



A318

AIRCRAFT CHARACTERISTICS AIRPORT AND MAINTENANCE PLANNING

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HIGHLIGHTS**Revision No. 9 - Jun 01/12**

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
<u>CHAPTER 1</u>	R	
Section 1-1		
Subject 1-1-0		
Purpose	R	PURPOSE CHANGED DUE TO MERGE OF THE MFP AND AC MANUALS.
Section 01-02	D	
<u>CHAPTER 2</u>	R	
Section 2-1	R	
Subject 2-1-0	R	
General Airplane Characteristics	R	WEIGHT DEFINITIONS UPDATED.
Subject 2-1-1	R	
General Airplane Characteristics Data	R	OEW AND PAYLOAD DELETED.
Section 2-2	R	
Subject 2-2-0	R	
General Aircraft Dimensions	R	REPLACED "AIRPLANE" BY "AIRCRAFT" AND COMPLETED TITLE OF ILLUSTRATIONS. DESCRIPTION TITLE UPDATED
FIGURE General Aircraft Dimensions - Wing Tip Fence	R	ILLUSTRATION REVISED
Section 2-3		
Subject 2-3-0		
Ground Clearances	R	REVISED GROUND CLEARANCES TO SHOW THE DIMENSIONS FOR A LIGHT AND HEAVY WEIGHT VARIANT. DELETED THE TERM "OWE".
FIGURE Ground Clearances	R	
FIGURE Ground Clearances - Ground Clearances with Sharklets	N	ILLUSTRATION ADDED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE Ground Clearances - Flaps and Flap Track Fairings When Flaps Fully Extended	N	ILLUSTRATION ADDED
FIGURE Ground Clearances - Flap Track Fairings Up	N	ILLUSTRATION ADDED
FIGURE Ground Clearances - Aileron Down	N	ILLUSTRATION ADDED
FIGURE Ground Clearances - Aileron Up and Spoilers 1 to 5 Extended	N	ILLUSTRATION ADDED
FIGURE Ground Clearances - Slats Extended	N	ILLUSTRATION ADDED
Section 2-6	R	
Subject 2-6-0		
Cargo Compartments	R	
FIGURE Cargo Compartments - Locations, Dimensions and Loading Combinations	N	ILLUSTRATION ADDED
Subject 02-06-01	D	
Section 2-8	N	
Subject 2-8-0	N	
Escape Slides	N	
FIGURE Escape Slides - Location	N	ILLUSTRATION ADDED
FIGURE Escape Slides - Dimensions	N	ILLUSTRATION ADDED
Section 2-9	N	
Subject 2-9-0	N	
Landing Gear	N	
FIGURE Landing Gear - Main Landing Gear - Twin Wheel	N	ILLUSTRATION ADDED
FIGURE Landing Gear - Main Landing Gear Dimensions - Twin Wheel	N	ILLUSTRATION ADDED
FIGURE Landing Gear - Nose Landing Gear	N	ILLUSTRATION ADDED
FIGURE Landing Gear - Nose Landing Gear Dimensions	N	ILLUSTRATION ADDED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
Landing Gear Maintenance Pits	N	
FIGURE Landing Gear Maintenance Pits - Maintenance Pit Envelopes	N	ILLUSTRATION ADDED
FIGURE Landing Gear Maintenance Pits - Maintenance Pit Envelopes	N	ILLUSTRATION ADDED
Section 2-10	N	
Subject 2-10-0	N	
Exterior Lighting	N	
FIGURE Exterior Lighting	N	ILLUSTRATION ADDED
FIGURE Exterior Lighting	N	ILLUSTRATION ADDED
FIGURE Exterior Lighting	N	ILLUSTRATION ADDED
FIGURE Exterior Lighting	N	ILLUSTRATION ADDED
Section 2-11	N	
Subject 2-11-0	N	
Antennas and Probes Location	N	
FIGURE Antennas and Probes - Location	N	ILLUSTRATION ADDED
Section 2-12	N	
Subject 2-12-0	N	
Auxiliary Power Unit	N	
FIGURE Auxiliary Power Unit - Access Doors	N	ILLUSTRATION ADDED
FIGURE Auxiliary Power Unit - General Layout	N	ILLUSTRATION ADDED
Engine and Nacelle	N	
FIGURE Power Plant Handling - Major Dimensions - CFM56 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Major Dimensions - CFM56 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Fan Cowls - CFM56 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Thrust Reverser Cowls - CFM56 Series Engine	N	ILLUSTRATION ADDED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE Power Plant Handling - Major Dimensions - PW 6000 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Nacelle Dimensions - PW 6000 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Fan Cowls - PW 6000 Series Engine	N	ILLUSTRATION ADDED
FIGURE Power Plant Handling - Thrust Reverser Halves - PW 6000 Series Engine	N	ILLUSTRATION ADDED
Section 2-13	N	
Subject 2-13-0	N	
Leveling, Symmetry and Alignment	N	
FIGURE Location of the Leveling Points	N	ILLUSTRATION ADDED
Section 2-14	N	
Subject 2-14-0	N	
Jacking for Maintenance	N	
FIGURE Jacking for Maintenance - Jacking Point Location	N	ILLUSTRATION ADDED
FIGURE Jacking for Maintenance - Forward Jacking Point	N	ILLUSTRATION ADDED
FIGURE Jacking for Maintenance - Wing Jacking Points	N	ILLUSTRATION ADDED
FIGURE Jacking for Maintenance - Safety Stay	N	ILLUSTRATION ADDED
FIGURE Jacking for Maintenance - Jacking Design	N	ILLUSTRATION ADDED
Jacking for Wheel Change	N	
FIGURE Landing Gear Jacking for Wheel Change - MLG Jacking Point Location - Twin Wheels	N	ILLUSTRATION ADDED
FIGURE Landing Gear Jacking for Wheel Change - MLG Jacking with Cantilever Jack - Twin Wheels	N	ILLUSTRATION ADDED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE Landing Gear Jacking for Wheel Change - Loads at MLG Jacking Points - Twin Wheels	N	ILLUSTRATION ADDED
FIGURE Landing Gear Jacking for Wheel Change - NLG Jacking - Point Location	N	ILLUSTRATION ADDED
FIGURE Landing Gear Jacking for Wheel Change - Loads at NLG Jacking Points	N	ILLUSTRATION ADDED
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<u>CHAPTER 4</u>		
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Subject 4-2-0		
FIGURE Turning Radii, No Slip Angle	R	ILLUSTRATION REVISED
FIGURE Turning Radii, No Slip Angle	R	ILLUSTRATION REVISED
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FIGURE Minimum Turning Radii	R	
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Visibility from Cockpit in Static Position	R	
FIGURE Visibility from Cockpit in Static Position	R	
FIGURE Binocular Visibility Through Windows from Captain Eye Position	N	ILLUSTRATION ADDED
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135° Turn - Runway to Taxiway	R	
FIGURE 135° Turn - Runway to Taxiway - Cockpit Over Centerline Method	R	
FIGURE 135° Turn - Runway to Taxiway - Judgemental Oversteering Method	N	ILLUSTRATION ADDED
Subject 4-5-2		
90° Turn - Runway to Taxiway	R	

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE 90° Turn - Runway to Taxiway - Cockpit Over Centerline Method	R	
FIGURE 90° Turn - Runway to Taxiway - Judgemental Oversteering Method	N	ILLUSTRATION ADDED
Subject 4-5-3	N	
180° Turn on a Runway	N	
FIGURE 180° turn on a Runway - Edge of Runway Method	N	ILLUSTRATION ADDED
Subject 4-5-4		
FIGURE 135° Turn - Taxiway to Taxiway - Cockpit Over Centerline Method	R	ILLUSTRATION REVISED
Subject 4-5-5		
FIGURE 90° Turn - Taxiway to Taxiway - Cockpit Over Centerline Method	R	ILLUSTRATION REVISED
Subject 04-05-06	D	
Section 4-6		
Subject 4-6-0		
FIGURE Runway Holding Bay (Apron)	R	
Section 4-7	R	
Subject 4-7-0	R	
<u>CHAPTER 5</u>	R	
Section 5-1	R	
Subject 5-1-0	R	
Subject 5-1-2	R	
Typical Ramp Layout - Open Apron	R	TITLE CHANGED FROM "AIRCRAFT AT THE GATE" TO "TYPICAL RAMP LAYOUT - OPEN APRON". ADDED "STAND SAFETY LINE" DEFINITION. DESCRIPTION TITLE UPDATED
FIGURE Typical Ramp Layout - Open Apron - Bulk Loading	R	ILLUSTRATION REVISED
Subject 5-1-3	R	

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
Typical Ramp Layout - Gate	R	TITLE CHANGED FROM "AIRCRAFT AT AN OPEN APRON" TO "TYPICAL RAMP LAYOUT - GATE". ADDED "STAND SAFETY LINE" DEFINITION. DESCRIPTION TITLE UPDATED
FIGURE Typical Ramp Layout - Gate	R	ILLUSTRATION REVISED
Section 5-2	R	
Subject 5-2-0	R	
Terminal Operations - Full Servicing Turn Round Time	R	DESCRIPTION TITLE UPDATED
FIGURE Turn Round Stations - Full Servicing (34 Min.)	N	ILLUSTRATION ADDED
Subject 05-02-01	D	
Section 5-3	R	
Subject 5-3-0	R	
Terminal Operation - Minimum Servicing Turn Round Time	R	DESCRIPTION TITLE UPDATED
FIGURE Turn Round Stations - Minimum Servicing (20 Min.)	N	ILLUSTRATION ADDED
Subject 05-03-01	D	
Section 5-4		
Subject 5-4-1		
Ground Service Connections Layout	R	DELETED GROUND SERVICE CONNECTIONS LAYOUT TABLE.
FIGURE Ground Service Connections - Ground Service Connections Layout	R	
Subject 5-4-3		
Hydraulic System	R	
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Electrical System	R	
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Fuel System	R	NOTE AMENDED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE Ground Service Connections - Overpressure Protector and NACA Flame Arrestor	N	ADDED OVERPRESSURE PROTECTOR AND NACA FLAME ARRESTOR ILLUSTRATION. ILLUSTRATION ADDED
Section 5-5		
Subject 5-5-0		
Engine Starting Pneumatic Requirements	R	CROSS REFERENCED DOCUMENTARY UNIT ADDED/REVISED/DELETED
FIGURE Engine Starting Pneumatic Requirements - Engine Starting Pneumatic Requirements	N	ILLUSTRATION ADDED
Subject 5-5-1	R	
Low Ambient Temperatures	R	DESCRIPTION TITLE UPDATED
FIGURE Engine Starting Pneumatic Requirements - Low Ambient Temperature -40 ° C (-40 ° F) – CFM56 series engine	R	
FIGURE Engine Starting Pneumatic Requirements - Low Ambient Temperature -40 ° C (-40 ° F) – PW 6000 series engine	R	
Subject 5-5-2	R	
Medium Ambient Temperatures	R	DESCRIPTION TITLE UPDATED
FIGURE Engine Starting Pneumatic Requirements - Medium Ambient Temperature +15 ° C (+59 ° F) – CFM56 series engine	R	
FIGURE Engine Starting Pneumatic Requirements - Medium Ambient Temperature +15 ° C (+59 ° F) – PW 6000 series engine	R	
Subject 5-5-3	R	
High Ambient Temperatures	R	DESCRIPTION TITLE UPDATED

LOCATIONS	CHG CODE	DESCRIPTIONS OF CHANGE
FIGURE Engine Starting Pneumatic Requirements - High Ambient Temperature +50 °C (+122 °F) – CFM56 series engine	R	
FIGURE Engine Starting Pneumatic Requirements - High Ambient Temperature +38 °C (+100 °F) – PW 6000 series engine	R	
Section 5-6 Subject 5-6-0 Ground Pneumatic Power Requirements	R	ADDED NOTE FOR GROUND PNEUMATIC POWER REQUIREMENTS.
Section 5-8 Subject 5-8-0 Ground Towing Requirements	R	SAE REFERENCES UPDATED AND FIGURES CORRESPONDING TO TYPICAL TOW BAR CONFIGURATION DELETED NOTE AMENDED
Section 5-9 Subject 5-9-0 De-Icing and External Cleaning	N N N	REVISED TABLES FOR DE-ICING AND EXTERNAL CLEANING AREAS.
<u>CHAPTER 7</u> Section 7-8 Subject 07-08-00 Subject 7-8-1 FIGURE Radius of Relative Stiffness - (Reference: Portland Cement Association)	R D R	
Subject 7-8-2 Rigid Pavement Requirements - LCN Conversion	R	MOVED THE TEXT FROM 7-8-0 TO 7-8-2.
<u>CHAPTER 8</u> Section 8-0 Subject 8-0-0	R N N	

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Scaled Drawings	N	
FIGURE Scaled Drawing	N	ILLUSTRATION ADDED
Section 08-01	D	
<u>CHAPTER 10</u>	N	
Section 10-0	N	
Subject 10-0-0	N	
Aircraft Rescue and Fire Fighting	N	
FIGURE Front Page	N	ILLUSTRATION ADDED
FIGURE Highly Flammable and Hazardous Materials and Components	N	ILLUSTRATION ADDED
FIGURE Wheel Safety Area	N	ILLUSTRATION ADDED
FIGURE Composite Materials	N	ILLUSTRATION ADDED
FIGURE LG Ground Lock Safety Devices	N	ILLUSTRATION ADDED
FIGURE Evacuation/Escapes Slide/Raft	N	ILLUSTRATION ADDED
FIGURE Pax/Crew Doors	N	ILLUSTRATION ADDED
FIGURE Emergency Exit Hatch	N	ILLUSTRATION ADDED
FIGURE FWD and AFT Lower Deck Cargo Doors	N	ILLUSTRATION ADDED
FIGURE Control Panels	N	ILLUSTRATION ADDED
FIGURE APU Access Door	N	ILLUSTRATION ADDED
FIGURE Aircraft Ground Clearances	N	ILLUSTRATION ADDED
FIGURE Structural Break-in Points	N	ILLUSTRATION ADDED

LIST OF EFFECTIVE CONTENT

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FIGURE Ground Clearances	R	Jun 01/12
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FIGURE Ground Clearances - Flap Track Fairings Up	N	Jun 01/12
FIGURE Ground Clearances - Aileron Down	N	Jun 01/12
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FIGURE Ground Clearances - Slats Extended	N	Jun 01/12
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FIGURE Typical Configuration - Typical Configuration Single-Class, High Density		Sep 01/10

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FIGURE Exterior Lighting	N	Jun 01/12
FIGURE Exterior Lighting	N	Jun 01/12
FIGURE Exterior Lighting	N	Jun 01/12
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Engine and Nacelle	N	Jun 01/12
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FIGURE Power Plant Handling - Major Dimensions - CFM56 Series Engine	N	Jun 01/12
FIGURE Power Plant Handling - Fan Cowls - CFM56 Series Engine	N	Jun 01/12
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FIGURE Power Plant Handling - Nacelle Dimensions - PW 6000 Series Engine	N	Jun 01/12
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Leveling, Symmetry and Alignment	N	Jun 01/12
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FIGURE Jacking for Maintenance - Wing Jacking Points	N	Jun 01/12
FIGURE Jacking for Maintenance - Safety Stay	N	Jun 01/12
FIGURE Jacking for Maintenance - Jacking Design	N	Jun 01/12
Jacking for Wheel Change	N	Jun 01/12

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Subject 4-5-2		
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FIGURE 90° Turn - Runway to Taxiway - Judgemental Oversteering Method	N	Jun 01/12
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Terminal Operations - Full Servicing Turn Round Time	R	Jun 01/12
FIGURE Turn Round Stations - Full Servicing (34 Min.)	N	Jun 01/12
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SCOPE

1-1-0 Purpose

****ON A/C A318-100**

Purpose

1. General

The A318 AIRCRAFT CHARACTERISTICS – AIRPORT AND MAINTENANCE PLANNING (AC) manual is issued for the A318-100 series aircraft, equipped with wing-tip fences or Sharklets to provide necessary data to airport operators, airlines and Maintenance/Repair Organizations (MRO) for airport and maintenance facilities planning.

This revision is now a merge of the Maintenance Facility planning (MFP) document and the Airplane Characteristics for Airport Planning (AC). This document has been renamed Aircraft Characteristics – Airport and Maintenance Planning (AC) to reflect this change.

Additionally, a chapter 10 "Aircraft Rescue and Fire Fighting" has been added to the AC. This chapter contains the illustrations of the Aircraft Rescue and Fire fighting Charts poster and replaces the PDF document that was available for download.

The data given in this issue of the A318-100 AC equipped with Sharklets can be subject to change pending completion of the flight test phase. It is given for guidance only and does not constitute a contractual commitment.

This non-customized document conforms to NAS 3601 specification.

This document must not be used for training purposes.

The single aisle A320 Family is a short to medium range aircraft delivering superior fuel efficiency, passenger comfort, environmental characteristics and economics, with a global market coverage. With record number of operators and wide market approval, the A320 Family benefits from continuous improvements such as:

- Sharklets

The A320 Family wider fuselage, advanced troubleshooting and Cargo Loading System enable easy and cost effective ground handling, whilst minimizing aircraft turn round time.

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AIRCRAFT DESCRIPTION

2-1-0 General Aircraft Characteristics

****ON A/C A318-100**General Airplane Characteristics

1. General Airplane Characteristics

The weight terms used throughout this manual are given below together with their respective definitions.

Maximum Taxi Weight (MTW):

Maximum weight for ground maneuver as limited by aircraft strength and airworthiness requirements. (It includes weight of run-up and taxi fuel). It is also called Maximum Ramp Weight (MRW).

Maximum Landing Weight (MLW):

Maximum weight for landing as limited by aircraft strength and airworthiness requirements.

Maximum Takeoff Weight (MTOW):

Maximum weight for takeoff as limited by aircraft strength and airworthiness requirements. (This is the maximum weight at start of the takeoff run).

Maximum Zero Fuel Weight (MZFW):

Maximum operational weight of the aircraft without usable fuel.

Standard Seating Capacity:

Number of passengers specifically certified or anticipated for certification.

Usable Volume:

Usable volume available for cargo, pressurized fuselage, passenger compartment and cockpit.

Usable Fuel Capacity:

Fuel available for aircraft propulsion.

Water Volume:

Volume of cargo compartment.

2-1-1 General Aircraft Characteristics Data

**ON A/C A318-100

General Airplane Characteristics Data

- The following table provides characteristics of A318-100 Models, these data are specific to each Weight Variant:

Aircraft Characteristics						
		WV000	WV001	WV002	WV003	WV004
Maximum Ramp Weight (MRW)	Kilograms	59 400	61 900	63 400	64 900	66 400
	Pounds					
Maximum Taxi Weight (MTW)	Kilograms	130 955	136 466	139 773	143 080	146 387
	Pounds					
Maximum Takeoff Weight (MTOW)	Kilograms	59 000	61 500	63 000	64 500	66 000
	Pounds	130 073	135 584	138 891	142 198	145 505
Maximum Landing Weight (MLW)	Kilograms	56 000	56 000	57 500	57 500	57 500
	Pounds	123 459	123 459	126 766	126 766	126 766
Maximum Zero Fuel Weight (MZFW)	Kilograms	53 000	53 000	54 500	54 500	54 500
	Pounds	116 845	116 845	120 152	120 152	120 152

Aircraft Characteristics					
		WV005	WV006	WV007	WV008
Maximum Ramp Weight (MRW)	Kilograms	68 400	56 400	61 400	64 400
	Pounds				
Maximum Taxi Weight (MTW)	Kilograms	150 796	124 341	135 364	141 978
	Pounds				
Maximum Takeoff Weight (MTOW)	Kilograms	68 000	56 000	61 000	64 000
	Pounds	149 914	123 459	134 482	141 096
Maximum Landing Weight (MLW)	Kilograms	57 500	56 000	56 000	56 000
	Pounds	126 766	123 459	123 459	123 459
Maximum Zero Fuel Weight (MZFW)	Kilograms	54 500	53 000	53 000	53 000
	Pounds	120 152	116 845	116 845	116 845

- The following table provides characteristics of A318 Models, these data are common to each Weight Variant:

Aircraft Characteristics		
Standard Seating Capacity	Single-class	132

Aircraft Characteristics		
Usable Fuel Capacity	Liters	23 859
	US gallons	6 303
	Kilograms (density = 0.785 kg/l)	18 729
	Pounds	41 290
Pressurized Fuselage Volume (A/C non equipped)	Cubic meters	257
	Cubic feet	9 076
Passenger Compartment Volume	Cubic meters	107
	Cubic feet	3 779
Cockpit Volume	Cubic meters	9
	Cubic feet	318
Usable Volume, FWD CC	Cubic meters	6.72
	Cubic feet	237.3
Usable Volume, AFT CC	Cubic meters	8.87
	Cubic feet	313.3
Usable Volume, Bulk CC	Cubic meters	5.71
	Cubic feet	201.6
Water Volume, FWD CC	Cubic meters	8.34
	Cubic feet	294.5
Water Volume, AFT CC	Cubic meters	10.38
	Cubic feet	366.6
Water Volume, Bulk CC	Cubic meters	5.97
	Cubic feet	210.8



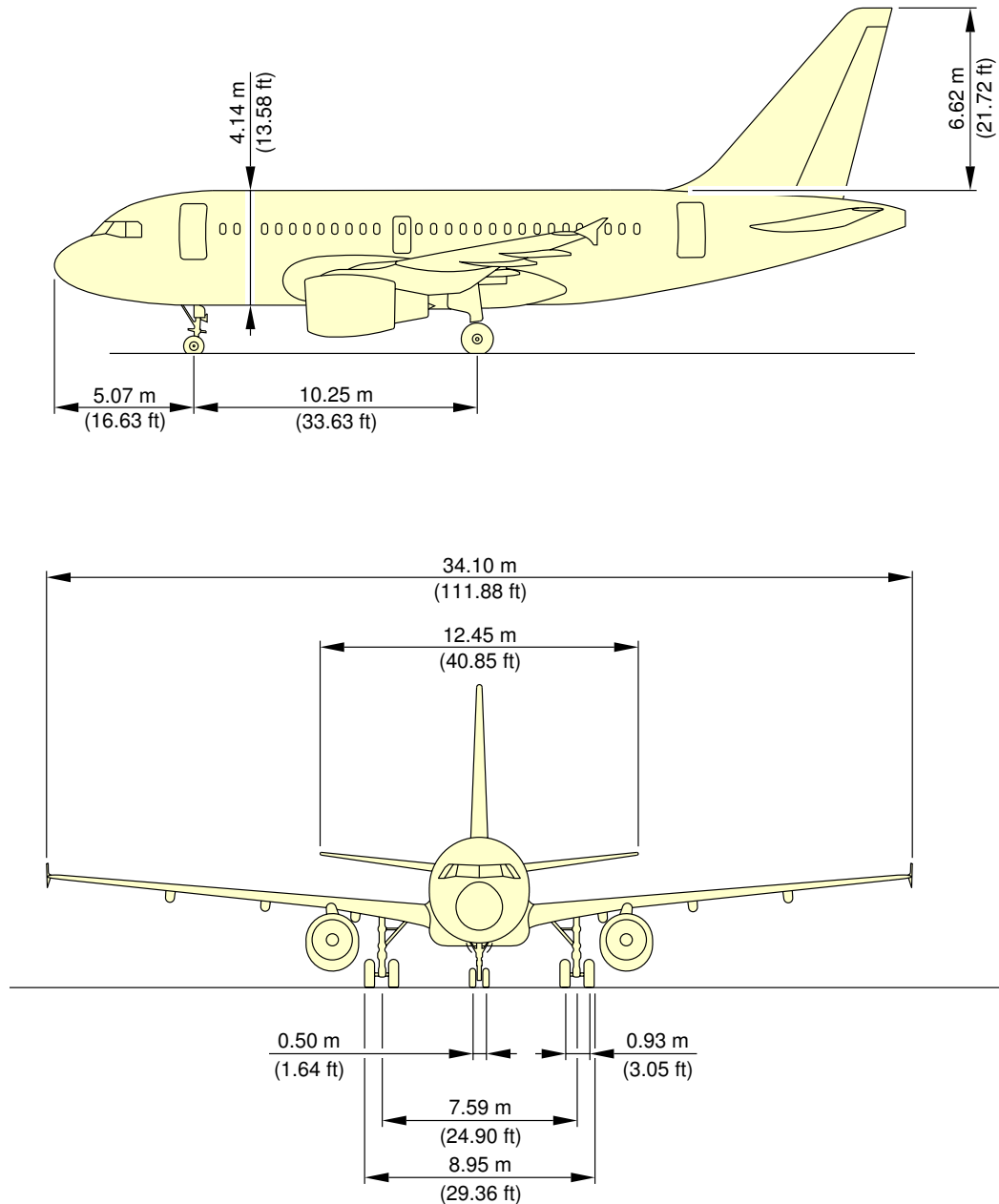
2-2-0 General Aircraft Dimensions

****ON A/C A318-100**

General Aircraft Dimensions

1. This section provides General Aircraft Dimensions.

****ON A/C A318-100**

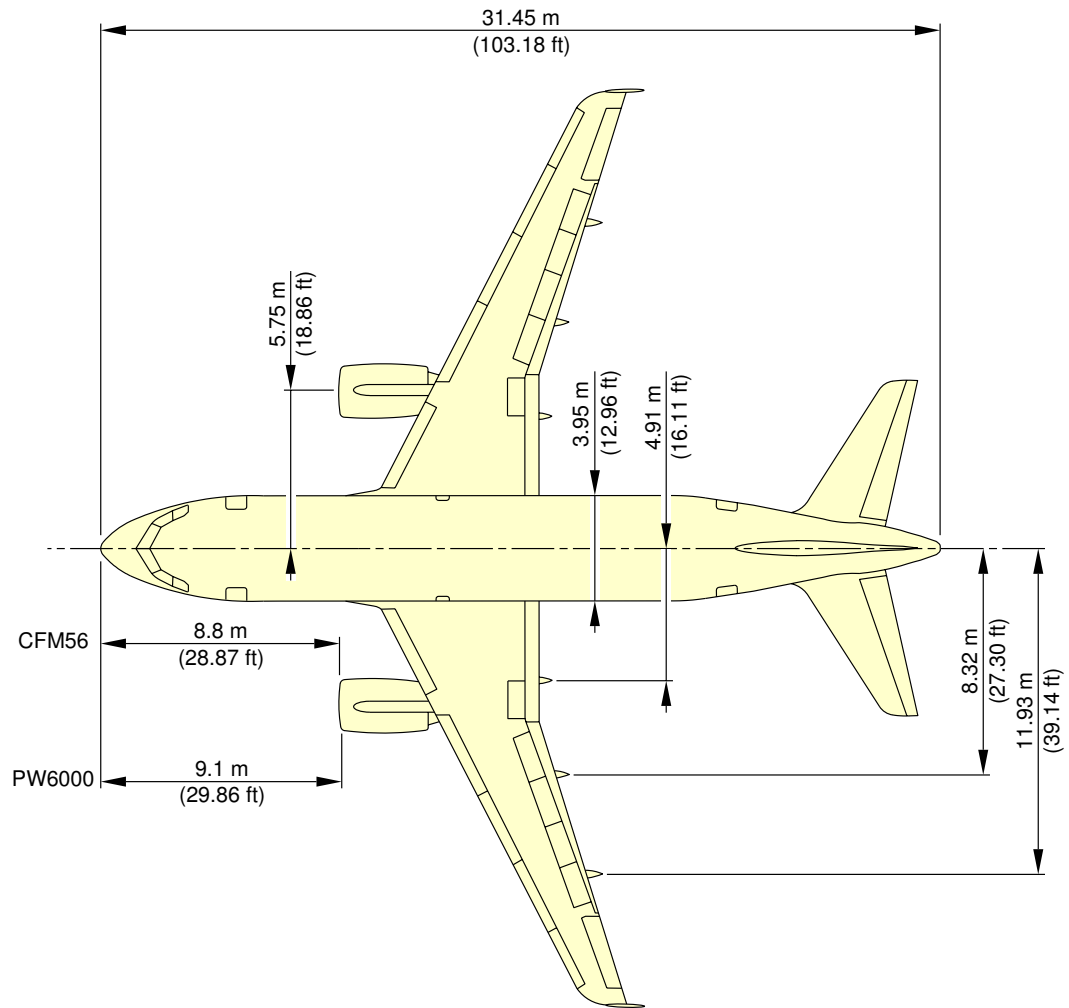


RELATED TO AIRCRAFT ATTITUDE AND WEIGHT

N_AC_020200_1_0010101_01_03

General Aircraft Dimensions
Wing Tip Fence (Sheet 1 of 4)
FIGURE-2-2-0-991-001-A01

****ON A/C A318-100**

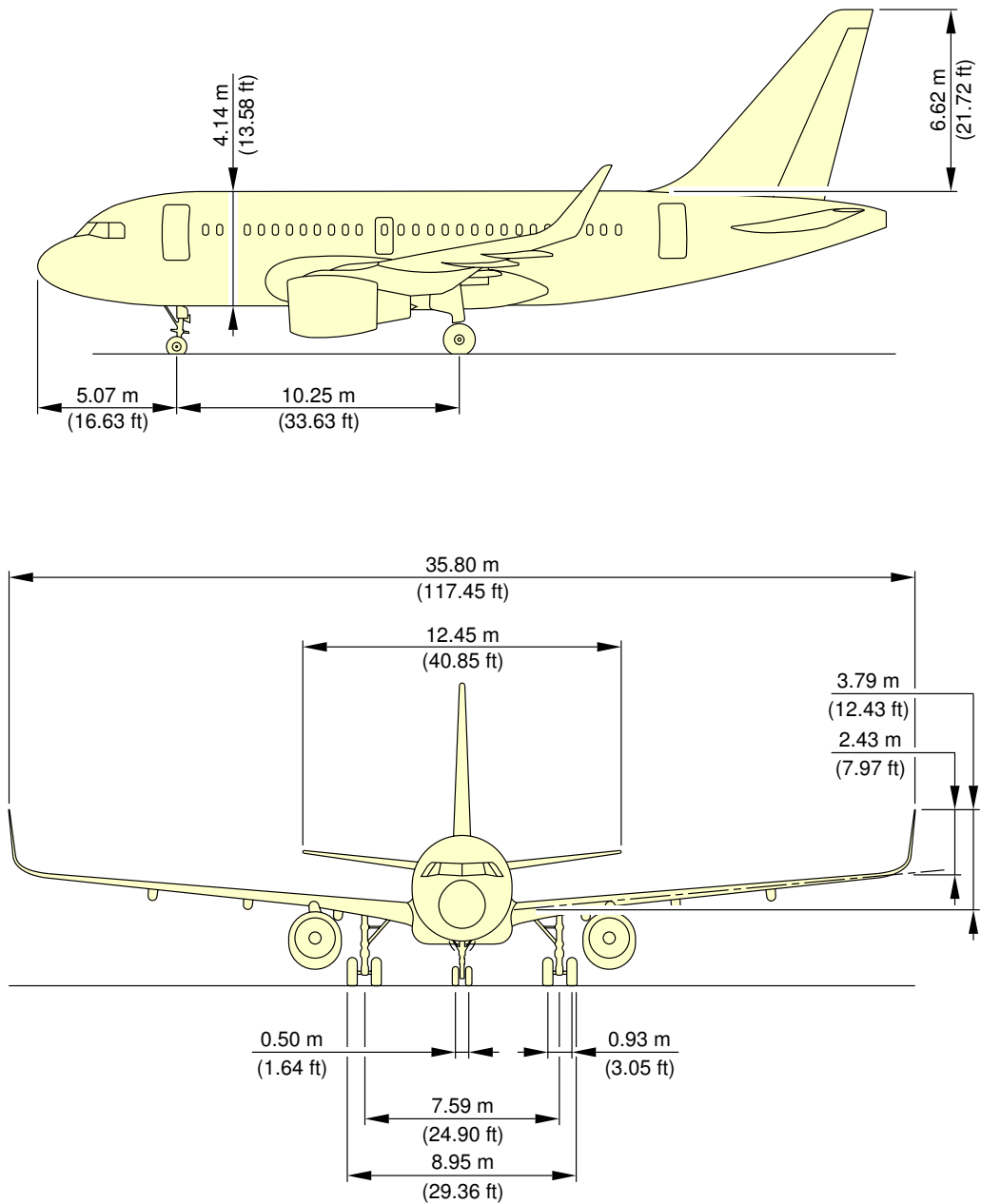


RELATED TO AIRCRAFT ATTITUDE AND WEIGHT

N_AC_020200_1_0010107_01_00

General Aircraft Dimensions
Wing Tip Fence (Sheet 2 of 4)
FIGURE-2-2-0-991-001-A01

****ON A/C A318-100**

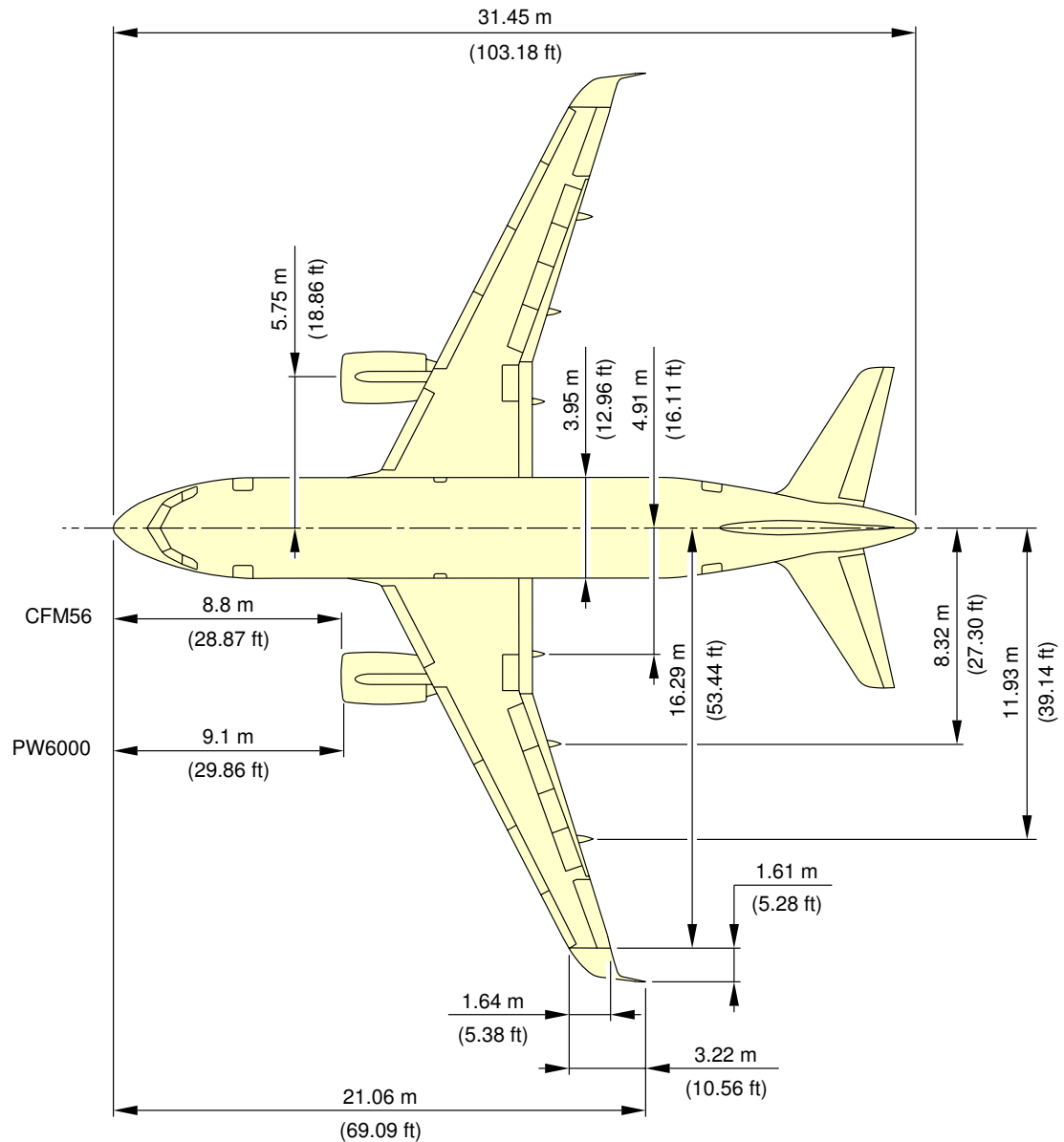


RELATED TO AIRCRAFT ATTITUDE AND WEIGHT

N_AC_020200_1_0010102_01_01

General Aircraft Dimensions
Sharklet (Sheet 3 of 4)
FIGURE-2-2-0-991-001-A01

****ON A/C A318-100**



RELATED TO AIRCRAFT ATTITUDE AND WEIGHT

N_AC_020200_1_0010108_01_00

General Aircraft Dimensions
Sharklet (Sheet 4 of 4)
FIGURE-2-2-0-991-001-A01

2-3-0 Ground Clearances****ON A/C A318-100**Ground Clearances

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

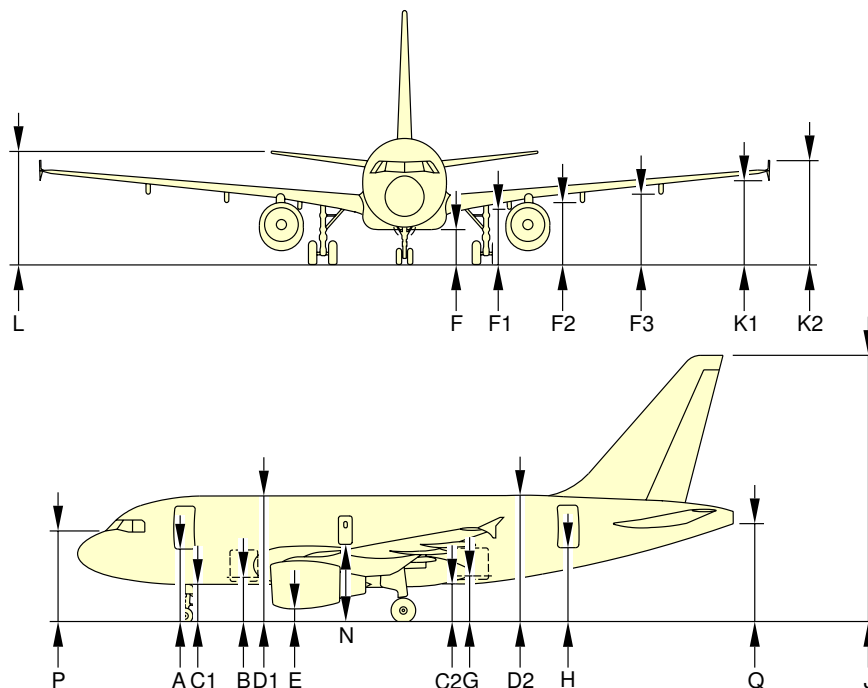
Dimensions in the tables are approximate and will vary with tire type, weight and balance and other special conditions.

The dimensions are given for:

- a light weight, for an A/C in maintenance configuration with a mid CG,
- the MRW for a light weight variant with a FWD CG and a AFT CG,
- the MRW for a heavy weight variant with a FWD CG and a AFT CG,
- aircraft on jacks, FDL at 4.6 m (15.09 ft).

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

****ON A/C A318-100**

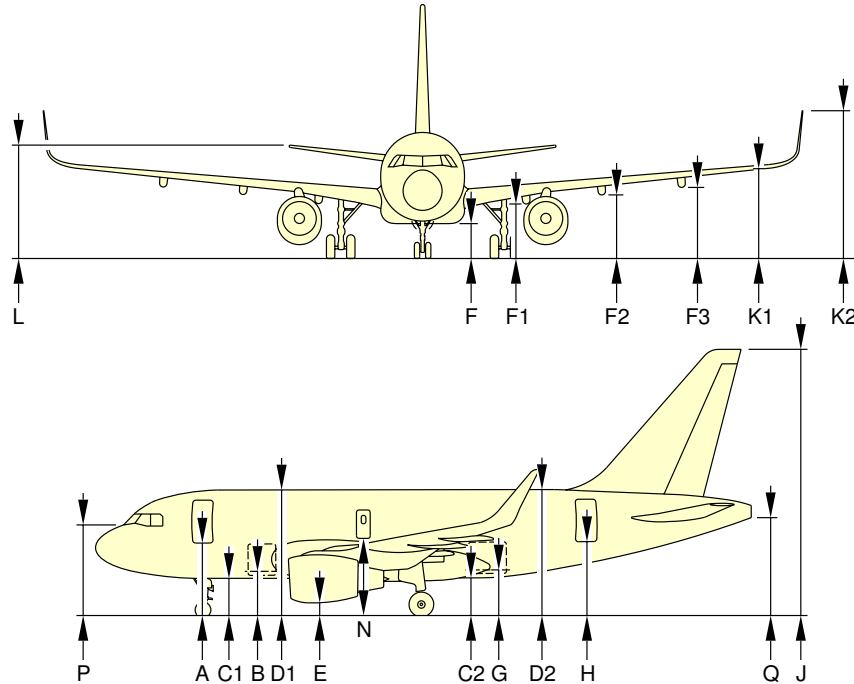


A/C CONFIG- URATION	39 t		MRW 59 t				MRW 64 t				A/C JACKED FDL = 4.60 m (15.09 ft)	
	CG 25%		FWD CG 15%		AFT CG 33.9%		FWD CG 15.8%		AFT CG 32%			
	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft
A	3.45	11.32	3.37	11.06	3.44	11.29	3.37	11.06	3.42	11.22	4.13	13.55
B	2.08	6.82	2.01	6.59	2.05	6.73	2.00	6.56	2.03	6.66	2.71	8.89
C1	1.79	5.87	1.71	5.61	1.76	5.77	1.71	5.61	1.74	5.71	2.43	7.97
C2	1.93	6.33	1.89	6.20	1.85	6.07	1.87	6.14	1.84	6.04	2.43	7.97
D1	5.93	19.46	5.86	19.23	5.91	19.39	5.86	19.23	5.89	19.32	6.58	21.59
D2	6.08	19.95	6.04	19.82	6.00	19.68	6.02	19.75	5.99	19.65	6.58	21.59
E (CFM)	0.66	2.17	0.60	1.97	0.61	2.00	0.59	1.94	0.60	1.97	1.24	4.07
E (PW)	0.78	2.56	0.72	2.36	0.73	2.40	0.71	2.33	0.72	2.36	1.36	4.46
F	1.74	5.71	1.69	5.54	1.67	5.48	1.67	5.48	1.65	5.41	2.26	7.41
F1	2.73	8.96	2.68	8.79	2.66	8.73	2.67	8.76	2.65	8.69	3.25	10.66
F2	3.17	10.40	3.12	10.24	3.09	10.14	3.11	10.20	3.08	10.10	3.68	12.07
F3	3.51	11.52	3.47	11.38	3.43	11.25	3.45	11.32	3.42	11.22	4.01	13.16
G	2.20	7.22	2.16	7.09	2.13	6.99	2.14	7.02	2.11	6.92	2.71	8.89
H	3.72	12.20	3.70	12.14	3.61	11.84	3.67	12.04	3.60	11.81	4.13	13.55
J	12.89	42.29	12.88	42.26	12.74	41.80	12.85	42.16	12.74	41.80	13.20	43.31
K1	3.92	12.86	3.88	12.73	3.83	12.57	3.86	12.66	3.82	12.53	4.38	14.37
K2	4.89	16.04	4.86	15.94	4.80	15.75	4.83	15.85	4.79	15.72	5.35	17.55
L	5.62	18.44	5.60	18.37	5.47	17.95	5.57	18.27	5.46	17.91	5.93	19.46
N	3.97	13.02	3.91	12.83	3.92	12.86	3.90	12.80	3.90	12.80	4.54	14.89
P	4.22	13.85	4.14	13.58	4.23	13.88	4.13	13.55	4.21	13.81	4.96	16.27
Q	4.91	16.11	4.91	16.11	4.76	15.62	4.87	15.98	4.75	15.58	5.20	17.06

NOTE: PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL. N_AC_020300_1_0010101_01_05

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

****ON A/C A318-100**

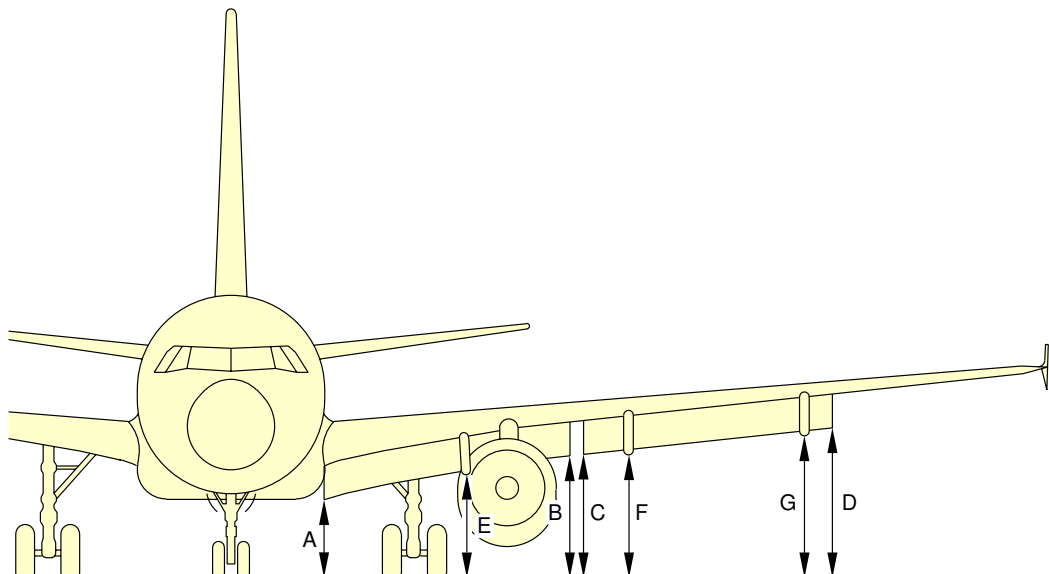


A/C CONFIG- URATION	39 t		MRW 59 t				MRW 64 t				A/C JACKED FDL = 4.60 m (15.09 ft)	
	CG 25%		FWD CG 15%		AFT CG 33.9%		FWD CG 15.8%		AFT CG 32%			
	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft
A	3.45	11.32	3.37	11.06	3.44	11.29	3.37	11.06	3.42	11.22	4.13	13.55
B	2.08	6.82	2.01	6.59	2.05	6.73	2.00	6.56	2.03	6.66	2.71	8.89
C1	1.79	5.87	1.71	5.61	1.76	5.77	1.71	5.61	1.74	5.71	2.43	7.97
C2	1.93	6.33	1.89	6.20	1.85	6.07	1.87	6.14	1.84	6.04	2.43	7.97
D1	5.93	19.46	5.86	19.23	5.91	19.39	5.86	19.23	5.89	19.32	6.58	21.59
D2	6.08	19.95	6.04	19.82	6.00	19.68	6.02	19.75	5.99	19.65	6.58	21.59
E (CFM)	0.66	2.17	0.60	1.97	0.61	2.00	0.59	1.94	0.60	1.97	1.24	4.07
E (PW)	0.78	2.56	0.72	2.36	0.73	2.40	0.71	2.33	0.72	2.36	1.36	4.46
F	1.74	5.71	1.69	5.54	1.67	5.48	1.67	5.48	1.65	5.41	2.26	7.41
F1	2.73	8.96	2.68	8.79	2.66	8.73	2.67	8.76	2.65	8.69	3.25	10.66
F2	3.17	10.40	3.12	10.24	3.09	10.14	3.11	10.20	3.08	10.10	3.68	12.07
F3	3.51	11.52	3.47	11.38	3.43	11.25	3.45	11.32	3.42	11.22	4.01	13.16
G	2.20	7.22	2.16	7.09	2.13	6.99	2.14	7.02	2.11	6.92	2.71	8.89
H	3.72	12.20	3.70	12.14	3.61	11.84	3.67	12.04	3.60	11.81	4.13	13.55
J	12.89	42.29	12.88	42.26	12.74	41.80	12.85	42.16	12.74	41.80	13.20	43.31
K1	4.19	13.75	4.15	13.62	4.10	13.45	4.13	13.55	4.09	13.42	4.65	15.26
K2	6.83	22.41	6.80	22.31	6.74	22.11	6.77	22.21	6.73	22.08	7.29	23.92
L	5.62	18.44	5.60	18.37	5.47	17.95	5.57	18.27	5.46	17.91	5.93	19.46
N	3.97	13.02	3.91	12.83	3.92	12.86	3.90	12.80	3.90	12.80	4.54	14.89
P	4.22	13.85	4.14	13.58	4.23	13.88	4.13	13.55	4.21	13.81	4.96	16.27
Q	4.91	16.11	4.91	16.11	4.76	15.62	4.87	15.98	4.75	15.58	5.20	17.06

NOTE: PASSENGER AND CARGO DOOR GROUND CLEARANCES ARE MEASURED FROM THE CENTER OF THE DOOR SILL AND FROM FLOOR LEVEL. N_AC_020300_1_0270101_01_00

Ground Clearances
Ground Clearances with Sharklets
FIGURE-2-3-0-991-027-A01

****ON A/C A318-100**

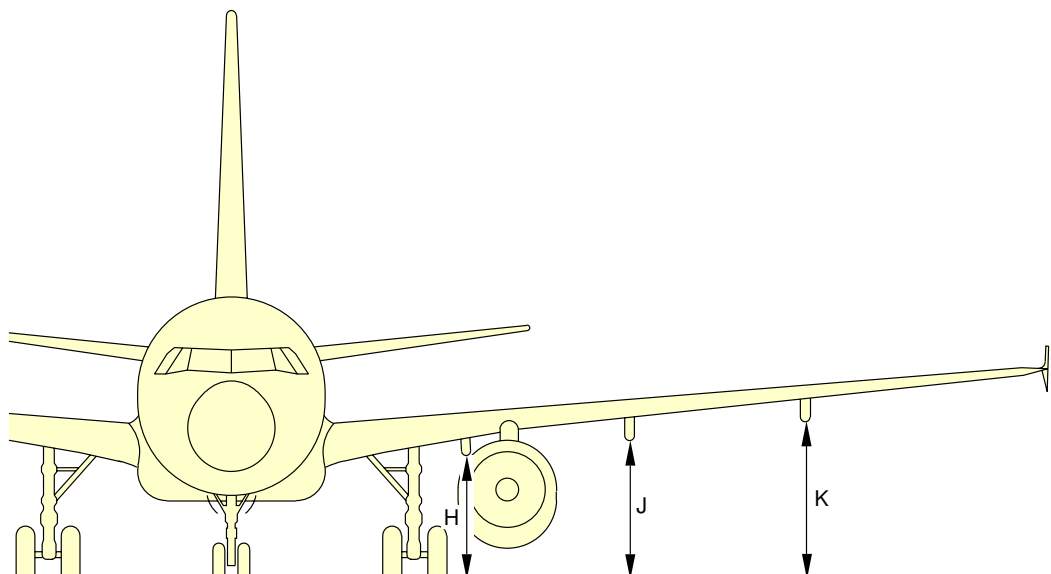


HEIGHT FROM GROUND						
	A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
	m	ft	m	ft	m	ft
A	2.05	6.73	1.99	6.53	1.96	6.43
B	2.77	9.09	2.71	8.89	2.68	8.79
C	2.81	9.22	2.75	9.02	2.72	8.92
D	3.65	11.98	3.60	11.81	3.54	11.61
E	2.1	6.89	2.03	6.66	2.0	6.56
F	2.59	8.50	2.53	8.30	2.49	8.17
G	3.05	10.01	2.99	9.81	2.94	9.65

N_AC_020300_1_0060101_01_00

Ground Clearances
Flaps and Flap Track Fairings When Flaps Fully Extended
FIGURE-2-3-0-991-006-A01

****ON A/C A318-100**

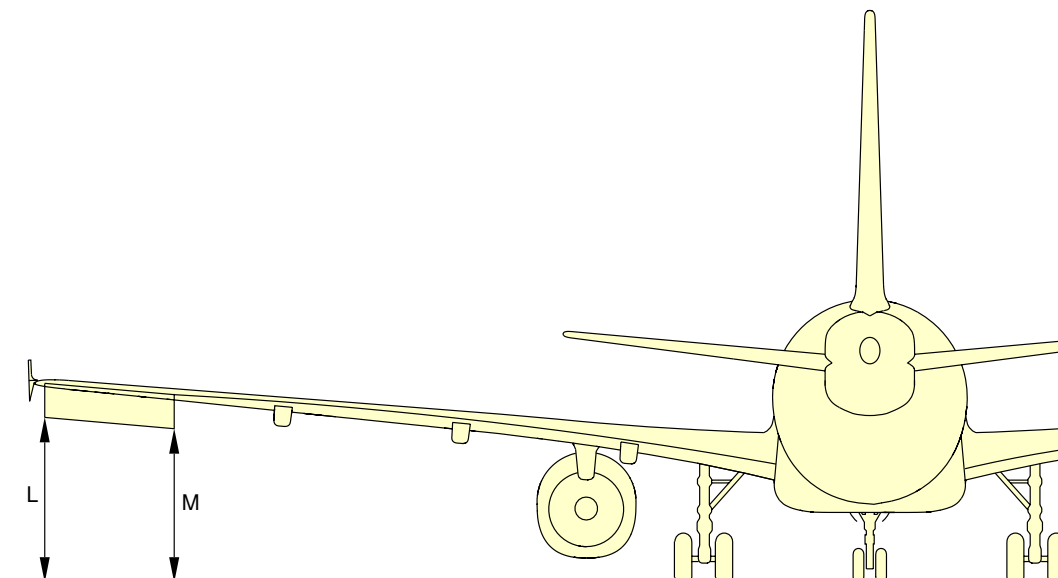


HEIGHT FROM GROUND						
	A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
	m	ft	m	ft	m	ft
H	2.68	8.79	2.62	8.60	2.59	8.50
J	3.09	10.14	3.02	9.91	3.0	9.84
K	3.48	11.42	3.42	11.22	3.39	11.12

N_AC_020300_1_0070101_01_00

Ground Clearances
Flap Track Fairings Up
FIGURE-2-3-0-991-007-A01

****ON A/C A318-100**

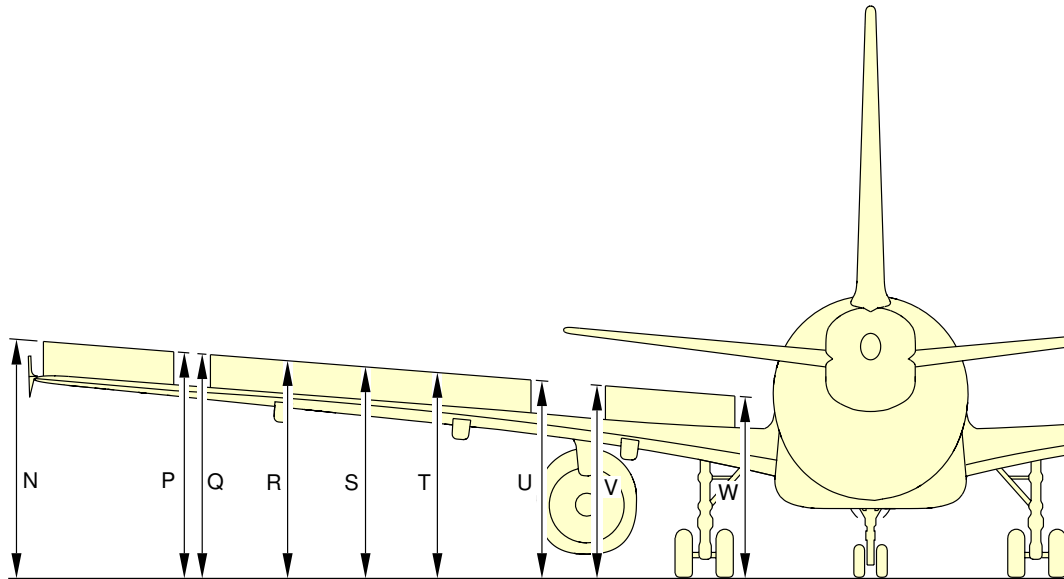


HEIGHT FROM GROUND						
	A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
	m	ft	m	ft	m	ft
L	4.19	13.75	4.13	13.55	4.07	13.35
M	3.84	12.60	3.78	12.40	3.74	12.27

N_AC_020300_1_0080101_01_00

Ground Clearances
Aileron Down
FIGURE-2-3-0-991-008-A01

****ON A/C A318-100**

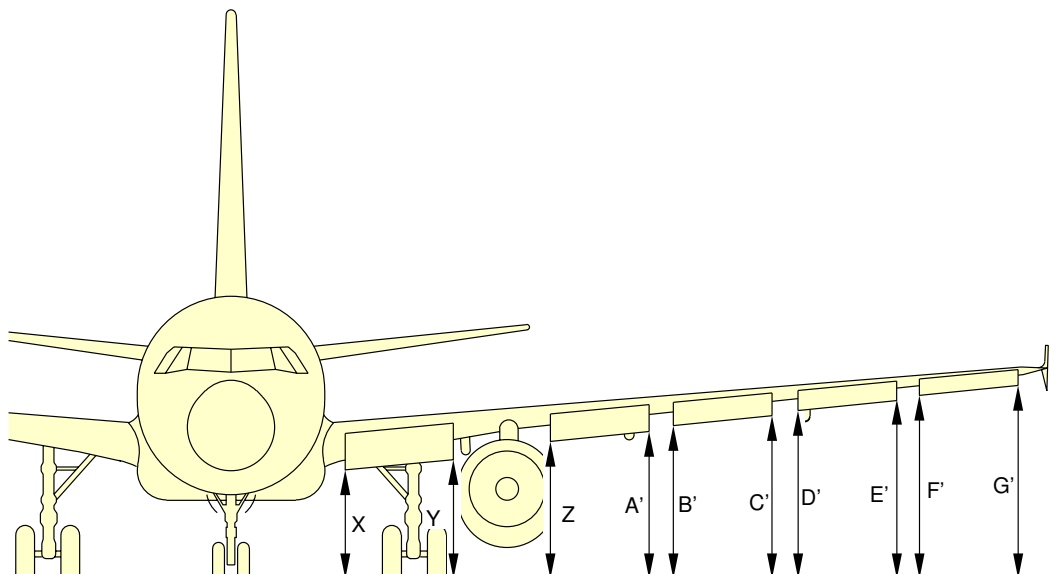


HEIGHT FROM GROUND						
	A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
	m	ft	m	ft	m	ft
N	4.57	14.99	4.51	14.80	4.26	13.98
P	4.37	14.34	4.31	14.14	4.45	14.60
Q	4.60	15.09	4.54	14.89	4.50	14.76
R	4.48	14.70	4.42	14.50	4.38	14.37
S	4.35	14.27	4.29	14.07	4.26	13.98
T	4.21	13.81	4.15	13.62	4.12	13.52
U	4.07	13.35	4.01	13.16	3.98	13.06
V	4.01	13.16	3.94	12.93	3.92	12.86
W	3.75	12.30	3.69	12.11	3.66	12.01

N_AC_020300_1_0090101_01_00

Ground Clearances
Aileron Up and Spoilers 1 to 5 Extended
FIGURE-2-3-0-991-009-A01

****ON A/C A318-100**



HEIGHT FROM GROUND						
	A/C IN MAINTENANCE CONFIGURATION MID CG		MAXIMUM RAMP WEIGHT FWD CG		MAXIMUM RAMP WEIGHT AFT CG	
	m	ft	m	ft	m	ft
X	2.54	8.33	2.48	8.14	2.5	8.20
Y	2.96	9.71	2.90	9.51	2.91	9.55
Z	3.05	10.01	2.99	9.81	2.99	9.81
A'	3.35	10.99	3.29	10.79	3.28	10.76
B'	3.35	10.99	3.29	10.79	3.28	10.76
C'	3.61	11.84	3.55	11.65	3.53	11.58
D'	3.61	11.84	3.55	11.65	3.53	11.58
E'	3.86	12.66	3.80	12.47	3.77	12.37
F'	3.86	12.66	3.80	12.47	3.77	12.37
G'	4.10	13.45	4.04	13.25	4.0	13.12

