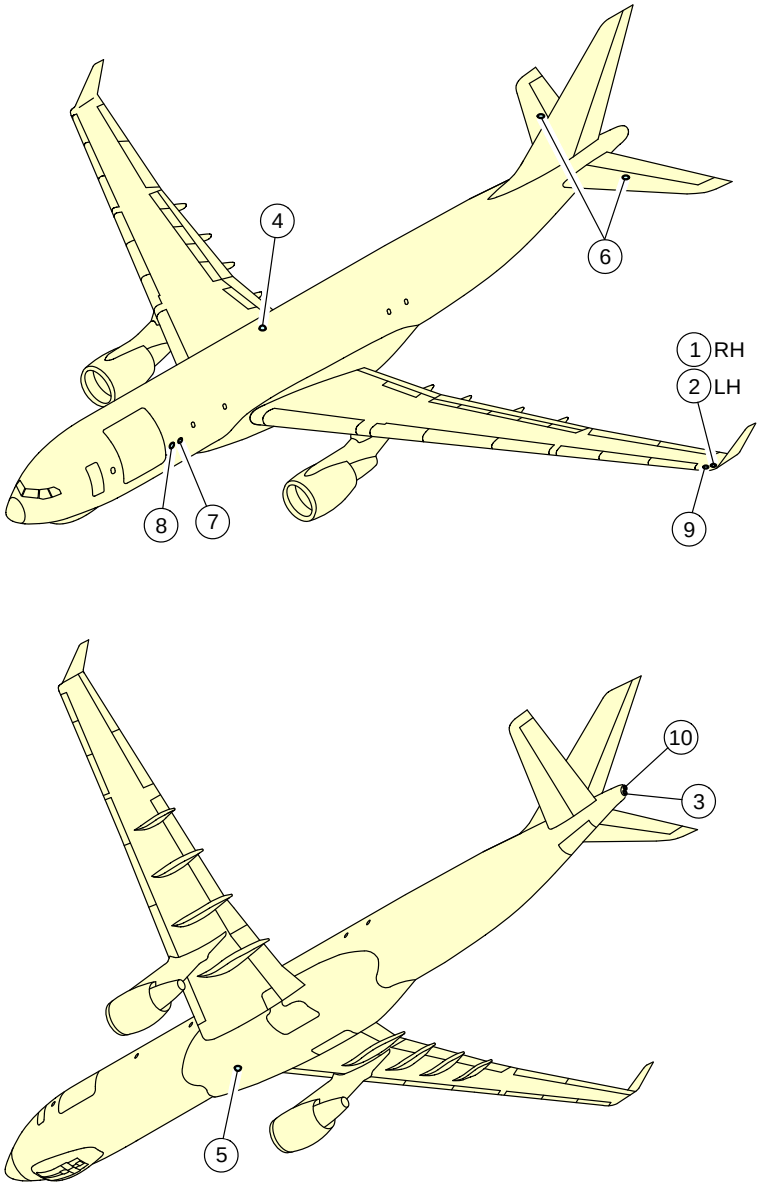
**ON A/C A330-200




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Exterior Lighting
(Sheet 5 of 5)
FIGURE-2-10-0-991-001-A01

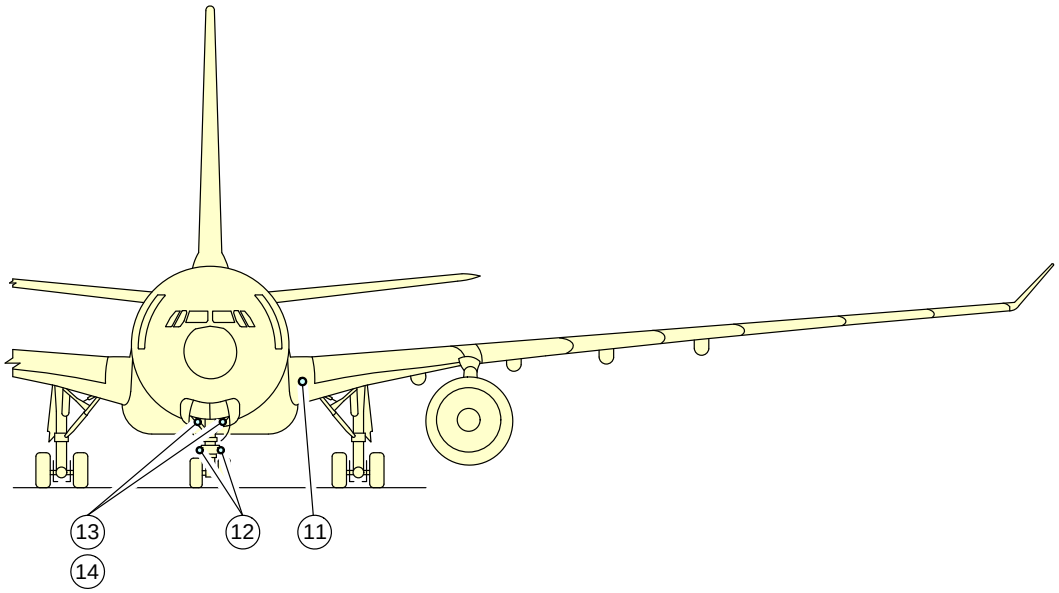
**ON A/C A330-200F




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Exterior Lighting
(Sheet 1 of 6)
FIGURE-2-10-0-991-002-A01

**ON A/C A330-200F

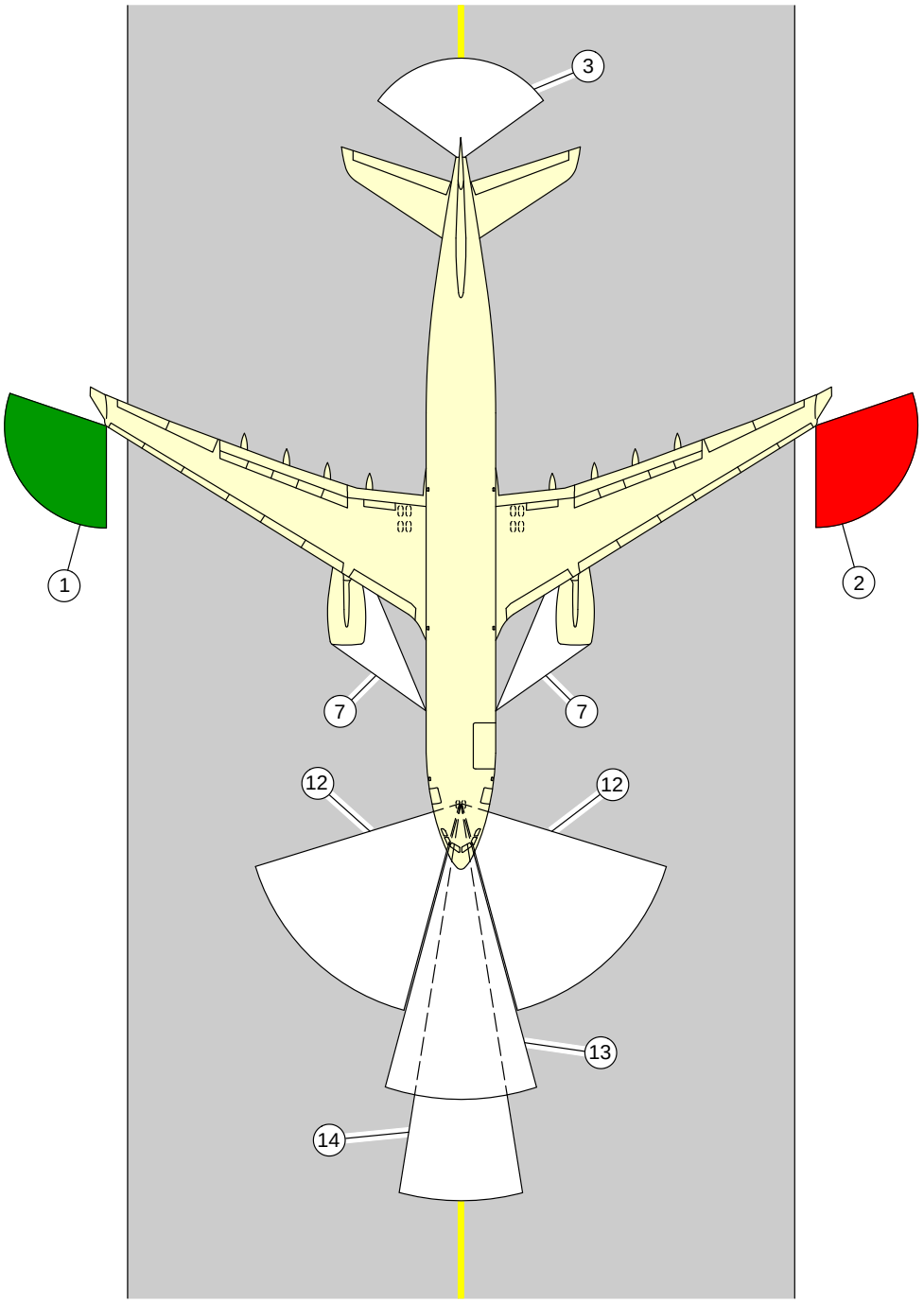



**NOTE:**
LIGHTS 13 AND 14 ARE THE SAME, BUT THEY OPERATE WITH DIFFERENT POWER SETTINGS.

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Exterior Lighting
(Sheet 2 of 6)
FIGURE-2-10-0-991-002-A01

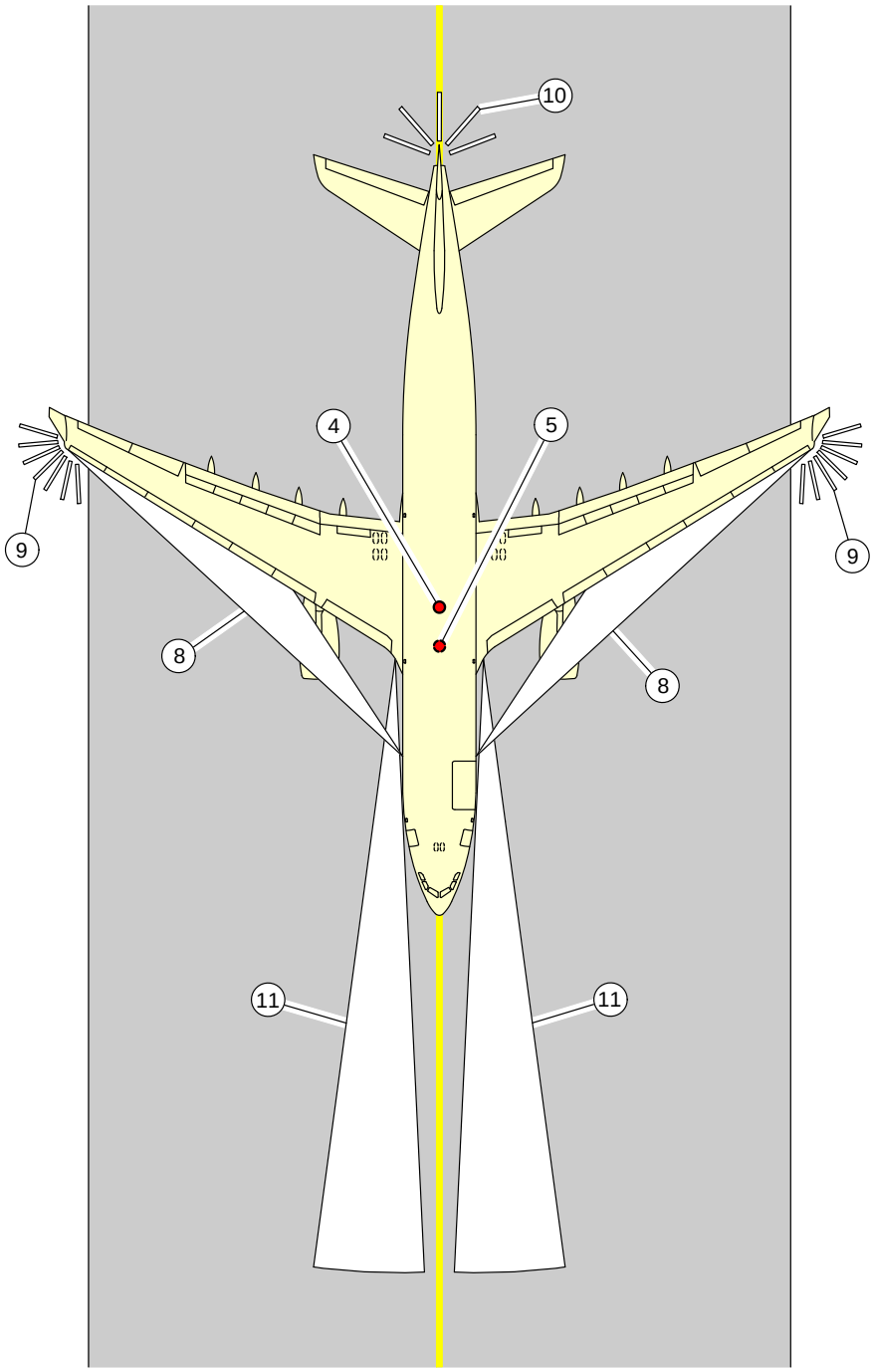
**ON A/C A330-200F




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Exterior Lighting
(Sheet 3 of 6)
FIGURE-2-10-0-991-002-A01

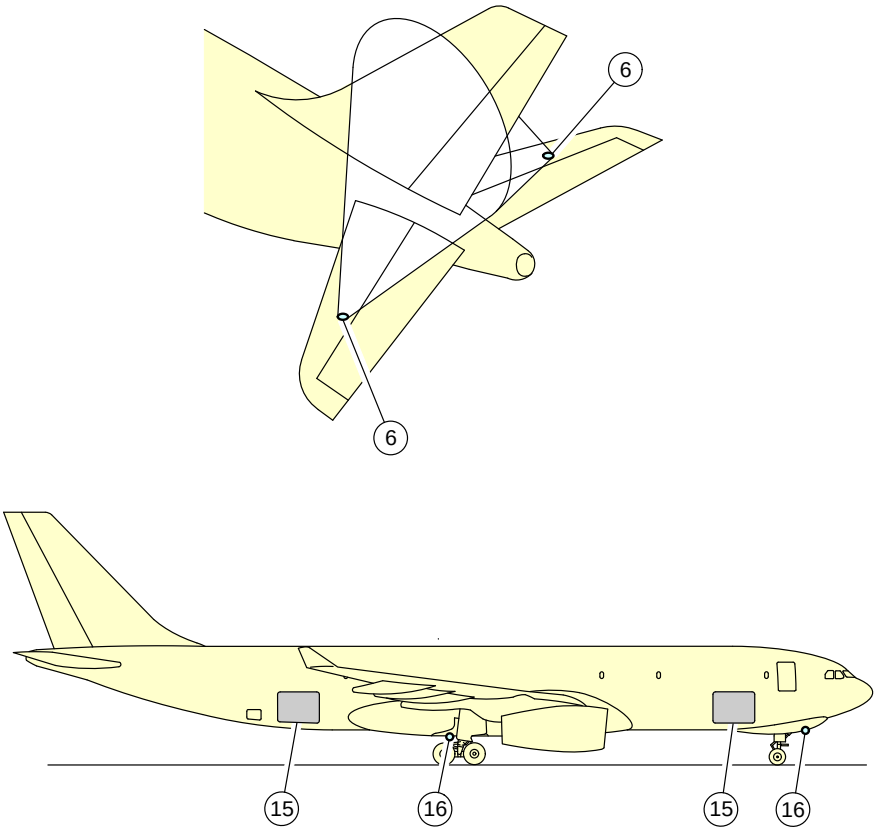
**ON A/C A330-200F



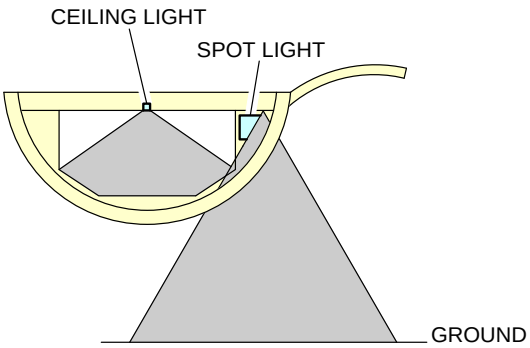

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Exterior Lighting
(Sheet 4 of 6)
FIGURE-2-10-0-991-002-A01

**ON A/C A330-200F



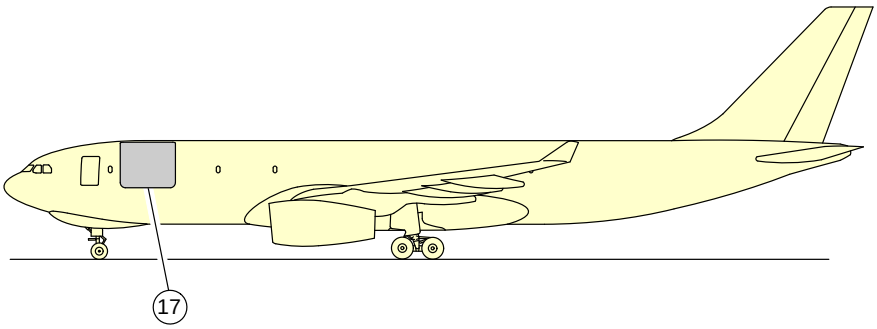

EXAMPLE FOR LIGHT N° 15



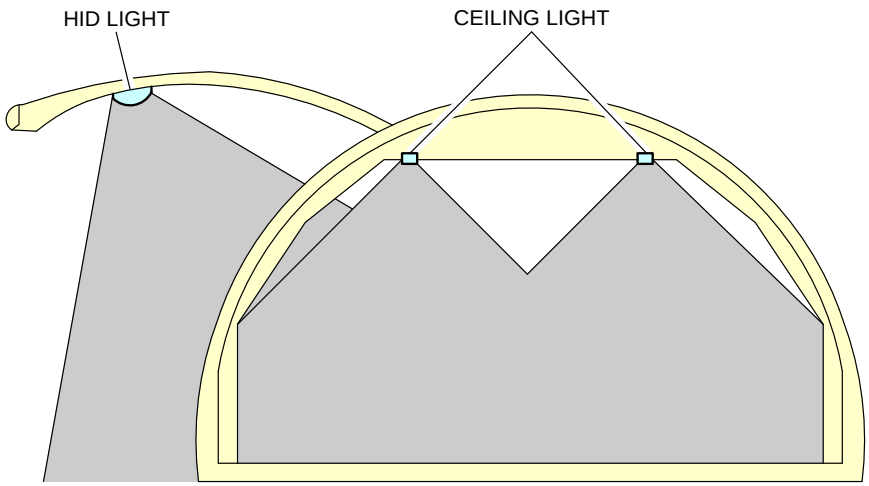

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Exterior Lighting
(Sheet 5 of 6)
FIGURE-2-10-0-991-002-A01

**ON A/C A330-200F



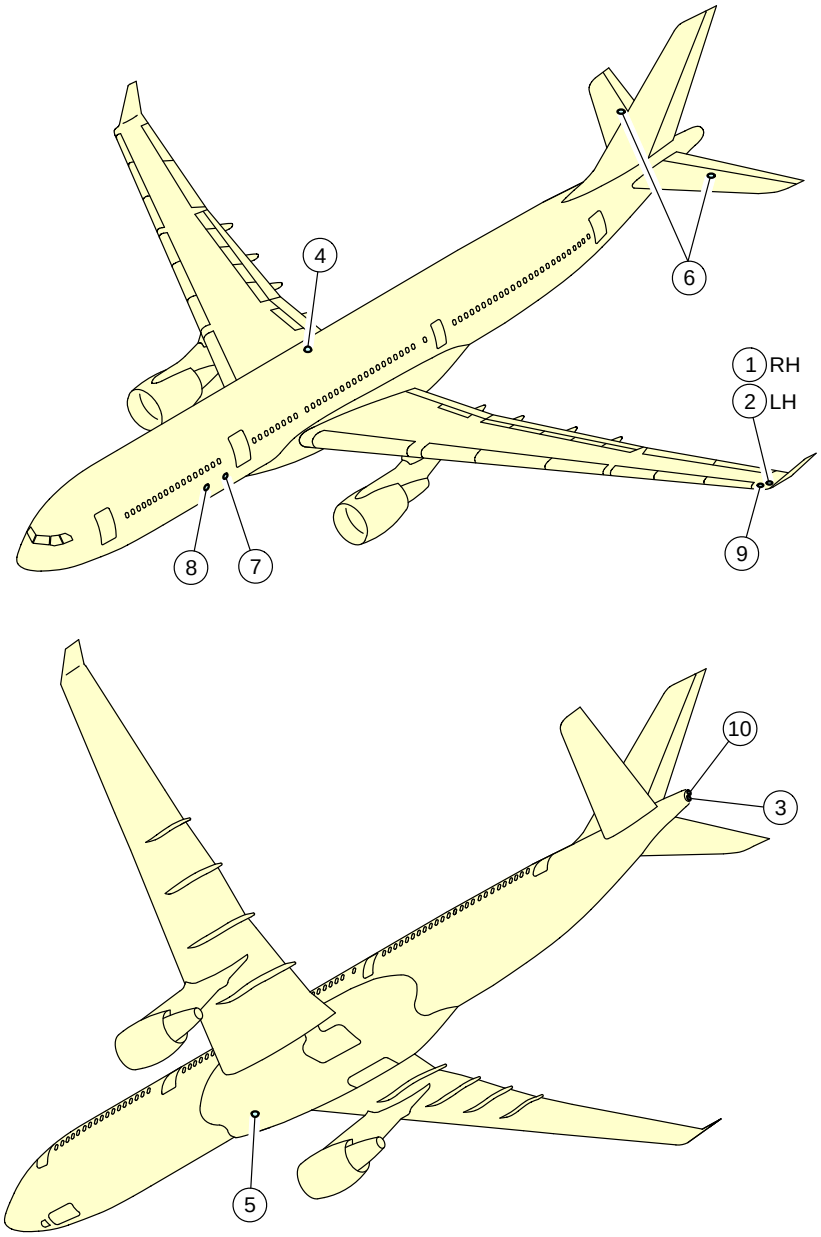

EXAMPLE FOR LIGHT N° 17




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Exterior Lighting
(Sheet 6 of 6)
FIGURE-2-10-0-991-002-A01

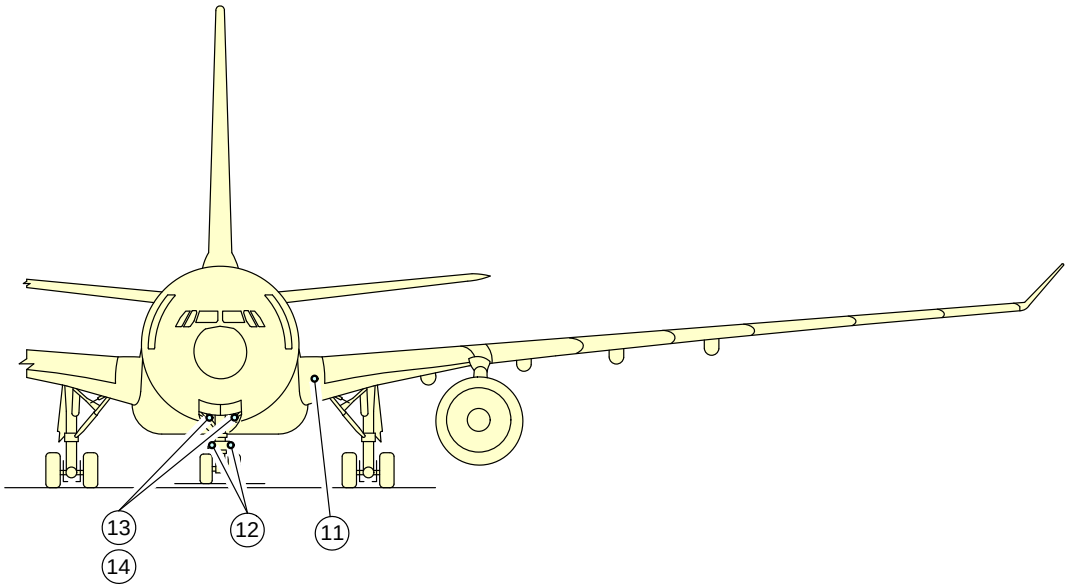
**ON A/C A330-300




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Exterior Lighting
(Sheet 1 of 5)
FIGURE-2-10-0-991-003-A01

**ON A/C A330-300

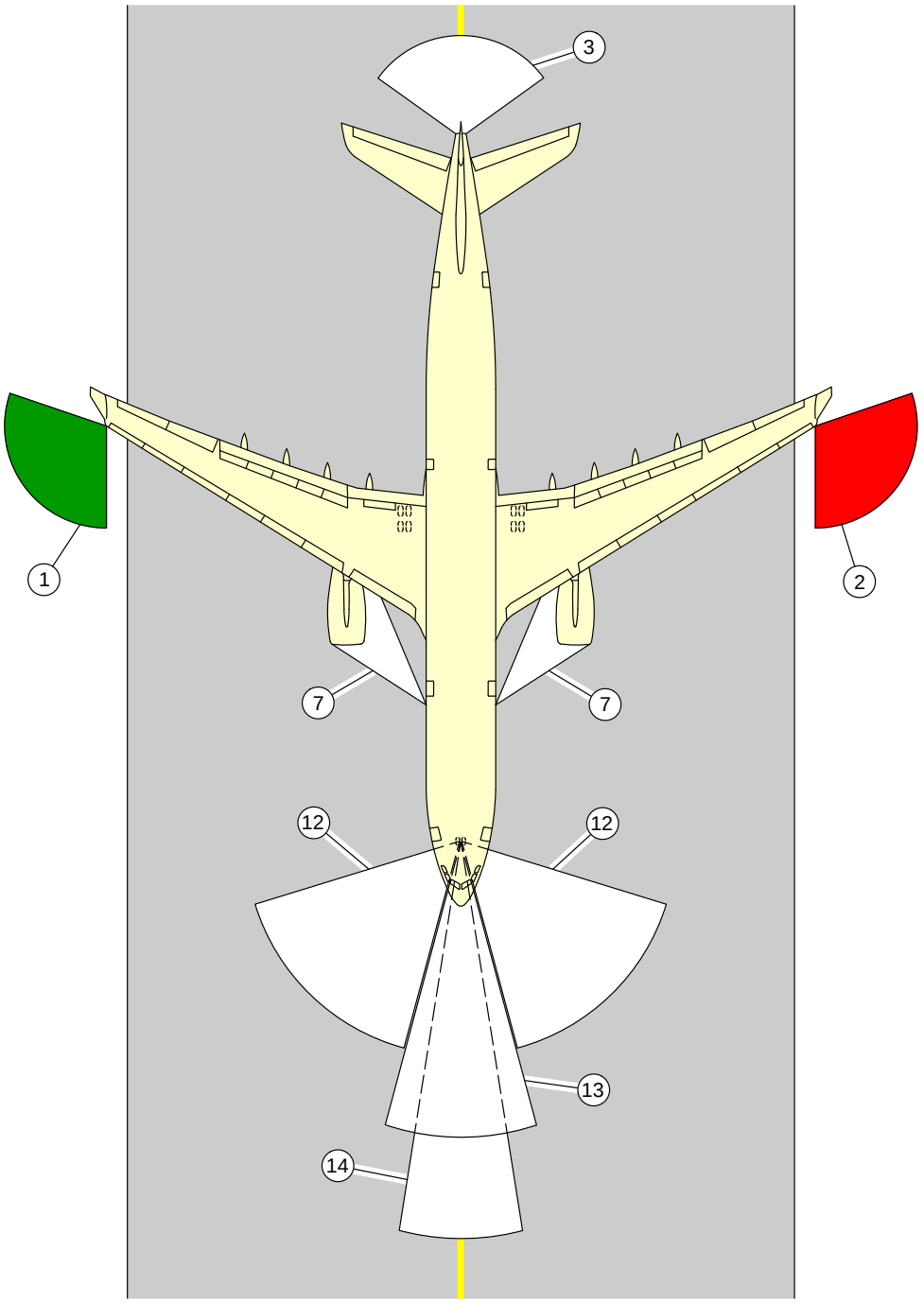



**NOTE:**
LIGHTS 13 AND 14 ARE THE SAME, BUT THEY OPERATE WITH DIFFERENT POWER SETTINGS.

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Exterior Lighting
(Sheet 2 of 5)
FIGURE-2-10-0-991-003-A01

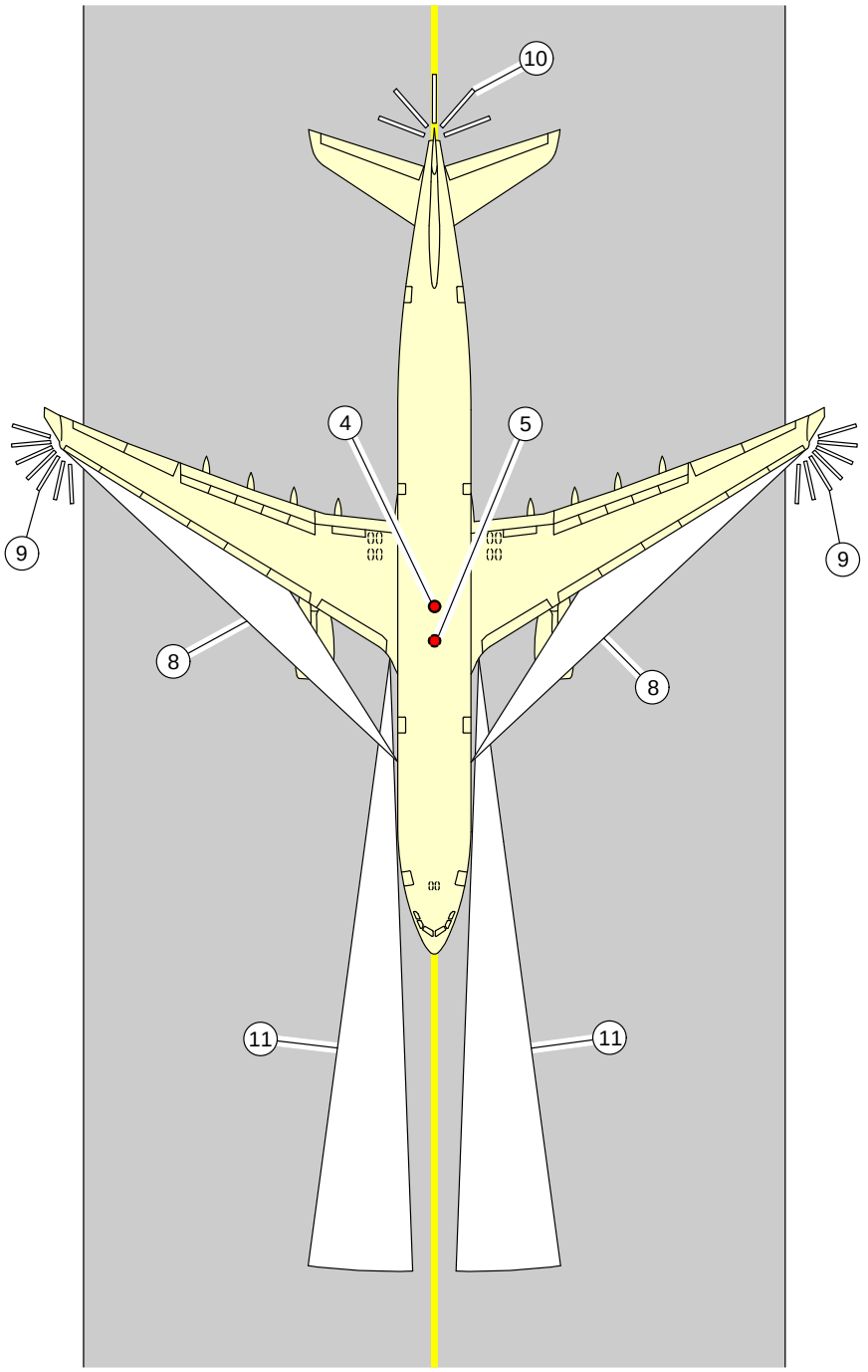
**ON A/C A330-300




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Exterior Lighting
(Sheet 3 of 5)
FIGURE-2-10-0-991-003-A01

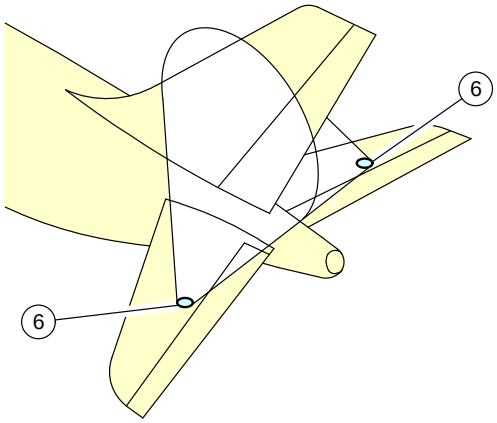
**ON A/C A330-300

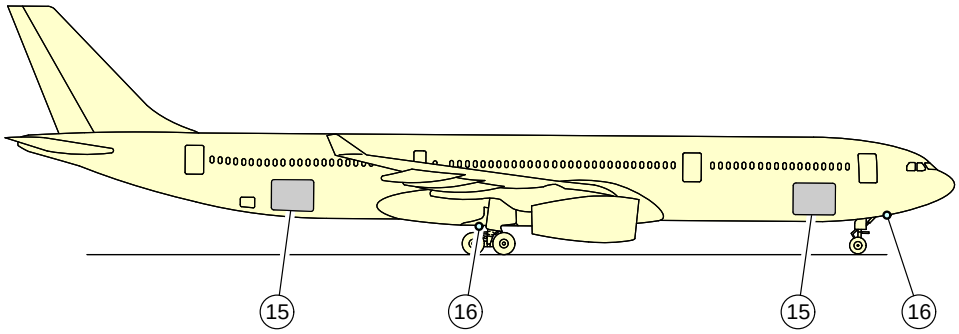



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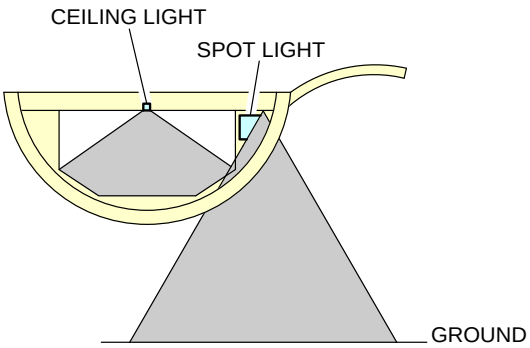
Exterior Lighting
(Sheet 4 of 5)
FIGURE-2-10-0-991-003-A01

**ON A/C A330-300



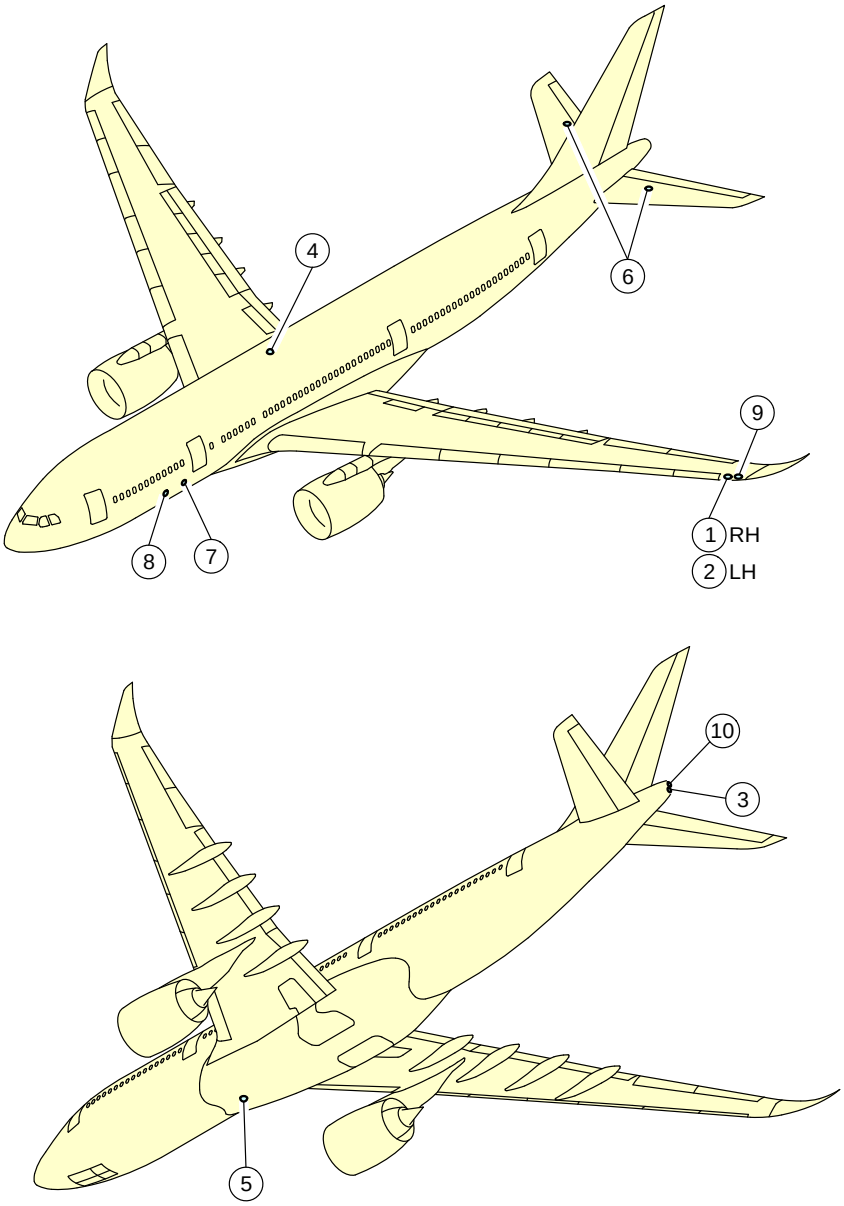

EXAMPLE FOR LIGHT N° 15




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Exterior Lighting
(Sheet 5 of 5)
FIGURE-2-10-0-991-003-A01

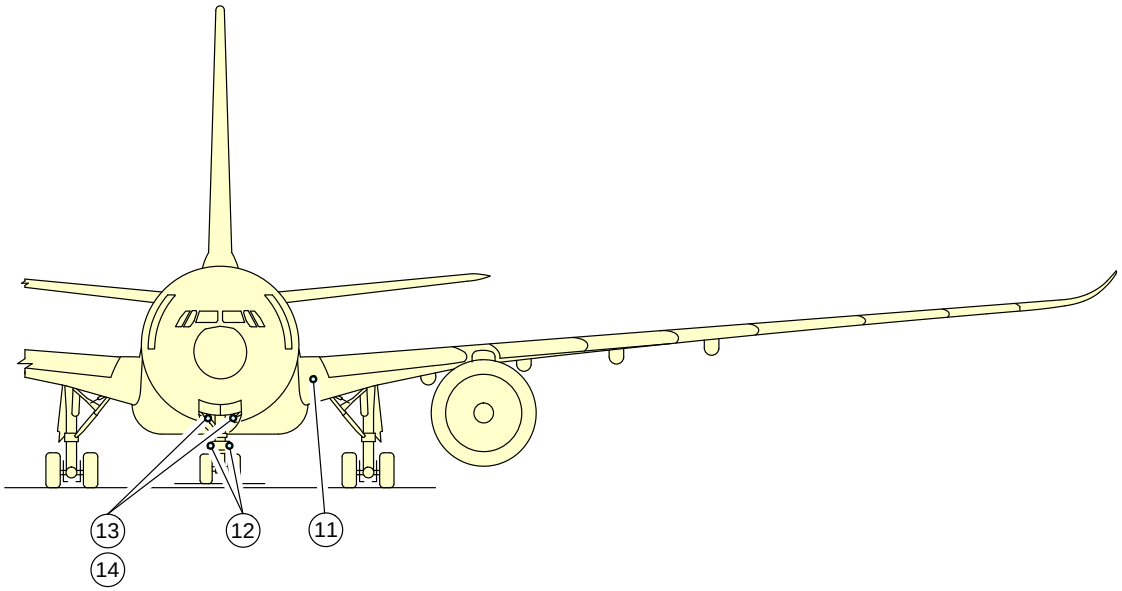
**ON A/C A330-800




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Exterior Lighting
(Sheet 1 of 5)
FIGURE-2-10-0-991-008-A01

**ON A/C A330-800

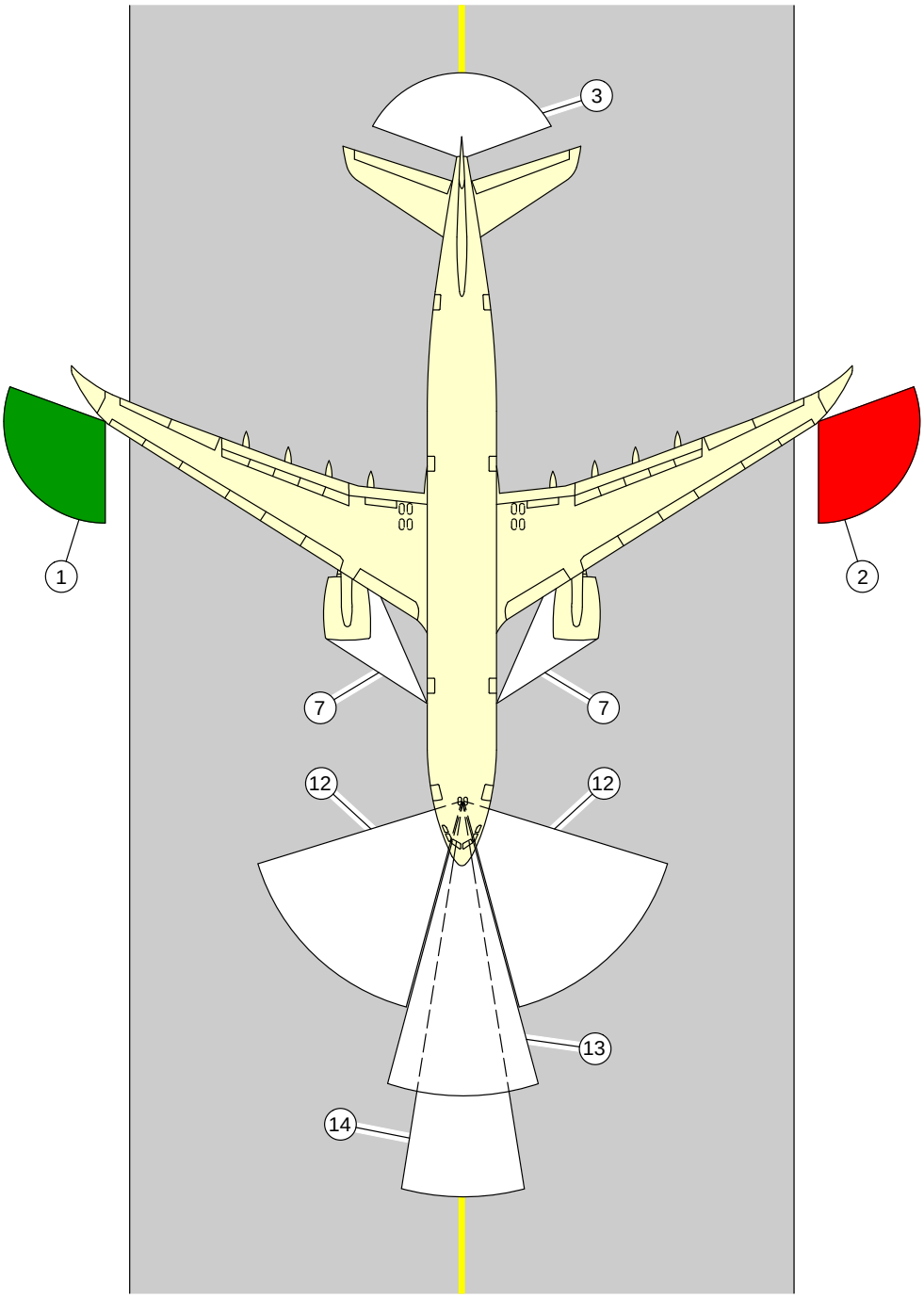



**NOTE:**
LIGHTS 13 AND 14 ARE THE SAME, BUT THEY OPERATE WITH DIFFERENT POWER SETTINGS.

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Exterior Lighting
(Sheet 2 of 5)
FIGURE-2-10-0-991-008-A01

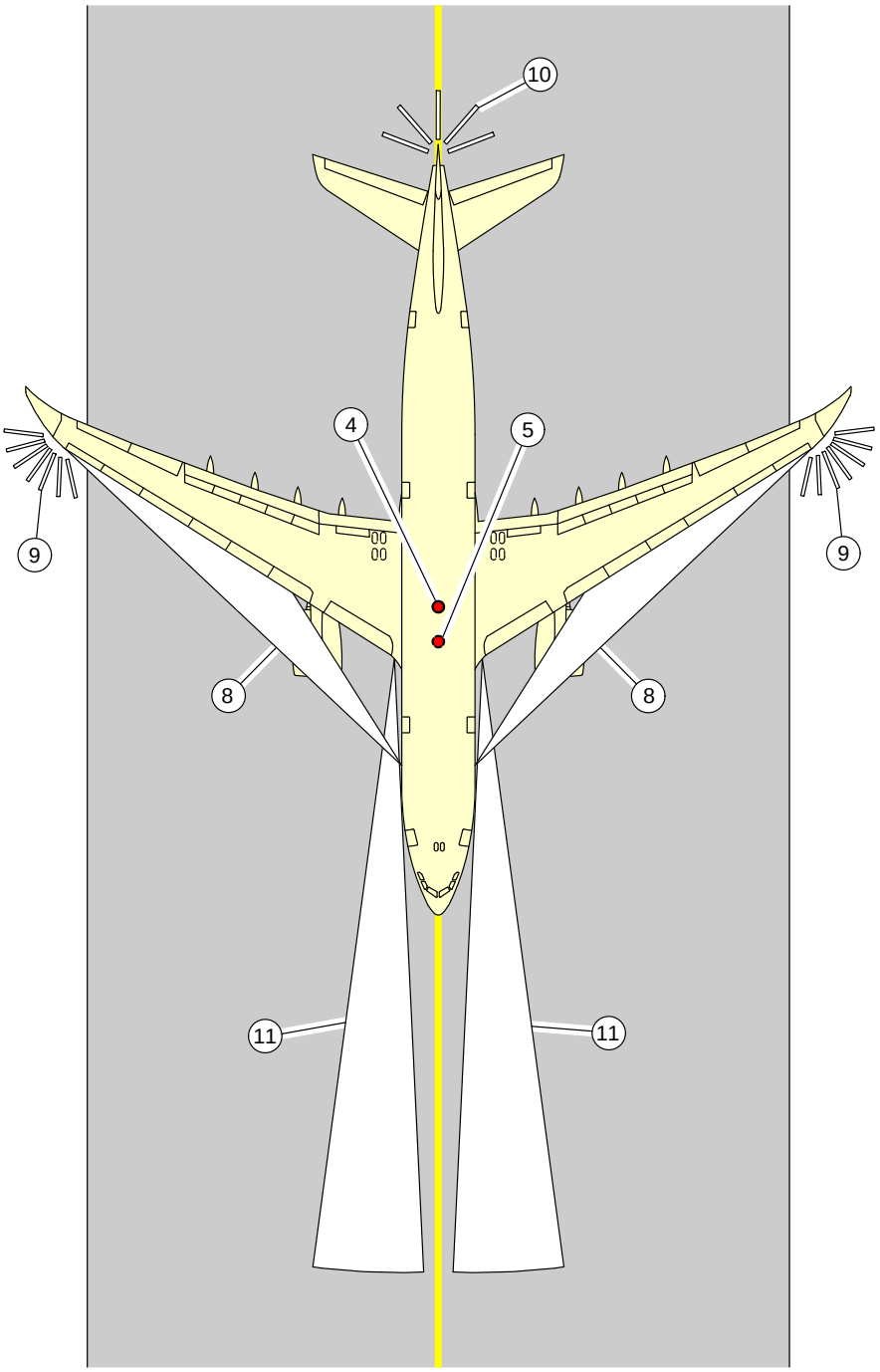
**ON A/C A330-800




F_AC_021000_1_0080103_01_00

Exterior Lighting
(Sheet 3 of 5)
FIGURE-2-10-0-991-008-A01

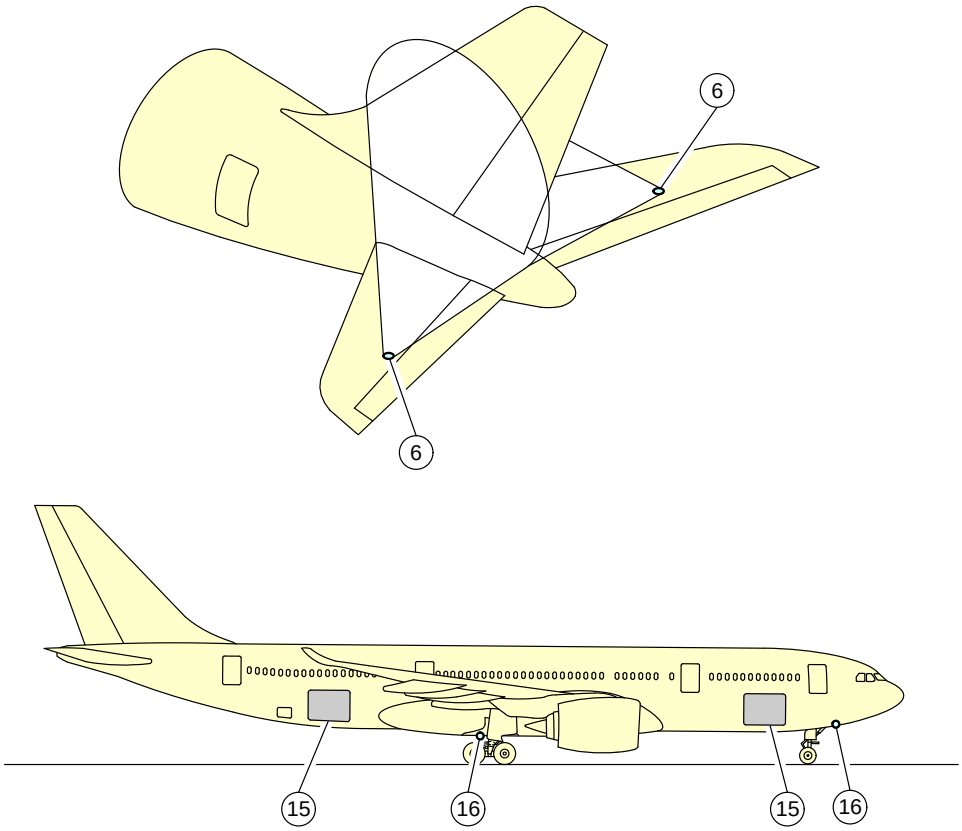
**ON A/C A330-800

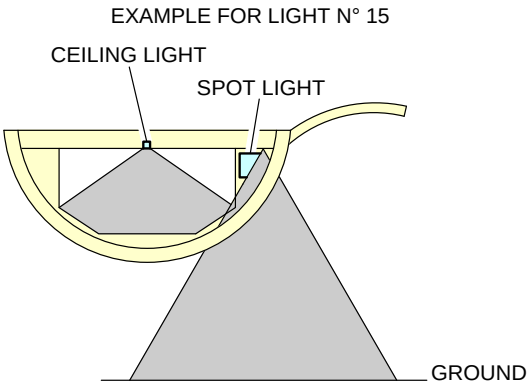



F_AC_021000_1_0080104_01_00

Exterior Lighting
(Sheet 4 of 5)
FIGURE-2-10-0-991-008-A01

**ON A/C A330-800

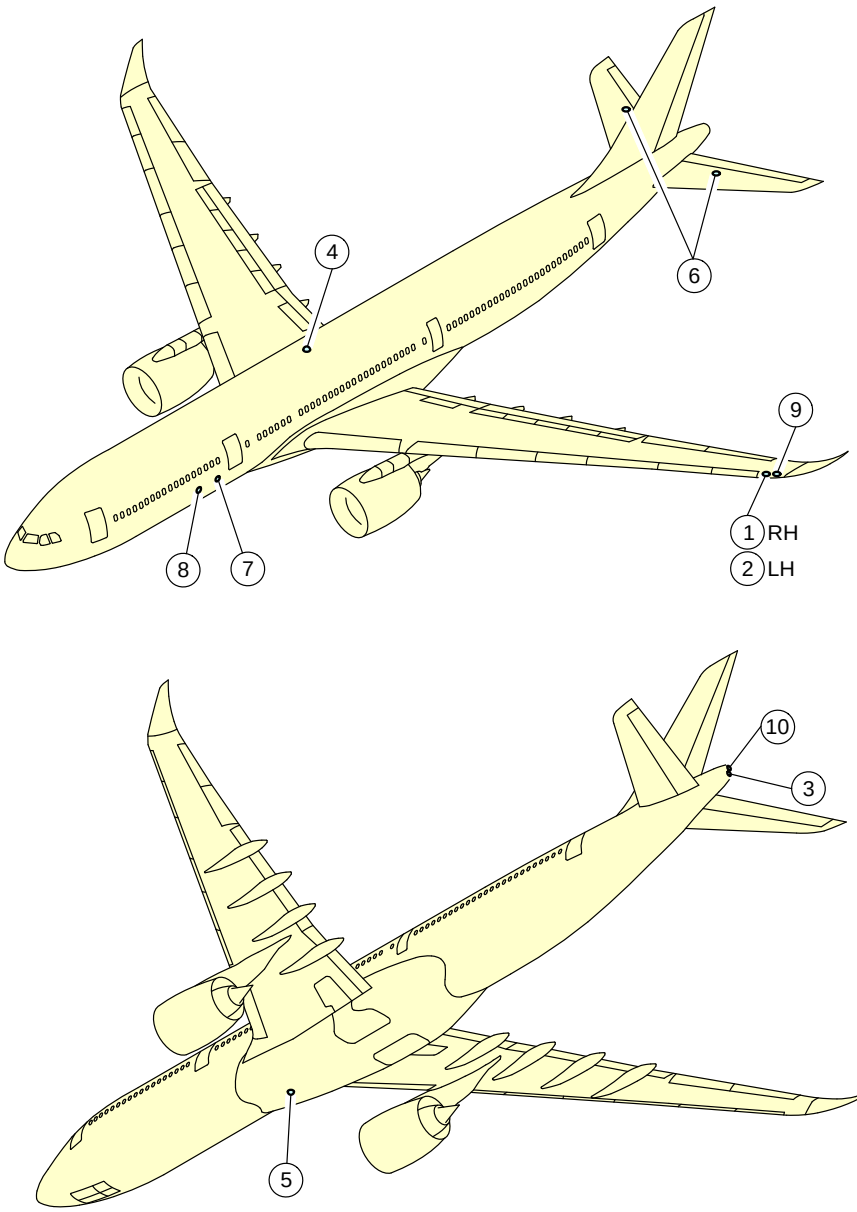



F_AC_021000_1_0080105_01_00

Exterior Lighting
(Sheet 5 of 5)
FIGURE-2-10-0-991-008-A01

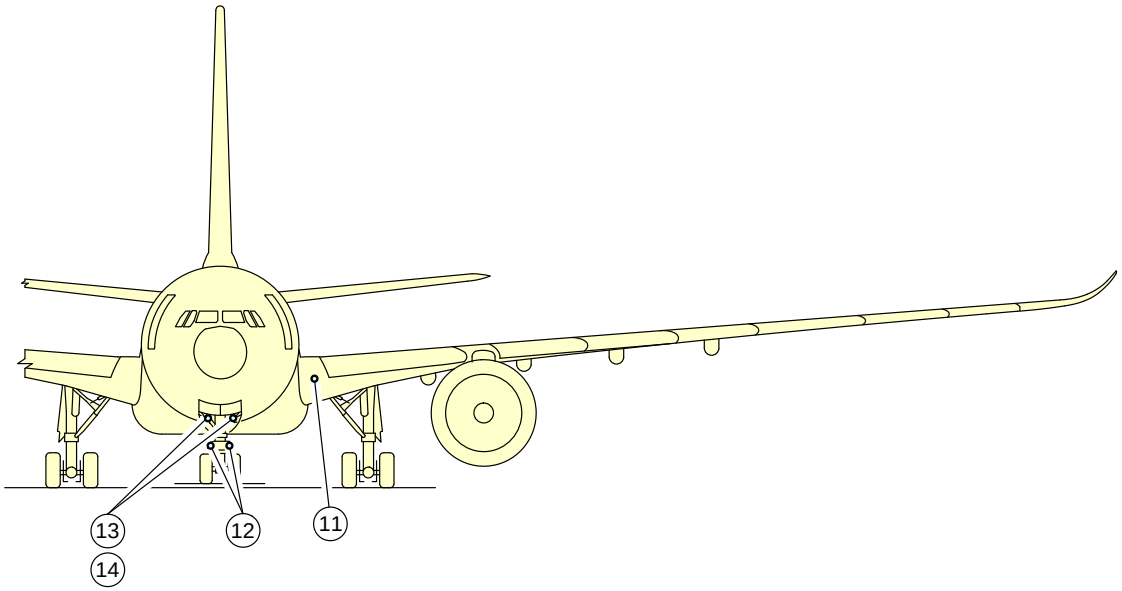
**ON A/C A330-900




F_AC_021000_1_0090101_01_00

Exterior Lighting
(Sheet 1 of 5)
FIGURE-2-10-0-991-009-A01

**ON A/C A330-900

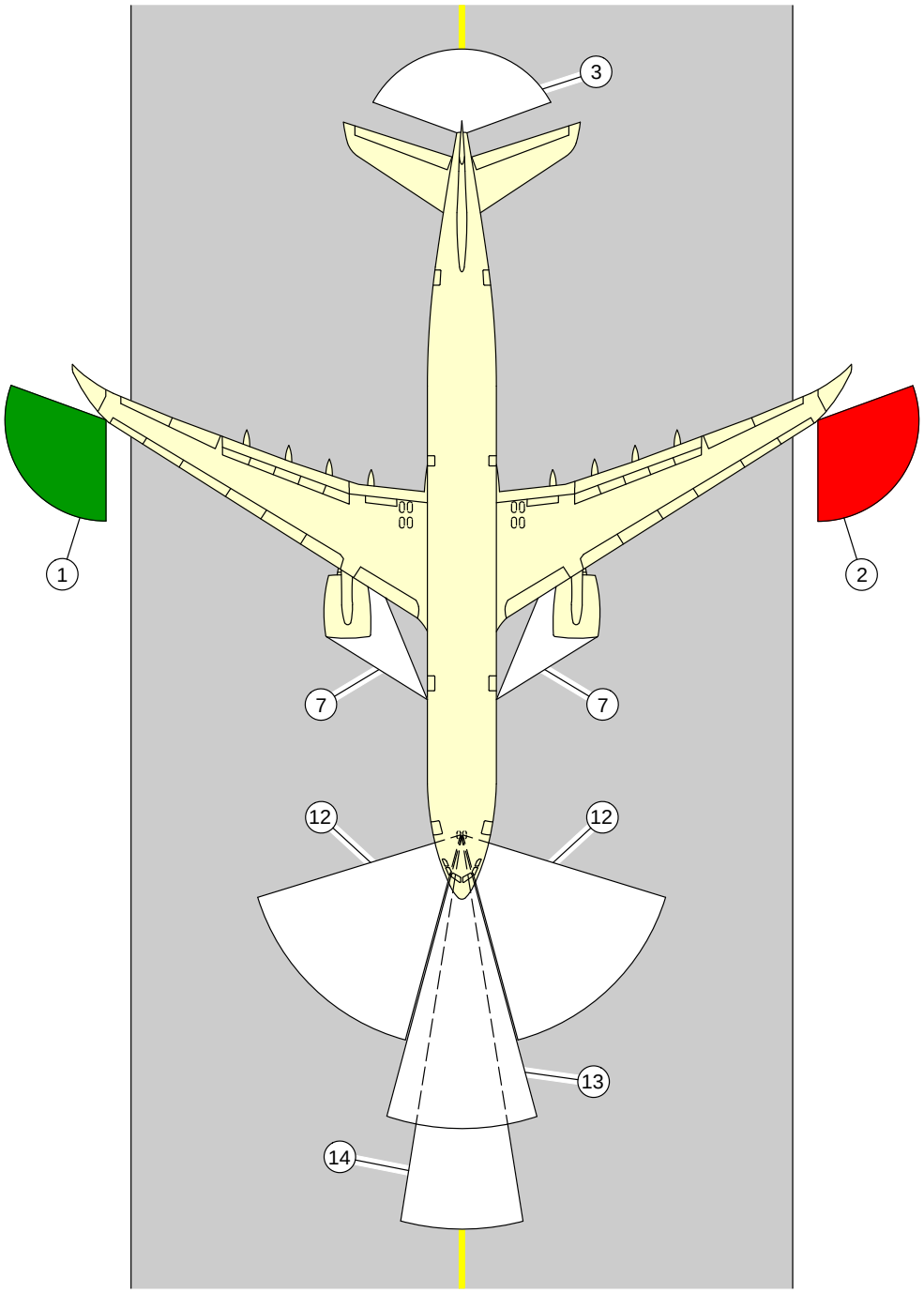



**NOTE:**
LIGHTS 13 AND 14 ARE THE SAME, BUT THEY OPERATE WITH DIFFERENT POWER SETTINGS.

F_AC_021000_1_0090102_01_00

Exterior Lighting
(Sheet 2 of 5)
FIGURE-2-10-0-991-009-A01

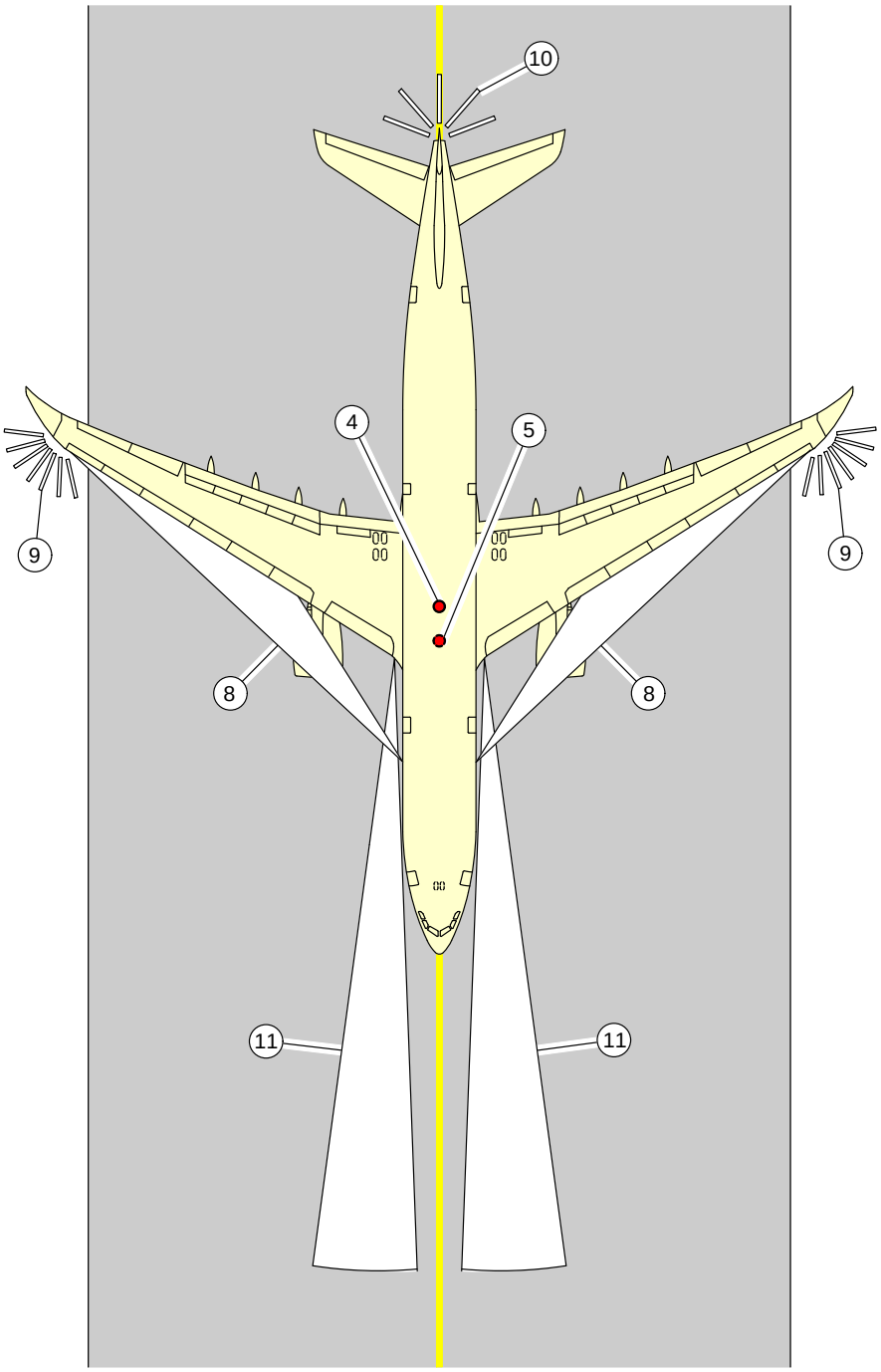
**ON A/C A330-900




F_AC_021000_1_0090103_01_00

Exterior Lighting
(Sheet 3 of 5)
FIGURE-2-10-0-991-009-A01

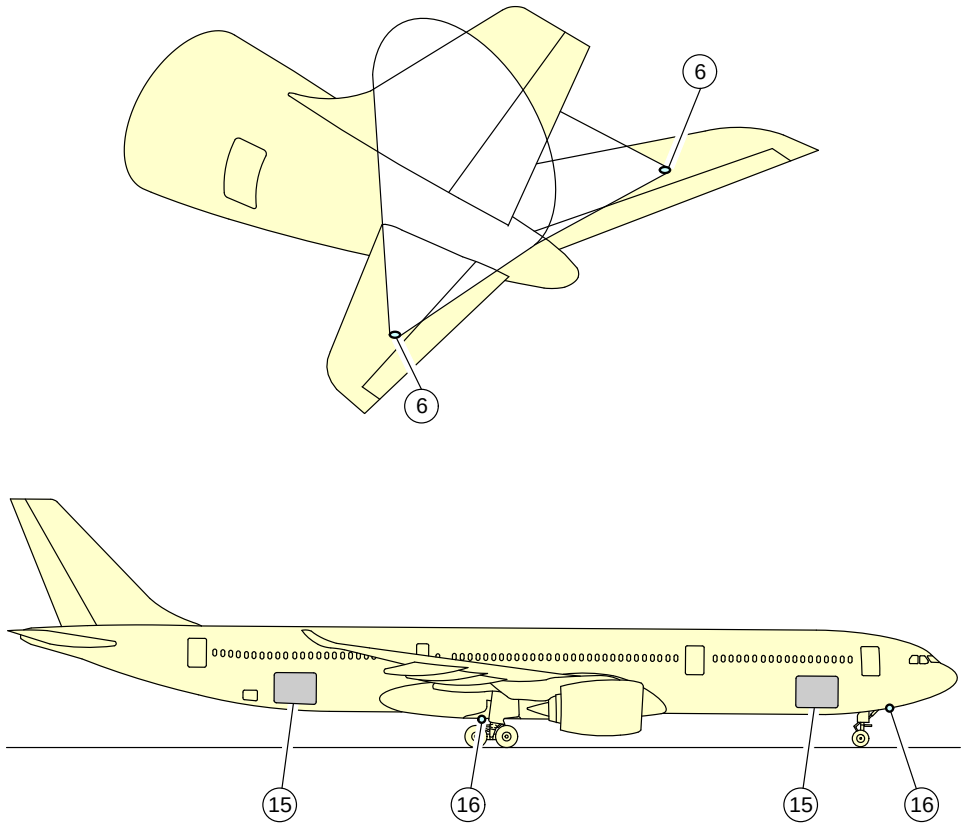
**ON A/C A330-900




F_AC_021000_1_0090104_01_00

Exterior Lighting
(Sheet 4 of 5)
FIGURE-2-10-0-991-009-A01

**ON A/C A330-900




F_AC_021000_1_0090105_01_00

Exterior Lighting
(Sheet 5 of 5)
FIGURE-2-10-0-991-009-A01

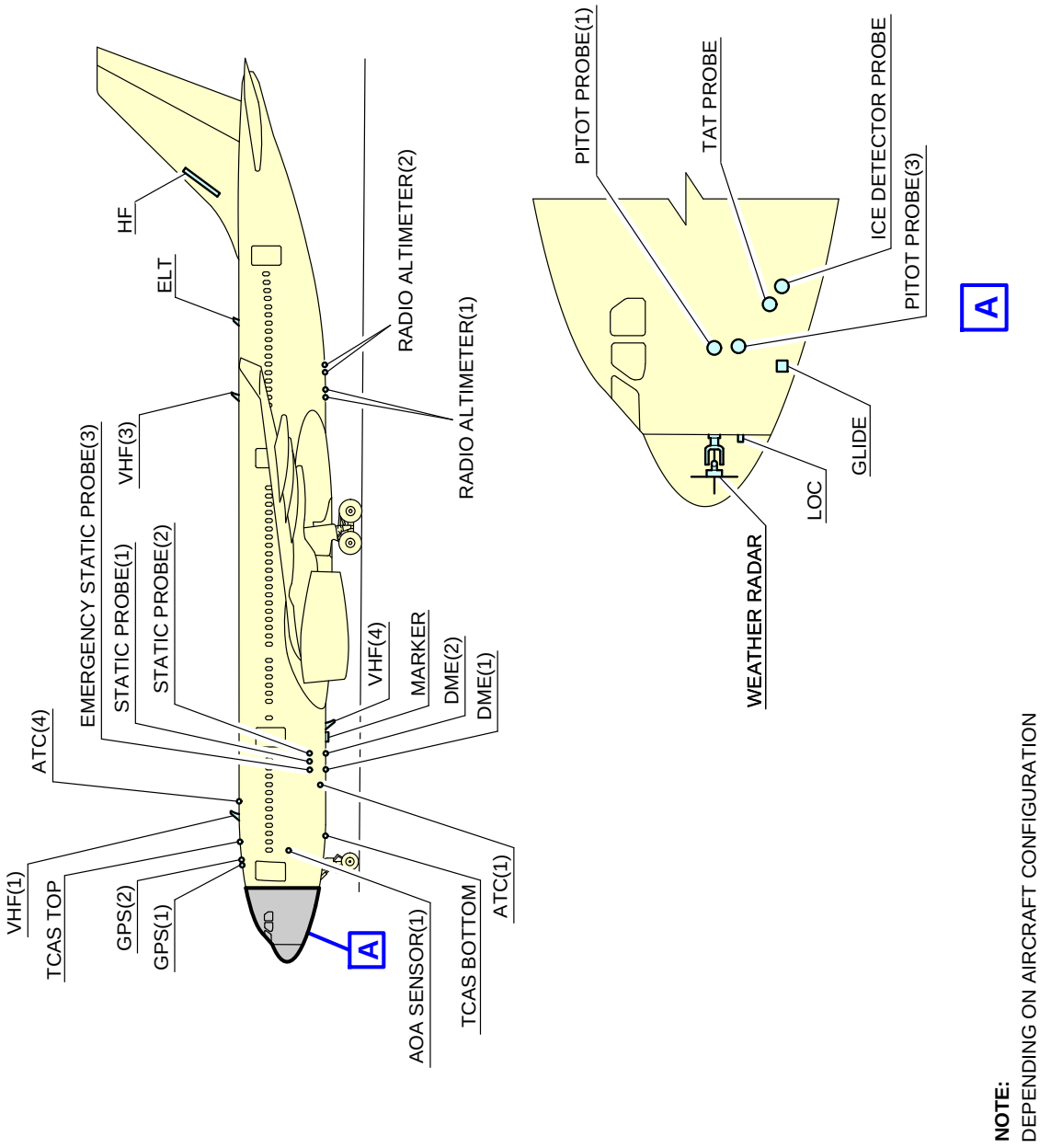
## 2-11-0 Antennas and Probes Location

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Antennas and Probes Location

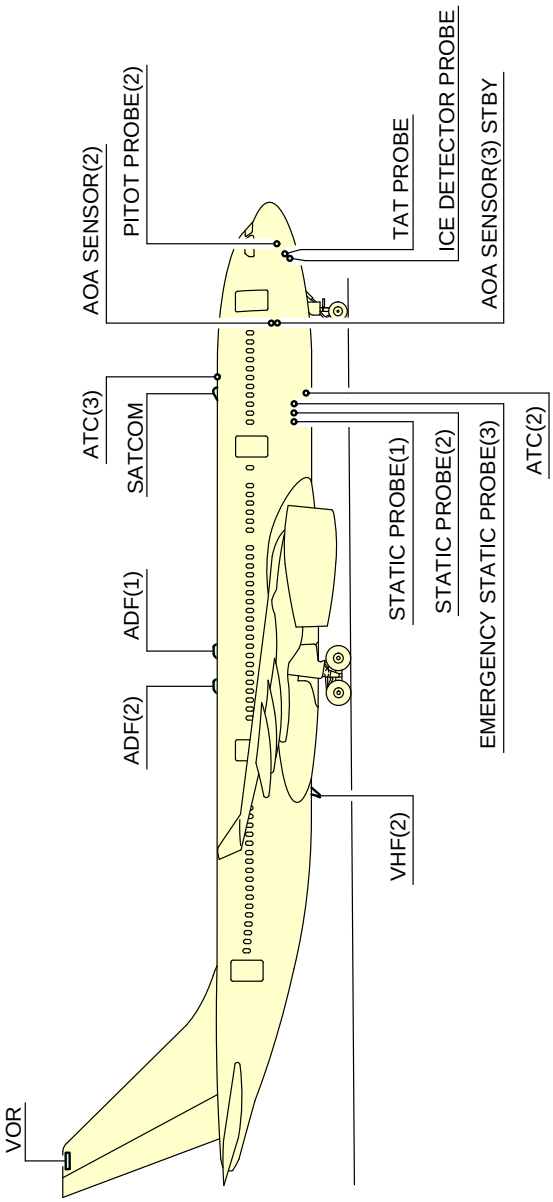
1. This section gives the location of antennas and probes.

**ON A/C A330-200 A330-800




Antennas and Probes
Location (Sheet 1 of 2)
FIGURE-2-11-0-991-001-A01

****ON A/C A330-200 A330-800**

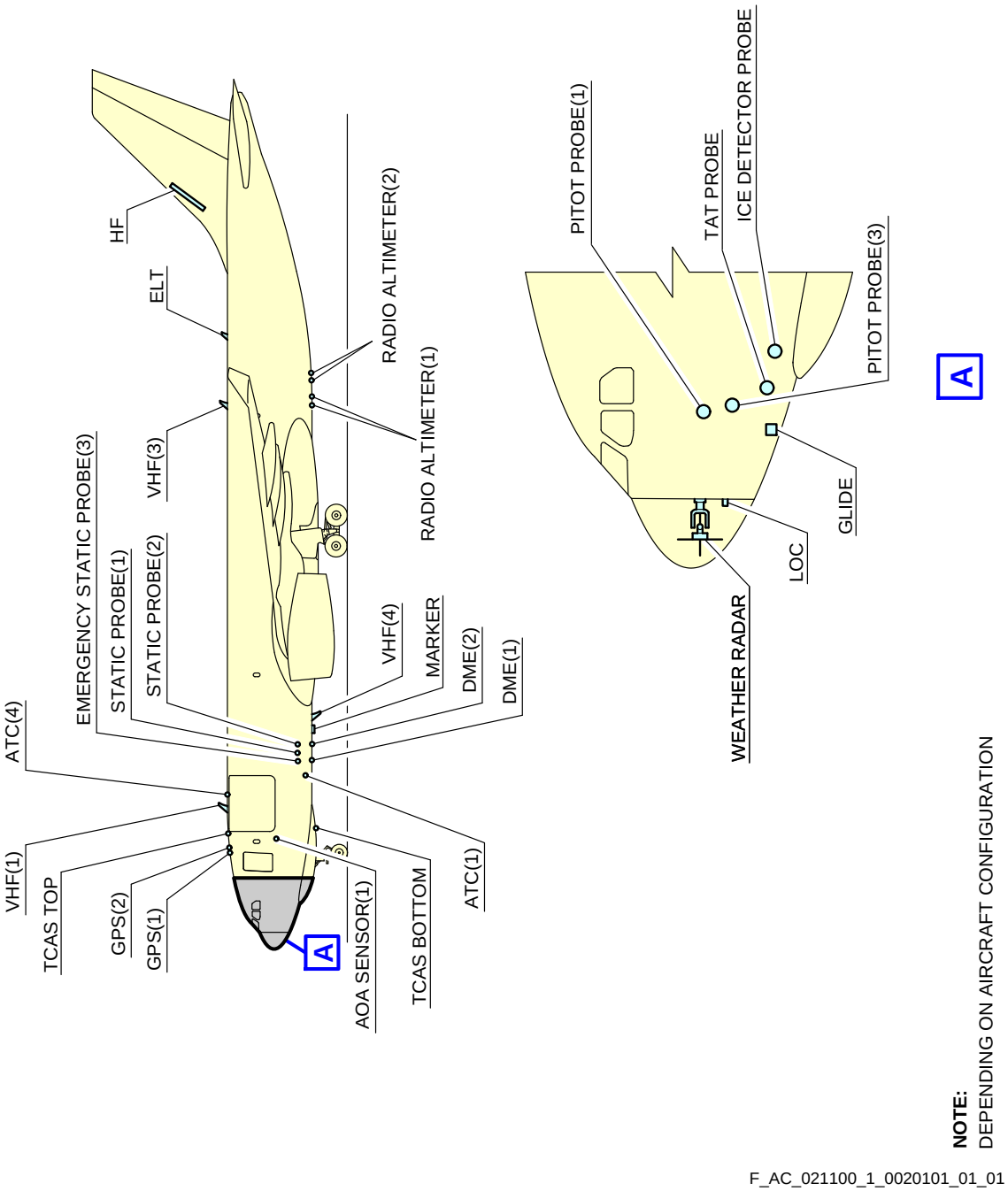



**NOTE:** DEPENDING ON AIRCRAFT CONFIGURATION

F_AC_021100_1_0010102_01_00

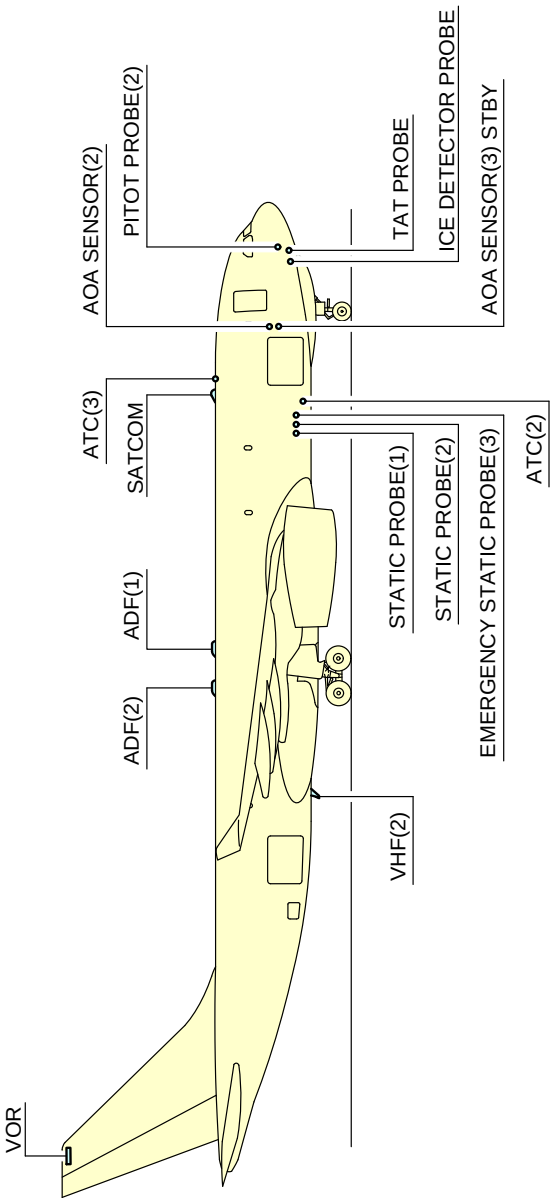
Antennas and Probes
Location (Sheet 2 of 2)
FIGURE-2-11-0-991-001-A01

**ON A/C A330-200F




Antennas and Probes
Location (Sheet 1 of 2)
FIGURE-2-11-0-991-002-A01

**ON A/C A330-200F

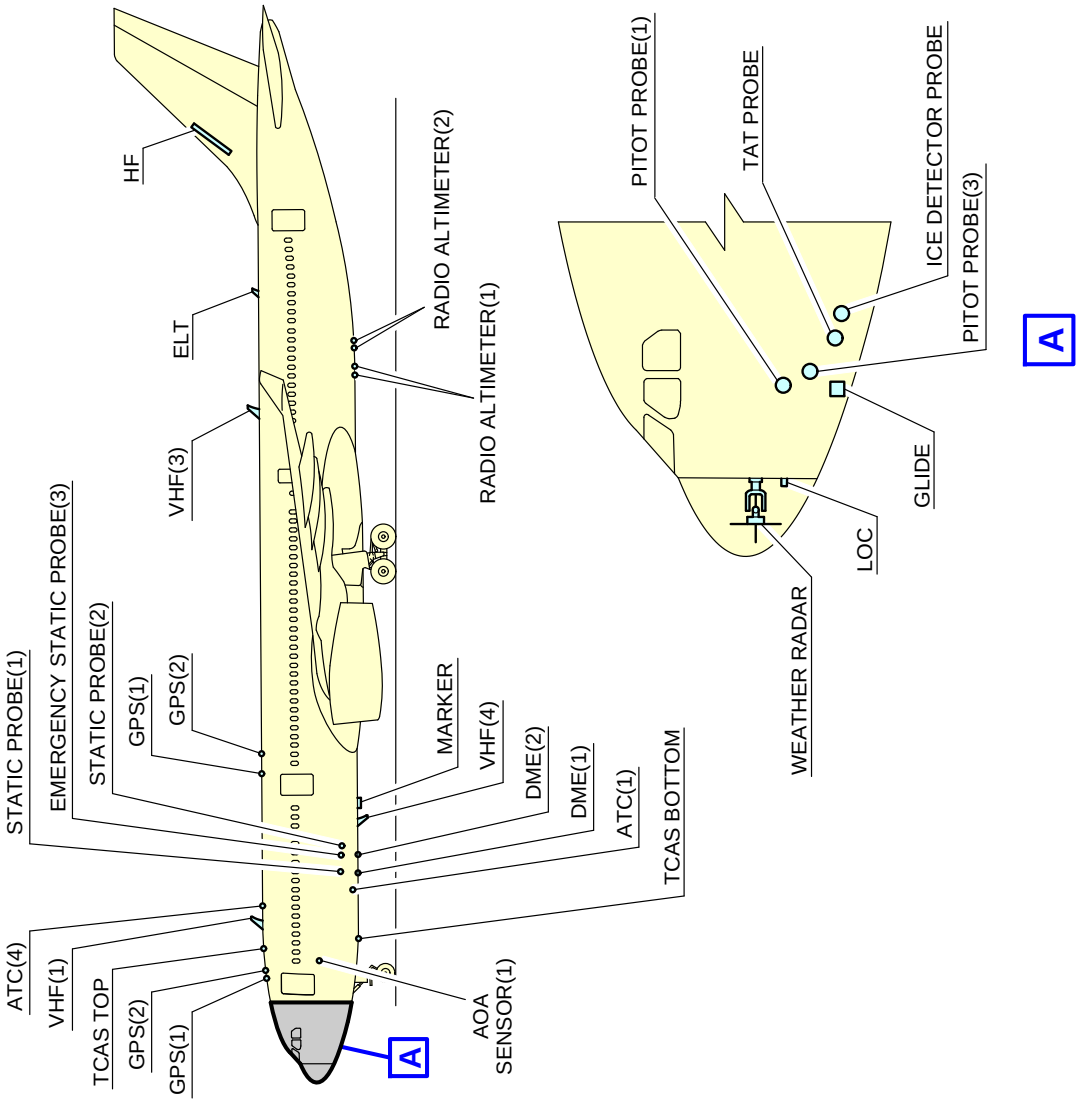



**NOTE:** DEPENDING ON AIRCRAFT CONFIGURATION

F_AC_021100_1_0020102_01_00

Antennas and Probes
Location (Sheet 2 of 2)
FIGURE-2-11-0-991-002-A01

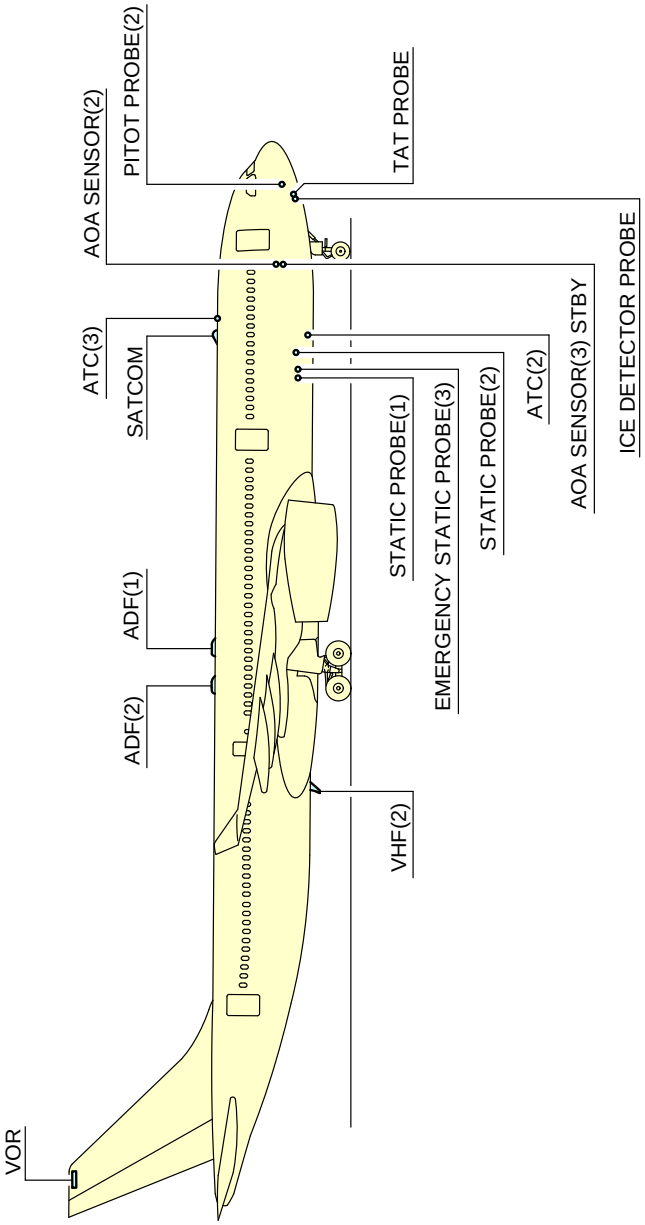
**ON A/C A330-300 A330-900




F_AC_021100_1_0030101_01_01

Antennas and Probes
Location (Sheet 1 of 2)
FIGURE-2-11-0-991-003-A01

**ON A/C A330-300 A330-900




**NOTE:** DEPENDING ON AIRCRAFT CONFIGURATION

F_AC_021100_1_0030102_01_00

Antennas and Probes
Location (Sheet 2 of 2)
FIGURE-2-11-0-991-003-A01

## 2-12-0 Engine and Nacelle

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine and Nacelle

****ON A/C A330-200 A330-200F A330-300**

1. Engine and Nacelle - PW 4000 Engine

A. Engine

The PW 4000 engine is a two spool, axial flow, high bypass ratio turbofan engine.
The engine has four major sections as follows:

- The compressor section
- The combustion section
- The turbine section
- The accessory drive section.

The compressor section has a six-stage low pressure compressor, a fan case, an intermediate case and an eleven-stage high pressure compressor. The 1st stage rotor in the low pressure compressor flows air through both the fan nozzle and the low compressor rotor/stator assemblies to the core of the engine. The high pressure compressor is used to increase the pressure of the primary airflow from the low compressor and send it to the diffuser.
The engine combustion section comprises the diffuser case and a combustion chamber installed in the case. The chamber forms the enclosure where fuel is mixed with air and burned to add energy to the primary gaspath.
The turbine section comprises the rear compressor drive turbine, the front compressor drive turbine and the Turbine Exhaust Case (TEC). The rear compressor drive turbine is the two-stage High Pressure Turbine (HPT) and the front compressor drive turbine is the five-stage Low Pressure Turbine (LPT). The HPT case assembly is air-cooled as part of the Turbine Case Cooling (TCC) system. The LPT rotor and stator assembly includes the front compressor driveshaft, the LPT case and the LPT spool case. The LPT case is externally cooled by turbine case cooling tubes.
The accessory drive section comprises the main gearbox and angle gearbox. The high pressure rotor is used to supply the main gearbox with power to drive the engine and aircraft-supplied accessories. Power comes from the towershaft in the intermediate case which is geared to the front of the high pressure rotor. The towershaft drives the angle gearbox bevel gear set which transmits power through the horizontal driveshaft assembly to the main gearbox group.

B. Nacelle

The nacelle is the aerodynamic structure around the basic engine. The nacelle provides a smooth airflow both around and into the engine to decrease drag and give better engine performance and prevents damage to the external surface of the engine and its accessories. The nacelle consists of the following major components:

(1) Air Intake Cowl
The air intake cowl is an interchangeable aerodynamic fairing assembly that permits smooth airflow to the engine fan and core sections during ground and flight operation. The air intake cowl is attached with bolts to the engine fan case.

(2) Fan Cowls
Fan cowls comprise a forward (fixed) fan cowl panel assembly and an aft fan cowl door assembly. The fan cowl panels and doors protect the engine and its components, and optimize the aerodynamic characteristics of the nacelle.

(3) Thrust Reverser
The thrust reverser system is a component of the aircraft engine nacelle and is used to cancel the forward thrust and to give aerodynamic braking of the aircraft. The principle of the thrust reverser is to procedure forward flow of the fan exhaust by a hydraulically-actuated mechanical system. The system is designed to be used on the ground only.

(4) Exhaust System
The turbine exhaust system has an exhaust nozzle and an exhaust plug. Both system components are acoustically treated and made to resist severe ambient conditions. The exhaust nozzle forms the outer contour of the engine primary exhaust annulus and the inner flow path of the fan airstream. The exhaust plug forms the inner contour of the engine primary exhaust annulus. The exhaust nozzle and exhaust plug are line replaceable units.

2. Engine and Nacelle - TRENT 700 Engine

A. Engine
The RB211-TRENT 700 engine is a high bypass ratio, triple spool turbofan.
The principal modules of the engine are:
- The Low Pressure Compressor (LPC) rotor
- The Intermediate Pressure (IP) compressor
- The intermediate case
- The HP system (this includes the High Pressure Compressor (HPC), the combustion system and the High Pressure Turbine (HPT))
- The Intermediate Pressure Turbine (IPT)
- The external gearbox
- The LPC case
- The Low Pressure Turbine (LPT).

The compressor system has three axial flow compressors in a triple spool configuration. The compressors are turned independently by their related turbines, each at its most satisfactory speed. The LP system has a single-stage compressor installed at the front of the engine. A shaft connects the compressor to a four-stage turbine at the rear of the gas generator. The gas generator also includes an eight-stage IP compressor, a six-stage HPC and a combustion system. Each of the compressors in the gas generator is connected to, and turned by, a different single-stage turbine. Between the HPC and the HPT is the annular combustion system which burns a mixture of fuel and air to supply energy as heat. Behind the LPT there is a common nozzle assembly which mixes the cold air and hot gas exhaust flows. The external gearbox module is installed below the rear case of the fan case. It has a gear train that decreases and increases the speed to meet the specified drive requirements of each accessory.

B. Nacelle

The nacelle gives the engine an aerodynamic shape. Each engine is housed in a nacelle suspended from a pylon attached below the wing. The nacelle consists of the following major components:

(1) Air Intake Cowl

The air intake cowl is attached to the forward flange of the front LPC case. Its function is to supply inlet air in a satisfactory condition for the engine compressors.

(2) Fan Cowl Doors

The fan cowl doors hang on the aircraft wing pylon and are closed around the LPC cases. They can be opened during ground maintenance to give access to the components installed on the cases and to let the thrust reverser cowl doors be opened.

(3) Thrust Reverser

The thrust reverser is a component of the aircraft engine nacelle. The thrust reverser is a twin thrust reverser cowl door (’C’ duct) construction providing a fan duct inner wall fairing for the core engine between the top and bottom bifurcation walls. The thrust reverser incorporates hydraulically-powered actuators to operate four pivoting doors which redirect the fan air flow in reverse thrust. Hydraulic power is provided from the aircraft hydraulic system to position the doors in a ”stowed” position for forward thrust and ”deployed” position for reverse thrust.

(4) Common Nozzle Assembly (CNA)

The CNA is attached to the aft flange of the exhaust case. The function of the CNA is to mix the core engine exhaust with the LPC outlet air.

****ON A/C A330-200 A330-300**

3. Engine and Nacelle - GE CF6–80E1 Engine

A. Engine

The CF6-80E1 engine is a high bypass ratio, dual-rotor, axial-flow turbofan engine.
The major modules of the engine are:

- The fan module
- The core module
- The High Pressure Turbine (HPT)
- The Low Pressure Turbine (LPT)
- The accessory drive modules.

The fan module supplies approximately 80 percent of the total engine thrust through secondary air flow acceleration. The fan module also boosts primary air flow to the high pressure compressor. The fan rotor and booster assembly is part of the fan module. Air, taken in through the fan section, passes through successive stages of compressor rotor blades and compressor stator vanes, being compressed as it passes from stage to stage. The inlet guide vanes and the first five-stages of the stator are variable, and change their angular position as a function of the compressor inlet temperature and corrected engine speed. The combustion of fuel takes place in the combustor installed in the compressor rear frame. The two main modules of the turbine are the HPT and the LPT. The function of the HPT is to drive the high pressure compressor by converting the combustor exhaust gas flow into mechanical force. The LPT subsequently also converts this flow into force to drive the fan and booster assemblies. The HPT rotor is a two-stage air-cooled turbine. The LPT rotor drives the fan and booster rotors through the LPT rotor shaft by extracting energy from the combustion gases leaving the HPT. Power for both engine and aircraft accessories is extracted through a system of gearboxes and shafts. The accessory gearbox assembly is mounted on the compressor casing. The gearbox receives torque from the horizontal drive shaft and distributes the torque through spur gears to drive the gearbox-mounted accessories.

B. Nacelle

The nacelle provides protection for the engine and the engine accessories, and aerodynamic airflow around the engine during operation. Each engine is mounted in a nacelle suspended from a pylon attached to the wing lower surface. The nacelle consists of the following major components:

(1) Air Intake Cowl Assembly

The air intake cowl structure is an interchangeable aerodynamically-faired assembly which supplies the inlet airflow to the fan and core sections of the engine. It is installed on the forward face of the engine fan case.

(2) Fan Cowl Doors

The fan cowl door assemblies are engine-to-engine interchangeable units enclosing the engine fan case between the air intake cowl and thrust reverser cowl doors. Each assembly is supported by three hinges at the pylon and latched along the bottom splitline with three tension hook latches.

(3) Thrust Reverser

The thrust reverser is a bifurcated assembly of two halves forming the fan exhaust duct and nozzle, enclosing the engine between the fan frame and the core cowling, and containing the mechanism for reversing the fan exhaust flow during aircraft landing.

(4) Core Cowl Doors
The core cowl door assemblies are interchangeable units which enclose the core engine between the thrust reverser cowl doors and the exhaust nozzle. Each assembly is hinged from the pylon in three locations and latched along the bottom splitline with three tension hook latches.

(5) Exhaust Nozzle
The exhaust nozzle, through which all exhaust gases are expelled, is part of the aerodynamically-structured nacelle. The exhaust nozzle provides a fixed area annulus for exhausting the core engine gas stream flow and provides a continuation of the aerodynamic cowling from the core cowl interface.

****ON A/C A330-800 A330-900**

4. Engine and Nacelle - TRENT 7000 Engine

A. Engine
The TRENT 7000 engine is a high by-pass ratio, triple spool turbo fan. It has a Low Pressure (LP) system and a gas generator system.

The major modules of the engines are:
- The air Inlet section
- The compressor section
- The combustion section
- The turbine section
- The accessory drives

The air Inlet section:- The function of the air inlet section is to make sure there is a smooth flow of air into the LP compressor.
The compressor section:- The function of the compressor section is to increase the pressure of the air. The compressor section has a LP and Intermediate Pressure (IP) compressor. Each section is connected to the applicable turbine by a shaft.
The Combustion section:- The function of the combustion section is to burn a mixture of fuel and air to supply energy as heat. The heat is released into the system to increase the speed of the air and give a smooth expanded gas flow to the turbine section. The combustion section includes the High Pressure (HP) compressor and HP turbine.
The turbine section:-The function of the turbine section is to use the energy in the airflow to turn the compressors. The turbine section has a LP and IP turbine. Each section is connected to the applicable compressor by a shaft.

The accessory drives:- The function of the accessory drives section is to transmit mechanical energy from the IP rotor to the accessory units installed on the external gearbox.

B. Nacelle

The nacelle gives the engine an aerodynamic shape. Each engine is housed in a nacelle suspended from a pylon attached below the wing. The nacelle consists of the following major components:

(1) Air Intake Cowl

The air intake cowl is attached to the forward flange of the front Low Pressure Compressor (LPC) case. Its function is to supply inlet air in a satisfactory condition for the engine compressors.

(2) Fan Cowl Doors

The fan cowl doors hang on the aircraft wing pylon and are closed around the engine fan case. They can be opened during ground maintenance to give access to the components installed on the cases and to let the thrust reverser cowl doors be opened.

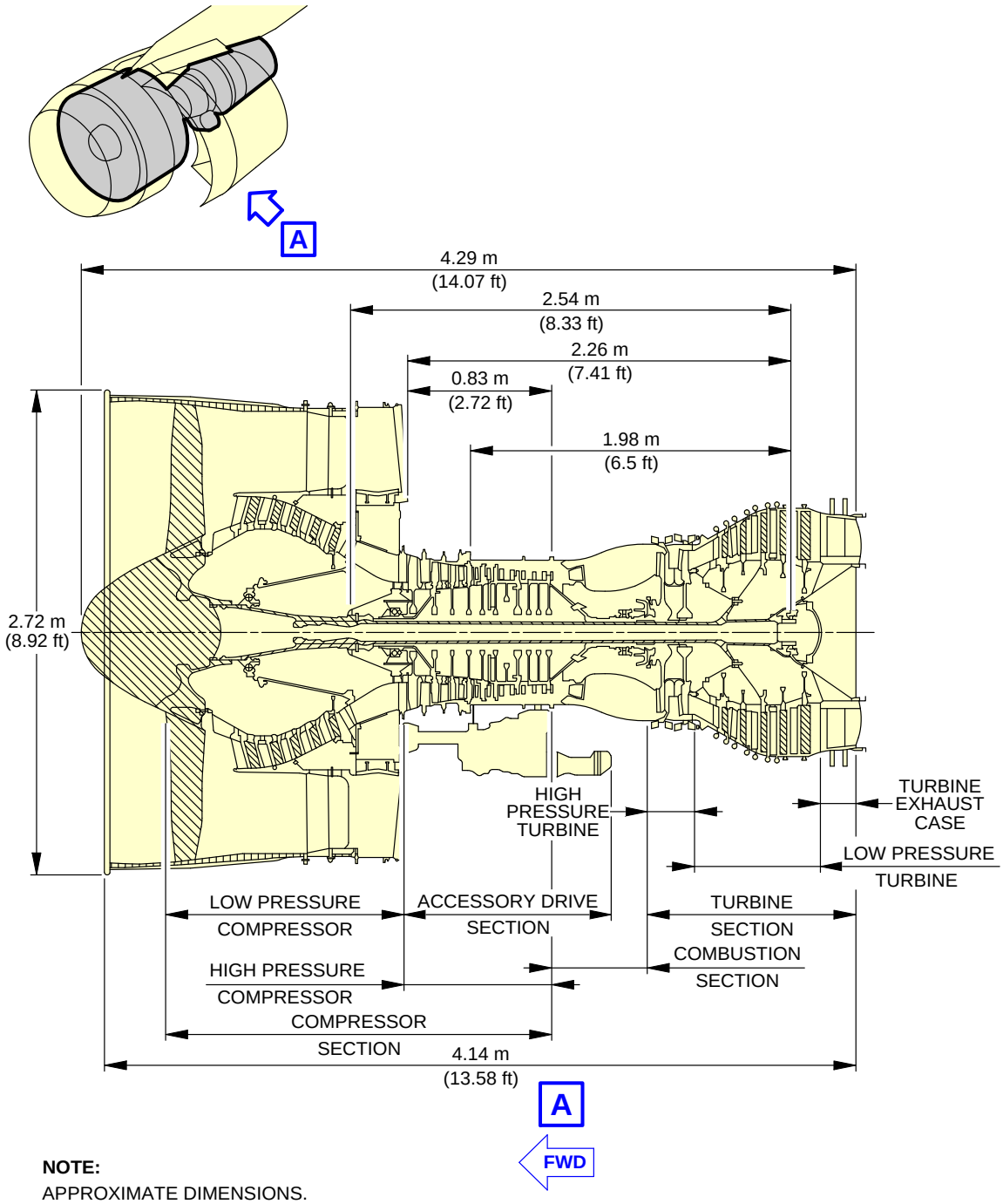
(3) Thrust Reverser

The thrust reverser is a component of the aircraft engine nacelle. The thrust reverser is a twin thrust reverser cowl door (’C’ duct) construction providing a fan duct inner wall fairing for the core engine between the top and bottom bifurcation walls. The thrust reverser incorporates hydraulically-powered actuators to operate translating doors and blocker doors which redirect the fan air flow in reverse thrust thanks to cascades. Hydraulic power is provided from the aircraft hydraulic system to position the translating doors in a ”stowed” position for forward thrust and ”deployed” position for reverse thrust.

(4) Exhaust

The exhaust system provides flow contour for exhaust gas and has been designed to be able to withstand hot environment due to nearness of the exhaust gas. It is composed of two parts, the primary nozzle and the exhaust plug. The exhaust system is a plain short structure, attached to engine turbine exhaust case.

**ON A/C A330-200 A330-200F A330-300

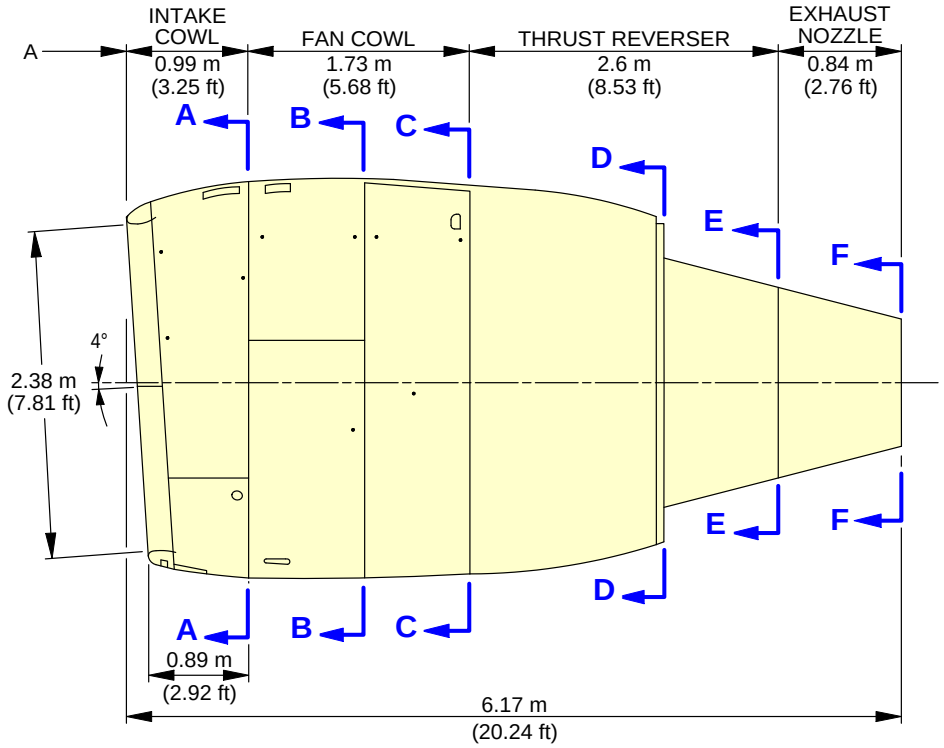



**NOTE:**
APPROXIMATE DIMENSIONS.

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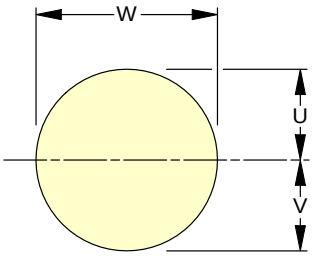
Engine and Nacelle
Engine Dimensions - PW 4000
FIGURE-2-12-0-991-001-A01

**ON A/C A330-200 A330-200F A330-300




| DISTANCE FROM NOSE | A330-300 | A330-200/ A330-200F |
|---|---|---|
| A | 21.45 m (70.37 ft) | 18.25 m (59.88 ft) |

| | W | U | V | NAC STA |
|---|---|---|---|---|
| A-A | 3.12 m (10.24 ft) | 1.56 m (5.12 ft) | 1.56 m (5.12 ft) | 0.89 m (2.92 ft) |
| B-B | 3.16 m (10.37 ft) | 1.58 m (5.18 ft) | 1.58 m (5.18 ft) | 1.79 m (5.87 ft) |
| C-C | 3.06 m (10.04 ft) | 1.53 m (5.02 ft) | 1.53 m (5.02 ft) | 2.62 m (8.6 ft) |
| D-D | 2.58 m (8.46 ft) | 1.29 m (4.23 ft) | 1.29 m (4.23 ft) | 4.62 m (15.16 ft) * |
| E-E | 1.42 m (4.66 ft) | 0.71 m (2.33 ft) | 0.71 m (2.33 ft) | 5.23 m (17.16 ft) |
| F-F | 1 m (3.28 ft) | 0.5 m (1.64 ft) | 0.5 m (1.64 ft) | 6.07 m (19.91 ft) |




U = V
W = U + V

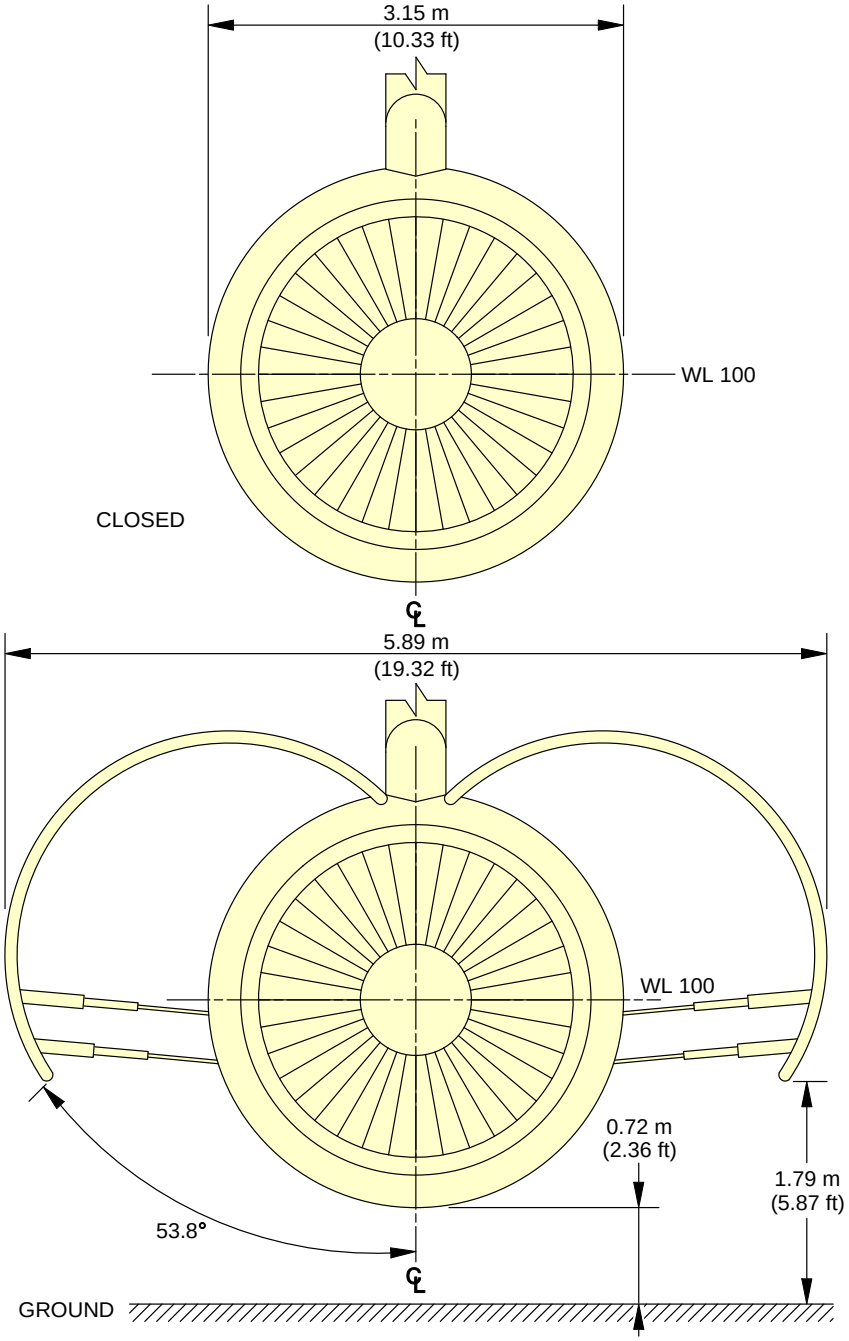
**NOTE:**
APPROXIMATE DIMENSIONS.

* STOWED POSITION

F_AC_021200_1_0020101_01_00

Engine and Nacelle
Nacelle Dimensions - PW 4000
FIGURE-2-12-0-991-002-A01

**ON A/C A330-200 A330-200F A330-300

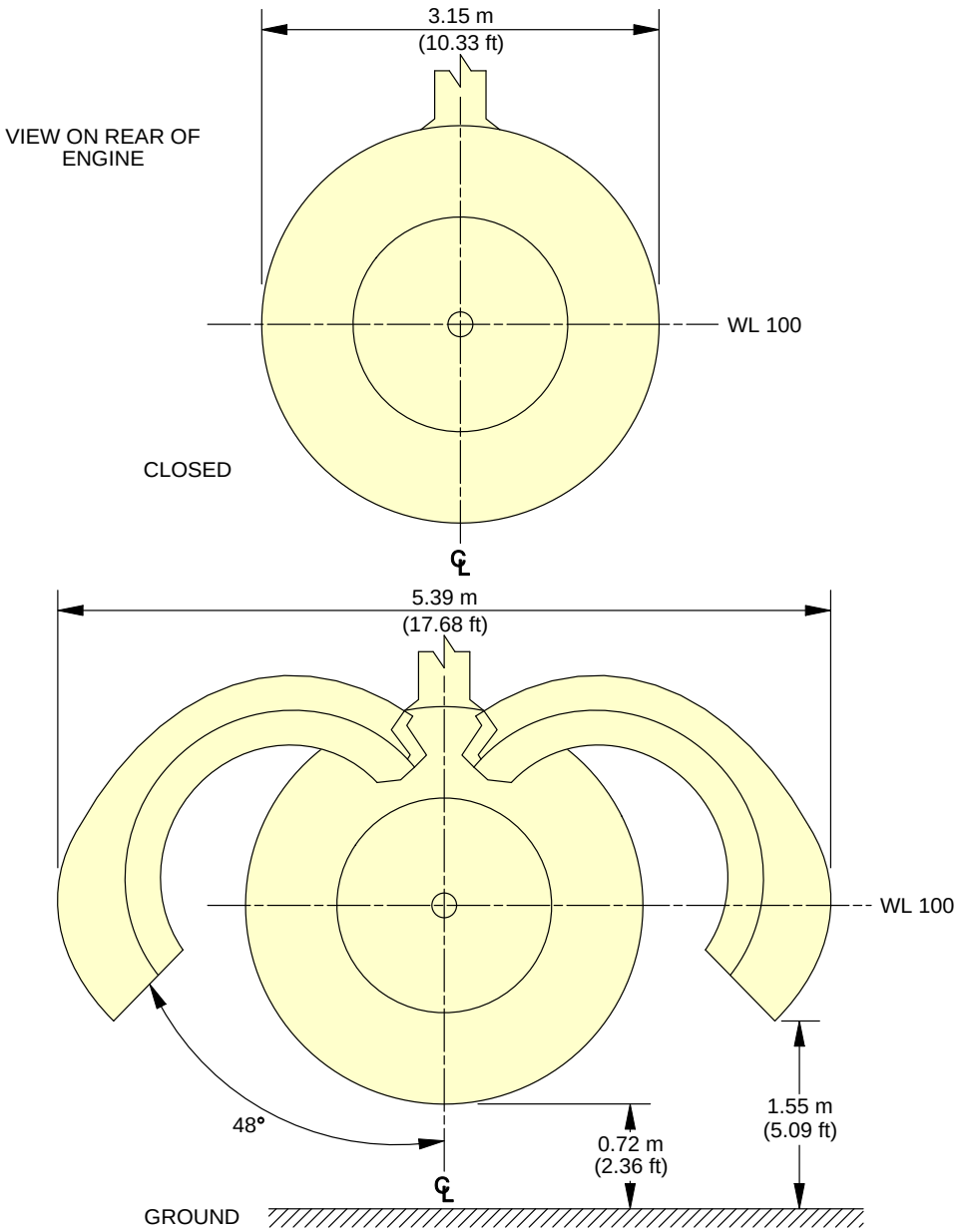



**NOTE:**
APPROXIMATE DIMENSIONS.

F_AC_021200_1_0030101_01_01

Engine and Nacelle
Fan Cowls - PW 4000
FIGURE-2-12-0-991-003-A01

**ON A/C A330-200 A330-200F A330-300



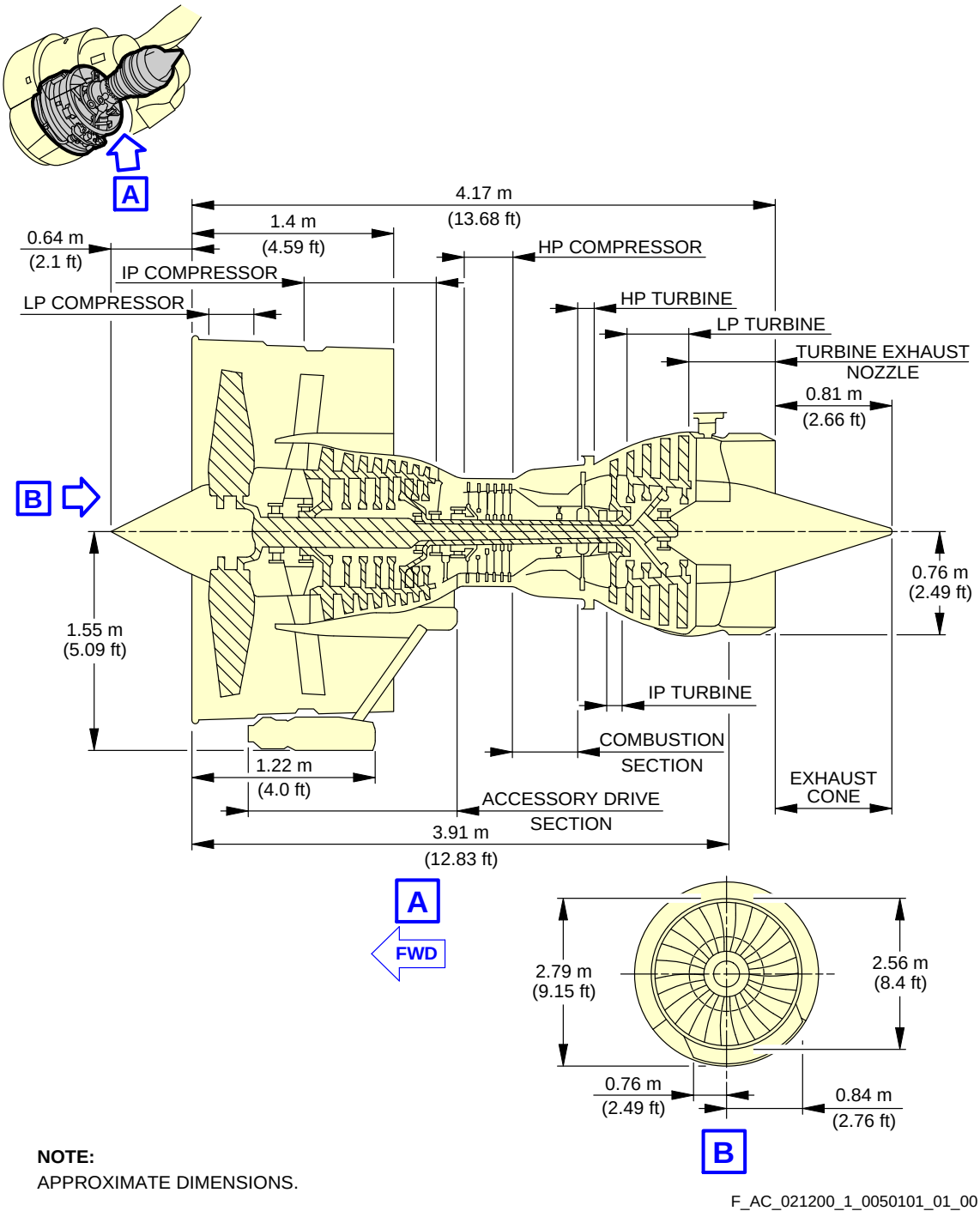

**CAUTION:**
DO NOT ACTUATE SLATS WITH THRUST REVERSER COWLS AT 48° OPEN POSITION.

**NOTE:**
APPROXIMATE DIMENSIONS.

F_AC_021200_1_0040101_01_01

Engine and Nacelle
Thrust Reverser Cowls - PW 4000
FIGURE-2-12-0-991-004-A01

**ON A/C A330-200 A330-200F A330-300

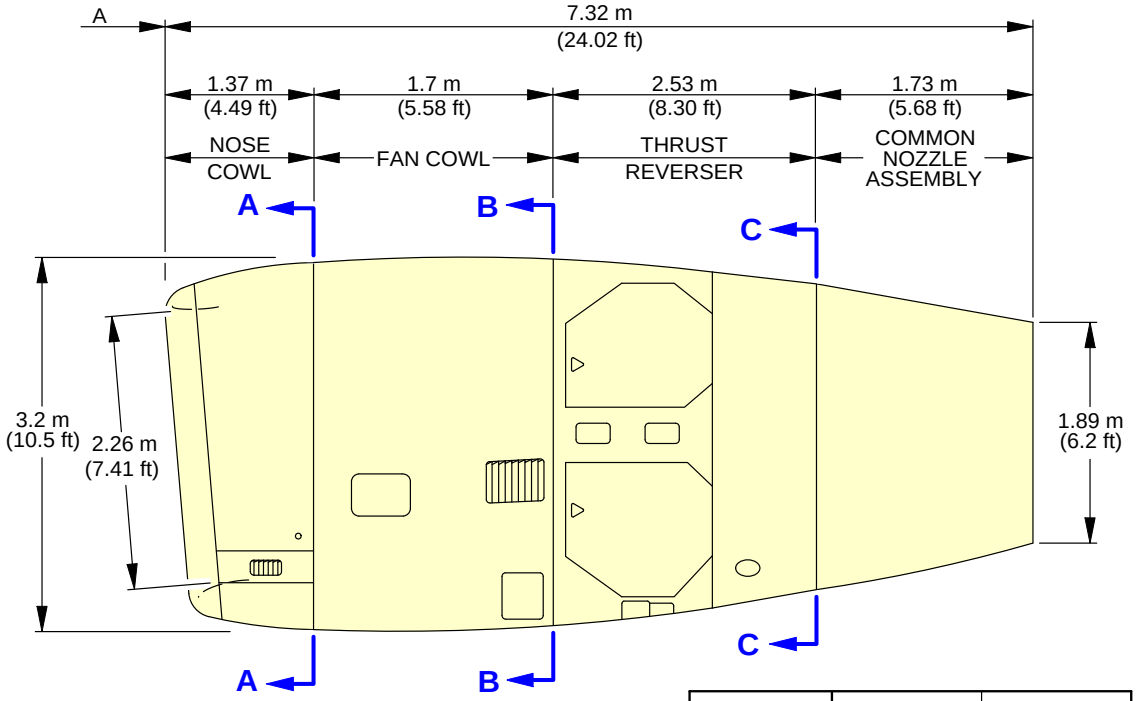



**NOTE:**
APPROXIMATE DIMENSIONS.

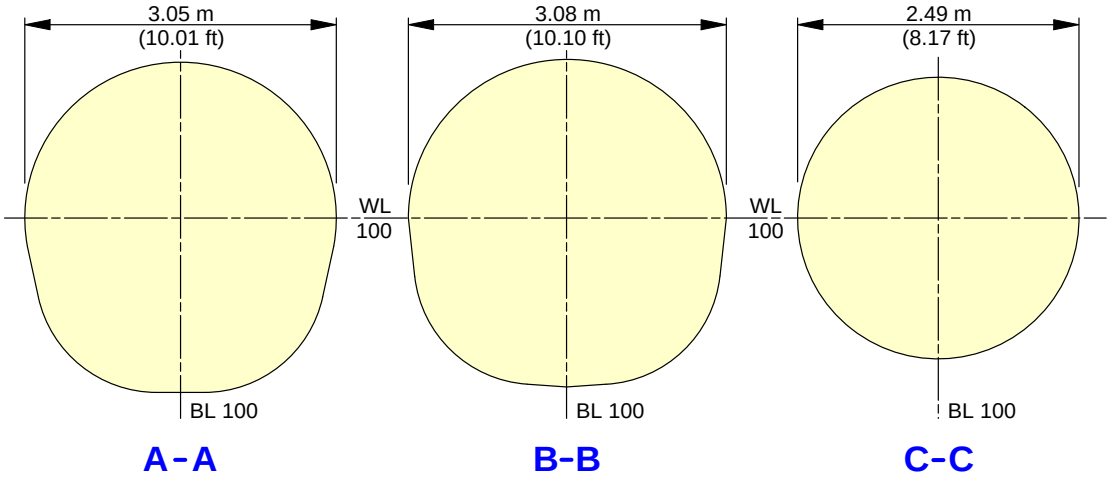
F_AC_021200_1_0050101_01_00

Engine and Nacelle
Engine Dimensions - TRENT 700
FIGURE-2-12-0-991-005-A01

**ON A/C A330-200 A330-200F A330-300




| DISTANCE FROM NOSE | A330-300 | A330-200/ -200F |
|---|---|---|
| A | 21.28 m (69.82 ft) | 18.08 m (59.32 ft) |

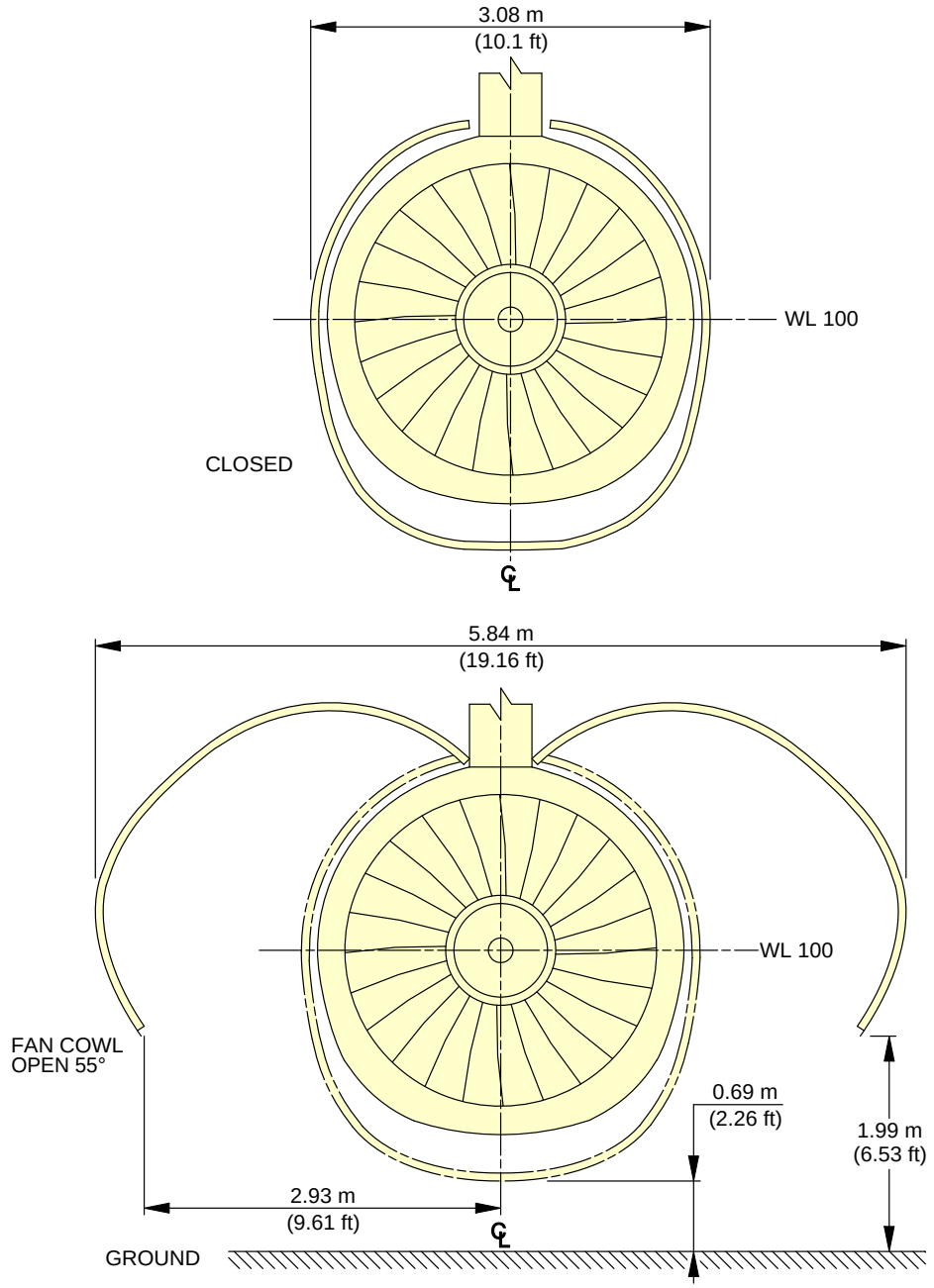



**NOTE:**
APPROXIMATE DIMENSIONS.

F_AC_021200_1_0060101_01_00

Engine and Nacelle
Nacelle Dimensions - TRENT 700
FIGURE-2-12-0-991-006-A01

**ON A/C A330-200 A330-200F A330-300

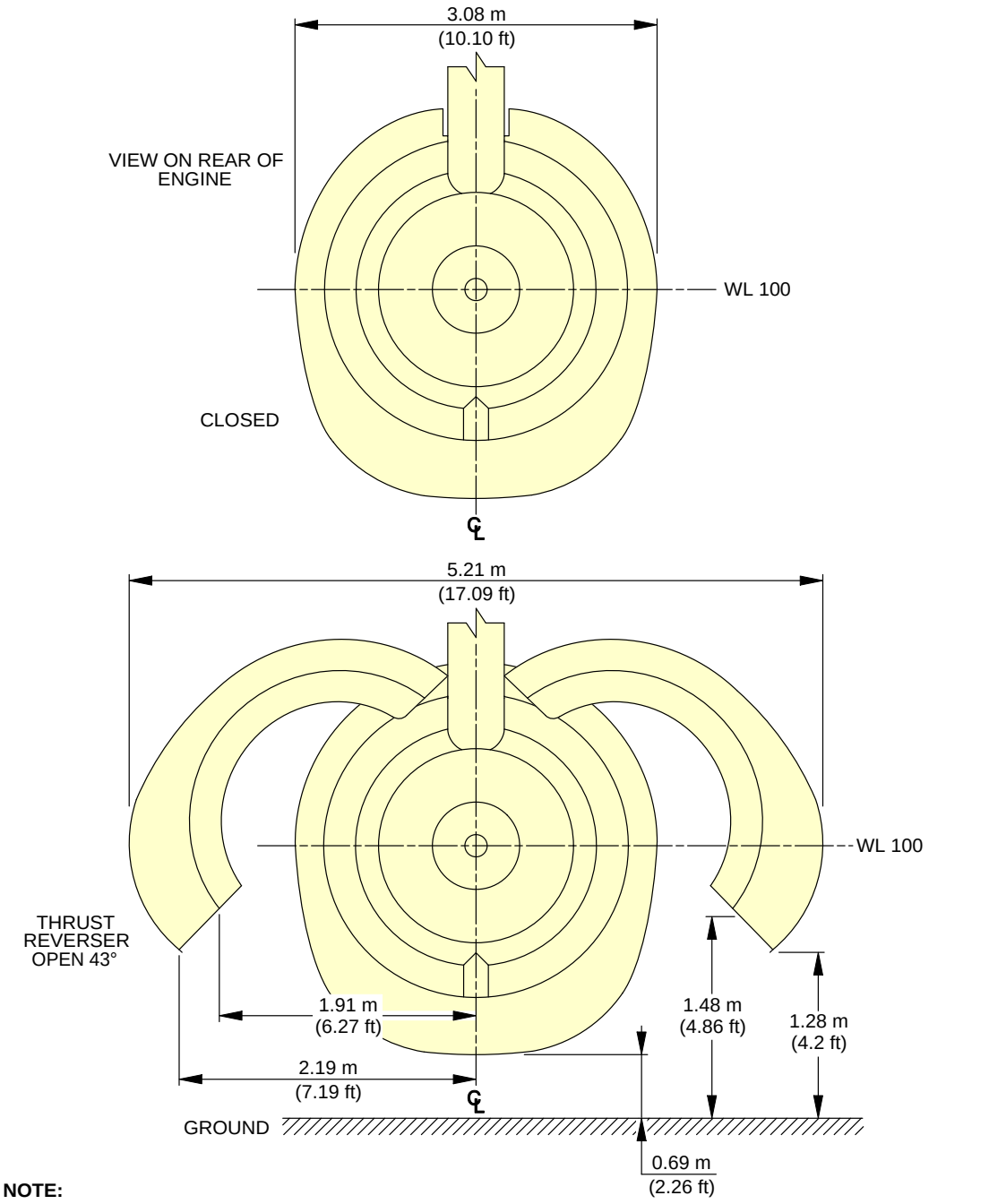



**NOTE:**
APPROXIMATE DIMENSIONS.

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Engine and Nacelle
Fan Cowls - TRENT 700
FIGURE-2-12-0-991-007-A01

****ON A/C A330-200 A330-200F A330-300**

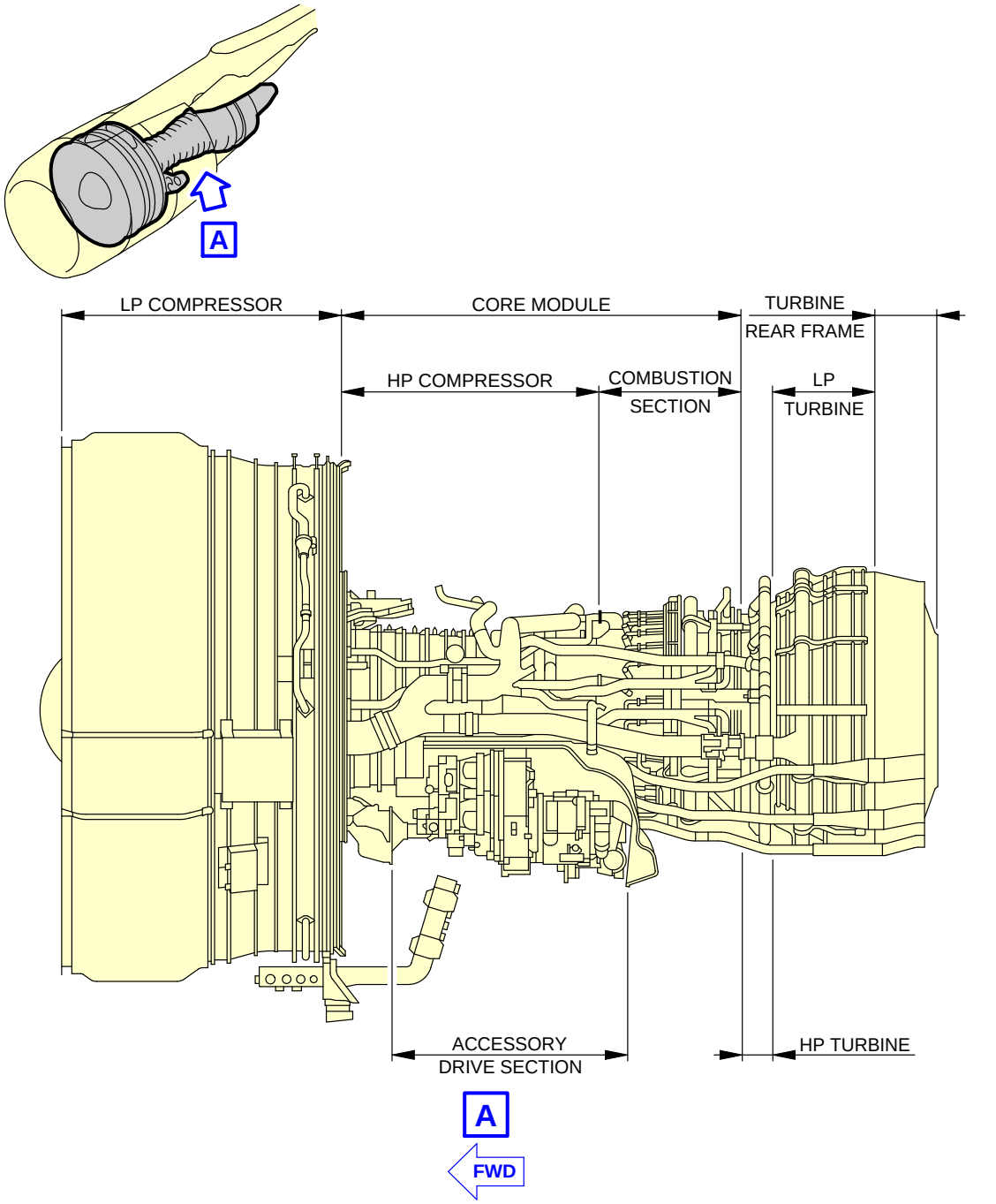



**NOTE:**
APPROXIMATE DIMENSIONS.

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Engine and Nacelle
Thrust Reverser Cowls - TRENT 700
FIGURE-2-12-0-991-008-A01

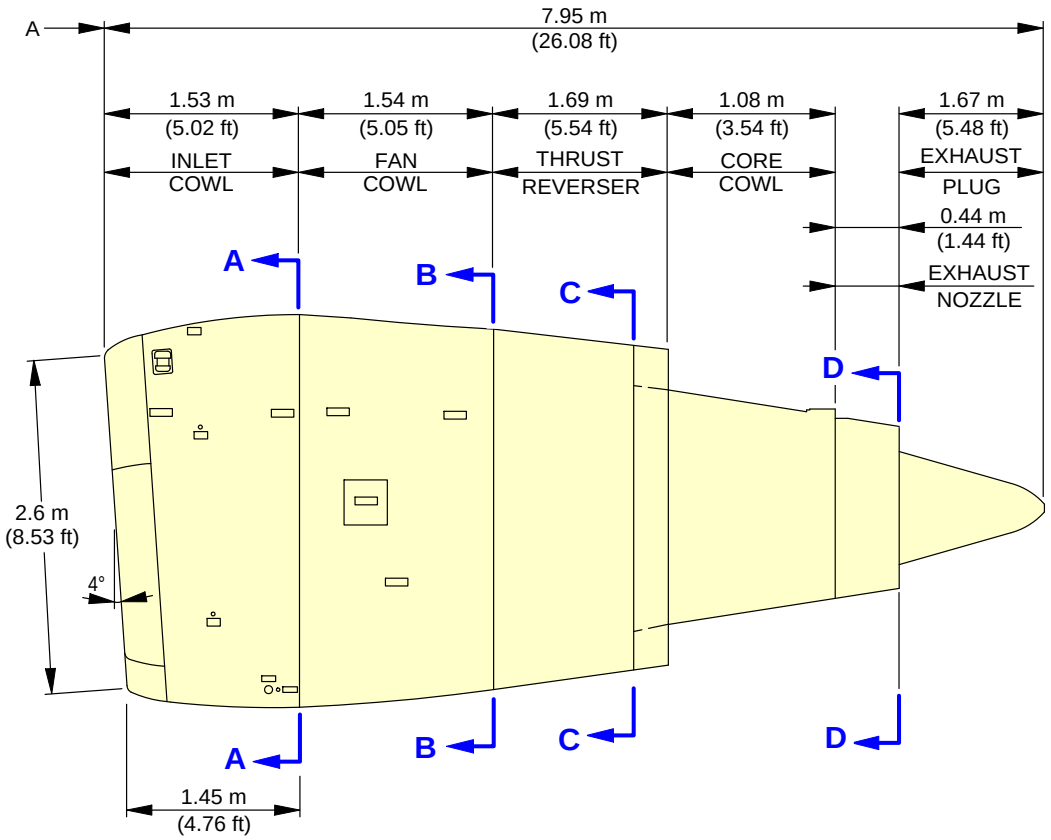
**ON A/C A330-200 A330-300




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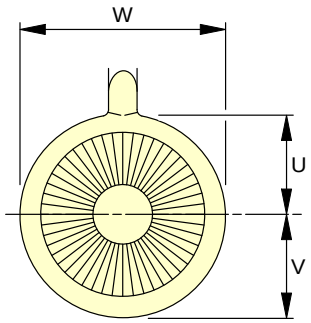
Engine and Nacelle
Engine Dimensions - GE CF6-80E1
FIGURE-2-12-0-991-009-A01

**ON A/C A330-200 A330-300




| DISTANCE FROM THE NOSE | A330-300 | A330-200 |
|---|---|---|
| A | 21.14 m (69.36 ft) | 17.94 m (58.86 ft) |

| | W | U | V | NAC STA |
|---|---|---|---|---|
| A-A | 3.08 m (10.1 ft) | 1.51 m (4.95 ft) | 1.59 m (5.22 ft) | 3.49 m (11.45 ft) |
| B-B | 2.82 m (9.25 ft) | 1.41 m (4.63 ft) | 1.41 m (4.63 ft) | 5.03 m (16.5 ft) |
| C-C | 2.49 m (8.17 ft) | 1.25 m (4.1 ft) | 1.25 m (4.1 ft) | 6.4 m (21 ft) |
| D-D | 1.28 m (4.2 ft) | 0.64 m (2.1 ft) | 0.64 m (2.1 ft) | 8.24 m (27.03 ft) |

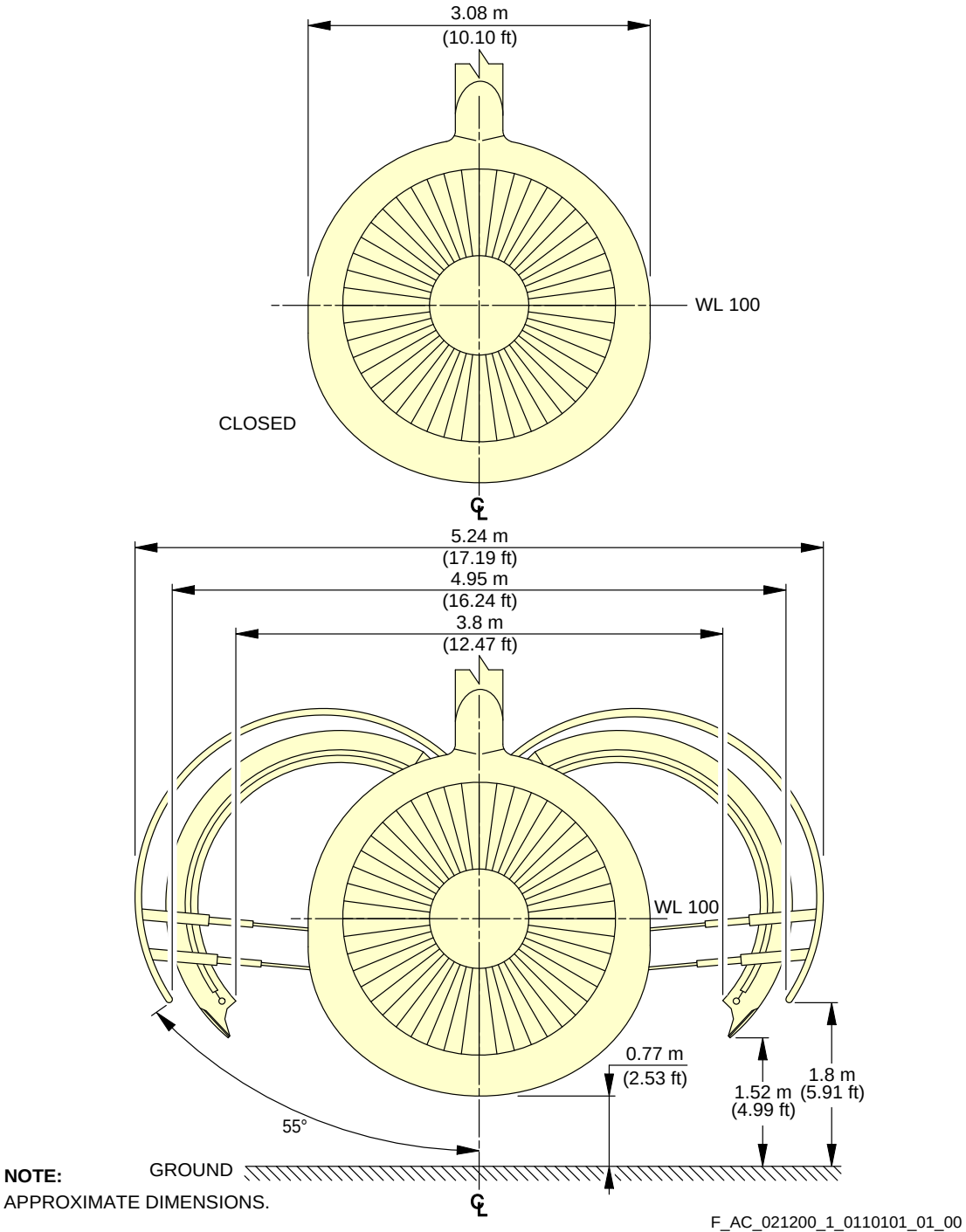



**NOTE:**
APPROXIMATE DIMENSIONS

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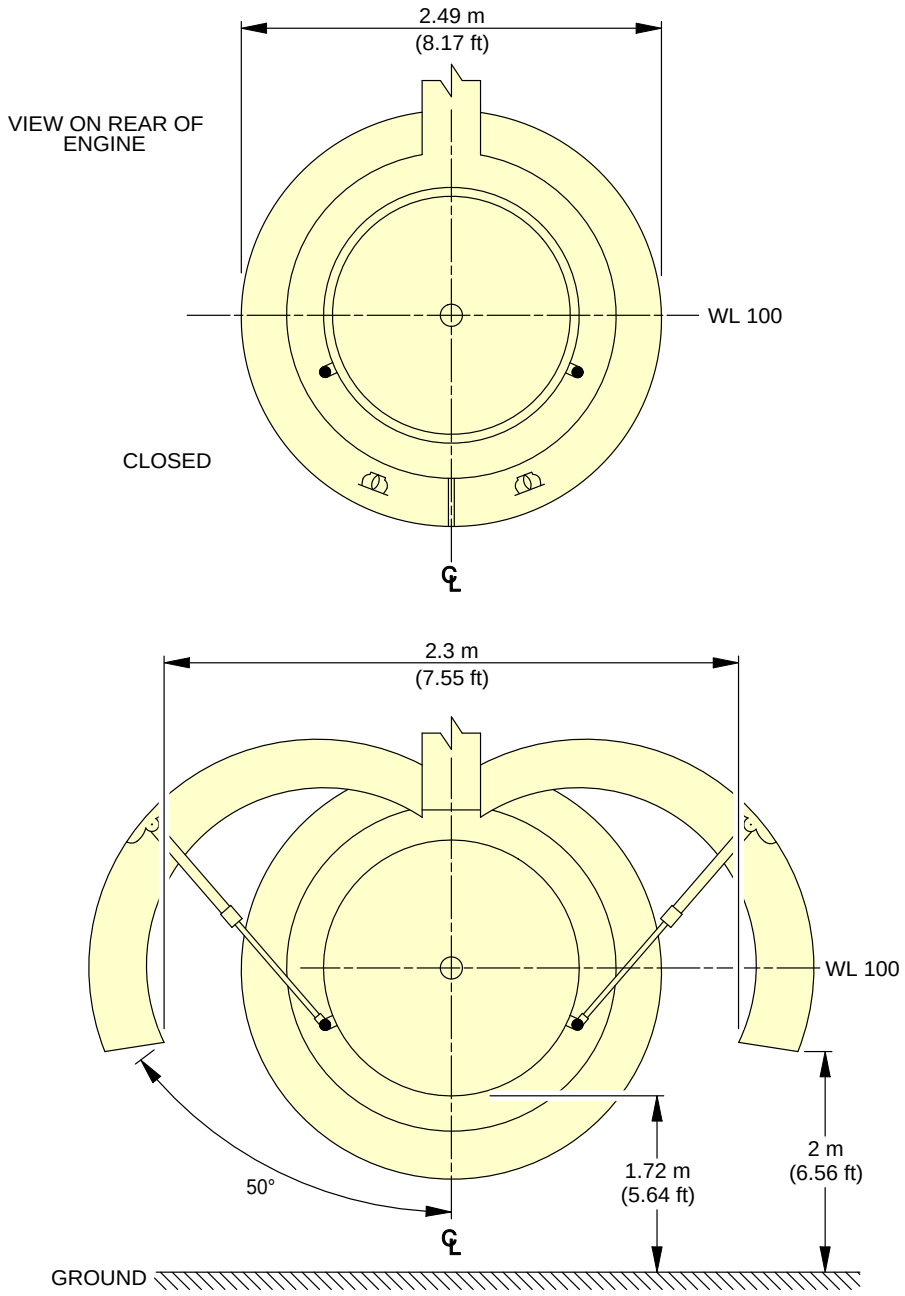
Engine and Nacelle
Nacelle Dimensions - GE CF6-80E1
FIGURE-2-12-0-991-010-A01

**ON A/C A330-200 A330-300




Engine and Nacelle
Fan Cowls - GE CF6-80E1
FIGURE-2-12-0-991-011-A01

****ON A/C A330-200 A330-300**

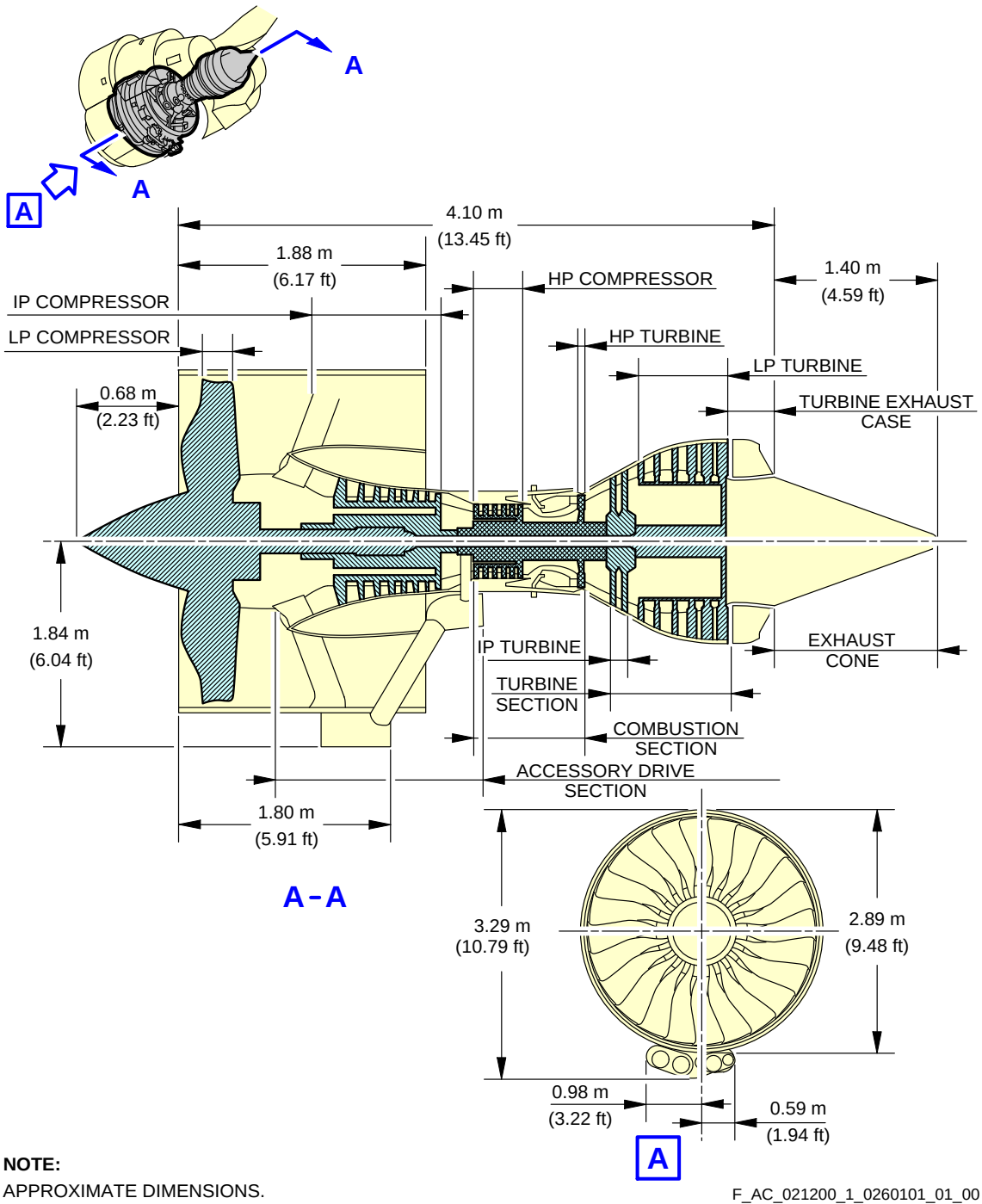



**NOTE:**
APPROXIMATE DIMENSIONS.

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Engine and Nacelle
Thrust Reverser Cowls - GE CF6-80E1
FIGURE-2-12-0-991-012-A01

**ON A/C A330-800 A330-900

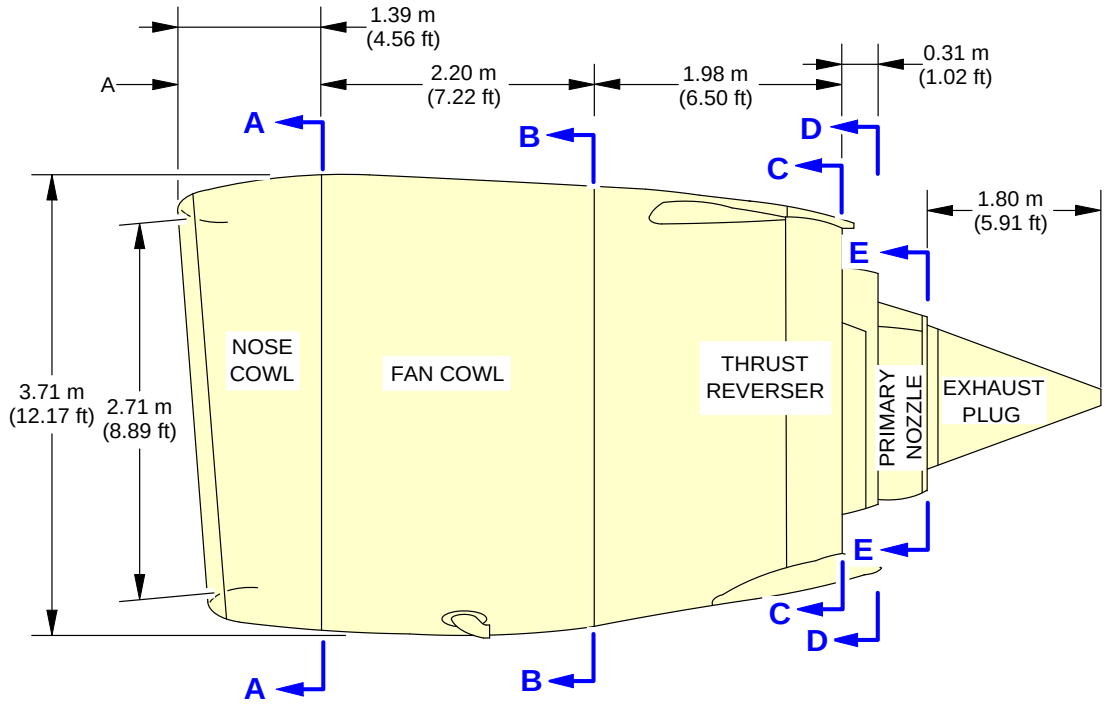



**NOTE:**
APPROXIMATE DIMENSIONS.

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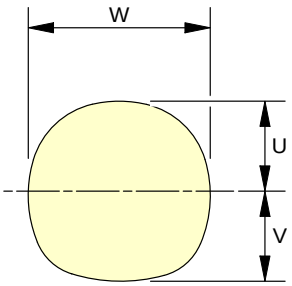
Engine and Nacelle
Engine Dimensions - TRENT 7000
FIGURE-2-12-0-991-026-A01

**ON A/C A330-800 A330-900




| DISTANCE FROM THE NOSE | A330-800 | A330-900 |
|---|---|---|
| A | 17.86 m (58.60 ft) | 21.05 m (69.06 ft) |

| | W | U | V |
|---|---|---|---|
| A-A | 3.71 m (12.17 ft) | 1.81 m (5.94 ft) | 1.88 m (6.17 ft) |
| B-B | 3.63 m (11.91 ft) | 1.75 m (5.74 ft) | 1.85 m (6.07 ft) |
| C-C | 2.91 m (9.55 ft) | 1.45 m (4.76 ft) | 1.50 m (4.92 ft) |
| D-D | 1.74 m (5.71 ft) | 0.87 m (2.85 ft) | 0.87 m (2.85 ft) |
| E-E | 1.51 m (4.95 ft) | 0.75 m (2.46 ft) | 0.75 m (2.46 ft) |




**NOTE:**
APPROXIMATE DIMENSIONS.

F_AC_021200_1_0270101_01_01

Engine and Nacelle
Nacelle Dimensions - TRENT 7000
FIGURE-2-12-0-991-027-A01

## 2-12-1 Auxiliary Power Unit

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Auxiliary Power Unit

1. General

The Auxiliary Power Unit (APU) and its related mechanical components are installed at the rear part of the fuselage in the tailcone section. The APU compartment is a fireproof area (identified as the Fire Zone).
The APU is a pneumatic and shaft-power gas-turbine engine and is used for the ground and in-flight power supply of the aircraft.

The APU supplies:
- mechanical shaft-power to operate a generator
- bleed-air to the Main Engine Start (MES) and the Environmental Control System (ECS).

A part of the automatic system, with the pneumatic and the electromechanical controls, operates the start and the acceleration functions of the APU.
An air intake system with a flap-type door is installed in front of the APU compartment. The exhaust gases pass overboard at the end of the fuselage cone.

2. Powerplant

The APU is the Garrett Gas-Turbine Compressor Power-unit (GTCP) 331-350C with a single shaft engine.

The engine is the primary component of the APU, which is of the modular design. The modules of the engine are:
- The power section
- The load compressor
- The accessory drive gearbox with LRU(s).

The power section has a two-stage centrifugal compressor, a reverse-flow annular combustion chamber and a three-stage axial turbine. The power section directly operates the one-stage centrifugal load-compressor which supplies the bleed-air to the pneumatic system. The inlet guide vanes as part of the load compressor, control the airflow.

The power section also operates the gearbox which is attached to the load compressor. The following LRU’s are mounted on the gearbox :
- the APU generator,
- the starter motor,

- the oil pump,
- the Fuel Control Unit (FCU),
- the cooling air fan.

The APU has a gearbox-driven oil-cooled AC generator.

The cooling air and ventilation system of the APU supplies the air for cooling of the APU and the equipment on the APU. It also supplies the air for ventilation of the APU compartment.

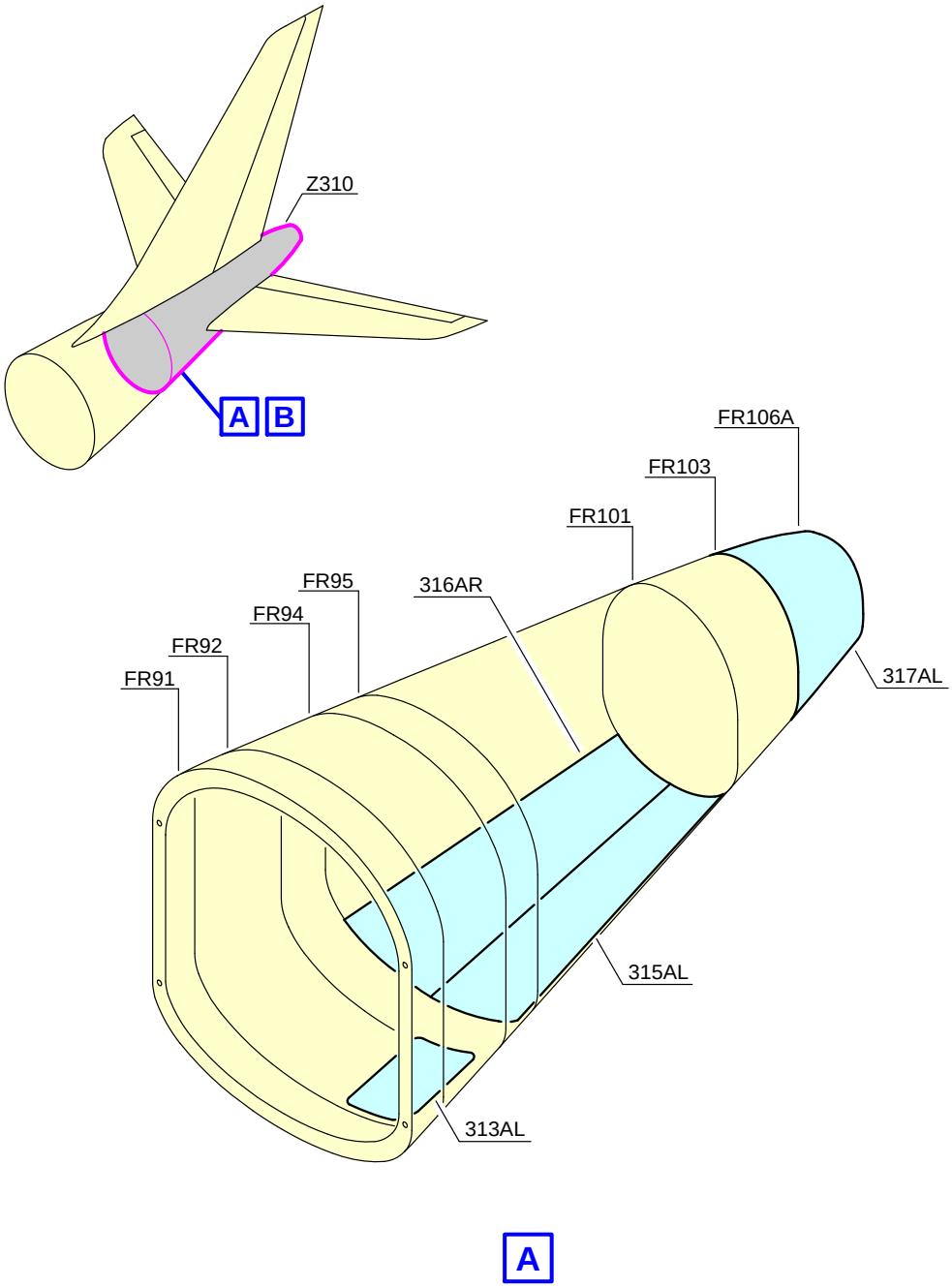
3. Control circuit

The Electronic Control Box (ECB), which controls the Fuel Control Unit (FCU) and the Inlet Guide Vanes (IGV), keeps the APU at a constant speed. The control circuit is used to start the APU, to shut it down, to control it and to prevent internal failure.

4. Controls and Indication

The primary APU controls and indications are installed in the overhead panel, on the center pedestal panel and on the forward center panel. External APU panels are also installed on the nose landing gear and on the refuel/defuel panel, to initiate an APU emergency shut-down.

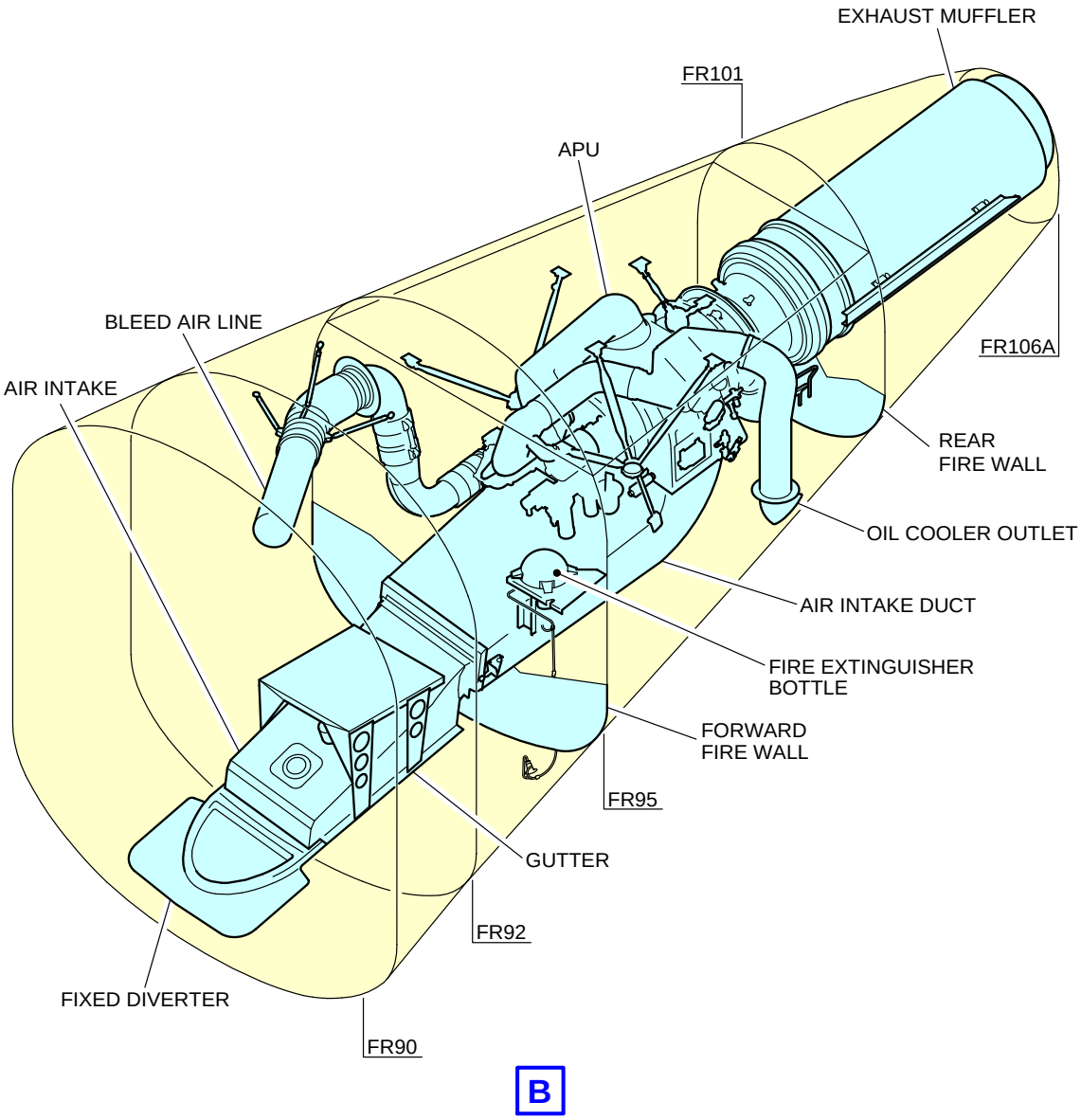
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Auxiliary Power Unit
Access Doors (Sheet 1 of 2)
FIGURE-2-12-1-991-002-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Auxiliary Power Unit
General Layout (Sheet 2 of 2)
FIGURE-2-12-1-991-002-A01

## 2-13-0 Levelling, symmetry and Alignment

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Leveling, Symmetry and Alignment

****ON A/C A330-200 A330-300 A330-800 A330-900**

1. Quick Leveling

   There are three alternative procedures to level the aircraft:
   - Quick leveling procedure with Air Data/Inertial Reference System (ADIRS)
   - Quick leveling procedure with a spirit level in the passenger compartment
   - Quick leveling procedure with a spirit level in the FWD cargo compartment.