N_AC_020300_1_0100101_01_00

Ground Clearances
Slats Extended
FIGURE-2-3-0-991-010-A01

2-4-0 Interior Arrangements****ON A/C A318-100**Interior Arrangements

1. This section gives the standard interior arrangements configuration.



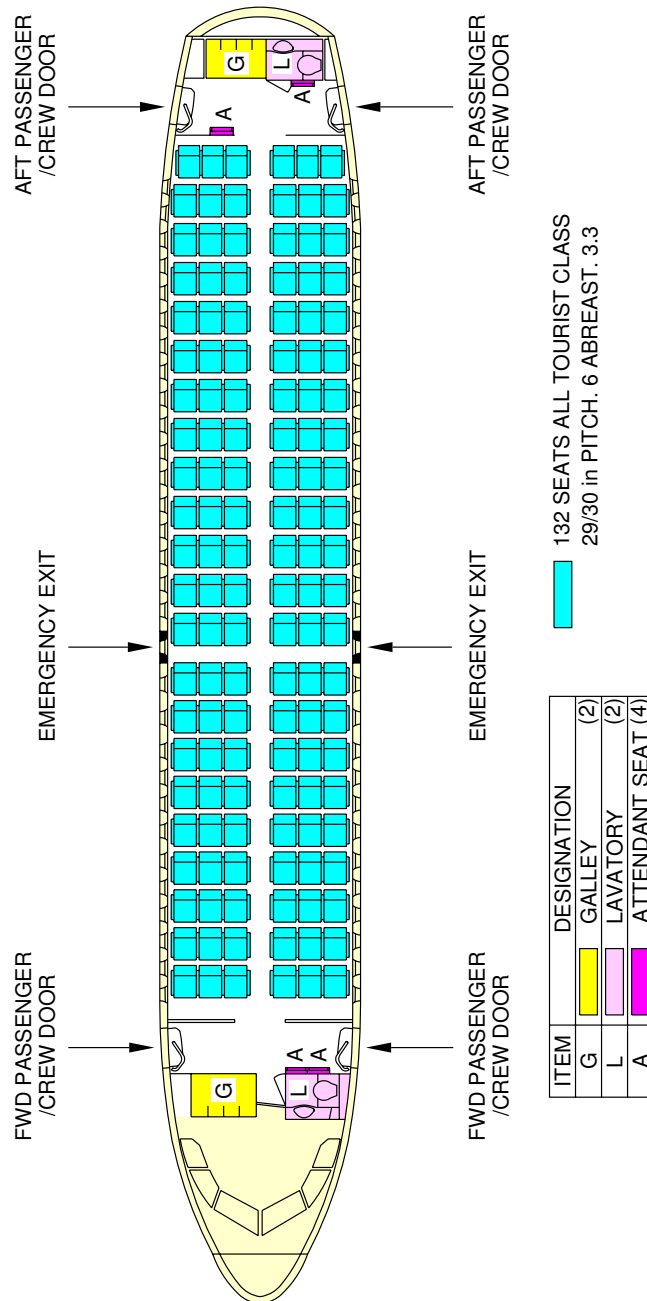
2-4-1 Passenger Compartment Layout

****ON A/C A318-100**

Typical Configuration

1. This section gives the typical interior configuration.

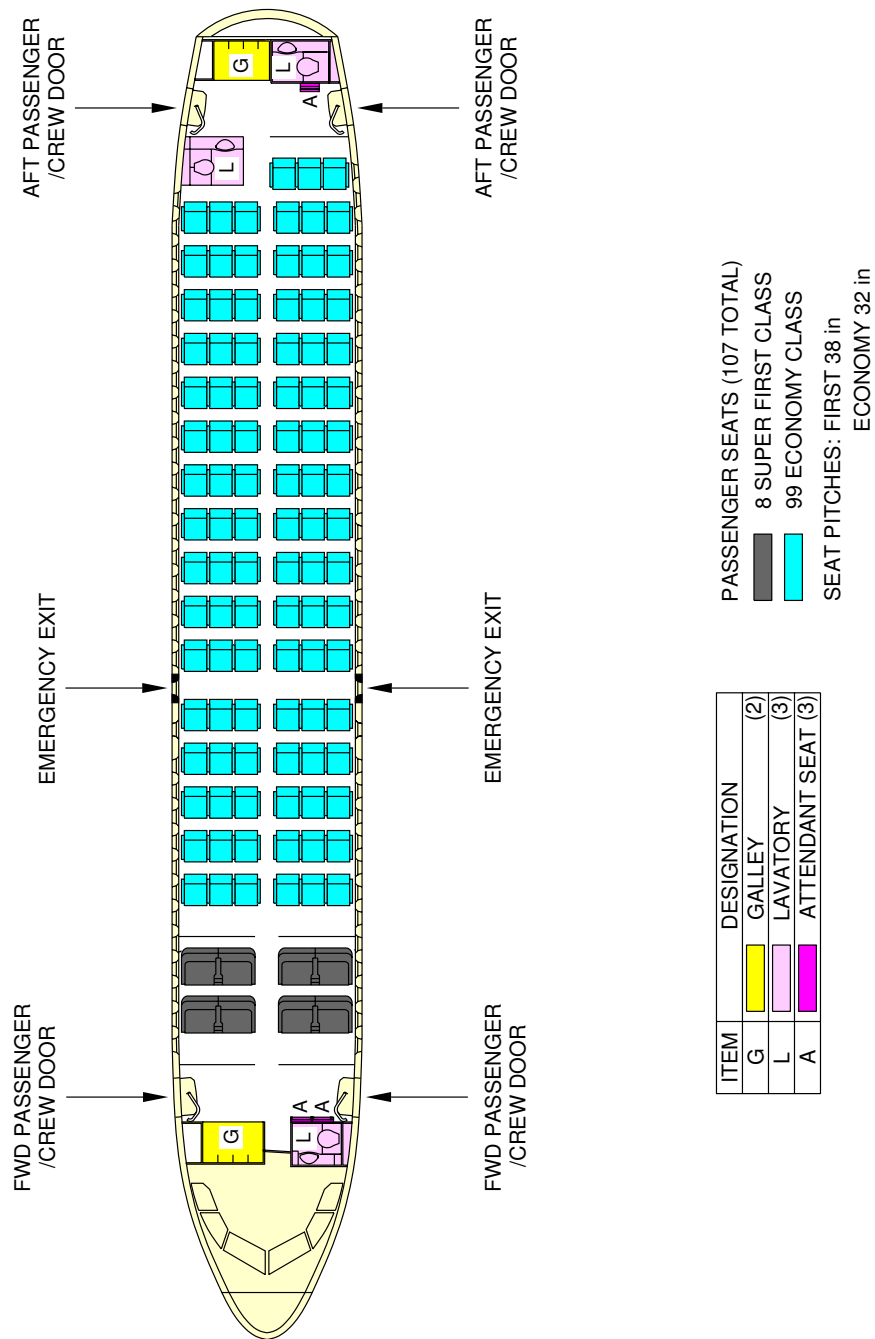
****ON A/C A318-100**



N_AC_020401_1_0010101_01_01

Typical Configuration
Typical Configuration Single-Class, High Density
FIGURE-2-4-1-991-001-A01

****ON A/C A318-100**



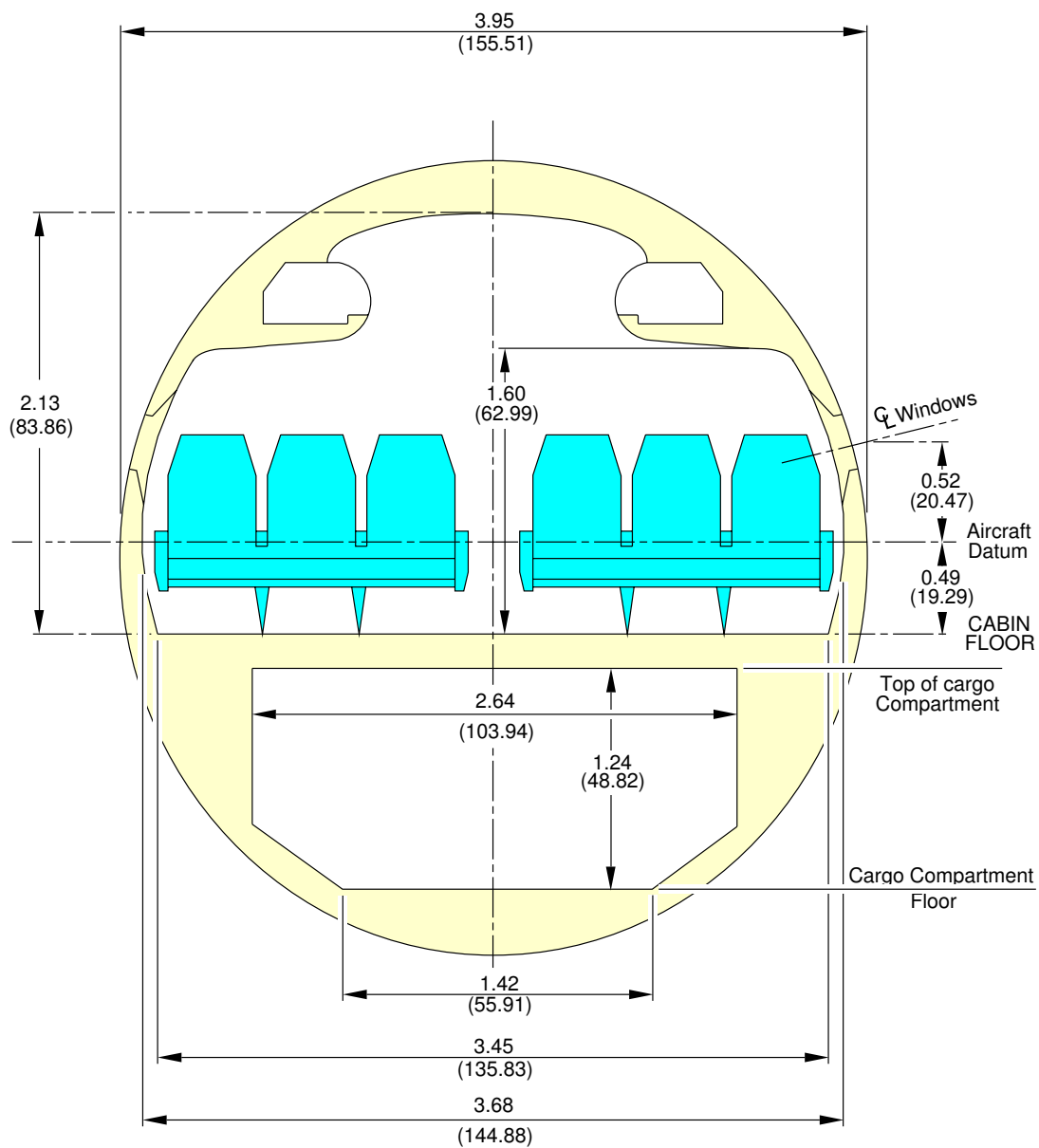
N_AC_020401_1_0070101_01_00

Typical Configuration
Typical Configuration Two-Class
FIGURE-2-4-1-991-007-A01

2-5-0 Passenger Compartment Cross Section****ON A/C A318-100**Passenger Compartment Cross-section

1. This section gives the typical passenger compartment cross-section configuration.

****ON A/C A318-100**

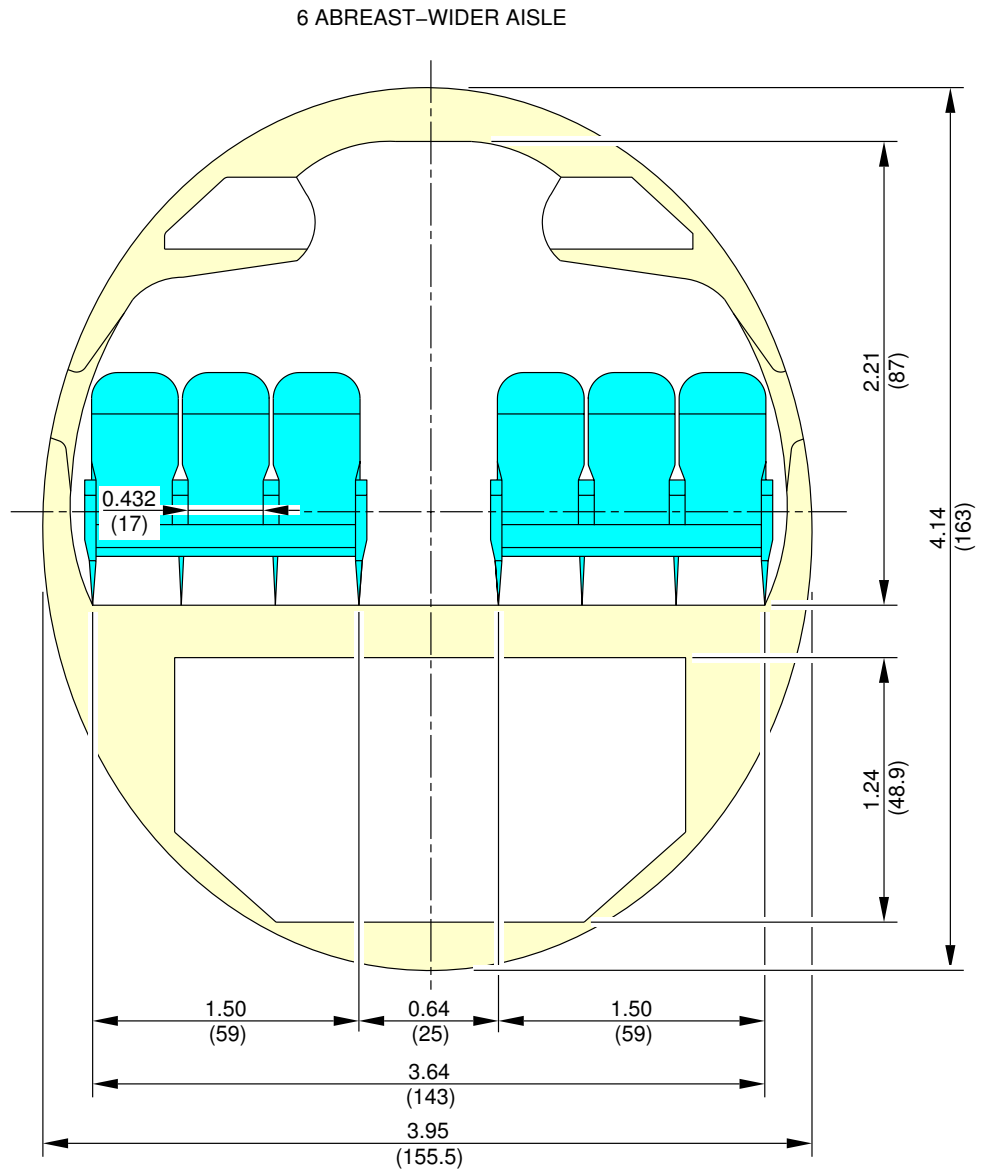


NOTE: DIMENSIONS m (in)

N_AC_020500_1_0010101_01_01

Passenger Compartment Cross-section
FIGURE-2-5-0-991-001-A01

****ON A/C A318-100**

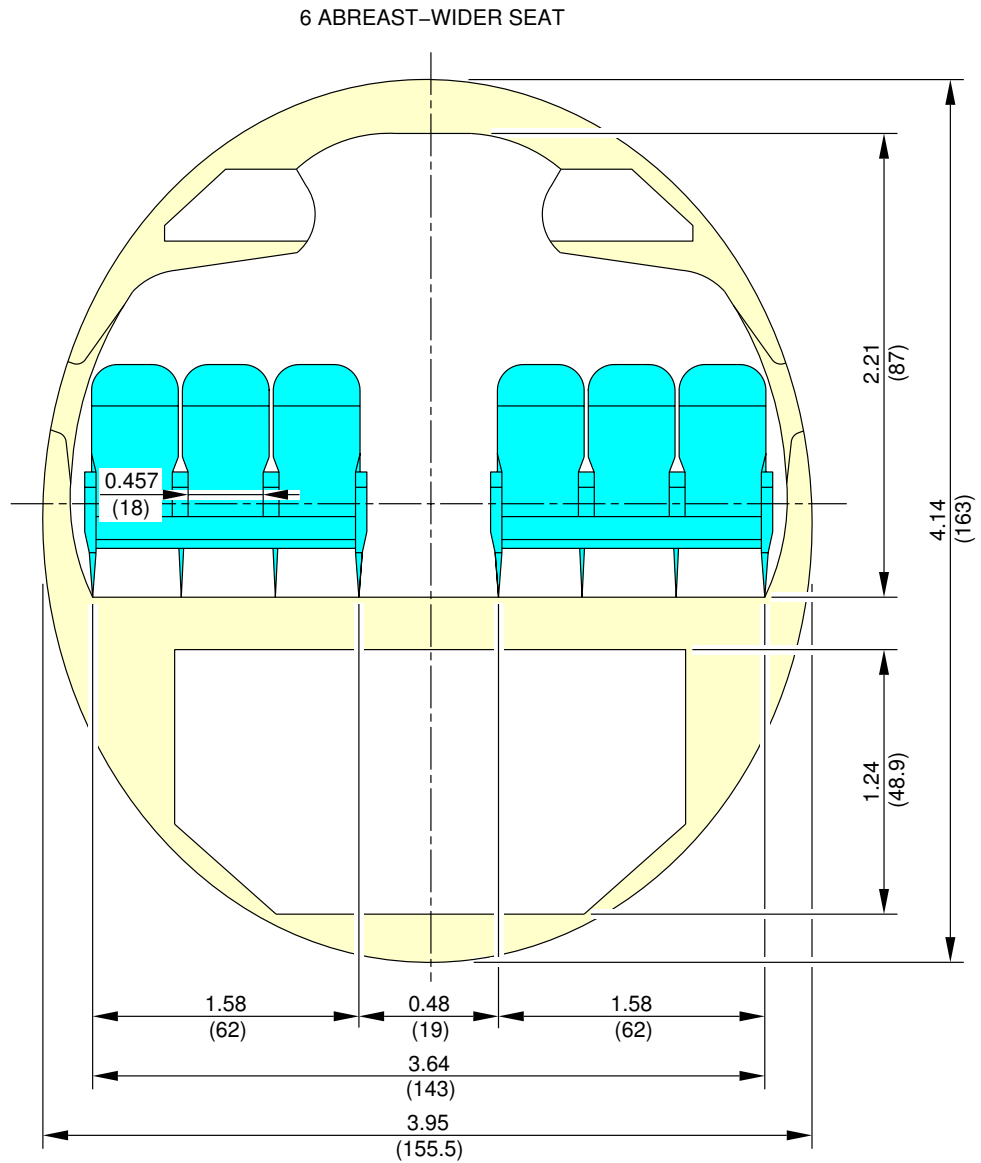


NOTE: DIMENSIONS m (in)

N_AC_020500_1_0050101_01_00

Passenger Compartment Cross-section
Economy Class, 6 Abreast - Wider Aisle (Sheet 1 of 2)
FIGURE-2-5-0-991-005-A01

****ON A/C A318-100**

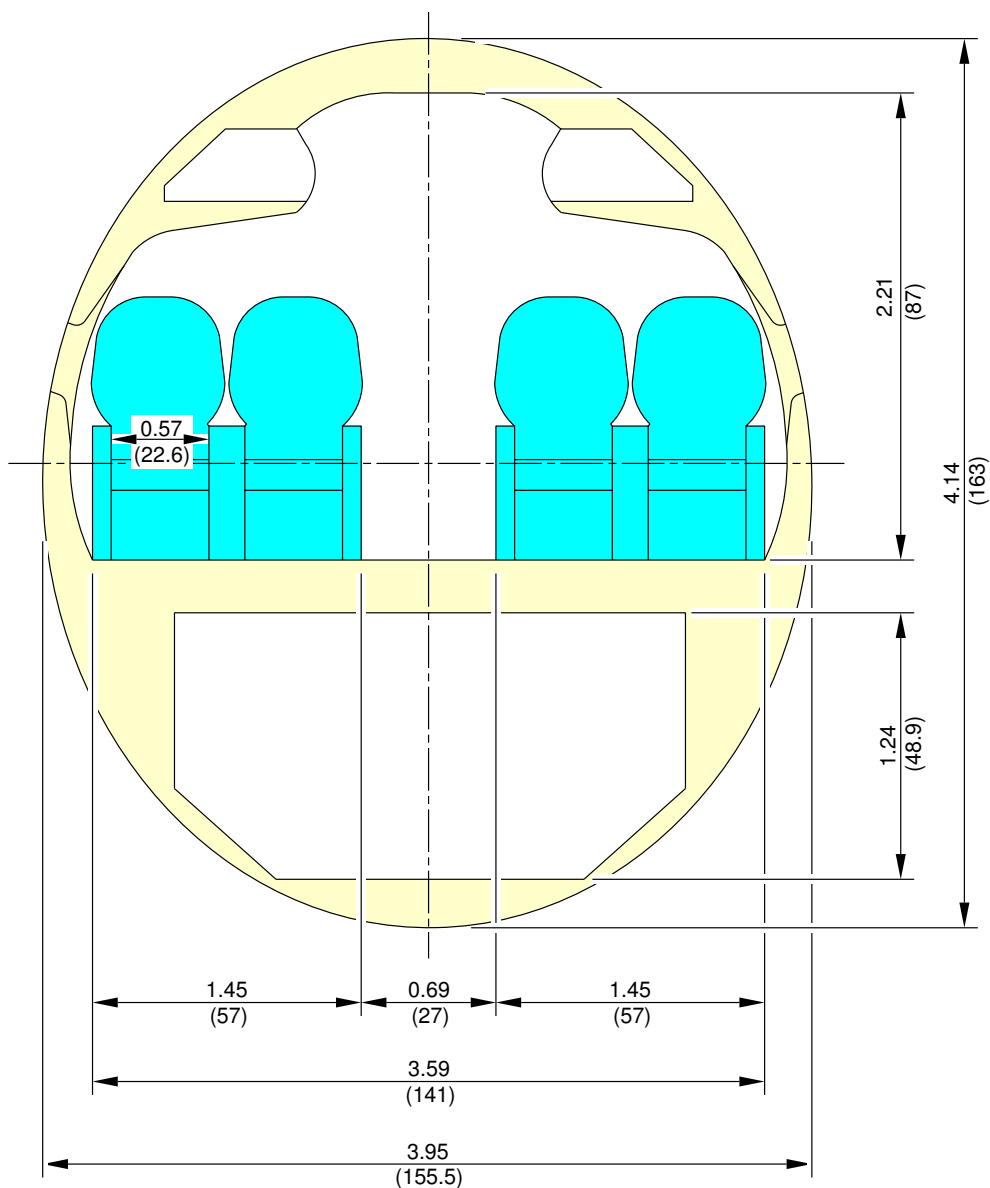


NOTE: DIMENSIONS m (in)

N_AC_020500_1_0050102_01_02

Passenger Compartment Cross-section
Economy Class, 6 Abreast - Wider Seat (Sheet 2 of 2)
FIGURE-2-5-0-991-005-A01

4 ABREAST-FIRST CLASS



N_AC_020500_1_0060101_01_00

Passenger Compartment Cross-section
Passenger Compartment Cross-section, First-class
FIGURE-2-5-0-991-006-A01



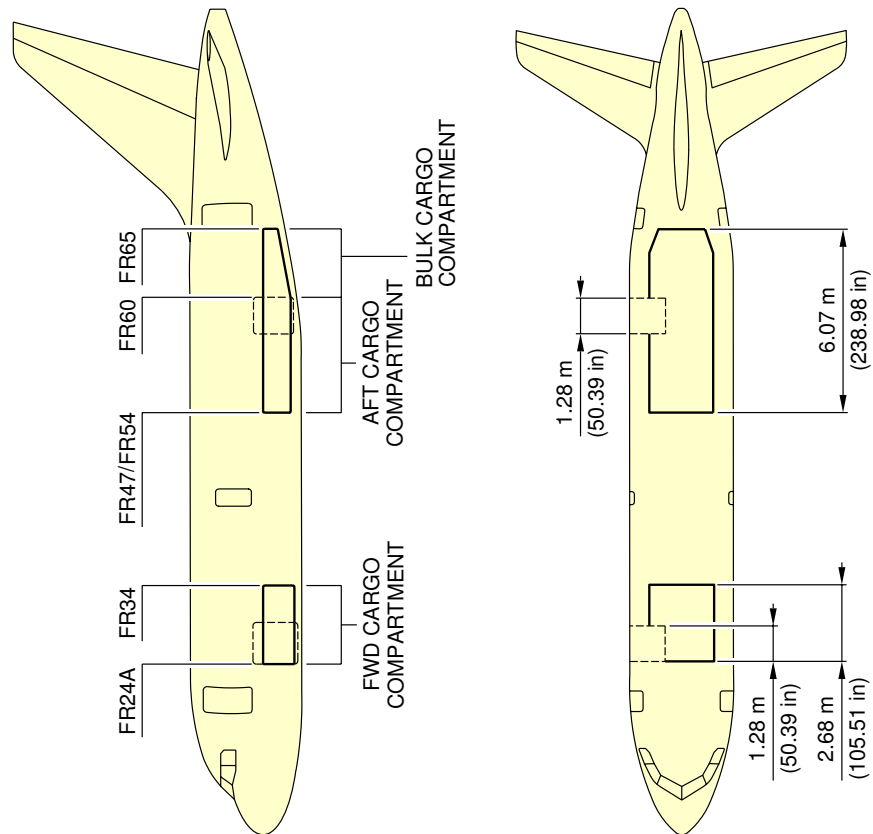
2-6-0 Cargo Compartments

****ON A/C A318-100**

Cargo Compartments

1. This section gives the cargo compartments locations, dimensions and loading combinations.

****ON A/C A318-100**



N_AC_020600_1_0010101_01_00

Cargo Compartments
Locations, Dimensions and Loading Combinations
FIGURE-2-6-0-991-001-A01



2-7-0 Door Clearances

****ON A/C A318-100**

Doors Clearances

1. This section gives doors clearances.



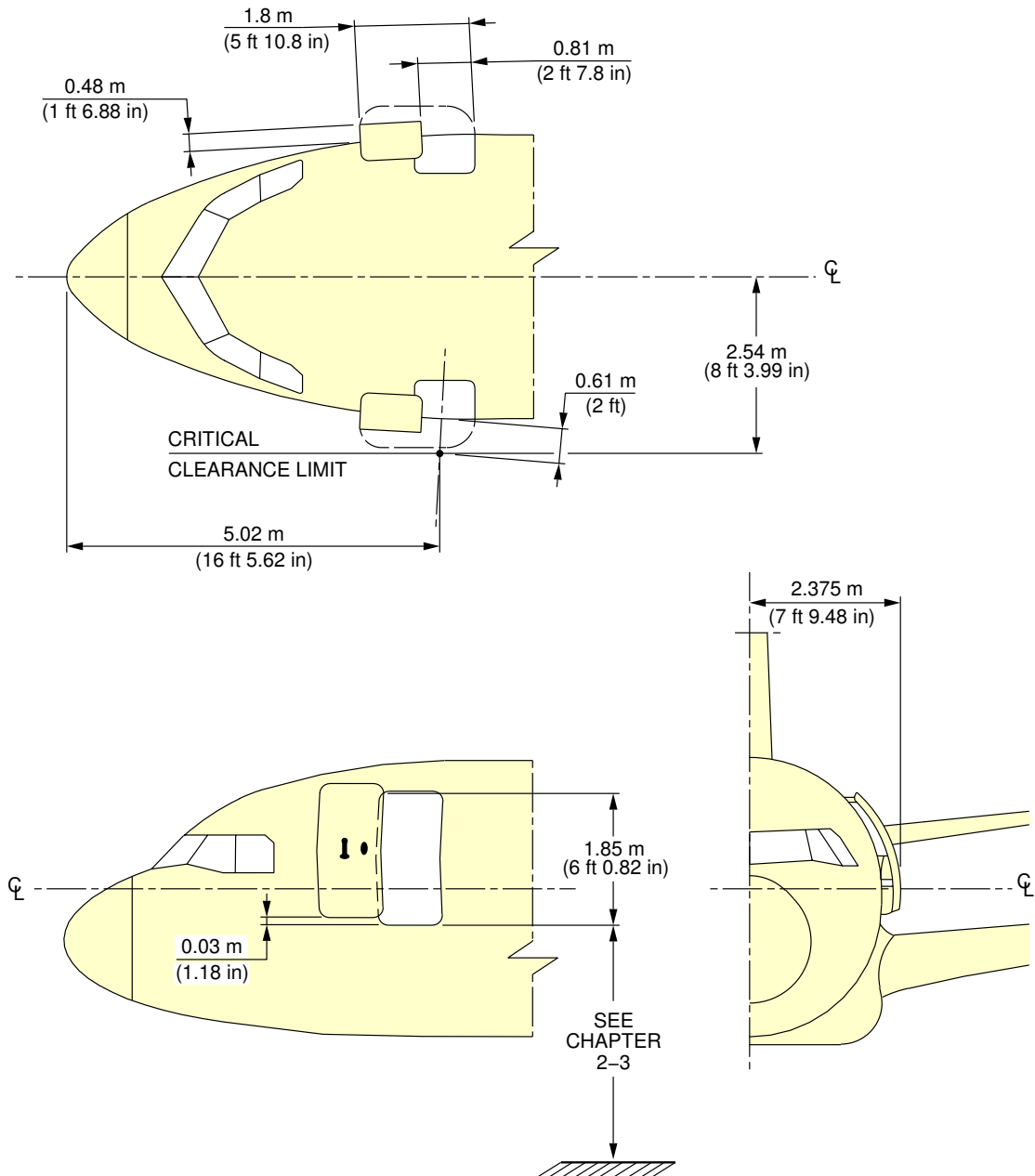
2-7-1 Forward Passenger / Crew Doors

****ON A/C A318-100**

Forward Passenger / Crew Doors

1. This section gives forward passenger / crew doors clearances.

****ON A/C A318-100**



N_AC_020701_1_0010101_01_00

Doors Clearances
Forward Passenger / Crew Doors
FIGURE-2-7-1-991-001-A01



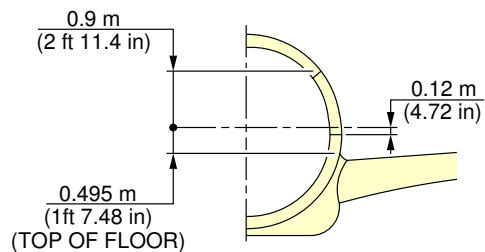
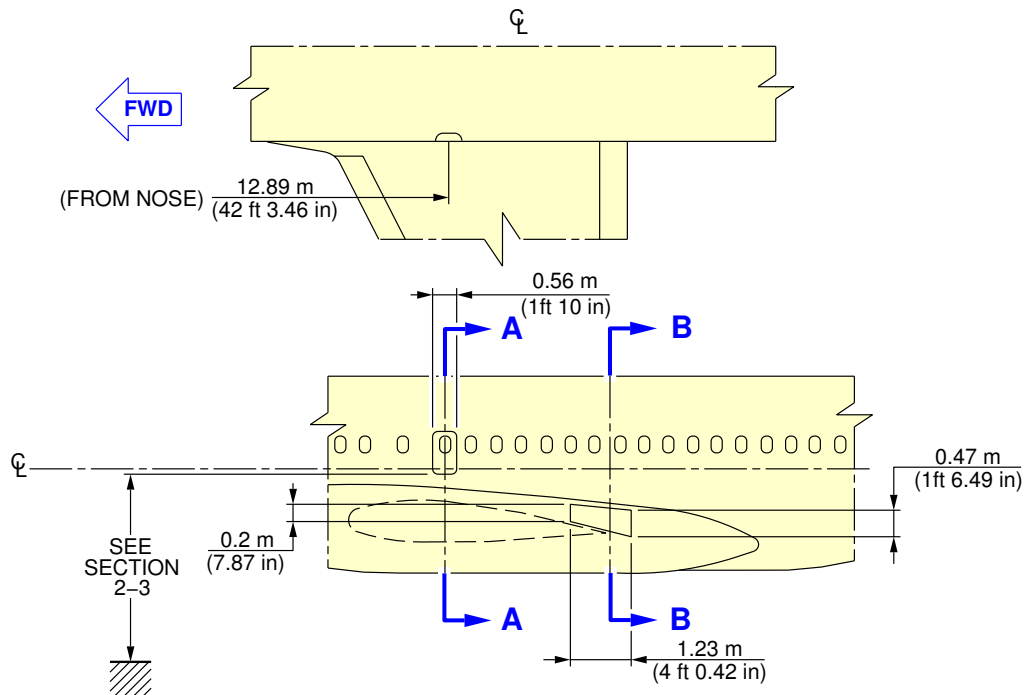
2-7-2 Emergency Exits

****ON A/C A318-100**

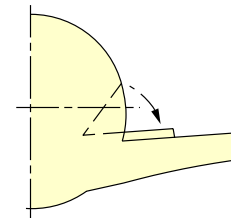
Emergency Exits

1. This section gives emergency exits doors clearances.

****ON A/C A318-100**



A - A



B-B

(FRAME 47)

NOTE: ESCAPE SLIDE COMPARTMENT DOOR
OPENS ON WING UPPER SURFACE.

N_AC_020702_1_0020101_01_00

Doors Clearances
Emergency Exits
FIGURE-2-7-2-991-002-A01



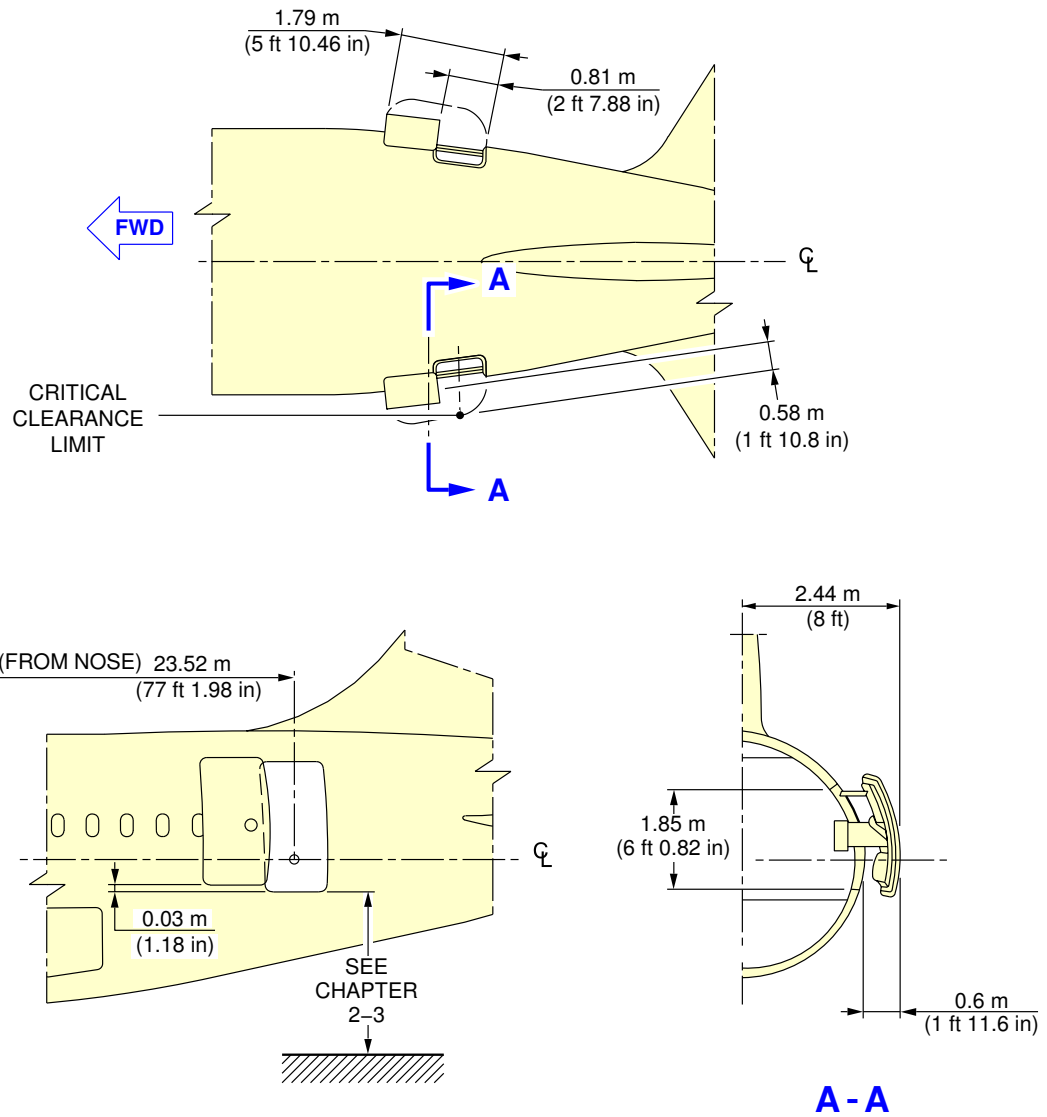
2-7-3 Aft Passenger / Crew Doors

****ON A/C A318-100**

Aft Passenger / Crew Doors

1. This section gives Aft passenger / crew doors clearances.

****ON A/C A318-100**



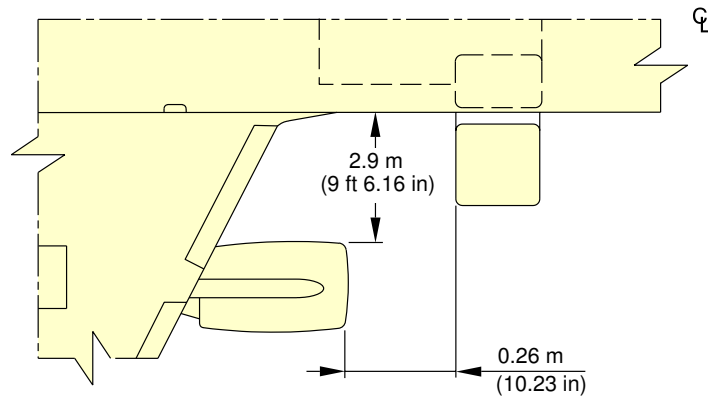
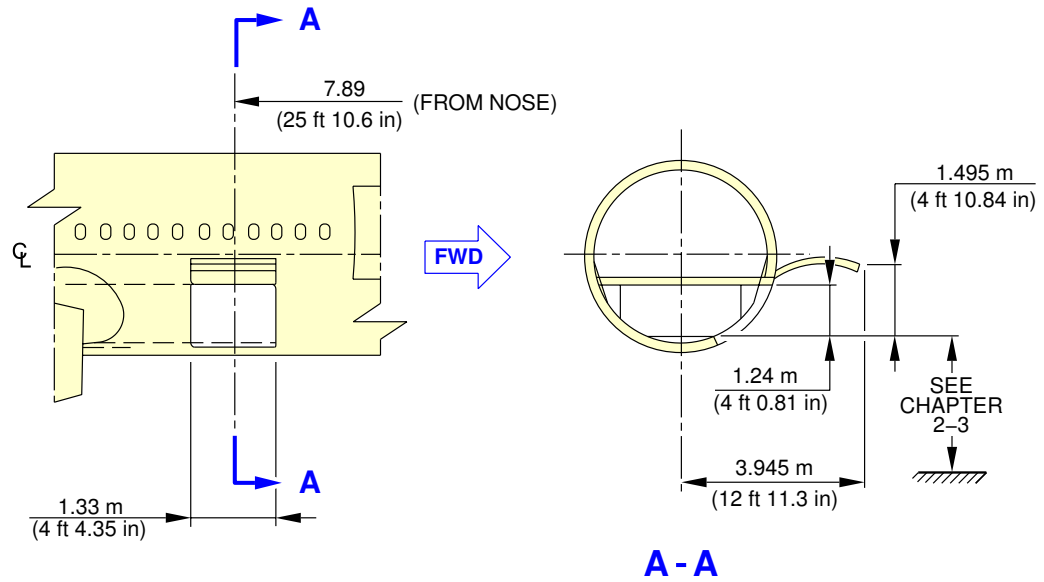
N_AC_020703_1_0010101_01_00

Doors Clearances
Aft Passenger / Crew Doors
FIGURE-2-7-3-991-001-A01

2-7-4 Forward Cargo Compartment Doors****ON A/C A318-100**Forward Cargo Compartment Door

1. This section gives forward cargo compartment door clearances.

****ON A/C A318-100**



N_AC_020704_1_0010101_01_00

Doors Clearances
Forward Cargo Compartment Door
FIGURE-2-7-4-991-001-A01



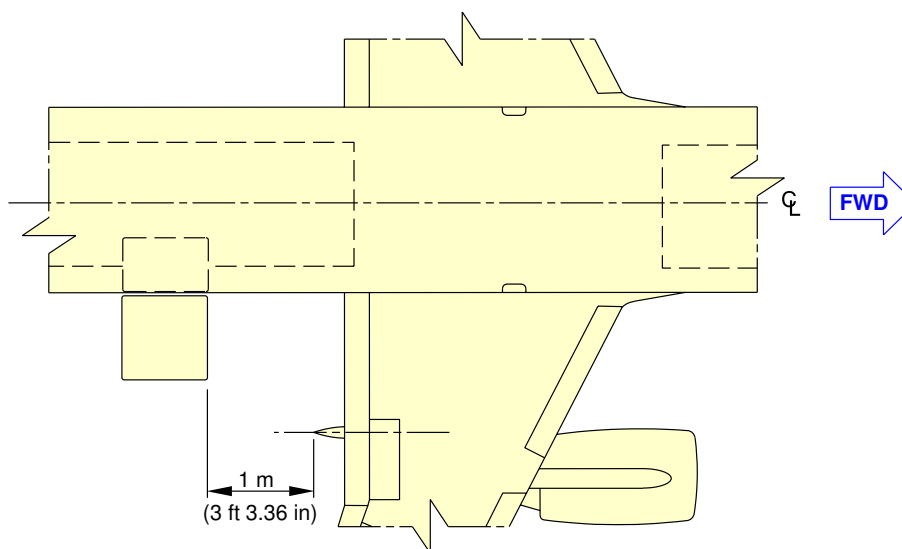
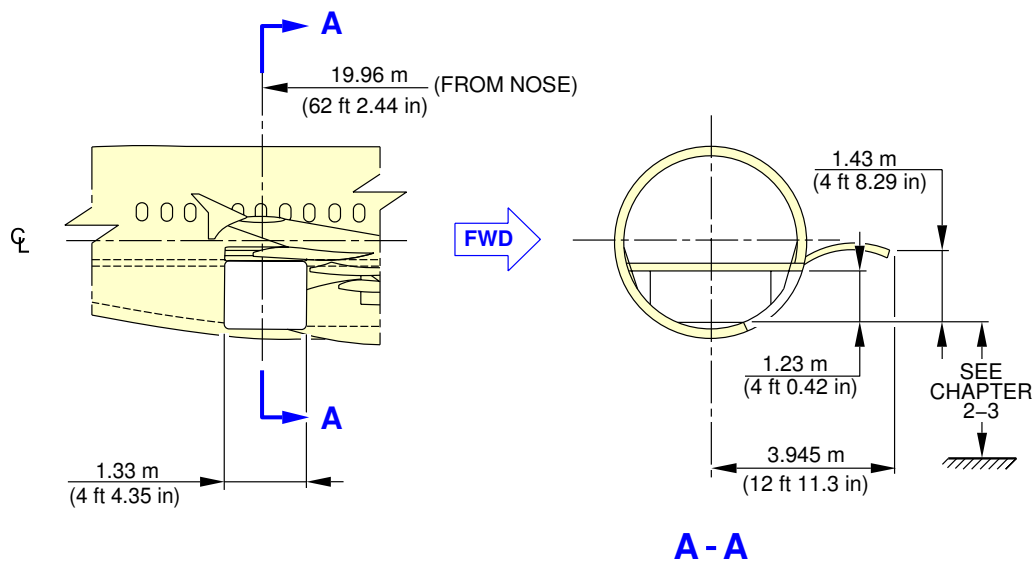
2-7-5 Aft Cargo Compartment Doors

****ON A/C A318-100**

Aft Cargo Compartment Door

1. This section gives Aft cargo compartment door clearances.

****ON A/C A318-100**



N_AC_020705_1_0010101_01_01

Doors Clearances
Aft Cargo Compartment Door
FIGURE-2-7-5-991-001-A01



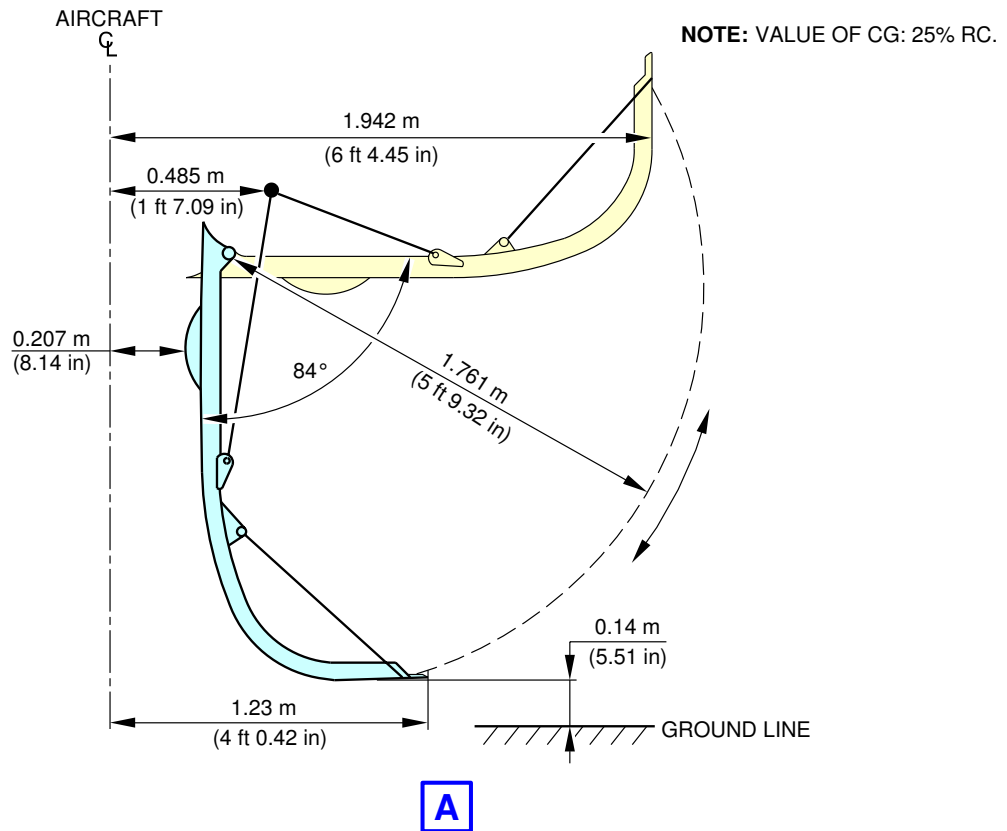
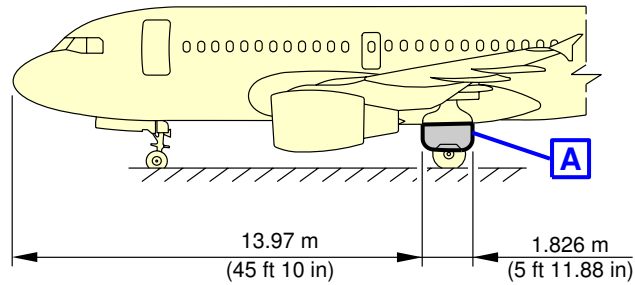
2-7-7 Main Landing Gear Doors

****ON A/C A318-100**

Main Landing Gear Doors

1. This section gives the main landing gear doors clearances.

****ON A/C A318-100**



N_AC_020707_1_0010101_01_02

Doors Clearances
Main Landing Gear Doors
FIGURE-2-7-7-991-001-A01



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

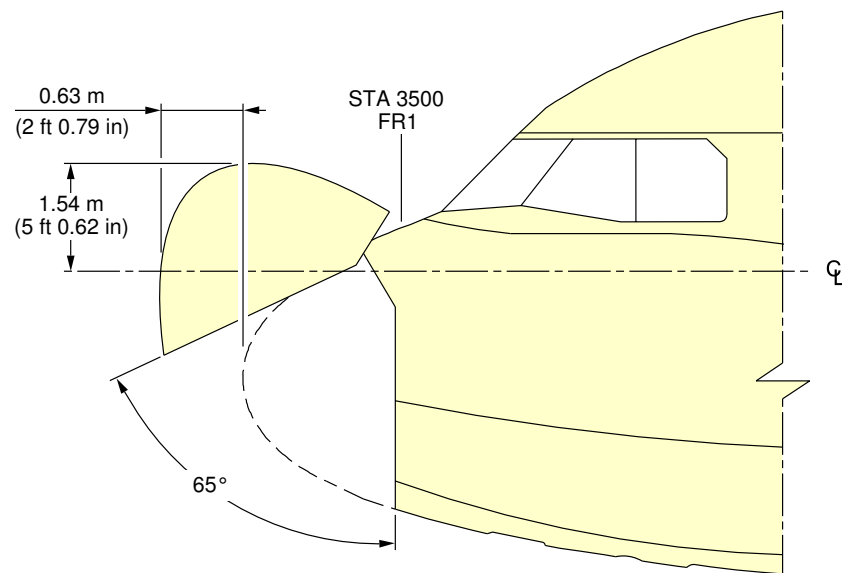
2-7-8 Radome

****ON A/C A318-100**

Radome

1. This section gives the radome clearances.

****ON A/C A318-100**



N_AC_020708_1_0010101_01_00

Doors Clearances
Radome
FIGURE-2-7-8-991-001-A01



2-7-9 APU and Nose Landing Gear Doors

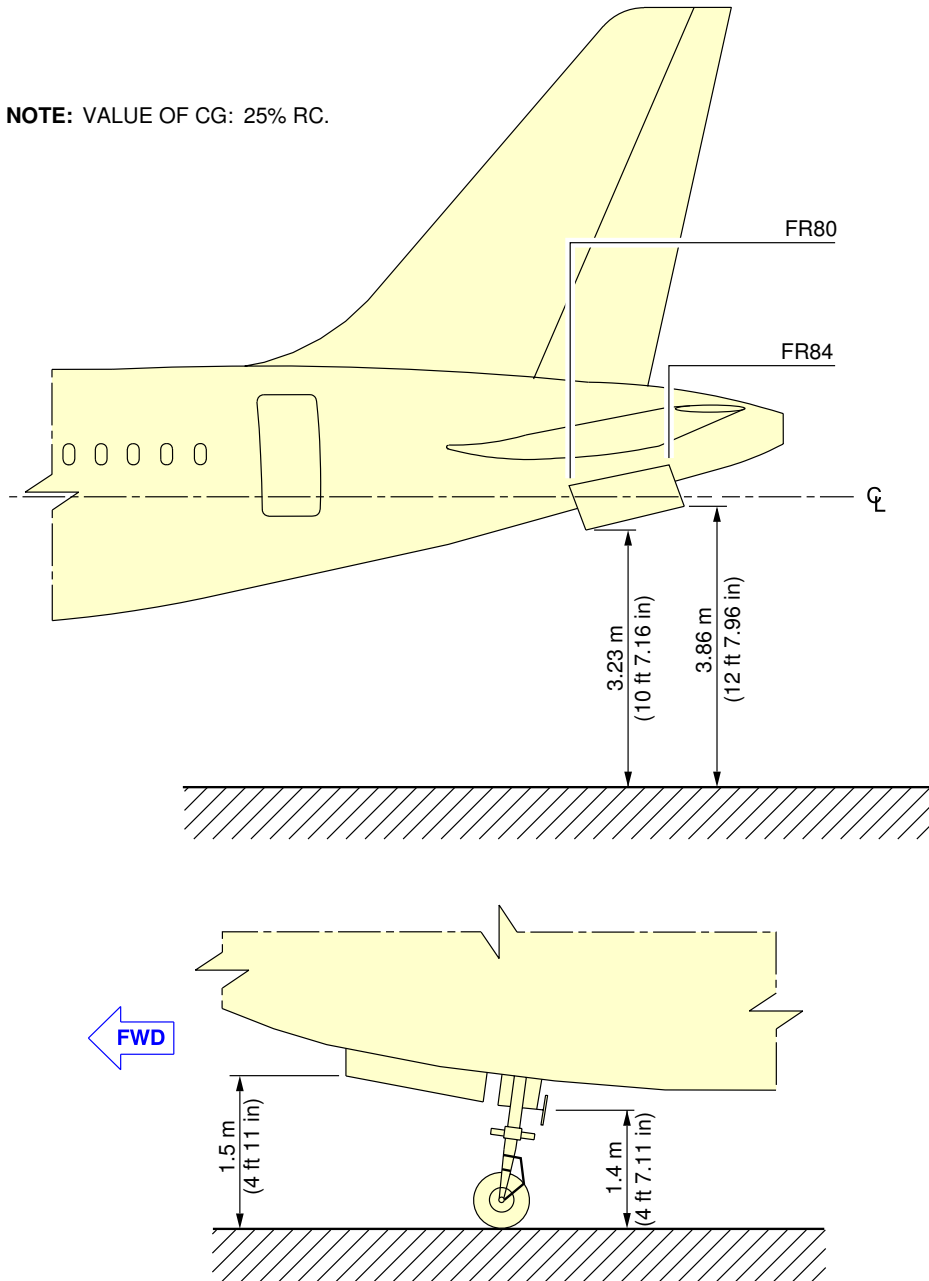
****ON A/C A318-100**

APU and Nose Landing Gear Doors

1. This section gives APU and Nose Landing Gear doors clearances.

****ON A/C A318-100**

NOTE: VALUE OF CG: 25% RC.



N_AC_020709_1_0010101_01_00

Doors Clearances
APU and Nose Landing Gear Doors
FIGURE-2-7-9-991-001-A01

2-8-0 Escape Slides****ON A/C A318-100****Escape Slides****1. General**

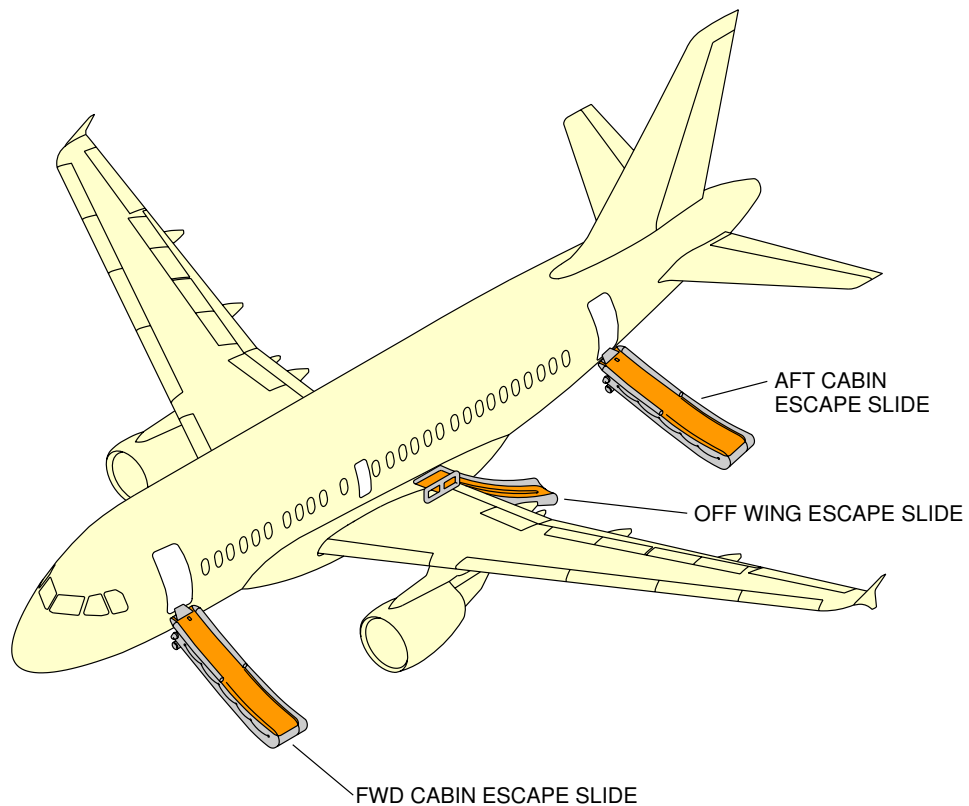
This section gives location of cabin escape facilities and related clearances.

2. Location

Escape facilities are provided at the following locations:

- one slide-raft at each passenger/crew door (total four)
- one slide for each emergency exit door (total two). Dual lane offwing escape slides are installed above the wings in the left and right wing-to-fuselage fairings for off-the-wing evacuation.

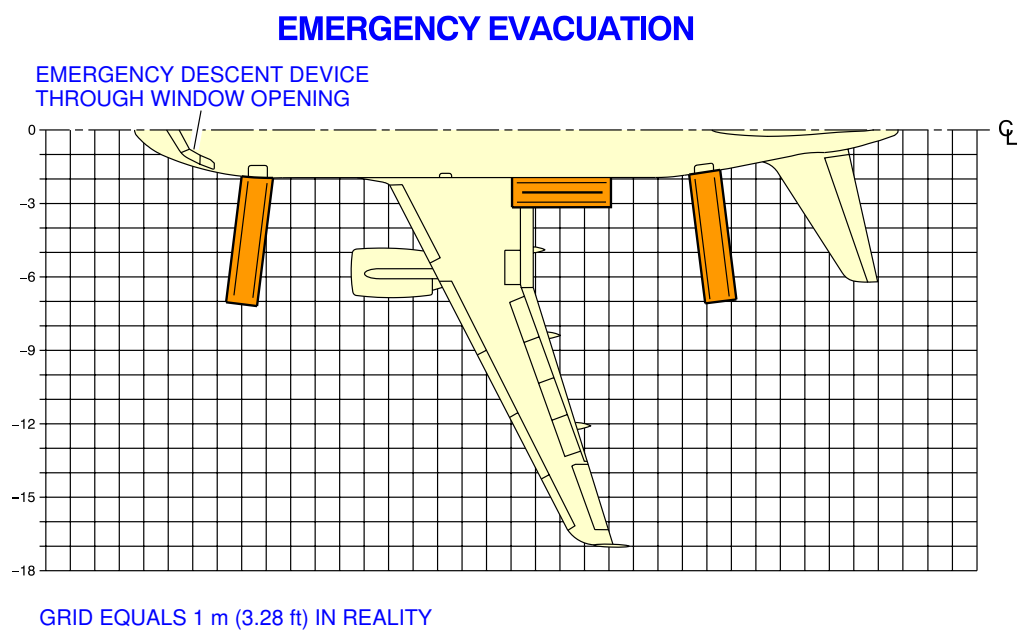
****ON A/C A318-100**



N_AC_020800_1_0010101_01_00

Escape Slides
Location
FIGURE-2-8-0-991-001-A01

****ON A/C A318-100**



N_AC_020800_1_0020101_01_00

Escape Slides
Dimensions
FIGURE-2-8-0-991-002-A01

2-9-0 Landing Gear****ON A/C A318-100**Landing Gear**1. General**

The landing gear is of the conventional retractable tricycle type comprising:

- Two main gears with twin wheel
- A twin wheel nose gear.

The main landing gears are located under the wing and retract sideways towards the fuselage centerline.

The nose landing gear retracts forward into a fuselage compartment located between STA 5394/FR 9 and 8077/FR 20.

The landing gear and landing gear doors operation is controlled electrically and hydraulically operated.

In abnormal operation, the landing gear can be extended by gravity.

For landing gear footprint and tire size, refer to 7-2-0.

2. Main Landing Gear**A. Twin wheel**

Each of the two main landing gear assemblies consists of a conventional two wheel direct type with an integral shock absorber supported in the fore and aft direction by a fixed drag strut and laterally by a folding strut mechanically locked when in the DOWN position.

3. Nose Landing Gear

The nose landing gear comprises of a leg with a built-in shock absorber strut, carrying twin wheel with adequate shimmy damping and a folding strut mechanically locked when in the DOWN position.

4. Nose Wheel Steering

Steering is controlled by two hand wheels in the cockpit. For steering angle controlled by the hand wheels, refer to AMM 32-51-00.

For steering angle limitation, refer to AMM 09-10-00.

A steering disconnection box installed on the nose landing gear to allow steering deactivation for towing purpose.

5. Landing Gear Servicing Points

A. General

Filling of the landing gear shock absorbers is through MS28889 standard valves.

Charging of the landing gear shock absorbers is accomplished with nitrogen through MS28889 standard valves.

B. Charging Pressure

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

6. Braking

A. General

The four main wheels are equipped with carbon multidisc brakes.

The braking system is electrically controlled and hydraulically operated.