****ON A/C A330-200F**

2. Quick Leveling

   There are three alternative procedures to level the aircraft:
   - Quick leveling procedure with Air Data/Inertial Reference System (ADIRS)
   - Quick leveling procedure with a spirit level in the Main Deck cargo compartment
   - Quick leveling procedure with a spirit level in the FWD cargo compartment.

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

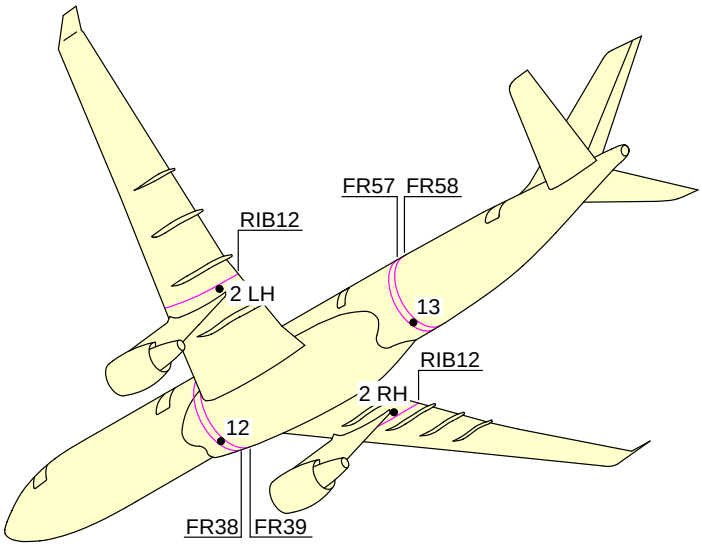
3. Precision Leveling

   For precise leveling, it is necessary to install sighting rods in the receptacles located under the fuselage (points 12 and 13 for longitudinal leveling) and under the wings (points 2LH and 2RH for lateral leveling) and use a sighting tube. With the aircraft on jacks, adjust the jacks until the reference marks on the sighting rods are aligned in the sighting plane (aircraft level).

4. Symmetry and Alignment Check

   Possible deformation of the aircraft is measured by photogrammetry.

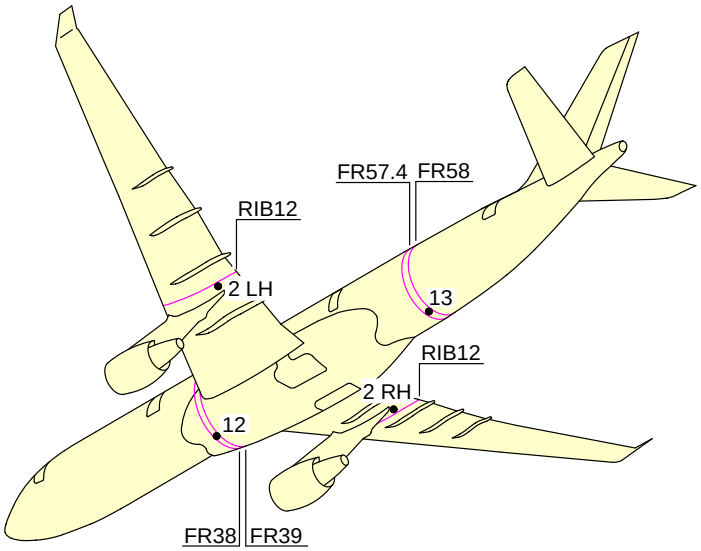
**ON A/C A330-200 A330-800




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Location of Leveling Points
FIGURE-2-13-0-991-001-A01

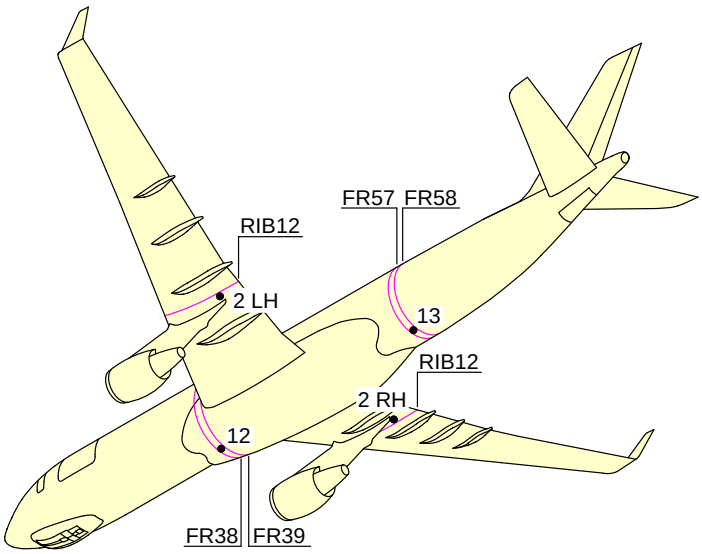
**ON A/C A330-300 A330-900




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Location of Leveling Points
FIGURE-2-13-0-991-002-A01

**ON A/C A330-200F




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Location of Leveling Points
FIGURE-2-13-0-991-003-A01

## 2-14-0 Jacking for Maintenance

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Jacking for Maintenance

****ON A/C A330-200 A330-800 A330-900**

1. Aircraft Jacking Points for Maintenance

A. General

(1) The A330-200/-800/-900 can be jacked:
- At not more than 152 000 kg (335 103 lb),
- Within the limits of the permissible wind speed when the aircraft is jacked outside a closed environment.

B. Primary Jacking Points

(1) The aircraft is provided with three primary jacking points:
- One located under the forward fuselage (after FR10A),
- Two located under the wings (one under each wing), at the intersection of RIB10 and the rear of the spar-datum.

(2) Three jack adapters (ground equipment) are used as intermediary parts between the aircraft jacking points and the jacks:
- One male spherical jack adapter at the forward fuselage,
- Two female spherical jack pad adapters at the wings (one at each wing).

C. Auxiliary Jacking Point (Safety Stay)

(1) When the aircraft is on jacks, a safety stay is placed under the fuselage at FR87 to prevent tail tipping caused by accidental displacement of the aircraft center of gravity.

(2) The safety point must not be used for lifting the aircraft.

(3) One male spherical stay adapter (ground equipment) is used as an intermediary part between the aircraft safety point and the stay.

****ON A/C A330-300**

2. Aircraft Jacking Points for Maintenance

A. General

(1) The A330-300 can be jacked:
- At not more than 152 000 kg (335 103 lb),

- Within the limits of the permissible wind speed when the aircraft is jacked outside a closed environment.

B. Primary Jacking Points

(1) The aircraft is provided with three primary jacking points:
- One located under the forward fuselage (after FR10A),
- Two located under the wings (one under each wing), at the intersection of RIB10 and the rear of the spar-datum.

(2) Three jack adapters (ground equipment) are used as intermediary parts between the aircraft jacking points and the jacks:
- One male spherical jack adapter at the forward fuselage,
- Two female spherical jack pad adapters at the wings (one at each wing).

C. Auxiliary Jacking Point (Safety Stay)

(1) When the aircraft is on jacks, a safety stay is placed under the fuselage at FR85 to prevent tail tipping caused by accidental displacement of the aircraft center of gravity.

(2) The safety point must not be used for lifting the aircraft.

(3) One male spherical stay adapter (ground equipment) is used as an intermediary part between the aircraft safety point and the stay.

****ON A/C A330-200F**

3. Aircraft Jacking Points for Maintenance

A. General

(1) The A330-200F can be jacked:
- At not more than 136 000 kg (299 829 lb),
- Within the limits of the permissible wind speed when the aircraft is jacked outside a closed environment.

B. Primary Jacking Points

(1) The aircraft is provided with three primary jacking points:
- One located under the forward fuselage (at FR10A), covered by nose fairing panel 125AL.
- Two located under the wings (one under each wing), at the intersection of RIB10 and the rear of the spar-datum.

(2) Three jack adapters (ground equipment) are used as intermediary parts between the aircraft jacking points and the jacks:
- One male spherical jack adapter at the forward fuselage,
- Two female spherical jack pad adapters at the wings (one at each wing).

C. Auxiliary Jacking Point (Safety Stay)

(1) When the aircraft is on jacks, a safety stay is placed under the fuselage at FR87 to prevent tail tipping caused by accidental displacement of the aircraft center of gravity.

(2) The safety point must not be used for lifting the aircraft.

(3) One male spherical stay adapter (installed on the aircraft) is used as an intermediary part between the aircraft safety point and the stay.

****ON A/C A330-200 A330-300 A330-800 A330-900**

4. Jacks and Safety Stay

A. Jack Design

(1) The maximum eligible loads given in the table (Ref. FIGURE 2-14-0-991-001-AFIGURE 2-14-0-991-001-BFIGURE 2-14-0-991-001-DFIGURE 2-14-0-991-001-E) are the maximum loads applicable on jack fittings.

(2) In fully retracted position (jack stroke at minimum), the height of the jack is such that the jack may be placed beneath the aircraft under the most adverse conditions, namely, tires deflated and shock absorbers depressurized, with sufficient clearance between the aircraft jacking point and the jack upper end.

(3) The lifting jack stroke enables the aircraft to be jacked up so that the Fuselage Datum Line (FDL) may be positioned up to 7.2 m (23.62 ft) from the ground to allow all required maintenance procedures and in particular, the removal/installation of the landing-gear shock absorbers.

B. Safety Stay

The stay stroke enables the aircraft tail to be supported up to the Fuselage Datum Line (FDL) positioned 7.2 m (23.62 ft) from the ground.

****ON A/C A330-200F**

5. Jacks and Safety Stay

A. Jack Design

(1) The maximum eligible loads given in the table (Ref. FIGURE 2-14-0-991-001-C) are the maximum loads applicable on jack fittings.

(2) In fully retracted position (jack stroke at minimum), the height of the jack is such that the jack may be placed beneath the aircraft under the most adverse conditions, namely, tires deflated and shock absorbers depressurized, with sufficient clearance between the aircraft jacking point and the jack upper end.

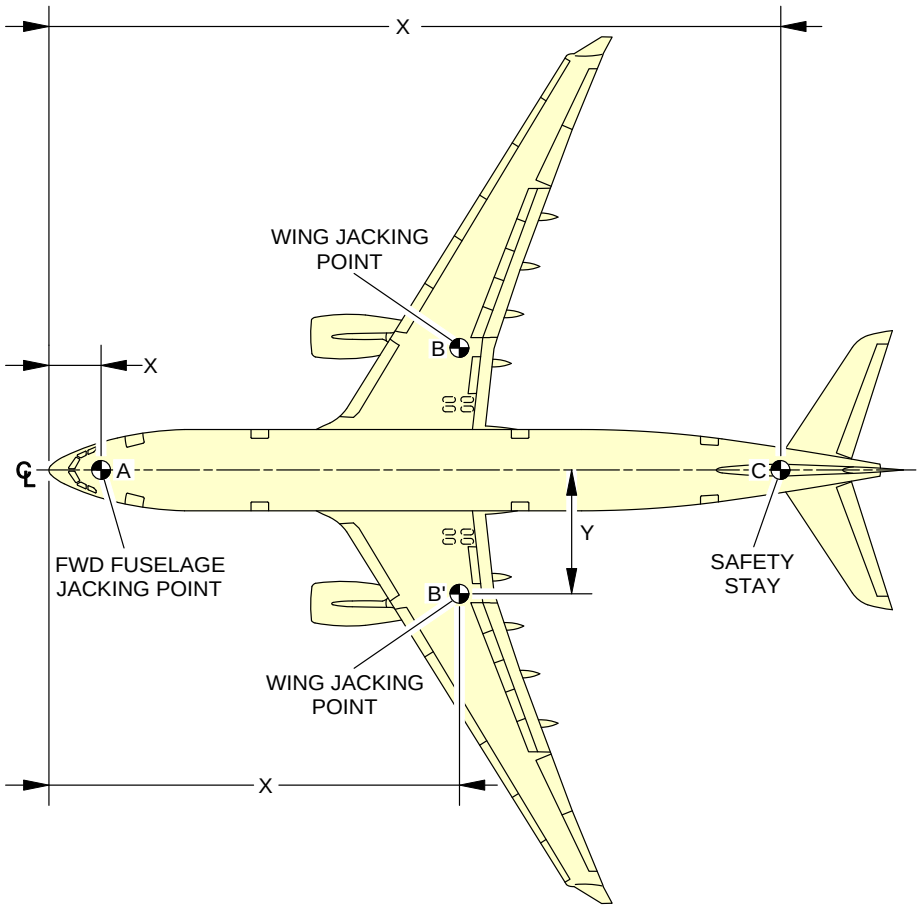
(3) The lifting jack stroke enables the aircraft to be jacked up so that the Fuselage Datum line (FDL) may be positioned up to 7.2 m (23.62 ft) from the ground to allow all required maintenance procedures and in particular, the removal/installation of the landing-gear shock absorbers.

(4) At the forward jacking point, specific jack dimensions are necessary (Ref. FIGURE 2-14-0-991-022-A):
- Maximum jack tube diameter 320 mm (12.6 in),
- Maximum threaded rod diameter 160 mm (6.3 in),
- Minimum threaded rod length 250 mm (9.8 in).

B. Safety Stay

The stay stroke enables the aircraft tail to be supported up to the Fuselage Datum Line (FDL) positioned 7.2 m (23.62 ft) from the ground.

**ON A/C A330-200



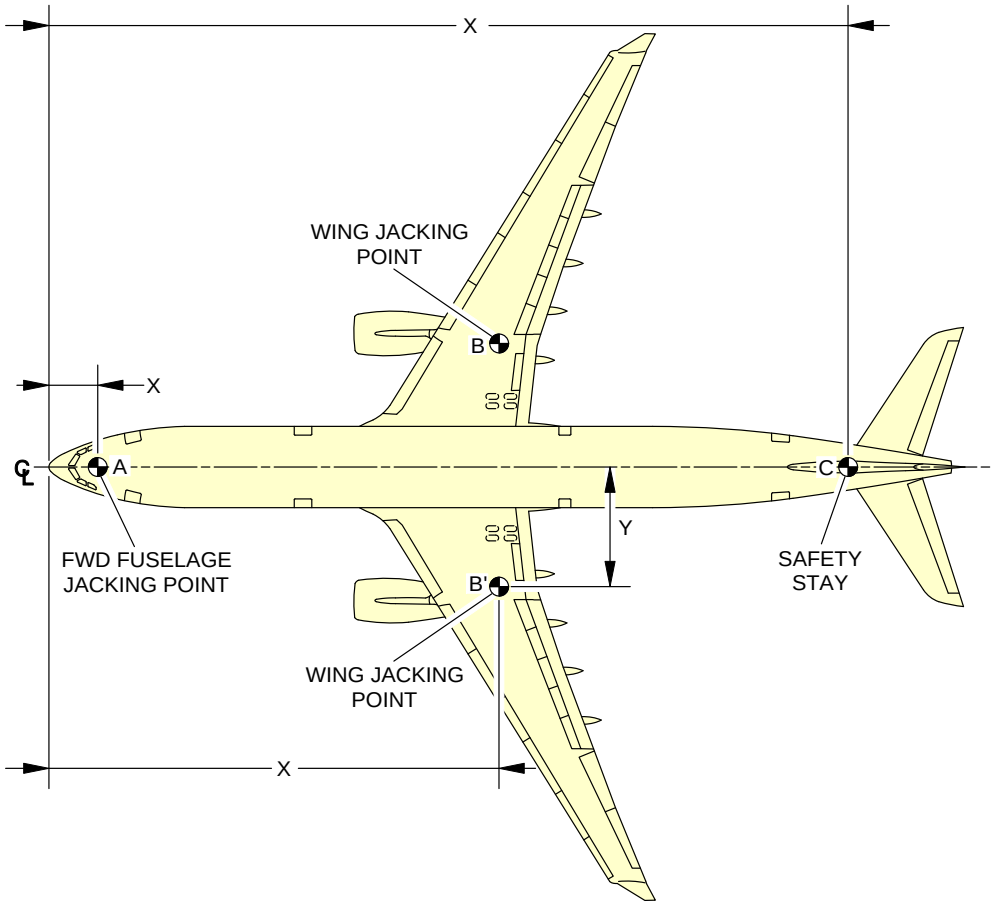

| | | X | | Y | | MAXIMUM LOAD ELIGIBLE |
|---|---|---|---|---|---|---|
| | | m | ft | m | ft | daN |
| FWD FUSELAGE JACKING POINT | A | 3.58 | 11.75 | 0 | 0 | 12 300 |
| WING JACKING POINT | B | 28.35 | 93.01 | 8.51 | 27.92 | 73 200 |
| | B' | 28.35 | 93.01 | -8.51 | -27.92 | 73 200 |
| SAFETY STAY | C | 51.54 | 169.09 | 0 | 0 | 4 500 |

**NOTE:**
SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance
Jacking Points Location
FIGURE-2-14-0-991-001-A01

**ON A/C A330-300



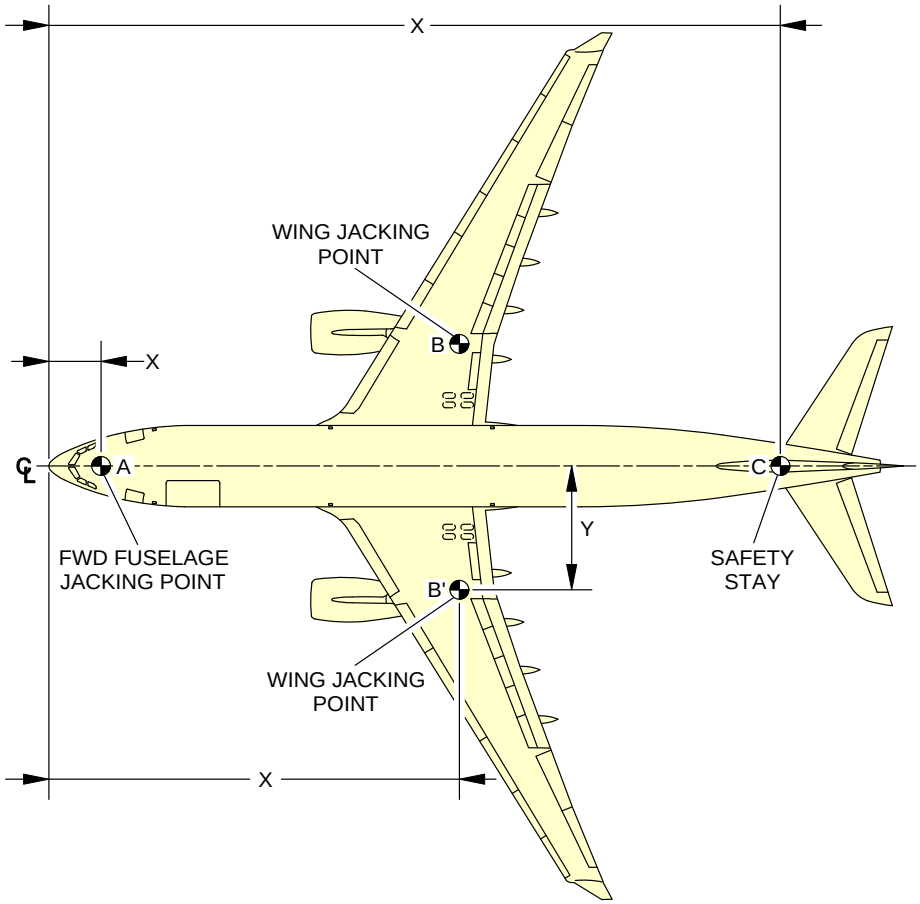

| | | X | | Y | | MAXIMUM LOAD ELIGIBLE daN |
|---|---|---|---|---|---|---|
| | | m | ft | m | ft | |
| FWD FUSELAGE JACKING POINT | A | 3.58 | 11.75 | 0 | 0 | 12 300 |
| WING JACKING POINT | B | 31.55 | 103.51 | 8.51 | 27.92 | 73 200 |
| | B' | 31.55 | 103.51 | -8.51 | -27.92 | 73 200 |
| SAFETY STAY (PRE-MOD F535-71610) | C | 55.81 | 183.1 | 0 | 0 | 4 500 |
| SAFETY STAY (POST-MOD F535-78031) | C | 56.86 | 186.55 | 0 | 0 | 4 500 |
| SAFETY STAY (WITH MOD) | C | 56.86 | 186.55 | 0 | 0 | 4 500 |

**NOTE:**
SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance
Jacking Points Location
FIGURE-2-14-0-991-001-B01

**ON A/C A330-200F



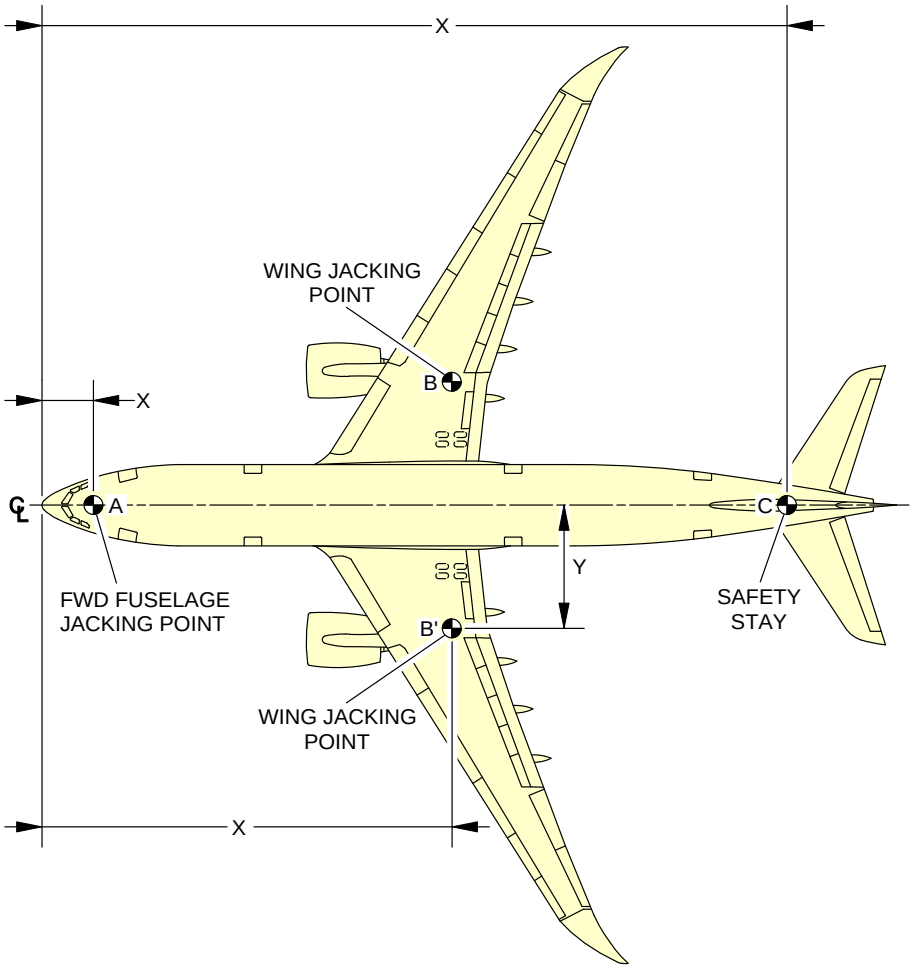

| | | X | | Y | | MAXIMUM LOAD ELIGIBLE |
|---|---|---|---|---|---|---|
| | | m | ft | m | ft | daN |
| FWD FUSELAGE JACKING POINT | A | 3.57 | 11.71 | 0 | 0 | 11 250 |
| WING JACKING POINT | B | 28.35 | 93.01 | 8.51 | 27.92 | 65 411 |
| | B' | 28.35 | 93.01 | -8.51 | -27.92 | 65 411 |
| SAFETY STAY | C | 51.54 | 169.09 | 0 | 0 | 4 500 |

**NOTE:**
SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance
Jacking Points Location
FIGURE-2-14-0-991-001-C01

**ON A/C A330-800



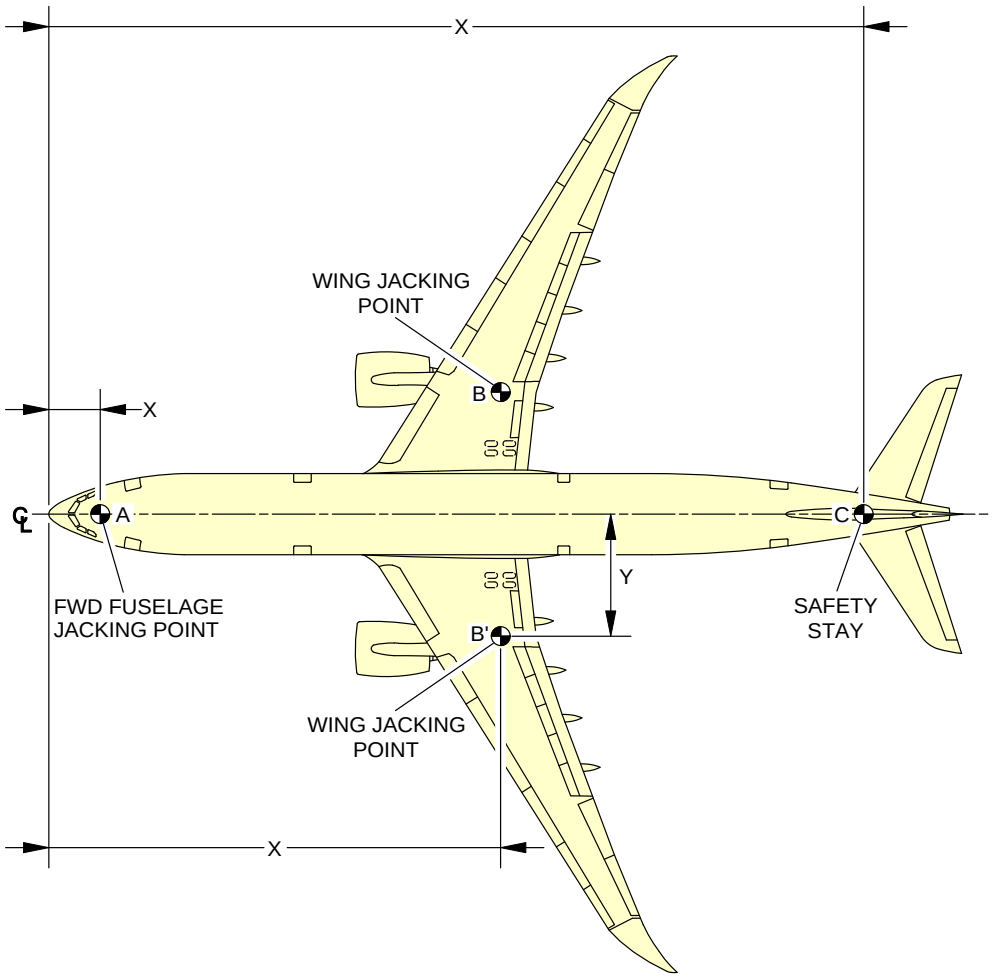

| | | X | | Y | | MAXIMUM LOAD ELIGIBLE |
|---|---|---|---|---|---|---|
| | | m | ft | m | ft | daN |
| FWD FUSELAGE JACKING POINT | A | 3.58 | 11.75 | 0 | 0 | 12 300 |
| WING JACKING POINT | B | 28.35 | 93.01 | 8.51 | 27.92 | 73 200 |
| | B' | 28.35 | 93.01 | -8.51 | -27.92 | 73 200 |
| SAFETY STAY | C | 51.54 | 169.09 | 0 | 0 | 4 500 |

**NOTE:**
SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance
Jacking Points Location
FIGURE-2-14-0-991-001-D01

**ON A/C A330-900



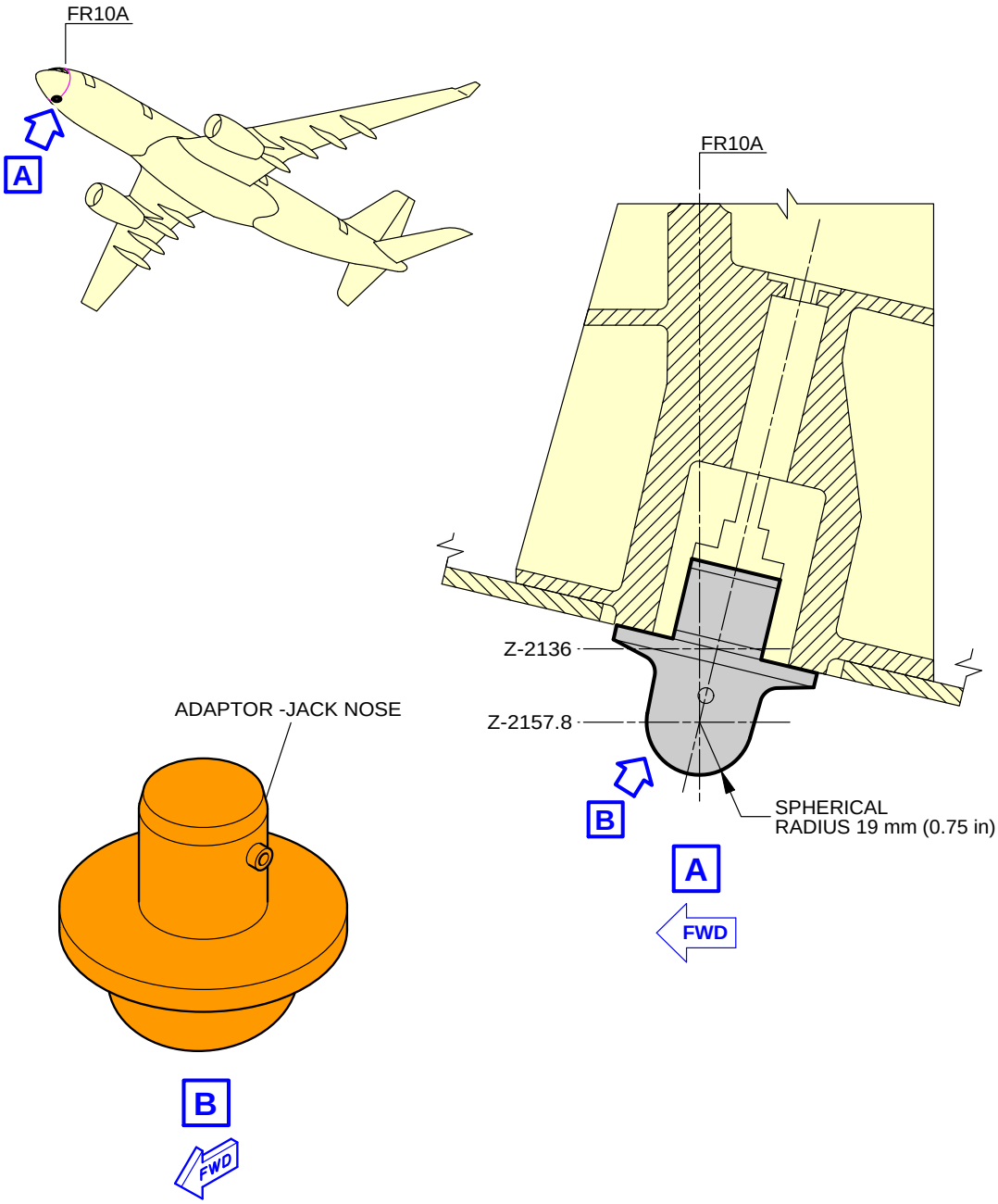

| | | X | | Y | | MAXIMUM LOAD ELIGIBLE |
|---|---|---|---|---|---|---|
| | | m | ft | m | ft | daN |
| FWD FUSELAGE JACKING POINT | A | 3.58 | 11.75 | 0 | 0 | 12 300 |
| WING JACKING POINT | B | 31.55 | 103.51 | 8.51 | 27.92 | 73 200 |
| | B' | 31.55 | 103.51 | -8.51 | -27.92 | 73 200 |
| SAFETY STAY | C | 56.86 | 186.55 | 0 | 0 | 4 500 |

**NOTE:**
SAFETY STAY IS NOT USED FOR JACKING.

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Jacking for Maintenance
Jacking Points Location
FIGURE-2-14-0-991-001-E01

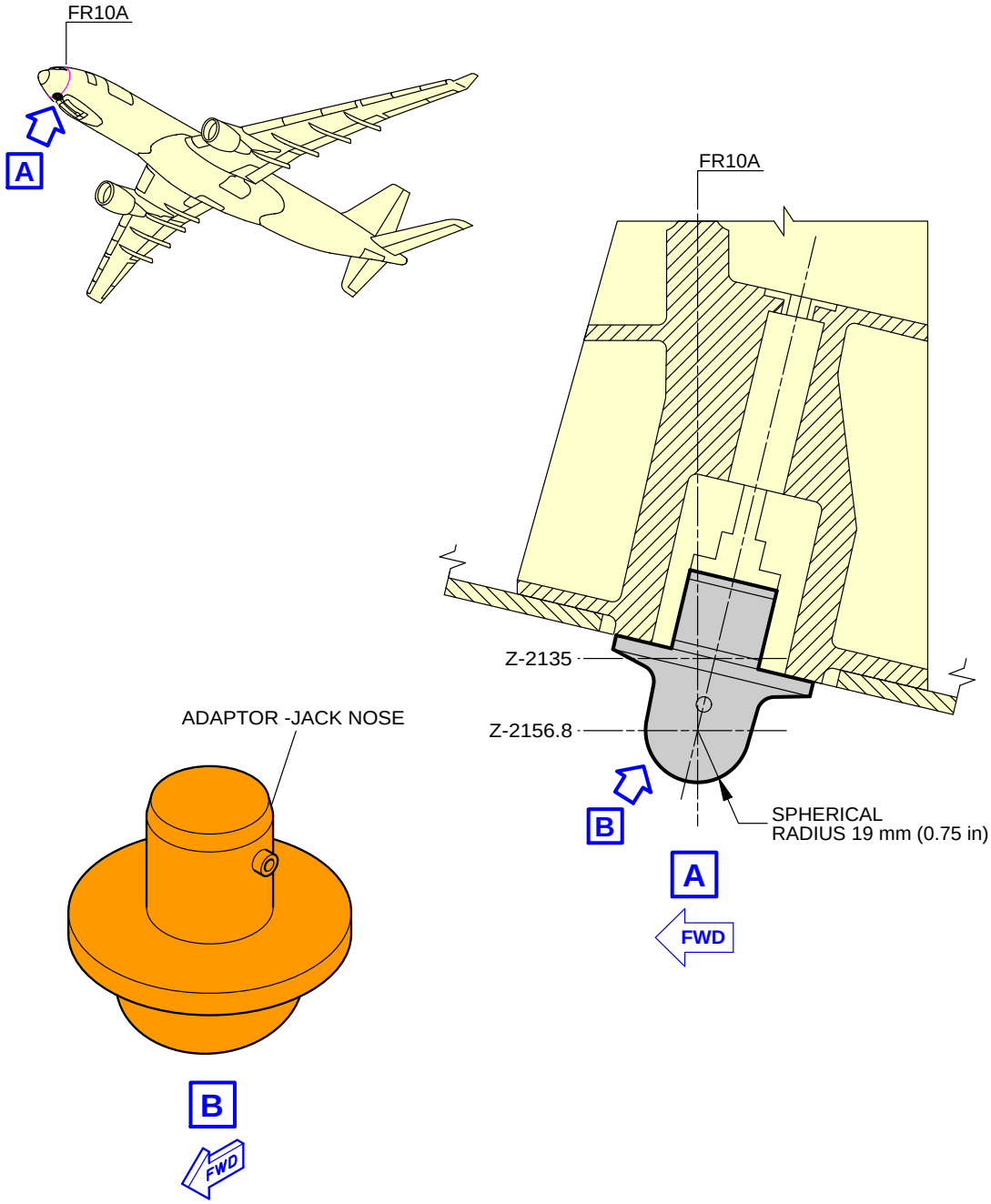
**ON A/C A330-200 A330-300 A330-800 A330-900




F_AC_021400_1_0020101_01_00

Jacking for Maintenance
Forward Jacking Point
FIGURE-2-14-0-991-002-A01

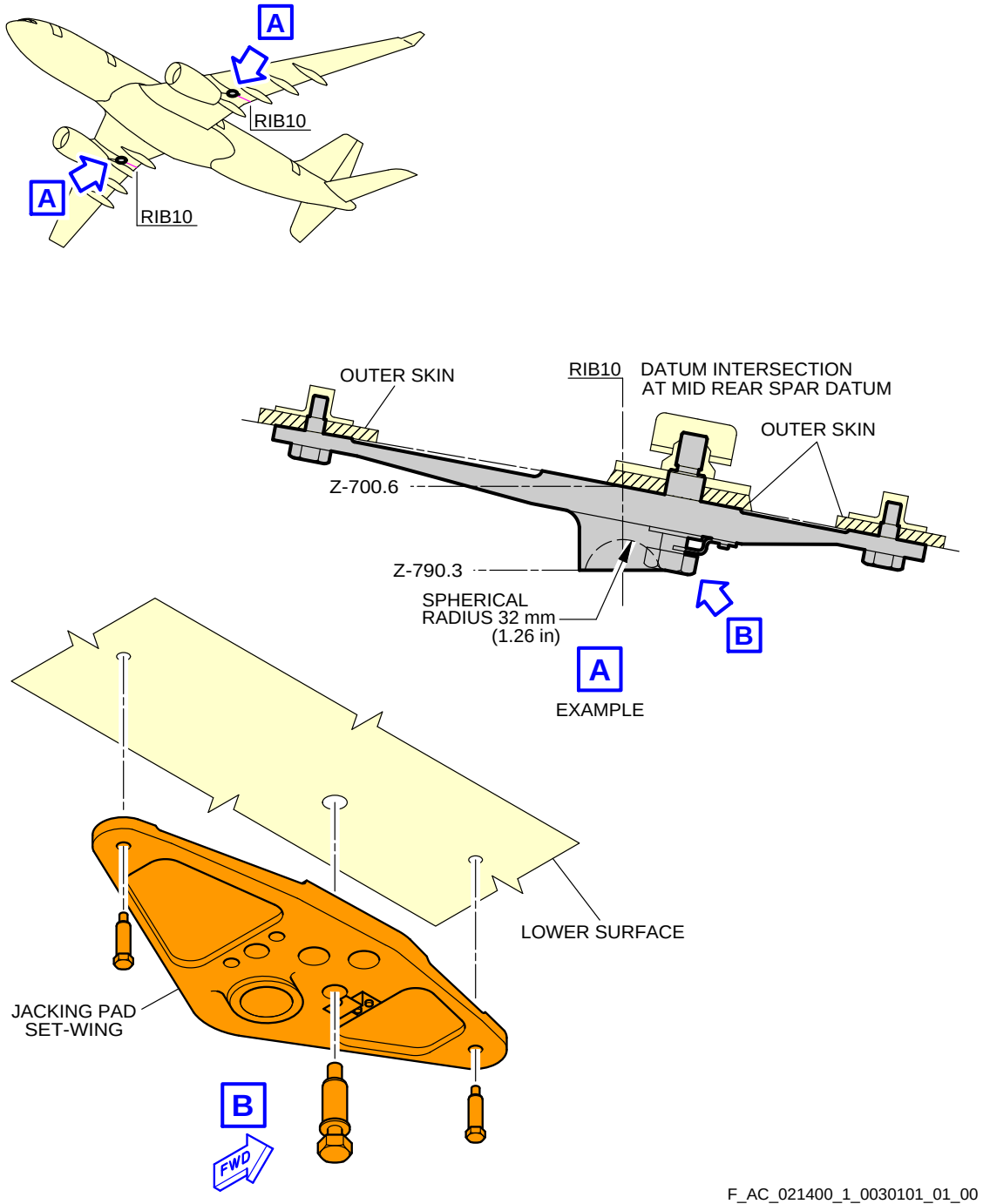
**ON A/C A330-200F




F_AC_021400_1_0020201_01_00

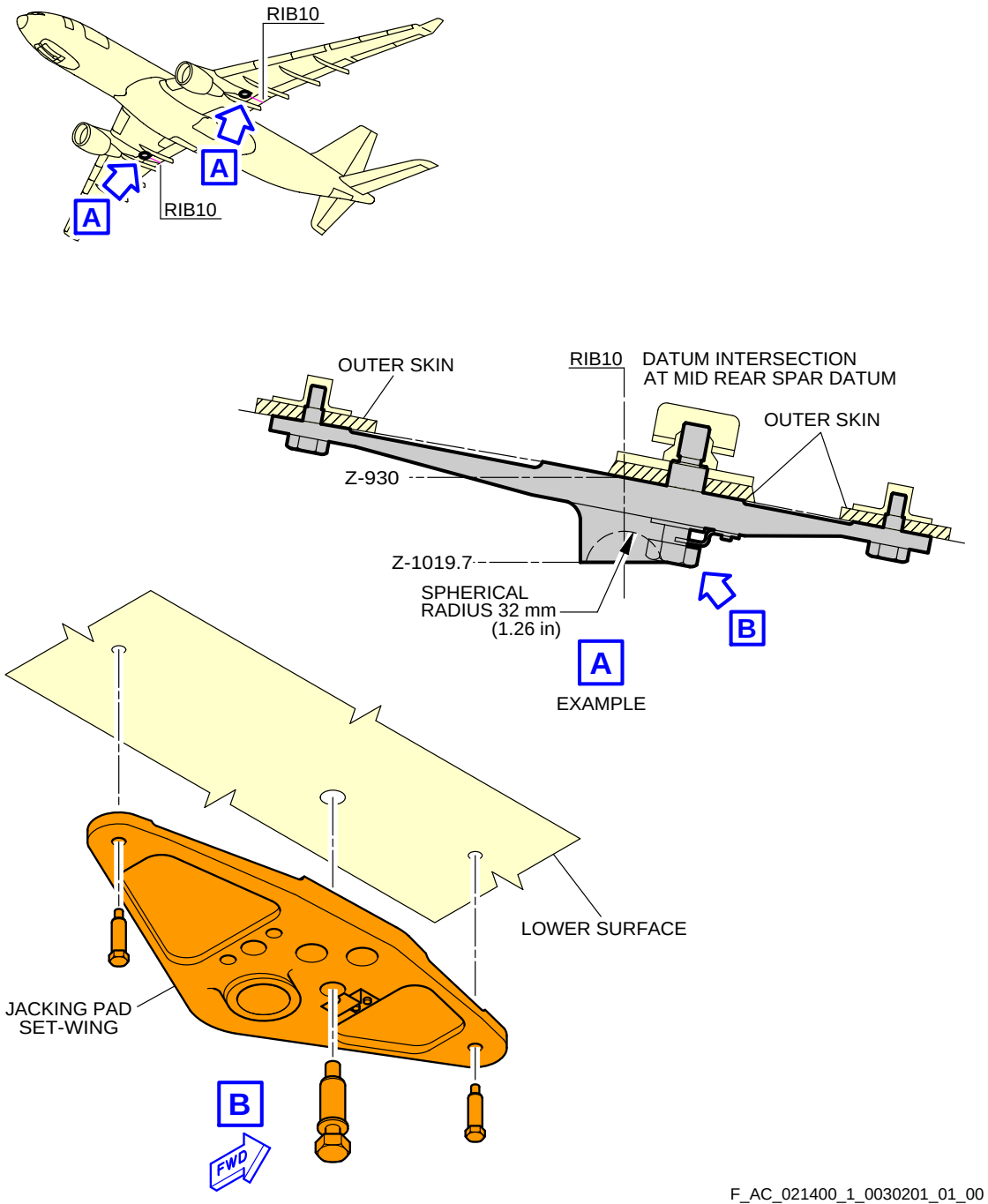
Jacking for Maintenance
Forward Jacking Point
FIGURE-2-14-0-991-002-B01

**ON A/C A330-200 A330-300 A330-800 A330-900



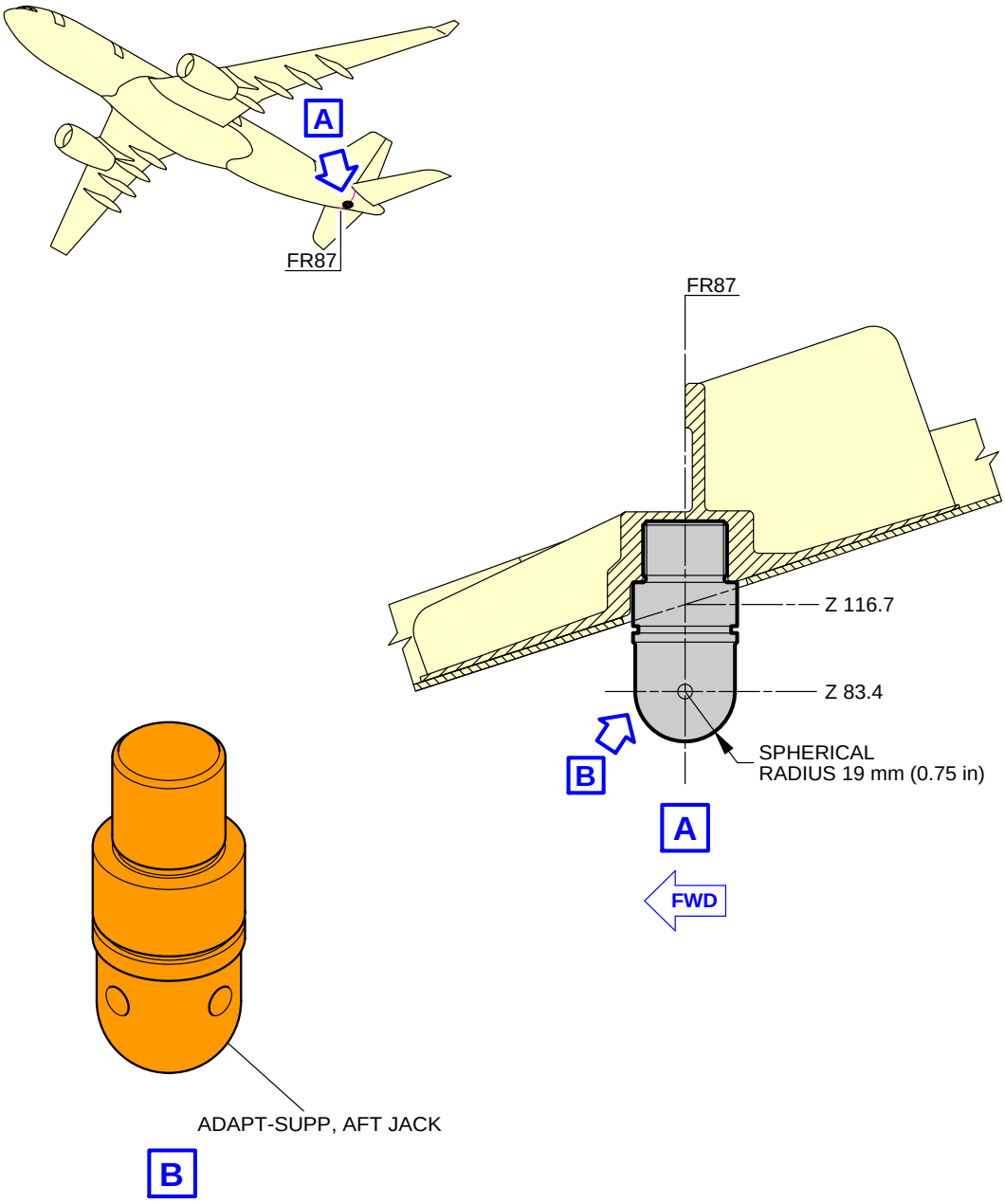

Jacking for Maintenance
Wing Jacking Points
FIGURE-2-14-0-991-003-A01

**ON A/C A330-200F




Jacking for Maintenance
Wing Jacking Points
FIGURE-2-14-0-991-003-B01

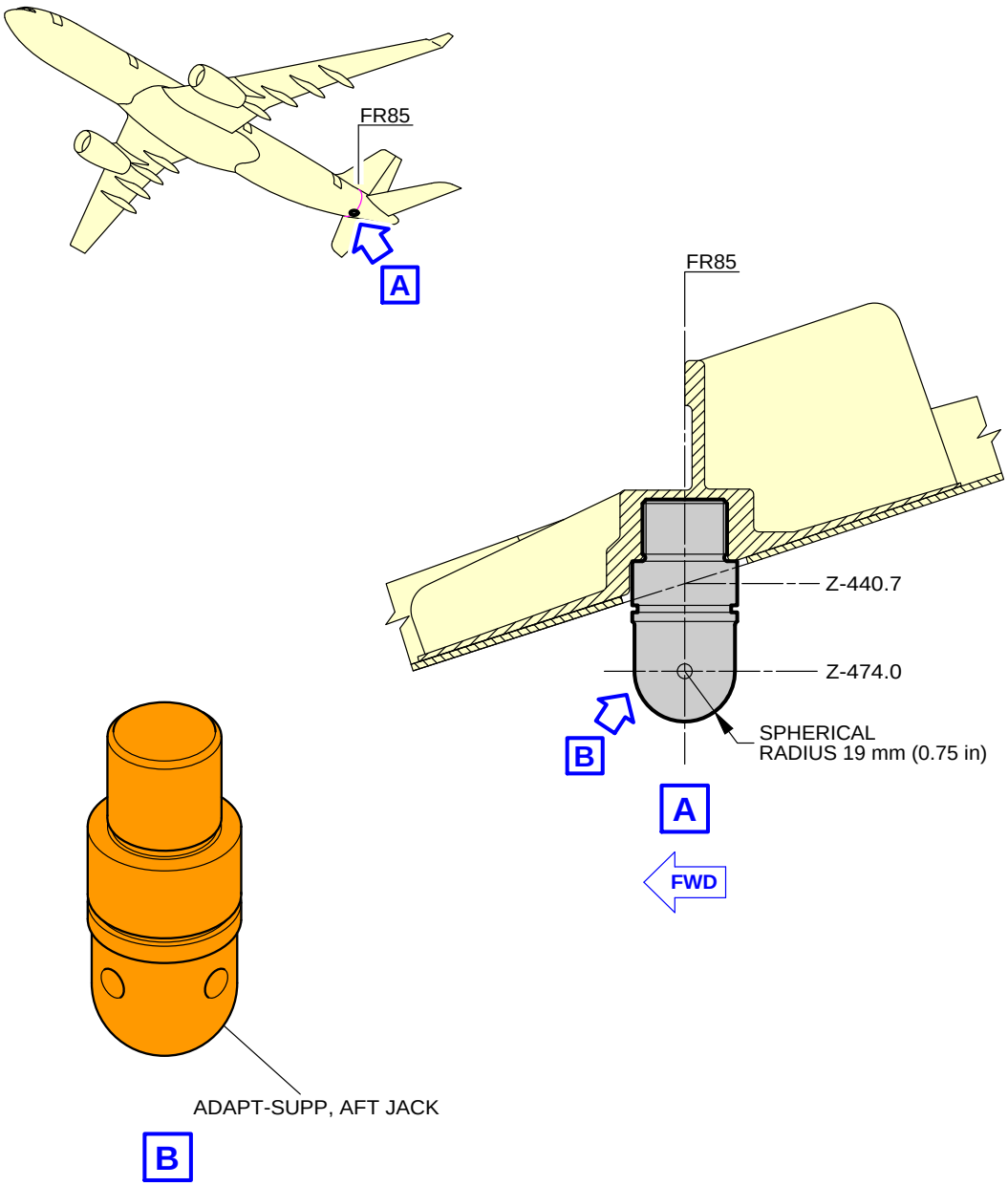
**ON A/C A330-200 A330-800 A330-900




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Jacking for Maintenance
Auxiliary Jacking Point - Safety Stay
FIGURE-2-14-0-991-004-A01

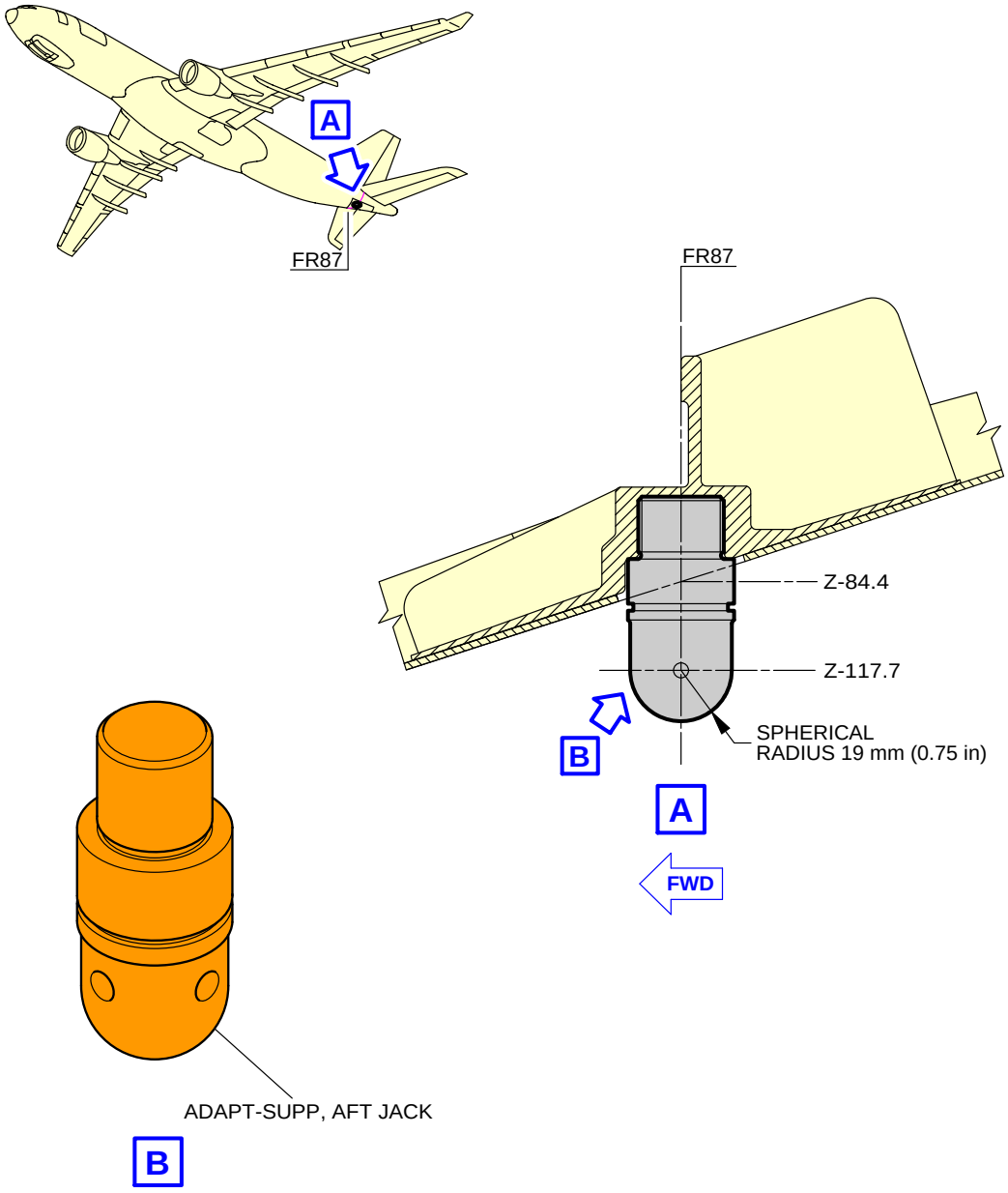
**ON A/C A330-300




F_AC_021400_1_0040201_01_00

Jacking for Maintenance
Auxiliary Jacking Point - Safety Stay
FIGURE-2-14-0-991-004-B01

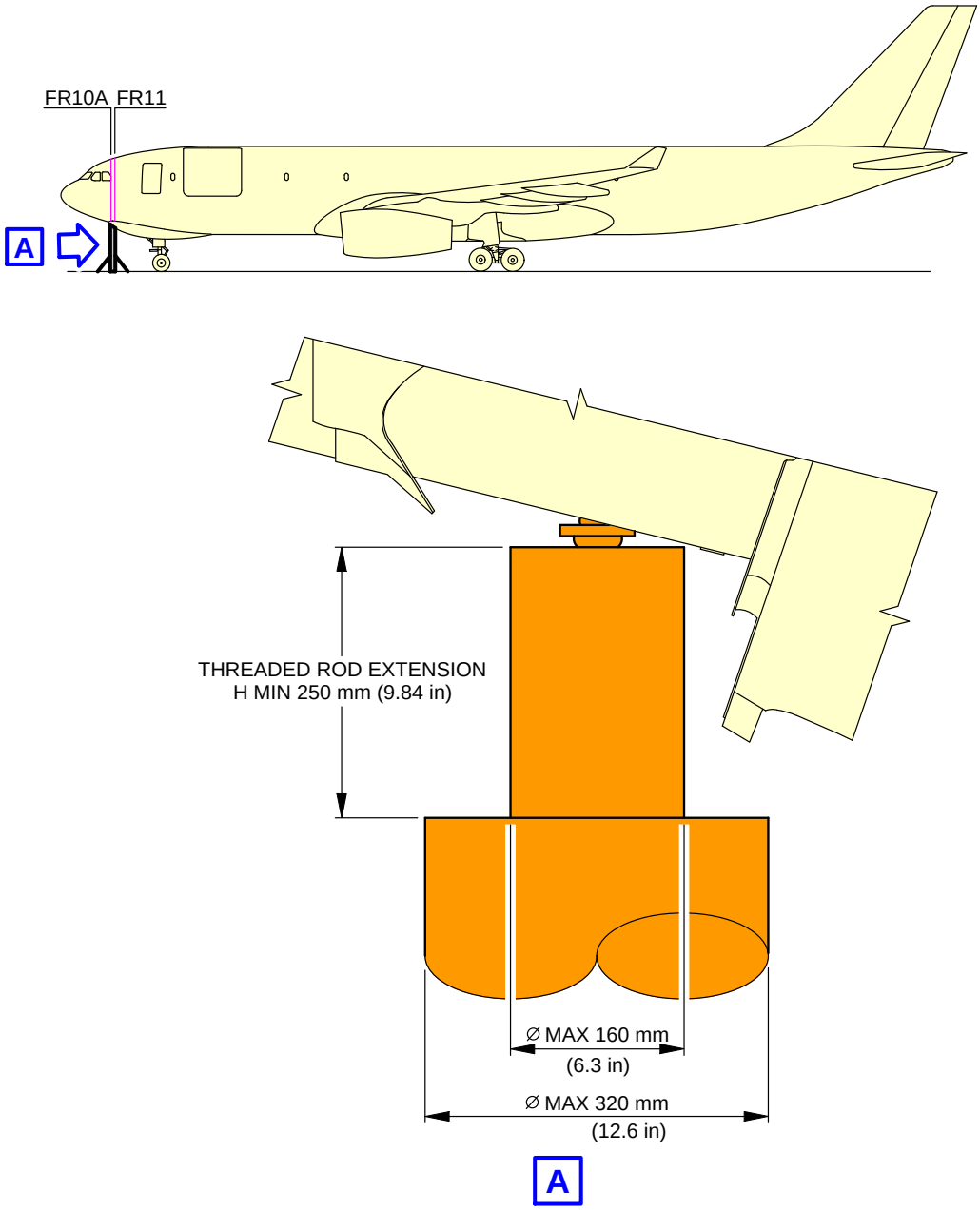
**ON A/C A330-200F




F_AC_021400_1_0040301_01_00

Jacking for Maintenance
Auxiliary Jacking Point - Safety Stay
FIGURE-2-14-0-991-004-C01

**ON A/C A330-200F



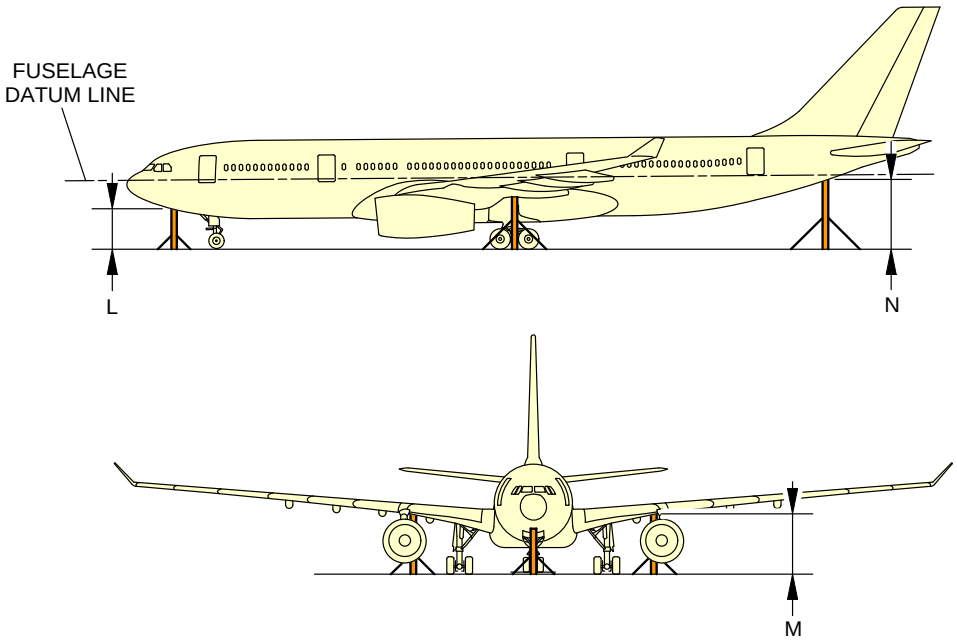

**CAUTION:**

MAKE SURE THAT THE JACK YOU USE IS APPLICABLE FOR THIS AIRCRAFT. IF THE JACK DIMENSIONS ARE NOT IN THE RANGE FOR THIS AIRCRAFT, DAMAGE TO THE AIRCRAFT STRUCTURE CAN OCCUR.

F_AC_021400_1_0220101_01_00

Jacking for Maintenance
Specific Jack-Nose Dimensions
FIGURE-2-14-0-991-022-A01

**ON A/C A330-200




| | L | M | | N |
|---|---|---|---|---|
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, MAX. JACK WEIGHT 152 000 kg (335 103 lb) | 2.62 m (8.60 ft) | 4.59 m (15.06 ft) | | 5.71 m (18.73 ft) |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW 125 206 kg (276 032 lb) | 2.63 m (8.63 ft) | 4.67 m (15.32 ft) | | 5.86 m (19.23 ft) |
| AIRCRAFT ON WHEELS, SHOCK ABSORBER DEFLATED AND FLAT TIRES (RH) | 2.66 m (8.73 ft) | (LH) 4.71 m (15.45 ft) | (RH) 3.97 m (13.02 ft) | 5.19 m (17.03 ft) |
| AIRCRAFT ON JACKS, FUSELAGE DATUM LINE PARALLEL TO GROUND AT 6.51 m (21.36 ft), SHOCK-ABSORBER RELAXED, CLEARANCE OF MAIN LANDING GEAR WHEELS: 0.23 m (0.75 ft) (STANDARD TIRES 01), CLEARANCE OF NOSE LANDING GEAR WHEELS: 1.51 m (4.95 ft) (STANDARD TIRES 01) | 4.37 m (14.34 ft) | 5.81 m (19.06 ft) | | 6.42 m (21.06 ft) |

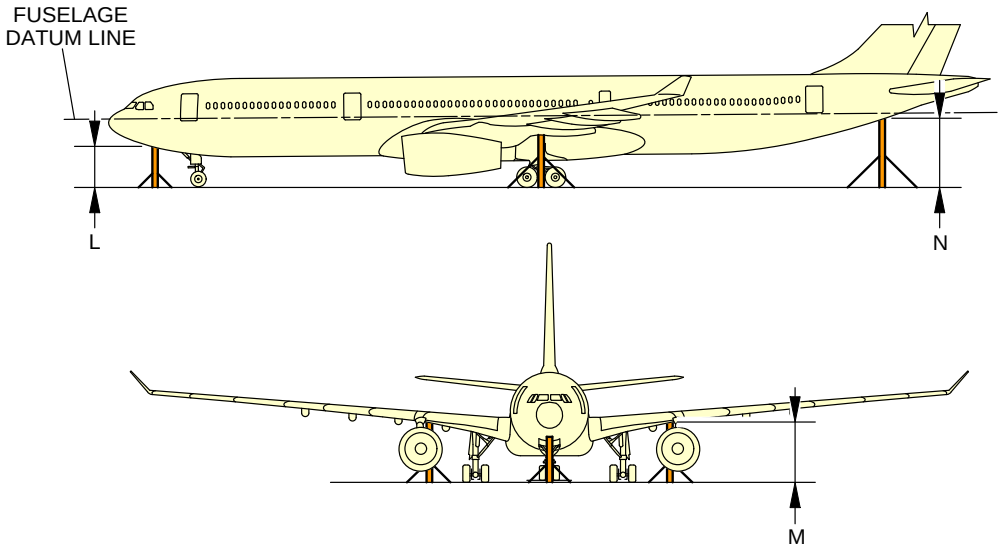
**NOTE:**

01 STANDARD TIRES: NOSE LANDING GEAR = 1 050 x 395 R16
MAIN LANDING GEAR = 1 400 x 530 R23

F_AC_021400_1_0050101_01_01

Jacking for Maintenance
Jacking Dimensions
FIGURE-2-14-0-991-005-A01

**ON A/C A330-300




| | L | M | | N | | |
|---|---|---|---|---|---|---|
| | | | | PRE-MOD (F535-71610) | POST-MOD (F535-78031) | WITH MOD |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, MAX. JACK WEIGHT 152 000 kg (335 103 lb) | 2.65 m (8.69 ft) | 4.59 m (15.06 ft) | | 5.29 m (17.36 ft) | 5.66 m (18.57 ft) | 5.66 m (18.57 ft) |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW = 126 352 kg (278 558 lb) | 2.63 m (8.63 ft) | 4.67 m (15.32 ft) | | 5.46 m (17.91 ft) | 5.84 m (19.16 ft) | N/A |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW = 130 316 kg (287 298 lb) | 2.63 m (8.63 ft) | 4.66 m (15.29 ft) | | N/A | N/A | 5.82 m (19.09 ft) |
| AIRCRAFT ON WHEELS, SHOCK ABSORBER DEFLATED AND FLAT TIRES (RH) | 2.68 m (8.79 ft) | (LH) 4.70 m (15.42 ft) | (RH) 3.98 m (13.06 ft) | 4.79 m (15.72 ft) | 5.16 m (16.93 ft) | 5.16 m (16.93 ft) |
| AIRCRAFT ON JACKS, FUSELAGE DATUM LINE PARALLEL TO GROUND AT 6.51 m (21.36 ft), SHOCK-ABSORBER RELAXED, CLEARANCE OF MAIN LANDING GEAR WHEELS: 0.24 m (0.79 ft) (STANDARD TIRES 01), CLEARANCE OF NOSE LANDING GEAR WHEELS: 1.50 m (4.92 ft) (STANDARD TIRES 01) | 4.37 m (14.34 ft) | 5.81 m (19.06 ft) | | 6.07 m (19.91 ft) | 6.42 m (21.06 ft) | 6.42 m (21.06 ft) |

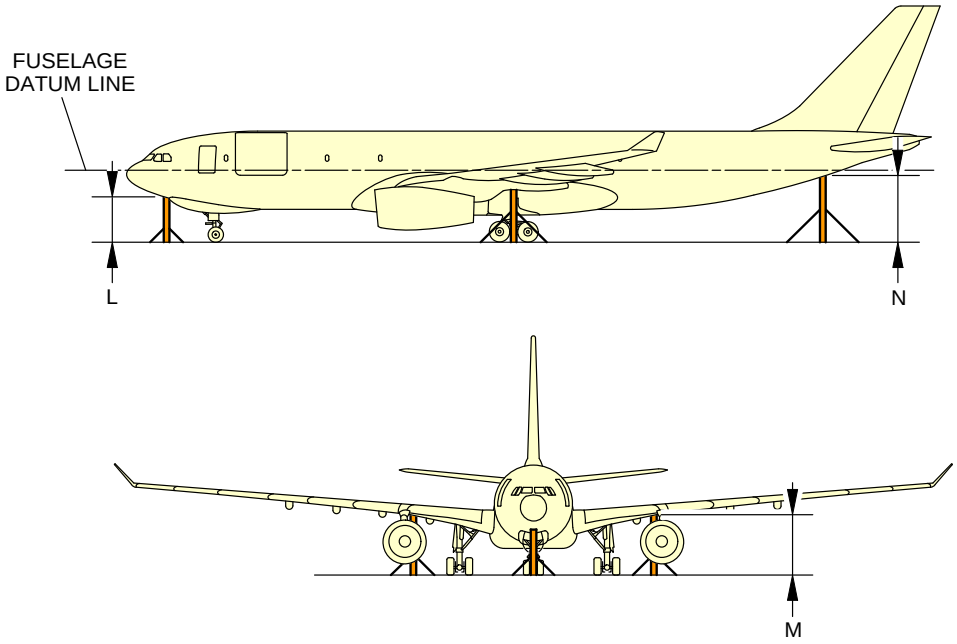
**NOTE:**

01 STANDARD TIRES: NOSE LANDING GEAR = 1 050 x 395 R16
MAIN LANDING GEAR = 1 400 x 530 R23

F_AC_021400_1_0050201_01_01

Jacking for Maintenance
Jacking Dimensions
FIGURE-2-14-0-991-005-B01

**ON A/C A330-200F




| | L | M | | N |
|---|---|---|---|---|
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, MAX. JACK WEIGHT 136 000 kg (299 829 lb) | 3.05 m (10.01 ft) | 4.64 m (15.22 ft) | | 5.41 m (17.75 ft) |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW 109 000 kg (240 304 lb) | 3.06 m (10.04 ft) | 4.75 m (15.58 ft) | | 5.60 m (18.37 ft) |
| AIRCRAFT ON WHEELS, SHOCK ABSORBER DEFLATED AND FLAT TIRES (RH) | 3.11 m (10.20 ft) | (LH) 4.89 m (16.04 ft) | (RH) 3.95 m (12.96 ft) | 4.92 m (16.14 ft) |
| AIRCRAFT ON JACKS, FUSELAGE DATUM LINE PARALLEL TO GROUND AT 6.52 m (21.39 ft), SHOCK-ABSORBER RELAXED, CLEARANCE OF MAIN LANDING GEAR WHEELS: 0.36 m (1.18 ft) (STANDARD TIRES 01), CLEARANCE OF NOSE LANDING GEAR WHEELS: 1.50 m (4.92 ft) (STANDARD TIRES 01) | 4.37 m (14.34 ft) | 5.81 m (19.06 ft) | | 6.42 m (21.06 ft) |

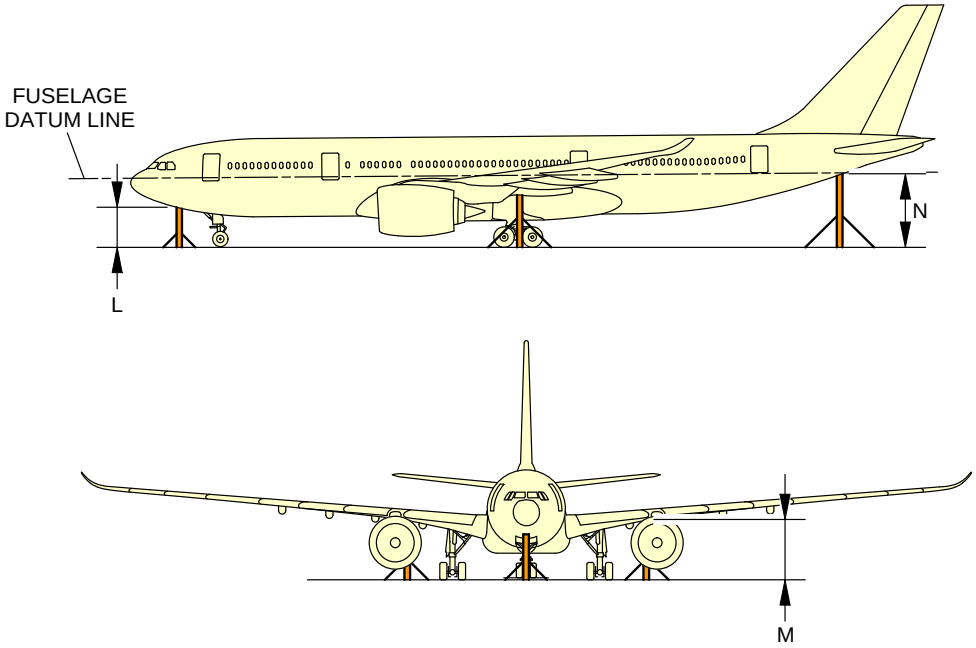
**NOTE:**

01 STANDARD TIRES: NOSE LANDING GEAR = 1 050 x 395 R16
MAIN LANDING GEAR = 1 400 x 530 R23

F_AC_021400_1_0050301_01_01

Jacking for Maintenance
Jacking Dimensions
FIGURE-2-14-0-991-005-C01

**ON A/C A330-800




| | L | M | | N |
|---|---|---|---|---|
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, MAX. JACK WEIGHT 152 000 kg (335 103 lb) | 2.62 m (8.60 ft) | 4.59 m (15.06 ft) | | 5.71 m (18.73 ft) |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW 130 499 kg (287 701 lb) | 2.62 m (8.60 ft) | 4.66 m (15.29 ft) | | 5.83 m (19.13 ft) |
| AIRCRAFT ON WHEELS, SHOCK ABSORBER DEFLATED AND FLAT TIRES (RH) | 2.66 m (8.73 ft) | (LH) 4.71 m (15.45 ft) | (RH) 3.97 m (13.02 ft) | 5.19 m (17.03 ft) |
| AIRCRAFT ON JACKS, FUSELAGE DATUM LINE PARALLEL TO GROUND AT 6.51 m (21.36 ft), SHOCK-ABSORBER RELAXED, CLEARANCE OF MAIN LANDING GEAR WHEELS: 0.23 m (0.75 ft) (STANDARD TIRES 01), CLEARANCE OF NOSE LANDING GEAR WHEELS: 1.51 m (4.95 ft) (STANDARD TIRES 01) | 4.37 m (14.34 ft) | 5.81 m (19.06 ft) | | 6.42 m (21.06 ft) |

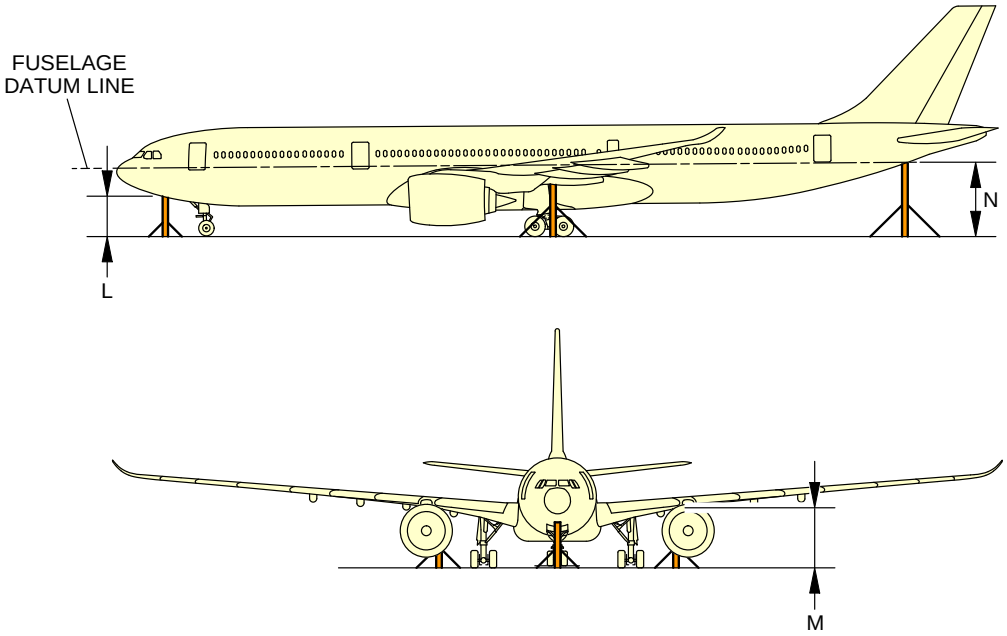
**NOTE:**

01 STANDARD TIRES: NOSE LANDING GEAR = 1 050 x 395 R16
MAIN LANDING GEAR = 1 400 x 530 R23

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Jacking for Maintenance
Jacking Dimensions
FIGURE-2-14-0-991-005-D01

**ON A/C A330-900




| | L | M | | N |
|---|---|---|---|---|
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, MAX. JACK WEIGHT 152 000 kg (335 103 lb) | 2.65 m (8.69 ft) | 4.59 m (15.06 ft) | | 5.66 m (18.57 ft) |
| AIRCRAFT ON WHEELS WITH STANDARD TIRES 01, OEW 135 093 kg (297 829 lb) | 2.63 m (8.63 ft) | 4.64 m (15.22 ft) | | 5.79 m (19.00 ft) |
| AIRCRAFT ON WHEELS, SHOCK ABSORBER DEFLATED AND FLAT TIRES (RH) | 2.68 m (8.79 ft) | (LH) 4.70 m (15.42 ft) | (RH) 3.98 m (13.06 ft) | 5.16 m (16.93 ft) |
| AIRCRAFT ON JACKS, FUSELAGE DATUM LINE PARALLEL TO GROUND AT 6.51 m (21.36 ft), SHOCK-ABSORBER RELAXED, CLEARANCE OF MAIN LANDING GEAR WHEELS: 0.24 m (0.79 ft) (STANDARD TIRES 01), CLEARANCE OF NOSE LANDING GEAR WHEELS: 1.50 m (4.92 ft) (STANDARD TIRES 01) | 4.37 m (14.34 ft) | 5.81 m (19.06 ft) | | 6.42 m (21.06 ft) |

**NOTE:**

01 STANDARD TIRES: NOSE LANDING GEAR = 1 050 x 395 R16
MAIN LANDING GEAR = 1 400 x 530 R23

F_AC_021400_1_0050501_01_01

Jacking for Maintenance
Jacking Dimensions
FIGURE-2-14-0-991-005-E01

## 2-14-1 Jacking of the Landing Gear

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Jacking of the Landing Gear

1. General

   Landing gear jacking will be required to lift the landing gear wheels off the ground.

   NOTE : You can lift the aircraft at Maximum Ramp Weight (MRW).

   NOTE : The load at each jacking position is the load required to give 25.4 mm (1 in) clearance between the ground and the tire.

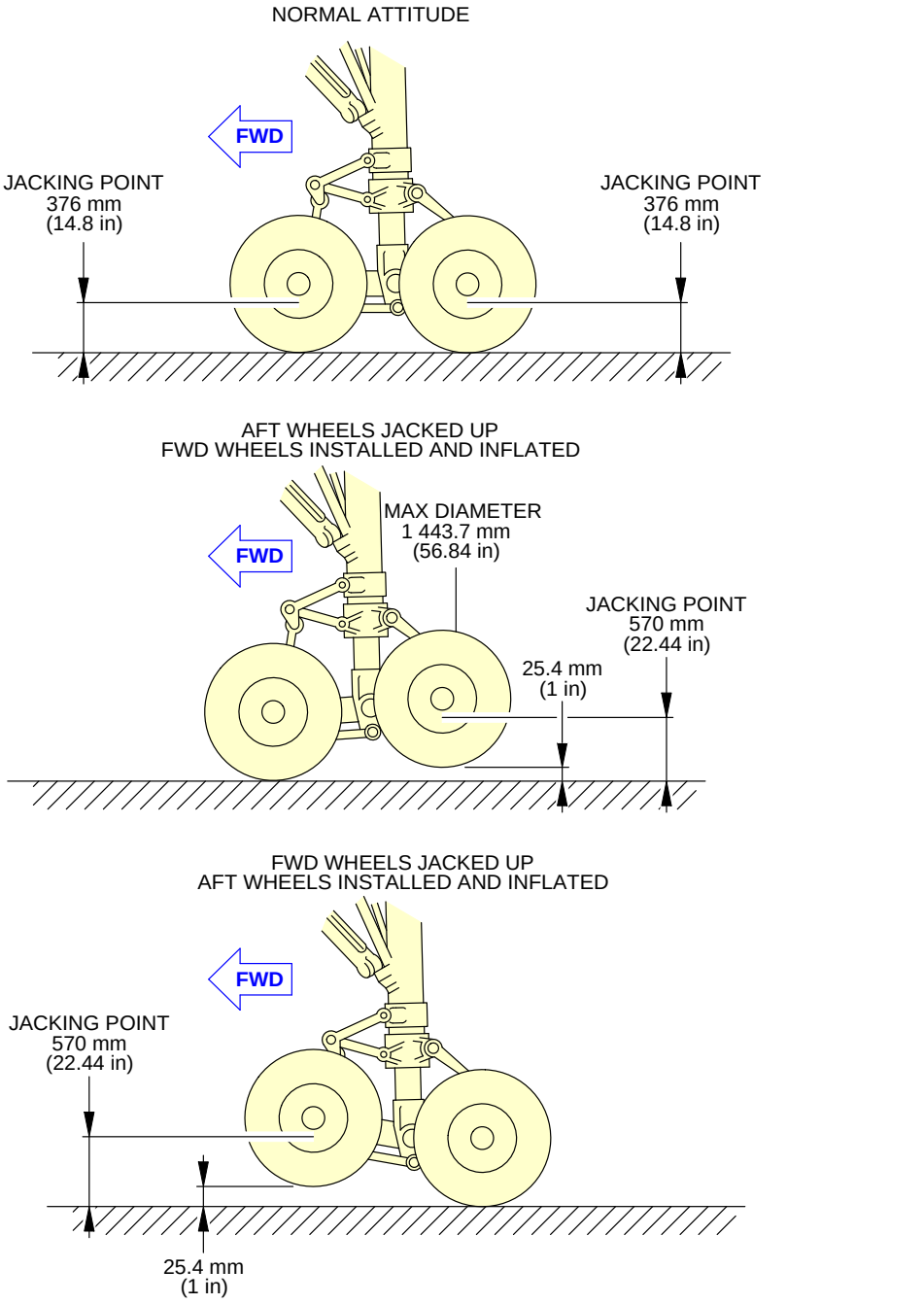
2. Main Gear Jacking

   The main gears are normally jacked up by placing a jack directly under the ball pad.
   The ball spherical radius is 19 mm (0.75 in).
   It is also possible to jack the main gear using a cantilever jack.
   The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-1-991-026-AFIGURE 2-14-1-991-026-BFIGURE 2-14-1-991-026-CFIGURE 2-14-1-991-026-D. These loads apply to all existing variants and weights of the concerned aircraft.

3. Nose Gear Jacking

   For nose gear jacking, a 19 mm (0.75 in) radius ball pad is fitted under the lower end of the shock-absorber sliding tube. Jacking can be accomplished either by placing a jack directly under the ball pad, or using an adapter fitting provided with an identical ball pad.
   The reactions at each of the jacking points are shown in the table, see FIGURE 2-14-1-991-026-AFIGURE 2-14-1-991-026-BFIGURE 2-14-1-991-026-CFIGURE 2-14-1-991-026-D. These loads apply to all existing variants and weights of the concerned aircraft.

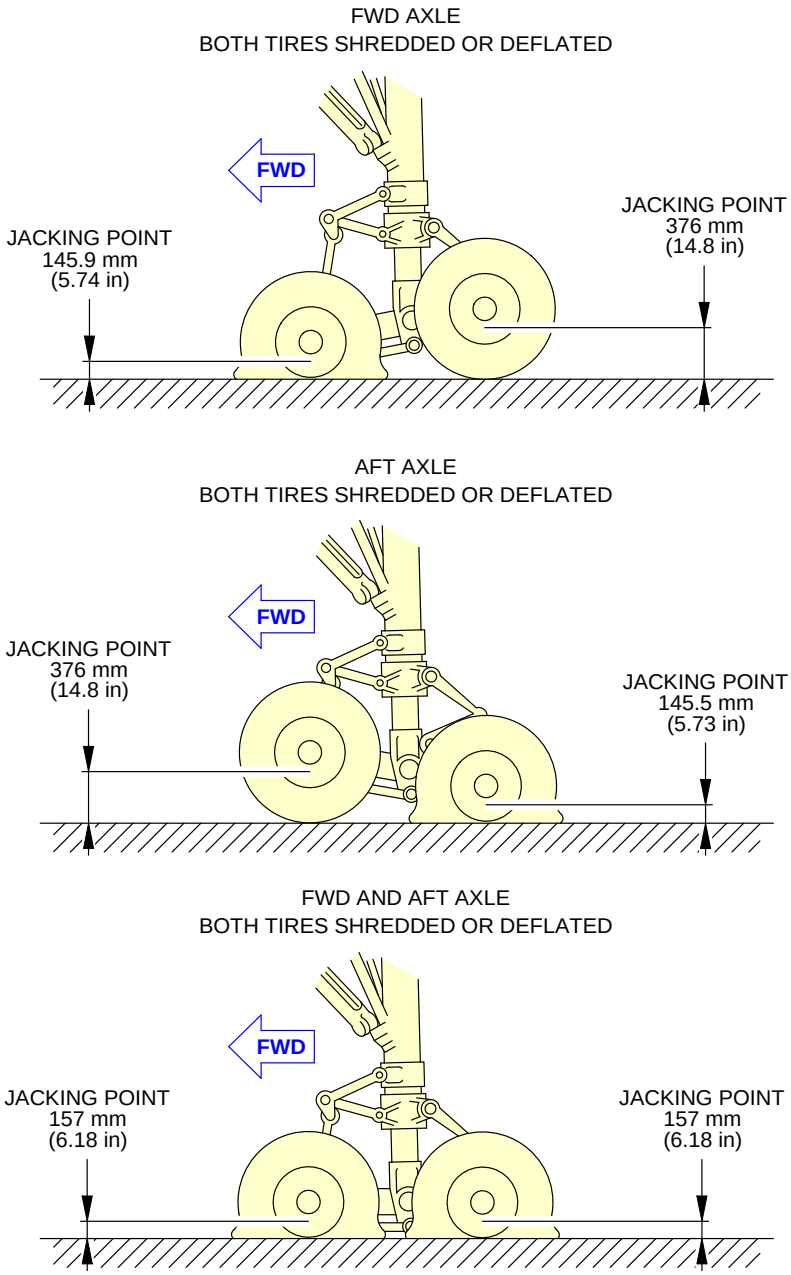
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Jacking of the Landing Gear
MLG Jacking Point Heights (Sheet 1 of 3)
FIGURE-2-14-1-991-001-A01

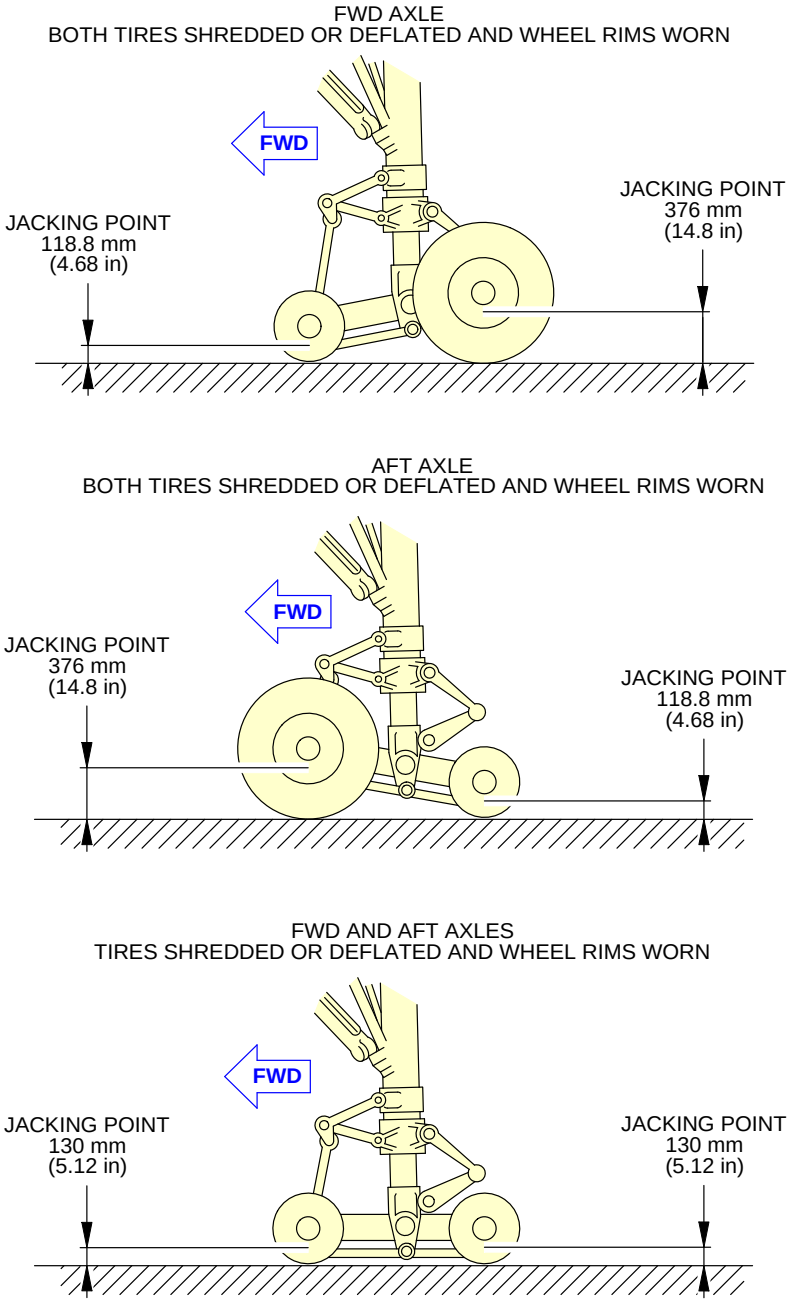
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Jacking of the Landing Gear
MLG Jacking Point Heights (Sheet 2 of 3)
FIGURE-2-14-1-991-001-A01

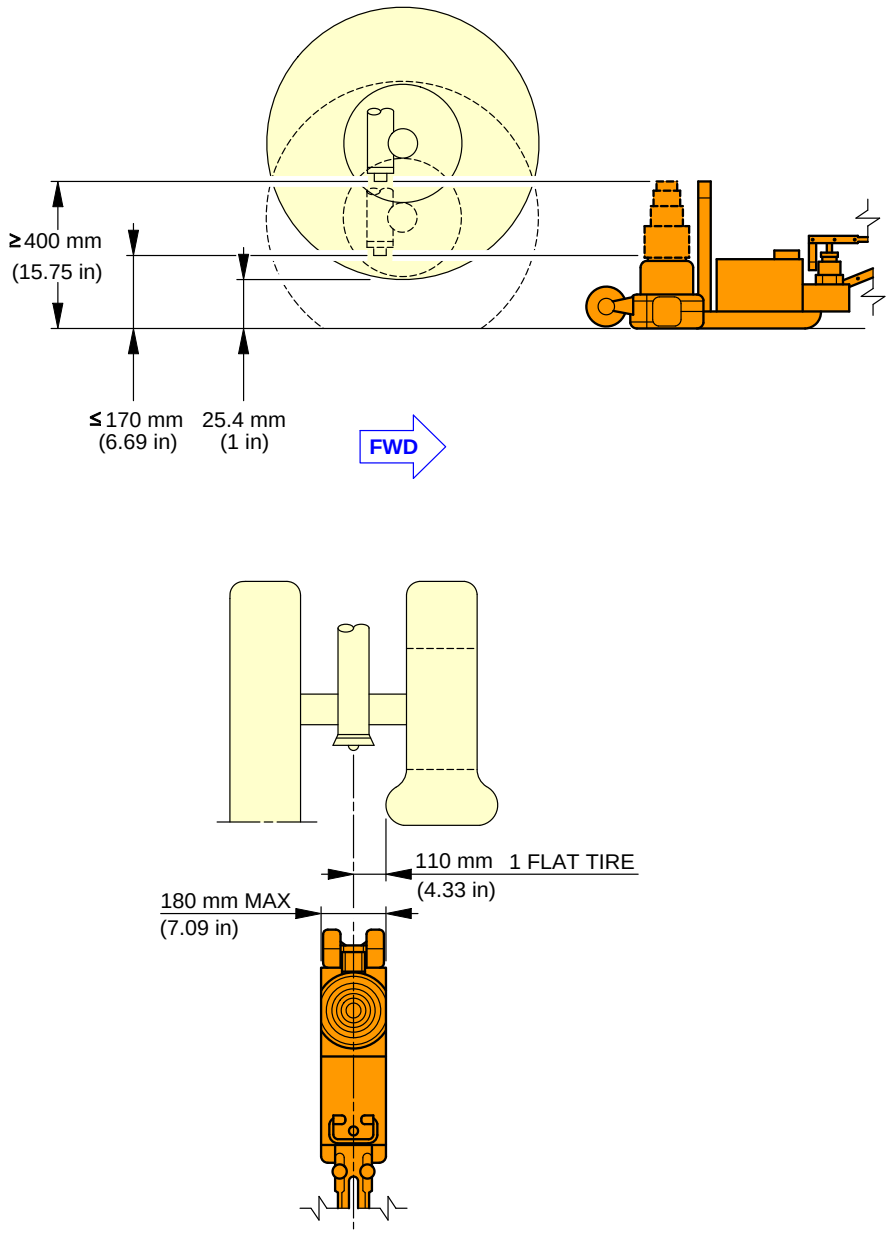
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Jacking of the Landing Gear
MLG Jacking Point Heights (Sheet 3 of 3)
FIGURE-2-14-1-991-001-A01

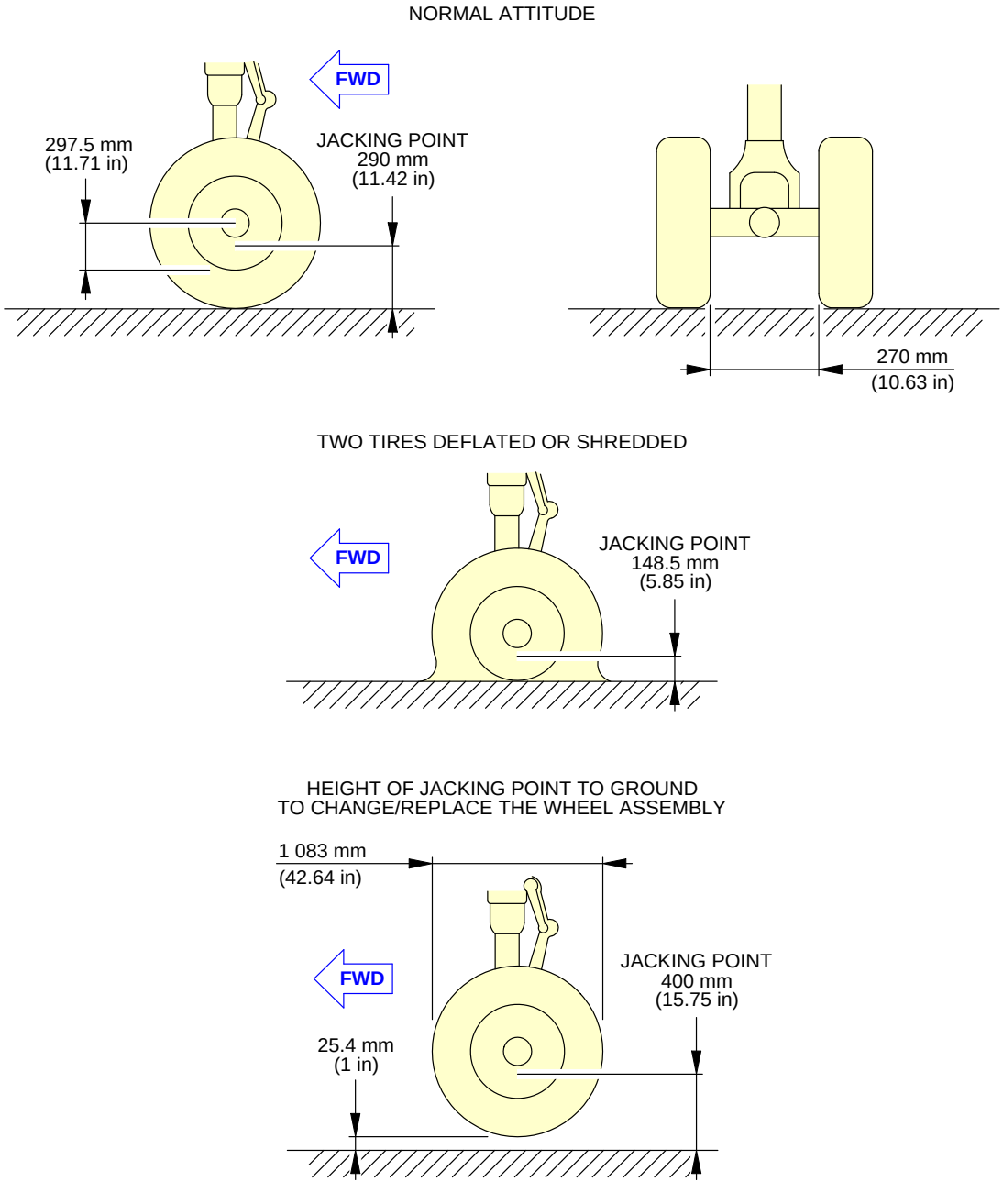
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Jacking of the Landing Gear
Jacking of the NLG (Sheet 1 of 2)
FIGURE-2-14-1-991-002-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Jacking of the Landing Gear
NLG Jacking Point Heights (Sheet 2 of 2)
FIGURE-2-14-1-991-002-A01

**ON A/C A330-300

| A330-300<br>WV080 | |
|---|---|
| MAXIMUM DESIGN TAXI WEIGHT (MTW) | 238 900 kg<br>(526 684 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW) | 238 000 kg<br>(524 700 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG JACKING POINT | 24 900 kg<br>(54 895 lb) |
| NUMBER OF JACKING POINTS ON ONE MLG | 2 |
| MAXIMUM LOAD VALUE TO BE APPLIED ON EACH MLG JACKING POINT | 56 750 kg<br>(125 112 lb) |

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Jacking of the Landing Gear
Maximum Load at Each Jacking Point
FIGURE-2-14-1-991-026-A01

**ON A/C A330-200

| A330-200<br>WV062 | |
|---|---|
| MAXIMUM DESIGN TAXI WEIGHT (MTW) | 238 900 kg<br>(526 684 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW) | 238 000 kg<br>(524 700 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG JACKING POINT | 26 000 kg<br>(57 320 lb) |
| NUMBER OF JACKING POINTS ON ONE MLG | 2 |
| MAXIMUM LOAD VALUE TO BE APPLIED ON EACH MLG JACKING POINT | 55 000 kg<br>(121 254 lb) |

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Jacking of the Landing Gear
Maximum Load at Each Jacking Point
FIGURE-2-14-1-991-026-B01

**ON A/C A330-900

| A330-900<br>WV901 | |
|---|---|
| MAXIMUM DESIGN TAXI WEIGHT (MTW) | 242 900 kg<br>(535 503 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW) | 242 000 kg<br>(533 519 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG JACKING POINT | 23 569 kg<br>(51 961 lb) |
| NUMBER OF JACKING POINTS ON ONE MLG | 2 |
| MAXIMUM LOAD VALUE TO BE APPLIED ON EACH MLG JACKING POINT | 57 107 kg<br>(125 899 lb) |

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Jacking of the Landing Gear
Maximum Load at Each Jacking Point
FIGURE-2-14-1-991-026-C01

**ON A/C A330-800

| A330-800<br>WV801 | |
|---|---|
| MAXIMUM DESIGN TAXI WEIGHT (MTW) | 242 900 kg<br>(535 503 lb) |
| MAXIMUM DESIGN TAKE-OFF WEIGHT (MTOW) | 242 000 kg<br>(533 519 lb) |
| MAXIMUM LOAD VALUE TO BE APPLIED ON NLG JACKING POINT | 21 565 kg<br>(47 543 lb) |
| NUMBER OF JACKING POINTS ON ONE MLG | 2 |
| MAXIMUM LOAD VALUE TO BE APPLIED ON EACH MLG JACKING POINT | 56 894 kg<br>(125 430 lb) |

F_AC_021401_1_0260401_01_01

Jacking of the Landing Gear
Maximum Load at Each Jacking Point
FIGURE-2-14-1-991-026-D01

## 2-14-2 Support of Aircraft

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Support of Aircraft

1. Support of Aircraft

   When it is necessary to support the aircraft in order to relieve the loads on the structure for the accomplishment of modifications or major work, it is advisable to provide adapters under the wings and the fuselage for an alternative means of lifting.

   The aircraft must not be lifted or supported by the wings or fuselage alone. It is important to support the aircraft fuselage and wings at the same time to prevent structural damage.

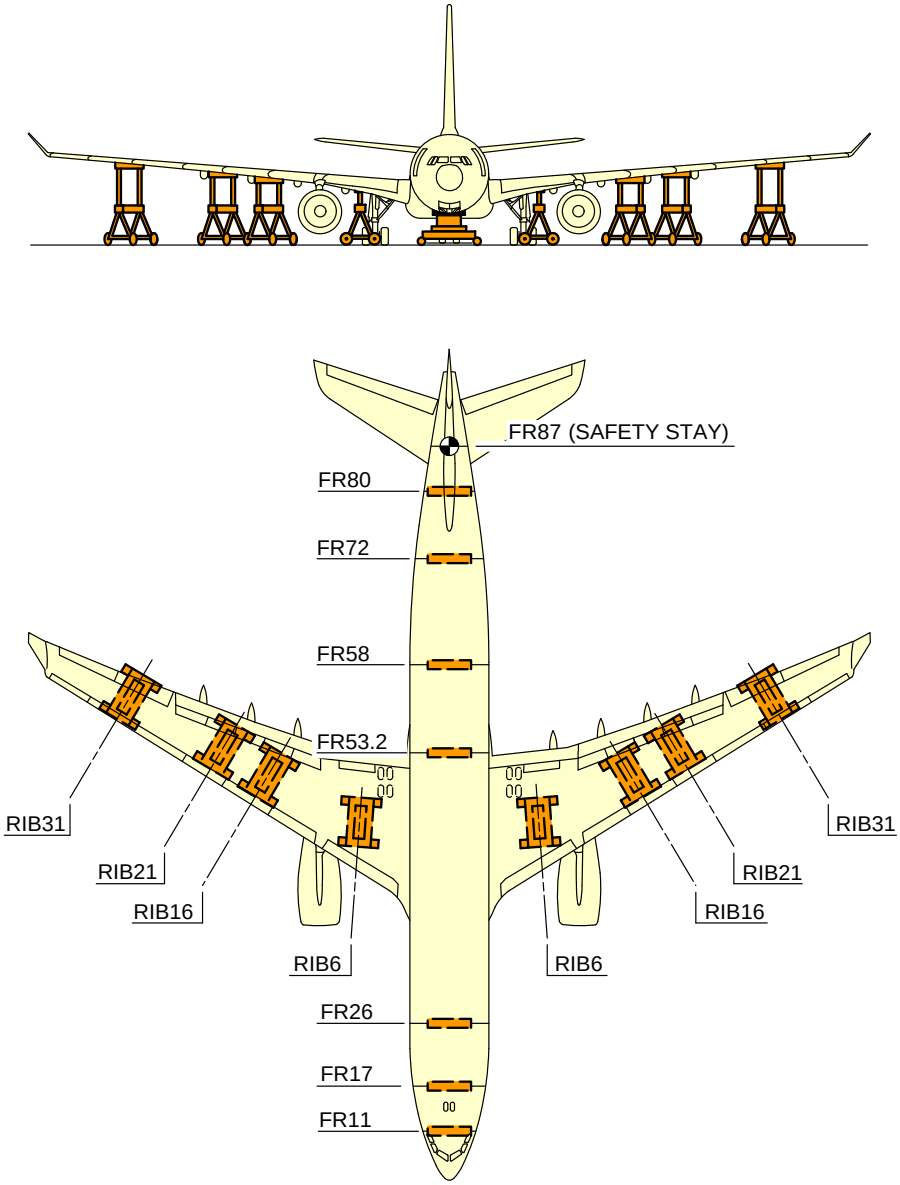
   A. Shoring Cradles

      Shoring cradles are used when it is necessary to stress-jack the aircraft to carry out maintenance and repair work. These are used to oppose the deflections of the wings and reduce the stresses to an acceptable level at the area of maintenance and repair.

      The shoring cradles, each with two adjustable pads, 152.4 mm (6 in) square, are positioned at four locations under each wing.

      The adjustable pads are faced with thin rubber and are in contact with the wing profile at the datum intersections of the ribs and the front and rear spars (F/S and R/S).

**ON A/C A330-200 A330-800

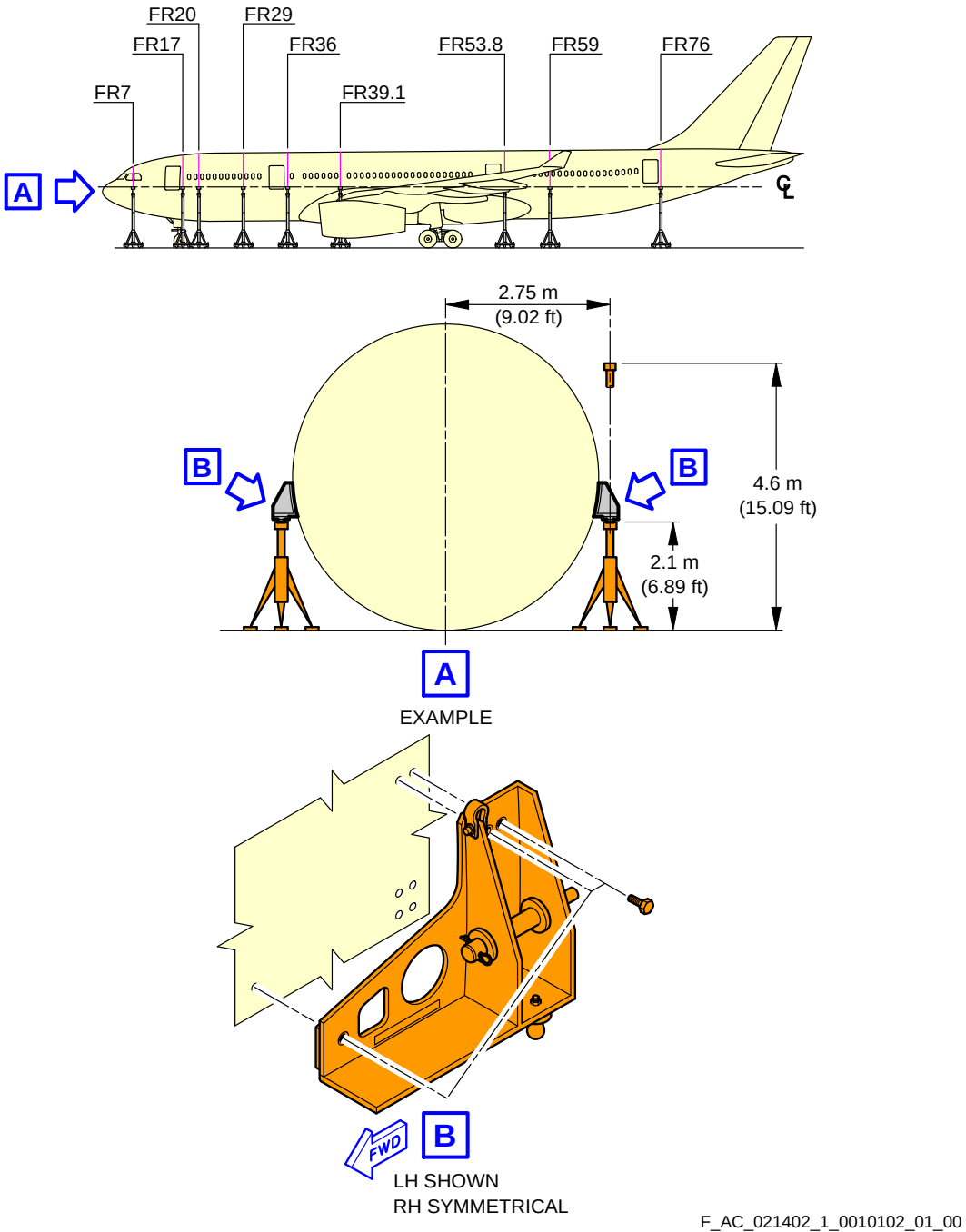



**NOTE:**
THE SHORING CRADLE MUST BE INSTALLED AT THE EXACT LOCATION OF THE FRAME.

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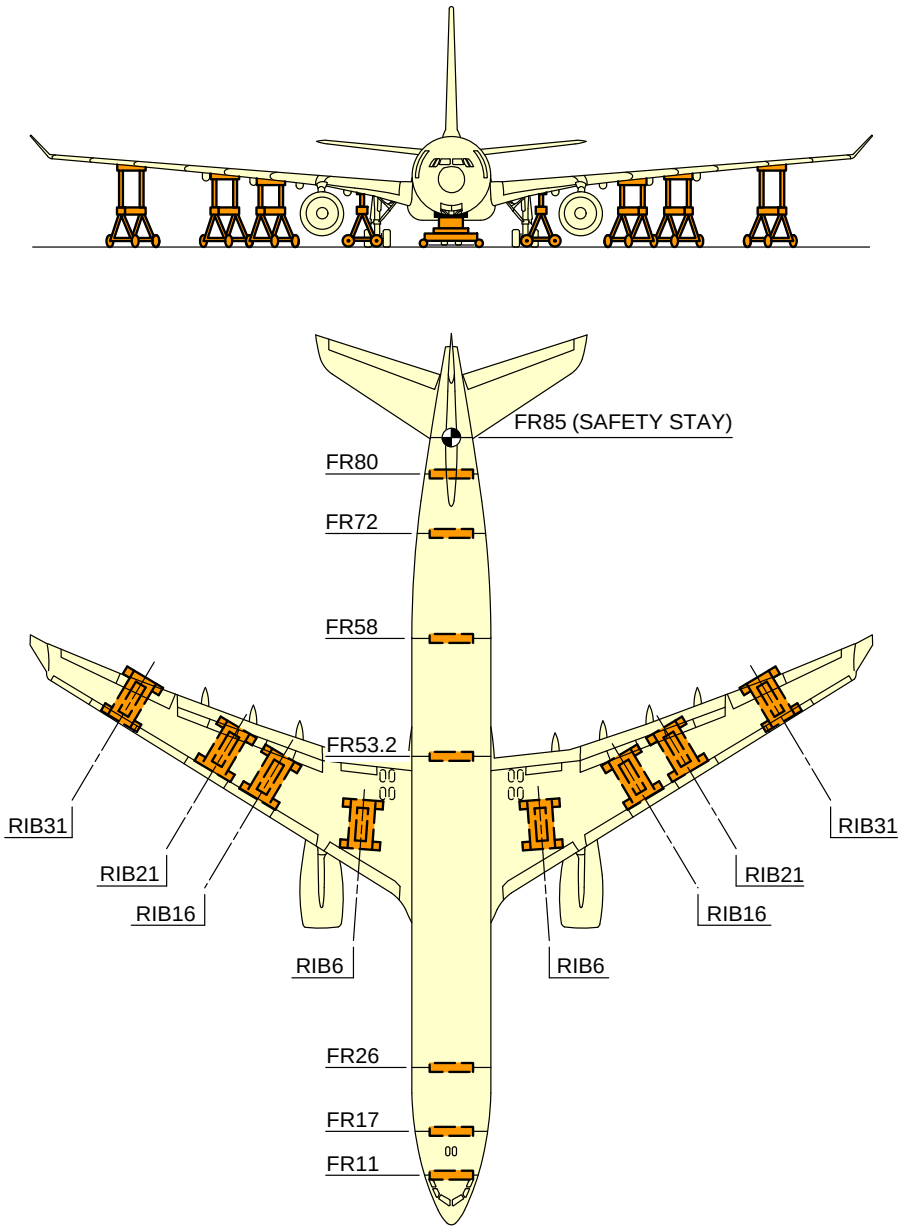
Support of Aircraft
Location of Shoring Cradles (Sheet 1 of 2)
FIGURE-2-14-2-991-001-A01

**ON A/C A330-200 A330-800




Support of Aircraft
Location of Auxiliary Jacking Points (Sheet 2 of 2)
FIGURE-2-14-2-991-001-A01

**ON A/C A330-300 A330-900

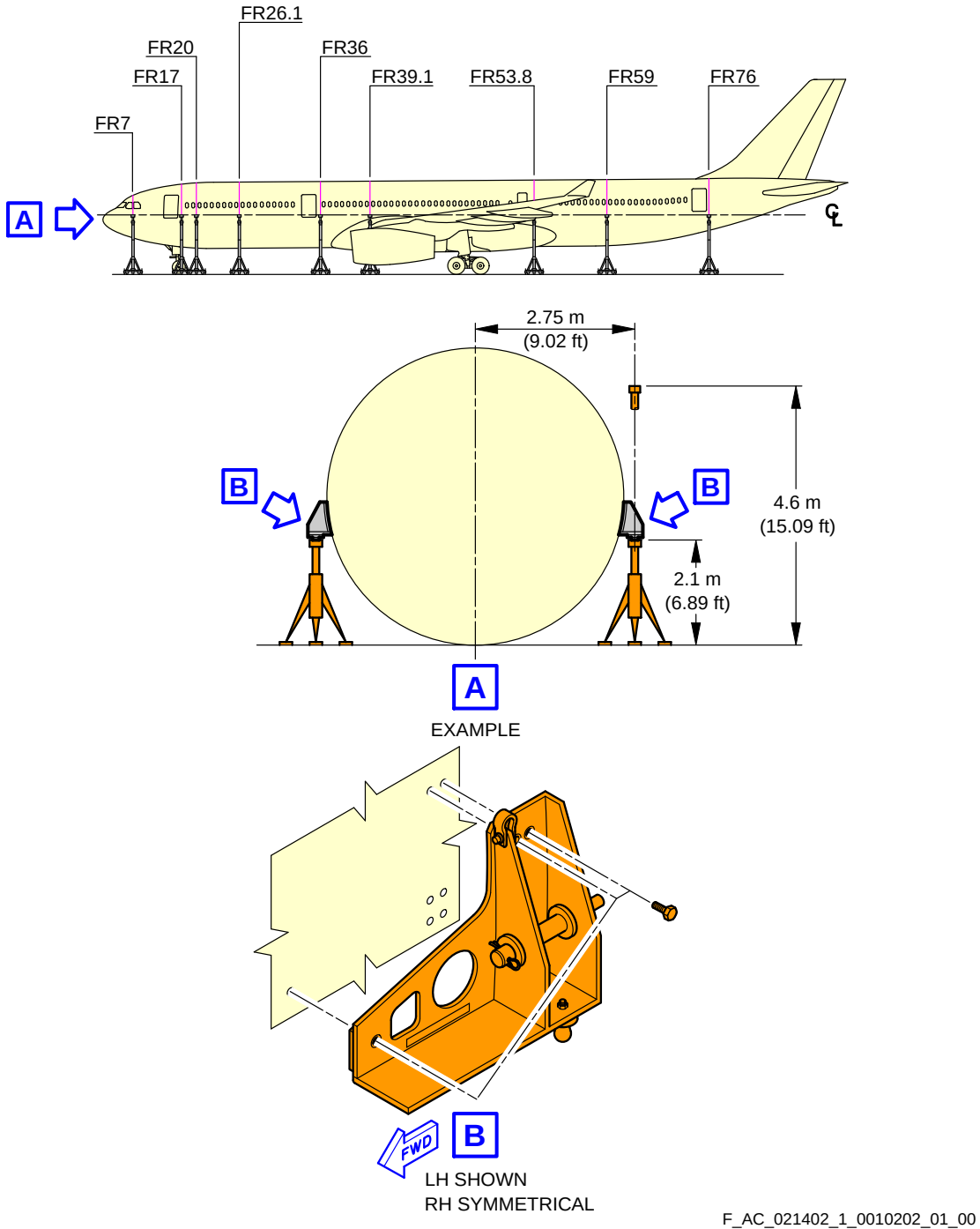



**NOTE:**
THE SHORING CRADLE MUST BE INSTALLED AT THE EXACT LOCATION OF THE FRAME.

F_AC_021402_1_0010201_01_00

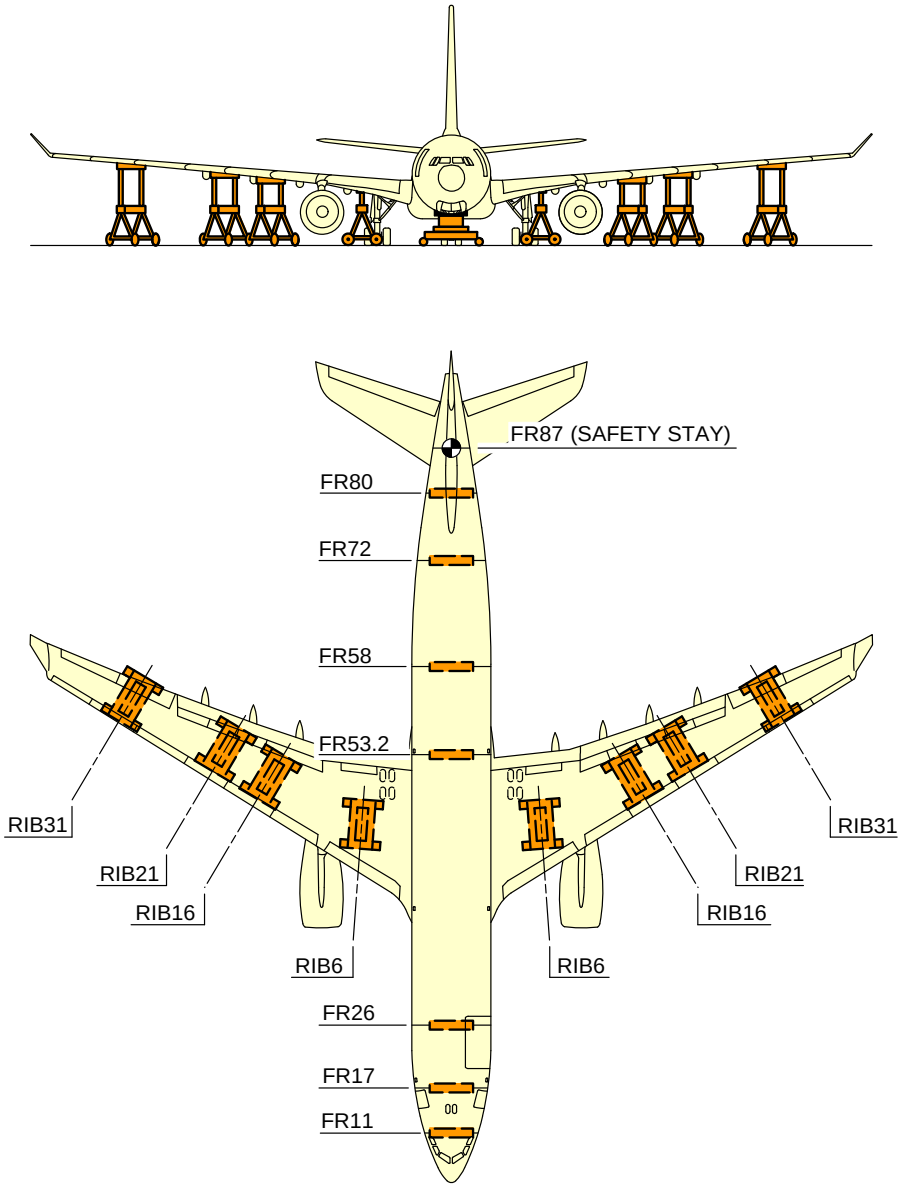
Support of Aircraft
Location of Shoring Cradles (Sheet 1 of 2)
FIGURE-2-14-2-991-001-B01

**ON A/C A330-300 A330-900




Support of Aircraft
Location of Auxiliary Jacking Points (Sheet 2 of 2)
FIGURE-2-14-2-991-001-B01

**ON A/C A330-200F

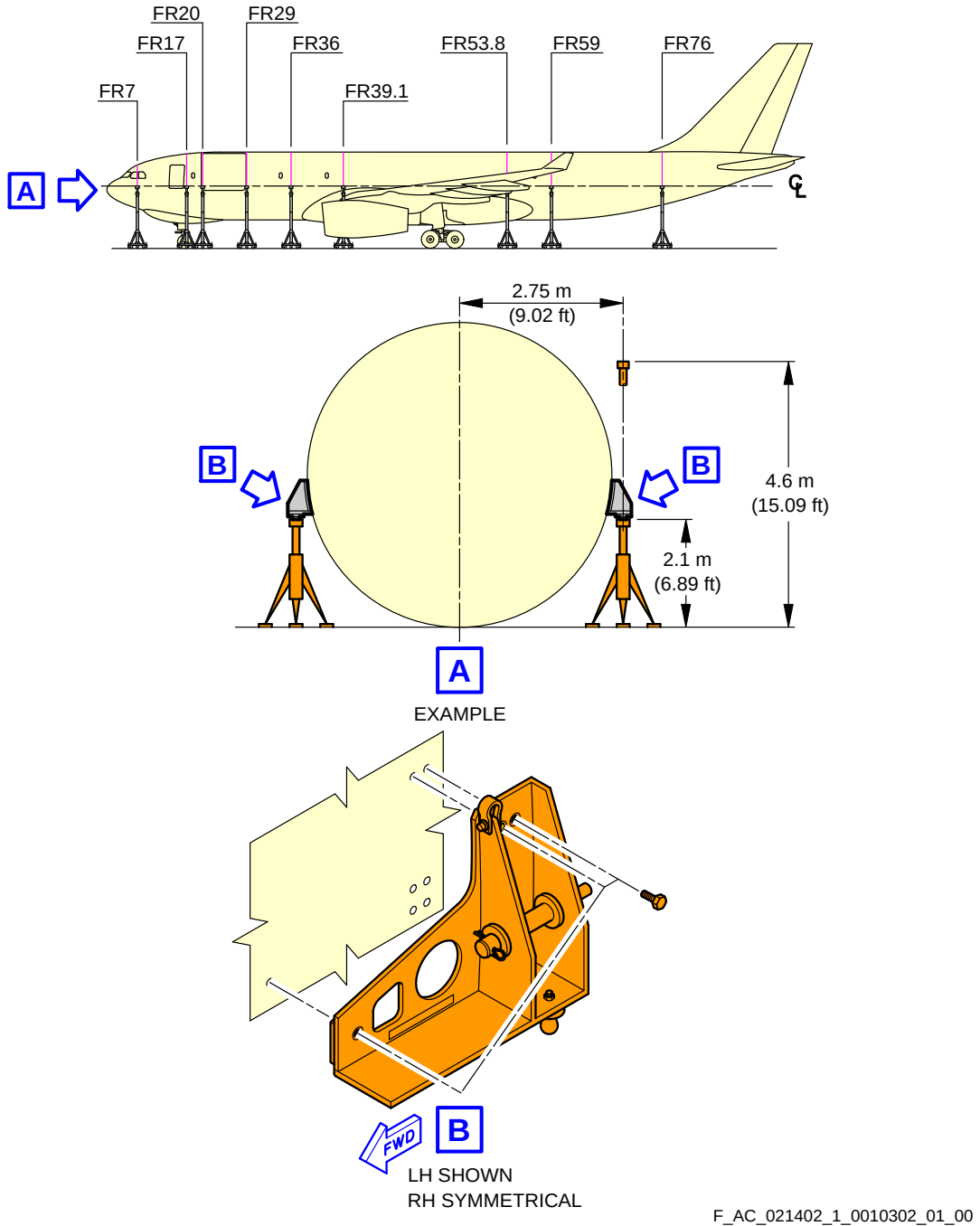



**NOTE:**
THE SHORING CRADLE MUST BE INSTALLED AT THE EXACT LOCATION OF THE FRAME.

F_AC_021402_1_0010301_01_00

Support of Aircraft
Location of Shoring Cradles (Sheet 1 of 2)
FIGURE-2-14-2-991-001-C01

**ON A/C A330-200F




Support of Aircraft
Location of Auxiliary Jacking Points (Sheet 2 of 2)
FIGURE-2-14-2-991-001-C01

# AIRCRAFT PERFORMANCE

## 3-1-0 General Information

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

General Information

1. Standard day temperatures for the altitude shown are tabulated below :

| Standard day temperatures for the altitude | | | |
|---|---|---|---|
| Altitude | | Standard Day Temperature | |
| FEET | METERS | °F | °C |
| 0 | 0 | 59.0 | 15.0 |
| 2000 | 610 | 51.9 | 11.1 |
| 4000 | 1220 | 44.7 | 7.1 |
| 6000 | 1830 | 37.6 | 3.1 |
| 8000 | 2440 | 30.5 | -0.8 |

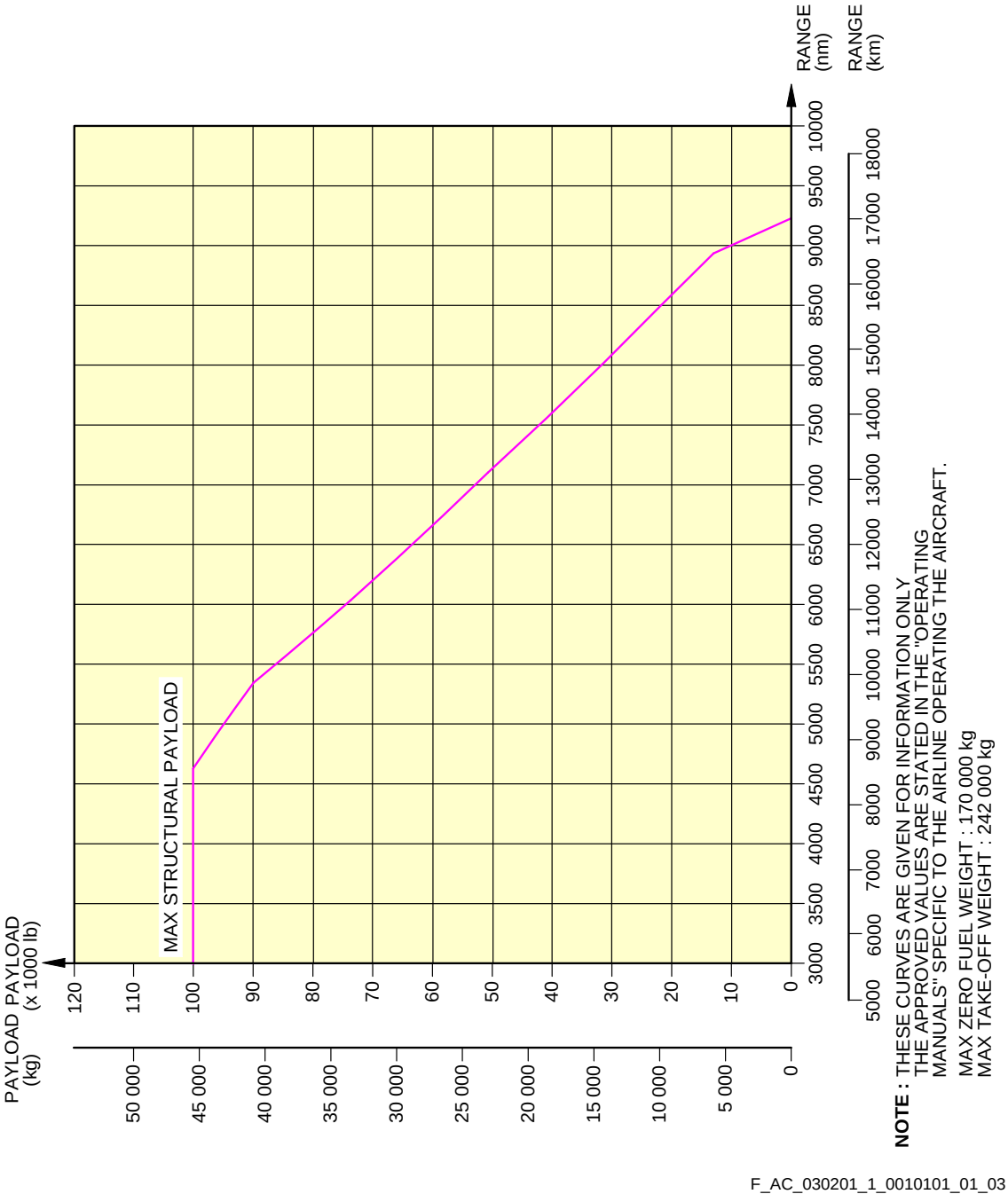
## 3-2-1 Payload / Range - ISA Conditions

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Payload / Range - ISA Conditions

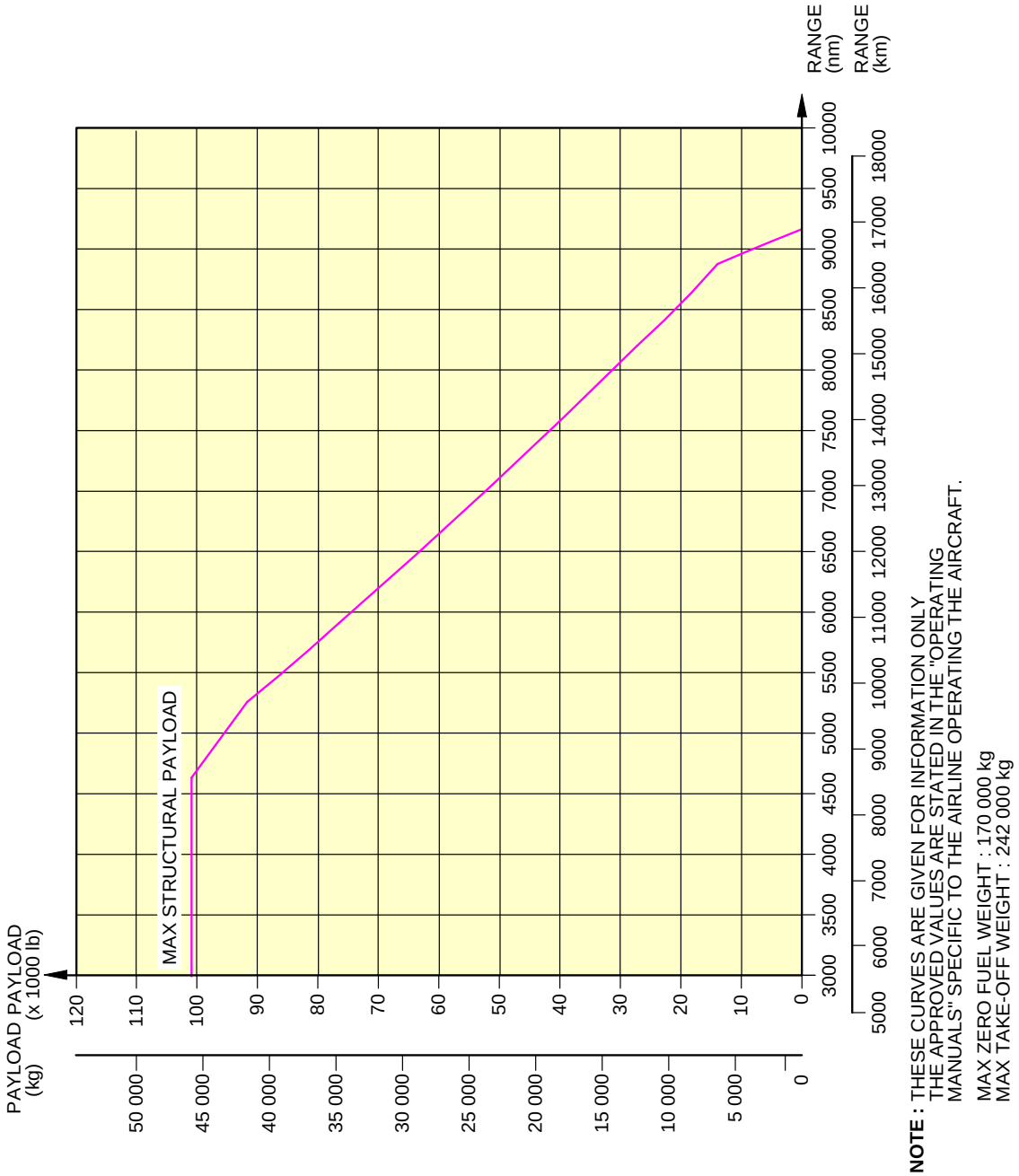
1. This section gives the payload / range at ISA conditions.

**ON A/C A330-200




Payload / Range - ISA Conditions
PW 4000 Series Engine
FIGURE-3-2-1-991-001-A01

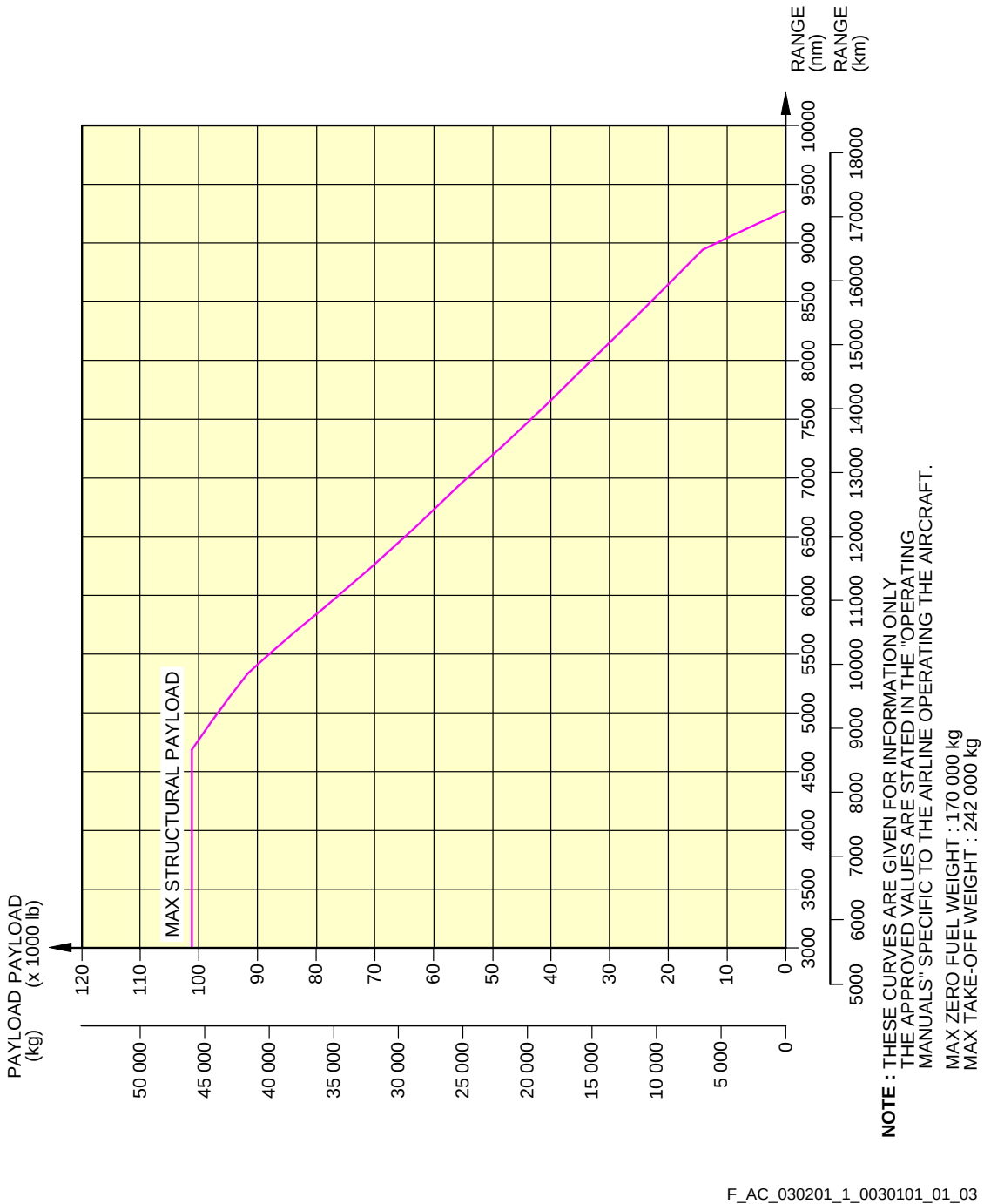
**ON A/C A330-200




F_AC_030201_1_0020101_01_03

Payload / Range - ISA Conditions
RR TRENT 700 Series Engine
FIGURE-3-2-1-991-002-A01

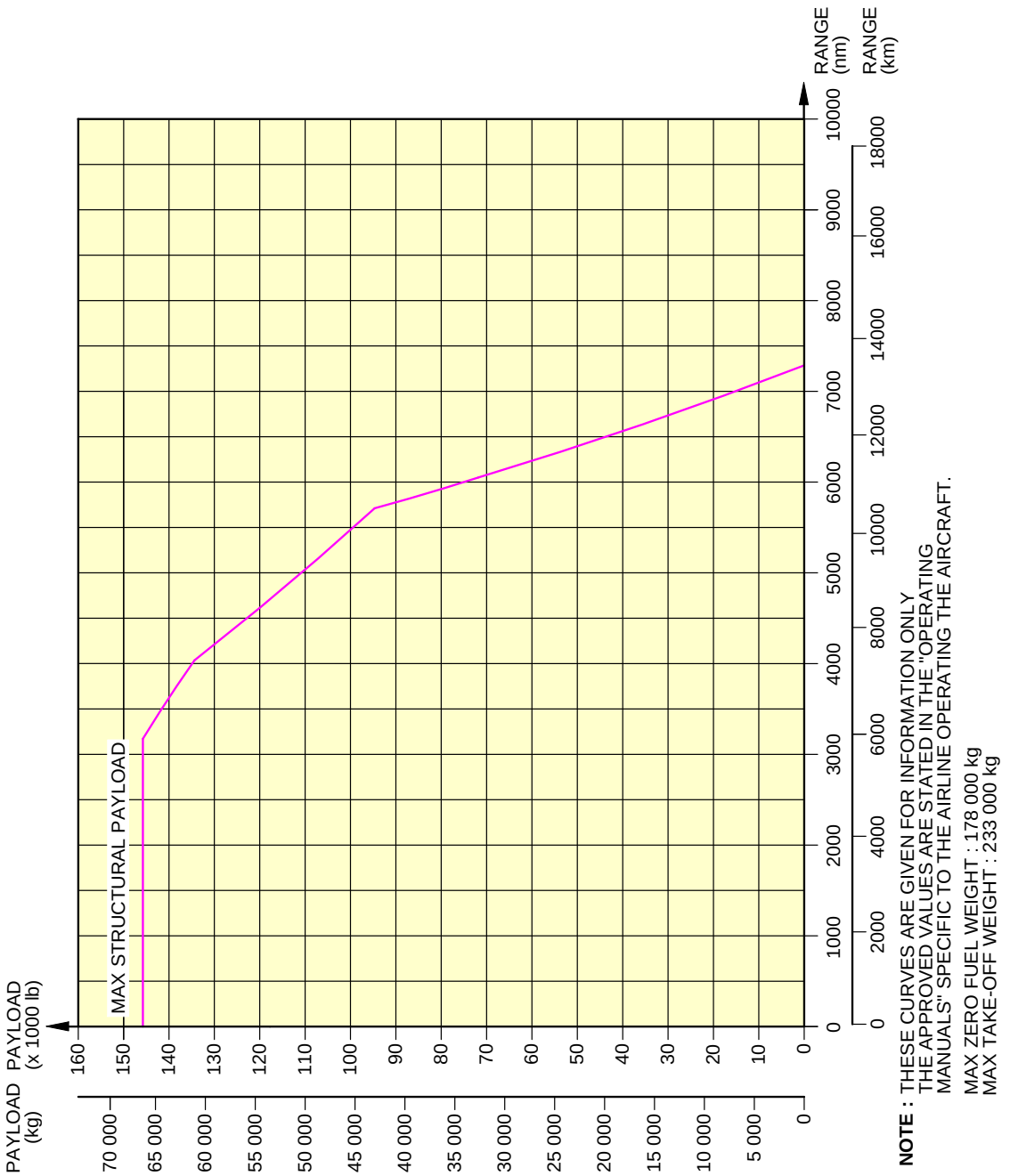
**ON A/C A330-200




F_AC_030201_1_0030101_01_03

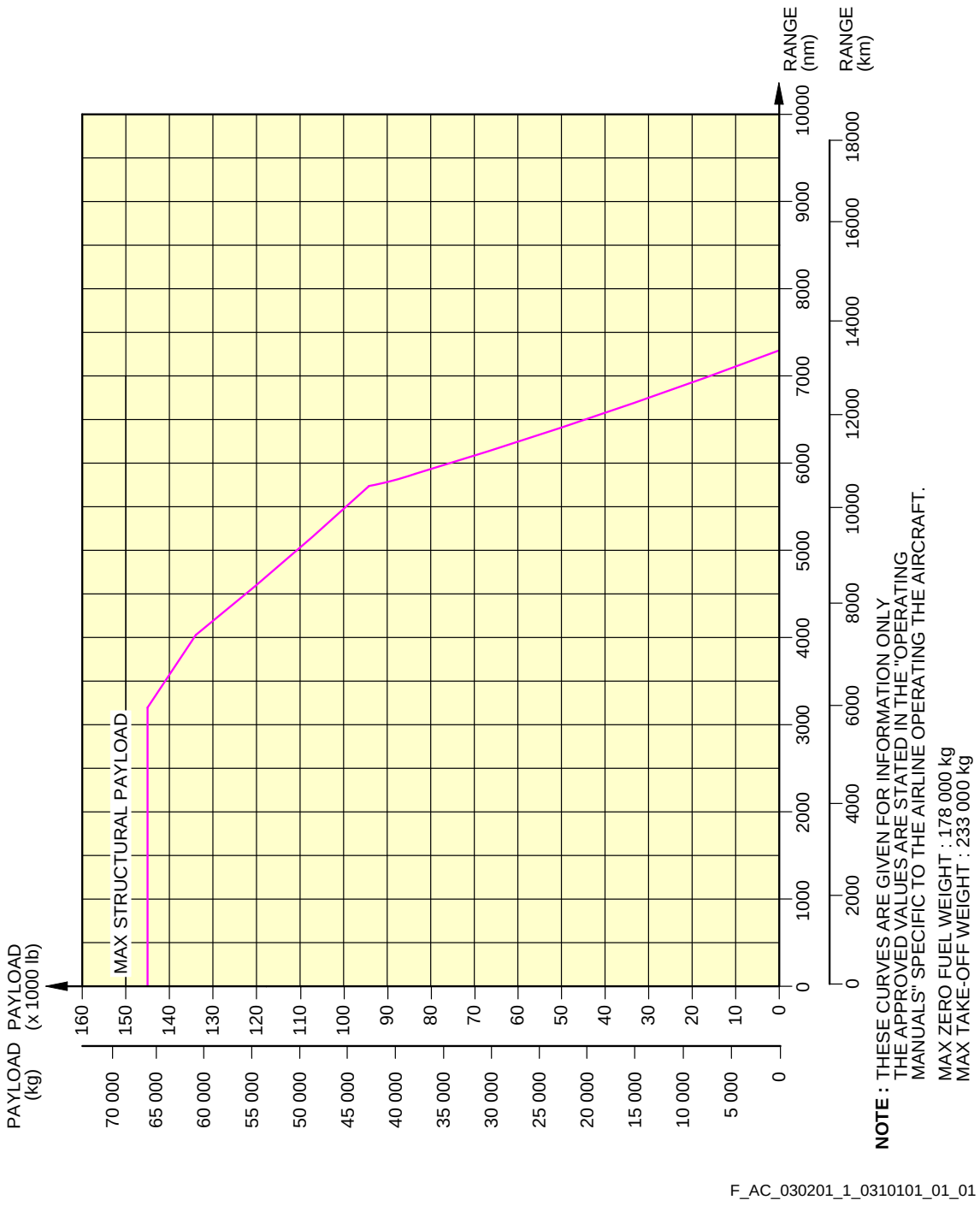
Payload / Range - ISA Conditions
GE CF6-80E1 Series Engine
FIGURE-3-2-1-991-003-A01

****ON A/C A330-200F**



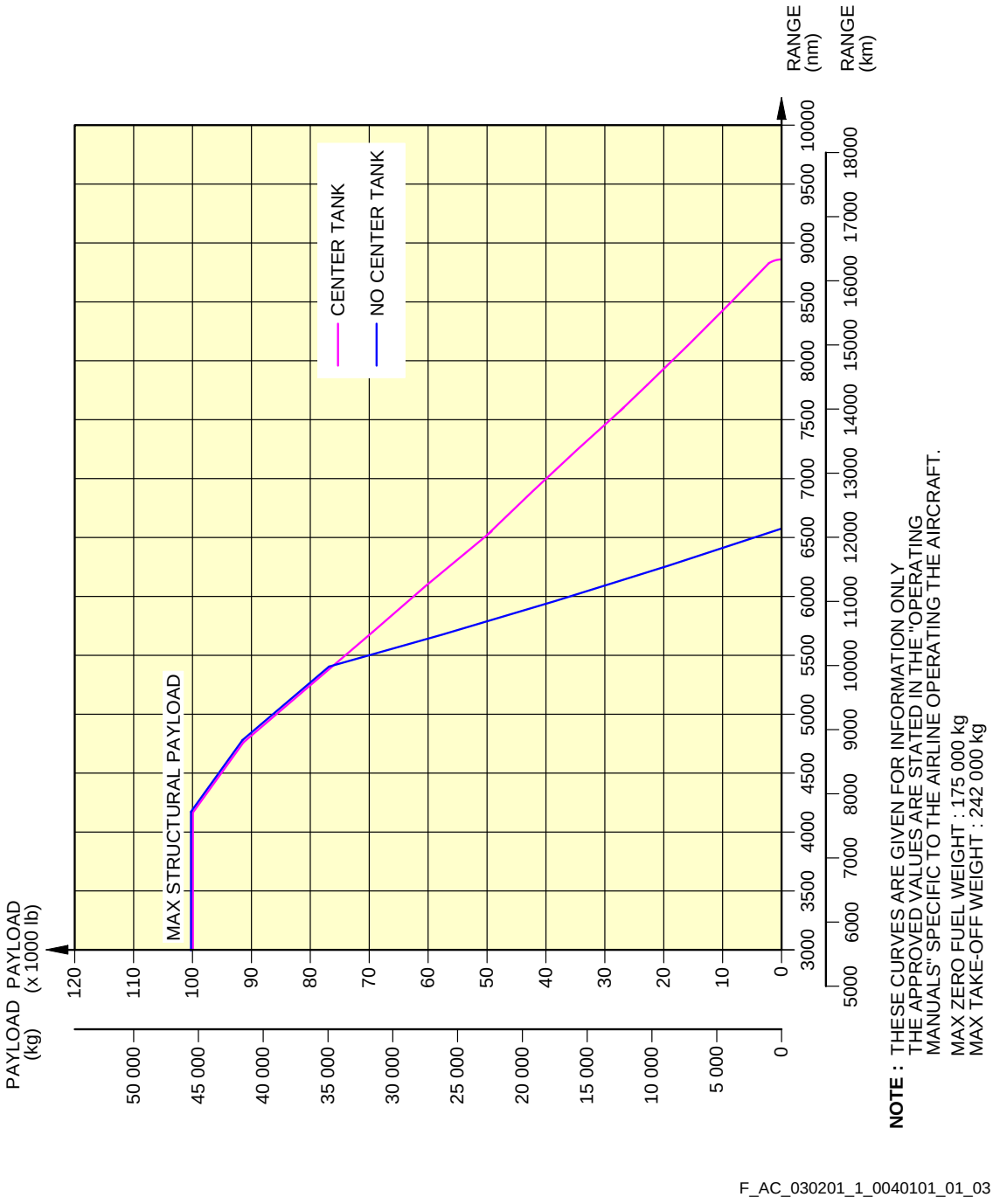

Payload / Range - ISA Conditions
RR TRENT 700 Series Engine
FIGURE-3-2-1-991-029-A01

****ON A/C A330-200F**



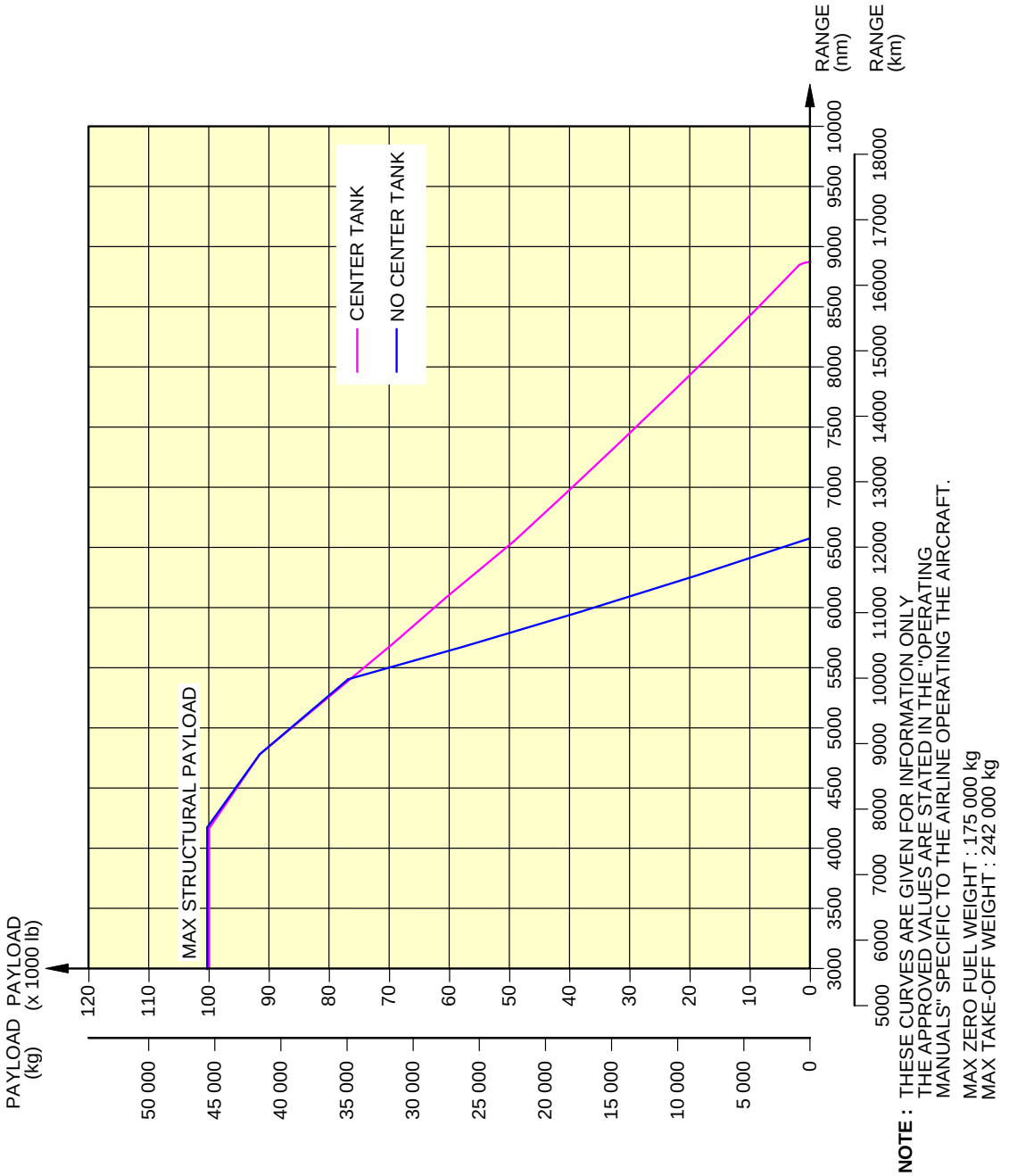

Payload / Range - ISA Conditions
PW 4000 Series Engine
FIGURE-3-2-1-991-031-A01

**ON A/C A330-300




Payload / Range - ISA Conditions
PW 4000 Series Engine
FIGURE-3-2-1-991-004-A01

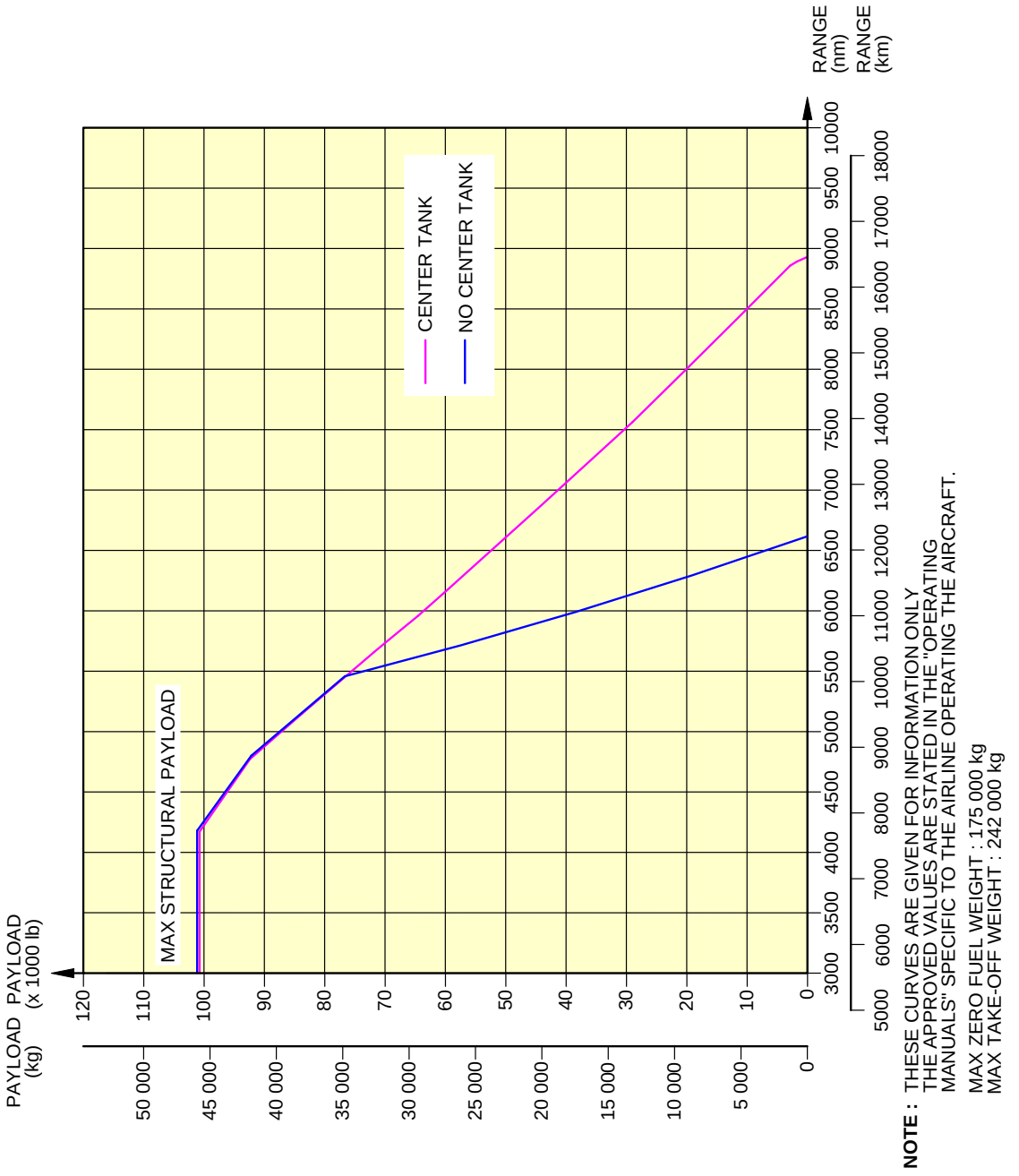
**ON A/C A330-300




F_AC_030201_1_0050101_01_03

Payload / Range - ISA Conditions
RR TRENT 700 Series Engine
FIGURE-3-2-1-991-005-A01

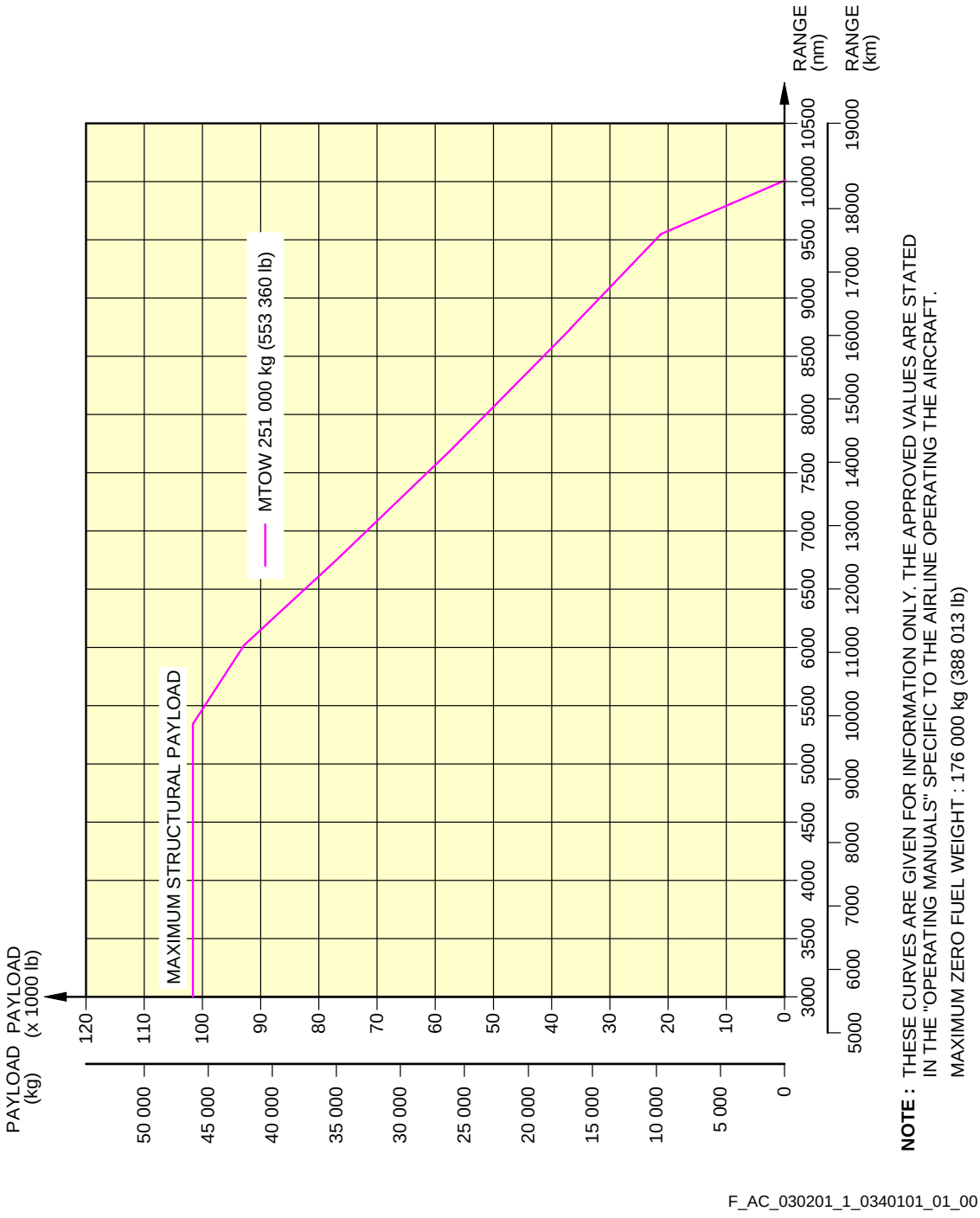
**ON A/C A330-300




F_AC_030201_1_0060101_01_03

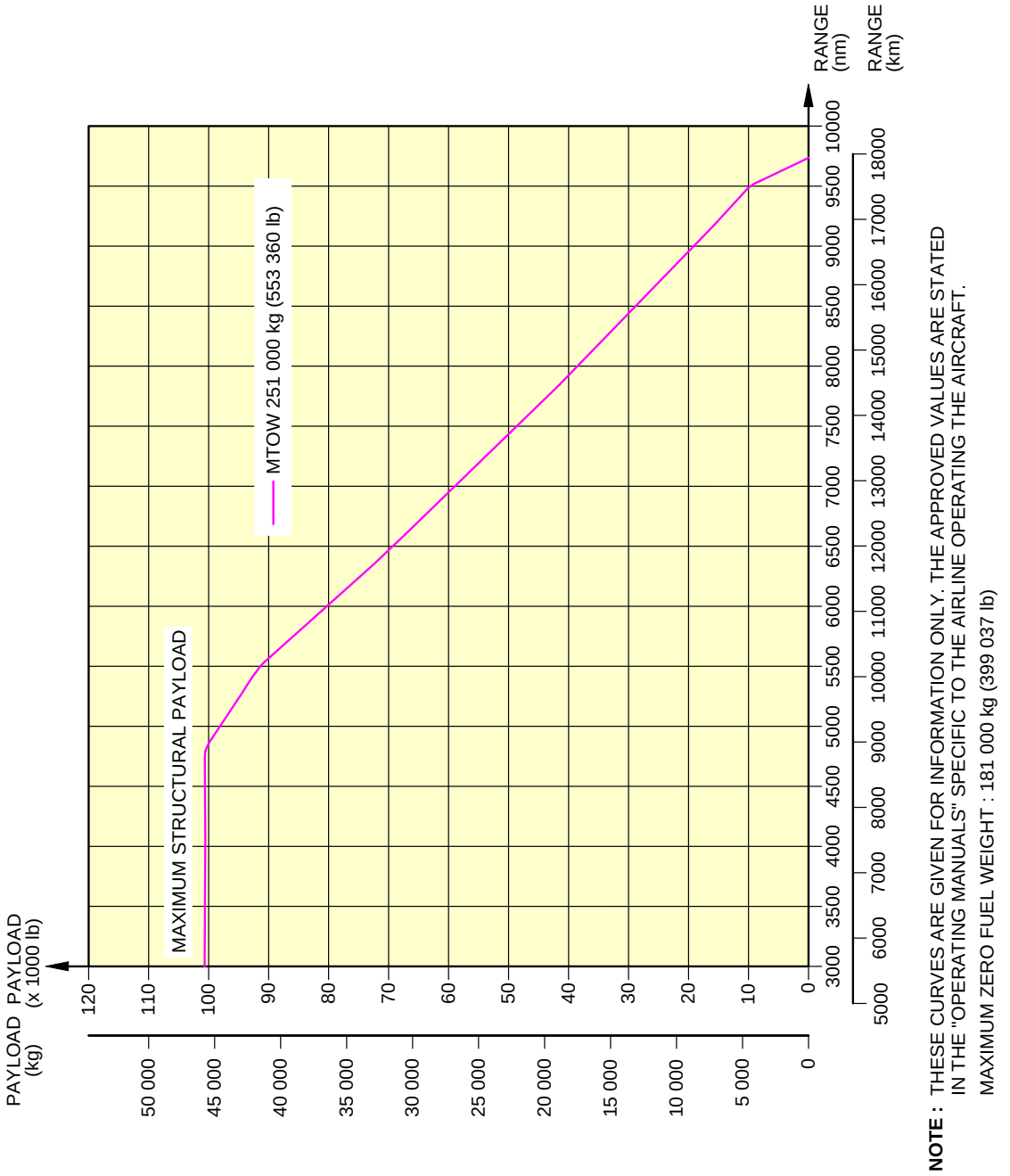
Payload / Range - ISA Conditions
GE CF6-80E1 Series Engine
FIGURE-3-2-1-991-006-A01