The braking system has four braking modes plus autobrake and anti-skid systems:

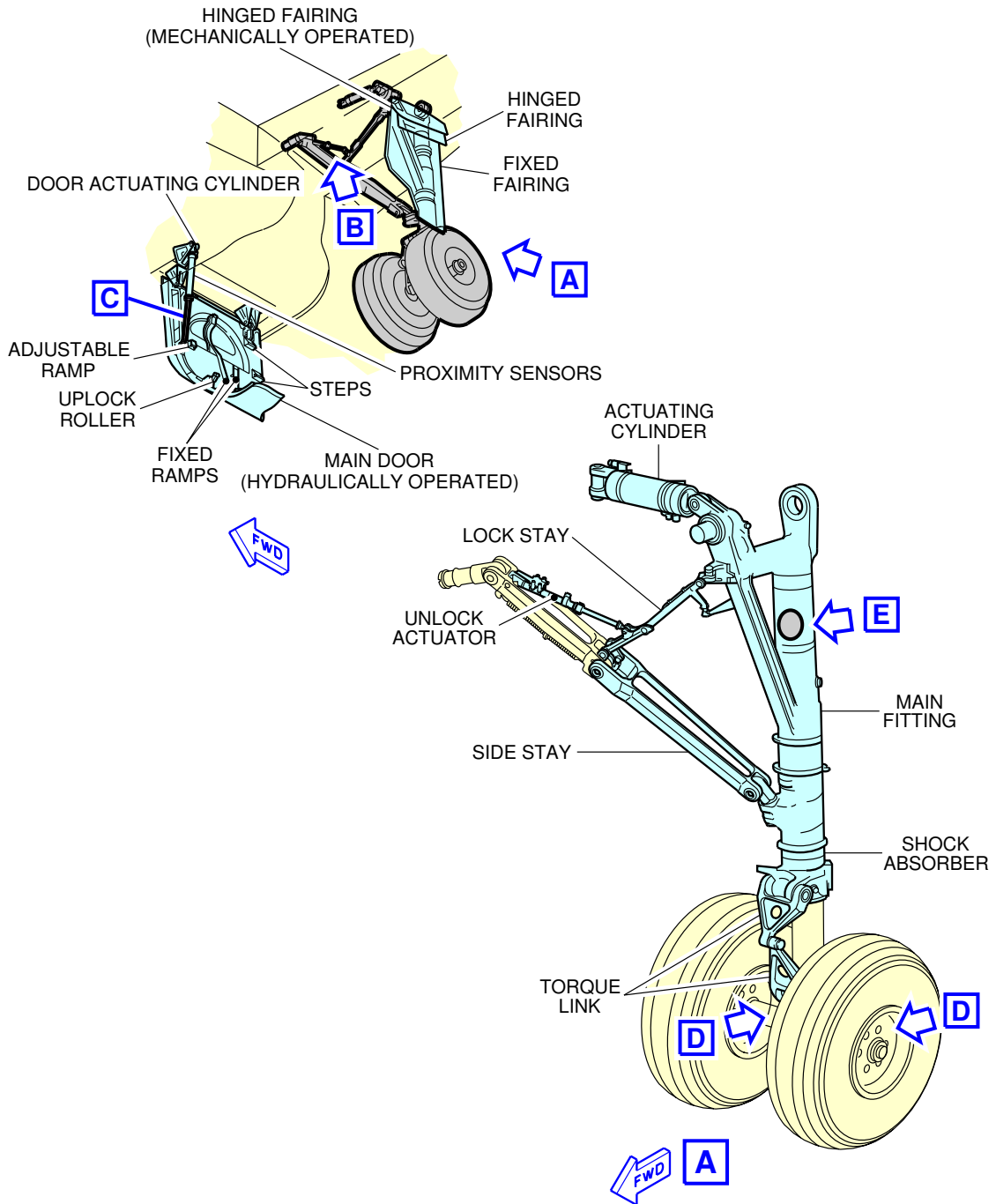
- Normal braking with anti-skid capability
- Alternative braking with anti-skid capability
- Alternative braking without anti-skid capability
- Parking brake with full pressure application capability only.

B. In-Flight Wheel Braking

The main gear wheels are braked automatically before the wheels enter the wheel bay.

The nose gear wheels are stopped by the wheels contacting a rubbing strip (the brake band) when the gear is in the retracted position.

****ON A/C A318-100**

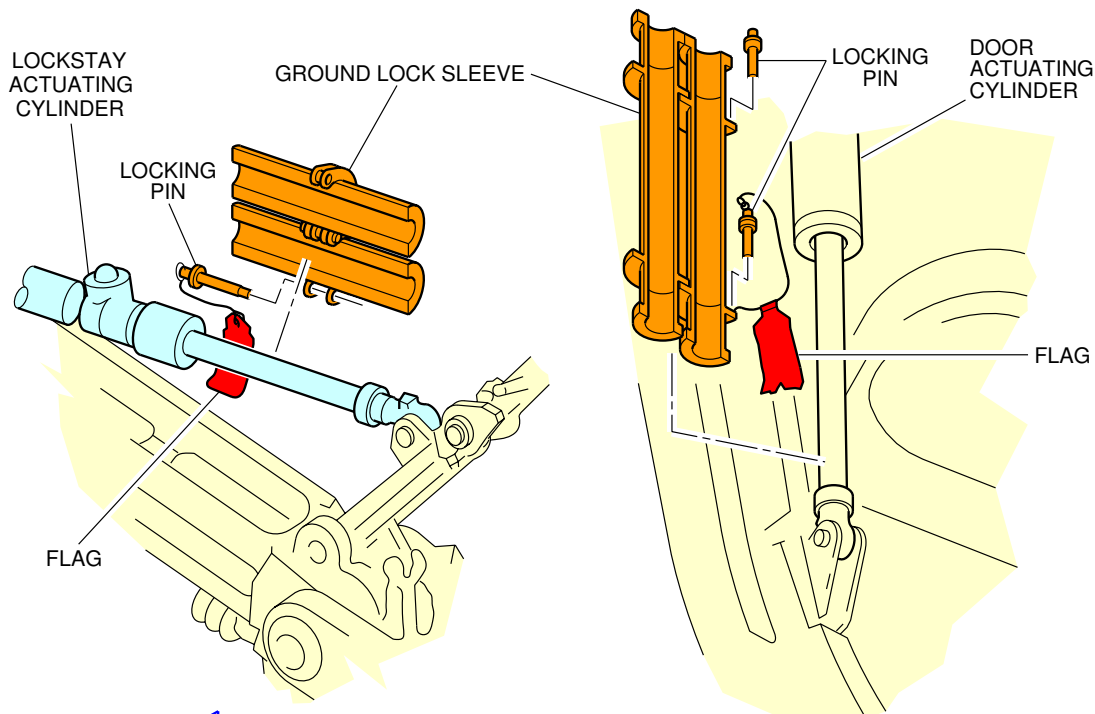


NOTE: MAIN DOOR SHOWN OPEN IN GROUND MAINTENANCE POSITION.

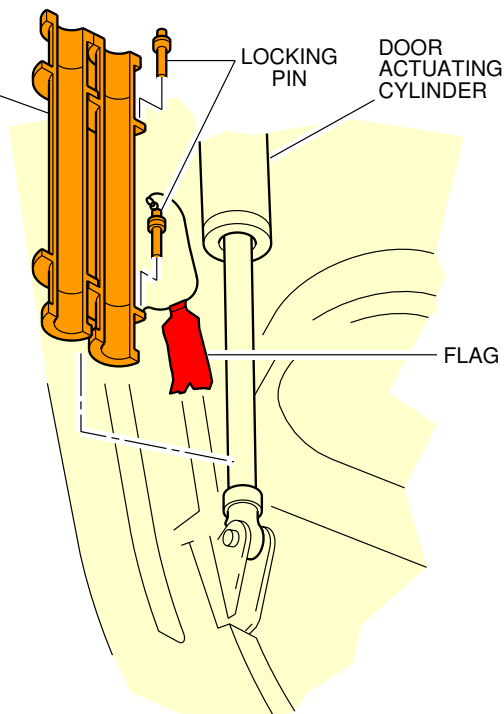
N_AC_020900_1_0020101_01_00

Landing Gear
Main Landing Gear - Twin Wheel (Sheet 1 of 2)
FIGURE-2-9-0-991-002-A01

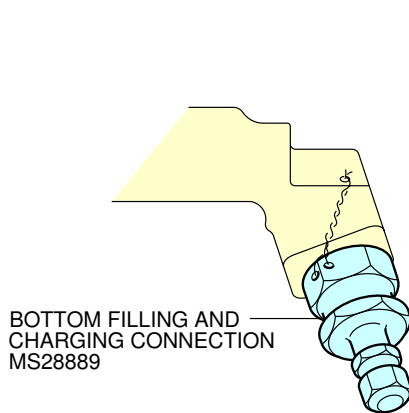
****ON A/C A318-100**



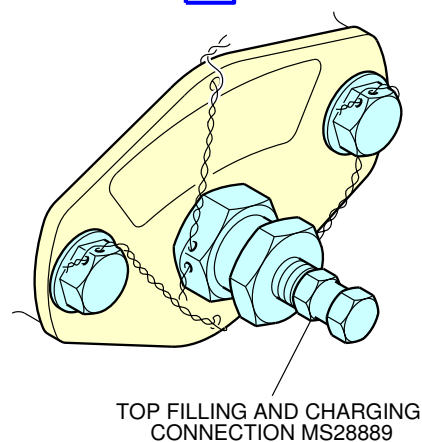
B



C



D
EXAMPLE

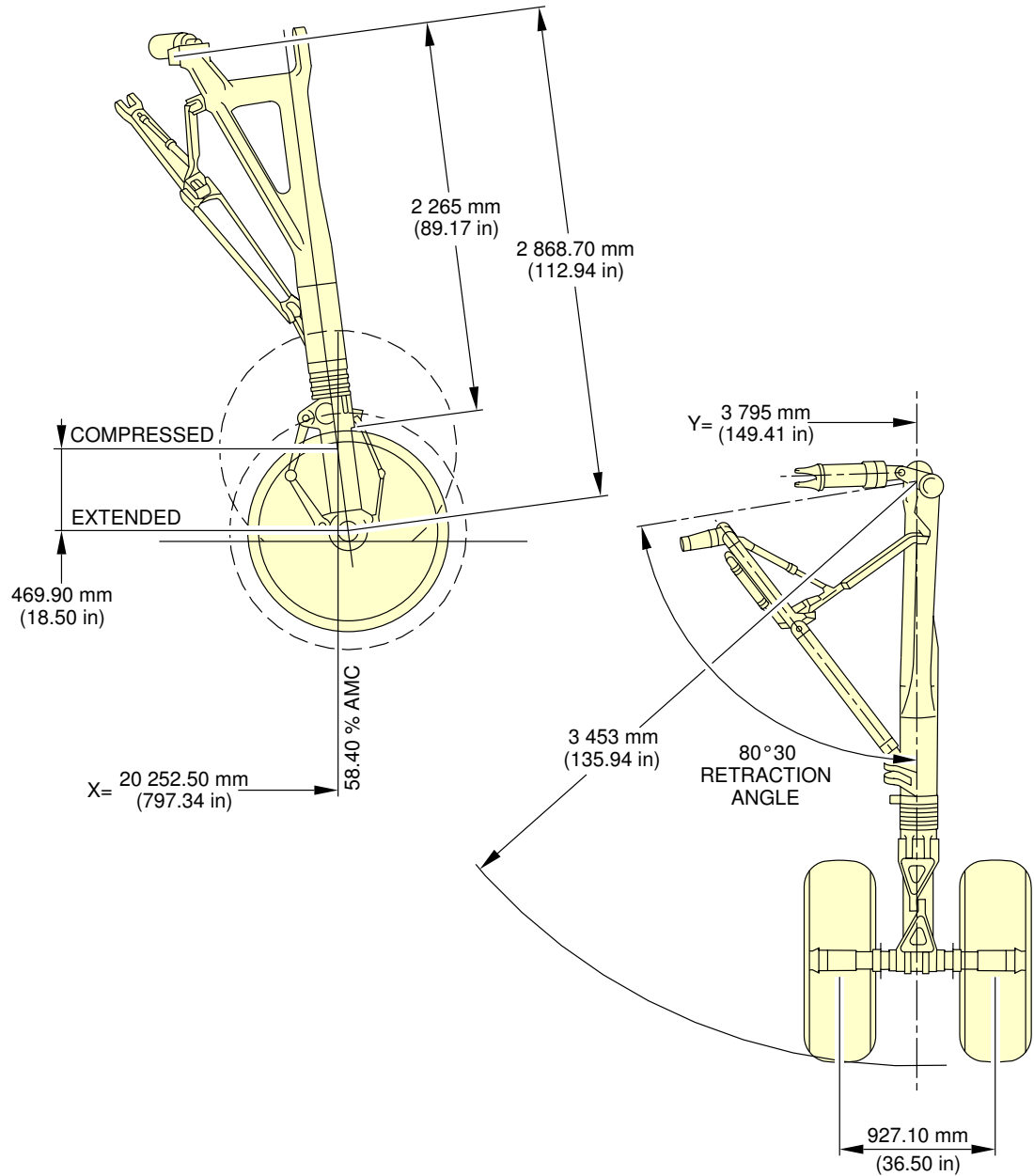


E

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Landing Gear
Main Landing Gear - Twin Wheel (Sheet 2 of 2)
FIGURE-2-9-0-991-002-A01

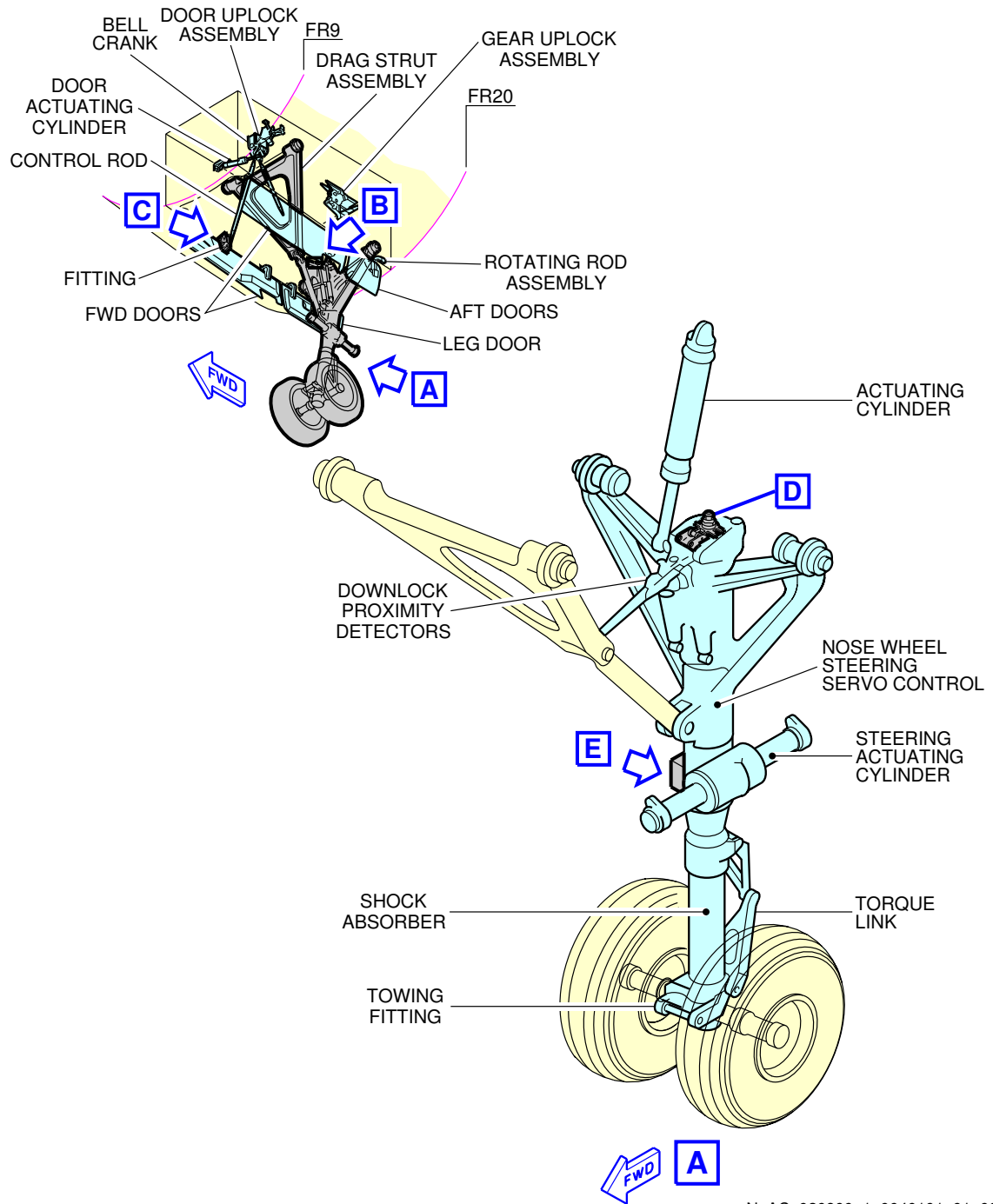
****ON A/C A318-100**



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Landing Gear
Main Landing Gear Dimensions - Twin Wheel
FIGURE-2-9-0-991-003-A01

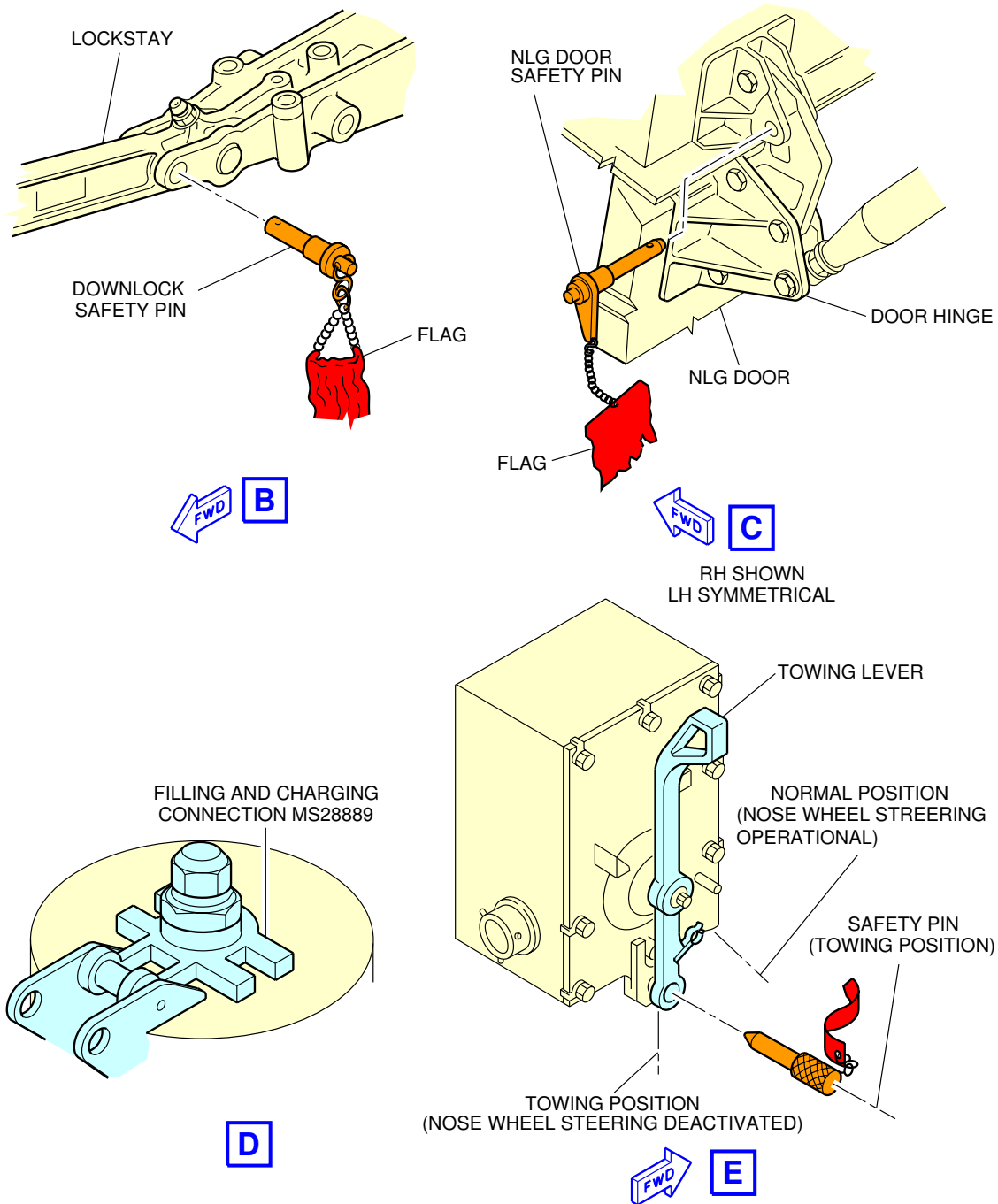
****ON A/C A318-100**



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Landing Gear
Nose Landing Gear (Sheet 1 of 2)
FIGURE-2-9-0-991-004-A01

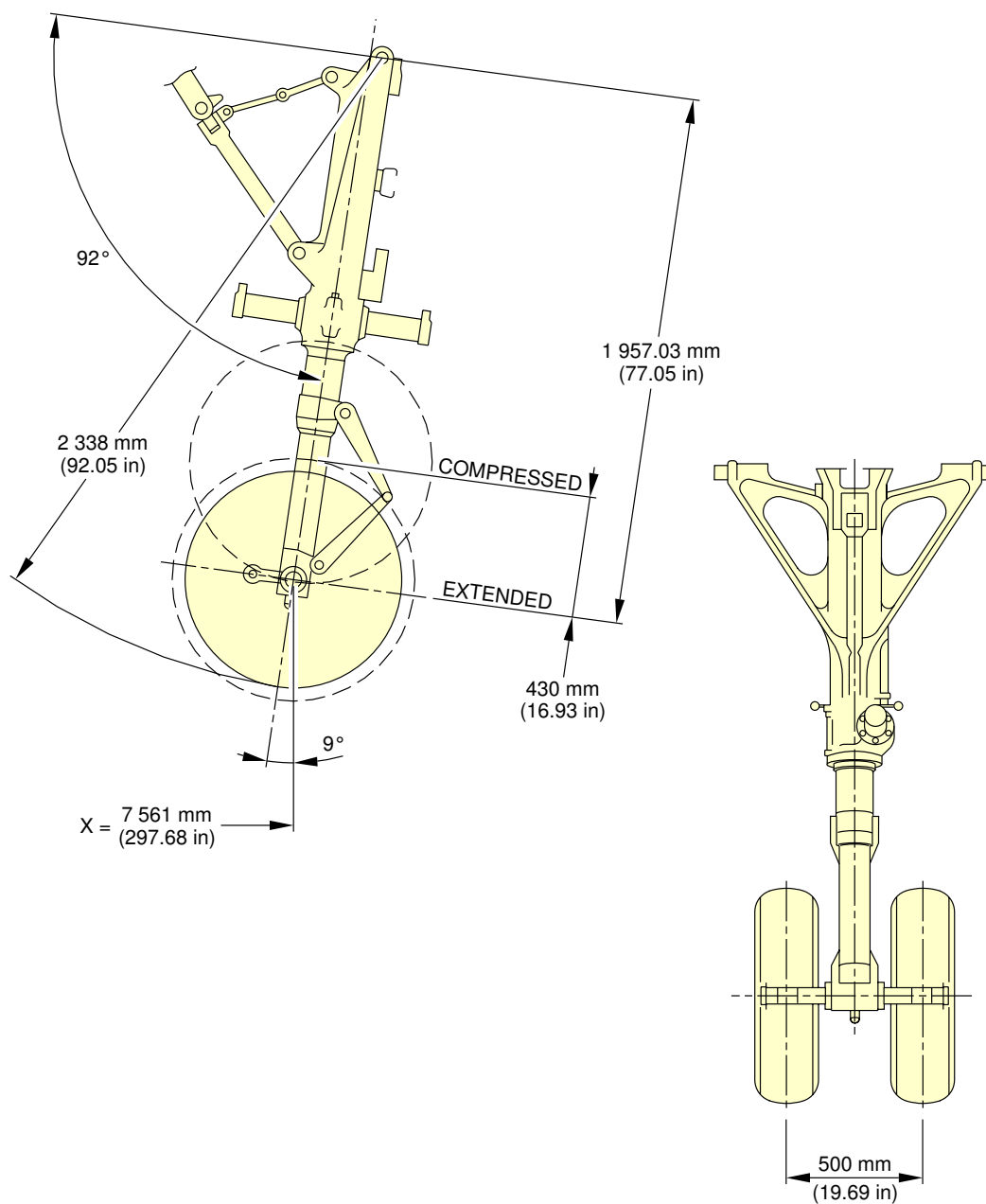
****ON A/C A318-100**



N_AC_020900_1_0040102_01_00

Landing Gear
Nose Landing Gear (Sheet 2 of 2)
FIGURE-2-9-0-991-004-A01

****ON A/C A318-100**



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Landing Gear
Nose Landing Gear Dimensions
FIGURE-2-9-0-991-005-A01

****ON A/C A318-100**Landing Gear Maintenance Pits

1. Description

The minimum maintenance pit envelopes for the main 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 as follows:

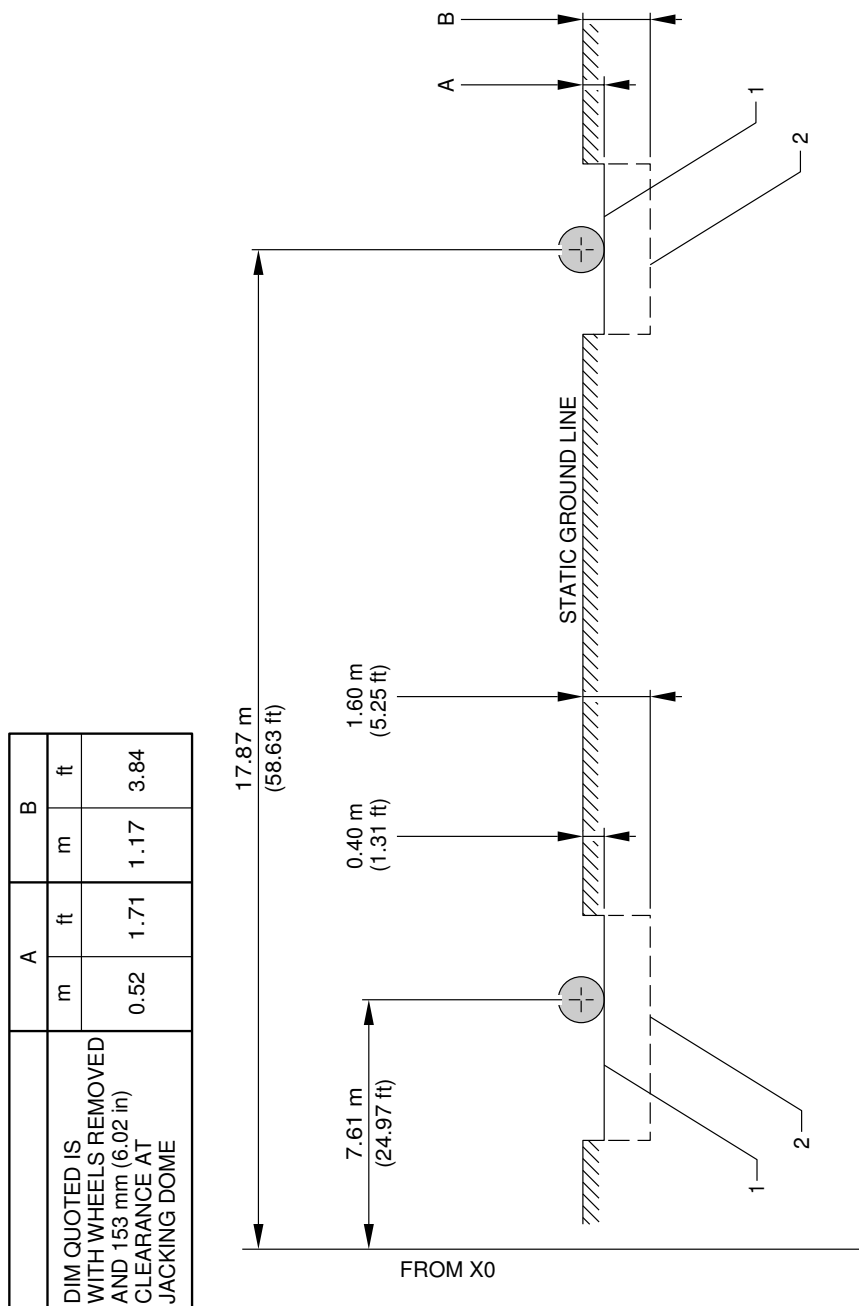
- The length and width of the pits allow the gear to rotate as the weight is taken off the landing gear
- The depth of the pits allows the shock absorber to be removed when all the weight is taken off the landing gear.

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

[illegible]

Landing Gear Maintenance Pits
Maintenance Pit Envelopes
FIGURE-2-9-0-991-020-A01

****ON A/C A318-100**



NOTE: 1 REPRESENTS TOP OF MECHANICAL OR HYDRAULIC ELEVATOR, WITH AIRCRAFT WEIGHT SUPPORTED AND LANDING GEAR SHOCK ABSORBERS EXTENDED.
2 REPRESENTS TOP OF MECHANICAL OR HYDRAULIC ELEVATOR, SHOWN WITH ZERO CLEARANCE LOWERED FOR SHOCK ABSORBER REMOVAL.

N_AC_020900_1_0210101_01_00

Landing Gear Maintenance Pits
Maintenance Pit Envelopes
FIGURE-2-9-0-991-021-A01

2-10-0 Exterior Lighting

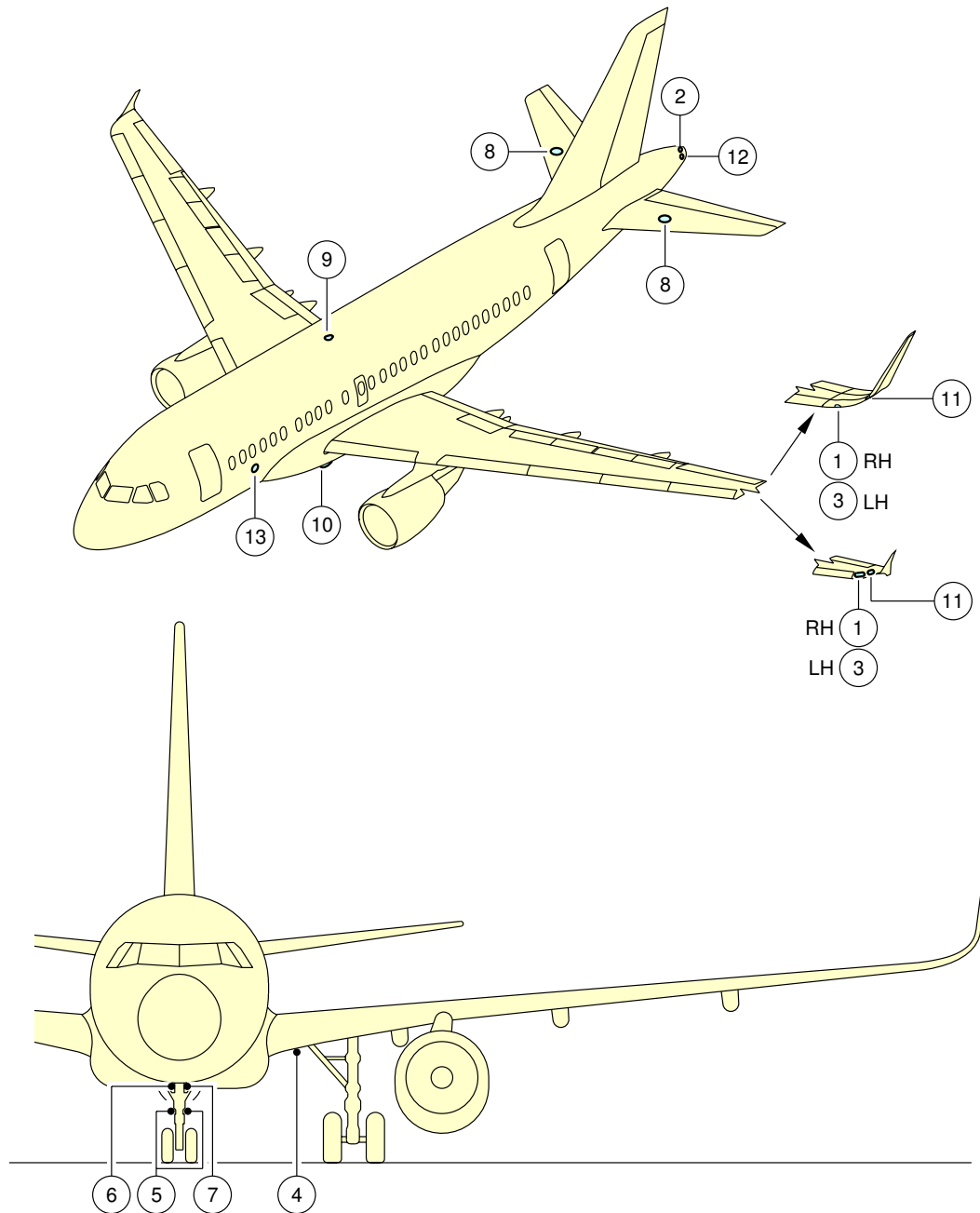
****ON A/C A318-100**Exterior Lighting

1. General

This section gives the location of the aircraft exterior lighting.

EXTERIOR LIGHTING	
ITEM	DESCRIPTION
1	RIGHT NAVIGATION LIGHT (GREEN)
2	TAIL NAVIGATION LIGHT (WHITE)
3	LEFT NAVIGATION LIGHT (RED)
4	RETRACTABLE LANDING LIGHT
5	RUNWAY TURN OFF LIGHT
6	TAXI LIGHT
7	TAKE-OFF LIGHT
8	LOGO LIGHT
9	UPPER ANTI-COLLISION LIGHT/BEACON (RED)
10	LOWER ANTI-COLLISION LIGHT/BEACON (RED)
11	WING STROBE LIGHT (HIGH INTENSITY, WHITE)
12	TAIL STROBE LIGHT (HIGH INTENSITY, WHITE)
13	WING/ENGINE SCAN LIGHT
14	WHEEL WELL LIGHT (DOME)
15	CARGO COMPARTMENT FLOOD LIGHT

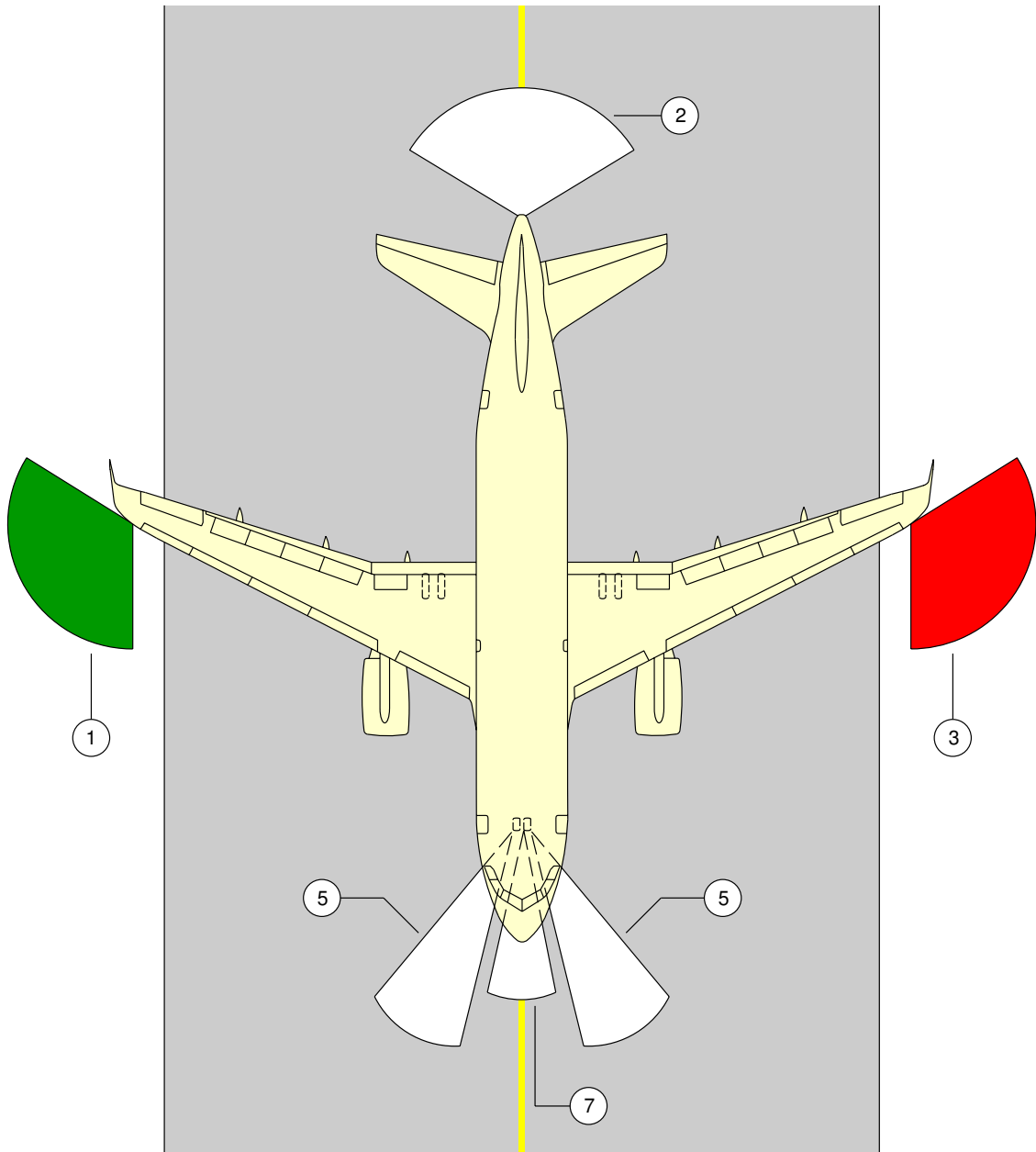
****ON A/C A318-100**



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Exterior Lighting
FIGURE-2-10-0-991-001-A01

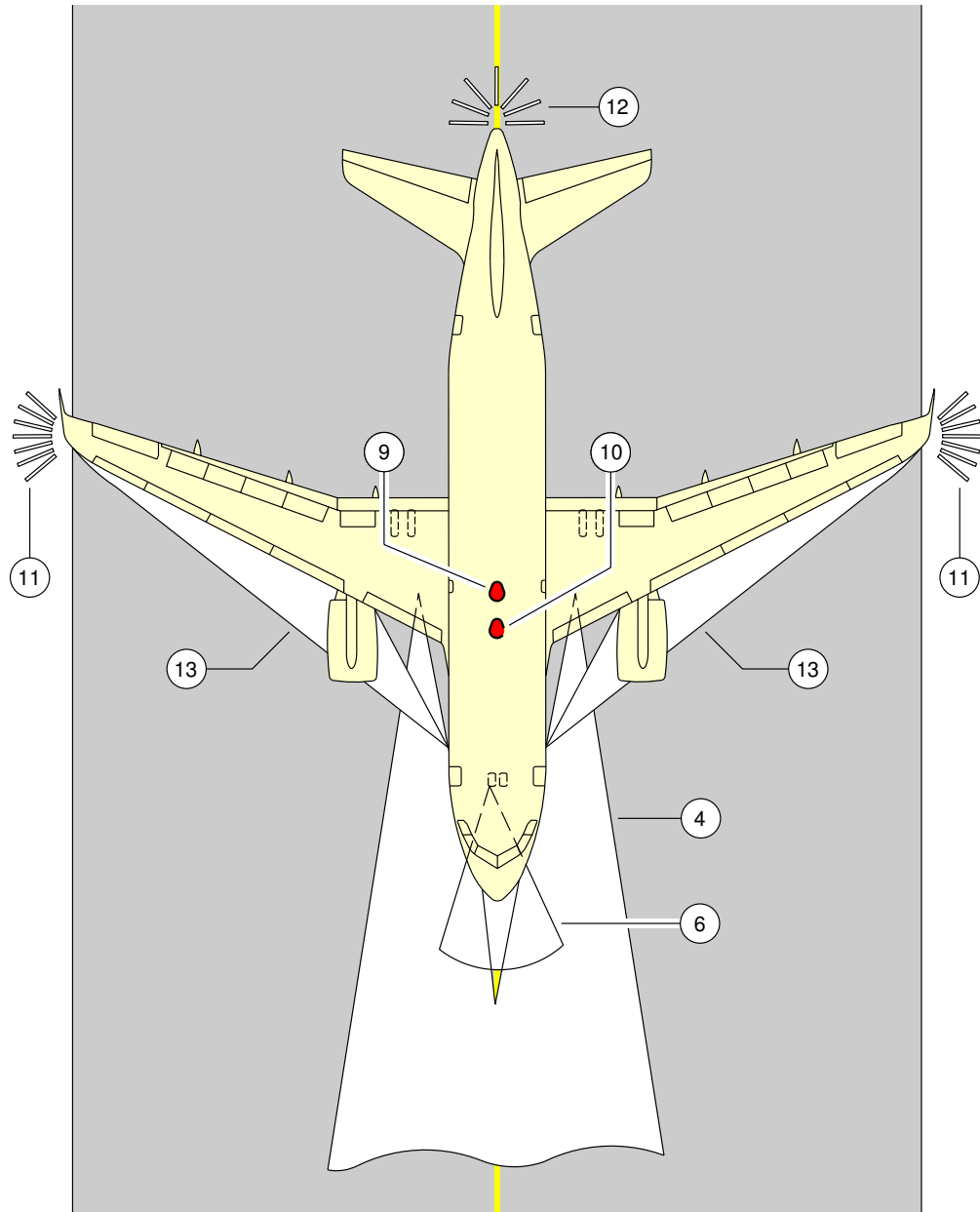
****ON A/C A318-100**



N_AC_021000_1_0020101_01_00

Exterior Lighting
FIGURE-2-10-0-991-002-A01

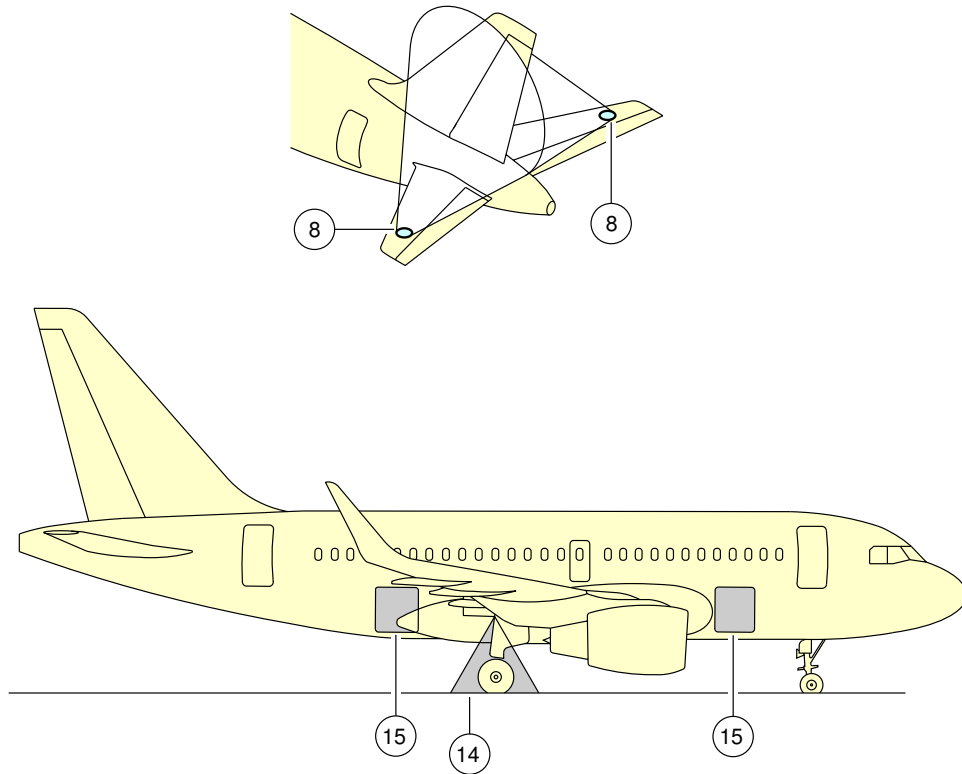
**ON A/C A318-100



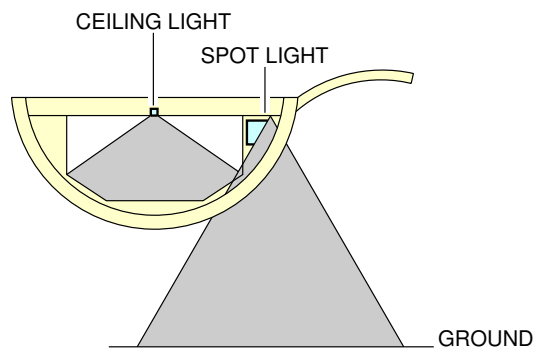
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Exterior Lighting
FIGURE-2-10-0-991-003-A01

****ON A/C A318-100**



EXAMPLE FOR LIGHT N° 15



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Exterior Lighting
FIGURE-2-10-0-991-017-A01



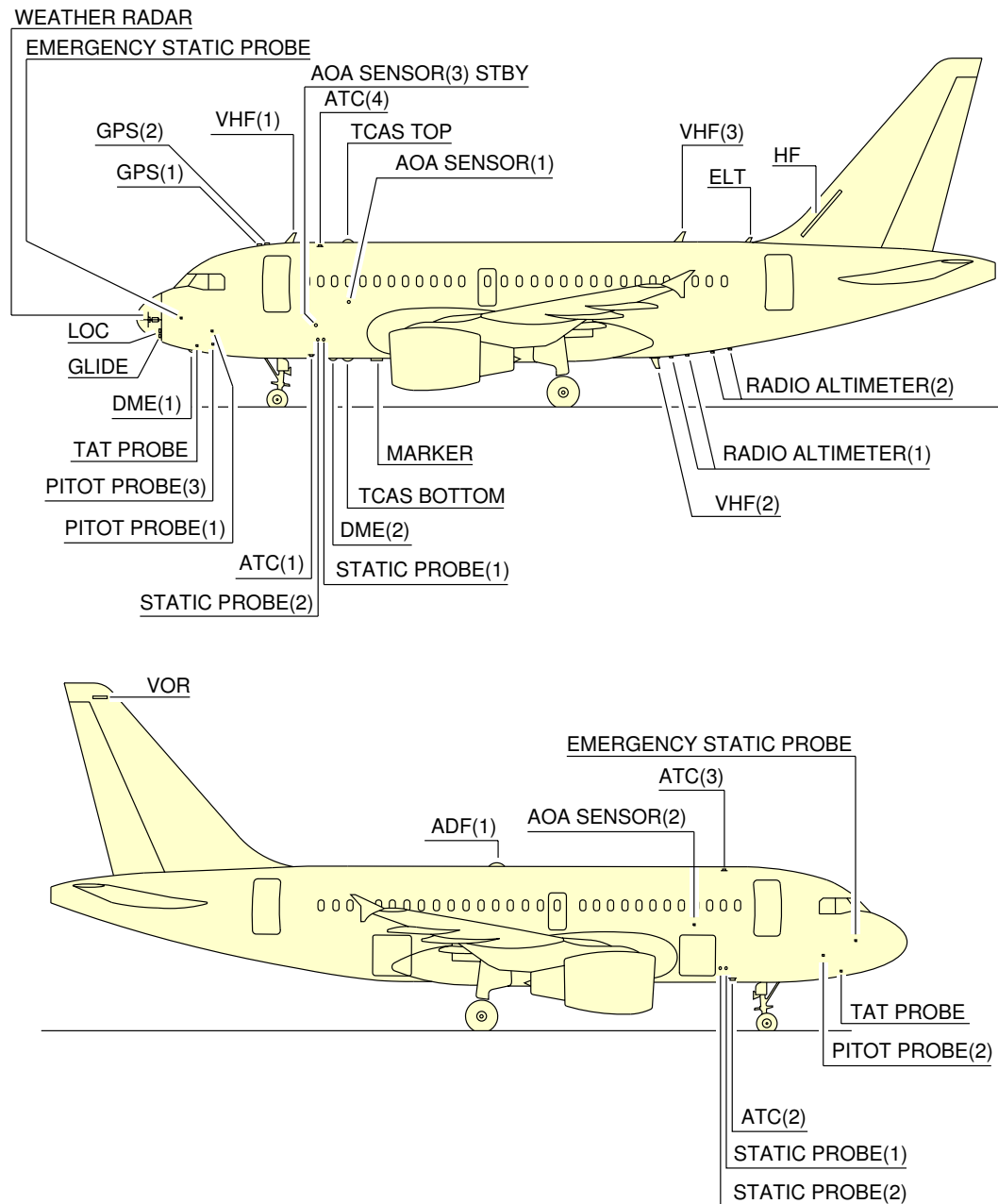
2-11-0 Antennas and Probes Location

****ON A/C A318-100**

Antennas and Probes Location

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

****ON A/C A318-100**



NOTE: DEPENDING ON AIRCRAFT CONFIGURATION

N_AC_021100_1_0010101_01_00

Antennas and Probes
Location
FIGURE-2-11-0-991-001-A01

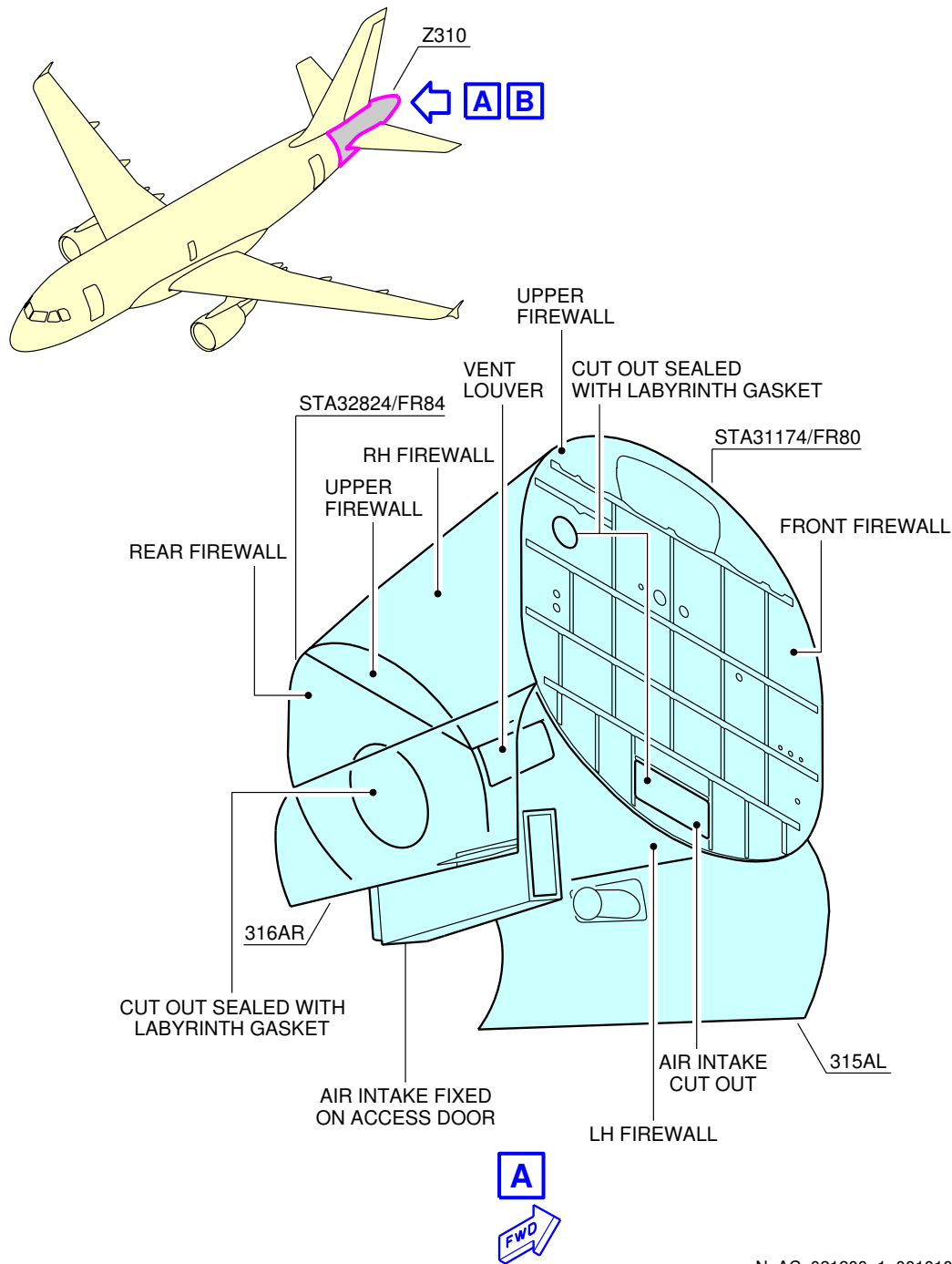
2-12-0 Power Plant****ON A/C A318-100**Auxiliary Power Unit**1. General**

The APU is installed at the rear part of the fuselage in the tail cone. 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. Controls and Indication

The primary APU controls and indications are installed on the overhead panel, on the center pedestal and on the center instrument panel. Additionally, an external APU panel is installed on the nose landing gear to initiate an APU emergency shutdown.

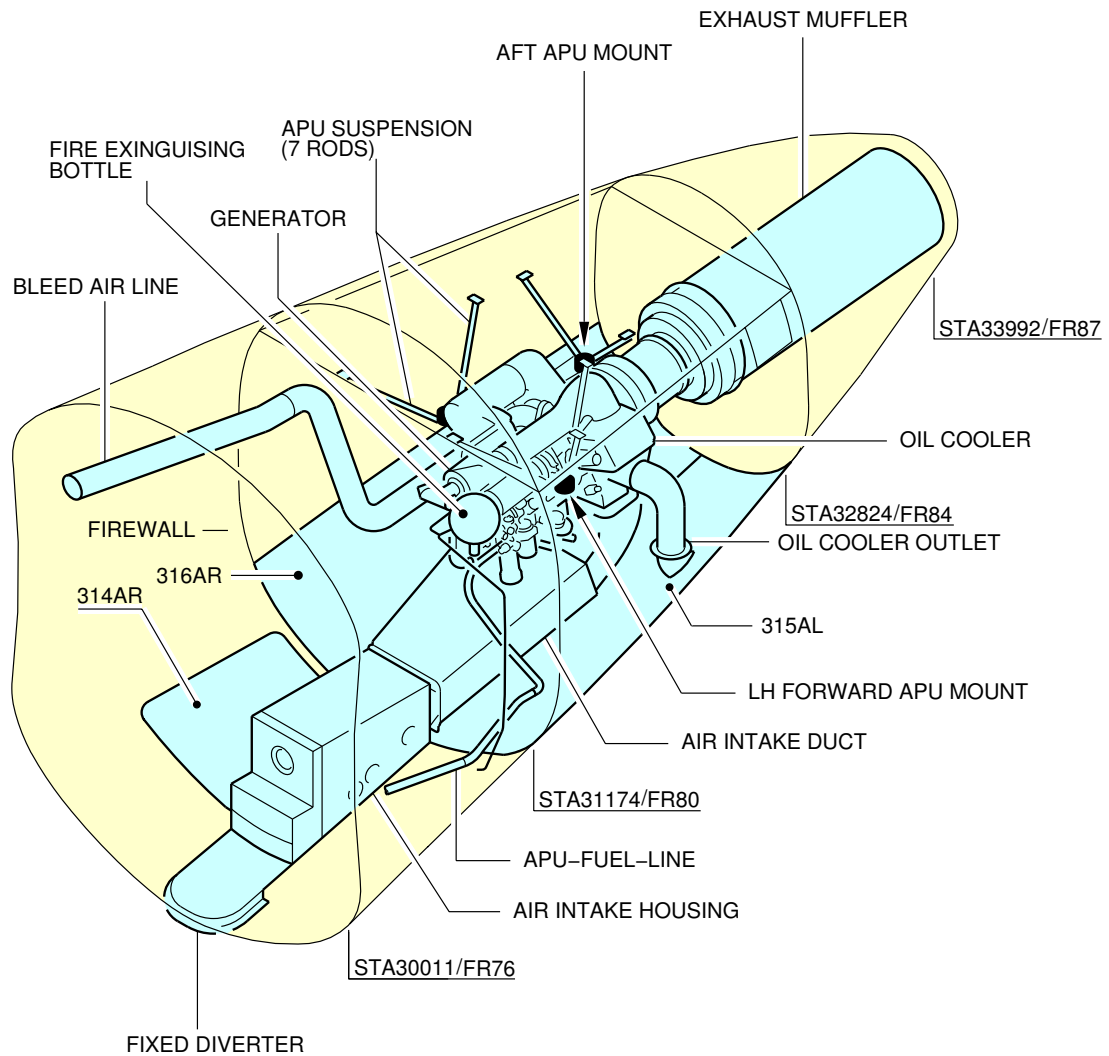
****ON A/C A318-100**



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Auxiliary Power Unit
Access Doors
FIGURE-2-12-0-991-001-A01

****ON A/C A318-100**



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Auxiliary Power Unit
General Layout
FIGURE-2-12-0-991-002-A01

****ON A/C A318-100**Engine and Nacelle

1. Engine and Nacelle - CFM Engine

A. Engine

The engine is a dual-rotor, variable stator, high bypass ratio turbo fan power plant for subsonic services. The principal modules of the engine are:

- low pressure compressor (fan stator and fan rotor)
- high pressure compressor
- turbine frame
- combustion chamber
- high pressure turbine
- low pressure turbine
- accessory drives (gear box).

The 9 stage high pressure compressor is driven by 1 stage high pressure turbine, and the integrated front fan and booster is driven by 4 stage low pressure turbine. An annular combustor converts fuel and compressor discharge air into energy to provide engine thrust part through primary exhaust and to drive the turbines. The accessory drive system extracts energy from the high pressure rotor to drive the engine accessories and the engine mounted aircraft accessories. Reverse thrust for braking the aircraft after landing is supplied by an integrated system which acts on the fan discharge airflow.

B. Nacelle

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached to the wing lower surface. The nacelle consists of the demountable powerplant, the fan cowls and the thrust reverser cowls.

The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- protection for the engine and the accessories
- airflow around the engine during its operation
- lighting protection
- HIRF and EMI attenuation.

2. Engine and Nacelle - PW Engine

A. Engine

The engine is a two spool, axial flow, high bypass ratio turbofan powerplant for subsonic service. The main modules of the engine are:

- compressor section
- combustion section
- turbine section
- accessory drives (gear box) section.

The four stage Low Pressure Compressor (LPC) is driven by a three stage Low Pressure Turbine (LPT) and the six stage High Pressure Compressor (HPC) by a single stage High Pressure Turbine (HPT).

The PW6000 incorporates a Full Authority Digital Engine Control (FADEC) which governs all engine functions, including power management.

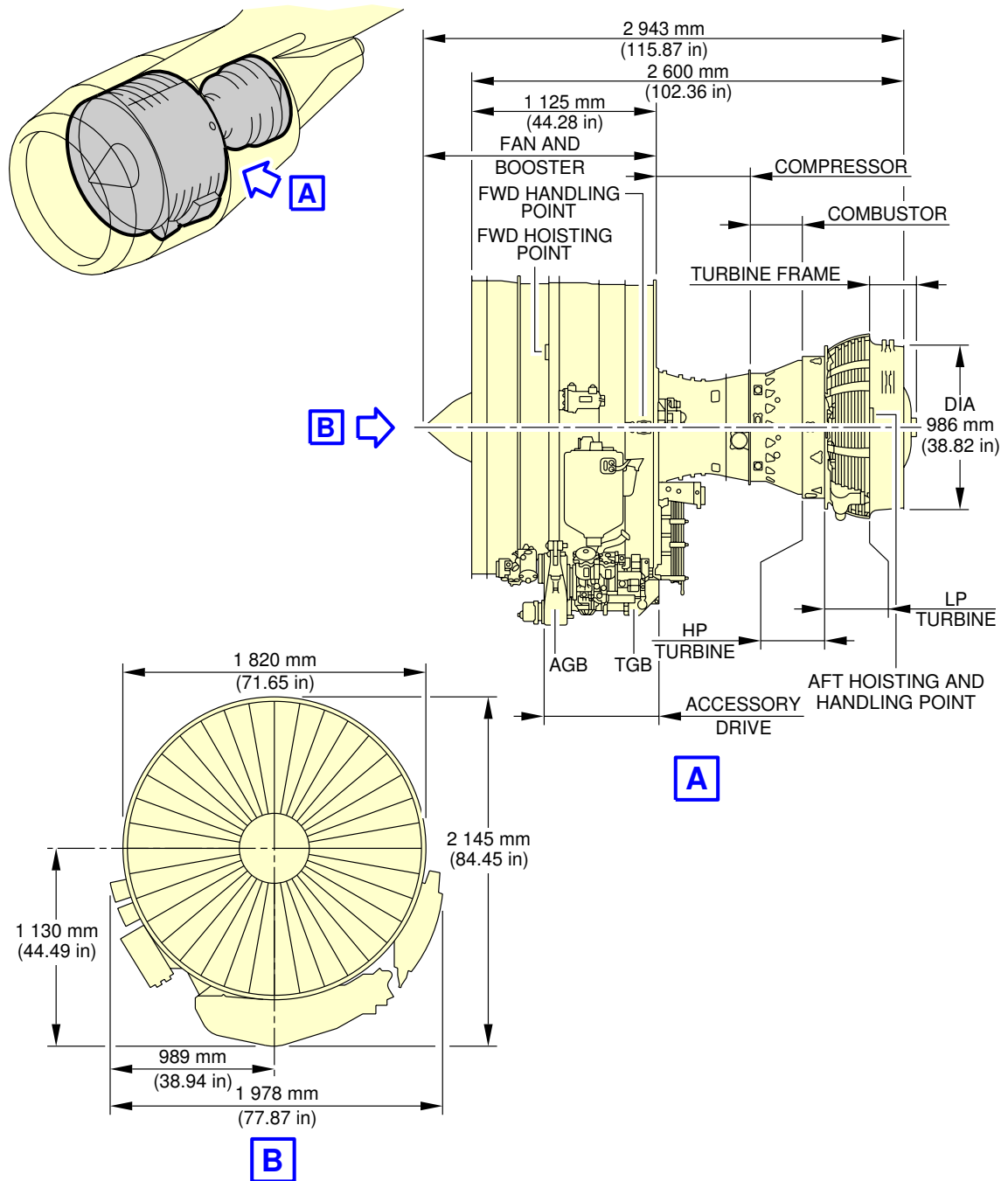
B. Nacelle

The cowls enclose the periphery of the engine so as to form the engine nacelle. Each engine is housed in a nacelle suspended from a pylon attached below the wing.

The nacelle installation is designed to provide cooling and ventilation air for engine accessories mounted along the fan and core casing. The nacelle provides:

- protection for the engine and the accessories
- airflow around the engine during its operation
- lighting protection
- HIRF and EMI attenuation.

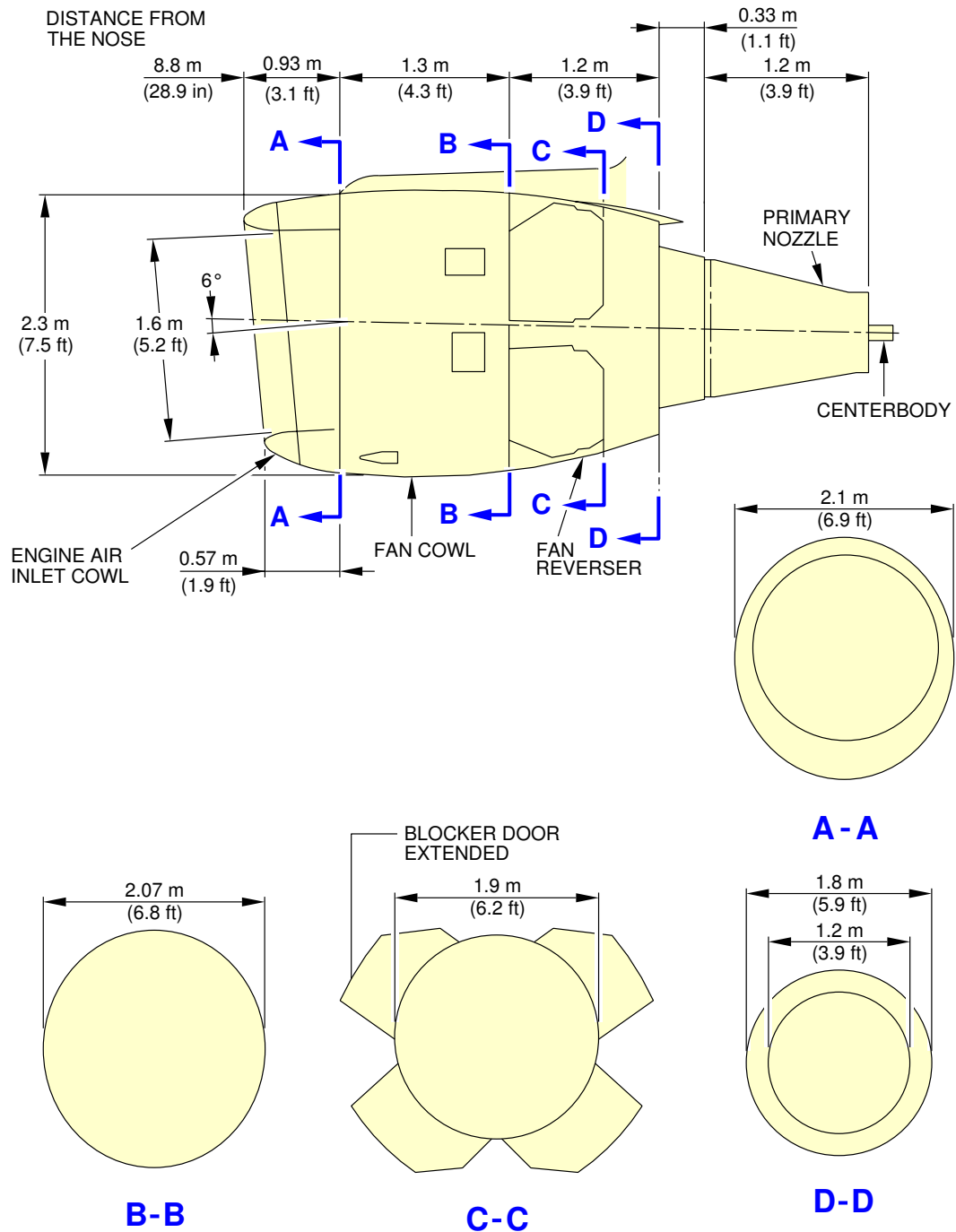
**ON A/C A318-100



N_AC_021200_1_0110101_01_00

Power Plant Handling
Major Dimensions - CFM56 Series Engine
FIGURE-2-12-0-991-011-A01

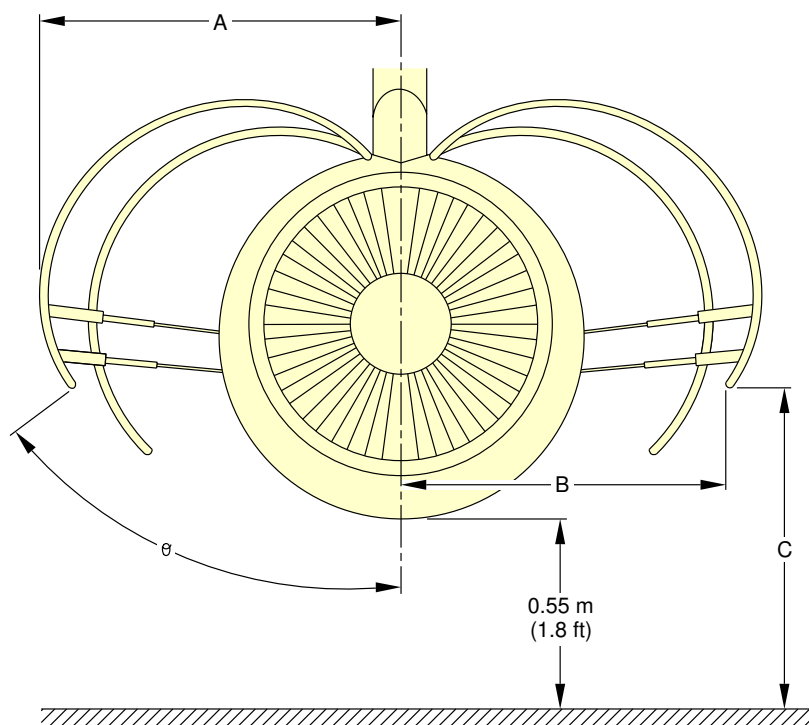
****ON A/C A318-100**



N_AC_021200_1_0120101_01_00

Power Plant Handling
Major Dimensions - CFM56 Series Engine
FIGURE-2-12-0-991-012-A01

****ON A/C A318-100**



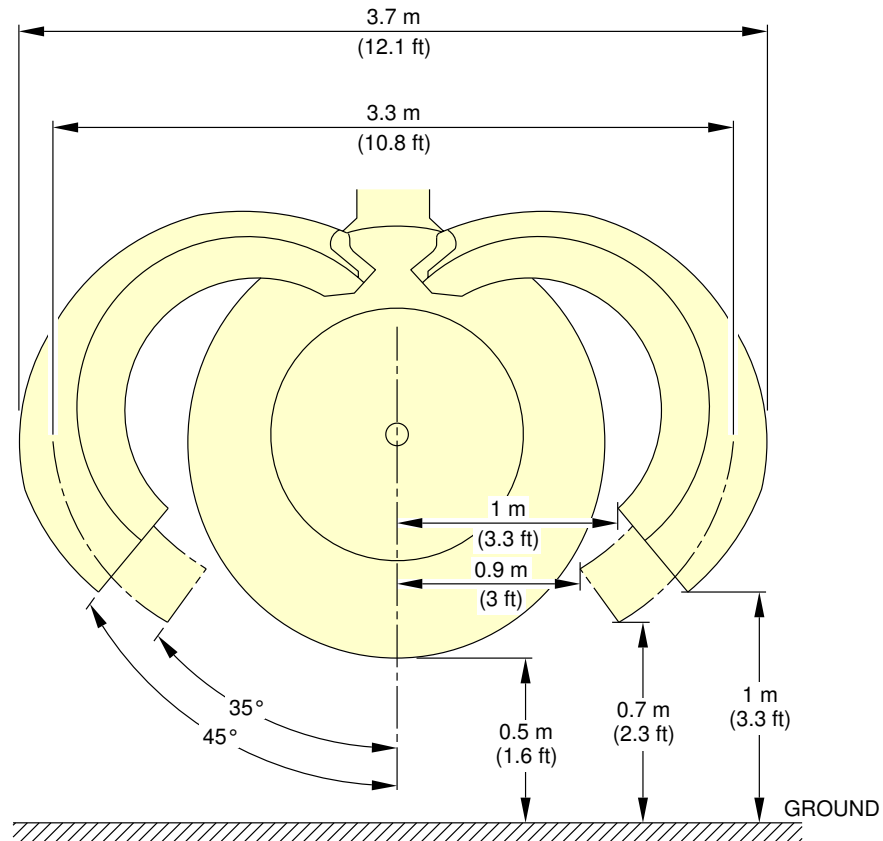
NOTE: APPROXIMATE DIMENSIONS

m (ft)	θ	A	B	C
VIEW COWLING AFT	42°27	1.8 (5.9)	1.5 (4.9)	1.3 (4.3)
	55°15	2.0 (6.6)	1.8 (5.9)	1.7 (5.6)
VIEW COWLING FWD	40°40	1.8 (5.9)	1.4 (4.6)	1.3 (4.3)
	52°56	2.0 (6.6)	1.7 (5.6)	1.6 (5.2)

N_AC_021200_1_0130101_01_00

Power Plant Handling
Fan Cows - CFM56 Series Engine
FIGURE-2-12-0-991-013-A01

****ON A/C A318-100**



NOTE: APPROXIMATE DIMENSIONS

CAUTION

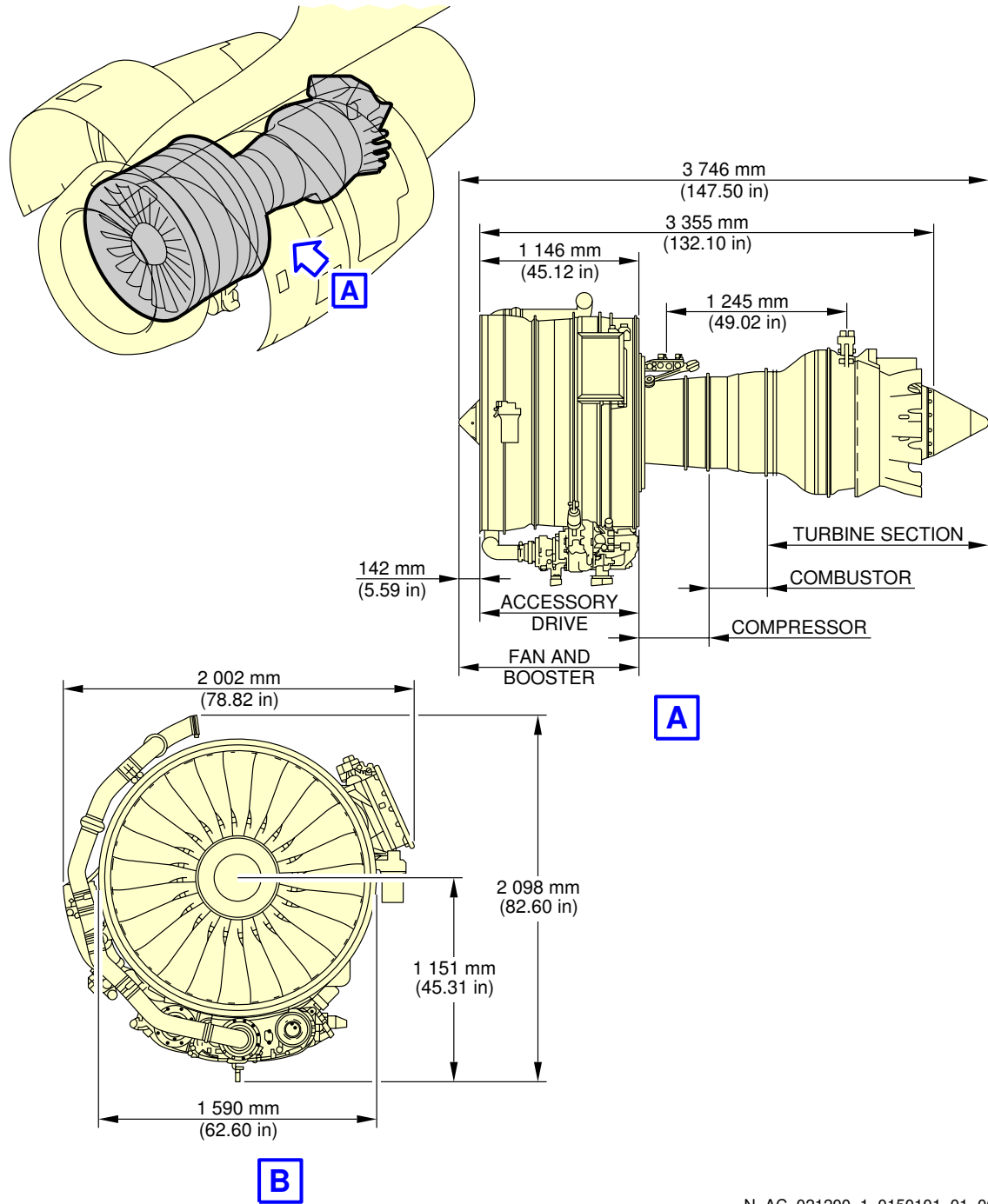
DO NOT ACTUATE SLATS:

- WITH THRUST REVERSER COWLS 45° OPEN POSITION
- WITH BLOCKER DOORS OPEN AND THRUST REVERSER COWLS AT 35° AND 45° OPEN POSITION

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Power Plant Handling
Thrust Reverser Cowls - CFM56 Series Engine
FIGURE-2-12-0-991-014-A01

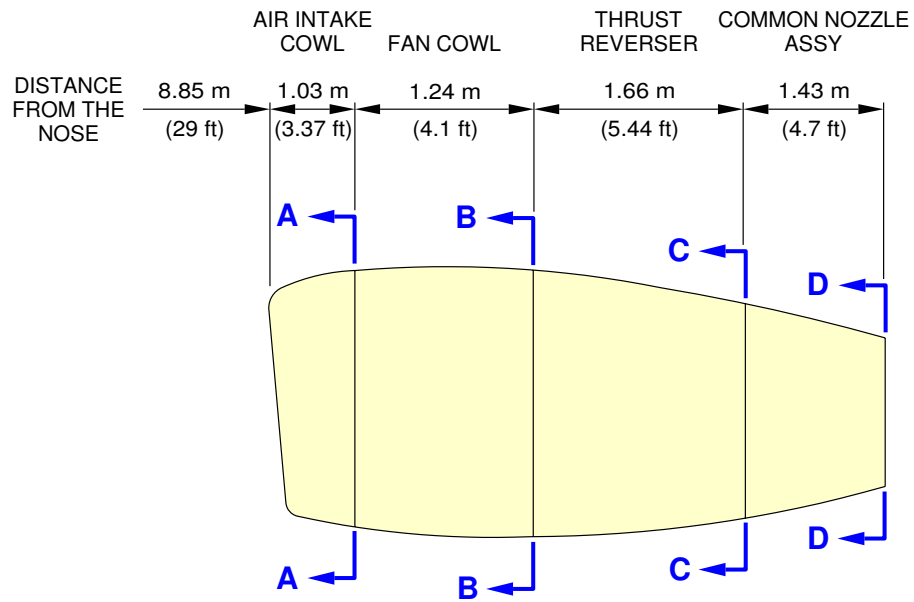
****ON A/C A318-100**



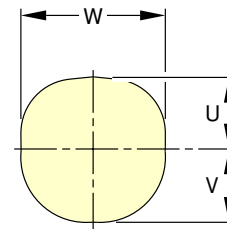
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Power Plant Handling
Major Dimensions - PW 6000 Series Engine
FIGURE-2-12-0-991-015-A01

****ON A/C A318-100**



	W	U	V
A-A	2 m (6.6 ft)	0.9 m (3 ft)	1.05 m (3.4 ft)
B-B	2.08 m (6.8 ft)	0.96 m (3.1 ft)	1.07 m (3.5 ft)
C-C	1.63 m (5.3 ft)	0.76 m (2.5 ft)	0.81 m (2.7 ft)
D-D	1.12 m (3.7 ft)	0.56 m (1.8 ft)	0.56 m (1.8 ft)

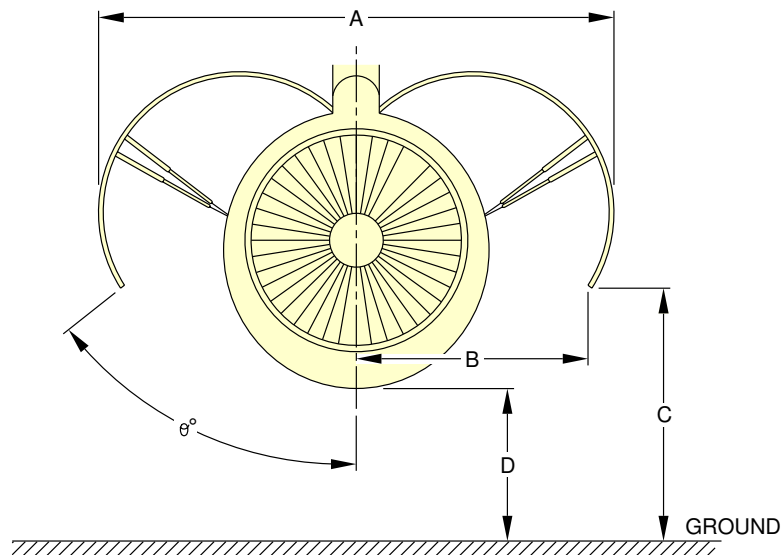


NOTE: ALL SIZES GIVEN ON THIS ILLUSTRATION ARE APPROXIMATE

N_AC_021200_1_0160101_01_00

Power Plant Handling
Nacelle Dimensions - PW 6000 Series Engine
FIGURE-2-12-0-991-016-A01

****ON A/C A318-100**



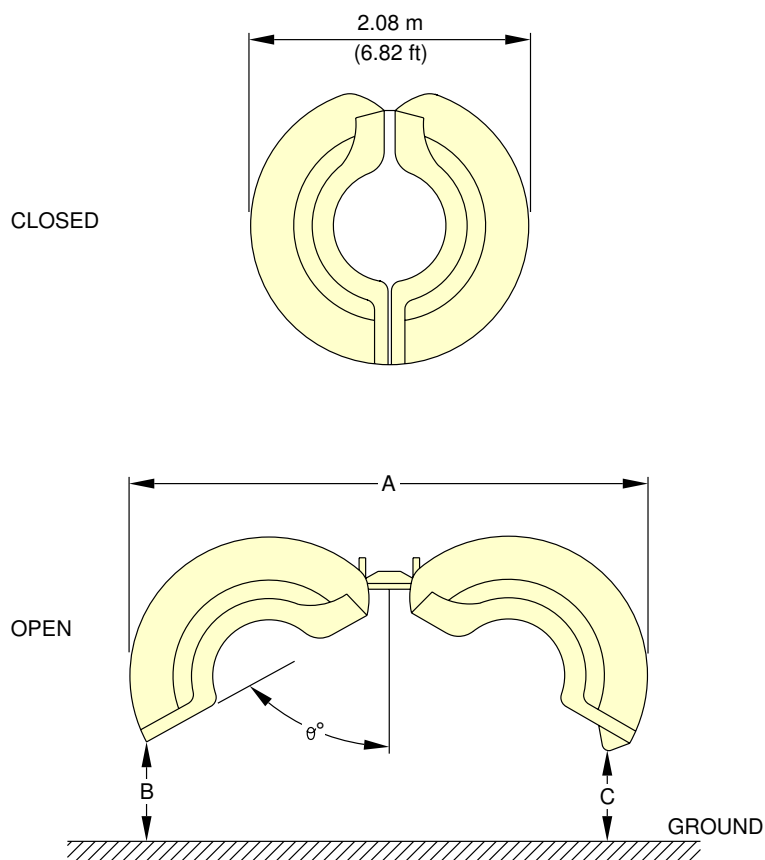
θ	A	B	C	D
27°	3.05 m (10 ft)	0.90 m (2.95 ft)	D + 0.2 m (D + 0.7 ft)	0.7 m (2.3 ft)
53°	3.85 m (12.63 ft)	1.65 m (5.41 ft)	D + 0.84 m (D + 2.8 ft)	

NOTE: APPROXIMATE DIMENSIONS
ONLY MAIN DIMENSIONS SHOWN

N_AC_021200_1_0170101_01_00

Power Plant Handling
Fan Cowls - PW 6000 Series Engine
FIGURE-2-12-0-991-017-A01

****ON A/C A318-100**



θ	A	B	C
45°	3.5 m (11.48 ft)	1.1 m (3.6 ft)	1.08 m (3.5 ft)

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Power Plant Handling
Thrust Reverser Halves - PW 6000 Series Engine
FIGURE-2-12-0-991-018-A01

2-13-0 Leveling, Symmetry and Alignment****ON A/C A318-100****Leveling, Symmetry and Alignment****1. Quick Leveling**

There are three alternative procedures to level the aircraft:

- Quick leveling procedure with Air Data/Inertial Reference Unit (ADIRU).
- Quick leveling procedure with a spirit level in the passenger compartment.
- Quick leveling procedure with a spirit level in the FWD cargo compartment.

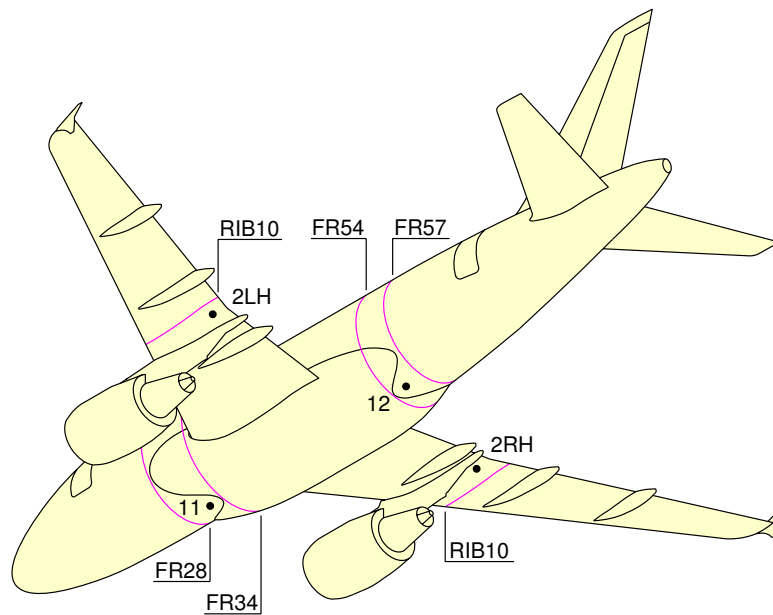
2. Precise Leveling

For precise leveling, it is necessary to install sighting rods in the receptacles located under the fuselage (points 11 and 12 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).

3. Symmetry and Alignment Check

Possible deformation of the aircraft is measured by photogrammetry.

****ON A/C A318-100**



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

2-14-0 Jacking

****ON A/C A318-100**Jacking for Maintenance

1. Jacking for Maintenance

A. General

The A318 aircraft can be jacked:

- at not more than the maximum permitted aircraft weight for jacking (53 000 kg (116 845 lb)) and,
- within the limits of the permissible wind speed when the aircraft is jacked outside a closed environment.

B. Primary Jacking Points

The aircraft is provided with three jacking points:

- one located under the forward fuselage (STA5194/FR8),
- two located under the wings: one under each wing, located at the intersection of STA4862/RIB9 and the rear of spar-datum.

Three jacking adapters are used as intermediary parts between the airplane and jacks:

- one male spherical jacking adapter of 19 mm (0.75 in) radius, forming part of the airplane structure, FR8,
- a wing jack pad, attached to each wing at RIB 9 by 2 bolts, provides the location for jacking adaptor.

Wing jack pads are ground equipment.

C. Auxiliary Jacking Points - Safety Stay

When the aircraft is on jacks, it is recommended that a safety stay be placed under the fuselage, between FR73 and FR74 to prevent tail tipping caused by accidental displacement of the center of gravity.

The safety stay is not used to lift the aircraft.

A male spherical ball pad with a 19 mm (0.75 in) radius, forming part of the airplane structure is provided for using the safety stay.

2. Jack Design

In fully retracted position (jack stroke at minimum), the height of the jack may be placed beneath the airplane under the most adverse conditions, namely, tires deflated and shock absorbers depressurized.

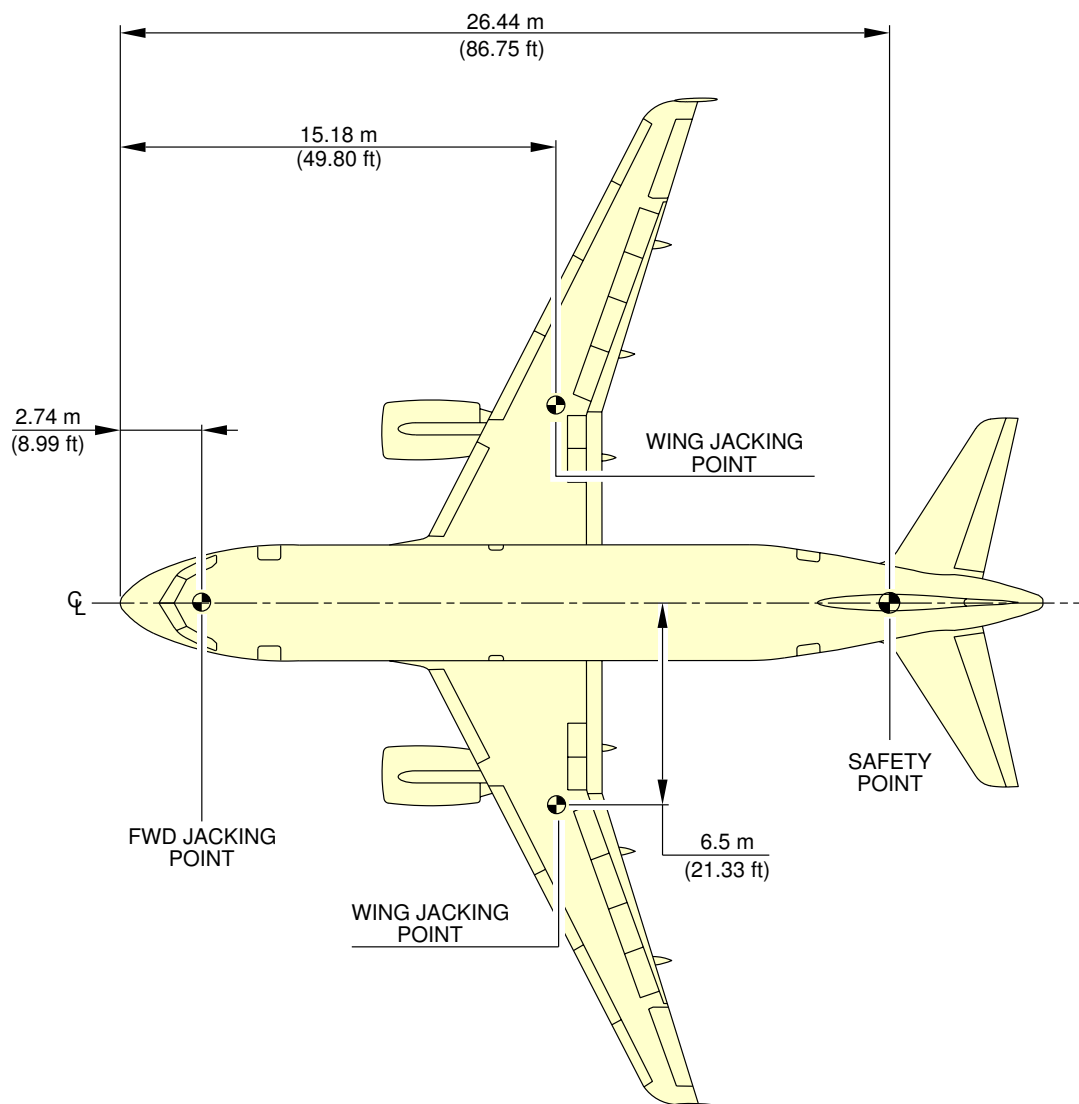
In addition, a clearance of 50 mm (1.97 in) approximately must be provided between the airplane jacking point and the jack upper end. The lifting jack stroke enables the aircraft to be jacked up so that the fuselage longitudinal datum line (aircraft center line) parallel to the ground, with a 100 mm (3.94 in) clearance between the main landing gear wheels and the ground.

In particular, this enables the landing gear extension/retraction tests to be performed.

Jacking Point Location	Z	Maximum Permitted Load
Forward Fuselage Jacking Point	-1.987 m (-6.52 ft)	6 800 daN (15 287 lbf)
Wing Jacking Point	-0.828 m (-2.72 ft)	28 500 daN (64 071 lbf)
Safety Stay	-0.748 m (-2.45 ft)	2 000 daN (4 496 lbf)

The maximum permitted aircraft weight for the jacking procedure is 53 000 kg (116 845 lb).
Centerline at 4.6 mm (0.18 in) parallel to the ground.

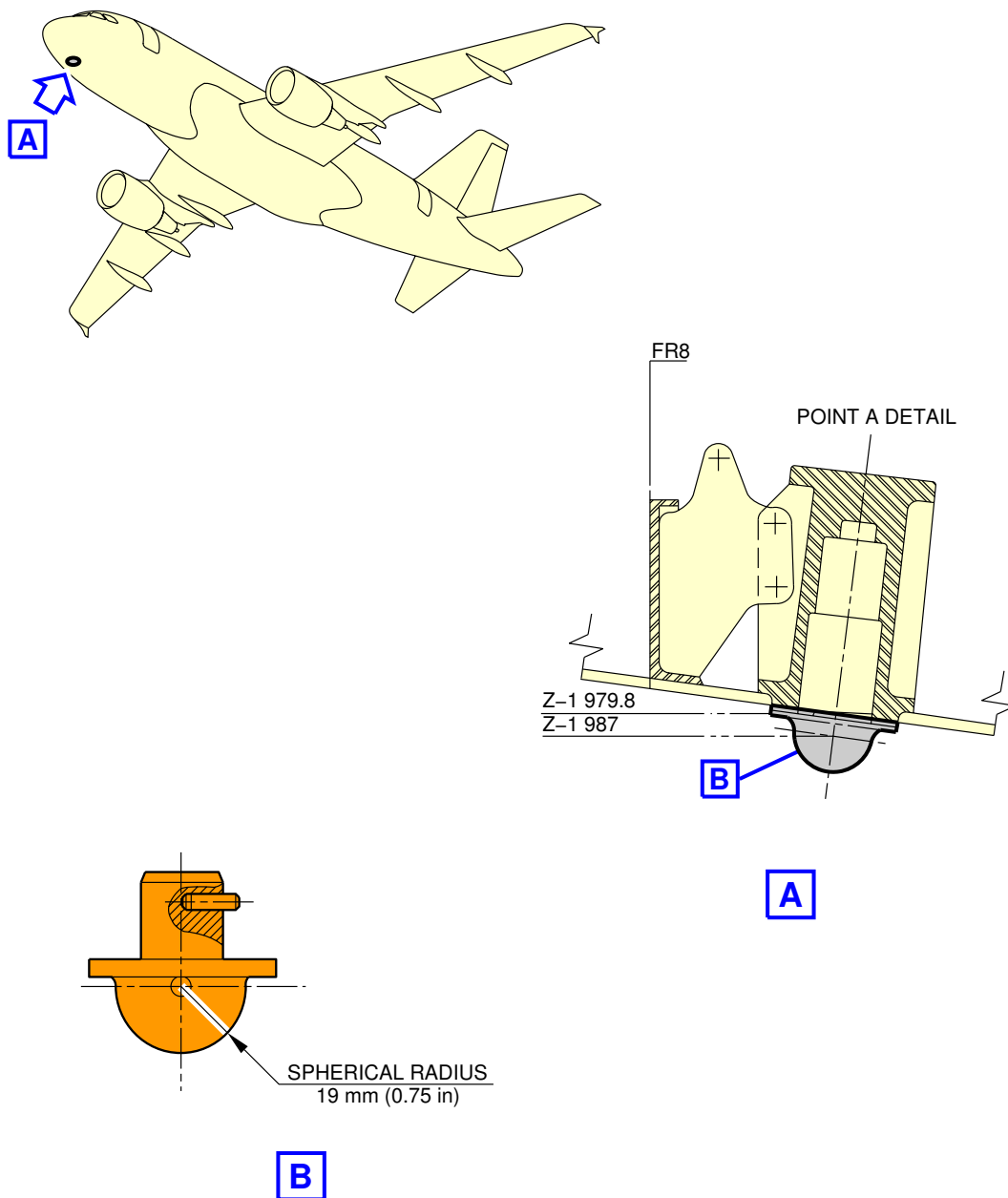
****ON A/C A318-100**



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

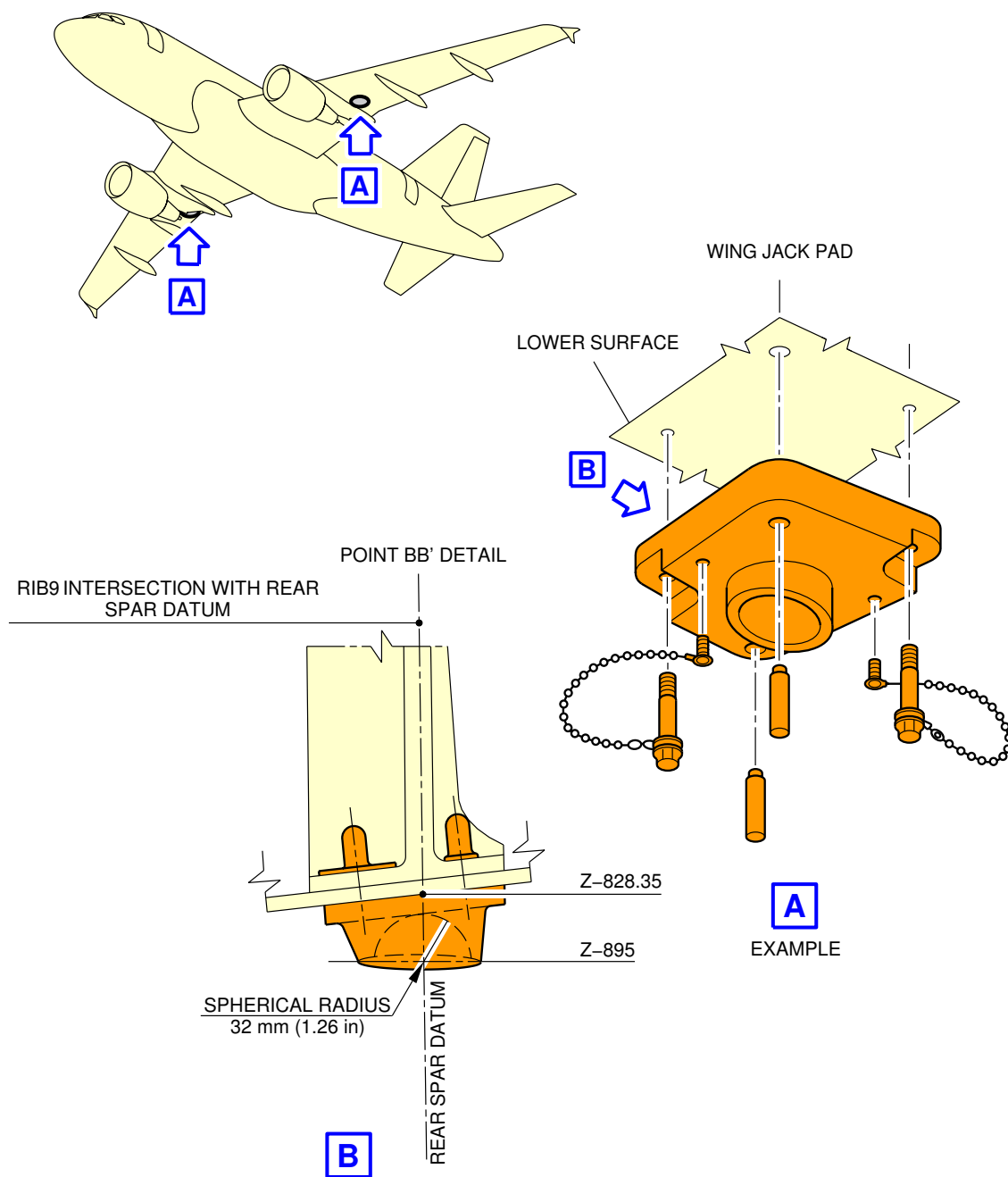
****ON A/C A318-100**



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Jacking for Maintenance
Forward Jacking Point
FIGURE-2-14-0-991-003-A01

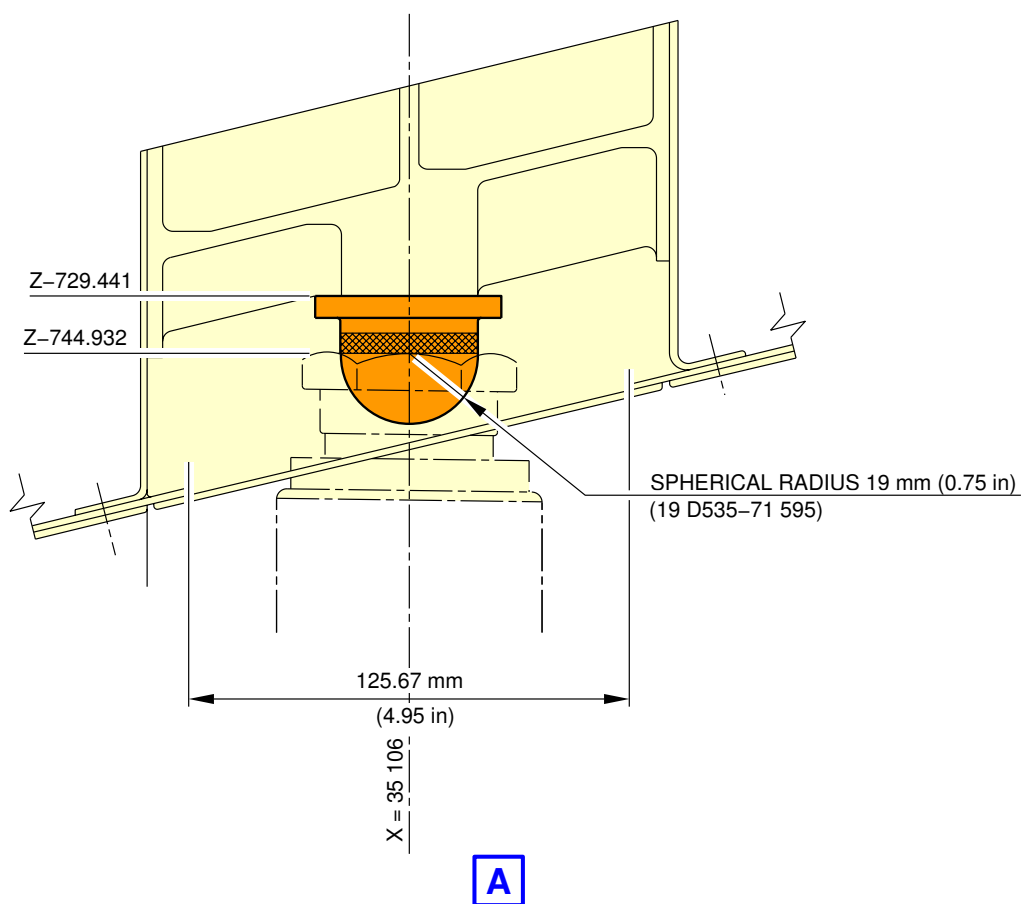
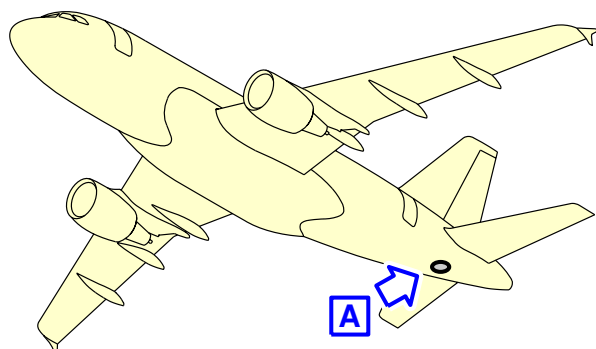
****ON A/C A318-100**



N_AC_021400_1_0560101_01_00

Jacking for Maintenance
Wing Jacking Points
FIGURE-2-14-0-991-056-A01

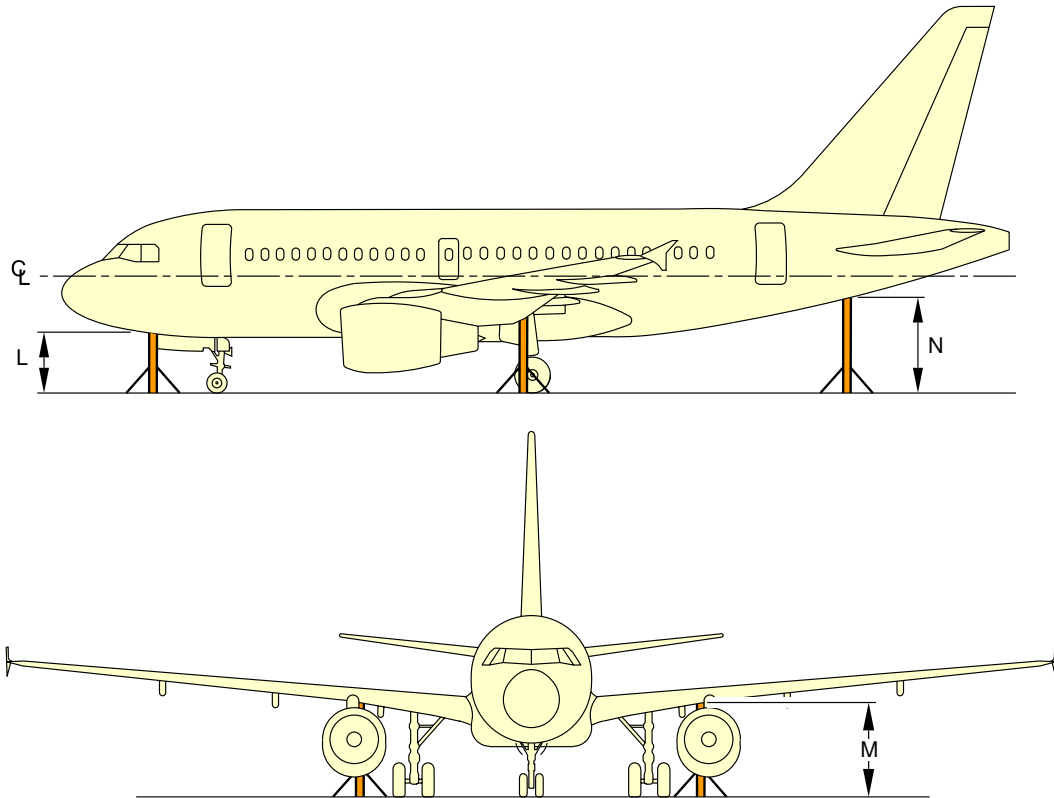
****ON A/C A318-100**



N_AC_021400_1_0570101_01_00

Jacking for Maintenance
Safety Stay
FIGURE-2-14-0-991-057-A01

****ON A/C A318-100**



	L	M	N
AIRCRAFT ON WHEELS, SHOCK ABSORBERS DEFLATED AND FLAT TIRES	1 560 mm (61.42 in)	2 846 mm (112.05 in)	3 047 mm (119.96 in)
AIRCRAFT ON JACKS, CENTER LINE (CL) PARALLEL TO GROUND SHOCK ABSORBERS EXTENDED MAIN WHEEL CLEARANCE (STANDARD TIRES) (49 x 17) 120 mm (4.72 in) FOR EXTENDED AND RETRACTED LANDING GEARS	2 620 mm (103.15 in)	3 772 mm (148.50 in)	3 859 mm (151.93 in)
AIRCRAFT ON WHEELS, (STANDARD TIRES) AT MAX. PERMITTED WEIGHT FOR JACKING	1 931 mm (76.02 in)	3 082 mm (121.34 in)	3 169 mm (124.76 in)
AIRCRAFT ON WHEELS, NLG SHOCK ABSORBER DEFLATED AND FLAT TIRES	1 545 mm (60.83 in)	2 761 mm (108.70 in)	2 892 mm (113.86 in)

NOTE: THE CENTER LINE (CL) IS A FICTITIOUS LINE AROUND WHICH THE AIRCRAFT IS BUILT.
SAFETY STAY IS NOT USED FOR JACKING.
SEE SECTION 1-10, FOR GROUND CLEARANCES A/C ON JACKS.

N_AC_021400_1_0040101_01_00

Jacking for Maintenance
Jacking Design
FIGURE-2-14-0-991-004-A01

****ON A/C A318-100**Jacking for Wheel Change

1. General

Landing gear jacking will be required especially for replacing wheels and brake unit components.

The maximum permitted aircraft weight for jacking is 53 000 kg (116 845 lb).

2. Main Gear Jacking

The main gears are normally jacked up by placing a jack directly under the ball pad.

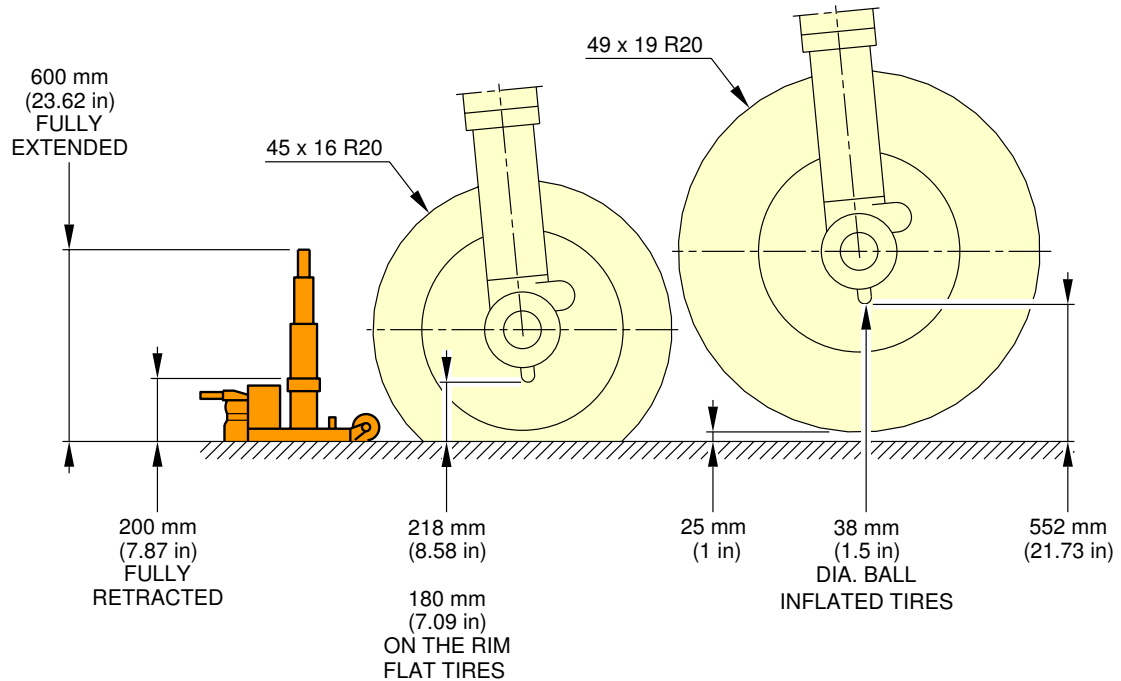
The ball spherical radius is 19 mm (0.75 in).

It is also possible to jack the main gear using a cantilever jack.

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.

****ON A/C A318-100**

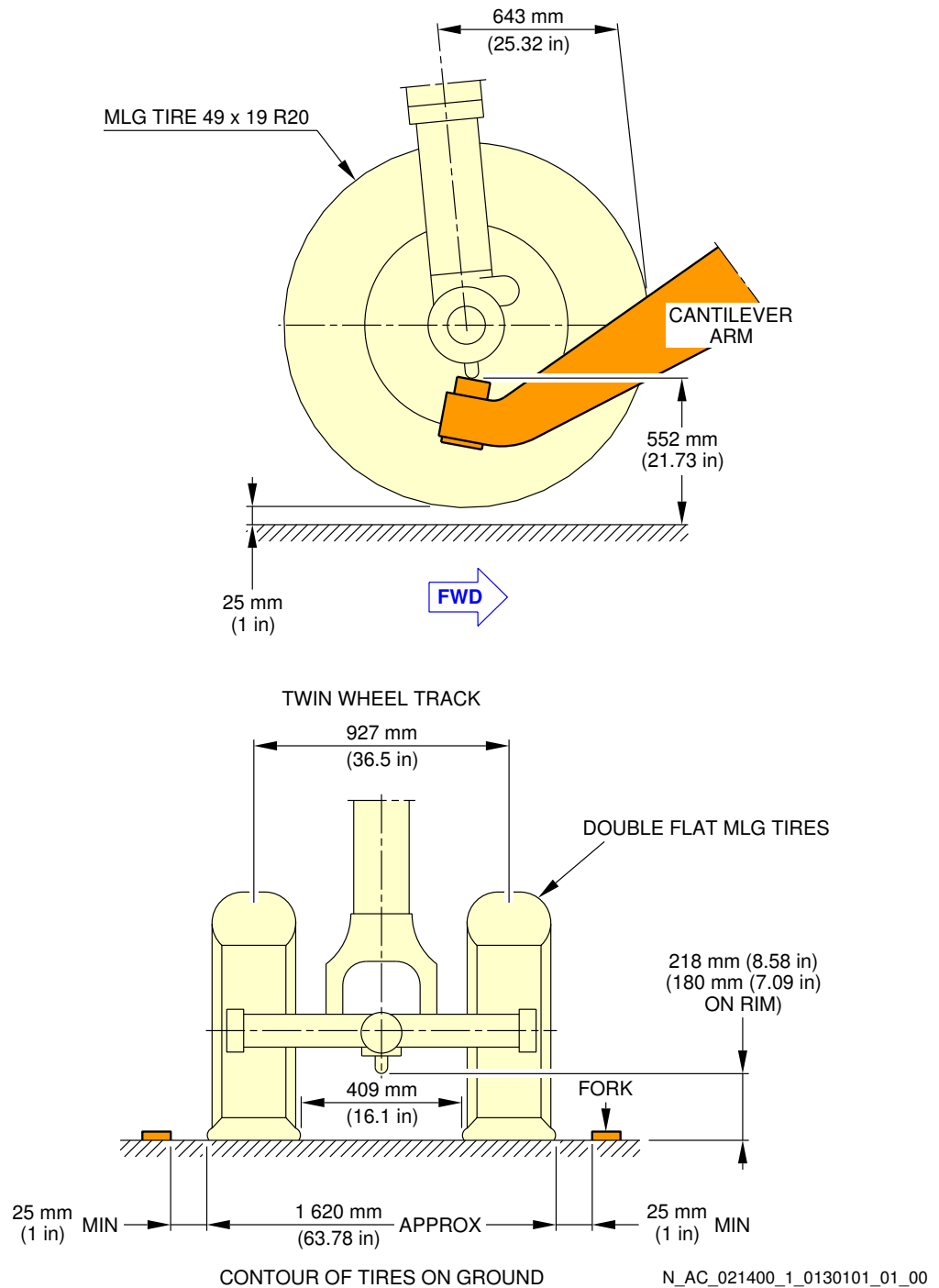


NOTE: TWIN WHEEL TRACK IS 927 mm (36.5 in).
 THE FLAT TIRES VIEW SHOWS THE MINIMUM HEIGHT TO ENGAGE JACK WITH 2 FLAT TIRES.
 THE INFLATED TIRES VIEW SHOWS THE JACKING HEIGHT TO GIVE 25 mm (1 in) CLEARANCE BETWEEN THE TIRE AND GROUND.

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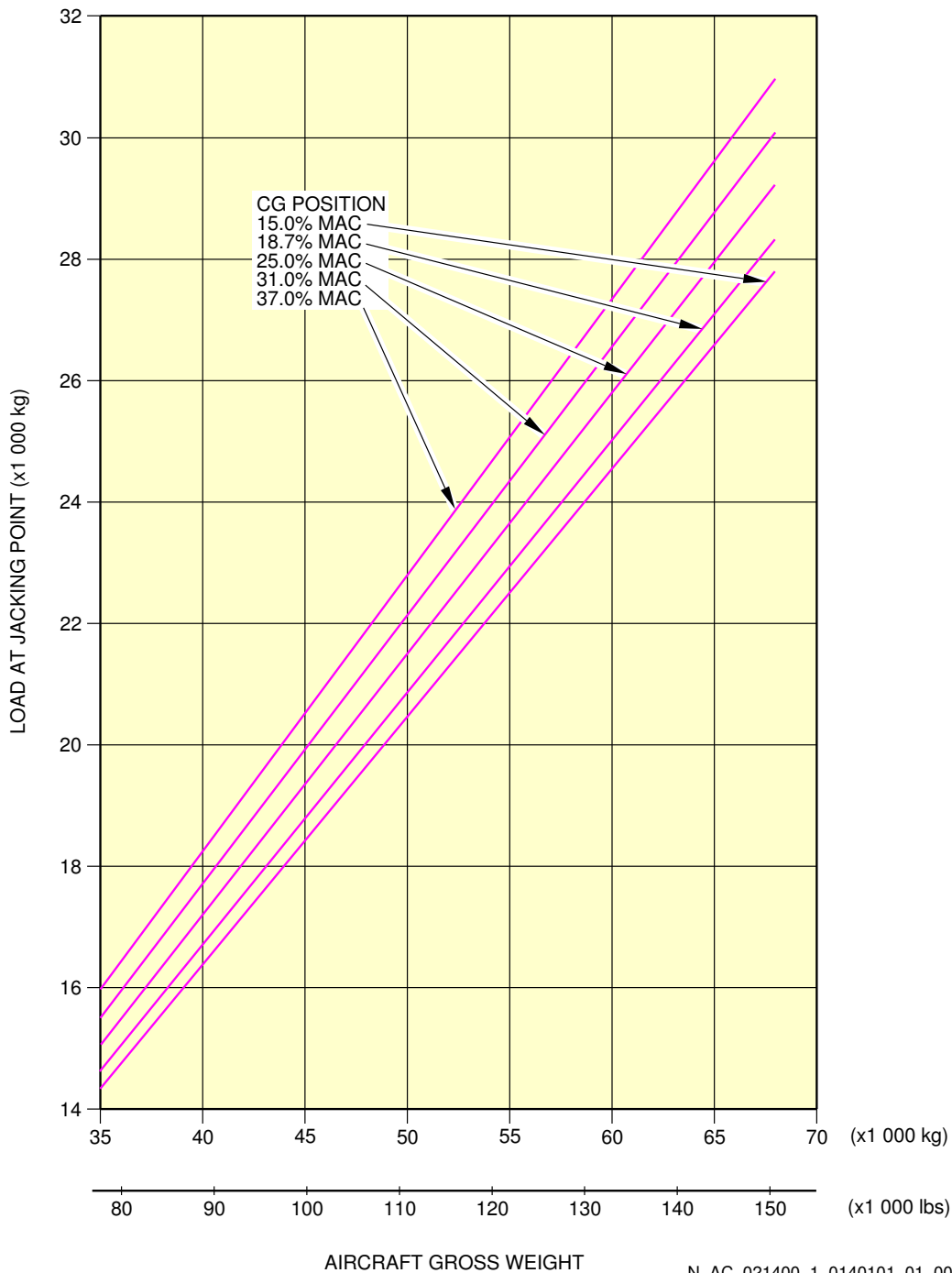
Landing Gear Jacking for Wheel Change
 MLG Jacking Point Location - Twin Wheels
 FIGURE-2-14-0-991-012-A01

****ON A/C A318-100**



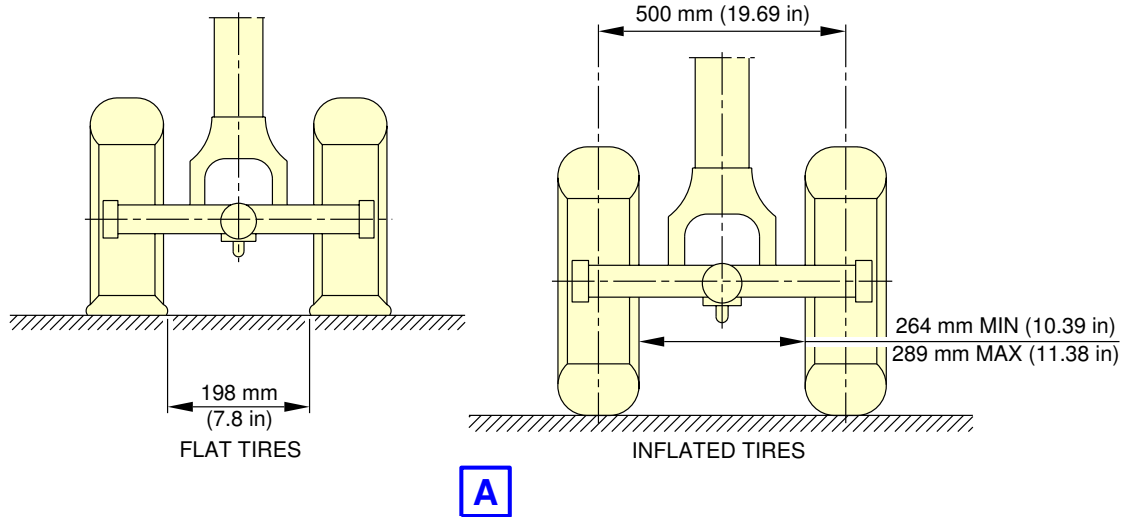
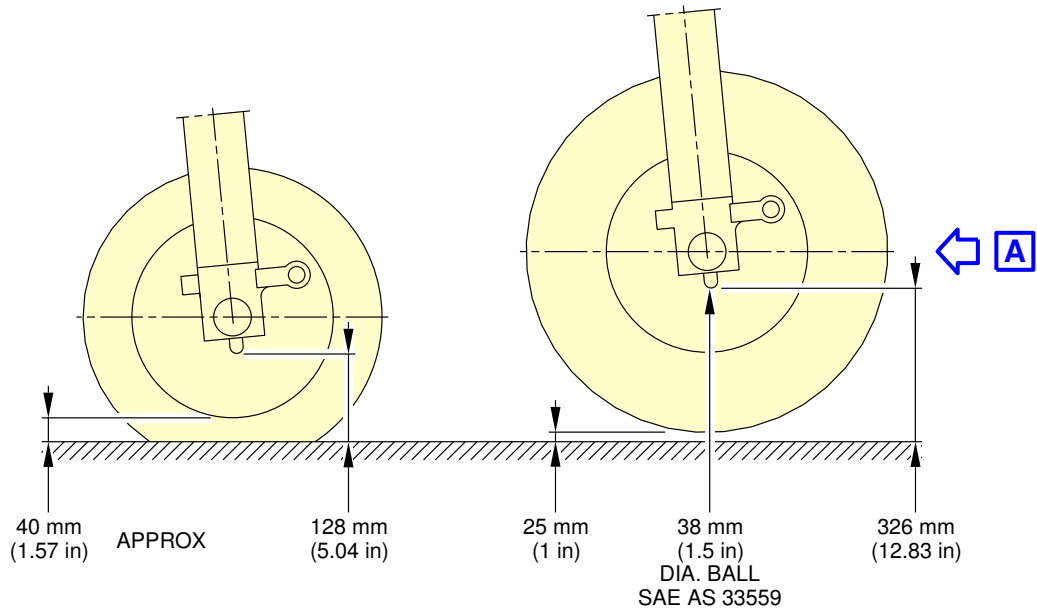
Landing Gear Jacking for Wheel Change
MLG Jacking with Cantilever Jack - Twin Wheels
FIGURE-2-14-0-991-013-A01

****ON A/C A318-100**



Landing Gear Jacking for Wheel Change
Loads at MLG Jacking Points - Twin Wheels
FIGURE-2-14-0-991-014-A01

****ON A/C A318-100**

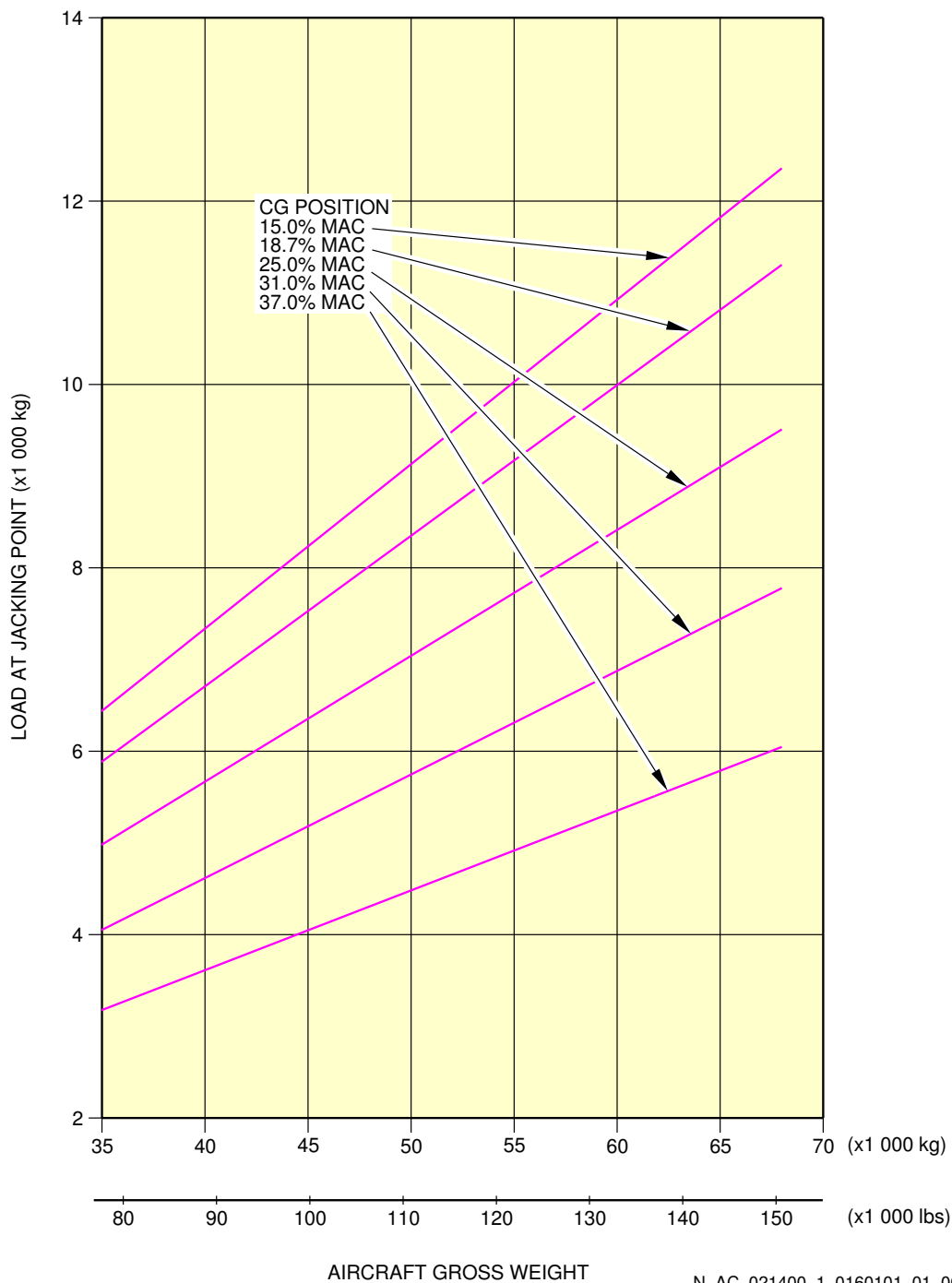


NOTE: THE FLAT TIRES VIEW SHOWS THE MINIMUM HEIGHT TO ENGAGE JACK WITH 2 FLAT TIRES. THE INFLATED TIRES VIEW SHOWS THE JACKING HEIGHT TO GIVE 25 mm (1 in) CLEARANCE BETWEEN THE TIRE AND GROUND.