**ON A/C A330-800




Payload / Range - ISA Conditions
RR TRENT 7000 Series Engine
FIGURE-3-2-1-991-034-A01

**ON A/C A330-900




Payload / Range - ISA Conditions
RR TRENT 7000 Series Engine
FIGURE-3-2-1-991-033-A01

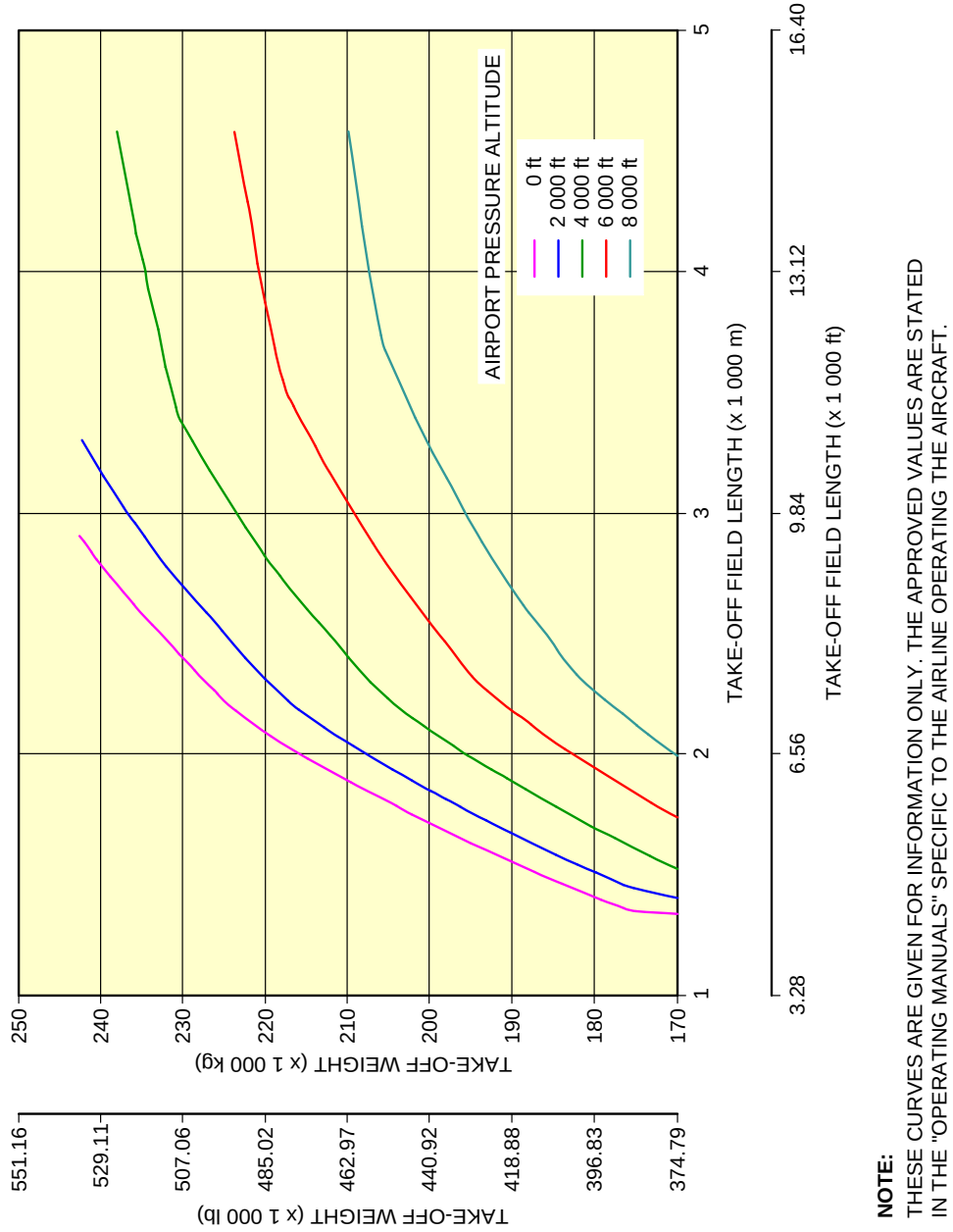
## 3-3-1 Take-Off Weight Limitation - ISA Conditions

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Take-Off Weight Limitation - ISA Conditions

1. This section gives the take-off weight limitation at ISA conditions.

**ON A/C A330-200

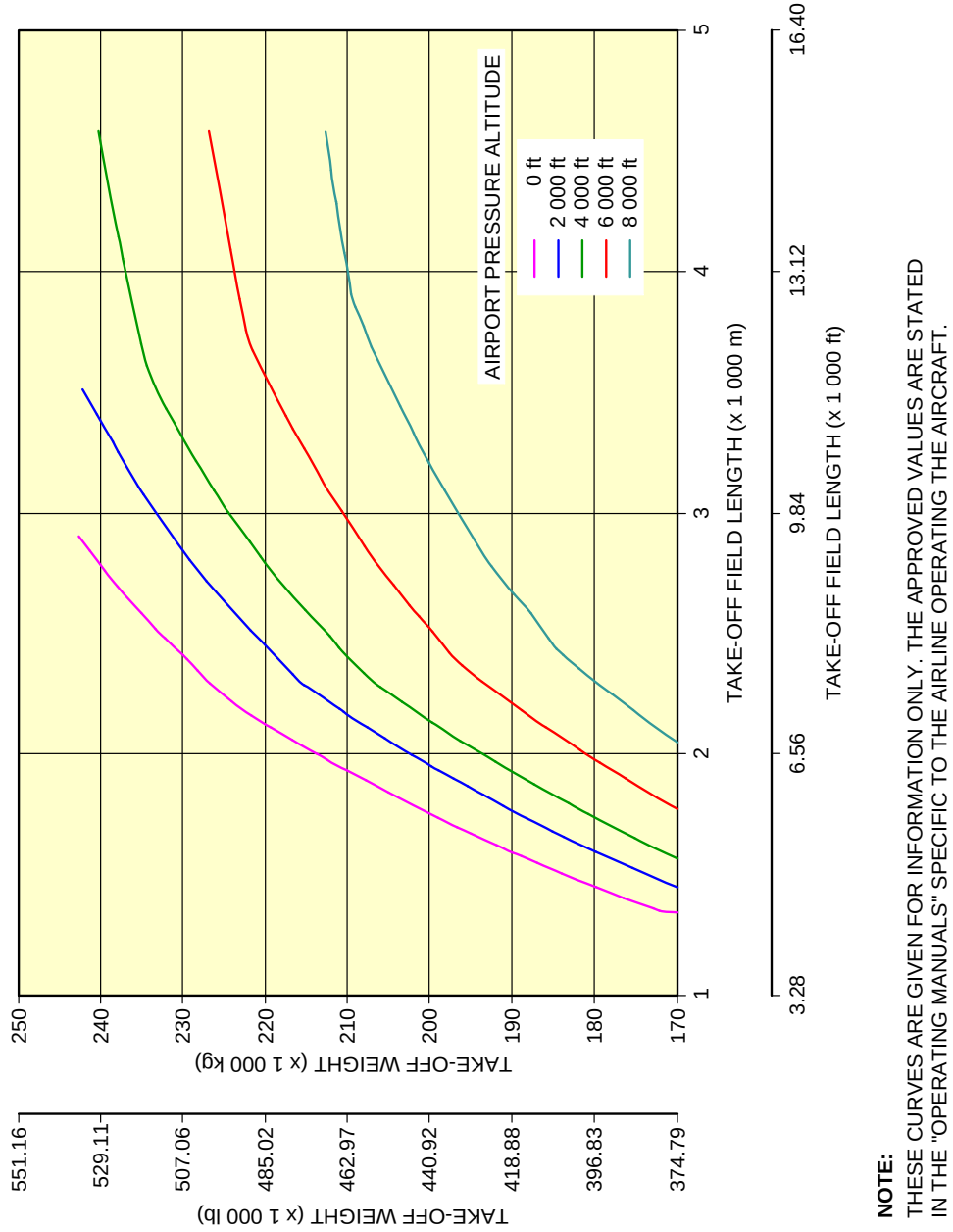



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0010101_01_03

Take-Off Weight Limitation
ISA Conditions - PW 4000 Series Engine
FIGURE-3-3-1-991-001-A01

**ON A/C A330-200

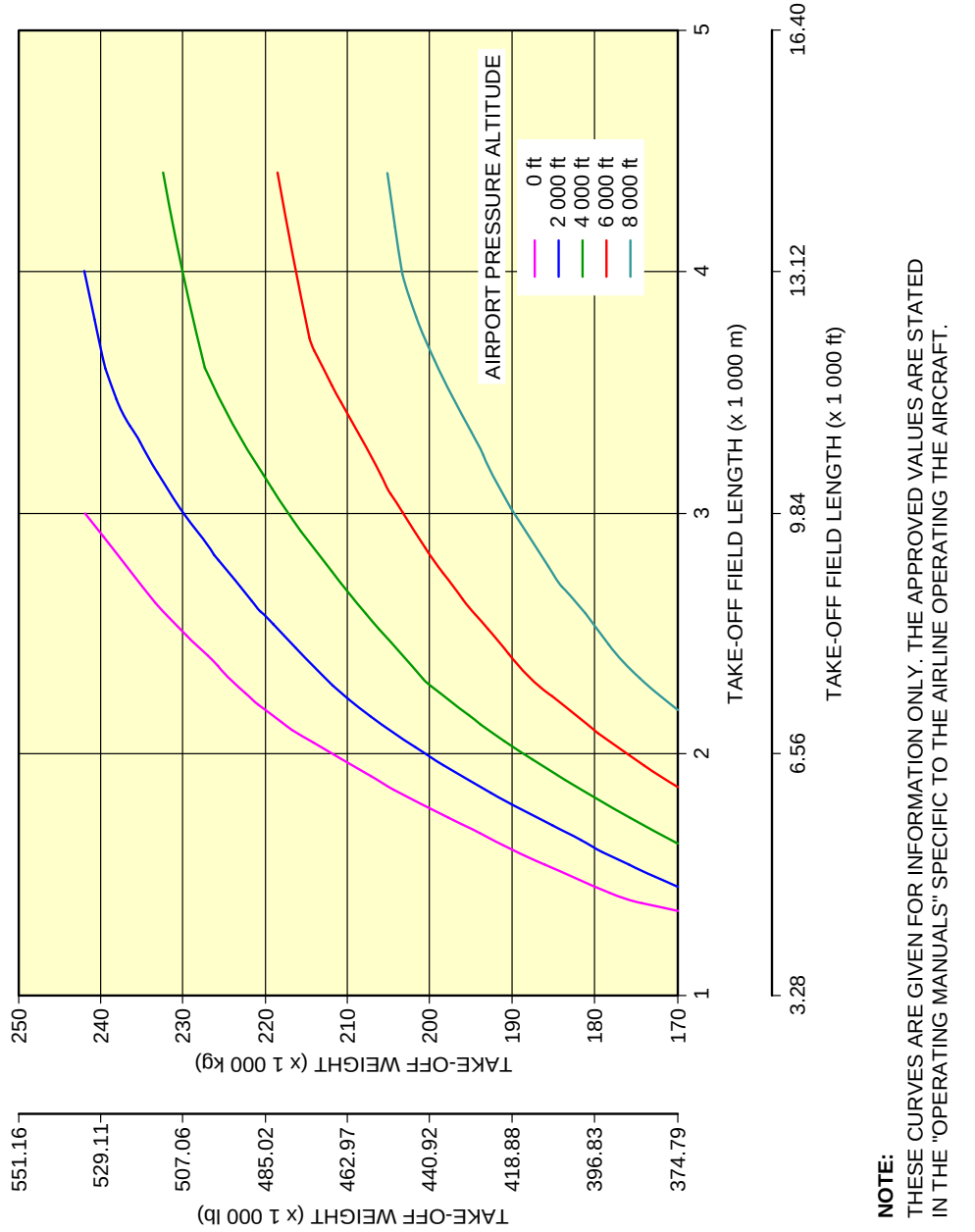



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0020101_01_03

Take-Off Weight Limitation
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-1-991-002-A01

**ON A/C A330-200

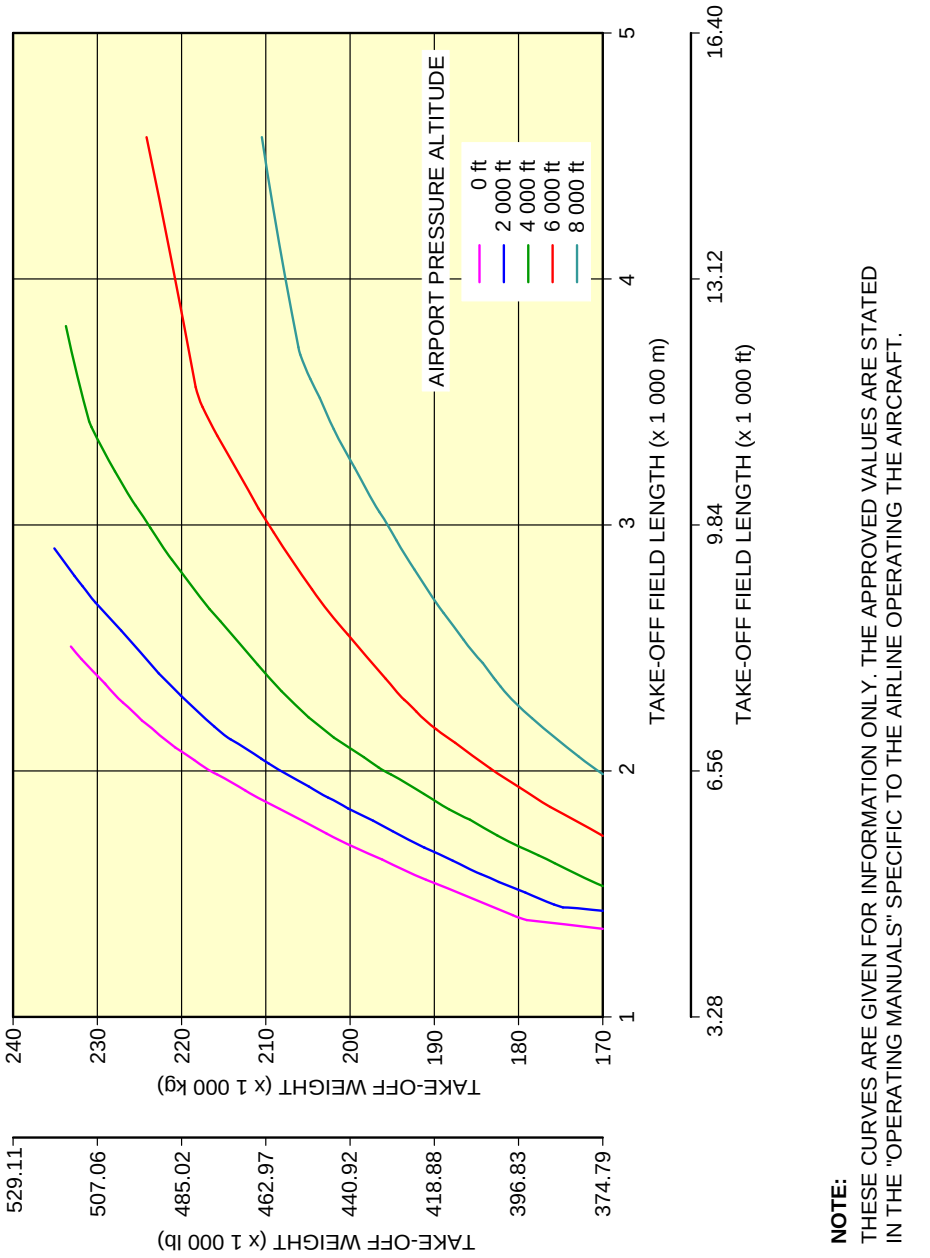



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0030101_01_03

Take-Off Weight Limitation
ISA Conditions - GE CF6-80E1 Series Engine
FIGURE-3-3-1-991-003-A01

**ON A/C A330-200F

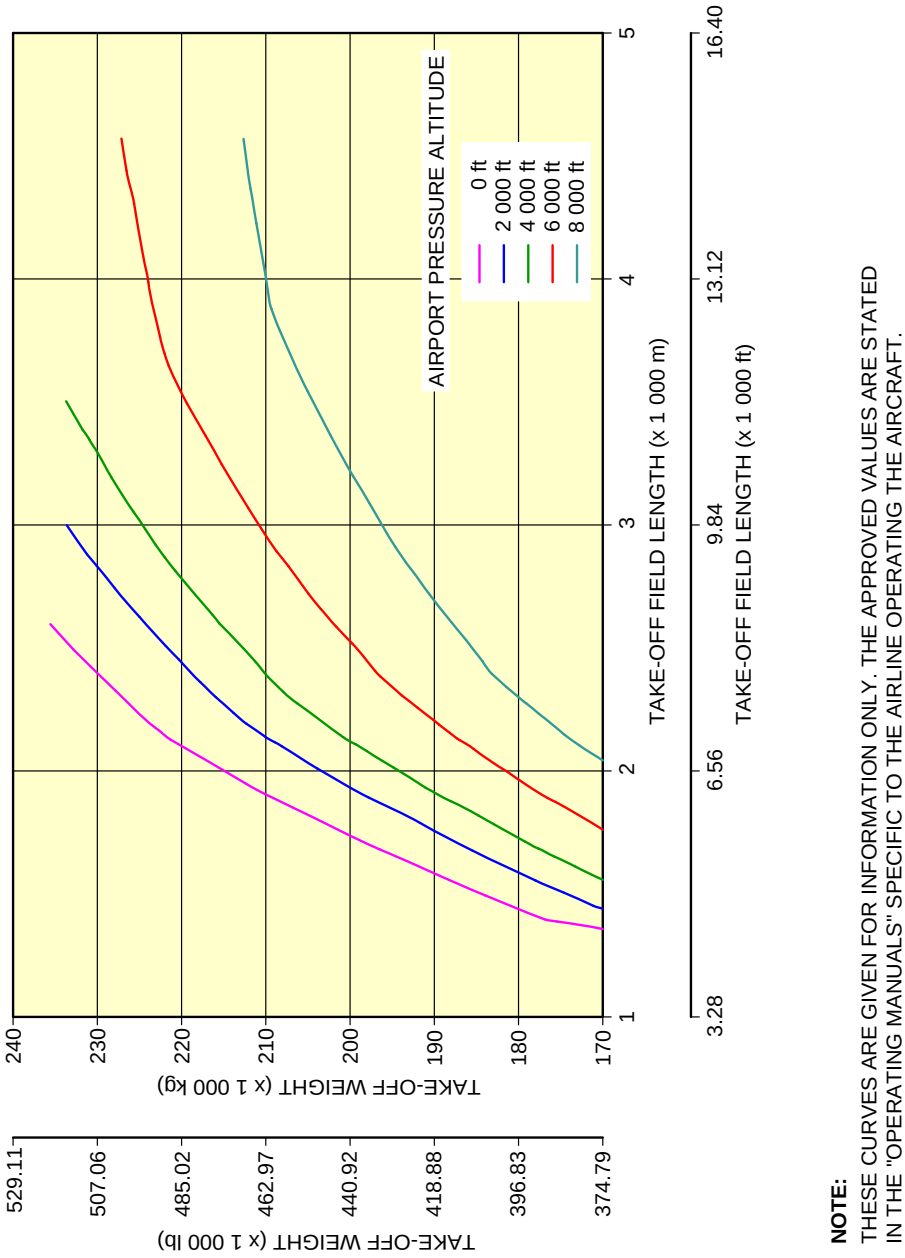



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0120101_01_01

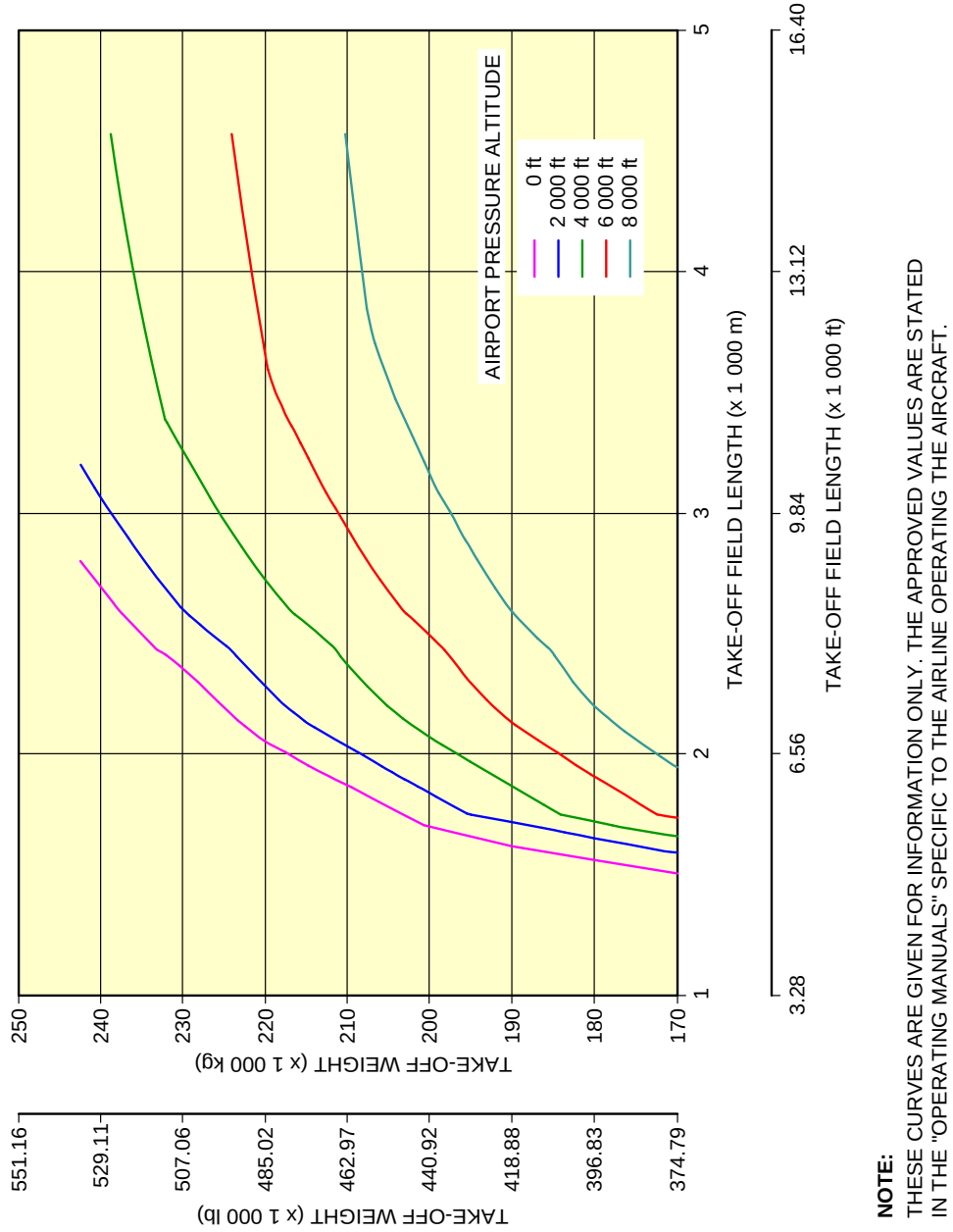
Take-Off Weight Limitation
ISA Conditions - PW 4000 Series Engine
FIGURE-3-3-1-991-012-A01

**ON A/C A330-200F




Take-Off Weight Limitation
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-1-991-013-A01

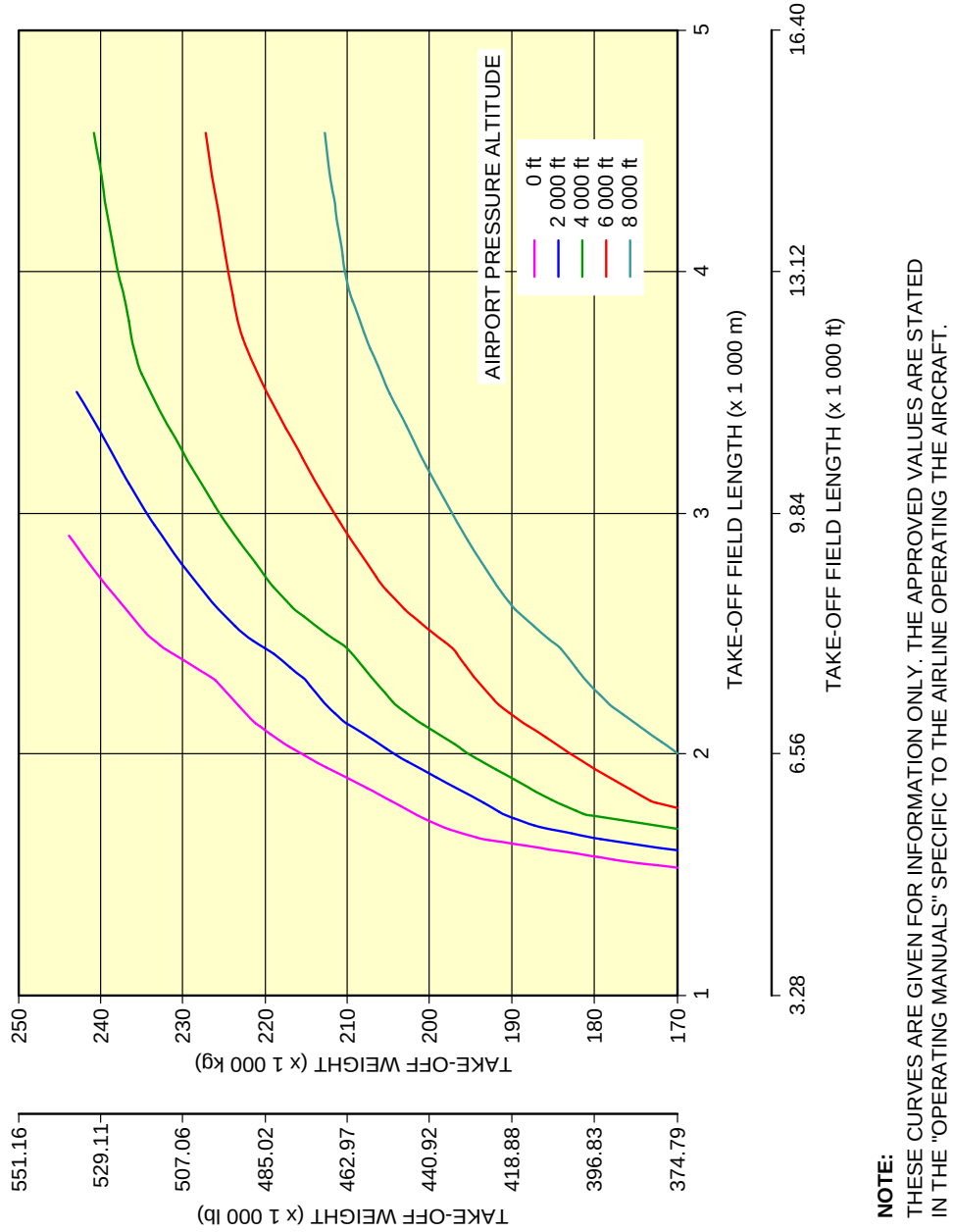
**ON A/C A330-300




F_AC_030301_1_0140101_01_01

Take-Off Weight Limitation
ISA Conditions - PW 4000 Series Engine
FIGURE-3-3-1-991-014-A01

**ON A/C A330-300

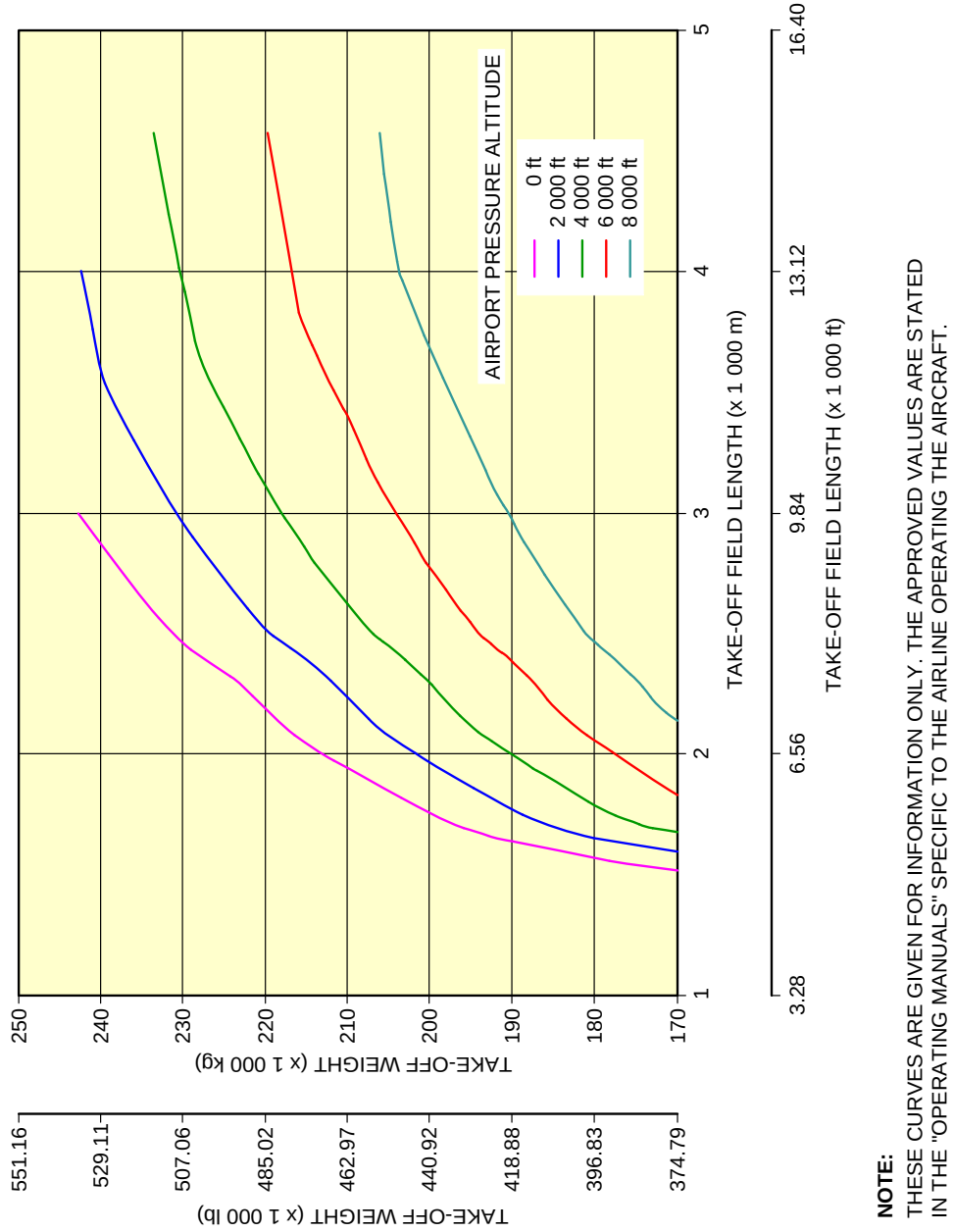



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0150101_01_01

Take-Off Weight Limitation
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-1-991-015-A01

**ON A/C A330-300

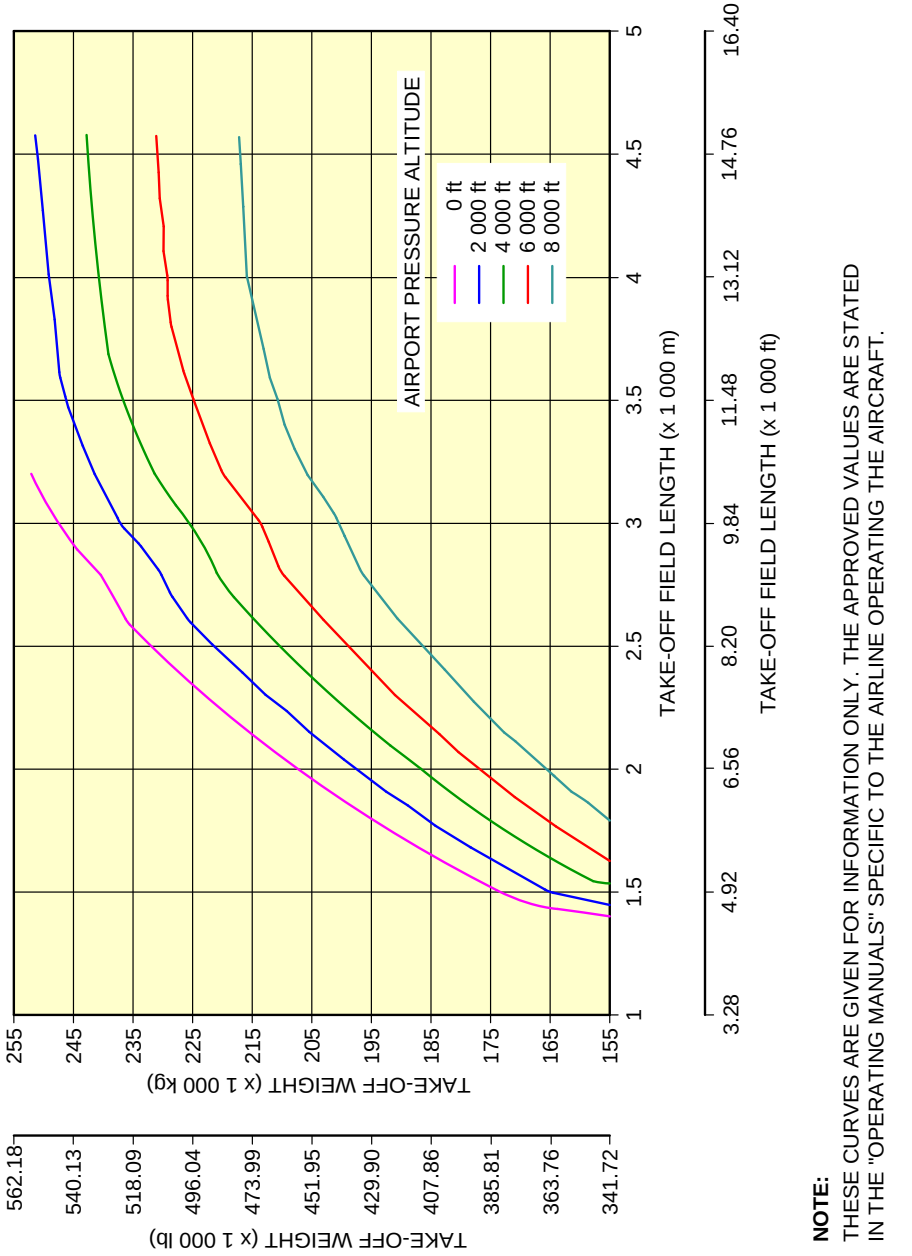



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0160101_01_01

Take-Off Weight Limitation
ISA Conditions - GE CF6-80E1 Series Engine
FIGURE-3-3-1-991-016-A01

**ON A/C A330-800

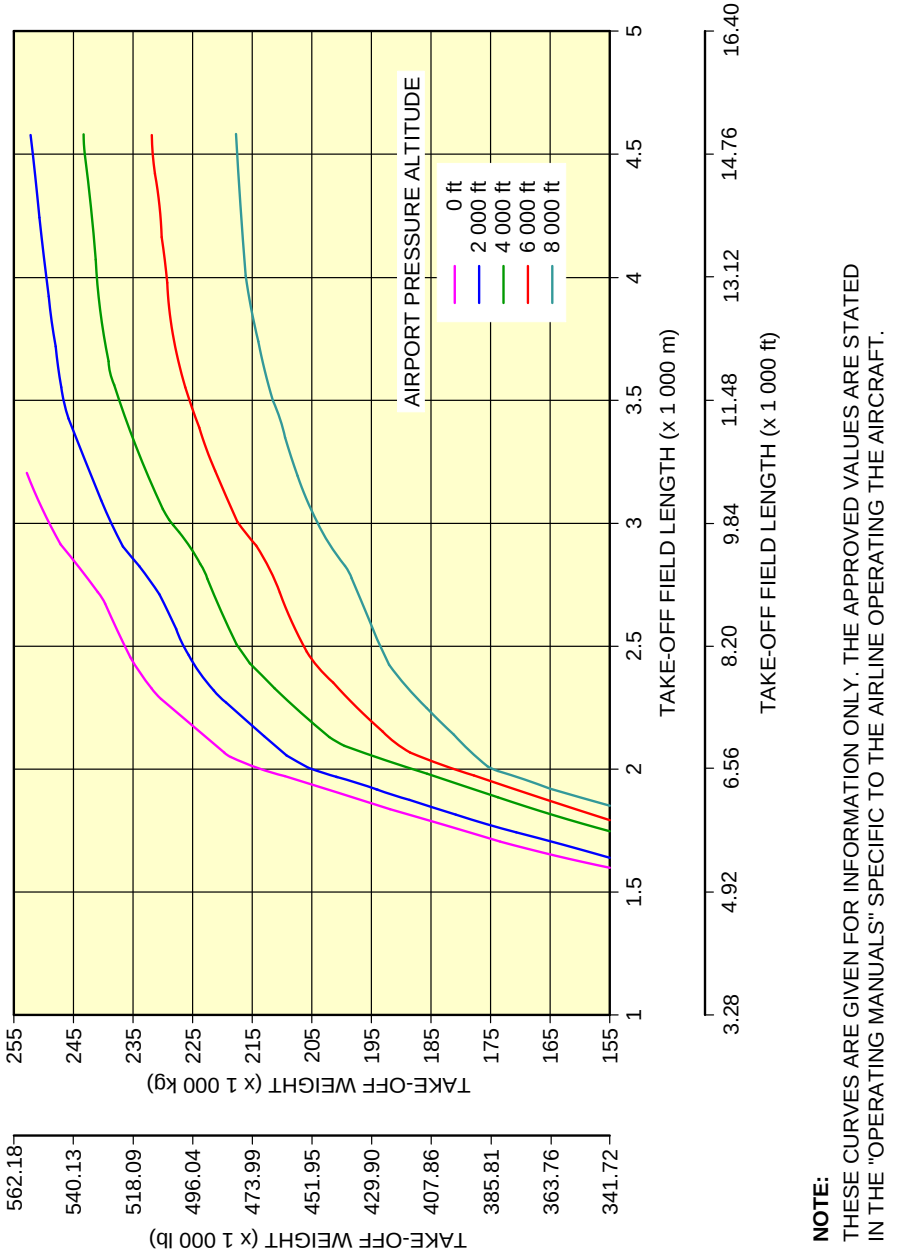



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030301_1_0200101_01_00

Take-Off Weight Limitation
ISA Conditions - RR TRENT 7000 Series Engine
FIGURE-3-3-1-991-020-A01

**ON A/C A330-900




F_AC_030301_1_0170101_01_01

Take-Off Weight Limitation
ISA Conditions - RR TRENT 7000 Series Engine
FIGURE-3-3-1-991-017-A01

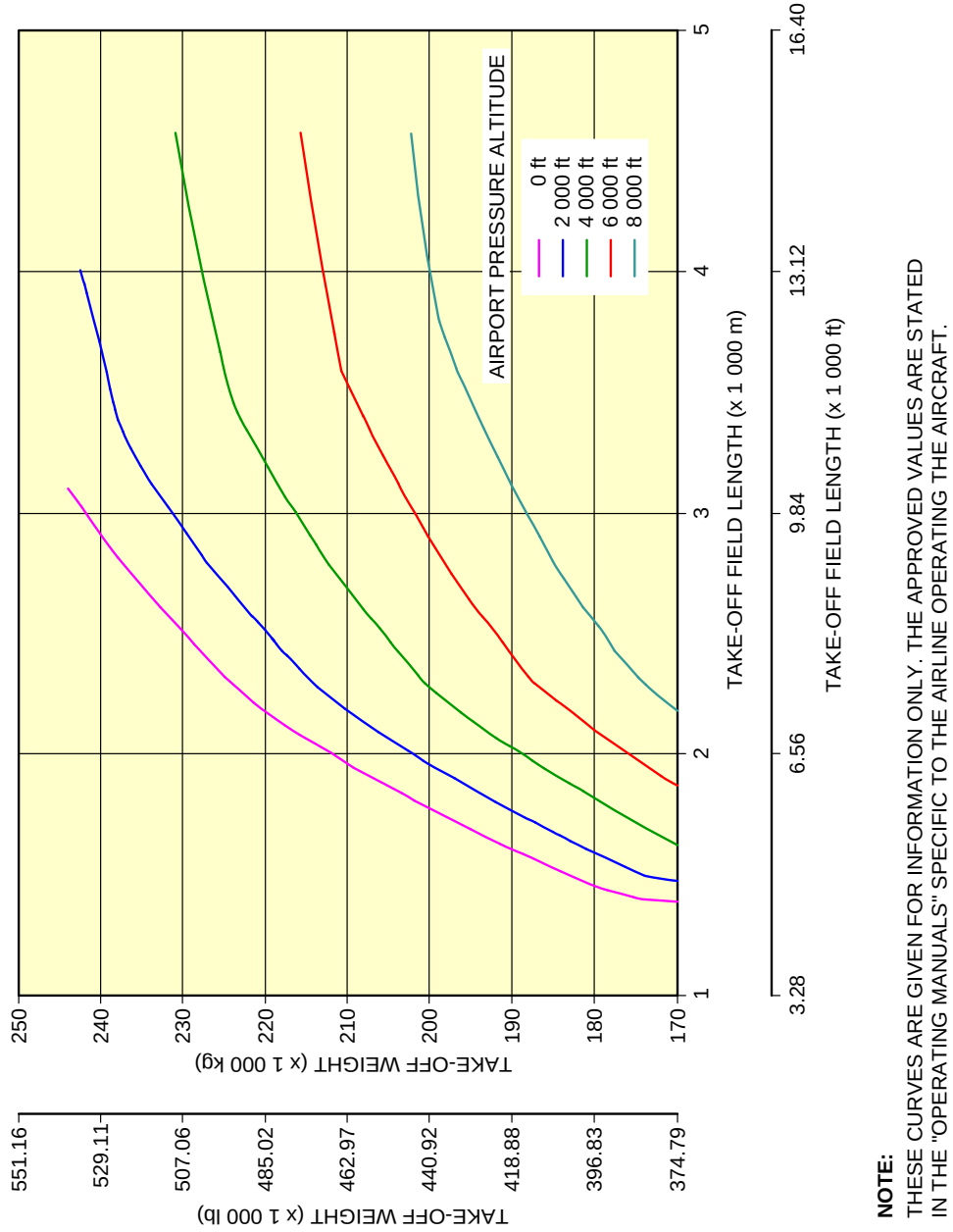
## 3-3-2 Take-Off Weight Limitation - ISA +15°C (+59°F) Conditions

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Take-Off Weight Limitation - ISA +15°C (+27°F) Conditions

1. This section gives the take-off weight limitation at ISA +15°C (+27°F) conditions.

**ON A/C A330-200

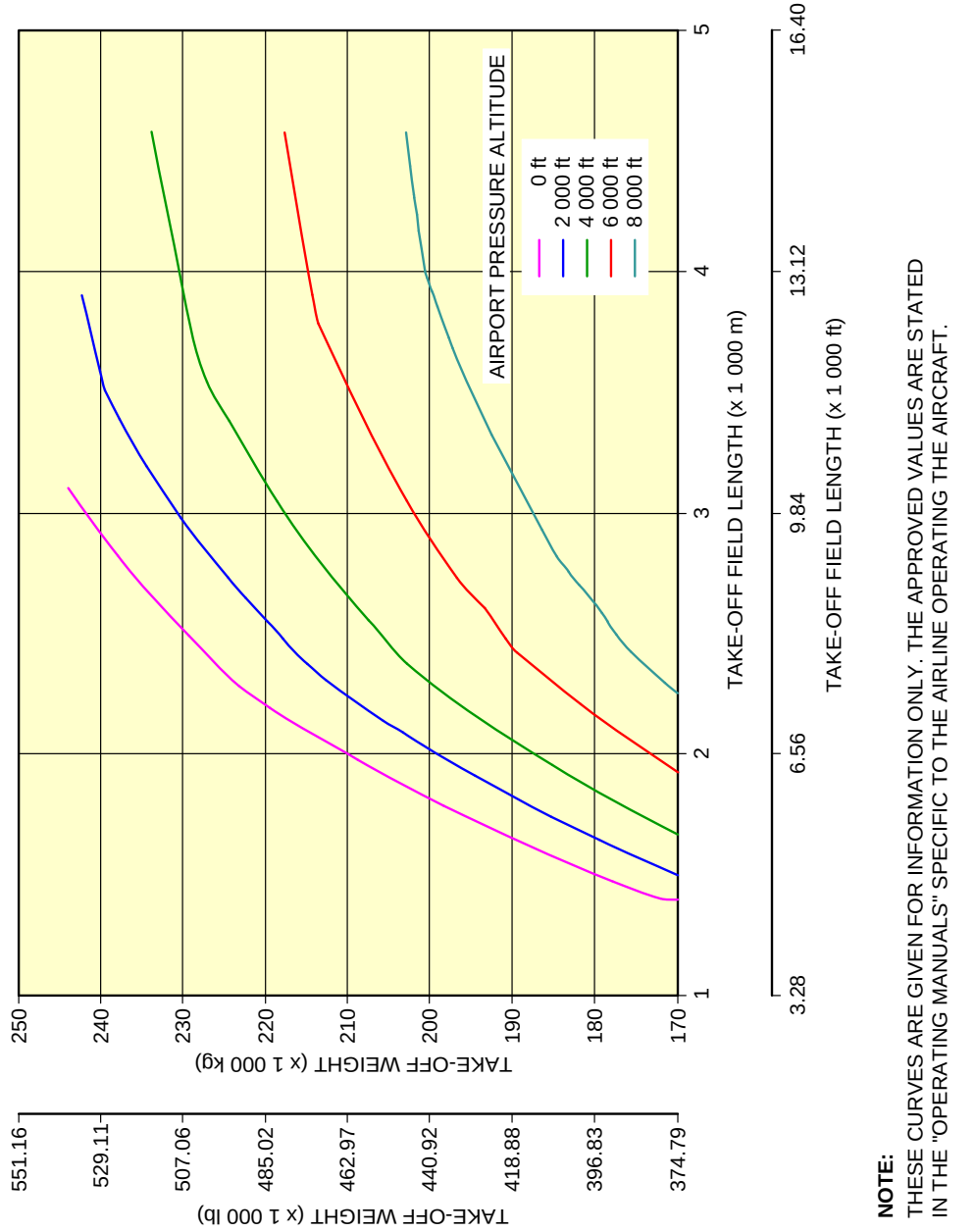



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030302_1_0010101_01_03

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - PW 4000 Series Engine
FIGURE-3-3-2-991-001-A01

**ON A/C A330-200

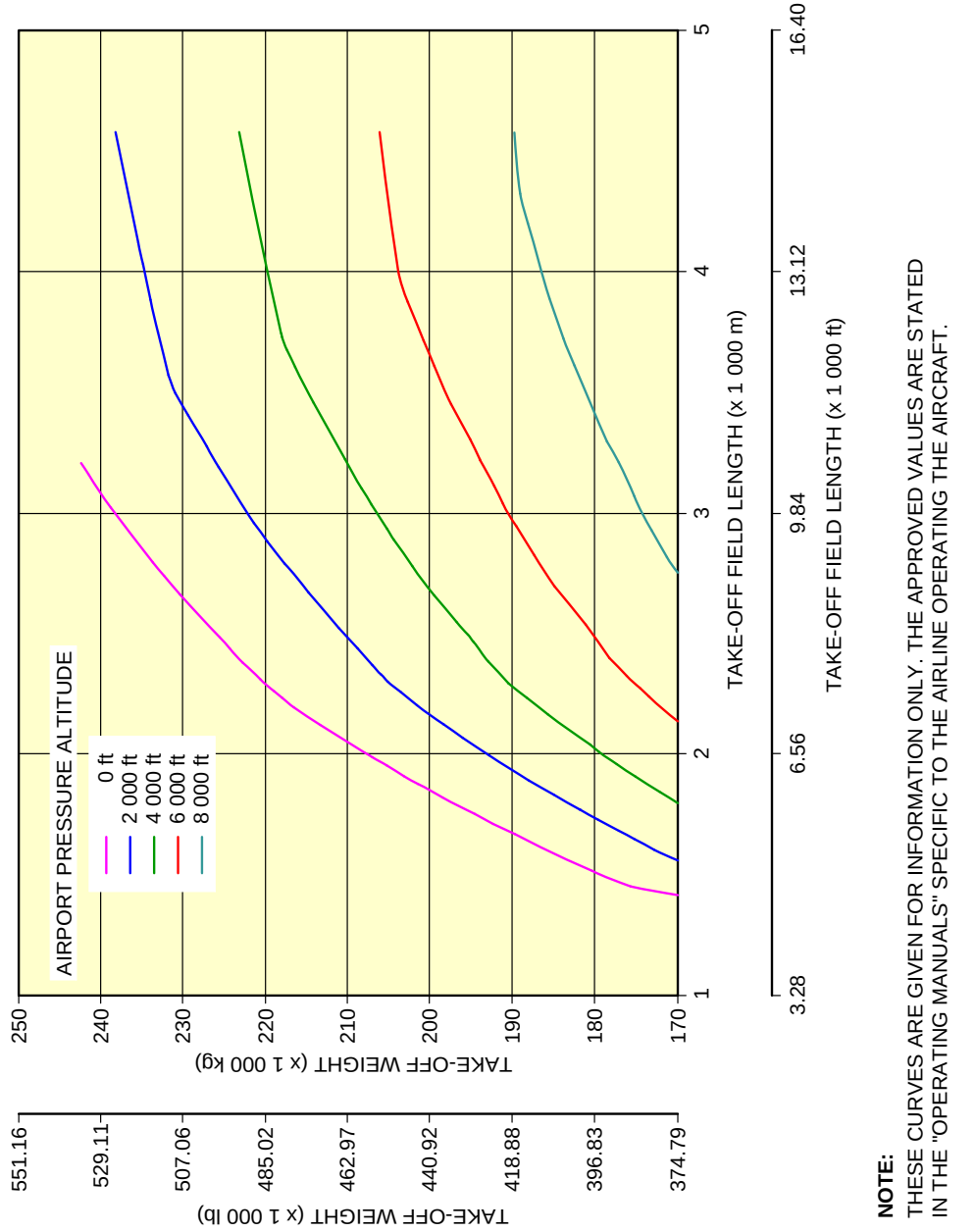



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030302_1_0020101_01_03

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-2-991-002-A01

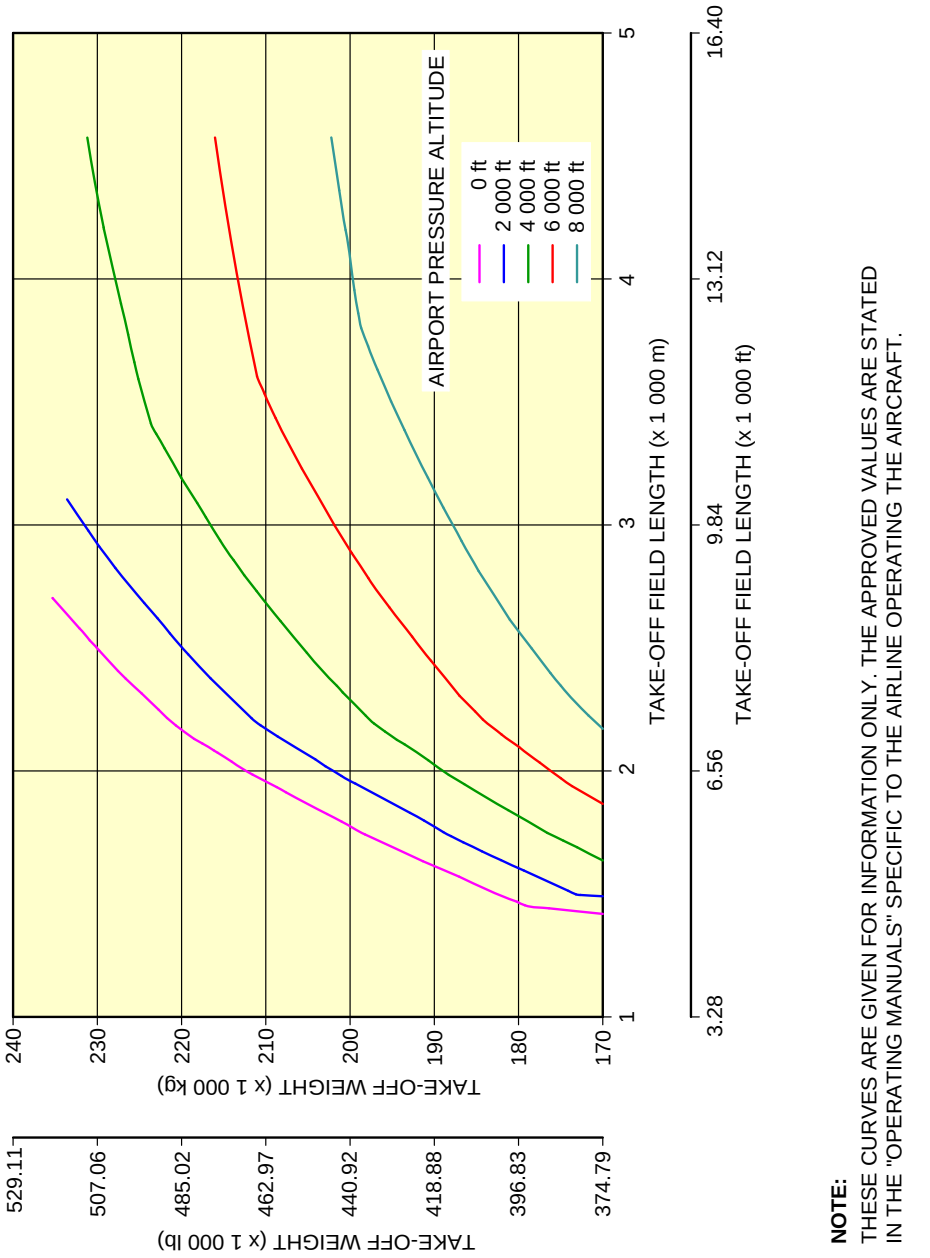
**ON A/C A330-200




F_AC_030302_1_0030101_01_03

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - GE CF6-80E1 Series Engine
FIGURE-3-3-2-991-003-A01

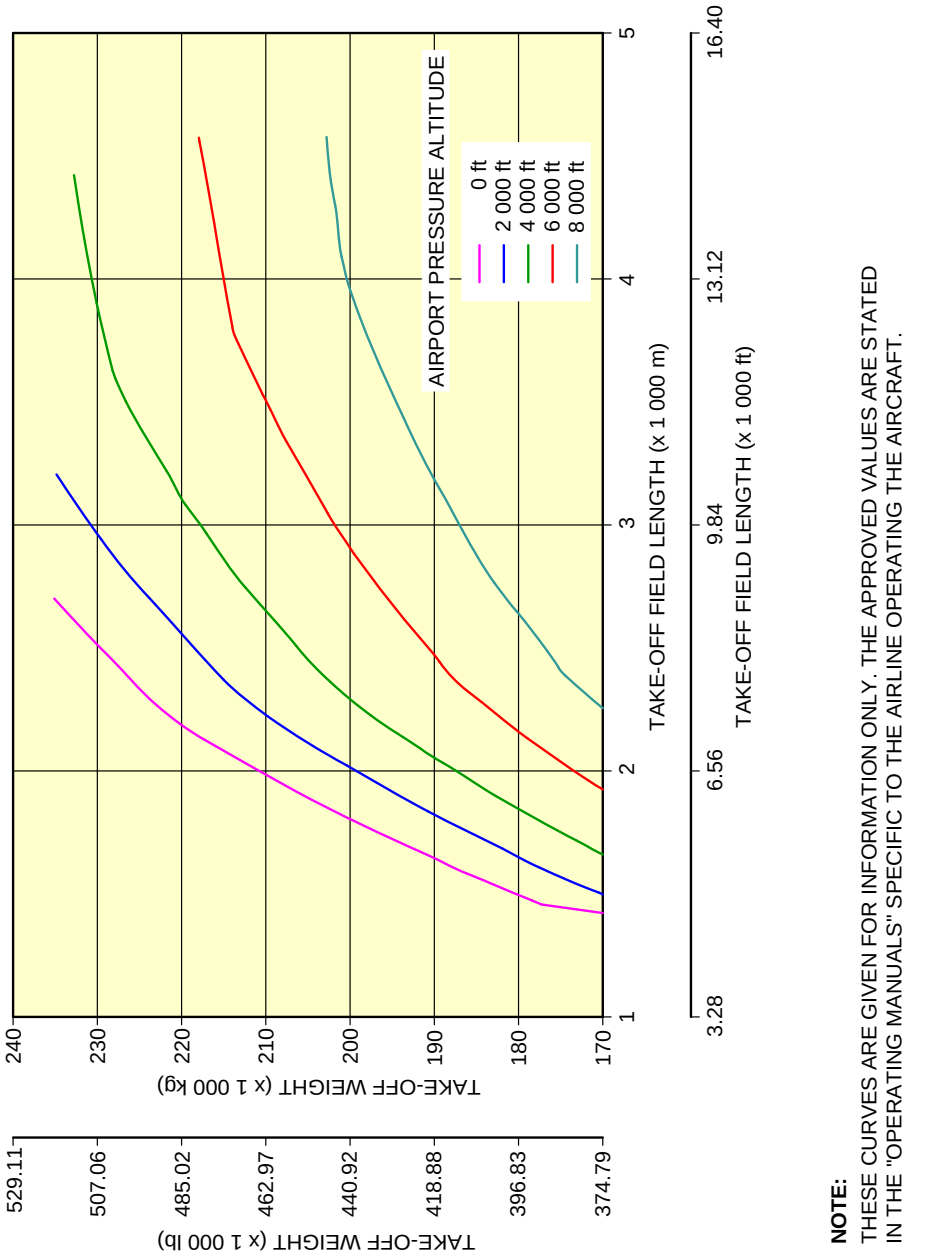
**ON A/C A330-200F




F_AC_030302_1_0120101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - PW 4000 Series Engine
FIGURE-3-3-2-991-012-A01

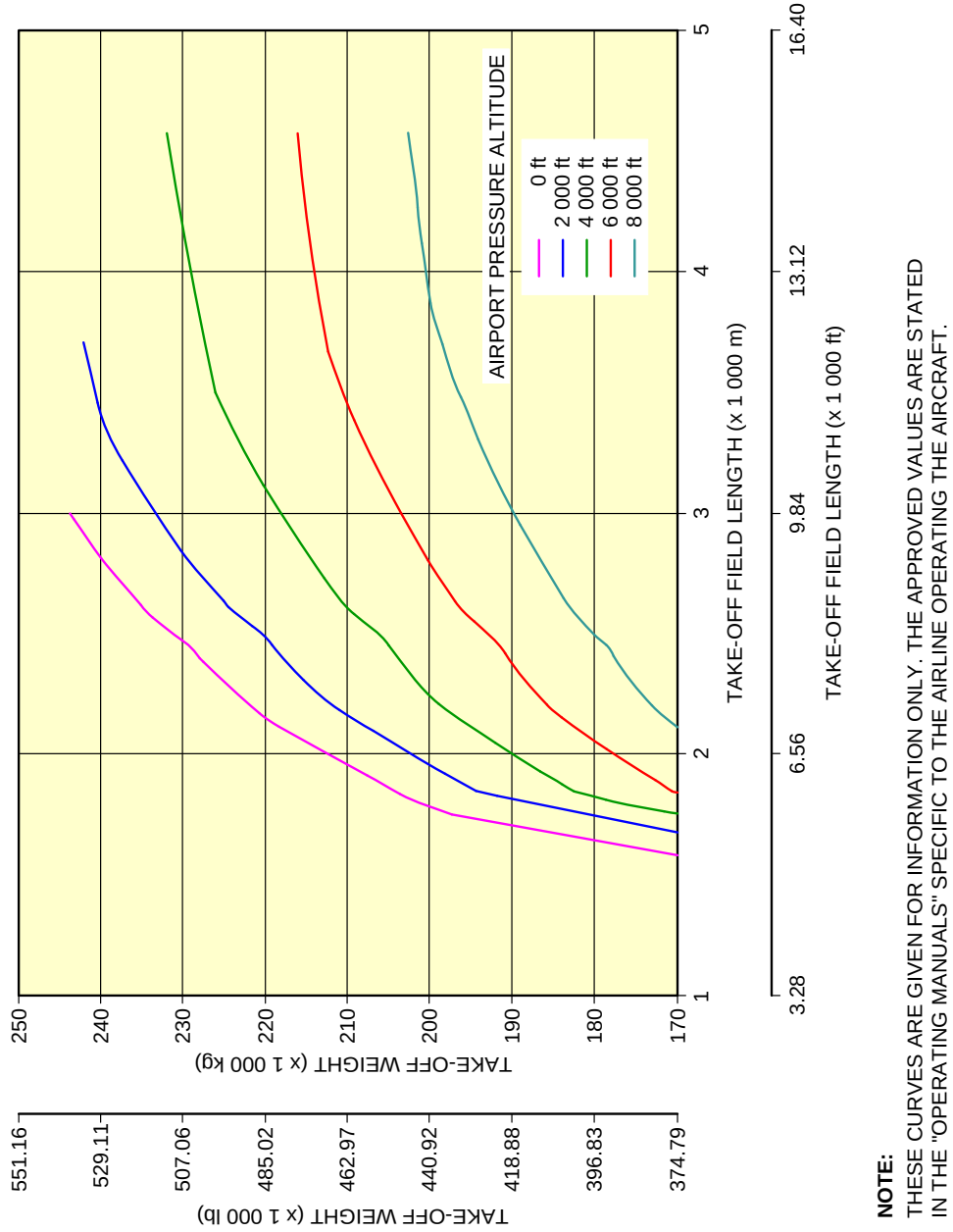
**ON A/C A330-200F




F_AC_030302_1_0130101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-2-991-013-A01

**ON A/C A330-300

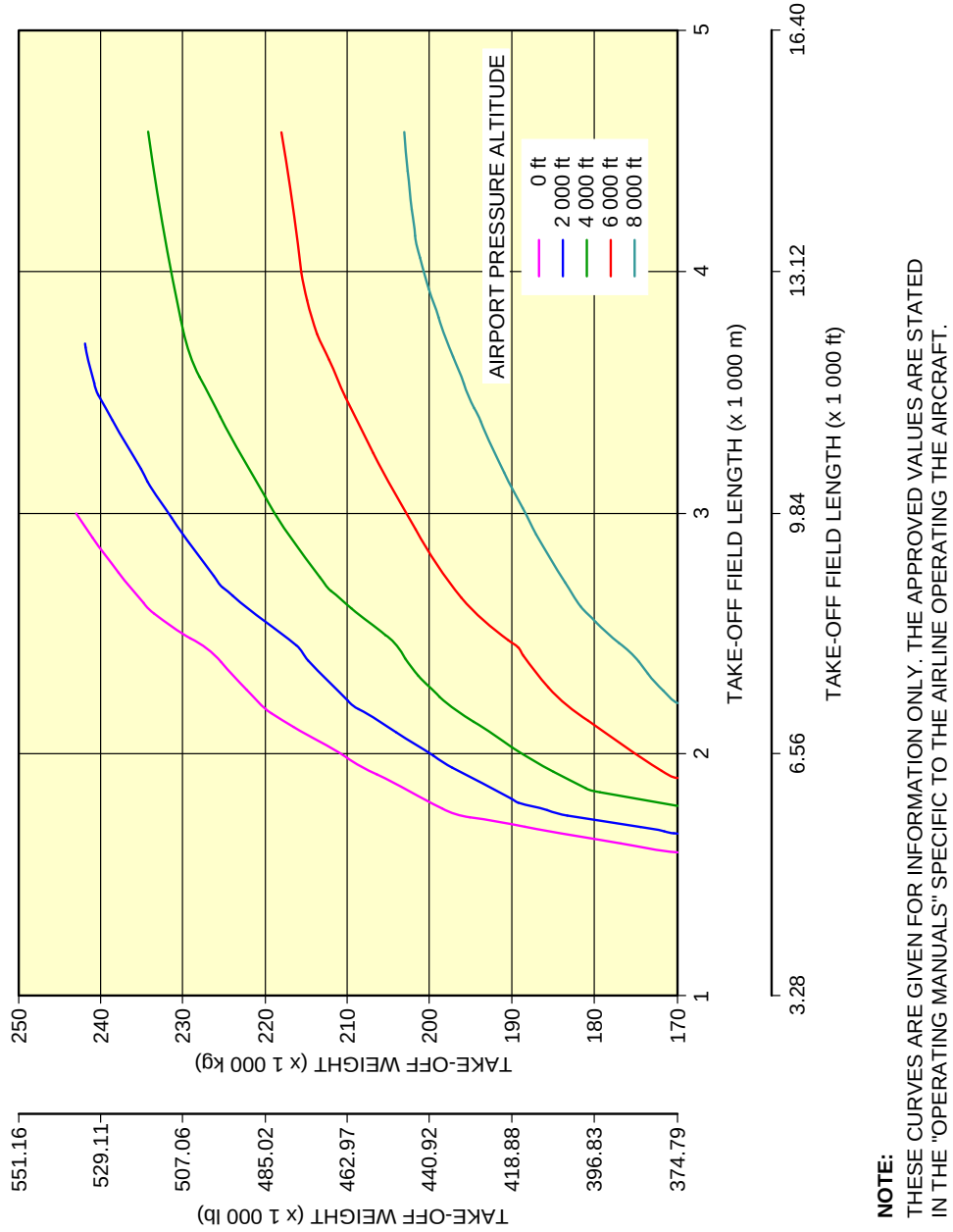



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030302_1_0140101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - PW 4000 Series Engine
FIGURE-3-3-2-991-014-A01

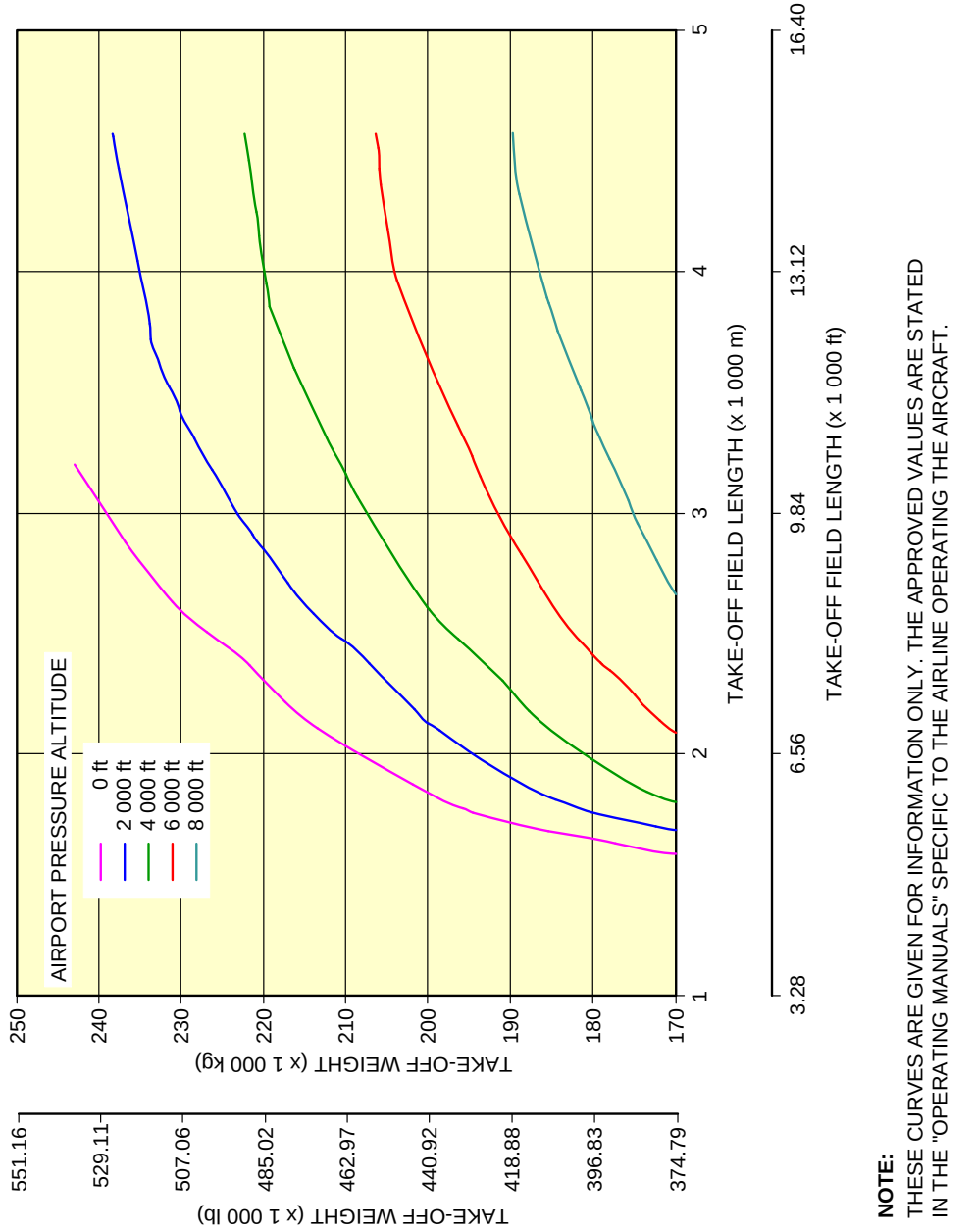
**ON A/C A330-300




F_AC_030302_1_0150101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - RR TRENT 700 Series Engine
FIGURE-3-3-2-991-015-A01

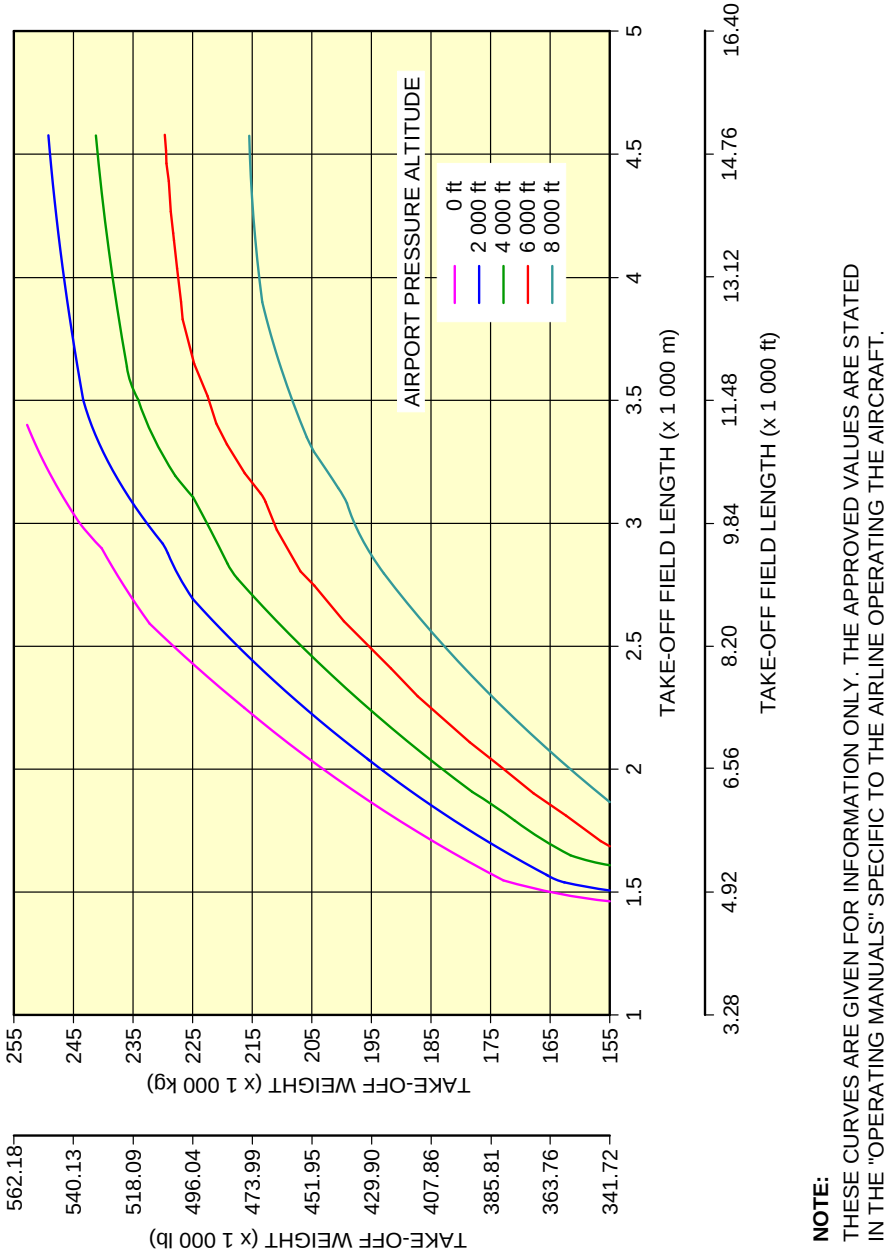
**ON A/C A330-300




F_AC_030302_1_0160101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - GE CF6-80E1 Series Engine
FIGURE-3-3-2-991-016-A01

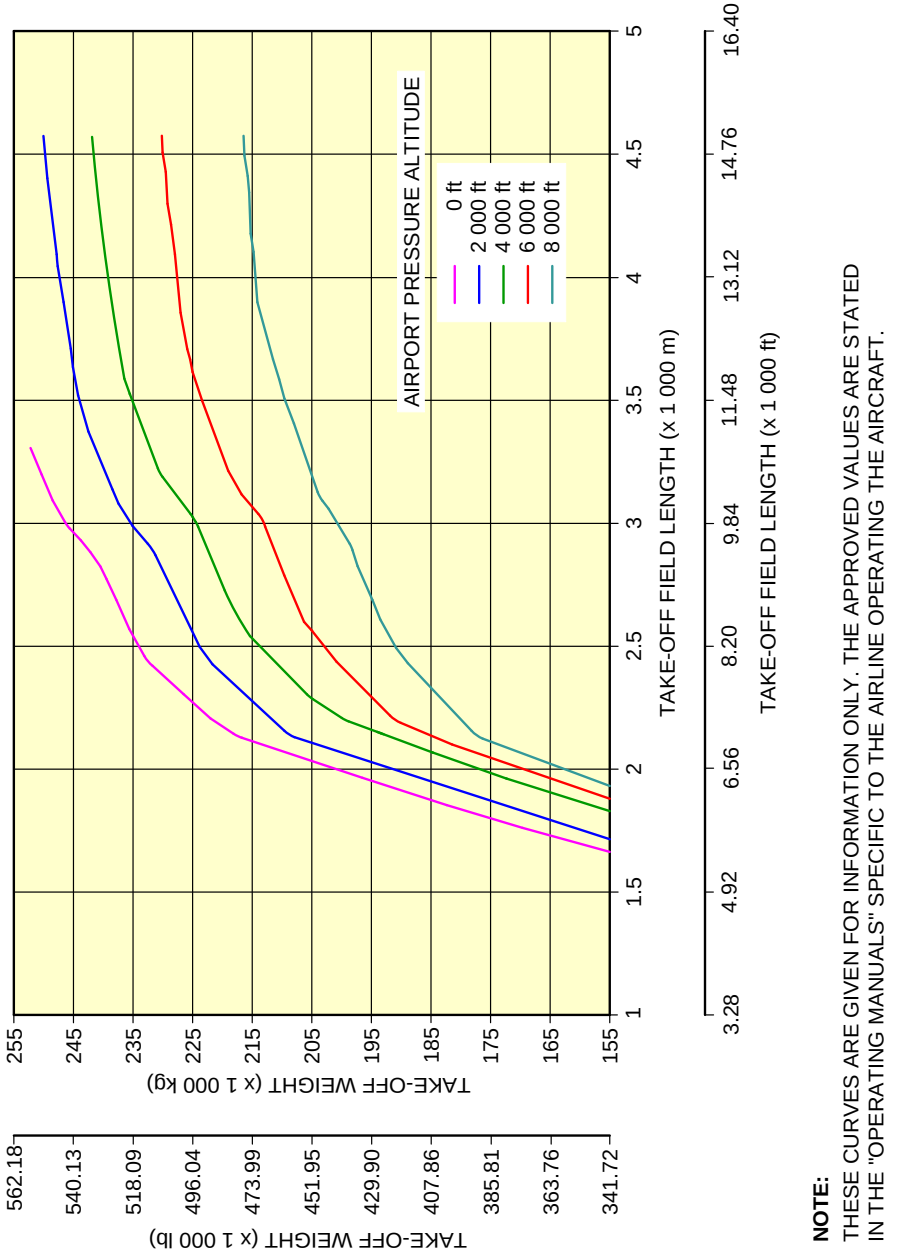
**ON A/C A330-800




F_AC_030302_1_0180101_01_00

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - RR TRENT 7000 Series Engine
FIGURE-3-3-2-991-018-A01

**ON A/C A330-900




**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030302_1_0170101_01_01

Take-Off Weight Limitation
ISA +15°C (+27°F) Conditions - RR TRENT 7000 Series Engine
FIGURE-3-3-2-991-017-A01

## 3-3-3 Aerodrome Reference Code

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Aerodrome Reference Code

1. A330-200, A330-200F, A330-300, A330-800 and A330-900 can operate on aerodromes classified as code 4E as per ICAO Aerodrome Reference Code.

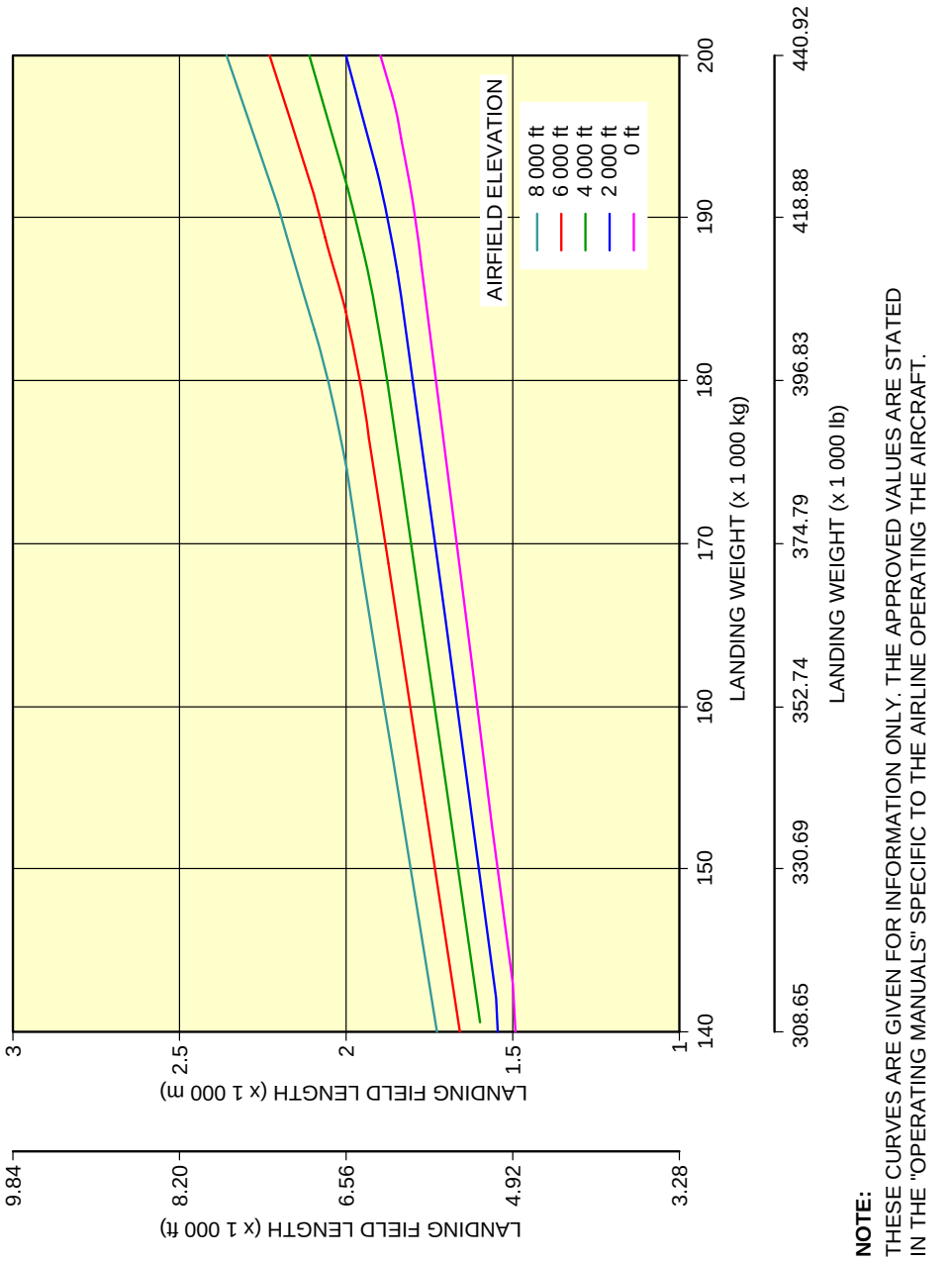
## 3-4-1 Landing Field Length - ISA Conditions

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Landing Field Length - ISA Conditions

1. This section gives the landing field length.

**ON A/C A330-200

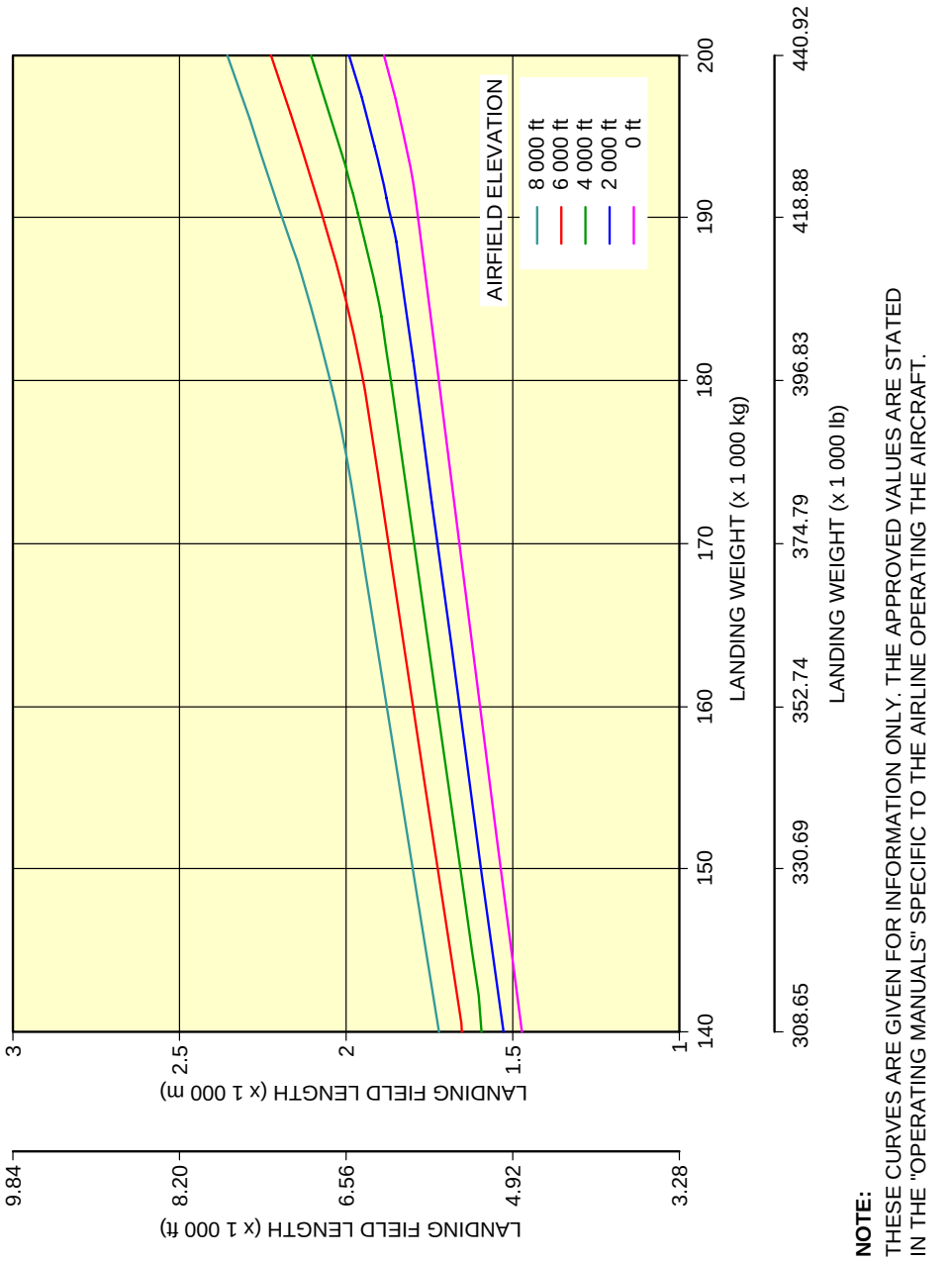



**NOTE:**
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F_AC_030401_1_0010101_01_03

Landing Field Length
ISA Conditions - PW 4000 Series Engine
FIGURE-3-4-1-991-001-A01

**ON A/C A330-200

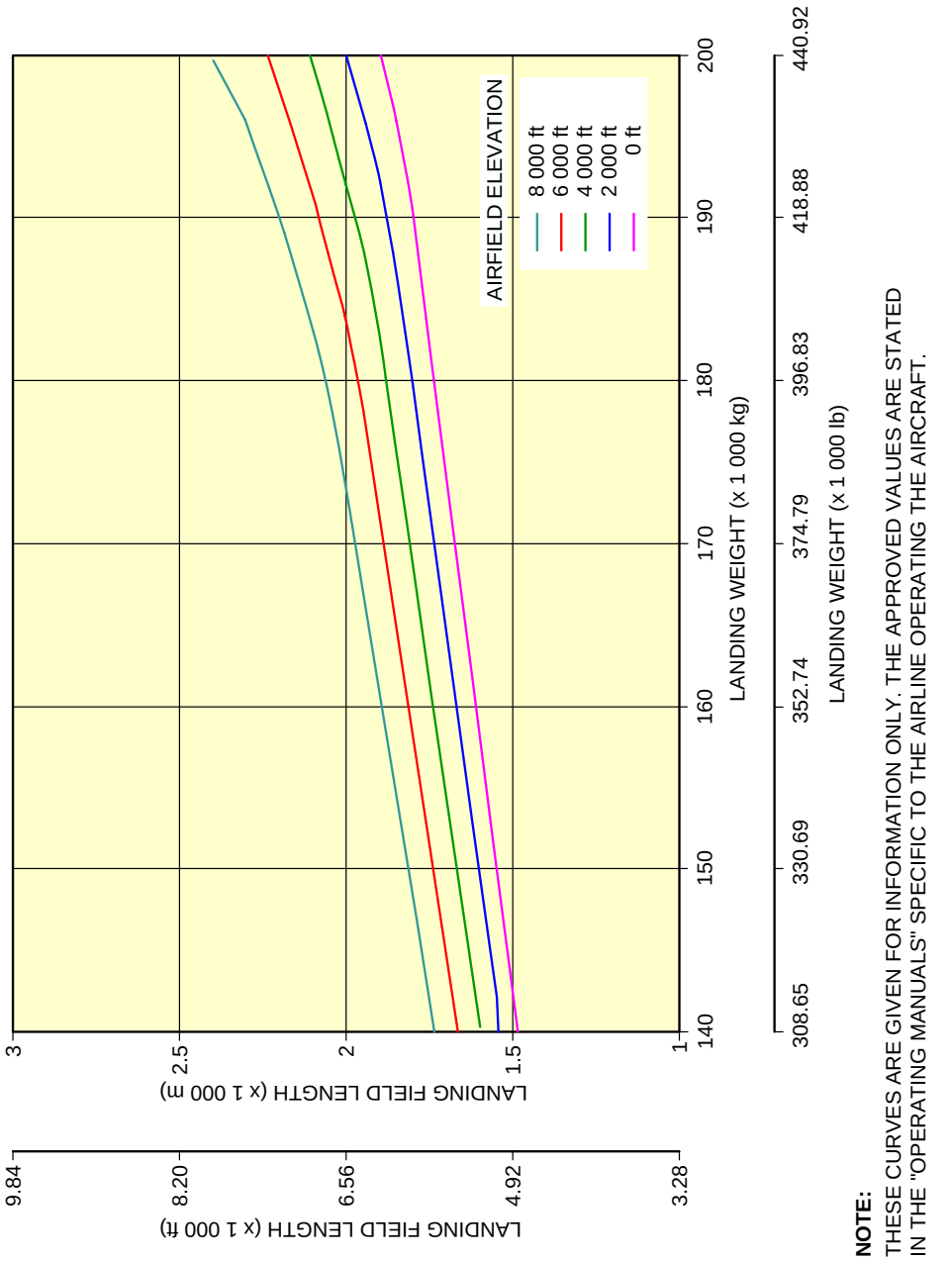



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030401_1_0020101_01_03

Landing Field Length
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-4-1-991-002-A01

**ON A/C A330-200

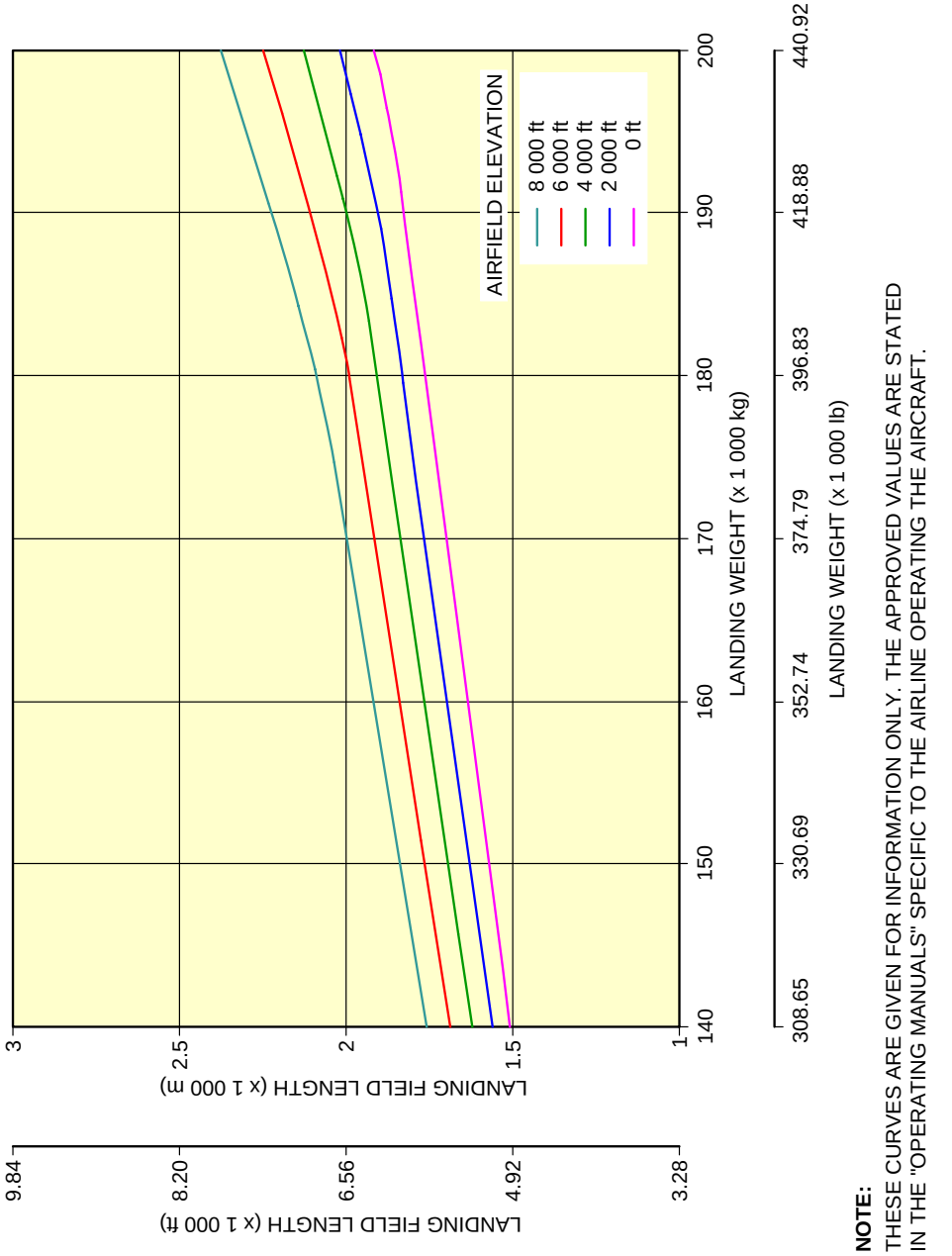



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030401_1_0030101_01_03

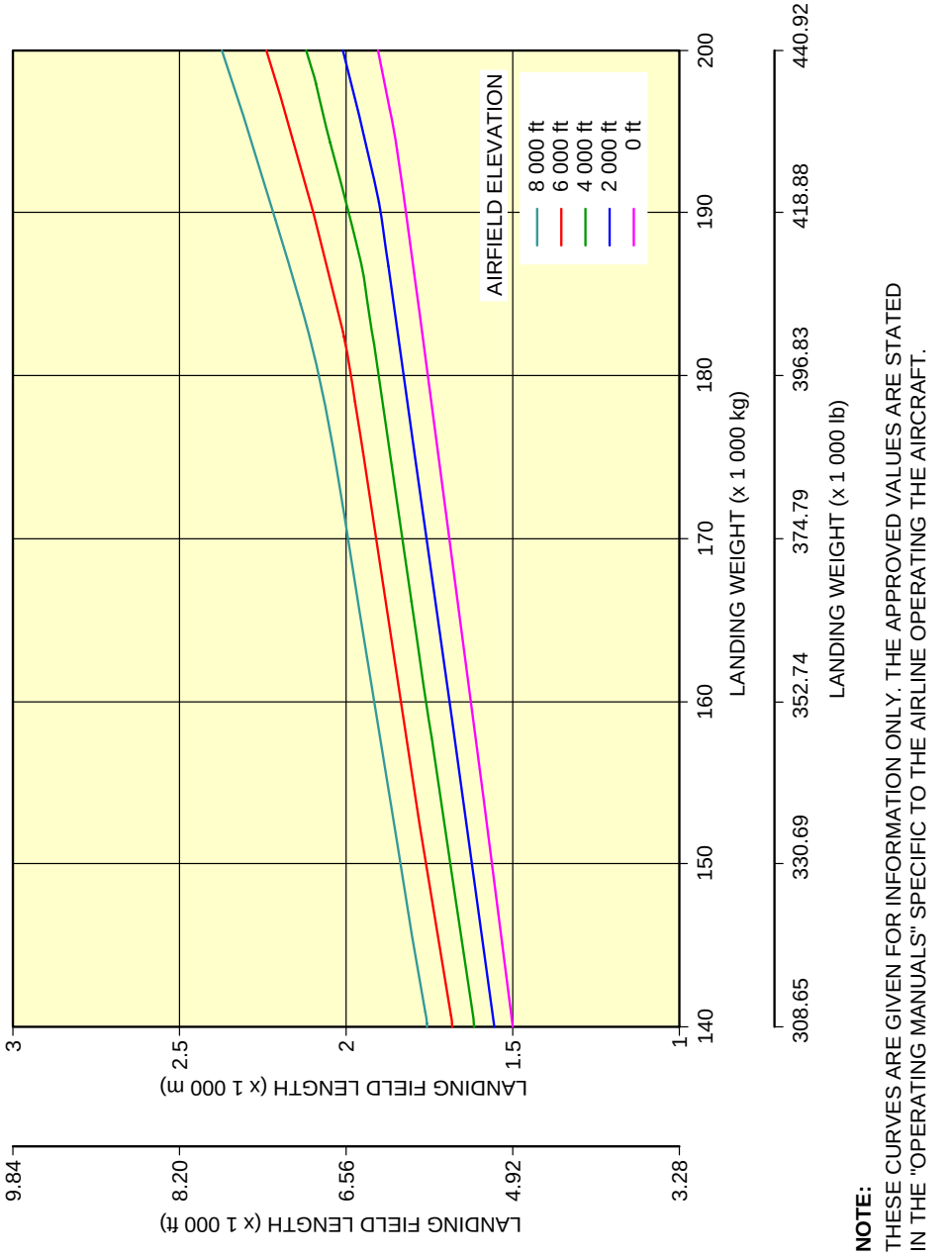
Landing Field Length
ISA Conditions - GE CF6-80E1 Series Engine
FIGURE-3-4-1-991-003-A01

**ON A/C A330-200F




Landing Field Length
ISA Conditions - PW 4000 Series Engine
FIGURE-3-4-1-991-012-A01

**ON A/C A330-200F

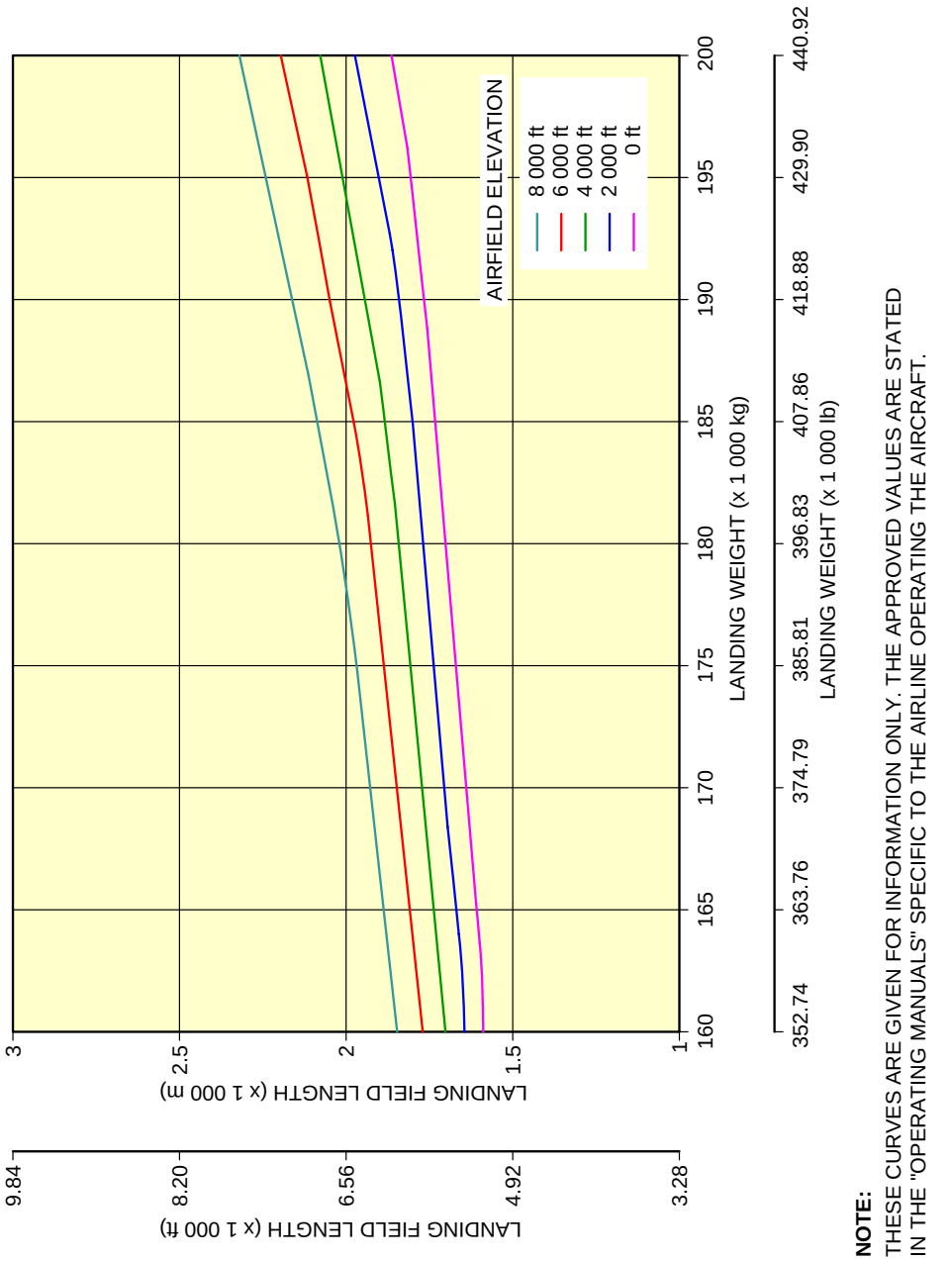



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030401_1_0130101_01_00

Landing Field Length
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-4-1-991-013-A01

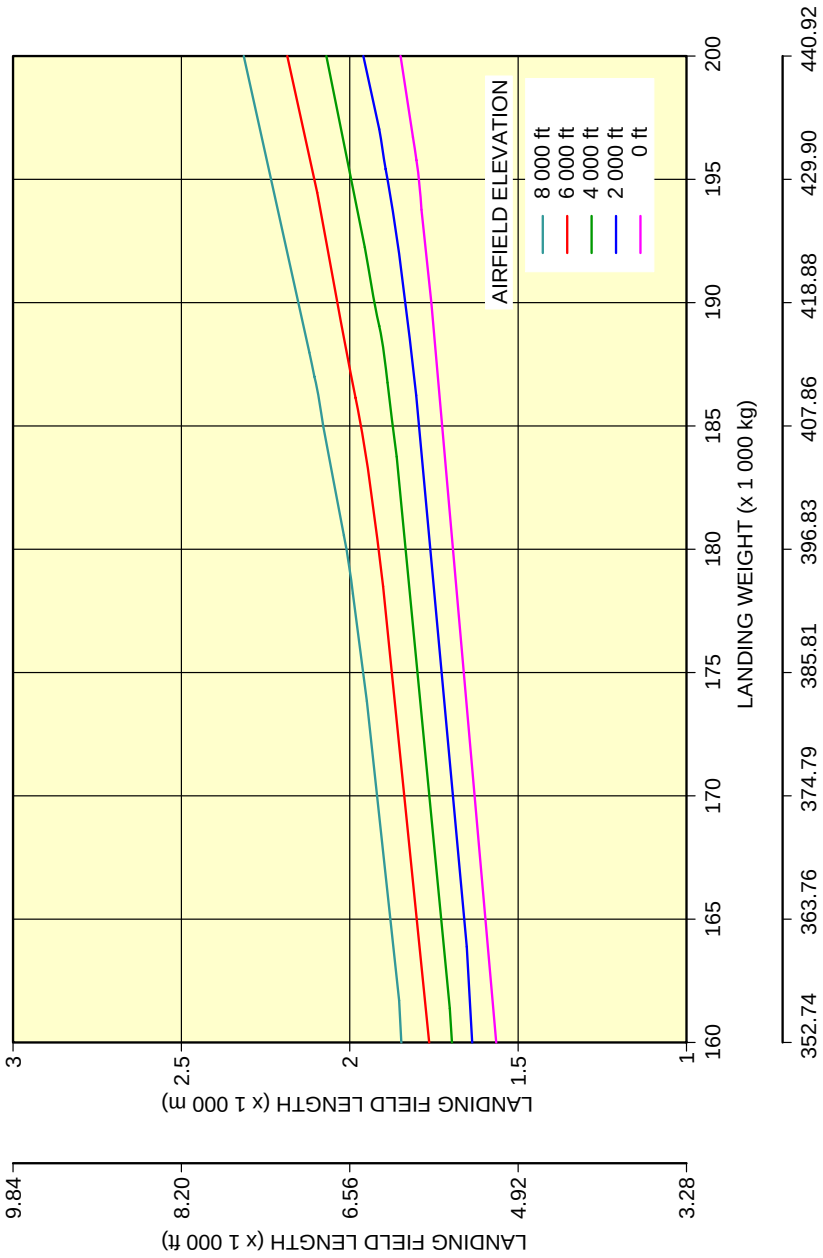
**ON A/C A330-300




F_AC_030401_1_0140101_01_00

Landing Field Length
ISA Conditions - PW 4000 Series Engine
FIGURE-3-4-1-991-014-A01

**ON A/C A330-300

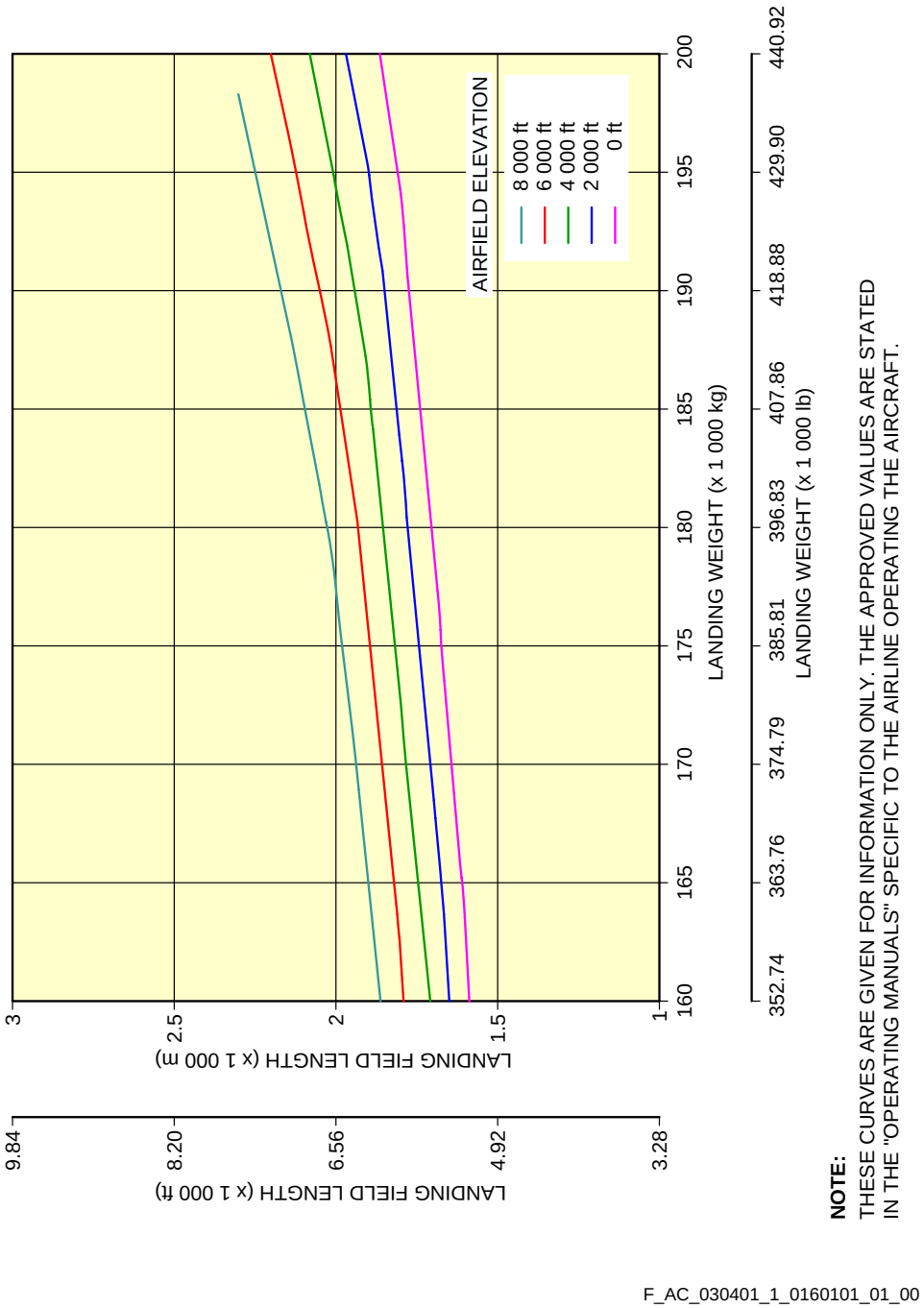



**NOTE:**
THESE CURVES ARE GIVEN FOR INFORMATION ONLY. THE APPROVED VALUES ARE STATED IN THE "OPERATING MANUALS" SPECIFIC TO THE AIRLINE OPERATING THE AIRCRAFT.

F_AC_030401_1_0150101_01_00

Landing Field Length
ISA Conditions - RR TRENT 700 Series Engine
FIGURE-3-4-1-991-015-A01

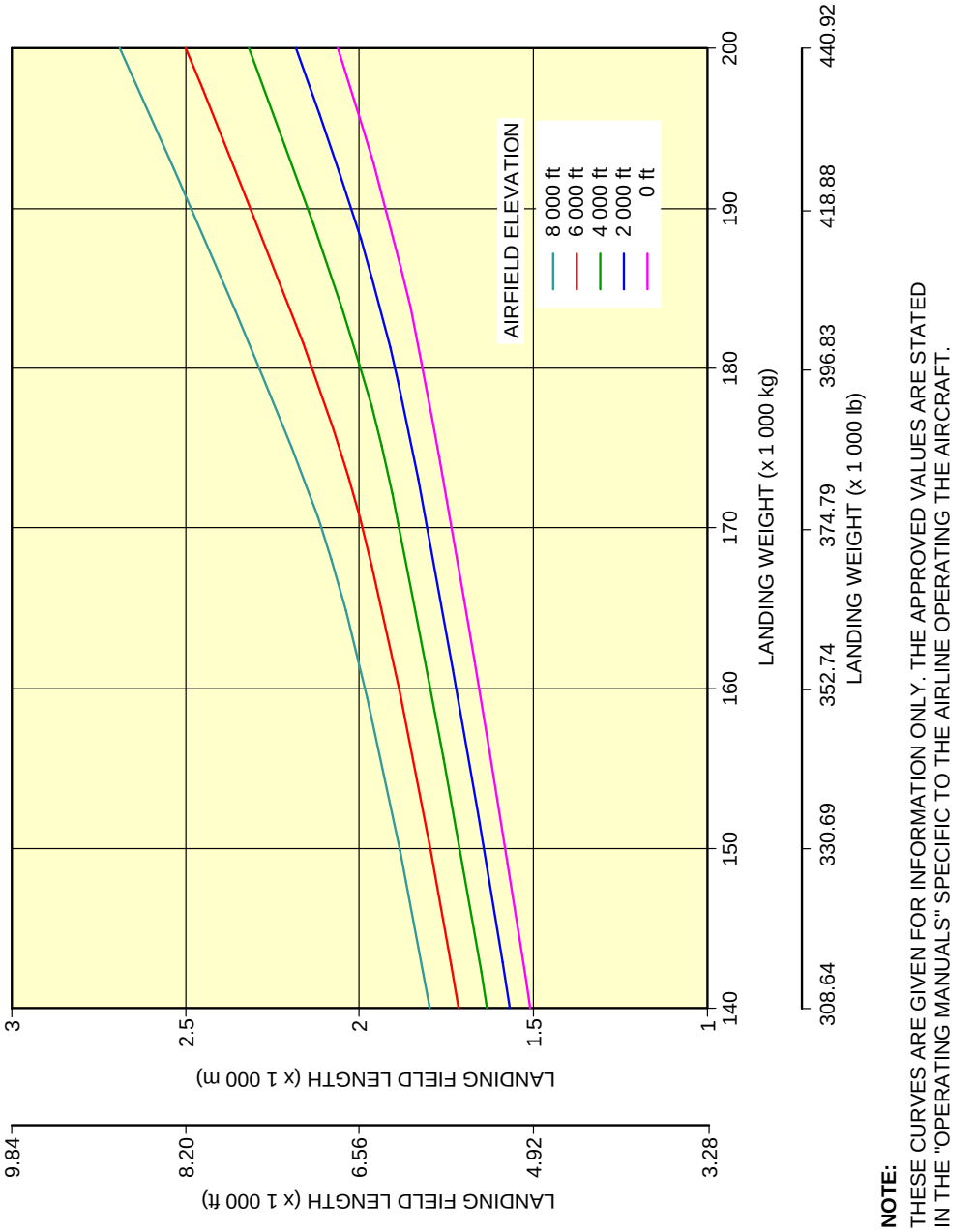
**ON A/C A330-300




F_AC_030401_1_0160101_01_00

Landing Field Length
ISA Conditions - GE CF6-80E1 Series Engine
FIGURE-3-4-1-991-016-A01

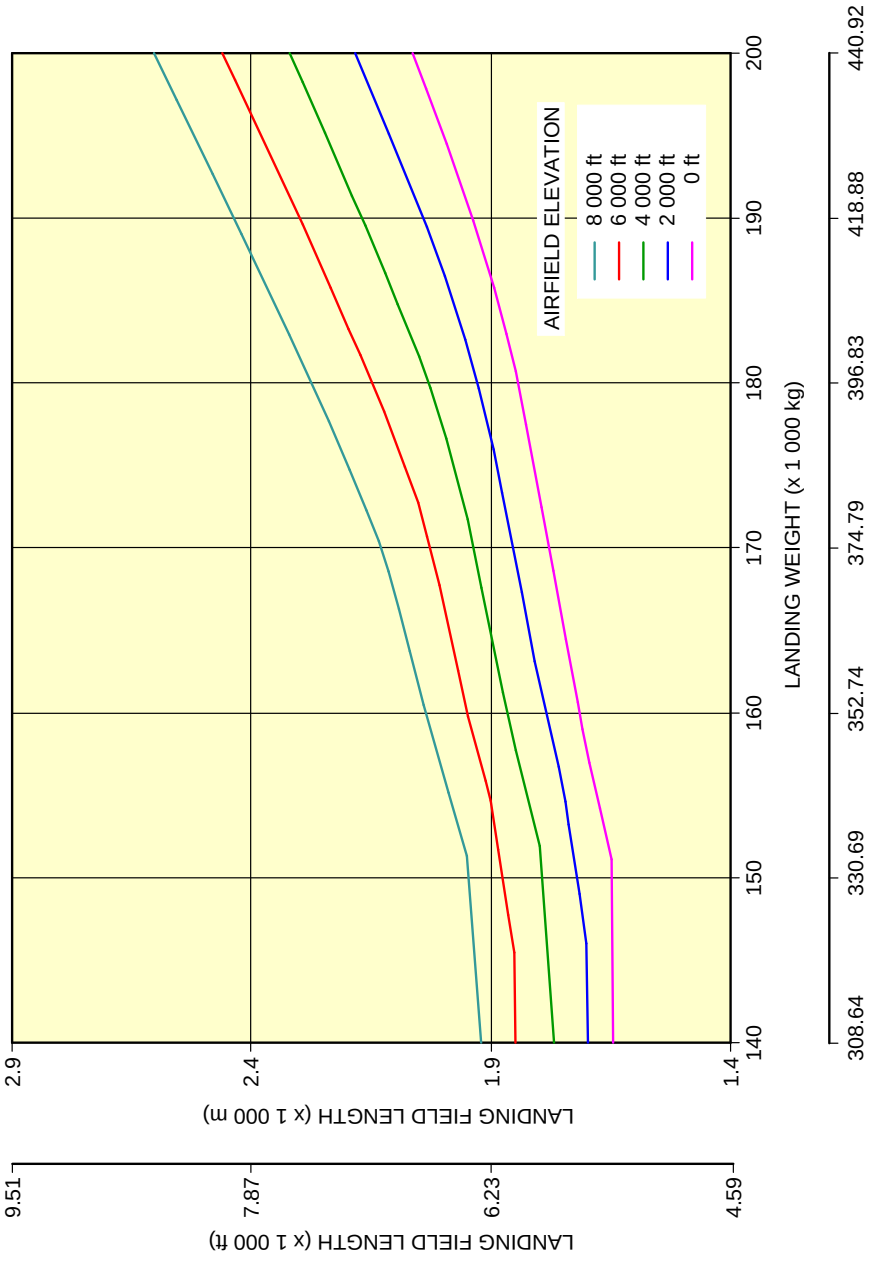
**ON A/C A330-800




F_AC_030401_1_0180101_01_00

Landing Field Length
ISA Conditions - RR TRENT 7000 Series Engine
FIGURE-3-4-1-991-018-A01

**ON A/C A330-900




F_AC_030401_1_0170101_01_01

Landing Field Length
ISA Conditions - RR TRENT 7000 Series Engine
FIGURE-3-4-1-991-017-A01

## 3-5-0 Final Approach Speed

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Final Approach Speed

****ON A/C A330-200**

1. Final Approach Speed

   A. This section gives the final approach speed. This is the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and maximum landing weight, in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.

   B. The final approach speed is 136 kt at a Maximum Landing Weight (MLW) of 182 000 kg (401 241 lb) and classifies the aircraft into the Aircraft Approach Category C.

      NOTE : This value is given for information only.

****ON A/C A330-200F**

2. Final Approach Speed

   A. This section gives the final approach speed. This is the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and maximum landing weight, in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.

   B. The final approach speed is 139 kt at a Maximum Landing Weight (MLW) of 187 000 kg (412 264 lb) and classifies the aircraft into the Aircraft Approach Category C.

      NOTE : This value is given for information only.

****ON A/C A330-300**

3. Final Approach Speed

A. This section gives the final approach speed. This is the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and maximum landing weight, in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.

B. The final approach speed is 137 kt at a Maximum Landing Weight (MLW) of 187 000 kg (412 264 lb) and classifies the aircraft into the Aircraft Approach Category C.

NOTE : This value is given for information only.

****ON A/C A330-900**

4. Final Approach Speed

A. This section gives the final approach speed. This is the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and maximum landing weight, in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.

B. The final approach speed is 141.9 kt at a Maximum Landing Weight (MLW) of 191 000 kg (421 083 lb) and classifies the aircraft into the Aircraft Approach Category D.

NOTE : This value is given for information only.

****ON A/C A330-800**

5. Final Approach Speed

A. This section gives the final approach speed. This is the indicated airspeed at threshold in the landing configuration, at the certificated maximum flap setting and maximum landing weight, in standard atmospheric conditions. The approach speed is used to classify the aircraft into an Aircraft Approach Category, a grouping of aircraft based on the indicated airspeed at threshold.

B. The final approach speed is 139.8 kt at a Maximum Landing Weight (MLW) of 186 000 kg (410 060 lb) and classifies the aircraft into the Aircraft Approach Category C.

NOTE : This value is given for information only.

# GROUND MANEUVERING

## 4-1-0 General Information

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

General Information

1. This section gives aircraft turning capability and maneuvering characteristics.

   For ease of presentation, this data has been determined from the theoretical limits imposed by the geometry of the aircraft, and where noted, gives for a normal allowance for tire slippage. As such, it reflects the turning capability of the aircraft in favorable operating circumstances. This data should only be used as guidelines for the method of determination of such parameters and for the maneuvering characteristics of this aircraft type.

   In the ground operating mode, varying airline practices may demand that more conservative turning procedures be adopted to avoid excessive tire wear and reduce possible maintenance problems. Airline operating techniques will vary in the level of performance, over a wide range of operating circumstances throughout the world. Variations from standard aircraft operating patterns may be necessary to satisfy physical constraints within the maneuvering area, such as adverse grades, limited area or high risk of jet blast damage. For these reasons, ground maneuvering requirements should be coordinated with the airlines in question prior to layout planning

   NOTE : The following chapter takes into account ICAO Annex 14 to the Convention on International Civil Aviation, Aerodromes - Volume I, Aerodrome Design and Operations, Eighth Edition, July 2018.

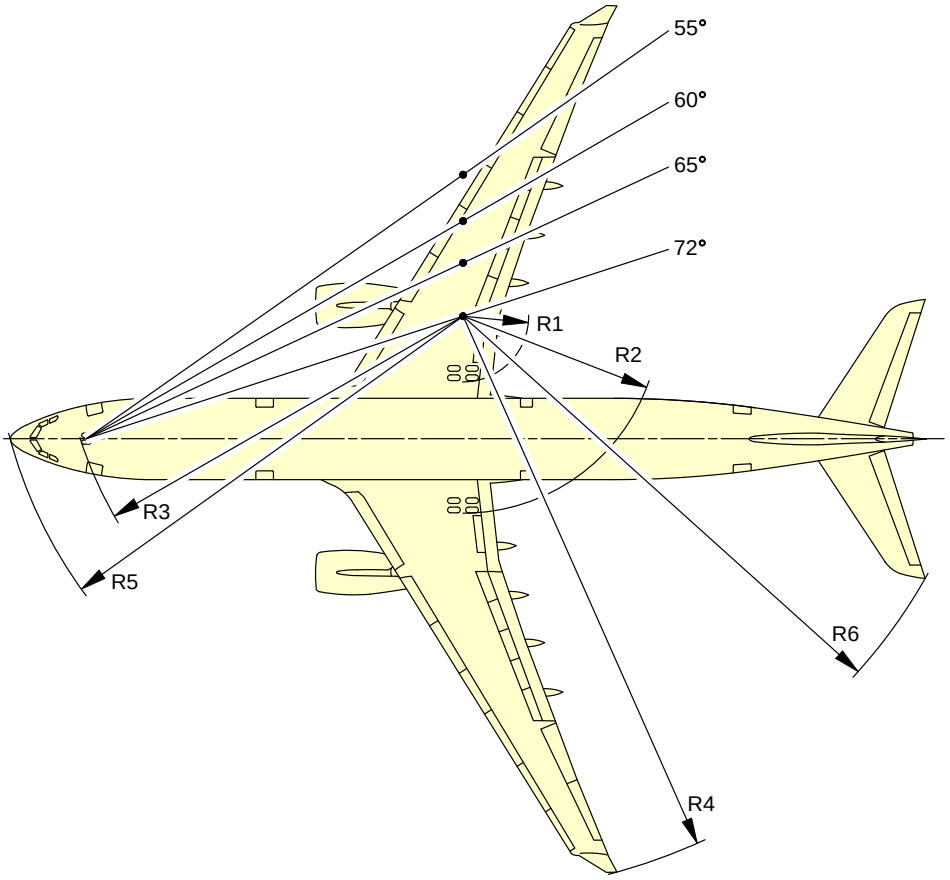
## 4-2-0 Turning Radii

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Turning Radii

1. This section gives the turning radii.

**ON A/C A330-200 A330-200F A330-300




**NOTE:**
FOR TURNING RADII VALUES, REFER TO SHEET 2.

F_AC_040200_1_0040101_01_04

Turning Radii
(Sheet 1)
FIGURE-4-2-0-991-004-A01

**ON A/C A330-300

| A330-300 TURNING RADII | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | R1 RMLG | R2 LMLG | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 2 | 20 | 19.4 | m | 67.7 | 78.4 | 76.9 | 102.7 | 78.9 | 87.7 |
| | | | ft | 222 | 257 | 252 | 337 | 259 | 288 |
| 2 | 25 | 24.2 | m | 52.1 | 62.8 | 62.4 | 87.1 | 64.9 | 73.3 |
| | | | ft | 171 | 206 | 205 | 286 | 213 | 241 |
| 2 | 30 | 29.0 | m | 41.4 | 52.1 | 52.8 | 76.5 | 55.9 | 63.9 |
| | | | ft | 136 | 171 | 173 | 251 | 183 | 210 |
| 2 | 35 | 33.8 | m | 33.5 | 44.2 | 46.1 | 68.7 | 49.6 | 57.2 |
| | | | ft | 110 | 145 | 151 | 225 | 163 | 188 |
| 2 | 40 | 38.6 | m | 27.4 | 38.1 | 41.1 | 62.7 | 45.1 | 52.2 |
| | | | ft | 90 | 125 | 135 | 206 | 148 | 171 |
| 2 | 45 | 43.2 | m | 22.6 | 33.3 | 37.5 | 58.0 | 41.9 | 48.5 |
| | | | ft | 74 | 109 | 123 | 190 | 138 | 159 |
| 2 | 50 | 47.8 | m | 18.6 | 29.3 | 34.6 | 54.0 | 39.5 | 45.5 |
| | | | ft | 61 | 96 | 114 | 177 | 129 | 149 |
| 2 | 55 | 52.2 | m | 15.3 | 26.0 | 32.5 | 50.7 | 37.6 | 43.2 |
| | | | ft | 50 | 85 | 106 | 166 | 123 | 142 |
| 2 | 60 | 56.3 | m | 12.5 | 23.2 | 30.8 | 48.0 | 36.2 | 41.4 |
| | | | ft | 41 | 76 | 101 | 158 | 119 | 136 |
| 2 | 65 | 60.1 | m | 10.2 | 20.9 | 29.6 | 45.8 | 35.2 | 39.9 |
| | | | ft | 34 | 69 | 97 | 150 | 116 | 131 |
| 2 | 72 | 63.8 | m | 8.1 | 18.8 | 28.5 | 43.7 | 34.4 | 38.7 |
| | | | ft | 27 | 62 | 94 | 143 | 113 | 127 |
| 1 | 50 | 48.2 | m | 18.3 | 29.0 | 34.4 | 53.7 | 39.3 | 45.5 |
| | | | ft | 60 | 95 | 113 | 176 | 129 | 149 |
| 1 | 55 | 52.9 | m | 14.8 | 25.5 | 32.2 | 50.3 | 37.4 | 43.2 |
| | | | ft | 49 | 84 | 105 | 165 | 123 | 142 |
| 1 | 60 | 57.6 | m | 11.7 | 22.4 | 30.4 | 47.2 | 35.9 | 41.4 |
| | | | ft | 38 | 74 | 100 | 155 | 118 | 136 |
| 1 | 65 | 62.1 | m | 9.1 | 19.7 | 29.0 | 44.6 | 34.7 | 39.2 |
| | | | ft | 30 | 65 | 95 | 146 | 114 | 129 |
| 1 | 72 | 67.8 | m | 6.0 | 16.7 | 27.6 | 41.6 | 33.7 | 37.5 |
| | | | ft | 20 | 55 | 91 | 137 | 110 | 123 |

**NOTE:**

ABOVE 50°, AIRLINES MAY USE TYPE 1 OR TYPE 2 TURNS DEPENDING ON THE SITUATION.
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040200_1_0020101_01_05

Turning Radii
(Sheet 2)
FIGURE-4-2-0-991-002-A01

**ON A/C A330-200 A330-200F

| A330-200/-200F TURNING RADII | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | R1 RMLG | R2 LMLG | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 2 | 20 | 19.2 | m | 59.3 | 70.0 | 68.0 | 94.4 | 69.9 | 79.1 |
| | | | ft | 195 | 230 | 223 | 310 | 229 | 260 |
| 2 | 25 | 23.9 | m | 45.7 | 56.4 | 55.3 | 80.9 | 57.8 | 66.6 |
| | | | ft | 150 | 185 | 181 | 265 | 190 | 219 |
| 2 | 30 | 28.6 | m | 36.3 | 47.0 | 46.8 | 71.6 | 49.9 | 58.4 |
| | | | ft | 119 | 154 | 154 | 235 | 164 | 192 |
| 2 | 35 | 33.3 | m | 29.4 | 40.1 | 40.9 | 64.7 | 44.4 | 52.5 |
| | | | ft | 96 | 132 | 134 | 212 | 146 | 172 |
| 2 | 40 | 38.0 | m | 24.0 | 34.7 | 36.5 | 59.4 | 40.5 | 48.2 |
| | | | ft | 79 | 114 | 120 | 195 | 133 | 158 |
| 2 | 45 | 42.5 | m | 19.8 | 30.5 | 33.2 | 55.3 | 37.7 | 45.0 |
| | | | ft | 65 | 100 | 109 | 181 | 124 | 148 |
| 2 | 50 | 46.9 | m | 16.4 | 27.1 | 30.8 | 51.9 | 35.5 | 42.4 |
| | | | ft | 54 | 89 | 101 | 170 | 116 | 139 |
| 2 | 55 | 51.2 | m | 13.5 | 24.1 | 28.8 | 49.1 | 33.9 | 40.4 |
| | | | ft | 44 | 79 | 94 | 161 | 111 | 133 |
| 2 | 60 | 55.1 | m | 11.1 | 21.8 | 27.4 | 46.8 | 32.7 | 38.8 |
| | | | ft | 36 | 72 | 90 | 154 | 107 | 127 |
| 2 | 65 | 59.6 | m | 8.6 | 19.3 | 26.0 | 44.4 | 31.6 | 37.2 |
| | | | ft | 28 | 63 | 85 | 146 | 104 | 122 |
| 2 | 72 | 62.0 | m | 7.4 | 18.1 | 25.4 | 43.2 | 31.2 | 36.5 |
| | | | ft | 24 | 59 | 83 | 142 | 102 | 120 |
| 1 | 50 | 48.4 | m | 15.3 | 26.0 | 30.0 | 50.9 | 34.9 | 41.7 |
| | | | ft | 50 | 85 | 98 | 167 | 115 | 137 |
| 1 | 55 | 52.2 | m | 12.8 | 23.5 | 28.4 | 48.5 | 33.6 | 39.9 |
| | | | ft | 42 | 77 | 93 | 159 | 110 | 131 |
| 1 | 60 | 57.7 | m | 9.6 | 20.3 | 26.5 | 45.4 | 32.1 | 37.9 |
| | | | ft | 31 | 67 | 87 | 149 | 105 | 124 |
| 1 | 65 | 62.2 | m | 7.3 | 18.0 | 25.3 | 43.1 | 31.1 | 36.5 |
| | | | ft | 24 | 59 | 83 | 141 | 102 | 120 |
| 1 | 72 | 68.1 | m | 4.5 | 15.2 | 24.1 | 40.4 | 30.2 | 34.9 |
| | | | ft | 15 | 50 | 79 | 133 | 99 | 115 |

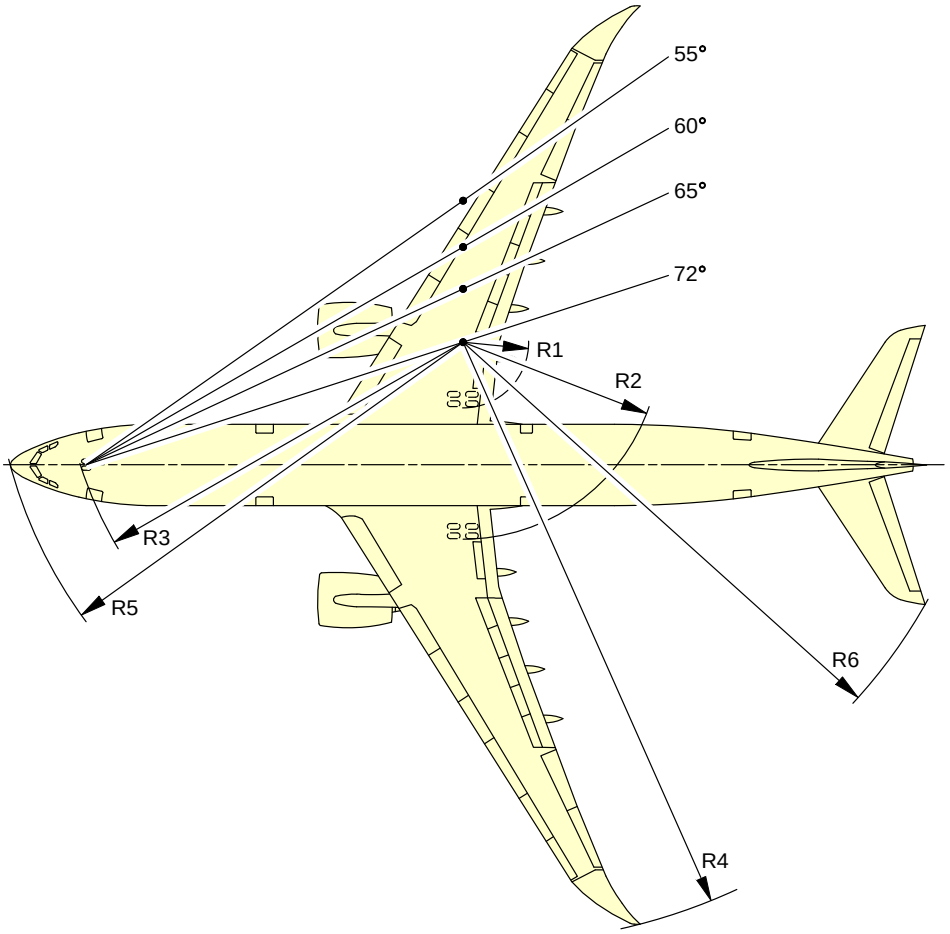
**NOTE:**

ABOVE 50°, AIRLINES MAY USE TYPE 1 OR TYPE 2 TURNS DEPENDING ON THE SITUATION.
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040200_1_0030101_01_05

Turning Radii
(Sheet 2)
FIGURE-4-2-0-991-003-A01

**ON A/C A330-800 A330-900




**NOTE:**
FOR TURNING RADII VALUES, REFER TO SHEET 2.

F_AC_040200_1_0140101_01_01

Turning Radii
(Sheet 1)
FIGURE-4-2-0-991-014-A01

**ON A/C A330-900

| A330-900 TURNING RADII | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | R1 RMLG | R2 LMLG | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 2 | 20 | 19.4 | m | 67.7 | 78.4 | 76.9 | 104.7 | 78.9 | 87.7 |
| | | | ft | 222 | 257 | 252 | 344 | 259 | 288 |
| 2 | 25 | 24.2 | m | 52.1 | 62.8 | 62.4 | 89.3 | 64.9 | 73.3 |
| | | | ft | 171 | 206 | 205 | 293 | 213 | 241 |
| 2 | 30 | 29.0 | m | 41.4 | 52.1 | 52.8 | 78.7 | 55.9 | 63.9 |
| | | | ft | 136 | 171 | 173 | 258 | 183 | 210 |
| 2 | 35 | 33.8 | m | 33.5 | 44.2 | 46.1 | 70.9 | 49.6 | 57.2 |
| | | | ft | 110 | 145 | 151 | 233 | 163 | 188 |
| 2 | 40 | 38.6 | m | 27.4 | 38.1 | 41.1 | 64.9 | 45.1 | 52.2 |
| | | | ft | 90 | 125 | 135 | 213 | 148 | 171 |
| 2 | 45 | 43.2 | m | 22.6 | 33.3 | 37.5 | 60.2 | 41.9 | 48.5 |
| | | | ft | 74 | 109 | 123 | 198 | 138 | 159 |
| 2 | 50 | 47.8 | m | 18.6 | 29.3 | 34.6 | 56.3 | 39.5 | 45.5 |
| | | | ft | 61 | 96 | 114 | 185 | 129 | 149 |
| 2 | 55 | 52.2 | m | 15.3 | 26.0 | 32.5 | 53.0 | 37.6 | 43.2 |
| | | | ft | 50 | 85 | 106 | 174 | 123 | 142 |
| 2 | 60 | 56.3 | m | 12.5 | 23.2 | 30.8 | 50.4 | 36.2 | 41.4 |
| | | | ft | 41 | 76 | 101 | 165 | 119 | 136 |
| 2 | 65 | 60.1 | m | 10.2 | 20.9 | 29.6 | 48.1 | 35.2 | 39.9 |
| | | | ft | 34 | 69 | 97 | 158 | 116 | 131 |
| 2 | 72 | 63.8 | m | 8.1 | 18.8 | 28.5 | 46.1 | 34.4 | 38.7 |
| | | | ft | 27 | 62 | 94 | 151 | 113 | 127 |
| 1 | 50 | 48.2 | m | 18.3 | 29.0 | 34.4 | 56.0 | 39.3 | 45.5 |
| | | | ft | 60 | 95 | 113 | 184 | 129 | 149 |
| 1 | 55 | 52.9 | m | 14.8 | 25.5 | 32.2 | 52.6 | 37.4 | 43.2 |
| | | | ft | 49 | 84 | 105 | 172 | 123 | 142 |
| 1 | 60 | 57.6 | m | 11.7 | 22.4 | 30.4 | 49.6 | 35.9 | 41.4 |
| | | | ft | 38 | 74 | 100 | 163 | 118 | 136 |
| 1 | 65 | 62.1 | m | 9.1 | 19.7 | 29.0 | 47.0 | 34.7 | 39.2 |
| | | | ft | 30 | 65 | 95 | 154 | 114 | 129 |
| 1 | 72 | 67.8 | m | 6.0 | 16.7 | 27.6 | 44.0 | 33.7 | 37.5 |
| | | | ft | 20 | 55 | 91 | 144 | 110 | 123 |

**NOTE:**

ABOVE 50°, AIRLINES MAY USE TYPE 1 OR TYPE 2 TURNS DEPENDING ON THE SITUATION.
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040200_1_0150101_01_01

Turning Radii
(Sheet 2)
FIGURE-4-2-0-991-015-A01

**ON A/C A330-800

| A330-800 TURNING RADII | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | R1 RMLG | R2 LMLG | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 2 | 20 | 19.2 | m | 59.3 | 70.0 | 68.0 | 96.4 | 69.9 | 79.1 |
| | | | ft | 195 | 230 | 223 | 316 | 229 | 260 |
| 2 | 25 | 23.9 | m | 45.7 | 56.4 | 55.3 | 82.9 | 57.8 | 66.6 |
| | | | ft | 150 | 185 | 181 | 272 | 190 | 219 |
| 2 | 30 | 28.6 | m | 36.3 | 47.0 | 46.8 | 73.7 | 49.9 | 58.4 |
| | | | ft | 119 | 154 | 154 | 242 | 164 | 192 |
| 2 | 35 | 33.3 | m | 29.4 | 40.1 | 40.9 | 66.8 | 44.4 | 52.5 |
| | | | ft | 96 | 131 | 134 | 219 | 146 | 172 |
| 2 | 40 | 38.0 | m | 24.0 | 34.7 | 36.5 | 61.6 | 40.5 | 48.2 |
| | | | ft | 79 | 114 | 120 | 202 | 133 | 158 |
| 2 | 45 | 42.5 | m | 19.8 | 30.5 | 33.2 | 57.5 | 37.7 | 45.0 |
| | | | ft | 65 | 100 | 109 | 188 | 124 | 147 |
| 2 | 50 | 46.9 | m | 16.4 | 27.1 | 30.8 | 54.1 | 35.5 | 42.4 |
| | | | ft | 54 | 89 | 101 | 177 | 117 | 139 |
| 2 | 55 | 51.2 | m | 13.5 | 24.1 | 28.8 | 51.2 | 33.9 | 40.4 |
| | | | ft | 44 | 79 | 95 | 168 | 111 | 132 |
| 2 | 60 | 55.1 | m | 11.1 | 21.8 | 27.4 | 48.9 | 32.7 | 38.8 |
| | | | ft | 36 | 71 | 90 | 161 | 107 | 127 |
| 2 | 65 | 59.6 | m | 8.6 | 19.3 | 26.0 | 46.6 | 31.6 | 37.2 |
| | | | ft | 28 | 63 | 85 | 153 | 104 | 122 |
| 2 | 72 | 62.0 | m | 7.4 | 18.1 | 25.4 | 45.4 | 31.2 | 36.5 |
| | | | ft | 24 | 59 | 83 | 149 | 102 | 120 |
| 1 | 50 | 48.4 | m | 15.3 | 26.0 | 30.0 | 53.0 | 34.9 | 41.7 |
| | | | ft | 50 | 85 | 99 | 174 | 115 | 137 |
| 1 | 55 | 52.2 | m | 12.8 | 23.5 | 28.4 | 50.6 | 33.6 | 39.9 |
| | | | ft | 42 | 77 | 93 | 166 | 110 | 131 |
| 1 | 60 | 57.7 | m | 9.6 | 20.3 | 26.5 | 47.5 | 32.1 | 37.9 |
| | | | ft | 32 | 67 | 87 | 156 | 105 | 124 |
| 1 | 65 | 62.2 | m | 7.3 | 18.0 | 25.3 | 45.3 | 31.1 | 36.5 |
| | | | ft | 24 | 59 | 83 | 149 | 102 | 120 |
| 1 | 72 | 68.1 | m | 4.5 | 15.2 | 24.1 | 42.6 | 30.2 | 34.9 |
| | | | ft | 15 | 50 | 79 | 140 | 99 | 114 |

**NOTE:**

ABOVE 50°, AIRLINES MAY USE TYPE 1 OR TYPE 2 TURNS DEPENDING ON THE SITUATION.
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040200_1_0160101_01_01

Turning Radii
(Sheet 2)
FIGURE-4-2-0-991-016-A01

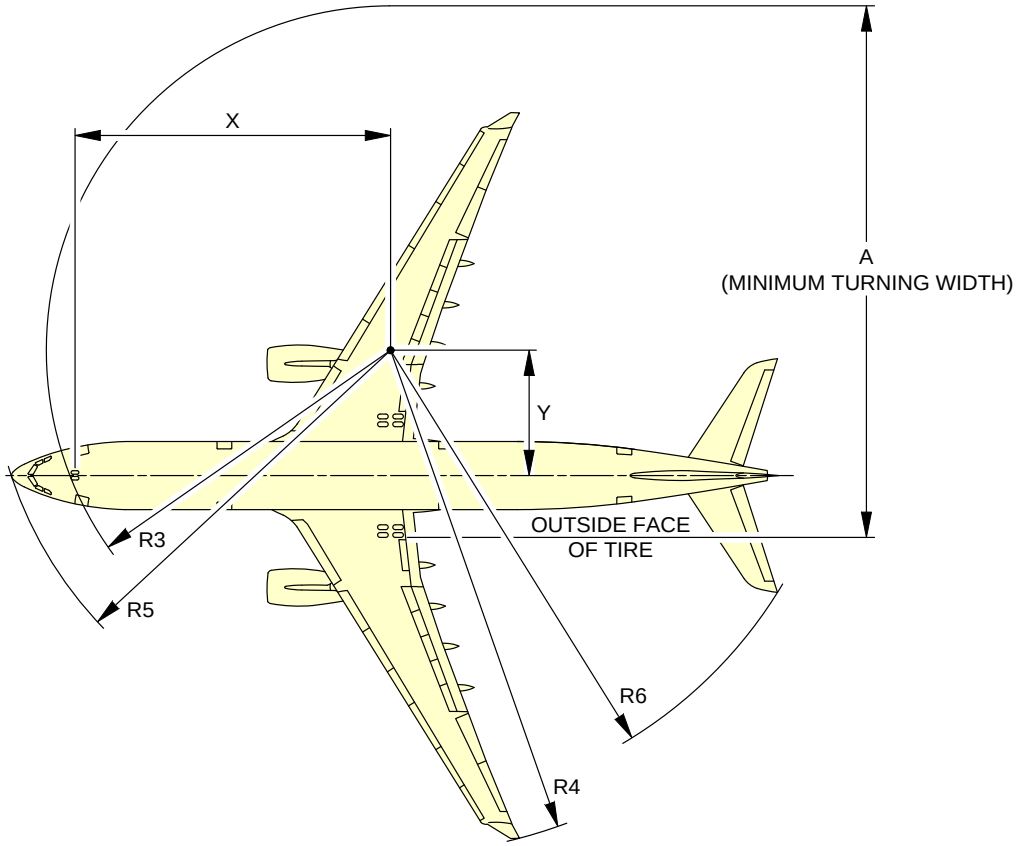
## 4-3-0 Minimum Turning Radii

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Minimum Turning Radii

1. This section gives the minimum turning radii.

**ON A/C A330-300



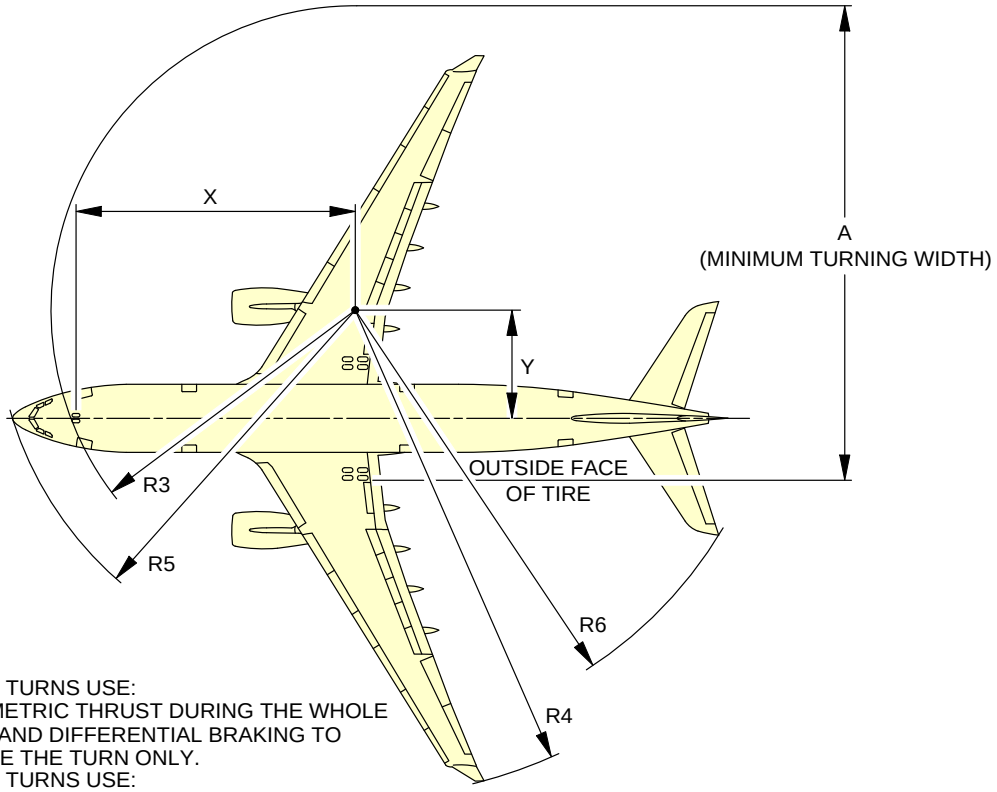

| A330-300 MINIMUM TURNING RADII | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | X | Y | A | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 1 | 72 (MAX) | 67.8 | m | 25.4 | 10.4 | 44.6 | 27.6 | 41.6 | 33.7 | 37.5 |
| | | | ft | 83 | 34 | 146 | 91 | 137 | 110 | 123 |
| 2 | 72 (MAX) | 63.8 | m | 25.4 | 12.5 | 47.6 | 28.5 | 43.7 | 34.4 | 38.7 |
| | | | ft | 83 | 41 | 156 | 94 | 143 | 113 | 127 |
| 1 | 65 (MAX) | 62.1 | m | 25.4 | 13.4 | 49.0 | 29.0 | 44.6 | 34.7 | 39.2 |
| | | | ft | 83 | 44 | 161 | 95 | 146 | 114 | 129 |
| 2 | 65 (MAX) | 60.1 | m | 25.4 | 14.6 | 50.7 | 29.6 | 45.8 | 35.2 | 39.9 |
| | | | ft | 83 | 48 | 166 | 97 | 150 | 116 | 131 |

**NOTE:**
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040300_1_0010101_01_06

Minimum Turning Radii
FIGURE-4-3-0-991-001-A01

**ON A/C A330-200 A330-200F




**NOTE:**
TYPE 1 TURNS USE:
ASYMMETRIC THRUST DURING THE WHOLE TURN; AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE:
SYMMETRIC THRUST DURING THE WHOLE TURN; AND NO DIFFERENTIAL BRAKING AT ALL.

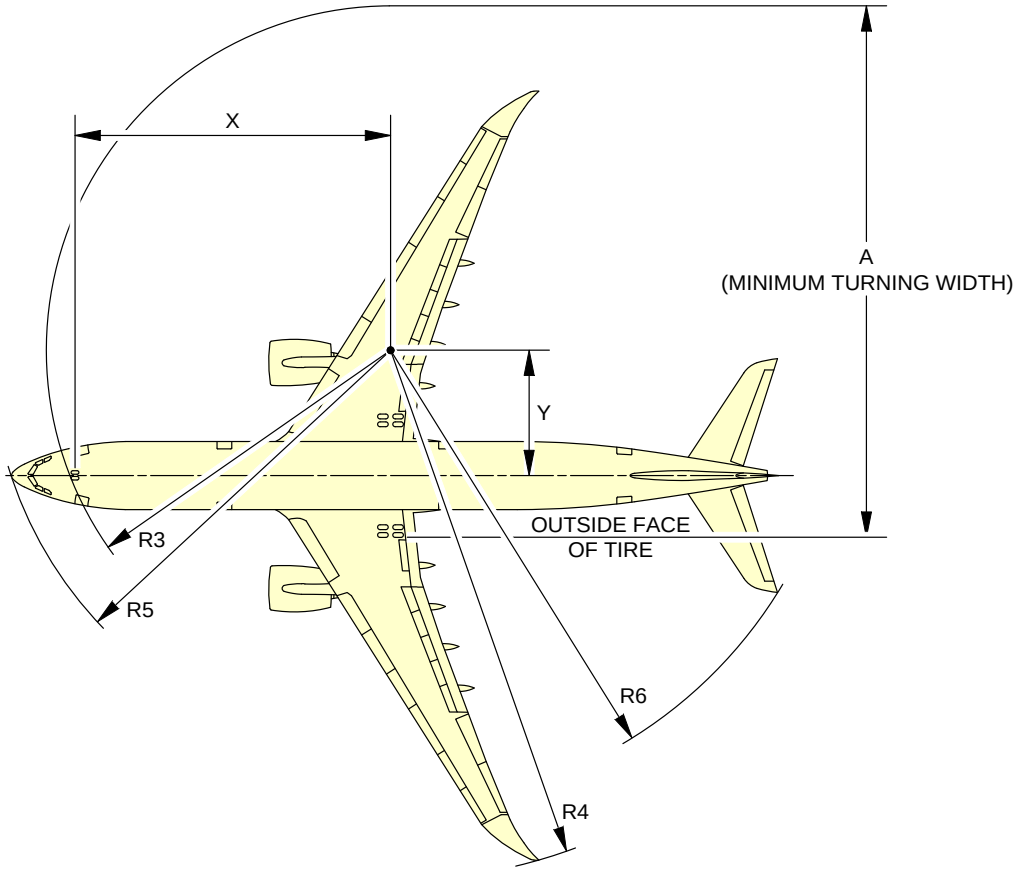
| A330-200/-200F MINIMUM TURNING RADII | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | X | Y | A | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 1 | 72 (MAX) | 68.1 | m | 22.2 | 8.9 | 39.7 | 24.1 | 40.4 | 30.2 | 34.9 |
| | | | ft | 73 | 29 | 130 | 79 | 133 | 99 | 115 |
| 2 | 72 (MAX) | 62.0 | m | 22.2 | 11.8 | 43.8 | 25.4 | 43.2 | 31.2 | 36.5 |
| | | | ft | 73 | 39 | 144 | 83 | 142 | 102 | 120 |
| 1 | 65 (MAX) | 62.2 | m | 22.2 | 11.7 | 43.6 | 25.3 | 43.1 | 31.1 | 36.5 |
| | | | ft | 73 | 38 | 143 | 83 | 141 | 102 | 120 |
| 2 | 65 (MAX) | 59.6 | m | 22.2 | 13.0 | 45.6 | 26.0 | 44.4 | 31.6 | 37.2 |
| | | | ft | 73 | 43 | 150 | 85 | 146 | 104 | 122 |

**NOTE:**
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040300_1_0070101_01_01

Minimum Turning Radii
FIGURE-4-3-0-991-007-A01

**ON A/C A330-900



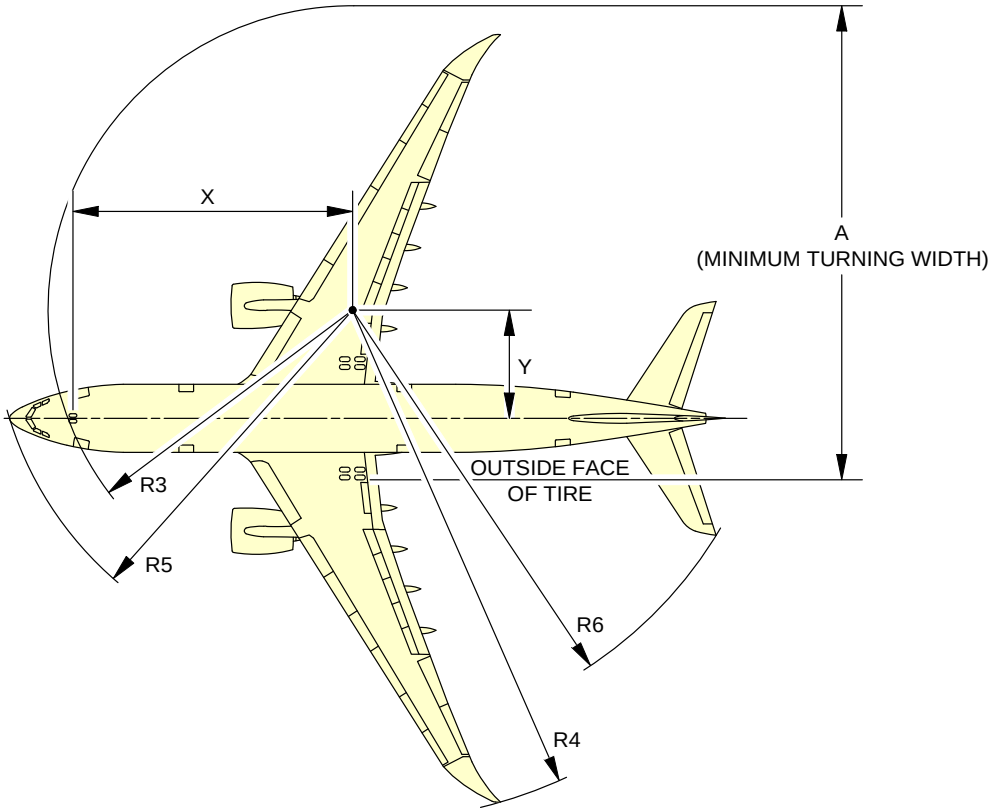

| A330-900 MINIMUM TURNING RADII | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | X | Y | A | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 1 | 72 (MAX) | 67.8 | m | 25.4 | 10.4 | 44.6 | 27.6 | 44.0 | 33.7 | 37.5 |
| | | | ft | 83 | 34 | 146 | 91 | 144 | 110 | 123 |
| 2 | 72 (MAX) | 63.8 | m | 25.4 | 12.5 | 47.6 | 28.5 | 46.1 | 34.4 | 38.7 |
| | | | ft | 83 | 41 | 156 | 94 | 151 | 113 | 127 |

**NOTE:**
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040300_1_0080101_01_01

Minimum Turning Radii
FIGURE-4-3-0-991-008-A01

**ON A/C A330-800




| A330-800 MINIMUM TURNING RADII | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TYPE OF TURN | STEERING ANGLE (deg) | EFFECTIVE STEERING ANGLE (deg) | | X | Y | A | R3 NLG | R4 WING | R5 NOSE | R6 TAIL |
| 1 | 72 (MAX) | 68.1 | m | 22.2 | 8.9 | 39.7 | 24.1 | 42.6 | 30.2 | 34.9 |
| | | | ft | 73 | 29 | 130 | 79 | 140 | 99 | 114 |
| 2 | 72 (MAX) | 62.0 | m | 22.2 | 11.8 | 43.8 | 25.4 | 45.4 | 31.2 | 36.5 |
| | | | ft | 73 | 39 | 144 | 83 | 149 | 102 | 120 |

**NOTE:**
TYPE 1 TURNS USE: ASYMMETRIC THRUST DURING THE WHOLE TURN;
AND DIFFERENTIAL BRAKING TO INITIATE THE TURN ONLY.
TYPE 2 TURNS USE: SYMMETRIC THRUST DURING THE WHOLE TURN;
AND NO DIFFERENTIAL BRAKING AT ALL.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040300_1_0090101_01_01

Minimum Turning Radii
FIGURE-4-3-0-991-009-A01

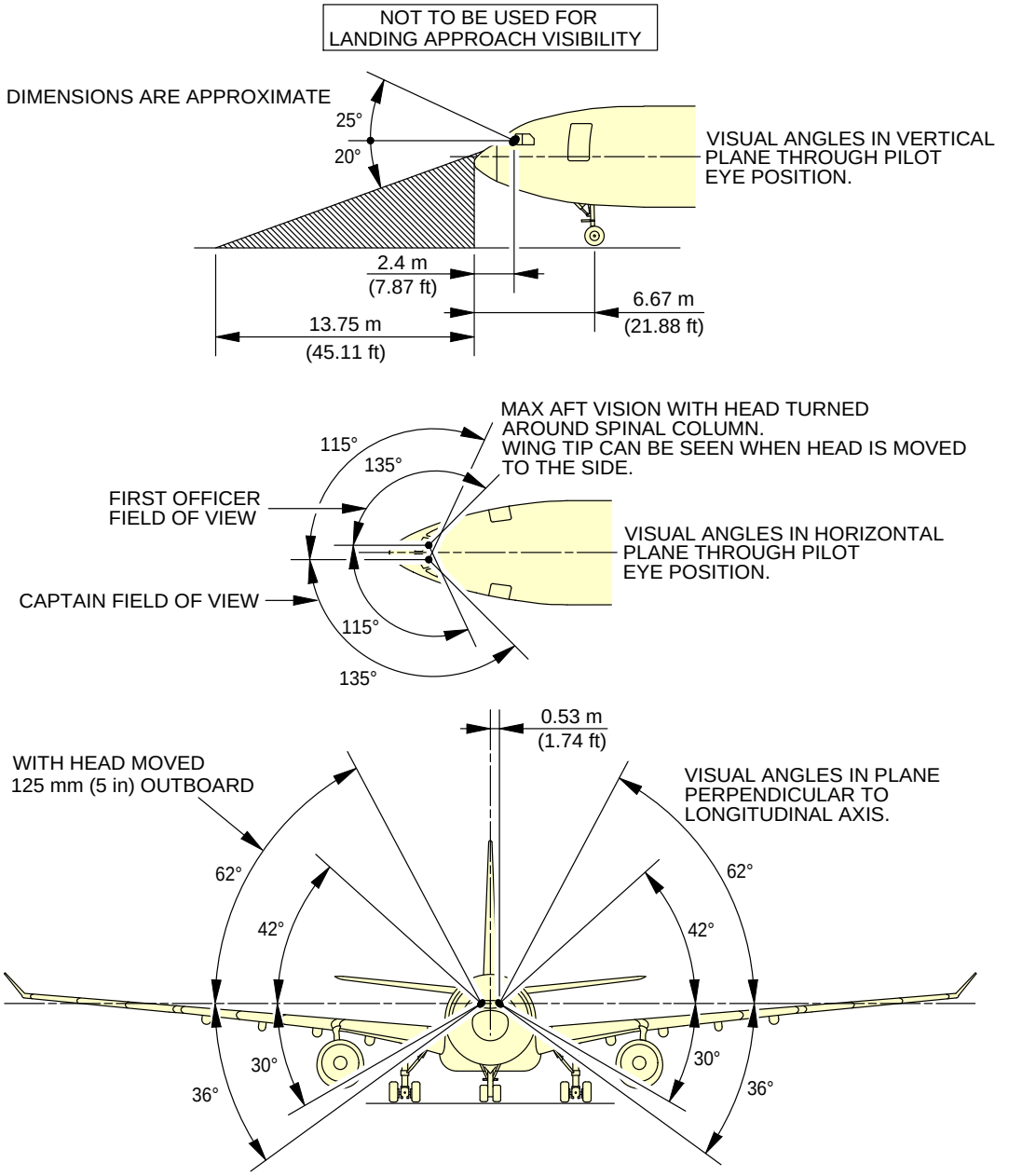
## 4-4-0 Visibility from Cockpit in Static Position

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Visibility from Cockpit in Static Position.

1. This section gives the visibility from cockpit in static position.

****ON A/C A330-200 A330-300 A330-800 A330-900**




**NOTE:**

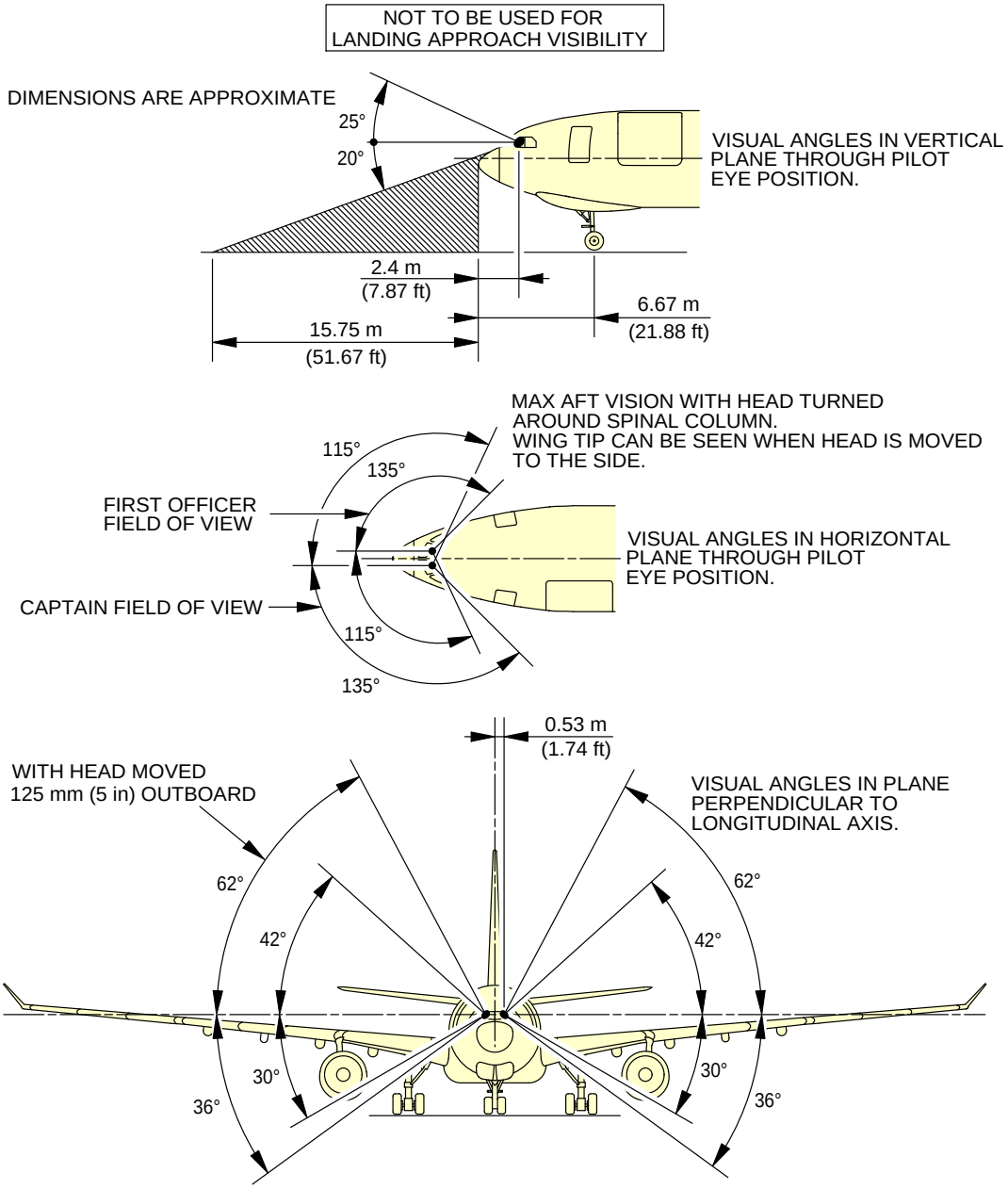
- PILOT EYE POSITION WHEN PILOT'S EYES ARE IN LINE WITH THE RED AND WHITE BALLS.

ZONE THAT CANNOT BE SEEN

F_AC_040400_1_0010101_01_02

Visibility from Cockpit in Static Position
FIGURE-4-4-0-991-001-A01

**ON A/C A330-200F




**NOTE:**

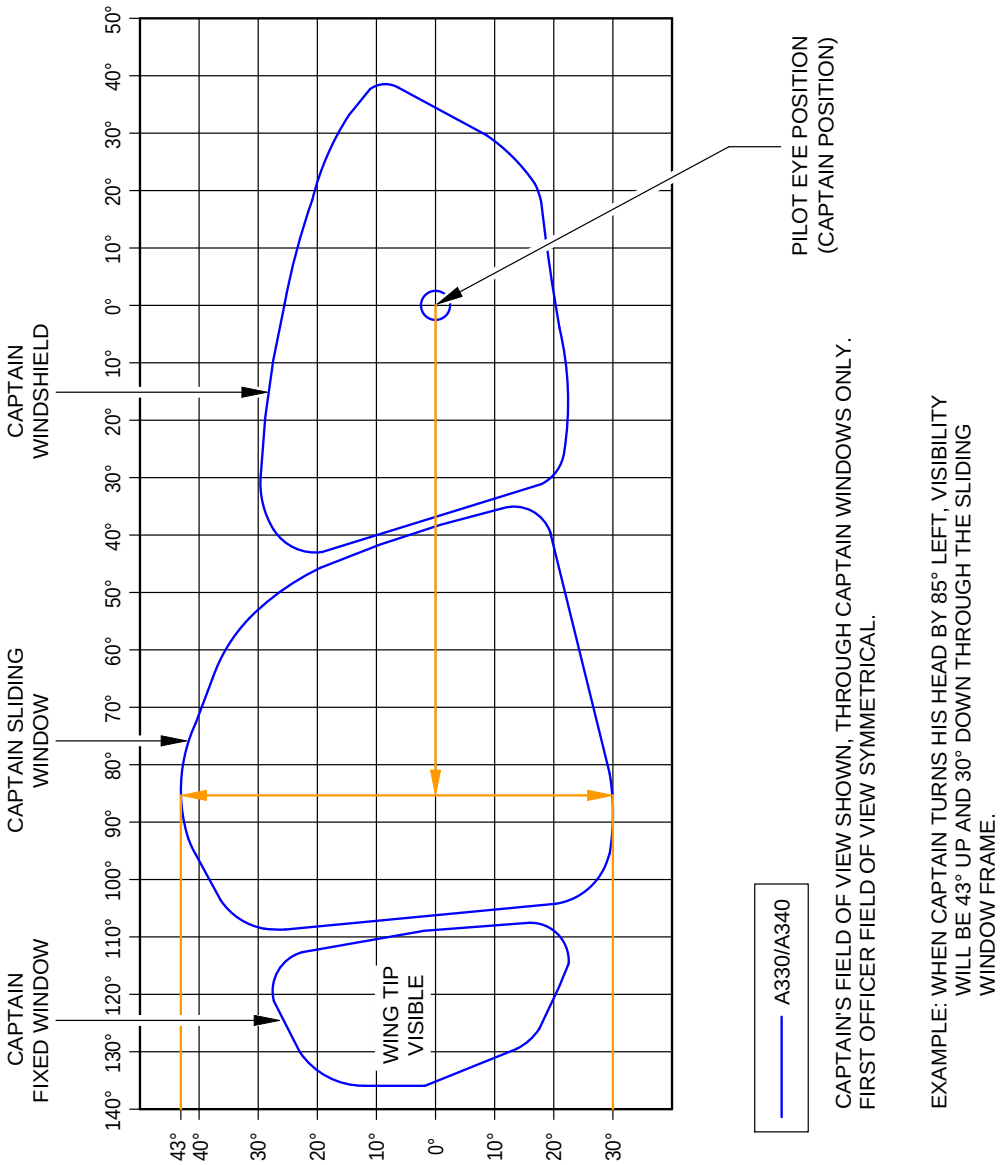
● PILOT EYE POSITION WHEN PILOT'S EYES ARE IN LINE WITH THE RED AND WHITE BALLS.

ZONE THAT CANNOT BE SEEN

F_AC_040400_1_0030101_01_02

Visibility from Cockpit in Static Position
FIGURE-4-4-0-991-003-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




F_AC_040400_1_0060101_01_00

Binocular Visibility Through Windows from Captain Eye Position
FIGURE-4-4-0-991-006-A01

## 4-5-0 Runway and Taxiway Turn Paths

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Runway and Taxiway Turn Paths

1. This section gives the runway and taxiway turn paths for the following configurations:
   - 135° Turn - Runway to Taxiway
   - 90° Turn - Runway to Taxiway
   - 180° Turn on a Runway
   - 135° Turn - Taxiway to Taxiway
   - 90° Turn - Taxiway to Taxiway.

   The turn paths Runway to Taxiway and Taxiway to Taxiway are defined using 2 methods:
   - Oversteering method,
   - Cockpit over centerline method.

   The 180° Turn on runway is defined using the following method:
   - 180° Turn using edge of runway method.

   NOTE : The fillet design and the turn radii are as per FAA AC 150/5300-13 Change 18.

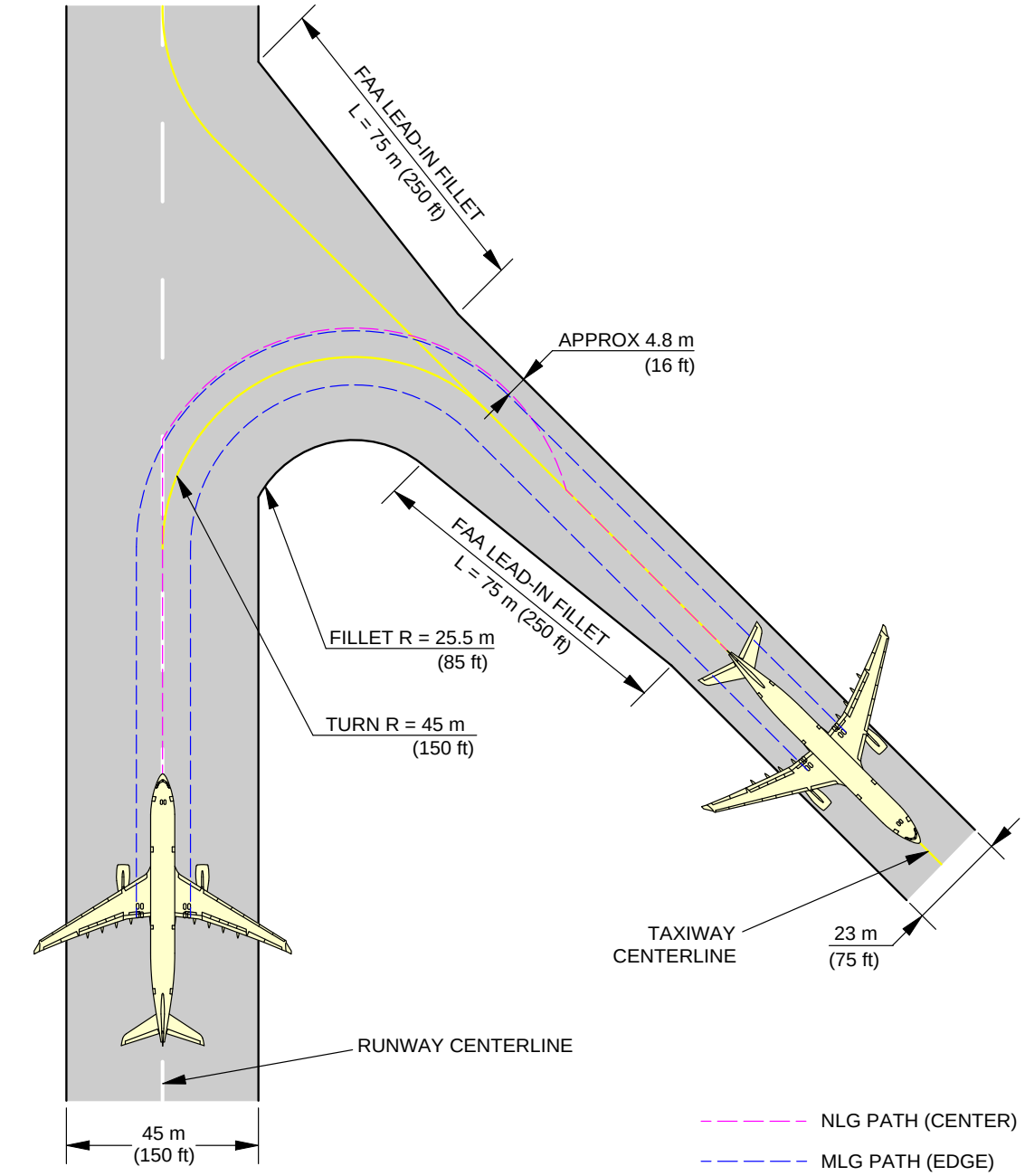
## 4-5-1 135° Turn - Runway to Taxiway

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

135° Turn - Runway to Taxiway

1. This section gives the 135° turn - runway to taxiway.

**ON A/C A330-300 A330-900

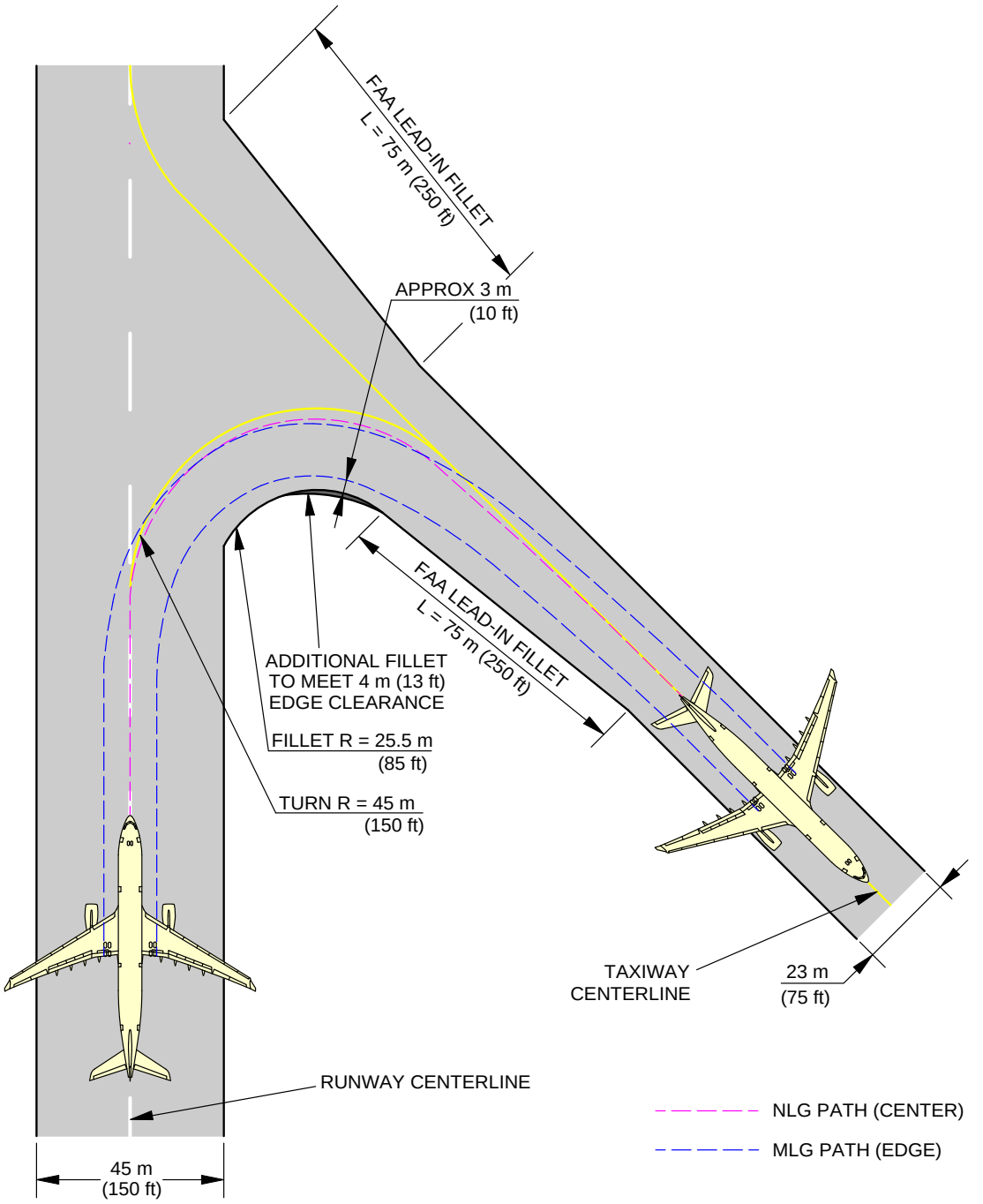



**NOTE:**
THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040501_1_0010101_01_02

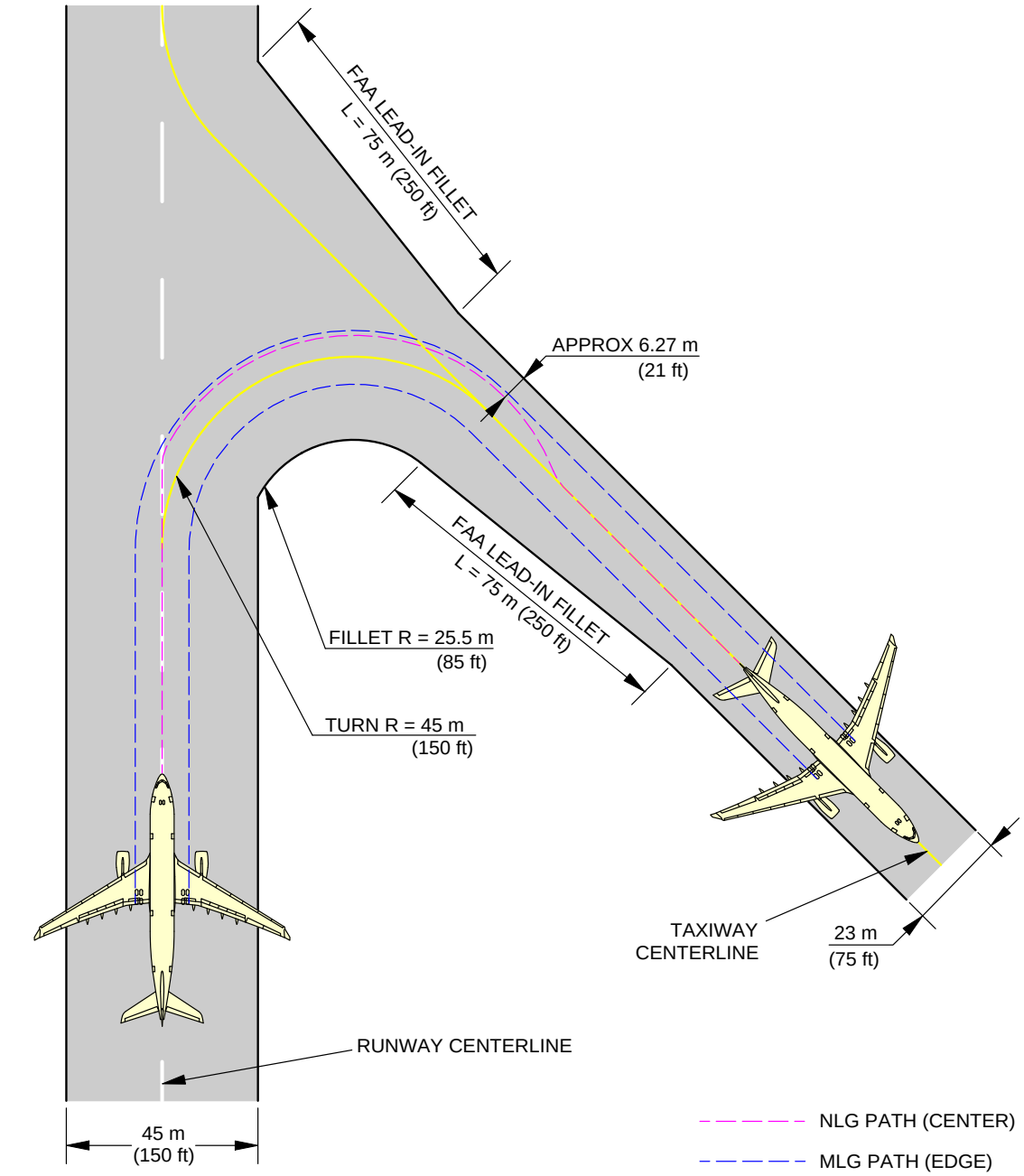
135° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-1-991-001-A01

**ON A/C A330-300 A330-900




135° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-1-991-006-A01

**ON A/C A330-200 A330-200F A330-800

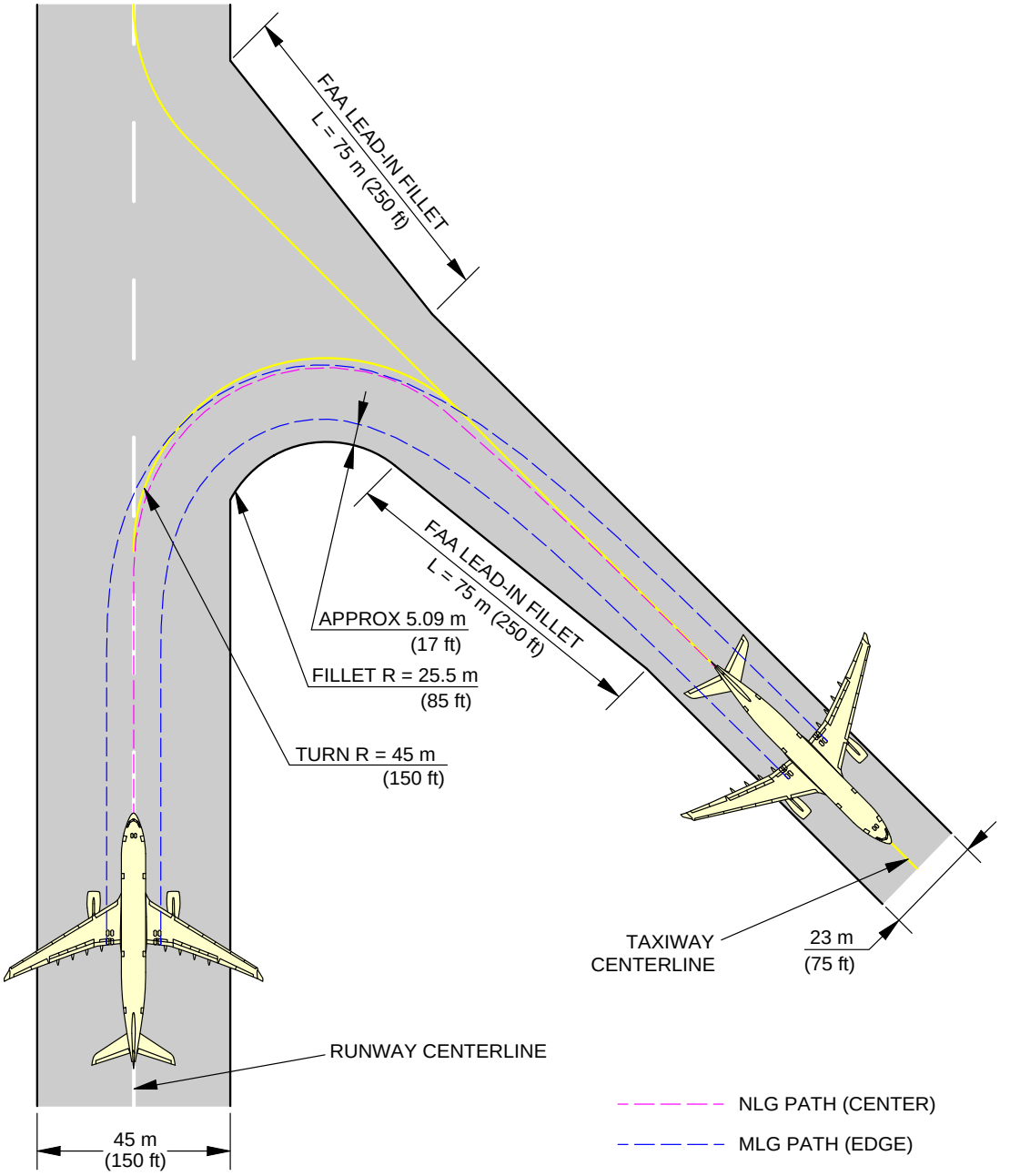



**NOTE:**
THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040501_1_0020101_01_02

135° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-1-991-002-A01

**ON A/C A330-200 A330-200F A330-800




F_AC_040501_1_0070101_01_01

135° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-1-991-007-A01

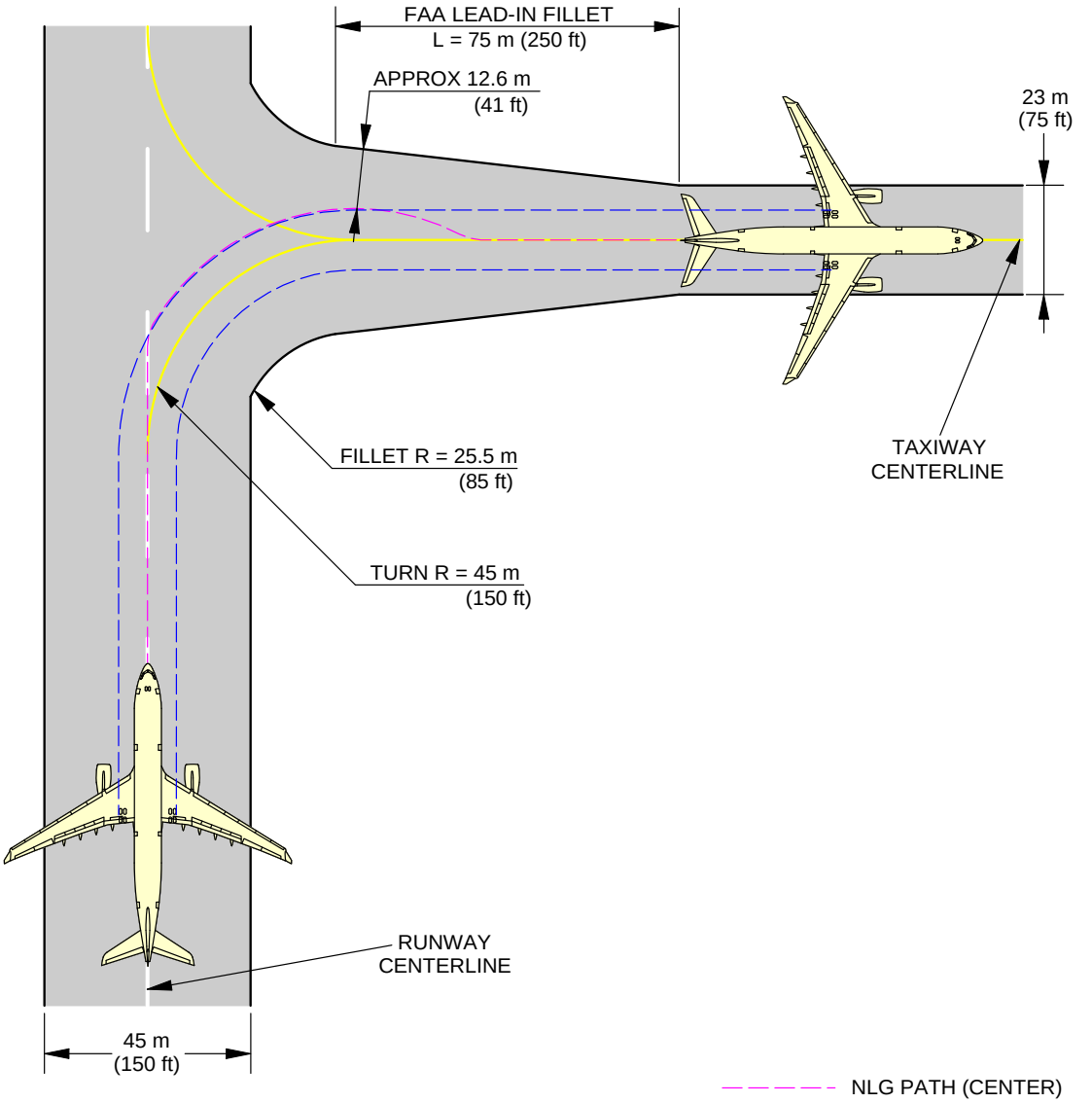
## 4-5-2 90° Turn - Runway to Taxiway

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

90° Turn - Runway to Taxiway

1. This section gives the 90° turn - runway to taxiway.

**ON A/C A330-300 A330-900



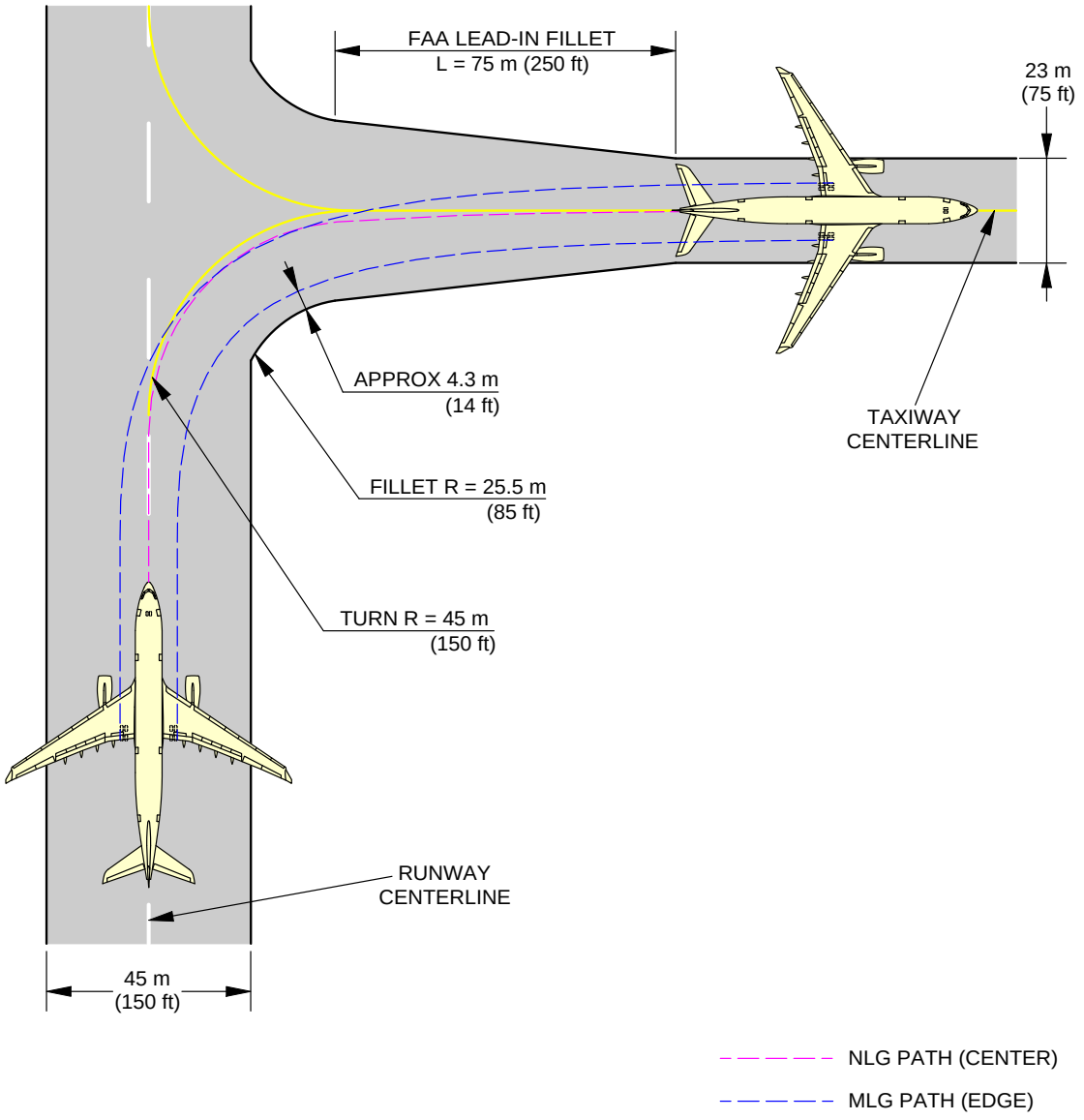

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040502_1_0010101_01_02

90° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-2-991-001-A01

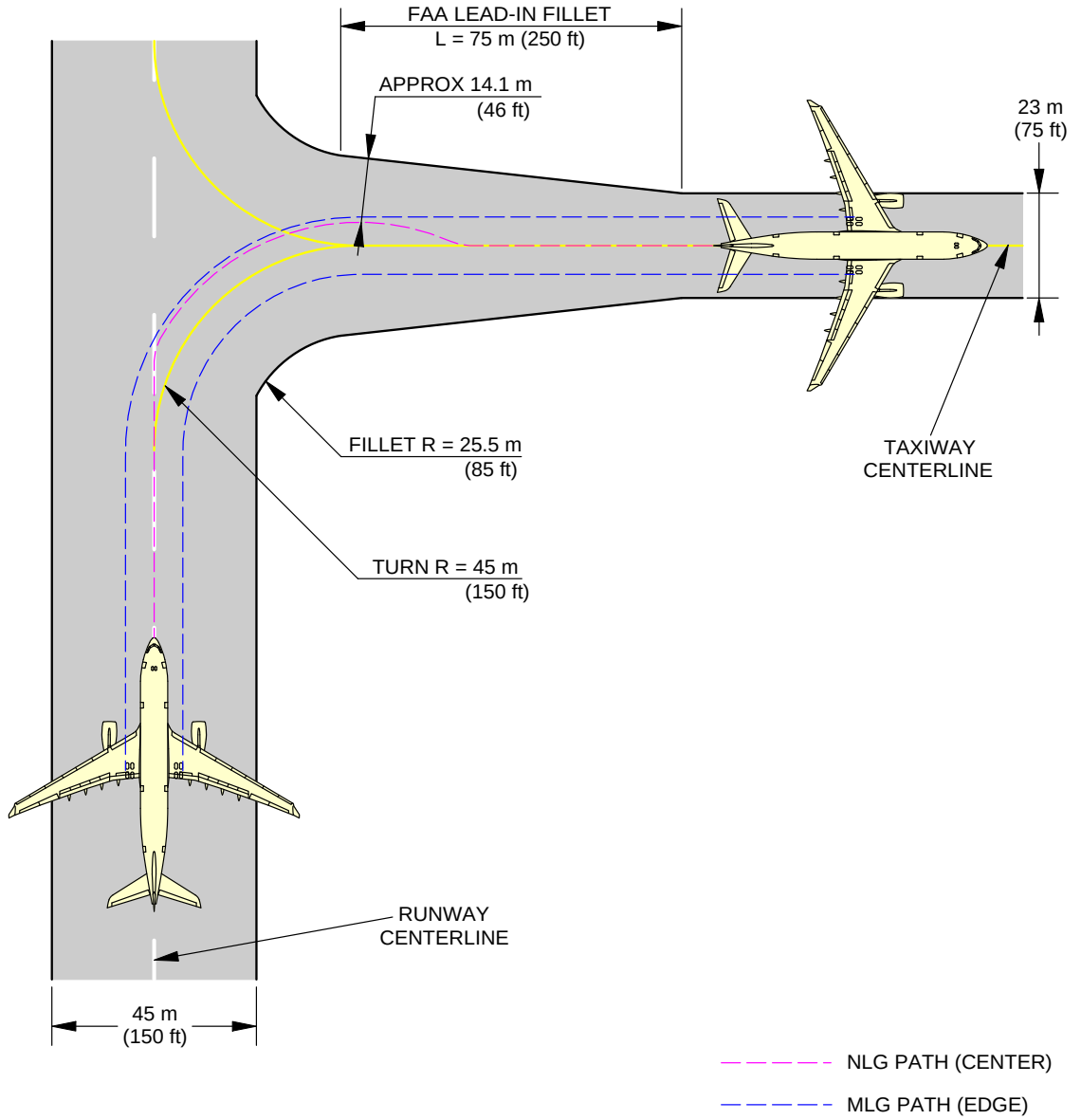
**ON A/C A330-300 A330-900




F_AC_040502_1_0080101_01_01

90° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-2-991-008-A01

**ON A/C A330-200 A330-200F A330-800



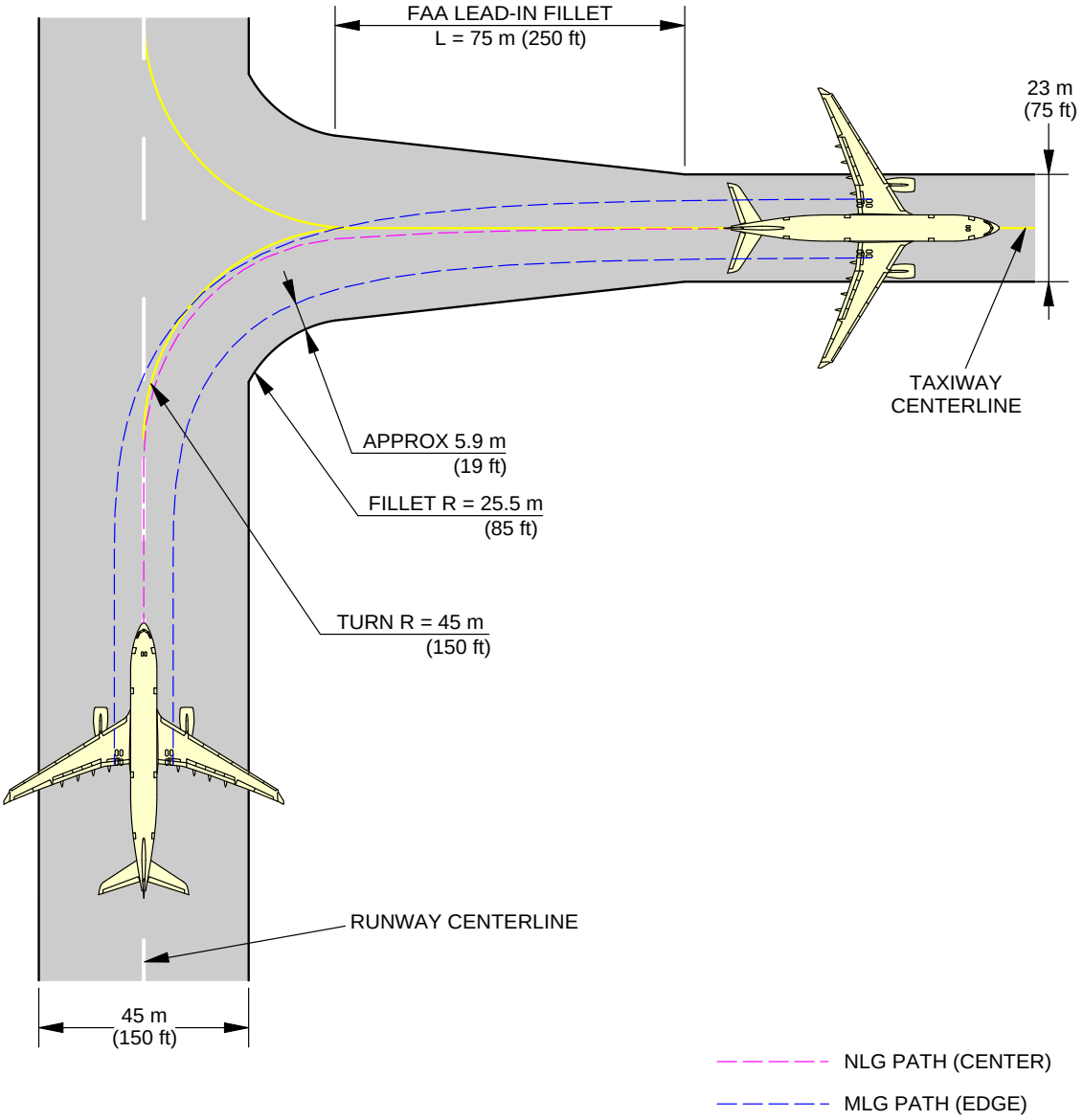

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040502_1_0020101_01_02

90° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-2-991-002-A01

**ON A/C A330-200 A330-200F A330-800




F_AC_040502_1_0090101_01_01

90° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-2-991-009-A01

## 4-5-3 180° Turn on a Runway

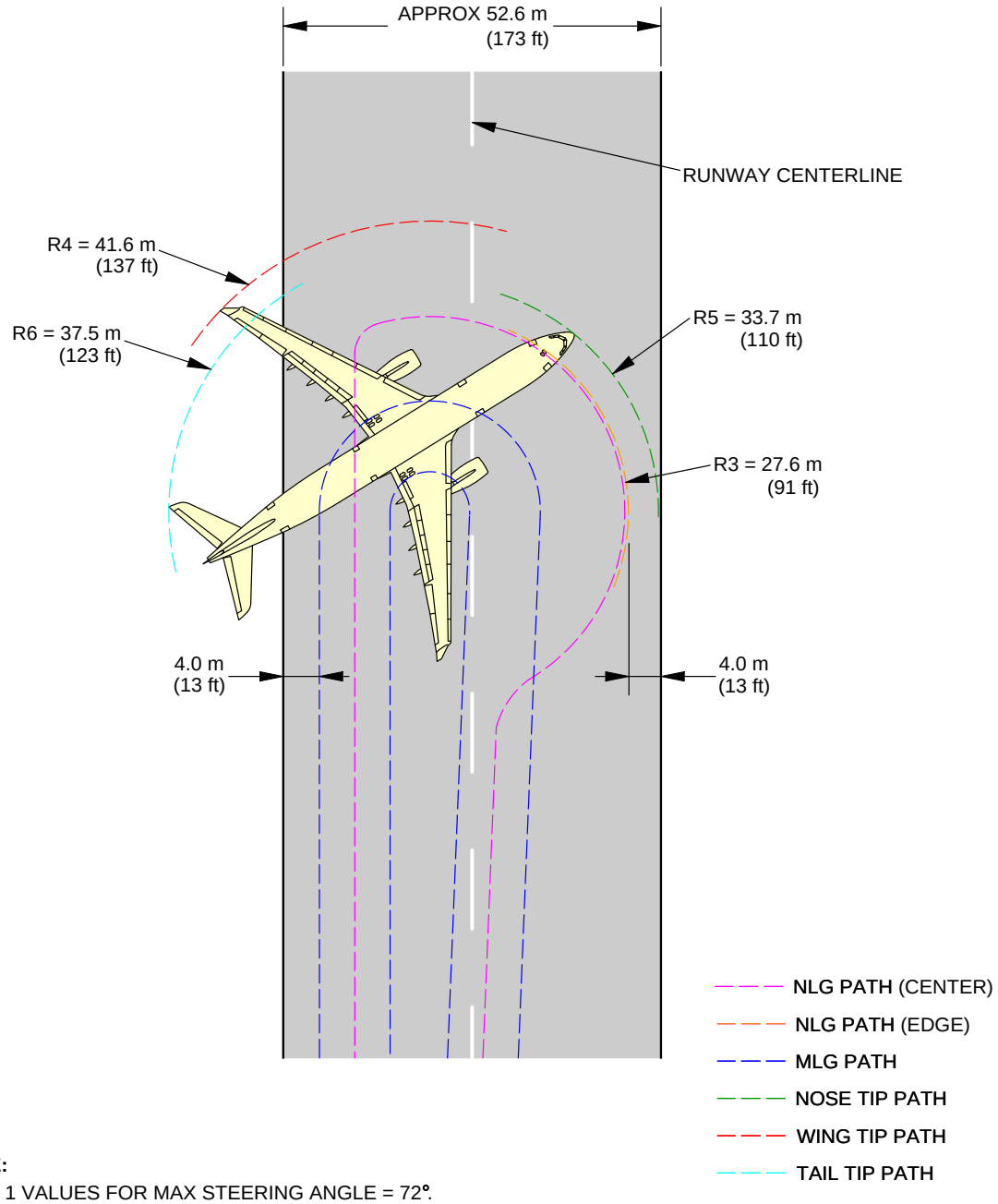
****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

180° Turn on a Runway

1. This section gives the 180° turn on a runway.

NOTE : The turns in this section show turns on a runway after landing and are not aimed to result in good alignment.

**ON A/C A330-300

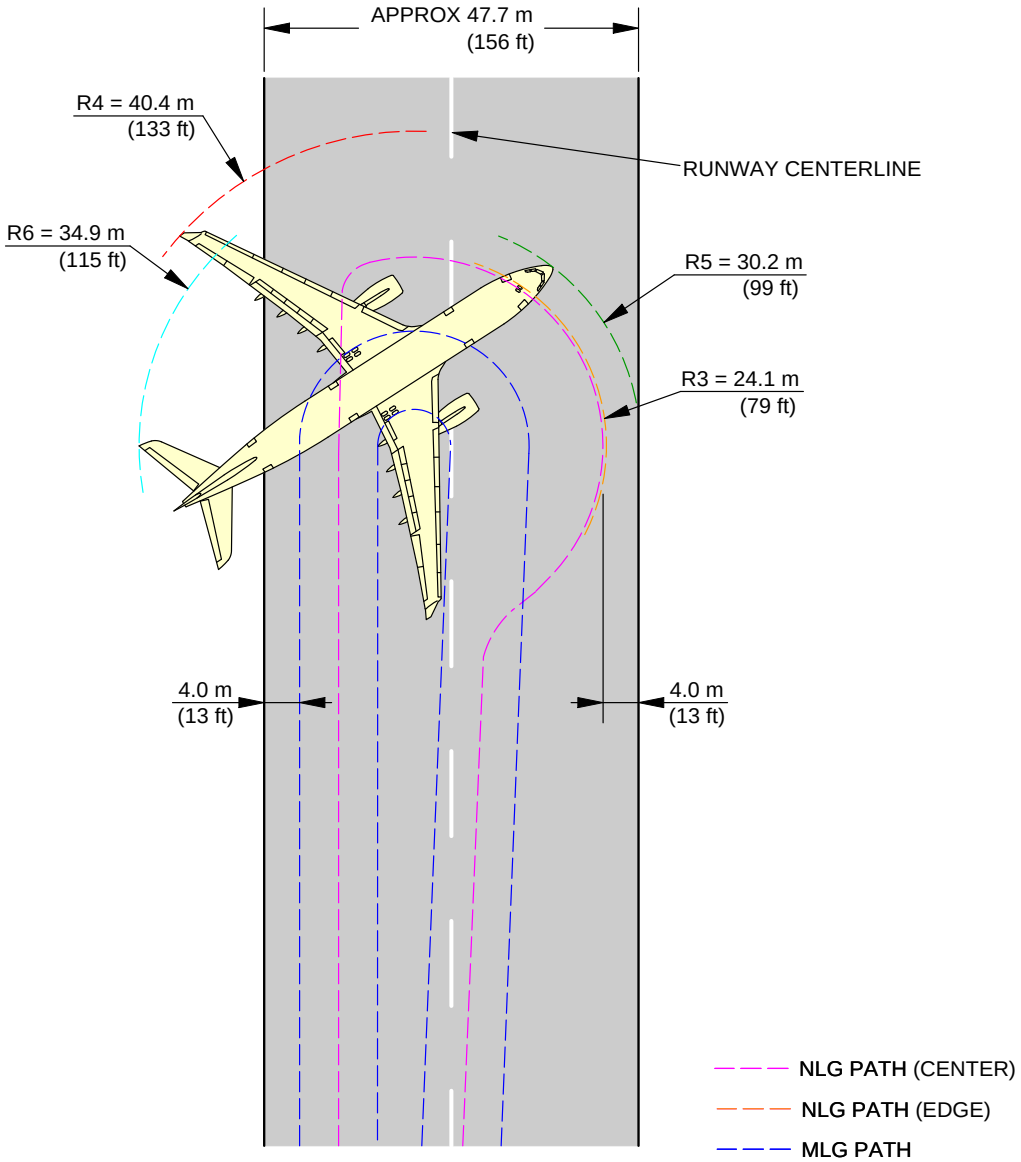



**NOTE:**
TYPE 1 VALUES FOR MAX STEERING ANGLE = 72°.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040503_1_0130101_01_04

180° Turn on a Runway
FIGURE-4-5-3-991-013-A01

**ON A/C A330-200 A330-200F

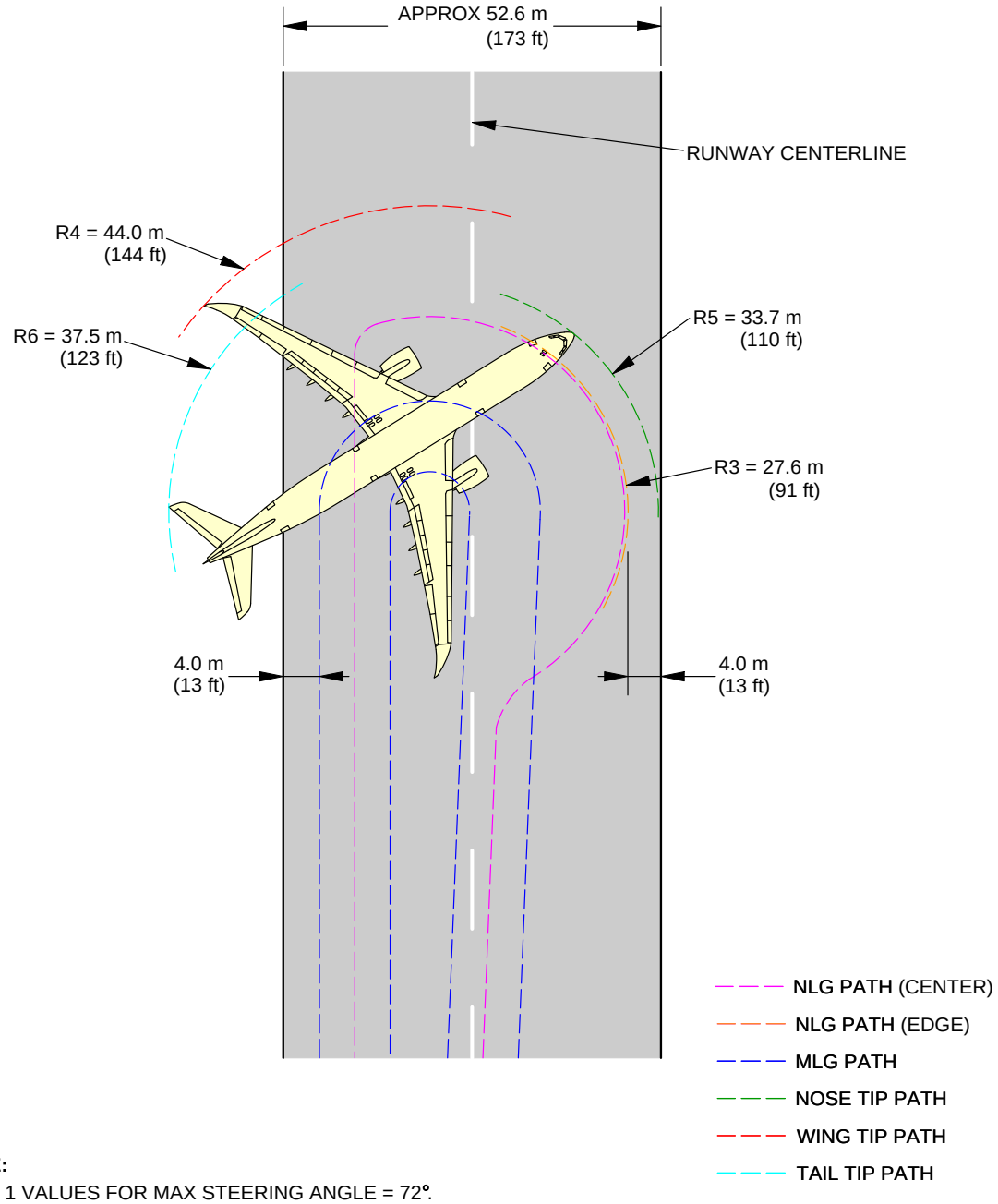



**NOTE:**
TYPE 1 VALUES FOR MAX STEERING ANGLE = 72°.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040503_1_0140101_01_03

180° Turn on a Runway
FIGURE-4-5-3-991-014-A01

**ON A/C A330-900

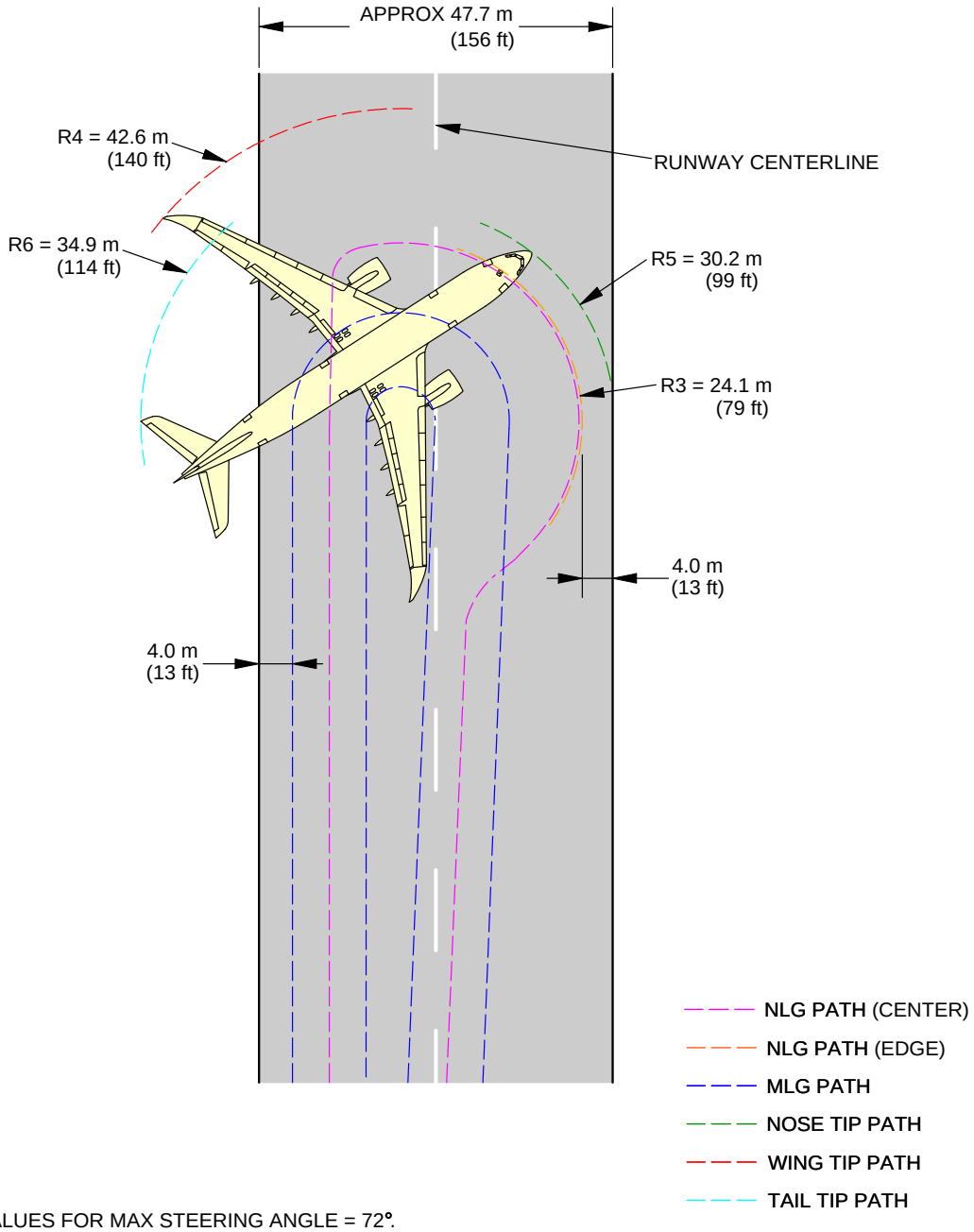



**NOTE:**
TYPE 1 VALUES FOR MAX STEERING ANGLE = 72°.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040503_1_0150101_01_01

180° Turn on a Runway
FIGURE-4-5-3-991-015-A01

**ON A/C A330-800




**NOTE:**
TYPE 1 VALUES FOR MAX STEERING ANGLE = 72°.
IT IS POSSIBLE TO GET LOWER VALUES THAN THOSE FROM TYPE 1 BY APPLYING DIFFERENTIAL BRAKING DURING THE WHOLE TURN.

F_AC_040503_1_0160101_01_01

180° Turn on a Runway
FIGURE-4-5-3-991-016-A01

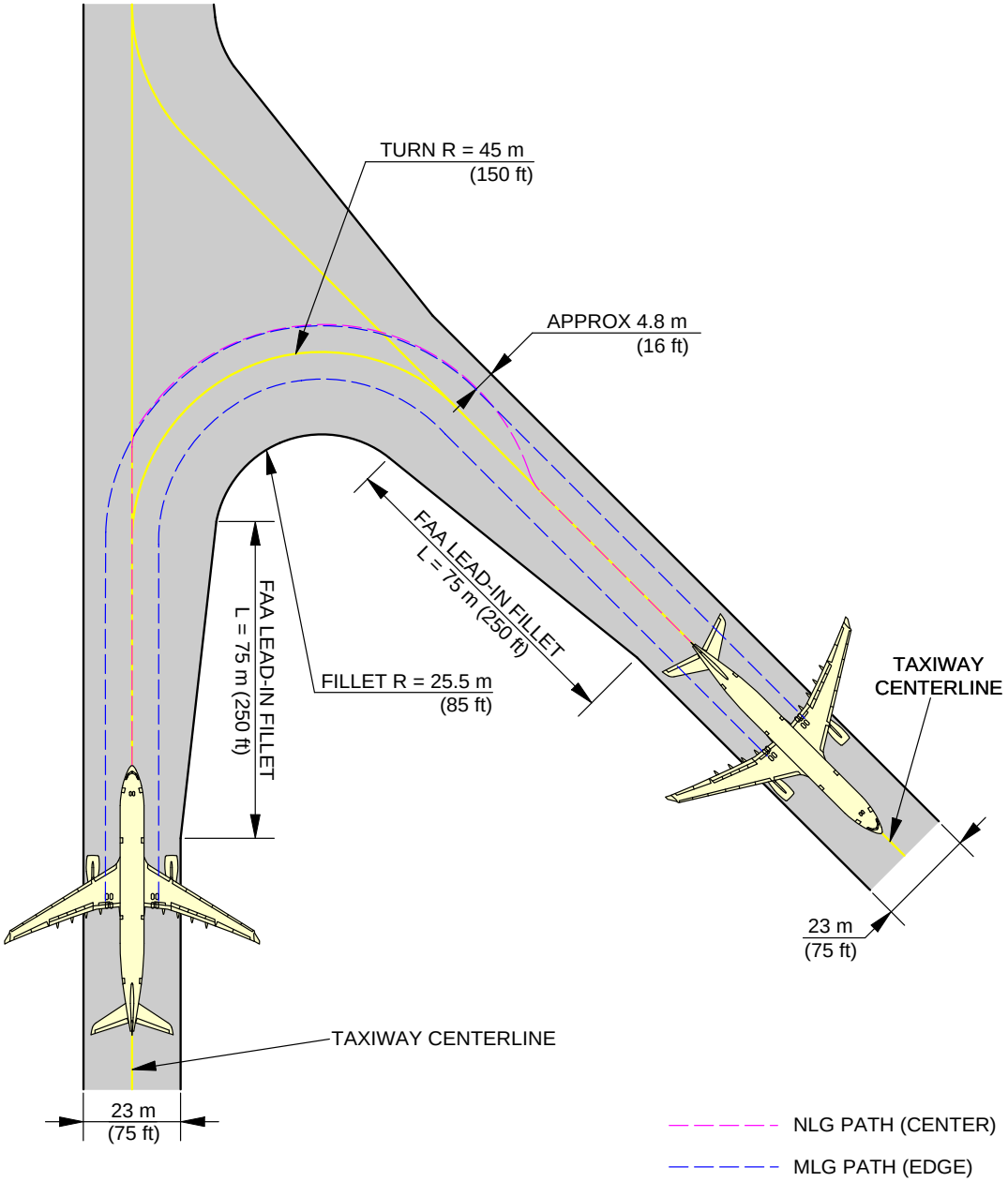
## 4-5-4 135° Turn - Taxiway to Taxiway

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

135° Turn - Taxiway to Taxiway

1. This section gives the 135° turn - taxiway to taxiway.

**ON A/C A330-300 A330-900



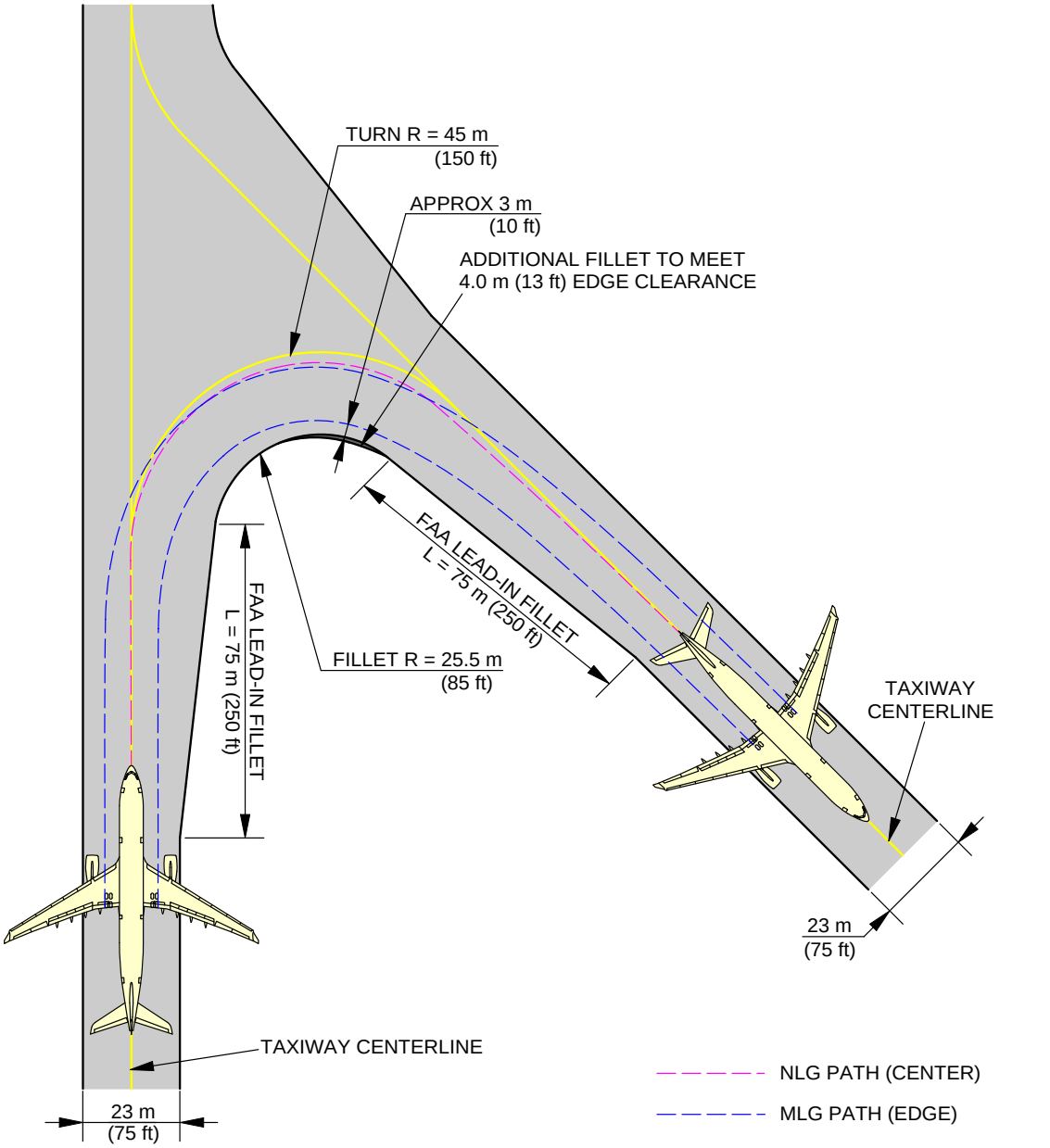

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040504_1_0030101_01_02

135° Turn - Taxiway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-4-991-003-A01

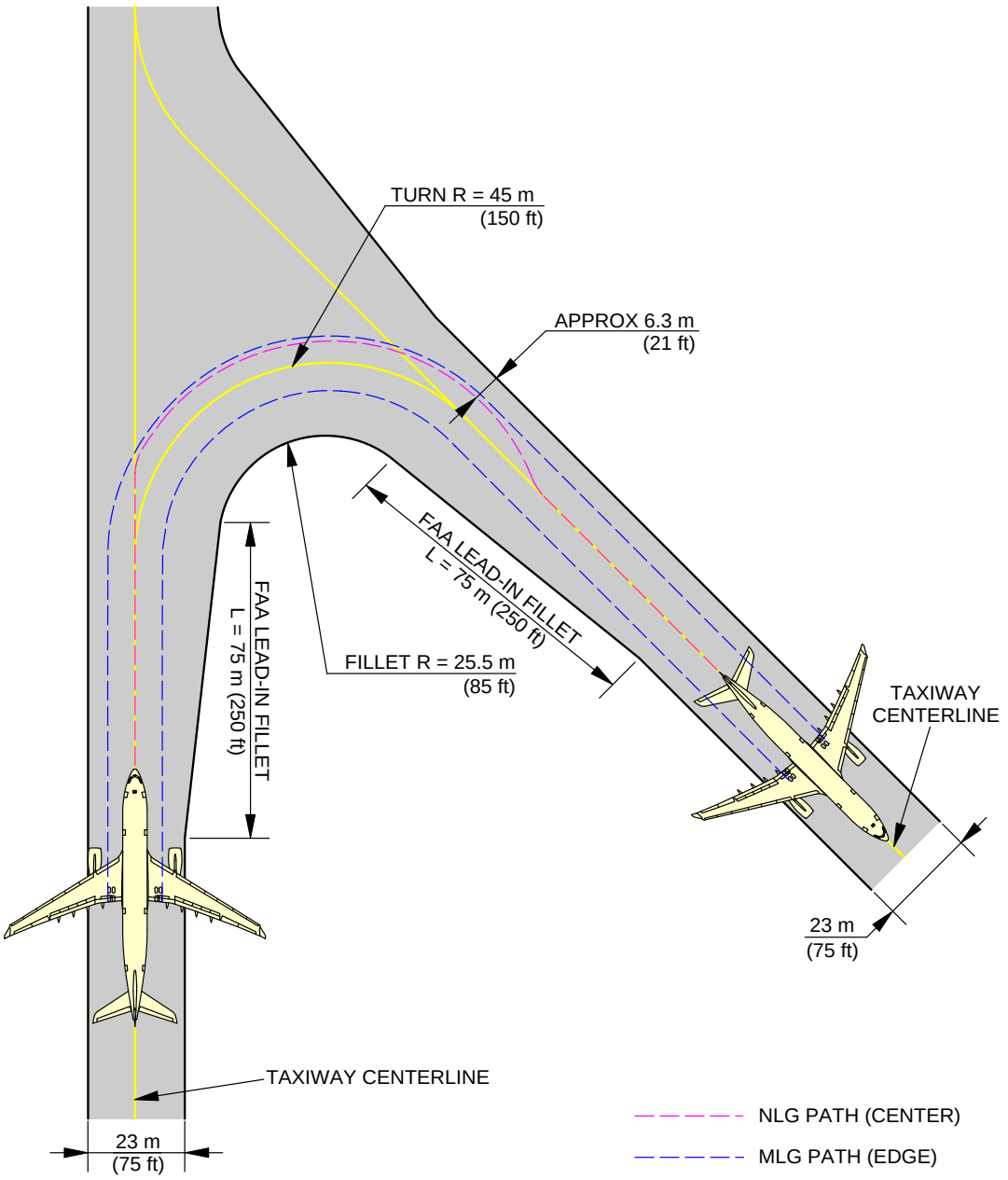
**ON A/C A330-300 A330-900




F_AC_040504_1_0070101_01_01

135° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-4-991-007-A01

**ON A/C A330-200 A330-200F A330-800



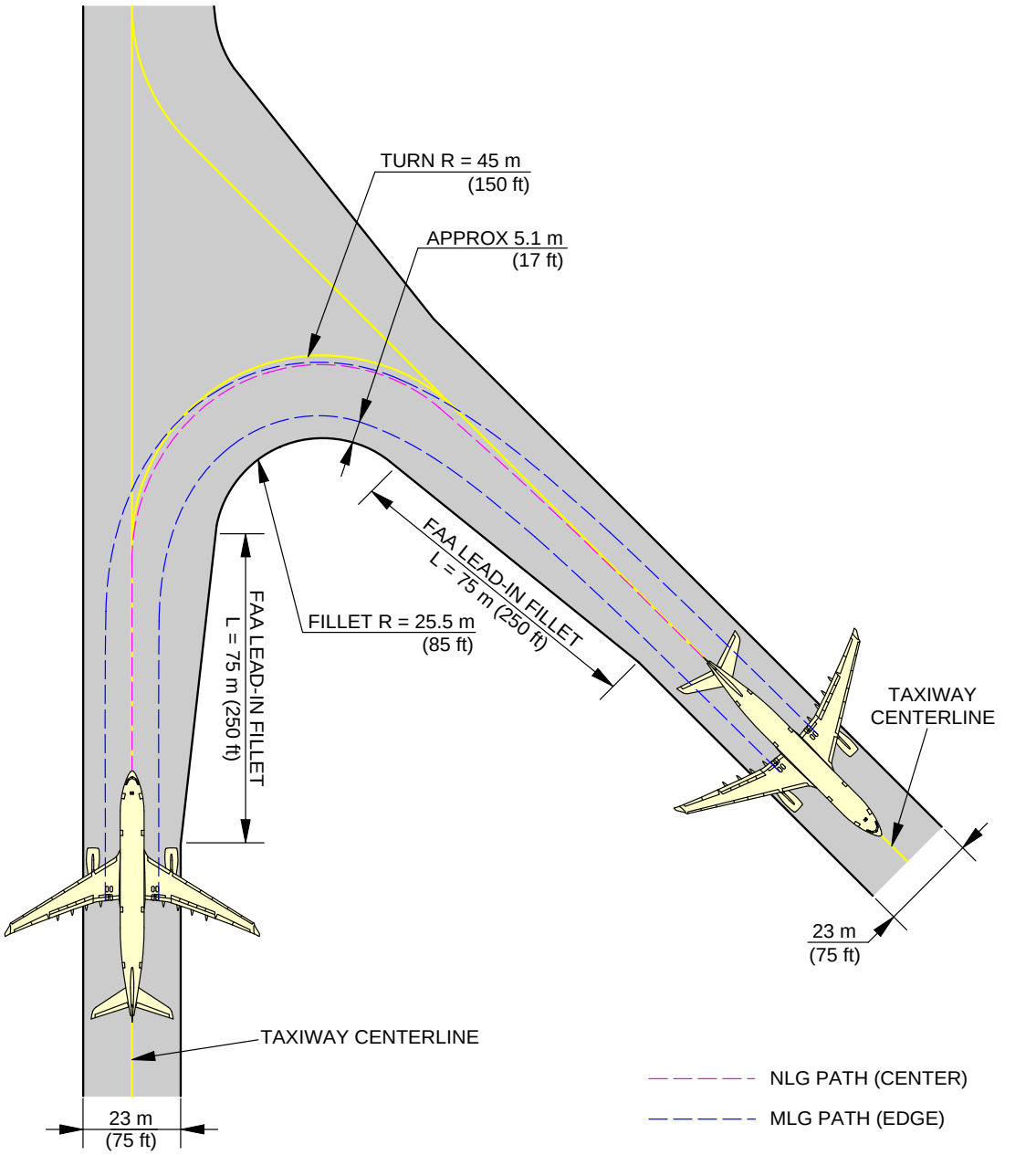

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040504_1_0040101_01_02

135° Turn - Taxiway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-4-991-004-A01

**ON A/C A330-200 A330-200F A330-800




135° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-4-991-008-A01

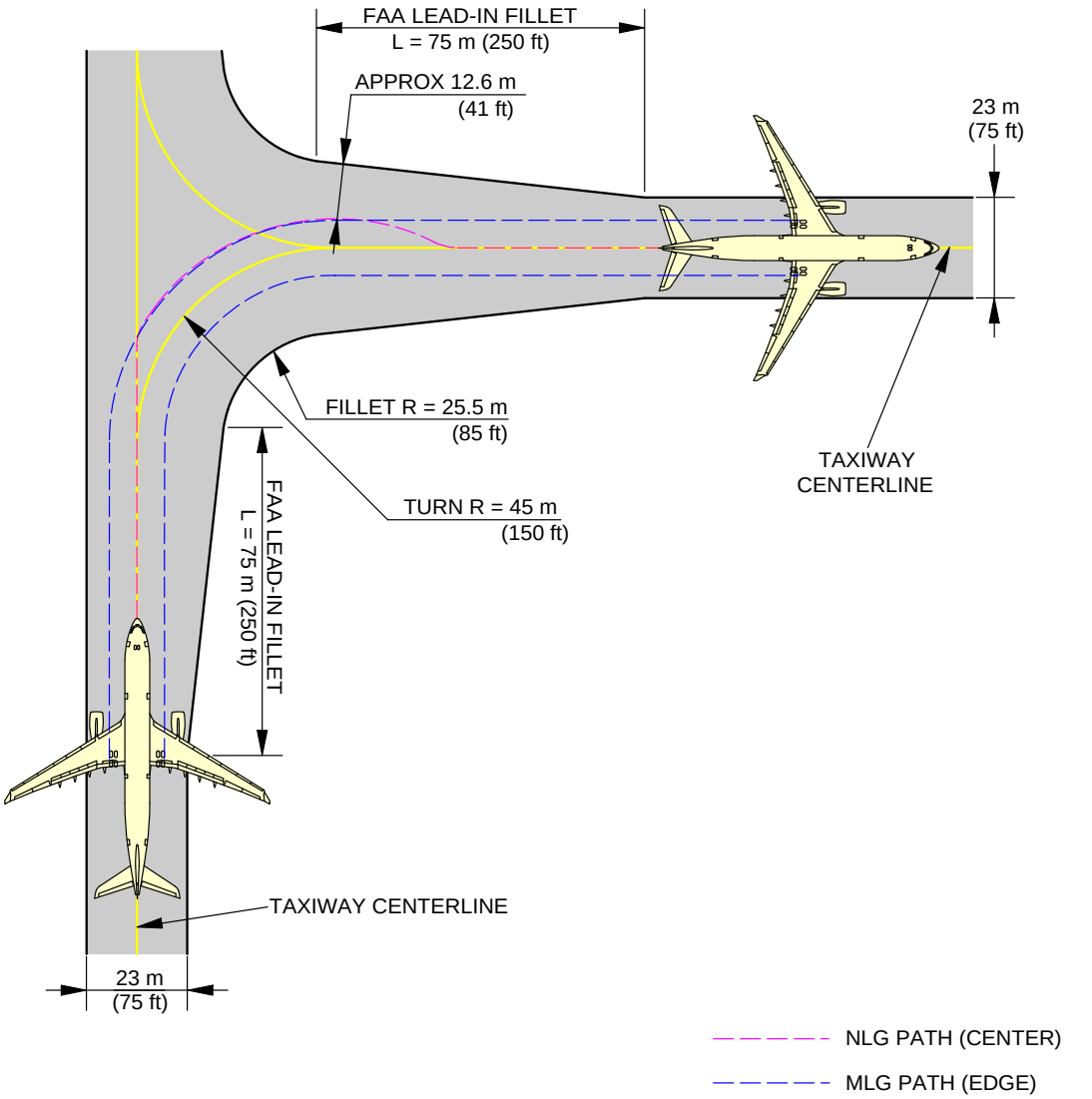
## 4-5-5 90° Turn - Taxiway to Taxiway

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

90° Turn - Taxiway to Taxiway

1. This section gives the 90° turn - taxiway to taxiway.

**ON A/C A330-300 A330-900



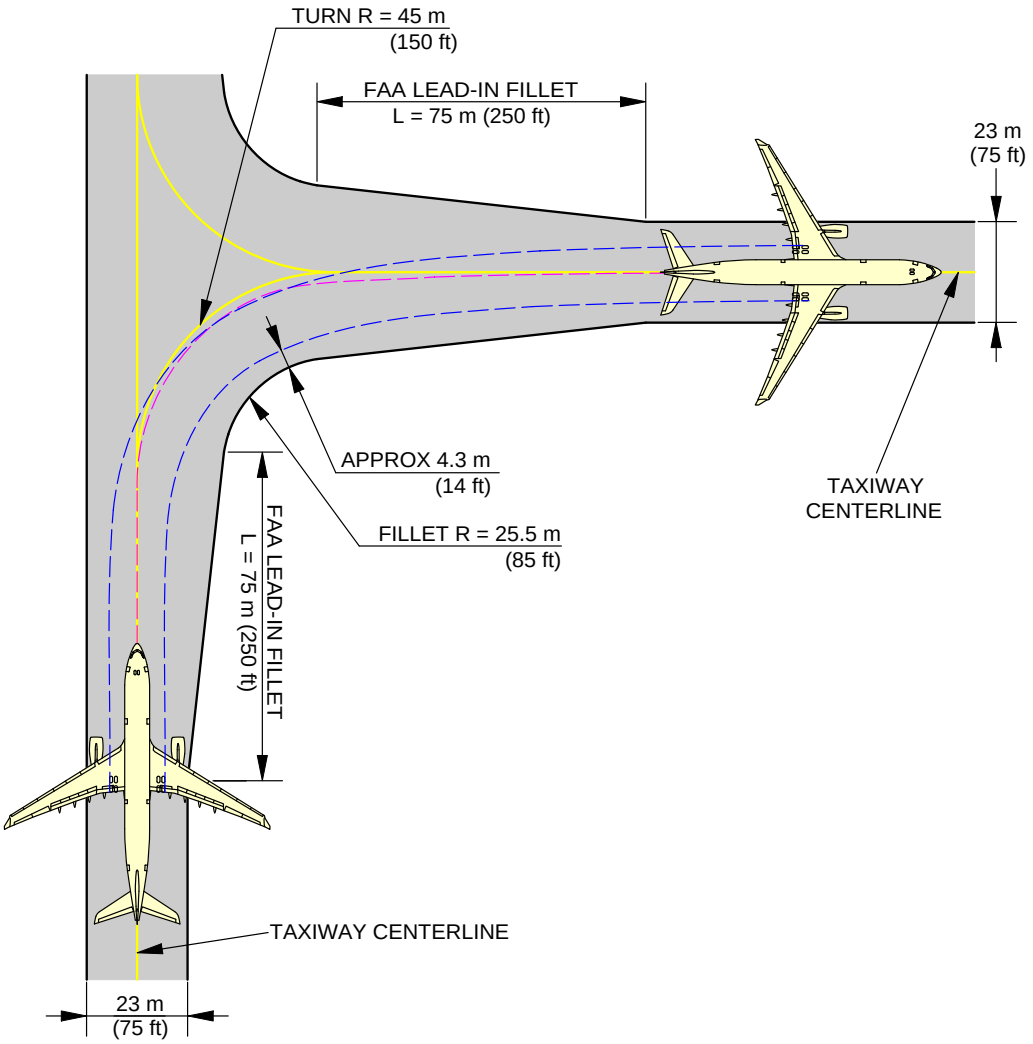

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040505_1_0030101_01_02

90° Turn - Taxiway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-5-991-003-A01

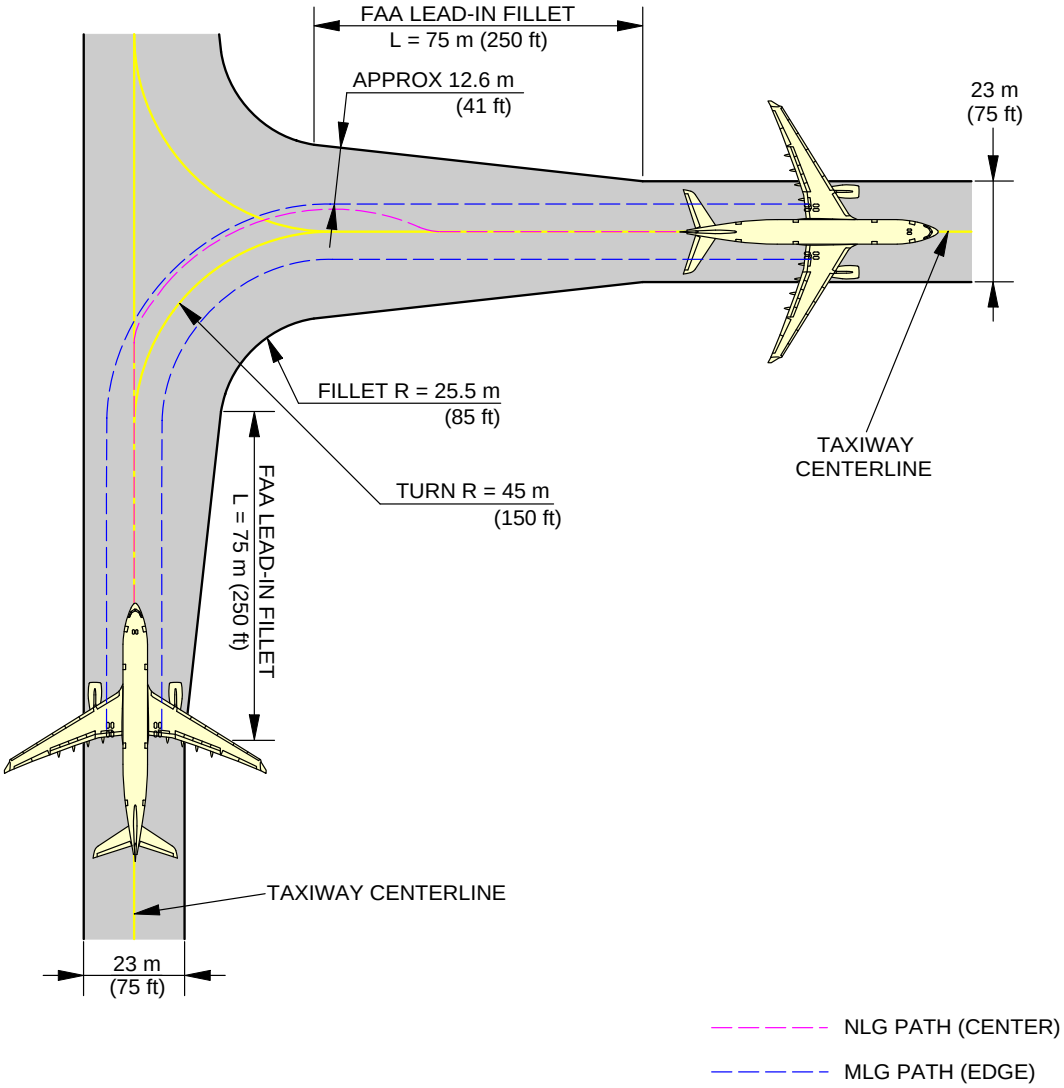
**ON A/C A330-300 A330-900




F_AC_040505_1_0100101_01_01

90° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-5-991-010-A01

**ON A/C A330-200 A330-200F A330-800



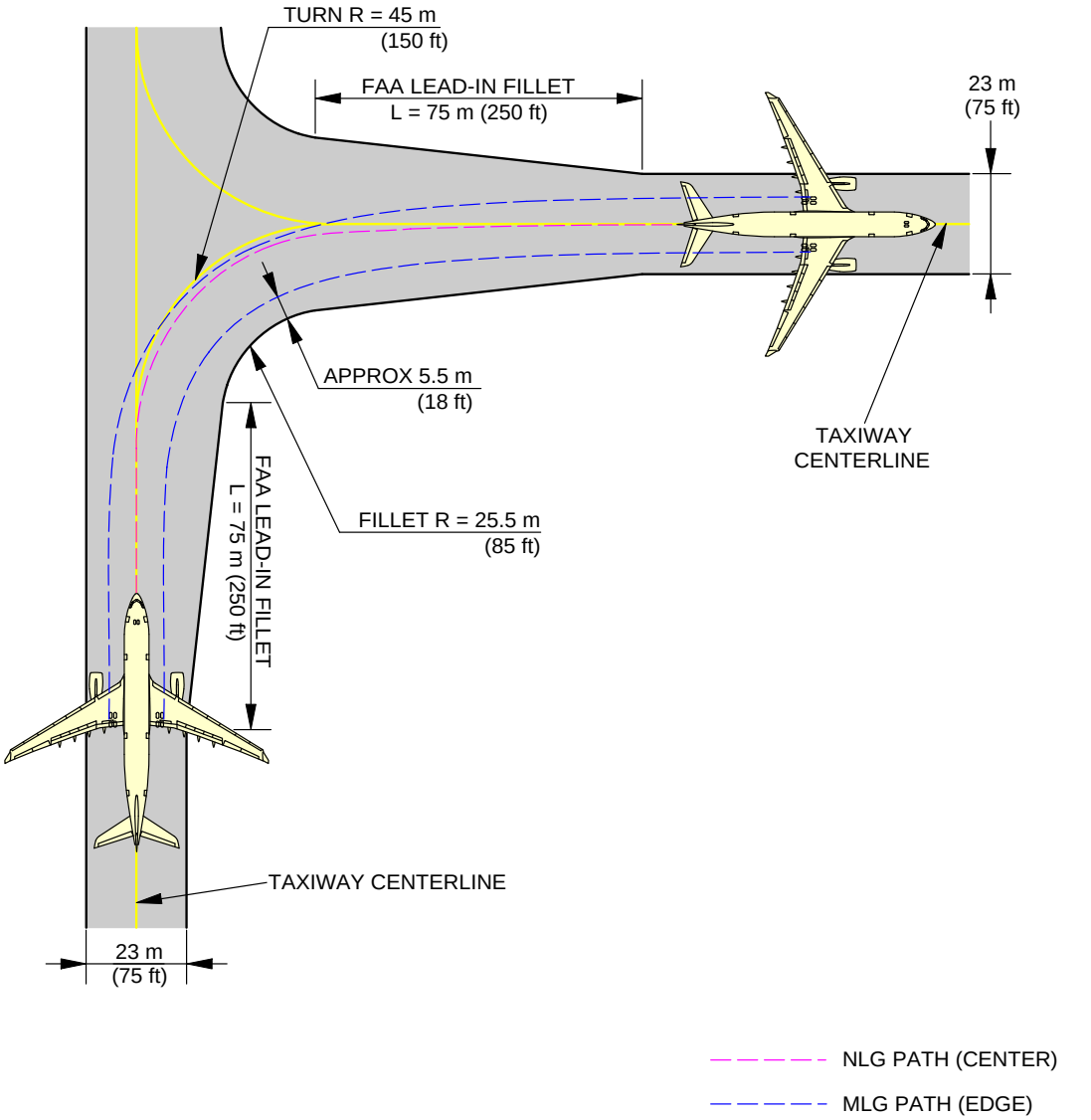

**NOTE:**

THE MLG FOLLOWS THE CENTERLINE.
THE NLG EDGE MARGIN DECREASES BY 0.5 m (2 ft).

F_AC_040505_1_0040101_01_02

90° Turn - Taxiway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-5-991-004-A01

**ON A/C A330-200 A330-200F A330-800




F_AC_040505_1_0110101_01_01

90° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-5-991-011-A01

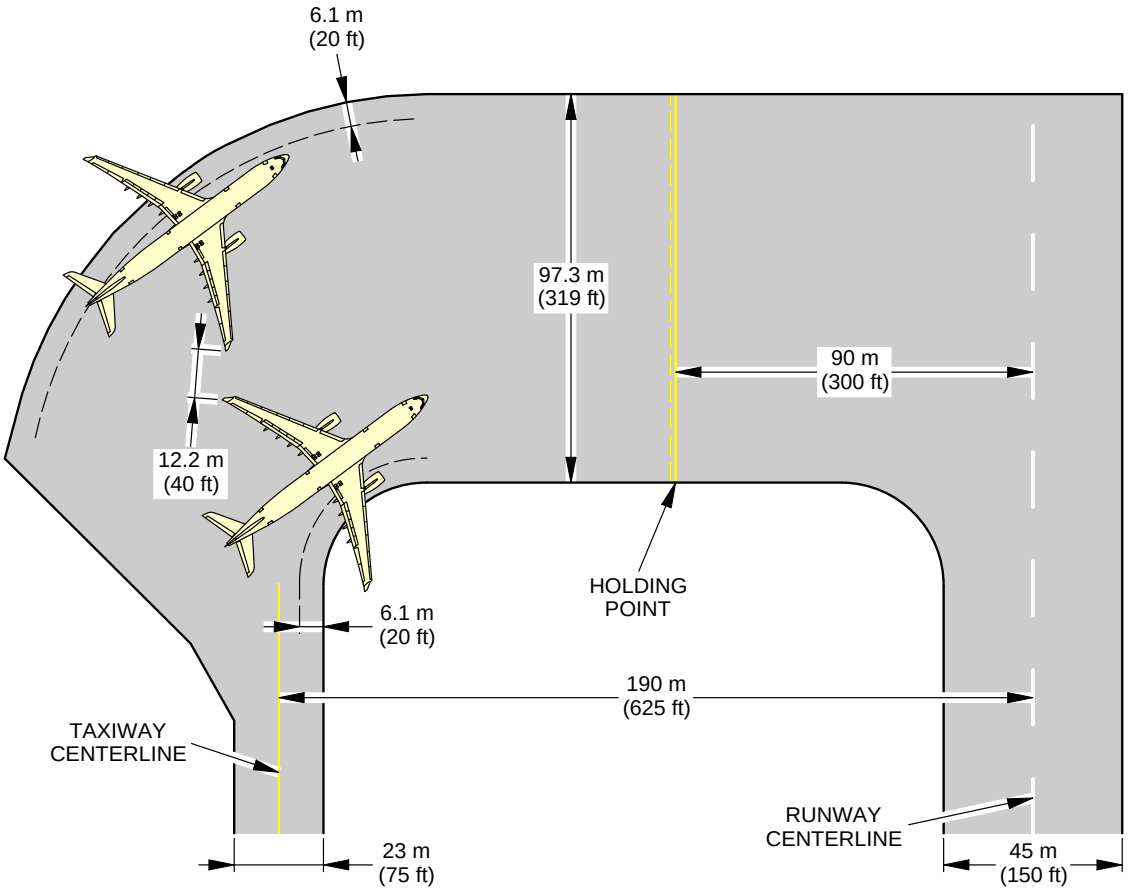
## 4-6-0 Runway Holding Bay (Apron)

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Runway Holding Bay (Apron)

1. This section provides the runway holding bay (Apron).

**ON A/C A330-200 A330-200F A330-300

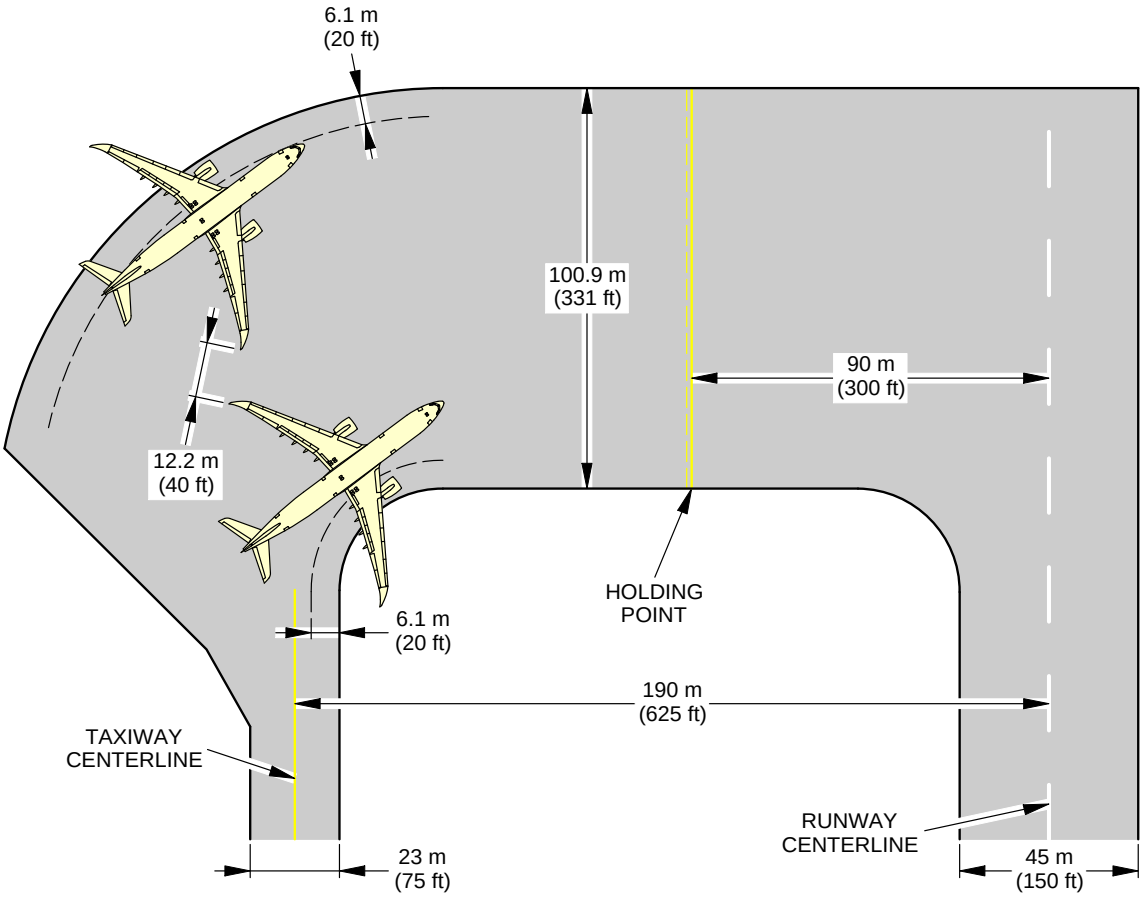



**NOTE:**
COORDINATE WITH USING AIRLINE FOR SPECIFIC PLANNED OPERATING PROCEDURES.

F_AC_040600_1_0010101_01_02

Runway Holding Bay (Apron)
FIGURE-4-6-0-991-001-A01

**ON A/C A330-800 A330-900




**NOTE:**
COORDINATE WITH USING AIRLINE FOR SPECIFIC PLANNED OPERATING PROCEDURES.

F_AC_040600_1_0060101_01_00

Runway Holding Bay (Apron)
FIGURE-4-6-0-991-006-A01

## 4-7-0 Minimum Line-Up Distance Corrections

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Minimum Line-Up Distance Corrections

1. The ground maneuvers were performed using asymmetric thrust and differential-only braking to initiate the turn.

   Maneuvers of this section are calculated with turn characteristics as given in chapter 04-02-00.
   TODA: Take-Off Distance Available
   ASDA: Acceleration-Stop Distance Available

2. 90° Turn on Runway Entry

   This section gives the minimum line-up distance correction for a 90° turn on runway entry.
   This maneuver consists in a 90° turn at minimum turn radius. It starts with the edge of the MLG at a distance of 4.0 m (13 ft) from the taxiway edge, and finishes with the aircraft aligned on the centerline of the runway, see FIGURE 4-7-0-991-019-A.
   During the turn, all the clearances must meet the minimum value of 4.0 m (13 ft) for this category of aircraft as recommended in ICAO Annex 14 (Eighth Edition).

3. 180° Turn on Runway Turn Pad

   This section gives the minimum line-up distance correction for a 180° turn on the runway turn pad.
   This maneuver consists in a 180° turn at minimum turn radius on a runway turn pad with standard ICAO geometry.
   It starts with the edge of the MLG at a distance of 4.0 m (13 ft) from the pavement edge, and it finishes with the aircraft aligned on the centerline of the runway, see FIGURE 4-7-0-991-020-A.
   During the turn, all the clearances must meet the minimum value of 4.0 m (13 ft) for this category of aircraft as recommended in ICAO Annex 14 (Eighth Edition).

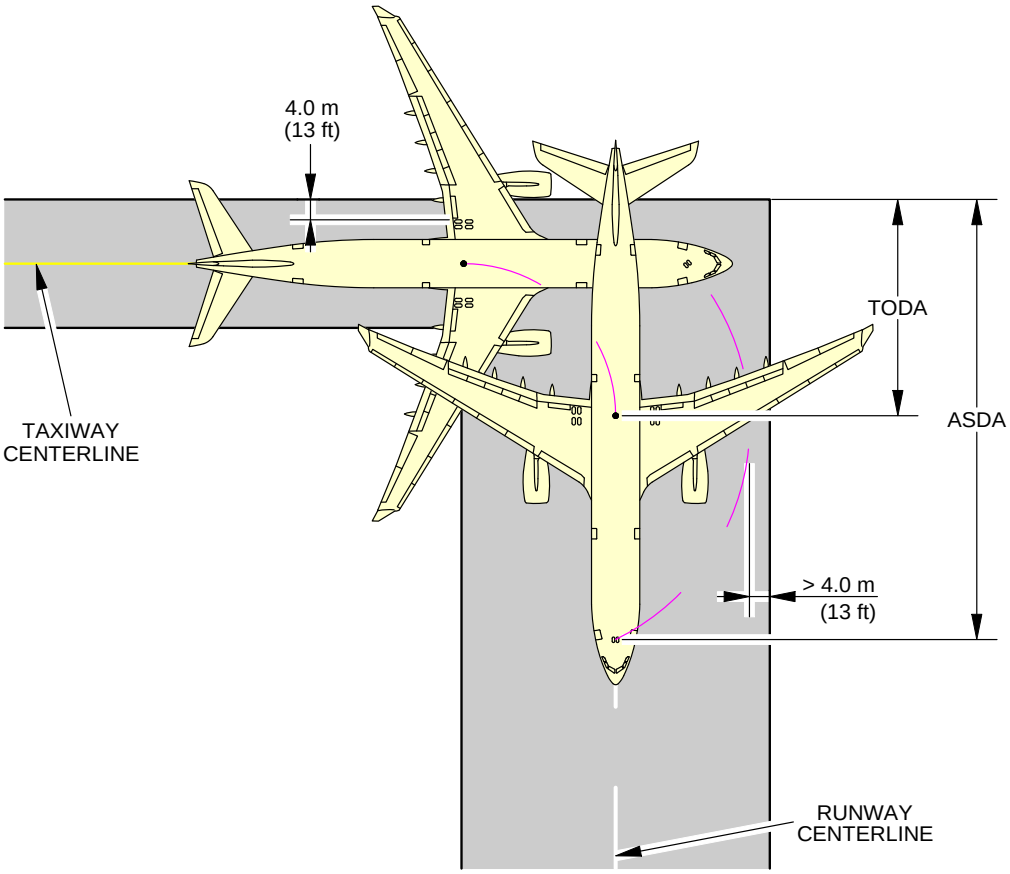
4. 180° Turn on Runway Width

   This section gives the minimum line-up distance correction for a 180° turn on the runway width.
   For this maneuver, the pavement width is considered to be the runway width, which is a frozen parameter (45 m (150 ft) and 60 m (200 ft)).
   As per the standard operating procedures for the ”180° turn on runway” (described in the Flight Crew Operating Manual (FCOM)), the aircraft is initially angled with respect to the runway centerline when starting the 180° turn, see FIGURE 4-7-0-991-021-A.

The value of this angle depends on the aircraft type and is mentioned in the FCOM.
During the turn, all the clearances must meet the minimum value of 4.0 m (13 ft) for this category of aircraft as recommended in ICAO Annex 14 (Eighth Edition).

NOTE : The minimum line-up distances may need a lower steering angle than maximum steering angle.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




| 90° TURN ON RUNWAY ENTRY | | | | | |
|---|---|---|---|---|---|
| AIRCRAFT TYPE | MAX STEERING ANGLE | 45 m (150 ft)/60 m (200 ft) WIDE RUNWAY | | | |
| | | MINIMUM LINE-UP DISTANCE CORRECTION | | | |
| | | ON TODA | | ON ASDA | |
| A330-200/-200F | 65° | 22.0 m | 72 ft | 44.5 m | 146 ft |
| A330-200/-200F/-800 | 72° | 19.2 m | 63 ft | 41.4 m | 136 ft |
| A330-300 | 65° | 23.7 m | 78 ft | 49.1 m | 161 ft |
| A330-300/-900 | 72° | 20.7 m | 68 ft | 46.0 m | 151 ft |

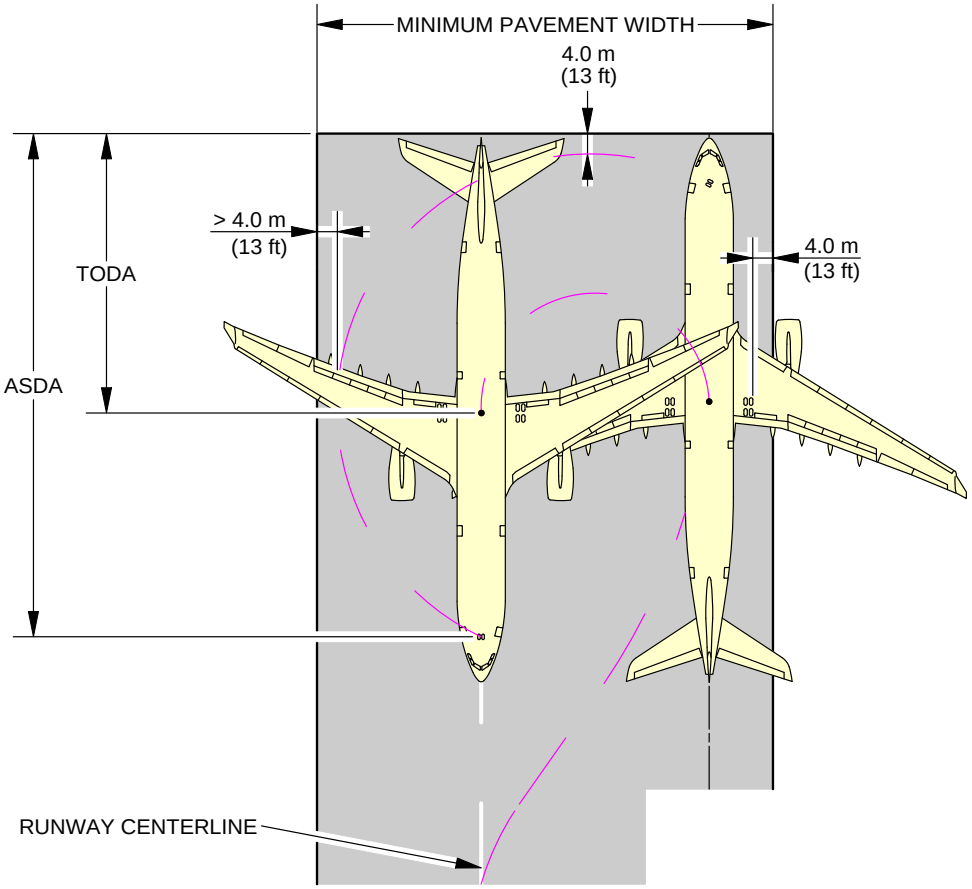
**NOTE:**

ASDA: ACCELERATION-STOP DISTANCE AVAILABLE
TODA: TAKE-OFF DISTANCE AVAILABLE

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Minimum Line-Up Distance Corrections
90° Turn on Runway Entry
FIGURE-4-7-0-991-019-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




| 180° TURN ON RUNWAY TURNPAD | | | | | | | |
|---|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | MAX STEERING ANGLE | 45 m (150 ft)/60 m (200 ft) WIDE RUNWAY MINIMUM LINE-UP DISTANCE CORRECTION | | | | REQUIRED MINIMUM PAVEMENT WIDTH | |
| | | ON TODA | | ON ASDA | | | |
| A330-200/-200F | 65° | 29.6 m | 97 ft | 51.2 m | 168 ft | 56.2 m | 184 ft |
| A330-200/-200F/-800 | 72° | 28.4 m | 93 ft | 50.6 m | 166 ft | 50.6 m | 166 ft |
| A330-300 | 65° | 33.2 m | 109 ft | 58.6 m | 192 ft | 59.7 m | 196 ft |
| A330-300/-900 | 72° | 31.9 m | 105 ft | 57.3 m | 188 ft | 53.5 m | 176 ft |

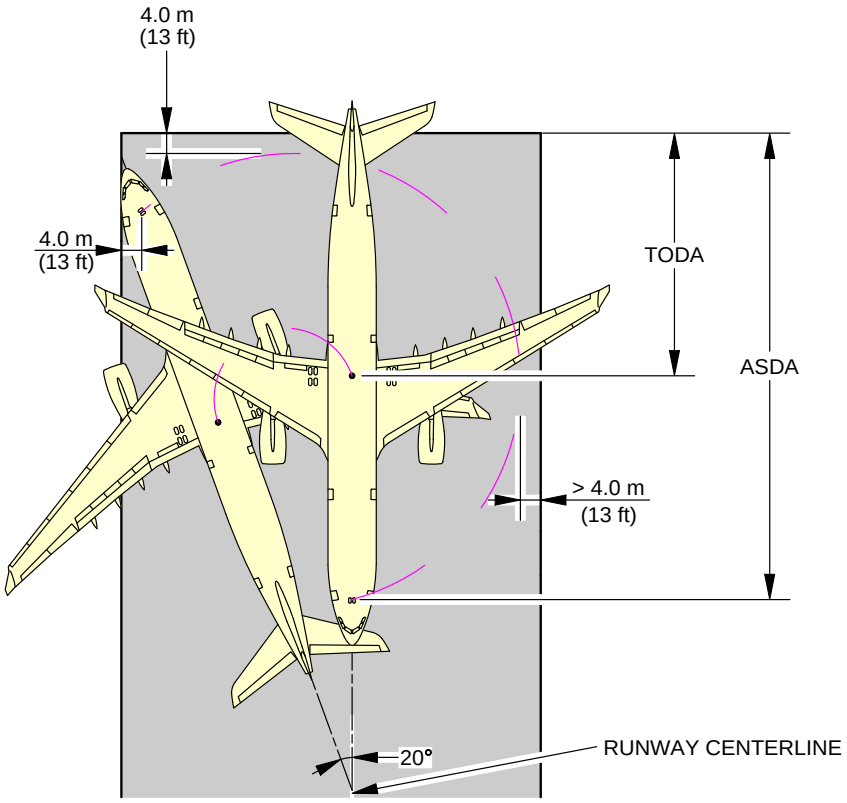
**NOTE:**

ASDA: ACCELERATION-STOP DISTANCE AVAILABLE
TODA: TAKE-OFF DISTANCE AVAILABLE

F_AC_040700_1_0200101_01_02

Minimum Line-Up Distance Corrections
180° Turn on Runway Turn Pad
FIGURE-4-7-0-991-020-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




| 180° TURN ON RUNWAY WIDTH | | | | | | | |
|---|---|---|---|---|---|---|---|
| AIRCRAFT TYPE | MAX STEERING ANGLE | 45 m (150 ft) WIDE RUNWAY (STANDARD WIDTH) | | 60 m (200 ft) WIDE RUNWAY | | | |
| | | MINIMUM LINE-UP DISTANCE CORRECTION | | MINIMUM LINE-UP DISTANCE CORRECTION | | | |
| | | ON TODA | ON ASDA | ON TODA | | ON ASDA | |
| A330-200/-200F | 65° | NOT POSSIBLE | | 43.3 m | 142 ft | 65.5 m | 215 ft |
| A330-200/-200F/-800 | 72° | | | 28.4 m | 93 ft | 50.6 m | 166 ft |
| A330-300 | 65° | | | 53.2 m | 175 ft | 78.6 m | 258 ft |
| A330-300/-900 | 72° | | | 42.6 m | 140 ft | 68.0 m | 223 ft |

**NOTE:**

ASDA: ACCELERATION-STOP DISTANCE AVAILABLE
TODA: TAKE-OFF DISTANCE AVAILABLE

F_AC_040700_1_0210101_01_02

Minimum Line-Up Distance Corrections
180° Turn on Runway Width
FIGURE-4-7-0-991-021-A01

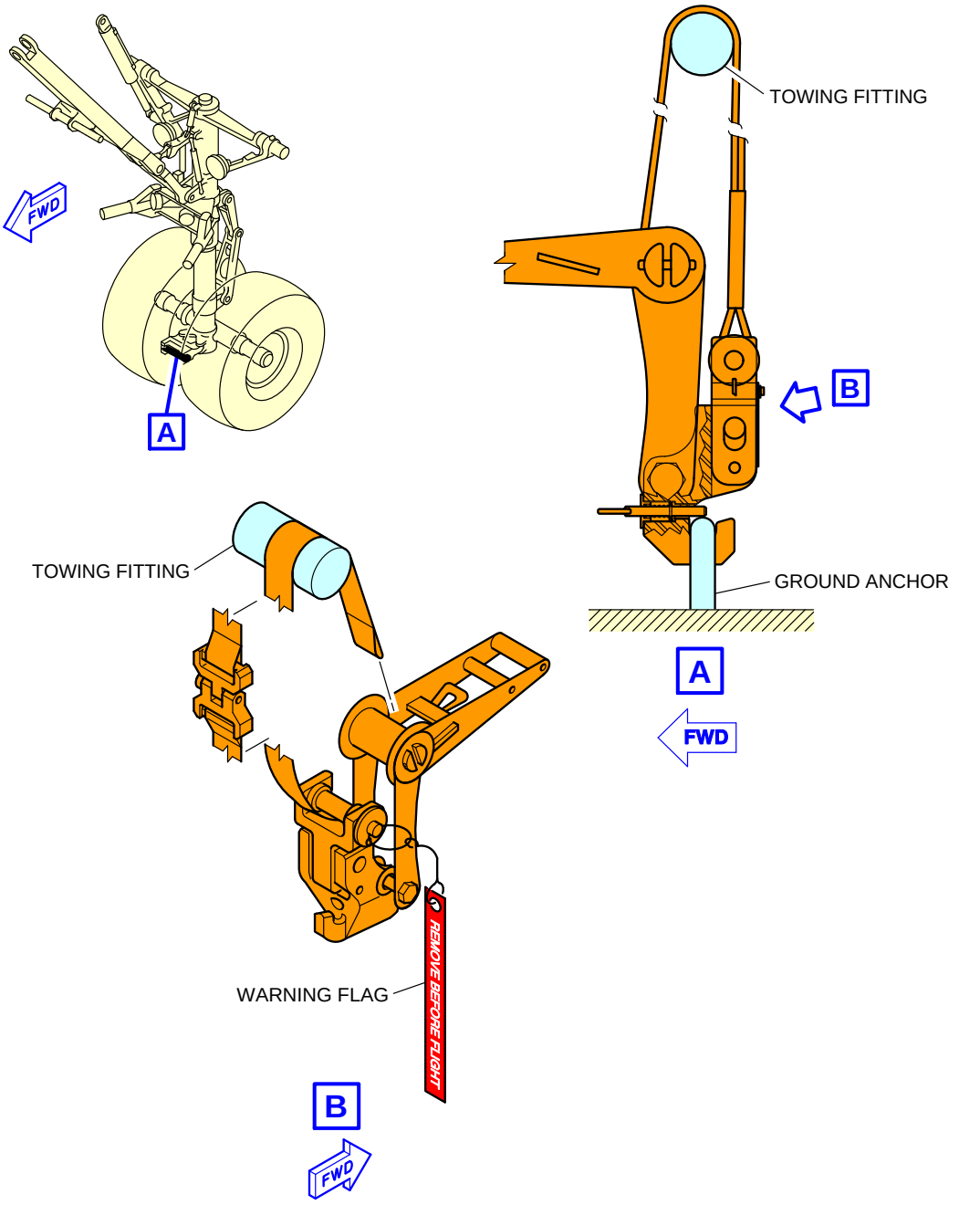
## 4-8-0 Aircraft Mooring

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Aircraft Mooring

1. This section provides information on aircraft mooring.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Aircraft Mooring
FIGURE-4-8-0-991-001-A01

# TERMINAL SERVICING

## 5-1-0 Aircraft Servicing Arrangements

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Aircraft Servicing Arrangements

1. This section provides typical ramp layouts, showing the various GSE items in position during typical turn-round scenarios for passenger and cargo aircraft.

   These ramp layouts show typical arrangements only. Each operator will have its own specific requirements/regulations for positioning and operation on the ramp.

## 5-1-1 Symbols Used on Servicing Diagrams

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Symbols Used on Servicing Diagrams

1. This table gives the symbols used on servicing diagrams.

| Ground Support Equipment | |
|---|---|
| AC | AIR CONDITIONING UNIT |
| AS | AIR START UNIT |
| BULK | BULK TRAIN |
| CAT | CATERING TRUCK |
| CB | CONVEYOR BELT |
| CLEAN | CLEANING TRUCK |
| FUEL | FUEL HYDRANT DISPENSER or TANKER |
| GPU | GROUND POWER UNIT |
| LD CL | LOWER DECK CARGO LOADER |
| LV | LAVATORY VEHICLE |
| MD CL (A330-200F only) | MAIN DECK CARGO LOADER |
| PBB | PASSENGER BOARDING BRIDGE |
| PS | PASSENGER STAIRS |
| TOW | TOW TRACTOR |
| ULD | ULD TRAIN |
| WV | POTABLE WATER VEHICLE |

## 5-1-2 Typical Ramp Layout - Open Apron

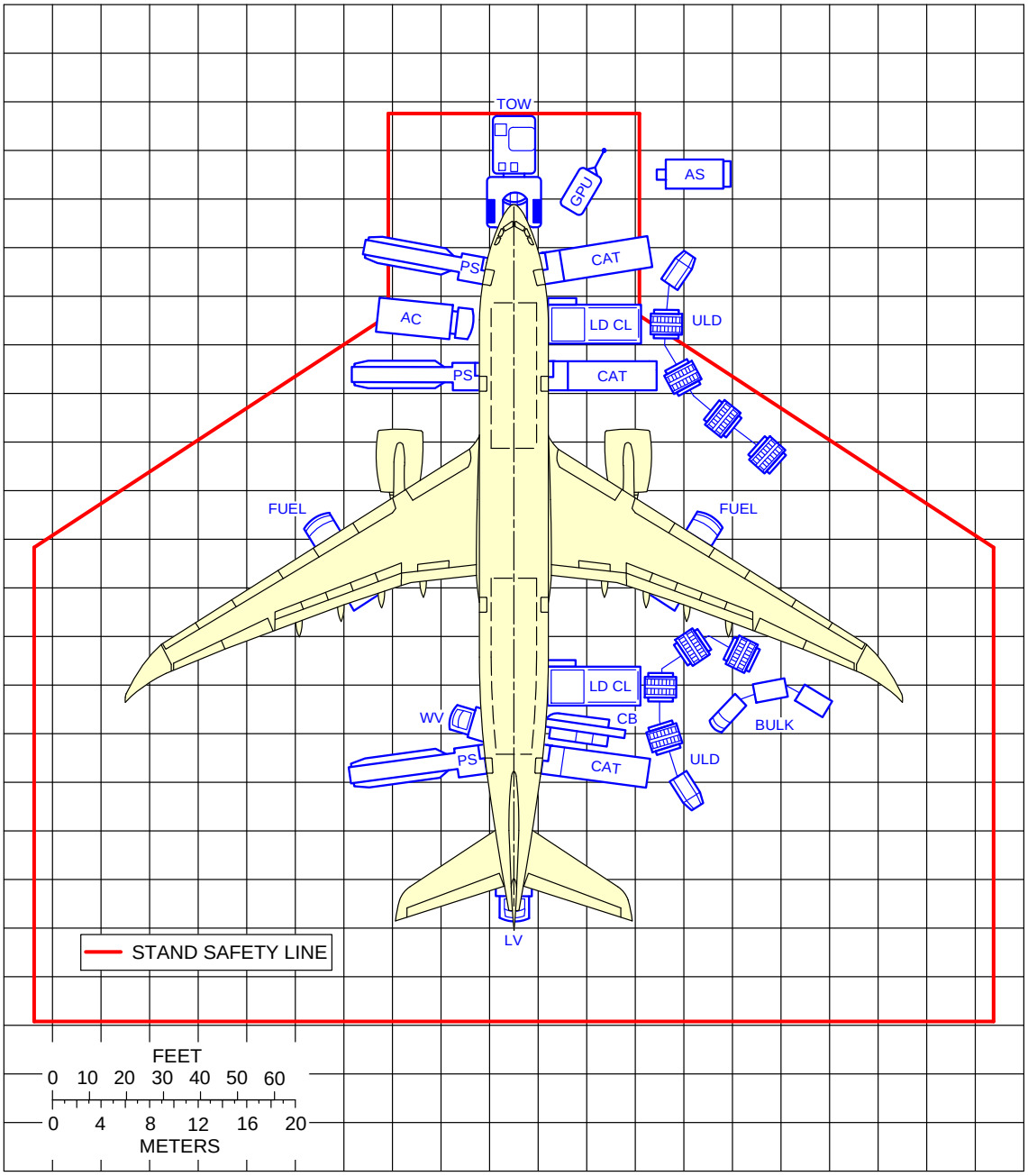
****ON A/C A330-200 A330-300 A330-800 A330-900**

Typical Ramp Layout - Open Apron

1. This section provides the typical servicing arrangements on the open apron, for the passenger version of the aircraft.

   The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m (24.61 ft) from the aircraft). No vehicle must be parked in this area before complete stop of the aircraft (wheel chocks in position on landing gears).

**ON A/C A330-200 A330-800

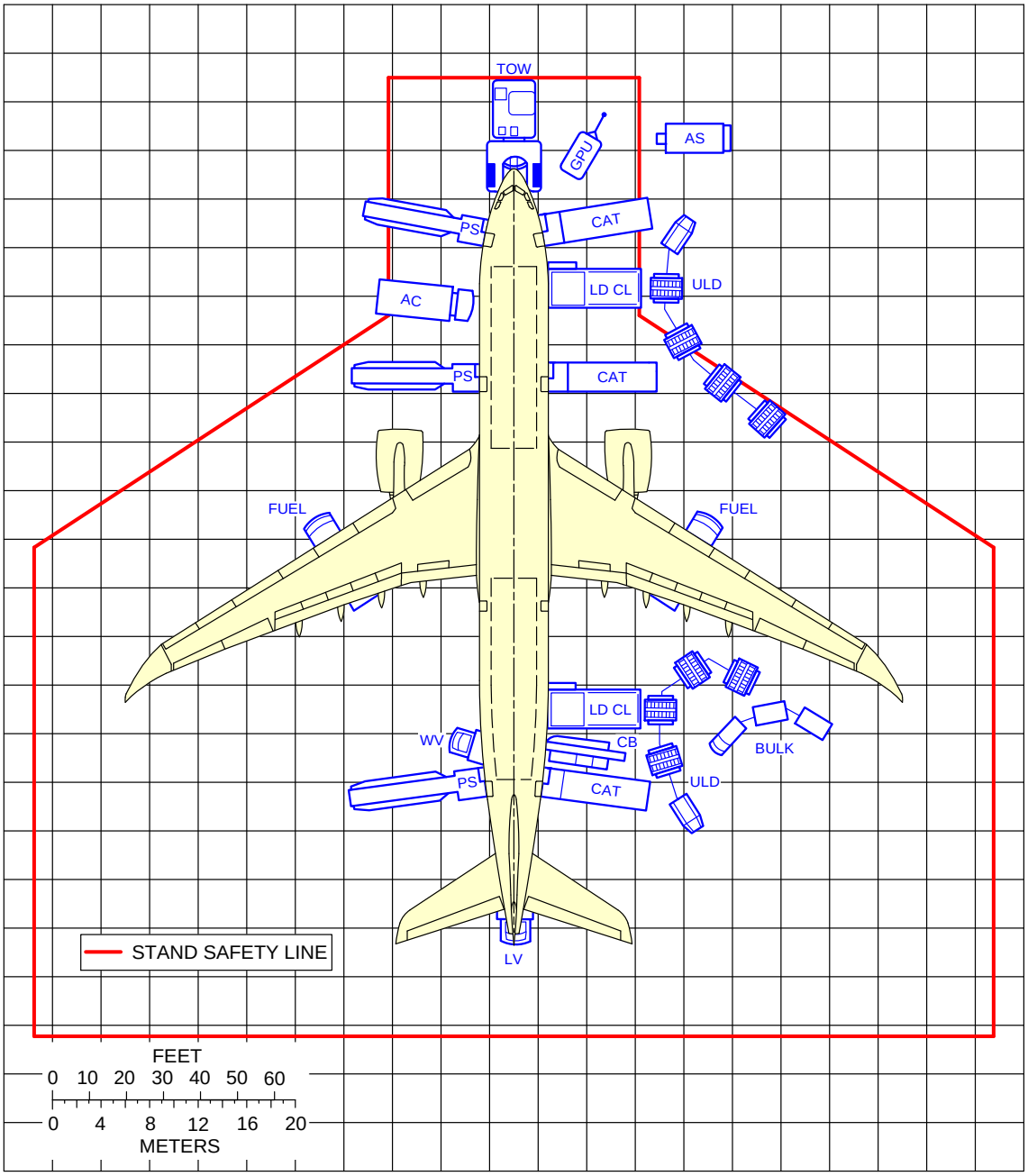



**NOTE:**
TYPICAL RAMP LAYOUT APPLICABLE TO A330-200 AND A330-800.

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Typical Ramp Layout
Open Apron
FIGURE-5-1-2-991-001-A01

**ON A/C A330-300 A330-900




**NOTE:**
TYPICAL RAMP LAYOUT APPLICABLE TO A330-300 AND A330-900.

F_AC_050102_1_0070101_01_02

Typical Ramp Layout
Open Apron
FIGURE-5-1-2-991-007-A01

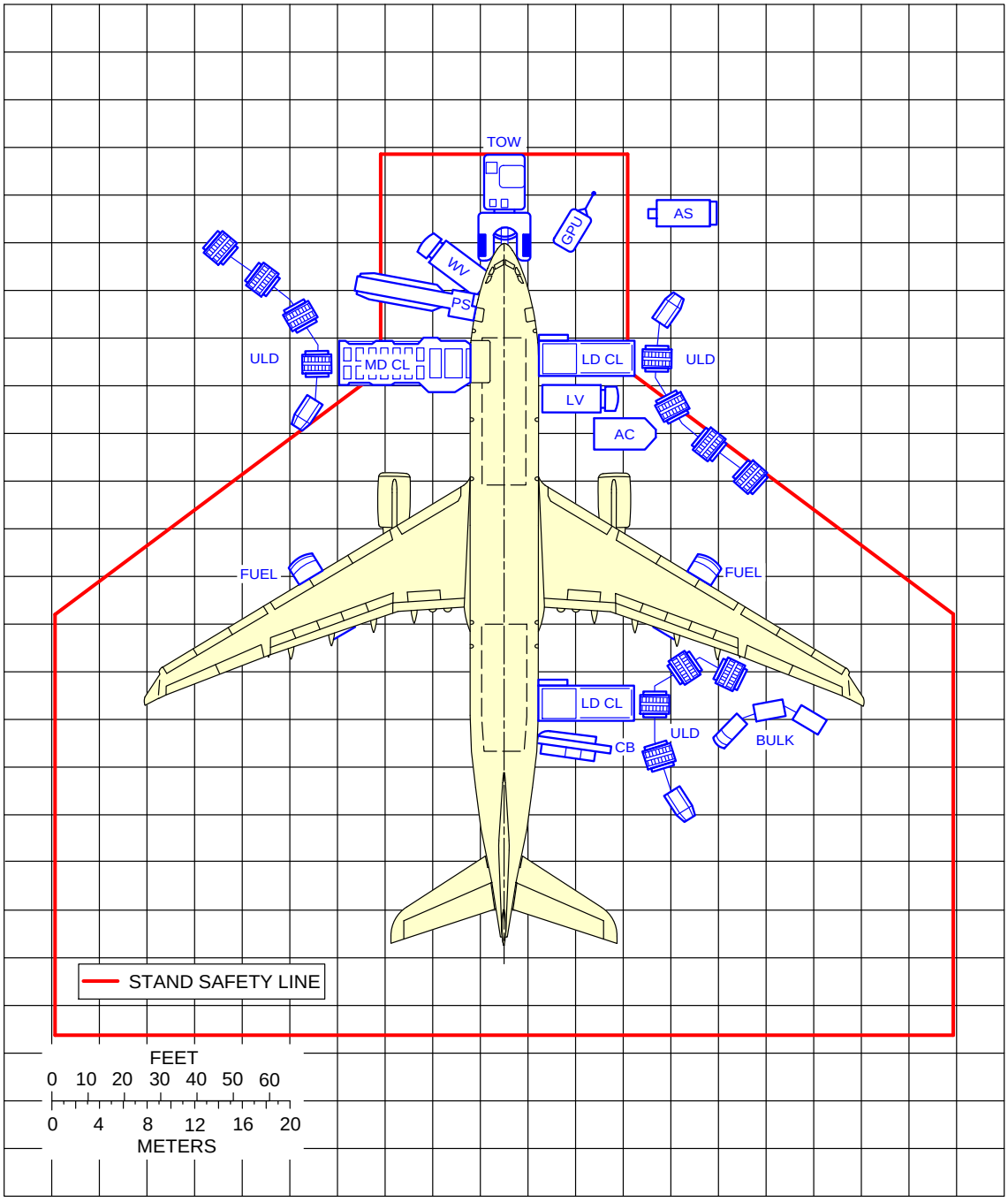
****ON A/C A330-200F**

Typical Ramp Layout - Open Apron

1. This section provides the typical servicing arrangements on the open apron, for the cargo version of the aircraft.

   The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m (24.61 ft) from the aircraft). No vehicle must be parked in this area before complete stop of the aircraft (wheel chocks in position on landing gears).

**ON A/C A330-200F




F_AC_050102_1_0020101_01_03

Typical Ramp Layout
Open Apron
FIGURE-5-1-2-991-002-A01

## 5-1-3 Typical Ramp Layout - Gate

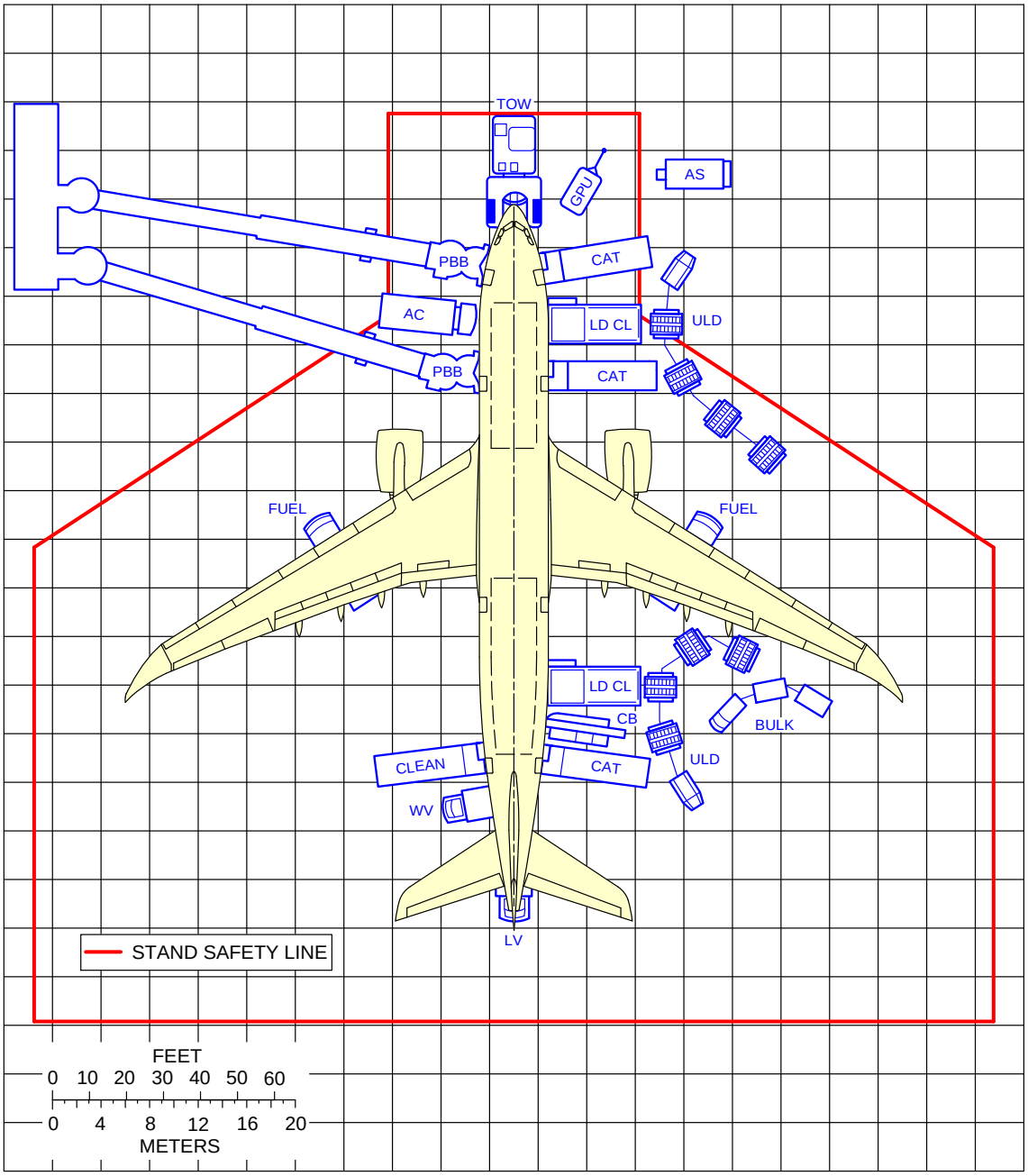
****ON A/C A330-200 A330-300 A330-800 A330-900**

Typical Ramp Layout - Gate

1. This section provides the typical servicing arrangements in the gate area for the passenger version of the aircraft, with two Passenger Boarding Bridges.

   The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m (24.61 ft) from the aircraft). No vehicle must be parked in this area before complete stop of the aircraft (wheel chocks in position on landing gears).

**ON A/C A330-200 A330-800

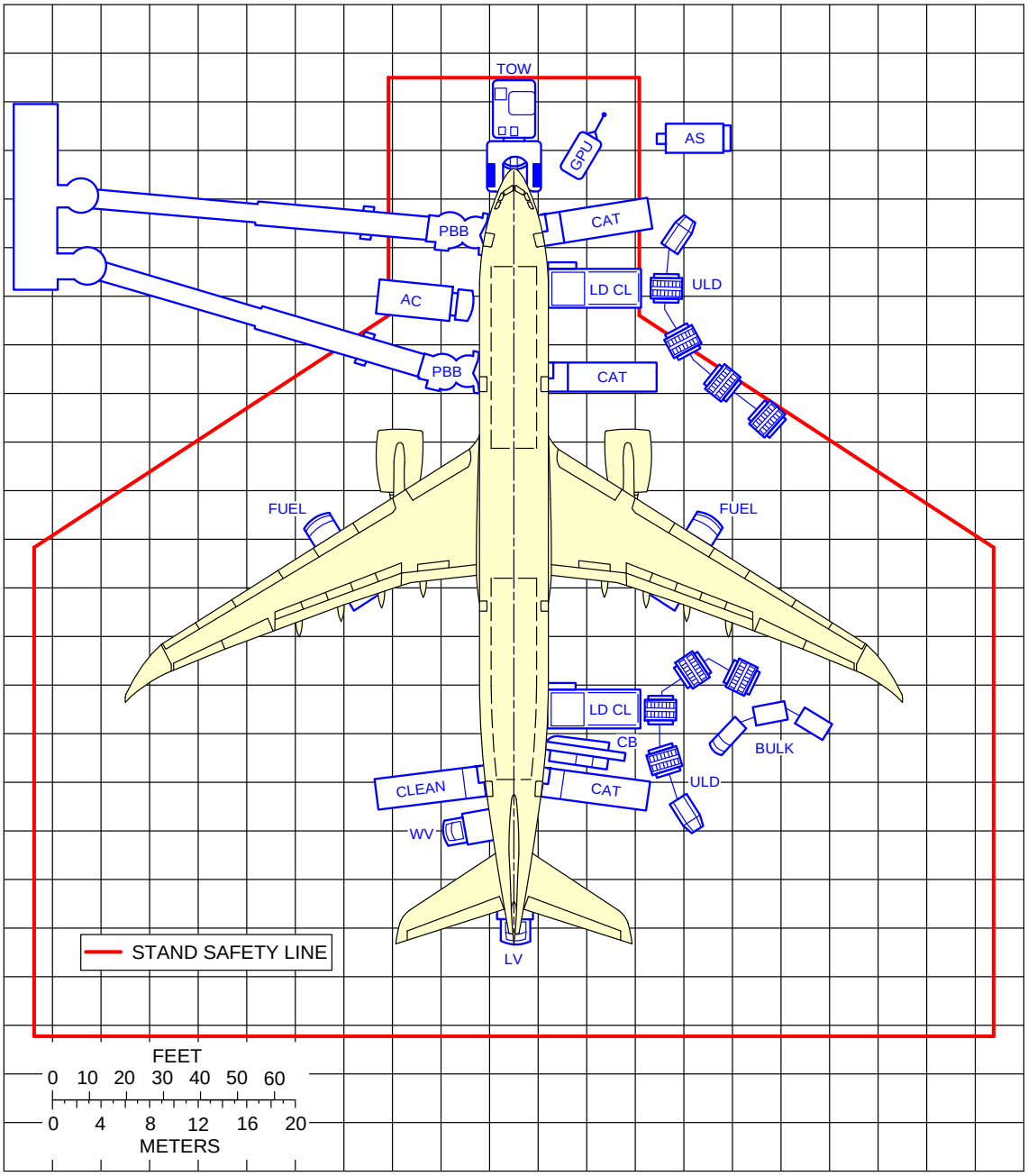



**NOTE:**
TYPICAL RAMP LAYOUT APPLICABLE TO A330-200 AND A330-800.

F_AC_050103_1_0010101_01_03

Typical Ramp Layout
Gate
FIGURE-5-1-3-991-001-A01

**ON A/C A330-300 A330-900




**NOTE:**
TYPICAL RAMP LAYOUT APPLICABLE TO A330-300 AND A330-900.

F_AC_050103_1_0060101_01_02

Typical Ramp Layout
Gate
FIGURE-5-1-3-991-006-A01

## 5-2-0 Terminal Operations - Full Servicing

****ON A/C A330-300 A330-900**

Terminal Operations – Full Servicing Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

   Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for full servicing turn round time chart

   A. PASSENGER HANDLING
   300 pax: 36 B/C + 264 Y/C.
   All passengers deplane and board the aircraft.
   2 Passenger Boarding Bridges (PBB) used at doors 1L and 2L.
   Equipment positioning + opening door = +2 min.
   Closing door + equipment removal = +2 min.
   No Passenger with Reduced Mobility (PRM) on board.

   Deplaning:
   - 150 pax at door 1L
   - 150 pax at door 2L
   - Deplaning rate = 25 pax/min per door
   - Priority deplaning for premium passengers.

   Boarding:
   - 150 pax at door 1L
   - 150 pax at door 2L
   - Boarding rate = 15 pax/min per door
   - Last Pax Seating allowance (LPS) + headcounting = +4 min.

   B. CARGO
   2 cargo loaders + 1 belt loader.
   Opening door + equipment positioning = +2.5 min.
   Equipment removal + closing door = +2.5 min.

   100% cargo exchange:
   - FWD cargo compartment: 18 containers
   - AFT cargo compartment: 14 containers

- Bulk compartment: 1 000 kg (2 205 lb).

Container unloading/loading times:
- Unloading = 1.2 min/container
- Loading = 1.4 min/container.

Bulk unloading/loading times:
- Unloading = 110 kg/min (243 lb/min)
- Loading = 95 kg/min (209 lb/min).

C. REFUELING

Final fuel on board: 90 000 l (23 775 US gal) at 50 psig (3.45 bars-rel), 2 hoses.
Hydrant positioning + connection = +8 min.
Disconnection + hydrant removal = +8 min.
Refueling with pax on board allowed.

D. CLEANING

Cleaning is performed in available time.

E. CATERING

3 catering trucks for servicing galleys simultaneously at doors 1R, 2R and 4R.
Equipment positioning + opening door = +5 min.
Closing door + equipment removal = +3 min.

Full Size Trolley Equivalent (FSTE) to unload and load: 35 FSTE
- 4 FSTE at door 1R
- 9 FSTE at door 2R
- 22 FSTE at door 4R.

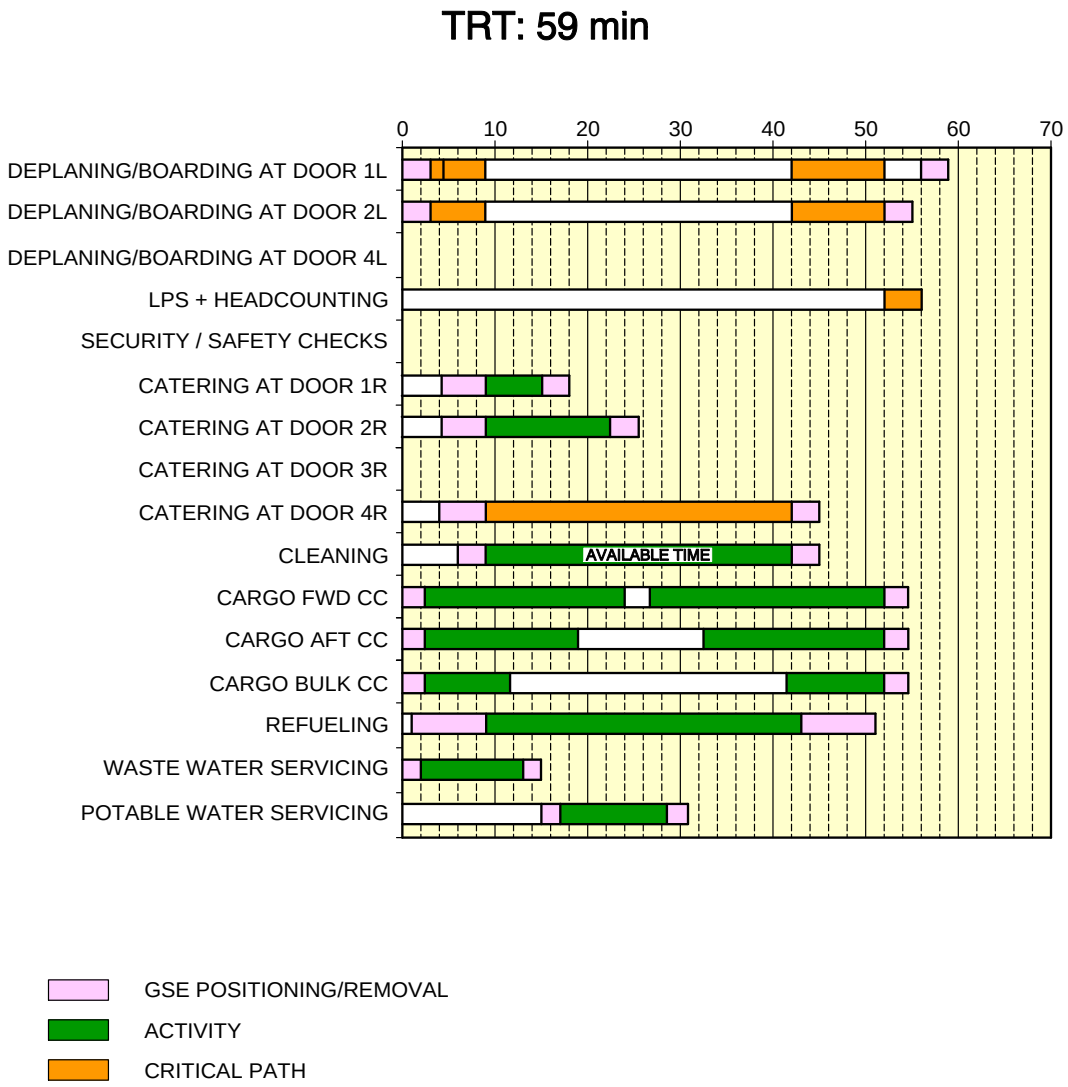
Time for trolley exchange = 1.5 min per FSTE.

F. GROUND HANDLING/GENERAL SERVICING

Start of operations:
- Bridges/Stairs: t0=0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 2 × 90 kVA.
Air Conditioning: up to 2 hoses.
Waste water servicing: draining + rinsing.
Potable water servicing: 100% uplift, 700 l (185 US gal).

**ON A/C A330-300 A330-900




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Full Servicing Turn Round Time Chart
FIGURE-5-2-0-991-001-B01

****ON A/C A330-200 A330-800**

Terminal Operations – Full Servicing Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

   Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for full servicing turn round time chart

   A. PASSENGER HANDLING

   246 pax: 36 B/C + 210 Y/C.
   All passengers deplane and board the aircraft.
   2 Passenger Boarding Bridges (PBB) used at doors 1L and 2L.
   Equipment positioning + opening door = +2 min.
   Closing door + equipment removal = +2 min.
   No Passenger with Reduced Mobility (PRM) on board.

   Deplaning:
   - 123 pax at door 1L
   - 123 pax at door 2L
   - Deplaning rate = 25 pax/min per door
   - Priority deplaning for premium passengers.

   Boarding:
   - 123 pax at door 1L
   - 123 pax at door 2L
   - Boarding rate = 15 pax/min per door
   - Last Pax Seating allowance (LPS) + headcounting = +4 min.

   B. CARGO

   2 cargo loaders + 1 belt loader.
   Opening door + equipment positioning = +2.5 min.
   Equipment removal + closing door = +2.5 min.

   100% cargo exchange:
   - FWD cargo compartment: 14 containers
   - AFT cargo compartment: 12 containers
   - Bulk compartment: 1 000 kg (2 205 lb).

   Container unloading/loading times:

- Unloading = 1.2 min/container
- Loading = 1.4 min/container.

Bulk unloading/loading times:
- Unloading = 110 kg/min (243 lb/min)
- Loading = 95 kg/min (209 lb/min).

C. REFUELING

Final fuel on board: 115 000 l (30 380 US gal) at 50 psig (3.45 bars-rel), 4 hoses.
Hydrant positioning + connection = +8 min.
Disconnection + hydrant removal = +8 min.
Refueling with pax on board allowed.

D. CLEANING

Cleaning is performed in available time.

E. CATERING

3 catering trucks for servicing galleys simultaneously at doors 1R, 2R and 4R.
Equipment positioning + opening door = +5 min.
Closing door + equipment removal = +3 min.

Full Size Trolley Equivalent (FSTE) to unload and load: 32 FSTE
- 8 FSTE at door 1R
- 4 FSTE at door 2R
- 20 FSTE at door 4R.

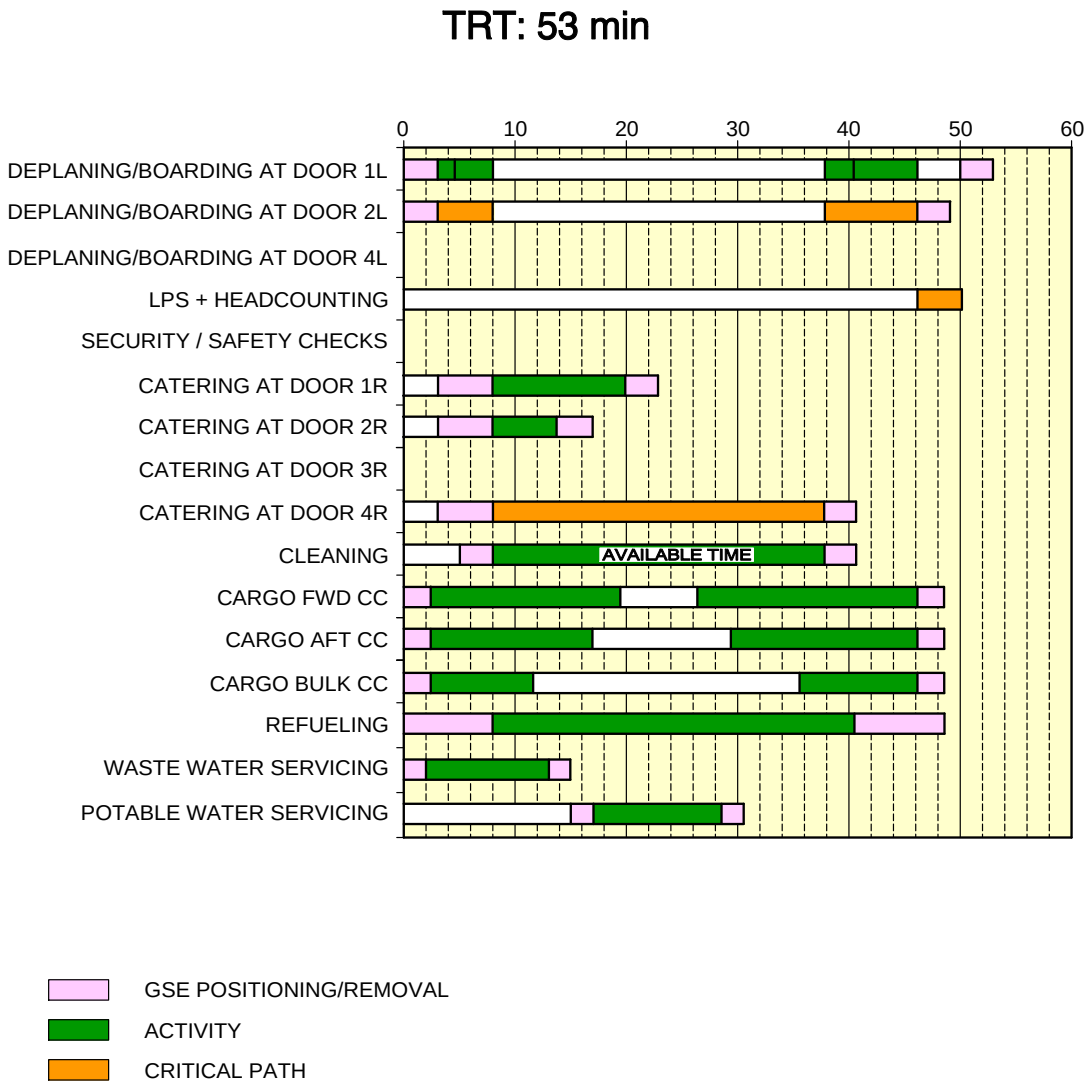
Time for trolley exchange = 1.5 min per FSTE.

F. GROUND HANDLING/GENERAL SERVICING

Start of operations:
- Bridges/Stairs: t0=0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 2 × 90 kVA.
Air Conditioning: up to 2 hoses.
Waste water servicing: draining + rinsing.
Potable water servicing: 100% uplift, 700 l (185 US gal).

**ON A/C A330-200 A330-800




F_AC_050200_1_0080101_01_03

Full Servicing Turn Round Time Chart
FIGURE-5-2-0-991-008-A01

**ON A/C A330-200F

Terminal Operations - Full Servicing Turn Round Time

1. This section gives a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

   Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for full servicing turn round time chart

   A. CARGO

   4 Couriers.
   Stairs positioned at door 1L for deplaning and boarding.

   2 cargo loaders + 1 belt loader.
   Opening door + equipment positioning = +2.5 min.
   Equipment removal + closing door= +2.5 min.
   100% cargo exchange.

   Main deck cargo compartment:
   - 23 containers (88" X 125").

   Lower deck cargo compartments:
   - FWD cargo compartment: 6 pallets
   - AFT cargo compartment: 5 pallets
   - Bulk compartment: 1 000 kg (2 205 lb).

   Container unloading/loading times:
   - Unloading = 1.2 min/container
   - Loading = 1.4 min/container.

   Pallet unloading/loading times:
   - Unloading = 2.4 min/pallet
   - Loading = 2.8 min/pallet.

   Bulk unloading/loading times:
   - Unloading = 110 kg/min (243 lb/min)
   - Loading = 95 kg/min (209 lb/min).

   B. REFUELING

   Final fuel on board: 50 000 l (13 209 US gal) at 50 psig (3.45 bars-rel), 2 hoses.

Hydrant positioning + connection = +8 min.
Disconnection + hydrant removal = +8 min.

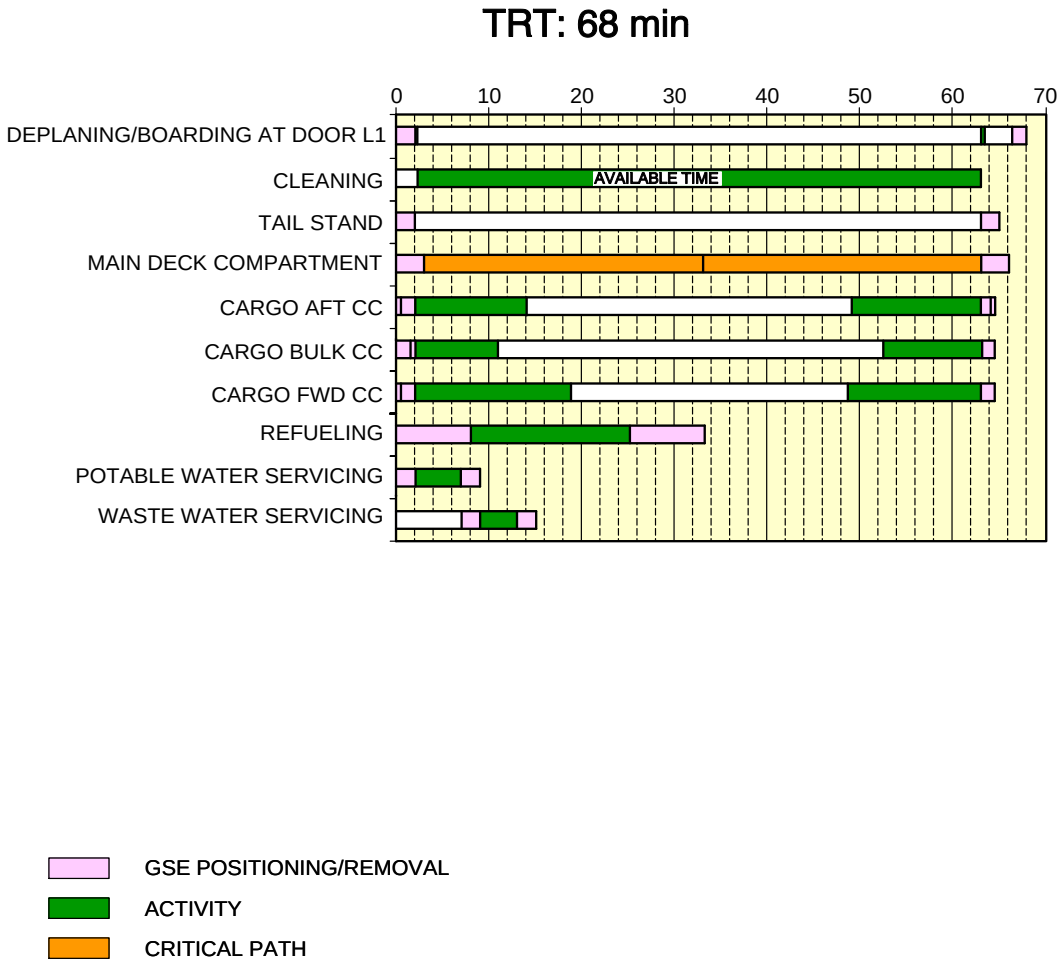
C. CLEANING
Courier area cleaning is performed in available time.

D. CATERING
Catering of galley (if installed) is performed through door 1L (standard units only) and in available time.

E. GROUND HANDLING/GENERAL SERVICING
Start of operations:
- Stairs: t0 = 0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 2 x 90 kVA.
Air Conditioning: up to 2 hoses.
Waste water servicing: draining + rinsing.
Potable water servicing: 100% uplift, 100 l (26.4 US gal).

**ON A/C A330-200F




F_AC_050200_1_0090101_01_04

Full Servicing Turn Round Time Chart
FIGURE-5-2-0-991-009-A01

## 5-3-0 Terminal Operations - Transit

****ON A/C A330-300 A330-900**

Terminal Operations - Transit Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

   Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for transit turn round time chart

   A. PASSENGER HANDLING
   300 pax (36 B/C + 264 Y/C).
   50% of passengers deplane and board the aircraft.
   1 Passenger Boarding Bridge (PBB) used at door 1L.
   Equipment positioning/removal + opening/closing door = +3 min.
   No Passenger with Reduced Mobility (PRM) on board.

   Deplaning:
   - 150 pax at door 1L
   - Deplaning rate = 25 pax/min per door.

   Boarding:
   - 150 pax at door 1L
   - Boarding rate = 15 pax/min per door
   - Last Pax Seating allowance (LPS) + headcounting = +4 min.

   B. CARGO
   1 cargo loader and 1 belt loader.
   Equipment positioning/removal + opening/closing door = +2.5 min.

   50% cargo exchange:
   - AFT cargo compartment: 7 containers
   - Bulk compartment: 500 kg (1 102 lb).

   Container unloading/loading times:
   - Unloading = 1.2 min/container
   - Loading = 1.4 min/container.

Bulk unloading/loading times:
- Unloading = 110 kg/min (242.5 lb/min)
- Loading = 95 kg/min (209.4 lb/min).

C. REFUELING
No refueling.

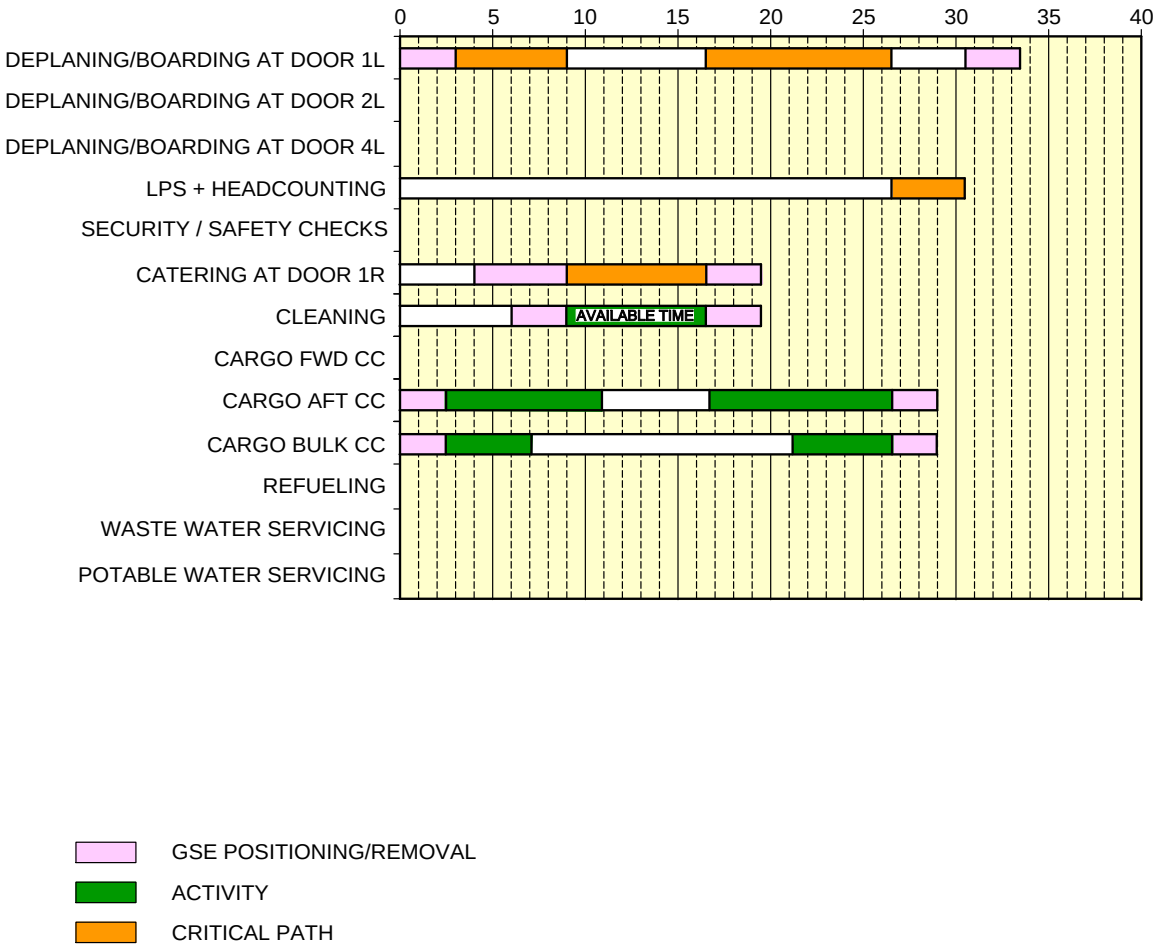
D. CLEANING
Cleaning is performed in available time.

E. CATERING
One catering truck for servicing the galleys as required.

F. GROUND HANDLING/GENERAL SERVICING
Start of operations:
- Bridges/stairs: t0 = 0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 2 × 90 kVA.
Air conditioning: up to 2 hoses.
No toilet servicing.
No potable water servicing.

**ON A/C A330-300 A330-900




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Transit Turn Round Time Chart
FIGURE-5-3-0-991-001-B01

****ON A/C A330-200 A330-800**

Terminal Operations - Transit Turn Round Time

1. This section provides a typical turn round time chart showing the typical time for ramp activities during aircraft turn round.

   Actual times may vary due to each operator's specific practices, resources, equipment and operating conditions.

2. Assumptions used for transit turn round time chart

   A. PASSENGER HANDLING
   246 pax (36 B/C + 210 Y/C).
   50% of passengers deplane and board the aircraft.
   1 Passenger Boarding Bridge (PBB) used at door 1L.
   Equipment positioning/removal + opening/closing door = +3 min.
   No Passenger with Reduced Mobility (PRM) on board.

   Deplaning:
   - 123 pax at door 1L
   - Deplaning rate = 25 pax/min per door.

   Boarding:
   - 123 pax at door 1L
   - Boarding rate = 15 pax/min per door
   - Last Pax Seating allowance (LPS) + headcounting = +4 min.

   B. CARGO
   1 cargo loader and 1 belt loader.
   Equipment positioning/removal + opening/closing door = +2.5 min.

   50% cargo exchange:
   - AFT cargo compartment: 6 containers
   - Bulk compartment: 500 kg (1 102 lb).

   Container unloading/loading times:
   - Unloading = 1.2 min/container
   - Loading = 1.4 min/container.

   Bulk unloading/loading times:
   - Unloading = 110 kg/min (242.5 lb/min)
   - Loading = 95 kg/min (209.4 lb/min).

C. REFUELING
No refueling.

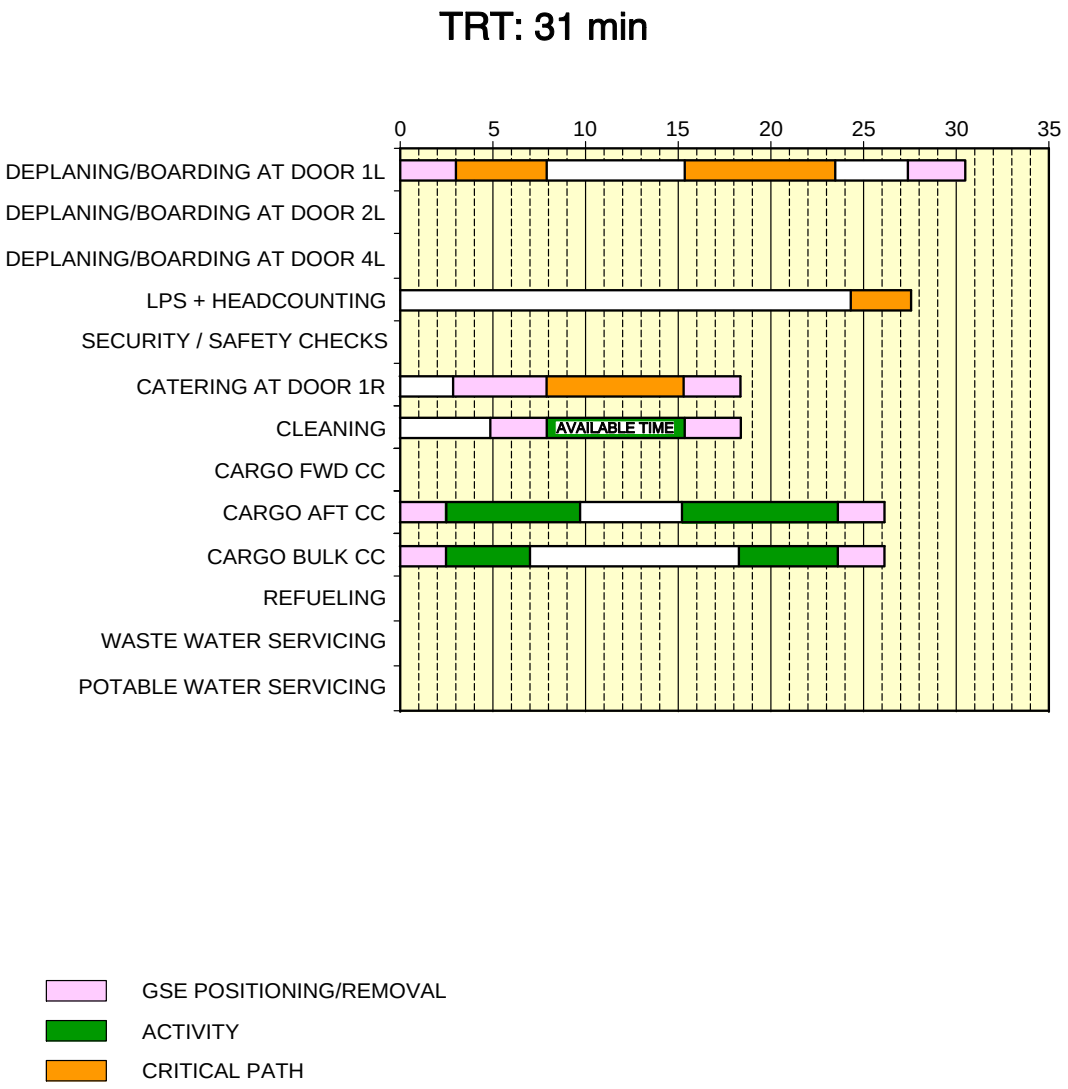
D. CLEANING
Cleaning is performed in available time.

E. CATERING
One catering truck for servicing the galleys as required.

F. GROUND HANDLING/GENERAL SERVICING
Start of operations:
- Bridges/stairs: t0 = 0
- Other equipment: t = t0.

Ground Power Unit (GPU): up to 2 × 90 kVA.
Air conditioning: up to 2 hoses.
No toilet servicing.
No potable water servicing.

**ON A/C A330-200 A330-800




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Transit Turn Round Time Chart
FIGURE-5-3-0-991-004-A01

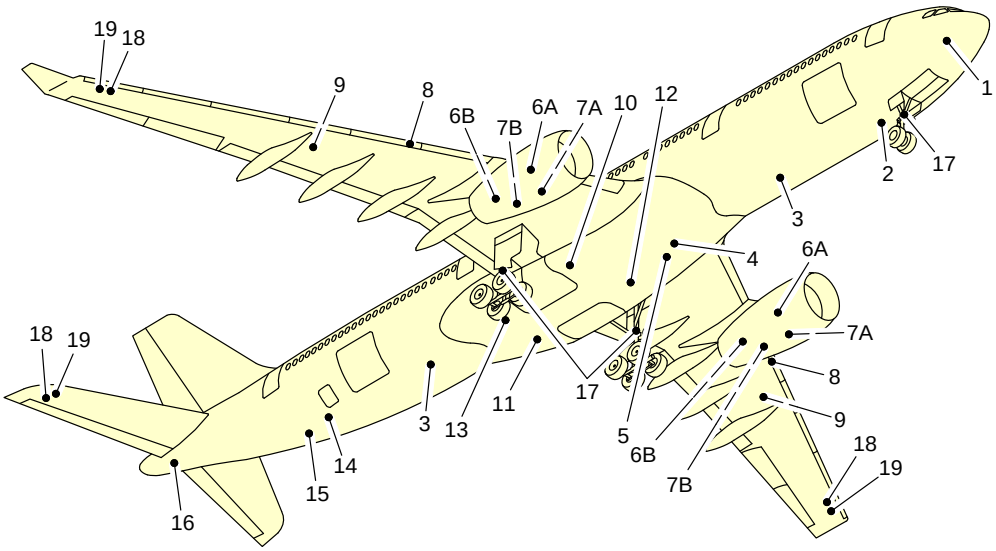
## 5-4-1 Ground Service Connections Layout

****ON A/C A330-200 A330-300 A330-800 A330-900**

Ground Service Connections Layout

1. This section gives the ground service-connections layout.

**ON A/C A330-200 A330-300

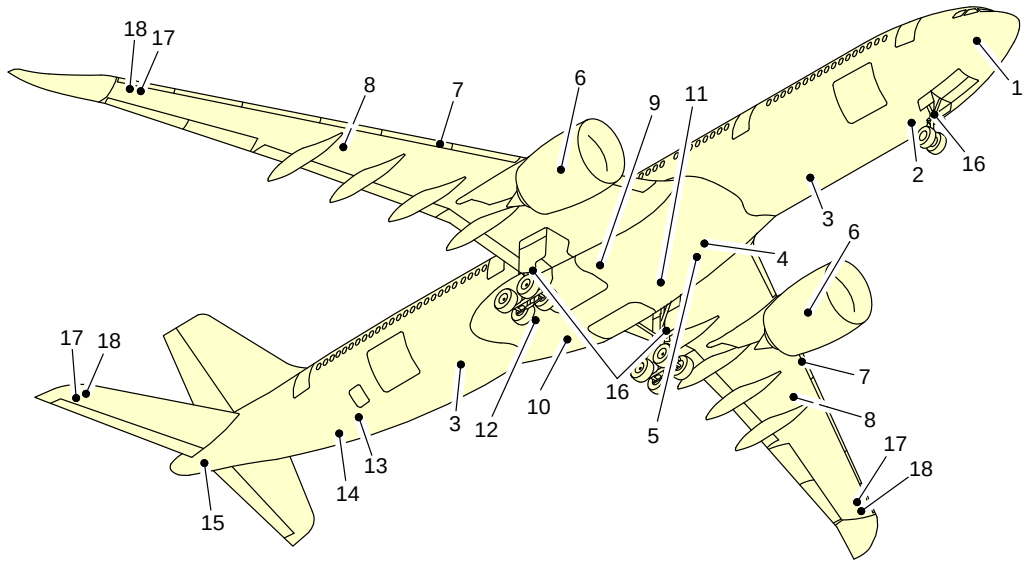



1 - OXYGEN SERVICING
2 - GROUND ELECTRICAL POWER CONNECTORS
3 - POTABLE WATER DRAIN
4 - LOW PRESSURE AIR PRE-CONDITIONING
5 - HIGH PRESSURE AIR PRE-CONDITIONING AND ENGINE STARTING
6A - ENGINE OIL FILLING (FOR RR AND GE)
6B - ENGINE OIL FILLING (FOR PW)
7A - IDG OIL FILLING (FOR RR)
7B - IDG OIL FILLING (FOR PW AND GE)
8 - PRESSURE REFUEL/DEFUEL COUPLINGS
9 - OVERWING REFUEL (IF INSTALLED)
10 - HYDRAULIC GROUND POWER SUPPLY (YELLOW)
11 - HYDRAULIC RESERVOIR FILLING AND GROUND POWER SUPPLY (GREEN)
12 - HYDRAULIC RESERVOIR AIR PRESSURIZATION AND GROUND POWER SUPPLY (BLUE)
13 - REFUEL/DEFUEL PANEL
14 - POTABLE WATER SERVICE PANEL
15 - WASTE WATER SERVICE PANEL
16 - APU OIL FILLING
17 - GROUNDING (EARTHING) POINT
18 - NACA FLAME ARRESTOR
19 - OVERPRESSURE PROTECTOR

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Ground Service-Connections Layout
FIGURE-5-4-1-991-001-A01

**ON A/C A330-800 A330-900




1 - OXYGEN SERVICING
2 - GROUND ELECTRICAL-POWER CONNECTORS
3 - POTABLE WATER DRAIN
4 - LOW-PRESSURE AIR PRE-CONDITIONING
5 - HIGH-PRESSURE AIR PRE-CONDITIONING AND ENGINE STARTING
6 - ENGINE OIL FILLING
7 - PRESSURE REFUEL/DEFUEL COUPLINGS
8 - OVERWING REFUEL (IF INSTALLED)
9 - HYDRAULIC GROUND-POWER SUPPLY (YELLOW)
10 - HYDRAULIC RESERVOIR FILLING AND GROUND POWER SUPPLY (GREEN)
11 - HYDRAULIC-RESERVOIR AIR PRESSURIZATION AND GROUND POWER SUPPLY (BLUE)
12 - REFUEL/DEFUEL PANEL
13 - POTABLE WATER SERVICE-PANEL
14 - WASTE WATER SERVICE-PANEL
15 - APU OIL FILLING
16 - GROUNDING (EARTHING) POINT
17 - NACA FLAME ARRESTOR
18 - OVERPRESSURE PROTECTOR

**NOTE:**
TO GET ACCESS TO THE IDG AND THE ENGINE PNEUMATIC STARTER, OPEN THE FAN COWLS, SEE AMM 12-13-24 AND SEE AMM 12-13-80.