N_AC_021400_1_0150101_01_00

Landing Gear Jacking for Wheel Change
NLG Jacking - Point Location
FIGURE-2-14-0-991-015-A01

****ON A/C A318-100**



N_AC_021400_1_0160101_01_00

Landing Gear Jacking for Wheel Change
Loads at NLG Jacking Points
FIGURE-2-14-0-991-016-A01

AIRCRAFT PERFORMANCE**3-1-0 General Information******ON A/C A318-100****General Information**

1. This section gives standard day temperatures.

Section 3-2 indicates payload range information at specific altitudes recommended for long range cruise with a given fuel reserve condition.

Section 3-3 represents FAR take-off runway length requirements at ISA and ISA +15 °C (+59 °F) for CFM56 and PW 6000 series engine conditions for FAA certification.

Section 3-4 represents FAR landing runway length requirements for FAA certification.

Section 3-5 indicates final approach speeds.

Standard day temperatures for the altitudes 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	1219	44.7	7.1
6000	1829	37.6	3.1
8000	2438	30.5	-0.8



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

3-2-0 Payload / Range

****ON A/C A318-100**

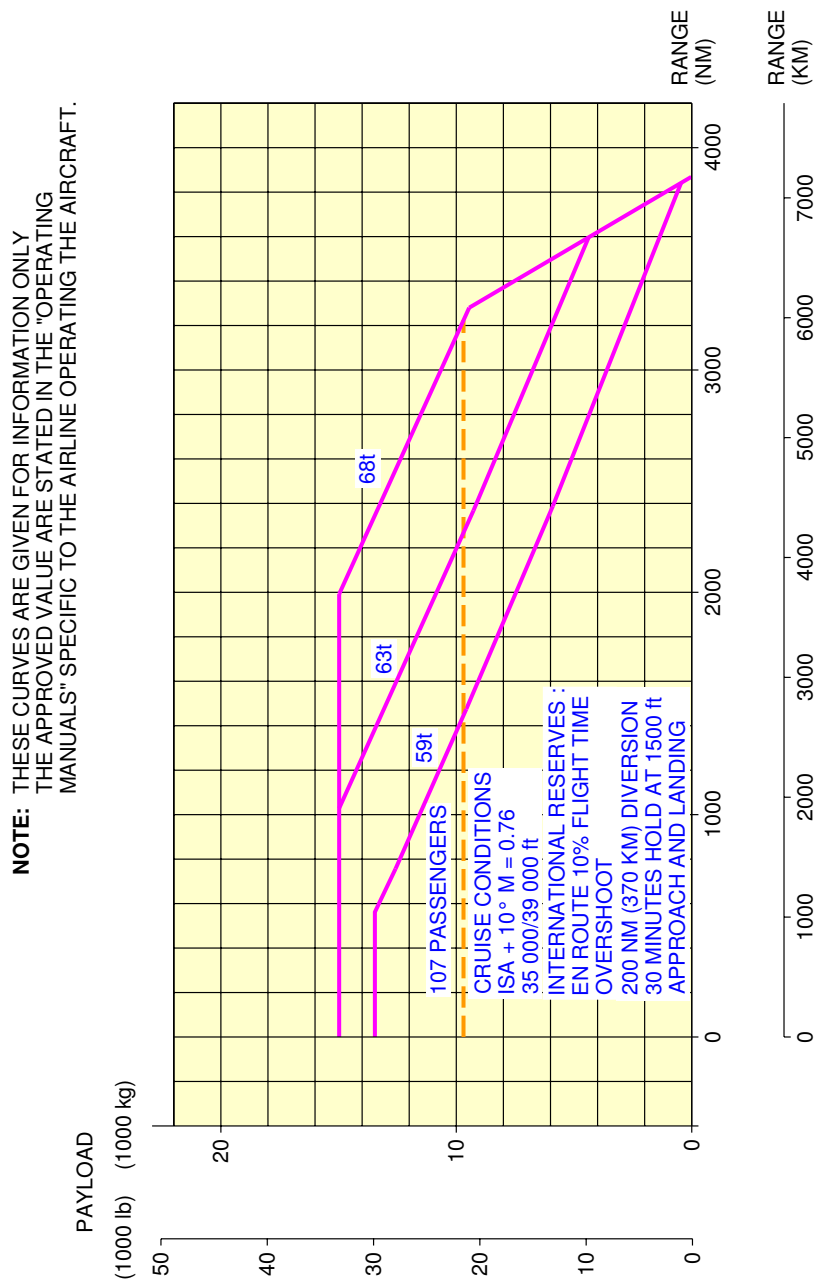
Payload / Range

1. Payload / Range

3-2-1 ISA Conditions****ON A/C A318-100**ISA Conditions

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

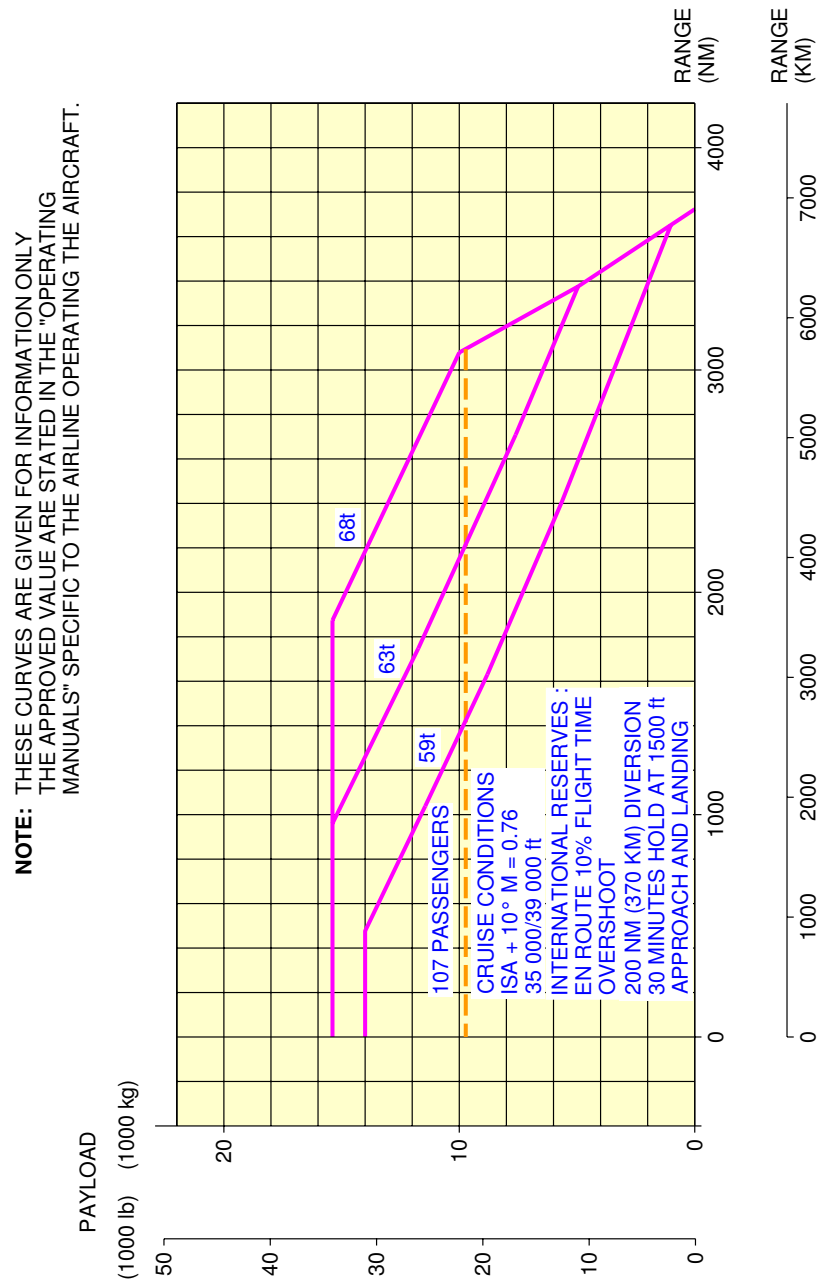
****ON A/C A318-100**



N_AC_030201_1_0010101_01_00

Payload / Range
CFM56 series engine
FIGURE-3-2-1-991-001-A01

****ON A/C A318-100**



N_AC_030201_1_0020101_01_00

Payload / Range
PW 6000 series engine
FIGURE-3-2-1-991-002-A01



3-3-0 FAR / JAR Takeoff Weight Limitation

****ON A/C A318-100**

FAR / JAR Take-off Weight Limitation

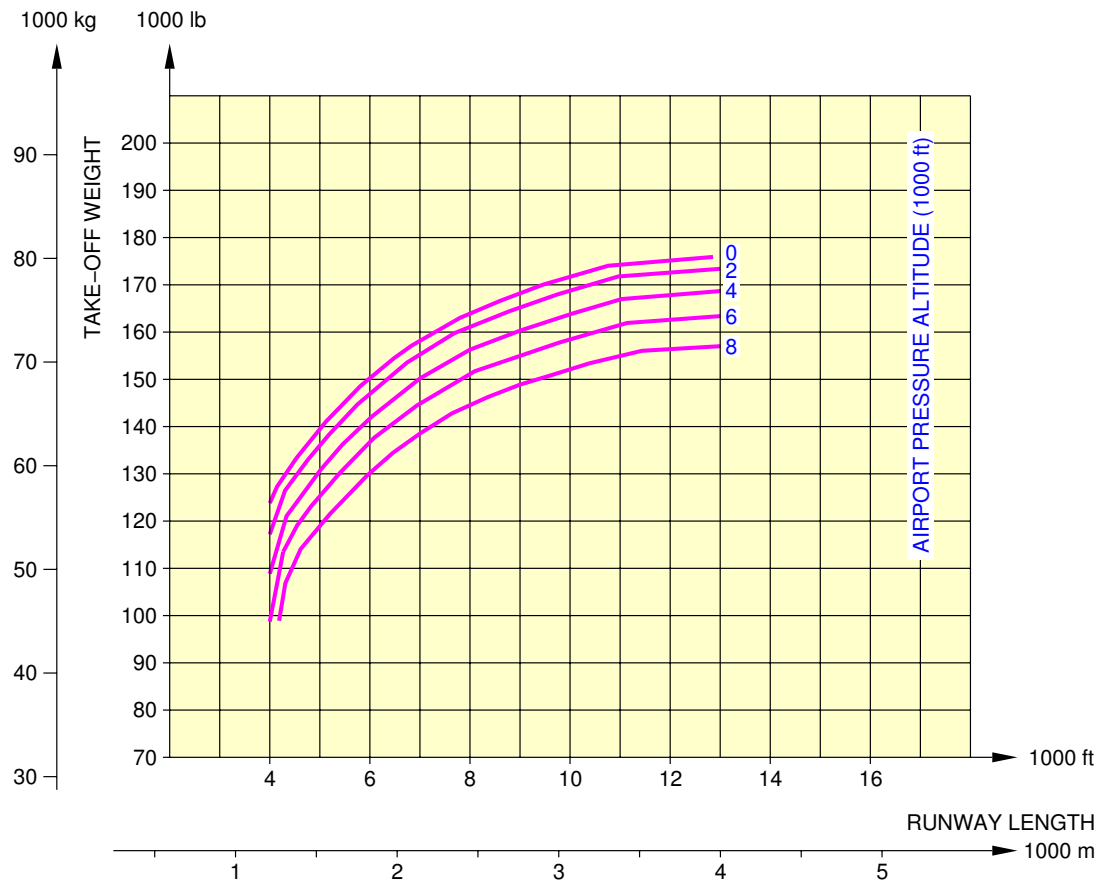
1. FAR / JAR Take-off Weight Limitation

3-3-1 ISA Conditions****ON A/C A318-100**ISA Conditions

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

****ON A/C A318-100**

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

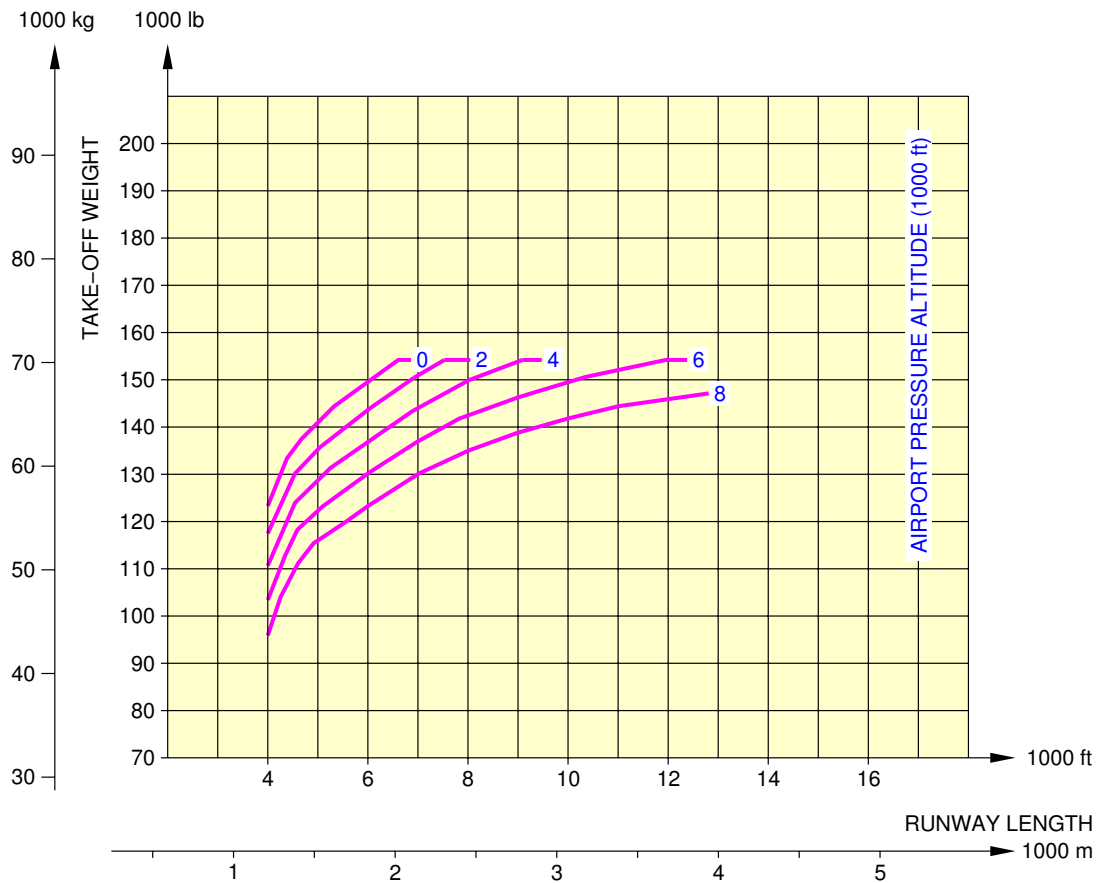


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FAR / JAR Take-off Weight Limitation
ISA Conditions – CFM56 series engine
FIGURE-3-3-1-991-001-A01

****ON A/C A318-100**

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



N_AC_030301_1_0020101_01_00

FAR / JAR Take-off Weight Limitation
ISA Conditions – PW 6000 series engine
FIGURE-3-3-1-991-002-A01

3-3-2 ISA +15 ° C (+59 ° F) Conditions

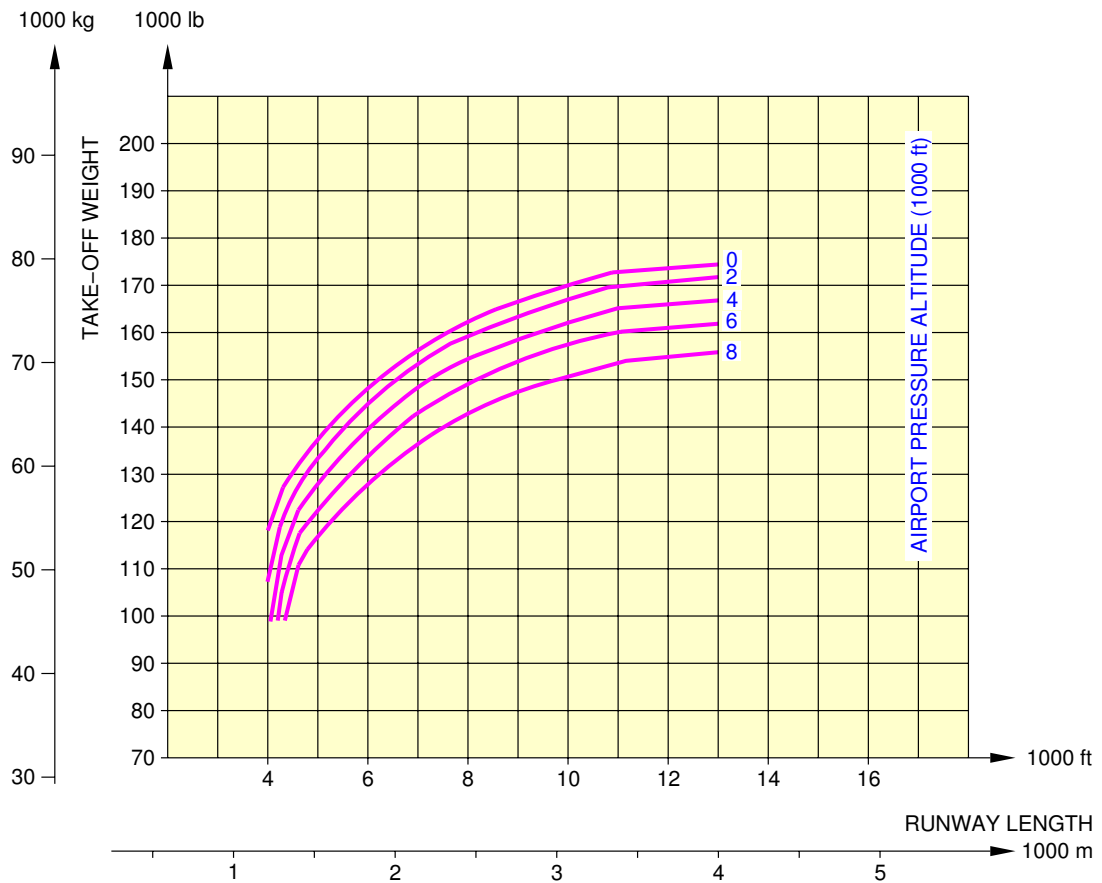
****ON A/C A318-100**

ISA +15 ° C (+59 ° F) Conditions

1. This section gives the take-off weight limitation at ISA +15 ° C (+59 ° F) conditions.

****ON A/C A318-100**

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

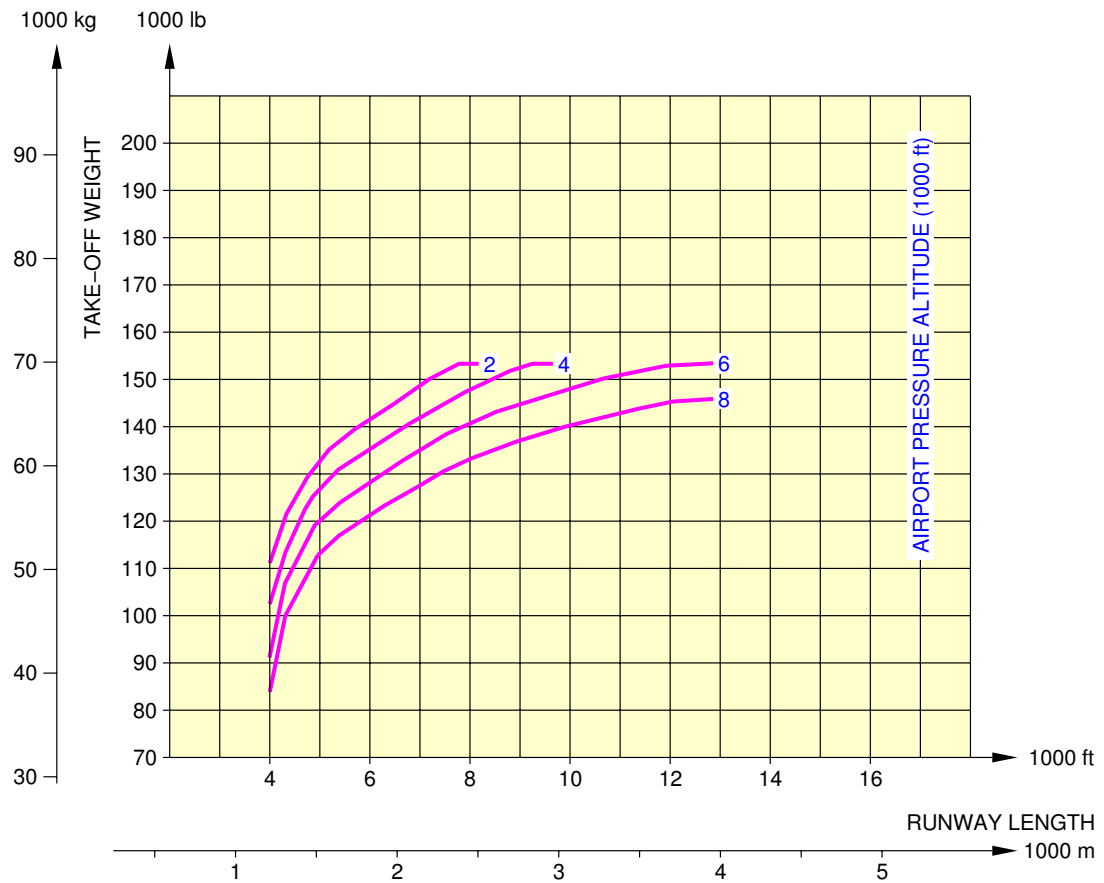


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FAR / JAR Take-off Weight Limitation
ISA +15 °C (+59 °F) Conditions – CFM56 series engine
FIGURE-3-3-2-991-001-A01

****ON A/C A318-100**

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



N_AC_030302_1_0020101_01_00

FAR / JAR Take-off Weight Limitation
ISA +15 °C (+59 °F) Conditions – PW 6000 series engine
FIGURE-3-3-2-991-002-A01



3-4-0 FAR / JAR Landing Field Length

****ON A/C A318-100**

FAR / JAR Landing Field Length

1. FAR / JAR Landing Field Length



3-4-1 ISA Conditions

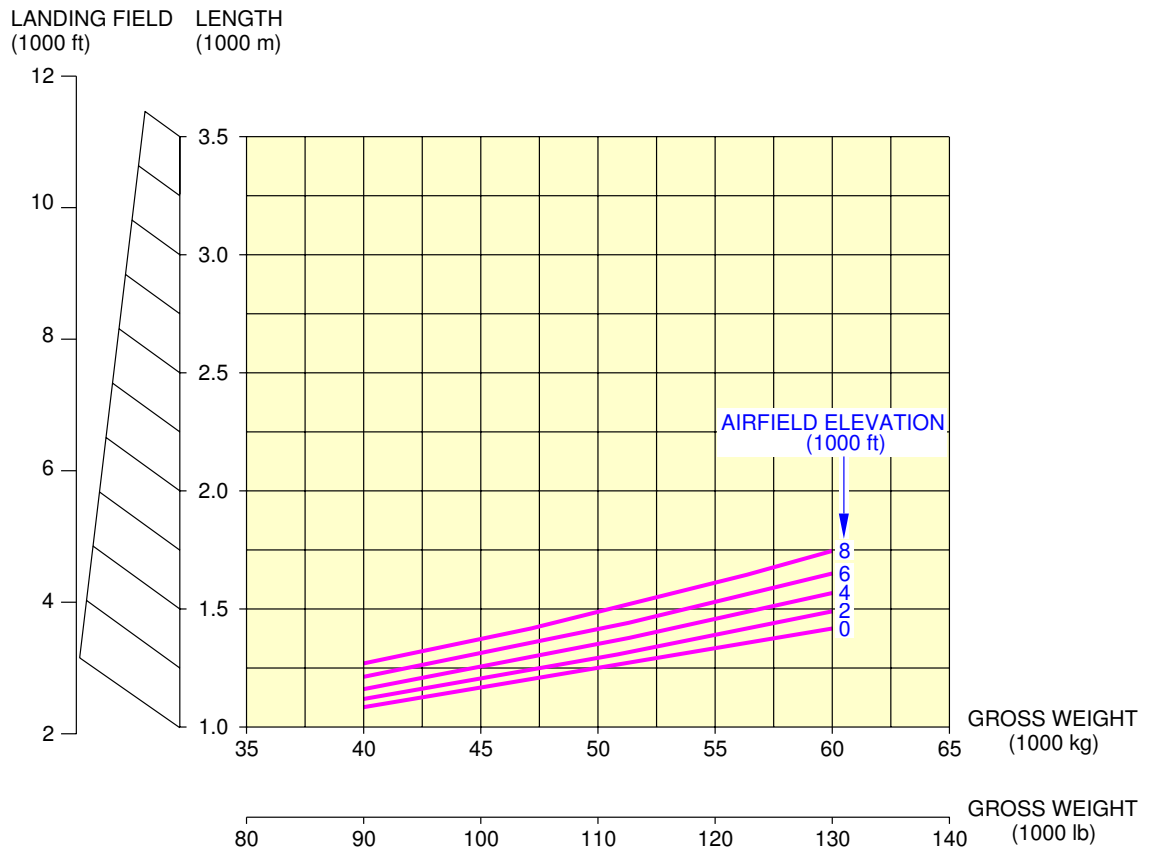
****ON A/C A318-100**

ISA Conditions

1. This section gives the landing field length.

****ON A/C A318-100**

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



N_AC_030401_1_0010101_01_00

FAR / JAR Landing Field Length
CFM56-5B series engine
FIGURE-3-4-1-991-001-A01



3-5-0 Final Approach Speed

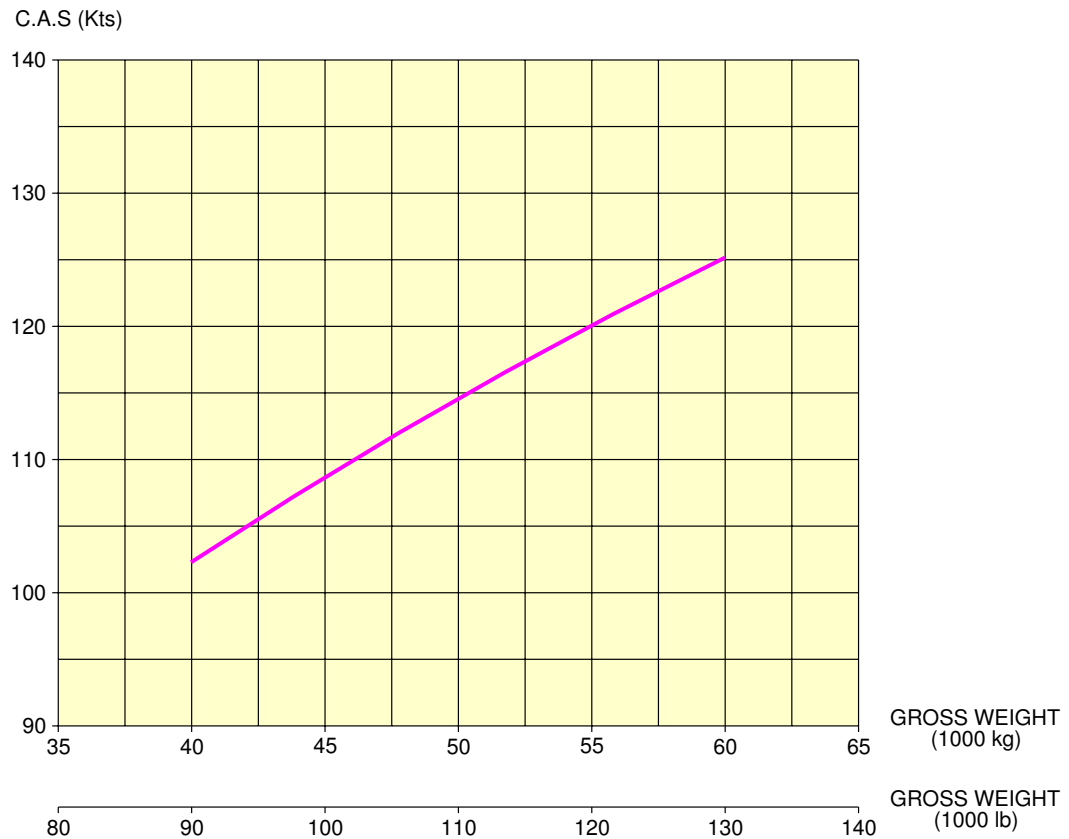
****ON A/C A318-100**

Final Approach Speed

1. This section gives the final approach speed.

****ON A/C A318-100**

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

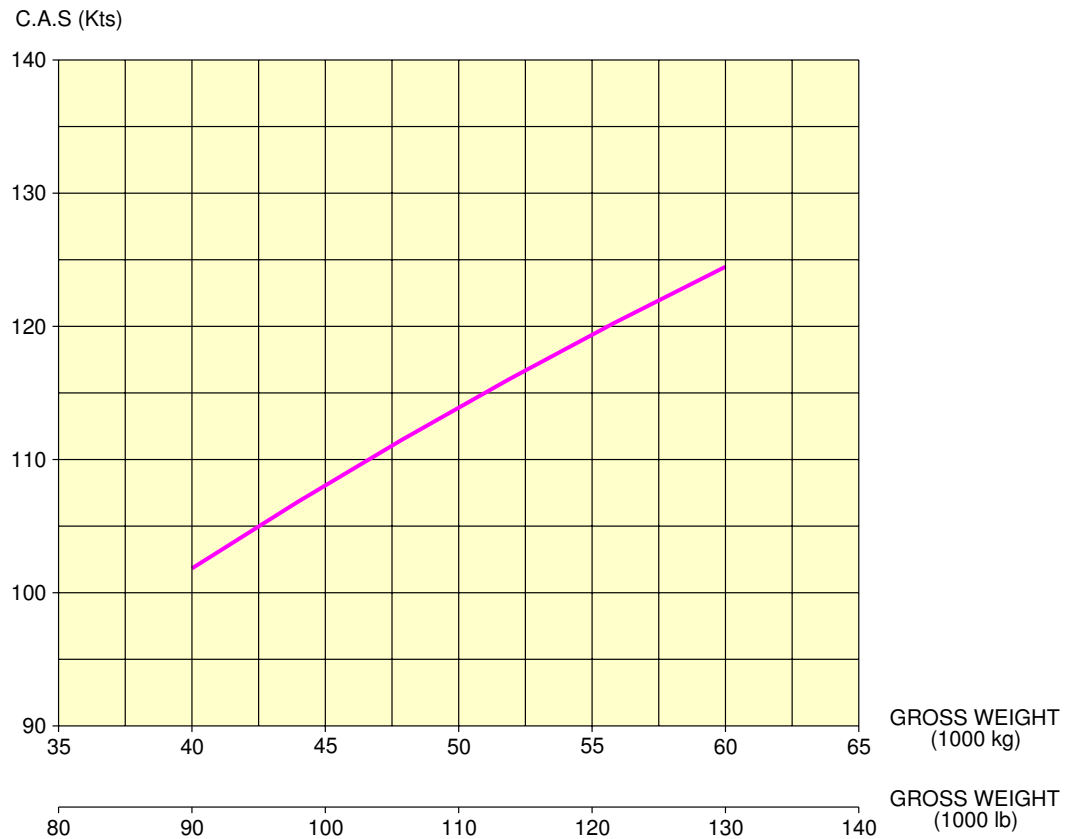


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Final Approach Speed
CFM56-5B8 and CFM56-5B9 series engine
FIGURE-3-5-0-991-001-A01

****ON A/C A318-100**

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



N_AC_030500_1_0020101_01_00

Final Approach Speed
PW 6000 series engine
FIGURE-3-5-0-991-002-A01

GROUND MANEUVERING**4-1-0 General Information******ON A/C A318-100****General Information**

1. This section provides airplane 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, provides 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 using airlines prior to layout planning.



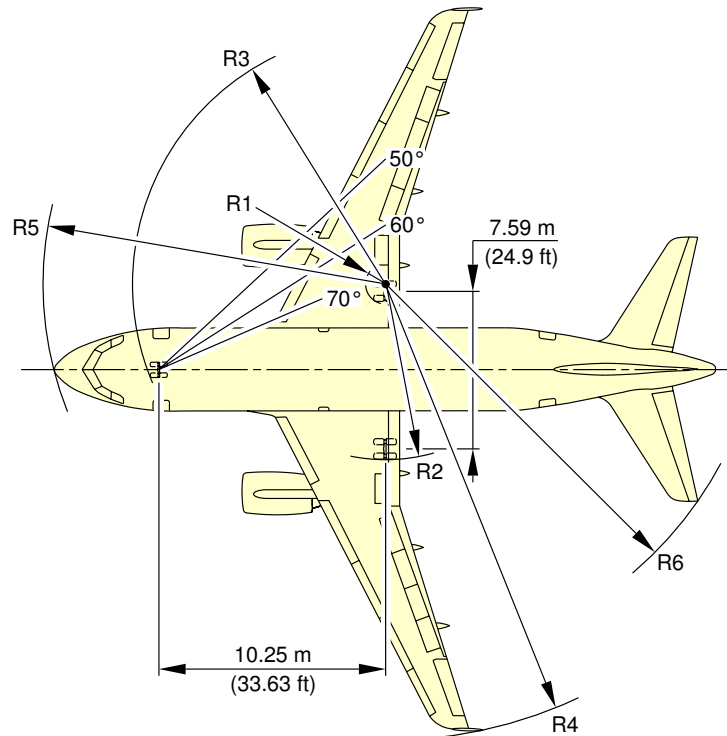
4-2-0 Turning Radii

****ON A/C A318-100**

Turning Radii

1. This section gives the turning radii.

****ON A/C A318-100**



NOTE: FOR STEERING DIMENSION TABLE SEE SHEET 2.

TURN TYPE:

1. ASYMMETRIC THRUST DIFFERENTIAL BRAKING
(PIVOTTING ON ONE MAIN GEAR).
2. SYMMETRIC THRUST NO BRAKING.

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Turning Radii, No Slip Angle
FIGURE-4-2-0-991-001-A01

**ON A/C A318-100

TYPE OF TURN	MAXIMUM RAMP WEIGHT		R1 RMLG		R2 LMLG		R3 NLG		R4 – WING				R5 NOSE		R6 THS	
	STEERING ANGLE (deg)	EFFECTIVE STEERING ANGLE (deg)	m	ft	m	ft	m	ft	WINGTIP FENCE	SHARKLET	ft	m	m	ft	m	ft
2	20	19.3	26.1	86	33.7	111	31.3	103	46.5	152	47.3	155	33.0	108	38.6	127
2	25	24.1	19.8	65	27.3	90	25.4	83	40.2	132	41.0	135	27.5	90	32.9	108
2	30	29.0	15.4	51	23.0	75	21.5	70	35.8	118	36.7	120	24.0	79	29.1	95
2	35	33.8	12.2	40	19.8	65	18.7	61	32.7	107	33.5	110	21.7	71	26.4	87
2	40	38.6	9.7	32	17.3	57	16.7	55	30.2	99	31.1	102	20.0	66	24.5	80
2	45	43.4	7.7	25	15.3	50	15.2	50	28.2	93	29.1	95	18.8	62	22.9	75
2	50	48.2	6.1	20	13.7	45	14.0	46	26.6	87	27.4	90	17.9	59	21.7	71
2	55	52.9	4.6	15	12.2	40	13.1	43	25.2	83	26.0	85	17.2	56	20.7	68
2	60	57.6	3.4	11	11.0	36	12.3	40	24.0	79	24.8	81	16.6	55	19.9	65
2	65	62.2	2.3	8	9.9	32	11.8	39	22.9	75	23.7	78	16.2	53	19.2	63
2	70	66.6	1.3	4	8.9	29	11.3	37	21.9	72	22.8	75	16.0	52	18.7	61
2	75 (MAX)	70.3	0.6	2	8.2	27	11.0	36	21.2	69	22.0	72	15.8	52	18.2	60
1	50	48.3	6.0	20	13.6	45	14.0	46	26.5	87	27.4	90	17.8	58	21.7	71
1	55	53.1	4.6	15	12.2	40	13.0	43	25.1	82	26.0	85	17.1	56	20.7	68
1	60	57.9	3.3	11	10.9	36	12.3	40	23.9	78	24.7	81	16.6	55	19.9	65
1	65	62.8	2.2	7	9.7	32	11.7	38	22.7	75	23.6	77	16.2	53	19.2	63
1	70	67.3	1.2	4	8.8	29	11.3	37	21.8	71	22.6	74	15.9	52	18.6	61
1	75 (MAX)	71.8	0.3	1	7.8	26	10.9	36	20.9	68	21.7	71	15.7	51	18.1	59

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.

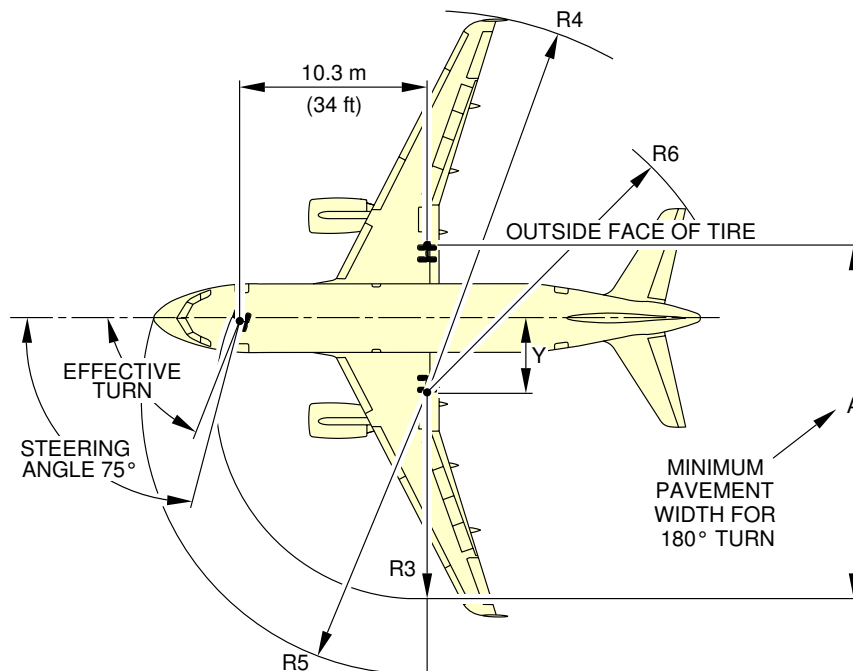
N_AC_040200_1_0020101_01_01

Turning Radii, No Slip Angle
FIGURE-4-2-0-991-002-A01

4-3-0 Minimum Turning Radii****ON A/C A318-100**Minimum Turning Radii

1. This section gives the minimum turning radii.

****ON A/C A318-100**



NOTE: NOSE GEAR RADII TRACK R3, MEASURED FROM OUTSIDE FACE OF TIRE. MODEL 100 TURN DIMENSION SHOWN. THEORETICAL CENTER OF TURN FOR MINIMUM TURNING RADIUS. SLOW CONTINUOUS TURNING. APPROXIMATELY IDLE THRUST ON BOTH ENGINES. NO DIFFERENTIAL BRAKING. DRY SURFACE.

TYPE OF TURN	STEERING ANGLE (DEG)	EFFECTIVE STEERING ANGLE		Y	A	R3 NLG	R4 WING		R5 NOSE	R6 THS
							WING TIP FENCE	SHARKLET		
1	75 (MAX)	71.8°	m	3.4	19.0	10.9	20.9	21.7	15.7	18.1
			ft	11	62	36	68	71	51	59
2	75 (MAX)	70.3°	m	3.7	19.4	11.0	21.2	22.0	15.8	18.2
			ft	12	64	36	69	72	52	60

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

N_AC_040300_1_0010101_01_02

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

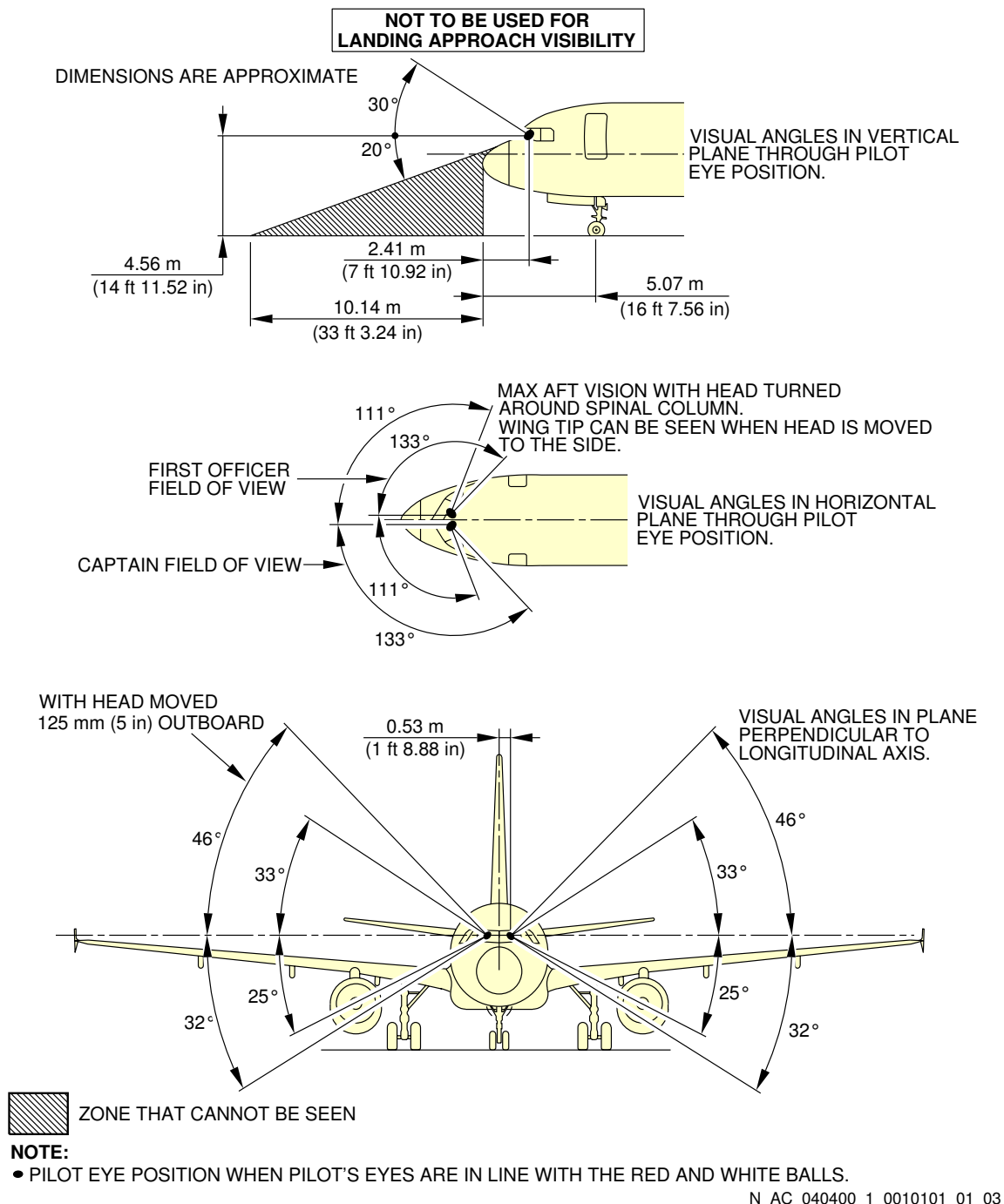
4-4-0 Visibility from Cockpit in Static Position

****ON A/C A318-100**

Visibility from Cockpit in Static Position

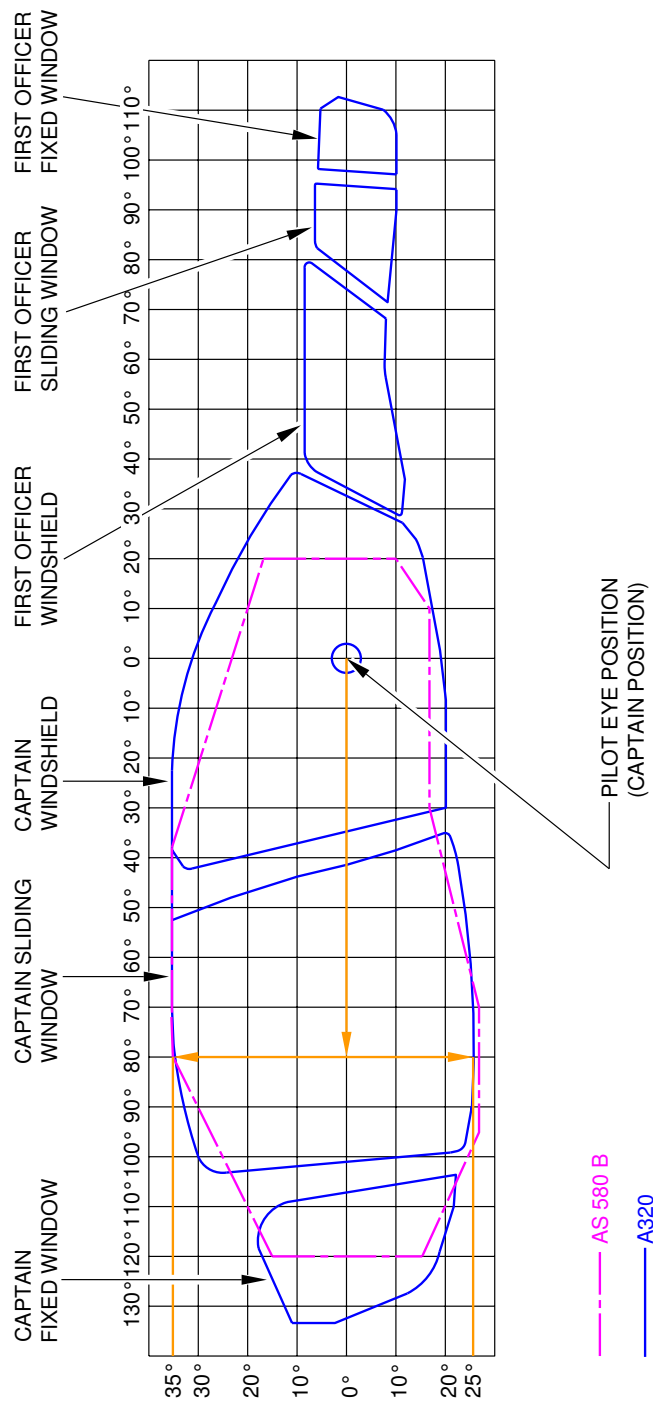
1. This section gives the visibility from cockpit in static position.

****ON A/C A318-100**



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

****ON A/C A318-100**



CAPTAIN FIELD OF VIEW SHOWN.
FIRST OFFICER FIELD OF VIEW SYMMETRICAL.

EXAMPLE: WHEN CAPTAIN TURNS HIS HEAD BY 80° LEFT, VISIBILITY WILL BE 35° UP AND 25° DOWN THROUGH THE SLIDING WINDOW FRAME.

N_AC_040400_1_0050101_01_00

Binocular Visibility Through Windows from Captain Eye Position
FIGURE-4-4-0-991-005-A01



4-5-0 Runway and Taxiway Turn Paths

****ON A/C A318-100**

Runway and Taxiway Turn Paths

1. Runway and Taxiway Turn Paths.



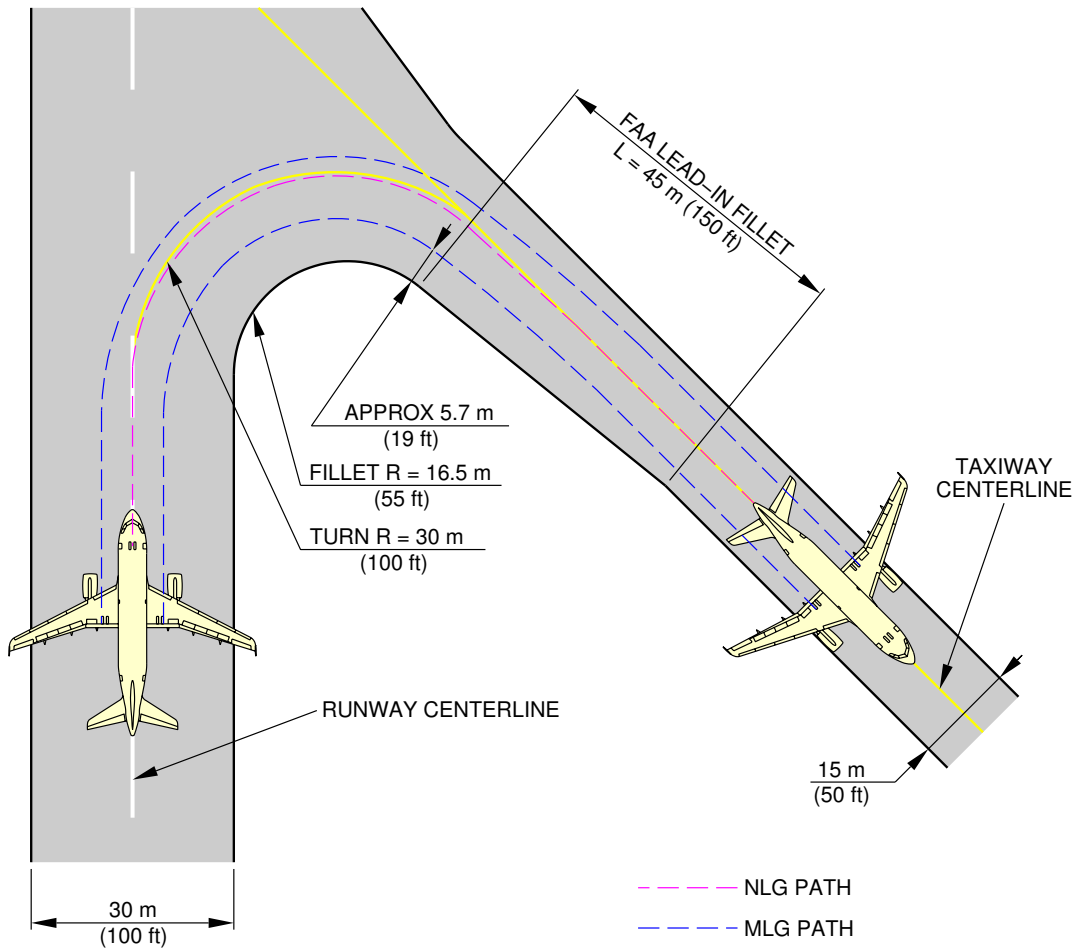
4-5-1 135 ° Turn - Runway to Taxiway

****ON A/C A318-100**

135 ° Turn - Runway to Taxiway

1. This section gives the 135 ° turn - runway to taxiway.

****ON A/C A318-100**

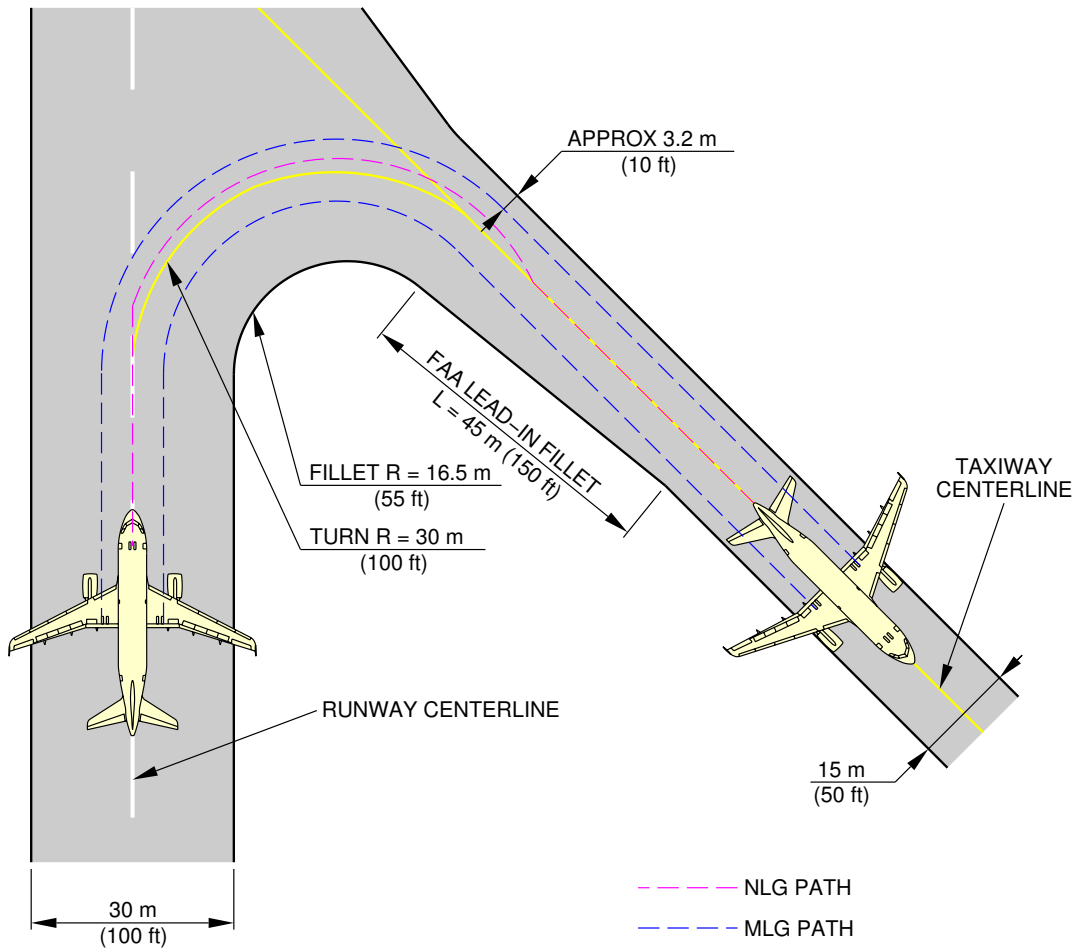


NOTE: FAA GROUP III FACILITIES.

N_AC_040501_1_0010101_01_02

135° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-1-991-001-A01

****ON A/C A318-100**



NOTE: FAA GROUP III FACILITIES.