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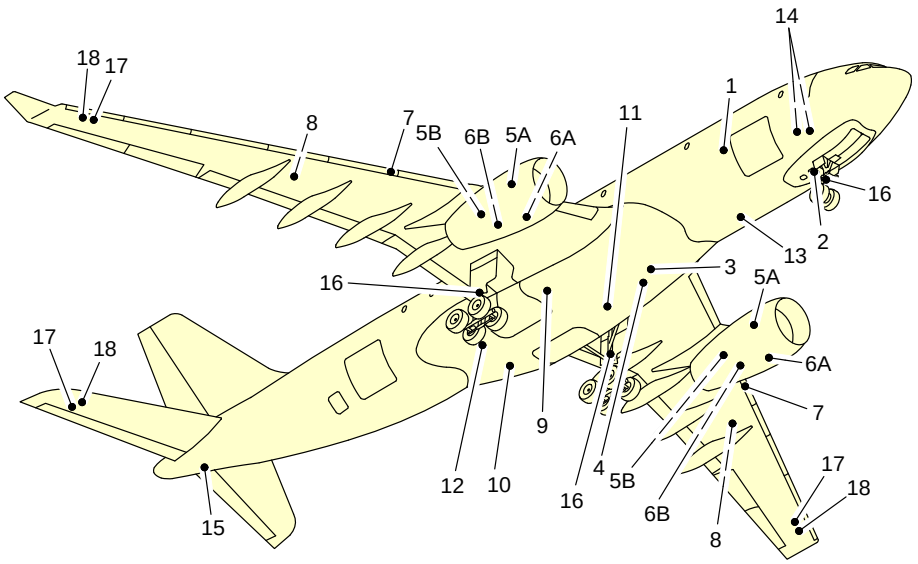
Ground Service-Connections Layout
FIGURE-5-4-1-991-008-A01

****ON A/C A330-200F**

Ground Service Connections Layout

1. This section provides the ground service connections layout.

**ON A/C A330-200F




1 - OXYGEN SERVICING
2 - GROUND ELECTRICAL POWER CONNECTORS
3 - LOW PRESSURE AIR PRE-CONDITIONING
4 - HIGH PRESSURE AIR PRE-CONDITIONING AND ENGINE STARTING
5A - ENGINE OIL FILLING (FOR RR)
5B - ENGINE OIL FILLING (FOR PW)
6A - IDG OIL FILLING (FOR RR)
6B - IDG OIL FILLING (FOR PW)
7 - PRESSURE REFUEL/DEFUEL COUPLINGS
8 - OVERWING REFUEL (IF INSTALLED)
9 - HYDRAULIC GROUND POWER SUPPLY (YELLOW)
10 - HYDRAULIC RESERVOIR FILLING AND GROUND POWER SUPPLY (GREEN)
11 - HYDRAULIC RESERVOIR AIR PRESSURIZATION AND GROUND POWER SUPPLY (BLUE)
12 - REFUEL/DEFUEL PANEL
13 - POTABLE WATER SERVICE PANEL
14 - WASTE WATER SERVICE PANEL
15 - APU OIL FILLING
16 - GROUNDING (EARTHING) POINT
17 - NACA FLAME ARRESTOR
18 - OVERPRESSURE PROTECTOR

F_AC_050401_1_0020101_01_04

Ground Service Connections Layout
FIGURE-5-4-1-991-002-A01

## 5-4-2 Grounding Points

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Grounding (Earthing) Points

****ON A/C A330-300 A330-900**

1. Grounding (Earthing) Points

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| On Nose Landing Gear leg: | 6.67 m (21.88 ft) | On centerline | | 1.40 m (4.59 ft) |
| On left Main Landing Gear leg: | 31.53 m (103.44 ft) | 5.34 m (17.52 ft) | | 1.50 m (4.92 ft) |
| On right Main Landing Gear leg: | 31.53 m (103.44 ft) | | 5.34 m (17.52 ft) | 1.50 m (4.92 ft) |

A. The grounding (earthing) stud on each landing gear leg is designed for use with a clip-on connector (such as Appleton TGR).

B. The grounding (earthing) studs are used to connect the aircraft to an approved ground (earth) connection on the ramp or in the hangar for:
- Refuel/defuel operations
- Maintenance operations
- Bad weather conditions.

NOTE : In all other conditions, the electrostatic discharge through the tire is sufficient.

****ON A/C A330-200 A330-200F A330-800**

2. Grounding (Earthing) Points

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

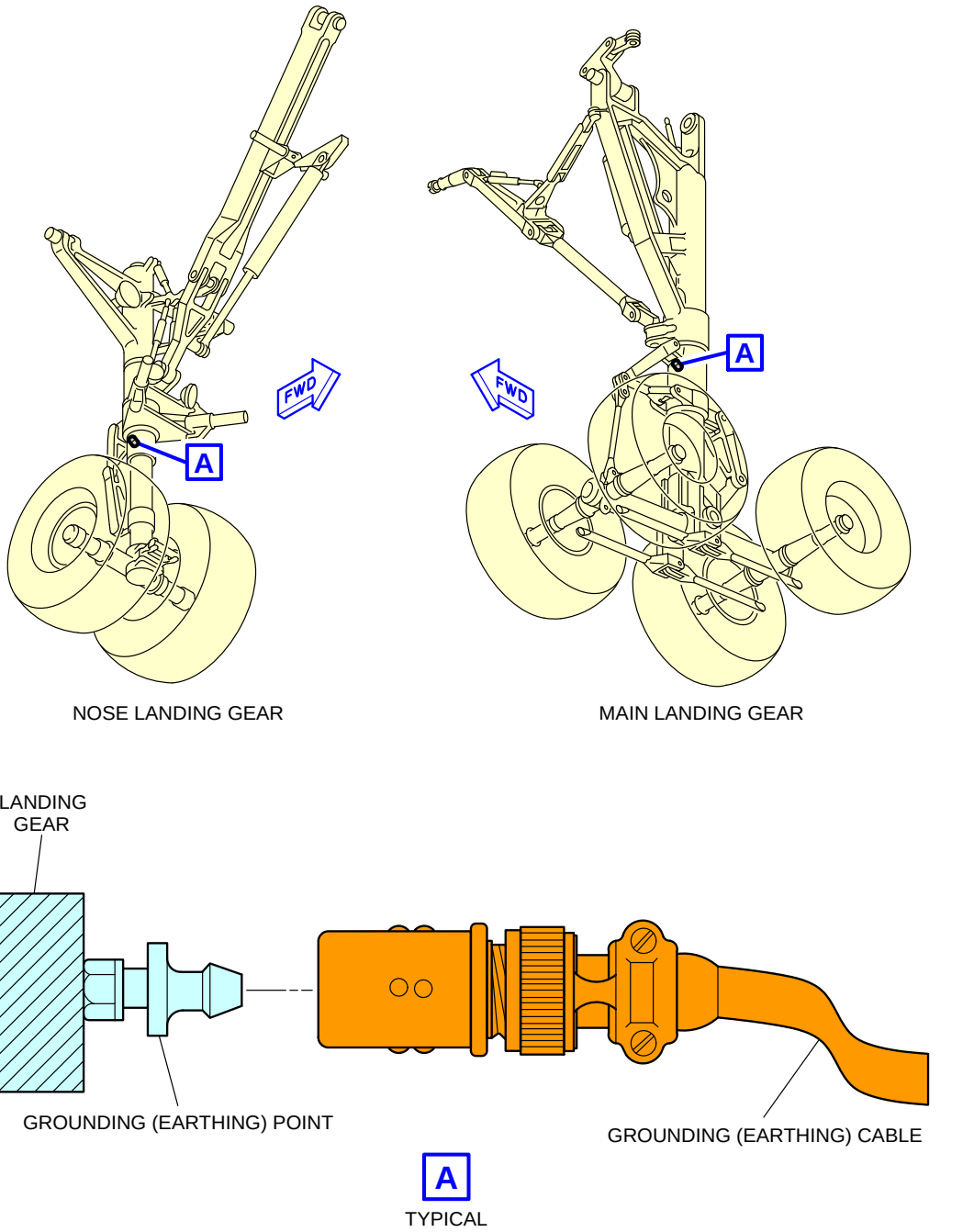
| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| On Nose Landing Gear leg: | 6.67 m (21.88 ft) | On centerline | | 1.40 m (4.59 ft) |
| On left Main Landing Gear leg: | 28.37 m (93.08 ft) | 5.34 m (17.52 ft) | | 1.50 m (4.92 ft) |
| On right Main Landing Gear leg: | 28.37 m (93.08 ft) | | 5.34 m (17.52 ft) | 1.50 m (4.92 ft) |

A. The grounding (earthing) stud on each landing gear leg is designed for use with a clip-on connector (such as Appleton TGR).

B. The grounding (earthing) studs are used to connect the aircraft to an approved ground (earth) connection on the ramp or in the hangar for:
   - Refuel/defuel operations
   - Maintenance operations
   - Bad weather conditions.

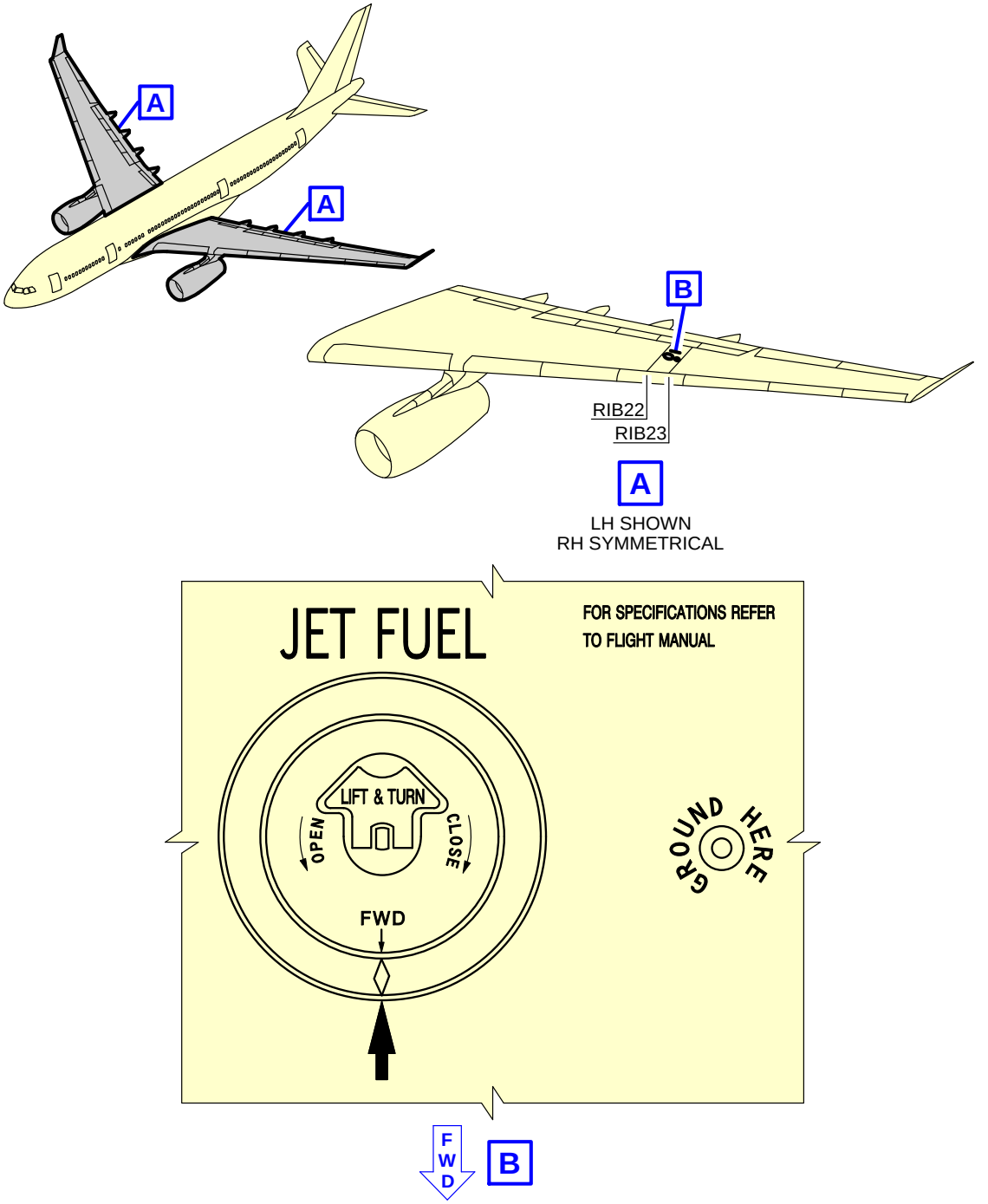
NOTE : In all other conditions, the electrostatic discharge through the tire is sufficient.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Ground Service Connections
Grounding (Earthing) Points
FIGURE-5-4-2-991-001-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Service Connections
Grounding (Earthing) Points
FIGURE-5-4-2-991-002-A01

## 5-4-3 Hydraulic System

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Hydraulic Servicing

****ON A/C A330-300 A330-900**

1. Ground Service Panels

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System: Access Door 197CB | 34.90 m (114.50 ft) | 1.34 m (4.40 ft) | | 2.23 m (7.32 ft) |
| Yellow System: Access Door 196BB | 29.00 m (95.14 ft) | | 1.30 m (4.27 ft) | 1.95 m (6.40 ft) |
| Blue System: Access Door 195BB | 28.00 m (91.86 ft) | 1.28 m (4.20 ft) | | 1.94 m (6.36 ft) |

****ON A/C A330-200 A330-200F A330-800**

2. Ground Service Panels

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System: Access Door 197CB | 31.60 m (103.67 ft) | 1.34 m (4.40 ft) | | 2.23 m (7.32 ft) |
| Yellow System: | 25.80 m (84.65 ft) | | 1.30 m (4.27 ft) | 1.95 m (6.40 ft) |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Access Door 196BB | | | | |
| Blue System: Access Door 195BB | 24.70 m (81.04 ft) | 1.28 m (4.20 ft) | | 1.94 m (6.36 ft) |

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

3. Reservoir Pressurization

   One 1/4 in. self-sealing connection common to the 3 reservoirs.

   NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Blue System Ground Service Panel: Access Door 195BB | 34.47 m (113.09 ft) | 1.41 m (4.63 ft) | | 1.89 m (6.20 ft) |

****ON A/C A330-300 A330-900**

4. Accumulator Charging

   Five connections (one for each accumulator):

   NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System Accumulator: Access Door 197CB | 41.52 m (136.22 ft) | 1.33 m (4.36 ft) | | 2.19 m (7.19 ft) |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Yellow System Accumulator: Access Door 196BB | 35.55 m (116.63 ft) | | 1.43 m (4.69 ft) | 1.91 m (6.27 ft) |
| Blue System Accumulator: Access Door 195BB | 34.54 m (113.32 ft) | 1.38 m (4.53 ft) | | 1.90 m (6.23 ft) |
| Blue System Brake Accumulator: Access Door 195BB | 34.54 m (113.32 ft) | 1.18 m (3.87 ft) | | 1.90 m (6.23 ft) |

****ON A/C A330-200 A330-200F A330-800**

5. Accumulator Charging

   Five connections (one for each accumulator):

   NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System Accumulator: Access Door 197CB | 41.52 m (136.22 ft) | 1.33 m (4.36 ft) | | 2.19 m (7.19 ft) |
| Yellow System Accumulator: Access Door 196BB | 35.55 m (116.63 ft) | | 1.43 m (4.69 ft) | 1.91 m (6.27 ft) |
| Blue System Accumulator: Access Door 195BB | 34.54 m (113.32 ft) | 1.38 m (4.53 ft) | | 1.90 m (6.23 ft) |
| Blue System Brake Accumulator: Access Door 195BB | 34.54 m (113.32 ft) | 1.24 m (4.07 ft) | | 1.90 m (6.23 ft) |

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900

6. Reservoir Filling

Two connections (one self-sealing connection for pressurized supply on the Green system ground service panel).

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| One handpump filling connection:<br>Access Door 197CB | 41.31 m<br>(135.53 ft) | 1.30 m<br>(4.27 ft) | | 2.11 m<br>(6.92 ft) |

7. Reservoir Drain

One 3/8 in. self-sealing connection on the reservoir for:

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System | 33.17 m<br>(108.83 ft) | 0.70 m<br>(2.30 ft) | | 3.80 m<br>(12.47 ft) |
| Yellow System | 29.03 m<br>(95.24 ft) | | 2.12 m<br>(6.96 ft) | 2.40 m<br>(7.87 ft) |
| Blue System | 29.03 m<br>(95.24 ft) | 2.12 m<br>(6.96 ft) | | 2.40 m<br>(7.87 ft) |

8. Ground Test

Three 1 in. self-sealing connections and three 1-1/2 in. self-sealing connections (one pair per system).

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Green System Ground Service Panel: Access Door 197CB | 34.92 m (114.57 ft) | 1.35 m (4.43 ft) | | 2.20 m (7.22 ft) |
| Yellow System Ground Service Panel: Access Door 196BB | 29.03 m (95.24 ft) | | 1.30 m (4.27 ft) | 2.00 m (6.56 ft) |
| Blue System Ground Service Panel: Access Door 195BB | 28.03 m (91.96 ft) | 1.28 m (4.20 ft) | | 2.00 m (6.56 ft) |

****ON A/C A330-300 A330-900**

9. A/C Emergency Generation

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| RAT Safety-Pin Installation: Access Panel 633SL | 34.40 m (112.86 ft) | | 14.20 m (46.59 ft) | 4.35 m (14.27 ft) |

****ON A/C A330-200 A330-800**

10. A/C Emergency Generation

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| RAT Safety-Pin Installation:<br>Access Panel 633SL | 31.40 m<br>(103.02 ft) | | 14.20 m<br>(46.59 ft) | 4.35 m<br>(14.27 ft) |

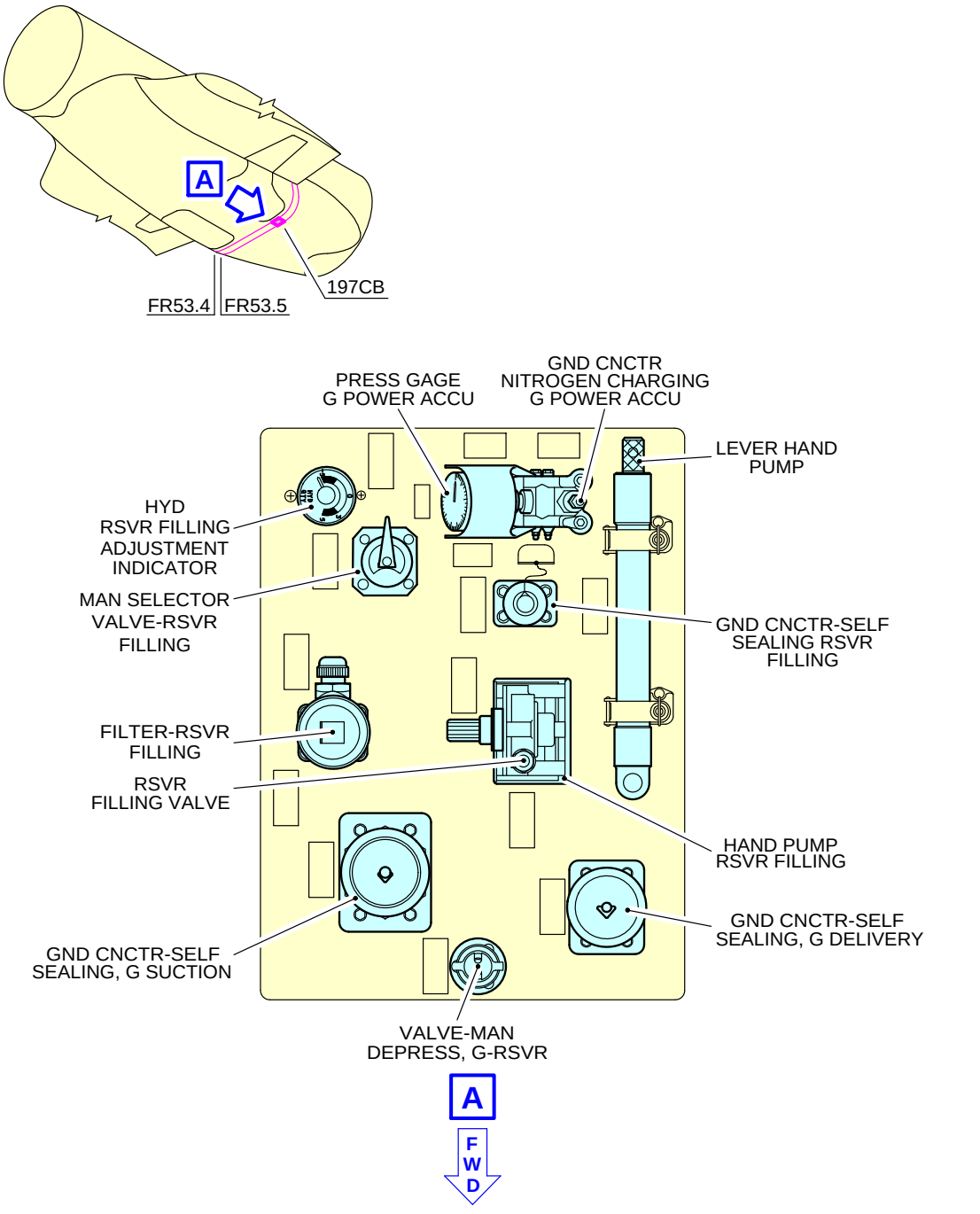
****ON A/C A330-200F**

11. A/C Emergency Generation

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

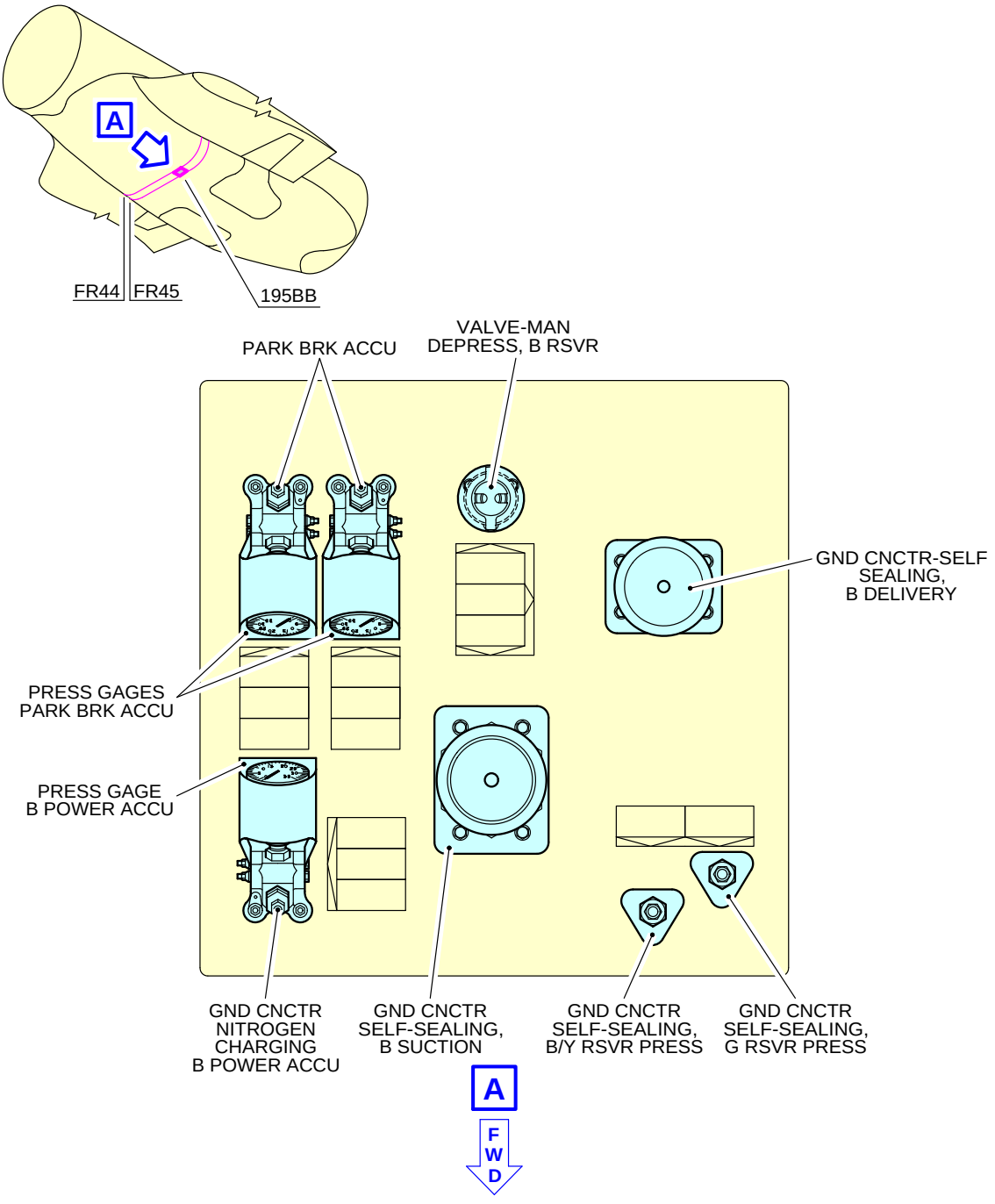
| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| RAT Safety-Pin Installation:<br>Access Panel 633SL | 31.40 m<br>(103.02 ft) | | 14.20 m<br>(46.59 ft) | 4.35 m<br>(14.27 ft) |

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



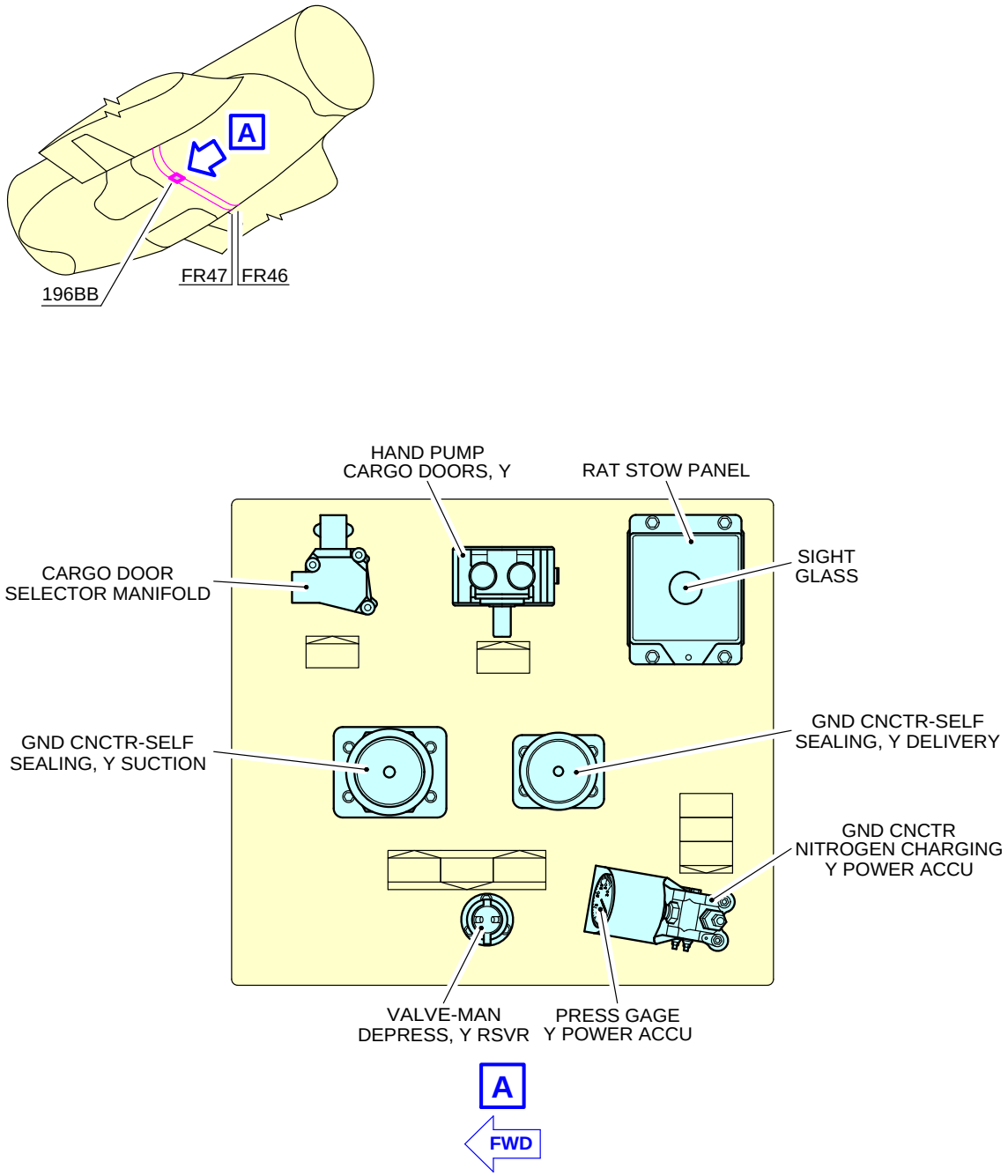

Ground Service Connections
Green System Ground Service Panel
FIGURE-5-4-3-991-001-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Ground Service Connections
Blue System Ground Service Panel
FIGURE-5-4-3-991-002-A01

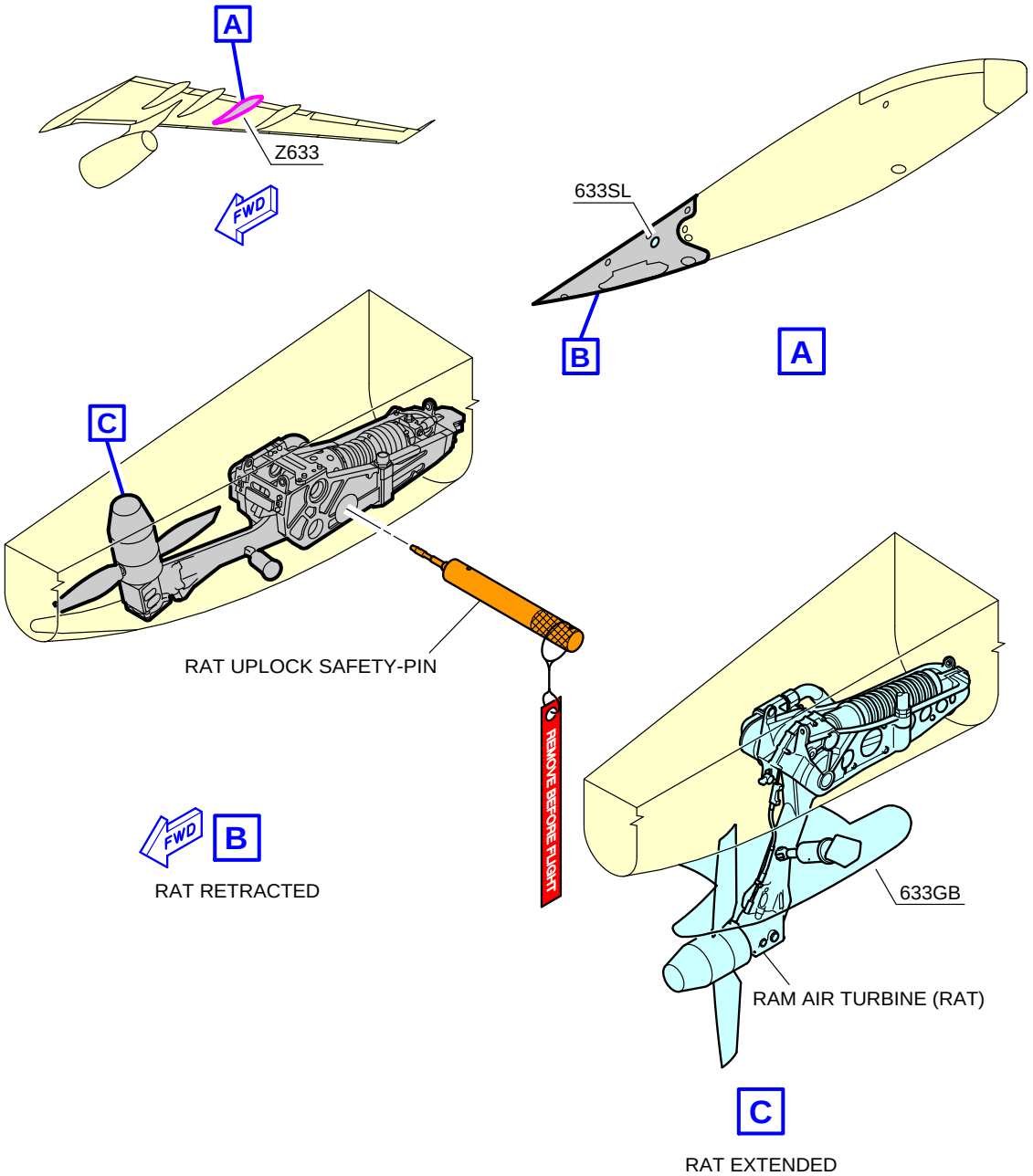
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Service Connections
Yellow System Ground Service Panel
FIGURE-5-4-3-991-003-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Service Connections
RAT
FIGURE-5-4-3-991-010-A01

## 5-4-4 Electrical System

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Electrical Servicing

****ON A/C A330-200 A330-300 A330-800 A330-900**

1. A/C External Power

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| A/C External Power: Access Door 121EL | 7.20 m (23.62 ft) | On centerline | | 1.98 m (6.50 ft) |

NOTE : Distances are approximate.

2. Technical Specifications

A. External Power Receptacles:
- Two receptacles according to MS 90362-3 - 90 kVA.

B. Power Supply:
- Three-phase, 115 V, 400 Hz.

C. Electrical Connectors for Servicing:
- AC outlets: HUBBELL 5258
- DC outlets: HUBBELL 7472.

3. Tow Truck Power

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| NLG Service Panel: 5GC | 6.67 m (21.88 ft) | | 0.50 m (1.64 ft) | TBD |
| NLG Service Panel: 8GH | 6.67 m (21.88 ft) | On centerline | | TBD |

4. Technical Specifications

A. Power Supply:
- Two-phase, 115 V, 400 Hz
- 28V DC.

B. Electrical Connector for Servicing:
- Bernier, 22-11-10-13 Connector.

C. Pin Allocation:

| Pin Identification | |
|---|---|
| A | 28V DC |
| B | 0V DC |
| D | 115V AC |
| E | 0V AC |
| G | PWR SPLY |
| H | INT LOCK |

NOTE : The power cable should be extendable in order to guarantee fit and non-interference with nose gear nor tow vehicle during the pick-up and the towing process. The connector shall be secured against pull-out by means of straps against the nose gear.

****ON A/C A330-200F**

5. A/C External Power

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| A/C External Power:<br>Access Door 125EL | 7.20 m<br>(23.62 ft) | On centerline | | 2.29 m<br>(7.51 ft) |

NOTE : Distances are approximate.

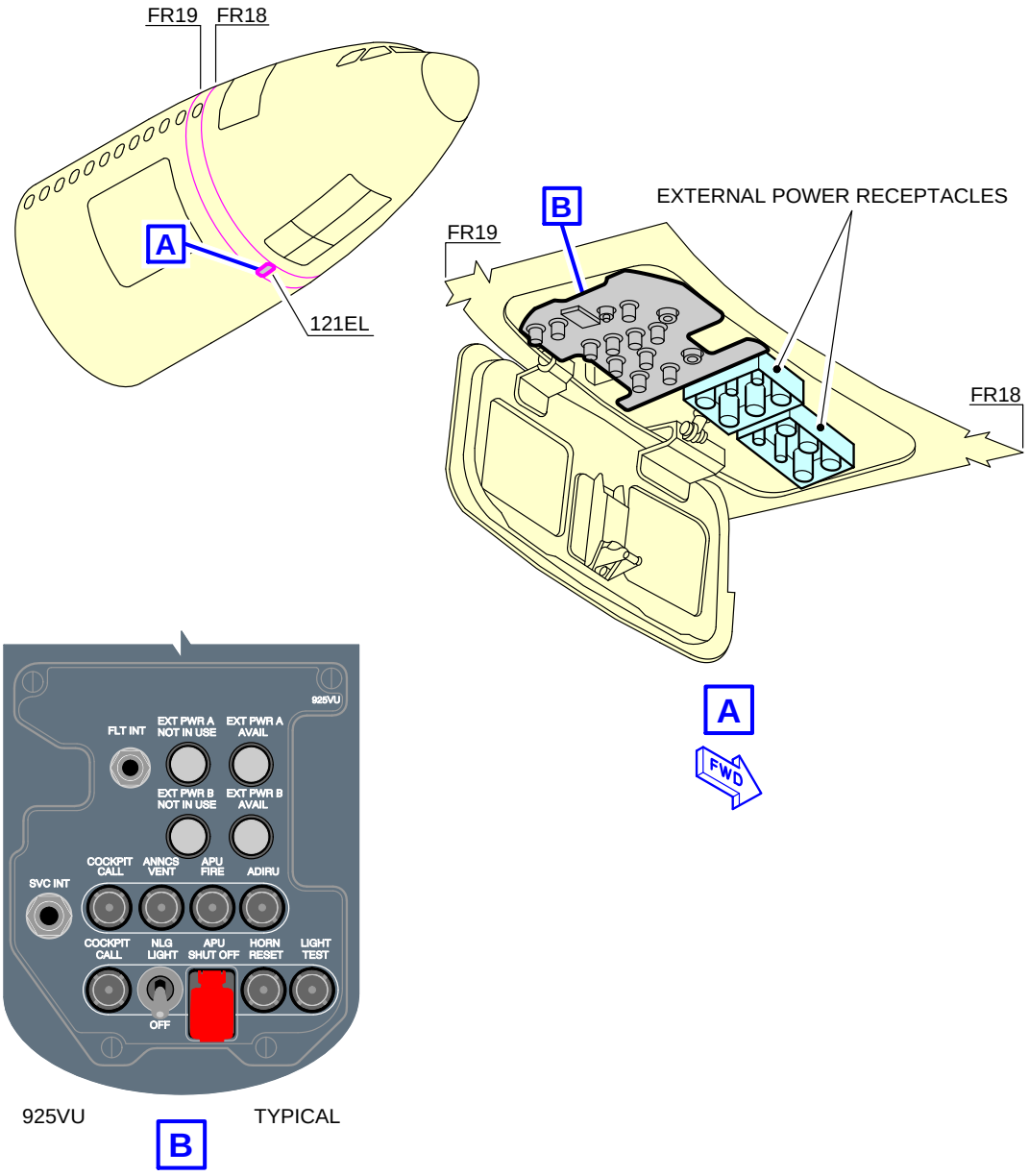
6. Technical Specifications

A. External Power Receptacles:
- Two receptacles according to MS 90362-3 - 90 kVA.

B. Power Supply:
- Three-phase, 115 V, 400 Hz.

C. Electrical Connectors for Servicing:
- AC outlets: HUBBELL 5258
- DC outlets: HUBBELL 7472.

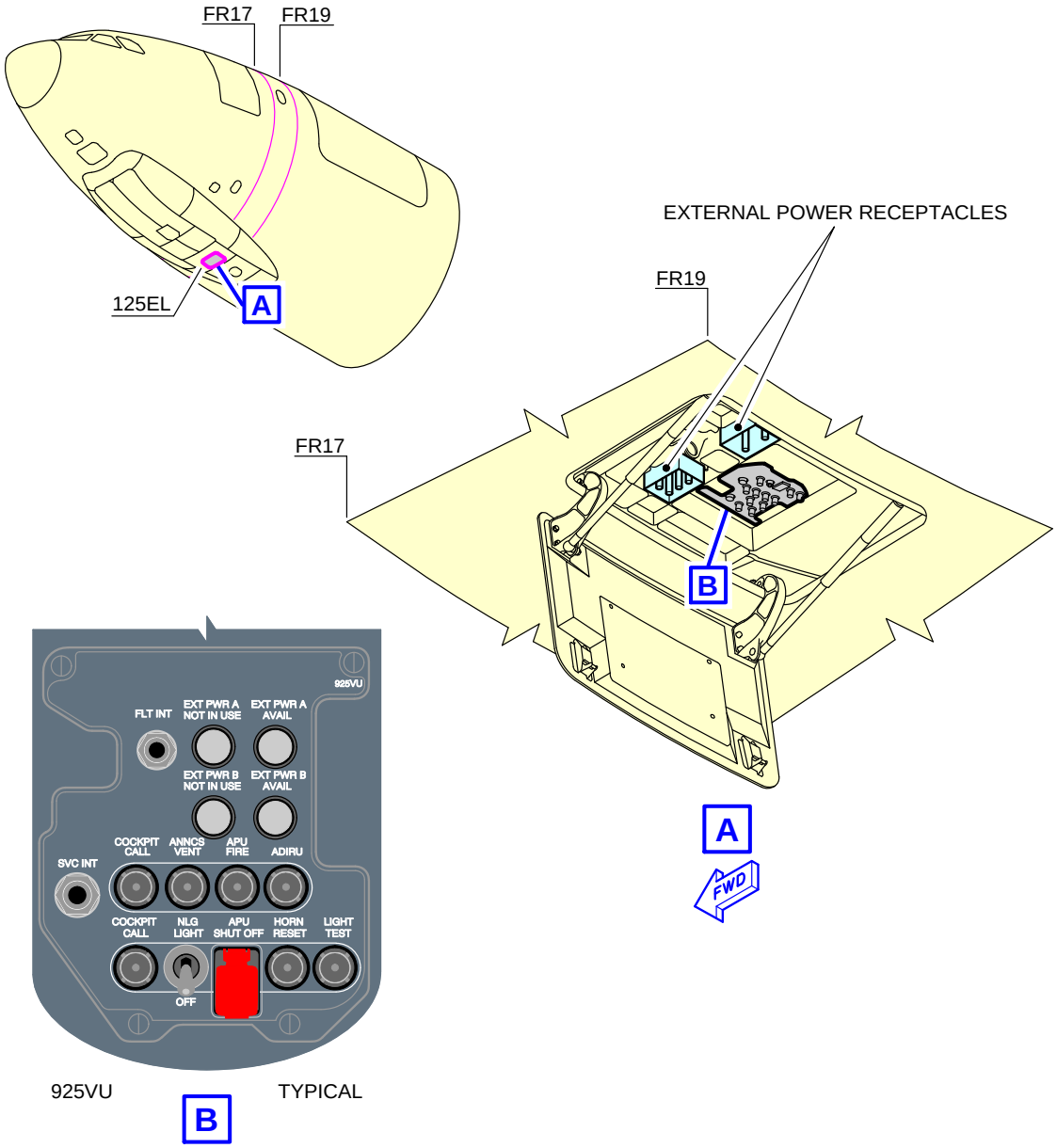
**ON A/C A330-200 A330-300 A330-800 A330-900




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Ground Service Connections
Electrical Service Panel
FIGURE-5-4-4-991-005-A01

**ON A/C A330-200F




F_AC_050404_1_0010201_01_01

Ground Service Connections
Electrical Service Panel
FIGURE-5-4-4-991-001-B01

## 5-4-5 Oxygen System

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Oxygen Servicing

****ON A/C A330-200 A330-300 A330-800 A330-900**

1. Oxygen Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Oxygen Replenishment (Option 1): Access Door 811 | 2.50 m (8.20 ft) | | 0.53 m (1.74 ft) | 3.20 m (10.50 ft) |
| Oxygen Replenishment (Option 2): Access Door 811 | 2.50 m (8.20 ft) | | 0.68 m (2.23 ft) | 3.20 m (10.50 ft) |

- 0 – Basic: External charging in the avionic compartment
- 1 – Option
- 2 – Option.

Zero, one or two MIL-DTL 7891 standard service connections (external charging in the avionics compartment).

NOTE : Internal charging connection provided.

****ON A/C A330-200F**

2. Oxygen Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

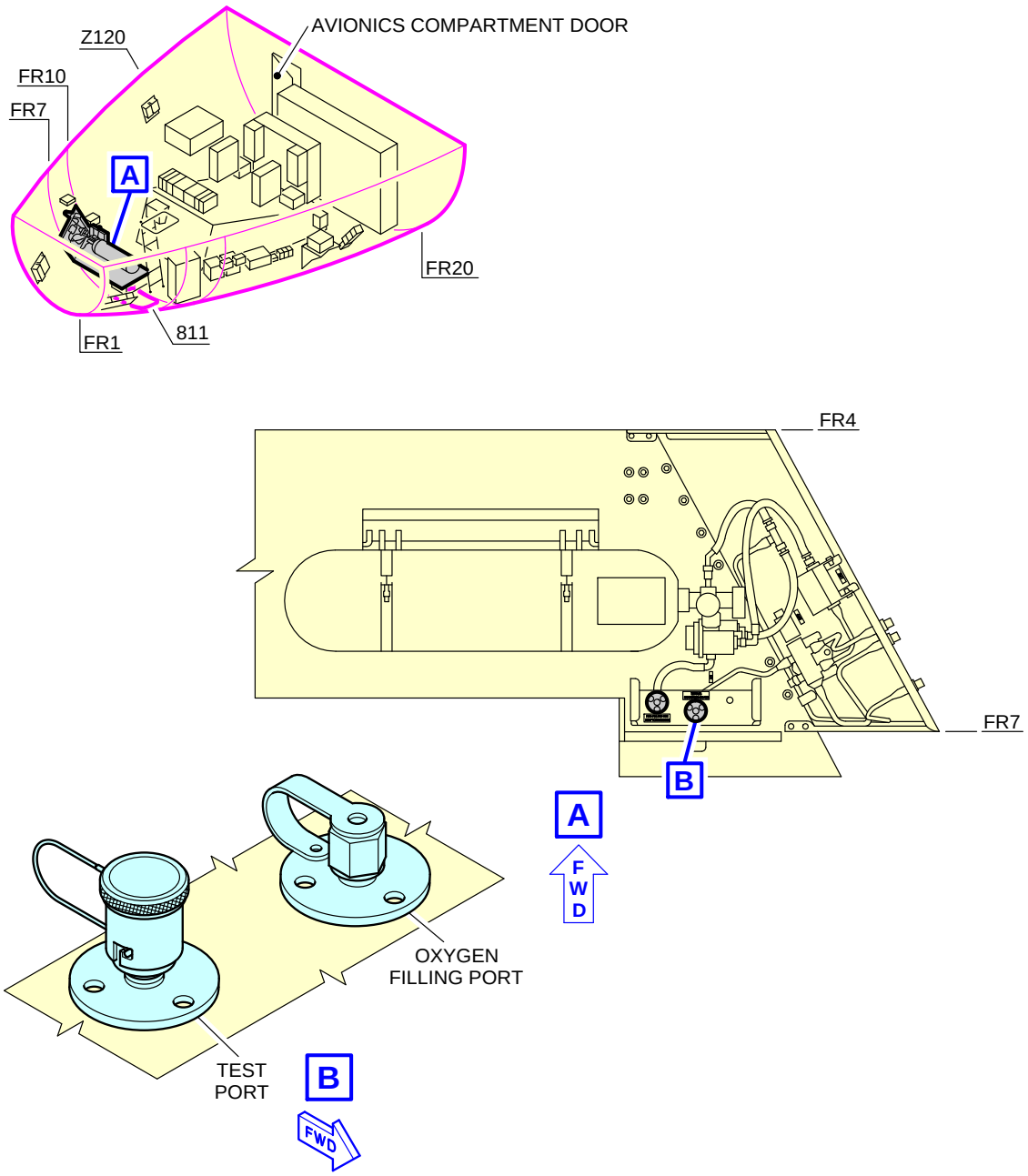
| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Oxygen Replenishment: Access Panel 132NW | 11.26 m (36.94 ft) | | 2.50 m (8.20 ft) | 4.20 m (13.78 ft) |

- Basic: External charging in the FWD cargo compartment.

One MIL-DTL 7891 standard service connection (external charging in the FWD cargo compartment).

NOTE : Internal charging connection provided.

**ON A/C A330-200 A330-300 A330-800 A330-900

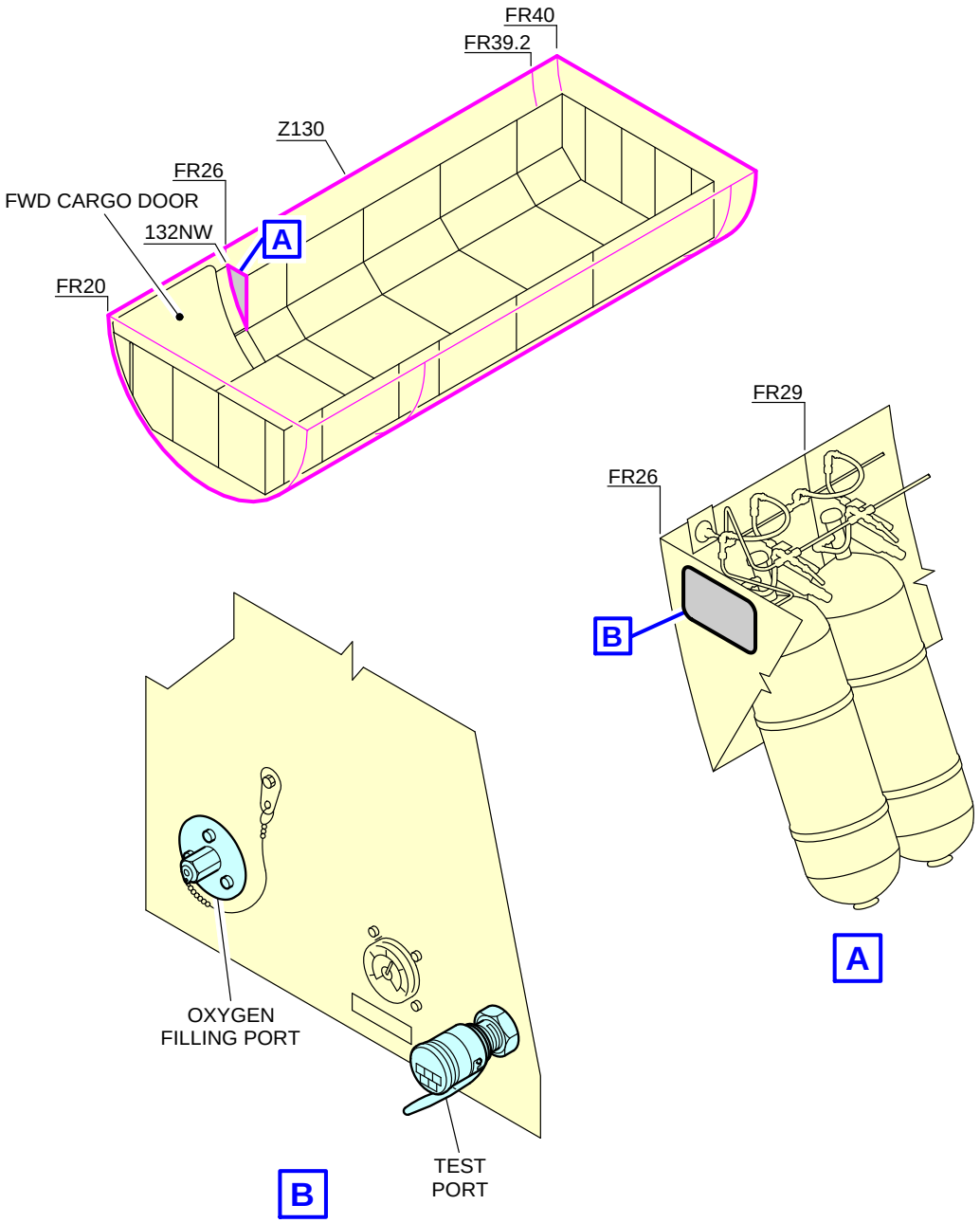



**NOTE:**
THE NUMBER OF OXYGEN CYLINDERS DEPENDS ON THE SYSTEM CONFIGURATION.

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Ground Service Connections
Oxygen Servicing
FIGURE-5-4-5-991-001-A01

**ON A/C A330-200F




**NOTE:**
THE NUMBER OF OXYGEN CYLINDERS DEPENDS ON THE SYSTEM CONFIGURATION.

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Ground Service Connections
Oxygen Servicing
FIGURE-5-4-5-991-002-A01

## 5-4-6 Fuel System

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Fuel System

****ON A/C A330-200 A330-800**

1. Refuel/Defuel Control Panel

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Control Panel:<br>Access Door 198DB | 31.1 m<br>(102.03 ft) | - | 0.8 m<br>(2.62 ft) | 1.9 m<br>(6.23 ft) |

A. Flow rate: 1580 l/min (417 US gal/min) per connection.

B. Maximum pressure: 50 psi (3.45 bar).

2. Refuel/Defuel Connectors

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Control Panel:<br>Access Door 522HB | 26.8 m<br>(87.93 ft) | 12.6 m<br>41.34 ft | - | 5 m<br>(16.4 ft) |
| Refuel/Defuel Coupling, Right:<br>Access Door 622HB | 26.8 m<br>(87.93 ft) | - | 12.6 m<br>(41.34 ft) | 5 m<br>(16.4 ft) |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Overwing Gravity Refuel Cap | 31.3 m (102.69 ft) | 17.2 m (56.43 ft) | 17.2 m (56.43 ft) | 5.8 m (19.03 ft) |

A. Four standard 2.5 in. ISO 45 connections.

B. Two service connections (gravity refuel).

3. Overpressure Protector and NACA Flame Arrestor

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Overpressure Protector (Wing) Access Panel 550EB (650EB) | 36.3 m (119.09 ft) | 27.17 m (89.14 ft) | 27.17 m (89.14 ft) | 5.75 m (18.86 ft) |
| NACA Flame Arrestor (Wing) Access Panel 550DB (650DB) | 35.94 m (117.91 ft) | 26.53 m (87.04 ft) | 26.53 m (87.04 ft) | 5.7 m (18.7 ft) |
| Overpressure Protector (Trim Tank) Access Panel 346AB | 56.36 m (184.91 ft) | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |
| NACA Flame Arrestor (Trim Tank) Access Panel 346AB | 56.36 (184.91 ft) | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |

****ON A/C A330-300 A330-900**

4. Refuel/Defuel Control Panel

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Control Panel:<br>Access Door 198DB | 34.3 m<br>(112.53 ft) | - | 0.8 m<br>(2.62 ft) | 1.9 m<br>(6.23 ft) |

A. Flow rate: 1580 l/min (417 US gal/min) per connection.

B. Maximum pressure: 50 psi (3.45 bar).

5. Refuel/Defuel Connectors

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Coupling, Left (Optional):<br>Access Door 522HB | 30 m<br>(98.43 ft) | 12.6 m<br>(41.34 ft)- | - | 5 m<br>(16.4 ft) |
| Refuel/Defuel Coupling, Right:<br>Access Door 622HB | 30 m<br>(98.43 ft) | - | 12.6 m<br>(41.34 ft) | 5 m<br>(16.4 ft) |
| Overwing Gravity Refuel Cap | 34.5 m<br>(113.19 ft) | 17.2 m<br>(56.43 ft) | 17.2 m<br>(56.43 ft) | 5.8 m<br>(19.03 ft) |

A. Four standard 2.5 in. ISO 45 connections.

B. Two service connections (gravity refuel).

6. Overpressure Protector and NACA Flame Arrestor

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Overpressure Protector (Wing) Access Panel 550EB (650EB) | 39.48 m (129.53 ft) | 27.17 m (89.14 ft) | 27.17 m (89.14 ft) | 5.75 m (18.86 ft) |
| NACA Flame Arrestor (Wing) Access Panel 550DB (650DB) | 39.12 m (128.35 ft) | 26.53 m (87.04 ft) | 26.53 m (87.04 ft) | 5.7 m (18.7 ft) |
| Overpressure Protector (Trim Tank) Access Panel 346AB | 61.67 m 202.33 ft | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |
| NACA Flame Arrestor (Trim Tank) Access Panel 346AB | 61.67 m (202.33 ft) | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |

****ON A/C A330-200F**

7. Refuel/Defuel Control Panel

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Control Panel: Access Door 198DB | 31.1 m (102.03 ft) | - | 0.8 m (2.62 ft) | 1.9 m (6.23 ft) |

A. Flow rate: 1580 l/min (417 US gal/min) per connection.

B. Maximum pressure: 50 psi (3.45 bar).

8. Refuel/Defuel Connectors

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Refuel/Defuel Coupling, Left (Optional): Access Door 522HB | 26.8 m (87.93 ft) | 12.6 m (41.34 ft) | - | 5.1 m (16.73 ft) |
| Refuel/Defuel Coupling, Right: Access Door 622HB | 26.8 m (87.93 ft) | - | 12.6 m (41.34 ft) | 5.1 m (16.73 ft) |
| Overwing Gravity Refuel Cap | 31.3 m (102.69 ft) | 17.2 m (56.43 ft) | 17.2 m (56.43 ft) | 6.1 m (20.01 ft) |

A. Four standard 2.5 in. ISO 45 connections.

B. Two service connections (gravity refuel).

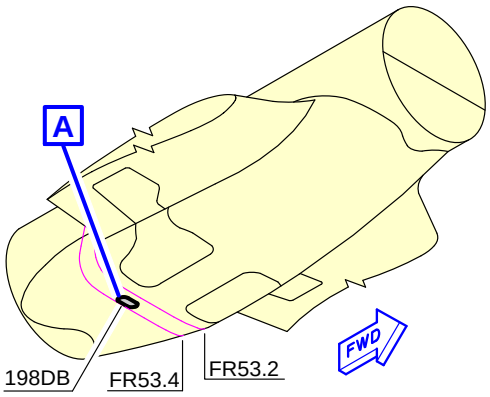
9. Overpressure Protector and NACA Flame Arrestor

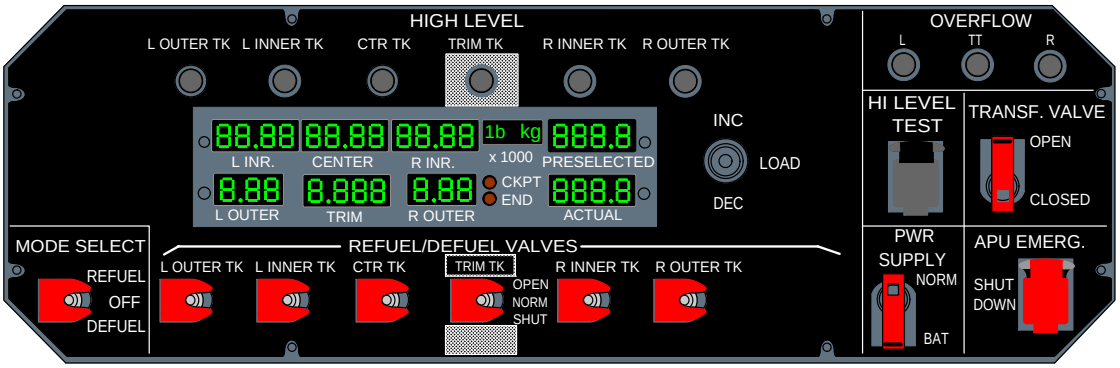
NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Overpressure Protector (Wing) Access Panel 550EB (650EB) | 36.3 m (119.09 ft) | 27.17 m (89.14 ft) | 27.17 m (89.14 ft) | 5.75 m (18.86 ft) |
| NACA Flame Arrestor (Wing) Access Panel 550DB (650DB) | 35.94 m (117.91 ft) | 26.53 m (87.04 ft) | 26.53 m (87.04 ft) | 5.7 m (18.7 ft) |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Overpressure Protector (Trim Tank) Access Panel 346AB | 56.36 m (184.91 ft) | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |
| NACA Flame Arrestor (Trim Tank) Access Panel 346AB | 56.36 (184.91 ft) | 8 m (26.25 ft) | 8 m (26.25 ft) | 5.7 m (18.7 ft) |

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



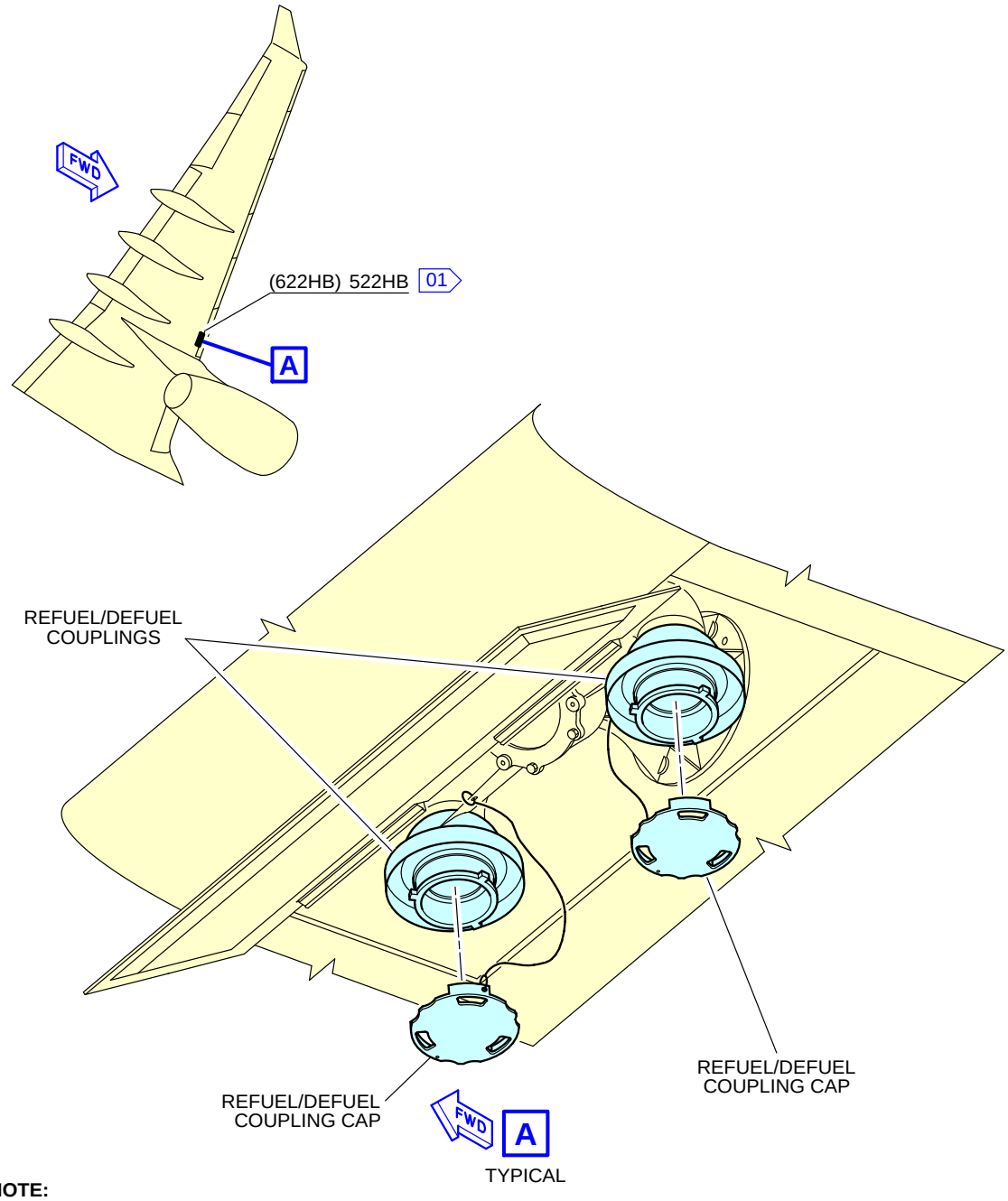




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Ground Service Connections
Refuel/Defuel Control Panel
FIGURE-5-4-6-991-012-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900



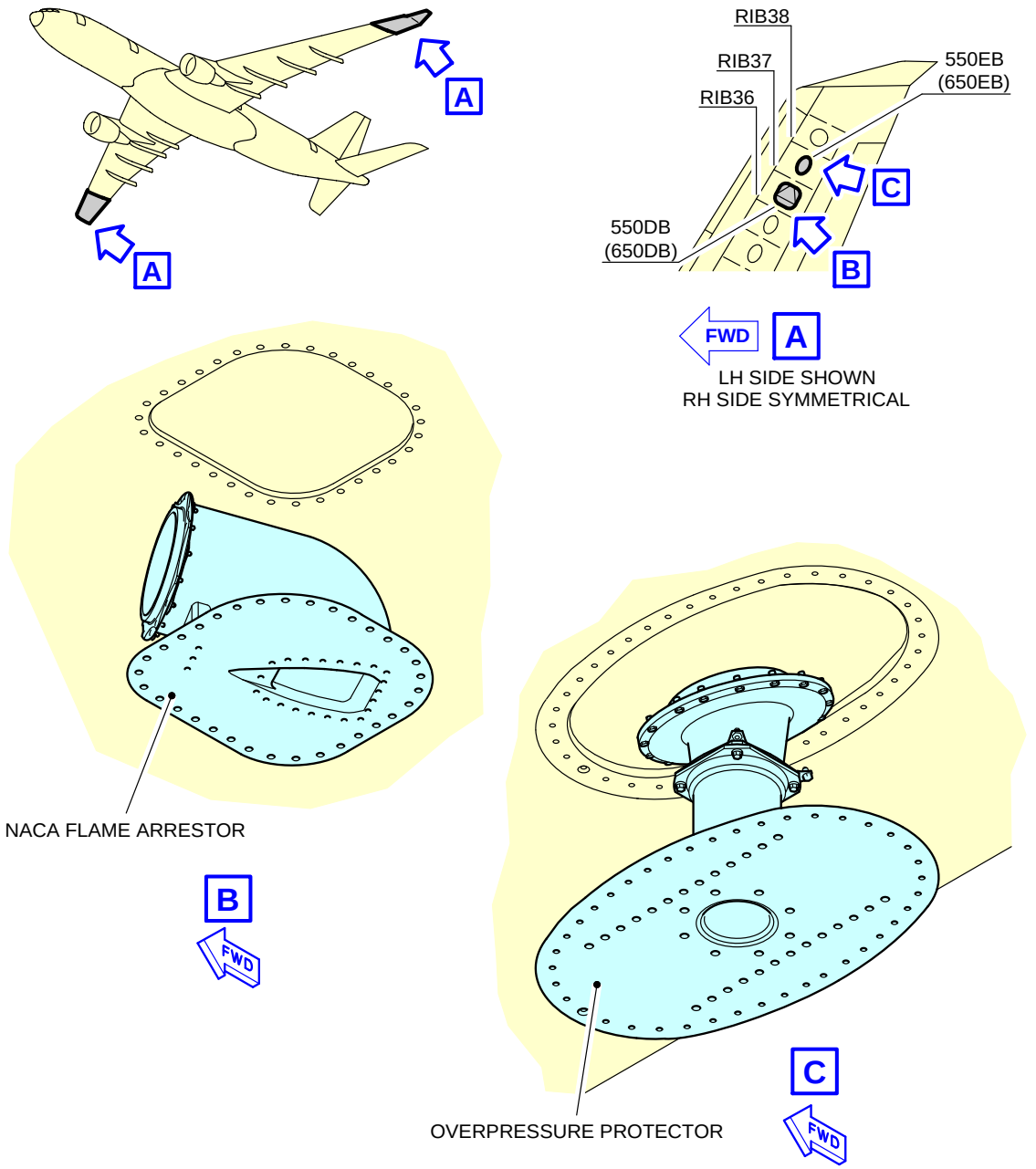

**NOTE:**

01 LEFT ACCESS DOOR 522HB (OPTIONAL ON A/C A330-200F, A330-300, A330-800 AND A300-900).

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Ground Service Connections
Refuel/Defuel Coupling
FIGURE-5-4-6-991-013-A01

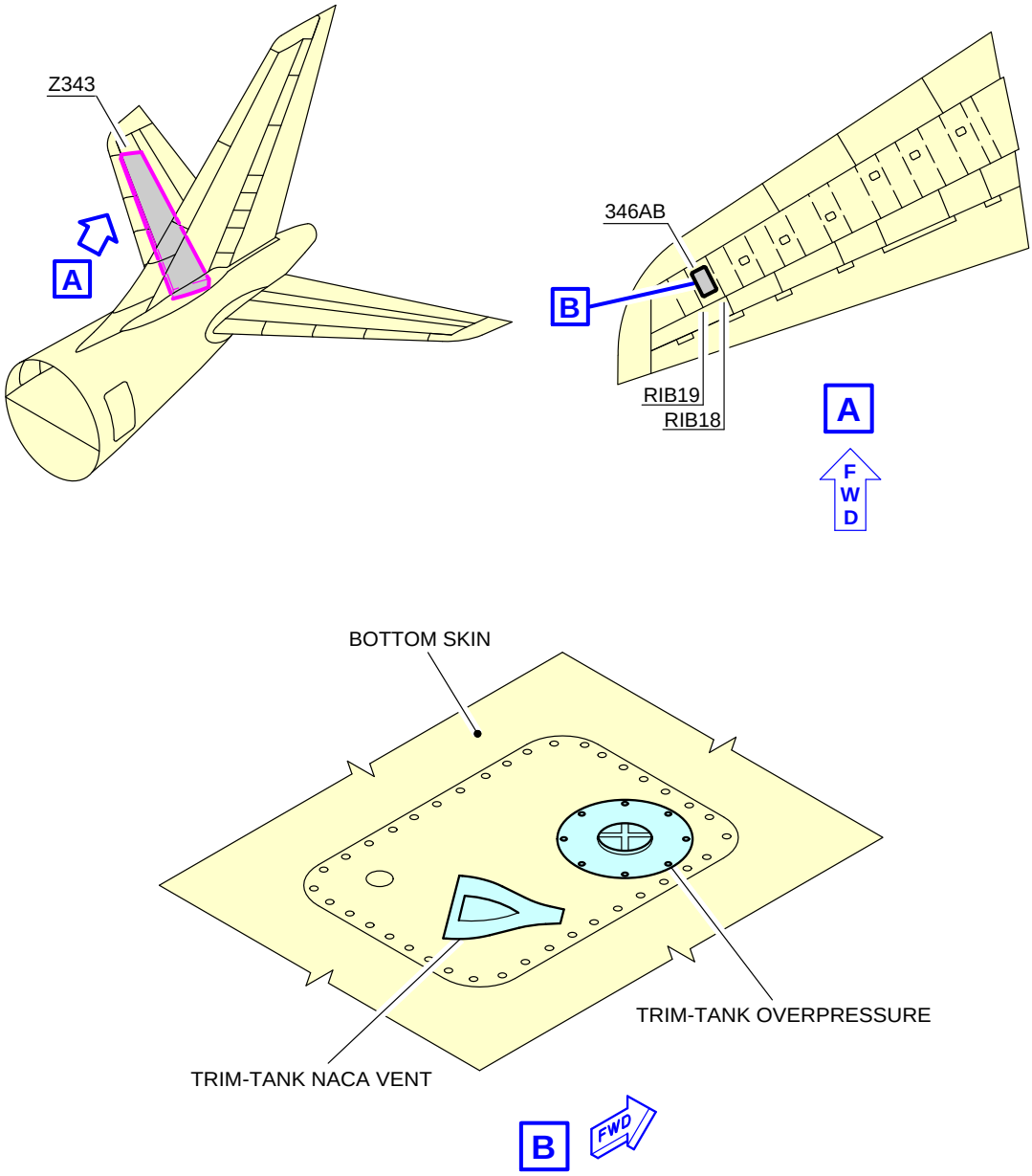
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Service Connections
Overpressure Protector and NACA Flame Arrestor - Wing
FIGURE-5-4-6-991-002-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Service Connections
Overpressure Protector and NACA Flame Arrestor - Trim Tank
FIGURE-5-4-6-991-006-A01

## 5-4-7 Pneumatic System

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Pneumatic Servicing

****ON A/C A330-300 A330-900**

1. High Pressure Air Connection

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| HP Connectors: Access Door 193CB | 23.9 m (78.41 ft) | 0.84 m (2.76 ft) | | 1.79 m (5.87 ft) |
| | 24.25 m (79.56 ft) | 0.84 m (2.76 ft) | | 1.79 m (5.87 ft) |

A. Connectors:
- Two standard 3 in. ISO 2026 connections.

2. Low Pressure Air Connection

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| LP Connectors: Access Door 191EB | 22.48 m (73.75 ft) | 0.31 m (1.02 ft) | | 1.86 m (6.10 ft) |
| | 22.48 m (73.75 ft) | 0.76 m (2.49 ft) | | 1.86 m (6.10 ft) |

A. Connectors:

- Two standard 8 in. SAE AS4262 connections.

****ON A/C A330-200 A330-200F A330-800**

3. High Pressure Air Connection

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| HP Connectors: Access Door 193CB | 20.72 m (67.98 ft) | 0.84 m (2.76 ft) | | 1.96 m (6.43 ft) |
| | 21.08 m (69.16 ft) | 0.84 m (2.76 ft) | | 1.94 m (6.36 ft) |

A. Connectors:
- Two standard 3 in. ISO 2026 connections.

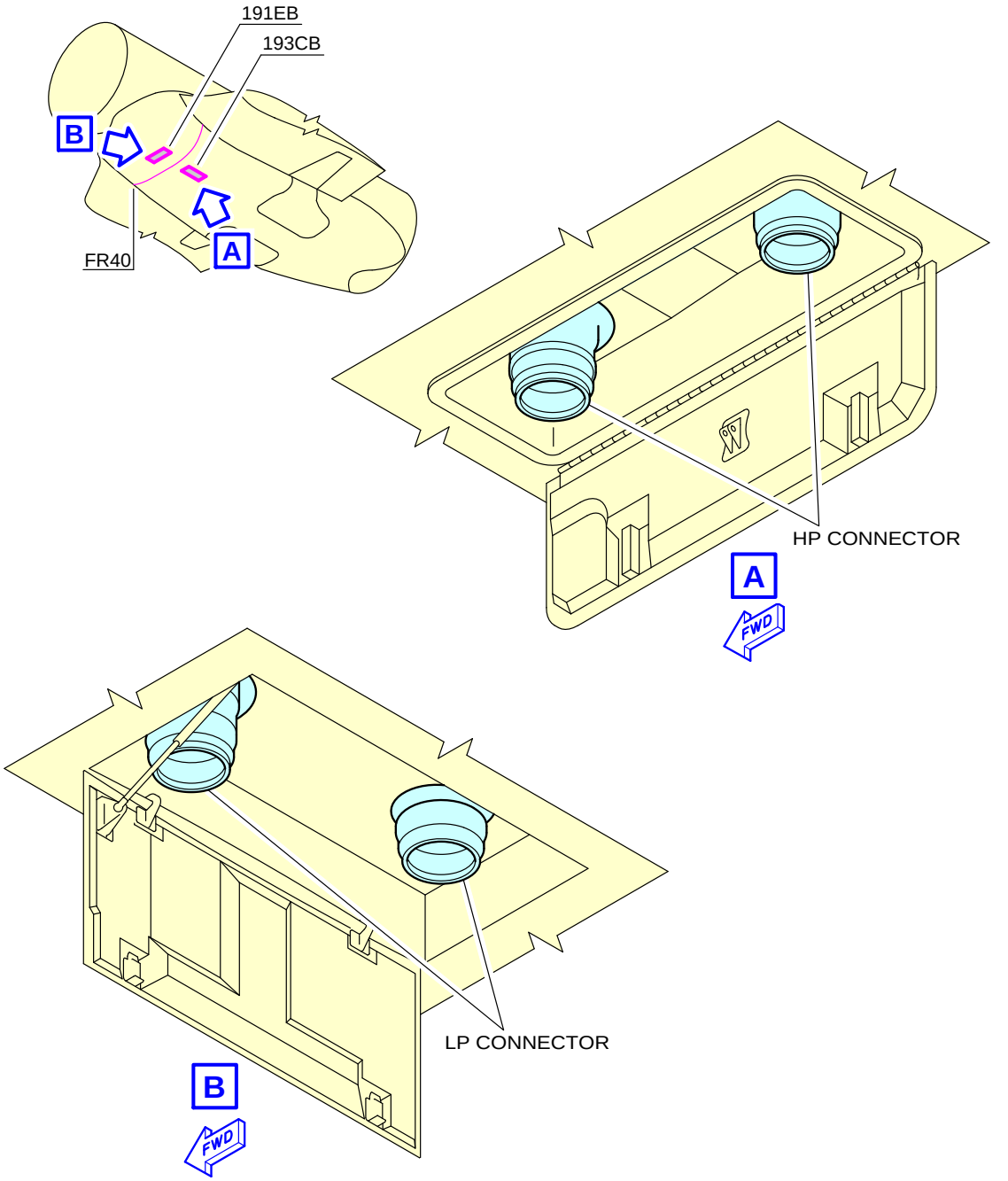
4. Low Pressure Air Connection

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| LP Connectors: Access Door 191EB | 19.29 m (63.29 ft) | 0.31 m (1.02 ft) | | 2.08 m (6.82 ft) |
| | 19.29 m (63.29 ft) | 0.76 m (2.49 ft) | | 2.11 m (6.92 ft) |

A. Connectors:
- Two standard 8 in. SAE AS4262 connections.

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Ground Service Connections
LP and HP Ground Connectors
FIGURE-5-4-7-991-001-A01

## 5-4-8 Oil System

****ON A/C A330-200 A330-200F A330-300**

Oil Servicing

1. PW 4000 Series Engine

A. Engine Oil Replenishment:
One gravity filling cap and one pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 417AL (418AR) | 25.70 m<br>(84.32 ft) | 10.60 m<br>(34.78 ft) | | 2.23 m<br>(7.32 ft) |
| Engine 2:<br>Access Door: 427AL (428AR) | 25.70 m<br>(84.32 ft) | | 8.07 m<br>(26.48 ft) | 2.23 m<br>(7.32 ft) |

(1) Tank capacity:
- Full level: 30.28 l (8.00 US gal).
- Usable: 21.77 l (5.75 US gal).

B. IDG Oil Replenishment:
One pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1: | 26.16 m | 10.07 m | | 1.50 m |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Access Door: 417EL | (85.83 ft) | (33.04 ft) | | (4.92 ft) |
| Engine 2:<br>Access Door: 427EL | 26.16 m<br>(85.83 ft) | | 8.66 m<br>(28.41 ft) | 1.50 m<br>(4.92 ft) |

- Max delivery pressure required: 2.76 bar (40 psi).
- Max oil capacity of the IDG: 4.10 l (1.08 US gal).

C. Starter Oil Replenishment:
One gravity filling and one pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 417AL (418AR) | 26.16 m<br>(85.83 ft) | 10.07 m<br>(33.04 ft) | | 1.50 m<br>(4.92 ft) |
| Engine 2:<br>Access Door: 427AL (428AR) | 26.16 m<br>(85.83 ft) | | 8.66 m<br>(28.41 ft) | 1.50 m<br>(4.92 ft) |

- Max oil capacity of the Starter: 0.30 l (0.08 US gal).

2. RR Trent 700 Series Engine

A. Engine Oil Replenishment:
One gravity filling cap.
One ozone self sealing pressure fill and overfill connector per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 416CR | 23.90 m<br>(78.41 ft) | 7.92 m<br>(25.98 ft) | | 2.05 m<br>(6.73 ft) |
| Engine 2:<br>Access Door: 426CR | 23.90 m<br>(78.41 ft) | | 10.82 m<br>(35.50 ft) | 2.05 m<br>(6.73 ft) |

(1) Tank capacity:
- Full level: 23.30 l (6.16 US gal).
- Usable: 22.71 l (6.00 US gal).

B. IDG Oil Replenishment:
One ozone self sealing pressure fill and overfill connector per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 415CL | 24.38 m<br>(79.99 ft) | 9.65 m<br>(31.66 ft) | | 0.80 m<br>(2.62 ft) |
| Engine 2:<br>Access Door: 425CL | 24.38 m<br>(79.99 ft) | | 9.09 m<br>(29.82 ft) | 0.80 m<br>(2.62 ft) |

- Max delivery pressure required: 2.76 bar (40 psi).
- Max oil capacity of the IDG: 5.50 l (1.45 US gal).

C. Starter Oil Replenishment:
One filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 415AL (416AR) | 24.38 m<br>(79.99 ft) | 9.65 m<br>(31.66 ft) | | 0.80 m<br>(2.62 ft) |
| Engine 2:<br>Access Door: 425AL (426AR) | 24.38 m<br>(79.99 ft) | | 9.09 m<br>(29.82 ft) | 0.80 m<br>(2.62 ft) |

- Max oil capacity of the Starter: 0.50 l (0.13 US gal).

****ON A/C A330-200 A330-300**

3. GE CF6-80E1 Series Engine

A. Engine Oil Replenishment:
One gravity filling cap and one pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 416BR | 24.93 m<br>(81.79 ft) | 10.00 m<br>(32.81 ft) | | 1.71 m<br>(5.61 ft) |
| Engine 2:<br>Access Door: 426BR | 24.93 m<br>(81.79 ft) | | 8.73 m<br>(28.64 ft) | 1.71 m<br>(5.61 ft) |

(1) Tank capacity:
- Full level: 24.57 l (6.49 US gal).
- Usable: 23.05 l (6.09 US gal).

B. IDG Oil Replenishment:
One pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 414BL | 23.03 m<br>(75.56 ft) | 7.96 m<br>(26.12 ft) | | 2.35 m<br>(7.71 ft) |
| Engine 2:<br>Access Door: 424BL | 23.03 m<br>(75.56 ft) | | 10.77 m<br>(35.33 ft) | 2.35 m<br>(7.71 ft) |

- Max delivery pressure required: 2.76 bar (40 psi).
- Max oil capacity of the IDG: 5.50 l (1.45 US gal).

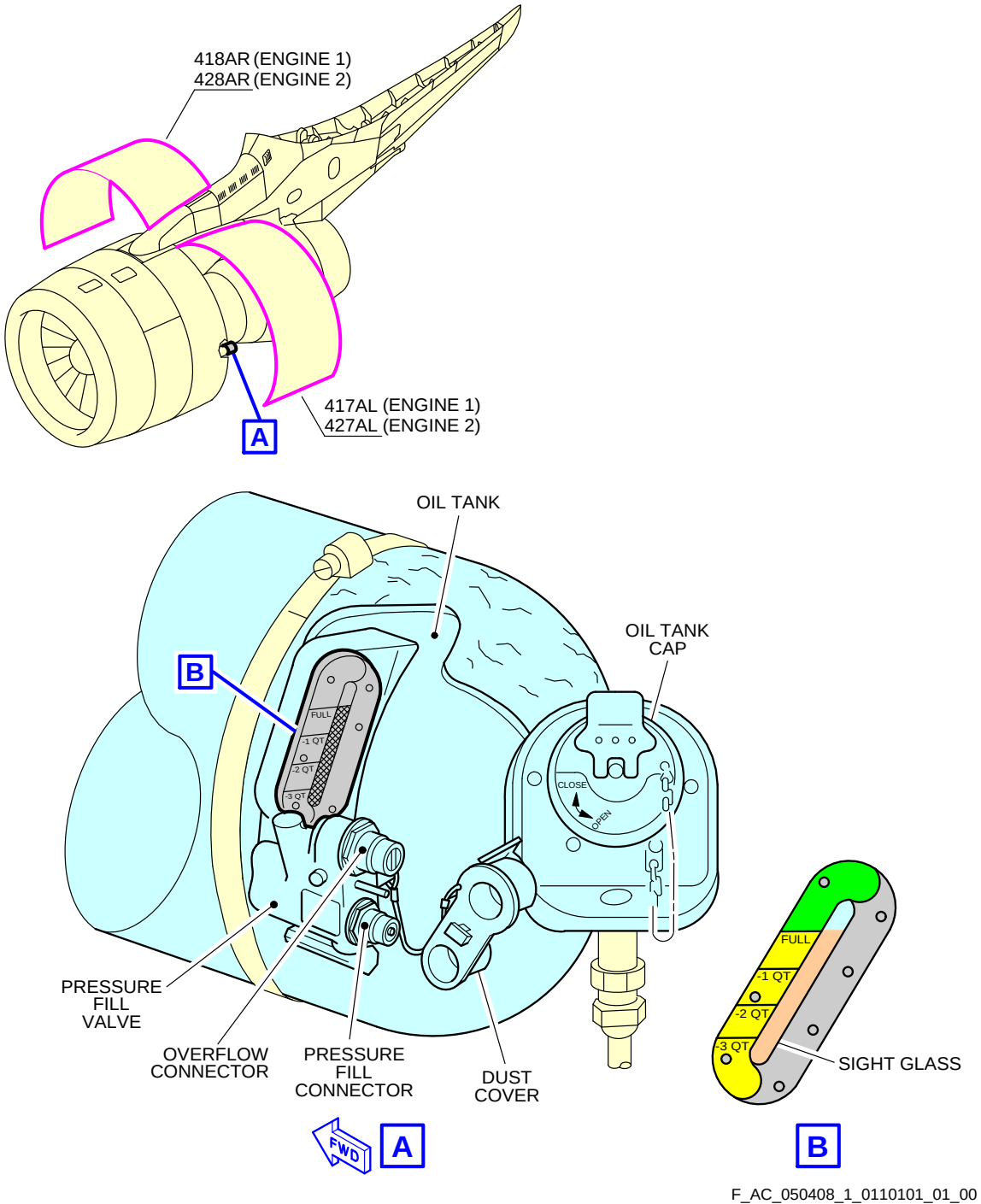
C. Starter Oil Replenishment:
One gravity filling and one pressure filling connection per engine.

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Engine 1:<br>Access Door: 417AL (418AR) | 23.03 m<br>(75.56 ft) | 7.96 m<br>(26.12 ft) | | 2.35 m<br>(7.71 ft) |
| Engine 2:<br>Access Door: 427AL (428AR) | 23.03 m<br>(75.56 ft) | | 10.77 m<br>(35.33 ft) | 2.35 m<br>(7.71 ft) |

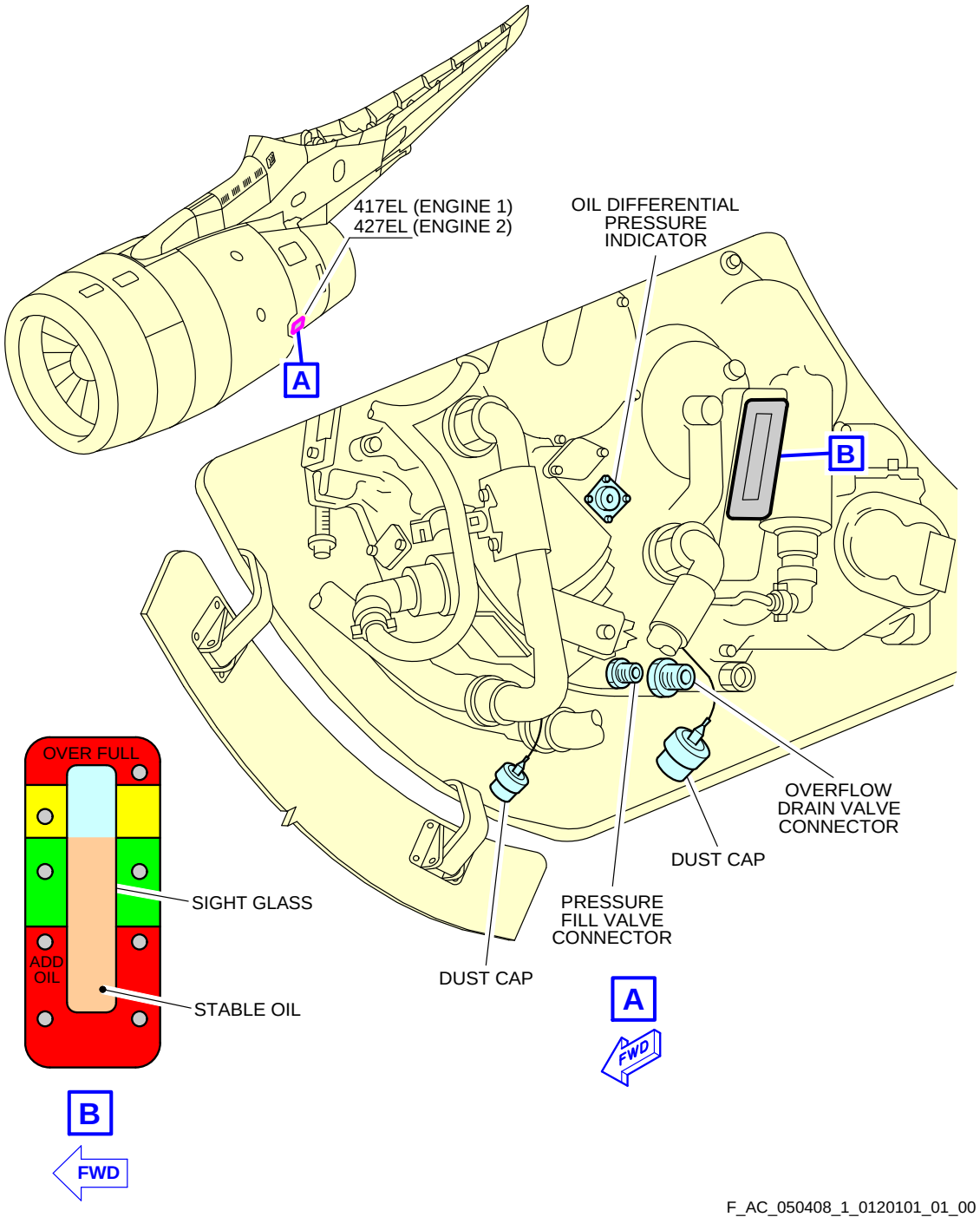
- Max oil capacity of the Starter: 0.80 l (0.21 US gal).

**ON A/C A330-200 A330-200F A330-300



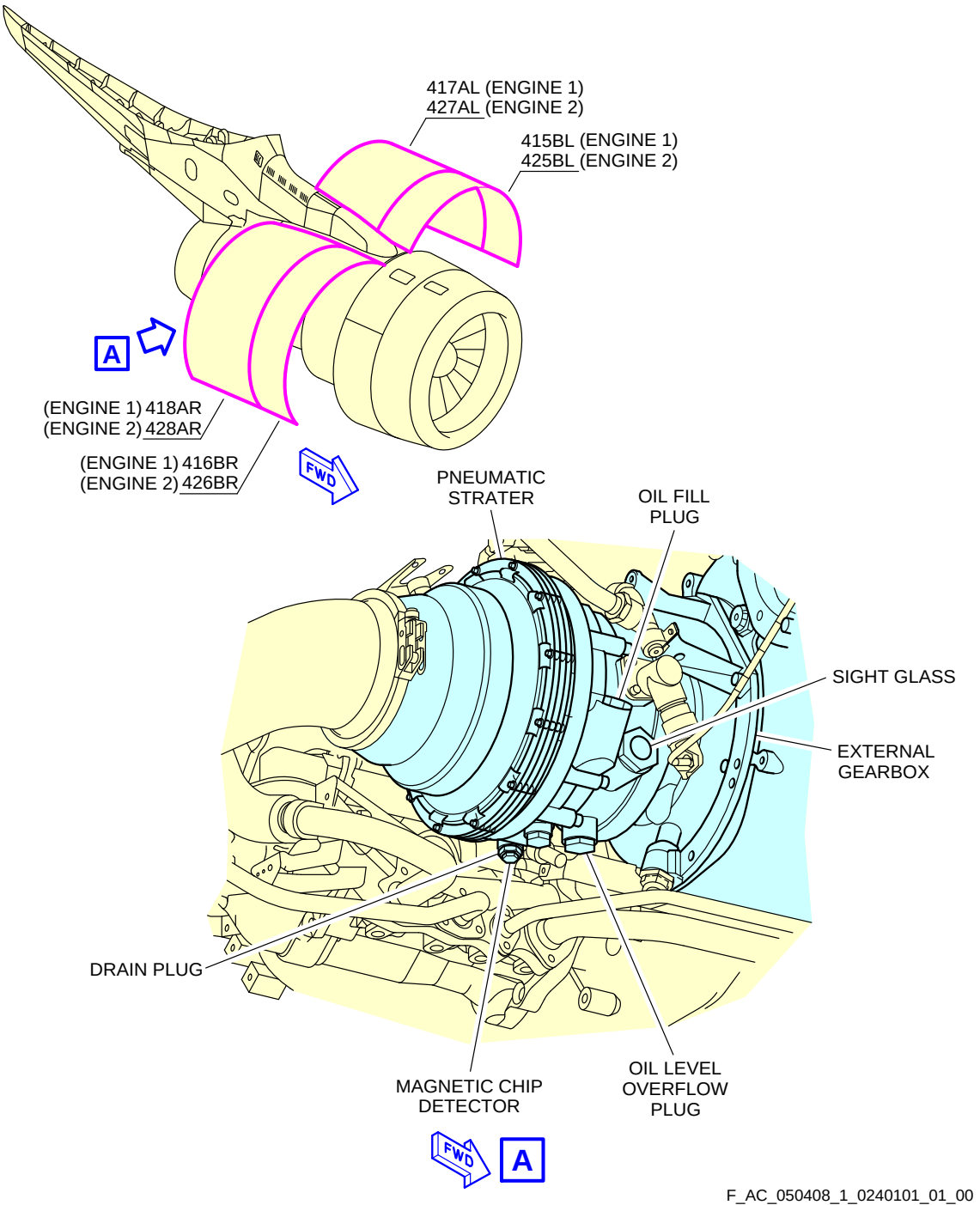

Ground Service Connections
Engine Oil Tank - PW 4000 Series Engine
FIGURE-5-4-8-991-011-A01

**ON A/C A330-200 A330-200F A330-300



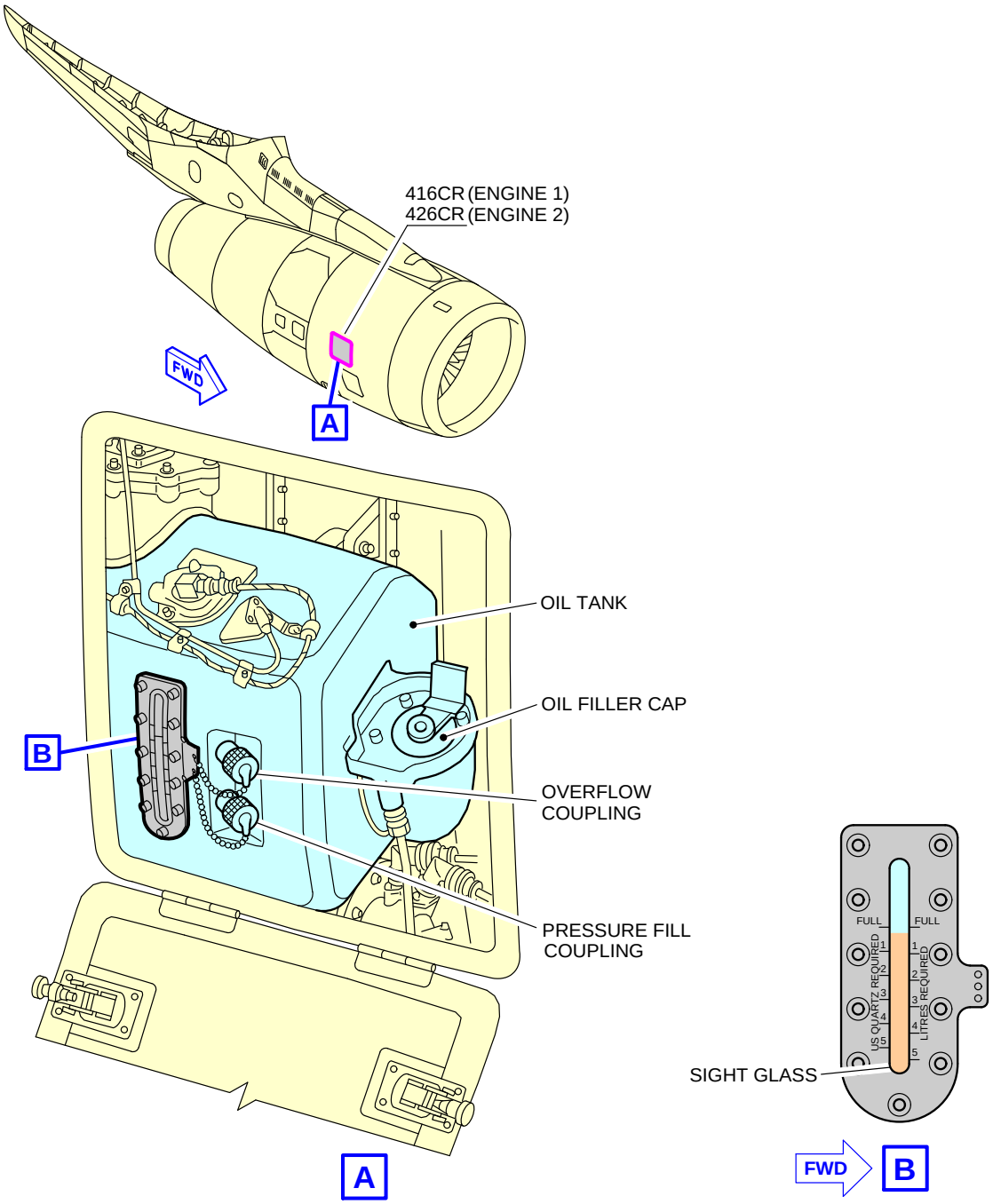

Ground Service Connections
IDG Oil Tank - PW 4000 Series Engine
FIGURE-5-4-8-991-012-A01

**ON A/C A330-200 A330-200F A330-300



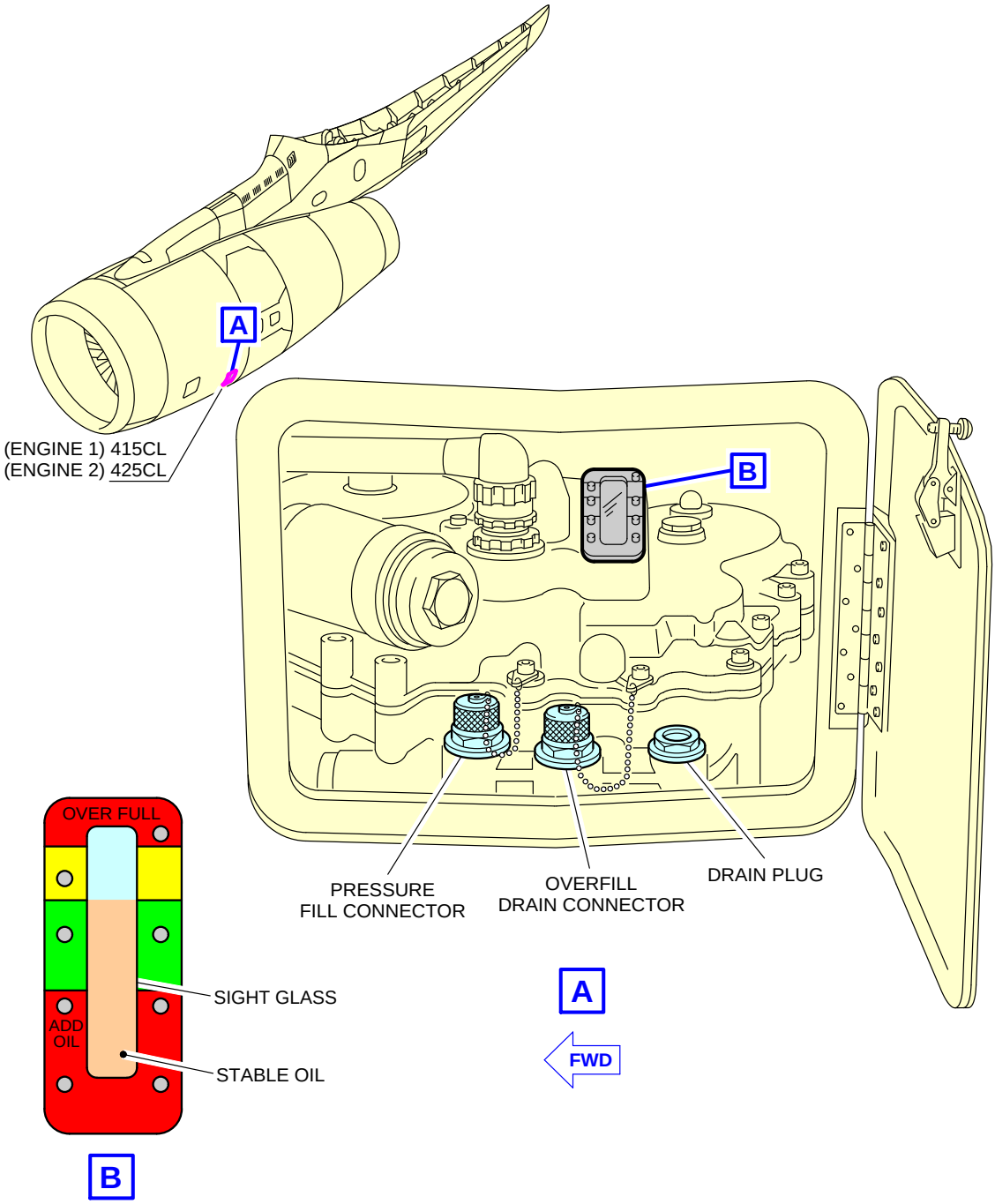

Ground Service Connections
Starter Oil Tank - PW 4000 Series Engine
FIGURE-5-4-8-991-024-A01

**ON A/C A330-200 A330-200F A330-300




Ground Service Connections
Engine Oil Tank - RR Trent 700 Series Engine
FIGURE-5-4-8-991-013-A01

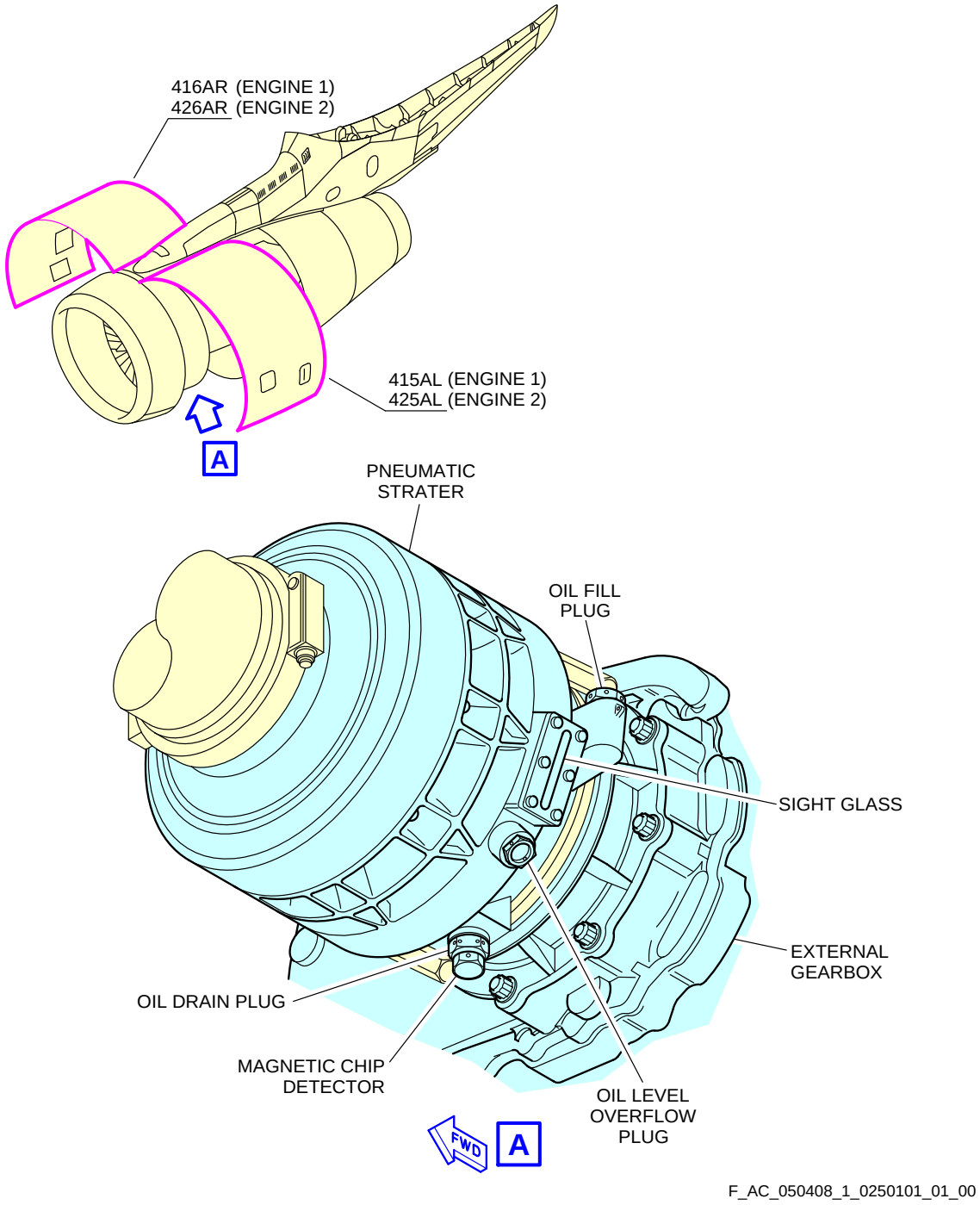
**ON A/C A330-200 A330-200F A330-300




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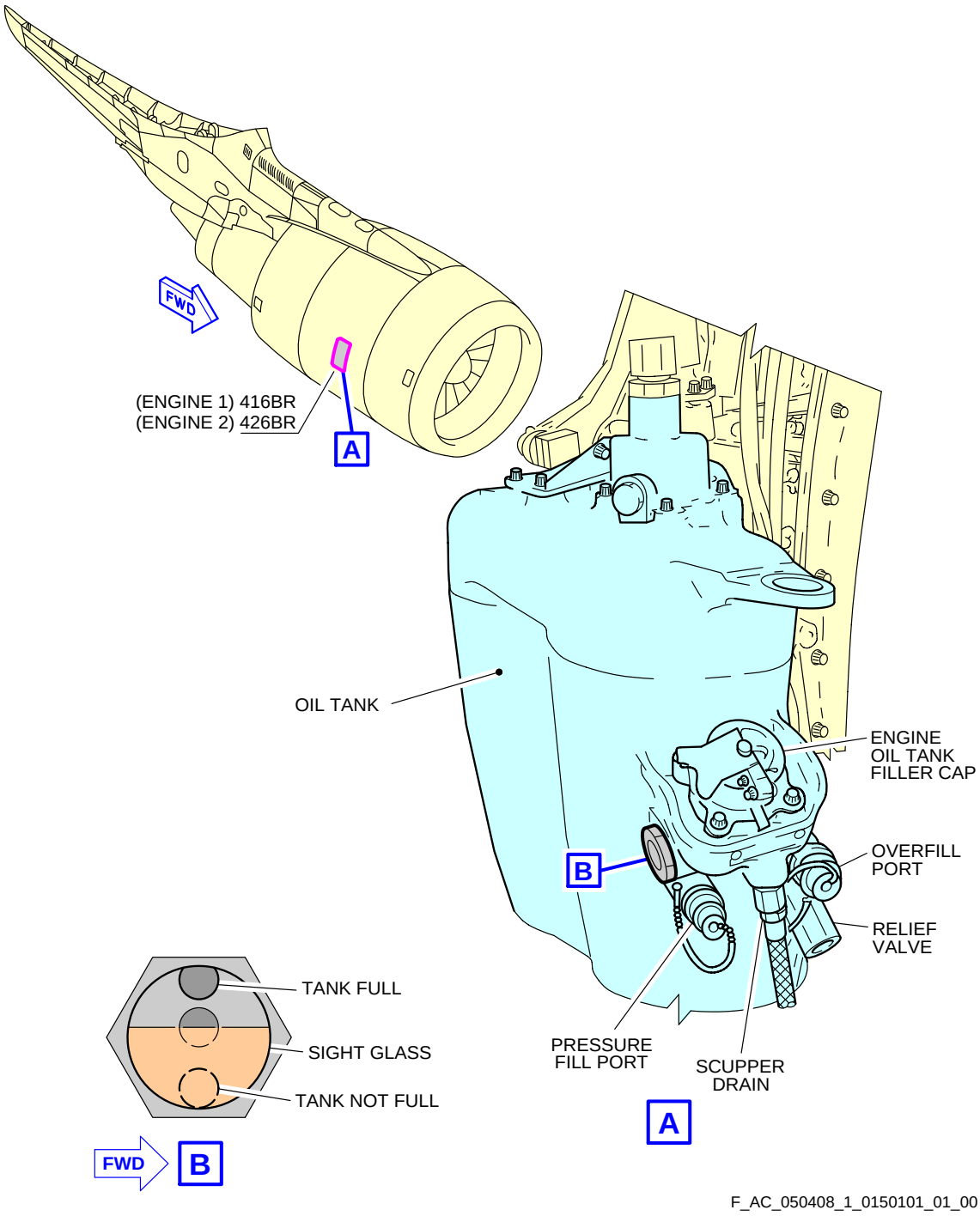
Ground Service Connections
IDG Oil Tank - RR Trent 700 Series Engine
FIGURE-5-4-8-991-014-A01

**ON A/C A330-200 A330-200F A330-300



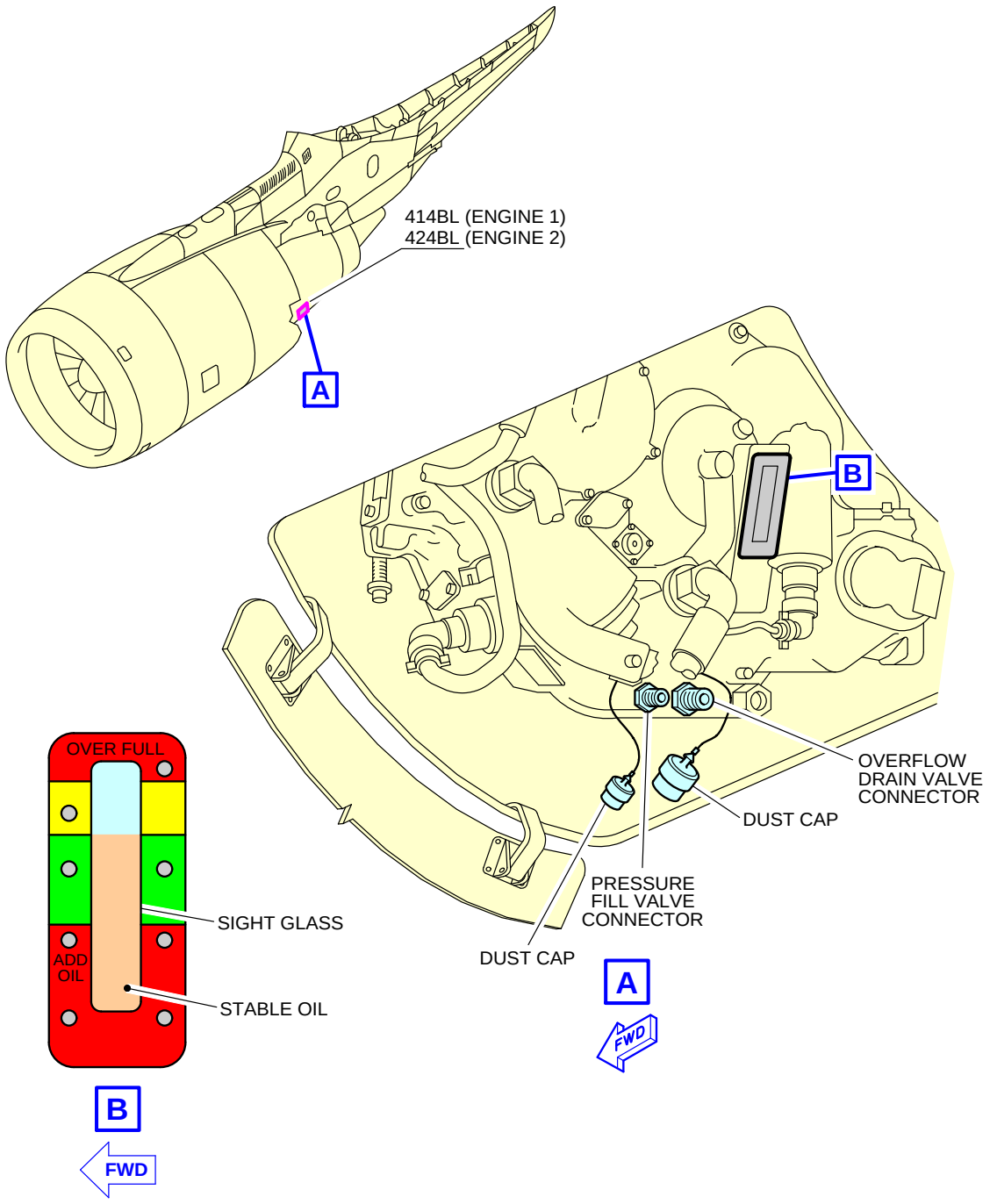

Ground Service Connections
Starter Oil Tank - RR Trent 700 Series Engine
FIGURE-5-4-8-991-025-A01

**ON A/C A330-200 A330-300




Ground Service Connections
Engine Oil Tank - GE CF6-80E1 Series Engine
FIGURE-5-4-8-991-015-A01

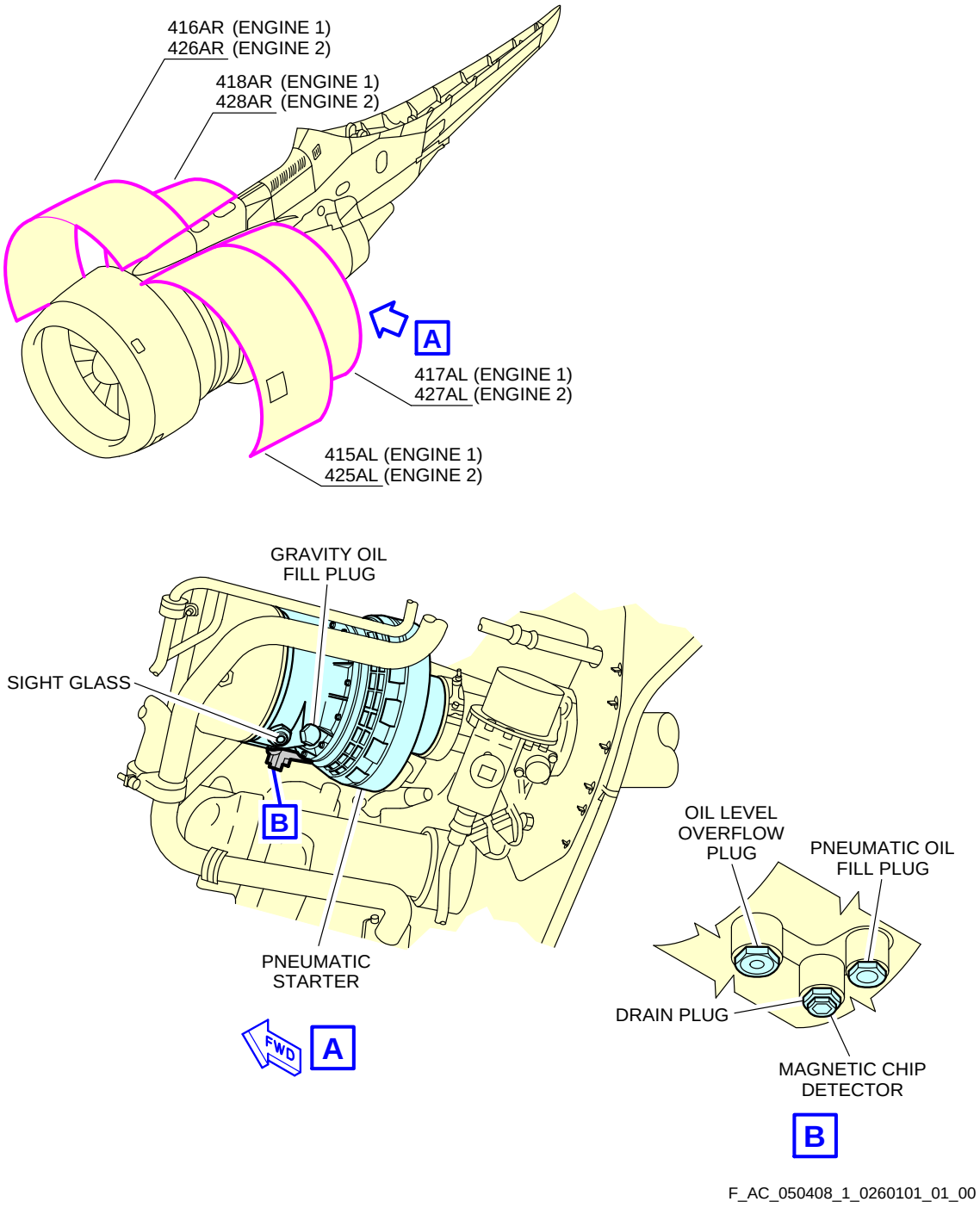
**ON A/C A330-200 A330-300




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Ground Service Connections
IDG Oil Tank - GE CF6-80E1 Series Engine
FIGURE-5-4-8-991-016-A01

**ON A/C A330-200 A330-300




Ground Service Connections
Starter Oil Tank - GE CF6-80E1 Series Engine
FIGURE-5-4-8-991-026-A01

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

APU Oil Servicing

****ON A/C A330-300 A330-900**

1. APU Oil Servicing:

   APU oil gravity filling cap.

   NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| APU Oil Replenishment: Access Doors: 316AR, 315AL | 60.3 m (197.83 ft) | 0.4 m (1.31 ft) | | 8 m (26.25 ft) |

   A. Tank capacity (usable):
      - APU Type: 331-350: 7.3 l (1.93 US gal).

****ON A/C A330-200 A330-200F A330-800**

2. APU Oil Servicing:

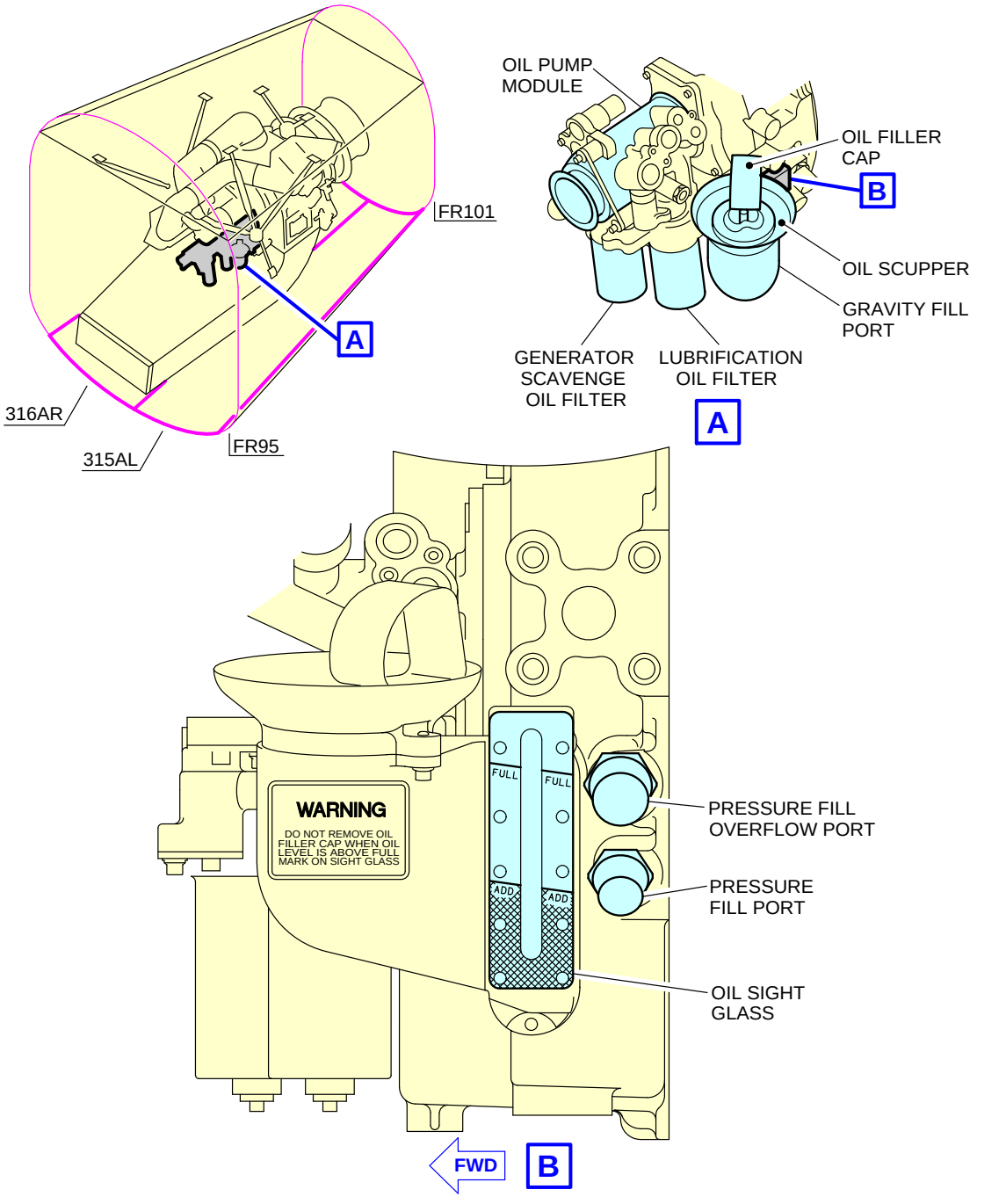
   APU oil gravity filling cap.

   NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| APU Oil Replenishment: Access Doors: 316AR, 315AL | 55 m (180.45 ft) | 0.4 m (1.31 ft) | | 8 m (26.25 ft) |

   A. Tank capacity (usable):
      - APU Type: 331-350: 7.3 l (1.93 US gal).

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




Ground Service Connections
APU Oil Servicing
FIGURE-5-4-8-991-010-A01

## 5-4-9 Potable Water System

****ON A/C A330-300 A330-900**

Potable Water Servicing

1. Potable Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Potable-Water Service Panel: Access Door 164AR | 48.15 m (157.97 ft) | | 0.51 m (1.67 ft) | 3.15 m (10.33 ft) |
| FWD Drain Panel: Access Door 133BL | 14.7 m (48.23 ft) | 0.6 m (1.97 ft) | | 1.9 m (6.23 ft) |
| AFT Drain Panel: Access Door 154AR | 40.18 m (131.82 ft) | | 0.72 m (2.36 ft) | 2.46 m (8.07 ft) |

NOTE : Distances are approximate.

2. Technical Specifications

A. Connections

(1) On the potable-water service panel (access door 164AR):
- One heated 3/4 in. (ISO 17775) quick release filling connection
- One heated 3/4 in. (ISO 17775) overflow and discharge connection
- One ground pressurization connection.

(2) On the FWD drain panel (access door 133BL):
- One standard 3/4 in. (ISO 17775) drain connection with back-up mechanical control.

(3) On the AFT drain panel (access door 154AR):

- One standard 3/4 in. (ISO 17775) drain connection with back-up mechanical control
- One standard 3/4 in. (ISO 17775) overflow and discharge connection with back-up mechanical control.

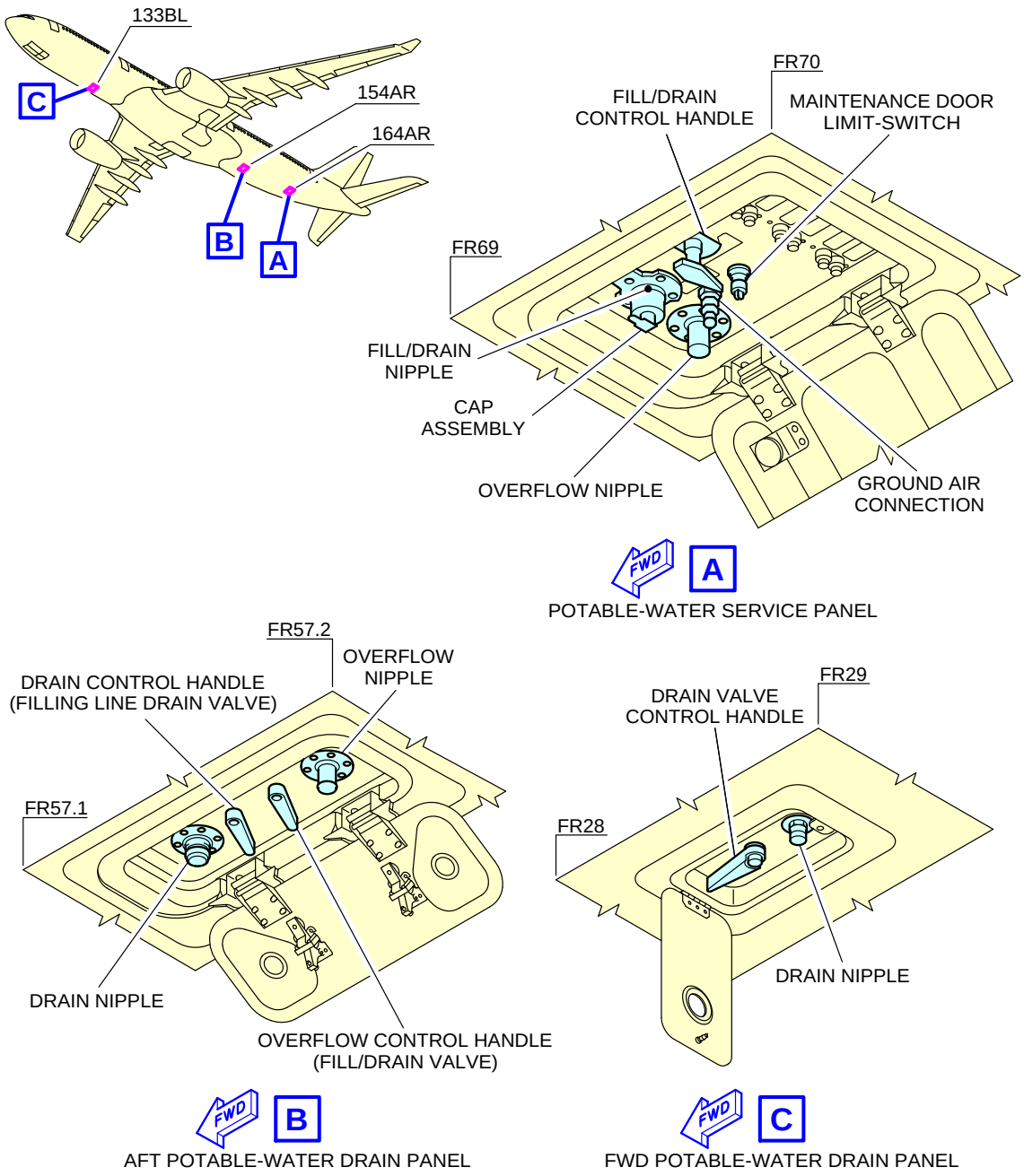
B. Capacity
- 700 l (184.92 US gal) standard
- 1 050 l (277.38 US gal) standard option.

C. Filling Pressure and Flow Rate

FWD tank:
- Maximum filling pressure: 3.45/8.62 bar (50/125 psi)
- Flow rate: 45/73 l/min (11.89/19.28 US gal/min).

AFT tank:
- Maximum filling pressure: 3.45/8.62 bar (50/125 psi)
- Flow rate: 56/85 l/min (14.79/22.45 US gal/min).

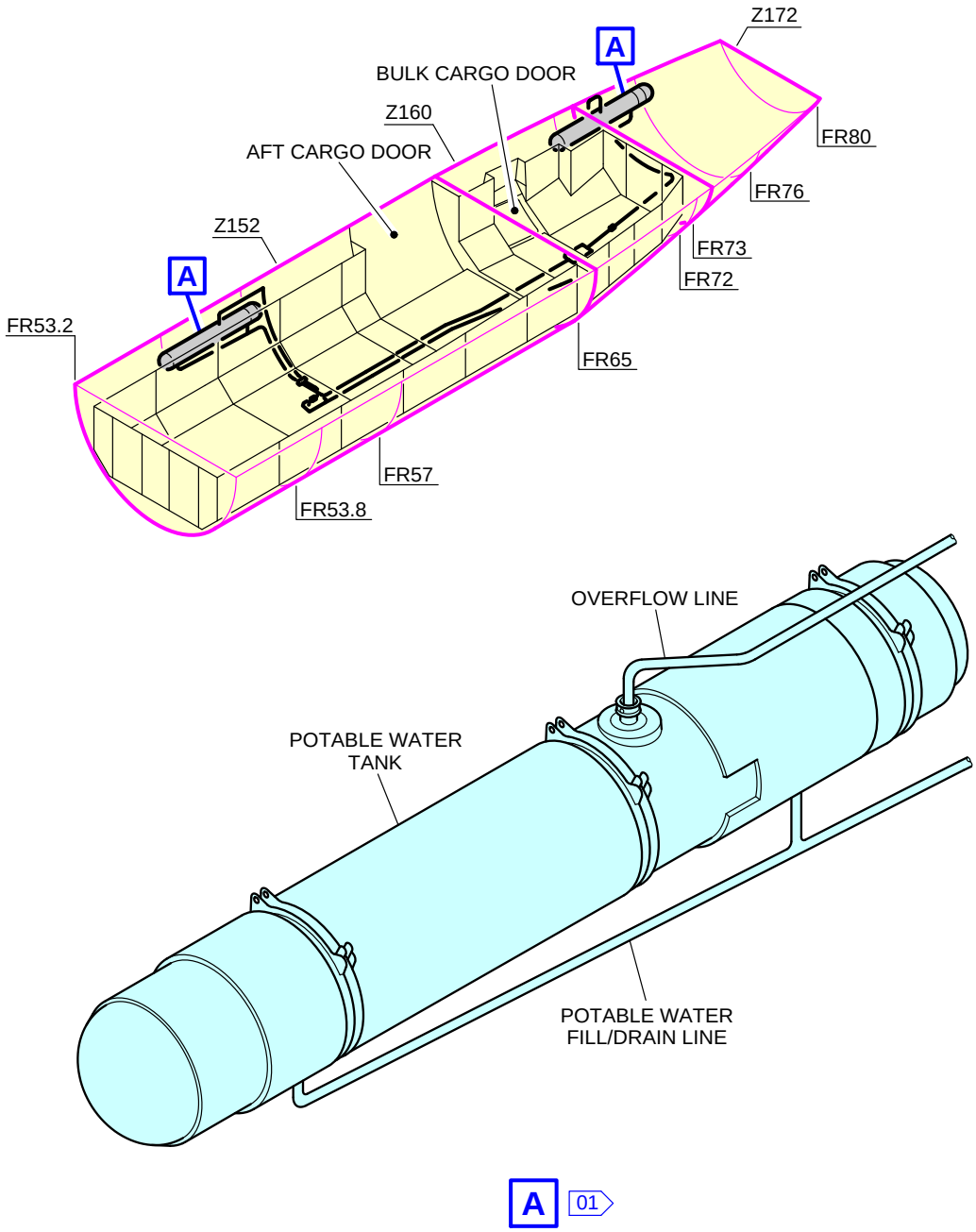
**ON A/C A330-300 A330-900




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Ground Service Connections
Potable-Water Ground Service Panels
FIGURE-5-4-9-991-015-A01

**ON A/C A330-300 A330-900




**NOTE:**
01 TYPICAL

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Ground Service Connections
Potable-Water Tanks Location
FIGURE-5-4-9-991-016-A01

**ON A/C A330-200 A330-800

Potable Water Servicing

1. Potable Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Potable-Water Service Panel: Access Door 164AR | 48.15 m (157.97 ft) | | 0.51 m (1.67 ft) | 3.15 m (10.33 ft) |
| FWD Drain Panel: Access Door 133BL | 14.7 m (48.23 ft) | 0.6 m (1.97 ft) | | 1.9 m (6.23 ft) |
| AFT Drain Panel: Access Door 154AR | 40.18 m (131.82 ft) | | 0.72 m (2.36 ft) | 2.46 m (8.07 ft) |

NOTE : Distances are approximate.

2. Technical Specifications

A. Connections

(1) On the potable-water service panel (access door 164AR):
- One heated 3/4 in. (ISO 17775) quick release filling connection
- One heated 3/4 in. (ISO 17775) overflow and discharge connection
- One ground pressurization connection.

(2) On the FWD drain panel (access door 133BL):
- One standard 3/4 in. (ISO 17775) drain connection with back-up mechanical control.

(3) On the AFT drain panel (access door 154AR):
- One standard 3/4 in. (ISO 17775) drain connection with back-up mechanical control
- One standard 3/4 in. (ISO 17775) overflow and discharge connection with back-up mechanical control.

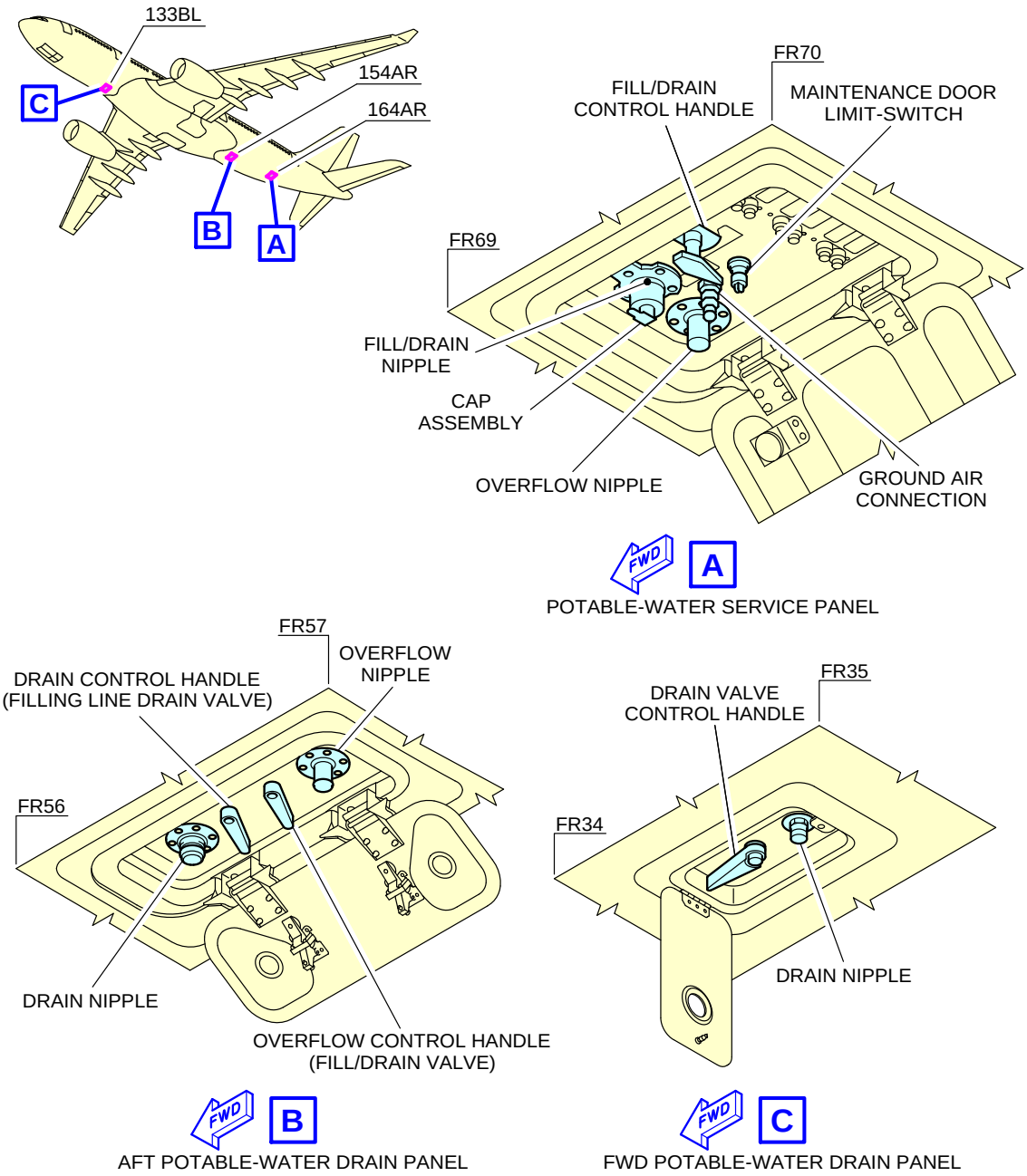
B. Capacity
- 700 l (184.92 US gal) standard
- 1 050 l (277.38 US gal) standard option.

C. Filling Pressure and Flow Rate

FWD tank:
- Maximum filling pressure: 3.45/8.62 bar (50/125 psi)
- Flow rate: 45/73 l/min (11.89/19.28 US gal/min).

AFT tank:
- Maximum filling pressure: 3.45/8.62 bar (50/125 psi)
- Flow rate: 56/85 l/min (14.79/22.45 US gal/min).

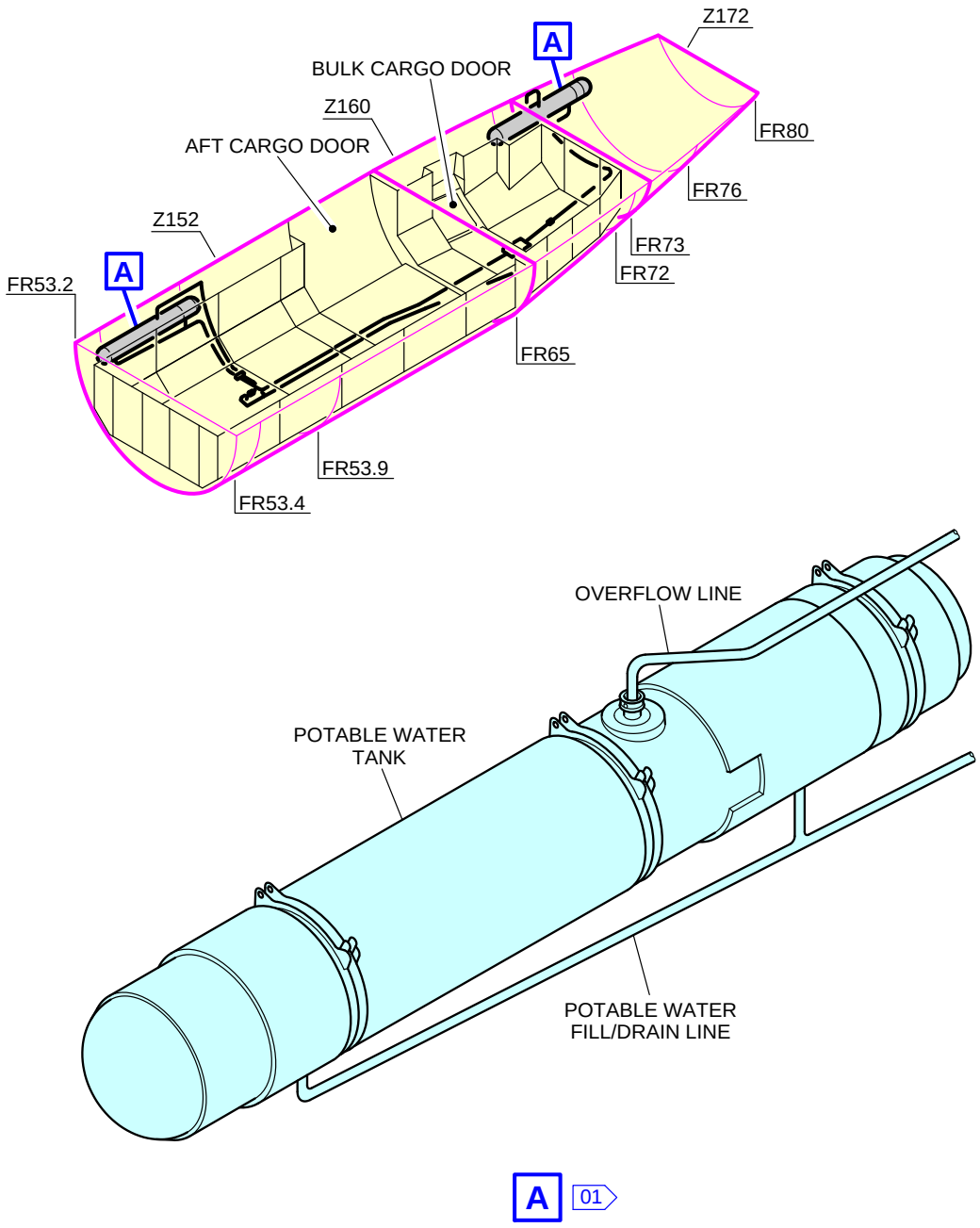
**ON A/C A330-200 A330-800




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Ground Service Connections
Potable-Water Ground Service Panels
FIGURE-5-4-9-991-021-A01

**ON A/C A330-200 A330-800




**NOTE:**
01 TYPICAL

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Ground Service Connections
Potable-Water Tanks Location
FIGURE-5-4-9-991-022-A01

**ON A/C A330-200F

Potable Water Servicing

1. Potable Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Potable-Water Service Panel: Access Door 133BL | 14.03 m (46.03 ft) | 0.76 m (2.49 ft) | | 2.64 m (8.66 ft) |

NOTE : Distances are approximate.

2. Technical Specifications

A. Connections

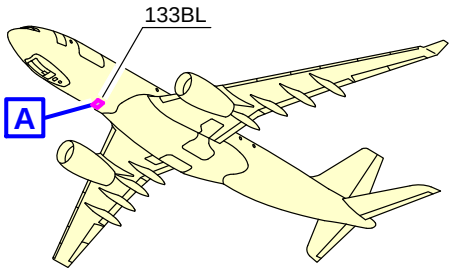
(1) On the potable-water service panel (access door 133BL):
- One heated 3/4 in. (ISO 17775) quick release filling connection
- One heated 3/4 in. (ISO 17775) overflow and discharge connection
- One ground pressurization connection.

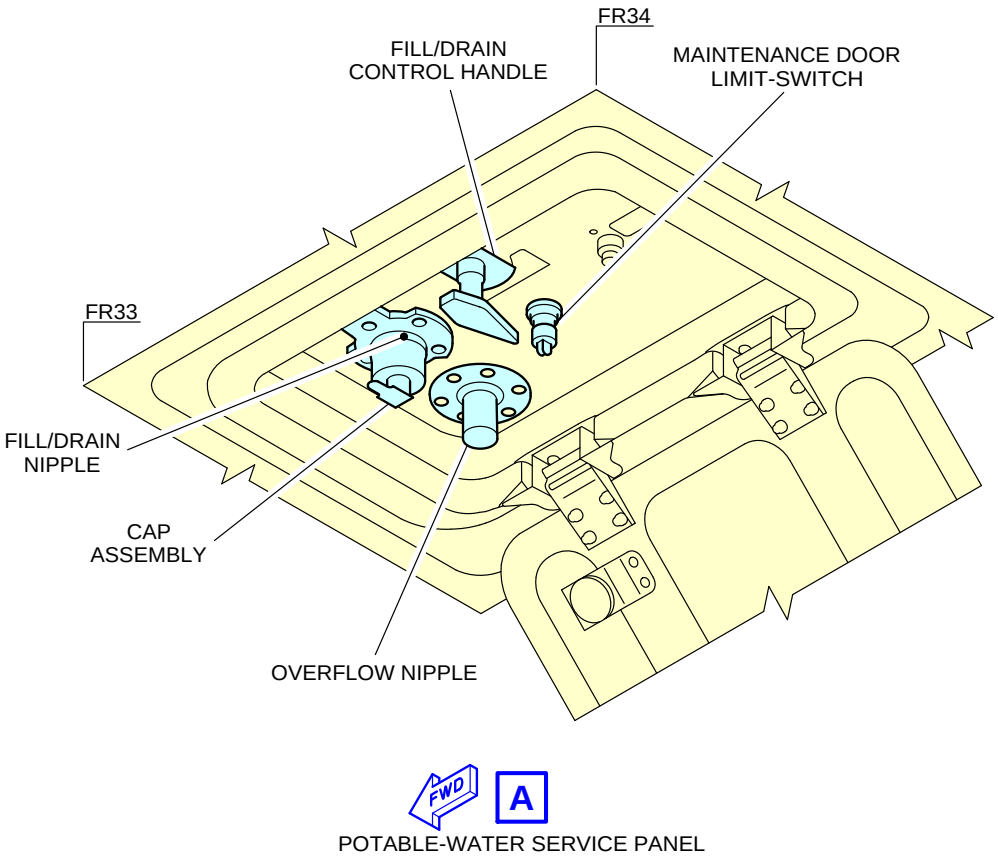
(2) On the drain panel (access door 133BL):
- One standard 3/4 in. (ISO 17775) drain connection with back-up mechanical control.

B. Capacity
- 100 l (26.42 US gal).

C. Filling Pressure and Flow Rate
- Maximum filling pressure: 3.45 bar (50 psi)
- Flow rate: 45 l/min (11.89 US gal/min).

**ON A/C A330-200F



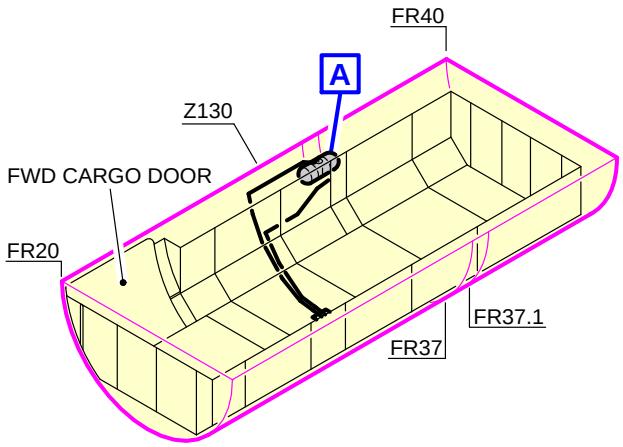



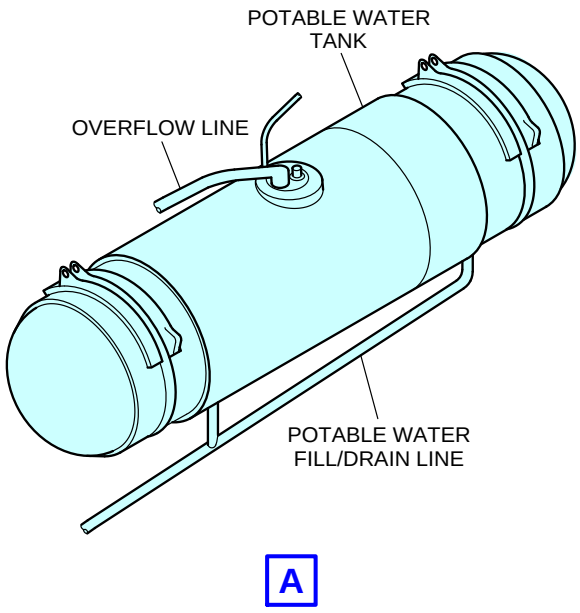

POTABLE-WATER SERVICE PANEL

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Ground Service Connections
Potable-Water Ground Service Panel
FIGURE-5-4-9-991-025-A01

**ON A/C A330-200F




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Ground Service Connections
Potable-Water Tank Location
FIGURE-5-4-9-991-026-A01

## 5-4-10 Waste Water System

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900

Waste Water Servicing

**ON A/C A330-300 A330-900

1. Waste Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Waste Water Ground Service Panel: Access Door 171AL | 50.00 m (164.04 ft) | 0.09 m (0.30 ft) | | 3.60 m (11.81 ft) |

A. Waste water ground service panel comprising:
- Standard: One standard 4 in. (ISO 17775) drain connection and two 1 in. (ISO 17775) flushing connections
- Standard option: One standard 4 in. (ISO 17775) drain connection and three 1 in. (ISO 17775) flushing connections.

B. Capacity waste tanks:
- Standard: 700 l (184.92 US gal)
- Standard option: 1050 l (277.38 US gal).

C. Chemical fluid:
- Standard: 36 l (9.51 US gal)
- Standard option: 54 l (14.27 US gal).

**ON A/C A330-200 A330-800

2. Waste Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Waste Water Ground Service Panel: Access Door 171AL | 44.66 m (146.52 ft) | 0.09 m (0.30 ft) | | 3.60 m (11.81 ft) |

A. Waste water ground service panel comprising:
- Standard: One standard 4 in. (ISO 17775) drain connection and two 1 in. (ISO 17775) flushing connections
- Standard option: One standard 4 in. (ISO 17775) drain connection and three 1 in. (ISO 17775) flushing connections.

B. Capacity waste tanks:
- Standard: 700 l (184.92 US gal)
- Standard option: 1050 l (277.38 US gal).

C. Chemical fluid:
- Standard: 36 l (9.51 US gal)
- Standard option: 54 l (14.27 US gal).

****ON A/C A330-200F**

3. Waste Water Servicing

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| Waste Water Ground Service Panel 1: Access Door 121EL | 5.49 m (18.01 ft) | 1.43 m (4.69 ft) | | 2.95 m (9.68 ft) |
| Waste Water Ground Service Panel 2: Access Door 121FL | 5.98 m (19.62 ft) | 1.69 m (5.54 ft) | | 3.15 m (10.33 ft) |

A. There are two waste water ground service panels:
- First panel: One standard connection Roylyn 1 in. (ISO 17775) for flushing and filling
- Second panel: One standard Taco type valve 4 in. (ISO 17775) for draining.

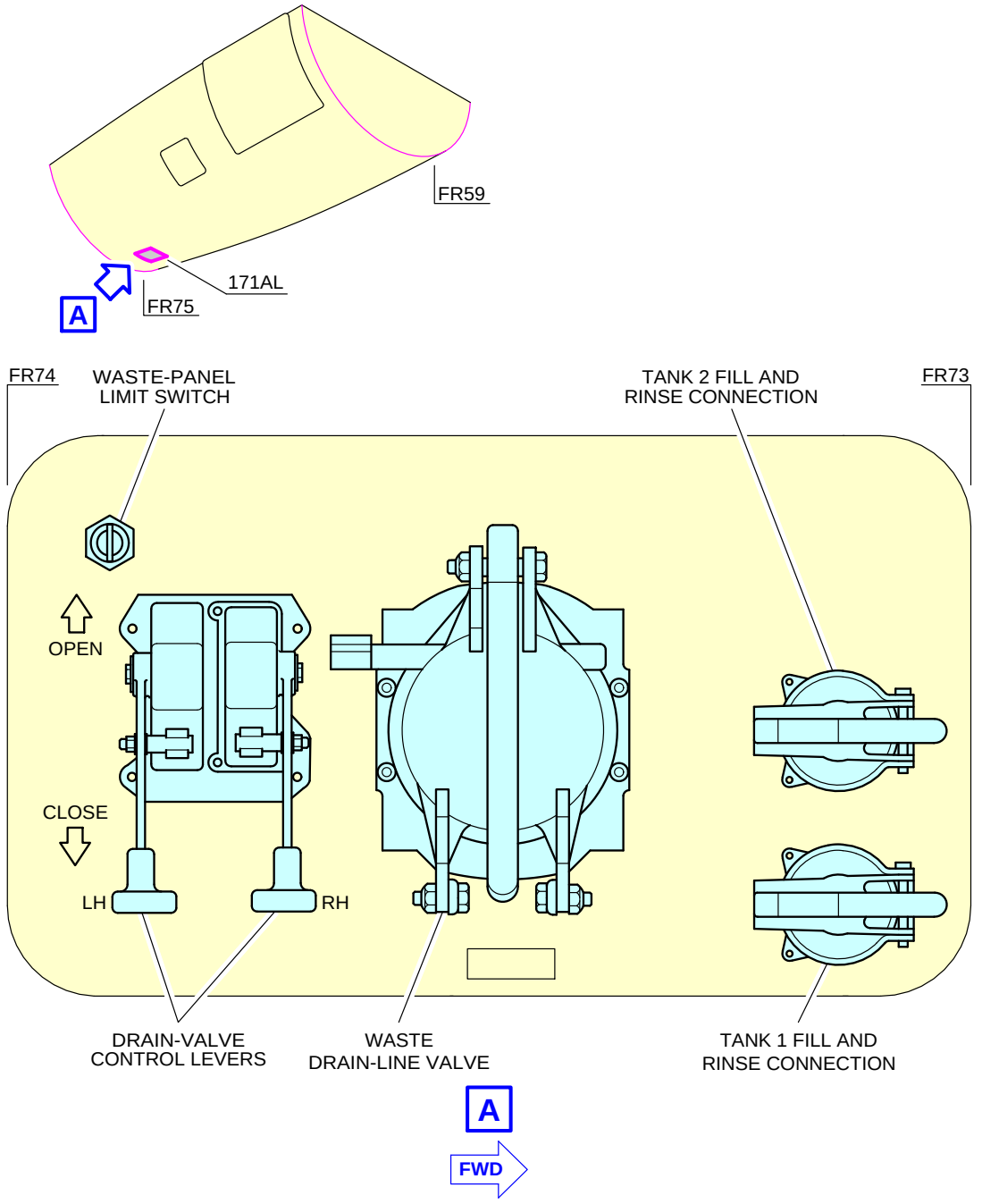
NOTE : Handle used for drainage is located on the first panel.

B. Capacity waste tanks:
- Standard: 35 l (9.25 US gal).

NOTE : The waste water drain-system discards the waste water from the galley sink and the lavatory washbasin overboard.
The toilet system moves the waste materials and liquids from the toilet to the waste tank.

C. Chemical fluid:
- Standard: 9.5 l (2.51 US gal).

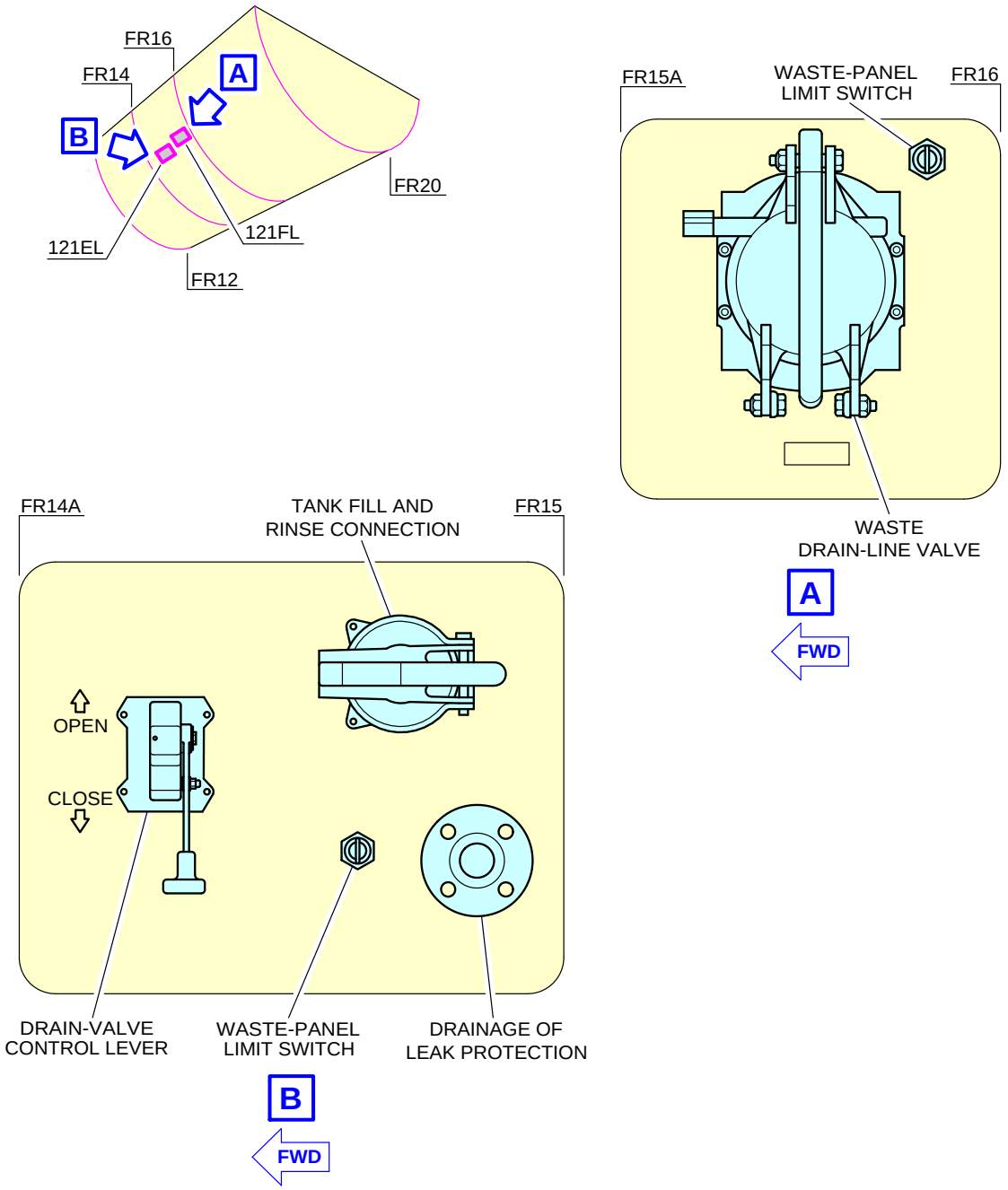
**ON A/C A330-200 A330-300 A330-800 A330-900




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Ground Service Connections
Waste Water Ground Service Panel
FIGURE-5-4-10-991-001-A01

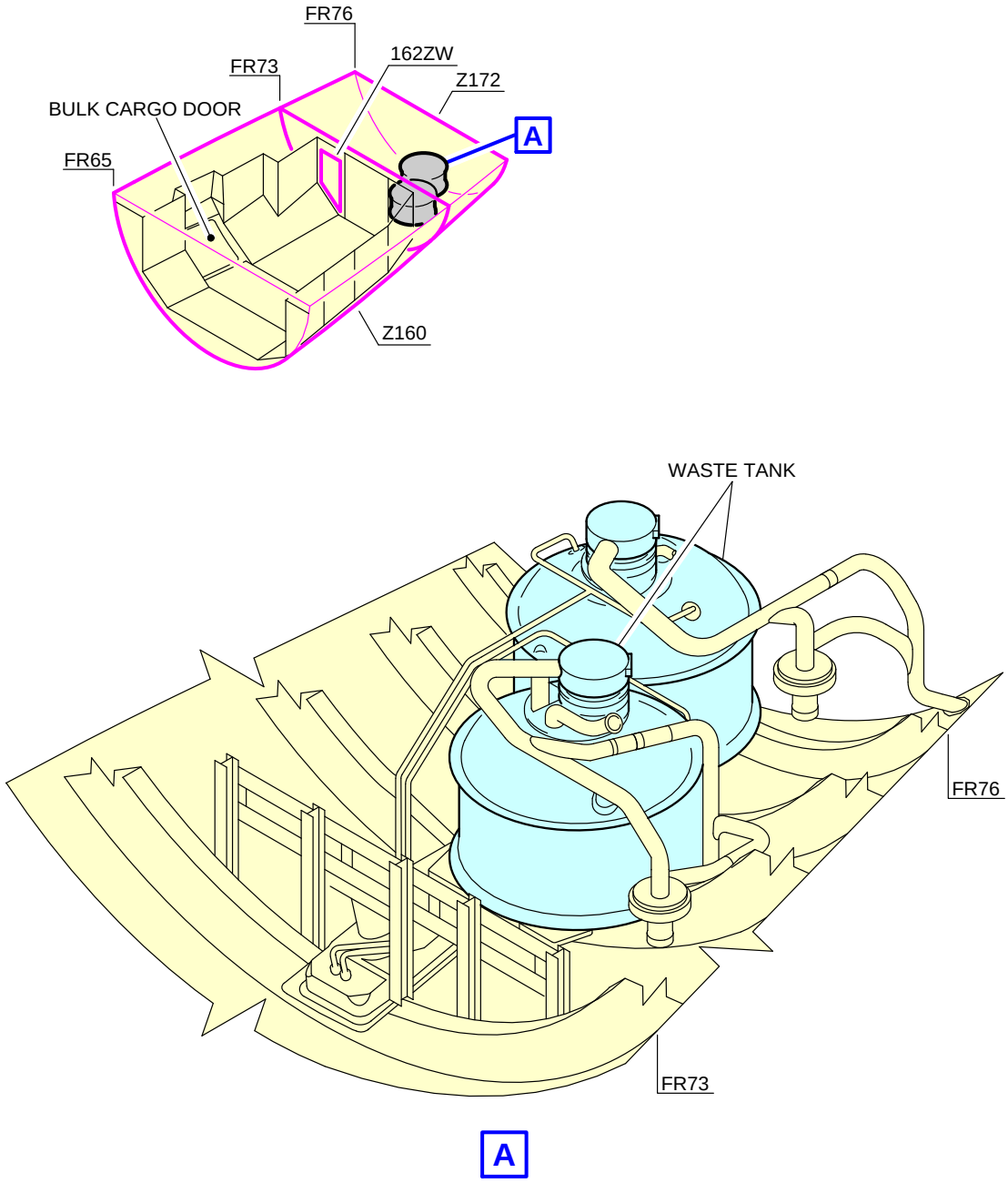
**ON A/C A330-200F




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Ground Service Connections
Waste Water Ground Service Panel
FIGURE-5-4-10-991-004-A01

**ON A/C A330-200 A330-300 A330-800 A330-900




Ground Service Connections
Waste Tanks Location
FIGURE-5-4-10-991-005-A01

## 5-4-11 Cargo Control Panels

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Cargo Control Panels

****ON A/C A330-300 A330-900**

1. Cargo Control Panels

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| FWD CLS* Panel: Access Door 122DR | 14.17 m (46.49 ft) | | 2.60 m (8.53 ft) | 3.90 m (12.80 ft) |
| FWD Cargo Door Panel: Access Door 122CR | 13.87 m (45.51 ft) | | 2.40 m (7.87 ft) | 3.30 m (10.83 ft) |
| AFT CLS* Panel: Access Door 152MR | 48.95 m (160.60 ft) | | 2.60 m (8.53 ft) | 4.60 m (15.09 ft) |
| AFT Cargo Door Panel: Access Door 152NR | 48.65 m (159.61 ft) | | 2.40 m (7.87 ft) | 4.00 m (13.12 ft) |

NOTE : * CLS - CARGO LOADING SYSTEMS

****ON A/C A330-200 A330-800**

2. Cargo Control Panels

NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| FWD CLS* Panel: Access Door 122DR | 14.17 m (46.49 ft) | | 2.60 m (8.53 ft) | 3.98 m (13.06 ft) |
| FWD Cargo Door Panel: Access Door 122CR | 13.87 m (45.51 ft) | | 2.40 m (7.87 ft) | 3.38 m (11.09 ft) |
| AFT CLS* Panel: Access Door 152MR | 43.63 m (143.14 ft) | | 2.60 m (8.53 ft) | 4.70 m (15.42 ft) |
| AFT Cargo Door Panel: Access Door 152NR | 43.33 m (142.16 ft) | | 2.40 m (7.87 ft) | 4.10 m (13.45 ft) |

NOTE : * CLS - CARGO LOADING SYSTEMS

****ON A/C A330-200F**

3. Cargo Control Panels

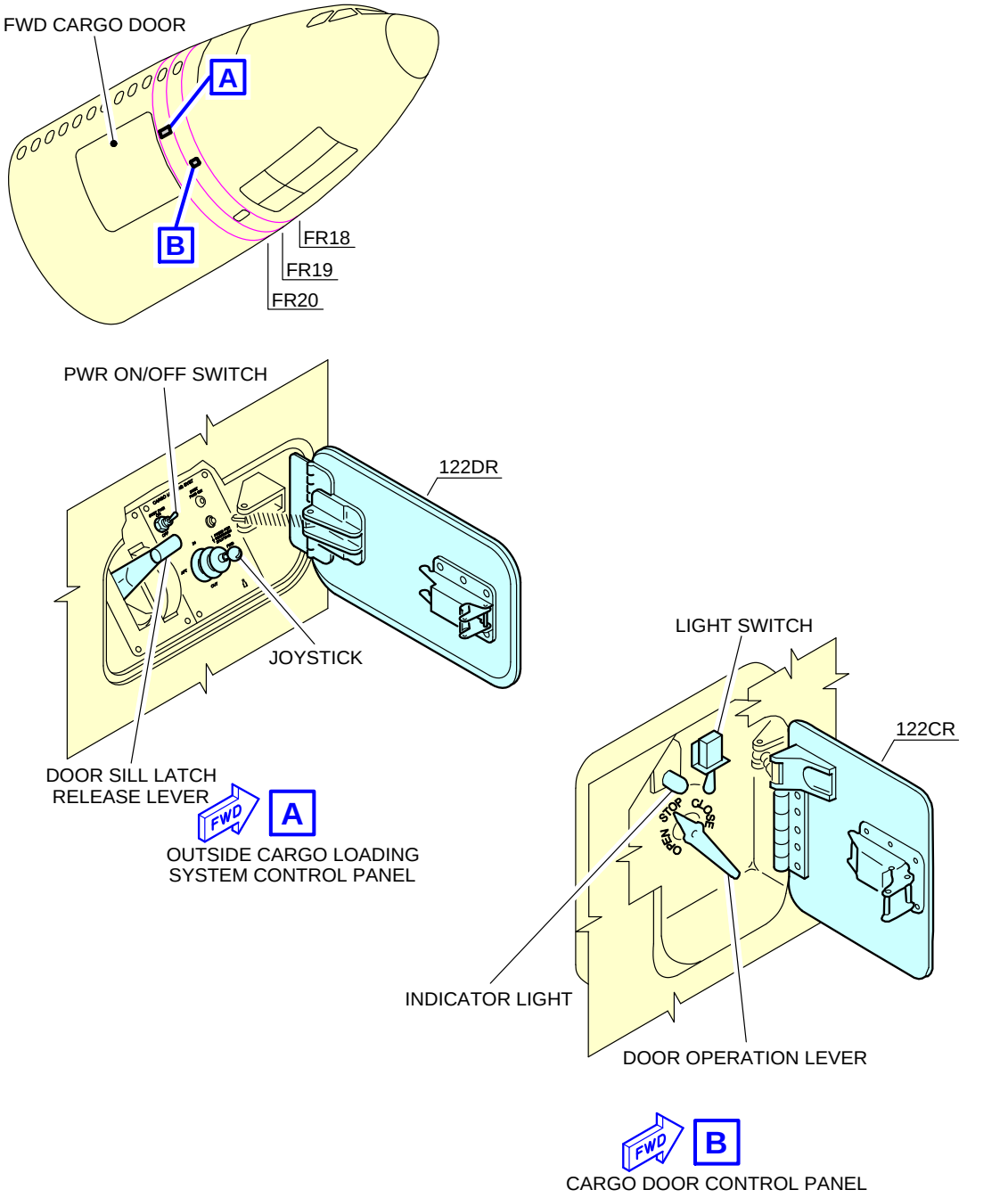
NOTE : The mean height from ground in the below table may change according to the CG position and aircraft weight.

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| FWD CLS* Panel: Access Door 122DR | 14.17 m (46.49 ft) | | 2.60 m (8.53 ft) | 4.31 m (14.14 ft) |
| FWD Cargo Door Panel: Access Door 122CR | 13.87 m (45.51 ft) | | 2.40 m (7.87 ft) | 3.71 m (12.17 ft) |
| AFT CLS* Panel: Access Door 152MR | 43.63 m (143.14 ft) | | 2.60 m (8.53 ft) | 4.70 m (15.42 ft) |

| ACCESS | DISTANCE | | | |
|---|---|---|---|---|
| | AFT OF NOSE | FROM AIRCRAFT CENTERLINE | | MEAN HEIGHT FROM GROUND |
| | | LH SIDE | RH SIDE | |
| AFT Cargo Door Panel: Access Door 152NR | 43.33 m (142.16 ft) | | 2.40 m (7.87 ft) | 4.10 m (13.45 ft) |

NOTE : * CLS - CARGO LOADING SYSTEMS

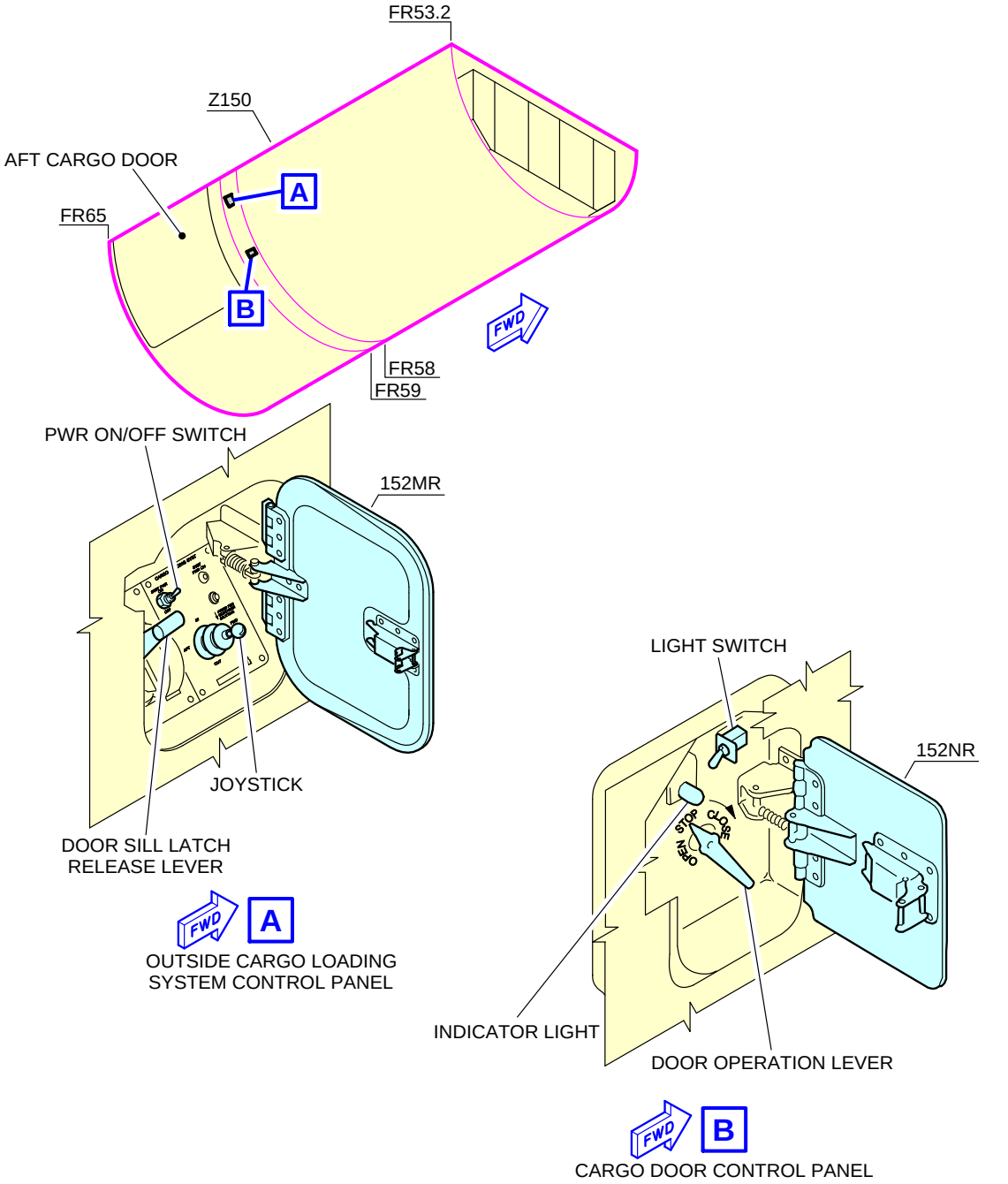
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Forward Cargo Control Panels
FIGURE-5-4-11-991-001-A01

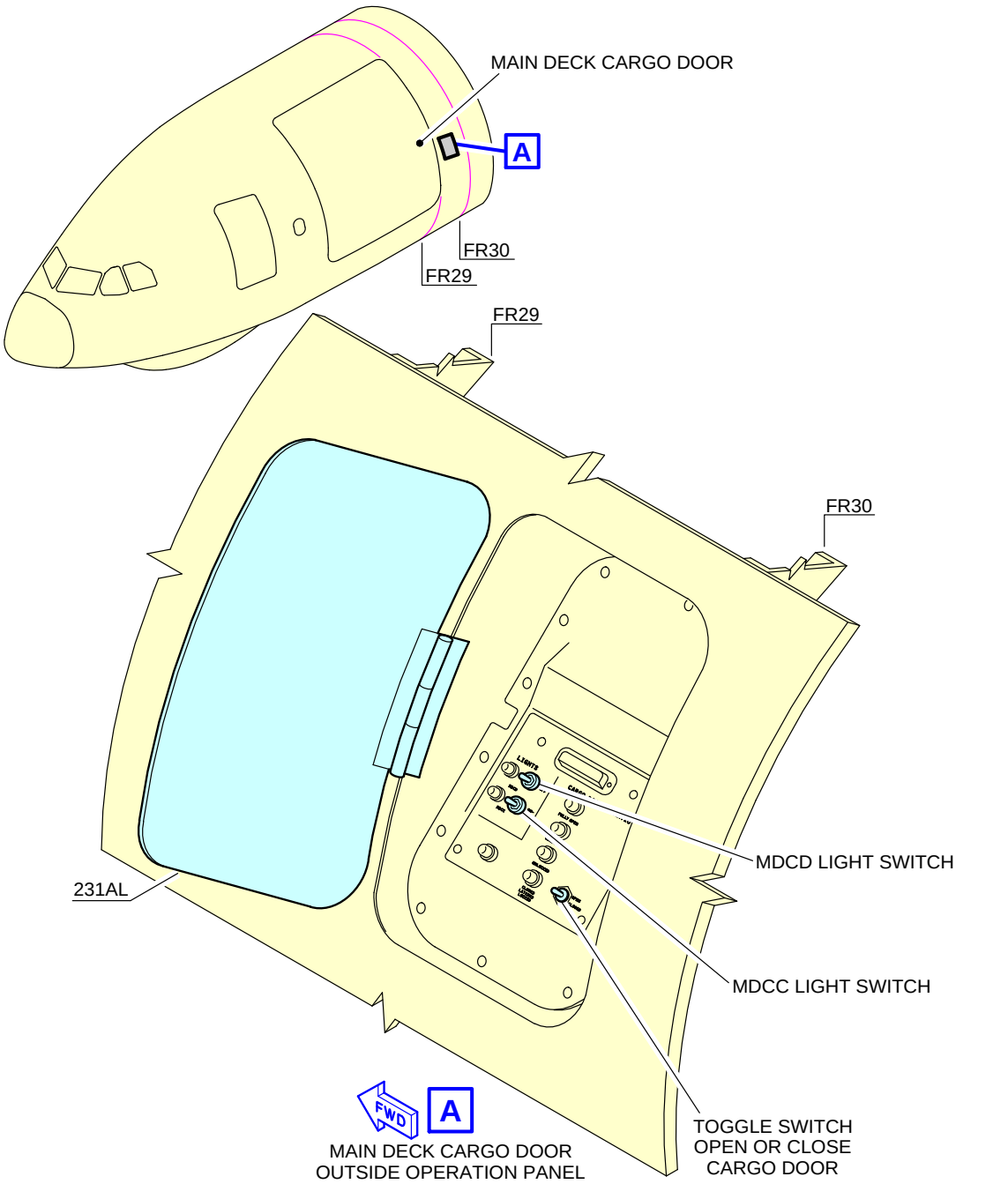
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Aft Cargo Control Panels
FIGURE-5-4-11-991-002-A01

**ON A/C A330-200F




Main Deck Cargo Control Panel
FIGURE-5-4-11-991-003-A01

## 5-5-0 Engine Starting Pneumatic Requirements

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Starting Pneumatic Requirements

1. The purpose of this section gives the minimum air-data requirements (airflow and temperature) at the aircraft connection for a main engine start at sea level.

| ABBREVIATION | DEFINITION |
|---|---|
| ASU | Air Start Unit |
| HPGC | High Pressure Ground Connection |
| OAT | Outside Air Temperature |

A. The pressure at HPGC must not be more than 60 psig (75 psia) and less than 33 psig (48 psia). The temperature must be less than 220 °C (428 °F).

B. The recommended pressure at HPGC is 40 psig (55 psia).

C. The OAT and the ASU performances (see the technical data from the ASU manufacturer) effect the ASU output temperature.

D. The tables provide the global requirements for the airflow start for one engine.
If necessary, connect two ASUs in parallel which gives the same pressure (one for each HPGC) to supply the necessary airflow to the aircraft.

E. In the altitude, the ASU is less efficient but the engine is less demanding too.

****ON A/C A330-200 A330-300**

2. GE CF6 Engines for an OAT between -40 °C (-40 °F) and 55 °C (131 °F) at Sea Level

| ASU OUTPUT TEMPERATURE RANGE | PRESSURE AT HPGC | MASS FLOW AT HPGC |
|---|---|---|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 241 ppm (109 kg/min) |
| 125 °C (257 °F) - 155 °C (311 °F) | 40 psig (55 psia) | 233 ppm (106 kg/min) |
| 155 °C (311 °F) - 185 °C (365 °F) | 40 psig (55 psia) | 225 ppm (102 kg/min) |
| 185 °C (365 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 218 ppm (99 kg/min) |

****ON A/C A330-200 A330-200F A330-300**

3. PW 4000 Engines for an OAT between -40°C (-40°F) and 55°C (131°F) at Sea Level

| ASU OUTPUT TEMPERATURE RANGE | PRESSURE AT HPGC | MASS FLOW AT HPGC |
|---|---|---|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 271 ppm (123 kg/min) |
| 125 °C (257 °F) - 155 °C (311 °F) | 40 psig (55 psia) | 262 ppm (119 kg/min) |
| 155 °C (311 °F) - 185 °C (365 °F) | 40 psig (55 psia) | 253 ppm (115 kg/min) |
| 185 °C (365 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 244 ppm (111 kg/min) |

4. RR Trent 700 Engines for an OAT between -40°C (-40°F) and 55°C (131°F) at Sea Level

| ASU OUTPUT TEMPERATURE RANGE | PRESSURE AT HPGC | MASS FLOW AT HPGC |
|---|---|---|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 269 ppm (122 kg/min) |
| 125 °C (257 °F) - 155 °C (311 °F) | 40 psig (55 psia) | 260 ppm (118 kg/min) |
| 155 °C (311 °F) - 185 °C (365 °F) | 40 psig (55 psia) | 251 ppm (114 kg/min) |
| 185 °C (365 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 243 ppm (110 kg/min) |

****ON A/C A330-800 A330-900**

5. RR Trent 7000 Engines for an OAT between -40°C (-40°F) and 55°C (131°F) at Sea Level

| ASU OUTPUT TEMPERATURE RANGE | PRESSURE AT HPGC | MASS FLOW AT HPGC |
|---|---|---|
| 100 °C (212 °F) - 125 °C (257 °F) | 40 psig (55 psia) | 321 ppm (146 kg/min) |
| 125 °C (257 °F) - 155 °C (311 °F) | 40 psig (55 psia) | 311 ppm (141 kg/min) |
| 155 °C (311 °F) - 185 °C (365 °F) | 40 psig (55 psia) | 300 ppm (136 kg/min) |
| 185 °C (365 °F) - 220 °C (428 °F) | 40 psig (55 psia) | 290 ppm (131 kg/min) |

## 5-6-0 Ground Pneumatic Power Requirements

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Ground Pneumatic Power Requirements

1. General

This section describes the required performance for the ground equipment to maintain the cabin temperature at 27 °C (80.6 °F) for the cooling or 21 °C (69.8 °F) for heating cases after boarding (Section 5.7 - steady state), and provides the time needed to cool down or heat up the aircraft cabin to the required temperature (Section 5.6 - dynamic cases with aircraft empty).

| ABBREVIATION | DEFINITION |
|---|---|
| A/C | Aircraft |
| AHM | Aircraft Handling Manual |
| GC | Ground Connection |
| GSE | Ground Service Equipment |
| IFE | In-Flight Entertainment |
| LP | Low Pressure |
| LPGC | Low Pressure Ground Connection |
| OAT | Outside Air Temperature |
| PCA | Pre-Conditioned Air |

A. The air flow rates and temperature requirements for the GSE, provided in Sections 5.6 and 5.7, are given at A/C ground connection.

NOTE : The cooling capacity of the equipment (kW) is only indicative and is not sufficient by itself to ensure the performance (outlet temperature and flow rate combinations are the requirements needed for ground power).
An example of cooling capacity calculation is given in Section 5.7.

B. The air flow rates and temperature requirements for the GSE are given for the A/C in the configuration ”2 LP ducts connected”.

NOTE : The maximum air flow is driven by pressure limitation at LPGC.

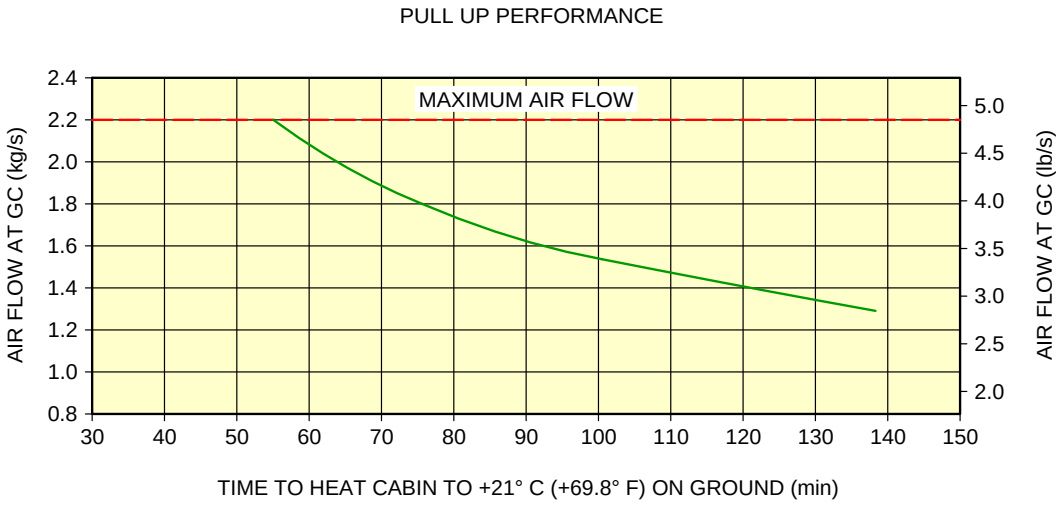
C. For temperatures at ground connection below +2 °C (+35.6 °F) (Subfreezing), the ground equipment shall be compliant with the Airbus document ”Subfreezing PCA Carts – Compliance Document for Suppliers” (contact Airbus to obtain this document) defining all the requirements with which Subfreezing Pre-Conditioning Air equipment must comply to allow its use on Airbus aircraft. These requirements are in addition to the functional specifications included in the IATA AHM997.

2. Ground Pneumatic Power Requirements

This section provides the ground pneumatic power requirements for:

- Heating (pull up) the cabin, initially at OAT, up to 21 °C (69.8 °F) (see FIGURE 5-6-0-991-001-A)
- Cooling (pull down) the cabin, initially at OAT, down to 27 °C (80.6 °F) (see FIGURE 5-6-0-991-003-A).

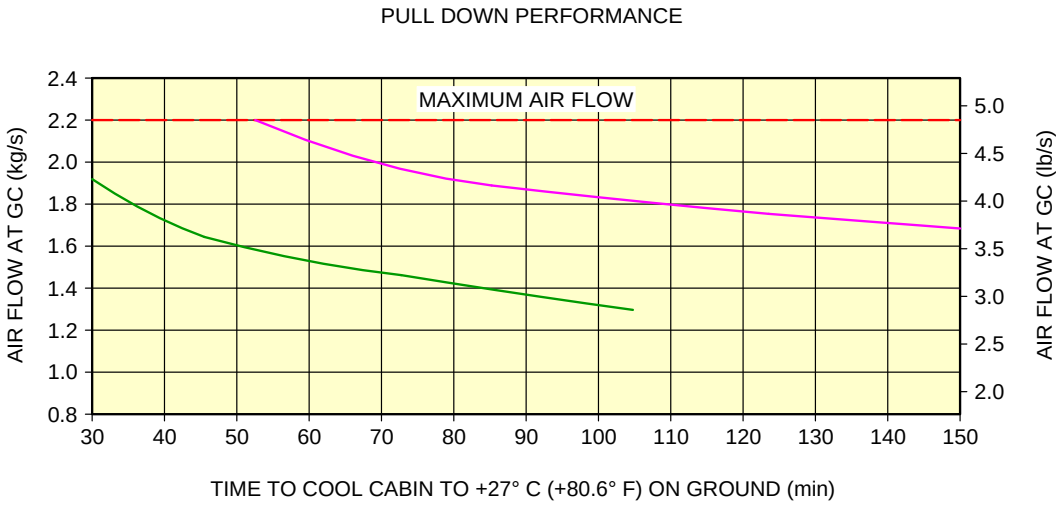
**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




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Ground Pneumatic Power Requirements
Heating
FIGURE-5-6-0-991-001-A01

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




**NOTE:**
ONLY SUPPLY TEMPERATURE ABOVE +2° C (+35.6° F) (NO SUBFREEZING) FOR THE A330-200F.

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Ground Pneumatic Power Requirements
Cooling
FIGURE-5-6-0-991-003-A01

## 5-7-0 Preconditioned Airflow Requirements

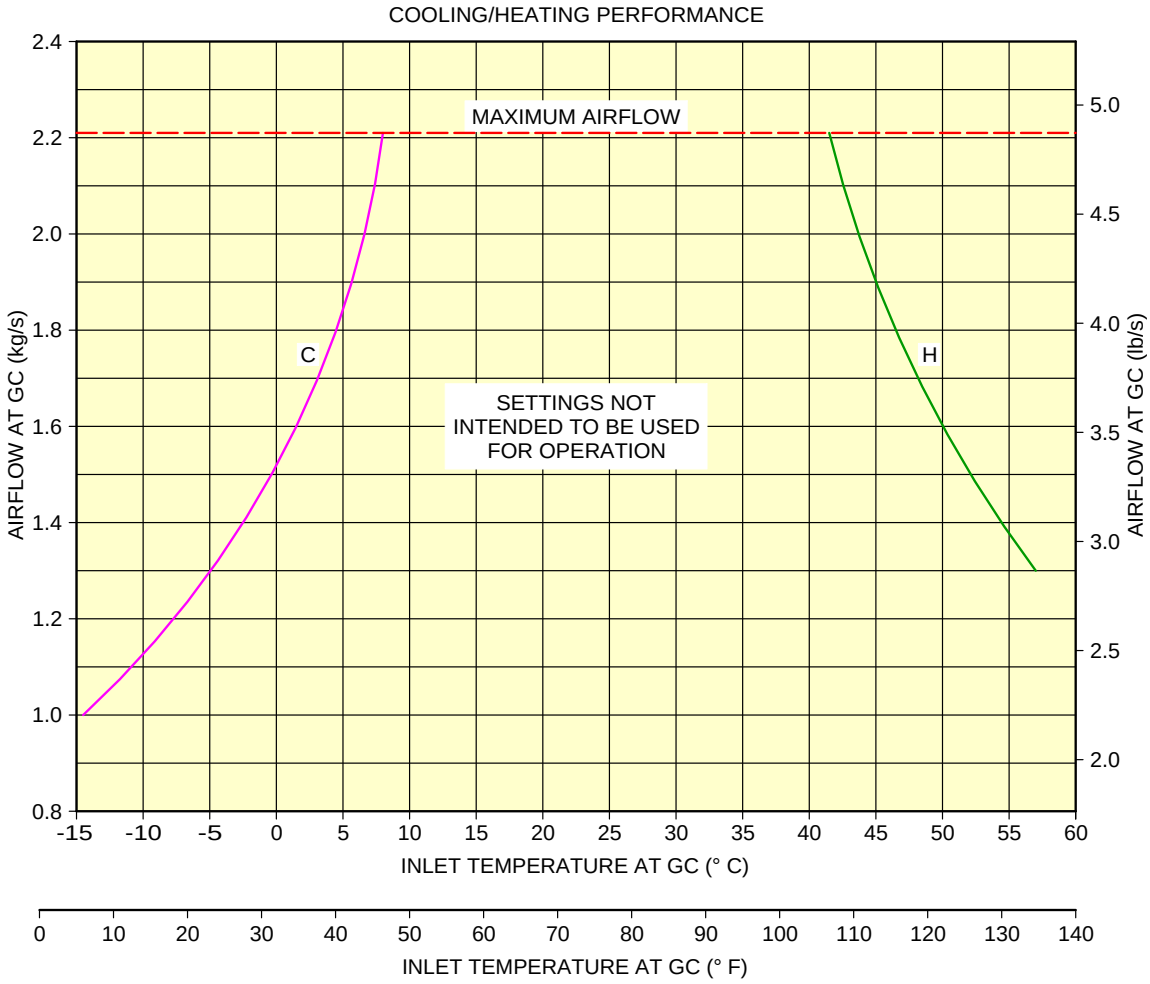
****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Preconditioned Airflow Requirements

1. This section provides the preconditioned airflow rate and temperature needed to maintain the cabin temperature at 27 °C (80.6 °F) for the cooling or 21 °C (69.8 °F) for the heating cases.

   These settings are not intended to be used for operation (they are not a substitute for the settings given in the AMM). They are based on theoretical simulations and give the picture of a real steady state.
   The purpose of the air conditioning (cooling) operation (described in the AMM) is to maintain the cabin temperature below 27 °C (80.6 °F) during boarding (therefore it is not a steady state).

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




**EXAMPLE:**

COOLING CAPACITY CALCULATION:
FOR THE CONDITIONS "C", THE COOLING CAPACITY OF 1.9 kg/s x 1 kJ/(kg.° C) x (27- 5) = 41.8 kW
(OR 12.5 TONS COOLING CAPACITY) IS NEEDED TO MAINTAIN THE CABIN TEMPERATURE AT 27° C (80.6° F)
(1.9 kg/s AT 5° C (41° F) FOR AIR AT GC INLET).

**NOTE:**

ONLY SUPPLY TEMPERATURE ABOVE +2° C (+35.6° F) (NO SUBFREEZING) FOR THE A330-200F.

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Preconditioned Airflow Requirements
FIGURE-5-7-0-991-001-A01

## 5-8-0 Ground Towing Requirements

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Ground Towing Requirements

1. This section provides information on aircraft towing.

   The A330 is designed with means for conventional or towbarless towing. Information/procedures can be found for both in chapter 9 of the Aircraft Maintenance Manual.
   Status on towbarless towing equipment qualification can be found in ISI 09.11.00001.
   It is possible to tow or push the aircraft, at maximum ramp weight with engines at zero or up to idle thrust, using a towbar attached to the NLG. One towbar fitting is installed at the front of the leg (optional towing fitting for towing from the rear of the NLG available).
   The main landing gears have attachment points for towing or debogging (for details, refer ARM 07).

   This section shows the chart to determine the drawbar pull and tow tractor mass requirements as a function of the following physical characteristics:
   - Aircraft weight,
   - Number of engines at idle,
   - Slope.

   The chart is based on the A330 engine type with the highest idle thrust.
   The chart is therefore valid for all A330 models.

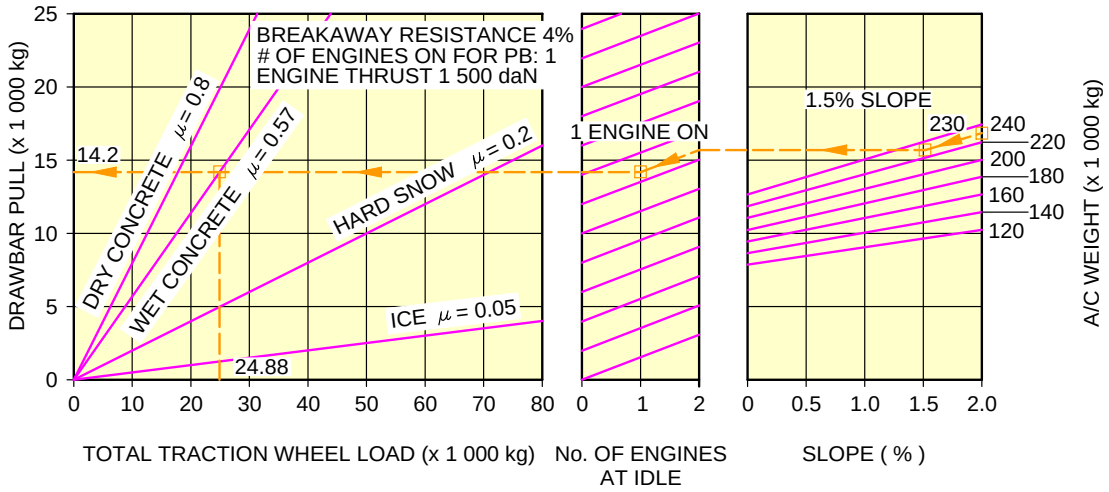
2. Towbar design guidelines

   The aircraft towbar shall comply with the following standards:
   - ISO 8267-1, ”Aircraft - Towbar Attachment Fitting - Interface Requirements - Part 1: Main Line Aircraft”,
   - ISO 9667, ”Aircraft Ground Support Equipment - Towbars”,
   - IATA Airport Handling Manual AHM 958, ”Functional Specification for an Aircraft Towbar”.

   A conventional type towbar is required which should be equipped with a damping system (to protect the NLG against jerks), a rotating toweye and with towing shear pins:
   - A traction shear pin calibrated at 28 620 daN (64 340 lbf),
   - A torsion pin calibrated at 3 130 m.daN (277 028 lbf.in).

   The towing head is designed according to ISO 8267-1, cat. III.

**ON A/C A330-200 A330-200F A330-300




EXAMPLE HOW TO DETERMINE THE TRACTION WHEEL LOAD REQUIREMENT TO TOW A A330 AT 230 000 kg, AT 1.5% SLOPE, 1 ENGINE AT IDLE AND FOR WET TARMAC CONDITIONS:

- ON THE RIGHT HAND SIDE OF THE GRAPH, CHOOSE THE RELEVANT AIRCRAFT WEIGHT (230 000 kg),
- FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUIRED SLOPE PERCENTAGE (1.5%),
- FROM THE POINT OBTAINED DRAW A STRAIGHT HORIZONTAL LINE UNTIL No. OF ENGINES AT IDLE = 2,
- FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUESTED No. OF ENGINES (1),
- FROM THIS POINT DRAW A STRAIGHT HORIZONTAL LINE TO THE DRAWBAR PULL AXIS,
- THE Y-COORDINATE OBTAINED IS THE NECESSARY DRAWBAR PULL FOR THE TRACTOR (14 200 kg),
- SEARCH THE INTERSECTION WITH THE "WET CONCRETE" LINE.
  THE OBTAINED X-COORDINATE IS THE RECOMMENDED TOTAL TRACTION WHEEL LOAD (xx xxx kg).

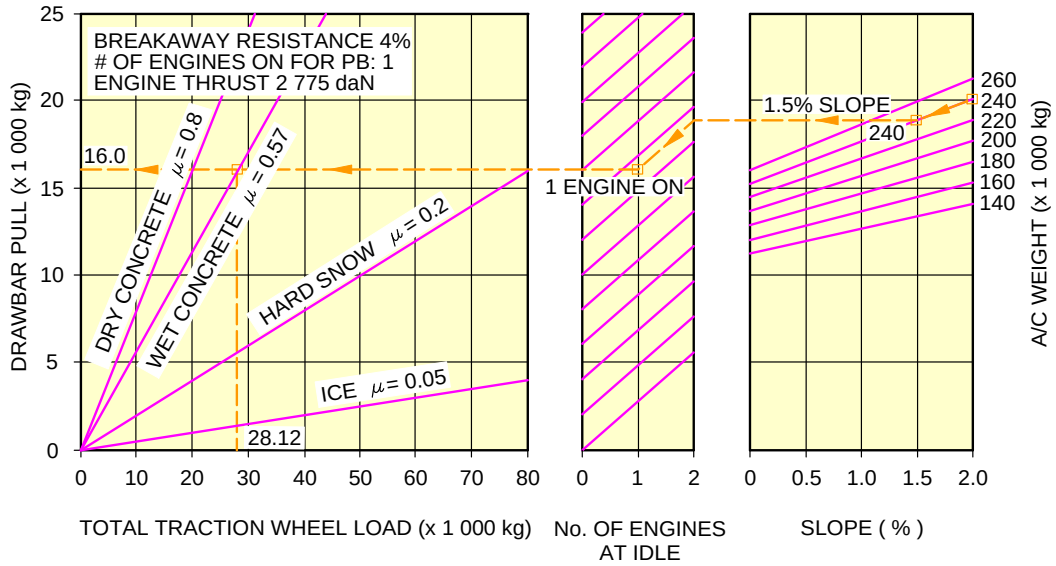
**NOTE:**

USE A TRACTOR WITH A LIMITED DRAWBAR PULL TO PREVENT LOADS ABOVE THE TOW-BAR SHEAR-PIN CAPACITY.
FOR ALL WHEEL-DRIVEN VEHICLES, THE TOTAL TRACTION WHEEL LOAD IS THE TRACTOR WEIGHT.

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Ground Towing Requirements
FIGURE-5-8-0-991-002-A01

**ON A/C A330-800 A330-900




EXAMPLE HOW TO DETERMINE THE TRACTION WHEEL LOAD REQUIREMENT TO TOW A A330 AT 240 000 kg, AT 1.5% SLOPE, 1 ENGINE AT IDLE AND FOR WET TARMAC CONDITIONS:

- ON THE RIGHT HAND SIDE OF THE GRAPH, CHOOSE THE RELEVANT AIRCRAFT WEIGHT (240 000 kg),
- FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUIRED SLOPE PERCENTAGE (1.5%),
- FROM THE POINT OBTAINED DRAW A STRAIGHT HORIZONTAL LINE UNTIL No. OF ENGINES AT IDLE = 2,
- FROM THIS POINT DRAW A PARALLEL LINE TO THE REQUESTED No. OF ENGINES (1),
- FROM THIS POINT DRAW A STRAIGHT HORIZONTAL LINE TO THE DRAWBAR PULL AXIS,
- THE Y-COORDINATE OBTAINED IS THE NECESSARY DRAWBAR PULL FOR THE TRACTOR (16 000 kg),
- SEARCH THE INTERSECTION WITH THE "WET CONCRETE" LINE.
  THE OBTAINED X-COORDINATE IS THE RECOMMENDED TOTAL TRACTION WHEEL LOAD (xx xxx kg).

**NOTE:**

USE A TRACTOR WITH A LIMITED DRAWBAR PULL TO PREVENT LOADS ABOVE THE TOW-BAR SHEAR-PIN CAPACITY.
FOR ALL WHEEL-DRIVEN VEHICLES, THE TOTAL TRACTION WHEEL LOAD IS THE TRACTOR WEIGHT.

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Ground Towing Requirements
FIGURE-5-8-0-991-002-B01

## 5-9-0 De-Icing and External Cleaning

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

De-Icing and External Cleaning

1. De-Icing and External Cleaning on Ground

   The mobile equipment for aircraft de-icing and external cleaning must be capable of reaching heights up to approximately 17 m (56 ft).

2. De-Icing

| AIRCRAFT TYPE | Wing Top Surface (Both Sides) | Wingtip Devices (Both Inside and Outside Surfaces) (Both Sides) | HTP Top Surface (Both Sides) | VTP (Both Sides) |
|---|---|---|---|---|
| A330-200/-200F | 306 m² (3 294 ft²) | 11 m² (118 ft²) | 65 m² (700 ft²) | 106 m² (1 141 ft²) |
| A330-300 | 306 m² (3 294 ft²) | 11 m² (118 ft²) | 65 m² (700 ft²) | 91 m² (980 ft²) |
| A330-800 | 306 m² (3 294 ft²) | 22 m² (237 ft²) | 65 m² (700 ft²) | 106 m² (1 141 ft²) |
| A330-900 | 306 m² (3 294 ft²) | 22 m² (237 ft²) | 65 m² (700 ft²) | 91 m² (980 ft²) |

| AIRCRAFT TYPE | Fuselage Top Surface (Top Third - 120° Arc) | Nacelle and Pylon (Top Third - 120° Arc) (All Engines) | Total De-Iced Area |
|---|---|---|---|
| A330-200/-200F | 288 m² (3 100 ft²) | 46 m² (495 ft²) | 821 m² (8 837 ft²) |
| A330-300 | 319 m² (3 434 ft²) | 46 m² (495 ft²) | 838 m² (9 020 ft²) |
| A330-800 | 288 m² (3 100 ft²) | 49 m² (527 ft²) | 835 m² (8 988 ft²) |
| A330-900 | 319 m² (3 434 ft²) | 49 m² (527 ft²) | 851 m² (9 160 ft²) |

NOTE : Dimensions are approximate.

3. External Cleaning

| AIRCRAFT TYPE | Wing Top Surface (Both Sides) | Wing Lower Surface (Including Flap Track Fairing) (Both Sides) | Wingtip Devices (Both Inside and Outside Surfaces) (Both Sides) | HTP Top Surface (Both Sides) | HTP Lower Surface (Both Sides) |
|---|---|---|---|---|---|
| A330-200/-200F | 306 m² (3 294 ft²) | 345 m² (3 714 ft²) | 11 m² (118 ft²) | 65 m² (700 ft²) | 65 m² (700 ft²) |
| A330-300 | 306 m² (3 294 ft²) | 345 m² (3 714 ft²) | 11 m² (118 ft²) | 65 m² (700 ft²) | 65 m² (700 ft²) |
| A330-800 | 306 m² (3 294 ft²) | 345 m² (3 714 ft²) | 22 m² (237 ft²) | 65 m² (700 ft²) | 65 m² (700 ft²) |
| A330-900 | 306 m² (3 294 ft²) | 345 m² (3 714 ft²) | 22 m² (237 ft²) | 65 m² (700 ft²) | 65 m² (700 ft²) |

| AIRCRAFT TYPE | VTP (Both Sides) | Fuselage and Belly Fairing | Nacelle and Pylon (All Engines) | Total Cleaned Area |
|---|---|---|---|---|
| A330-200/-200F | 106 m² (1 141 ft²) | 877 m² (9 440 ft²) | 154 m² (1 658 ft²) | 1 940 m² (20 882 ft²) |
| A330-300 | 91 m² (980 ft²) | 971 m² (10 452 ft²) | 154 m² (1 658 ft²) | 2 016 m² (21 700 ft²) |
| A330-800 | 106 m² (1 141 ft²) | 877 m² (9 440 ft²) | 213 m² (2 293 ft²) | 2 011 m² (21 646 ft²) |
| A330-900 | 91 m² (980 ft²) | 971 m² (10 452 ft²) | 213 m² (2 293 ft²) | 2 087 m² (22 464 ft²) |

NOTE : Dimensions are approximate.

# OPERATING CONDITIONS

## 6-1-0 Engine Exhaust Velocities and Temperatures

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Velocities and Temperatures

1. General

   This section shows the estimated engine exhaust efflux velocities and temperatures contours for Ground Idle, Breakaway and Maximum Takeoff conditions.

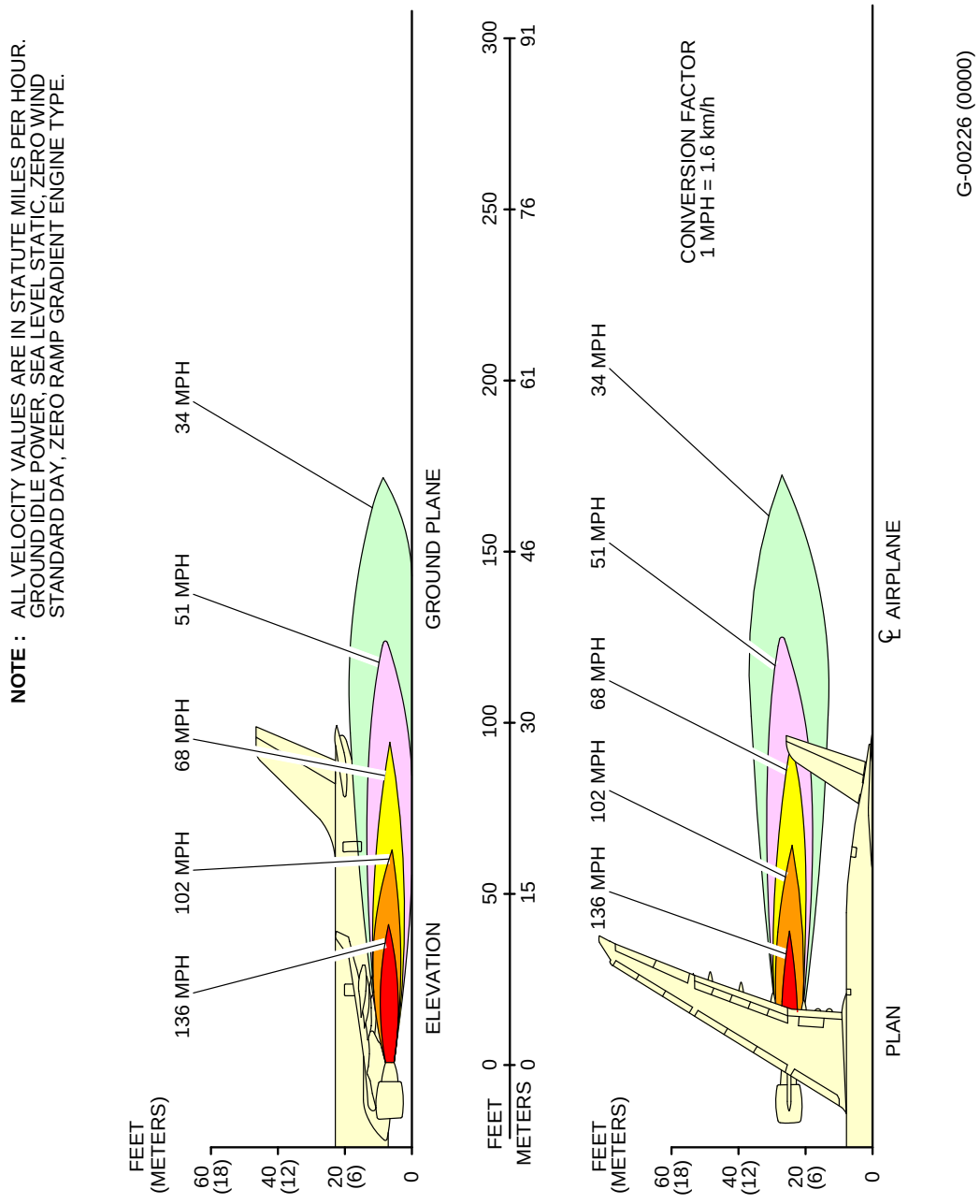
## 6-1-1 Engine Exhaust Velocities Contours - Ground Idle Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Velocities Contours - Ground Idle Power

1. This section gives engine exhaust velocities contours at ground idle power.

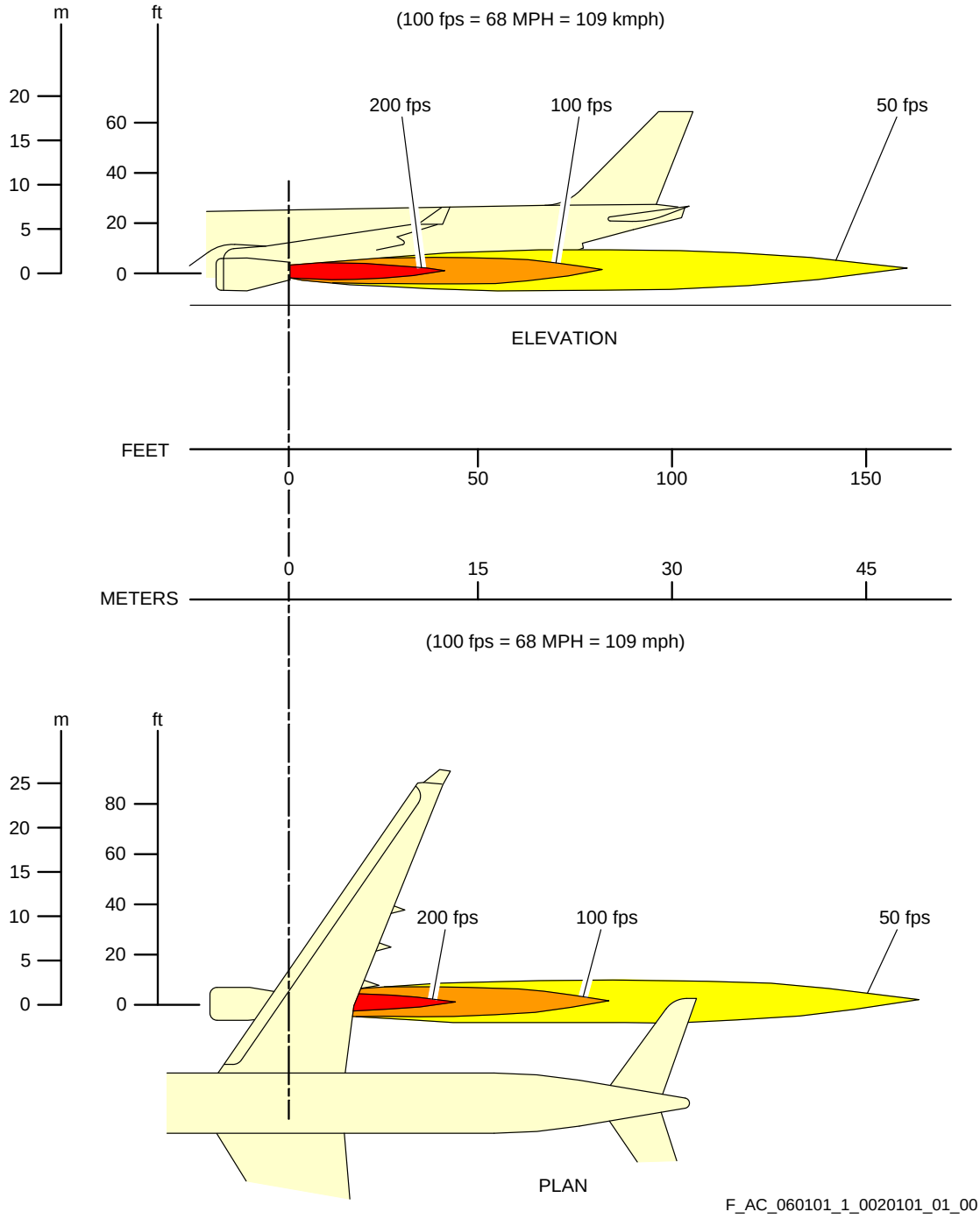
****ON A/C A330-200 A330-200F A330-300**




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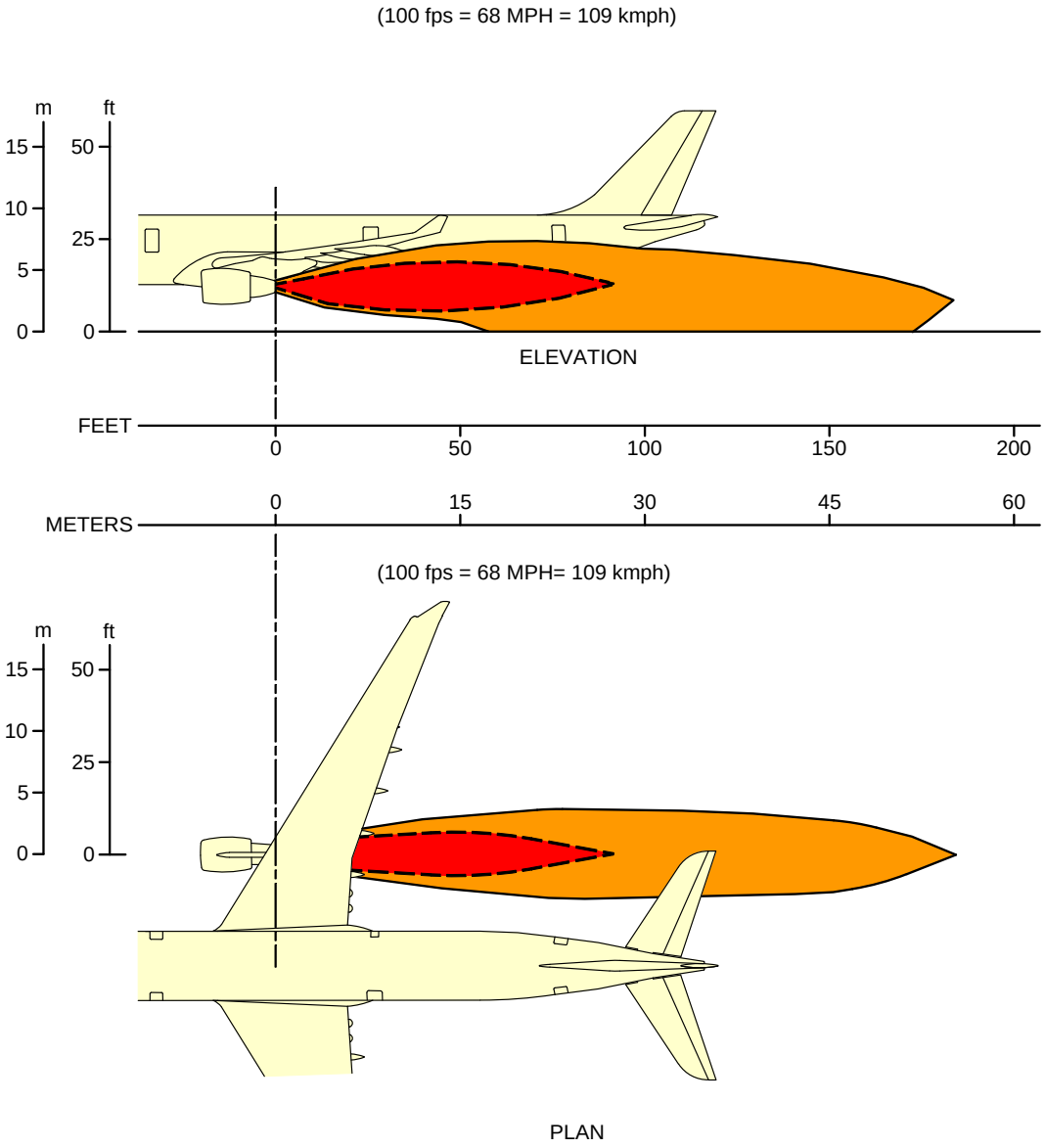
Engine Exhaust Velocities
Ground Idle Power - PW 4000 series engine
FIGURE-6-1-1-991-001-A01

**ON A/C A330-200 A330-200F A330-300




Engine Exhaust Velocities
Ground Idle Power - RR Trent 700 series engine
FIGURE-6-1-1-991-002-A01

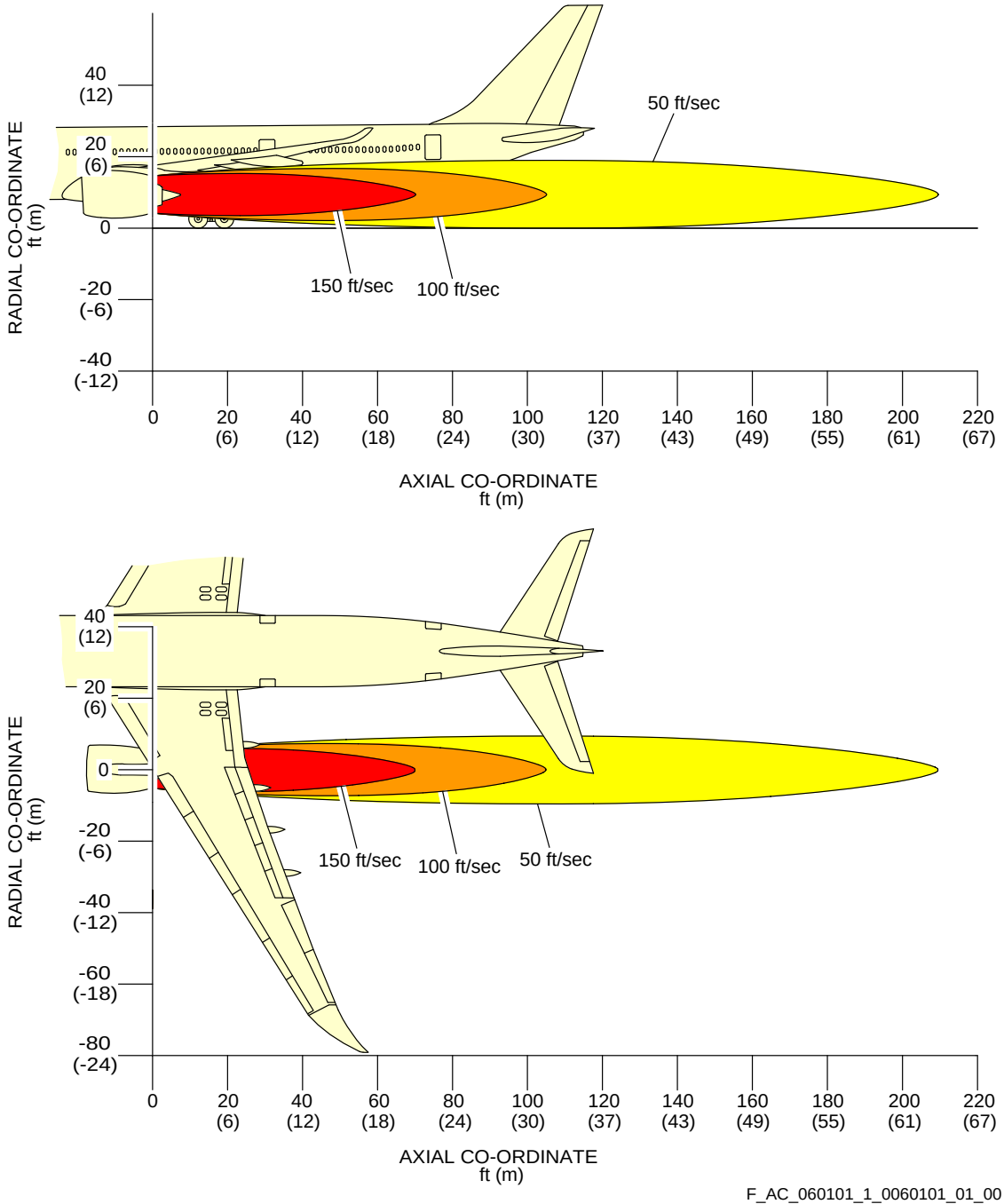
**ON A/C A330-200 A330-300




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Engine Exhaust Velocities
Ground Idle Power - GE CF6-80E1 series engine
FIGURE-6-1-1-991-003-A01

**ON A/C A330-800 A330-900




Engine Exhaust Velocities
Ground Idle Power - RR Trent 7000 series engine
FIGURE-6-1-1-991-006-A01

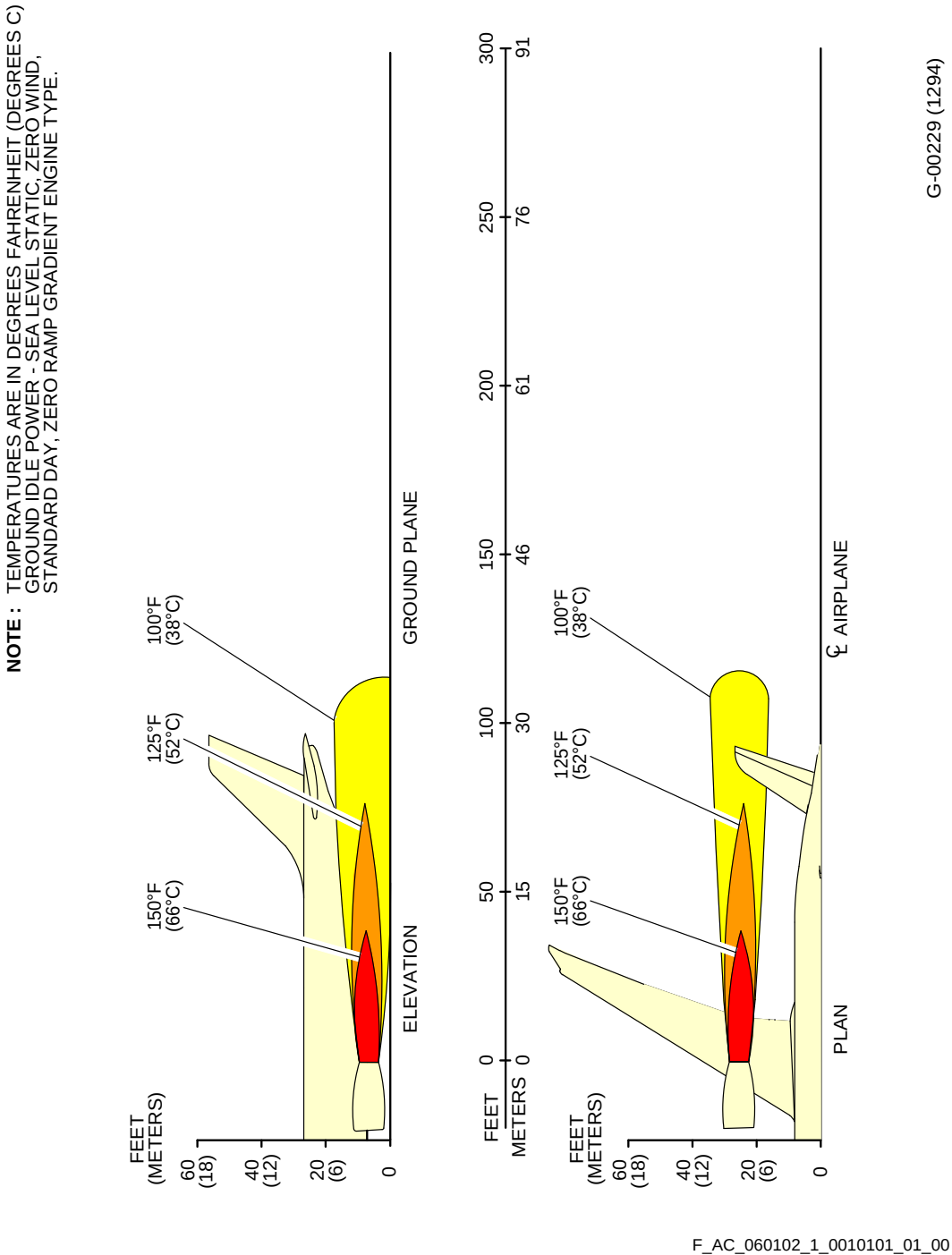
## 6-1-2 Engine Exhaust Temperatures Contours - Ground Idle Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Temperatures Contours - Ground Idle Power

1. This section gives engine exhaust temperatures contours at ground idle power.

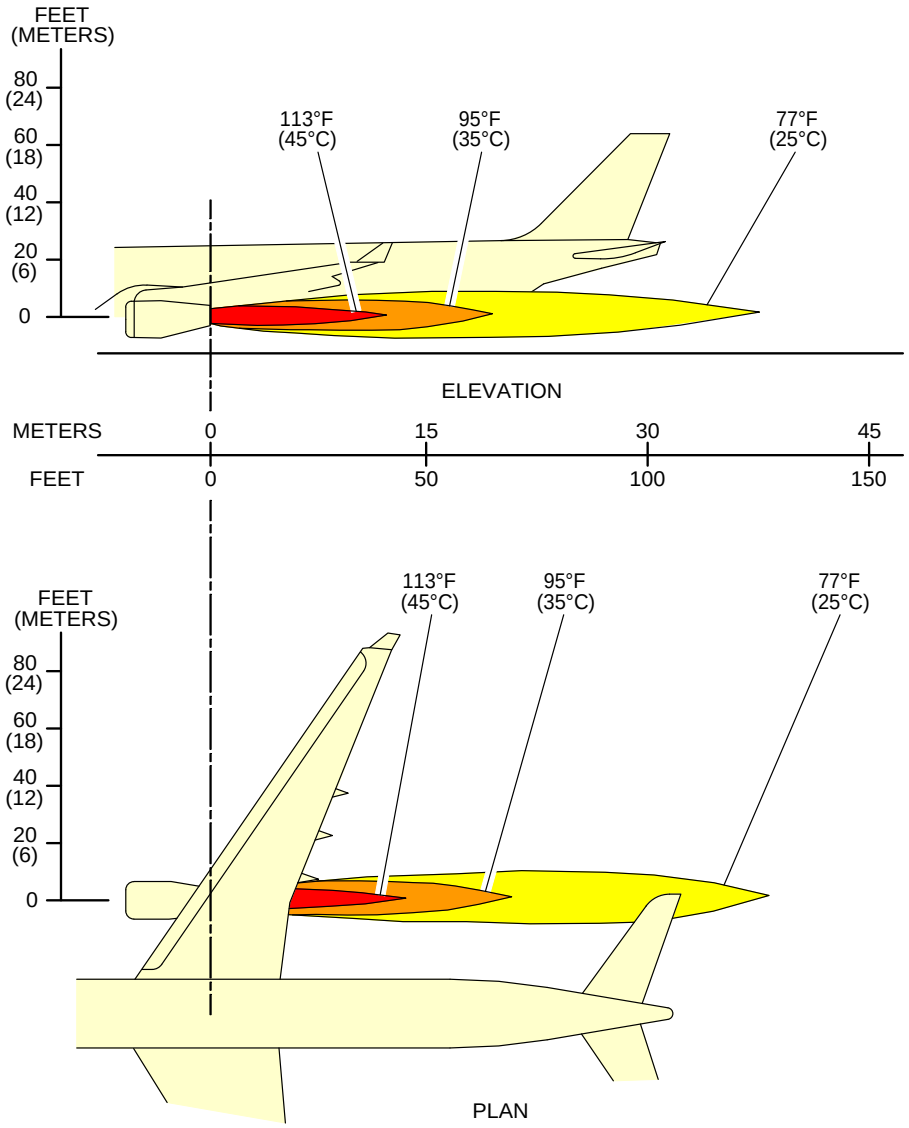
****ON A/C A330-200 A330-200F A330-300**




F_AC_060102_1_0010101_01_00

Engine Exhaust Temperatures
Ground Idle Power - PW 4000 series engine
FIGURE-6-1-2-991-001-A01

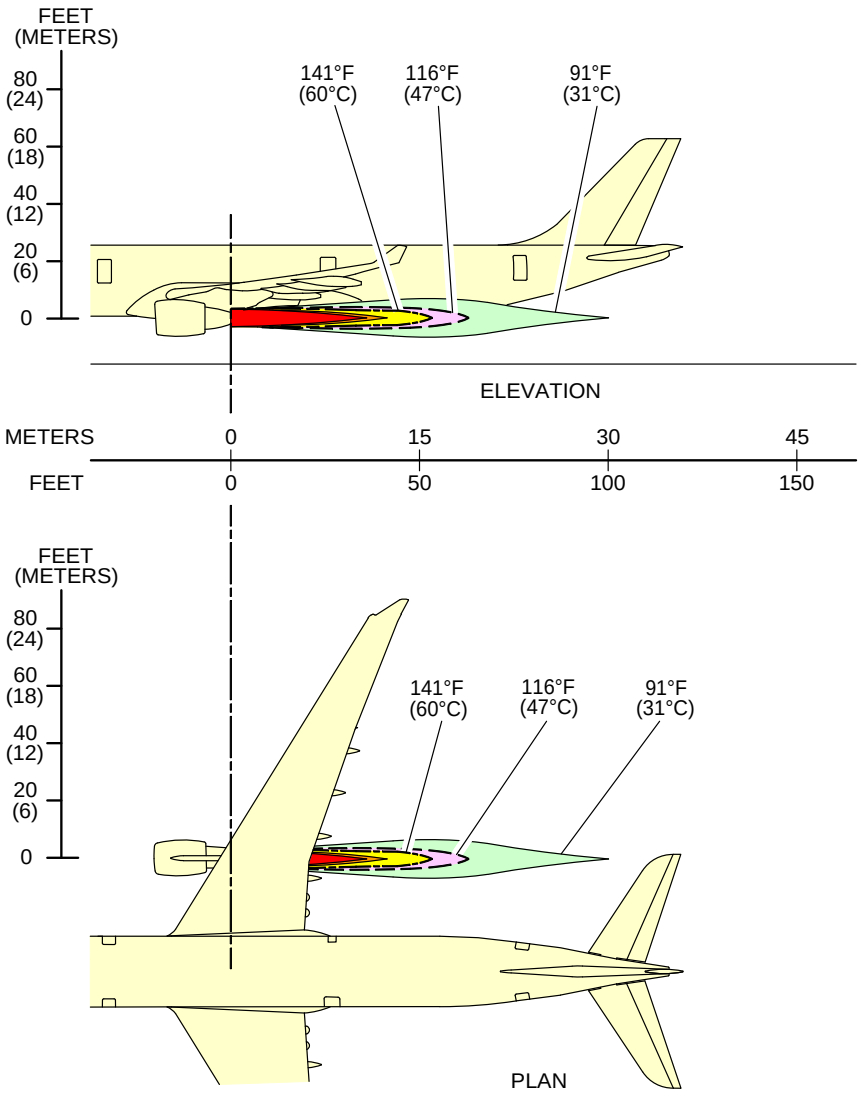
**ON A/C A330-200 A330-200F A330-300




F_AC_060102_1_0020101_01_00

Engine Exhaust Temperatures
Ground Idle Power - RR Trent 700 series engine
FIGURE-6-1-2-991-002-A01

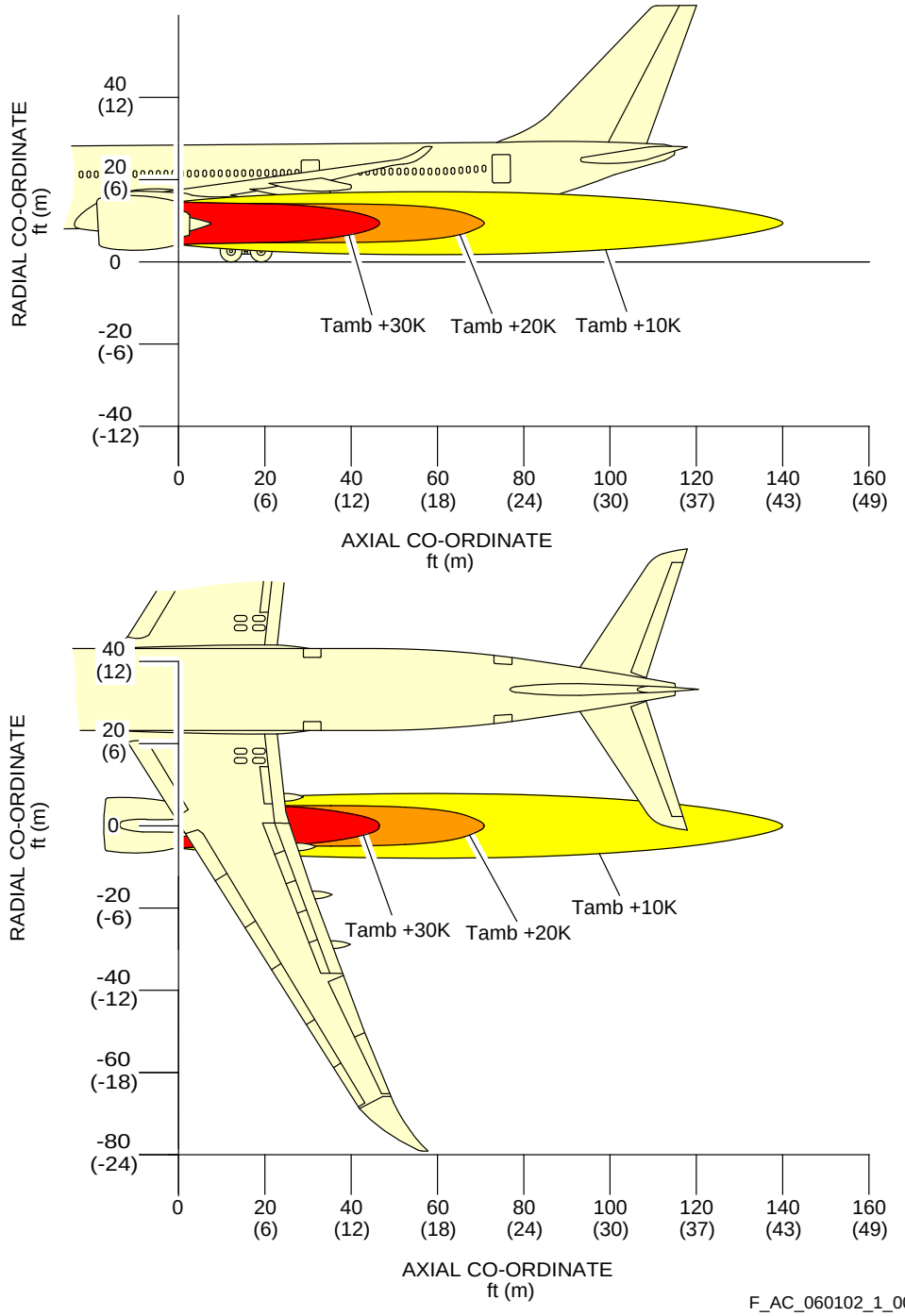
**ON A/C A330-200 A330-300




F_AC_060102_1_0030101_01_01

Engine Exhaust Temperatures
Ground Idle Power - GE CF6-80E1 series engine
FIGURE-6-1-2-991-003-A01

**ON A/C A330-800 A330-900




Engine Exhaust Temperatures
Ground Idle Power - RR Trent 7000 series engine
FIGURE-6-1-2-991-006-A01

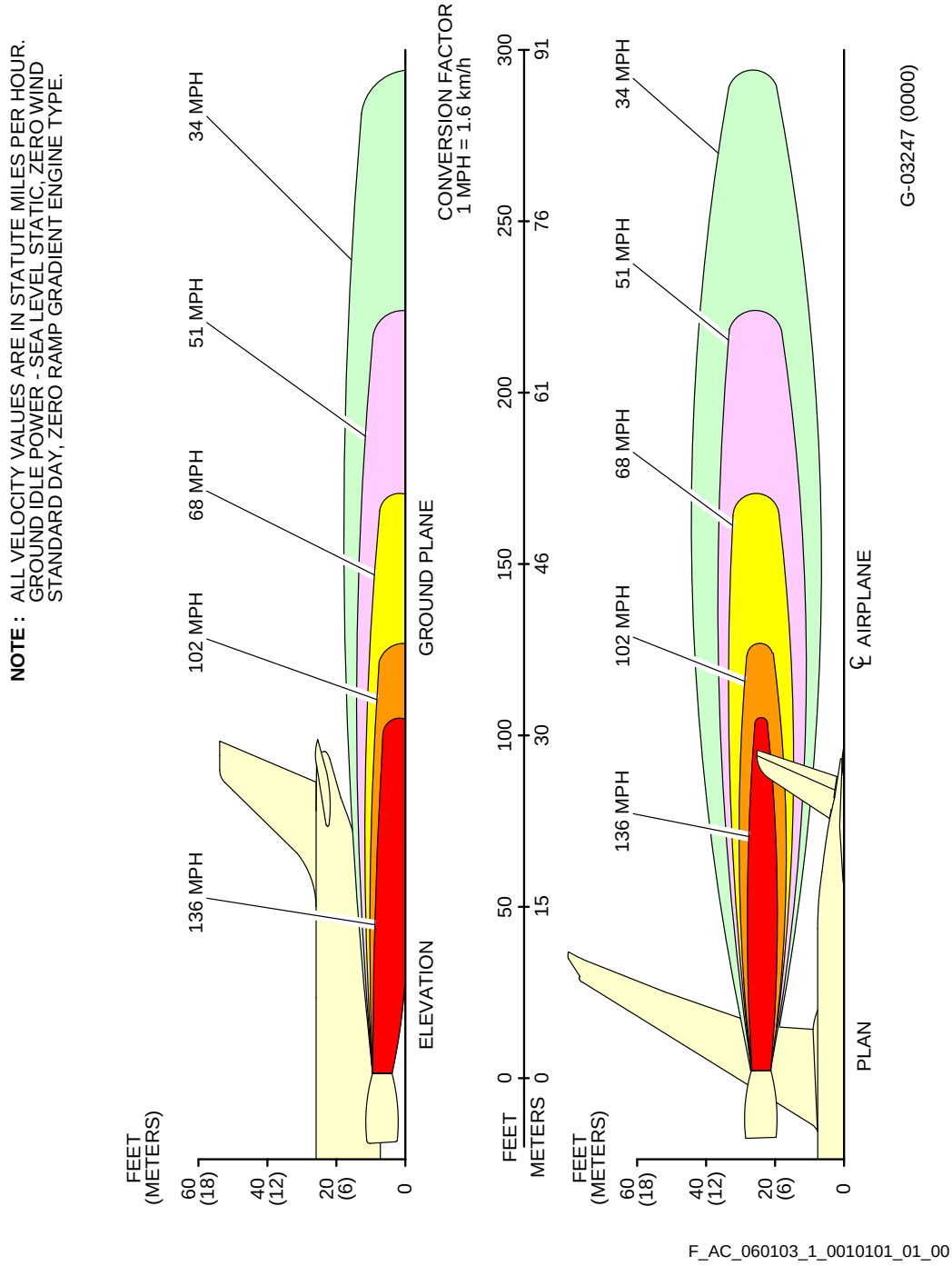
## 6-1-3 Engine Exhaust Velocities Contours - Breakaway Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Velocities Contours - Breakaway Power

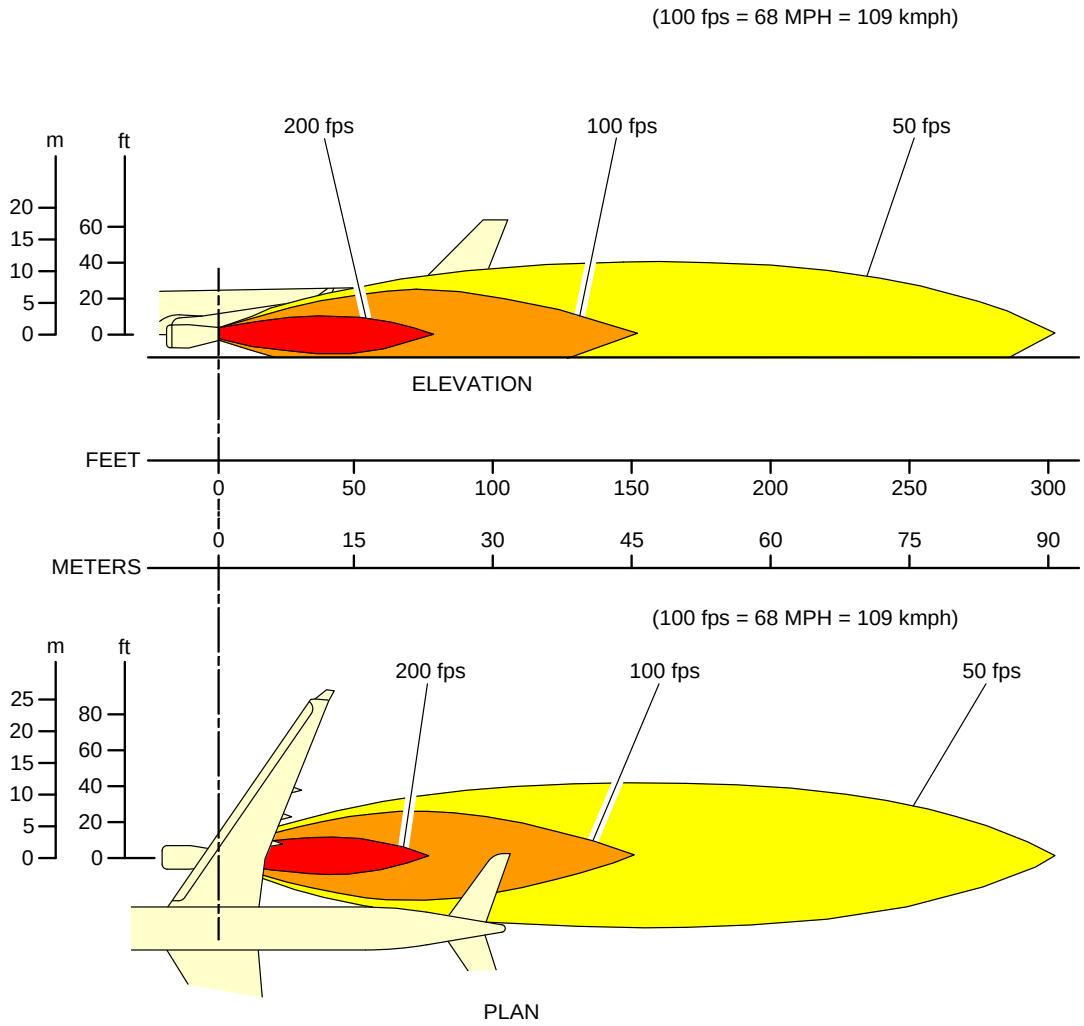
1. This section gives engine exhaust velocities contours at breakaway power.

****ON A/C A330-200 A330-200F A330-300**




Engine Exhaust Velocities
Breakaway Power - PW 4000 series engine
FIGURE-6-1-3-991-001-A01

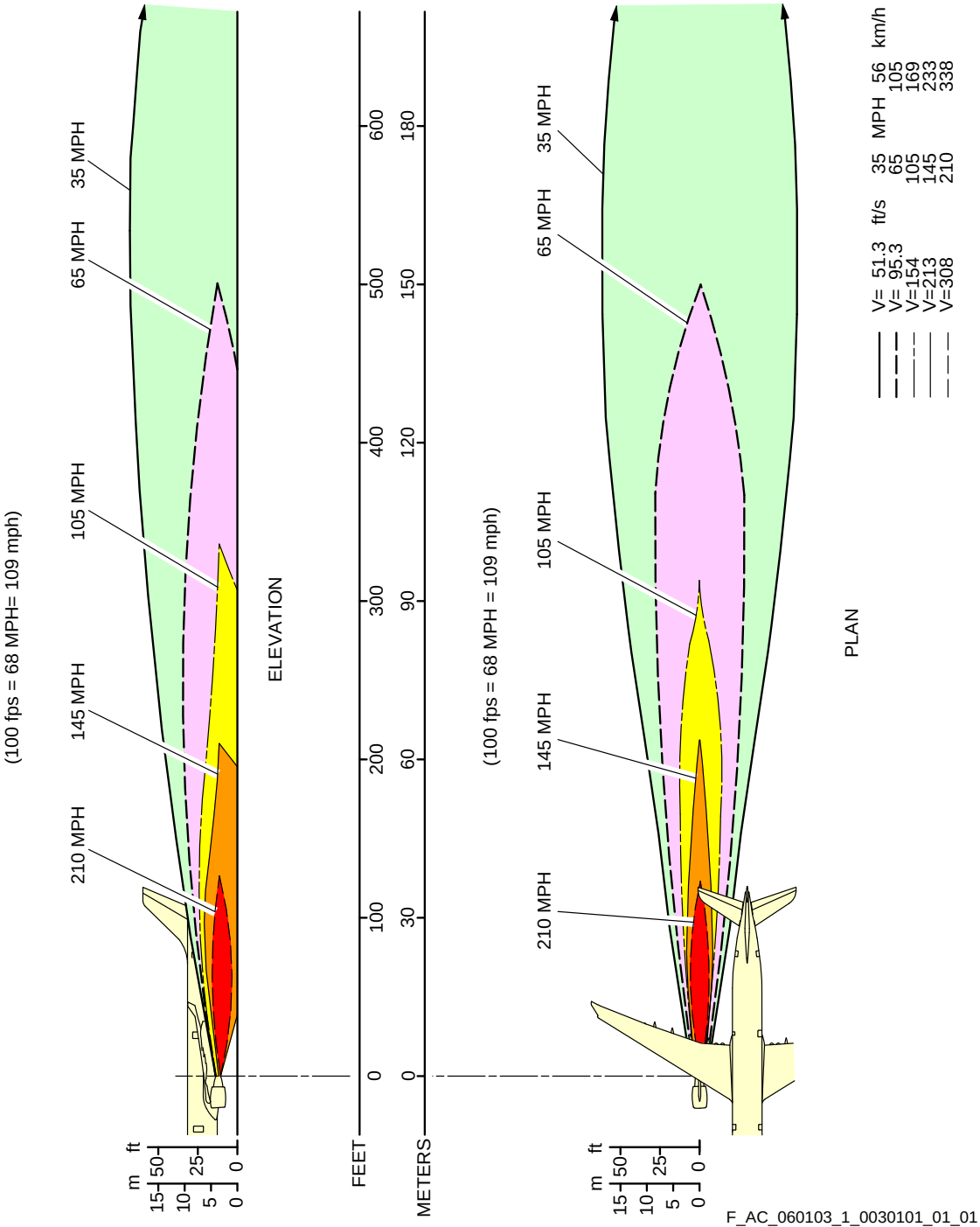
**ON A/C A330-200 A330-200F A330-300




F_AC_060103_1_0020101_01_00

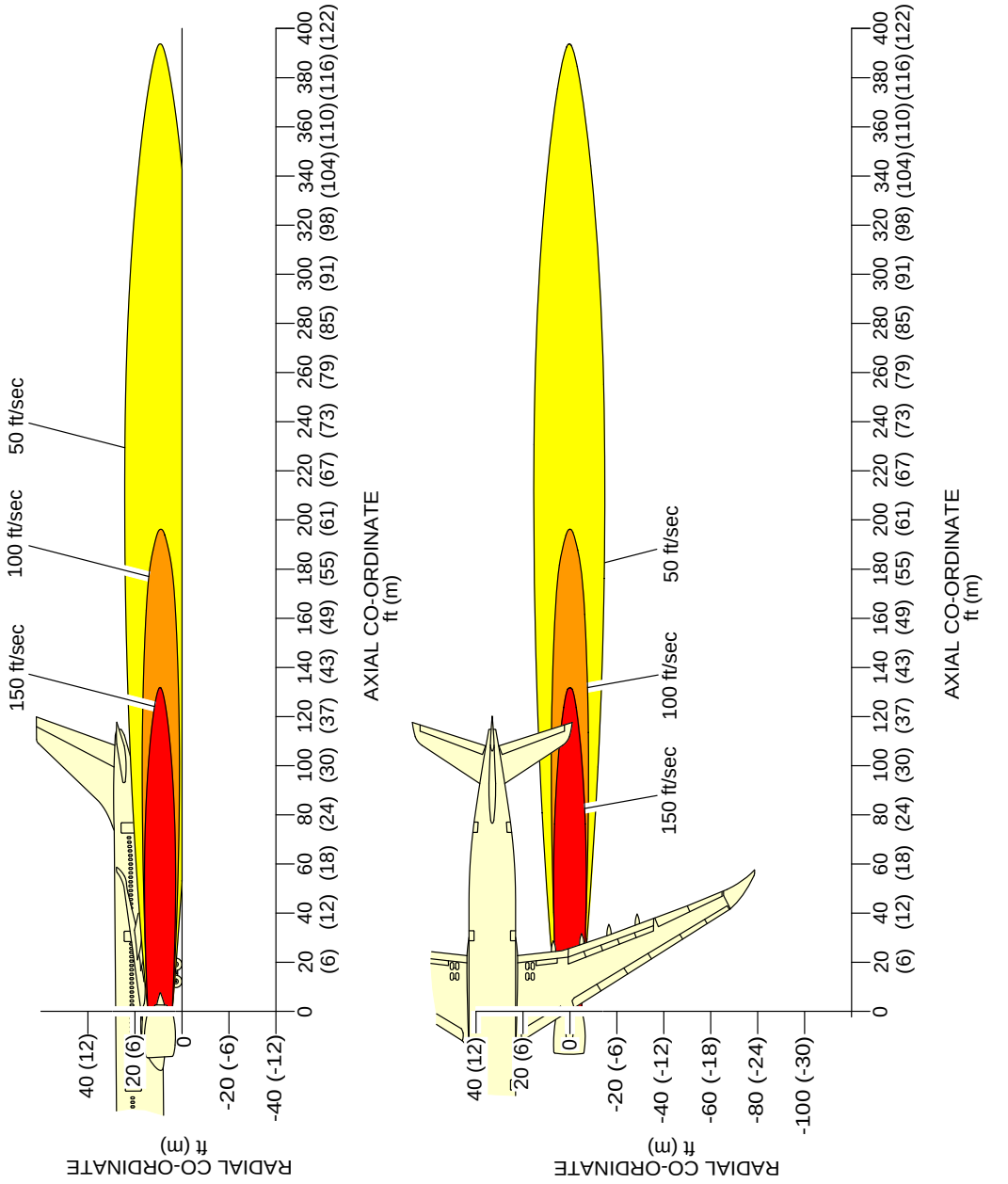
Engine Exhaust Velocities
Breakaway Power - RR Trent 700 series engine
FIGURE-6-1-3-991-002-A01

**ON A/C A330-200 A330-300




Engine Exhaust Velocities
Breakaway Power - GE CF6-80E1 series engine
FIGURE-6-1-3-991-003-A01

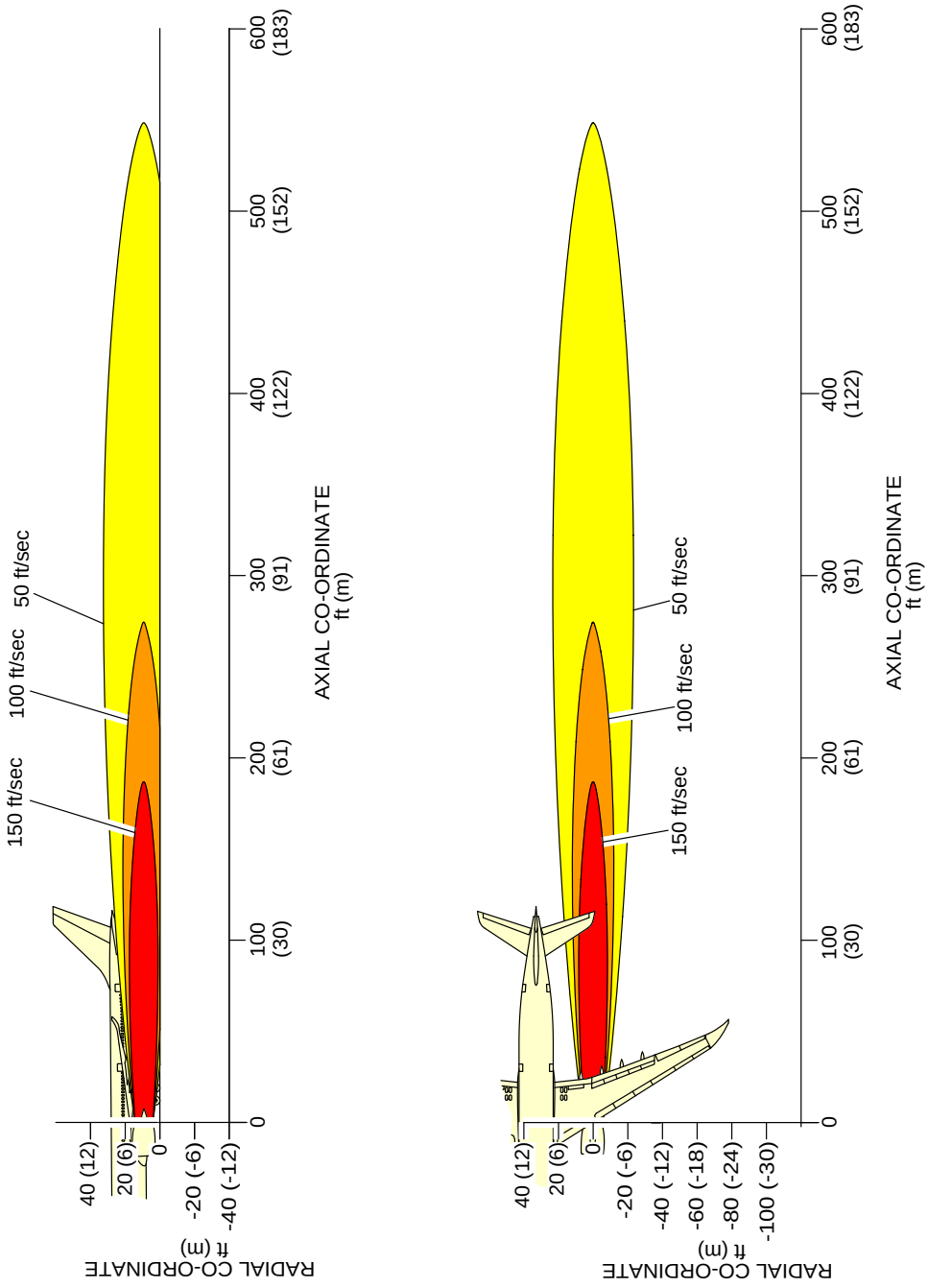
**ON A/C A330-800 A330-900




F_AC_060103_1_0070101_01_00

Engine Exhaust Velocities
Breakaway Power (14% MTO Thrust) - RR Trent 7000 series engine
FIGURE-6-1-3-991-007-A01

**ON A/C A330-800 A330-900




F_AC_060103_1_0080101_01_00

Engine Exhaust Velocities
Breakaway Power (28% MTO Thrust) - RR Trent 7000 series engine
FIGURE-6-1-3-991-008-A01

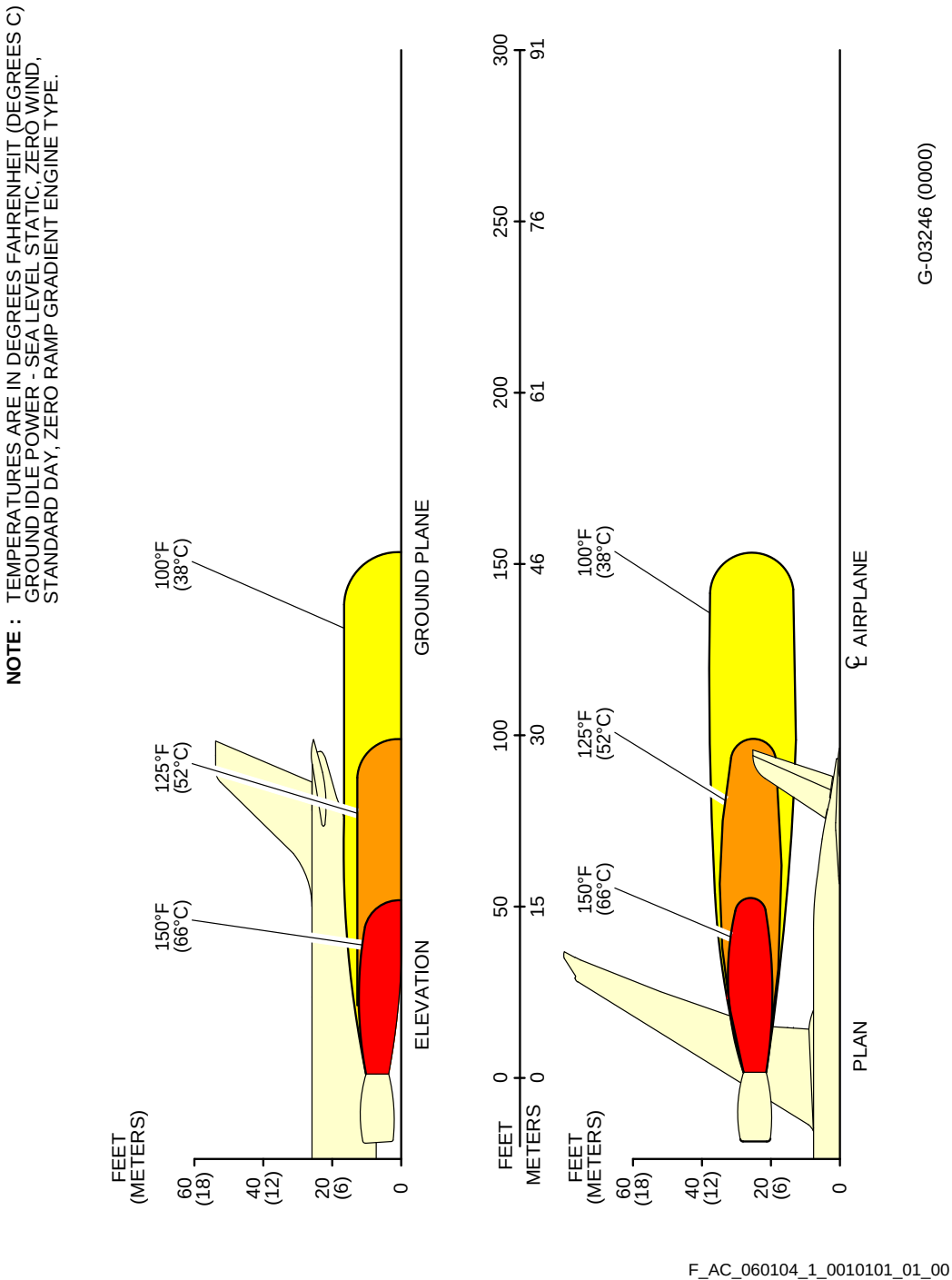
## 6-1-4 Engine Exhaust Temperatures Contours - Breakaway Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Temperatures Contours - Breakaway Power

1. This section gives engine exhaust temperatures contours at breakaway power.

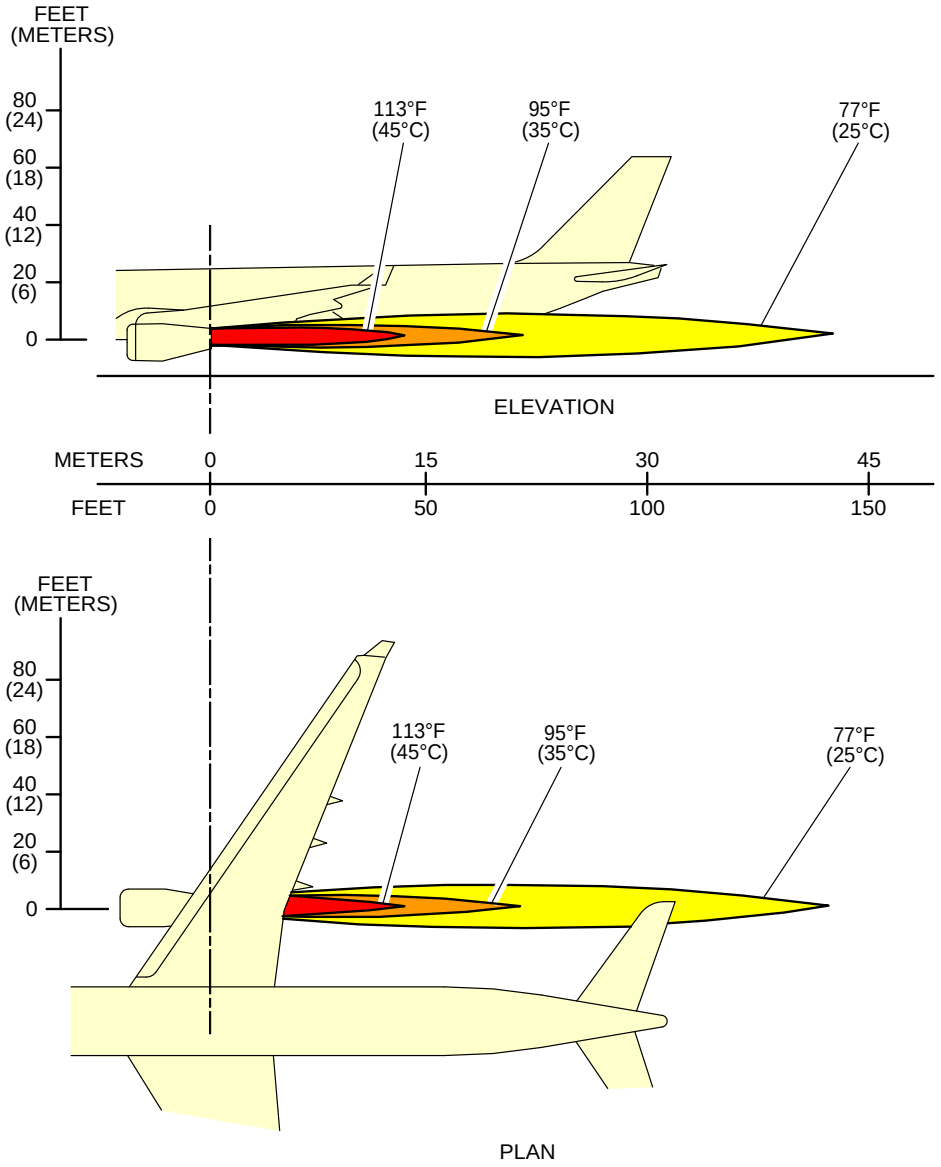
**ON A/C A330-200 A330-200F A330-300




F_AC_060104_1_0010101_01_00

Engine Exhaust Temperatures
Breakaway Power - PW 4000 series engine
FIGURE-6-1-4-991-001-A01

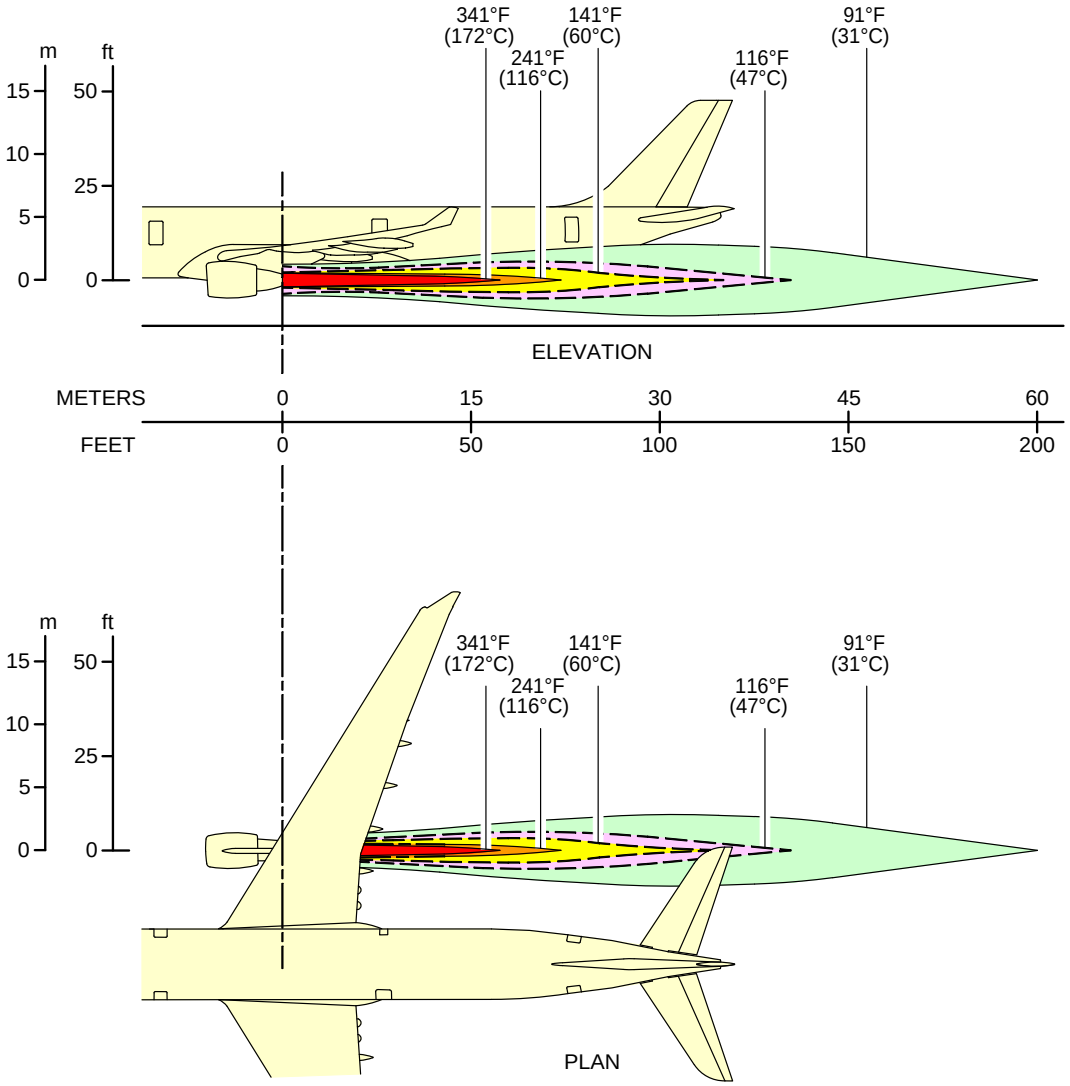
**ON A/C A330-200 A330-200F A330-300




F_AC_060104_1_0020101_01_00

Engine Exhaust Temperatures
Breakaway Power - RR Trent 700 series engine
FIGURE-6-1-4-991-002-A01

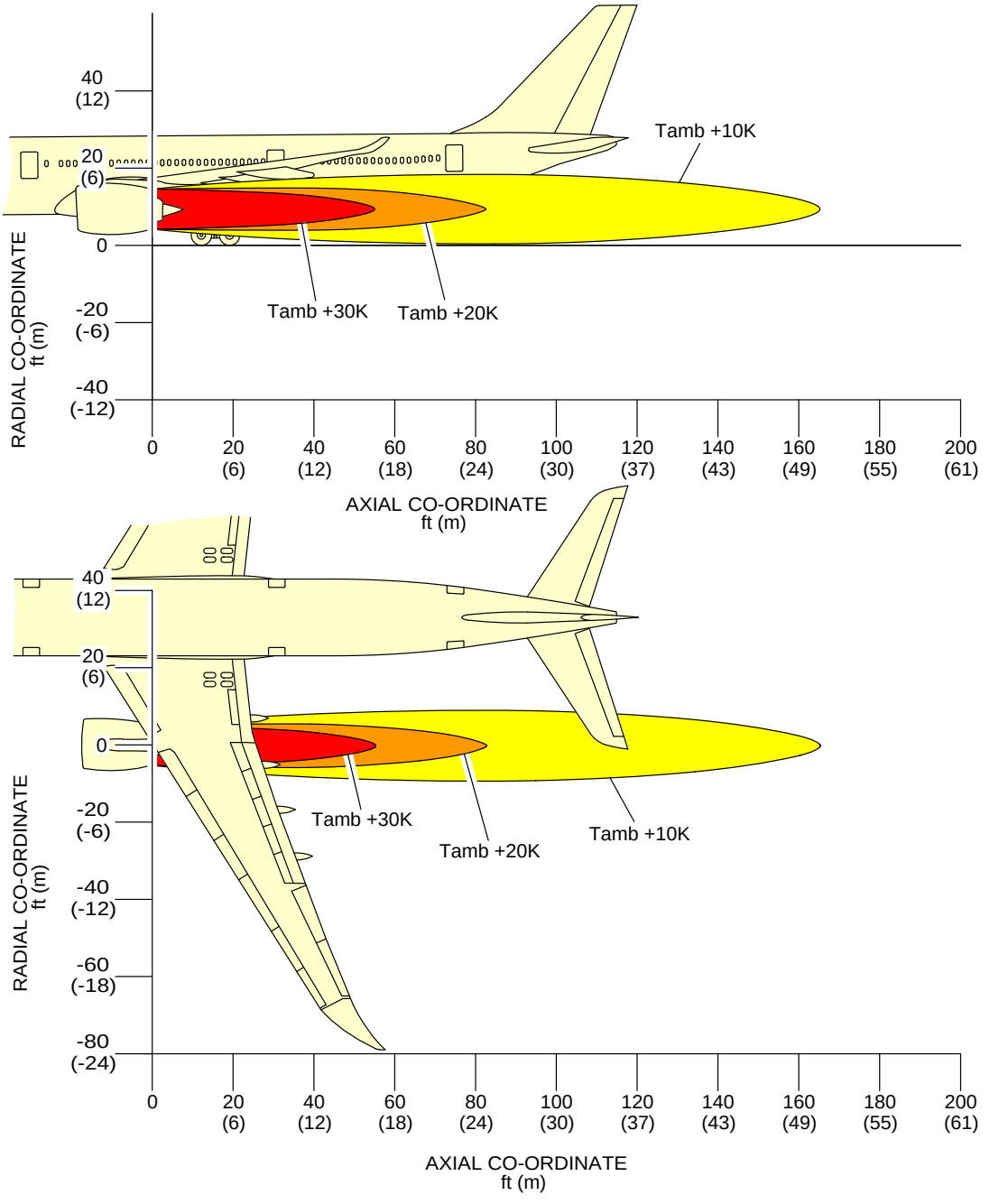
**ON A/C A330-200 A330-300




F_AC_060104_1_0030101_01_01

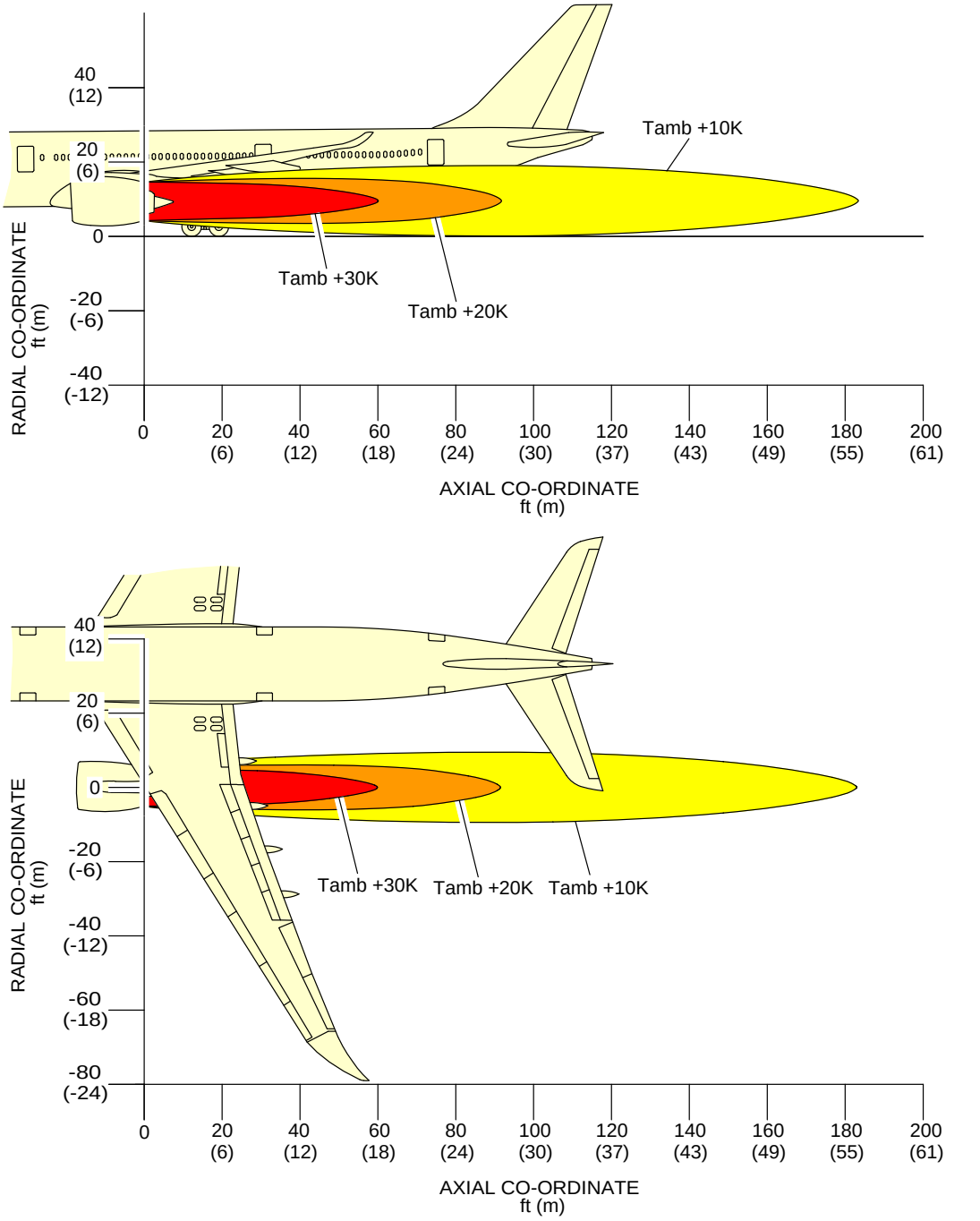
Engine Exhaust Temperatures
Breakaway Power - GE CF6-80E1 series engine
FIGURE-6-1-4-991-003-A01

**ON A/C A330-800 A330-900




Engine Exhaust Temperatures
Breakaway Power (14% MTO Thrust) - RR Trent 7000 series engine
FIGURE-6-1-4-991-007-A01

**ON A/C A330-800 A330-900




Engine Exhaust Temperatures
Breakaway Power (28% MTO Thrust) - RR Trent 7000 series engine
FIGURE-6-1-4-991-008-A01

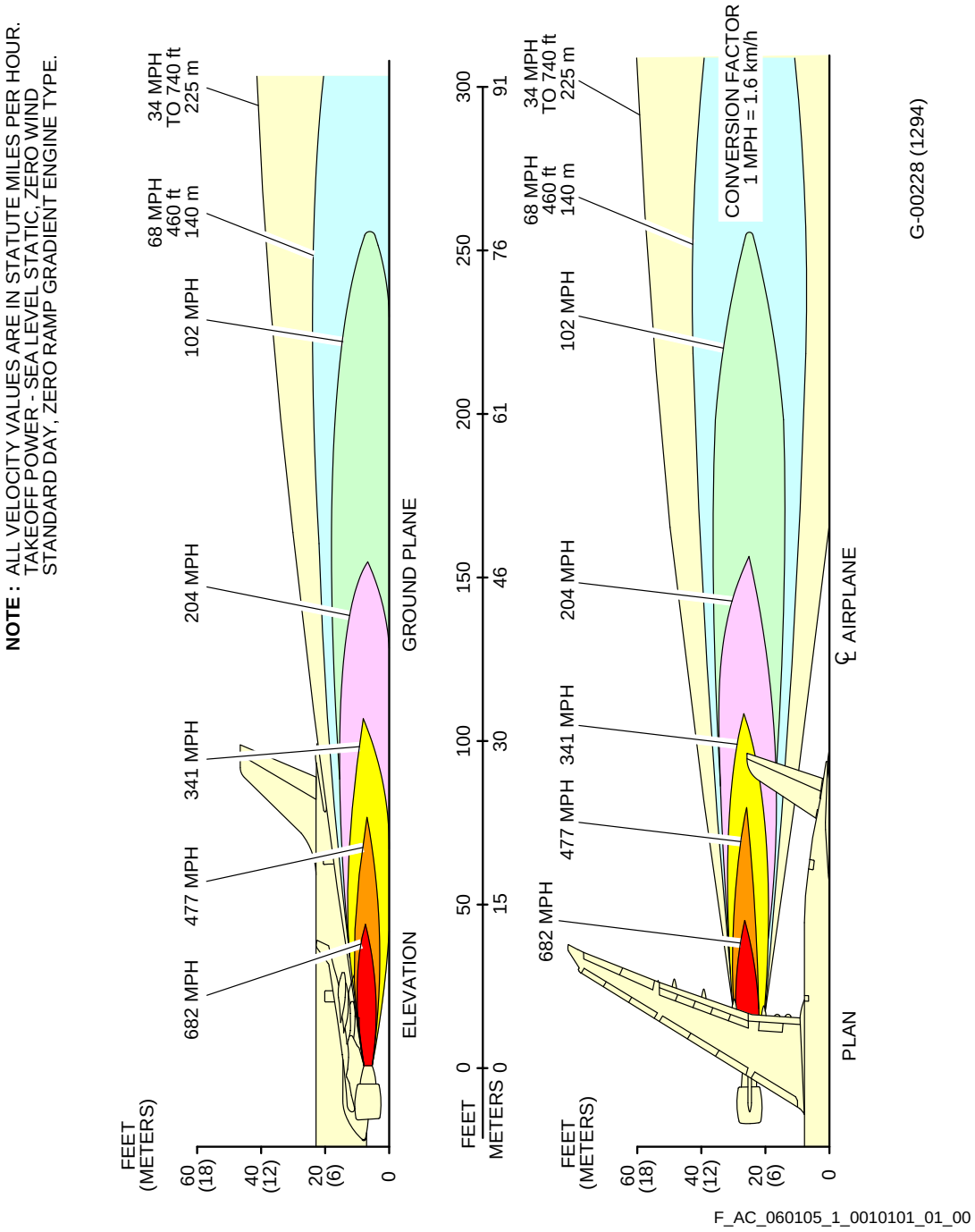
## 6-1-5 Engine Exhaust Velocities Contours - Takeoff Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Velocities Contours - Takeoff Power

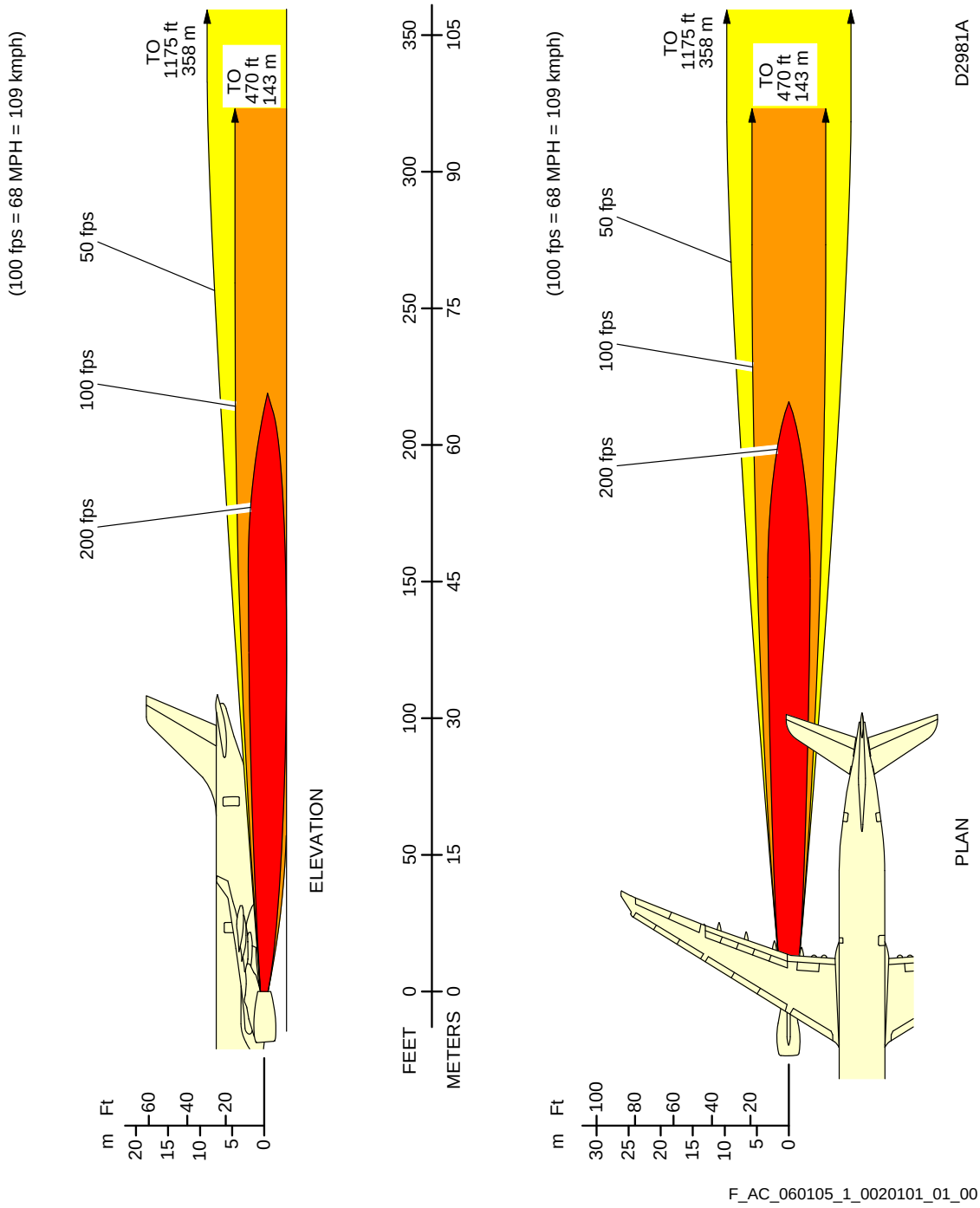
1. This section gives engine exhaust velocities contours at takeoff power.

****ON A/C A330-200 A330-200F A330-300**



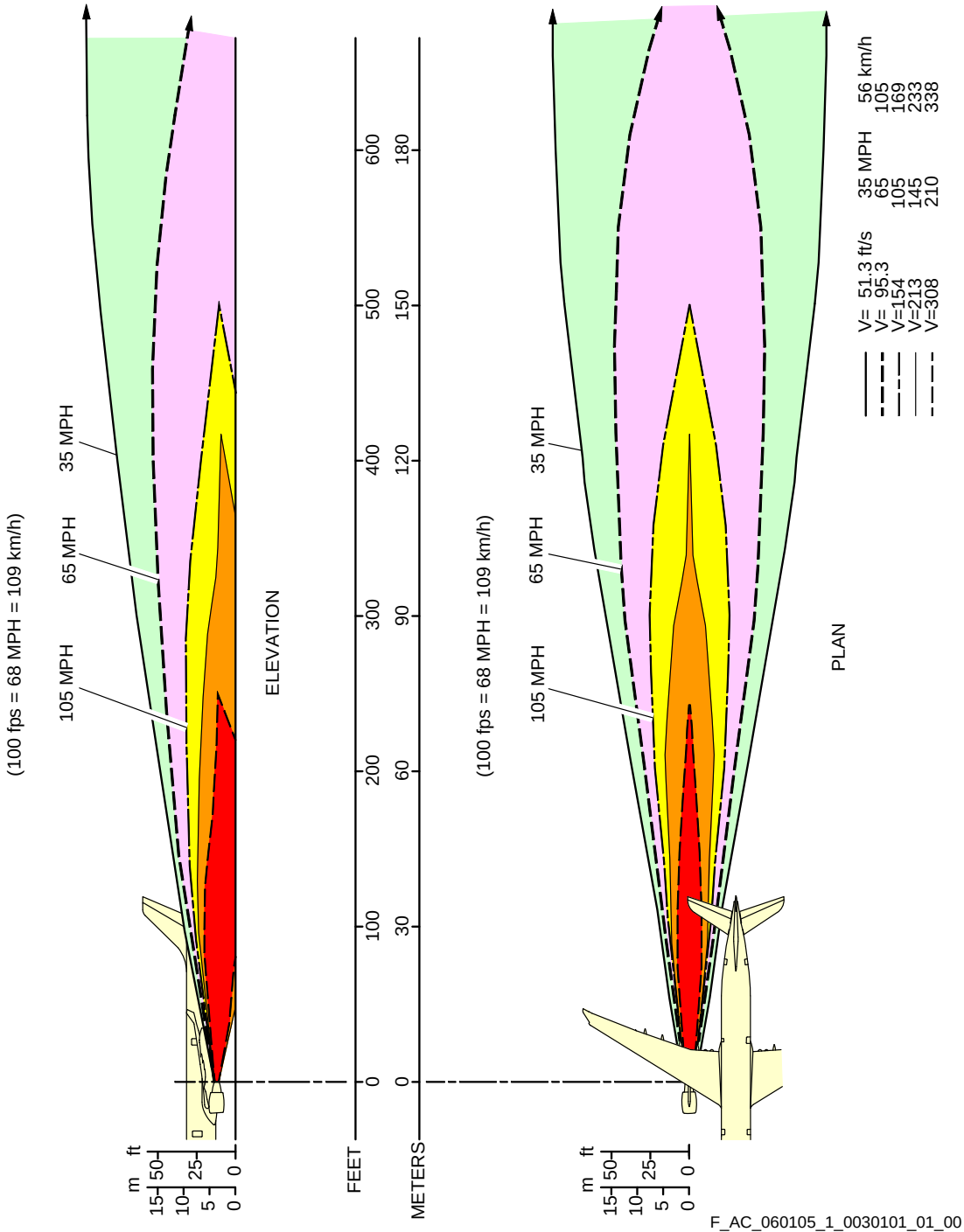

Engine Exhaust Velocities
Takeoff Power - PW 4000 series engine
FIGURE-6-1-5-991-001-A01

****ON A/C A330-200 A330-200F A330-300**



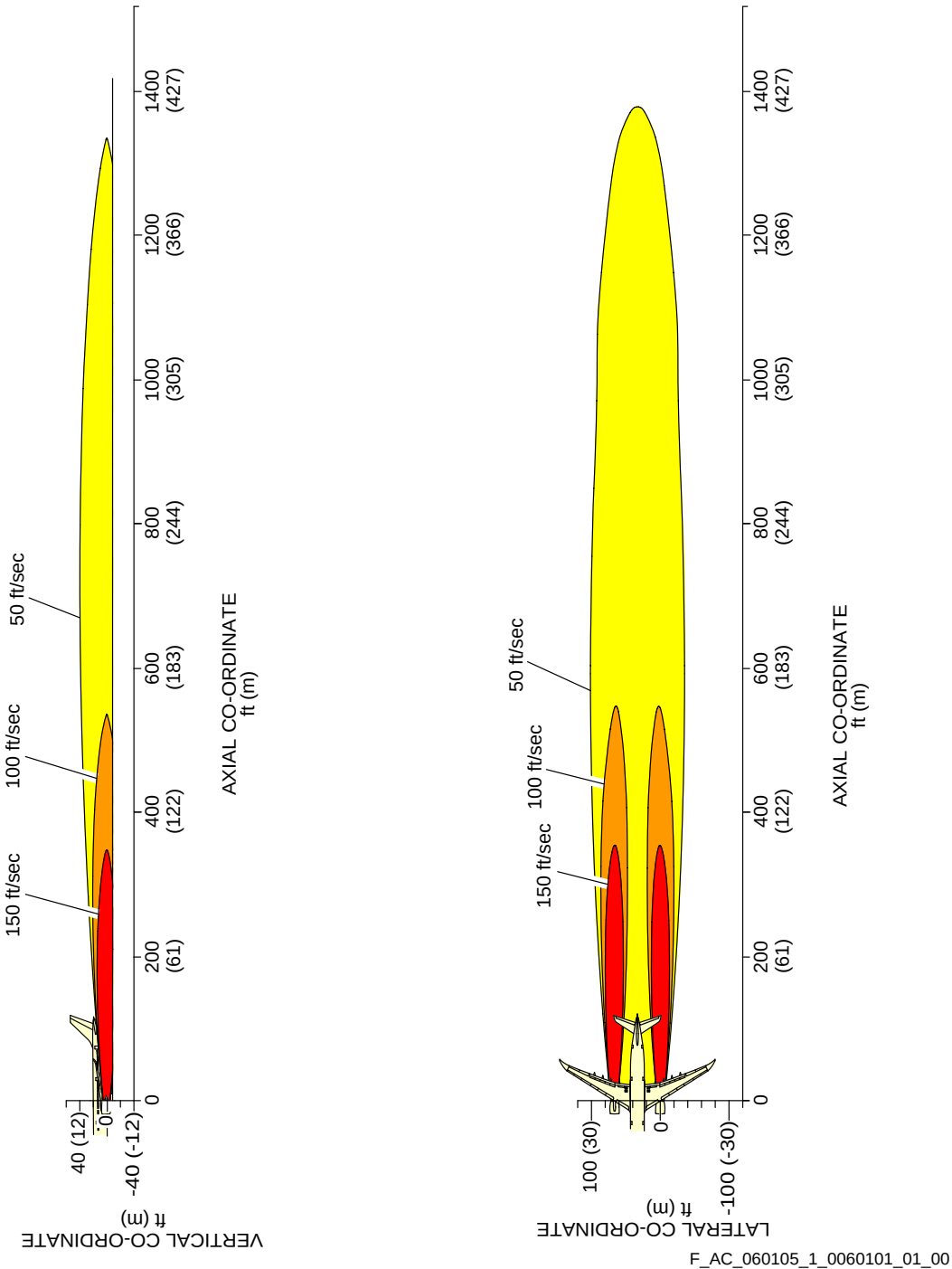

Engine Exhaust Velocities
Takeoff Power - RR Trent 700 series engine
FIGURE-6-1-5-991-002-A01

**ON A/C A330-200 A330-300




Engine Exhaust Velocities
Takeoff Power - GE CF6-80E1 series engine
FIGURE-6-1-5-991-003-A01

**ON A/C A330-800 A330-900




Engine Exhaust Velocities
Takeoff Power - RR Trent 7000 series engine
FIGURE-6-1-5-991-006-A01

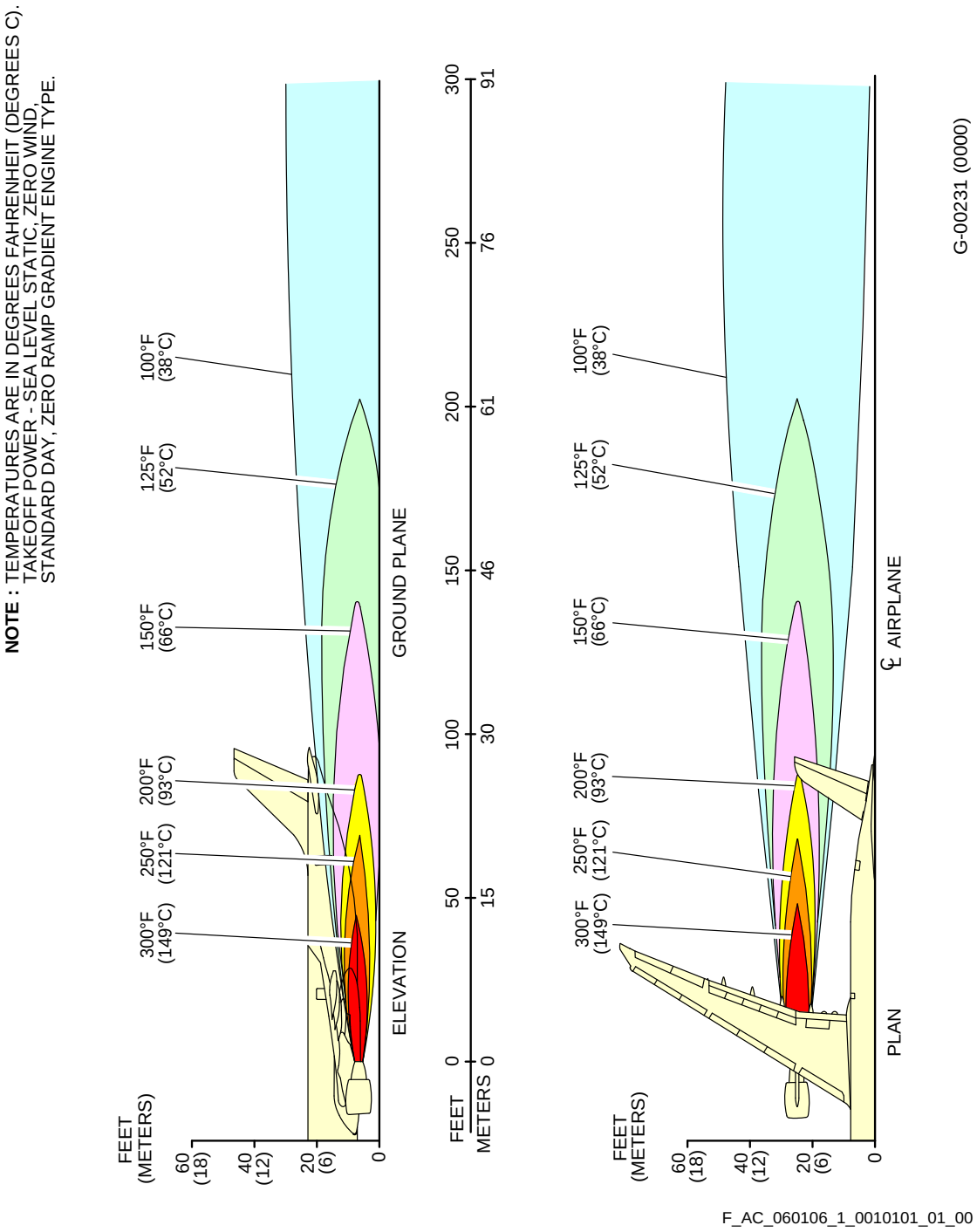
## 6-1-6 Engine Exhaust Temperatures Contours - Takeoff Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Engine Exhaust Temperatures Contours - Takeoff Power

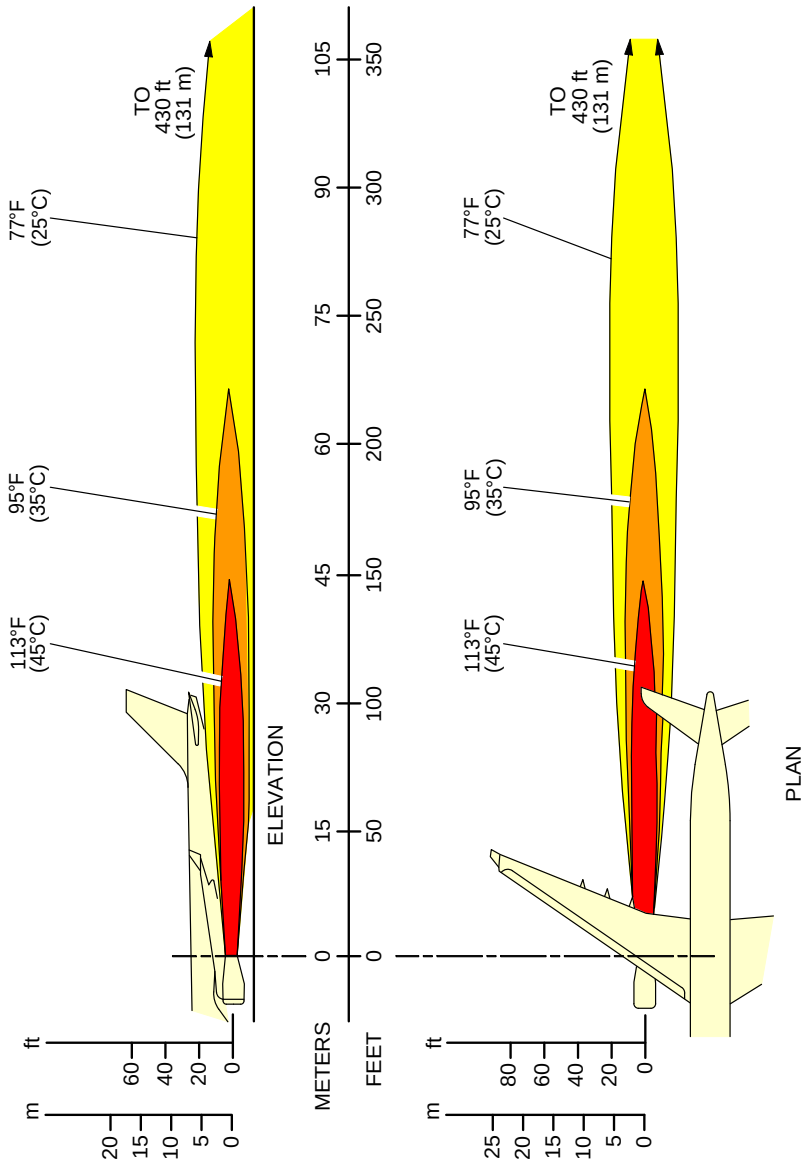
1. This section gives engine exhaust temperatures contours at takeoff power.

**ON A/C A330-200 A330-200F A330-300



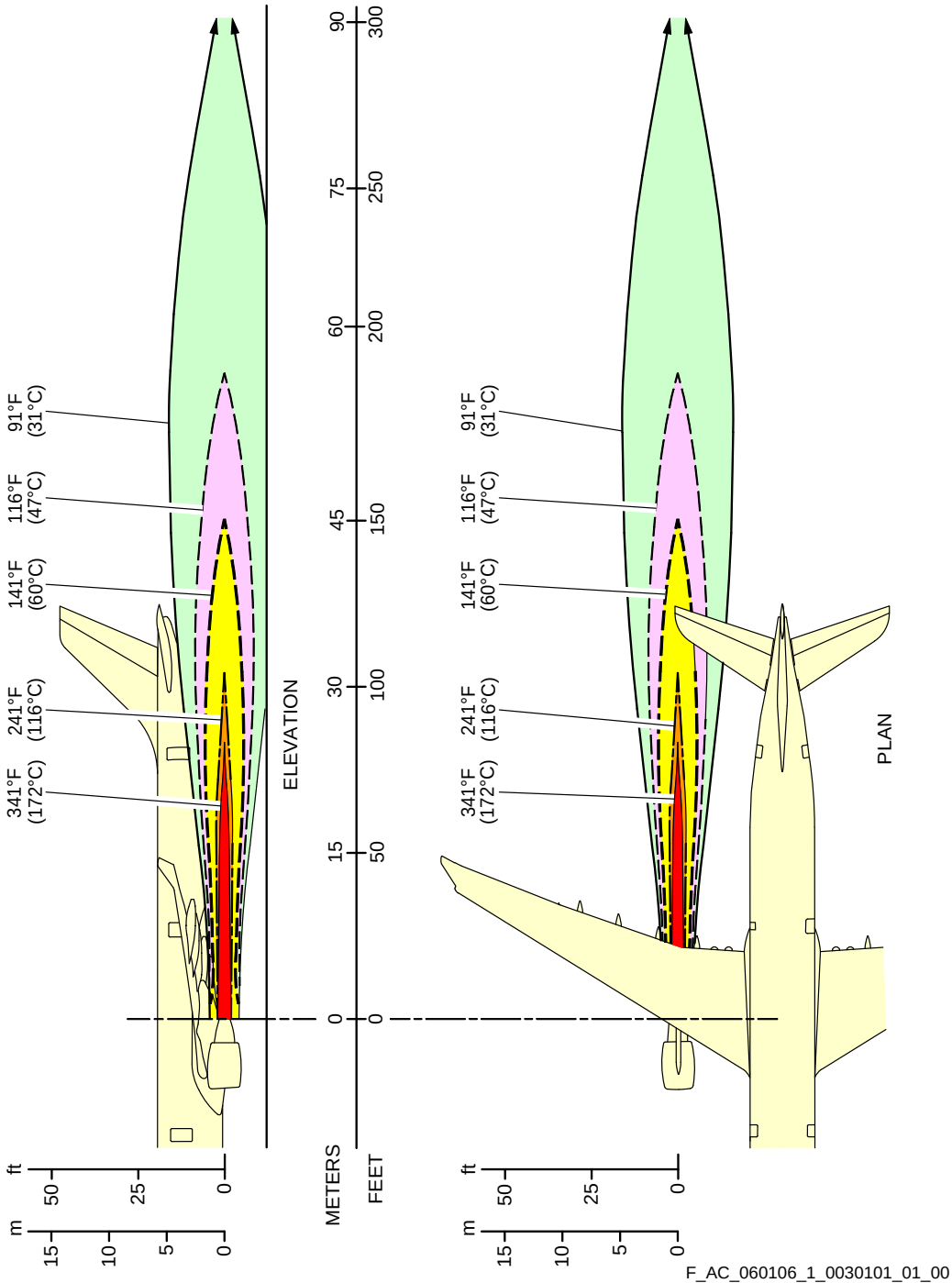

Engine Exhaust Temperatures
Takeoff Power - PW 4000 series engine
FIGURE-6-1-6-991-001-A01

**ON A/C A330-200 A330-200F A330-300



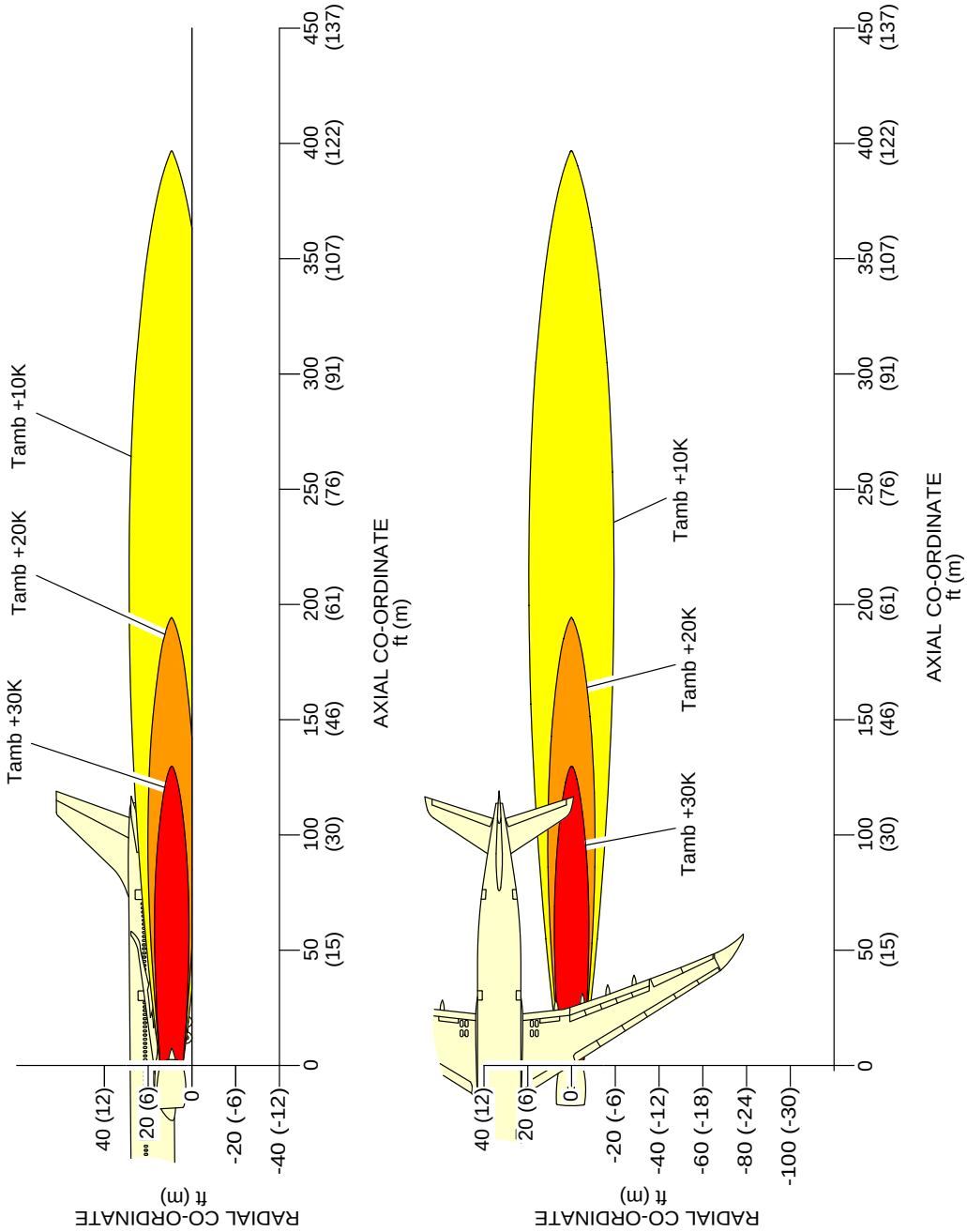

Engine Exhaust Temperatures
Takeoff Power - RR Trent 700 series engine
FIGURE-6-1-6-991-002-A01

**ON A/C A330-200 A330-300




Engine Exhaust Temperatures
Takeoff Power - GE CF6-80E1 series engine
FIGURE-6-1-6-991-003-A01

**ON A/C A330-800 A330-900




F_AC_060106_1_0060101_01_00

Engine Exhaust Temperatures
Takeoff Power - RR Trent 7000 series engine
FIGURE-6-1-6-991-006-A01

## 6-3-0 Danger Areas of Engines

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Danger Areas of Engines

1. Danger Areas of the Engines.

NOTE : Areas with exhaust velocities of more than 56 km/h (35 mph, 50 ft/s or 15 m/s) are defined as areas where injury to persons and/or damage to machinery can occur.

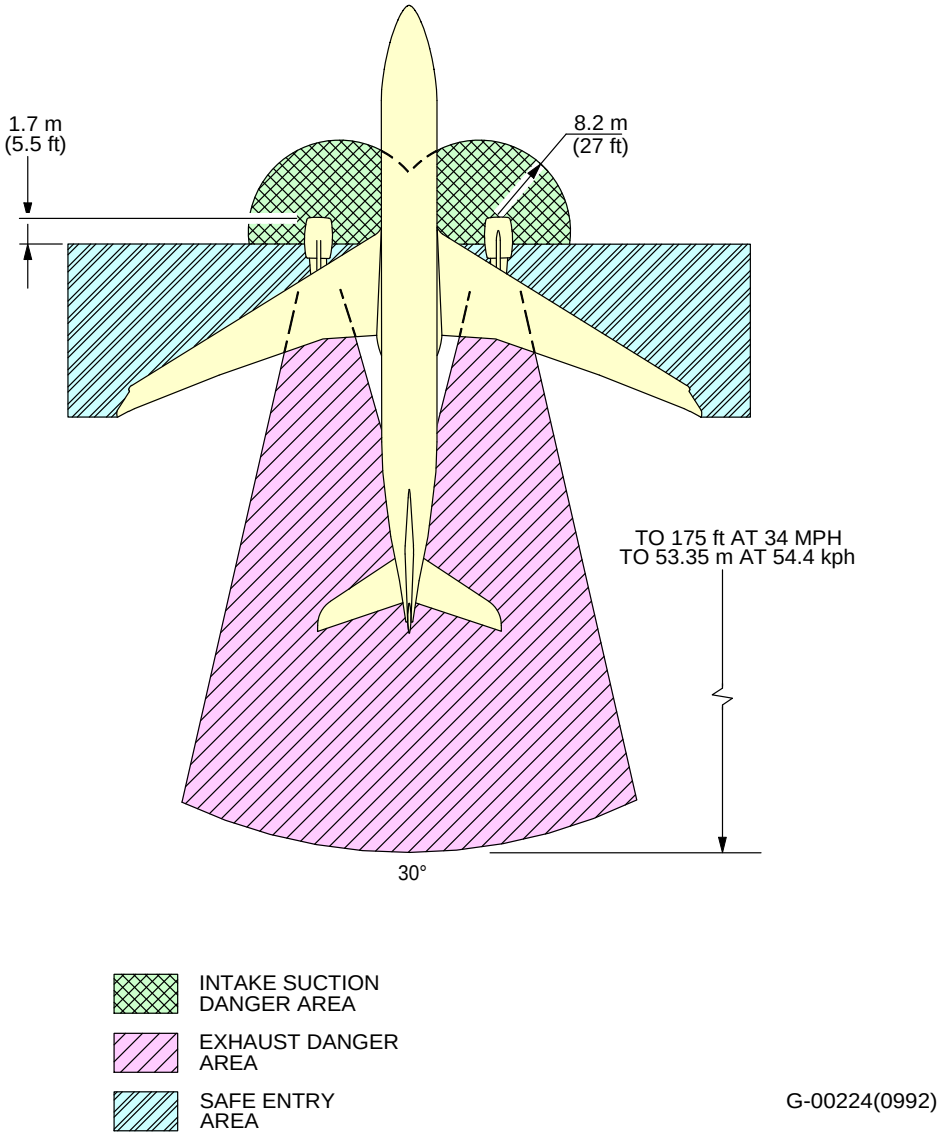
## 6-3-1 Ground Idle Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Ground Idle Power

1. This section provides danger areas of the engines at ground idle power conditions.

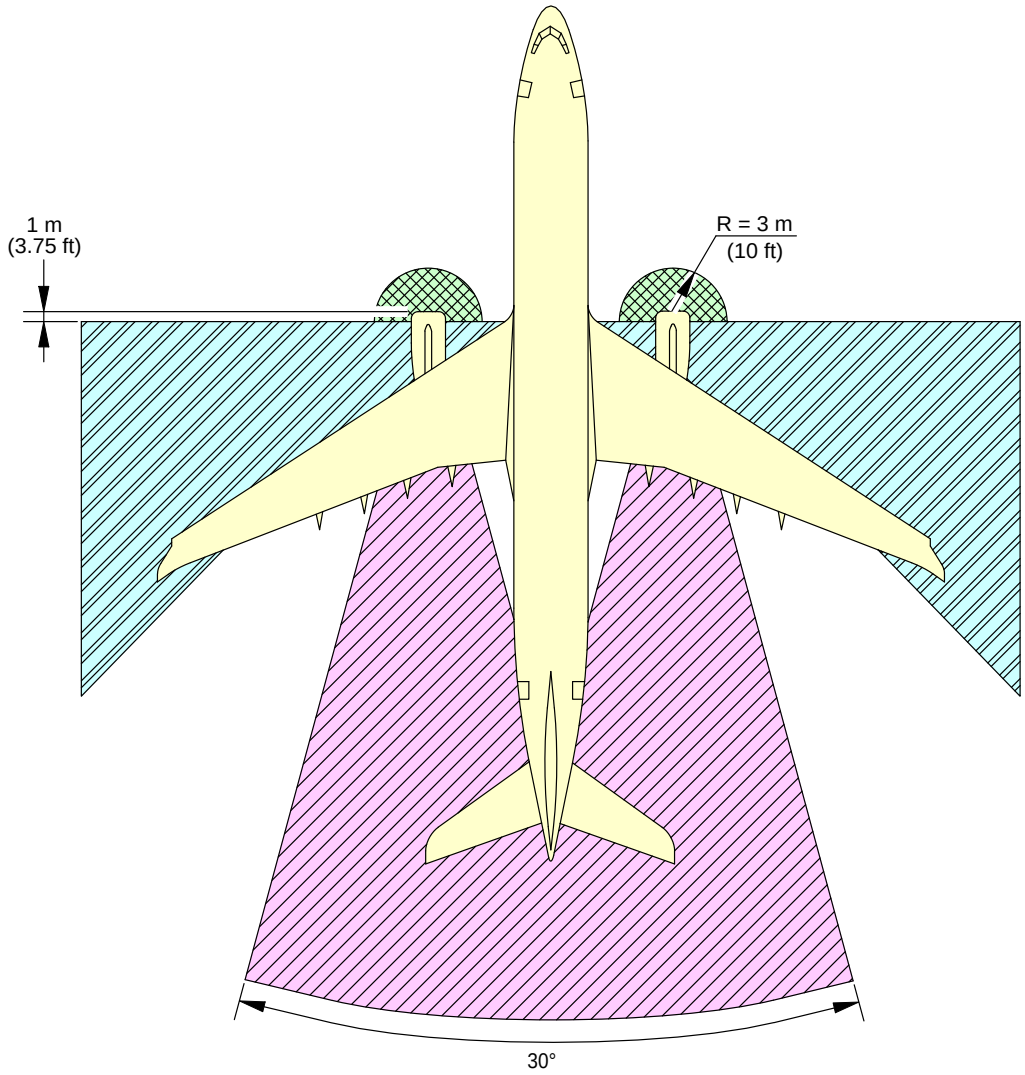
**ON A/C A330-200 A330-200F A330-300




F_AC_060301_1_0010101_01_00

Danger Areas of Engines
PW 4000 Series Engine
FIGURE-6-3-1-991-001-A01

**ON A/C A330-200 A330-200F A330-300




**NOTE:**

INTAKE SUCTION DANGER AREA MINIMUM POWER

ENTRY CORRIDOR

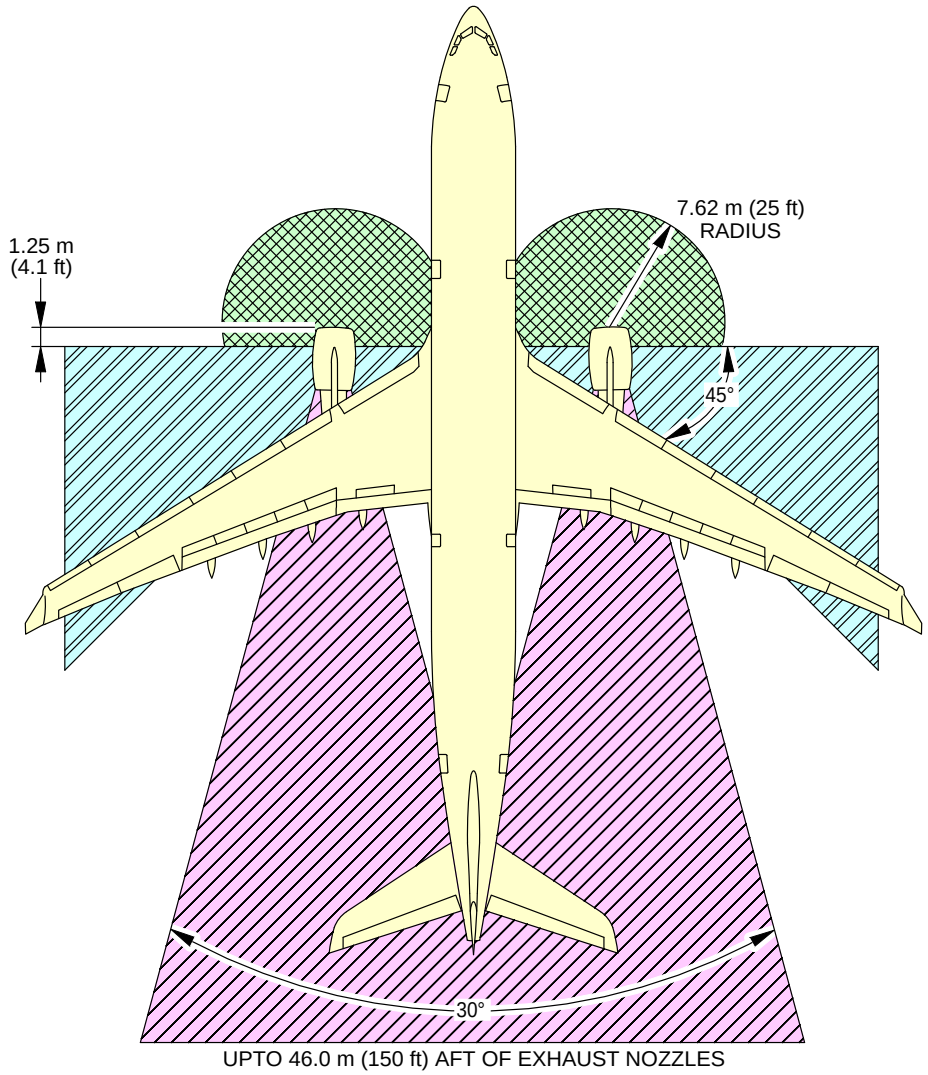
EXHAUST DANGER AREA

D4816

F_AC_060301_1_0020101_01_01

Danger Areas of Engines
RR Trent 700 Series Engine
FIGURE-6-3-1-991-002-A01

**ON A/C A330-200 A330-300




**NOTE:**

INTAKE SUCTION DANGER AREA

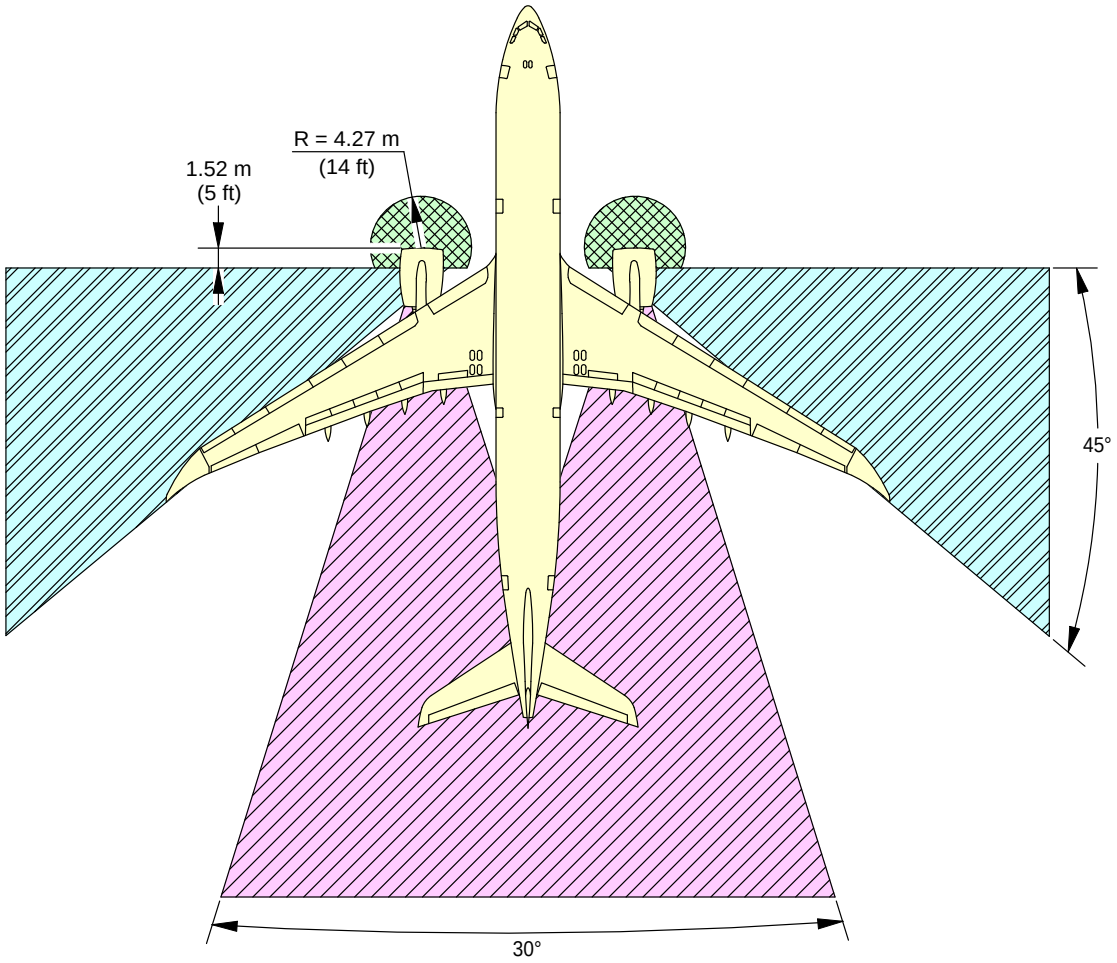
ENTRY CORRIDOR

EXHAUST DANGER AREA

F_AC_060301_1_0030101_01_02

Danger Areas of Engines
GE CF6-80E1 Series Engine
FIGURE-6-3-1-991-003-A01

**ON A/C A330-800 A330-900




**NOTE:**

INTAKE SUCTION DANGER AREA

ENTRY CORRIDOR

EXHAUST DANGER AREA

F_AC_060301_1_0060101_01_00

Danger Areas of Engines
RR Trent 7000 Series Engine
FIGURE-6-3-1-991-006-A01

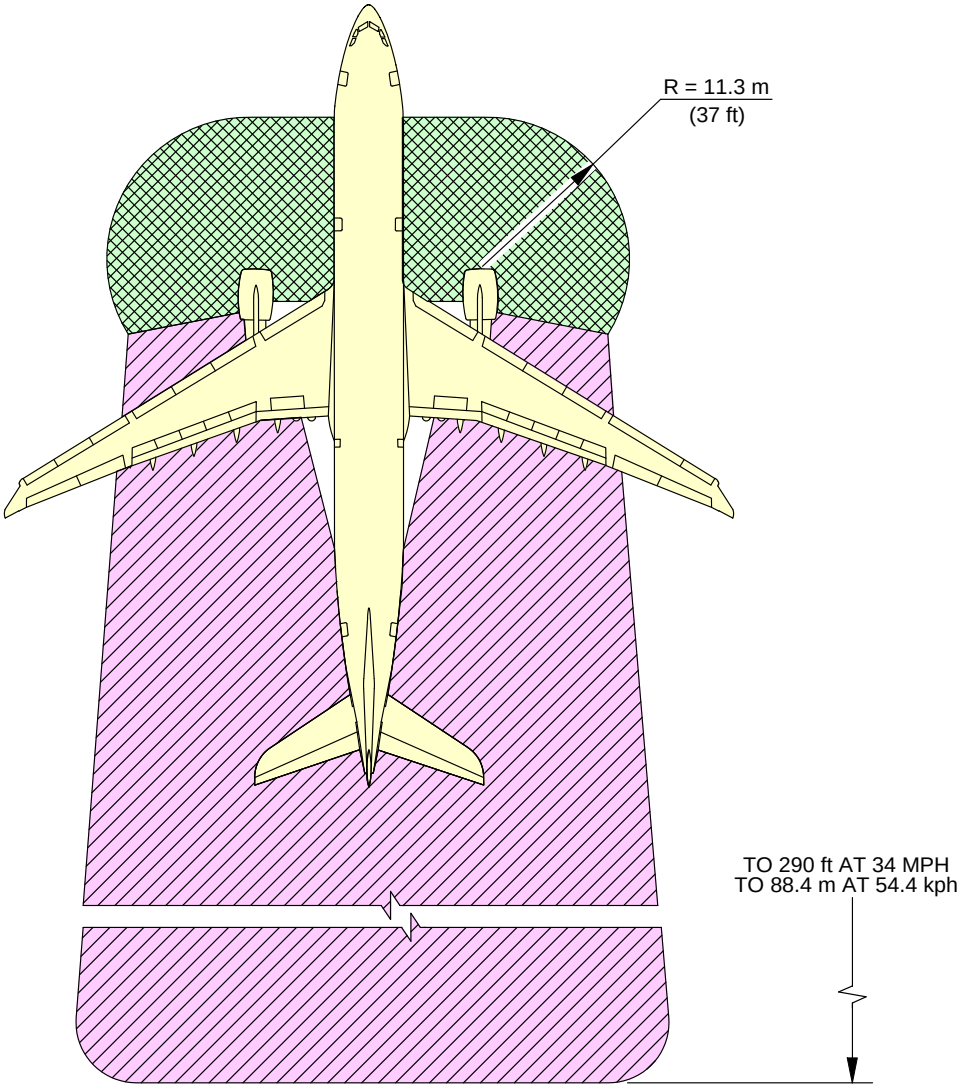
## 6-3-2 Breakaway Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Breakaway Power

1. This section provides danger areas of the engines at breakaway power conditions.

**ON A/C A330-200 A330-200F A330-300




**NOTE:**

INTAKE SUCTION DANGER AREA

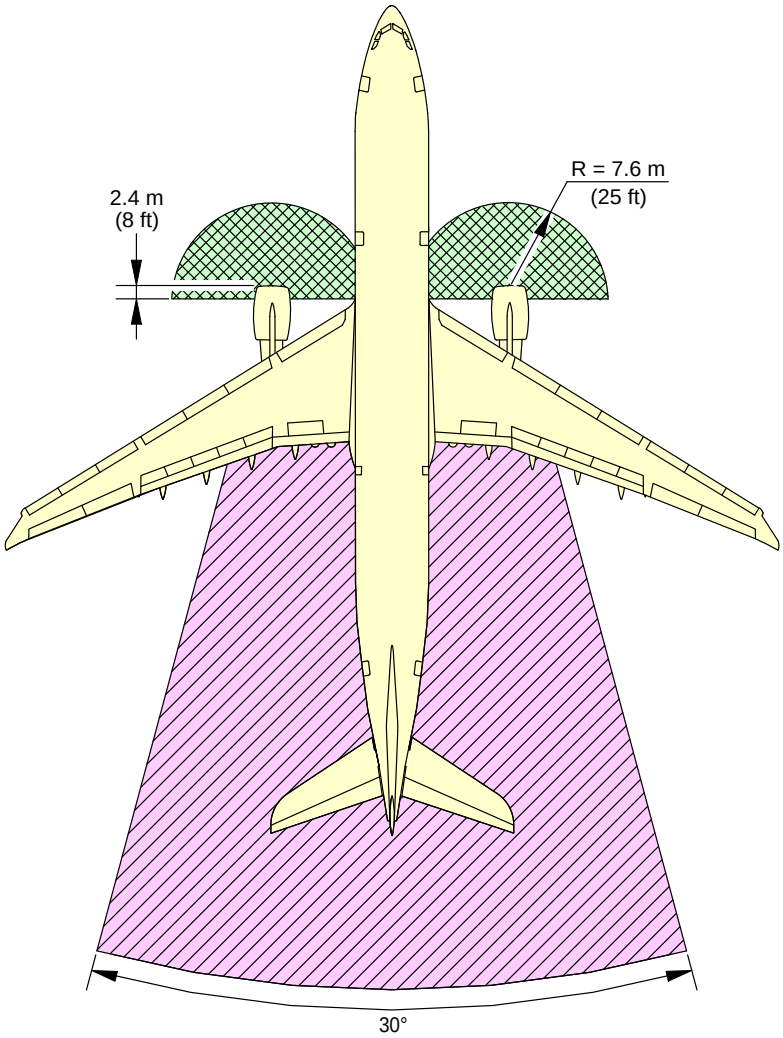
EXHAUST DANGER AREA

G-03248 (0000)

F_AC_060302_1_0010101_01_01

Danger Areas of Engines
PW 4000 Series Engine
FIGURE-6-3-2-991-001-A01

**ON A/C A330-200 A330-200F A330-300




**NOTE:**

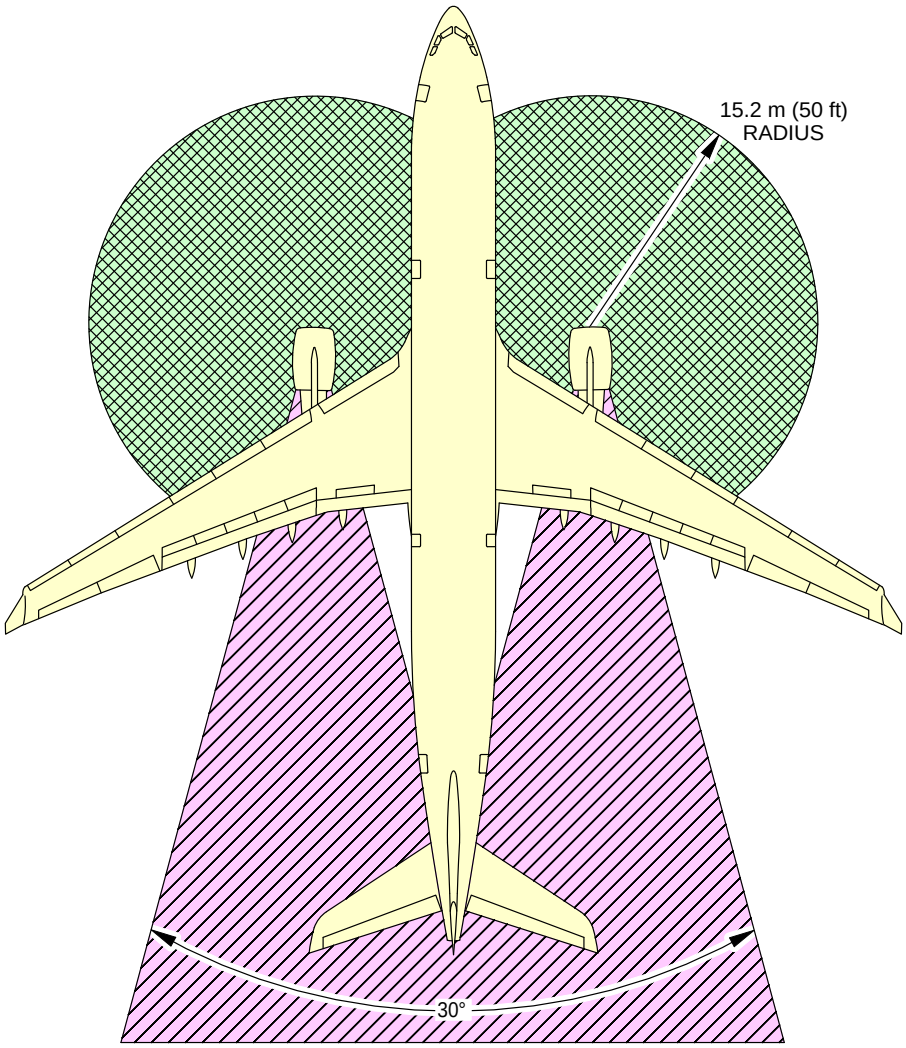
INTAKE SUCTION DANGER AREA BREAKAWAY POWER

EXHAUST DANGER AREA

F_AC_060302_1_0020101_01_01

Danger Areas of Engines
RR Trent 700 Series Engine
FIGURE-6-3-2-991-002-A01

**ON A/C A330-200 A330-300




**NOTE:**

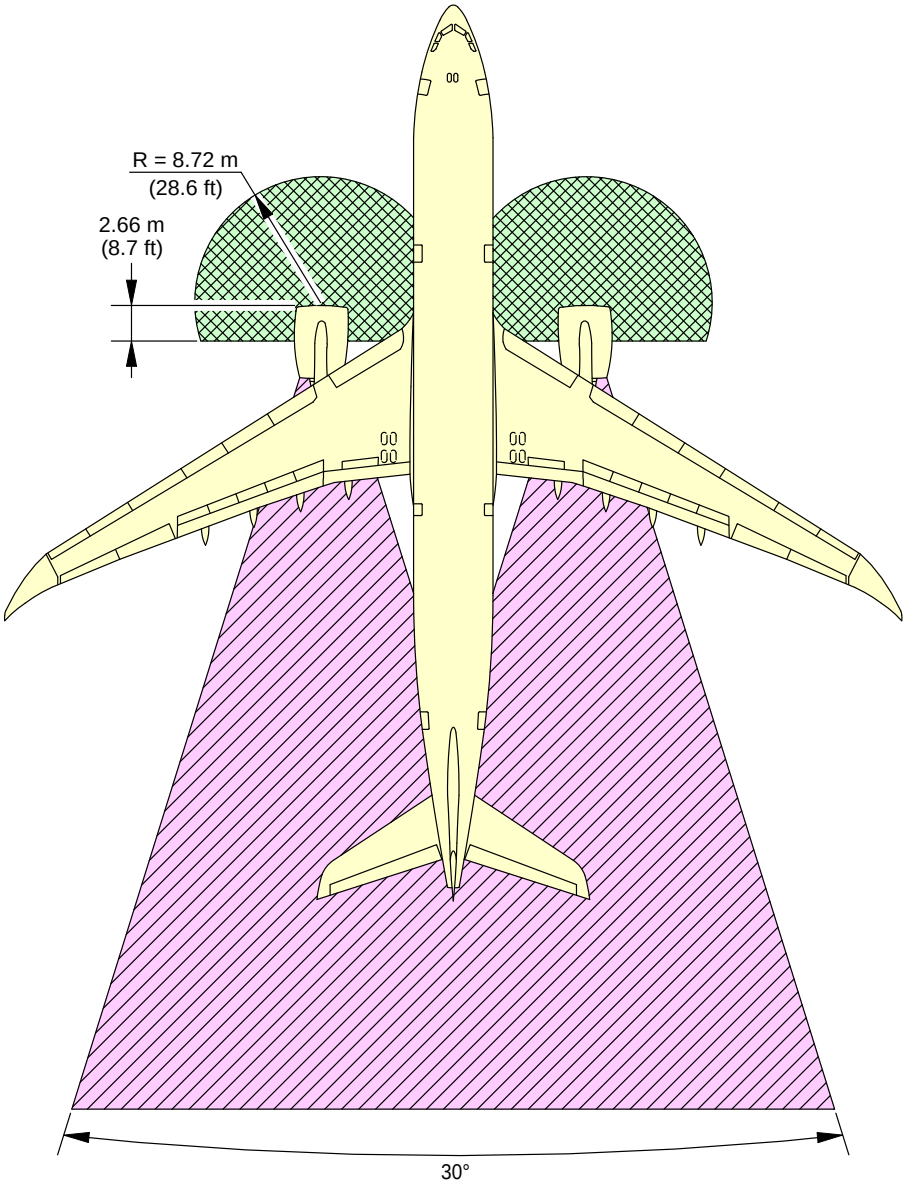
INTAKE SUCTION DANGER AREA

EXHAUST DANGER AREA

F_AC_060302_1_0030101_01_02

Danger Areas of Engines
GE CF6-80E1 Series Engine
FIGURE-6-3-2-991-003-A01

**ON A/C A330-800 A330-900




UPTO 120.4 m (395 ft) AFT OF EXHAUST NOZZLES

**NOTE:**

INTAKE SUCTION DANGER AREA

EXHAUST DANGER AREA

F_AC_060302_1_0060101_01_00

Danger Areas of Engines
RR Trent 7000 Series Engine
FIGURE-6-3-2-991-006-A01

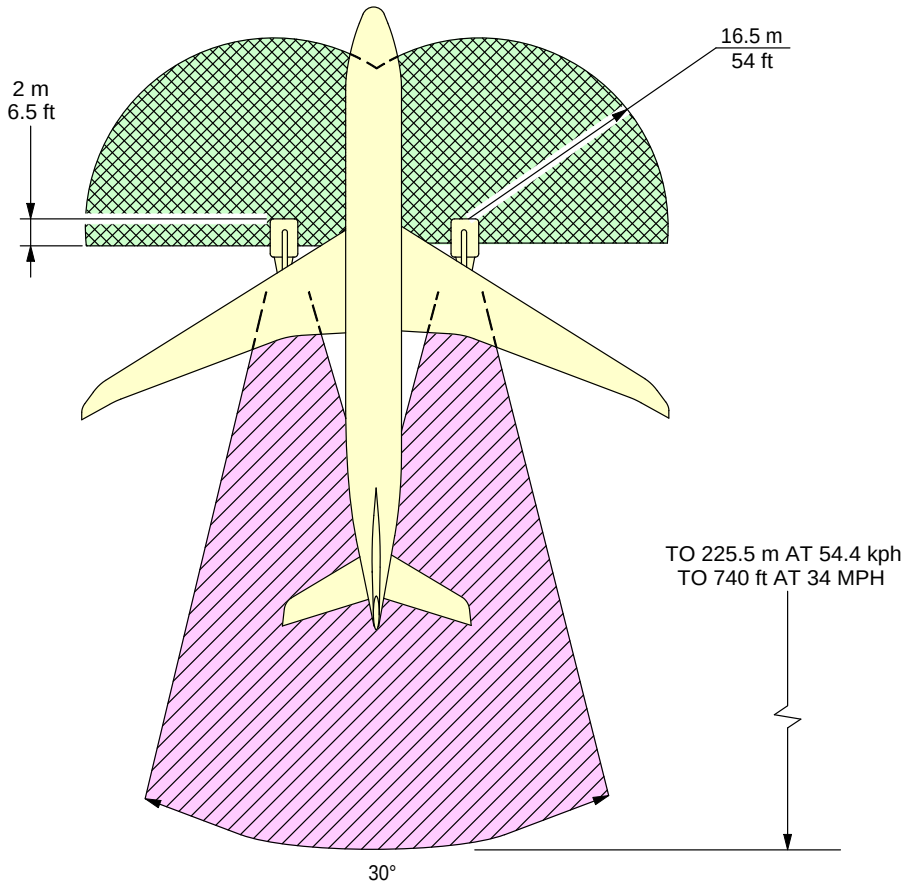
## 6-3-3 Takeoff Power

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Takeoff Power

1. This section provides danger areas of the engines at max take-off power conditions.

**ON A/C A330-200 A330-200F A330-300



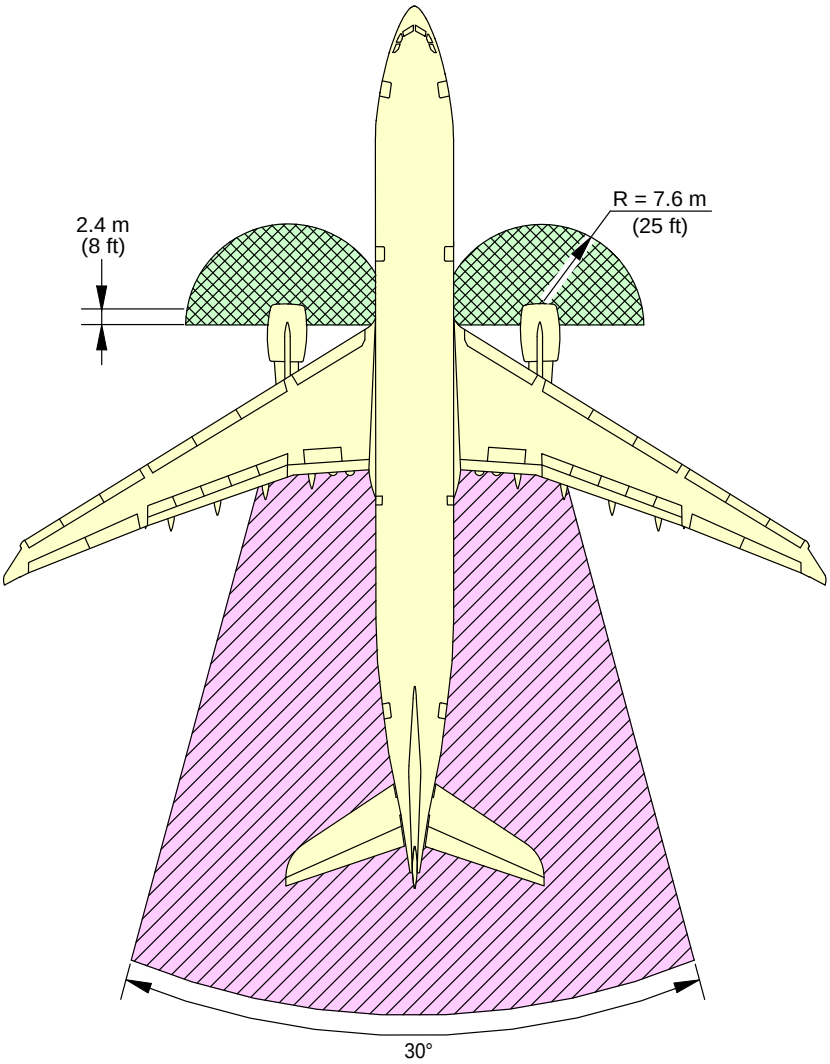

PW 4164 / PW 4168 -TAKEOFF

G - 00225 (0493)

F_AC_060303_1_0010101_01_00

Danger Areas of Engines
PW 4000 Series Engine
FIGURE-6-3-3-991-001-A01

**ON A/C A330-200 A330-200F A330-300




**NOTE:**

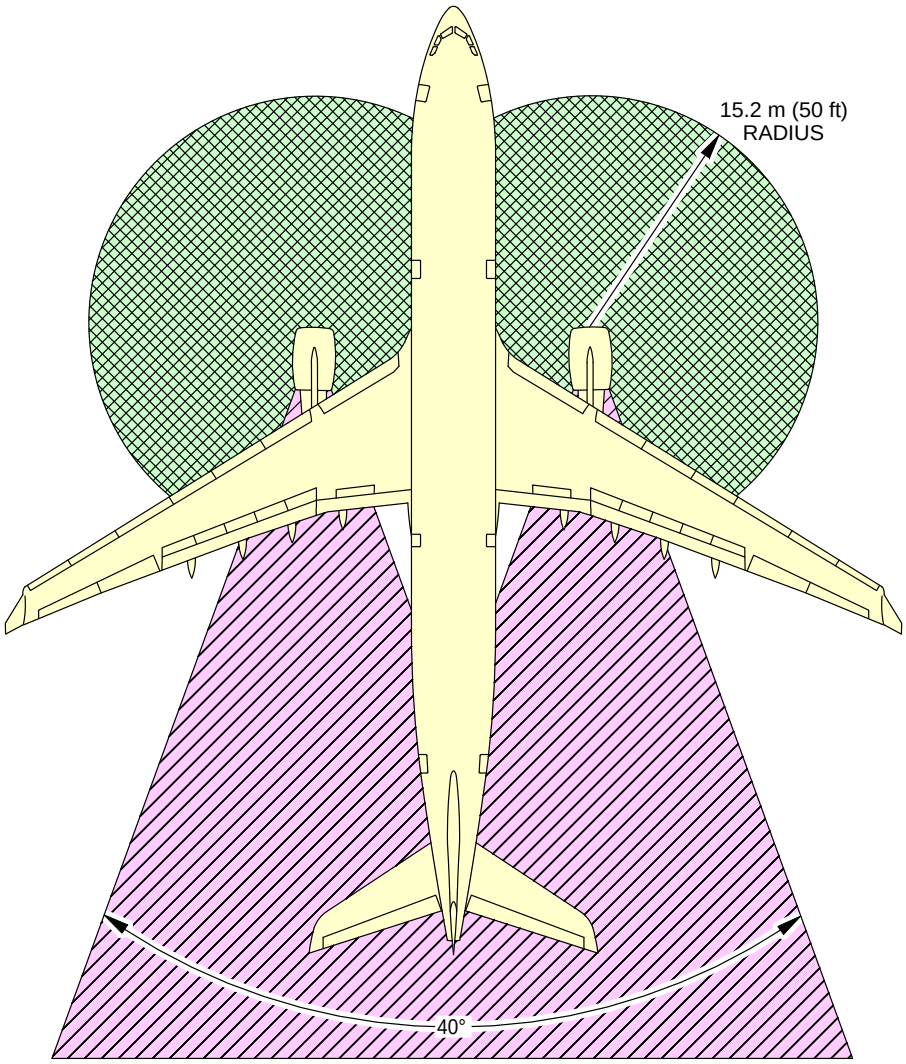
INTAKE SUCTION DANGER AREA TAKE-OFF POWER

EXHAUST DANGER AREA

F_AC_060303_1_0020101_01_01

Danger Areas of Engines
RR Trent 700 Series Engine
FIGURE-6-3-3-991-002-A01

**ON A/C A330-200 A330-300




**NOTE:**

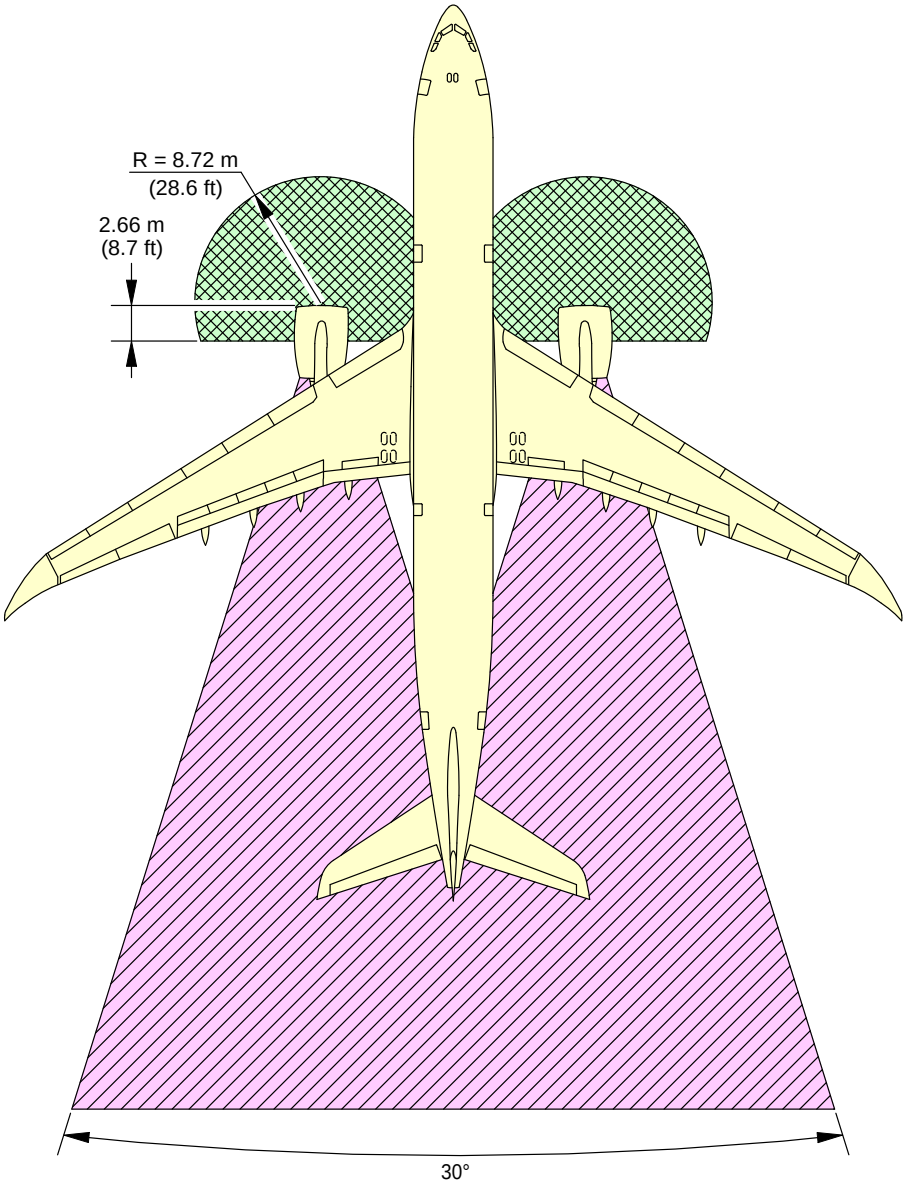
INTAKE SUCTION DANGER AREA

EXHAUST DANGER AREA

F_AC_060303_1_0030101_01_02

Danger Areas of Engines
GE CF6-80E1 Series Engine
FIGURE-6-3-3-991-003-A01

**ON A/C A330-800 A330-900




**NOTE:**

INTAKE SUCTION DANGER AREA

EXHAUST DANGER AREA

F_AC_060303_1_0060101_01_00

Danger Areas of Engines
RR Trent 7000 Series Engine
FIGURE-6-3-3-991-006-A01

## 6-4-0 APU Exhaust Velocities and Temperatures

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

APU Exhaust Velocities and Temperatures

1. APU Exhaust Velocities and Temperatures.

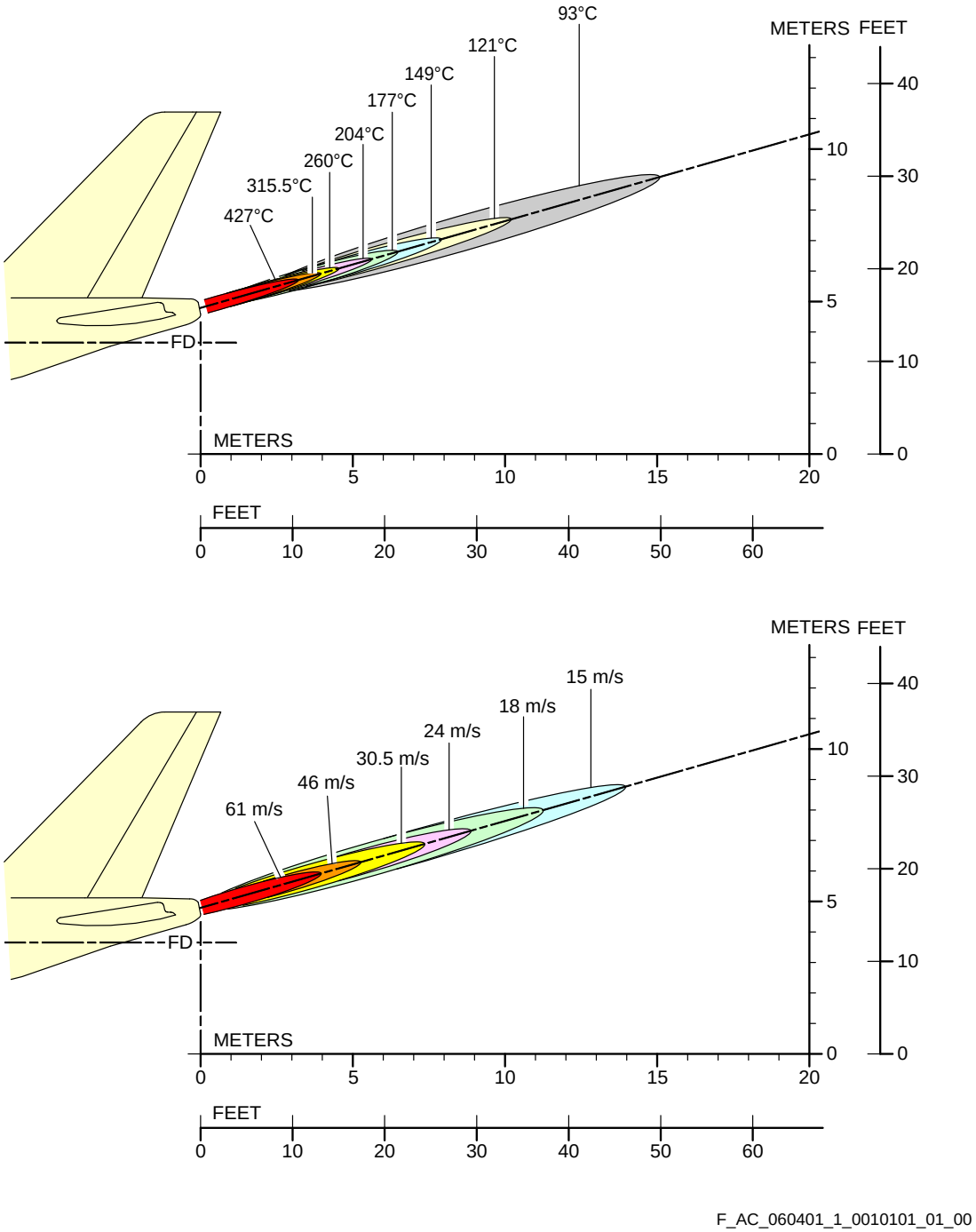
## 6-4-1 APU

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

APU - GARRETT

1. This section gives APU exhaust velocities and temperatures

**ON A/C A330-200 A330-200F A330-300 A330-800 A330-900




F_AC_060401_1_0010101_01_00

Exhaust Velocities and Temperatures
APU – GARRETT GTCP 331-350
FIGURE-6-4-1-991-001-A01

# PAVEMENT DATA

## 7-1-0 General Information

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

General Information

1. A brief description of the pavement charts that follow will help in the airport planning.

   To aid in the interpolation between the discrete values shown, each aircraft configuration is shown with a minimum range of five loads on the Main Landing Gear (MLG).