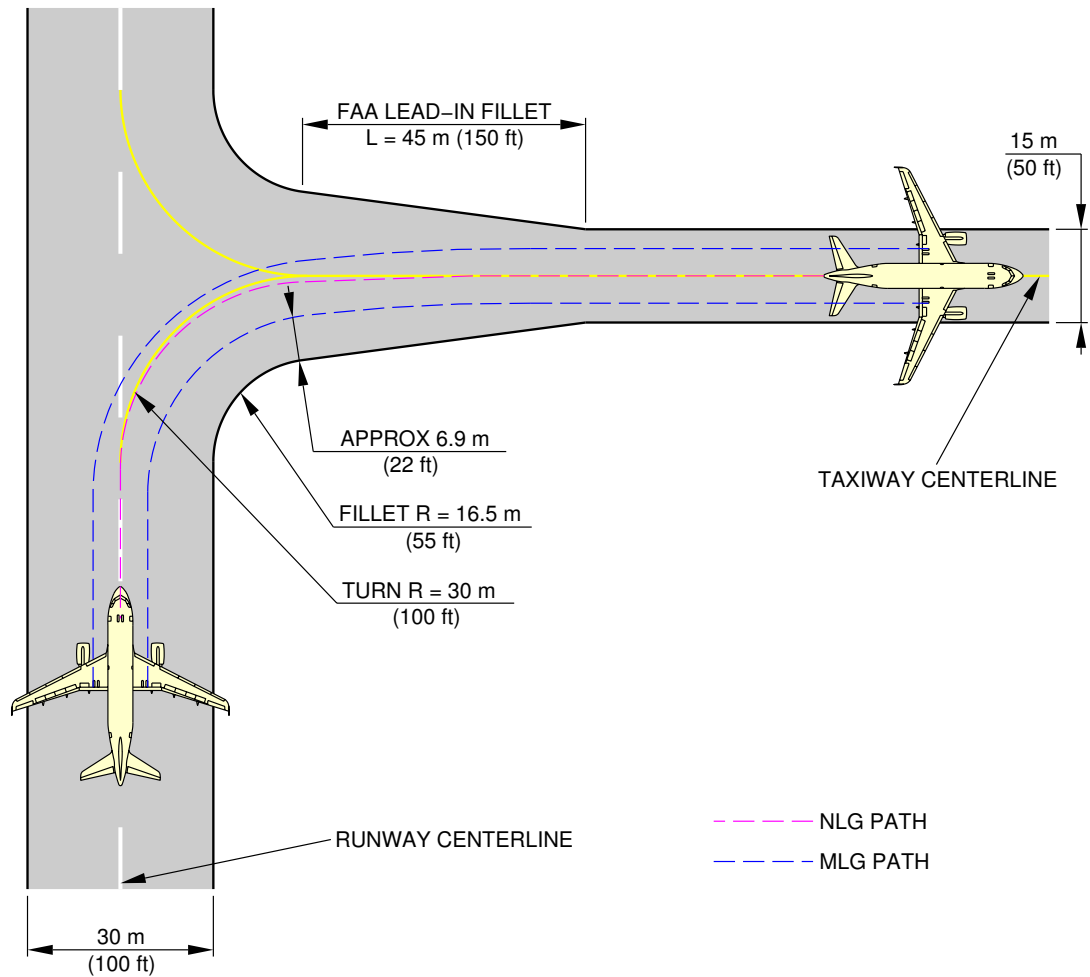
N_AC_040501_1_0110101_01_00

135° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-1-991-011-A01

4-5-2 90 ° Turn - Runway to Taxiway****ON A/C A318-100****90 ° Turn - Runway to Taxiway**

1. This section gives the 90 ° turn - runway to taxiway.

****ON A/C A318-100**

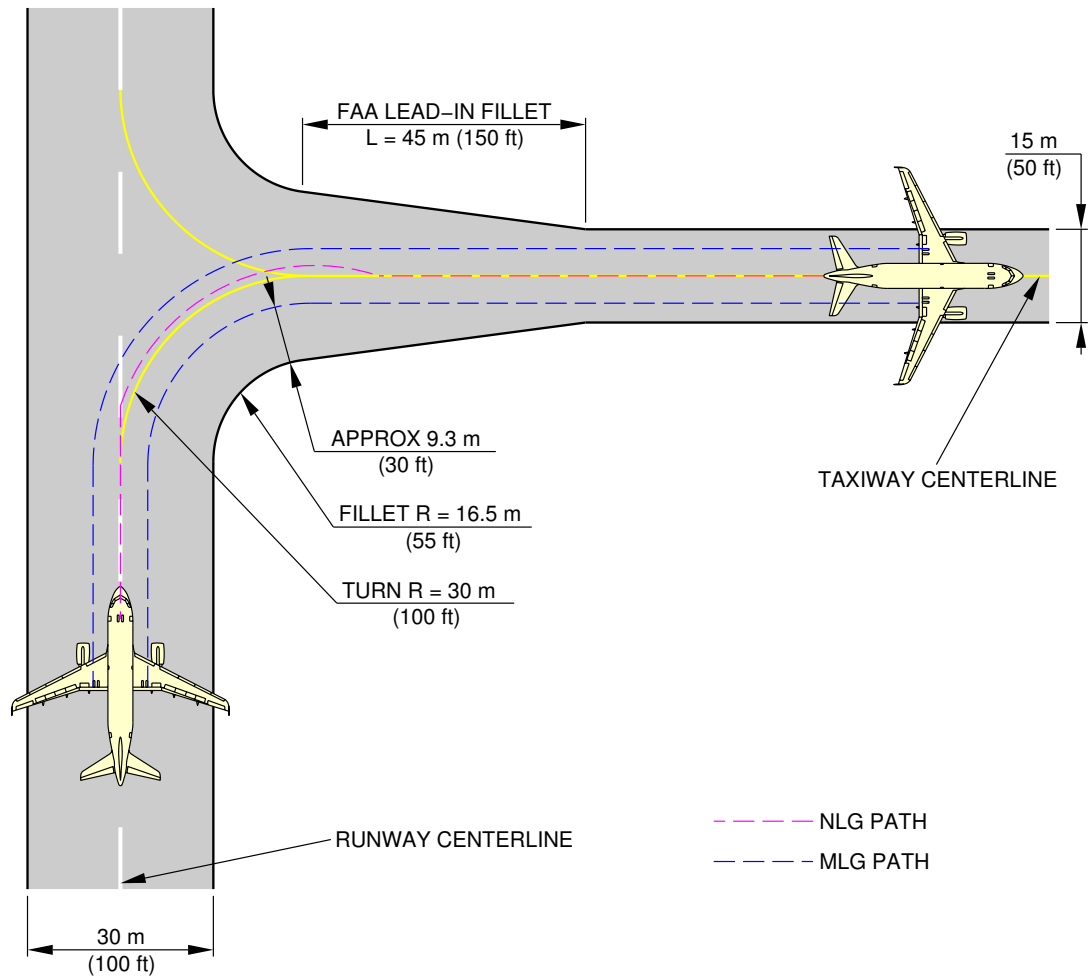


NOTE: FAA GROUP III FACILITIES.

N_AC_040502_1_0010101_01_02

90° Turn - Runway to Taxiway
Cockpit Over Centerline Method
FIGURE-4-5-2-991-001-A01

****ON A/C A318-100**



NOTE: FAA GROUP III FACILITIES.

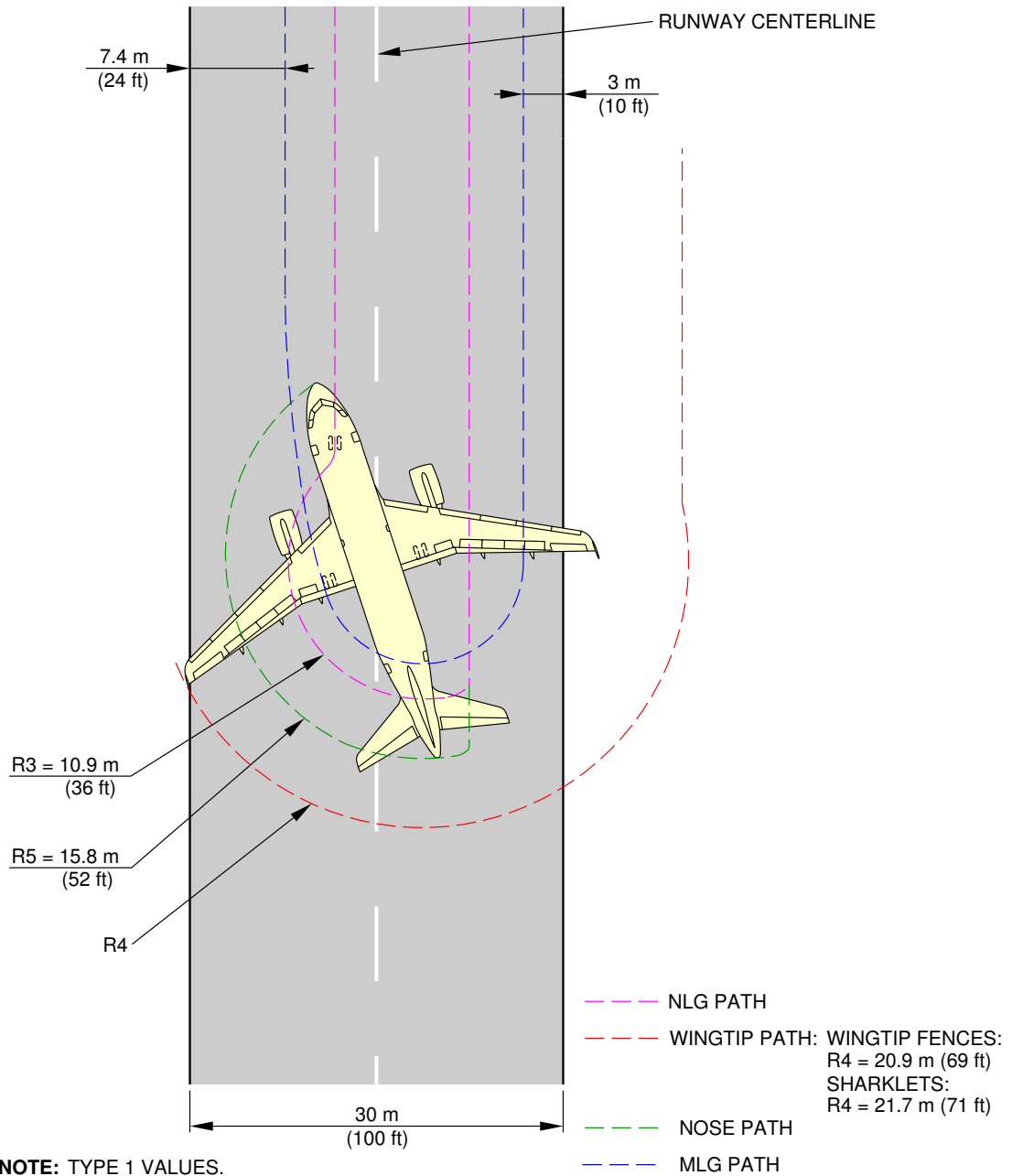
N_AC_040502_1_0080101_01_00

90° Turn - Runway to Taxiway
Judgemental Oversteering Method
FIGURE-4-5-2-991-008-A01

4-5-3 180 ° Turn on a Runway****ON A/C A318-100****180 ° Turn on a Runway**

1. This section gives the 180 ° turn on a runway.

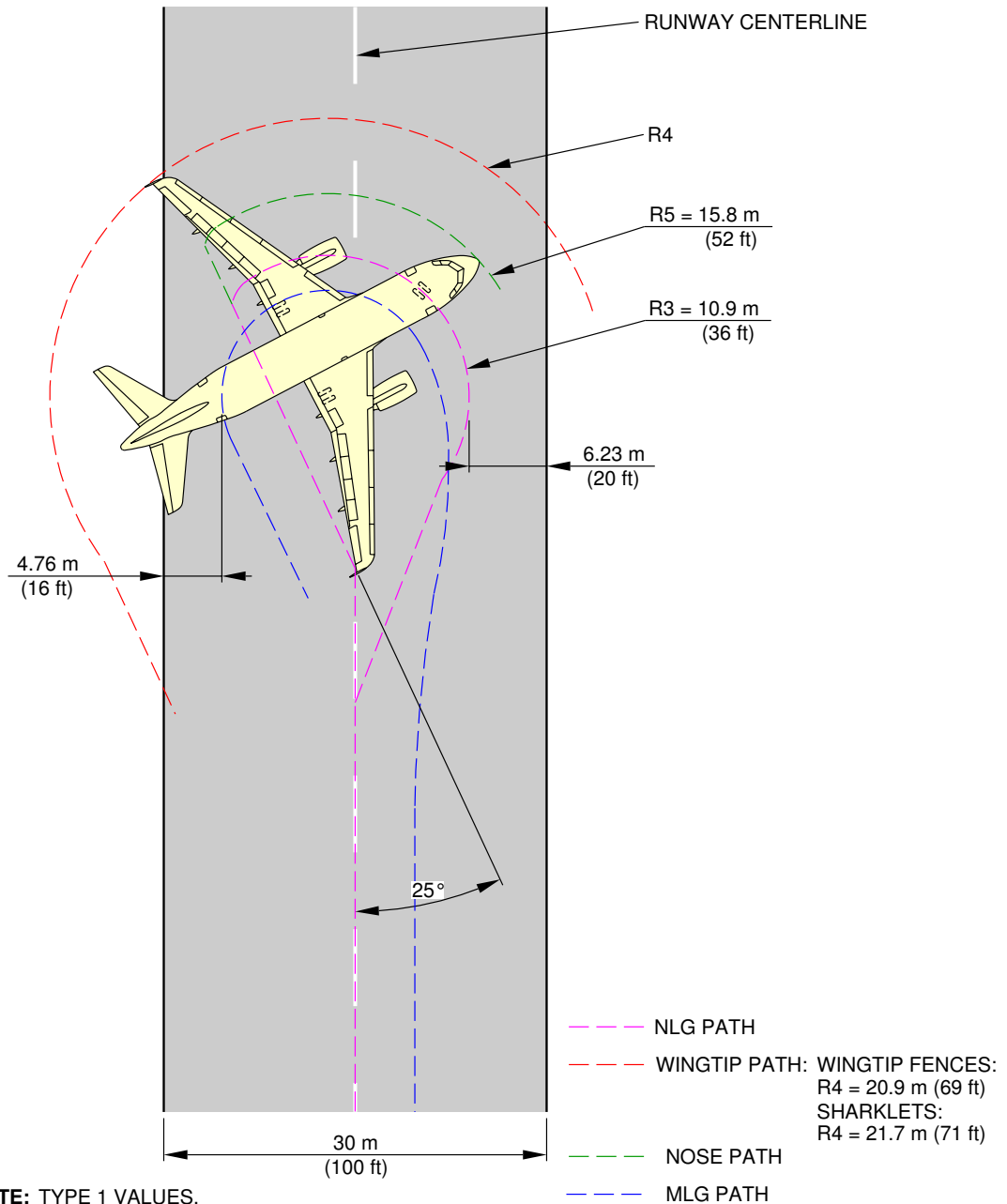
****ON A/C A318-100**



N_AC_040503_1_0050101_01_00

180° turn on a Runway
Edge of Runway Method (Sheet 1 of 2)
FIGURE-4-5-3-991-005-A01

****ON A/C A318-100**



N_AC_040503_1_0050102_01_00

180° turn on a Runway
Center of Runway Method (Sheet 2 of 2)
FIGURE-4-5-3-991-005-A01



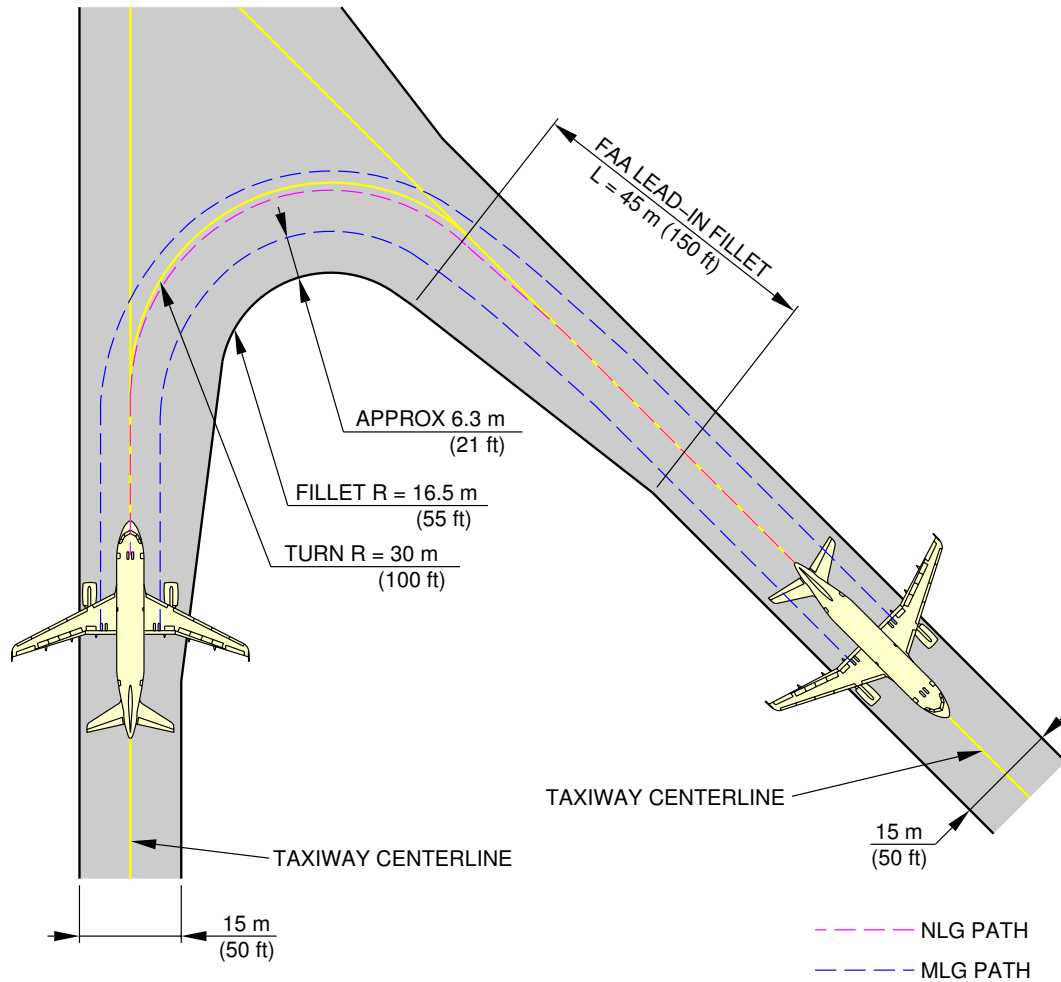
4-5-4 135 ° Turn - Taxiway to Taxiway

****ON A/C A318-100**

135 ° Turn - Taxiway to Taxiway

1. This section gives the 135 ° turn - taxiway to taxiway.

****ON A/C A318-100**

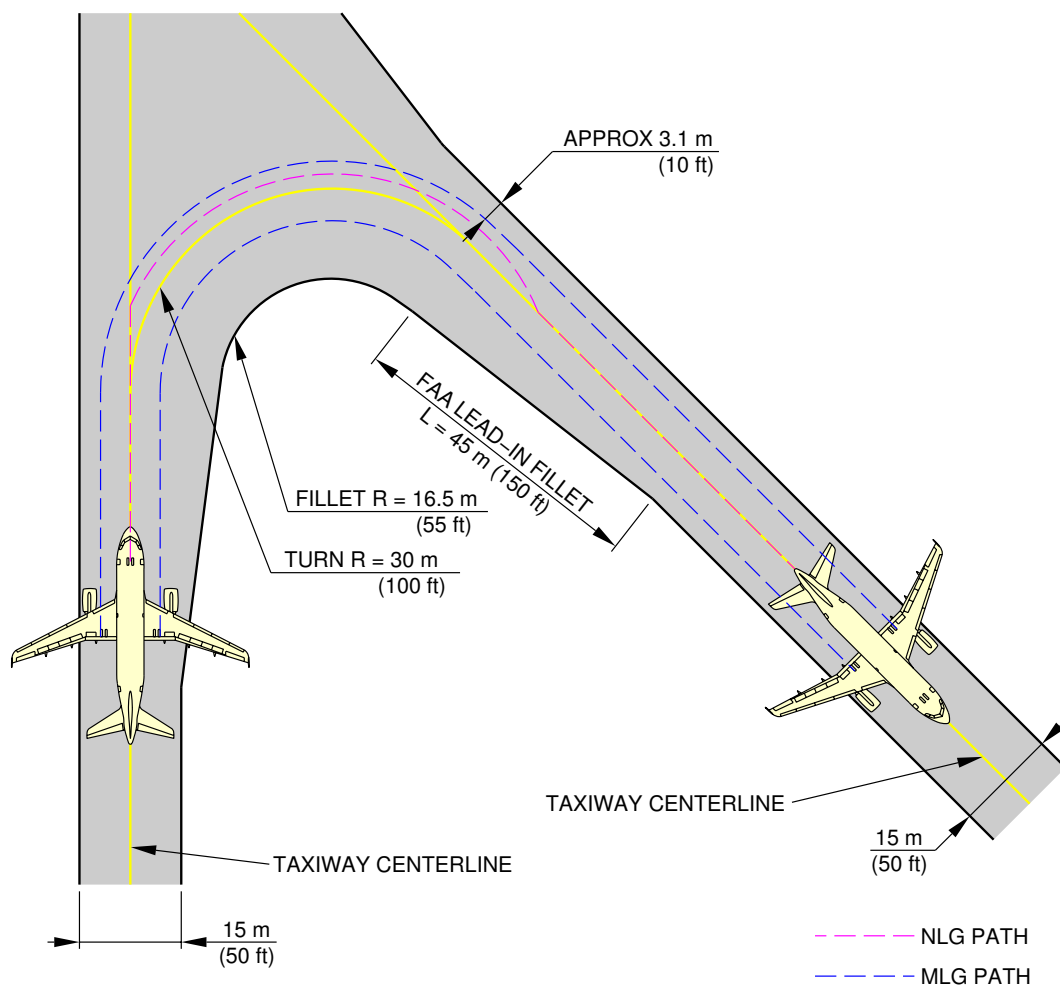


NOTE: FAA GROUP III FACILITIES

N_AC_040504_1_0010101_01_02

135° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method (Sheet 1 of 2)
FIGURE-4-5-4-991-001-A01

****ON A/C A318-100**



NOTE: FAA GROUP III FACILITIES

N_AC_040504_1_0010102_01_00

135° Turn - Taxiway to Taxiway
Judgemental Oversteering Method (Sheet 2 of 2)
FIGURE-4-5-4-991-001-A01



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

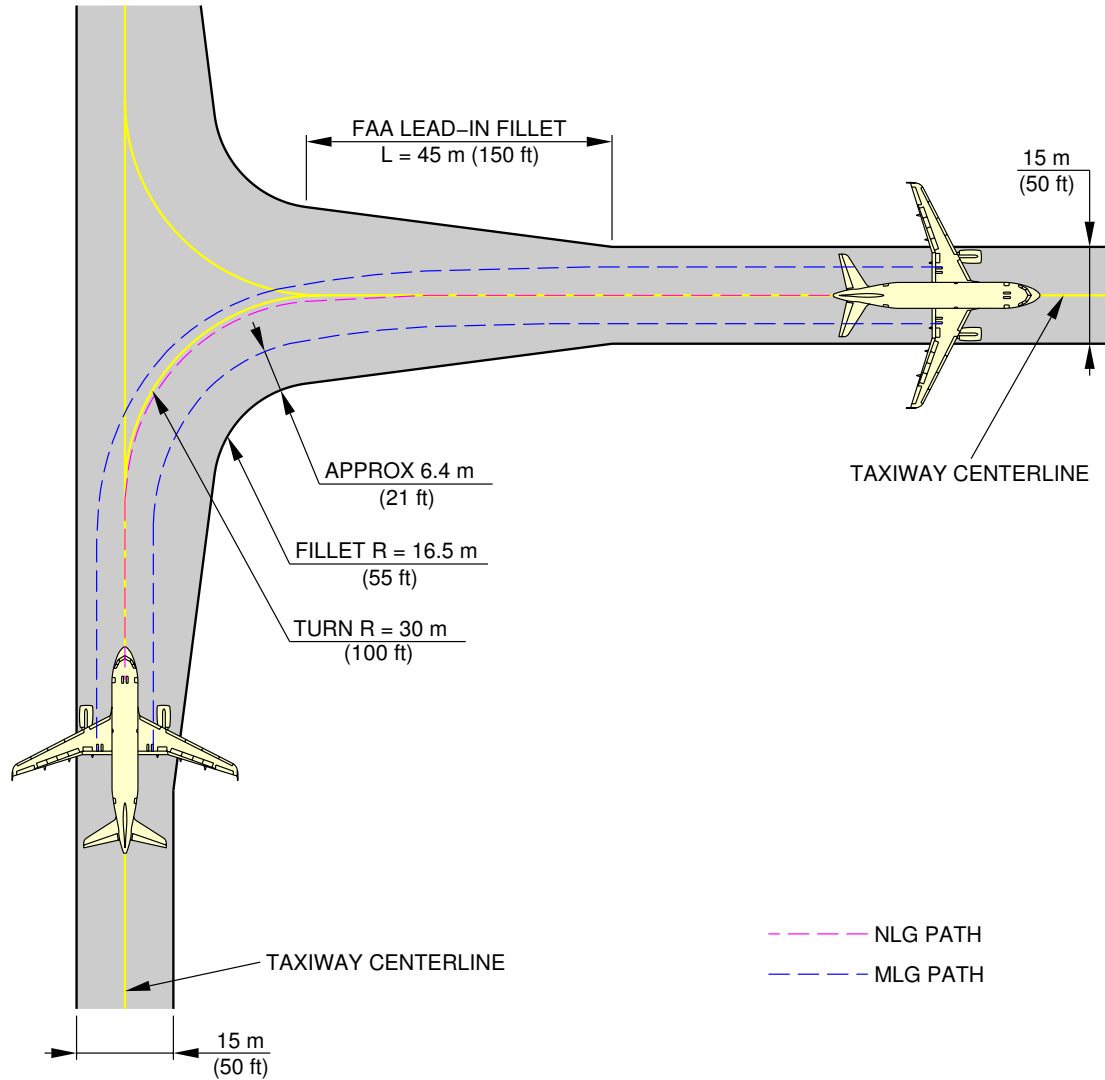
4-5-5 90° Turn - Taxiway to Taxiway

****ON A/C A318-100**

90° Turn - Taxiway to Taxiway

1. This section gives the 90° turn - taxiway to taxiway.

****ON A/C A318-100**

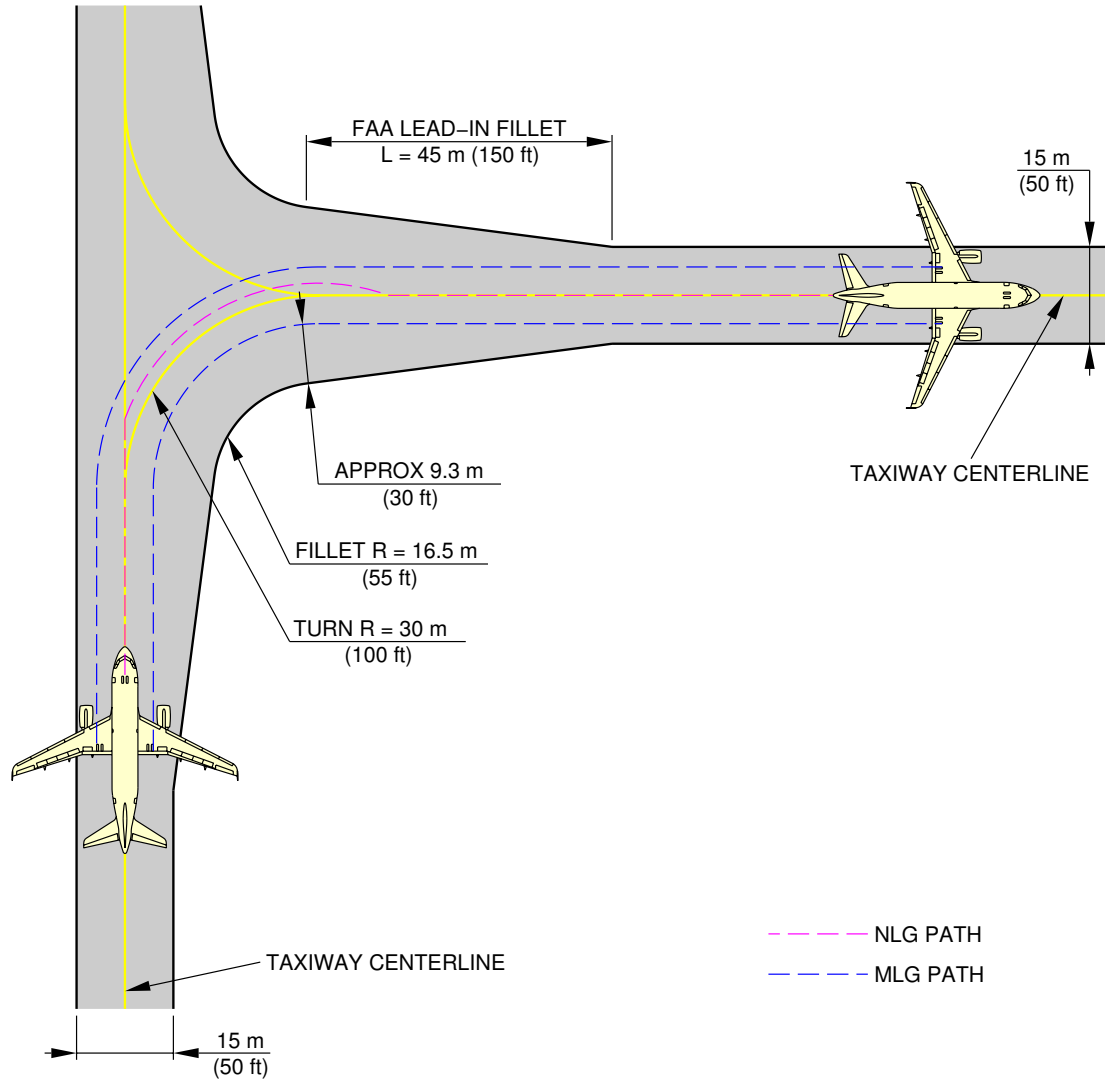


NOTE: FAA GROUP III FACILITIES.

N_AC_040505_1_0010101_01_02

90° Turn - Taxiway to Taxiway
Cockpit Over Centerline Method (Sheet 1 of 2)
FIGURE-4-5-5-991-001-A01

****ON A/C A318-100**



NOTE: FAA GROUP III FACILITIES.

N_AC_040505_1_0010102_01_00

90° Turn - Taxiway to Taxiway
Judgemental Oversteering Method (Sheet 2 of 2)
FIGURE-4-5-5-991-001-A01



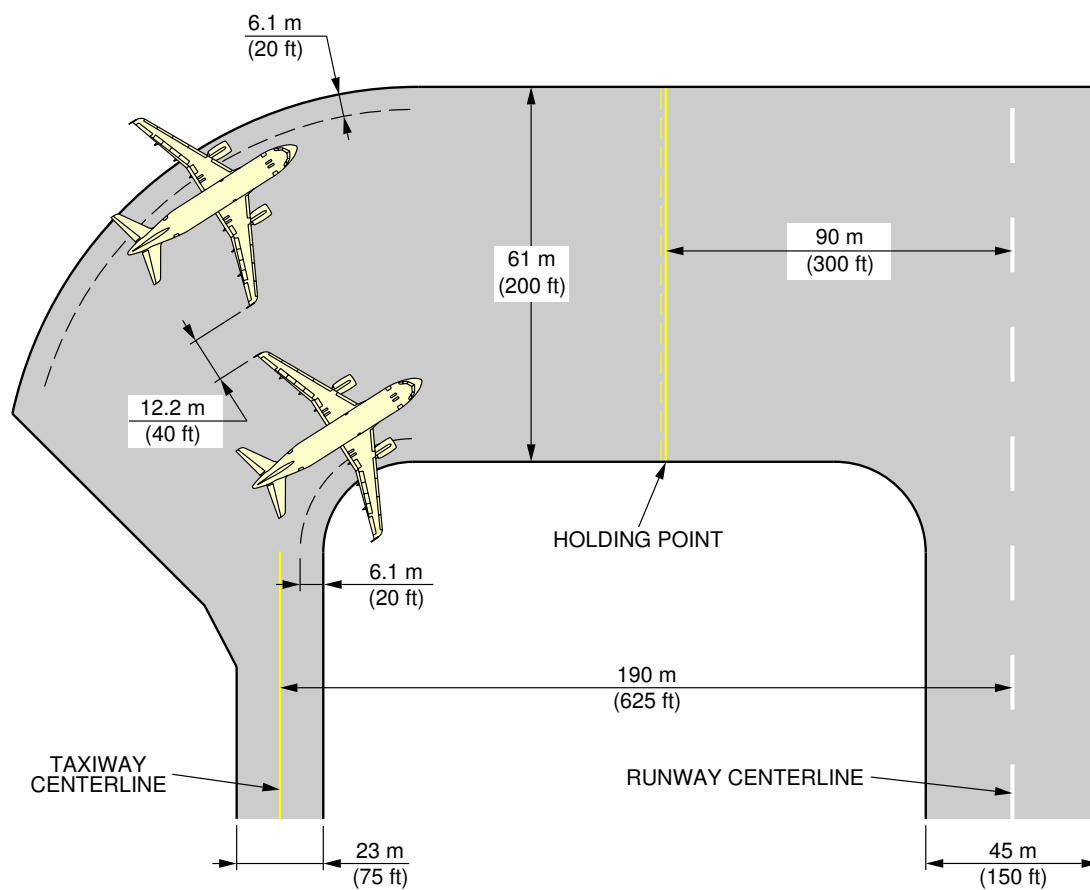
4-6-0 Runway Holding Bay (Apron)

****ON A/C A318-100**

Runway Holding Bay (Apron)

1. This section gives the runway holding bay (Apron).

****ON A/C A318-100**



N_AC_040600_1_0010101_01_02

Runway Holding Bay (Apron)
FIGURE-4-6-0-991-001-A01

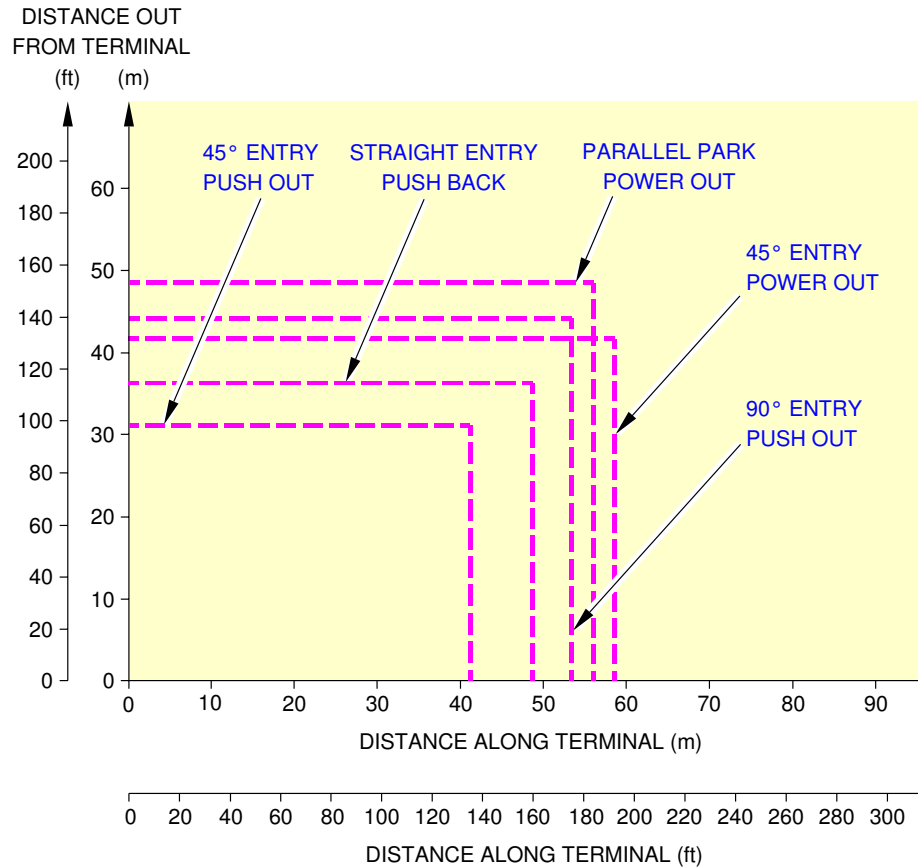
4-7-0 Parking****ON A/C A318-100**Airplane Parking

1. The following figures and charts show the rectangular space required for parking against the terminal building.

The rectangle includes allowance for swinging the airplane on arrival and departure.

- Steering Geometry
- Minimum Parking Space Requirements

****ON A/C A318-100**

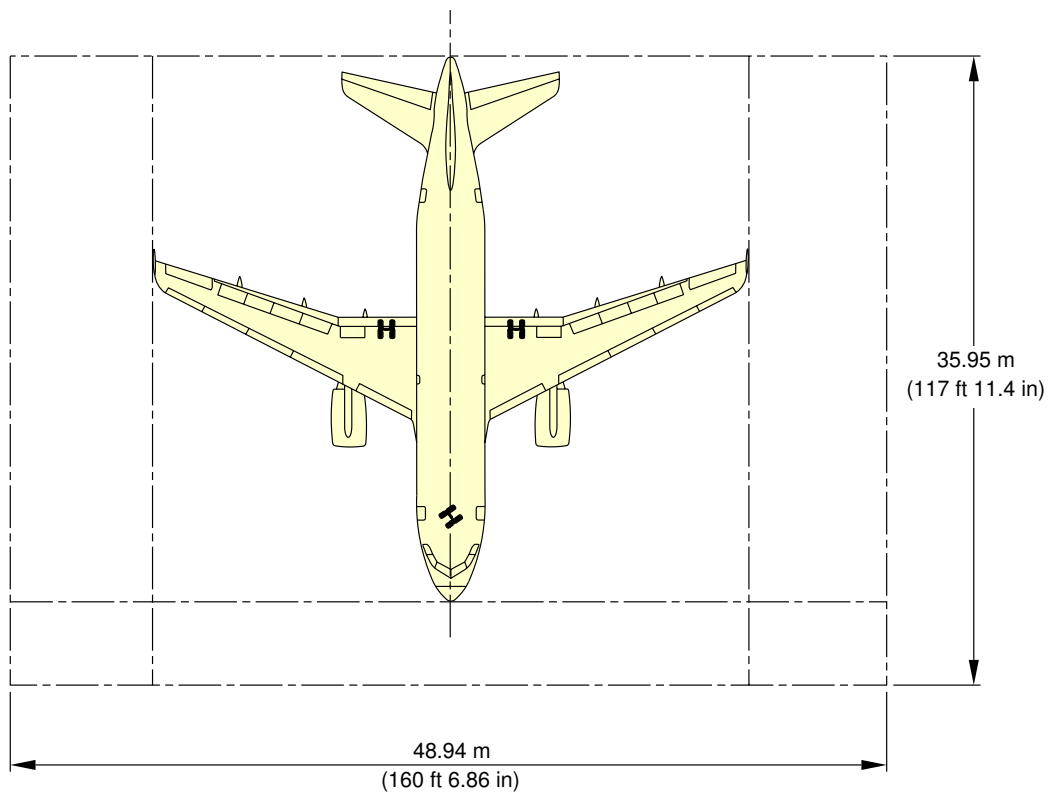


NOTE: $\pm 75^\circ$ NOSE WHEEL STEERING (POWER OUT).
 $\pm 95^\circ$ NOSE WHEEL STEERING (PUSH BACK, PUSH OUT).
 3.05 m (10 ft) TRAVEL WITH NOSE WHEEL STRAIGHT AHEAD BEFORE AND AFTER PARKED POSITION.
 4.5 m (15 ft) BUILDING CLEARANCE FOR NOSE-IN PARKING.
 7.5 m (25 ft) BUILDING CLEARANCE FOR OTHER PARKING POSITIONS.
 7.5 m (25 ft) AIRPLANE TO AIRPLANE CLEARANCE DURING PARKING MANOEUVRES.
 LIAISE WITH USER AIRLINE FOR SPECIFIC PLANNED OPERATION PROCEDURE.

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Airplane Parking
 Minimum Parking Space Requirements
 FIGURE-4-7-0-991-001-A01

****ON A/C A318-100**

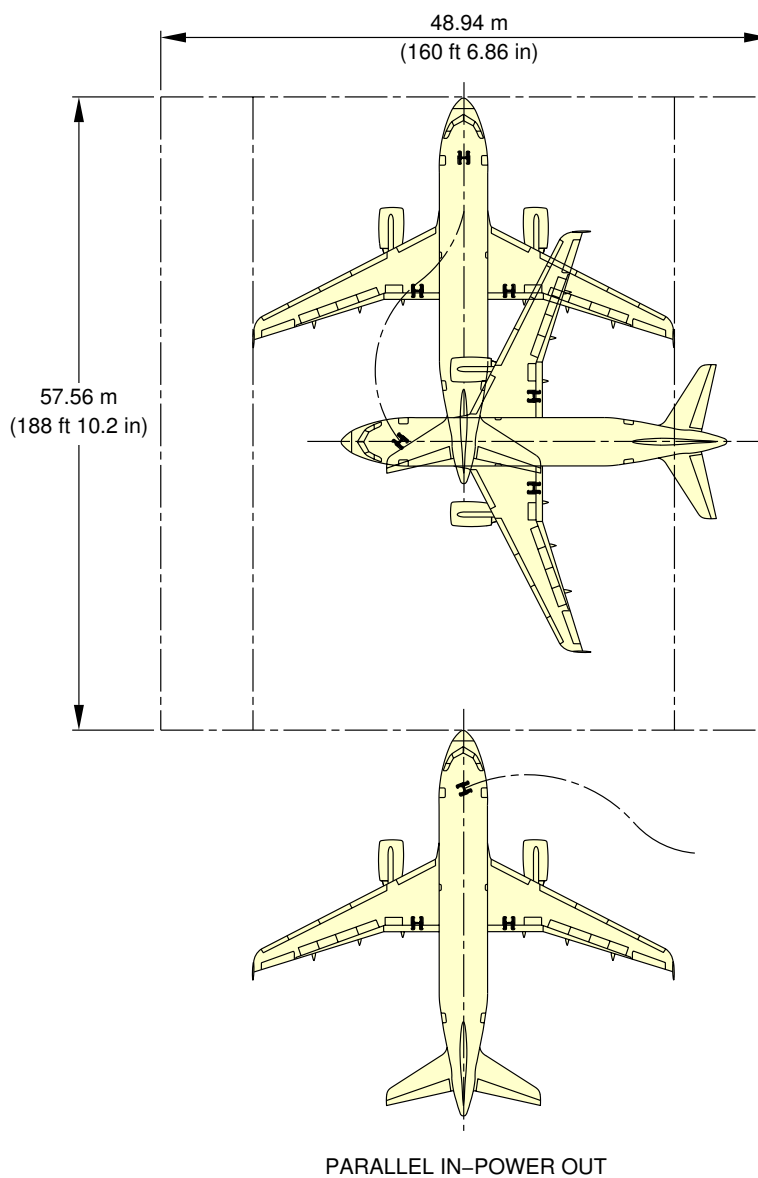


STRAIGHT ENTRY-PUSH BACK

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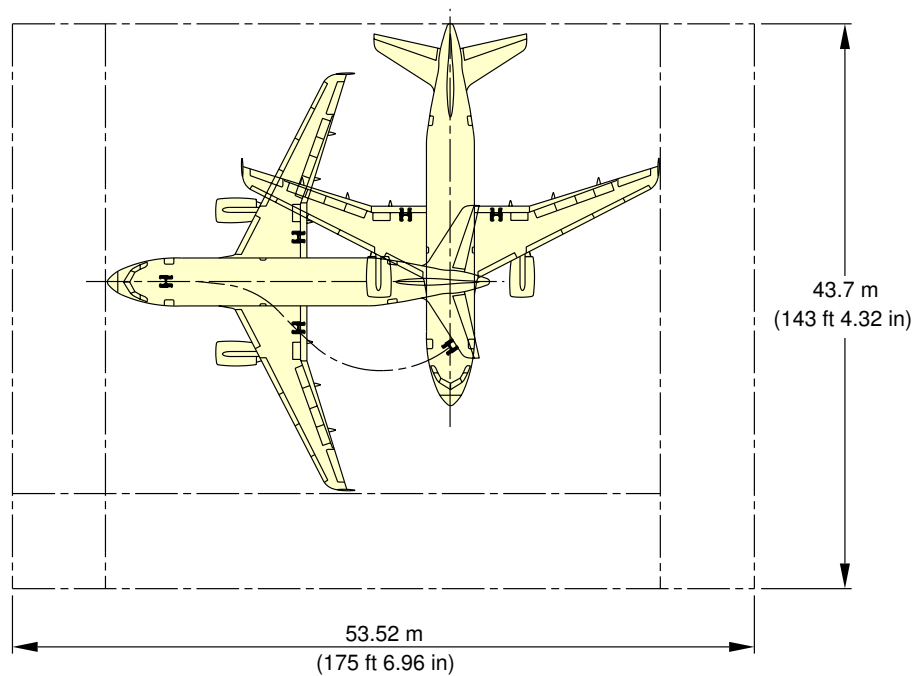
Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-002-A01

****ON A/C A318-100**



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Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-003-A01

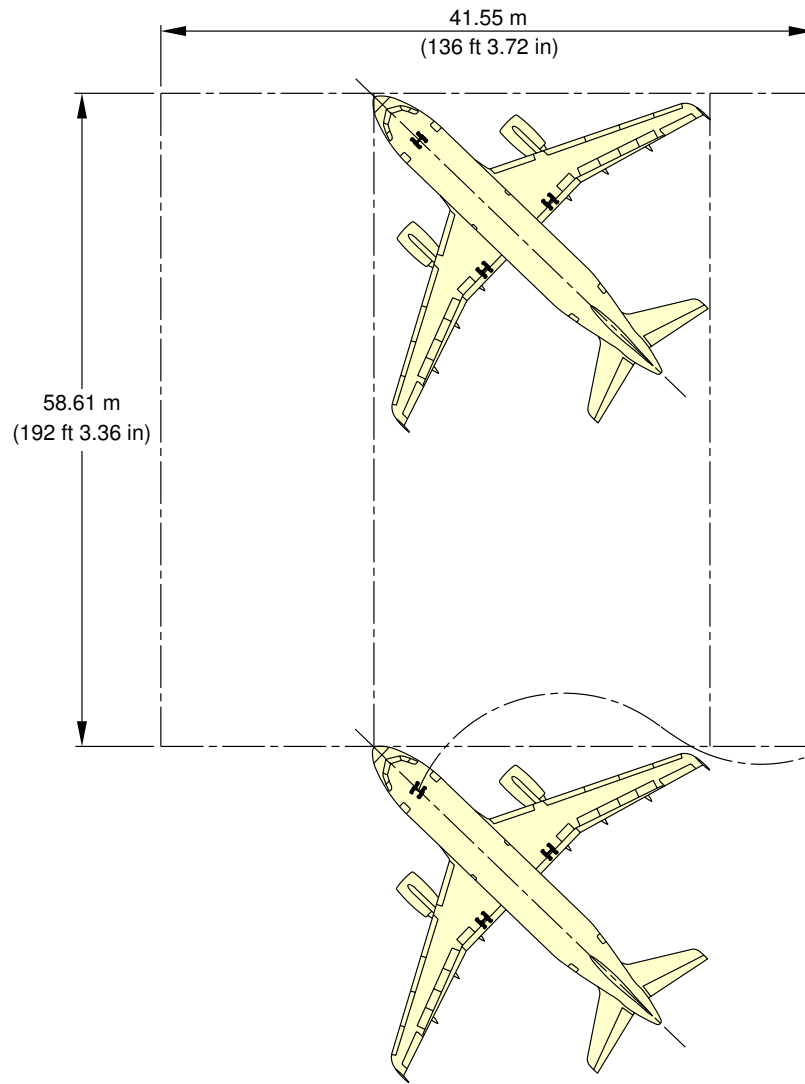
****ON A/C A318-100**

90° ENTRY-PUSH OUT

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Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-004-A01

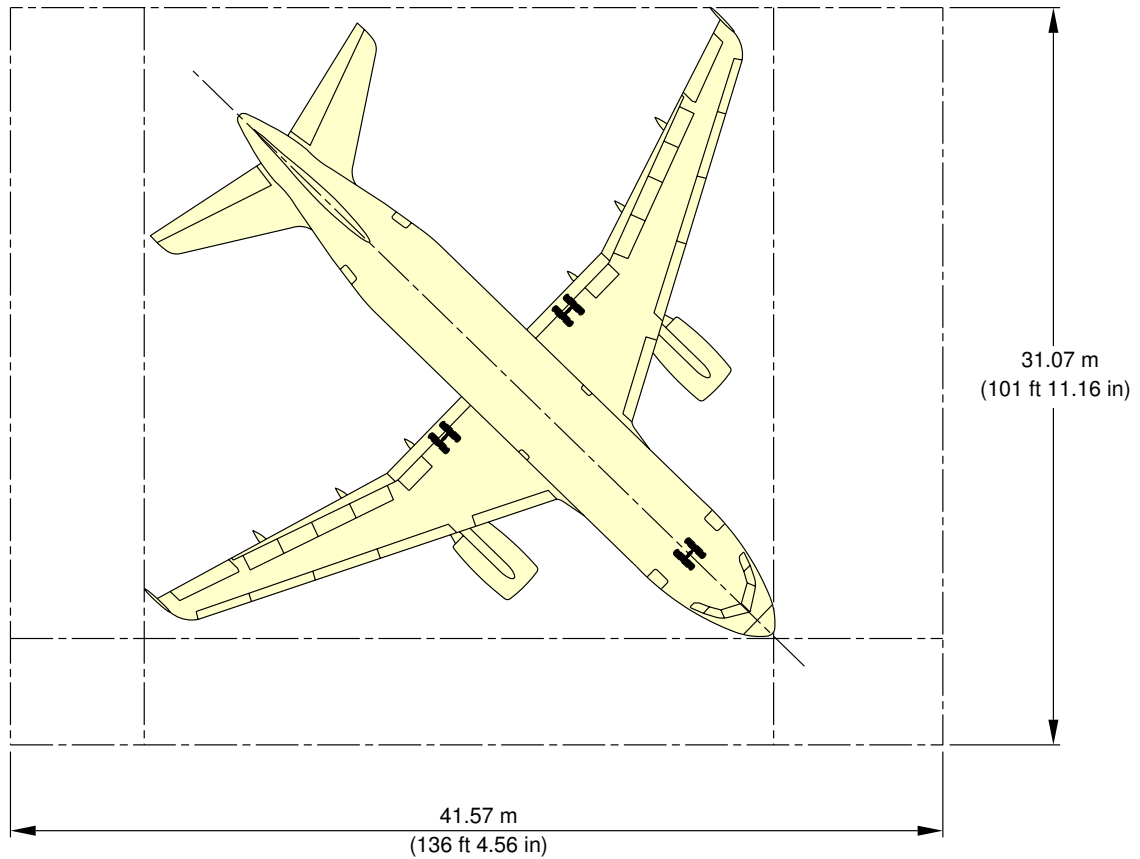
****ON A/C A318-100**



45° ENTRY IN-POWER OUT

N_AC_040700_1_0050101_01_01

Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-005-A01

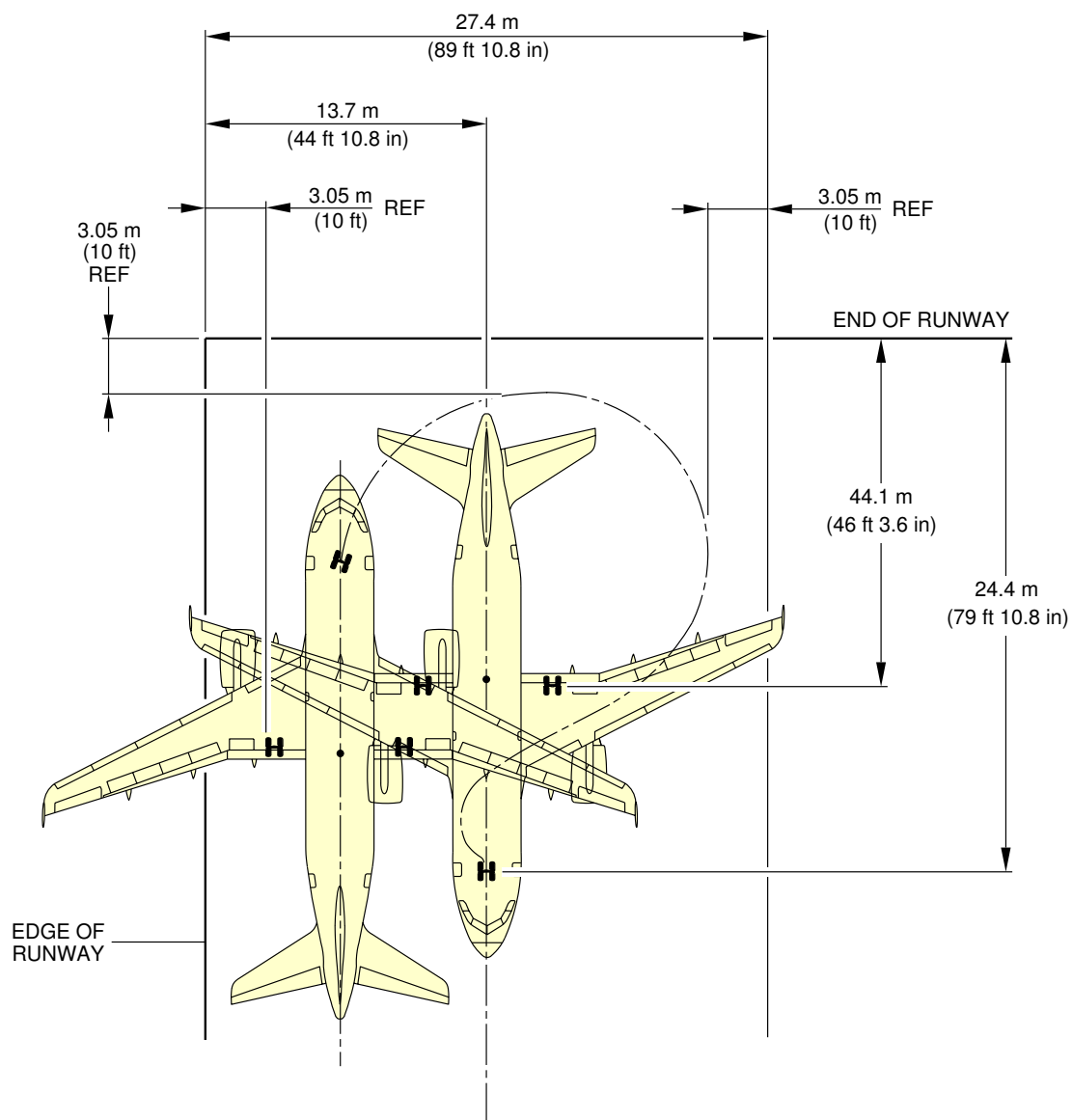
****ON A/C A318-100**

45° ENTRY-PUSH OUT

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Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-006-A01

****ON A/C A318-100**

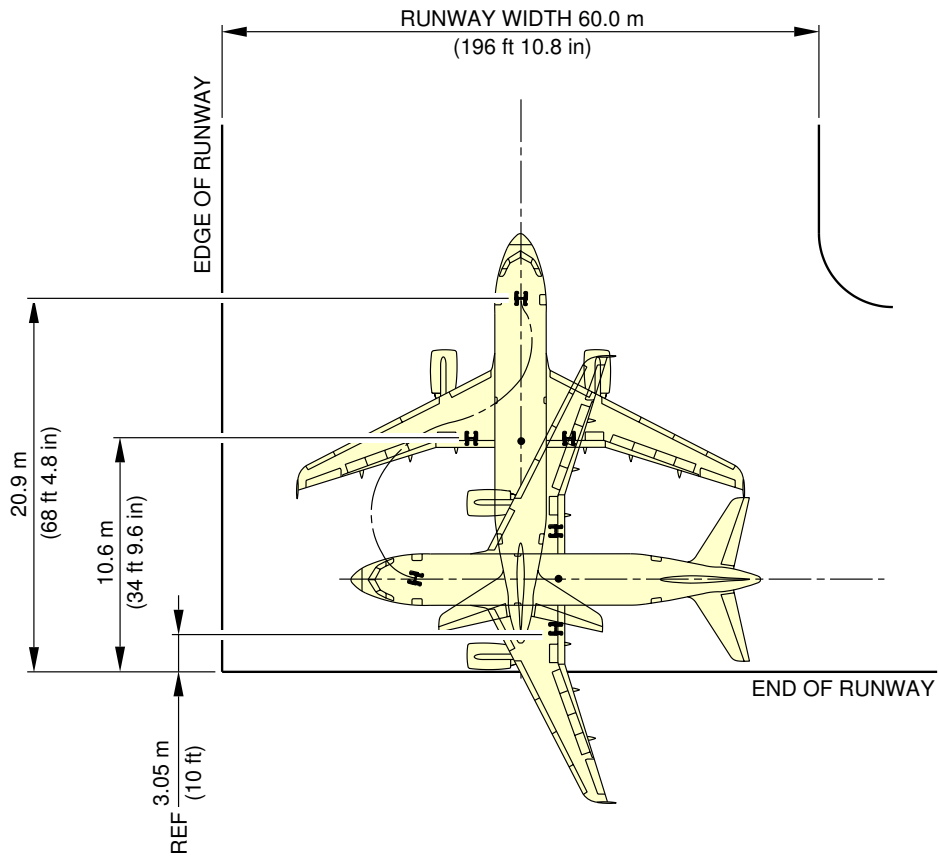


NOTE: 73.2° EFFECTIVE STEERING ANGLE.

N_AC_040700_1_0070101_01_01

Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-007-A01

****ON A/C A318-100**



NOTE: 73.2° EFFECTIVE STEERING ANGLE.

N_AC_040700_1_0080101_01_01

Airplane Parking
Steering Geometry
FIGURE-4-7-0-991-008-A01

TERMINAL SERVICING**5-0-0 TERMINAL SERVICING******ON A/C A318-100****Terminal Servicing****1. General**

This chapter provides typical ramp layouts, corresponding minimum turnaround time estimations, locations of ground service points and service requirements.

The information given in this chapter reflects ideal conditions. Actual ramp layouts and service requirements may vary according to local regulations, airline procedures and the airplane condition.

- Section 5.1 shows typical ramp layouts for passenger aircraft at the gate or on an open apron.
- Section 5.2 shows the minimum turnaround schedules for full servicing arrangements.
- Section 5.3 shows the minimum turnaround schedule for reduced servicing arrangements.
- Section 5.4 gives the locations of ground service connections, the standard of connections used and typical capacities and requirements.
- Section 5.5 provides the engine starting pneumatic requirements for different engine types and different ambient temperatures.
- Section 5.6 provides the air conditioning requirements for heating and cooling (pull-down and pull-up) using ground conditioned air for different ambient temperatures.
- Section 5.7 provides the air conditioning requirements for heating and cooling to maintain a constant cabin air temperature using low pressure conditioned air.
- Section 5.8 shows the ground towing requirements taking into account different ground surface and aircraft conditions.

5-1-0 Servicing Arrangements

****ON A/C A318-100**

Airplane Servicing Arrangements

1. General

This chapter provides typical ramp layouts, showing the various GSE items in position during typical turnaround scenarios for the passenger aircraft.

These ramp layouts show typical arrangements only. Each operator will have its own specific requirements/regulations for the positioning and operation on the ramp.

The associated turnaround chart for full servicing is given in section 5.2.

The associated turnaround chart for minimum servicing arrangement is given in section 5.3.