   All curves on the charts represent data at a constant specified tire pressure with:
   - The aircraft loaded to the Maximum Ramp Weight (MRW)
   - The Center of Gravity (CG) at its maximum permitted aft position.

   Pavement requirements for commercial aircraft are derived from the static analysis of loads imposed on the MLG struts.

   Landing Gear Footprint:
   Section 07-02-00 gives basic data on the landing-gear footprint configuration, MRW, tire dimensions and pressures.

   Maximum Pavement Loads:
   Section 07-03-00 shows maximum vertical and horizontal pavement loads for specific critical conditions at the tire-ground interfaces.

   Landing Gear Loading on Pavement:
   The curves related to the landing gear loading on pavement are not given in section 07-04-00. Because the relationship between the aircraft weight, the CG and the landing gear loading on the pavement is not strictly linear, it cannot be shown in chart format.
   But you can find in section 07-03-00 the maximum vertical and horizontal pavement loads for some critical conditions at the tire/ground interfaces for all the operational weight variants of the aircraft.
   For questions that are related to landing gear loading on pavement, contact Airbus.

   Flexible Pavement Requirements - US Army Corps of Engineers Design Method:

The flexible pavement-requirements curves as per as U.S. Army Corps of Engineers Design Method are not given in section 07-05-00 since the related data is available through free software.
Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.
For questions that are related to the flexible pavement requirements, contact Airbus.

Flexible Pavement Requirements - LCN Conversion Method:
The Load Classification Number (LCN) curves are not given in section 07-06-00 since the LCN system for the reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.
For questions that are related to the LCN system, contact Airbus.

Rigid Pavement Requirements - PCA (Portland Cement Association) Design Method:
The rigid-pavement requirement curves as per as Portland Cement Association Design Method are not given in section 07-07-00 since the related data is available through free software.
Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.
For questions that are related to the rigid pavement requirements, contact Airbus.

Rigid Pavement Requirements - LCN Conversion:
The Load Classification Number (LCN) curves are not given in section 07-08-00 since the LCN system for the reporting pavement strength is old and are replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.
For questions that are related to the LCN system, contact Airbus.

ACN/PCN Reporting System:
Section 07-09-00 gives ACN data prepared according to the ACN/PCN system as referenced in ICAO Annex 14, ”Aerodromes", Volume 1 ”Aerodrome Design and Operations".
Eighth Edition July 2018, incorporating Amendments 1 to 14 and ICAO doc 9157, "Aerodrome Design Manual", part 3 "Pavements" Second Edition 1983.
The ACN/PCN system is applicable until November 2024.

ACN is the Aircraft Classification Number and PCN is the related Pavement Classification Number.

An aircraft with an ACN less than or equal to the PCN can operate without restriction on the pavement.

Numerically the ACN is two times the derived single-wheel load expressed in thousands of kilograms.
The derived single-wheel load is calculated as the load on a single tire inflated to 1.25 MPa (181 psi) that can have the same pavement requirements as the aircraft.
Computationally the ACN/PCN system uses the PCA program PDILB for rigid pavements and S-77-1 for flexible pavements to calculate ACN values.

The airport authority must select the method of pavement analysis.
The results of their analysis must be reported with the following format:

| PCN | | | |
|---|---|---|---|
| PAVEMENT TYPE | SUBGRADE CATEGORY | TIRE PRESSURE CATEGORY | EVALUATION METHOD |
| R - Rigid | A - High | W - No Limit | T - Technical |
| F - Flexible | B - Medium | X - To 1.75 MPa (254 psi) | U - Using Aircraft |
| | C - Low | Y - To 1.25 MPa (181 psi) | |
| | D - Ultra Low | Z - To 0.5 MPa (73 psi) | |

Section 07-09-00 shows the aircraft ACN values.

For flexible pavements, the four subgrade categories are:

| | |
|---|---|
| A. High Strength | CBR 15 |
| B. Medium Strength | CBR 10 |
| C. Low Strength | CBR 6 |
| D. Ultra Low Strength | CBR 3 |

For rigid pavements, the four subgrade categories are:

| | |
|---|---|
| A. High Strength | Subgrade k = 150 MN/m³ (550 pci) |
| B. Medium Strength | Subgrade k = 80 MN/m³ (300 pci) |
| C. Low Strength | Subgrade k = 40 MN/m³ (150 pci) |
| D. Ultra Low Strength | Subgrade k = 20 MN/m³ (75 pci) |

ACR/PCR Reporting System:
Section 07-10-00 gives ACR data prepared according to the ACR/PCR system as referenced in ICAO Annex 14, "Aerodromes", Volume 1 "Aerodrome Design and Operations".
Eight Edition July 2018, incorporating Amendments 1 to 15 and ICAO doc 9157, "Aerodrome Design Manual", part 3 "Pavements" Third Edition 2021.
The ACR/PCR system is effective from November 2020 and will be applicable until November 2024.

ACR is the Aircraft Classification Rating and PCR is the related Pavement Classification Rating.

An aircraft with an ACR less than or equal to the PCR can operate without restriction on the pavement.

Numerically the ACR is two times the derived single-wheel load expressed in hundreds of kilograms.

The derived single-wheel load is calculated as the load on a single tire inflated to 1.50 MPa (218 psi) that can have the same pavement requirements as the aircraft.
Computationally the ACR/PCR system relies on the Linear Elastic Analysis (LEA). The ACR are computed with the official ICAO-ACR software.

States can start their own methods for PCR determination, which agree with the overall parameters of the ACR/PCR method.

The results of their analysis should be reported with the following format:

| PCR | | | |
|---|---|---|---|
| PAVEMENT TYPE | SUBGRADE CATEGORY | TIRE PRESSURE CATEGORY | EVALUATION METHOD |
| R - Rigid | A - High | W - No Limit | T - Technical |
| F - Flexible | B - Medium | X - To 1.75 MPa (254 psi) | U - Using Aircraft |
| | C - Low | Y - To 1.25 MPa (181 psi) | |
| | D - Ultra Low | Z - To 0.5 MPa (73 psi) | |

Section 07-10-00 shows the aircraft ACR values.

For flexible and rigid pavements, the four subgrade categories are defined based on the subgrade modulus of elasticity (E):

| | |
|---|---|
| A. High Strength | E = 200 MPa (29 008 psi) |
| B. Medium Strength | E = 120 MPa (17 405 psi) |
| C. Low Strength | E = 80 MPa (11 603 psi) |
| D. Ultra Low Strength | E = 50 MPa (7 252 psi) |

## 7-2-0 Landing Gear Footprint

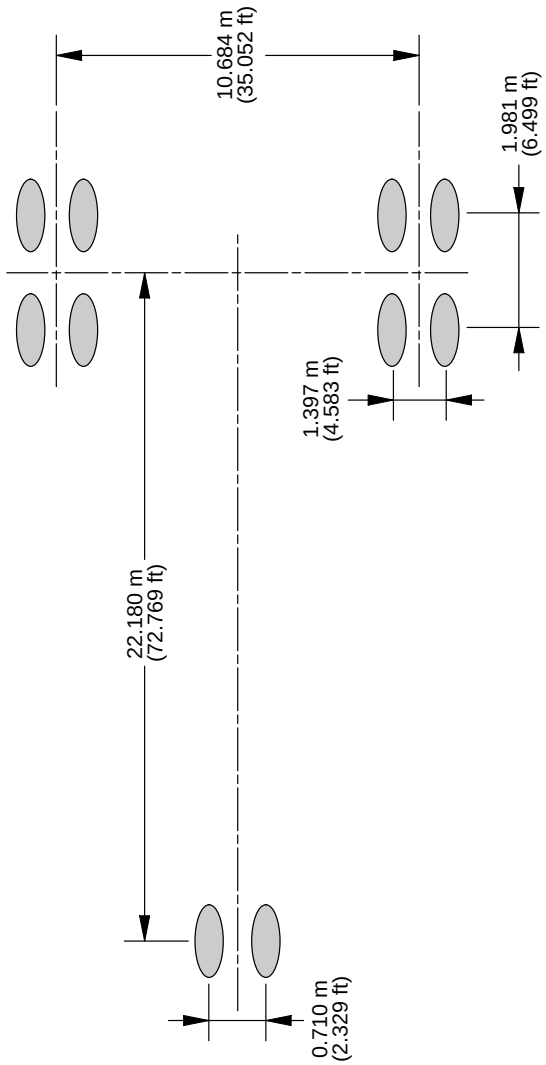
****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Landing Gear Footprint

1. This section gives data about the landing gear footprint in relation with the aircraft MRW and tire sizes and pressures.

   The landing-gear footprint information is given for all the operational weight variants of the aircraft.

**ON A/C A330-200




| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-200 WV020 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV021 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV022 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV023 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV024 | 202 900 kg (447 325 lb) | 94.9% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV025 | 220 900 kg (487 000 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV026 | 192 900 kg (425 275 lb) | 95.0% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |

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Landing Gear Footprint
(Sheet 1 of 3)
FIGURE-7-2-0-991-003-A01

**ON A/C A330-200

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-200 WV027 | 220 900 kg (487 000 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV050 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV051 | 192 900 kg (425 275 lb) | 95.0% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV052 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV053 | 210 900 kg (464 950 lb) | 94.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV054 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV055 | 192 900 kg (425 275 lb) | 95.0% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV056 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV057 | 236 900 kg (522 275 lb) | 93.4% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200 WV058 | 238 900 kg (526 675 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200 WV059 | 202 900 kg (447 325 lb) | 94.9% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV060 | 220 900 kg (487 000 lb) | 94.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-200 WV061 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200 WV062 | 238 900 kg (526 675 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200 WV063 | 192 900 kg (425 275 lb) | 95.0% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |

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Landing Gear Footprint
(Sheet 2 of 3)
FIGURE-7-2-0-991-003-A01

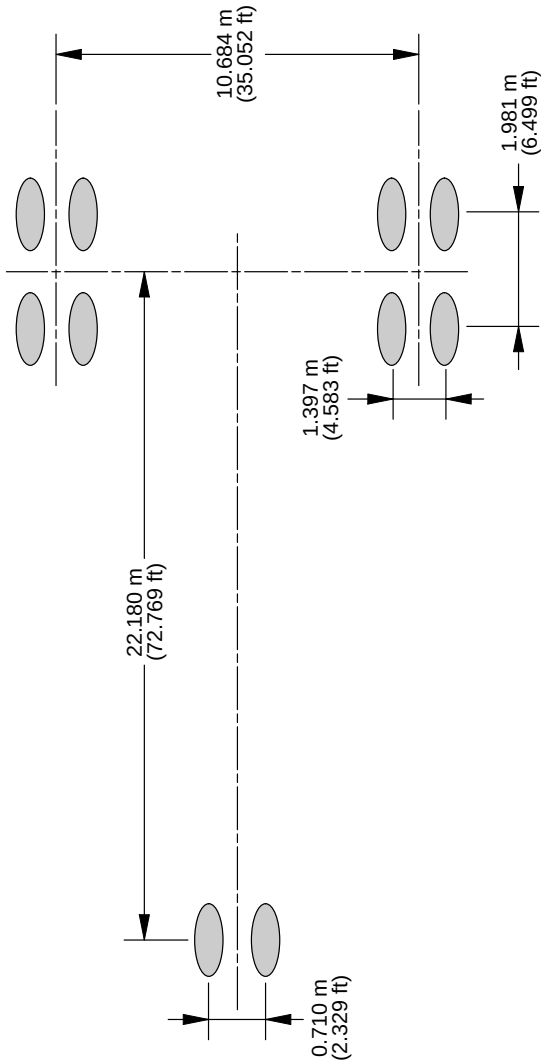
**ON A/C A330-200

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-200 WV064 | 217 900 kg (480 375 lb) | 94.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200 WV080 | 238 900 kg (526 675 lb) | 93.5% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-200 WV081 | 242 900 kg (535 500 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-200 WV082 | 242 900 kg (535 500 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-200 WV083 | 240 900 kg (531 100 lb) | 93.1% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |

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Landing Gear Footprint
(Sheet 3 of 3)
FIGURE-7-2-0-991-003-A01

**ON A/C A330-200F

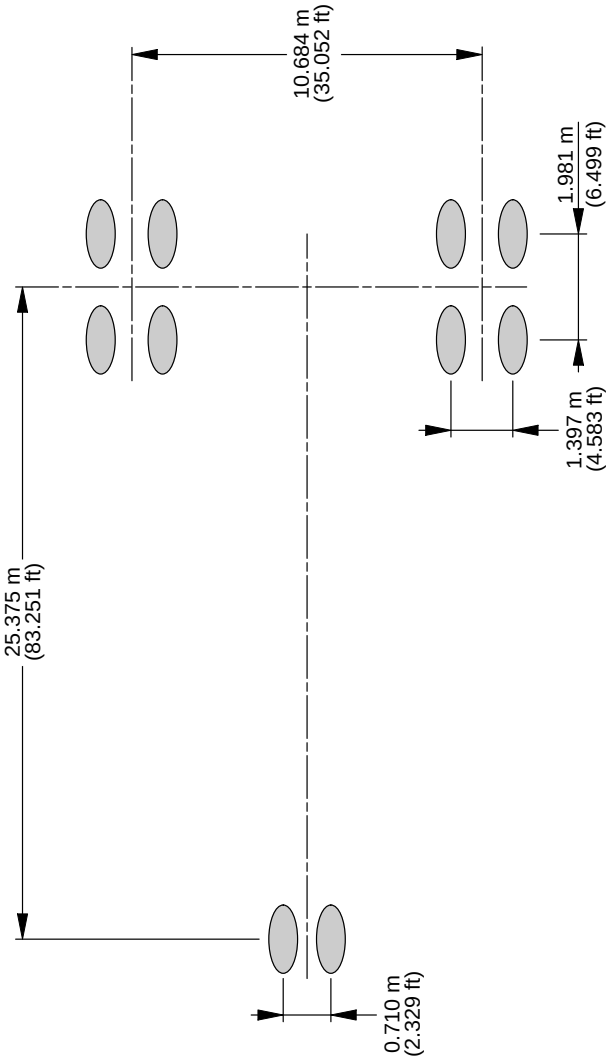



| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-200F WV000 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200F WV001 | 227 900 kg (502 425 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |
| A330-200F WV002 | 233 900 kg (515 650 lb) | 94.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.2 bar (206 psi) |

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Landing Gear Footprint
FIGURE-7-2-0-991-017-A01

**ON A/C A330-300




| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-300 WV000 | 212 900 kg (469 375 lb) | 94.9% | 1050x395R16 | 10.7 bar (155 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.1 bar (190 psi) |
| A330-300 WV001 | 184 900 kg (407 625 lb) | 95.9% | 1050x395R16 | 10.7 bar (155 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.1 bar (190 psi) |
| A330-300 WV002 | 212 900 kg (469 375 lb) | 94.9% | 1050x395R16 | 10.7 bar (155 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.1 bar (190 psi) |
| A330-300 WV003 | 215 900 kg (475 975 lb) | 94.4% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV004 (209) | 209 900 kg (462 750 lb) | 95.7% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |

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Landing Gear Footprint
(Sheet 1 of 4)
FIGURE-7-2-0-991-006-A01

**ON A/C A330-300

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-300 WV004 (215) | 215 900 kg (475 975 lb) | 95.6% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV010 (CG 33.5%) | 217 900 kg (480 375 lb) | 94.0% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV010 (CG 39.13%) | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV011 | 212 900 kg (469 375 lb) | 95.7% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV012 | 218 900 kg (482 600 lb) | 95.6% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV013 | 215 900 kg (475 975 lb) | 95.6% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV014 | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 10.9 bar (158 psi) | 1400x530R23 OR 54x21-23 (bias) | 13.3 bar (193 psi) |
| A330-300 WV020 | 230 900 kg (509 050 lb) | 95.5% | 1050x395R16 | 11.4 bar (165 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-300 WV022 | 233 900 kg (515 650 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV024 | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.4 bar (165 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-300 WV025 | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 11.4 bar (165 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-300 WV026 | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 11.4 bar (165 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-300 WV027 | 198 900 kg (438 500 lb) | 95.8% | 1050x395R16 | 11.4 bar (165 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.2 bar (206 psi) |
| A330-300 WV030 (CG 39.83%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV030 (CG 39.81%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV030 (CG 39.82%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV031 (CG 39.83%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV031 (CG 39.81%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |

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Landing Gear Footprint
(Sheet 2 of 4)
FIGURE-7-2-0-991-006-A01

**ON A/C A330-300

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-300 WV031 (CG 39.82%) | 199 900 kg (440 700 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV032 (CG 40.17%) | 190 900 kg (420 875 lb) | 95.9% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV032 (CG 39.41%) | 190 900 kg (420 875 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV032 (CG 39.39%) | 190 900 kg (420 875 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV033 (CG 40.17%) | 190 900 kg (420 875 lb) | 95.9% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV033 (CG 39.41%) | 190 900 kg (420 875 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV033 (CG 39.39%) | 190 900 kg (420 875 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV034 (CG 39.58%) | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV034 (CG 39.57%) | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV035 (CG 39.58%) | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV035 (CG 39.57%) | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV039 (CG 39.13%) | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV039 (CG 39.12%) | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV050 | 230 900 kg (509 050 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV051 | 212 900 kg (469 375 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV052 | 233 900 kg (515 650 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV053 | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV054 | 235 900 kg (520 075 lb) | 94.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |

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Landing Gear Footprint
(Sheet 3 of 4)
FIGURE-7-2-0-991-006-A01

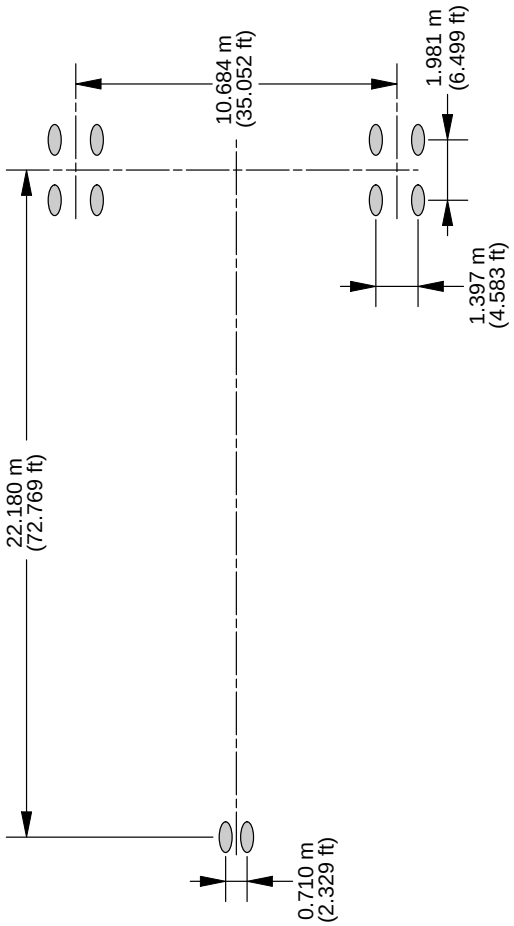
**ON A/C A330-300

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-300 WV055 | 235 900 kg (520 075 lb) | 94.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV056 | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV057 (CG 38.93%) | 184 900 kg (407 625 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV057 (CG 38.96%) | 184 900 kg (407 625 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV057 (CG 39.23%) | 184 900 kg (407 625 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV058 | 215 900 kg (475 975 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV059 | 217 900 kg (480 375 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV060 | 198 900 kg (438 500 lb) | 95.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 OR 54x21-23 (bias) | 14.5 bar (210 psi) |
| A330-300 WV080 | 238 900 kg (526 675 lb) | 94.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-300 WV081 | 242 900 kg (535 500 lb) | 93.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-300 WV082 | 242 900 kg (535 500 lb) | 93.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-300 WV083 | 240 900 kg (531 100 lb) | 94.2% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |

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Landing Gear Footprint
(Sheet 4 of 4)
FIGURE-7-2-0-991-006-A01

**ON A/C A330-800




| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-800 WV800 | 242 900 kg (535 500 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV801 | 242 900 kg (535 500 lb) | 92.6% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV802 | 238 900 kg (526 675 lb) | 93.5% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV803 | 234 900 kg (517 875 lb) | 94.4% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV804 | 230 900 kg (509 050 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV805 | 220 900 kg (487 000 lb) | 94.7% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV806 | 215 900 kg (475 975 lb) | 94.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV807 | 210 900 kg (464 950 lb) | 94.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |

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Landing Gear Footprint
(Sheet 1 of 2)
FIGURE-7-2-0-991-054-A01

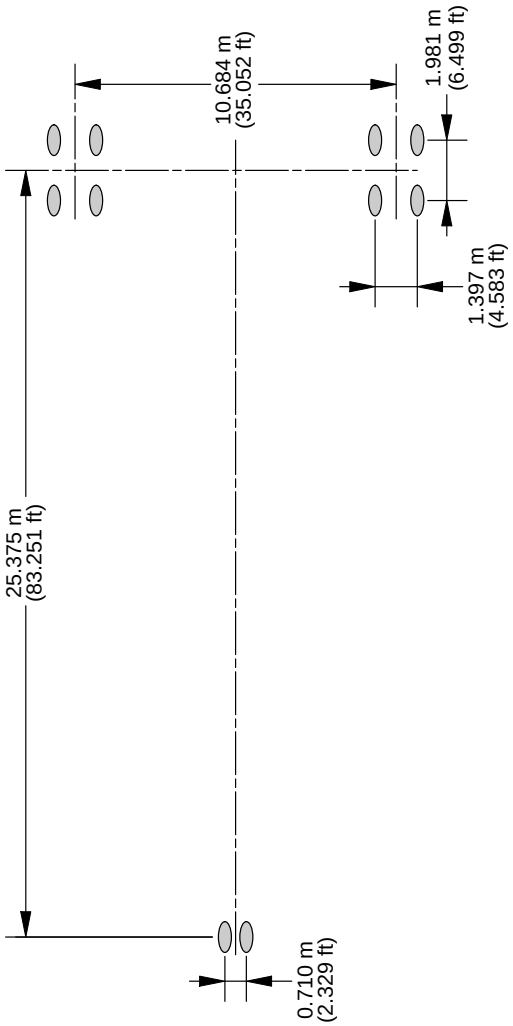
**ON A/C A330-800

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-800 WV808 | 205 900 kg (453 925 lb) | 94.9% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV809 | 200 900 kg (442 900 lb) | 94.9% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 14.7 bar (213 psi) |
| A330-800 WV820 | 251 900 kg (555 350 lb) | 93.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 15.6 bar (226 psi) |
| A330-800 WV821 | 251 900 kg (555 350 lb) | 93.8% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 15.6 bar (226 psi) |
| A330-800 WV822 | 247 900 kg (546 525 lb) | 94.0% | 1050x395R16 | 12.7 bar (184 psi) | 1400x530R23 | 15.6 bar (226 psi) |

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Landing Gear Footprint
(Sheet 2 of 2)
FIGURE-7-2-0-991-054-A01

**ON A/C A330-900




| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-900 WV900 | 242 900 kg (535 500 lb) | 93.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV901 | 242 900 kg (535 500 lb) | 93.8% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV902 | 238 900 kg (526 675 lb) | 94.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV903 | 234 900 kg (517 875 lb) | 95.3% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV904 | 230 900 kg (509 050 lb) | 95.5% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV905 | 220 900 kg (487 000 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV906 | 215 900 kg (475 975 lb) | 95.6% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV907 | 210 900 kg (464 950 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |

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Landing Gear Footprint
(Sheet 1 of 2)
FIGURE-7-2-0-991-055-A01

**ON A/C A330-900

| WEIGHT VARIANT | MAXIMUM RAMP WEIGHT | PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP | NOSE GEAR TIRE SIZE | NOSE GEAR TIRE PRESSURE | MAIN GEAR TIRE SIZE | MAIN GEAR TIRE PRESSURE |
|---|---|---|---|---|---|---|
| A330-900 WV908 | 205 900 kg (453 925 lb) | 95.7% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV910 | 245 900 kg (542 125 lb) | 93.2% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV911 | 245 900 kg (542 125 lb) | 93.2% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV912 | 241 900 kg (533 300 lb) | 94.0% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 14.9 bar (216 psi) |
| A330-900 WV920 | 251 900 kg (555 350 lb) | 93.9% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 15.6 bar (226 psi) |
| A330-900 WV921 | 251 900 kg (555 350 lb) | 93.9% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 15.6 bar (226 psi) |
| A330-900 WV922 | 247 900 kg (546 525 lb) | 94.2% | 1050x395R16 | 11.6 bar (168 psi) | 1400x530R23 | 15.6 bar (226 psi) |

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Landing Gear Footprint
(Sheet 2 of 2)
FIGURE-7-2-0-991-055-A01

## 7-3-0 Maximum Pavement Loads

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Maximum Pavement Loads

1. This section gives maximum vertical and horizontal pavement loads for some critical conditions at the tire-ground interfaces.

   The maximum pavement loads are given for all the operational weight variants of the aircraft.

**ON A/C A330-200




$V_{(NG)}$ MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FWD CG
$V_{(MG)}$ MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MAX AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-200 WV020 | 230 900 kg (509 050 lb) | 25 170 kg (55 475 lb) | 21 % MAC (a) | 39 570 kg (87 250 lb) | 109 290 kg (240 950 lb) | 37.5 % MAC (a) | 35 880 kg (79 100 lb) (b) | 87 430 kg (192 750 lb) (b) |
| A330-200 WV021 | 230 900 kg (509 050 lb) | 25 170 kg (55 475 lb) | 21 % MAC (a) | 39 570 kg (87 250 lb) | 109 290 kg (240 950 lb) | 37.5 % MAC (a) | 35 880 kg (79 100 lb) (b) | 87 430 kg (192 750 lb) (b) |
| A330-200 WV022 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4 % MAC (a) | 39 750 kg (87 650 lb) | 110 670 kg (244 000 lb) | 37.4 % MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |
| A330-200 WV023 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4 % MAC (a) | 39 750 kg (87 650 lb) | 110 670 kg (244 000 lb) | 37.4 % MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |
| A330-200 WV024 | 202 900 kg (447 325 lb) | 24 220 kg (53 400 lb) | 18 % MAC (a) | 36 990 kg (81 550 lb) | 96 300 kg (212 300 lb) | 38.4 % MAC (a) | 31 530 kg (69 525 lb) (b) | 77 040 kg (169 850 lb) (b) |
| A330-200 WV025 | 220 900 kg (487 000 lb) | 25 160 kg (55 475 lb) | 19.57 % MAC (a) | 38 980 kg (85 925 lb) | 104 650 kg (230 725 lb) | 37.79 % MAC (a) | 34 330 kg (75 675 lb) (b) | 83 720 kg (184 575 lb) (b) |
| A330-200 WV026 | 192 900 kg (425 275 lb) | 23 050 kg (50 825 lb) | 18 % MAC (a) | 35 240 kg (77 675 lb) | 91 670 kg (202 100 lb) | 38.8 % MAC (a) | 29 980 kg (66 100 lb) (b) | 73 330 kg (161 675 lb) (b) |
| A330-200 WV027 | 220 900 kg (487 000 lb) | 25 160 kg (55 475 lb) | 19.57 % MAC (a) | 38 980 kg (85 925 lb) | 104 650 kg (230 725 lb) | 37.79 % MAC (a) | 34 330 kg (75 675 lb) (b) | 83 720 kg (184 575 lb) (b) |

**NOTE:**
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.
(b) BRAKED MAIN GEAR.

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Maximum Pavement Loads
(Sheet 1 of 3)
FIGURE-7-3-0-991-001-A01

**ON A/C A330-200

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-200 WV050 | 230 900 kg (509 050 lb) | 25 170 kg (55 475 lb) | 21% MAC (a) | 39 570 kg (87 250 lb) | 109 290 kg (240 950 lb) | 37.5% MAC (a) | 35 880 kg (79 100 lb) (b) | 87 430 kg (192 750 lb) (b) |
| A330-200 WV051 | 192 900 kg (425 275 lb) | 23 050 kg (50 825 lb) | 18% MAC (a) | 35 240 kg (77 675 lb) | 91 670 kg (202 100 lb) | 38.8% MAC (a) | 29 980 kg (66 100 lb) (b) | 73 330 kg (161 675 lb) (b) |
| A330-200 WV052 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4% MAC (a) | 39 750 kg (87 650 lb) | 110 670 kg (244 000 lb) | 37.4% MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |
| A330-200 WV053 | 210 900 kg (464 950 lb) | 25 150 kg (55 450 lb) | 18% MAC (a) | 38 390 kg (84 625 lb) | 100 010 kg (220 475 lb) | 38.1% MAC (a) | 32 770 kg (72 250 lb) (b) | 80 010 kg (176 375 lb) (b) |
| A330-200 WV054 | 230 900 kg (509 050 lb) | 25 170 kg (55 475 lb) | 21% MAC (a) | 39 570 kg (87 250 lb) | 109 290 kg (240 950 lb) | 37.5% MAC (a) | 35 880 kg (79 100 lb) (b) | 87 430 kg (192 750 lb) (b) |
| A330-200 WV055 | 192 900 kg (425 275 lb) | 23 050 kg (50 825 lb) | 18% MAC (a) | 35 240 kg (77 675 lb) | 91 670 kg (202 100 lb) | 38.8% MAC (a) | 29 980 kg (66 100 lb) (b) | 73 330 kg (161 675 lb) (b) |
| A330-200 WV056 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4% MAC (a) | 39 750 kg (87 650 lb) | 110 670 kg (244 000 lb) | 37.4% MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |
| A330-200 WV057 | 236 900 kg (522 275 lb) | 25 170 kg (55 500 lb) | 21.8% MAC (a) | 39 910 kg (88 000 lb) | 110 610 kg (243 875 lb) | 33.7% MAC (a) | 36 820 kg (81 175 lb) (b) | 88 490 kg (195 100 lb) (b) |
| A330-200 WV058 | 238 900 kg (526 675 lb) | 25 170 kg (55 500 lb) | 22.06% MAC (a) | 40 020 kg (88 225 lb) | 110 580 kg (243 775 lb) | 31.3% MAC (a) | 37 130 kg (81 850 lb) (b) | 88 460 kg (195 025 lb) (b) |
| A330-200 WV059 | 202 900 kg (447 325 lb) | 24 220 kg (53 400 lb) | 18% MAC (a) | 36 990 kg (81 550 lb) | 96 300 kg (212 300 lb) | 38.4% MAC (a) | 31 530 kg (69 525 lb) (b) | 77 040 kg (169 850 lb) (b) |
| A330-200 WV060 | 220 900 kg (487 000 lb) | 25 140 kg (55 425 lb) | 19.6% MAC (a) | 38 960 kg (85 900 lb) | 104 650 kg (230 725 lb) | 37.8% MAC (a) | 34 330 kg (75 675 lb) (b) | 83 720 kg (184 575 lb) (b) |
| A330-200 WV061 | 230 900 kg (509 050 lb) | 25 170 kg (55 475 lb) | 21% MAC (a) | 39 570 kg (87 250 lb) | 109 290 kg (240 950 lb) | 37.5% MAC (a) | 35 880 kg (79 100 lb) (b) | 87 430 kg (192 750 lb) (b) |
| A330-200 WV062 | 238 900 kg (526 675 lb) | 25 170 kg (55 500 lb) | 22.06% MAC (a) | 40 020 kg (88 225 lb) | 110 580 kg (243 775 lb) | 31.3% MAC (a) | 37 130 kg (81 850 lb) (b) | 88 460 kg (195 025 lb) (b) |

**NOTE:**

(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

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Maximum Pavement Loads
(Sheet 2 of 3)
FIGURE-7-3-0-991-001-A01

**ON A/C A330-200

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-200 WV063 | 192 900 kg (425 275 lb) | 23 050 kg (50 825 lb) | 18% MAC (a) | 35 240 kg (77 675 lb) | 91 640 kg (202 050 lb) | 38.73% MAC (a) | 29 980 kg (66 100 lb) (b) | 73 320 kg (161 625 lb) (b) |
| A330-200 WV064 | 217 900 kg (480 375 lb) | 25 160 kg (55 475 lb) | 19.11% MAC (a) | 38 810 kg (85 550 lb) | 103 250 kg (227 625 lb) | 37.86% MAC (a) | 33 860 kg (74 650 lb) (b) | 82 600 kg (182 100 lb) (b) |
| A330-200 WV080 | 238 900 kg (526 675 lb) | 25 180 kg (55 500 lb) | 22.05% MAC (a) | 40 030 kg (88 250 lb) | 111 700 kg (246 250 lb) | 34.07% MAC (a) | 37 130 kg (81 850 lb) (b) | 89 360 kg (197 000 lb) (b) |
| A330-200 WV081 | 242 900 kg (535 500 lb) | 25 190 kg (55 525 lb) | 22.55% MAC (a) | 40 250 kg (88 725 lb) | 112 510 kg (248 050 lb) | 31.5% MAC (a) | 37 750 kg (83 225 lb) (b) | 90 010 kg (198 450 lb) (b) |
| A330-200 WV082 | 242 900 kg (535 500 lb) | 25 190 kg (55 525 lb) | 22.55% MAC (a) | 40 250 kg (88 725 lb) | 112 510 kg (248 050 lb) | 31.5% MAC (a) | 37 750 kg (83 225 lb) (b) | 90 010 kg (198 450 lb) (b) |
| A330-200 WV083 | 240 900 kg (531 100 lb) | 25 180 kg (55 525 lb) | 22.3% MAC (a) | 40 140 kg (88 500 lb) | 112 110 kg (247 150 lb) | 32.77% MAC (a) | 37 440 kg (82 525 lb) (b) | 89 680 kg (197 725 lb) (b) |

**NOTE:**

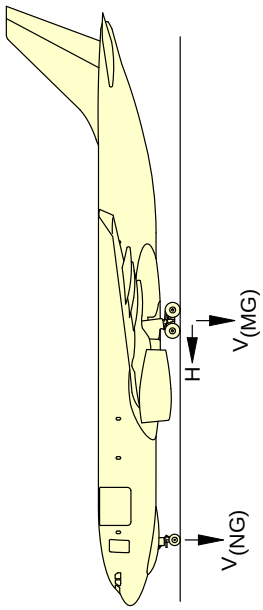
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0010108_01_03

Maximum Pavement Loads
(Sheet 3 of 3)
FIGURE-7-3-0-991-001-A01

****ON A/C A330-200F**




$V_{(NG)}$ MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FWD CG
$V_{(MG)}$ MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MAX AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1 | 2 | 3 | | 4 | 5 | 6 | |
|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-200F WV000 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4 % MAC (a) | 39 640 kg (87 400 lb) | 110 670 kg (244 000 lb) 37.4 % MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |
| A330-200F WV001 | 227 900 kg (502 425 lb) | 25 150 kg (55 450 lb) | 20.6 % MAC (a) | 39 280 kg (86 600 lb) | 107 900 kg (237 875 lb) 37.6 % MAC (a) | 35 420 kg (78 075 lb) (b) | 86 320 kg (190 300 lb) (b) |
| A330-200F WV002 | 233 900 kg (515 650 lb) | 25 170 kg (55 500 lb) | 21.4 % MAC (a) | 39 640 kg (87 400 lb) | 110 670 kg (244 000 lb) 37.4 % MAC (a) | 36 350 kg (80 125 lb) (b) | 88 540 kg (195 200 lb) (b) |

**NOTE:**
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.
(b) BRAKED MAIN GEAR.

F_AC_070300_1_0060101_01_06

Maximum Pavement Loads
FIGURE-7-3-0-991-006-A01

****ON A/C A330-300**




$V_{(NG)}$ MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FWD CG
$V_{(MG)}$ MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MAX AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-300 WV000 | 212 900 kg (469 375 lb) | 24 340 kg (53 650 lb) | 15% MAC (a) | 35 930 kg (79 200 lb) | 100 970 kg (222 600 lb) | 36.5% MAC (a) | 33 090 kg (72 950 lb) (b) | 80 780 kg (178 075 lb) (b) |
| A330-300 WV001 | 184 900 kg (407 625 lb) | 21 200 kg (46 750 lb) | 15% MAC (a) | 31 370 kg (69 150 lb) | 88 620 kg (195 375 lb) | 40.1% MAC (a) | 28 730 kg (63 350 lb) (b) | 70 900 kg (156 300 lb) (b) |
| A330-300 WV002 | 212 900 kg (469 375 lb) | 24 340 kg (53 650 lb) | 15% MAC (a) | 35 930 kg (79 200 lb) | 100 970 kg (222 600 lb) | 36.5% MAC (a) | 33 090 kg (72 950 lb) (b) | 80 780 kg (178 075 lb) (b) |
| A330-300 WV003 | 215 900 kg (475 975 lb) | 24 670 kg (54 400 lb) | 15% MAC (a) | 36 410 kg (80 275 lb) | 101 860 kg (224 575 lb) | 34.8% MAC (a) | 33 550 kg (73 975 lb) (b) | 81 490 kg (179 650 lb) (b) |
| A330-300 WV004 (209) | 209 900 kg (462 750 lb) | 24 000 kg (52 925 lb) | 15% MAC (a) | 35 440 kg (78 125 lb) | 100 430 kg (221 400 lb) | 39.4% MAC (a) | 32 620 kg (71 925 lb) (b) | 80 340 kg (177 125 lb) (b) |
| A330-300 WV004 (215) | 215 900 kg (475 975 lb) | 24 670 kg (54 400 lb) | 15% MAC (a) | 36 410 kg (80 275 lb) | 103 250 kg (227 625 lb) | 39.2% MAC (a) | 33 550 kg (73 975 lb) (b) | 82 600 kg (182 100 lb) (b) |
| A330-300 WV010 (CG 33.5%) | 217 900 kg (480 375 lb) | 24 900 kg (54 900 lb) | 15% MAC (a) | 36 740 kg (81 000 lb) | 102 390 kg (225 750 lb) | 33.5% MAC (a) | 33 860 kg (74 650 lb) (b) | 81 910 kg (180 600 lb) (b) |
| A330-300 WV010 (CG 39.13%) | 217 900 kg (480 375 lb) | 24 900 kg (54 900 lb) | 15% MAC (a) | 36 740 kg (81 000 lb) | 104 180 kg (229 675 lb) | 39.13% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 350 kg (183 750 lb) (b) |

**NOTE:**
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.
(b) BRAKED MAIN GEAR.

F_AC_070300_1_0030101_01_06

Maximum Pavement Loads
(Sheet 1 of 5)
FIGURE-7-3-0-991-003-A01

**ON A/C A330-300

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-300 WV011 | 212 900 kg (469 375 lb) | 24 340 kg (53 650 lb) | 15% MAC (a) | 35 930 kg (79 200 lb) | 101 840 kg (224 525 lb) | 39.3% MAC (a) | 33 090 kg (72 950 lb) (b) | 81 470 kg (179 600 lb) (b) |
| A330-300 WV012 | 218 900 kg (482 600 lb) | 25 010 kg (55 150 lb) | 15% MAC (a) | 36 900 kg (81 350 lb) | 104 650 kg (230 725 lb) | 39.1% MAC (a) | 34 020 kg (75 000 lb) (b) | 83 720 kg (184 575 lb) (b) |
| A330-300 WV013 | 215 900 kg (475 975 lb) | 24 670 kg (54 400 lb) | 15% MAC (a) | 36 410 kg (80 275 lb) | 103 250 kg (227 625 lb) | 39.2% MAC (a) | 33 550 kg (73 975 lb) (b) | 82 600 kg (182 100 lb) (b) |
| A330-300 WV014 | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 570 kg (217 300 lb) | 39.6% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 860 kg (173 850 lb) (b) |
| A330-300 WV020 | 230 900 kg (509 050 lb) | 24 340 kg (53 675 lb) | 18% MAC (a) | 36 840 kg (81 225 lb) | 110 270 kg (243 100 lb) | 38.7% MAC (a) | 35 880 kg (79 100 lb) (b) | 88 220 kg (194 475 lb) (b) |
| A330-300 WV022 | 233 900 kg (515 650 lb) | 24 380 kg (53 750 lb) | 18.4% MAC (a) | 37 030 kg (81 625 lb) | 111 670 kg (246 200 lb) | 38.6% MAC (a) | 36 350 kg (80 125 lb) (b) | 89 340 kg (196 950 lb) (b) |
| A330-300 WV024 | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 570 kg (217 300 lb) | 39.6% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 860 kg (173 850 lb) (b) |
| A330-300 WV025 | 217 900 kg (480 375 lb) | 24 190 kg (53 350 lb) | 16.11% MAC (a) | 36 030 kg (79 450 lb) | 104 180 kg (229 675 lb) | 39.12% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 340 kg (183 750 lb) (b) |
| A330-300 WV026 | 217 900 kg (480 375 lb) | 24 190 kg (53 350 lb) | 16.11% MAC (a) | 36 030 kg (79 450 lb) | 104 180 kg (229 675 lb) | 39.13% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 350 kg (183 750 lb) (b) |
| A330-300 WV027 | 198 900 kg (438 500 lb) | 22 770 kg (50 200 lb) | 15% MAC (a) | 33 650 kg (74 175 lb) | 95 280 kg (210 050 lb) | 39.85% MAC (a) | 30 910 kg (68 150 lb) (b) | 76 220 kg (168 050 lb) (b) |
| A330-300 WV030 (CG 39.83%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.83% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |
| A330-300 WV030 (CG 39.81%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.81% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |
| A330-300 WV030 (CG 39.82%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.82% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |

**NOTE:**

(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0030102_01_05

Maximum Pavement Loads
(Sheet 2 of 5)
FIGURE-7-3-0-991-003-A01

**ON A/C A330-300

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-300 WV031 (CG 39.83%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.83% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |
| A330-300 WV031 (CG 39.81%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.81% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |
| A330-300 WV031 (CG 39.82%) | 199 900 kg (440 700 lb) | 22 880 kg (50 450 lb) | 15% MAC (a) | 33 810 kg (74 550 lb) | 95 750 kg (211 100 lb) | 39.82% MAC (a) | 31 070 kg (68 500 lb) (b) | 76 600 kg (168 875 lb) (b) |
| A330-300 WV032 (CG 40.17%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 530 kg (201 775 lb) | 40.17% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 220 kg (161 425 lb) (b) |
| A330-300 WV032 (CG 39.41%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 310 kg (201 325 lb) | 39.41% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 050 kg (161 050 lb) (b) |
| A330-300 WV032 (CG 39.39%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 310 kg (201 300 lb) | 39.39% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 050 kg (161 050 lb) (b) |
| A330-300 WV033 (CG 40.17%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 530 kg (201 775 lb) | 40.17% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 220 kg (161 425 lb) (b) |
| A330-300 WV033 (CG 39.41%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 310 kg (201 325 lb) | 39.41% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 050 kg (161 050 lb) (b) |
| A330-300 WV033 (CG 39.39%) | 190 900 kg (420 850 lb) | 21 870 kg (48 225 lb) | 15% MAC (a) | 32 350 kg (71 300 lb) | 91 310 kg (201 300 lb) | 39.39% MAC (a) | 29 670 kg (65 400 lb) (b) | 73 050 kg (161 050 lb) (b) |
| A330-300 WV034 (CG 39.58%) | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 560 kg (217 300 lb) | 39.58% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |
| A330-300 WV034 (CG 39.57%) | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 560 kg (217 300 lb) | 39.57% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |
| A330-300 WV035 (CG 39.58%) | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 560 kg (217 300 lb) | 39.58% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |
| A330-300 WV035 (CG 39.57%) | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 560 kg (217 300 lb) | 39.57% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |

**NOTE:**

(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0030103_01_03

Maximum Pavement Loads
(Sheet 3 of 5)
FIGURE-7-3-0-991-003-A01

****ON A/C A330-300**

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-300 WV039 (CG 39.13%) | 217 900 kg (480 375 lb) | 24 190 kg (53 350 lb) | 16.11% MAC (a) | 36 030 kg (79 450 lb) | 104 180 kg (229 675 lb) | 39.13% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 350 kg (183 750 lb) (b) |
| A330-300 WV039 (CG 39.12%) | 217 900 kg (480 375 lb) | 24 190 kg (53 350 lb) | 16.11% MAC (a) | 36 030 kg (79 450 lb) | 104 180 kg (229 675 lb) | 39.12% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 340 kg (183 750 lb) (b) |
| A330-300 WV050 | 230 900 kg (509 050 lb) | 24 340 kg (53 675 lb) | 18% MAC (a) | 36 840 kg (81 225 lb) | 110 270 kg (243 100 lb) | 38.7% MAC (a) | 35 880 kg (79 100 lb) (b) | 88 220 kg (194 475 lb) (b) |
| A330-300 WV051 | 212 900 kg (469 375 lb) | 24 130 kg (53 200 lb) | 15.33% MAC (a) | 35 720 kg (78 750 lb) | 101 830 kg (224 500 lb) | 39.29% MAC (a) | 33 090 kg (72 950 lb) (b) | 81 470 kg (179 600 lb) (b) |
| A330-300 WV052 | 233 900 kg (515 650 lb) | 24 380 kg (53 750 lb) | 18.4% MAC (a) | 37 030 kg (81 625 lb) | 111 670 kg (246 200 lb) | 38.6% MAC (a) | 36 350 kg (80 125 lb) (b) | 89 340 kg (196 950 lb) (b) |
| A330-300 WV053 | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 570 kg (217 300 lb) | 39.6% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 860 kg (173 850 lb) (b) |
| A330-300 WV054 | 235 900 kg (520 075 lb) | 24 380 kg (53 750 lb) | 18.7% MAC (a) | 37 130 kg (81 850 lb) | 111 640 kg (246 125 lb) | 35.7% MAC (a) | 36 660 kg (80 825 lb) (b) | 89 310 kg (196 900 lb) (b) |
| A330-300 WV055 | 235 900 kg (520 075 lb) | 24 380 kg (53 750 lb) | 18.7% MAC (a) | 37 130 kg (81 850 lb) | 111 640 kg (246 125 lb) | 35.7% MAC (a) | 36 660 kg (80 825 lb) (b) | 89 310 kg (196 900 lb) (b) |
| A330-300 WV056 | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 34 790 kg (76 700 lb) | 98 560 kg (217 300 lb) | 39.57% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |
| A330-300 WV057 (CG 38.93%) | 184 900 kg (407 625 lb) | 21 200 kg (46 750 lb) | **15% MAC (a)** | 31 370 kg (69 150 lb) | 88 310 kg (194 675 lb) | 38.93% MAC (a) | 28 730 kg (63 350 lb) (b) | 70 640 kg (155 750 lb) (b) |
| A330-300 WV057 (CG 38.96%) | 184 900 kg (407 625 lb) | 21 200 kg (46 750 lb) | 15% MAC (a) | 31 370 kg (69 150 lb) | 88 310 kg (194 700 lb) | 38.96% MAC (a) | 28 730 kg (63 350 lb) (b) | 70 650 kg (155 750 lb) (b) |
| A330-300 WV057 (CG 39.23%) | 184 900 kg (407 625 lb) | 21 200 kg (46 750 lb) | 15% MAC (a) | 31 370 kg (69 150 lb) | 88 390 kg (194 850 lb) | 39.23% MAC (a) | 28 730 kg (63 350 lb) (b) | 70 710 kg (155 875 lb) (b) |
| A330-300 WV058 | 215 900 kg (475 975 lb) | 24 170 kg (53 275 lb) | 15.81% MAC (a) | 35 900 kg (79 150 lb) | 103 250 kg (227 625 lb) | 39.2% MAC (a) | 33 550 kg (73 975 lb) (b) | 82 600 kg (182 100 lb) (b) |

**NOTE:**

(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0030104_01_02

Maximum Pavement Loads
(Sheet 4 of 5)
FIGURE-7-3-0-991-003-A01

**ON A/C A330-300

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-300 WV059 | 217 900 kg (480 375 lb) | 24 190 kg (53 350 lb) | 16.11% MAC (a) | 36 030 kg (79 450 lb) | 104 180 kg (229 675 lb) | 39.13% MAC (a) | 33 860 kg (74 650 lb) (b) | 83 350 kg (183 750 lb) (b) |
| A330-300 WV060 | 198 900 kg (438 500 lb) | 22 770 kg (50 200 lb) | 15% MAC (a) | 33 650 kg (74 175 lb) | 95 280 kg (210 050 lb) | 39.85% MAC (a) | 30 910 kg (68 150 lb) (b) | 76 220 kg (168 050 lb) (b) |
| A330-300 WV080 | 238 900 kg (526 675 lb) | 24 400 kg (53 800 lb) | 19.1% MAC (a) | 37 300 kg (82 225 lb) | 112 920 kg (248 950 lb) | 35.29% MAC (a) | 37 130 kg (81 850 lb) (b) | 90 330 kg (199 150 lb) (b) |
| A330-300 WV081 | 242 900 kg (535 500 lb) | 24 440 kg (53 900 lb) | 19.61% MAC (a) | 37 540 kg (82 750 lb) | 113 900 kg (251 100 lb) | 32.73% MAC (a) | 37 750 kg (83 225 lb) (b) | 91 120 kg (200 875 lb) (b) |
| A330-300 WV082 | 242 900 kg (535 500 lb) | 24 440 kg (53 900 lb) | 19.61% MAC (a) | 37 540 kg (82 750 lb) | 113 900 kg (251 100 lb) | 32.73% MAC (a) | 37 750 kg (83 225 lb) (b) | 91 120 kg (200 875 lb) (b) |
| A330-300 WV083 | 240 900 kg (531 100 lb) | 24 420 kg (53 850 lb) | 19.36% MAC (a) | 37 420 kg (82 500 lb) | 113 410 kg (250 025 lb) | 34% MAC (a) | 37 440 kg (82 525 lb) (b) | 90 730 kg (200 025 lb) (b) |

**NOTE:**

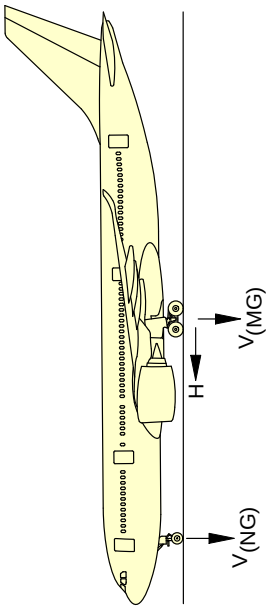
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0030105_01_03

Maximum Pavement Loads
(Sheet 5 of 5)
FIGURE-7-3-0-991-003-A01

**ON A/C A330-800




$V_{(NG)}$ MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FWD CG
$V_{(MG)}$ MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MAX AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-800 WV800 | 242 900 kg (535 500 lb) | 25 190 kg (55 525 lb) | 22.55% MAC (a) | 40 250 kg (88 725 lb) | 112 510 kg (248 050 lb) | 31.5% MAC (a) | 37 750 kg (83 225 lb) (b) | 90 010 kg (198 450 lb) (b) |
| A330-800 WV801 | 242 900 kg (535 500 lb) | 25 190 kg (55 525 lb) | 22.55% MAC (a) | 40 250 kg (88 725 lb) | 112 510 kg (248 050 lb) | 31.5% MAC (a) | 37 750 kg (83 225 lb) (b) | 90 010 kg (198 450 lb) (b) |
| A330-800 WV802 | 238 900 kg (526 675 lb) | 25 180 kg (55 500 lb) | 22.05% MAC (a) | 40 030 kg (88 250 lb) | 111 700 kg (246 250 lb) | 34.07% MAC (a) | 37 130 kg (81 850 lb) (b) | 89 360 kg (197 000 lb) (b) |
| A330-800 WV803 | 234 900 kg (517 875 lb) | 25 180 kg (55 500 lb) | 21.53% MAC (a) | 39 810 kg (87 775 lb) | 110 880 kg (244 450 lb) | 36.72% MAC (a) | 36 500 kg (80 475 lb) (b) | 88 700 kg (195 550 lb) (b) |
| A330-800 WV804 | 230 900 kg (509 050 lb) | 25 180 kg (55 500 lb) | 20.99% MAC (a) | 39 580 kg (87 250 lb) | 109 280 kg (240 925 lb) | 37.48% MAC (a) | 35 880 kg (79 100 lb) (b) | 87 420 kg (192 750 lb) (b) |
| A330-800 WV805 | 220 900 kg (487 000 lb) | 25 170 kg (55 475 lb) | 19.56% MAC (a) | 38 990 kg (85 950 lb) | 104 640 kg (230 700 lb) | 37.77% MAC (a) | 34 330 kg (75 675 lb) (b) | 83 710 kg (184 550 lb) (b) |
| A330-800 WV806 | 215 900 kg (475 975 lb) | 25 160 kg (55 475 lb) | 18.8% MAC (a) | 38 690 kg (85 300 lb) | 102 330 kg (225 600 lb) | 37.93% MAC (a) | 33 550 kg (73 975 lb) (b) | 81 860 kg (180 475 lb) (b) |
| A330-800 WV807 | 210 900 kg (464 950 lb) | 25 150 kg (55 450 lb) | 18% MAC (a) | 38 390 kg (84 625 lb) | 100 000 kg (220 475 lb) | 38.09% MAC (a) | 32 770 kg (72 250 lb) (b) | 80 000 kg (176 375 lb) (b) |

**NOTE:**
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.
(b) BRAKED MAIN GEAR.

F_AC_070300_1_0200101_01_03

Maximum Pavement Loads
(Sheet 1 of 2)
FIGURE-7-3-0-991-020-A01

****ON A/C A330-800**

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-800 WV808 | 205 900 kg (453 925 lb) | 24 570 kg (54 175 lb) | 18% MAC (a) | 37 510 kg (82 700 lb) | 97 680 kg (215 350 lb) | 38.26% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 150 kg (172 275 lb) (b) |
| A330-800 WV809 | 200 900 kg (442 900 lb) | 23 990 kg (52 875 lb) | 18% MAC (a) | 36 640 kg (80 775 lb) | 95 360 kg (210 250 lb) | 38.44% MAC (a) | 31 220 kg (68 825 lb) (b) | 76 290 kg (168 200 lb) (b) |
| A330-800 WV820 | 251 900 kg (555 350 lb) | 25 200 kg (55 550 lb) | 23.62% MAC (a) | 40 740 kg (89 825 lb) | 118 190 kg (260 550 lb) | 35% MAC (a) | 39 150 kg (86 300 lb) (b) | 94 550 kg (208 450 lb) (b) |
| A330-800 WV821 | 251 900 kg (555 350 lb) | 25 200 kg (55 550 lb) | 23.62% MAC (a) | 40 740 kg (89 825 lb) | 118 190 kg (260 550 lb) | 35% MAC (a) | 39 150 kg (86 300 lb) (b) | 94 550 kg (208 450 lb) (b) |
| A330-800 WV822 | 247 900 kg (546 525 lb) | 25 190 kg (55 550 lb) | 23.15% MAC (a) | 40 530 kg (89 350 lb) | 116 520 kg (256 875 lb) | 35.5% MAC (a) | 38 520 kg (84 925 lb) (b) | 93 210 kg (205 500 lb) (b) |

**NOTE:**

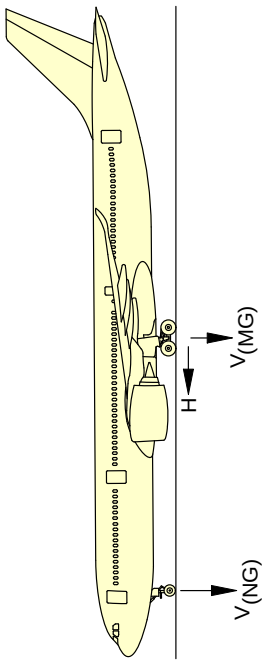
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

F_AC_070300_1_0200102_01_01

Maximum Pavement Loads
(Sheet 2 of 2)
FIGURE-7-3-0-991-020-A01

****ON A/C A330-900**




$V_{(NG)}$ MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FWD CG
$V_{(MG)}$ MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MAX AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-900 WV900 | 242 900 kg (535 500 lb) | 24 440 kg (53 900 lb) | 19.61% MAC (a) | 37 540 kg (82 750 lb) | 113 900 kg (251 100 lb) | 32.73% MAC (a) | 37 750 kg (83 225 lb) (b) | 91 120 kg (200 875 lb) (b) |
| A330-900 WV901 | 242 900 kg (535 500 lb) | 24 440 kg (53 900 lb) | 19.61% MAC (a) | 37 540 kg (82 750 lb) | 113 900 kg (251 100 lb) | 32.73% MAC (a) | 37 750 kg (83 225 lb) (b) | 91 120 kg (200 875 lb) (b) |
| A330-900 WV902 | 238 900 kg (526 675 lb) | 24 400 kg (53 800 lb) | 19.1% MAC (a) | 37 300 kg (82 225 lb) | 112 920 kg (248 950 lb) | 35.29% MAC (a) | 37 130 kg (81 850 lb) (b) | 90 330 kg (199 150 lb) (b) |
| A330-900 WV903 | 234 900 kg (517 875 lb) | 24 360 kg (53 700 lb) | 18.58% MAC (a) | 37 060 kg (81 700 lb) | 111 920 kg (246 750 lb) | 37.93% MAC (a) | 36 500 kg (80 475 lb) (b) | 89 540 kg (197 400 lb) (b) |
| A330-900 WV904 | 230 900 kg (509 050 lb) | 24 320 kg (53 625 lb) | 18.03% MAC (a) | 36 820 kg (81 175 lb) | 110 270 kg (243 100 lb) | 38.69% MAC (a) | 35 880 kg (79 100 lb) (b) | 88 210 kg (194 475 lb) (b) |
| A330-900 WV905 | 220 900 kg (487 000 lb) | 24 220 kg (53 400 lb) | 16.58% MAC (a) | 36 210 kg (79 825 lb) | 105 580 kg (232 775 lb) | 39.02% MAC (a) | 34 330 kg (75 675 lb) (b) | 84 470 kg (186 225 lb) (b) |
| A330-900 WV906 | 215 900 kg (475 975 lb) | 24 170 kg (53 275 lb) | 15.81% MAC (a) | 35 900 kg (79 150 lb) | 103 250 kg (227 625 lb) | 39.2% MAC (a) | 33 550 kg (73 975 lb) (b) | 82 600 kg (182 100 lb) (b) |
| A330-900 WV907 | 210 900 kg (464 950 lb) | 24 110 kg (53 175 lb) | 15% MAC (a) | 36 580 kg (80 650 lb) | 100 900 kg (222 450 lb) | 39.38% MAC (a) | 32 770 kg (72 250 lb) (b) | 80 720 kg (177 950 lb) (b) |

**NOTE:**
(a) LOADS CALCULATED USING AIRCRAFT AT MRW.
(b) BRAKED MAIN GEAR.

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Maximum Pavement Loads
(Sheet 1 of 2)
FIGURE-7-3-0-991-021-A01

**ON A/C A330-900

| 1 | 2 | 3 | | 4 | 5 | | 6 | |
|---|---|---|---|---|---|---|---|---|
| | | $V_{(NG)}$ | | | $V_{(MG)}$ (PER STRUT) | | H (PER STRUT) | |
| MODEL | MAXIMUM RAMP WEIGHT | STATIC LOAD AT MOST FWD CG | | STATIC BRAKING AT 10 ft/s² DECELERATION | STATIC LOAD AT MAX AFT CG | | STEADY BRAKING AT 10 ft/s² DECELERATION | AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8 |
| A330-900 WV908 | 205 900 kg (453 925 lb) | 23 550 kg (51 925 lb) | 15% MAC (a) | 35 750 kg (78 800 lb) | 98 560 kg (217 300 lb) | 39.58% MAC (a) | 32 000 kg (70 550 lb) (b) | 78 850 kg (173 825 lb) (b) |
| A330-900 WV910 | 245 900kg (542 125 lb) | 24 480 kg (53 950 lb) | 19.98% MAC (a) | 37 720 kg (83 150 lb) | 114 630 kg (252 725 lb) | 30.87% MAC (a) | 38 210 kg (84 250 lb) (b) | 91 700 kg (202 175 lb) (b) |
| A330-900 WV911 | 245 900 kg (542 125 lb) | 24 480 kg (53 950 lb) | 19.98% MAC (a) | 37 720 kg (83 150 lb) | 114 630 kg (252 725 lb) | 30.87% MAC (a) | 38 210 kg (84 250 lb) (b) | 91 700 kg (202 175 lb) (b) |
| A330-900 WV912 | 241 900 kg (533 300 lb) | 24 440 kg (53 875 lb) | 19.48% MAC (a) | 37 480 kg (82 625 lb) | 113 650 kg (250 550 lb) | 33.36% MAC (a) | 37 590 kg (82 875 lb) (b) | 90 920 kg (200 450 lb) (b) |
| A330-900 WV920 | 251 900 kg (555 350 lb) | 24 540 kg (54 100 lb) | 20.69% MAC (a) | 38 080 kg (83 950 lb) | 118 220 kg (260 625 lb) | 33% MAC (a) | 39 150 kg (86 300 lb) (b) | 94 580 kg (208 500 lb) (b) |
| A330-900 WV921 | 251 900 kg (555 350 lb) | 24 540 kg (54 100 lb) | 20.69% MAC (a) | 38 080 kg (83 950 lb) | 118 220 kg (260 625 lb) | 33% MAC (a) | 39 150 kg (86 300 lb) (b) | 94 580 kg (208 500 lb) (b) |
| A330-900 WV922 | 247 900 kg (546 525 lb) | 24 500 kg (54 000 lb) | 20.22% MAC (a) | 37 840 kg (83 425 lb) | 116 770 kg (257 425 lb) | 34.17% MAC (a) | 38 520 kg (84 925 lb) (b) | 93 420 kg (205 950 lb) (b) |

**NOTE:**

(a) LOADS CALCULATED USING AIRCRAFT AT MRW.

(b) BRAKED MAIN GEAR.

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Maximum Pavement Loads
(Sheet 2 of 2)
FIGURE-7-3-0-991-021-A01

## 7-4-0 Landing Gear Loading on Pavement

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Landing Gear Loading on Pavement

1. The curves related to the landing gear loading on pavement are not given in section 07-04-00. Because the relationship between the aircraft weight, the center of gravity and the landing gear loading on the pavement is not strictly linear, it cannot be shown in chart format. But you can find in section 07-03-00 the maximum vertical and horizontal pavement loads for some critical conditions at the tire/ground interfaces for all the operational weight variants of the aircraft.

   For questions related to the landing gear loading on pavement, contact Airbus.

## 7-5-0 Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Flexible Pavement Requirements - US Army Corps of Engineers Design Method

1. The flexible-pavement requirements curves by U.S. Army Corps of Engineers Design Method are not given in section 07-05-00 since the related data is available through free software. Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.

   NOTE : The U.S. Army Corps of Engineers Design Method for flexible pavements is being gradually superseded by mechanistic-empirical design methods mostly relying on Linear Elastic Analysis (LEA). The number of parameters considered by such methods is not applicable for a chart format and the use of dedicated pavement-design software is necessary.

   For questions related to the flexible pavement requirements, contact Airbus.

## 7-6-0 Flexible Pavement Requirements - LCN Conversion

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Flexible Pavement Requirements - LCN Conversion

1. The Load Classification Number (LCN) curves are no longer provided in section 07-06-00 since the LCN system for reporting pavement strength is obsolete, having been replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.
   For questions related to the LCN system, contact Airbus.

## 7-7-0 Rigid Pavement Requirements - Portland Cement Association Design Method

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Rigid Pavement Requirements - Portland Cement Association Design Method

1. The rigid-pavement requirements curves by Portland Cement Association Design Method are not given in section 07-07-00 since the related data is available through free software. Sections 07-02-00 and 07-03-00 give all the inputs data required for the use of such software.

   NOTE : The Portland Cement Association Design Method for rigid pavements is being gradually superseded by mechanistic-empirical design methods mostly relying on Finite Element Analysis (FEM). The number of parameters considered by such methods is not applicable for a chart format and the use of dedicated pavement-design software is necessary.

   For questions related to the rigid pavement requirements, contact Airbus.

## 7-8-0 Rigid Pavement Requirements - LCN Conversion

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Rigid Pavement Requirements - LCN Conversion

1. The Load Classification Number (LCN) curves are no longer provided in section 07-08-00 since the LCN system for reporting pavement strength is obsolete, having been replaced by the ICAO recommended ACN/PCN system in 1983 and ACR/PCR system in 2020.
   For questions related to the LCN system, contact Airbus.

## 7-9-0 ACN/PCN Reporting System - Flexible and Rigid Pavements

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Aircraft Classification Number - Flexible and Rigid Pavements

1. This section gives data about the Aircraft Classification Number (ACN) for an aircraft gross weight in relation with standard subgrade strength value for flexible and rigid pavement.

   To find the ACN of an aircraft on flexible and rigid pavement, you must know the aircraft gross weight and the subgrade strength.

   NOTE : An aircraft with an ACN equal to or less than the reported PCN can operate on that pavement, subject to any limitation on the tire pressure.
   (Ref: ICAO Aerodrome Design Manual, Part 3, Chapter 1, Second Edition 1983).

****ON A/C A330-200 A330-200F**

2. Aircraft Classification Number - ACN table

   The tables in FIGURE 7-9-0-991-001-A and FIGURE 7-9-0-991-002-A gives ACN data in tabular format for all the operational weight variants of the aircraft.
   As an approximation, use a linear interpolation in order to get the ACN at the required operating weight using the following equation:
   - ACN = ACN min + (ACN max - ACN min) x (Operating weight - 120 000 kg)/(MRW - 120 000 kg)
     Please note that the interpolation error can reach 5% to 10%.

   As an approximation, use a linear interpolation in order to get the aircraft weight at the pavement PCN using the following equation:
   - Operating weight = 120 000 kg + (MRW - 120 000 kg ) x (PCN - ACN min)/(ACN max - ACN min)
     Please note that the interpolation error can reach up to 5%.

   With ACN max = ACN calculated at the MRW in the table and with ACN min = ACN calculated at 120 000 kg.

****ON A/C A330-300**

3. Aircraft Classification Number - ACN table

   The table in FIGURE 7-9-0-991-003-A gives ACN data in tabular format for all the operational weight variants of the aircraft.

As an approximation, use a linear interpolation in order to get the ACN at the required operating weight using the following equation:

- ACN = ACN min + (ACN max - ACN min) x (Operating weight - 125 000 kg)/(MRW - 125 000 kg)
  Please note that the interpolation error can reach 5% to 10%.

As an approximation, use a linear interpolation in order to get the aircraft weight at the pavement PCN using the following equation:

- Operating weight = 125 000 kg + (MRW - 125 000 kg ) x (PCN - ACN min)/(ACN max - ACN min)
  Please note that the interpolation error can reach up to 5%.

With ACN max = ACN calculated at the MRW in the table and with ACN min = ACN calculated at 125 000 kg.

****ON A/C A330-800**

4. Aircraft Classification Number - ACN table

   The table in FIGURE 7-9-0-991-022-A gives ACN data in tabular format for all the operational weight variants of the aircraft.
   As an approximation, use a linear interpolation in order to get the ACN at the required operating weight using the following equation:

   - ACN = ACN min + (ACN max - ACN min) x (Operating weight - 135 000 kg)/(MRW - 135 000 kg)
     Please note that the interpolation error can reach 5% to 10%.

   As an approximation, use a linear interpolation in order to get the aircraft weight at the pavement PCN using the following equation:

   - Operating weight = 135 000 kg + (MRW - 135 000 kg ) x (PCN - ACN min)/(ACN max - ACN min)
     Please note that the interpolation error can reach up to 5%.

   With ACN max = ACN calculated at the MRW in the table and with ACN min = ACN calculated at 135 000 kg.

****ON A/C A330-900**

5. Aircraft Classification Number - ACN table

   The table in FIGURE 7-9-0-991-025-A gives ACN data in tabular format for all the operational weight variants of the aircraft.
   As an approximation, use a linear interpolation in order to get the ACN at the required operating weight using the following equation:

   - ACN = ACN min + (ACN max - ACN min) x (Operating weight - 140 000 kg)/(MRW - 140 000 kg)
     Please note that the interpolation error can reach 5% to 10%.

As an approximation, use a linear interpolation in order to get the aircraft weight at the pavement PCN using the following equation:

- Operating weight = 140 000 kg + (MRW - 140 000 kg ) x (PCN - ACN min)/(ACN max - ACN min)
  Please note that the interpolation error can reach up to 5%.

With ACN max = ACN calculated at the MRW in the table and with ACN min = ACN calculated at 140 000 kg.

For questions or specific calculation in relation to ACN/PCN Reporting System, contact Airbus.

**ON A/C A330-200

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-200 WV020 | 230 900 | 47.3 | 1.42 | 53 | 61 | 72 | 84 | 57 | 62 | 71 | 96 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV021 | 230 900 | 47.3 | 1.42 | 53 | 61 | 72 | 84 | 57 | 62 | 71 | 96 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV022 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV023 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV024 | 202 900 | 47.5 | 1.42 | 45 | 52 | 61 | 71 | 49 | 52 | 60 | 80 |
| | 120 000 | 47.3 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV025 | 220 900 | 47.4 | 1.42 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 91 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV026 | 192 900 | 47.5 | 1.42 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 75 |
| | 120 000 | 47.4 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV027 | 220 900 | 47.4 | 1.42 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 91 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV050 | 230 900 | 47.3 | 1.42 | 53 | 61 | 72 | 84 | 57 | 62 | 71 | 96 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV051 | 192 900 | 47.5 | 1.42 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 75 |
| | 120 000 | 47.4 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV052 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV053 | 210 900 | 47.4 | 1.42 | 47 | 54 | 64 | 75 | 51 | 55 | 63 | 85 |
| | 120 000 | 47.3 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV054 | 230 900 | 47.3 | 1.42 | 53 | 61 | 72 | 84 | 57 | 62 | 71 | 96 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV055 | 192 900 | 47.5 | 1.42 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 75 |
| | 120 000 | 47.4 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV056 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV057 | 236 900 | 46.7 | 1.42 | 53 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 46.6 | | 27 | 27 | 30 | 34 | 26 | 27 | 29 | 36 |
| A330-200 WV058 | 238 900 | 46.3 | 1.42 | 53 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 46.2 | | 27 | 26 | 30 | 34 | 25 | 26 | 29 | 35 |
| A330-200 WV059 | 202 900 | 47.5 | 1.42 | 45 | 52 | 61 | 71 | 49 | 52 | 60 | 80 |
| | 120 000 | 47.3 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV060 | 220 900 | 47.4 | 1.42 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 91 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV061 | 230 900 | 47.3 | 1.42 | 53 | 61 | 72 | 84 | 57 | 62 | 71 | 96 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200 WV062 | 238 900 | 46.3 | 1.42 | 53 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 46.2 | | 27 | 26 | 30 | 34 | 25 | 26 | 29 | 35 |
| A330-200 WV063 | 192 900 | 47.5 | 1.42 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 75 |
| | 120 000 | 47.4 | | 28 | 27 | 31 | 35 | 26 | 27 | 30 | 37 |
| A330-200 WV064 | 217 900 | 47.4 | 1.42 | 48 | 57 | 67 | 78 | 53 | 57 | 66 | 89 |
| | 120 000 | 47.3 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |

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Aircraft Classification Number
ACN Table (Sheet 1 of 2)
FIGURE-7-9-0-991-001-A01

**ON A/C A330-200

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-200 WV080 | 238 900 | 46.8 | 1.47 | 55 | 64 | 75 | 88 | 59 | 63 | 74 | 100 |
| | 120 000 | 46.6 | | 28 | 27 | 30 | 35 | 26 | 27 | 29 | 36 |
| A330-200 WV081 | 242 900 | 46.3 | 1.47 | 56 | 64 | 76 | 89 | 59 | 64 | 74 | 101 |
| | 120 000 | 46.2 | | 27 | 27 | 30 | 34 | 25 | 27 | 29 | 35 |
| A330-200 WV082 | 242 900 | 46.3 | 1.47 | 56 | 64 | 76 | 89 | 59 | 64 | 74 | 101 |
| | 120 000 | 46.2 | | 27 | 27 | 30 | 34 | 25 | 27 | 29 | 35 |
| A330-200 WV083 | 240 900 | 46.5 | 1.47 | 55 | 64 | 76 | 88 | 59 | 64 | 74 | 100 |
| | 120 000 | 46.4 | | 27 | 27 | 30 | 35 | 26 | 27 | 29 | 36 |

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Aircraft Classification Number
ACN Table (Sheet 2 of 2)
FIGURE-7-9-0-991-001-A01

**ON A/C A330-200F

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (Mpa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultral-low 20 | High 15 | Medium 10 | Low 6 | Ultral-low 3 |
| A330-200F WV000 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200F WV001 | 227 900 | 47.3 | 1.42 | 52 | 60 | 71 | 83 | 56 | 61 | 70 | 95 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |
| A330-200F WV002 | 233 900 | 47.3 | 1.42 | 54 | 62 | 74 | 86 | 58 | 63 | 73 | 98 |
| | 120 000 | 47.2 | | 28 | 27 | 30 | 35 | 26 | 27 | 30 | 36 |

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Aircraft Classification Number
ACN Table
FIGURE-7-9-0-991-002-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-300 WV000 | 212 900 | 47.4 | 1.31 | 46 | 53 | 63 | 75 | 51 | 55 | 64 | 86 |
| | 125 000 | 47.3 | | 28 | 27 | 31 | 36 | 27 | 28 | 31 | 39 |
| A330-300 WV001 | 184 900 | 47.9 | 1.31 | 40 | 45 | 53 | 62 | 44 | 47 | 53 | 71 |
| | 125 000 | 47.9 | | 28 | 28 | 32 | 37 | 28 | 28 | 32 | 39 |
| A330-300 WV002 | 212 900 | 47.4 | 1.31 | 46 | 53 | 63 | 75 | 51 | 55 | 64 | 86 |
| | 125 000 | 47.3 | | 28 | 27 | 31 | 36 | 27 | 28 | 31 | 39 |
| A330-300 WV003 | 215 900 | 47.2 | 1.33 | 47 | 54 | 64 | 76 | 52 | 56 | 64 | 87 |
| | 125 000 | 47.1 | | 28 | 27 | 31 | 36 | 27 | 28 | 31 | 38 |
| A330-300 WV004 (209) | 209 900 | 47.8 | 1.33 | 46 | 53 | 63 | 74 | 51 | 55 | 63 | 85 |
| | 125 000 | 47.8 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV004 (215) | 215 900 | 47.8 | 1.33 | 47 | 55 | 66 | 77 | 53 | 57 | 66 | 89 |
| | 125 000 | 47.7 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV010 (CG 33.5%) | 217 900 | 47.0 | 1.33 | 47 | 55 | 65 | 76 | 52 | 56 | 65 | 88 |
| | 125 000 | 46.9 | | 28 | 27 | 31 | 36 | 27 | 28 | 31 | 38 |
| A330-300 WV010 (CG 39.13%) | 217 900 | 47.8 | 1.33 | 48 | 56 | 67 | 78 | 53 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV011 | 212 900 | 47.8 | 1.33 | 47 | 54 | 64 | 76 | 52 | 56 | 64 | 87 |
| | 125 000 | 47.7 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV012 | 218 900 | 47.8 | 1.33 | 48 | 56 | 67 | 79 | 54 | 58 | 67 | 91 |
| | 125 000 | 47.7 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV013 | 215 900 | 47.8 | 1.33 | 47 | 55 | 66 | 77 | 53 | 57 | 66 | 89 |
| | 125 000 | 47.7 | | 28 | 28 | 32 | 37 | 27 | 28 | 31 | 39 |
| A330-300 WV014 | 205 900 | 47.9 | 1.33 | 45 | 52 | 62 | 72 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 28 | 28 | 32 | 37 | 27 | 29 | 32 | 39 |
| A330-300 WV020 | 230 900 | 47.8 | 1.42 | 53 | 62 | 73 | 86 | 57 | 62 | 72 | 98 |
| | 125 000 | 47.7 | | 29 | 29 | 32 | 37 | 28 | 29 | 31 | 39 |
| A330-300 WV022 | 233 900 | 47.7 | 1.45 | 55 | 63 | 75 | 87 | 59 | 63 | 74 | 100 |
| | 125 000 | 47.6 | | 29 | 29 | 33 | 38 | 28 | 29 | 31 | 39 |
| A330-300 WV024 | 205 900 | 47.9 | 1.42 | 46 | 53 | 63 | 73 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |

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Aircraft Classification Number
ACN Table (Sheet 1 of 4)
FIGURE-7-9-0-991-003-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-300 WV025 | 217 900 | 47.8 | 1.42 | 49 | 57 | 68 | 79 | 54 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 29 | 29 | 32 | 37 | 28 | 29 | 32 | 39 |
| A330-300 WV026 | 217 900 | 47.8 | 1.42 | 49 | 57 | 68 | 79 | 54 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 29 | 29 | 32 | 37 | 28 | 29 | 32 | 39 |
| A330-300 WV027 | 198 900 | 47.9 | 1.42 | 45 | 51 | 60 | 70 | 48 | 52 | 59 | 79 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV030 (CG 39.83%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV030 (CG 39.81%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV030 (CG 39.82%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV031 (CG 39.83%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV031 (CG 39.81%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV031 (CG 39.82%) | 199 900 | 47.9 | 1.45 | 45 | 52 | 61 | 71 | 49 | 52 | 59 | 80 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV032 (CG 40.17%) | 190 900 | 47.9 | 1.45 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 74 |
| | 125 000 | 47.9 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV032 (CG 39.41%) | 190 900 | 47.8 | 1.45 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 74 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV032 (CG 39.39%) | 190 900 | 47.8 | 1.45 | 43 | 49 | 57 | 66 | 46 | 49 | 55 | 74 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV033 (CG 40.17%) | 190 900 | 47.9 | 1.45 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 74 |
| | 125 000 | 47.9 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV033 (CG 39.41%) | 190 900 | 47.8 | 1.45 | 43 | 49 | 57 | 67 | 46 | 49 | 56 | 74 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV033 (CG 39.39%) | 190 900 | 47.8 | 1.45 | 43 | 49 | 57 | 66 | 46 | 49 | 55 | 74 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |

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Aircraft Classification Number
ACN Table (Sheet 2 of 4)
FIGURE-7-9-0-991-003-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-300 WV034 (CG 39.58%) | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV034 (CG 39.57%) | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV035 (CG 39.58%) | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV035 (CG 39.57%) | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV039 (CG 39.13%) | 217 900 | 47.8 | 1.45 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV039 (CG 39.12%) | 217 900 | 47.8 | 1.45 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV050 | 230 900 | 47.8 | 1.45 | 54 | 62 | 74 | 86 | 58 | 62 | 72 | 98 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 31 | 39 |
| A330-300 WV051 | 212 900 | 47.8 | 1.45 | 48 | 56 | 66 | 77 | 52 | 56 | 65 | 87 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV052 | 233 900 | 47.7 | 1.45 | 55 | 63 | 75 | 87 | 59 | 63 | 74 | 100 |
| | 125 000 | 47.6 | | 29 | 29 | 33 | 38 | 28 | 29 | 31 | 39 |
| A330-300 WV053 | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV054 | 235 900 | 47.3 | 1.45 | 55 | 63 | 75 | 87 | 59 | 63 | 74 | 100 |
| | 125 000 | 47.2 | | 29 | 28 | 32 | 37 | 27 | 29 | 31 | 39 |
| A330-300 WV055 | 235 900 | 47.3 | 1.45 | 55 | 63 | 75 | 87 | 59 | 63 | 74 | 100 |
| | 125 000 | 47.2 | | 29 | 28 | 32 | 37 | 27 | 29 | 31 | 39 |
| A330-300 WV056 | 205 900 | 47.9 | 1.45 | 47 | 54 | 63 | 74 | 50 | 54 | 62 | 83 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV057 (CG 38.93%) | 184 900 | 47.8 | 1.45 | 42 | 47 | 54 | 64 | 44 | 47 | 53 | 71 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV057 (CG 38.96%) | 184 900 | 47.8 | 1.45 | 42 | 47 | 54 | 64 | 44 | 47 | 53 | 71 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |

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Aircraft Classification Number
ACN Table (Sheet 3 of 4)
FIGURE-7-9-0-991-003-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-300 WV057 (CG 39.23%) | 184 900 | 47.8 | 1.45 | 42 | 47 | 55 | 64 | 44 | 47 | 53 | 71 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV058 | 215 900 | 47.8 | 1.45 | 49 | 57 | 67 | 79 | 53 | 57 | 66 | 89 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV059 | 217 900 | 47.8 | 1.45 | 49 | 58 | 68 | 80 | 54 | 58 | 67 | 90 |
| | 125 000 | 47.7 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV060 | 198 900 | 47.9 | 1.45 | 45 | 51 | 60 | 70 | 48 | 52 | 59 | 79 |
| | 125 000 | 47.8 | | 29 | 29 | 33 | 38 | 28 | 29 | 32 | 39 |
| A330-300 WV080 | 238 900 | 47.3 | 1.49 | 56 | 65 | 77 | 89 | 60 | 64 | 75 | 101 |
| | 125 000 | 47.2 | | 29 | 29 | 32 | 37 | 27 | 29 | 31 | 39 |
| A330-300 WV081 | 242 900 | 46.9 | 1.49 | 57 | 66 | 78 | 90 | 60 | 65 | 76 | 103 |
| | 125 000 | 46.8 | | 29 | 28 | 32 | 37 | 27 | 28 | 31 | 38 |
| A330-300 WV082 | 242 900 | 46.9 | 1.49 | 57 | 66 | 78 | 90 | 60 | 65 | 76 | 103 |
| | 125 000 | 46.8 | | 29 | 28 | 32 | 37 | 27 | 28 | 31 | 38 |
| A330-300 WV083 | 240 900 | 47.1 | 1.49 | 56 | 65 | 77 | 90 | 60 | 65 | 75 | 102 |
| | 125 000 | 47.0 | | 29 | 29 | 32 | 37 | 27 | 28 | 31 | 38 |

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Aircraft Classification Number
ACN Table (Sheet 4 of 4)
FIGURE-7-9-0-991-003-A01

**ON A/C A330-800

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-800 WV800 | 242 900 | 46.3 | 1.47 | 56 | 64 | 76 | 89 | 59 | 64 | 74 | 101 |
| | 135 000 | 46.2 | | 30 | 31 | 35 | 40 | 29 | 31 | 33 | 42 |
| A330-800 WV801 | 242 900 | 46.3 | 1.47 | 56 | 64 | 76 | 89 | 59 | 64 | 74 | 101 |
| | 135 000 | 46.2 | | 30 | 31 | 35 | 40 | 29 | 31 | 33 | 42 |
| A330-800 WV802 | 238 900 | 46.8 | 1.47 | 55 | 64 | 75 | 88 | 59 | 63 | 74 | 100 |
| | 135 000 | 46.6 | | 31 | 31 | 35 | 41 | 30 | 31 | 34 | 42 |
| A330-800 WV803 | 234 900 | 47.2 | 1.47 | 55 | 63 | 74 | 87 | 58 | 63 | 73 | 99 |
| | 135 000 | 47.1 | | 31 | 31 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV804 | 230 900 | 47.3 | 1.47 | 54 | 62 | 73 | 85 | 57 | 62 | 71 | 97 |
| | 135 000 | 47.2 | | 31 | 31 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV805 | 220 900 | 47.4 | 1.47 | 51 | 58 | 69 | 80 | 54 | 58 | 67 | 91 |
| | 135 000 | 47.3 | | 31 | 31 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV806 | 215 900 | 47.4 | 1.47 | 49 | 57 | 67 | 78 | 53 | 57 | 65 | 88 |
| | 135 000 | 47.3 | | 31 | 32 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV807 | 210 900 | 47.4 | 1.47 | 48 | 55 | 65 | 75 | 51 | 55 | 63 | 85 |
| | 135 000 | 47.3 | | 31 | 32 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV808 | 205 900 | 47.4 | 1.47 | 47 | 53 | 63 | 73 | 50 | 53 | 61 | 82 |
| | 135 000 | 47.4 | | 31 | 32 | 36 | 41 | 30 | 31 | 35 | 43 |
| A330-800 WV809 | 200 900 | 47.5 | 1.47 | 45 | 52 | 61 | 71 | 48 | 52 | 59 | 79 |
| | 135 000 | 47.4 | | 31 | 32 | 36 | 41 | 30 | 31 | 35 | 43 |
| A330-800 WV820 | 251 900 | 46.9 | 1.56 | 61 | 70 | 83 | 96 | 64 | 69 | 80 | 108 |
| | 135 000 | 46.8 | | 31 | 32 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV821 | 251 900 | 46.9 | 1.56 | 61 | 70 | 83 | 96 | 64 | 69 | 80 | 108 |
| | 135 000 | 46.8 | | 31 | 32 | 36 | 41 | 30 | 31 | 34 | 43 |
| A330-800 WV822 | 247 900 | 47.0 | 1.56 | 60 | 69 | 81 | 94 | 63 | 67 | 78 | 106 |
| | 135 000 | 46.9 | | 31 | 32 | 36 | 41 | 30 | 31 | 34 | 43 |

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Aircraft Classification Number
ACN Table
FIGURE-7-9-0-991-022-A01

**ON A/C A330-900

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACN FOR RIGID PAVEMENT SUBGRADES - MN/m³ | | | | ACN FOR FLEXIBLE PAVEMENT SUBGRADES - CBR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | High 150 | Medium 80 | Low 40 | Ultra-low 20 | High 15 | Medium 10 | Low 6 | Ultra-low 3 |
| A330-900 WV900 | 242 900 | 46.9 | 1.49 | 57 | 66 | 78 | 90 | 60 | 65 | 76 | 103 |
| | 140 000 | 46.8 | | 32 | 33 | 37 | 43 | 31 | 32 | 36 | 45 |
| A330-900 WV901 | 242 900 | 46.9 | 1.49 | 57 | 66 | 78 | 90 | 60 | 65 | 76 | 103 |
| | 140 000 | 46.8 | | 32 | 33 | 37 | 43 | 31 | 32 | 36 | 45 |
| A330-900 WV902 | 238 900 | 47.3 | 1.49 | 56 | 65 | 77 | 89 | 60 | 64 | 75 | 101 |
| | 140 000 | 47.2 | | 32 | 33 | 38 | 43 | 31 | 33 | 36 | 46 |
| A330-900 WV903 | 234 900 | 47.6 | 1.49 | 55 | 64 | 76 | 88 | 59 | 64 | 74 | 100 |
| | 140 000 | 47.6 | | 32 | 33 | 38 | 44 | 32 | 33 | 36 | 46 |
| A330-900 WV904 | 230 900 | 47.8 | 1.49 | 54 | 63 | 74 | 86 | 58 | 62 | 72 | 98 |
| | 140 000 | 47.7 | | 32 | 33 | 38 | 44 | 32 | 33 | 36 | 46 |
| A330-900 WV905 | 220 900 | 47.8 | 1.49 | 52 | 59 | 70 | 81 | 55 | 59 | 68 | 92 |
| | 140 000 | 47.7 | | 32 | 33 | 38 | 44 | 32 | 33 | 37 | 46 |
| A330-900 WV906 | 215 900 | 47.8 | 1.49 | 49 | 58 | 68 | 79 | 54 | 57 | 66 | 89 |
| | 140 000 | 47.7 | | 32 | 33 | 38 | 44 | 32 | 33 | 37 | 46 |
| A330-900 WV907 | 210 900 | 47.8 | 1.49 | 48 | 56 | 66 | 77 | 52 | 56 | 64 | 86 |
| | 140 000 | 47.8 | | 32 | 34 | 38 | 44 | 32 | 33 | 37 | 47 |
| A330-900 WV908 | 205 900 | 47.9 | 1.49 | 47 | 54 | 64 | 74 | 51 | 54 | 62 | 83 |
| | 140 000 | 47.8 | | 32 | 34 | 38 | 44 | 32 | 33 | 37 | 47 |
| A330-900 WV910 | 245 900 | 46.6 | 1.49 | 57 | 66 | 78 | 91 | 61 | 66 | 76 | 103 |
| | 140 000 | 46.5 | | 32 | 32 | 37 | 43 | 31 | 32 | 35 | 45 |
| A330-900 WV911 | 245 900 | 46.6 | 1.49 | 57 | 66 | 78 | 91 | 61 | 66 | 76 | 103 |
| | 140 000 | 46.5 | | 32 | 32 | 37 | 43 | 31 | 32 | 35 | 45 |
| A330-900 WV912 | 241 900 | 47 | 1.49 | 57 | 65 | 77 | 90 | 60 | 65 | 76 | 102 |
| | 140 000 | 46.9 | | 32 | 33 | 37 | 43 | 31 | 33 | 36 | 45 |
| A330-900 WV920 | 251 900 | 46.9 | 1.56 | 61 | 70 | 83 | 96 | 64 | 69 | 80 | 108 |
| | 140 000 | 46.8 | | 32 | 33 | 38 | 43 | 31 | 33 | 36 | 45 |
| A330-900 WV921 | 251 900 | 46.9 | 1.56 | 61 | 70 | 83 | 96 | 64 | 69 | 80 | 108 |
| | 140 000 | 46.8 | | 32 | 33 | 38 | 43 | 31 | 33 | 36 | 45 |
| A330-900 WV922 | 247 900 | 47.1 | 1.56 | 60 | 69 | 81 | 94 | 63 | 68 | 79 | 106 |
| | 140 000 | 47 | | 32 | 33 | 38 | 44 | 31 | 33 | 36 | 45 |

F_AC_070900_1_0250101_01_03

Aircraft Classification Number
ACN Table
FIGURE-7-9-0-991-025-A01

## 7-10-0 ACR/PCR Reporting System - Flexible And Rigid Pavement

****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

ACR/PCR Reporting System - Flexible and Rigid Pavements

1. The ACR/PCR system has been developed by the ICAO to overcome the deficiencies of the ACN/PCN system. Significant advances in pavement design methods had occurred since its development in the late 1970s early 1980s, leading to inconsistencies with the pavement-strength-rating system.

   The ACR/PCR system entails new procedures for the determination of both the ACR and the PCR that are consistent with the current pavement design procedures. This allows to capture the effects of the improved characteristics of new pavement materials as well as modern landing gear configurations, thus leading to an improved accuracy.

   This section give data about the Aircraft Classification Rating (ACR) for the maximum ramp weight in relation with standard subgrade strength values for flexible and rigid pavement.
   To determine the ACR at other aircraft gross weight, use the official ICAO-ACR software.

   NOTE : An aircraft with an ACR equal to or less than the reported PCR can operate on that pavement, subject to any limitation on the tire pressure. (Ref: ICAO Aerodrome Design Manual, Part 3, Third Edition 2020).

2. Aircraft Classification Rating - ACR Table

   The table FIGURE 7-10-0-991-001-A, FIGURE 7-10-0-991-002-A, FIGURE 7-10-0-991-003-A, FIGURE 7-10-0-991-004-A and FIGURE 7-10-0-991-005-A give ACR data in tabular format for all the operational weight variants of the aircraft.
   For questions or specific calculation related to ACR/PCR reporting system, contact Airbus.

**ON A/C A330-200

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-200 WV020 | 230 900 | 47.3 | 1.42 | 600 | 690 | 780 | 880 | 560 | 580 | 640 | 780 |
| A330-200 WV021 | 230 900 | 47.3 | 1.42 | 600 | 690 | 780 | 880 | 560 | 580 | 640 | 780 |
| A330-200 WV022 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV023 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV024 | 202 900 | 47.5 | 1.42 | 510 | 580 | 650 | 730 | 490 | 510 | 540 | 640 |
| A330-200 WV025 | 220 900 | 47.4 | 1.42 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 730 |
| A330-200 WV026 | 192 900 | 47.5 | 1.42 | 480 | 540 | 600 | 680 | 460 | 480 | 510 | 600 |
| A330-200 WV027 | 220 900 | 47.4 | 1.42 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 730 |
| A330-200 WV050 | 230 900 | 47.3 | 1.42 | 600 | 690 | 780 | 880 | 560 | 580 | 640 | 780 |
| A330-200 WV051 | 192 900 | 47.5 | 1.42 | 480 | 540 | 600 | 680 | 460 | 480 | 510 | 600 |
| A330-200 WV052 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV053 | 210 900 | 47.4 | 1.42 | 540 | 610 | 680 | 770 | 510 | 530 | 570 | 680 |
| A330-200 WV054 | 230 900 | 47.3 | 1.42 | 600 | 690 | 780 | 880 | 560 | 580 | 640 | 780 |
| A330-200 WV055 | 192 900 | 47.5 | 1.42 | 480 | 540 | 600 | 680 | 460 | 480 | 510 | 600 |
| A330-200 WV056 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV057 | 236 900 | 46.7 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV058 | 238 900 | 46.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV059 | 202 900 | 47.5 | 1.42 | 510 | 580 | 650 | 730 | 490 | 510 | 540 | 640 |
| A330-200 WV060 | 220 900 | 47.4 | 1.42 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 730 |
| A330-200 WV061 | 230 900 | 47.3 | 1.42 | 600 | 690 | 780 | 880 | 560 | 580 | 640 | 780 |
| A330-200 WV062 | 238 900 | 46.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200 WV063 | 192 900 | 47.5 | 1.42 | 480 | 540 | 600 | 680 | 460 | 480 | 510 | 600 |
| A330-200 WV064 | 217 900 | 47.4 | 1.42 | 560 | 640 | 710 | 810 | 520 | 550 | 590 | 710 |

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ACR Table
(Sheet 1 of 2)
FIGURE-7-10-0-991-001-A01

**ON A/C A330-200

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-200 WV080 | 238 900 | 46.8 | 1.47 | 630 | 720 | 800 | 910 | 570 | 600 | 660 | 810 |
| A330-200 WV081 | 242 900 | 46.3 | 1.47 | 630 | 730 | 810 | 920 | 580 | 600 | 660 | 820 |
| A330-200 WV082 | 242 900 | 46.3 | 1.47 | 630 | 730 | 810 | 920 | 580 | 600 | 660 | 820 |
| A330-200 WV083 | 240 900 | 46.5 | 1.47 | 630 | 720 | 810 | 910 | 580 | 600 | 660 | 810 |

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ACR Table
(Sheet 2 of 2)
FIGURE-7-10-0-991-001-A01

**ON A/C A330-200F

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-200F WV000 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |
| A330-200F WV001 | 227 900 | 47.3 | 1.42 | 590 | 680 | 760 | 860 | 550 | 570 | 630 | 760 |
| A330-200F WV002 | 233 900 | 47.3 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 650 | 790 |

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ACR Table
FIGURE-7-10-0-991-002-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-300 WV000 | 212 900 | 47.4 | 1.31 | 530 | 600 | 680 | 770 | 500 | 530 | 570 | 690 |
| A330-300 WV001 | 184 900 | 47.9 | 1.31 | 450 | 500 | 560 | 640 | 440 | 460 | 490 | 560 |
| A330-300 WV002 | 212 900 | 47.4 | 1.31 | 530 | 600 | 680 | 770 | 500 | 530 | 570 | 690 |
| A330-300 WV003 | 215 900 | 47.2 | 1.33 | 540 | 610 | 690 | 790 | 510 | 530 | 580 | 700 |
| A330-300 WV004 (209) | 209 900 | 47.8 | 1.33 | 530 | 600 | 680 | 770 | 500 | 520 | 570 | 680 |
| A330-300 WV004 (215) | 215 900 | 47.8 | 1.33 | 540 | 630 | 700 | 800 | 520 | 540 | 590 | 710 |
| A330-300 WV010 (CG 33.5%) | 217 900 | 47.0 | 1.33 | 540 | 620 | 700 | 790 | 510 | 540 | 580 | 700 |
| A330-300 WV010 (CG 39.13%) | 217 900 | 47.8 | 1.33 | 550 | 630 | 710 | 810 | 520 | 550 | 590 | 720 |
| A330-300 WV011 | 212 900 | 47.8 | 1.33 | 540 | 610 | 690 | 790 | 510 | 530 | 580 | 700 |
| A330-300 WV012 | 218 900 | 47.8 | 1.33 | 550 | 640 | 720 | 820 | 520 | 550 | 600 | 730 |
| A330-300 WV013 | 215 900 | 47.8 | 1.33 | 540 | 630 | 700 | 800 | 520 | 540 | 590 | 710 |
| A330-300 WV014 | 205 900 | 47.9 | 1.33 | 510 | 590 | 660 | 750 | 490 | 510 | 550 | 660 |
| A330-300 WV020 | 230 900 | 47.8 | 1.42 | 610 | 700 | 790 | 890 | 560 | 590 | 640 | 790 |
| A330-300 WV022 | 233 900 | 47.7 | 1.45 | 620 | 720 | 800 | 910 | 570 | 600 | 650 | 810 |
| A330-300 WV024 | 205 900 | 47.9 | 1.42 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 660 |
| A330-300 WV025 | 217 900 | 47.8 | 1.42 | 560 | 650 | 720 | 820 | 530 | 550 | 600 | 720 |
| A330-300 WV026 | 217 900 | 47.8 | 1.42 | 560 | 650 | 720 | 820 | 530 | 550 | 600 | 720 |
| A330-300 WV027 | 198 900 | 47.9 | 1.42 | 500 | 570 | 640 | 720 | 480 | 500 | 540 | 630 |
| A330-300 WV030 (CG 39.83%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |
| A330-300 WV030 (CG 39.81%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |
| A330-300 WV030 (CG 39.82%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |

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ACR Table
(Sheet 1 of 3)
FIGURE-7-10-0-991-003-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-300 WV031 (CG 39.83%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |
| A330-300 WV031 (CG 39.81%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |
| A330-300 WV031 (CG 39.82%) | 199 900 | 47.9 | 1.45 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 640 |
| A330-300 WV032 (CG 40.17%) | 190 900 | 47.9 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 600 |
| A330-300 WV032 (CG 39.41%) | 190 900 | 47.8 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 590 |
| A330-300 WV032 (CG 39.39%) | 190 900 | 47.8 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 590 |
| A330-300 WV033 (CG 40.17%) | 190 900 | 47.9 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 600 |
| A330-300 WV033 (CG 39.41%) | 190 900 | 47.8 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 590 |
| A330-300 WV033 (CG 39.39%) | 190 900 | 47.8 | 1.45 | 480 | 540 | 600 | 680 | 470 | 480 | 510 | 590 |
| A330-300 WV034 (CG 39.58%) | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV034 (CG 39.57%) | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV035 (CG 39.58%) | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV035 (CG 39.57%) | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV039 (CG 39.13%) | 217 900 | 47.8 | 1.45 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 720 |
| A330-300 WV039 (CG 39.12%) | 217 900 | 47.8 | 1.45 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 720 |
| A330-300 WV050 | 230 900 | 47.8 | 1.45 | 610 | 700 | 790 | 890 | 560 | 590 | 640 | 790 |
| A330-300 WV051 | 212 900 | 47.8 | 1.45 | 550 | 630 | 700 | 800 | 520 | 540 | 580 | 700 |

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ACR Table
(Sheet 2 of 3)
FIGURE-7-10-0-991-003-A01

**ON A/C A330-300

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-300 WV052 | 233 900 | 47.7 | 1.45 | 620 | 720 | 800 | 910 | 570 | 600 | 650 | 810 |
| A330-300 WV053 | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV054 | 235 900 | 47.3 | 1.45 | 620 | 720 | 800 | 910 | 570 | 600 | 650 | 800 |
| A330-300 WV055 | 235 900 | 47.3 | 1.45 | 620 | 720 | 800 | 910 | 570 | 600 | 650 | 800 |
| A330-300 WV056 | 205 900 | 47.9 | 1.45 | 530 | 600 | 670 | 760 | 500 | 520 | 560 | 670 |
| A330-300 WV057 (CG 38.93%) | 184 900 | 47.8 | 1.45 | 460 | 520 | 570 | 650 | 450 | 460 | 490 | 570 |
| A330-300 WV057 (CG 38.96%) | 184 900 | 47.8 | 1.45 | 460 | 520 | 570 | 650 | 450 | 460 | 490 | 570 |
| A330-300 WV057 (CG 39.23%) | 184 900 | 47.8 | 1.45 | 460 | 520 | 580 | 650 | 450 | 460 | 490 | 570 |
| A330-300 WV058 | 215 900 | 47.8 | 1.45 | 560 | 640 | 720 | 810 | 530 | 550 | 590 | 710 |
| A330-300 WV059 | 217 900 | 47.8 | 1.45 | 570 | 650 | 730 | 820 | 530 | 550 | 600 | 720 |
| A330-300 WV060 | 198 900 | 47.9 | 1.45 | 510 | 570 | 640 | 720 | 490 | 500 | 540 | 630 |
| A330-300 WV080 | 238 900 | 47.3 | 1.49 | 640 | 730 | 820 | 920 | 580 | 610 | 670 | 820 |
| A330-300 WV081 | 242 900 | 46.9 | 1.49 | 650 | 740 | 830 | 930 | 590 | 610 | 670 | 830 |
| A330-300 WV082 | 242 900 | 46.9 | 1.49 | 650 | 740 | 830 | 930 | 590 | 610 | 670 | 830 |
| A330-300 WV083 | 240 900 | 47.1 | 1.49 | 640 | 740 | 820 | 930 | 590 | 610 | 670 | 830 |

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ACR Table
(Sheet 3 of 3)
FIGURE-7-10-0-991-003-A01

**ON A/C A330-800

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-800 WV800 | 242 900 | 46.3 | 1.47 | 630 | 730 | 810 | 920 | 580 | 600 | 660 | 820 |
| A330-800 WV801 | 242 900 | 46.3 | 1.47 | 630 | 730 | 810 | 920 | 580 | 600 | 660 | 820 |
| A330-800 WV802 | 238 900 | 46.8 | 1.47 | 630 | 720 | 800 | 910 | 570 | 600 | 660 | 810 |
| A330-800 WV803 | 234 900 | 47.2 | 1.47 | 620 | 710 | 800 | 900 | 570 | 590 | 650 | 800 |
| A330-800 WV804 | 230 900 | 47.3 | 1.47 | 610 | 700 | 780 | 880 | 560 | 590 | 640 | 780 |
| A330-800 WV805 | 220 900 | 47.4 | 1.47 | 570 | 660 | 730 | 830 | 540 | 560 | 600 | 730 |
| A330-800 WV806 | 215 900 | 47.4 | 1.47 | 560 | 640 | 710 | 800 | 530 | 540 | 590 | 710 |
| A330-800 WV807 | 210 900 | 47.4 | 1.47 | 540 | 620 | 690 | 780 | 510 | 530 | 570 | 680 |
| A330-800 WV808 | 205 900 | 47.4 | 1.47 | 530 | 600 | 660 | 750 | 500 | 520 | 550 | 660 |
| A330-800 WV809 | 200 900 | 47.5 | 1.47 | 510 | 580 | 640 | 730 | 490 | 500 | 540 | 630 |
| A330-800 WV820 | 251 900 | 46.9 | 1.56 | 690 | 790 | 880 | 990 | 620 | 650 | 710 | 880 |
| A330-800 WV821 | 251 900 | 46.9 | 1.56 | 690 | 790 | 880 | 990 | 620 | 650 | 710 | 880 |
| A330-800 WV822 | 247 900 | 47.0 | 1.56 | 680 | 770 | 860 | 970 | 610 | 640 | 700 | 860 |

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ACR Table
FIGURE-7-10-0-991-004-A01

**ON A/C A330-900

| AIRCRAFT TYPE | ALL UP MASS (kg) | LOAD ON ONE MAIN GEAR LEG (%) | TIRE PRESSURE (MPa) | ACR FOR RIGID PAVEMENT SUBGRADES - MPa | | | | ACR FOR FLEXIBLE PAVEMENT SUBGRADES - MPa | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 | HIGH 200 | MEDIUM 120 | LOW 80 | ULTRA -LOW 50 |
| A330-900 WV900 | 242 900 | 46.9 | 1.49 | 650 | 740 | 830 | 930 | 590 | 610 | 670 | 830 |
| A330-900 WV901 | 242 900 | 46.9 | 1.49 | 650 | 740 | 830 | 930 | 590 | 610 | 670 | 830 |
| A330-900 WV902 | 238 900 | 47.3 | 1.49 | 640 | 730 | 820 | 920 | 580 | 610 | 670 | 820 |
| A330-900 WV903 | 234 900 | 47.6 | 1.49 | 630 | 720 | 810 | 910 | 580 | 600 | 660 | 810 |
| A330-900 WV904 | 230 900 | 47.8 | 1.49 | 620 | 710 | 790 | 890 | 570 | 590 | 650 | 790 |
| A330-900 WV905 | 220 900 | 47.8 | 1.49 | 580 | 670 | 740 | 840 | 540 | 560 | 610 | 740 |
| A330-900 WV906 | 215 900 | 47.8 | 1.49 | 570 | 650 | 720 | 810 | 530 | 550 | 590 | 720 |
| A330-900 WV907 | 210 900 | 47.8 | 1.49 | 550 | 620 | 700 | 790 | 520 | 540 | 580 | 690 |
| A330-900 WV908 | 205 900 | 47.9 | 1.49 | 540 | 600 | 670 | 760 | 510 | 520 | 560 | 670 |
| A330-900 WV910 | 245 900 | 46.6 | 1.49 | 650 | 750 | 840 | 940 | 590 | 620 | 680 | 840 |
| A330-900 WV911 | 245 900 | 46.6 | 1.49 | 650 | 750 | 840 | 940 | 590 | 620 | 680 | 840 |
| A330-900 WV912 | 241 900 | 47 | 1.49 | 640 | 740 | 830 | 930 | 590 | 610 | 670 | 830 |
| A330-900 WV920 | 251 900 | 46.9 | 1.56 | 690 | 790 | 880 | 990 | 620 | 650 | 710 | 880 |
| A330-900 WV921 | 251 900 | 46.9 | 1.56 | 690 | 790 | 880 | 990 | 620 | 650 | 710 | 880 |
| A330-900 WV922 | 247 900 | 47.1 | 1.56 | 680 | 780 | 870 | 970 | 610 | 640 | 700 | 870 |

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ACR Table
FIGURE-7-10-0-991-005-A01

# SCALED DRAWINGS

## 8-0-0 SCALED DRAWINGS

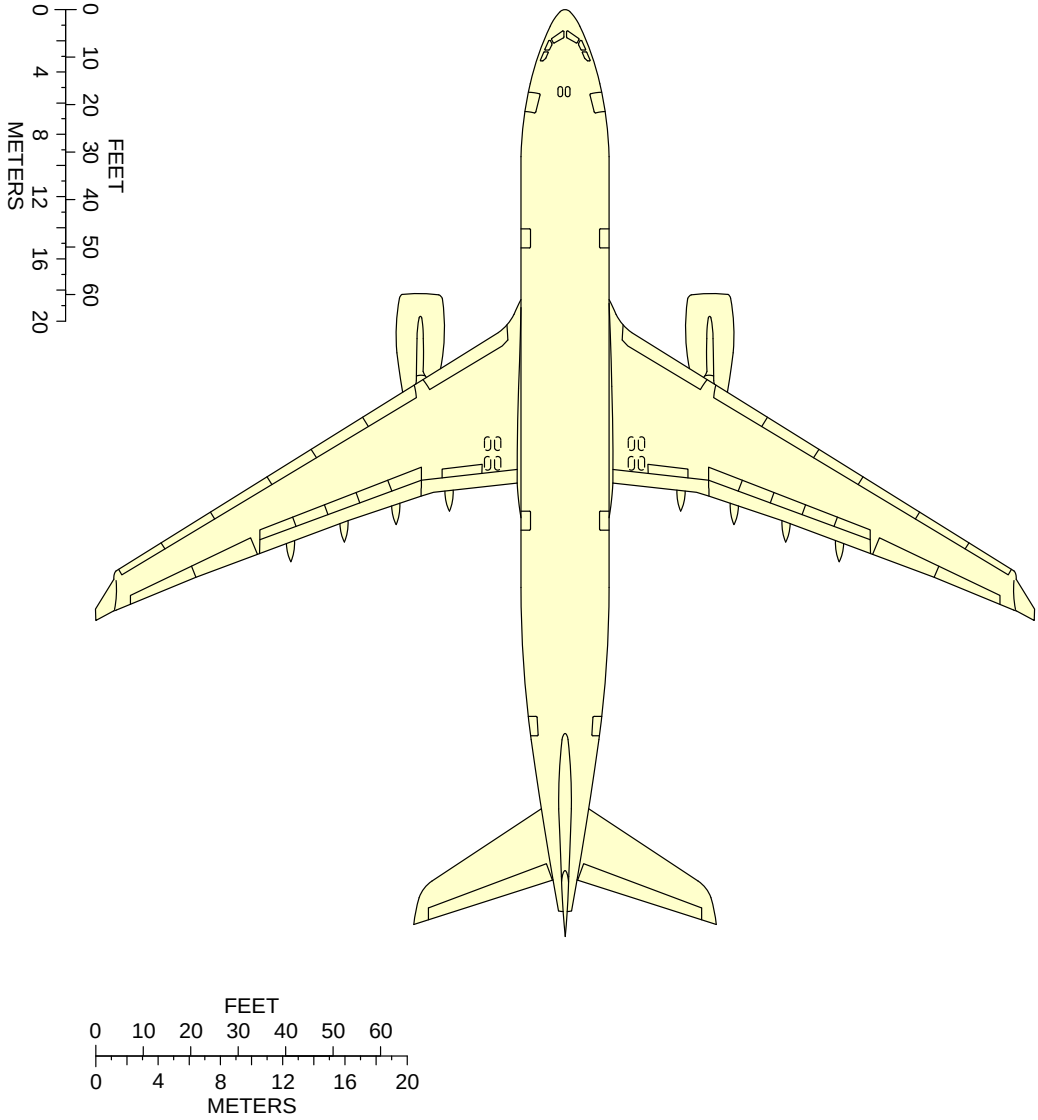
****ON A/C A330-200 A330-200F A330-300 A330-800 A330-900**

Scaled Drawings

1. This section provides the scaled drawings.

NOTE : When printing this drawing, make sure to adjust for proper scaling.

**ON A/C A330-200

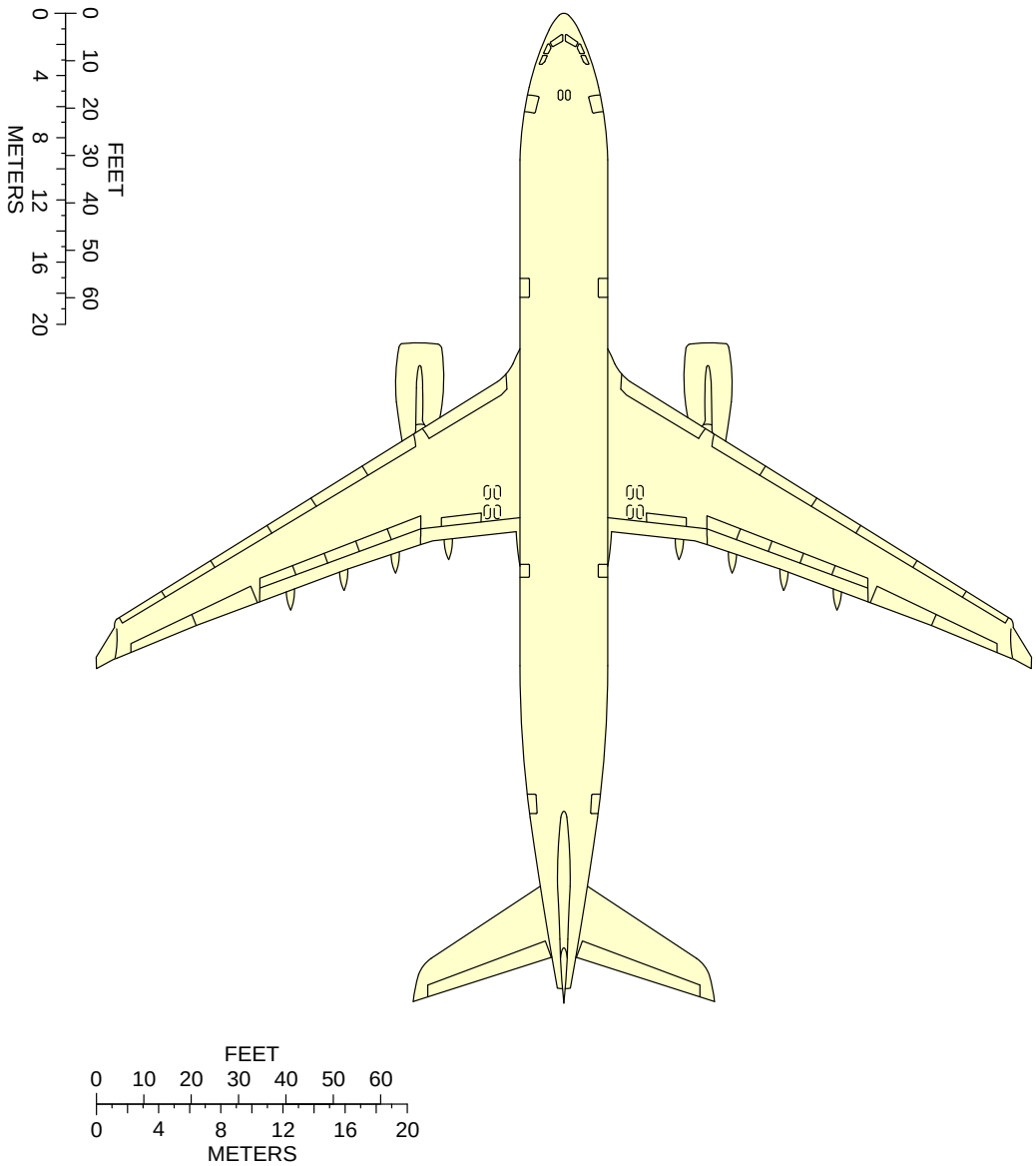



**NOTE:**
WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-002-A01

**ON A/C A330-300



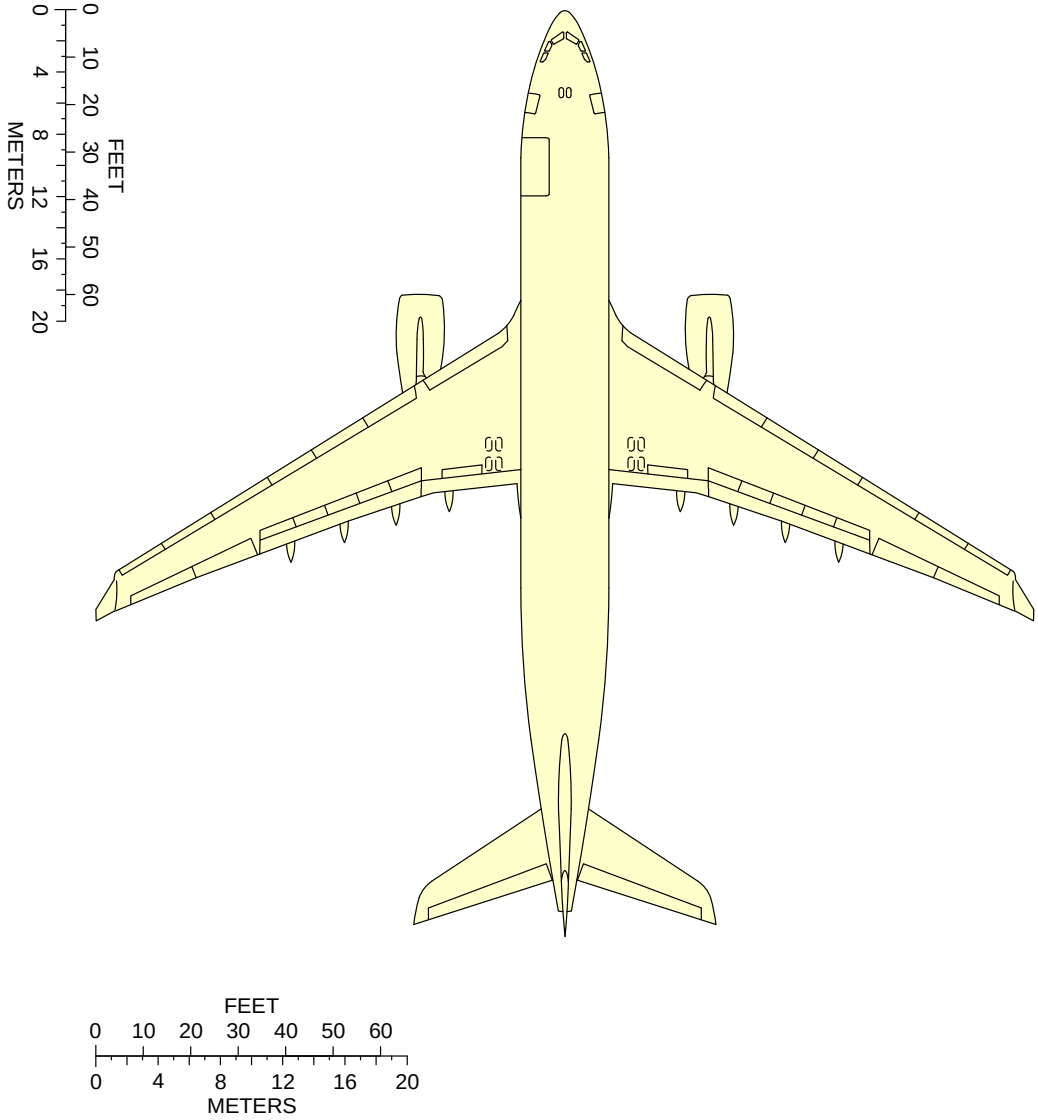

**NOTE:**

WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-002-B01

**ON A/C A330-200F

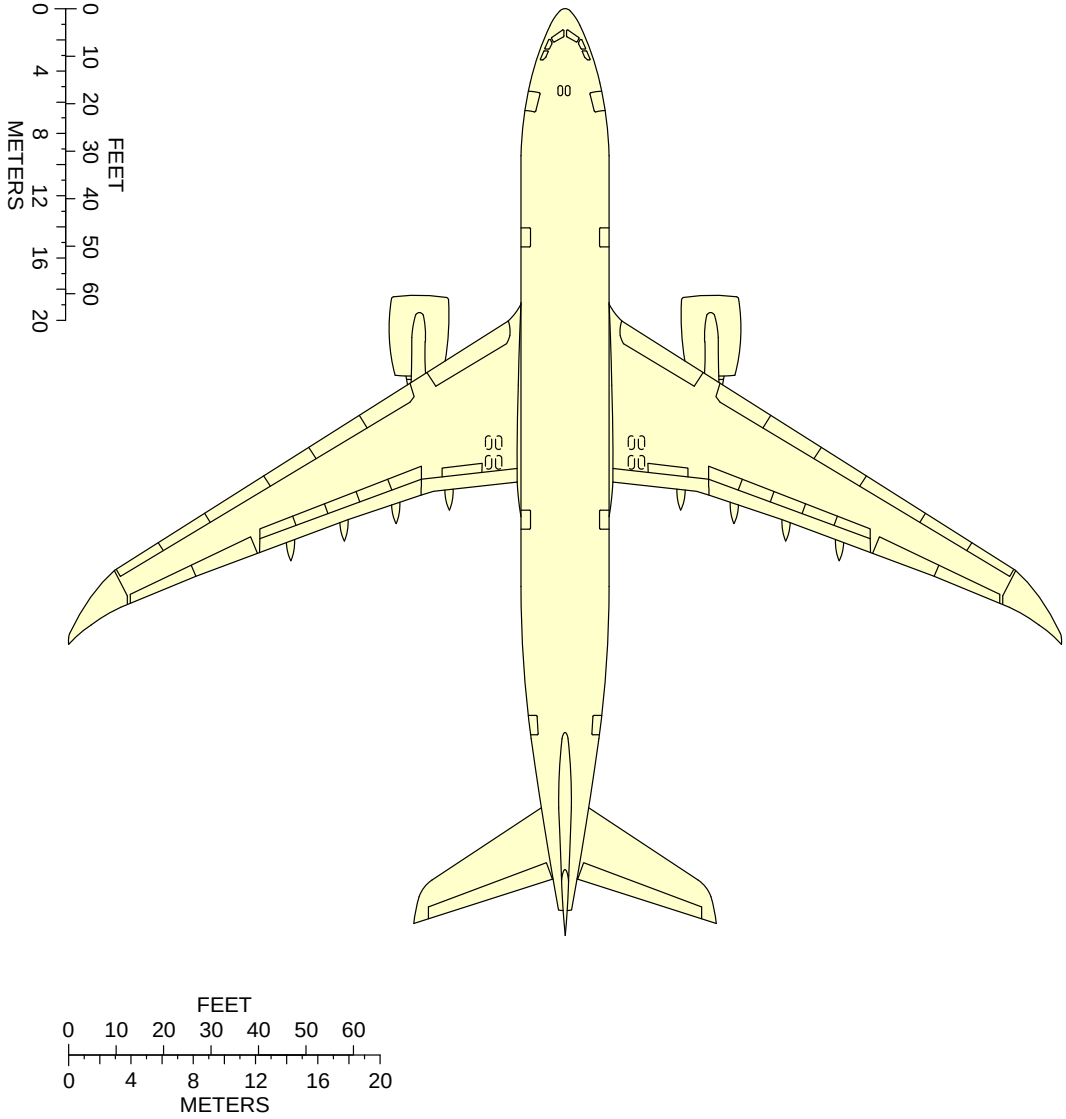



**NOTE:**
WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-002-C01

**ON A/C A330-800



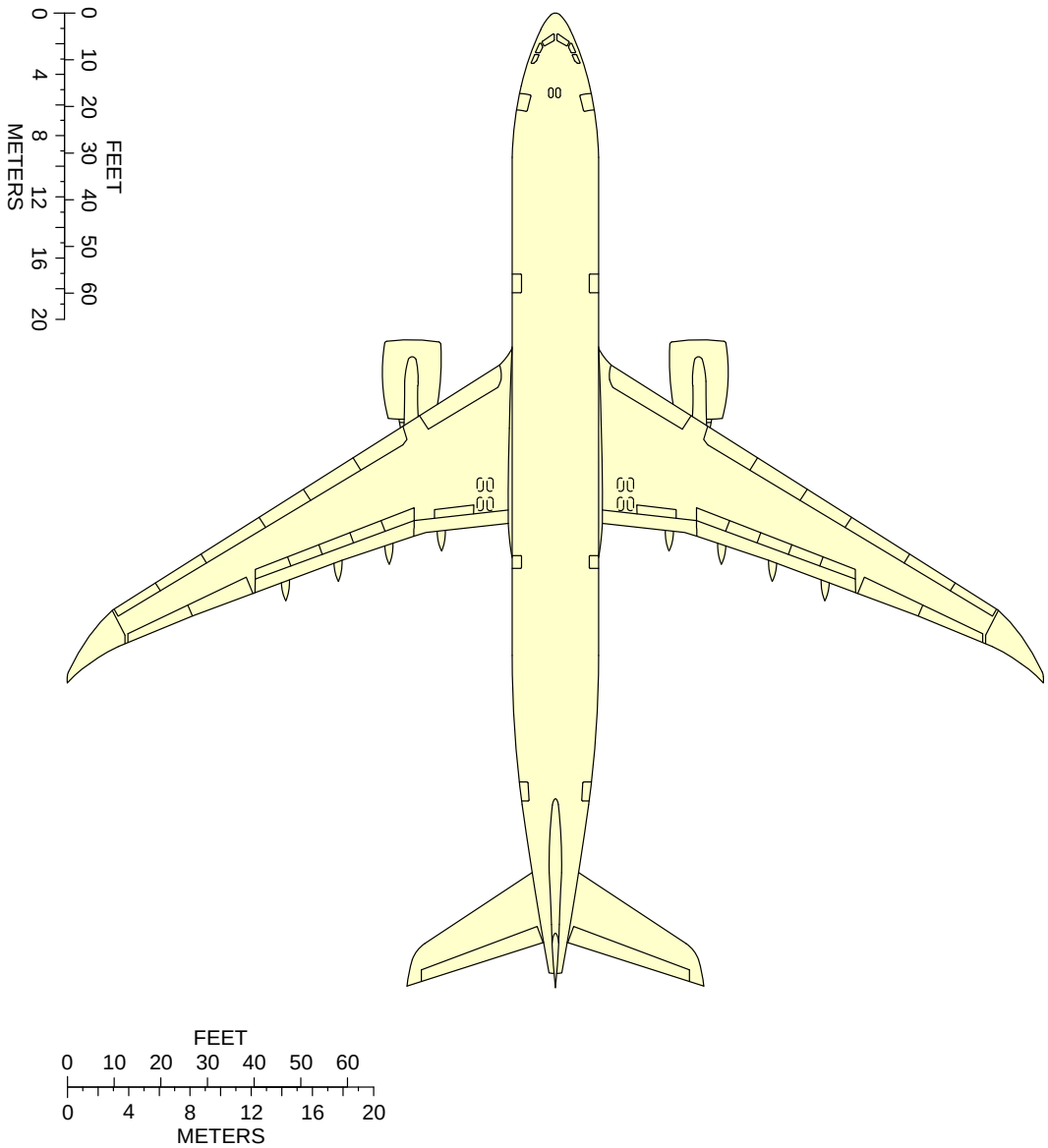

**NOTE:**

WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-005-A01

****ON A/C A330-900**




**NOTE:**

WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-006-A01

# AIRCRAFT RESCUE AND FIRE FIGHTING

## 10-0-0 AIRCRAFT RESCUE AND FIRE FIGHTING

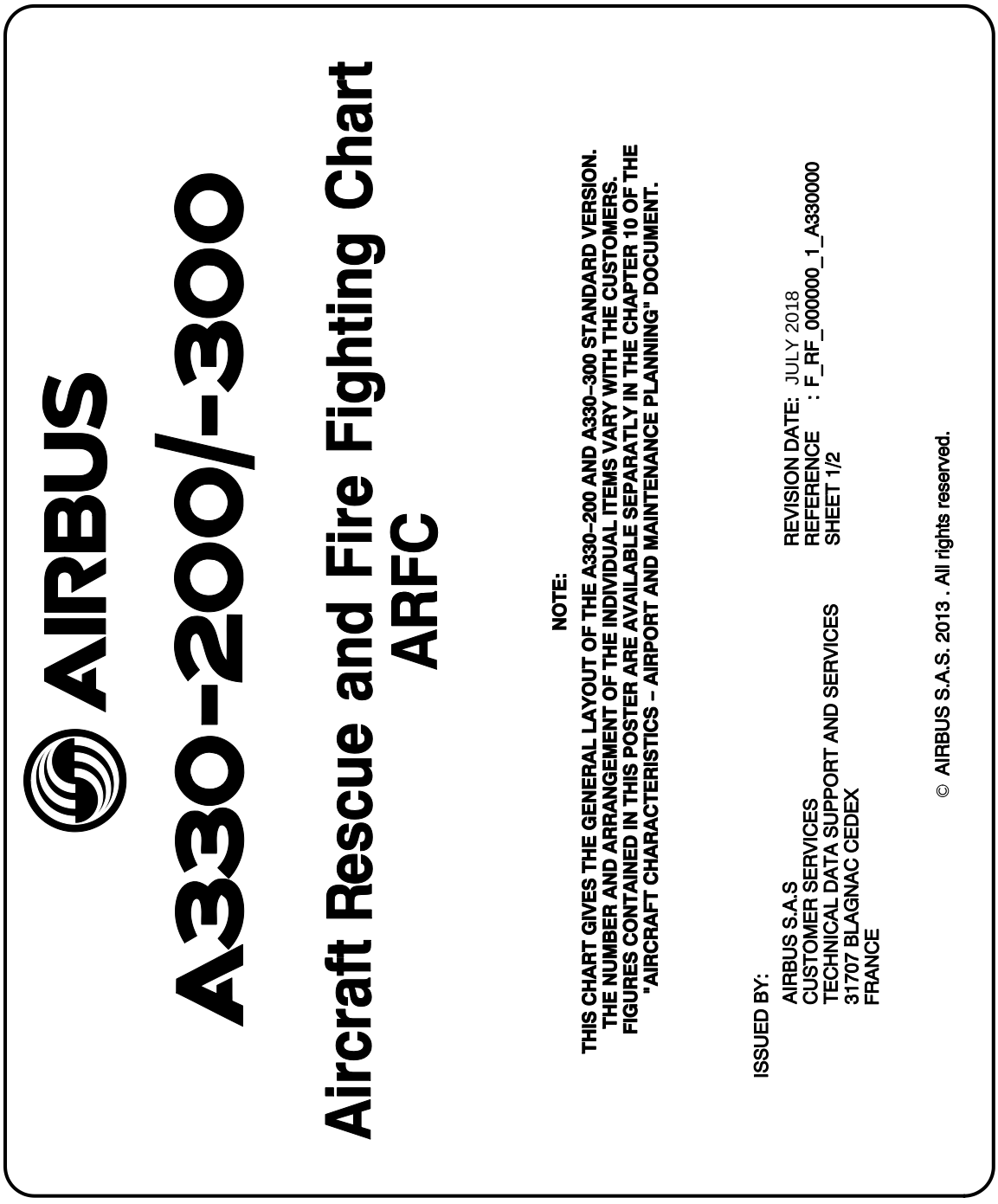
****ON A/C A330-200 A330-300**

Aircraft Rescue and Fire Fighting

1. Aircraft Rescue and Fire Fighting Charts

   This sections provides data related to aircraft rescue and fire fighting.
   The figures contained in this section are the figures that are in the Aircraft Rescue and Fire Fighting Charts poster available for download on AIRBUSWorld and the Airbus website.

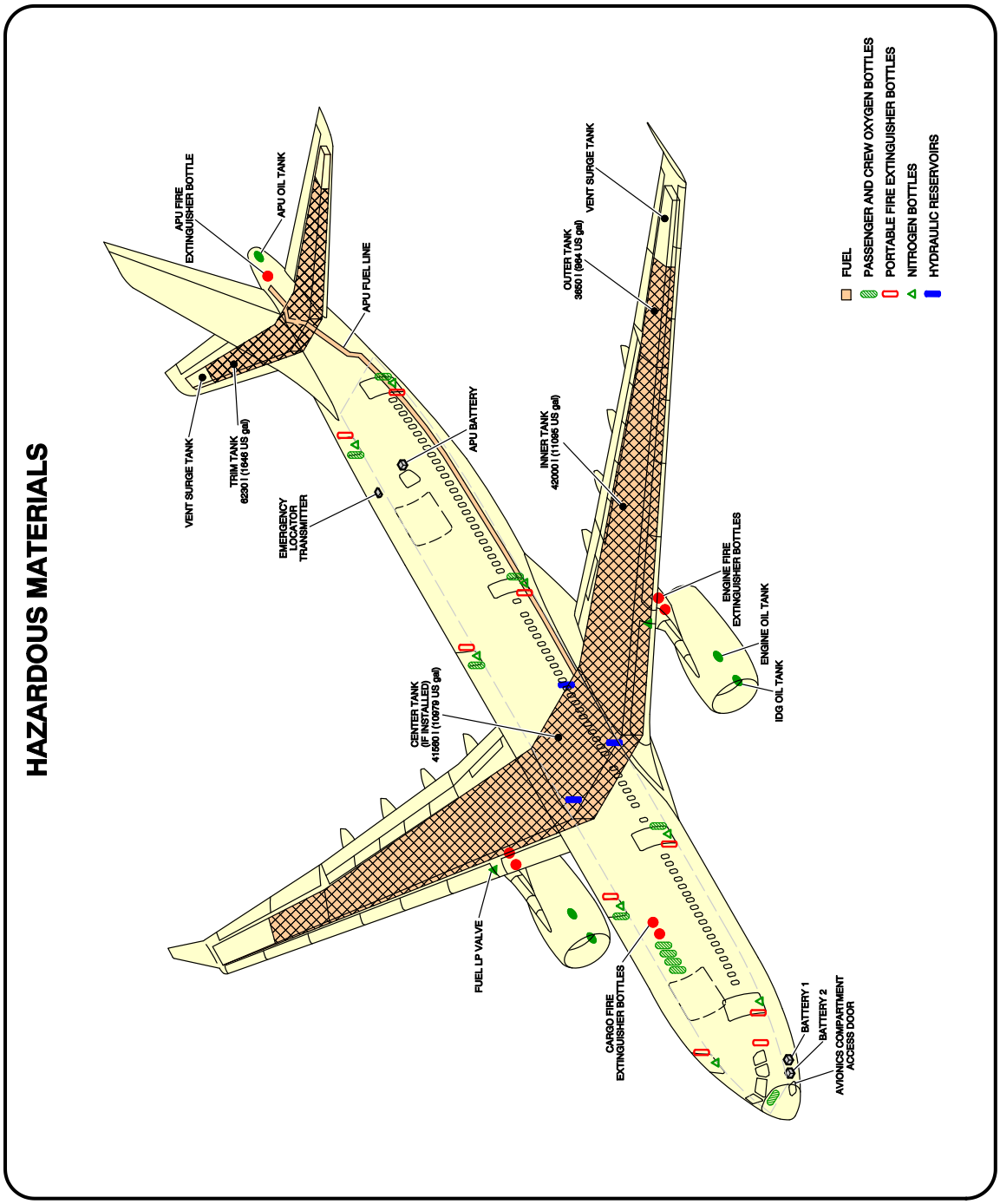
**ON A/C A330-200 A330-300




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Front Page
FIGURE-10-0-0-991-001-A01

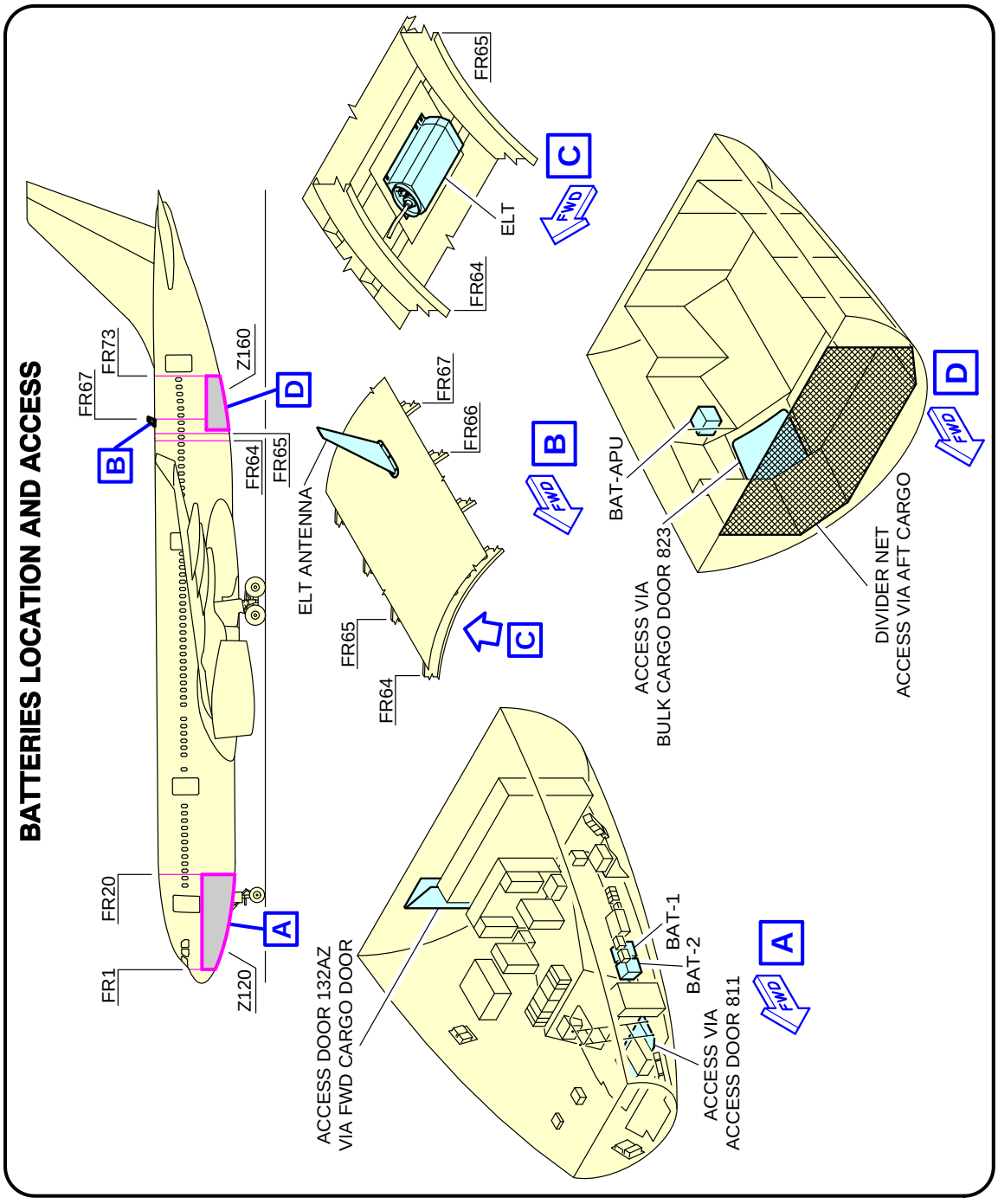
**ON A/C A330-200 A330-300




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Highly Flammable and Hazardous Materials and Components
FIGURE-10-0-0-991-002-A01

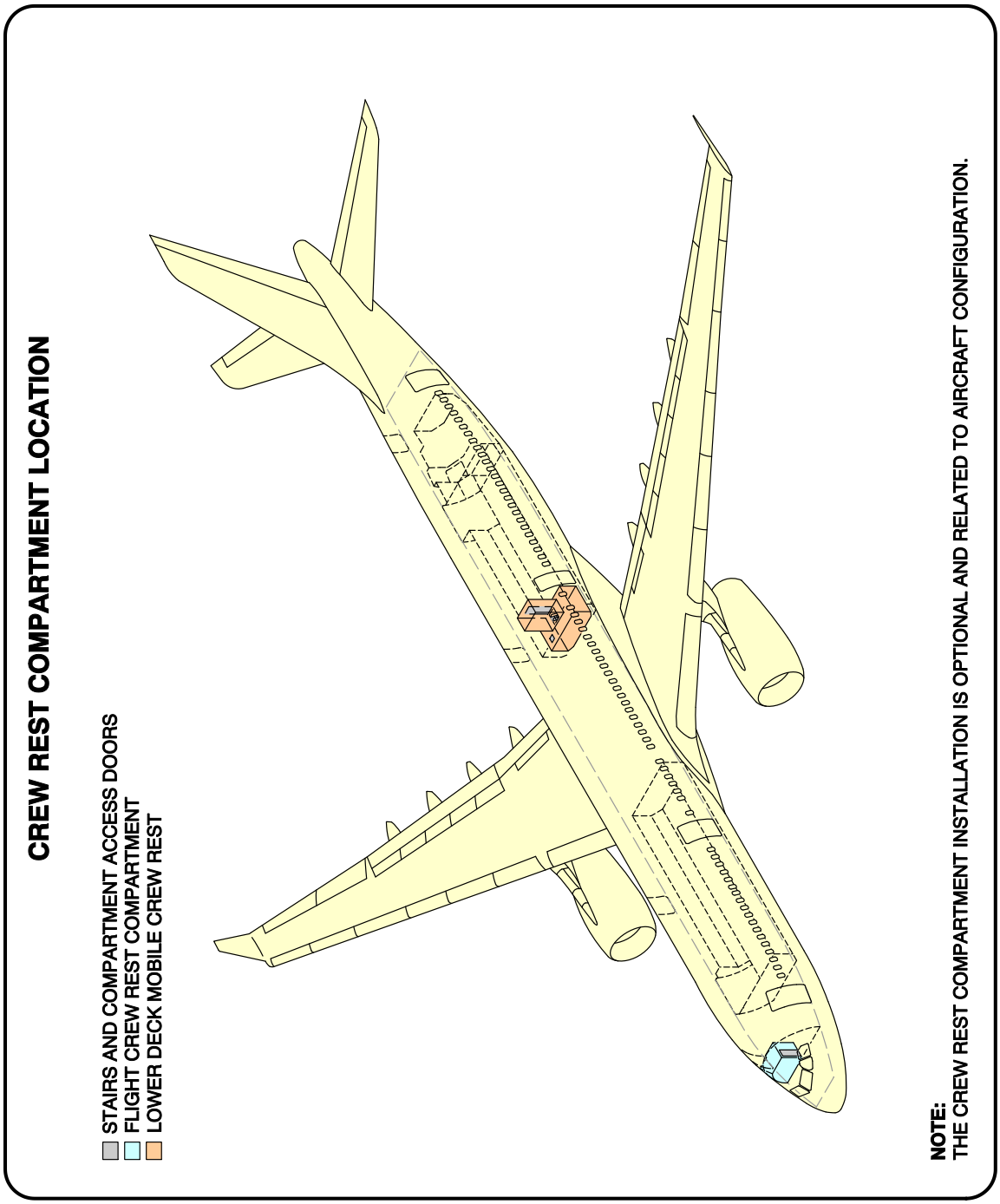
**ON A/C A330-200 A330-300




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Batteries Location and Access
FIGURE-10-0-0-991-067-A01

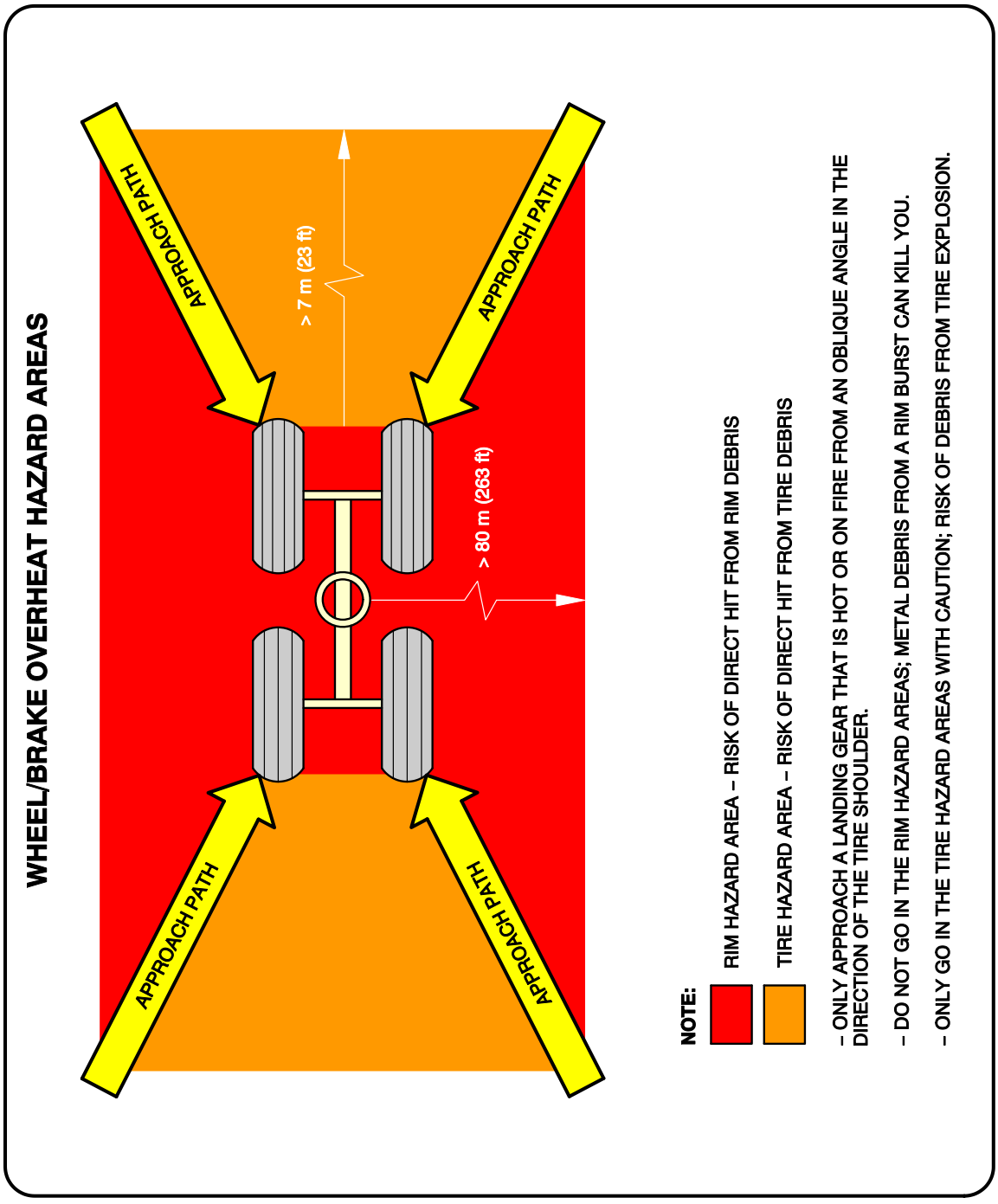
**ON A/C A330-200 A330-300




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Crew Rest Compartments Location
FIGURE-10-0-0-991-003-A01

**ON A/C A330-200 A330-300




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Wheel/Brake Overheat
Wheel Safety Area (Sheet 1 of 2)
FIGURE-10-0-0-991-004-A01

**ON A/C A330-200 A330-300

## BRAKE OVERHEAT AND LANDING GEAR FIRE

**WARNING:** BE VERY CAREFUL WHEN THERE IS A BRAKE OVERHEAT AND/OR LANDING GEAR FIRE.
THERE IS A RISK OF TIRE EXPLOSION AND/OR WHEEL RIM BURST THAT CAN CAUSE DEATH OR INJURY.
MAKE SURE THAT YOU OBEY THE SAFETY PRECAUTIONS THAT FOLLOW.

THE PROCEDURES THAT FOLLOW GIVE RECOMMENDATIONS AND SAFETY PRECAUTIONS FOR THE COOLING OF VERY HOT BRAKES AFTER ABNORMAL OPERATIONS SUCH AS A REJECTED TAKE–OFF OR OVERWEIGHT LANDING. FOR THE COOLING OF BRAKES AFTER NORMAL TAXI–IN, REFER TO YOUR COMPANY PROCEDURES.

BRAKE OVERHEAT:

1 – GET THE BRAKE TEMPERATURE FROM THE COCKPIT OR USE A REMOTE MEASUREMENT TECHNIQUE.
THE REAL TEMPERATURE OF THE BRAKES CAN BE MUCH HIGHER THAN THE TEMPERATURE SHOWN ON THE ECAM.
**NOTE:** AT HIGH TEMPERATURES (>800°C), THERE IS A RISK OF WARPING OF THE LANDING GEAR STRUTS AND AXLES.

2 – APPROACH THE LANDING GEAR WITH EXTREME CAUTION AND FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. (REF FIG. WHEEL/BRAKE OVERHEAT HAZARD AREAS). IF POSSIBLE, STAY IN A VEHICLE.

3 – LOOK AT THE CONDITION OF THE TIRES:
IF THE TIRES ARE STILL INFLATED (FUSE PLUGS NOT MELTED), THERE IS A RISK OF TIRE EXPLOSION AND RIM BURST.
DO NOT USE COOLING FANS BECAUSE THEY CAN PREVENT OPERATION OF THE FUSE PLUGS.

4 – USE WATER MIST TO DECREASE THE TEMPERATURE OF THE COMPLETE WHEEL AND BRAKE ASSEMBLY.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.
DO NOT APPLY WATER, FOAM OR CO2. THESE COOLING AGENTS (AND ESPECIALLY CO2, WHICH HAS A VERY STRONG COOLING EFFECT) CAN CAUSE THERMAL SHOCKS AND BURST OF HOT PARTS.

LANDING GEAR FIRE:

**CAUTION:** AIRBUS RECOMMENDS THAT YOU DO NOT USE DRY POWDERS OR DRY CHEMICALS ON HOT BRAKES OR TO EXTINGUISH LANDING GEAR FIRES. THESE AGENTS CAN CHANGE INTO SOLID OR ENAMELED DEPOSITS. THEY CAN DECREASE THE SPEED OF HEAT DISSIPATION WITH A POSSIBLE RISK OF PERMANENT STRUCTURAL DAMAGE TO THE BRAKES, WHEELS OR WHEEL AXLES.

1 – IMMEDIATELY STOP THE FIRE:

A) APPROACH THE LANDING GEAR WITH EXTREME CAUTION FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. IF POSSIBLE, STAY IN A VEHICLE.

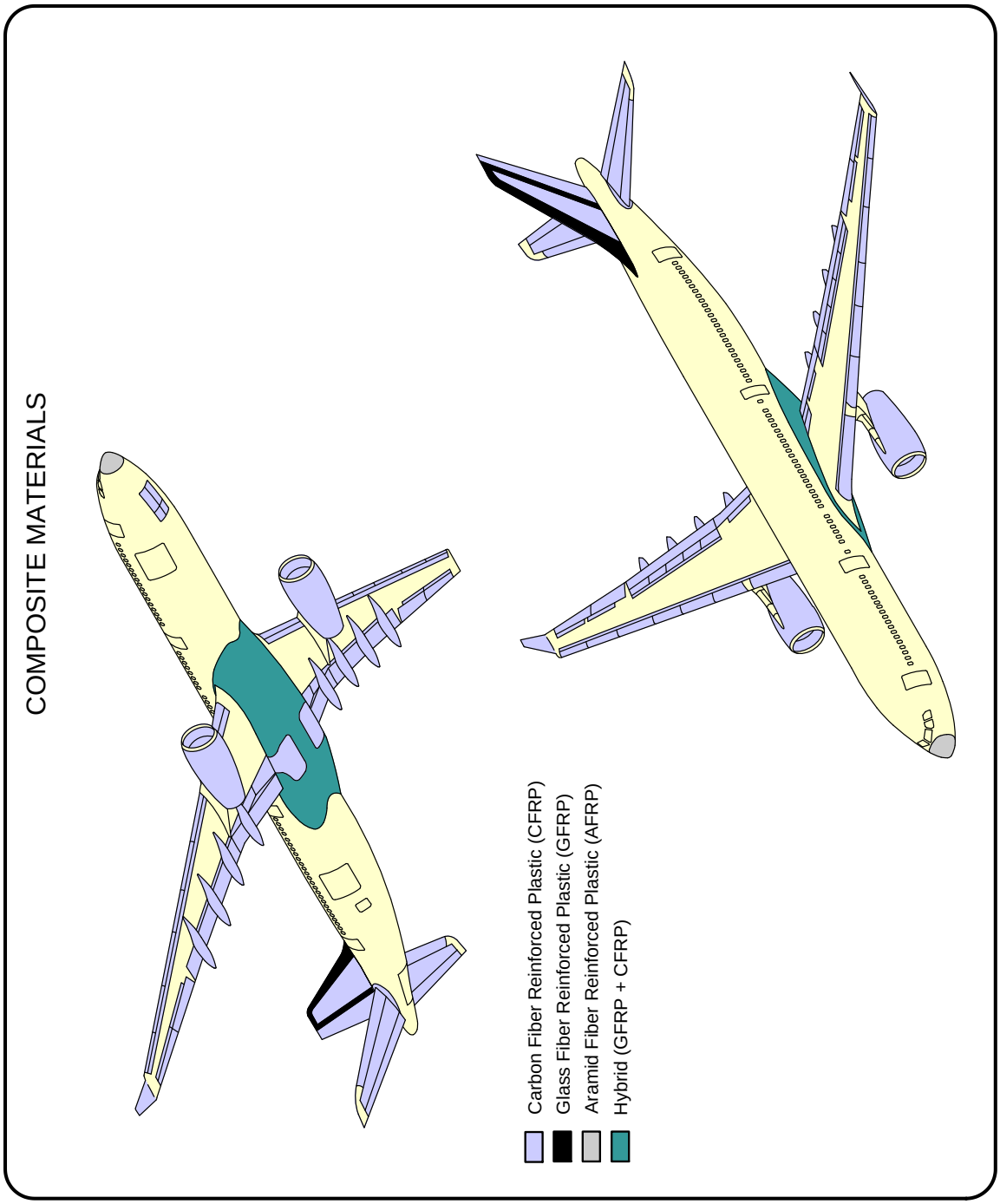
B) USE LARGE AMOUNTS OF WATER, WATER MIST; IF THE FUEL TANKS ARE AT RISK, USE FOAM.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.

C) DO NOT USE FANS OR BLOWERS.

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Wheel/Brake Overheat
Recommendations (Sheet 2 of 2)
FIGURE-10-0-0-991-004-A01

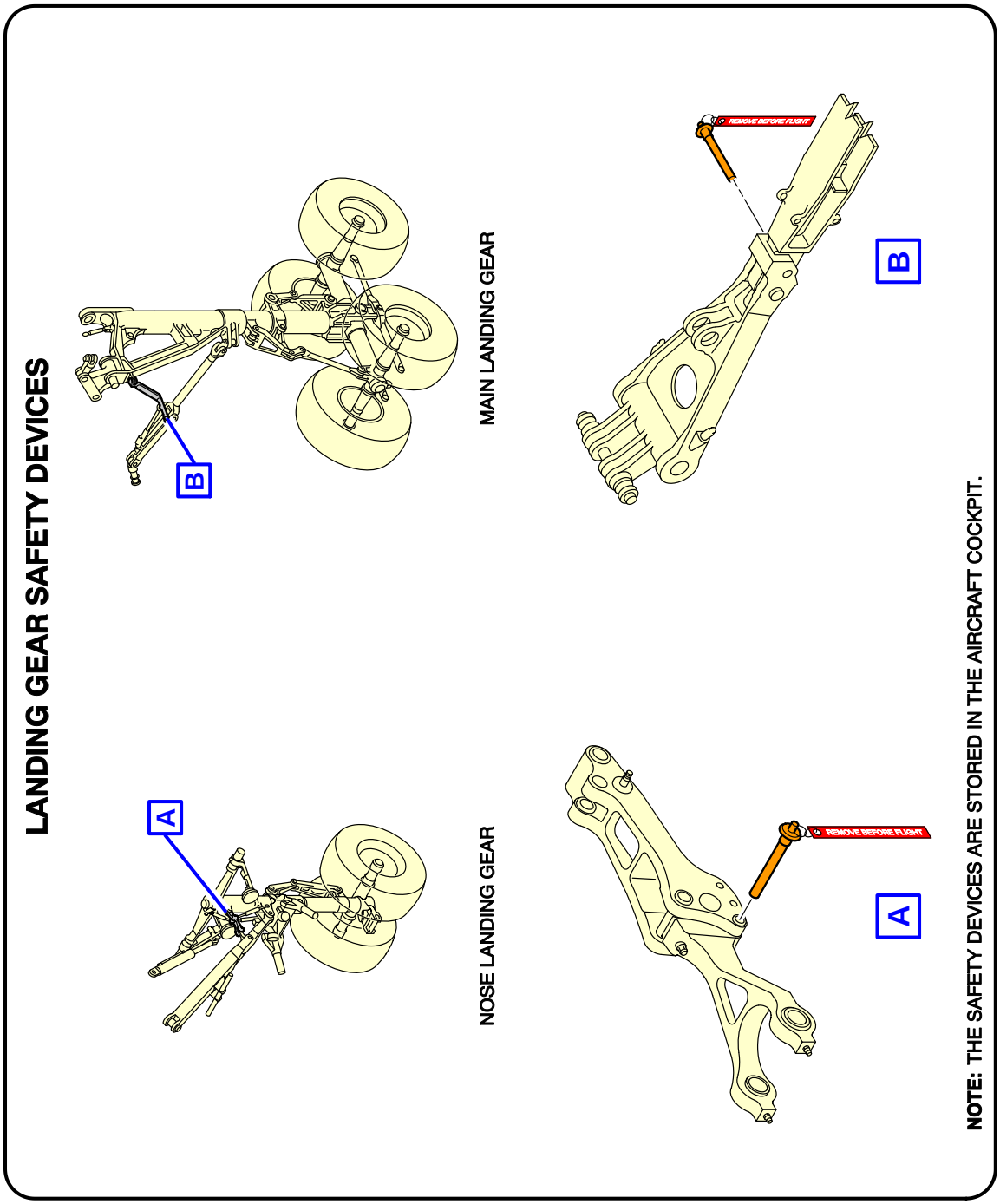
**ON A/C A330-200 A330-300




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Composite Materials Location
FIGURE-10-0-0-991-005-A01

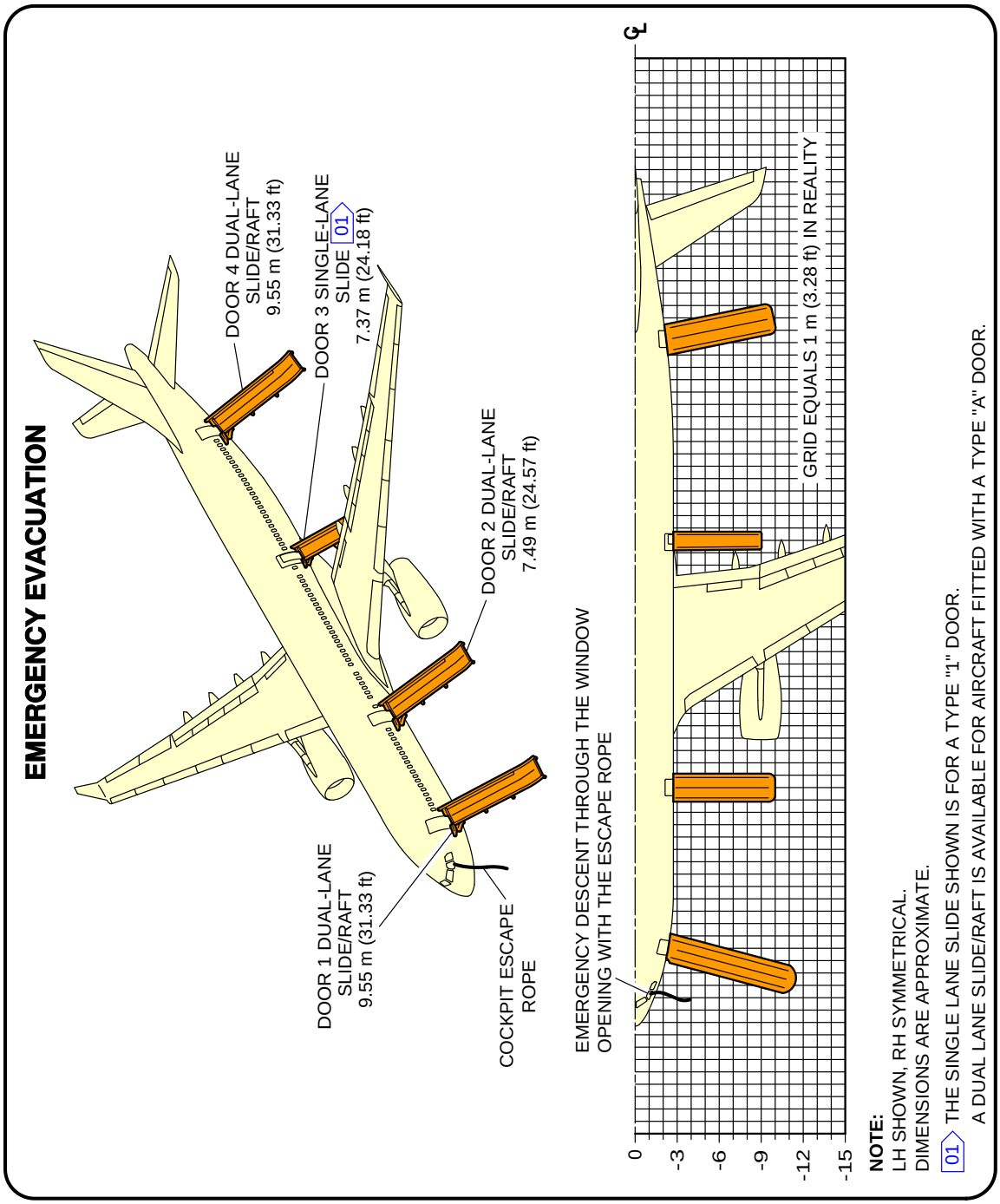
**ON A/C A330-200 A330-300




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Ground Lock Safety Devices
FIGURE-10-0-0-991-006-A01

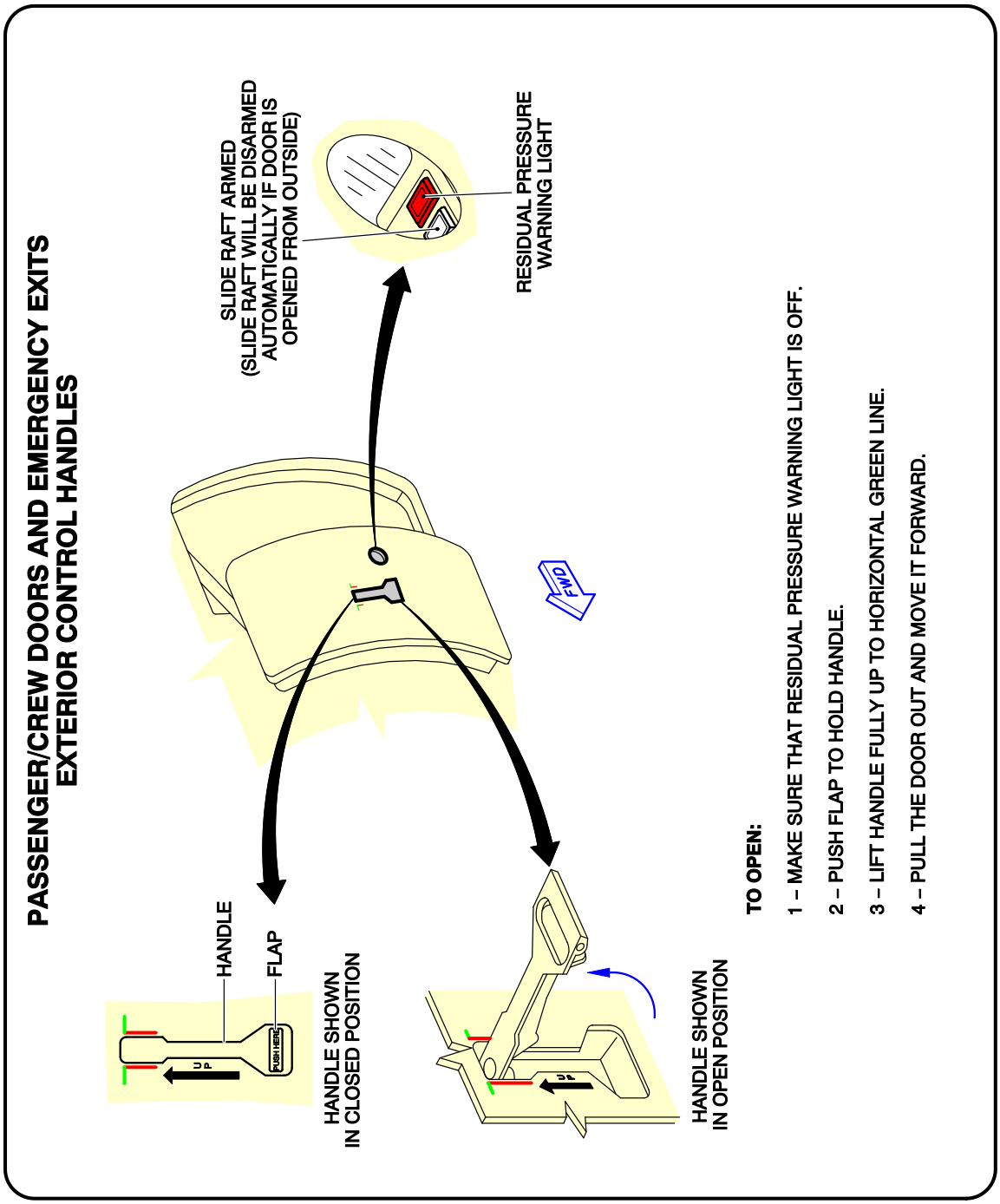
**ON A/C A330-200 A330-300




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Emergency Evacuation Devices
FIGURE-10-0-0-991-007-A01

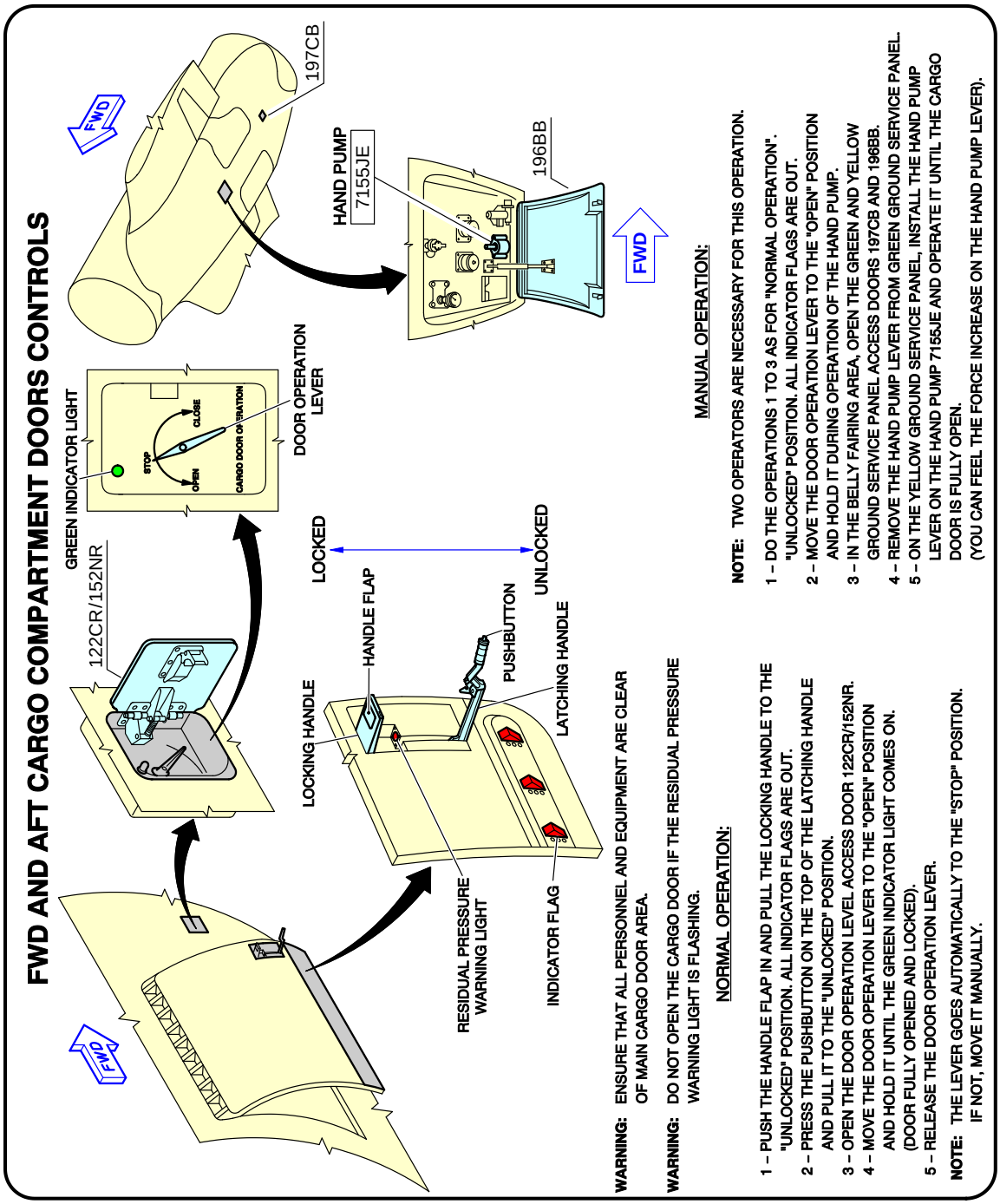
**ON A/C A330-200 A330-300




F_AC_100000_1_0080101_01_00

Pax/Crew Doors and Emergency Exits
FIGURE-10-0-0-991-008-A01

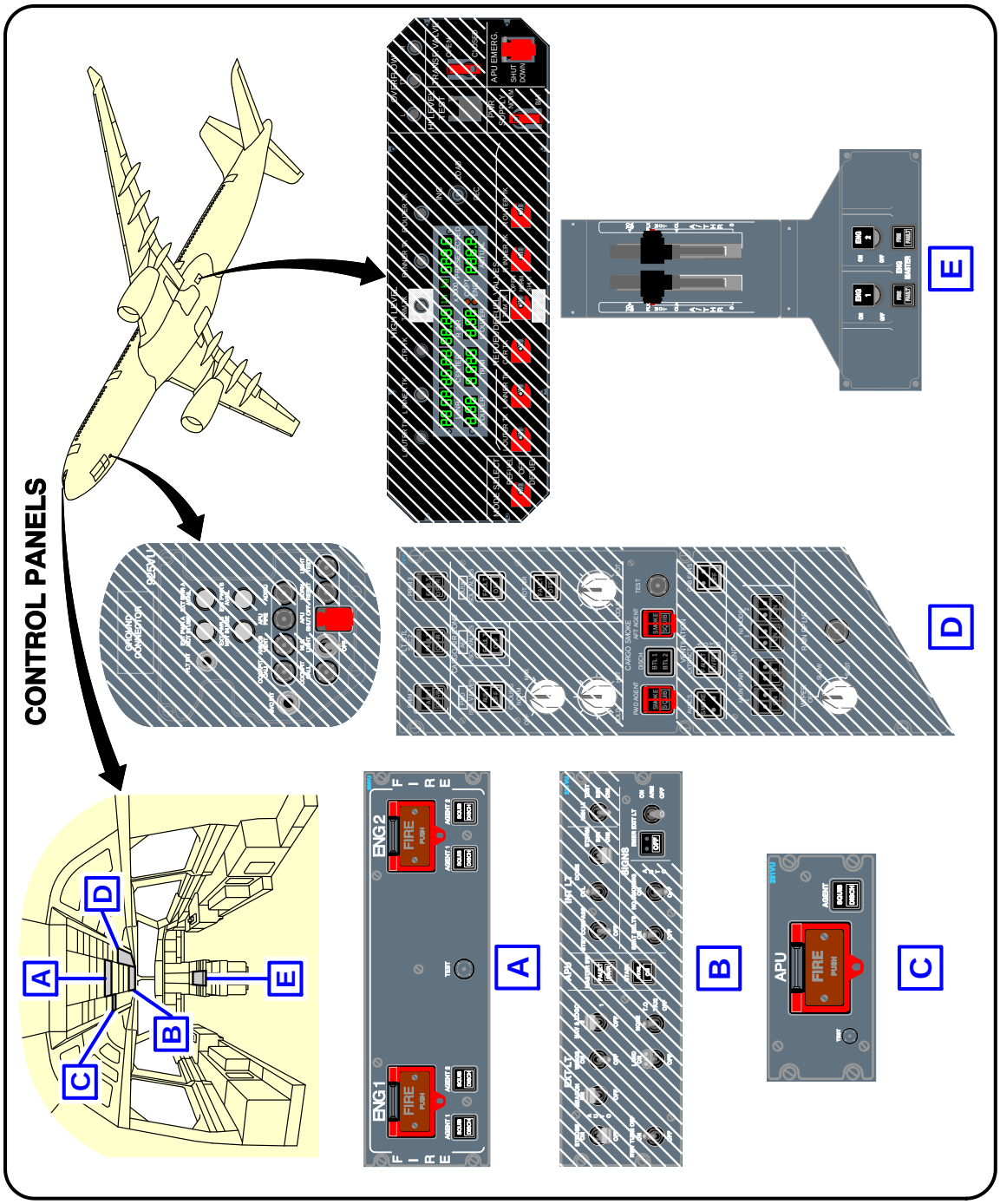
**ON A/C A330-200 A330-300




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FWD and AFT Lower Deck Cargo Doors
FIGURE-10-0-0-991-009-A01

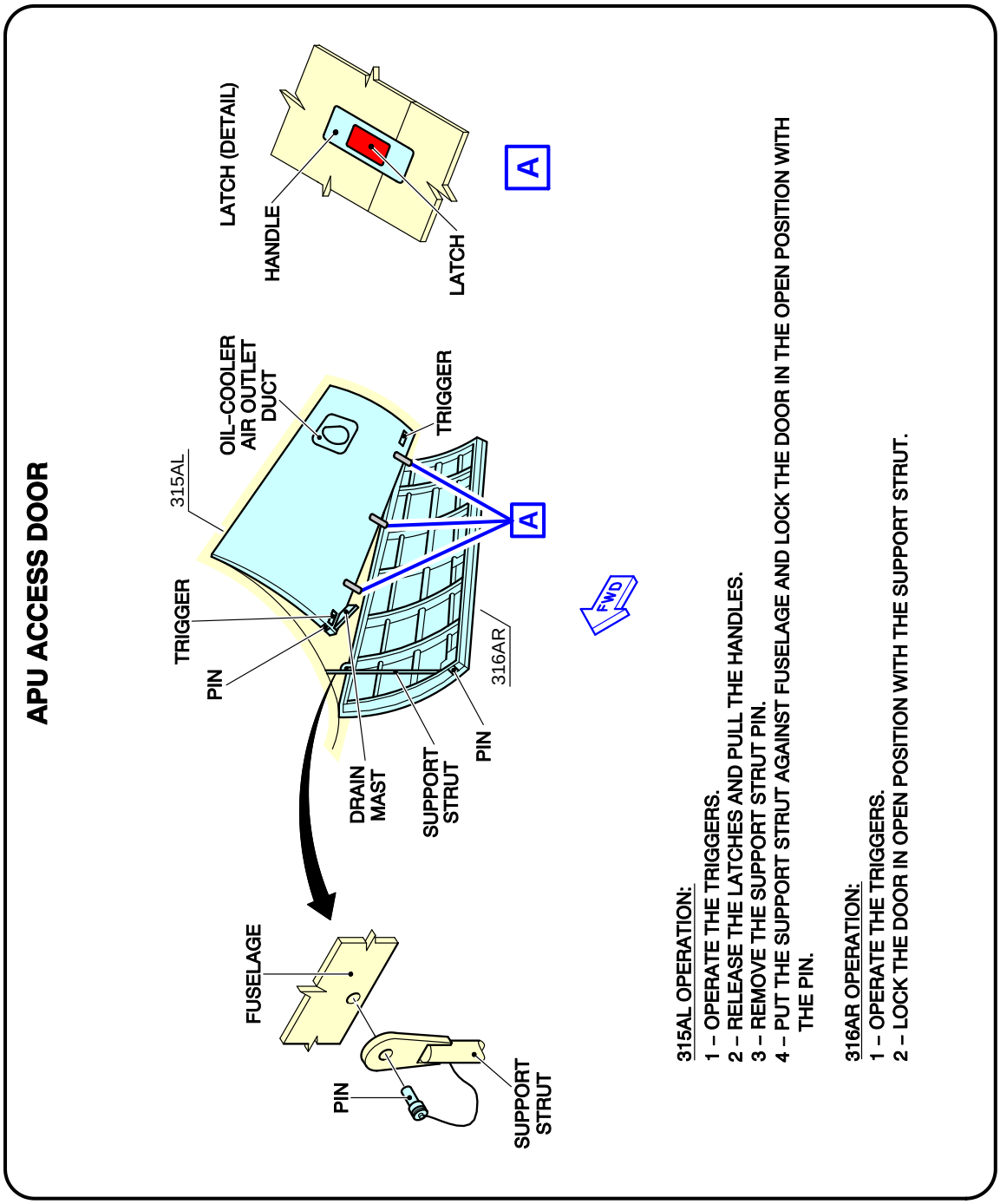
**ON A/C A330-200 A330-300




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Control Panels
FIGURE-10-0-0-991-010-A01

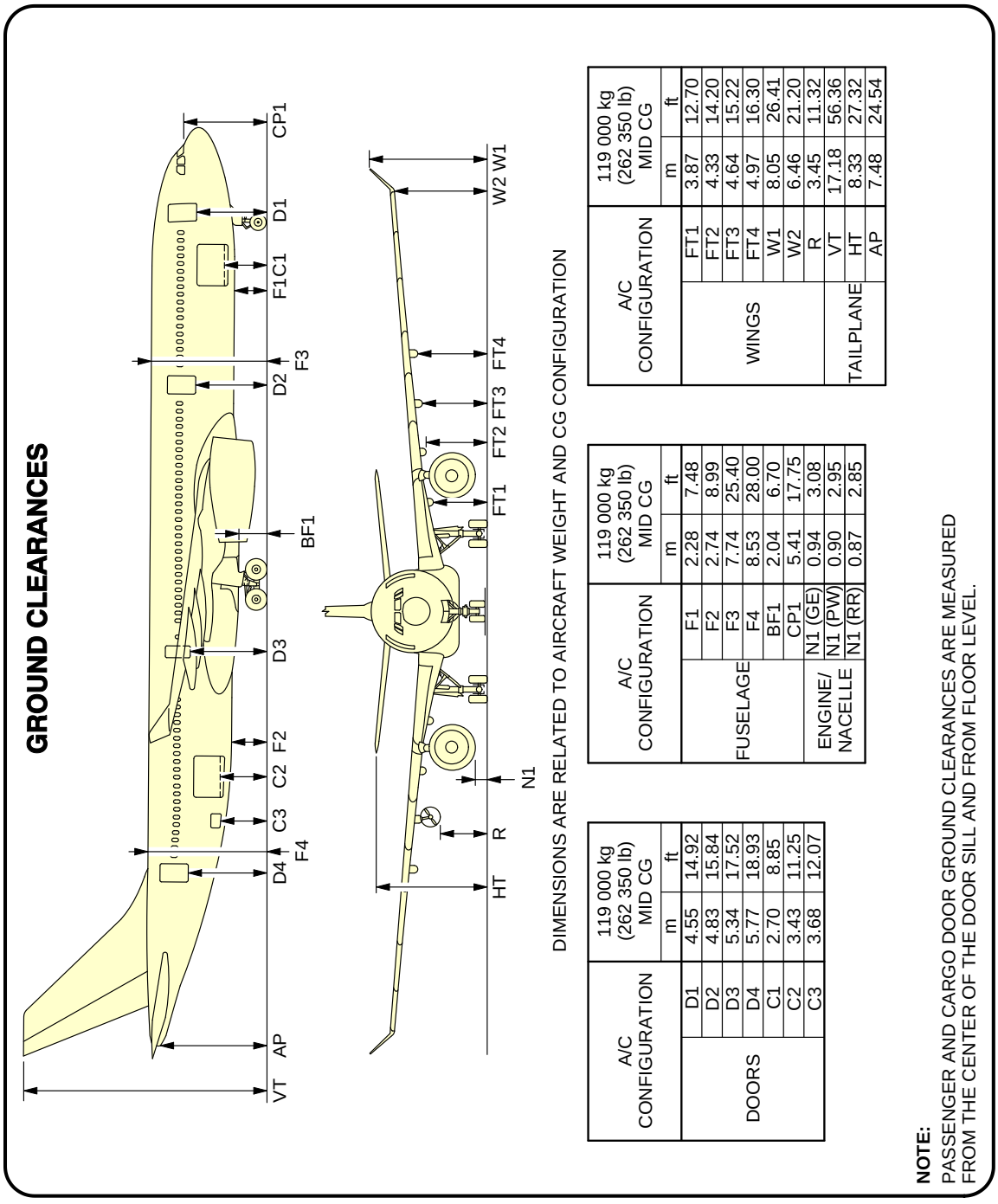
**ON A/C A330-200 A330-300




F_AC_100000_1_0110101_01_00

APU Compartment Access
FIGURE-10-0-0-991-011-A01

****ON A/C A330-200 A330-300**




| A/C CONFIGURATION | | 119 000 kg (262 350 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| DOORS | D1 | 4.55 | 14.92 |
| | D2 | 4.83 | 15.84 |
| | D3 | 5.34 | 17.52 |
| | D4 | 5.77 | 18.93 |
| | C1 | 2.70 | 8.85 |
| | C2 | 3.43 | 11.25 |
| | C3 | 3.68 | 12.07 |

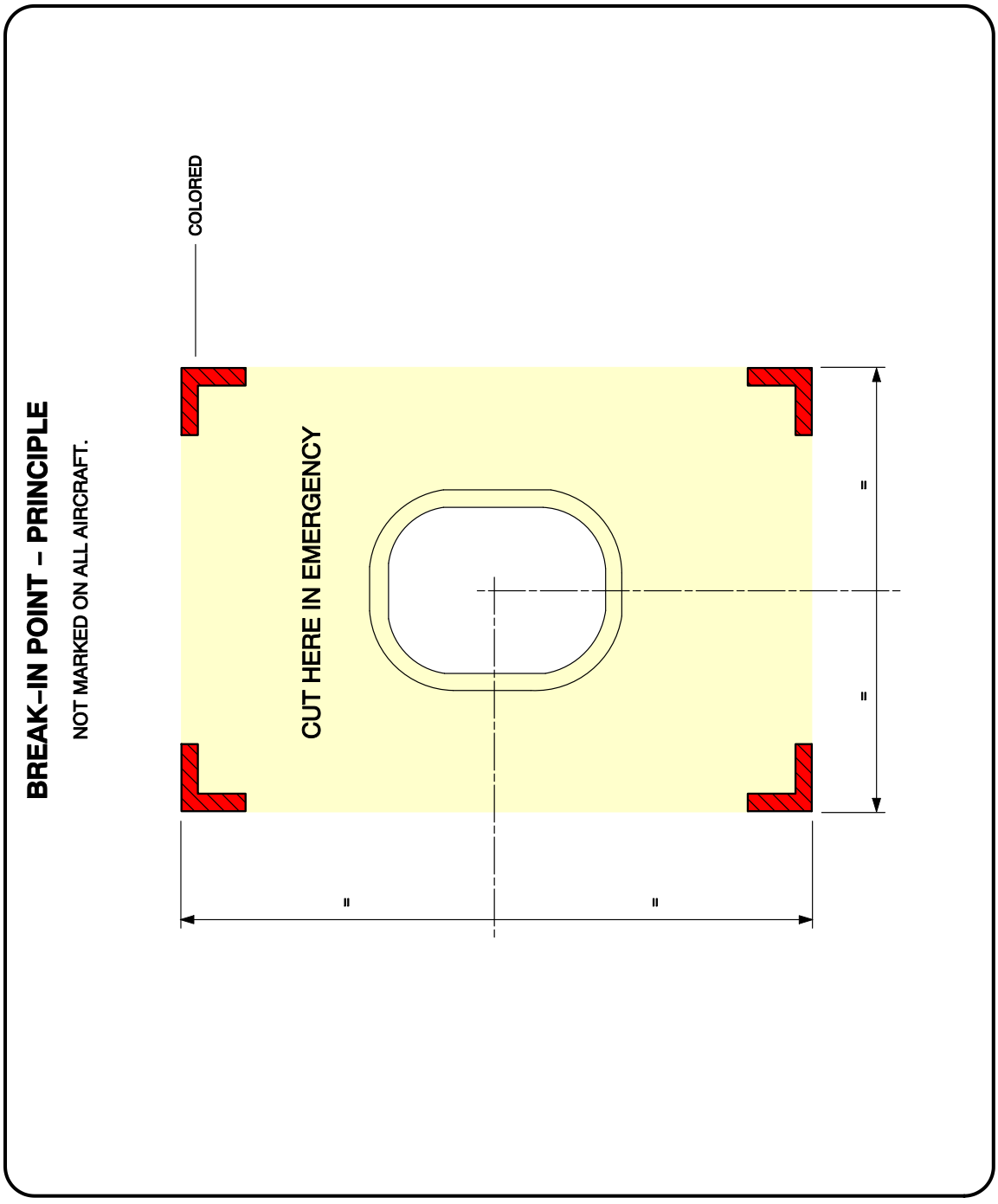
| A/C CONFIGURATION | | 119 000 kg (262 350 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| FUSELAGE | F1 | 2.28 | 7.48 |
| | F2 | 2.74 | 8.99 |
| | F3 | 7.74 | 25.40 |
| | F4 | 8.53 | 28.00 |
| | BF1 | 2.04 | 6.70 |
| | CP1 | 5.41 | 17.75 |
| ENGINE/ NACELLE | N1 (GE) | 0.94 | 3.08 |
| | N1 (PW) | 0.90 | 2.95 |
| | N1 (RR) | 0.87 | 2.85 |

| A/C CONFIGURATION | | 119 000 kg (262 350 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| WINGS | FT1 | 3.87 | 12.70 |
| | FT2 | 4.33 | 14.20 |
| | FT3 | 4.64 | 15.22 |
| | FT4 | 4.97 | 16.30 |
| | W1 | 8.05 | 26.41 |
| | W2 | 6.46 | 21.20 |
| | R | 3.45 | 11.32 |
| TAILPLANE | VT | 17.18 | 56.36 |
| | HT | 8.33 | 27.32 |
| | AP | 7.48 | 24.54 |

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Ground Clearances
FIGURE-10-0-0-991-012-A01

**ON A/C A330-200 A330-300




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Structural Break-in Points
FIGURE-10-0-0-991-013-A01

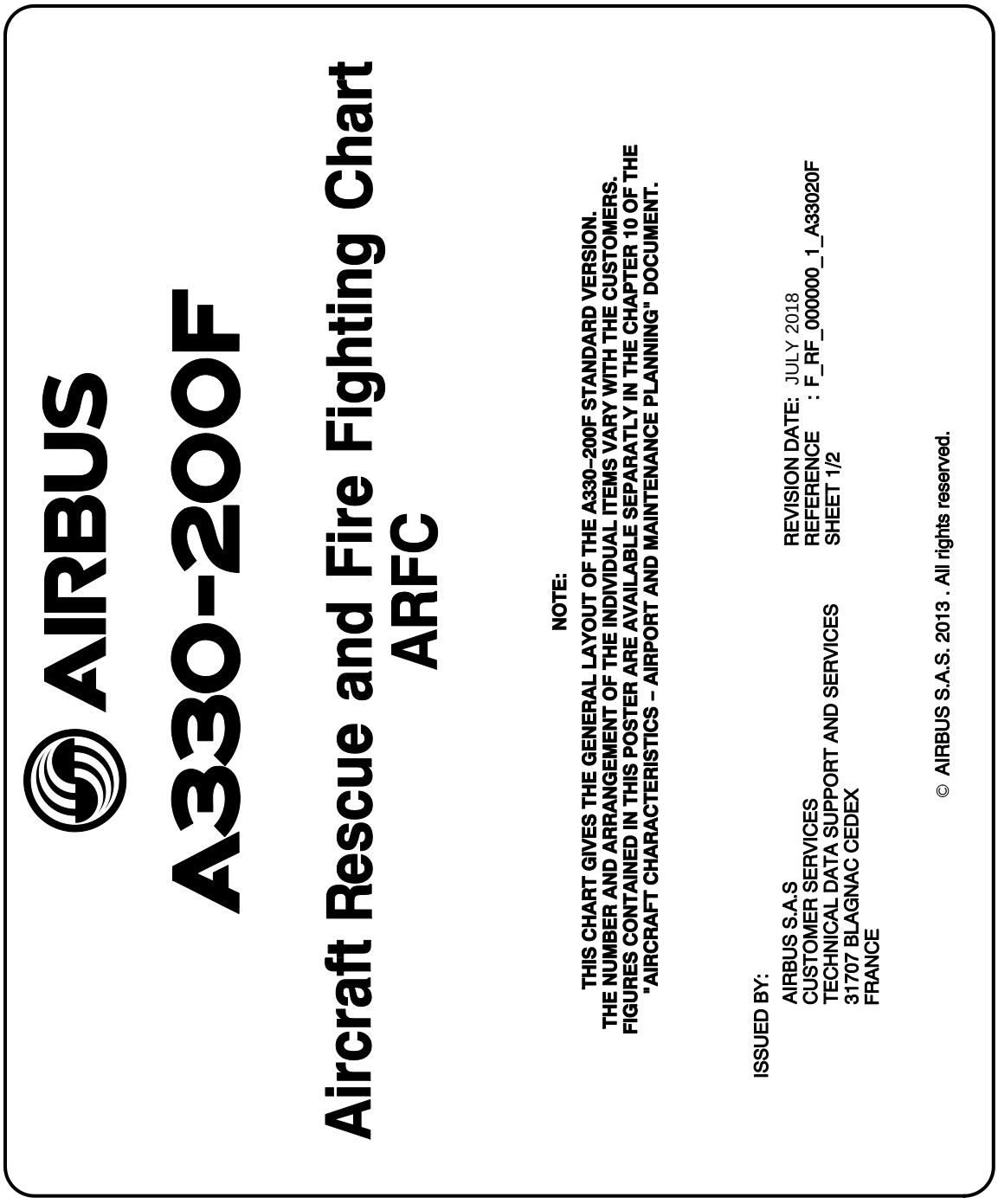
****ON A/C A330-200F**

Aircraft Rescue and Fire Fighting

1. Aircraft Rescue and Fire Fighting Charts

   This sections provides data related to aircraft rescue and fire fighting.
   The figures contained in this section are the figures that are in the Aircraft Rescue and Fire Fighting Charts poster available for download on AIRBUSWorld and the Airbus website.

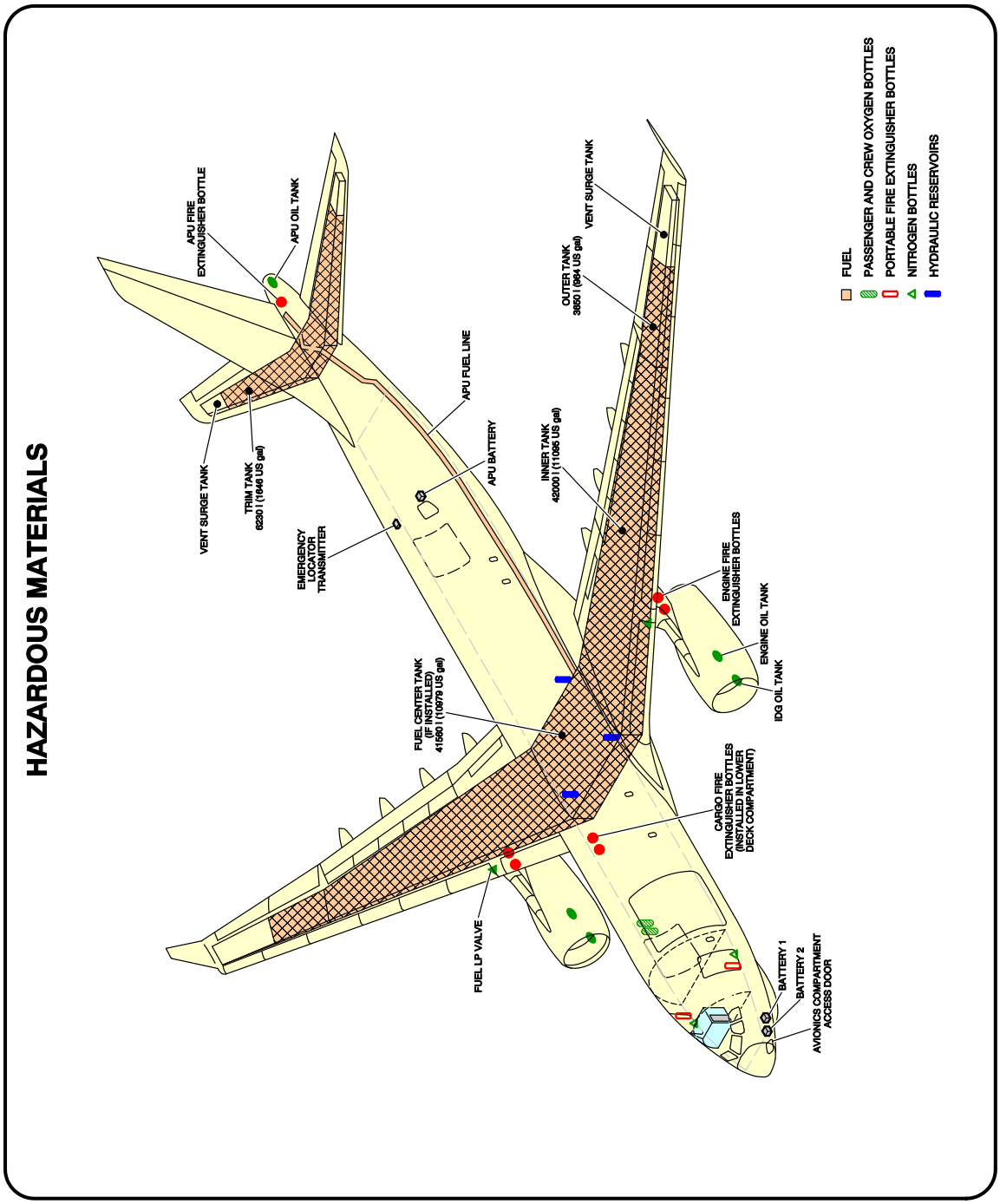
**ON A/C A330-200F




F_AC_100000_1_0140101_01_04

Front Page
FIGURE-10-0-0-991-014-A01

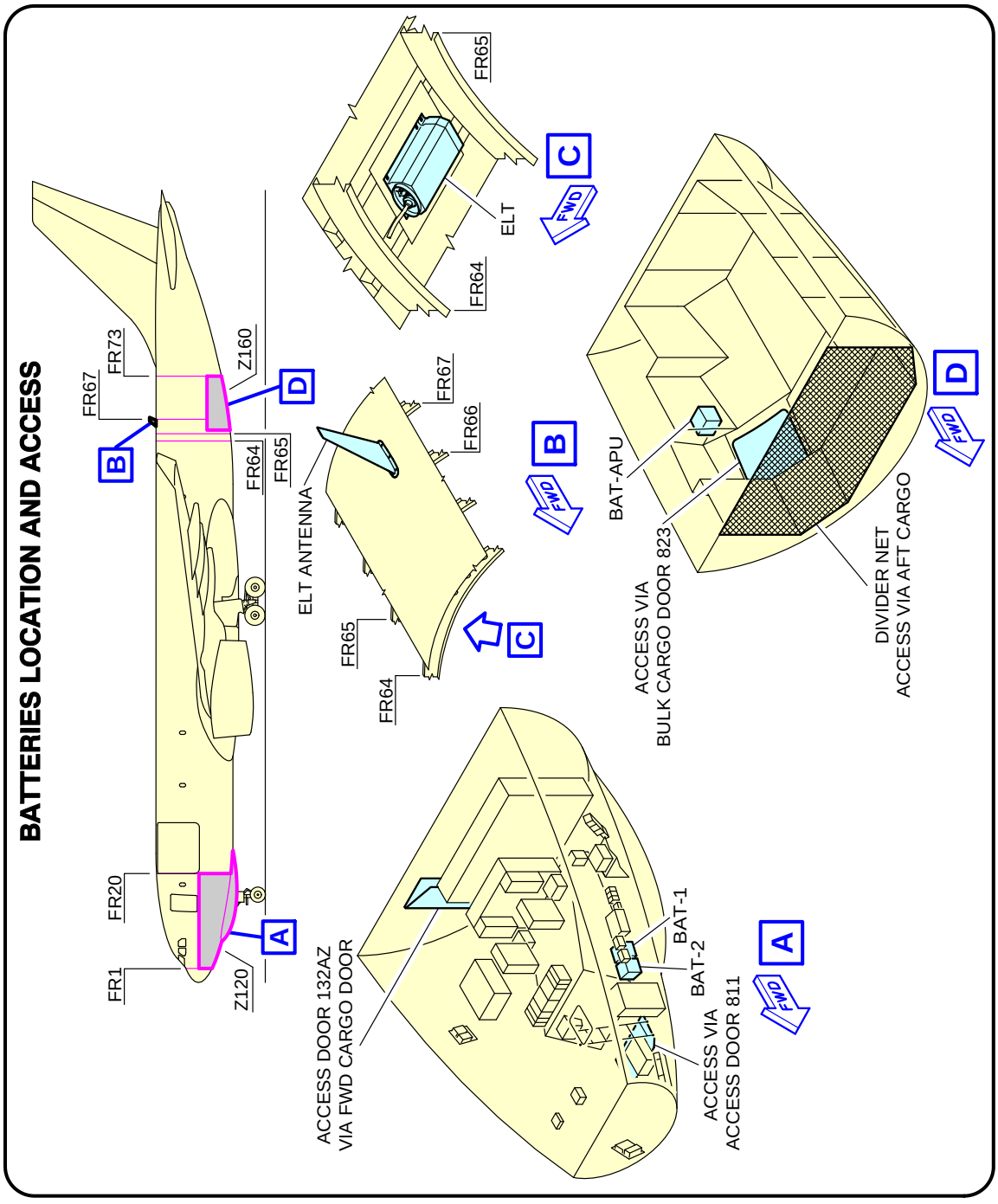
**ON A/C A330-200F




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Highly Flammable and Hazardous Materials and Components
FIGURE-10-0-0-991-015-A01

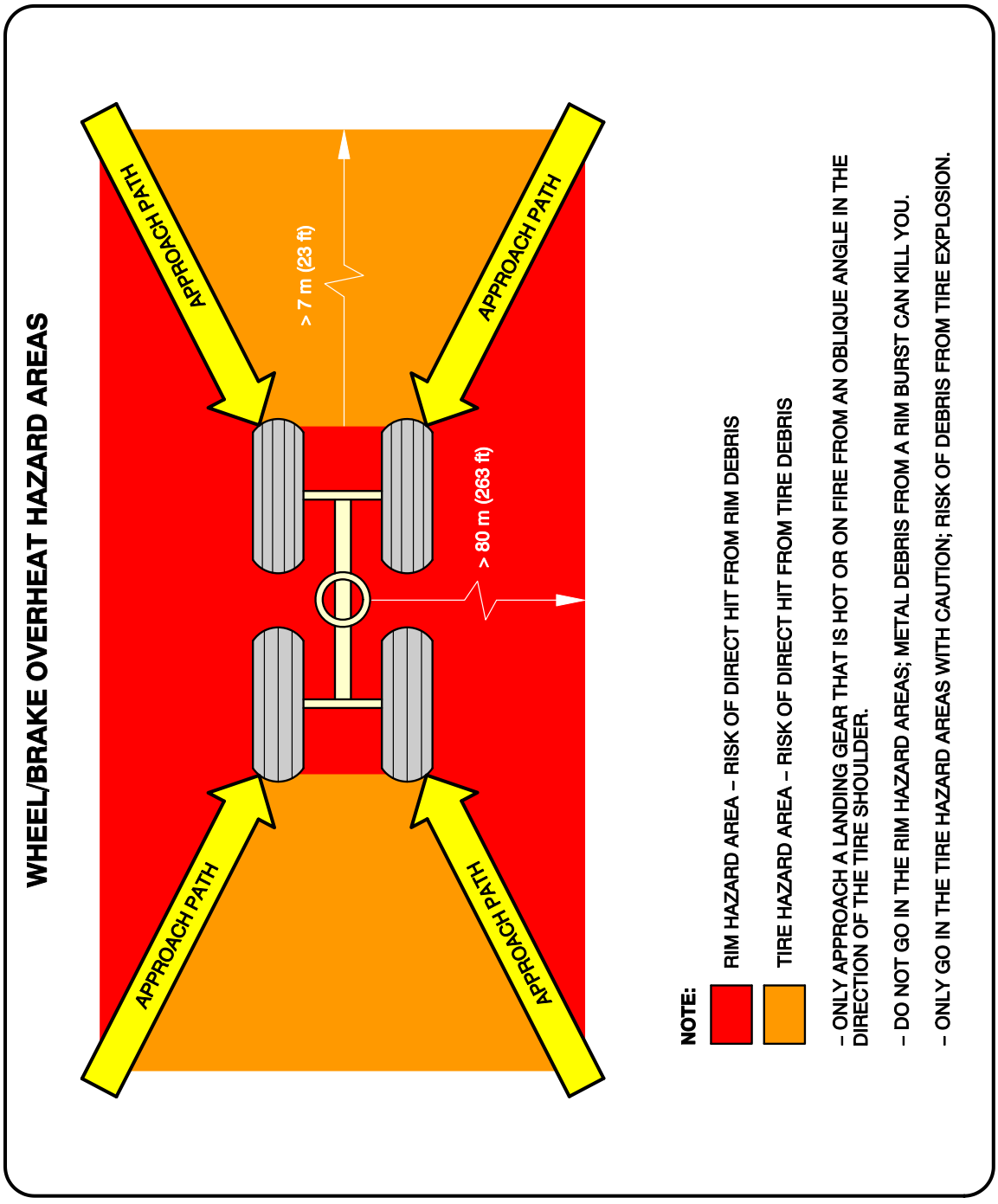
**ON A/C A330-200F




F_AC_100000_1_0680101_01_01

Batteries Location and Access
FIGURE-10-0-0-991-068-A01

**ON A/C A330-200F




F_AC_100000_1_0160101_01_00

Wheel/Brake Overheat
Wheel Safety Area (Sheet 1 of 2)
FIGURE-10-0-0-991-016-A01

**ON A/C A330-200F

## BRAKE OVERHEAT AND LANDING GEAR FIRE

**WARNING:** BE VERY CAREFUL WHEN THERE IS A BRAKE OVERHEAT AND/OR LANDING GEAR FIRE.
THERE IS A RISK OF TIRE EXPLOSION AND/OR WHEEL RIM BURST THAT CAN CAUSE DEATH OR INJURY.
MAKE SURE THAT YOU OBEY THE SAFETY PRECAUTIONS THAT FOLLOW.

THE PROCEDURES THAT FOLLOW GIVE RECOMMENDATIONS AND SAFETY PRECAUTIONS FOR THE COOLING OF VERY HOT BRAKES AFTER ABNORMAL OPERATIONS SUCH AS A REJECTED TAKE–OFF OR OVERWEIGHT LANDING. FOR THE COOLING OF BRAKES AFTER NORMAL TAXI–IN, REFER TO YOUR COMPANY PROCEDURES.

BRAKE OVERHEAT:

1 – GET THE BRAKE TEMPERATURE FROM THE COCKPIT OR USE A REMOTE MEASUREMENT TECHNIQUE.
THE REAL TEMPERATURE OF THE BRAKES CAN BE MUCH HIGHER THAN THE TEMPERATURE SHOWN ON THE ECAM.
**NOTE:** AT HIGH TEMPERATURES (>800°C), THERE IS A RISK OF WARPING OF THE LANDING GEAR STRUTS AND AXLES.

2 – APPROACH THE LANDING GEAR WITH EXTREME CAUTION AND FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. (REF FIG. WHEEL/BRAKE OVERHEAT HAZARD AREAS). IF POSSIBLE, STAY IN A VEHICLE.

3 – LOOK AT THE CONDITION OF THE TIRES:
IF THE TIRES ARE STILL INFLATED (FUSE PLUGS NOT MELTED), THERE IS A RISK OF TIRE EXPLOSION AND RIM BURST.
DO NOT USE COOLING FANS BECAUSE THEY CAN PREVENT OPERATION OF THE FUSE PLUGS.

4 – USE WATER MIST TO DECREASE THE TEMPERATURE OF THE COMPLETE WHEEL AND BRAKE ASSEMBLY.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.
DO NOT APPLY WATER, FOAM OR $CO_2$. THESE COOLING AGENTS (AND ESPECIALLY $CO_2$, WHICH HAS A VERY STRONG COOLING EFFECT) CAN CAUSE THERMAL SHOCKS AND BURST OF HOT PARTS.

LANDING GEAR FIRE:

**CAUTION:** AIRBUS RECOMMENDS THAT YOU DO NOT USE DRY POWDERS OR DRY CHEMICALS ON HOT BRAKES OR TO EXTINGUISH LANDING GEAR FIRES. THESE AGENTS CAN CHANGE INTO SOLID OR ENAMELED DEPOSITS. THEY CAN DECREASE THE SPEED OF HEAT DISSIPATION WITH A POSSIBLE RISK OF PERMANENT STRUCTURAL DAMAGE TO THE BRAKES, WHEELS OR WHEEL AXLES.

1 – IMMEDIATELY STOP THE FIRE:

A) APPROACH THE LANDING GEAR WITH EXTREME CAUTION FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. IF POSSIBLE, STAY IN A VEHICLE.

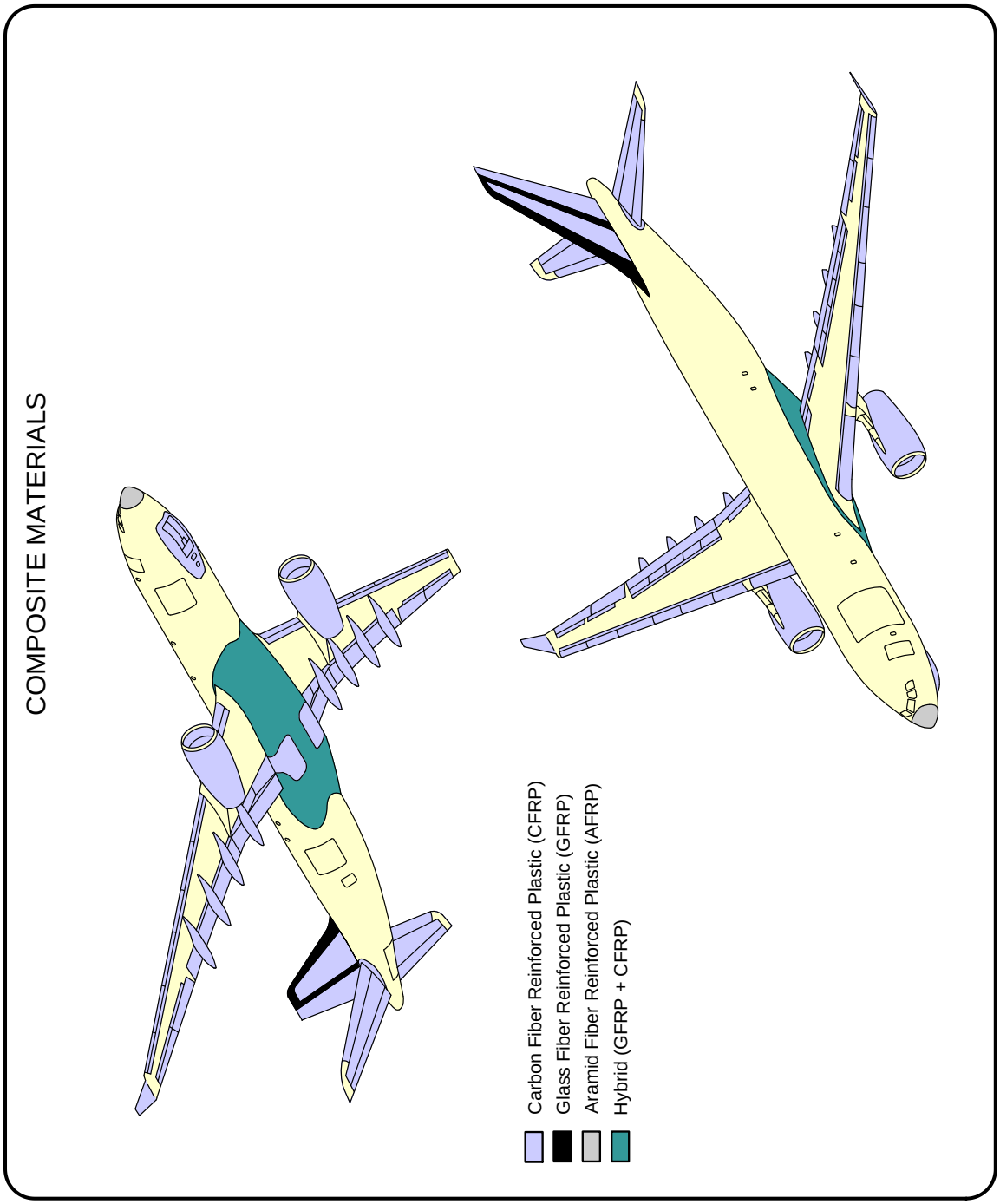
B) USE LARGE AMOUNTS OF WATER, WATER MIST; IF THE FUEL TANKS ARE AT RISK, USE FOAM.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.

C) DO NOT USE FANS OR BLOWERS.

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Wheel/Brake Overheat
Recommendations (Sheet 2 of 2)
FIGURE-10-0-0-991-016-A01

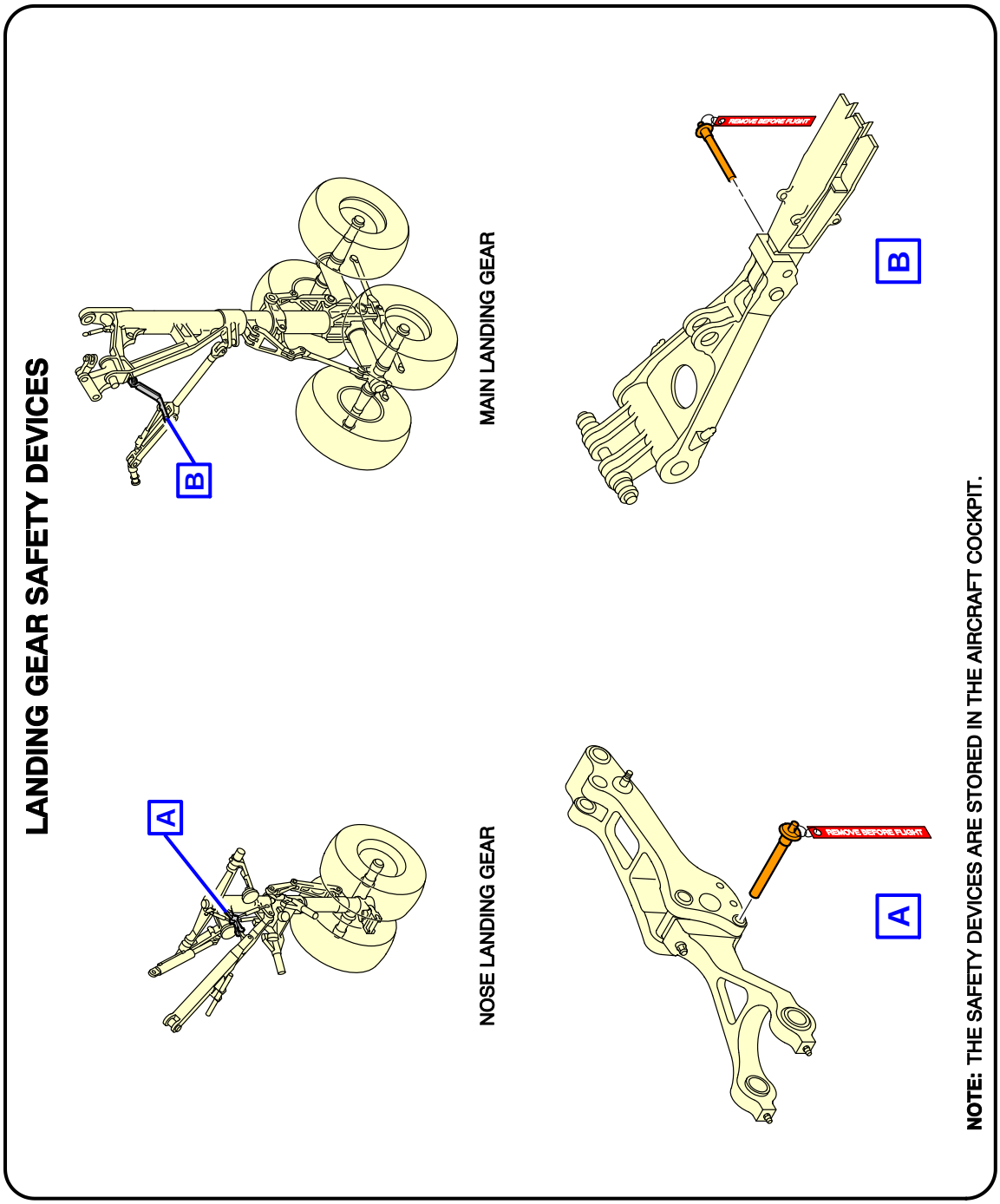
**ON A/C A330-200F




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Composite Materials Location
FIGURE-10-0-0-991-018-A01

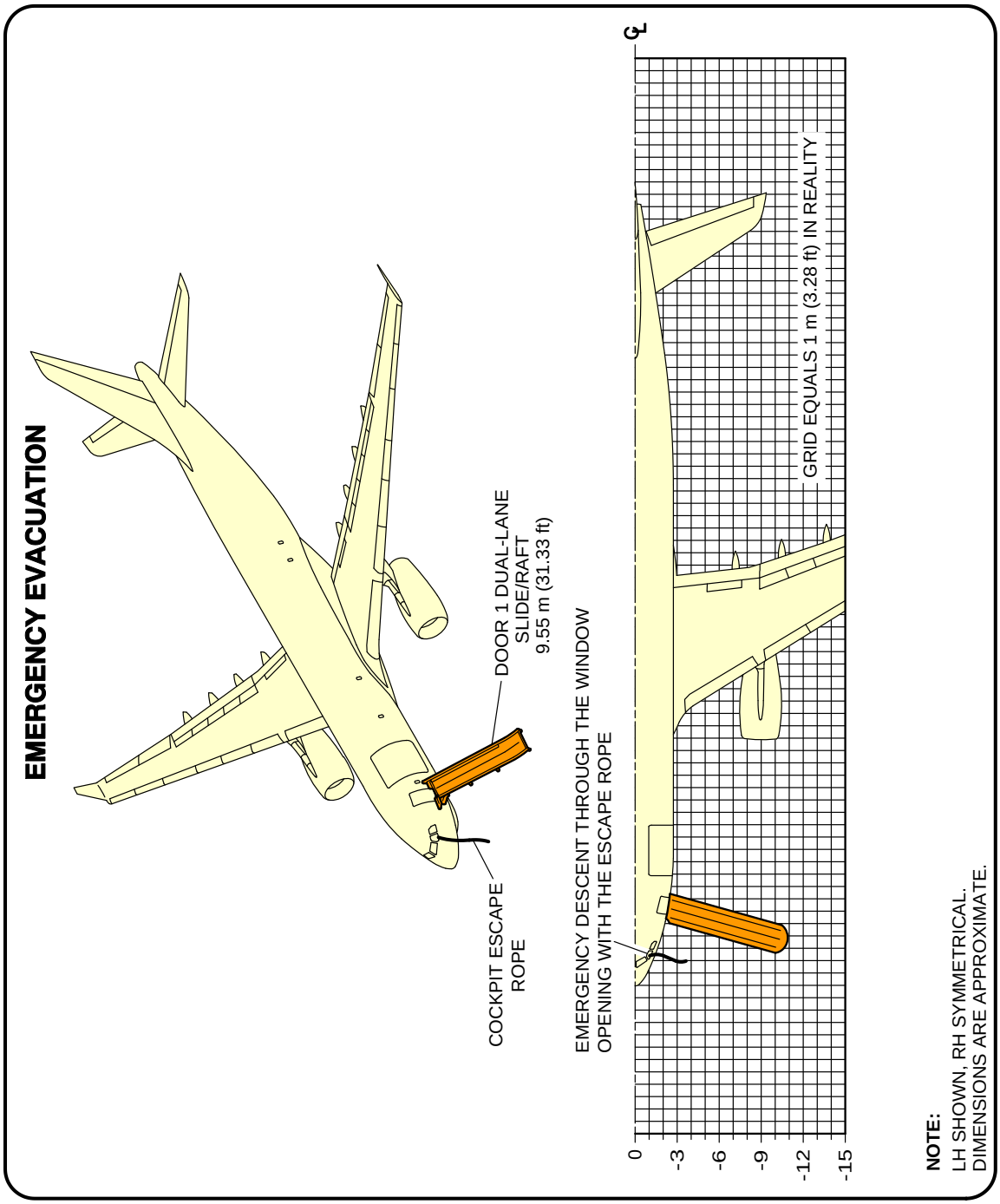
**ON A/C A330-200F




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Ground Lock Safety Devices
FIGURE-10-0-0-991-019-A01

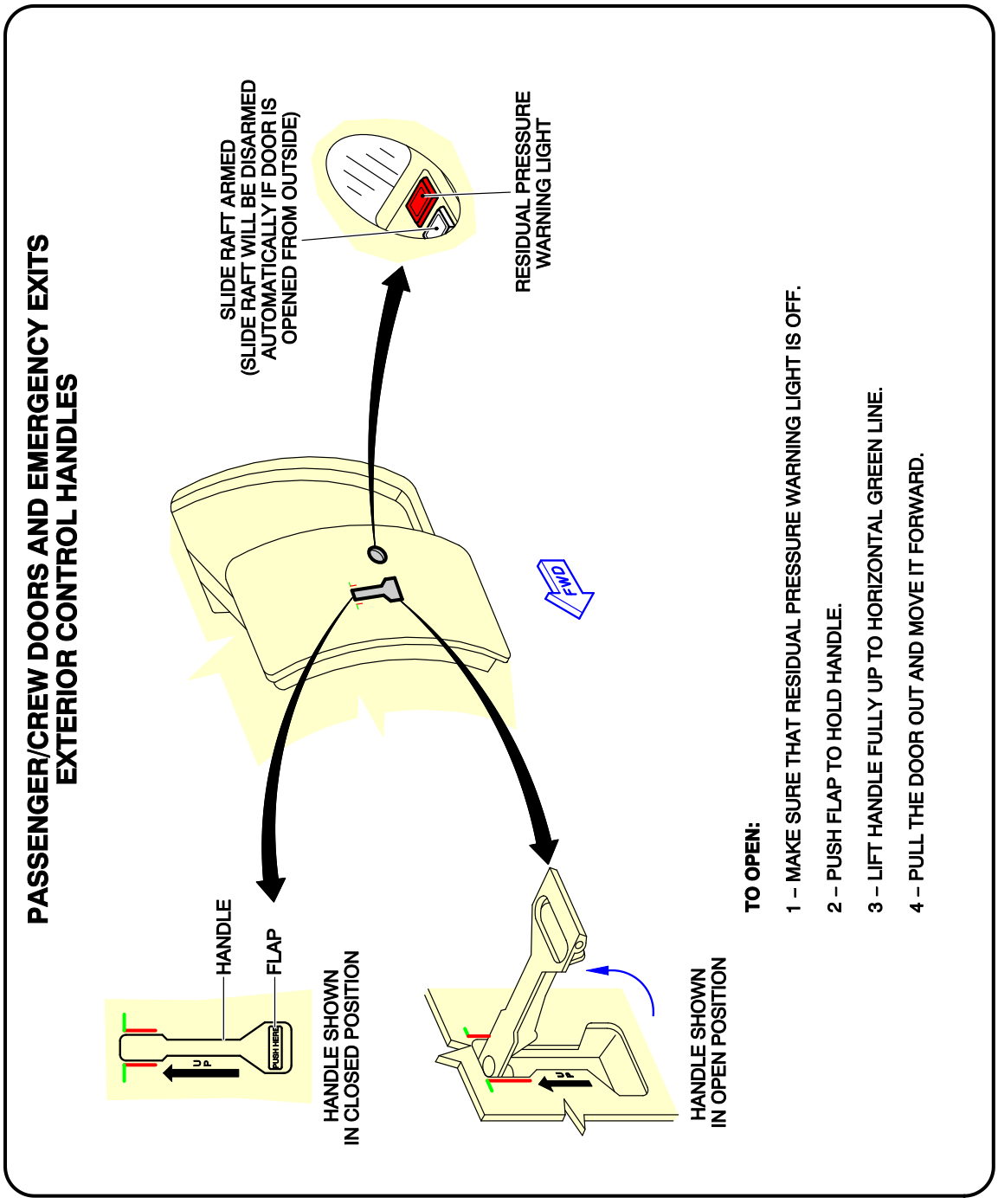
**ON A/C A330-200F




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Emergency Evacuation Devices
FIGURE-10-0-0-991-020-A01

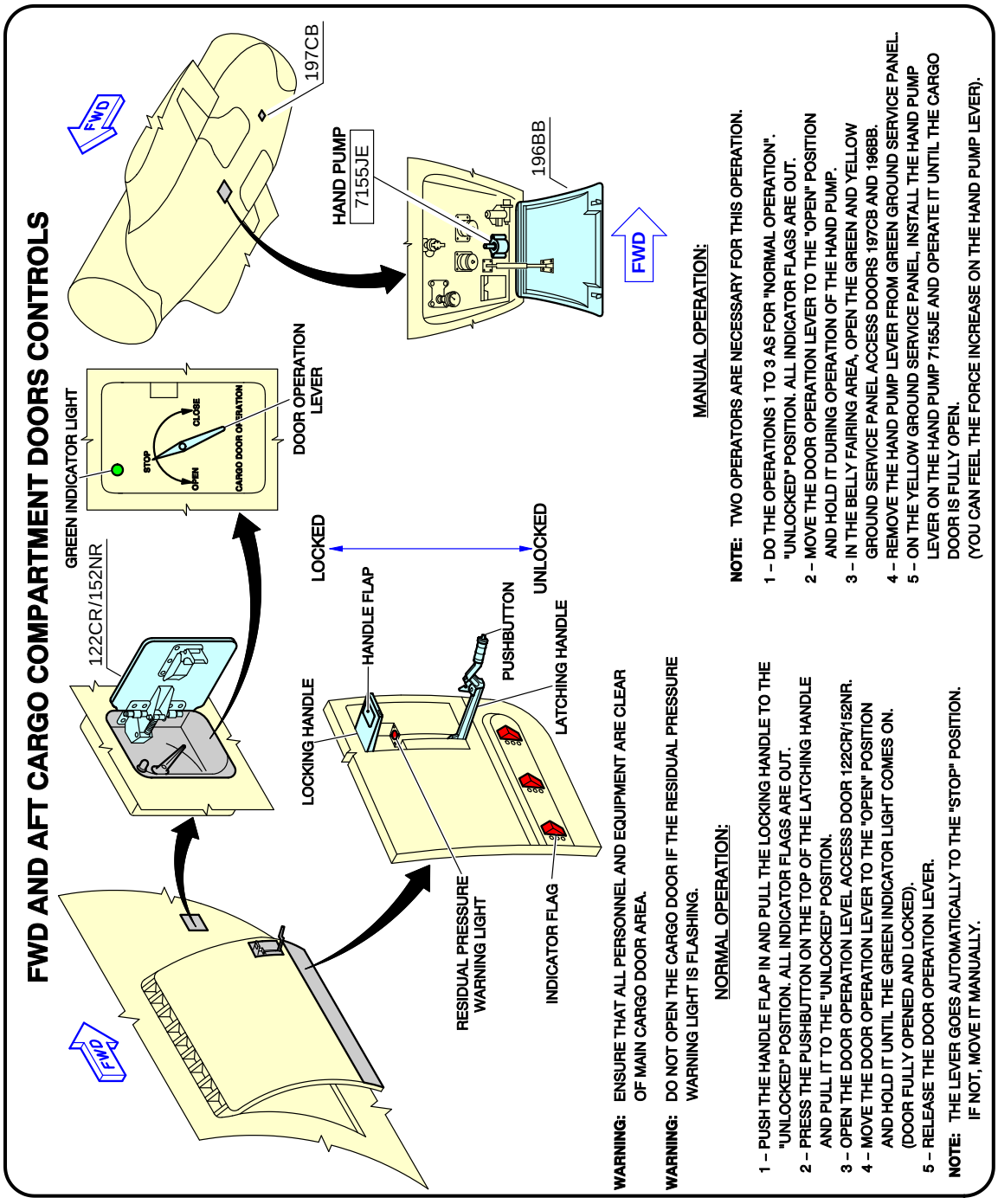
**ON A/C A330-200F




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Crew Doors and Emergency Exits
FIGURE-10-0-0-991-021-A01

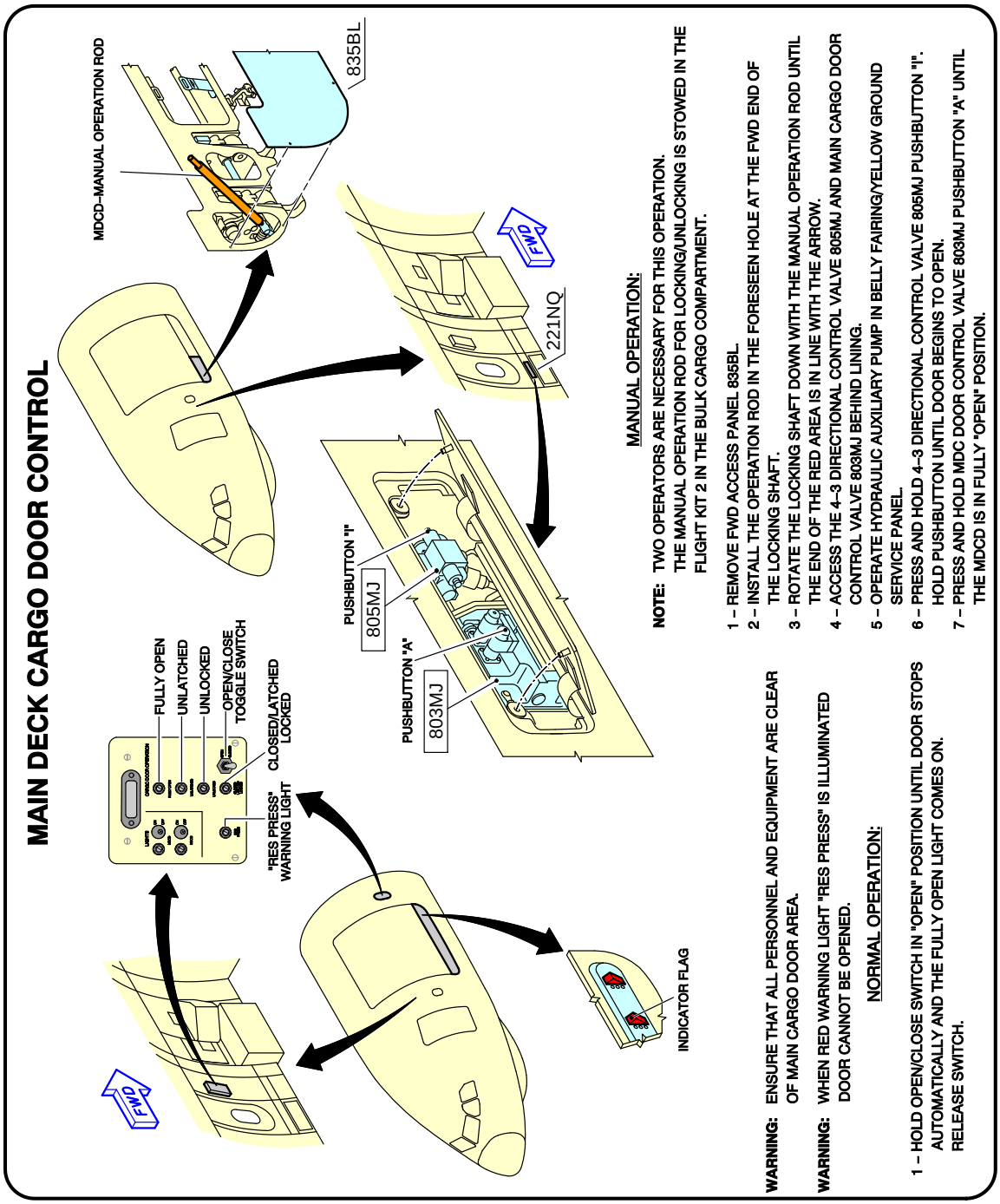
**ON A/C A330-200F




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Cargo Doors
FWD and AFT Lower Deck Compartments (Sheet 1 of 2)
FIGURE-10-0-0-991-022-A01

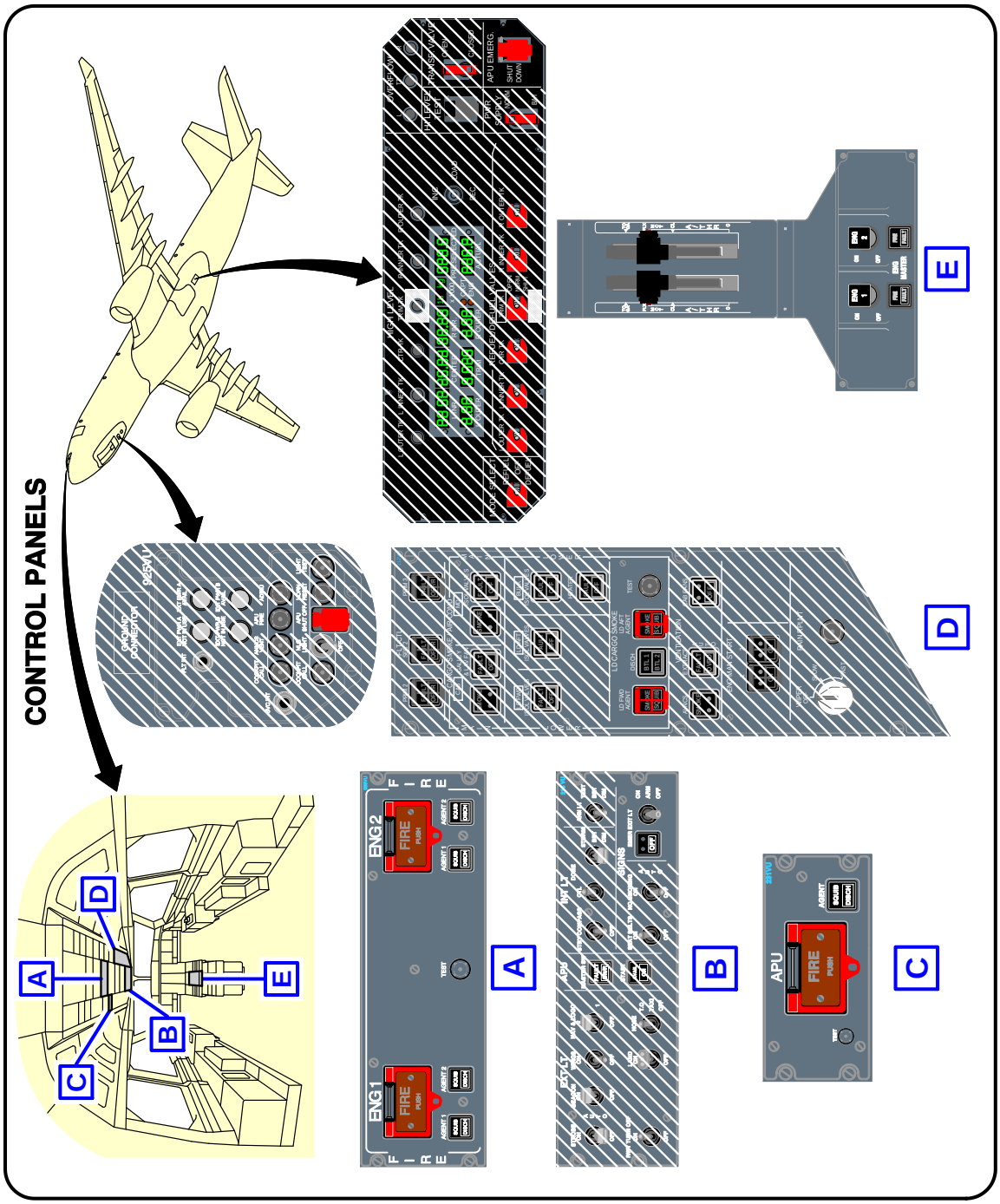
**ON A/C A330-200F




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Cargo Doors
Upper Deck Compartment (Sheet 2 of 2)
FIGURE-10-0-0-991-022-A01

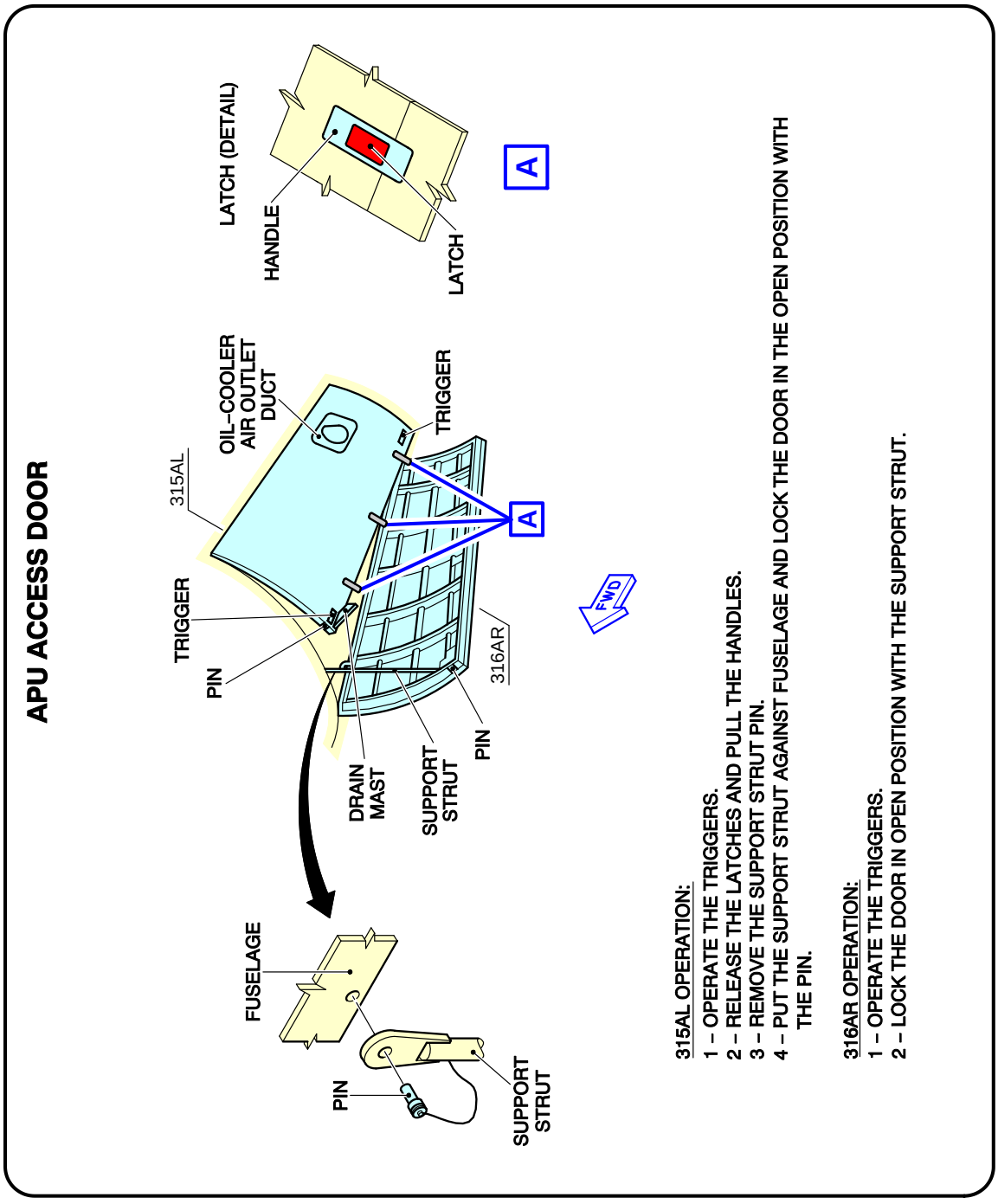
**ON A/C A330-200F




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Control Panels
FIGURE-10-0-0-991-023-A01

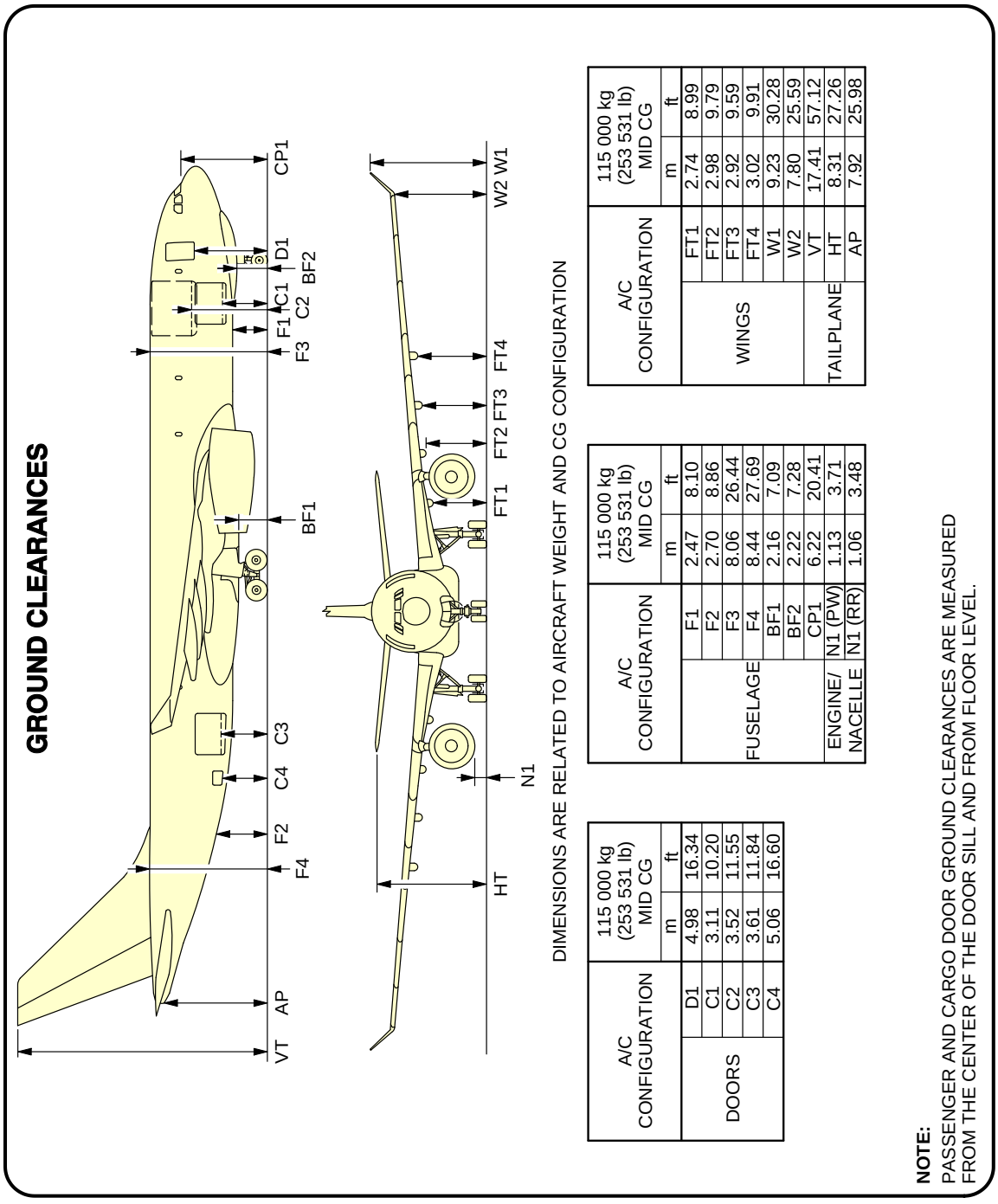
**ON A/C A330-200F




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APU Compartment Access
FIGURE-10-0-0-991-024-A01

****ON A/C A330-200F**




| A/C CONFIGURATION | | 115 000 kg (253 531 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| DOORS | D1 | 4.98 | 16.34 |
| | C1 | 3.11 | 10.20 |
| | C2 | 3.52 | 11.55 |
| | C3 | 3.61 | 11.84 |
| | C4 | 5.06 | 16.60 |

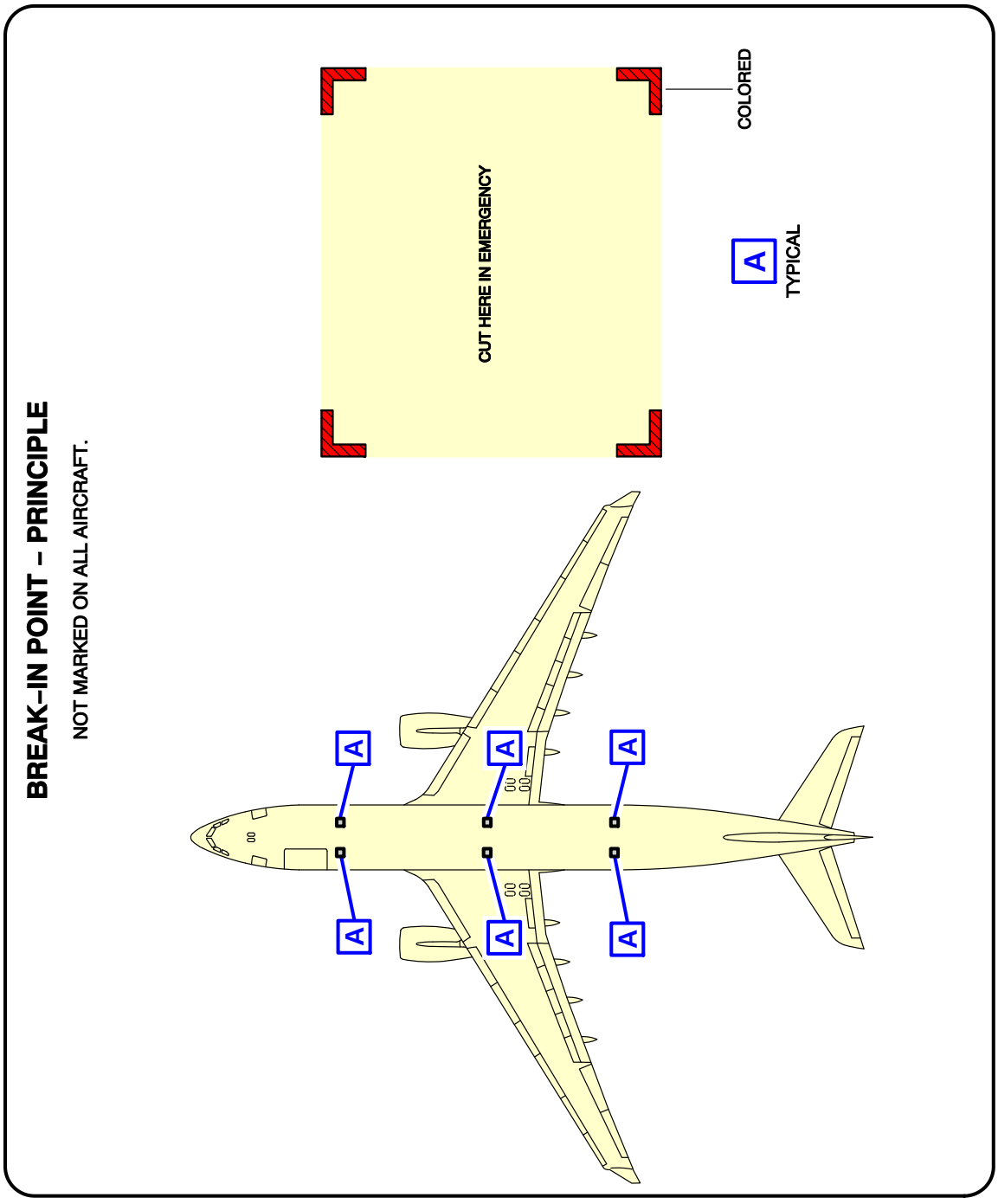
| A/C CONFIGURATION | | 115 000 kg (253 531 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| FUSELAGE | F1 | 2.47 | 8.10 |
| | F2 | 2.70 | 8.86 |
| | F3 | 8.06 | 26.44 |
| | F4 | 8.44 | 27.69 |
| | BF1 | 2.16 | 7.09 |
| | BF2 | 2.22 | 7.28 |
| | CP1 | 6.22 | 20.41 |
| ENGINE/ NACELLE | N1 (PW) | 1.13 | 3.71 |
| | N1 (RR) | 1.06 | 3.48 |

| A/C CONFIGURATION | | 115 000 kg (253 531 lb) MID CG | |
|---|---|---|---|
| | | m | ft |
| WINGS | FT1 | 2.74 | 8.99 |
| | FT2 | 2.98 | 9.79 |
| | FT3 | 2.92 | 9.59 |
| | FT4 | 3.02 | 9.91 |
| | W1 | 9.23 | 30.28 |
| | W2 | 7.80 | 25.59 |
| | VT | 17.41 | 57.12 |
| TAILPLANE | HT | 8.31 | 27.26 |
| | AP | 7.92 | 25.98 |

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Ground Clearances
FIGURE-10-0-0-991-025-A01

**ON A/C A330-200F




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Structural Break-in Points
FIGURE-10-0-0-991-026-A01

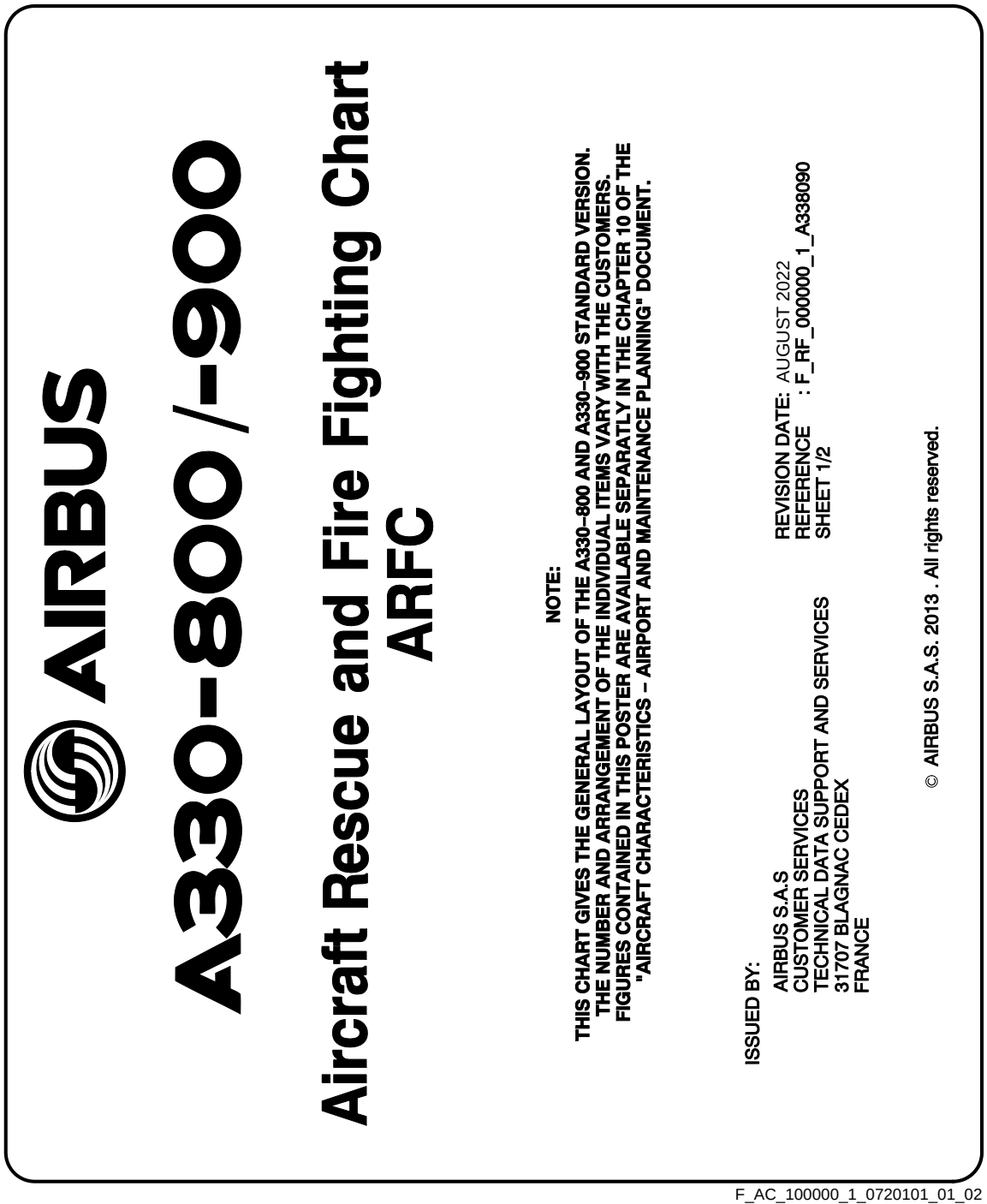
****ON A/C A330-800 A330-900**

Aircraft Rescue and Fire Fighting

1. Aircraft Rescue and Fire Fighting Charts

   This sections gives data related to aircraft rescue and fire fighting.
   The figures contained in this section are the figures that are in the Aircraft Rescue and Fire Fighting Charts poster available for download on AIRBUSWorld and the Airbus website.

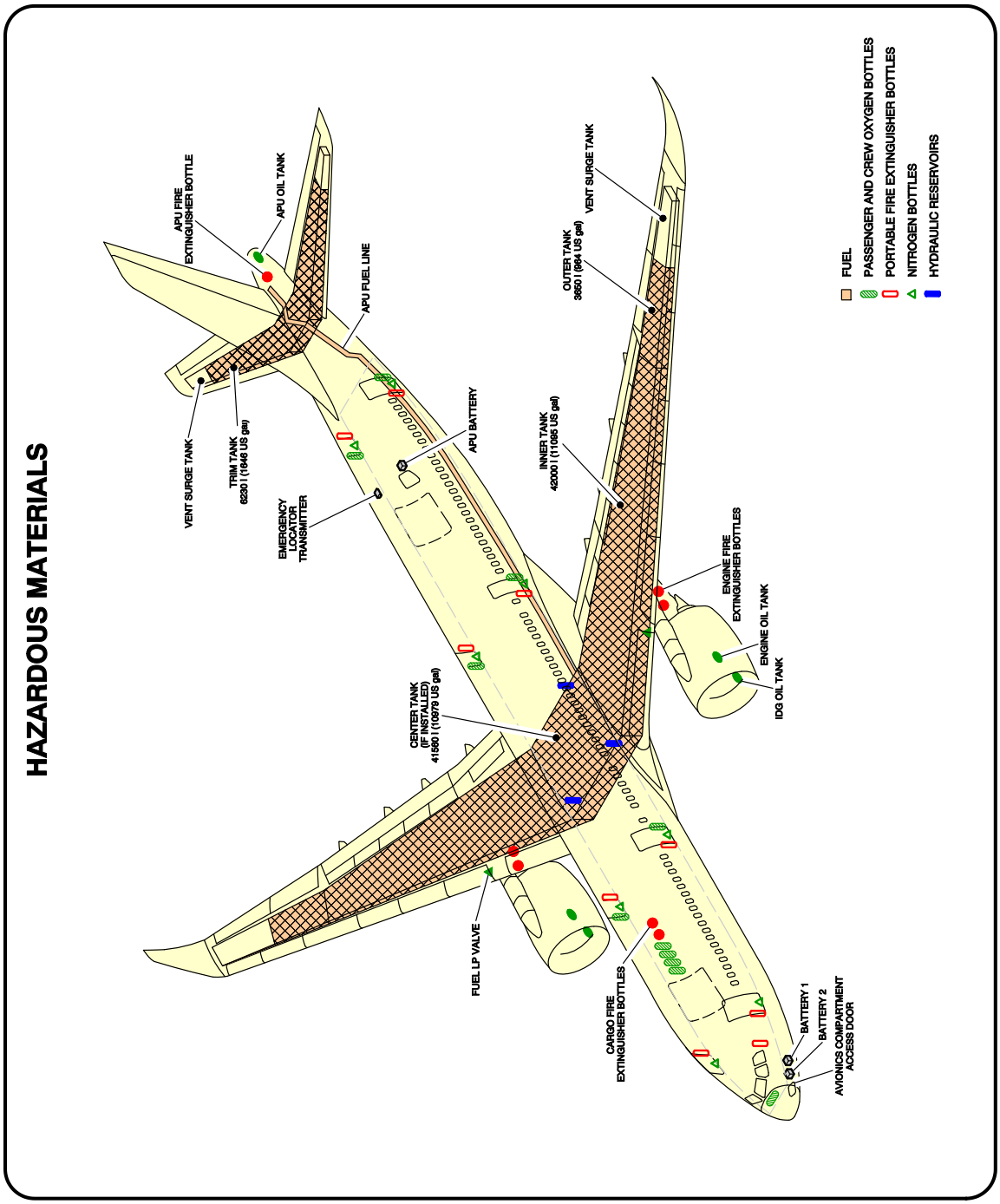
**ON A/C A330-800 A330-900




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Front Page
FIGURE-10-0-0-991-072-A01

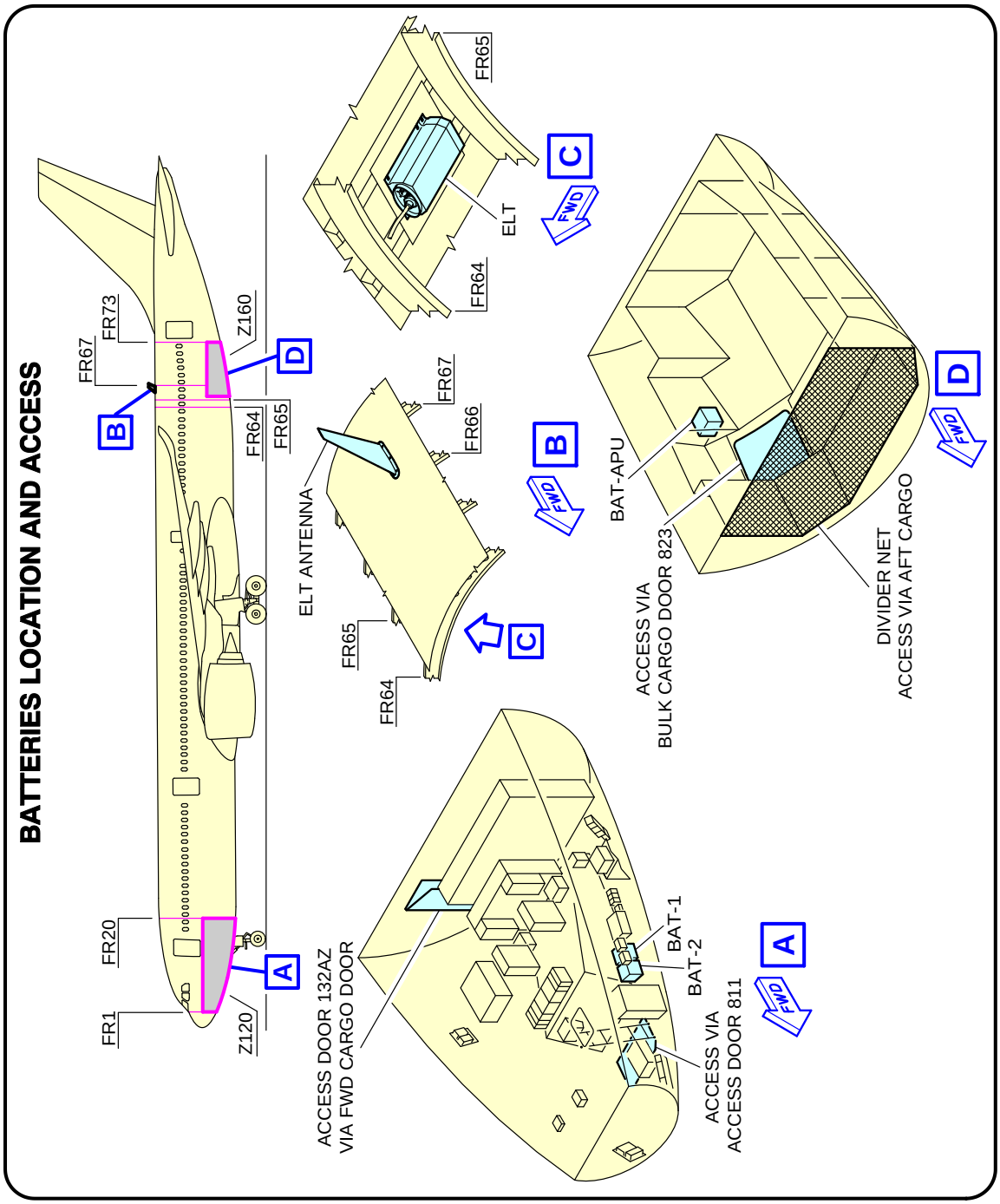
**ON A/C A330-800 A330-900




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Highly Flammable and Hazardous Materials and Components
FIGURE-10-0-0-991-073-A01

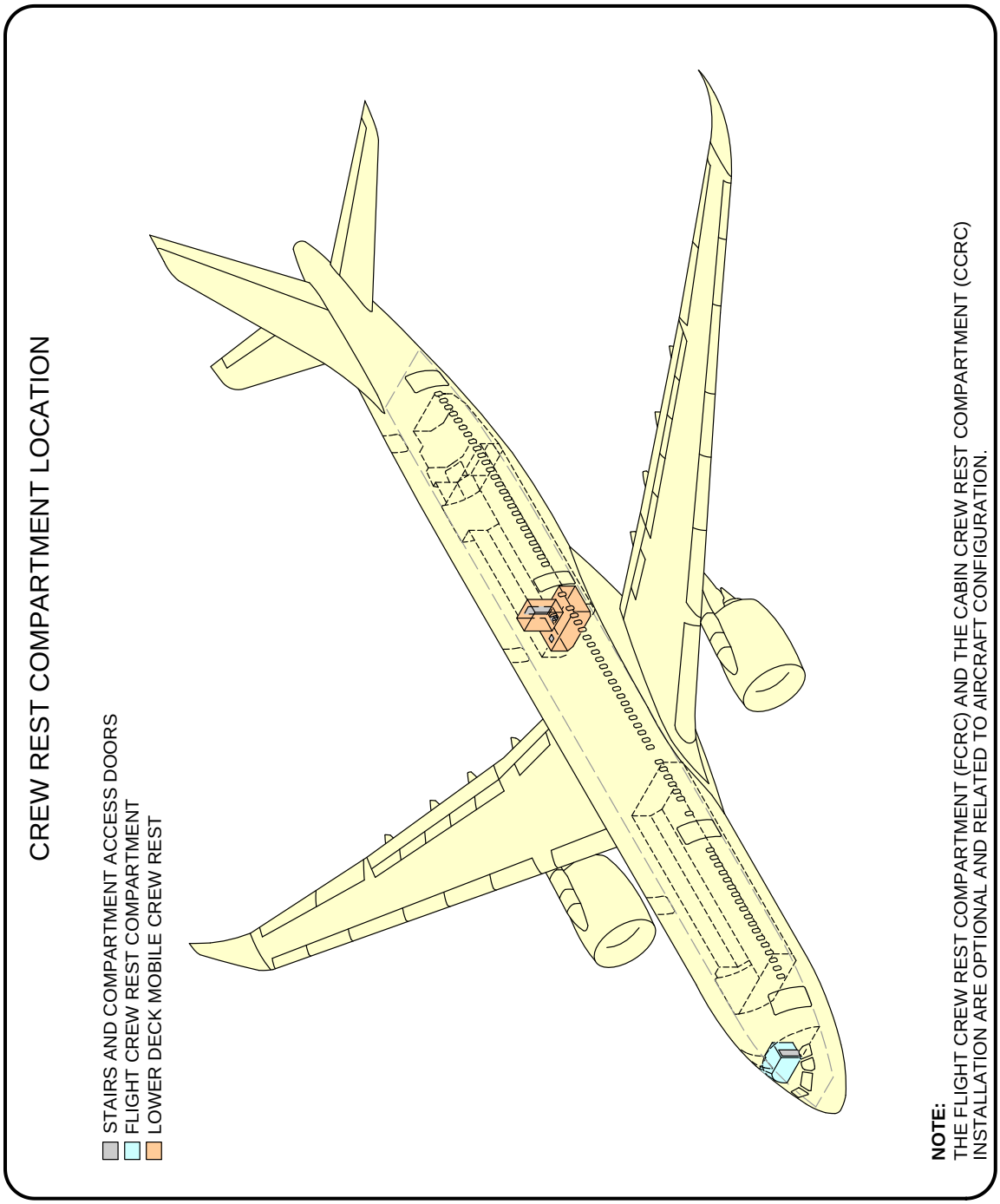
**ON A/C A330-800 A330-900




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Batteries Location and Access
FIGURE-10-0-0-991-074-A01

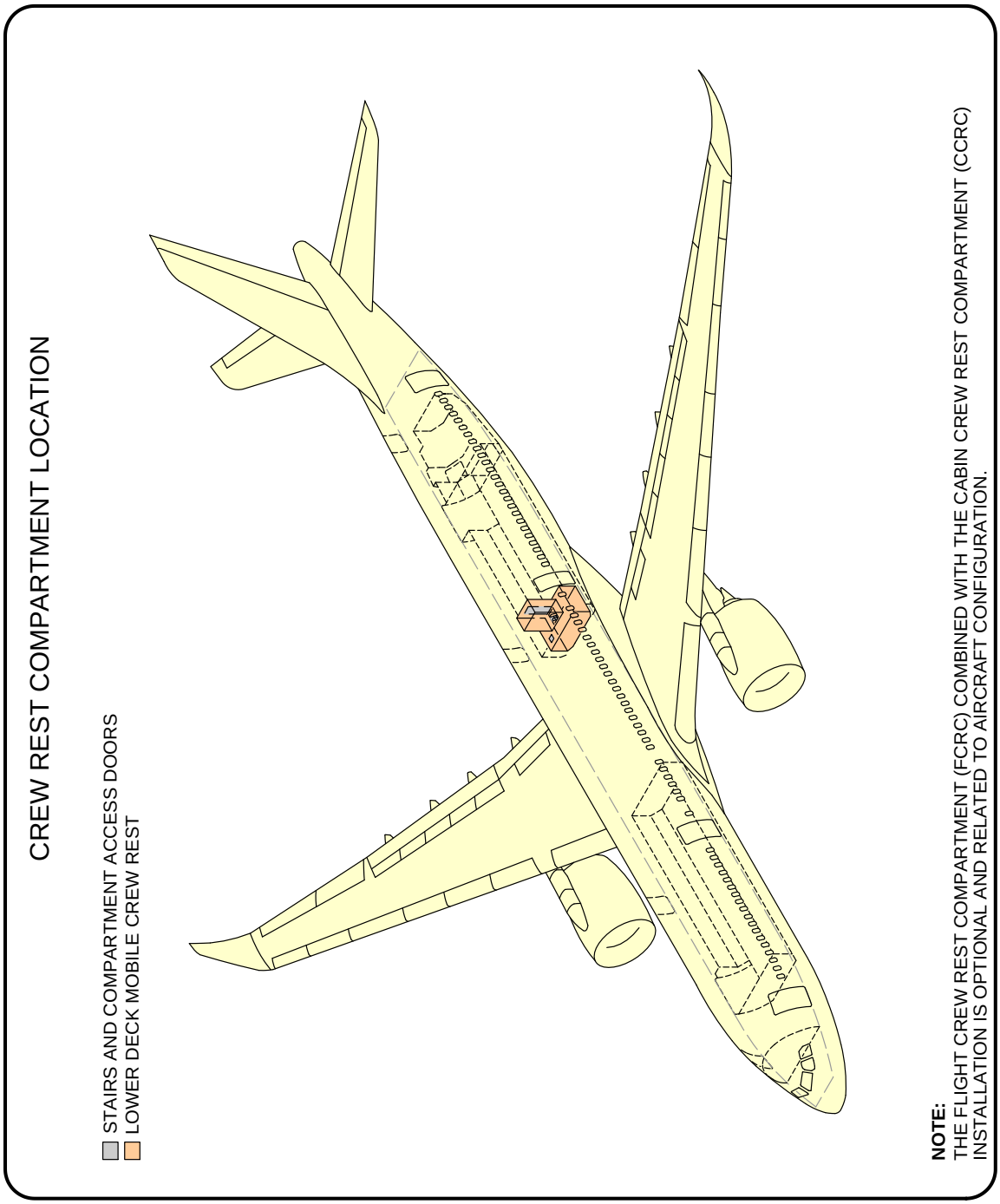
**ON A/C A330-800 A330-900




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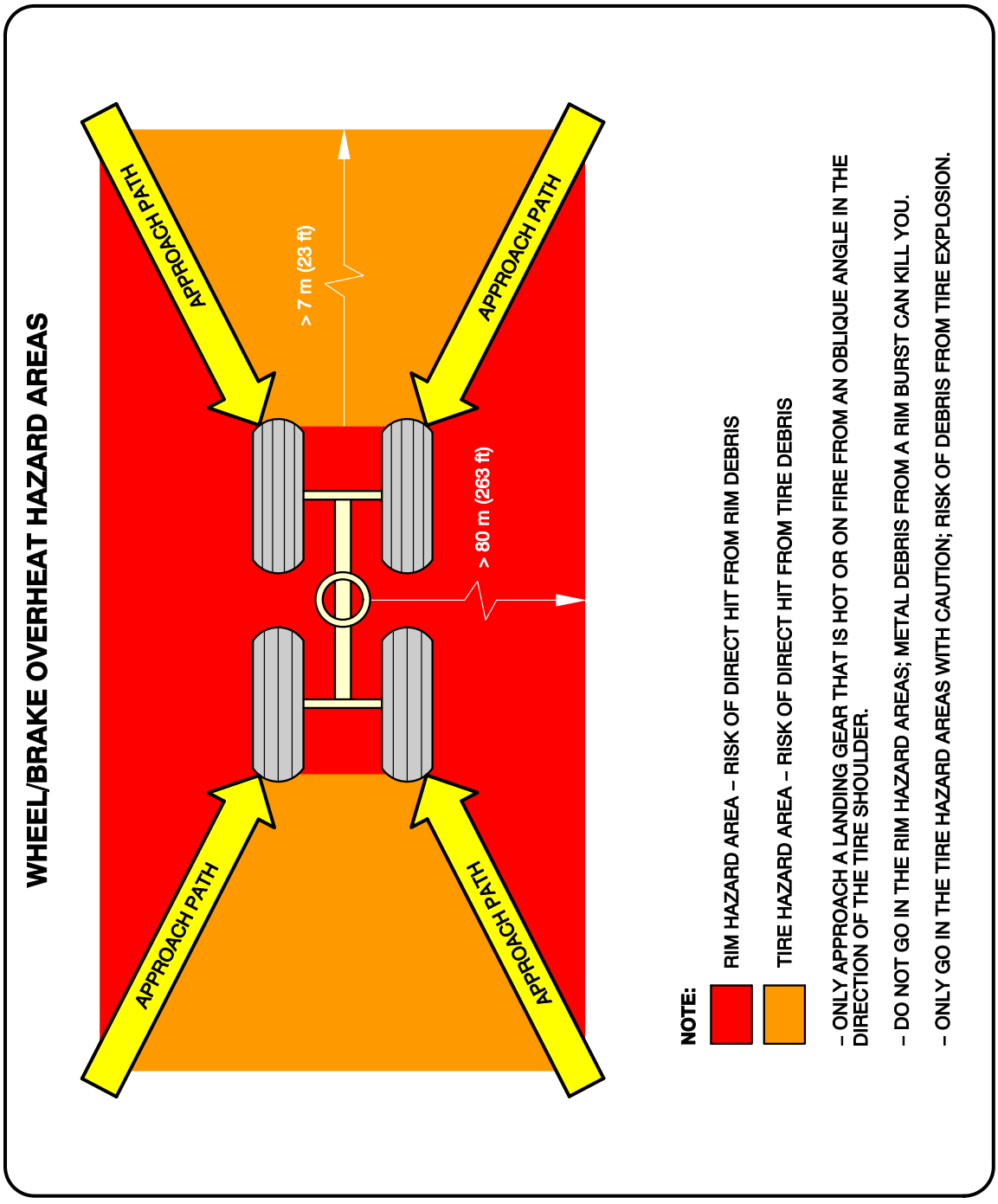
Crew Rest Compartments Location
(Sheet 1 of 2)
FIGURE-10-0-0-991-075-A01

**ON A/C A330-800 A330-900




Crew Rest Compartments Location
(Sheet 2 of 2)
FIGURE-10-0-0-991-075-A01

**ON A/C A330-800 A330-900




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Wheel/Brake Overheat
Wheel Safety Area (Sheet 1 of 2)
FIGURE-10-0-0-991-076-A01

**ON A/C A330-800 A330-900

## BRAKE OVERHEAT AND LANDING GEAR FIRE

**WARNING:** BE VERY CAREFUL WHEN THERE IS A BRAKE OVERHEAT AND/OR LANDING GEAR FIRE.
THERE IS A RISK OF TIRE EXPLOSION AND/OR WHEEL RIM BURST THAT CAN CAUSE DEATH OR INJURY.
MAKE SURE THAT YOU OBEY THE SAFETY PRECAUTIONS THAT FOLLOW.

THE PROCEDURES THAT FOLLOW GIVE RECOMMENDATIONS AND SAFETY PRECAUTIONS FOR THE COOLING OF VERY HOT BRAKES AFTER ABNORMAL OPERATIONS SUCH AS A REJECTED TAKE–OFF OR OVERWEIGHT LANDING. FOR THE COOLING OF BRAKES AFTER NORMAL TAXI–IN, REFER TO YOUR COMPANY PROCEDURES.

BRAKE OVERHEAT:

1 – GET THE BRAKE TEMPERATURE FROM THE COCKPIT OR USE A REMOTE MEASUREMENT TECHNIQUE.
THE REAL TEMPERATURE OF THE BRAKES CAN BE MUCH HIGHER THAN THE TEMPERATURE SHOWN ON THE ECAM.
**NOTE:** AT HIGH TEMPERATURES (>800°C), THERE IS A RISK OF WARPING OF THE LANDING GEAR STRUTS AND AXLES.

2 – APPROACH THE LANDING GEAR WITH EXTREME CAUTION AND FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. (REF FIG. WHEEL/BRAKE OVERHEAT HAZARD AREAS). IF POSSIBLE, STAY IN A VEHICLE.

3 – LOOK AT THE CONDITION OF THE TIRES:
IF THE TIRES ARE STILL INFLATED (FUSE PLUGS NOT MELTED), THERE IS A RISK OF TIRE EXPLOSION AND RIM BURST.
DO NOT USE COOLING FANS BECAUSE THEY CAN PREVENT OPERATION OF THE FUSE PLUGS.

4 – USE WATER MIST TO DECREASE THE TEMPERATURE OF THE COMPLETE WHEEL AND BRAKE ASSEMBLY.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.
DO NOT APPLY WATER, FOAM OR $CO_2$. THESE COOLING AGENTS (AND ESPECIALLY $CO_2$, WHICH HAS A VERY STRONG COOLING EFFECT) CAN CAUSE THERMAL SHOCKS AND BURST OF HOT PARTS.

LANDING GEAR FIRE:

**CAUTION:** AIRBUS RECOMMENDS THAT YOU DO NOT USE DRY POWDERS OR DRY CHEMICALS ON HOT BRAKES OR TO EXTINGUISH LANDING GEAR FIRES. THESE AGENTS CAN CHANGE INTO SOLID OR ENAMELED DEPOSITS. THEY CAN DECREASE THE SPEED OF HEAT DISSIPATION WITH A POSSIBLE RISK OF PERMANENT STRUCTURAL DAMAGE TO THE BRAKES, WHEELS OR WHEEL AXLES.

1 – IMMEDIATELY STOP THE FIRE:

A) APPROACH THE LANDING GEAR WITH EXTREME CAUTION FROM AN OBLIQUE ANGLE IN THE DIRECTION OF THE TIRE SHOULDER. DO NOT GO INTO THE RIM HAZARD AREA AND ONLY GO IN THE TIRE HAZARD AREA WITH CAUTION. IF POSSIBLE, STAY IN A VEHICLE.

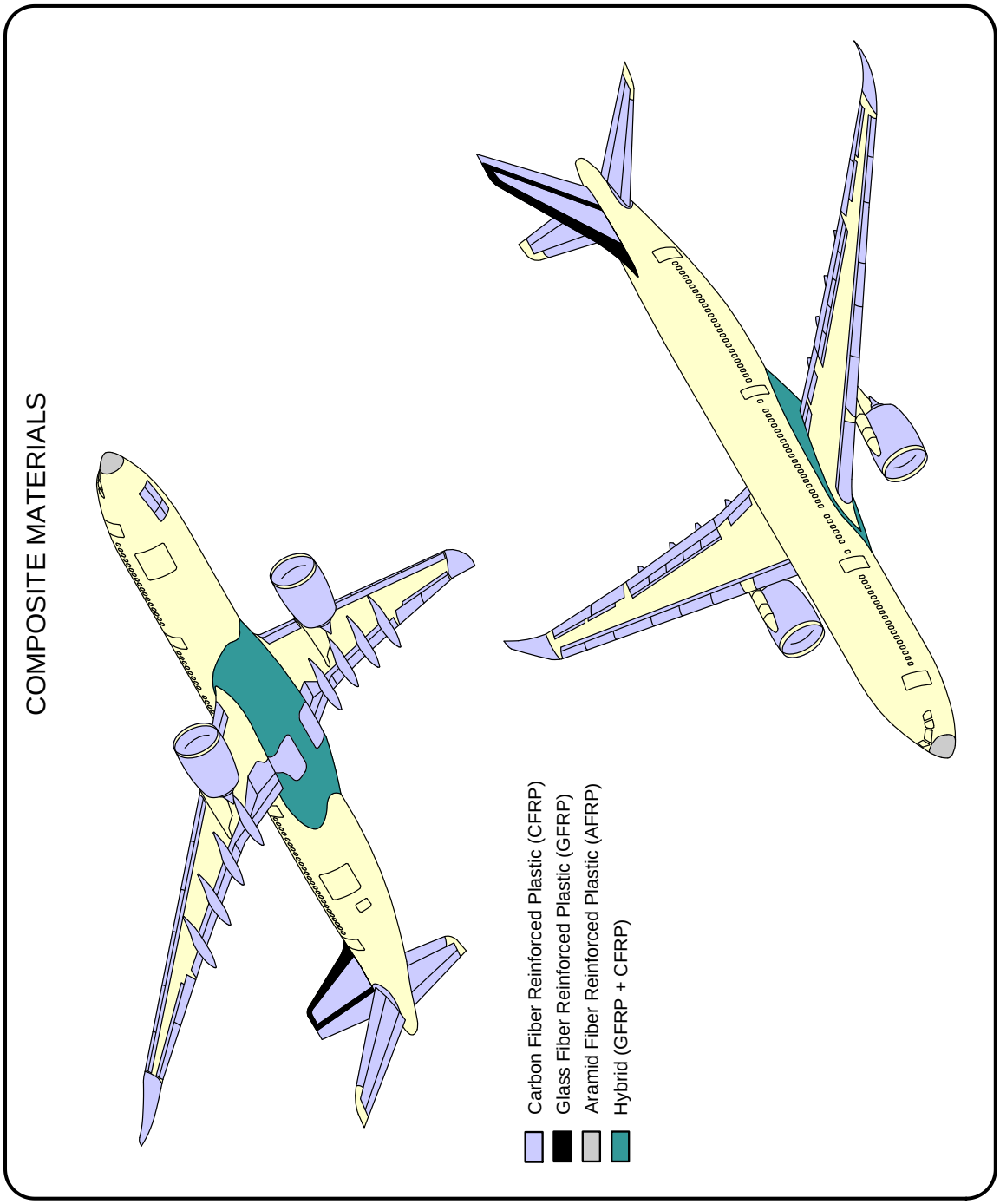
B) USE LARGE AMOUNTS OF WATER, WATER MIST; IF THE FUEL TANKS ARE AT RISK, USE FOAM.
USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.

C) DO NOT USE FANS OR BLOWERS.

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Wheel/Brake Overheat
Recommendations (Sheet 2 of 2)
FIGURE-10-0-0-991-076-A01

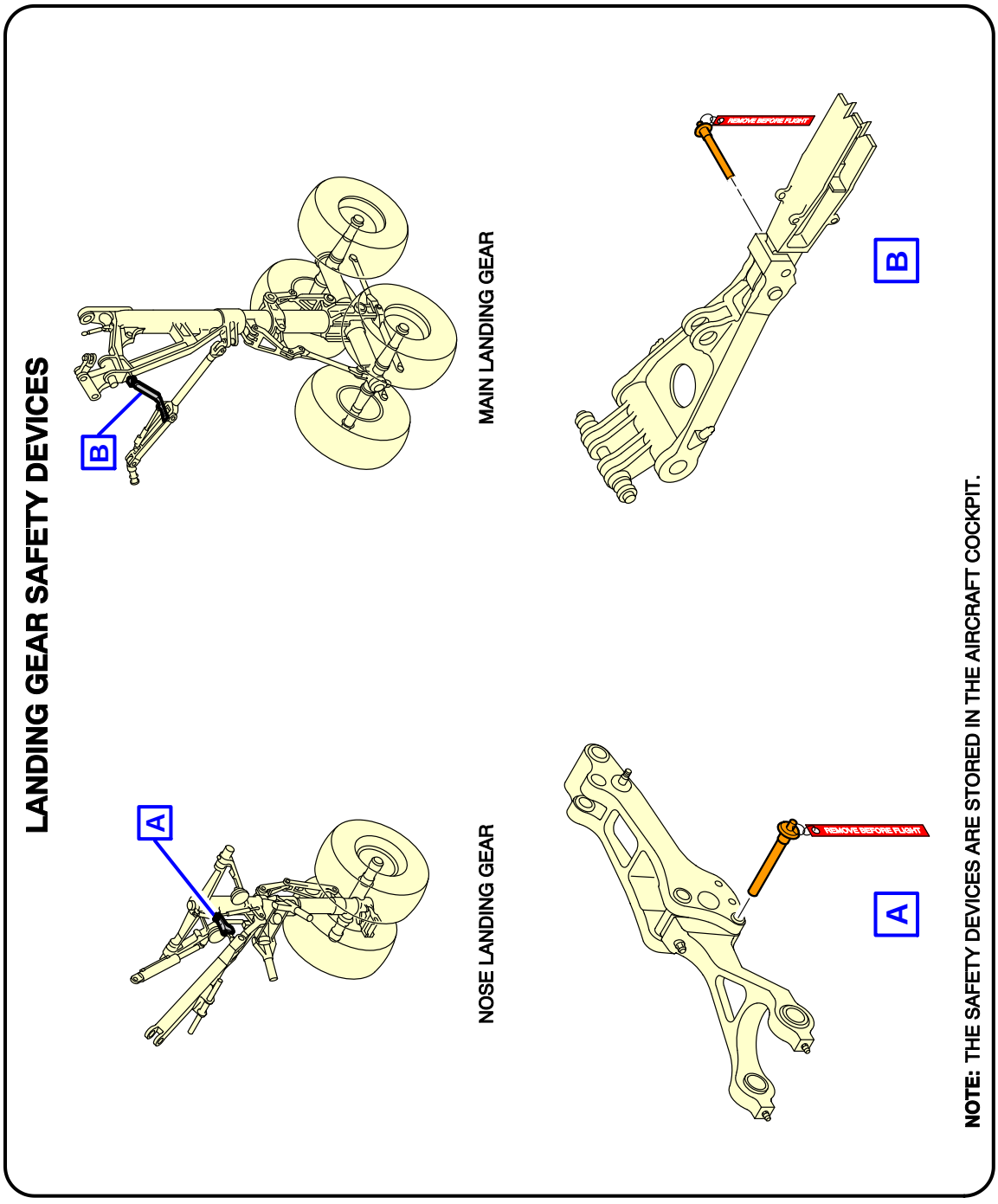
**ON A/C A330-800 A330-900




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Composite Materials Location
FIGURE-10-0-0-991-077-A01

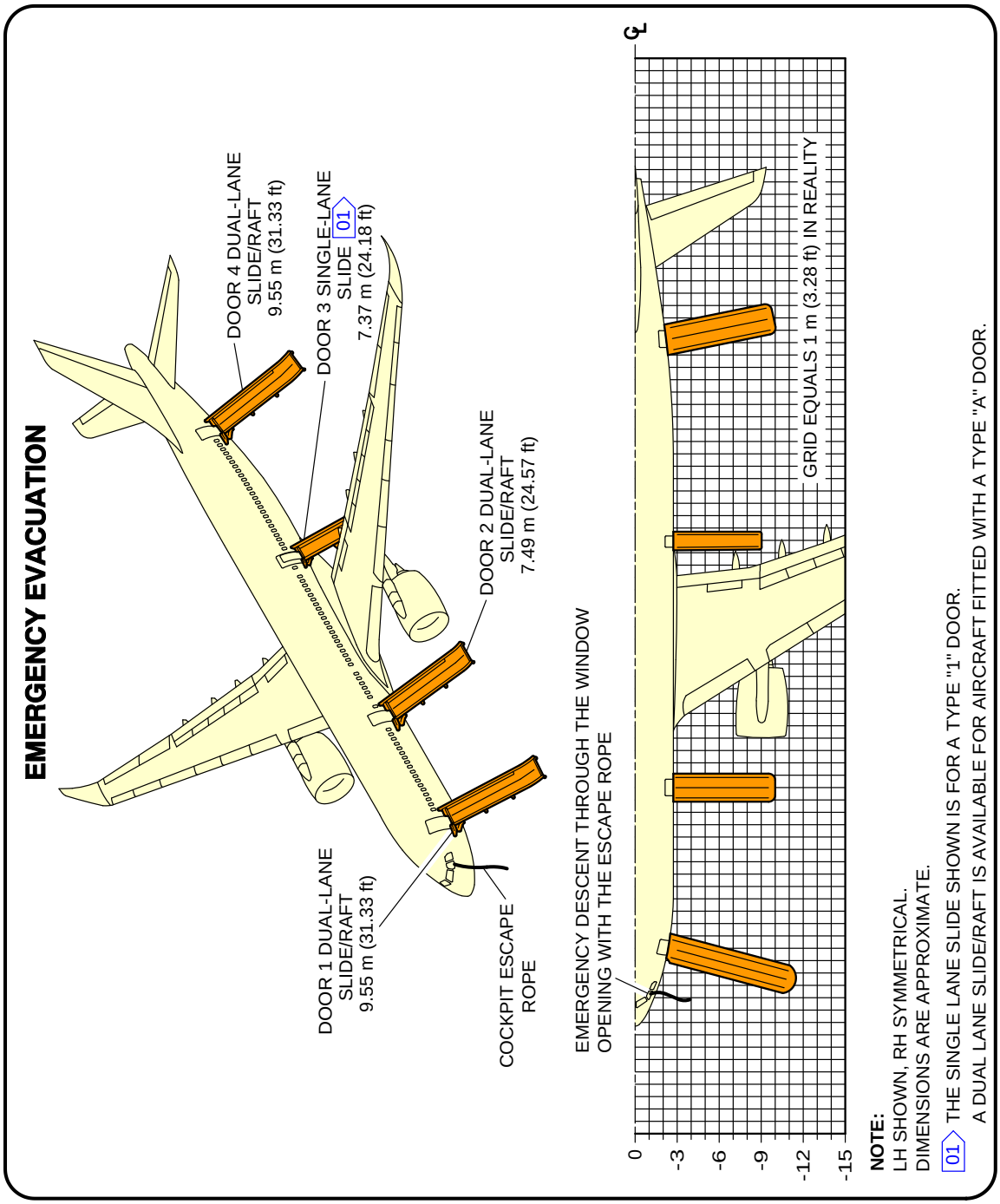
**ON A/C A330-800 A330-900




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Ground Lock Safety Devices
FIGURE-10-0-0-991-078-A01

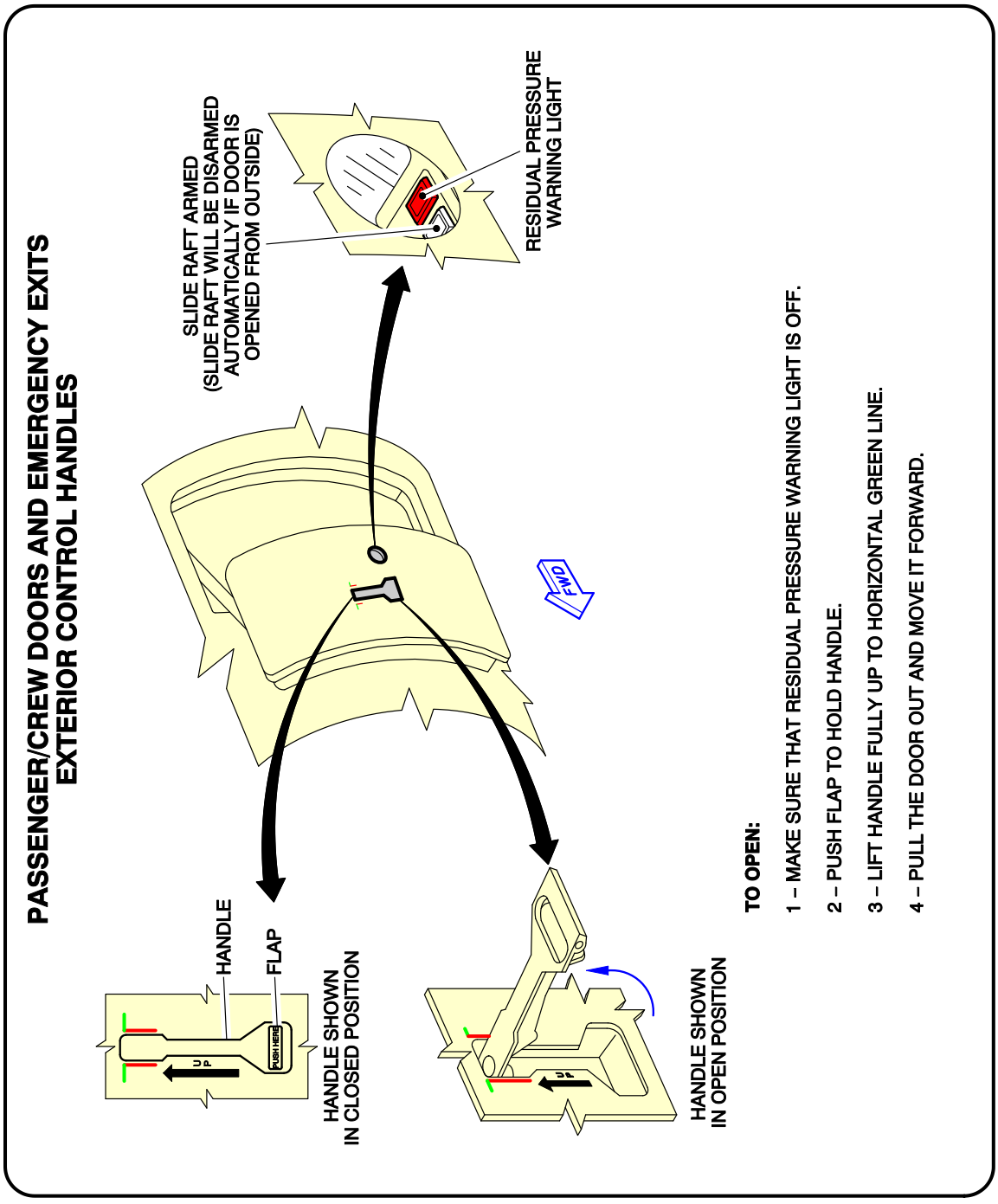
**ON A/C A330-800 A330-900




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Emergency Evacuation Devices
FIGURE-10-0-0-991-079-A01

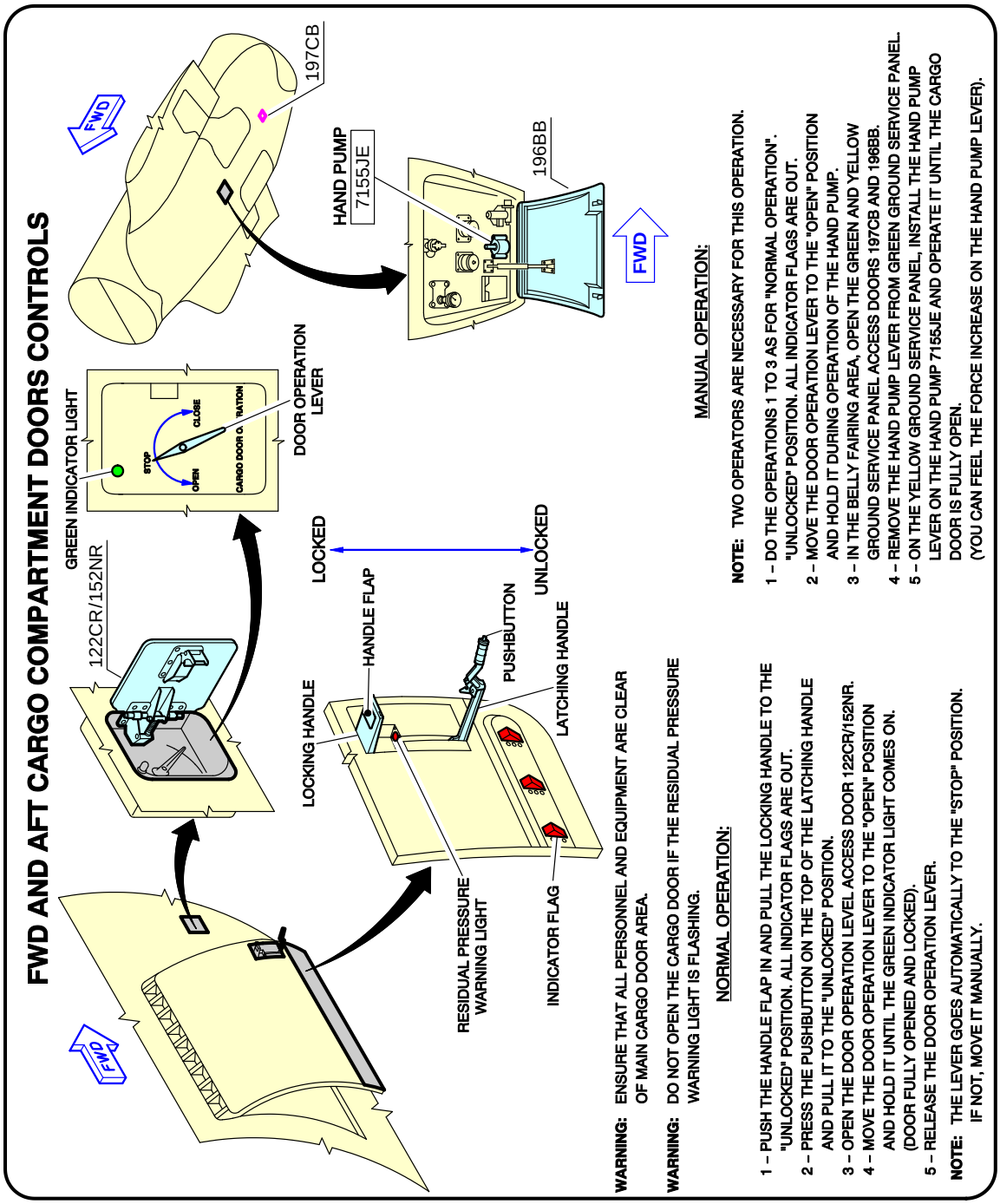
**ON A/C A330-800 A330-900




F_AC_100000_1_0800101_01_00

Pax/Crew Doors and Emergency Exits
FIGURE-10-0-0-991-080-A01

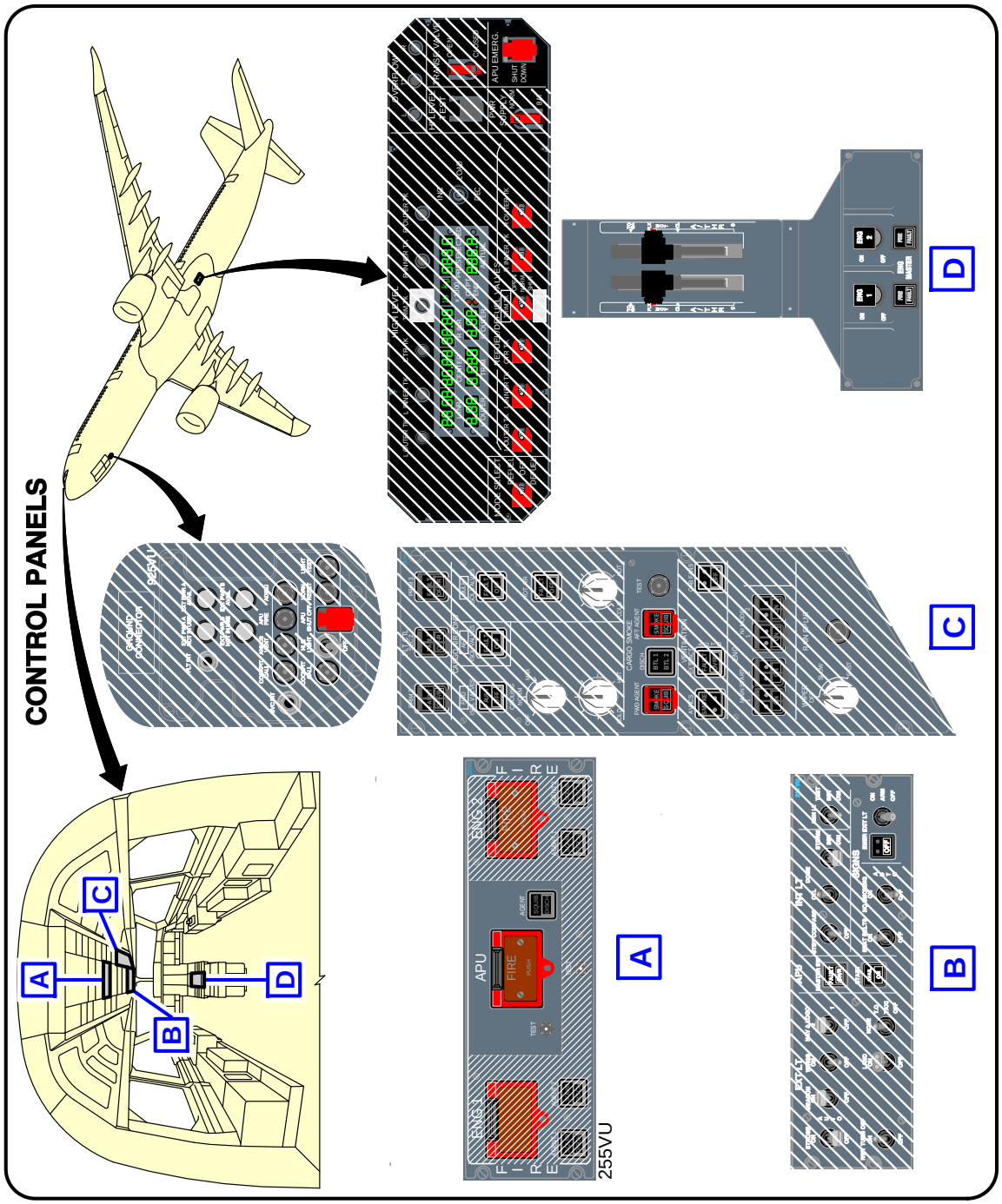
**ON A/C A330-800 A330-900




F_AC_100000_1_0810101_01_00

FWD and AFT Lower Deck Cargo Doors
FIGURE-10-0-0-991-081-A01

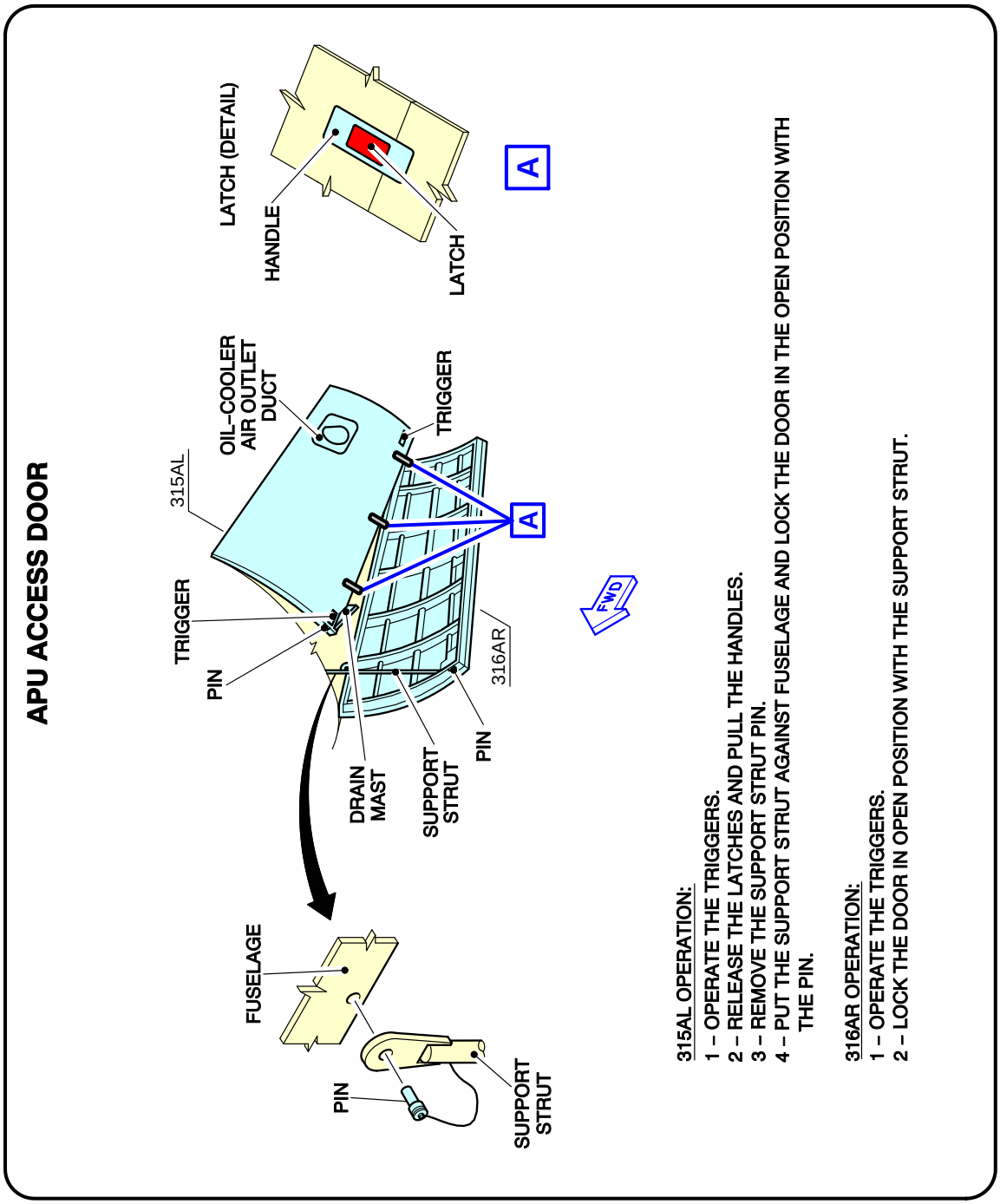
**ON A/C A330-800 A330-900




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Control Panels
FIGURE-10-0-0-991-082-A01

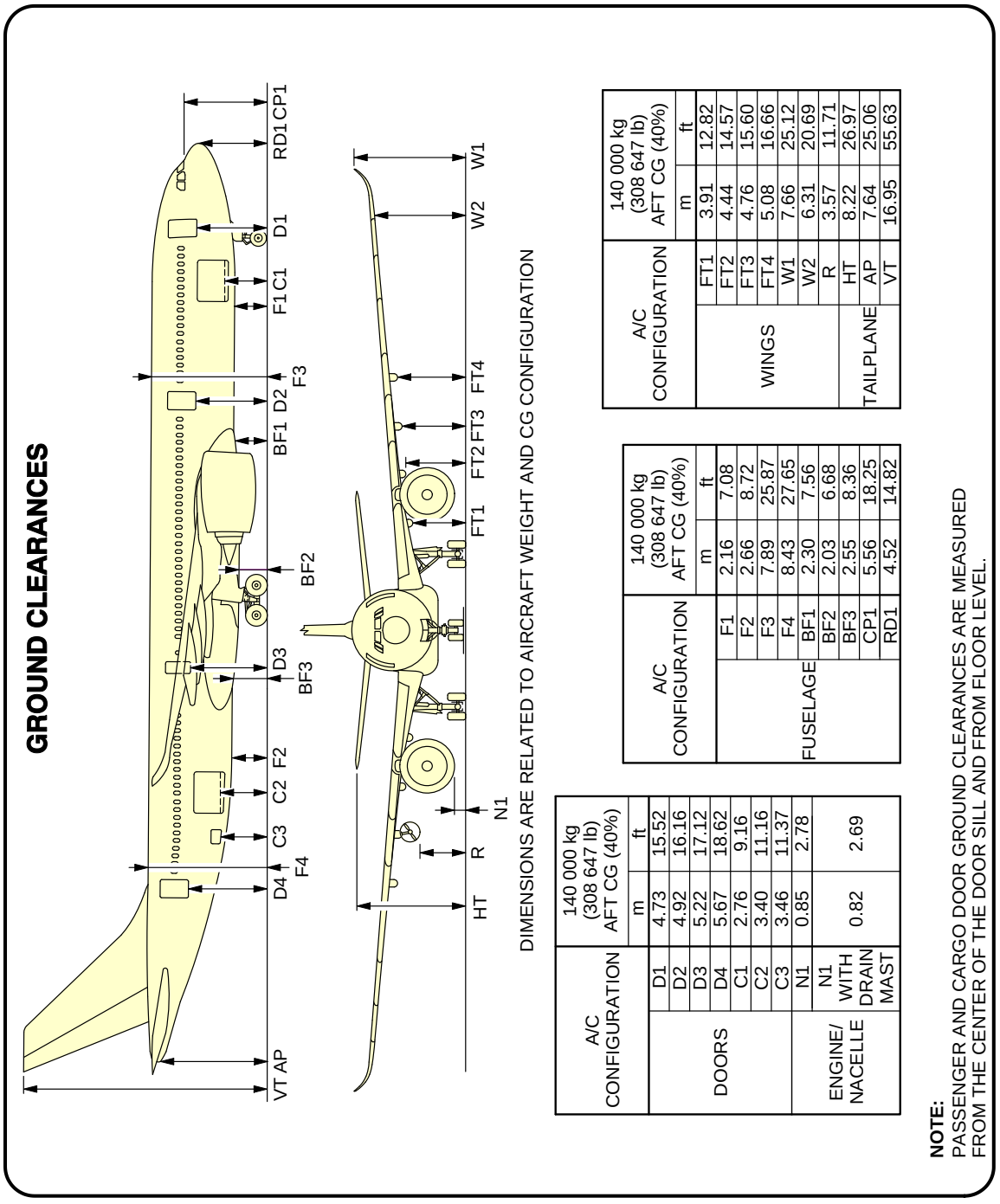
**ON A/C A330-800 A330-900




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APU Compartment Access
FIGURE-10-0-0-991-083-A01

****ON A/C A330-800 A330-900**




| A/C CONFIGURATION | | 140 000 kg (308 647 lb) AFT CG (40%) | |
|---|---|---|---|
| | | m | ft |
| DOORS | D1 | 4.73 | 15.52 |
| | D2 | 4.92 | 16.16 |
| | D3 | 5.22 | 17.12 |
| | D4 | 5.67 | 18.62 |
| | C1 | 2.76 | 9.16 |
| | C2 | 3.40 | 11.16 |
| | C3 | 3.46 | 11.37 |
| | N1 | 0.85 | 2.78 |
| ENGINE/ NACELLE | N1 WITH DRAIN MAST | 0.82 | 2.69 |

| A/C CONFIGURATION | | 140 000 kg (308 647 lb) AFT CG (40%) | |
|---|---|---|---|
| | | m | ft |
| FUSELAGE | F1 | 2.16 | 7.08 |
| | F2 | 2.66 | 8.72 |
| | F3 | 7.89 | 25.87 |
| | F4 | 8.43 | 27.65 |
| | BF1 | 2.30 | 7.56 |
| | BF2 | 2.03 | 6.68 |
| | BF3 | 2.55 | 8.36 |
| | CP1 | 5.56 | 18.25 |
| | RD1 | 4.52 | 14.82 |

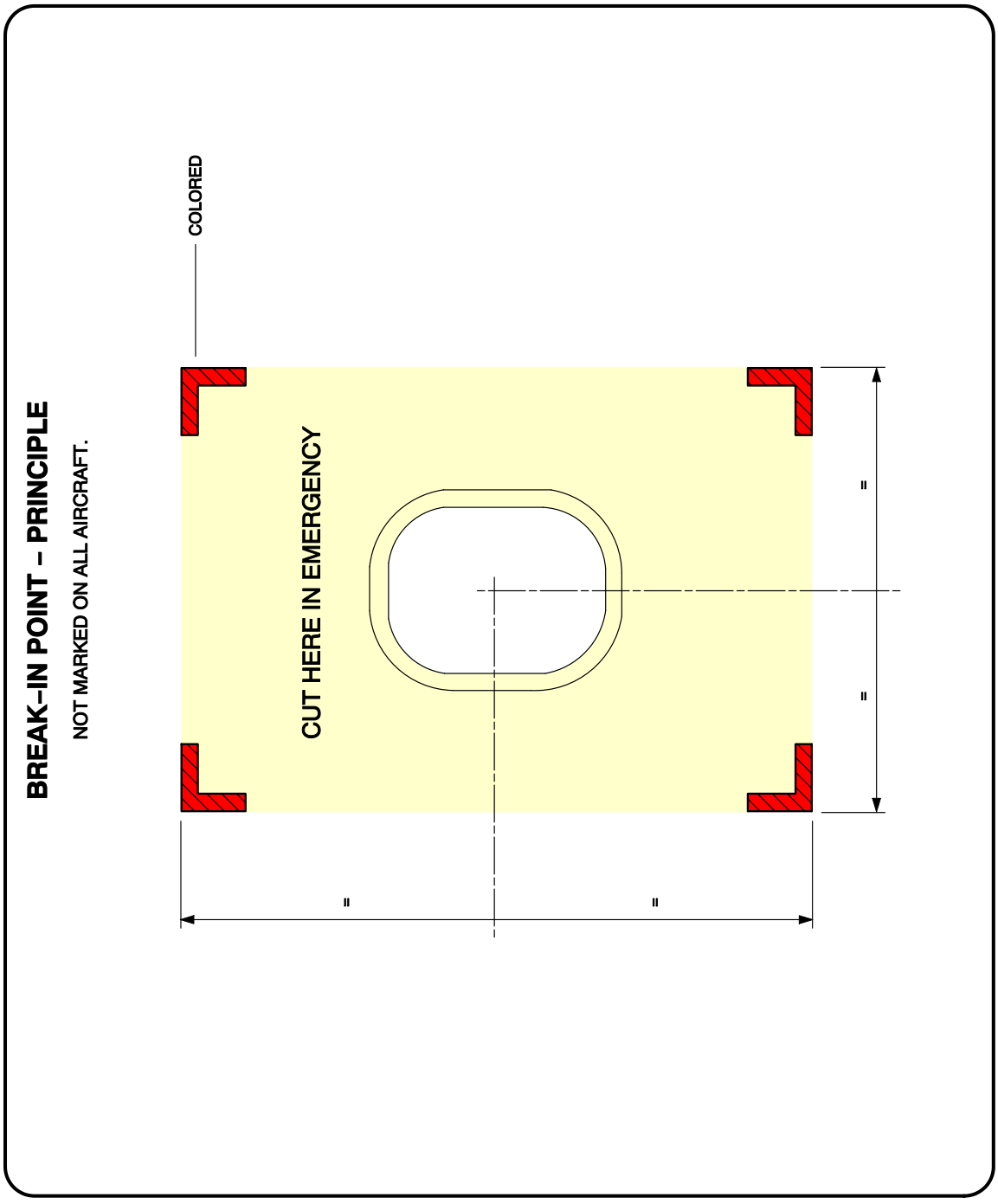
| A/C CONFIGURATION | | 140 000 kg (308 647 lb) AFT CG (40%) | |
|---|---|---|---|
| | | m | ft |
| WINGS | FT1 | 3.91 | 12.82 |
| | FT2 | 4.44 | 14.57 |
| | FT3 | 4.76 | 15.60 |
| | FT4 | 5.08 | 16.66 |
| | W1 | 7.66 | 25.12 |
| | W2 | 6.31 | 20.69 |
| TAILPLANE | R | 3.57 | 11.71 |
| | HT | 8.22 | 26.97 |
| | AP | 7.64 | 25.06 |
| | VT | 16.95 | 55.63 |

**NOTE:**
PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL.

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Ground Clearances
FIGURE-10-0-0-991-084-A01

**ON A/C A330-800 A330-900




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Structural Break-in Points
FIGURE-10-0-0-991-085-A01