5-1-1 Symbols Used on Servicing Diagrams****ON A/C A318-100**Symbols Used on Servicing Diagrams

1. This table gives the symbols used on servicing diagrams.

Ground Support Equipment	
AC	AIR CONDITIONING UNIT
AS	AIR STARTING 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
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

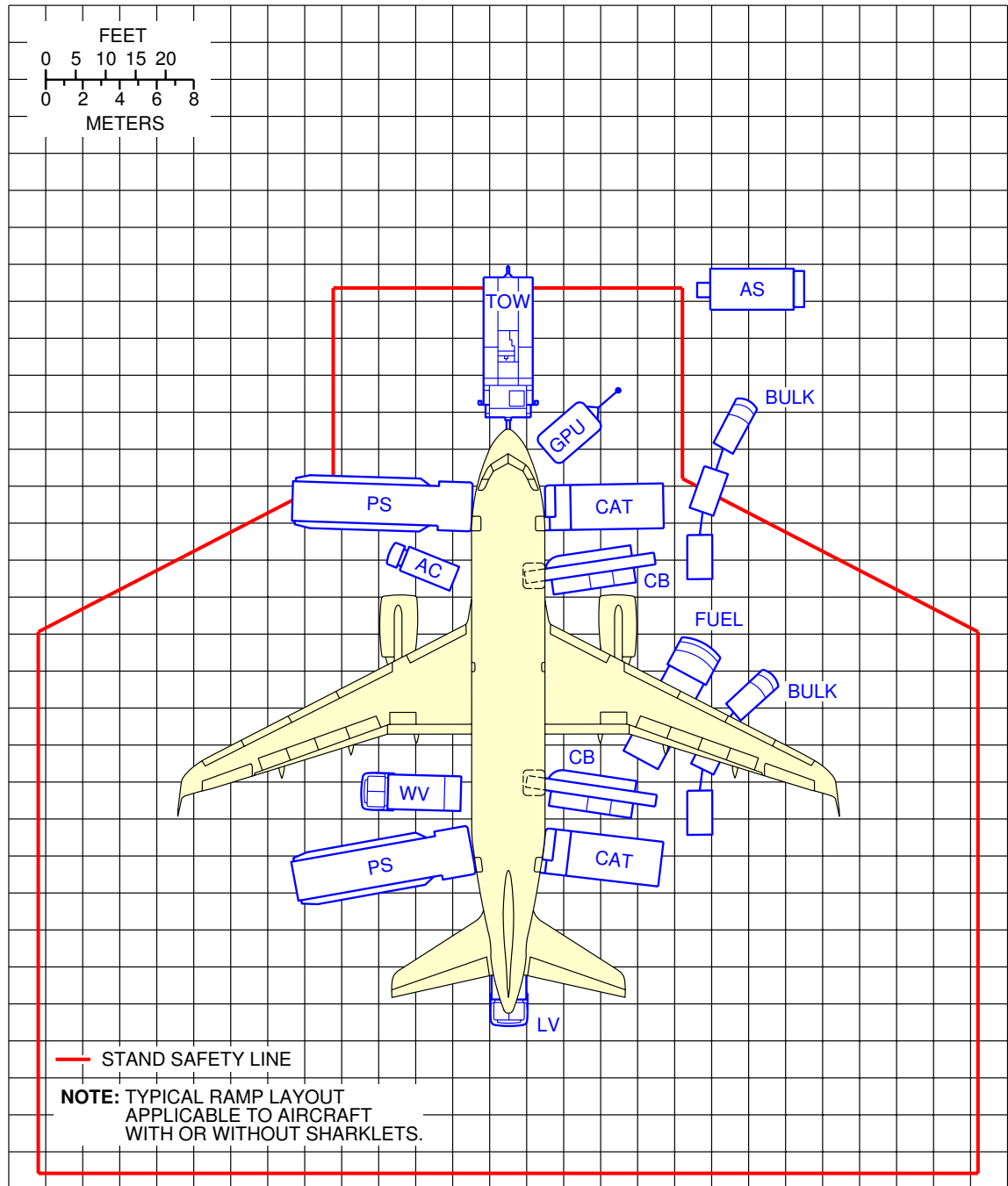
****ON A/C A318-100**

Typical Ramp Layout - Open Apron

1. This section gives the typical servicing arrangement for pax version (Open Apron).

The Stand Safety Line delimits the Aircraft Safety Area (minimum distance 7.5 m 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 A318-100**



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Typical Ramp Layout
Open Apron - Bulk Loading
FIGURE-5-1-2-991-001-A01

5-1-3 Typical Ramp Layout - Gate

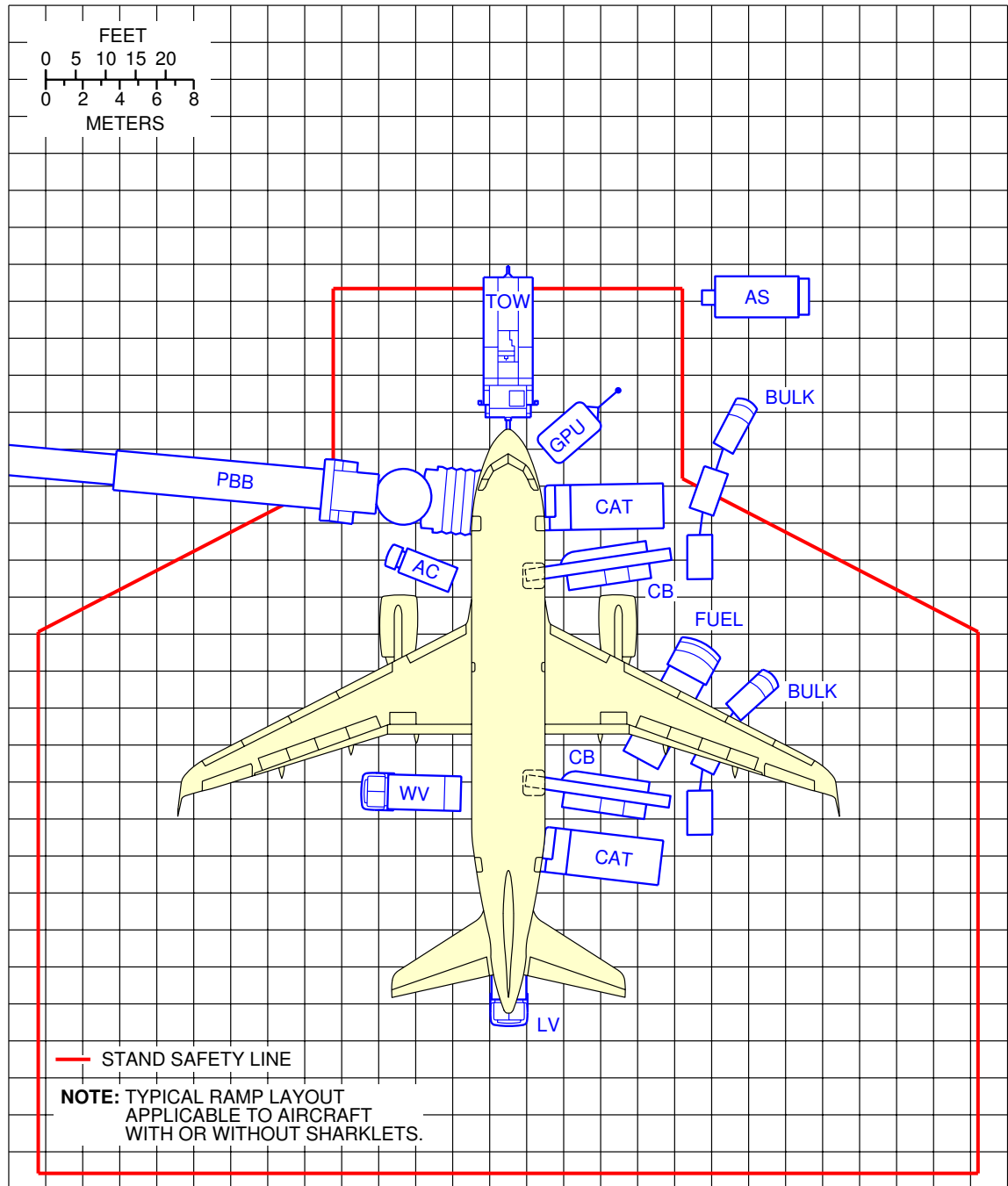
****ON A/C A318-100**

Typical Ramp Layout - Gate

1. This section give the typical servicing arrangement for pax version (Passenger Bridge).

The Stand Safety Line delimits the Aircraft Safety Area (minimum distance of 7.5 m 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 A318-100**



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Typical Ramp Layout
Gate
FIGURE-5-1-3-991-004-A01

5-2-0 Terminal Operations - Full Servicing****ON A/C A318-100****Terminal Operations - Full Servicing Turn Round Time**

1. This section provides typical turn round time chart showing the typical times for ramp activities during aircraft turn round.

Actual times may vary due to each operator's specific practice and operating conditions.

For each turn round time chart, the associated typical ramp layout is given in Section 5-1.

2. Assumptions for full turn round chart

A. PASSENGER HANDLING

107 pax, all Y/C

All passengers deboard and board the aircraft

1 Passenger Boarding Bridge (PBB) used at door L1

Equipment positioning/removal + opening/closing door = 2 min

Deboarding:

- 107 pax at door L1
- Deboarding rate = 22 pax/min per door
- No Passenger with Reduced Mobility (PRM)

Boarding:

- 107 pax at door L1
- Boarding rate = 18 pax/min per door
- Last Pax Seating allowance (LPS) + headcounting = +2 min
- No Passenger with Reduced Mobility

B. CARGO

2 belt loaders

Equipment positioning/removal + opening/closing door = +1 min

Cargo exchange:

- 15 kg (33 lb) per pax
- FWD cargo compartment: 700 kg (1543 lb)
- AFT cargo compartment: 900 kg (1984 lb)
- Bulk off-loading rate = 120 kg/min (265 lb/min)
- Bulk loading rate = 100 kg/min (220 lb/min)

C. REFUELLING

2 hoses, one side

6624 l (1750 US gal) at 50 psi (3 bar)

Dispenser positioning/removal = 4 min

D. CLEANING

Performed in available time

E. CATERING

1 catering truck for servicing galleys sequentially at doors R1 & R2

Equipment positioning/removal + door opening/closing = 2 min

Time to drive from one door to the other = 1 min

Full Size Trolley Equivalent (FSTE) to unload and load:

- 4 FSTE at door R1

- 4 FSTE at door R2

Time for trolley exchange = 1.5 min per FSTE

F. GROUND HANDLING SERVICING

Start of operations:

- Bridges: $t_0 = 0$

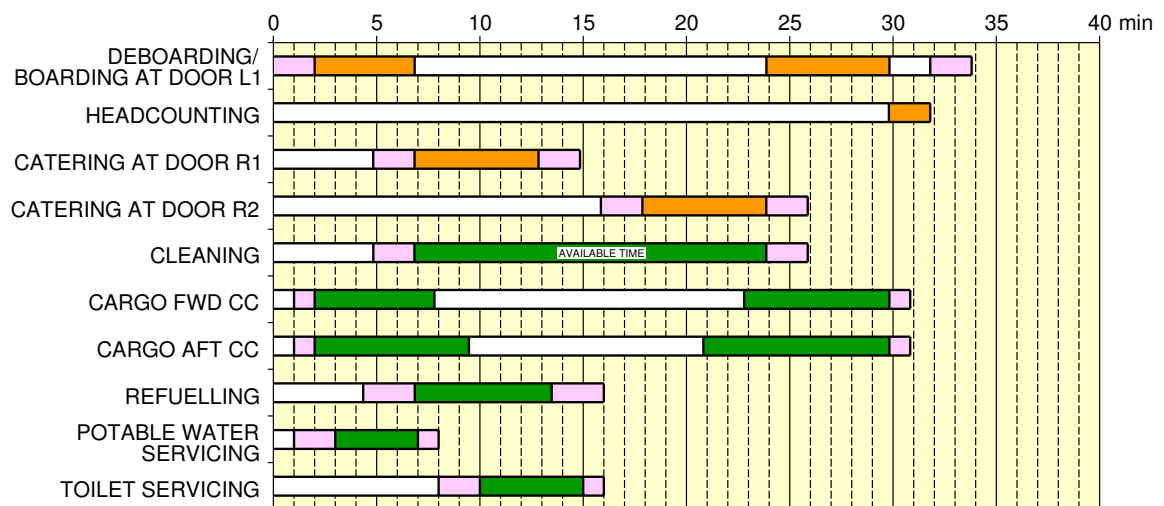
- Other equipment: $t = t_0 + 1 \text{ min}$

Potable water servicing: 100% uplift, 200 l (53 US gal), max filling pressure = 3.45 bar (50 psi)

Toilet servicing: draining + rinsing = 5 min, max rinse & precharge pressure = 3.45 bar (50 psi)

**ON A/C A318-100

TRT: 34 min



POSITIONING/REMOVAL
 ACTIVITY
 CRITICAL PATH

N_AC_050200_1_0040101_01_01

Turn Round Stations
 Full Servicing (34 Min.)
 FIGURE-5-2-0-991-004-A01

5-3-0 Terminal Operation - Transit****ON A/C A318-100****Terminal Operation - Minimum Servicing Turn Round Time**

1. This section provides typical turn round time chart showing the typical times for ramp activities during aircraft turn round.

Actual times may vary due to each operator's specific practice and operating conditions.

For each turn round time chart, the associated typical ramp layout is given in Section 5-1.

2. Assumptions for minimum turn round chart

A. PASSENGER HANDLING

132 pax, all Y/C

2 Stairways used at doors L1 & L2

Equipment positioning/removal + opening/closing door = 2 min

Deboarding:

- 66 pax at door L1
- 66 pax at door L2
- Deboarding rate = 20 pax/min per door
- No Passenger with Reduced Mobility (PRM)

Boarding:

- 66 pax at door L1
- 66 pax at door L2
- Boarding rate = 15 pax/min per door
- Last Pax Seating allowance (LPS) + headcounting = +2 min
- No Passenger with Reduced Mobility

B. CARGO

2 belt loaders

Equipment positioning/removal + opening/closing door = +1 min

Cargo exchange:

- 10 kg (22 lb) per pax
- FWD cargo compartment: 660 kg (1455 lb)
- AFT cargo compartment: 660 kg (1455 lb)
- Bulk off-loading rate = 120 kg/min (265 lb/min)
- Bulk loading rate = 100 kg/min (220 lb/min)

C. REFUELLING

2 hoses, one side

6624 l (1750 US gal) at 50 psi (3 bar)
Dispenser positioning/removal = 4 min

D. CLEANING

Performed in available time

E. CATERING

No catering

F. GROUND HANDLING SERVICING

Start of operations:

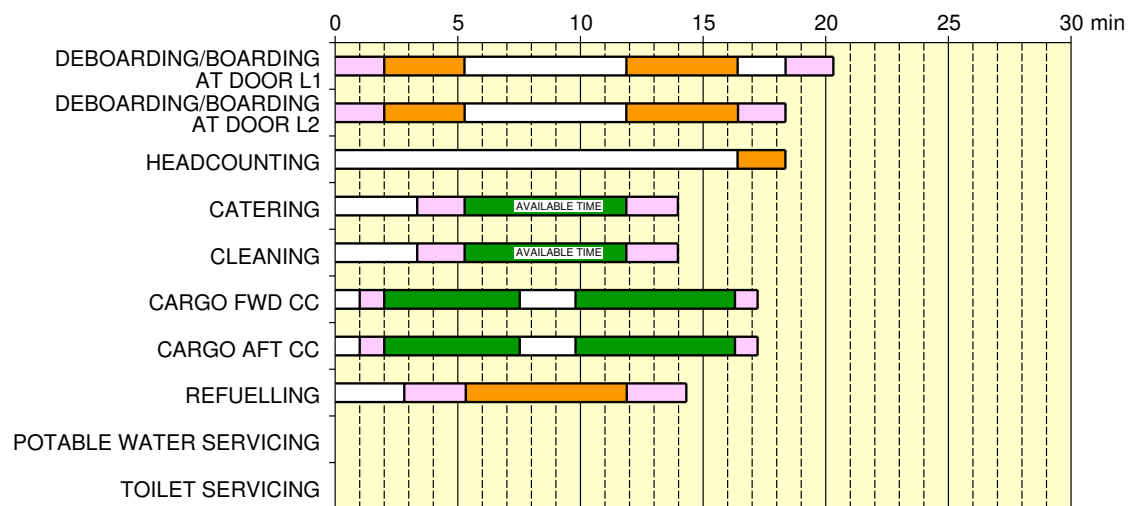
- Bridges: $t_0 = 0$
- Other equipment: $t = t_0 + 1 \text{ min}$

No potable water servicing

No toilet servicing

**ON A/C A318-100

TRT: 20 min



POSITIONING/REMOVAL
 ACTIVITY
 CRITICAL PATH

N_AC_050300_1_0010101_01_01

Turn Round Stations
 Minimum Servicing (20 Min.)
 FIGURE-5-3-0-991-001-A01



5-4-0 Ground Service Connections

****ON A/C A318-100**

Ground Service Connections

1. Ground Service Connections.

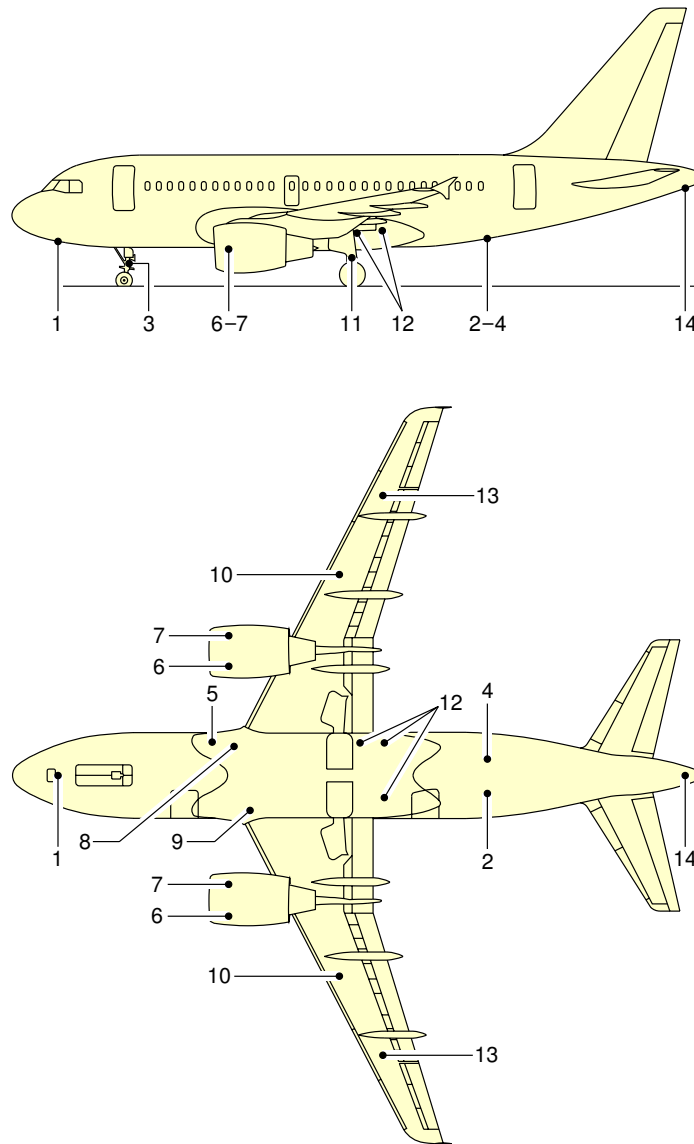
5-4-1 Ground Service Connections Layout

****ON A/C A318-100**

Ground Service Connections Layout

1. This section gives the ground service connections layout.

****ON A/C A318-100**



- | | |
|---|--|
| 1 - EXTERNAL POWER RECEPTACLE | 8 - GROUND AIR START CONNECTOR (HP) |
| 2 - TOILET SERVICE DOOR | 9 - REFUEL/DEFUEL PANEL |
| 3 - GROUNDING POINT NLG | 10 - REFUEL/DEFUEL CONNECTORS |
| 4 - POTABLE WATER SERVICE DOOR | 11 - GROUNDING POINT MLG |
| 5 - GROUND SERVICE CONDITIONED AIR CONNECTOR (LP) | 12 - HYDRAULIC SYSTEM GROUND SERVICES PANELS |
| 6 - IDG OIL FILLING | 13 - GRAVITY REFUEL |
| 7 - ENGINE OIL FILLING CONNECTOR | 14 - APU OIL FILLING |

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Ground Service Connections
Ground Service Connections Layout
FIGURE-5-4-1-991-001-A01

5-4-2 Grounding Points

****ON A/C A318-100**

Grounding Points

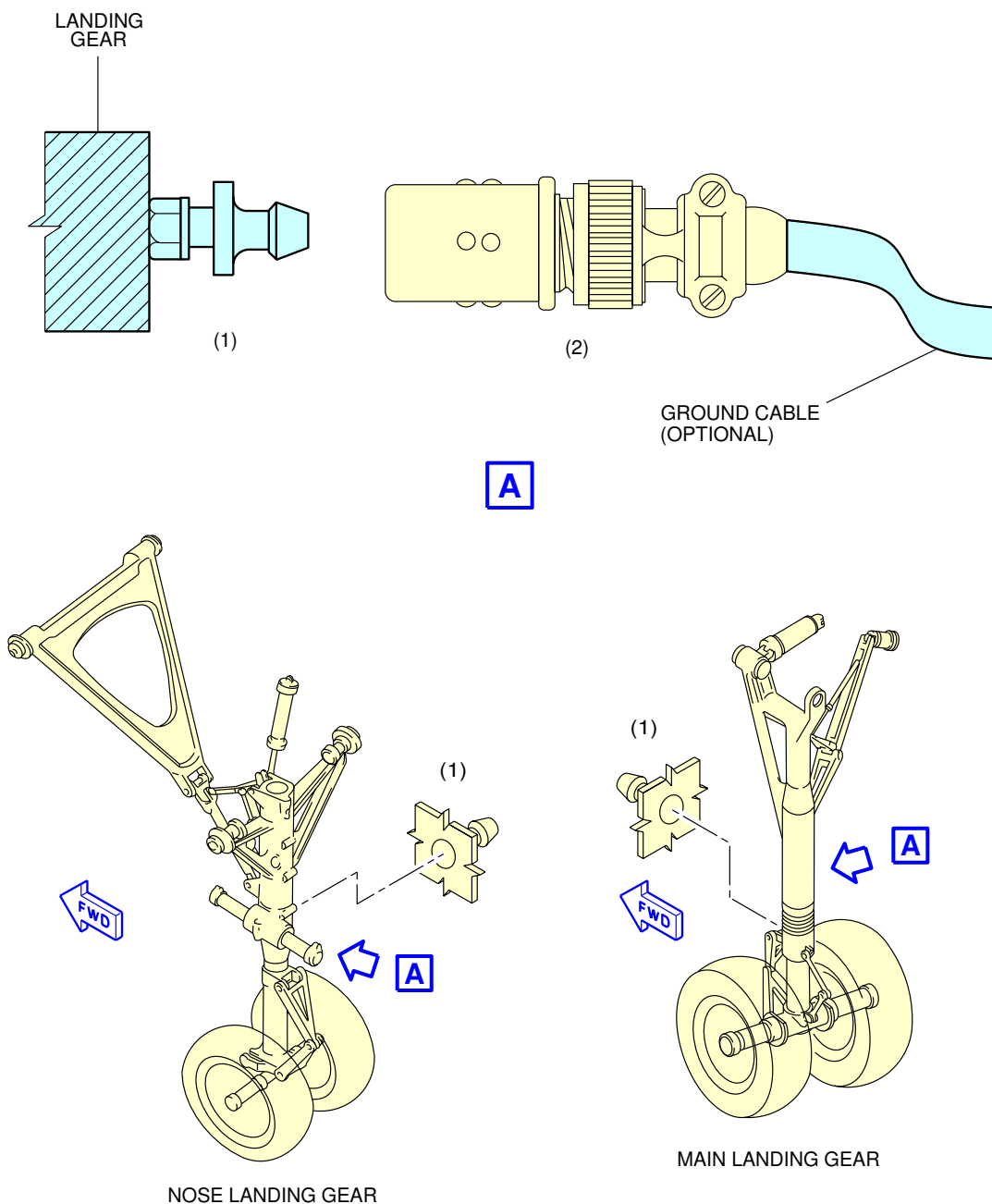
1. Grounding Points.

	DISTANCE: Meters (ft)			
	AFT OF NOSE	FROM AIRPLANE CENTERLINE		MEAN HEIGHT FROM GROUND
		R SIDE	L SIDE	
On Nose Landing Gear leg:	5.07 m (16.63 ft)	on centerline		0.94 m (3.08 ft)
On left Main Landing Gear leg:	15.32 m (50.26 ft)		3.79 m (12.43 ft)	1.07 m (3.51 ft)
On right Main Landing Gear leg:	15.32 m (50.26 ft)	3.79 m (12.43 ft)		1.07 m (3.51 ft)

- A. The grounding stud on each landing gear leg is designed for use with a clip-on connector (such as Appleton TGR).
- B. The grounding studs are used to connect the aircraft to an approved ground 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 tyre is sufficient.

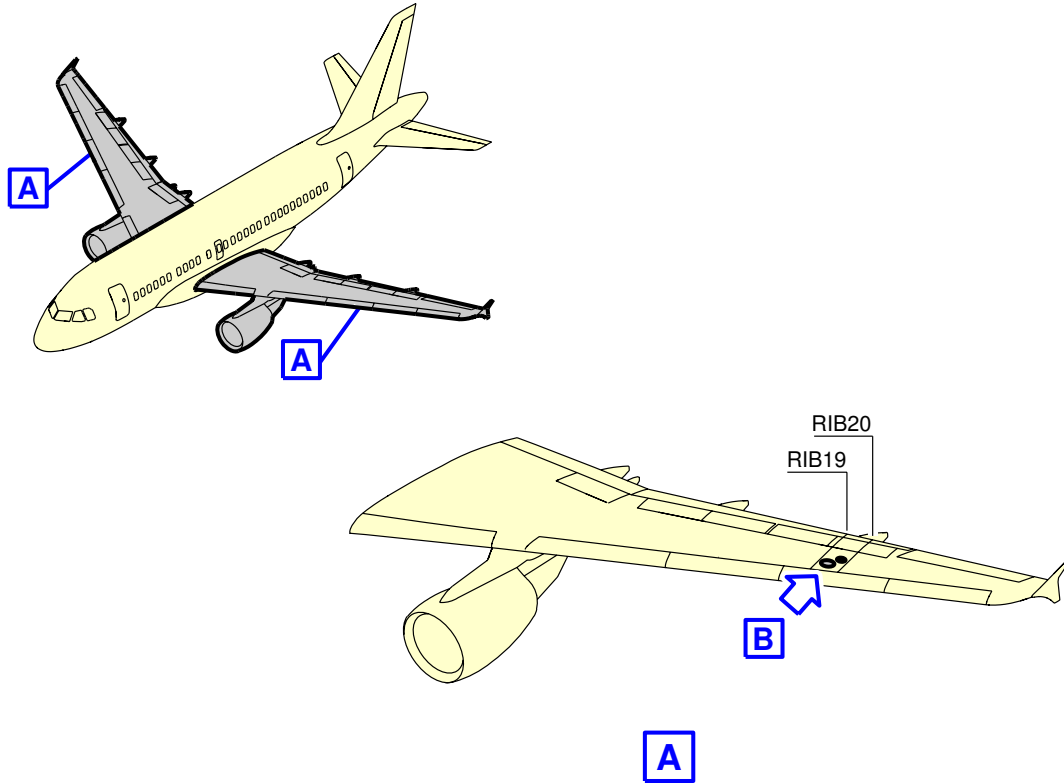
****ON A/C A318-100**



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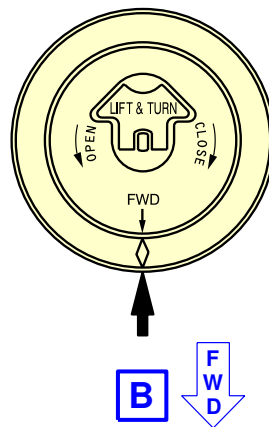
Ground Service Connections
Grounding Points
FIGURE-5-4-2-991-001-A01

****ON A/C A318-100**



JET FUEL

FOR SPECIFICATIONS REFER TO FLIGHT MANUAL



NOTE: R SIDE SYMMETRICAL

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Ground Service Connections
Grounding Points
FIGURE-5-4-2-991-002-A01

5-4-3 Hydraulic System

****ON A/C A318-100**

Hydraulic System

1. Access.

ACCESS	AFT OF NOSE m (ft)	FROM AIRPLANE CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Green System: Access door 197CB	16.43 (53.9)		1.27 (4.17)	1.76 (5.77)
Yellow System: Access door 198CB	16.43 (53.9)	1.27 (4.17)		1.76 (5.77)
Blue System: Access door 197EB	16.96 (55.64)		1.27 (4.17)	1.76 (5.77)

NOTE : Distances are approximate.

2. Reservoir Pressurization.

On the air pressurization manifold:

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Access door 195BB	13.2 (43.31)		0.25 (0.82)	1.74 (5.71)

NOTE : Distances are approximate.

- One 1/4 in. AEROQUIP AE 96994E self-sealing connection common to the 3 reservoirs.

3. Accumulator Charging.

Four (MS28889-1) connections (one for each accumulator) for:

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Yellow System accumulator: Access door 196BB	13.8 (45.28)	0.25 (0.82)		1.99 (6.53)

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Green System accumulator: Left MLG door	14.3 (46.92)		0.25 (0.82)	3.2 (10.5)
Blue System accumulator: Access door 195BB	15.8 (51.84)		0.25 (0.82)	1.99 (6.53)
Yellow System braking accumulator: Access door 196BB	13.8 (45.28)	0.76 (2.49)		1.74 (5.71)

NOTE : Distances are approximate.

4. Reservoir Filling.

On the Green system ground service panel:

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Access door 197CB	16.43 (53.9)		1.27 (4.17)	1.76 (5.77)

NOTE : Distances are approximate.

One 1/4 in. AEROQUIP AE96993E self-sealing connection for pressurized supply.

One handpump filling connection for unpressurized (suction) supply.

5. Reservoir Drain.

On 3/8 in. self-sealing connection on reservoir for:

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Yellow System: Access door 196 BB - 198 CB	13.8 (45.27)	1.43 (4.69)		1.9 (6.23)
Green System: Left MLG door	14.3 (46.92)		1.27 (4.17)	2.61 (8.56)

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Blue System: Access door 197 EB	16.96 (55.64)		1.27 (4.17)	1.76 (5.77)

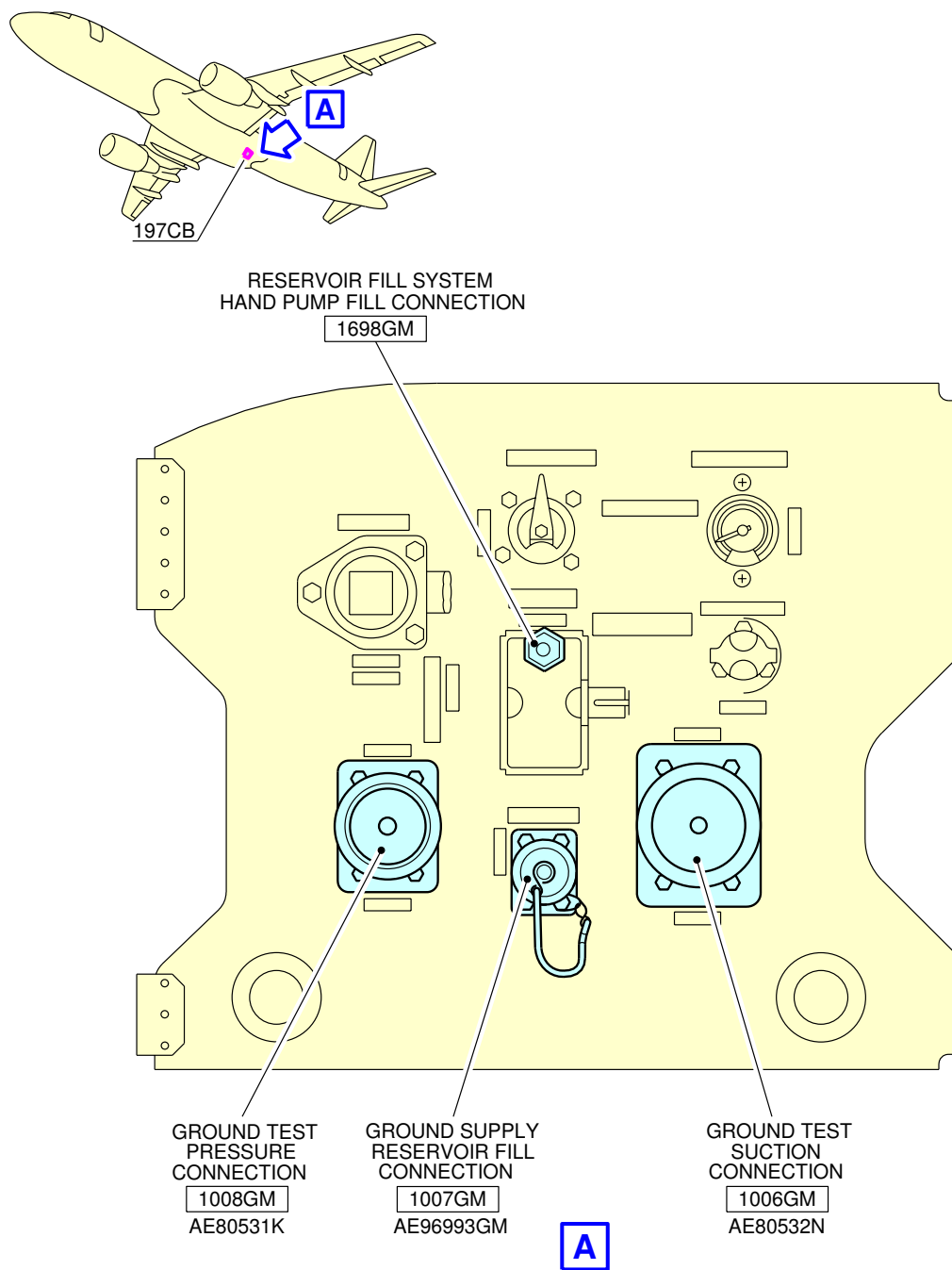
NOTE : Distances are approximate.

6. Ground Test.

On each ground service panel:

- One self-sealing connector AE80532N (suction).
- One self-sealing connector AE80531K (delivery).

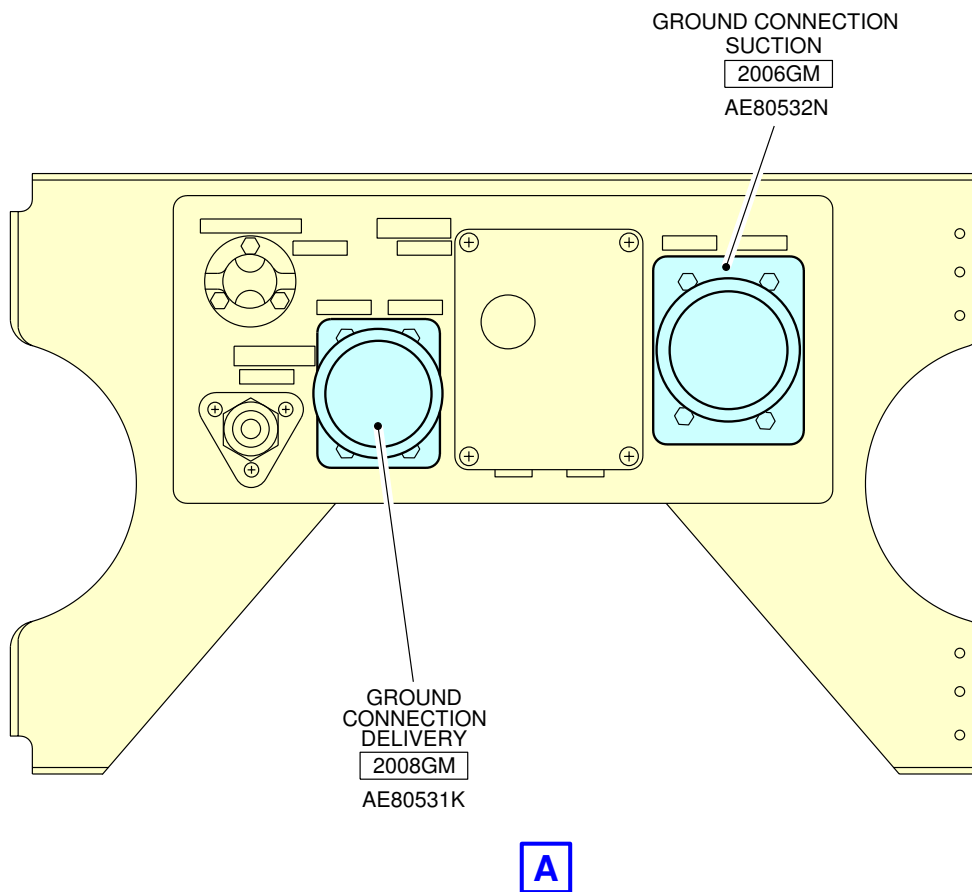
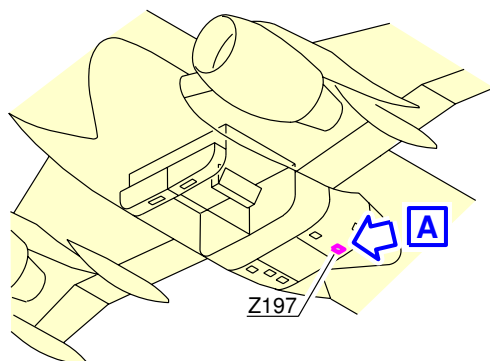
****ON A/C A318-100**



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Hydraulic System
Green System Ground Service Panel
FIGURE-5-4-3-991-004-A01

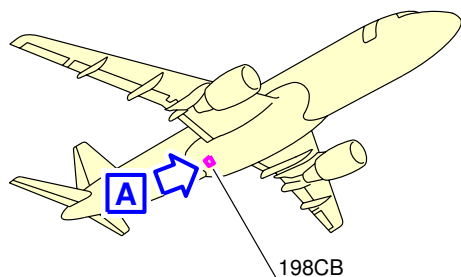
****ON A/C A318-100**



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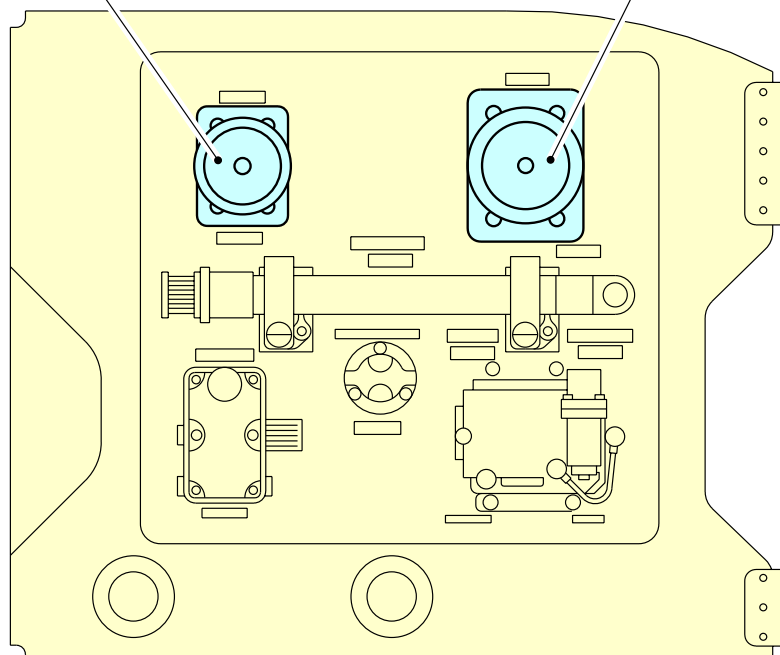
Hydraulic System
Blue System Ground Service Panel
FIGURE-5-4-3-991-005-A01

****ON A/C A318-100**



GROUND TEST
PRESSURE CONNECTION
3008GM
AE80531K

GROUND TEST
SUCTION CONNECTION
3006GM
AE80532N



A

N_AC_050403_1_0060101_01_00

Hydraulic System
Yellow System Ground Service Panel
FIGURE-5-4-3-991-006-A01

5-4-4 Electrical System

****ON A/C A318-100**

Electrical System

1. Electrical System.

This chapter gives data related to the location of the ground service connections.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
A/C External Power: Access door 121AL	2.55 (8.37)	on centerline		2.00 (6.56)

NOTE : Distances are approximate.

2. Technical Specifications

This chapter gives data related to the location of the ground service connections.

A. External Power Receptacle:

- One Style3 ISO 461 receptacle - 90 KVA.

B. Power Supply:

- Three-phase, 400 Hz, 115/200V

C. Electrical Connectors for Servicing:

- AC outlets: HUBBELL 5258
- DC outlets: HUBBELL 7472

D. Electrical Loads in Ground Configuration

In ground configuration, in addition to the power necessary for maintenance, all the circuits, except those which are connected to the engines, are supplied as in flight.

In these conditions, the maximum power on ground is approximately 75 KVA; this value does not take into account the supply of the galleys, which according to the aircraft interior layout, may reach 30 KVA.

E. Electrical Power necessary for Maintenance at Line Stop and Workshops

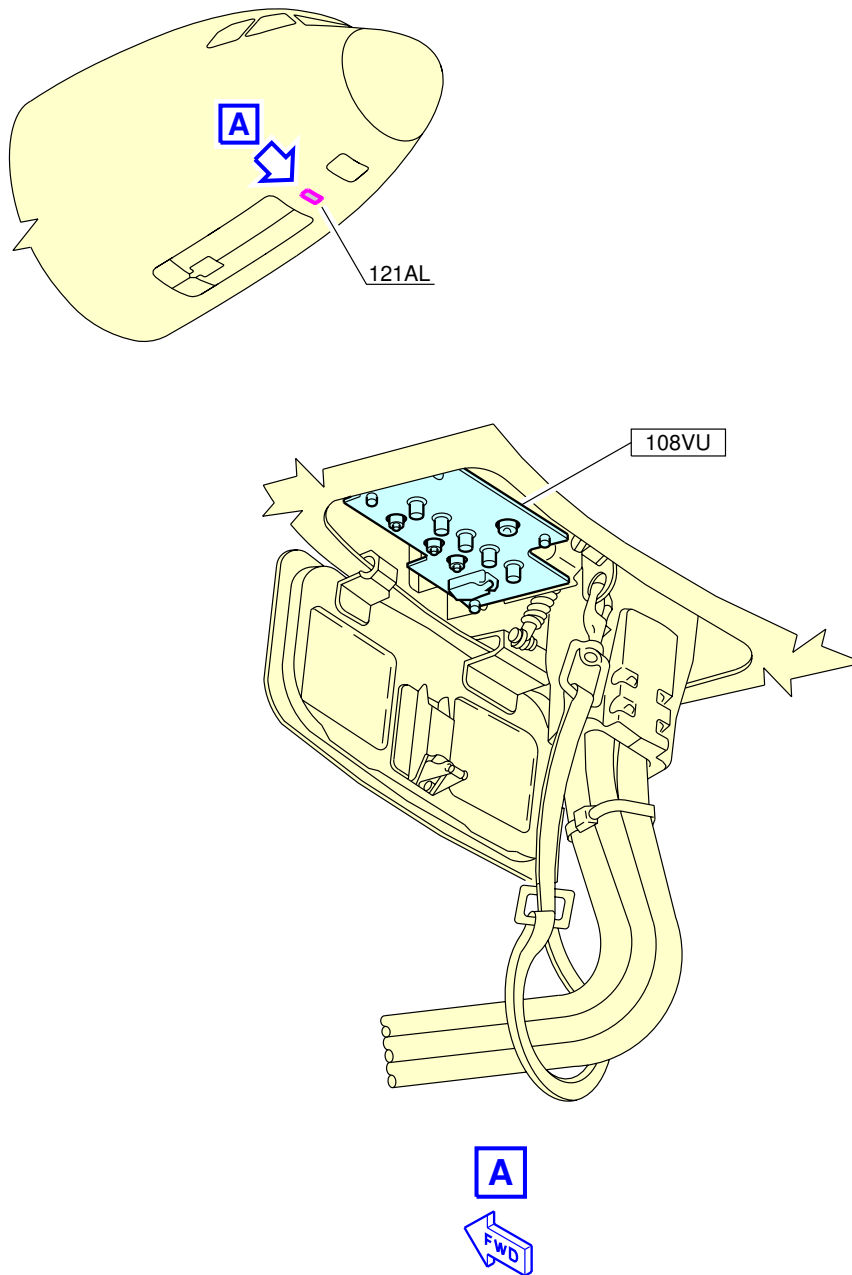
- Hydraulic electric-pumps: 34 KVA
- Air Conditioning/Ventilation: 20.8 KVA
- Fuel pumps: 12 KVA
- Lighting commercial: 6.7 KVA
- Lighting technical: 3 KVA
- Ice and rain protection: 3 KVA
- Cargo loading: 3 KVA
- AFS, Flight controls, ADS, Recorders: 3.3 KVA
- Communications: 1.3 KVA



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

- Radio navigation: 1.2 KVA.

****ON A/C A318-100**



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Ground Service Connections
External Power Receptacles
FIGURE-5-4-4-991-001-A01

5-4-5 Oxygen System

****ON A/C A318-100**

Oxygen System

1. Replenishment of high pressure oxygen source.
 - A. For the A318 aircraft (basic version), the oxygen source is replenished by replacing the oxygen cylinder installed in the avionics compartment.

5-4-6 Fuel System

****ON A/C A318-100**

Fuel System

1. Refuel/Defuel Control Panel.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Refuel/Defuel Integrated Panel: Access door 192MB	14.01 (45.96)	1.8 (5.91)		1.8 (5.91)

2. Refuel/Defuel Connectors.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Refuel/Defuel coupling, Left Access Door 522HB (Optional)	15.2 (49.87)		9.83 (32.25)	3.65 (11.98)
Refuel/Defuel coupling, Right Access Door 622HB	15.2 (49.87)	9.83 (32.25)		3.65 (11.98)
Gravity Refuel Coupling	16.71 (54.82)	12.4 (40.68)	12.4 (40.68)	3.7 (12.14)

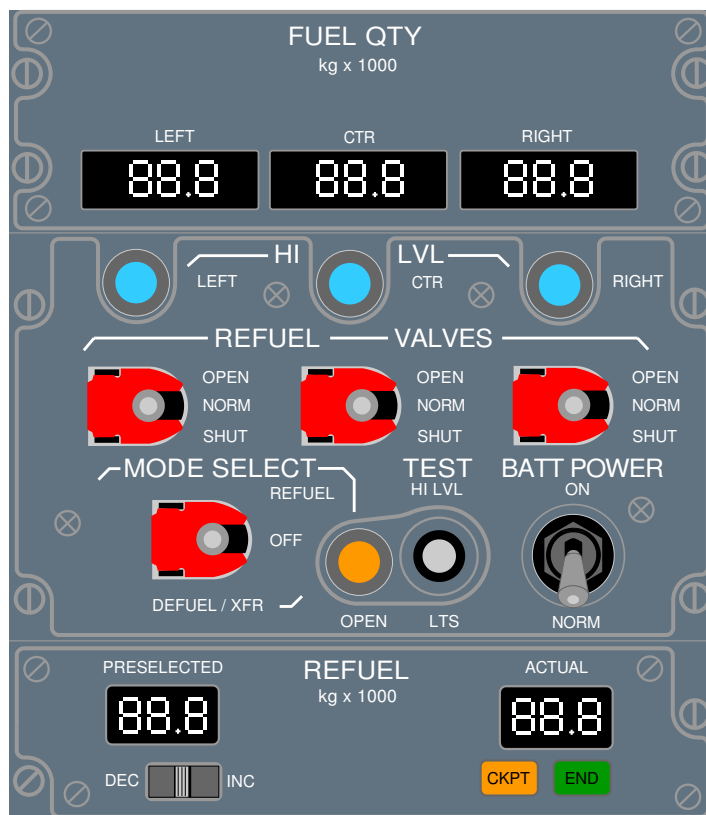
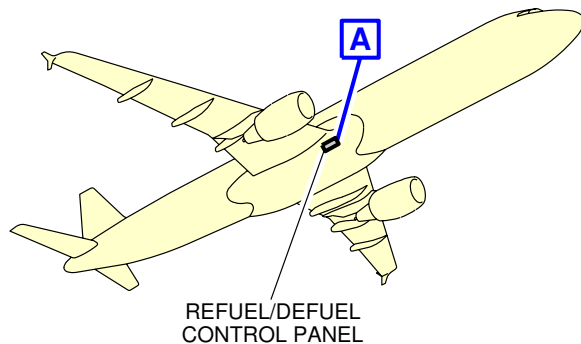
- A. Refuel/Defuel couplings:
 - Right wing: one standard ISO 45, 2.5 in.
 - Left wing: one optional standard ISO 45, 2.5 in.
- B. Refuel pressure:
 - Maximum pressure: 3.45 bar (50 psi).
- C. Refuel Flow:
 - 1400 l/minute (369.84 US gal/minute).

3. Overpressure Protector and NACA Flame Arrestor.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Overpressure Protector	17.96 (58.92)	14.9 (48.88)	14.9 (48.88)	4.32 (14.17)
NACA Flame Arrestor	17.4 (57.09)	13.7 (44.95)	13.7 (44.95)	4.02 (13.19)

NOTE : Distances are approximate.

****ON A/C A318-100**



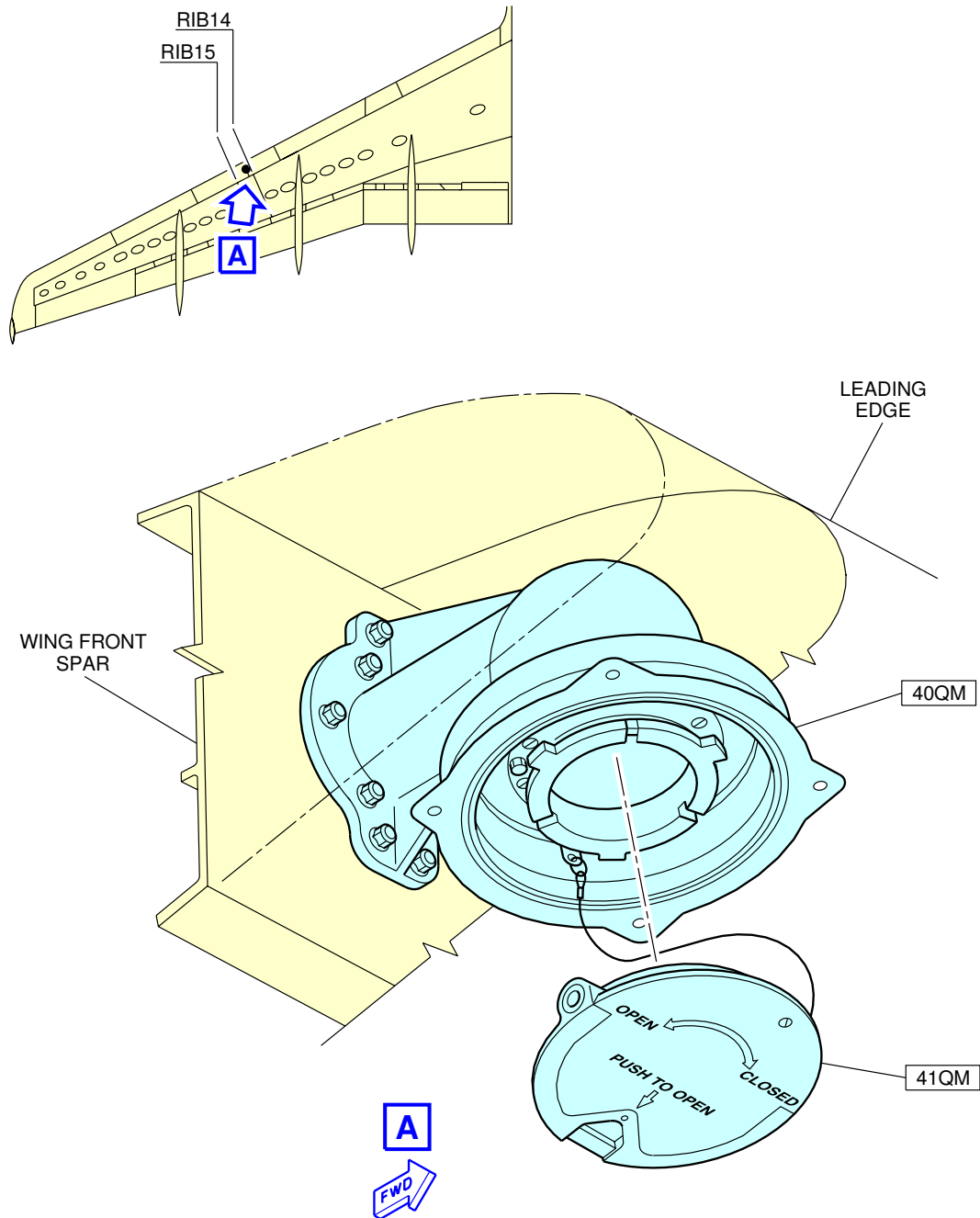
A

NOTE: STANDARD CONFIGURATION OF REFUEL/DEFUEL PANEL.

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Ground Service Connections
Refuel/Defuel Panel
FIGURE-5-4-6-991-001-A01

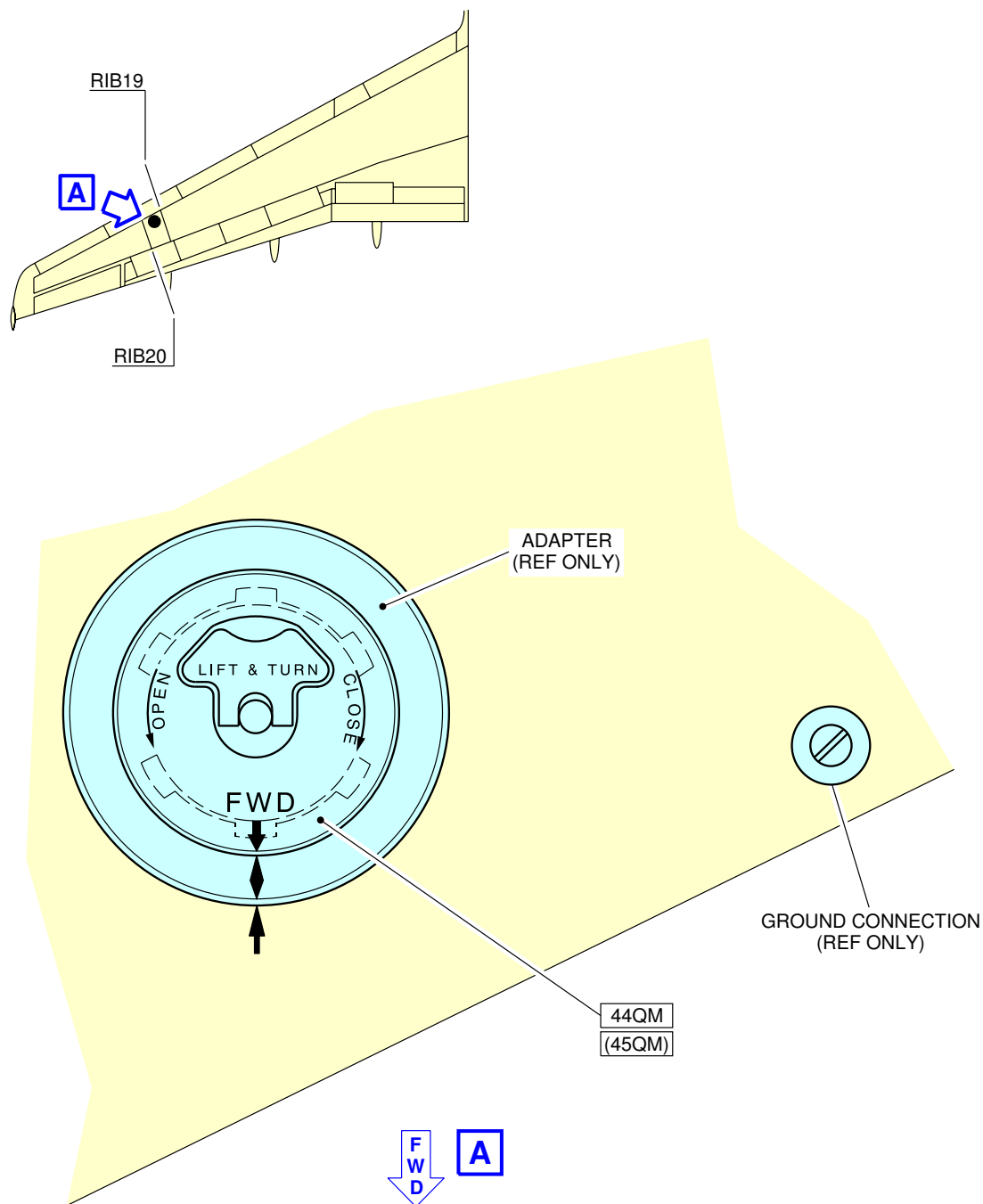
****ON A/C A318-100**



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Ground Service Connections
Refuel/Defuel Couplings
FIGURE-5-4-6-991-002-A01

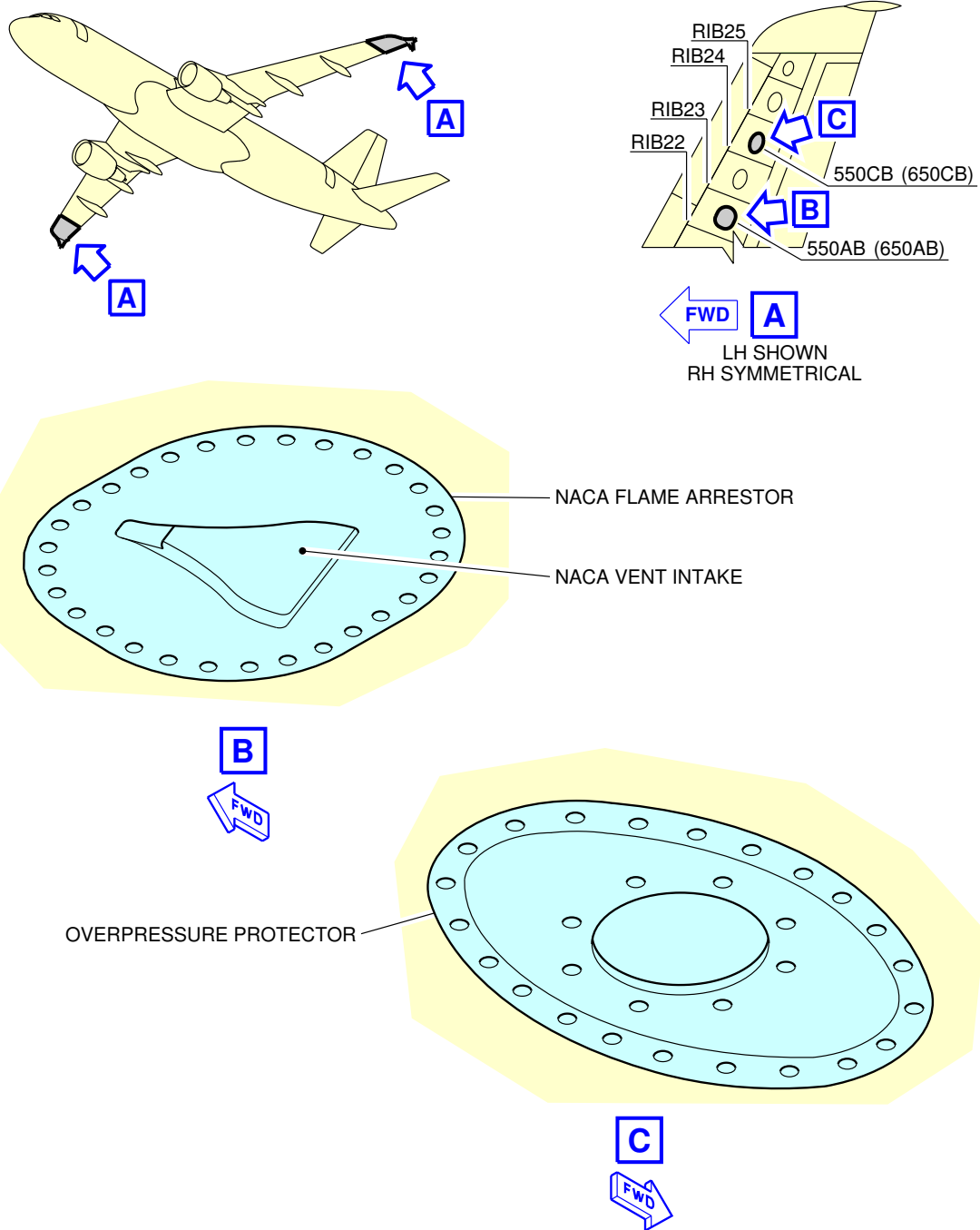
****ON A/C A318-100**



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Ground Service Connections
Gravity Refuel Couplings
FIGURE-5-4-6-991-003-A01

**ON A/C A318-100



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Ground Service Connections
Overpressure Protector and NACA Flame Arrestor
FIGURE-5-4-6-991-004-A01

5-4-7 Pneumatic System

****ON A/C A318-100**

Pneumatic System

1. High Pressure Air Connectors.

This chapter gives data related to the location of the ground service connections.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
HP Connector Access door 191DB	10.43 (34.22)		0.84 (2.76)	1.76 (5.77)

NOTE : Distances are approximate.

A. Connector:

- One standard MS33740, 3 in.

2. Low Pressure Air Connectors.

This chapter gives data related to the location of the ground service connections.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
LP Connector Access door 191CB	9.9 (32.48)		1.11 (3.64)	1.73 (5.68)

NOTE : Distances are approximate

A. Connector:

- One standard SAE AS4262 type B, 8 in.

5-4-8 Potable Water System

****ON A/C A318-100**

Potable Water System

1. Potable Water Ground Service Panel.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Potable Water Ground Service Panel: Access door 171AL:	25.2 (82.67)		0.3 (0.98)	2.6 (8.53)

NOTE : Distances are approximate

2. Potable Water Ground Drain Panel.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		RH SIDE m (ft)	LH SIDE m (ft)	
Potable Water Ground Service Panel: Access door 133AL:	11.4 (37.4)		0.15 (0.49)	1.75 (5.74)

NOTE : Distances are approximate

3. Technical Specifications

A. Connectors:

- (1) On the potable ground service panel (Access Door 171AL)
 - Fill/Drain Nipple 3/4 in (ISO 17775).
 - One ground pressurization connector.
- (2) On drain panel (Access Door 133AL)
 - Drain Nipple 3/4 in (ISO 17775)

B. Usable capacity:

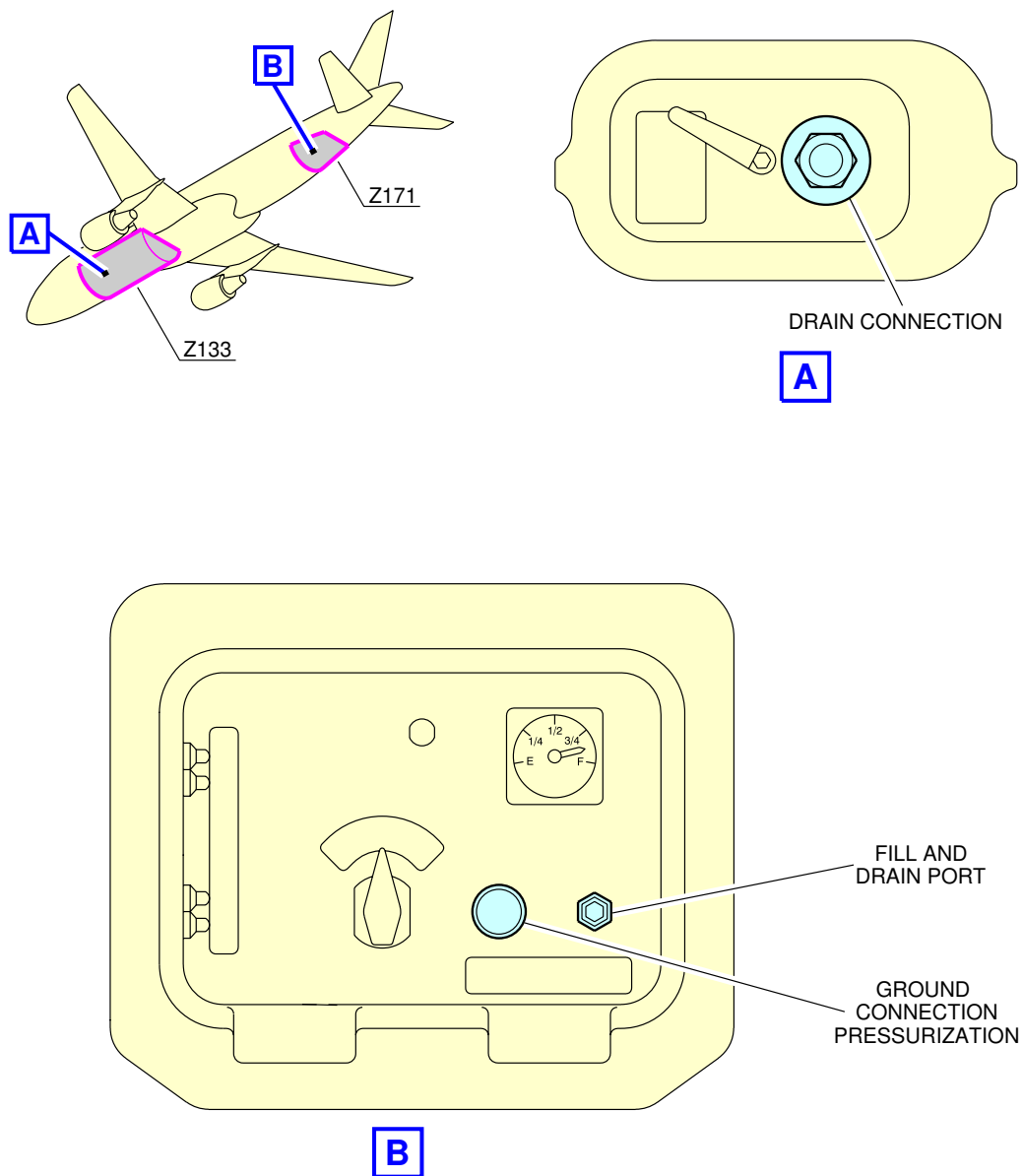
- Standard configuration - one tank:200 l (52.83 US gal)

C. Filling pressure:

- 3.45 bar (50 psi).

- D. Typical flow rate:
- 50 l/min (13.21 US gal/min).

****ON A/C A318-100**



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Ground Service Connections
Potable Water Ground Service Panel
FIGURE-5-4-8-991-001-A01

5-4-9 Oil System

****ON A/C A318-100**

Oil System

- Engine Oil Replenishment for CFM56 Series Engine (See FIGURE 5---9-99--001-A):
One gravity filling cap and one pressure filling connection per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
Engine Oil Gravity Filling Cap: Access door: 437BL (LH), 447BL (RH)	12.3 (40.35)	6.63 (21.75)	4.82 (15.81)	1.46 (4.79)
Engine Oil Pressure Filling Port:	12.2 (40.03)	6.49 (21.29)	4.74 (15.55)	1.42 (4.66)

NOTE : Distances are approximate

- Tank capacity:
 - Full level: 19.6 l (5.18 US gal)
 - Usable: 9.46 l (2.50 US gal)
 - Maximum delivery pressure required: 25 psi (1.72 bar)
Maximum delivery flow required: 180 l/h (47.55 US gal/h)
- IDG Oil Replenishment for CFM56 Series Engine (See FIGURE 5---9-99--002-A):
One pressure filling connection per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
IDG Oil Pressure Filling Connection: Access door: 438DR (LH), 448DR (RH)	11.4 (37.4)	6.9 (22.64)	5.52 (18.11)	0.68 (2.23)

NOTE : Distances are approximate

- IDG oil tank capacity: 5 l (1.32 US gal)

B. Maximum servicing pressure: 5 to 40 psi (0.34 to 2.76 bar) at the IDG inlet.

3. Starter Oil Replenishment for CFM56 Series Engine (See FIGURE 5---9-99--003-A):
One gravity filling cap per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
Starter Oil Filling Connection:	10.4 (34.12)	5.3 (17.39)	6.2 (20.34)	0.76 (2.49)

NOTE : Distances are approximate

A. Tank capacity: 0.8 l (0.206 US gal)

4. Engine Oil Replenishment for PW 6000 Series Engine (See FIGURE 5---9-99--004-A):
One gravity filling cap per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
Engine Oil Gravity Filling Cap: Access door: 438BR (LH), 448BR (RH)	10.16 (33.33)	4.8 (15.75)	6.63 (21.75)	1.8 (5.9)

NOTE : Distances are approximate

A. Tank capacity:

- Full level: 18.36 l (4.85 US gal)
- Usable: 23.50 l (6.21 US gal)
- Engine oil tank capacity: 18.36 l (4.85 US gal)

1. IDG Oil Replenishment for PW 6000 Series Engine:
One pressure filling connection per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
IDG Oil Pressure Filling Connection: Access door 438DR (LH), 448DR (RH)	10 (32.81)	5.33 (17.49)	6.17 (20.24)	1.02 (3.35)

NOTE : Distances are approximate

A. Tank capacity: 6.28 l (1.66 US gal)

B. Maximum servicing pressure: 35 psi (2.41 bar)

5. Starter Oil Replenishment for PW 6000 Series Engine (See FIGURE 5---9-99--006-A):
One gravity filling cap per engine.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		ENGINE 1 (LH) m (ft)	ENGINE 2 (RH) m (ft)	
Starter Oil Filling Connection:	10.16 (33.33)	5.84 (19.16)	5.59 (18.34)	1.02 (3.35)

NOTE : Distances are approximate

A. Tank capacity: 0.35 l (0.09 US gal)

6. APU Oil System (See FIGURE 5---9-99--007-A):
APU oil gravity filling cap.

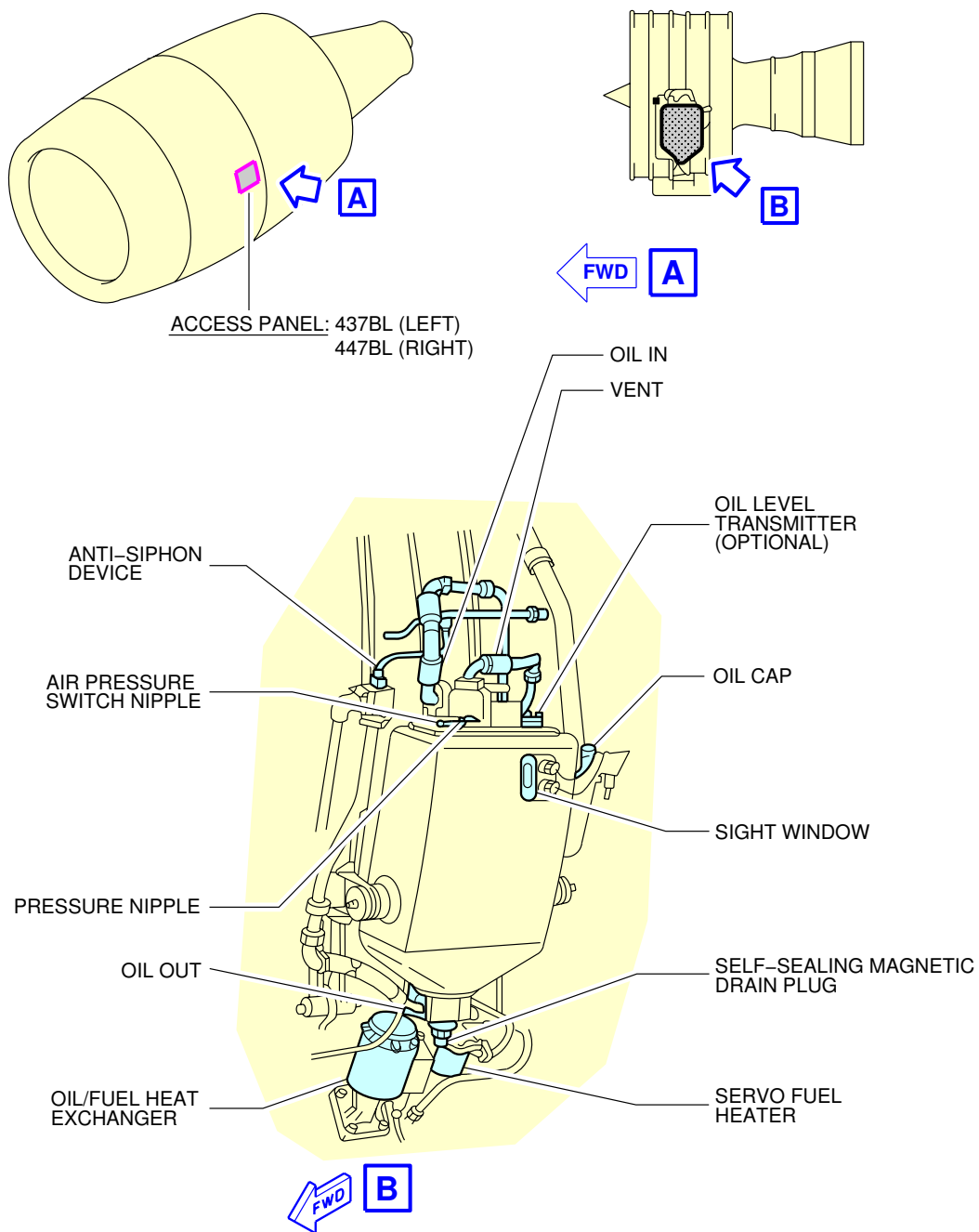
	AFT OF NOSE m (ft)	FROM AIRPLANE CENTERLINE (LEFT HAND) m (ft)	MEAN HEIGHT FROM GROUND m (ft)
GTCP 36-300	29.37 (96.36)	0.3 (0.98)	4.83 (15.85)
APS 3200	29.37 (96.36)	0.3 (0.98)	4.78 (15.68)
131-9	29.27 (96.03)	0.35 (1.15)	4.32 (14.17)

NOTE : Distances are approximate

A. Tank capacity (usable):

- APU type GTCP 36-300: 6.20 l (1.64 US gal)
- APU type APS 3200: 5.40 l (1.43 US gal)
- APU type 131-9: 6.25 l (1.65 US gal)

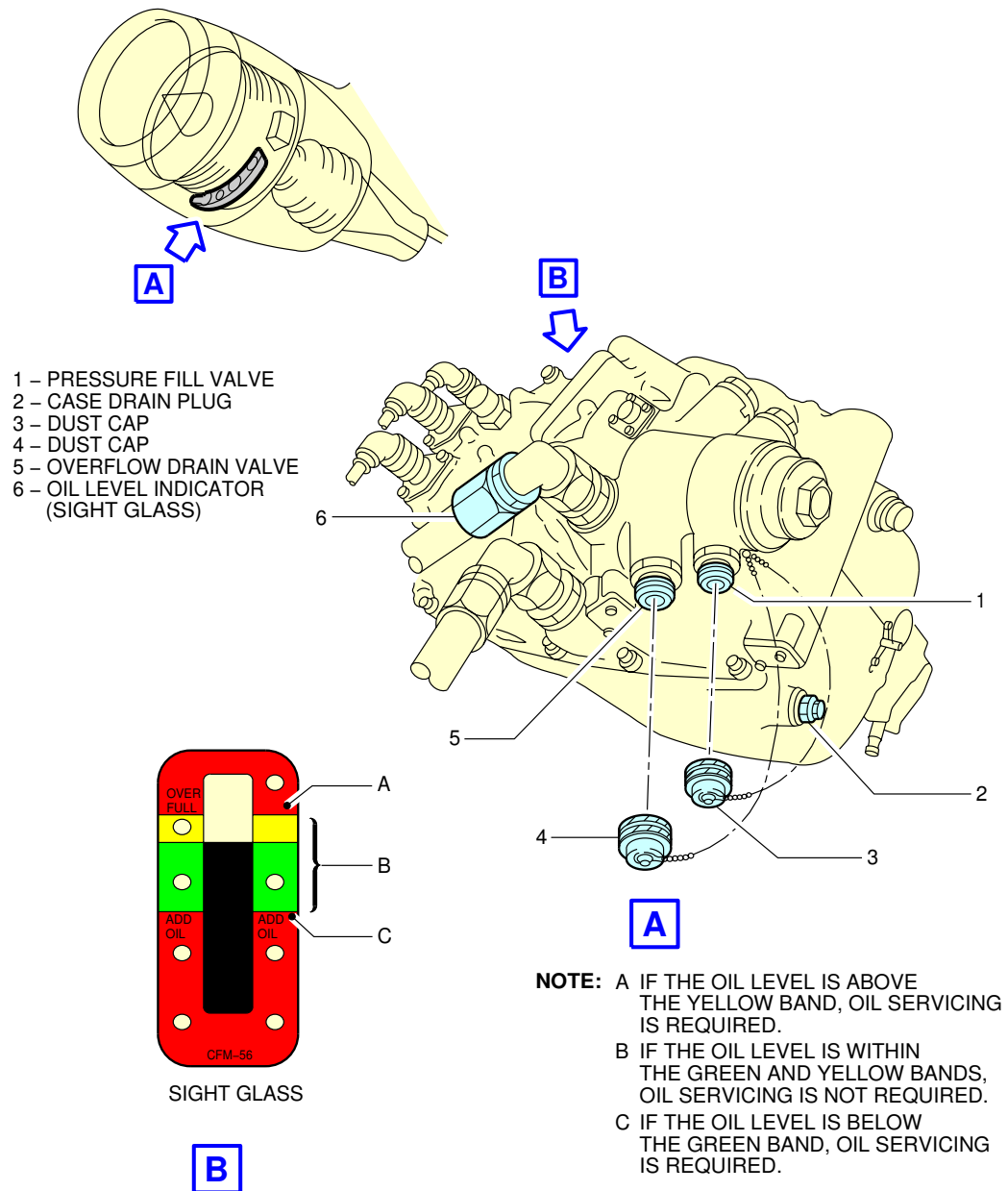
****ON A/C A318-100**



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Ground Service Connections
Engine Oil Tank – CFM56 Series Engine
FIGURE-5-4-9-991-001-A01

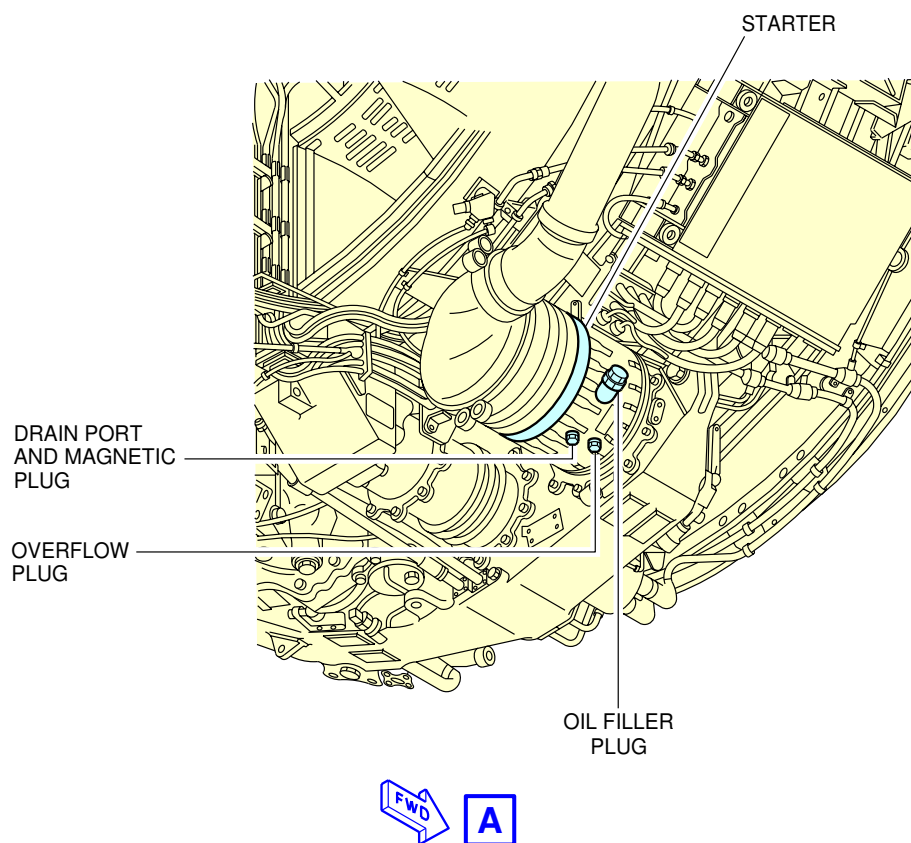
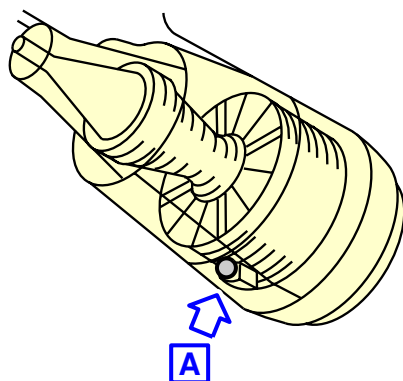
****ON A/C A318-100**



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Ground Service Connections
 IDG Oil Tank - CFM56 Series Engine
 FIGURE-5-4-9-991-002-A01

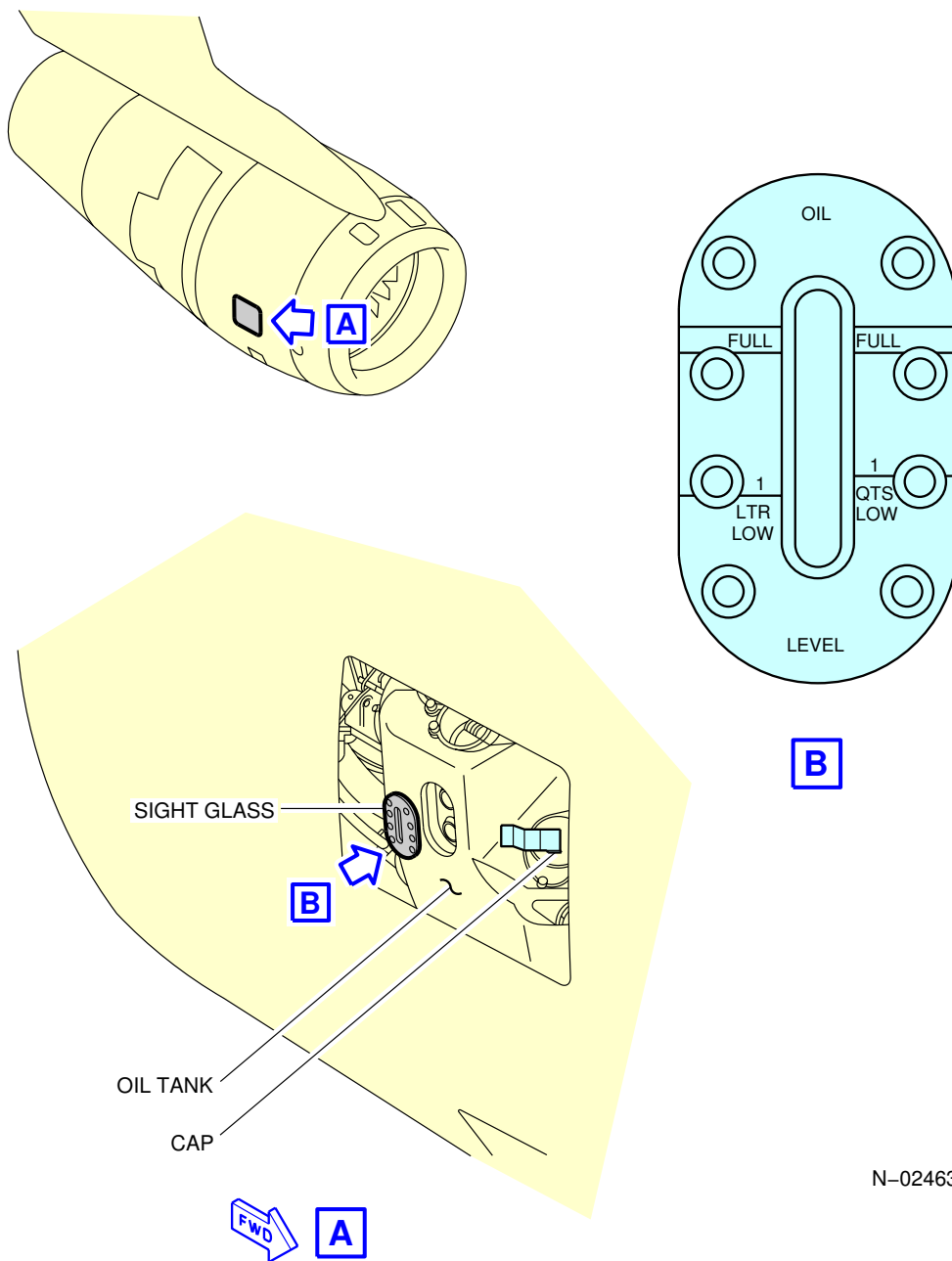
****ON A/C A318-100**



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Ground Service Connections
 Starter Oil Tank – CFM56 Series Engine
 FIGURE-5-4-9-991-003-A01

****ON A/C A318-100**

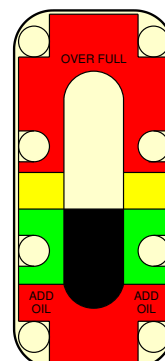
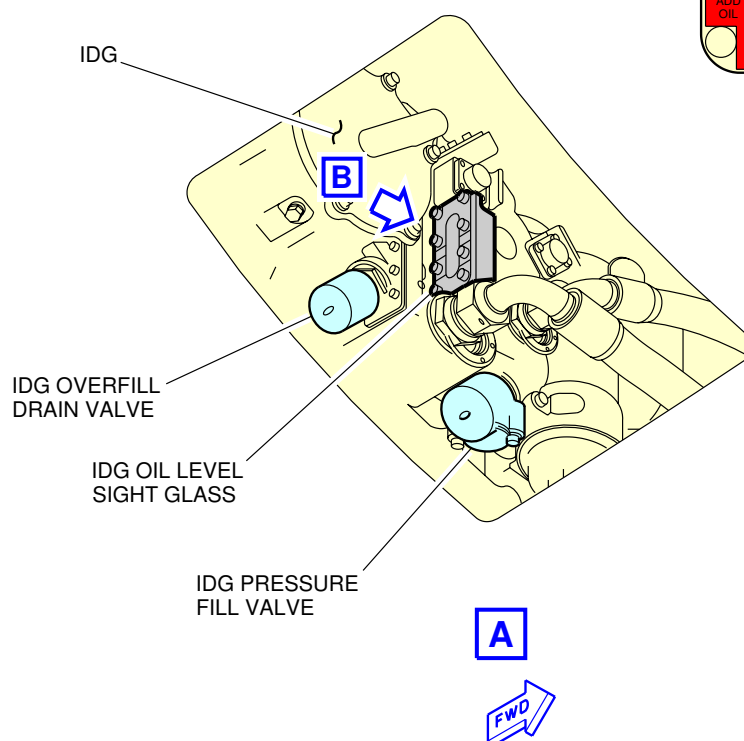


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PW V

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Ground Service Connections
Engine Oil Tank – PW 6000 Series Engine
FIGURE-5-4-9-991-004-A01

A diagram of a yellow flashlight. A blue arrow points to a black rectangular switch on the side of the flashlight's body, which is labeled with a blue square containing the letter 'A'.

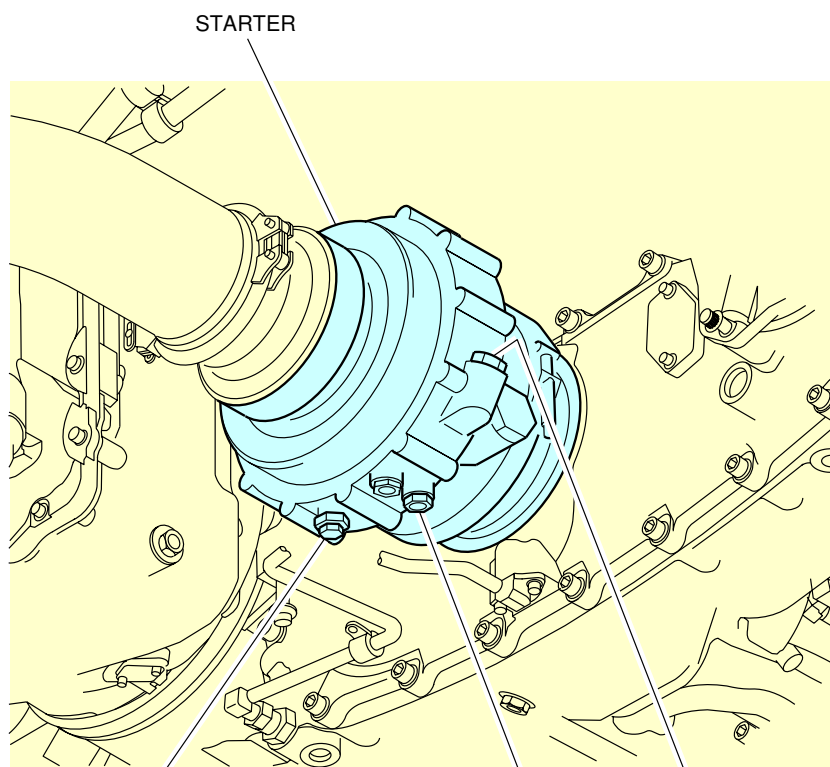
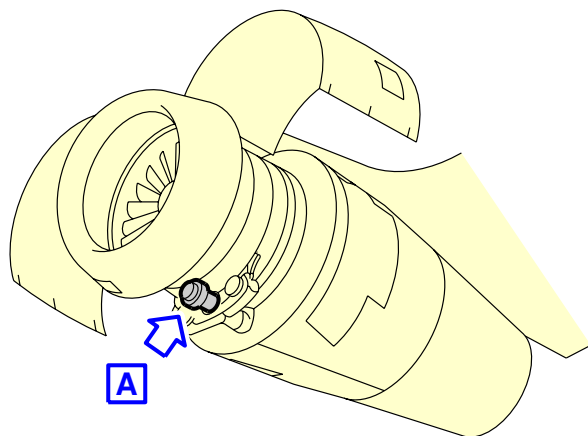


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PW V

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Ground Service Connections
IDG Oil Tank – PW 6000 Series Engine
FIGURE-5-4-9-991-005-A01

****ON A/C A318-100**



MAGNETIC
CHIP COLLECTOR



OVERFLOW
PLUG

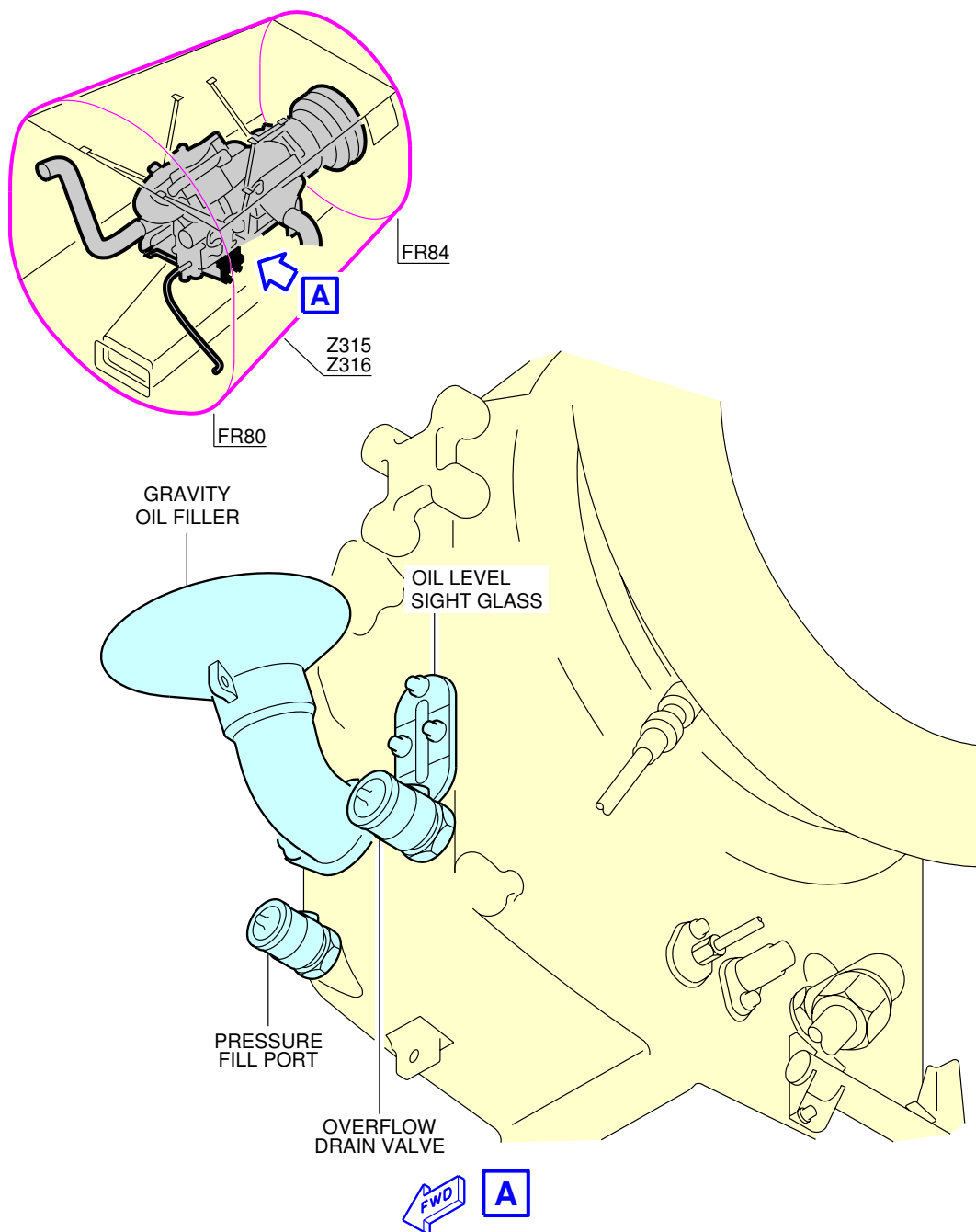
FILL
PLUG

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PW V

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Ground Service Connections
Starter Oil Tank – PW 6000 Series Engine
FIGURE-5-4-9-991-006-A01

****ON A/C A318-100**



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Ground Service Connections
APU Oil Tank
FIGURE-5-4-9-991-007-A01

5-4-10 Vacuum Toilet System****ON A/C A318-100**Vacuum Toilet System

1. Vacuum Toilet System.

ACCESS	AFT OF NOSE m (ft)	POSITION FROM AIRCRAFT CENTERLINE		MEAN HEIGHT FROM GROUND m (ft)
		R SIDE m (ft)	L SIDE m (ft)	
Waste Water Ground Service Panel: Access door 172AR	25.2 (82.67)	0.8 (2.62)		2.8 (9.18)

NOTE : Distances are approximate

2. Technical Specifications

A. Connectors:

- Draining: 4 in (ISO 17775).
- Flushing and filling: 1 in (ISO 17775).

B. Usable waste tank capacity:

- Standard configuration - on tank: 177 l (30.91 US gal).

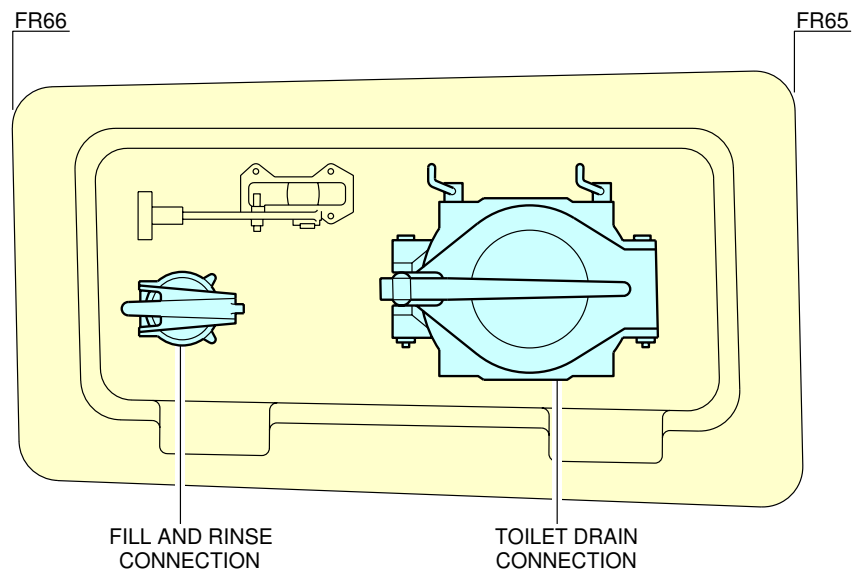
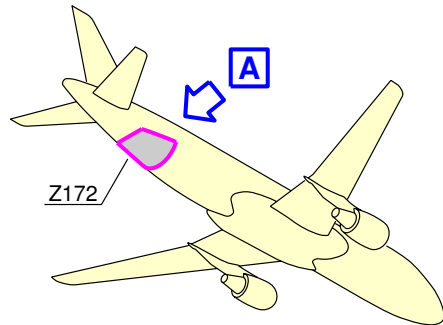
C. Waste tank - Rinsing:

- Operating pressure: 3.45 bar (50 psi).

D. Waste tank - Precharge:

- 10 l (2.64 US gal).

****ON A/C A318-100**



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Ground Service Connections
Waste Water Ground Service Panel
FIGURE-5-4-10-991-001-A01

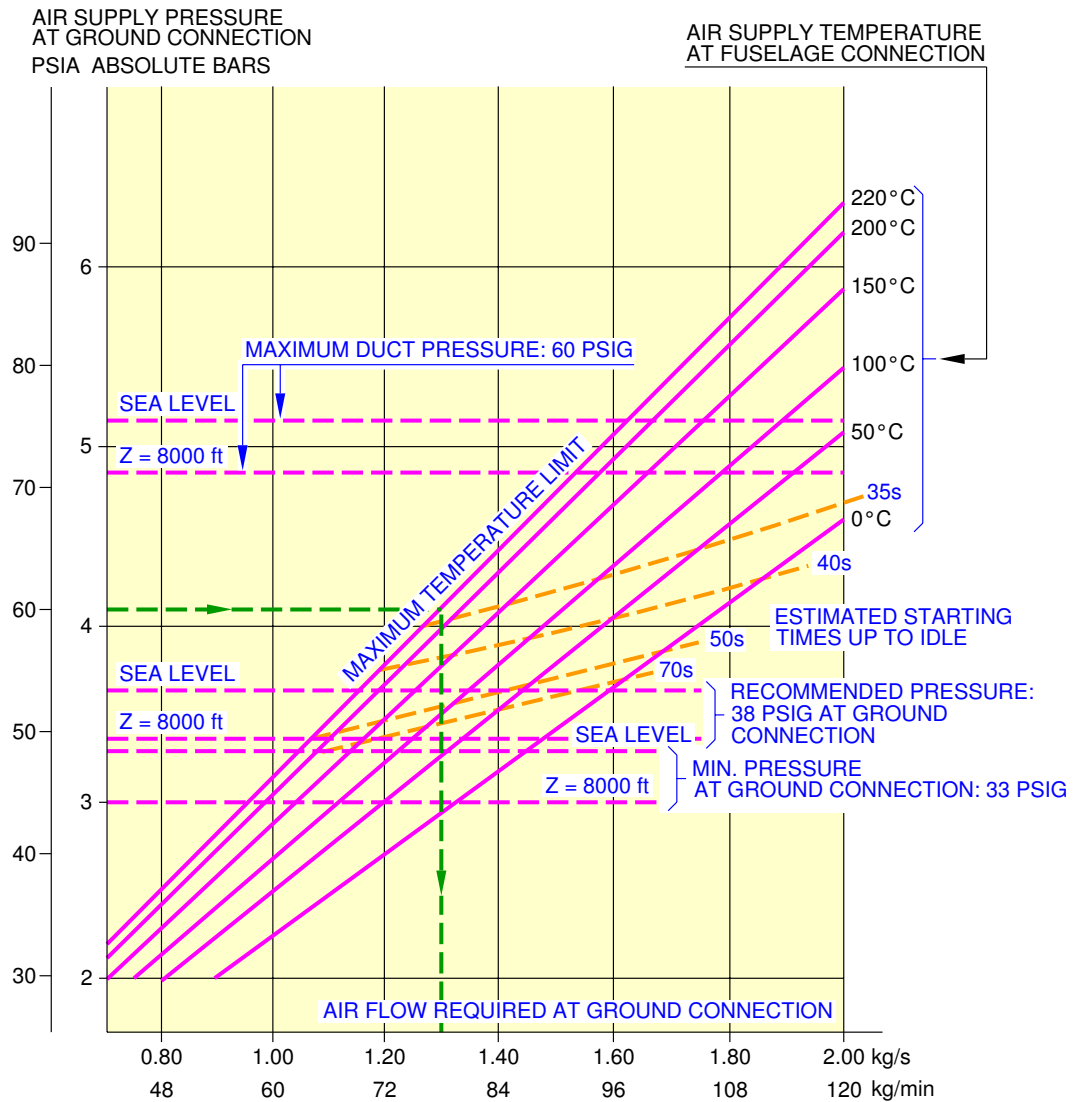
5-5-0 Engine Starting Pneumatic Requirements****ON A/C A318-100**Engine Starting Pneumatic Requirements**1. Engine Starting Pneumatic Requirements.**

To determinate the airflow required at ground connection, refer to the example given in FIGURE 5--0-99--001-A.

For engine starting pneumatic requirements for:

- Low ambient temperatures, refer to 5-5-1,
- Medium ambient temperatures, refer to 5-5-2,
- High ambient temperatures, refer to 5-5-3.

****ON A/C A318-100**



EXAMPLE TO DETERMINE THE AIRFLOW REQUIRED AT THE FUSELAGE CONNECTION:

- FOR AN AIR START UNIT DELIVERING 60 PSIA (4.14 BARS) AIR PRESSURE AT THE FUSELAGE CONNECTOR
- AT A SUPPLIED AIR TEMPERATURE OF 220°C (428°F) AT THE FUSELAGE CONNECTOR

1. DRAW AN HORIZONTAL LINE FROM THE SUPPLIED AIR PRESSURE (60 PSIA (4.14 BARS)).
2. FROM THE INTERSECTION WITH THE AIR SUPPLY TEMPERATURE AT FUSELAGE CONNECTION (220°C (428°F)), DRAW A VERTICAL LINE.
3. THE INTERSECTION WITH THE HORIZONTAL AXIS GIVES THE REQUIRED AIRFLOW AT GROUND CONNECTION (78 kg/min (1.3 kg/s)).

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Engine Starting Pneumatic Requirements
Engine Starting Pneumatic Requirements
FIGURE-5-5-0-991-001-A01

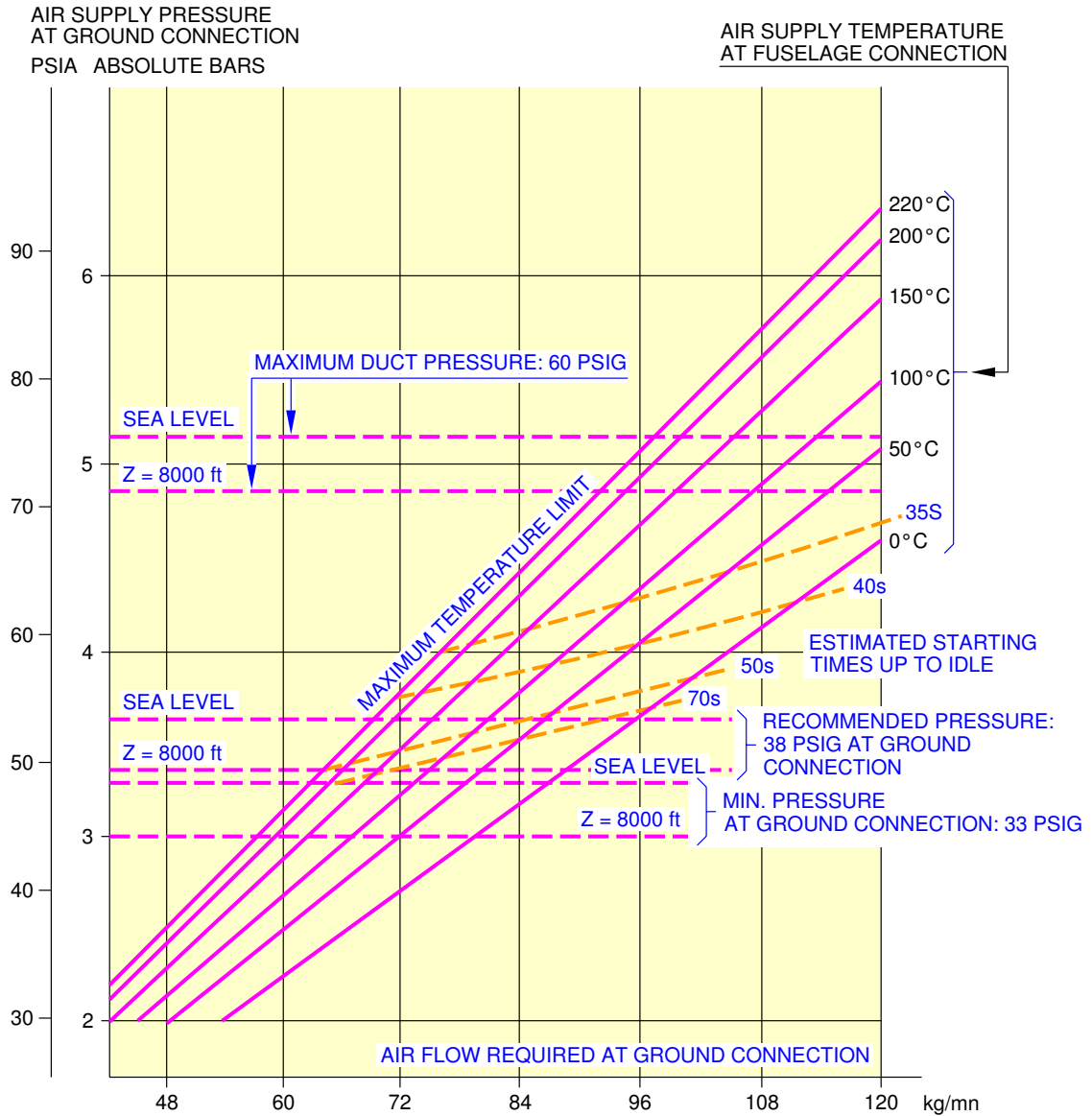
5-5-1 Low Ambient Temperatures

****ON A/C A318-100**

Low Ambient Temperatures

1. This section provides the engine starting pneumatic requirements for a temperature of -40 °C (-40 °F).

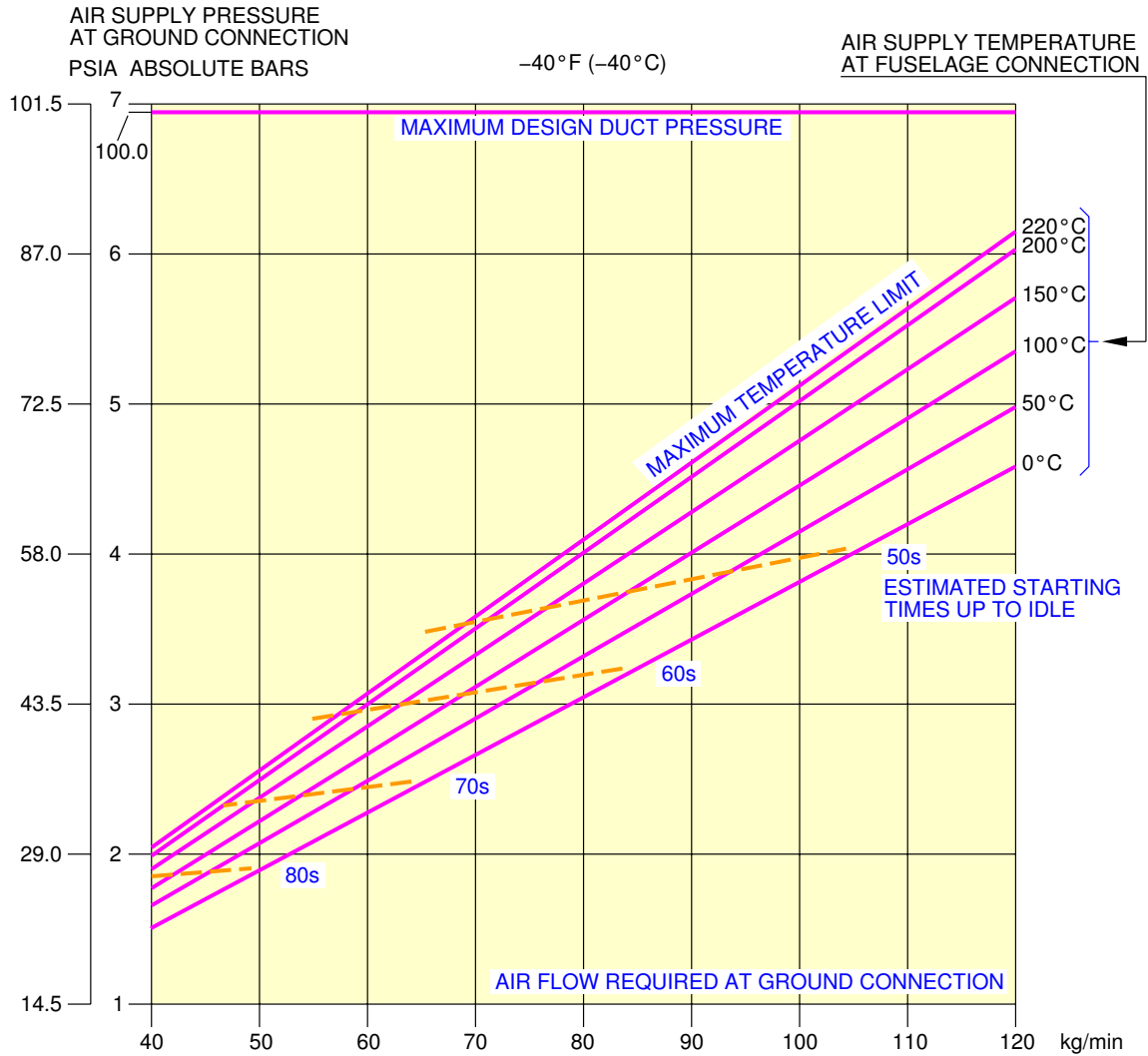
****ON A/C A318-100**



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Engine Starting Pneumatic Requirements
Low Ambient Temperature -40 °C (-40 °F) – CFM56 series engine
FIGURE-5-5-1-991-001-A01

****ON A/C A318-100**



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PW V

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Engine Starting Pneumatic Requirements
Low Ambient Temperature -40 °C (-40 °F) – PW 6000 series engine
FIGURE-5-5-1-991-002-A01

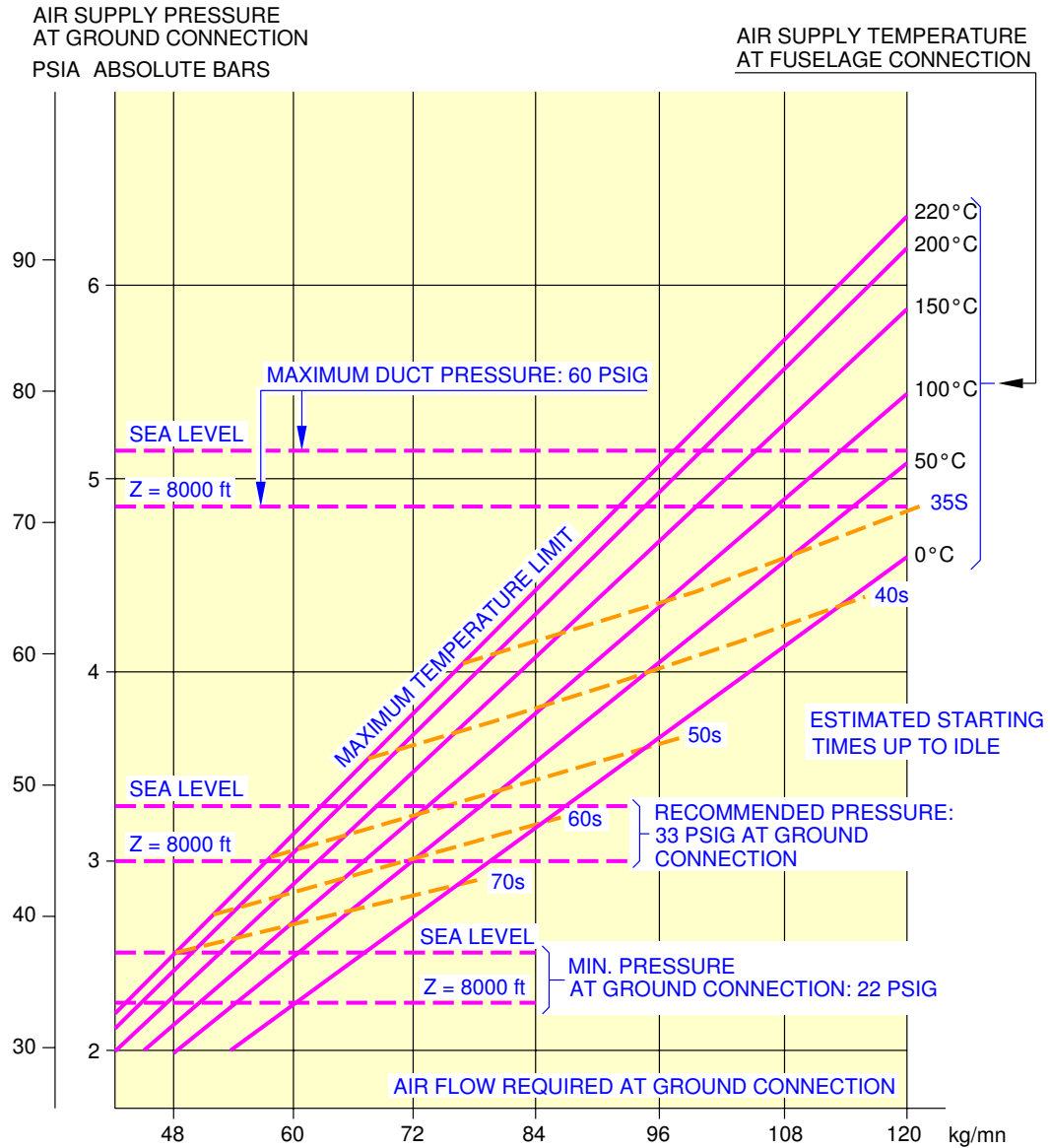
5-5-2 Medium Ambient Temperatures

****ON A/C A318-100**

Medium Ambient Temperatures

1. This section provides the engine starting pneumatic requirements for a temperature of +15 °C (+59 °F).

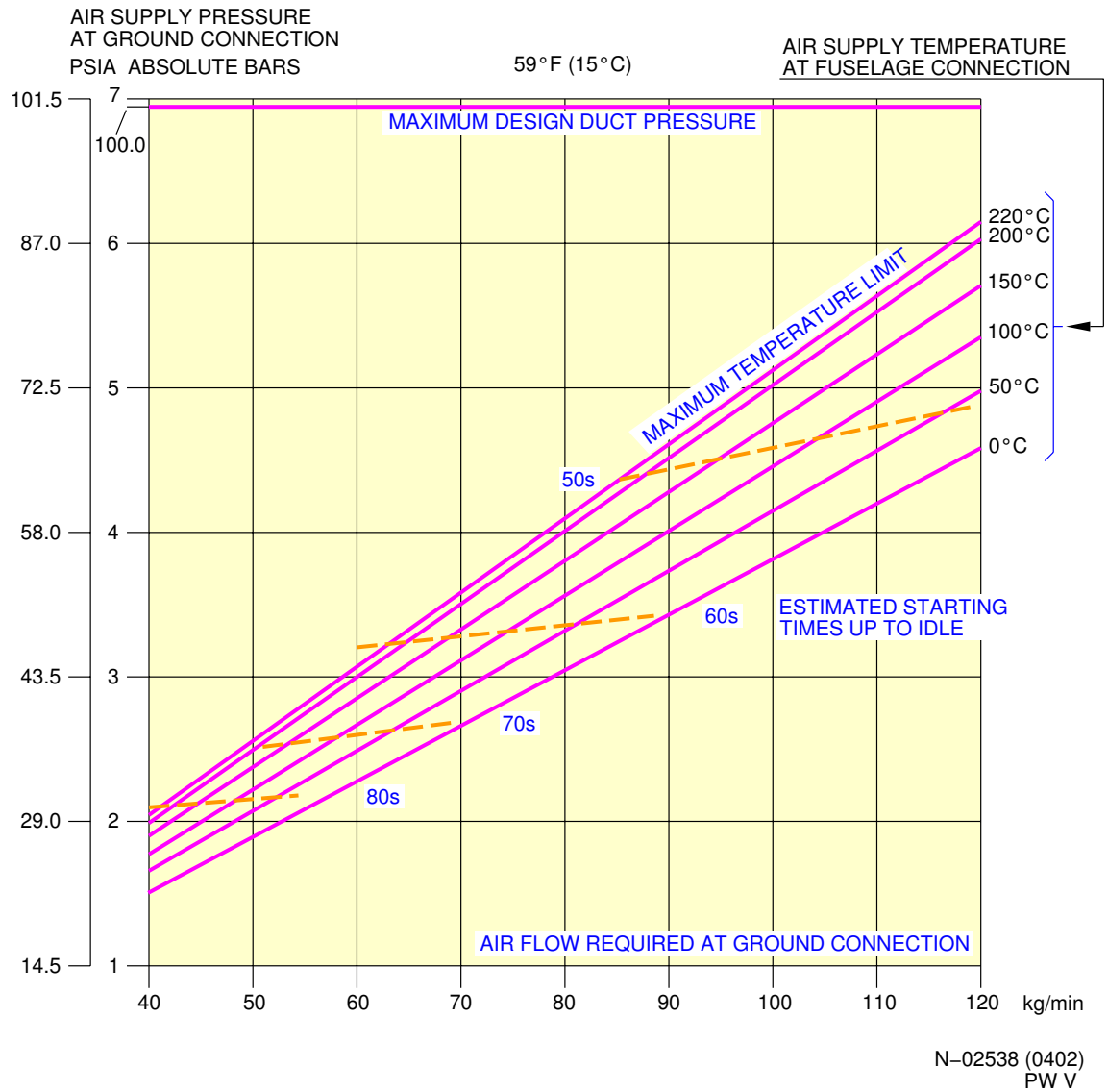
****ON A/C A318-100**



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Engine Starting Pneumatic Requirements
Medium Ambient Temperature +15 °C (+59 °F) – CFM56 series engine
FIGURE-5-5-2-991-001-A01

****ON A/C A318-100**



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Engine Starting Pneumatic Requirements
Medium Ambient Temperature +15°C (+59°F) – PW 6000 series engine
FIGURE-5-5-2-991-002-A01

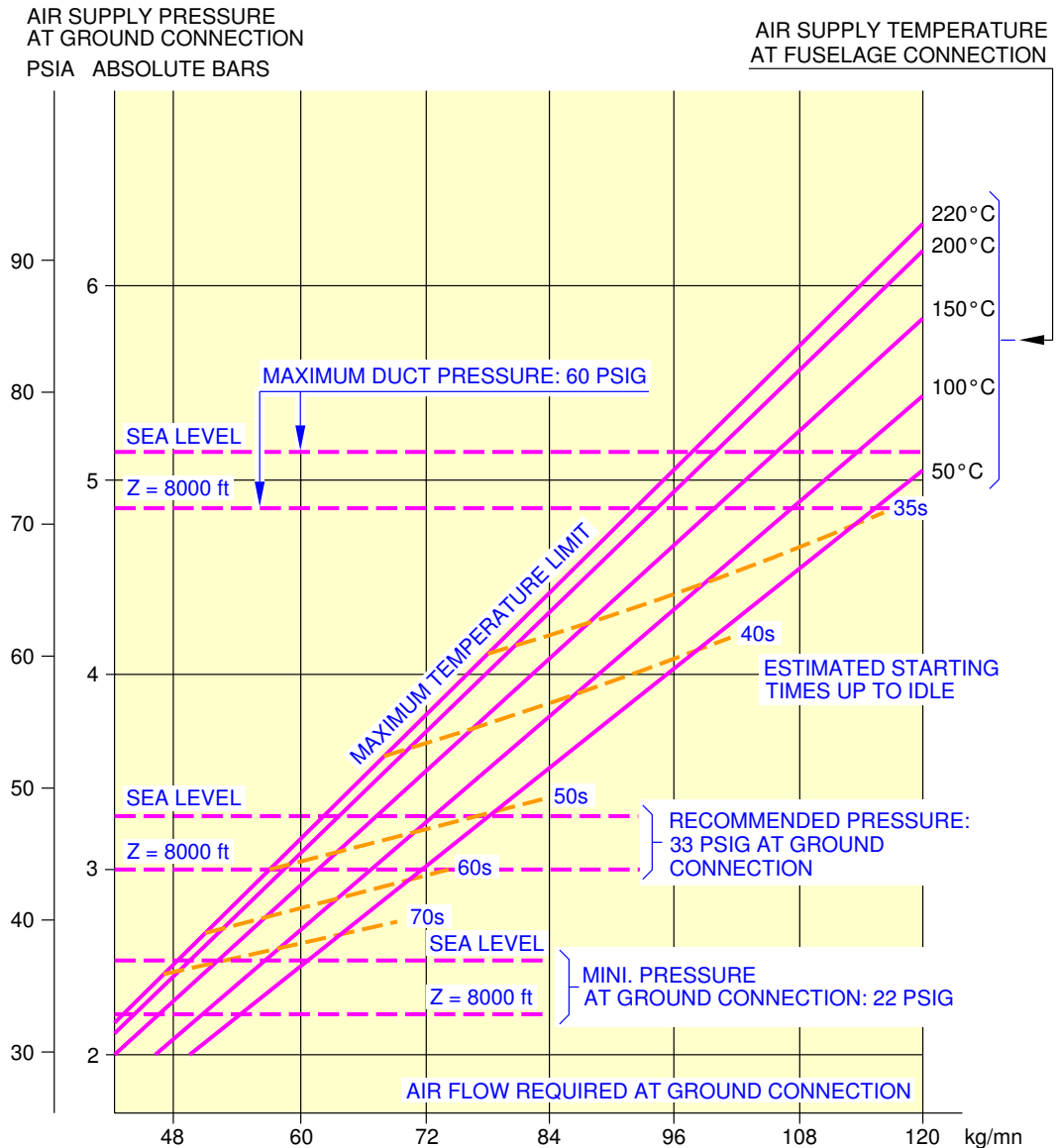
5-5-3 High Ambient Temperatures

****ON A/C A318-100**

High Ambient Temperatures

1. This section provides the engine starting pneumatic requirements for a temperature upper:
 - +38 ° C (+100 ° F) – PW 6000
 - +50 ° C (+122 ° F) – CFM56

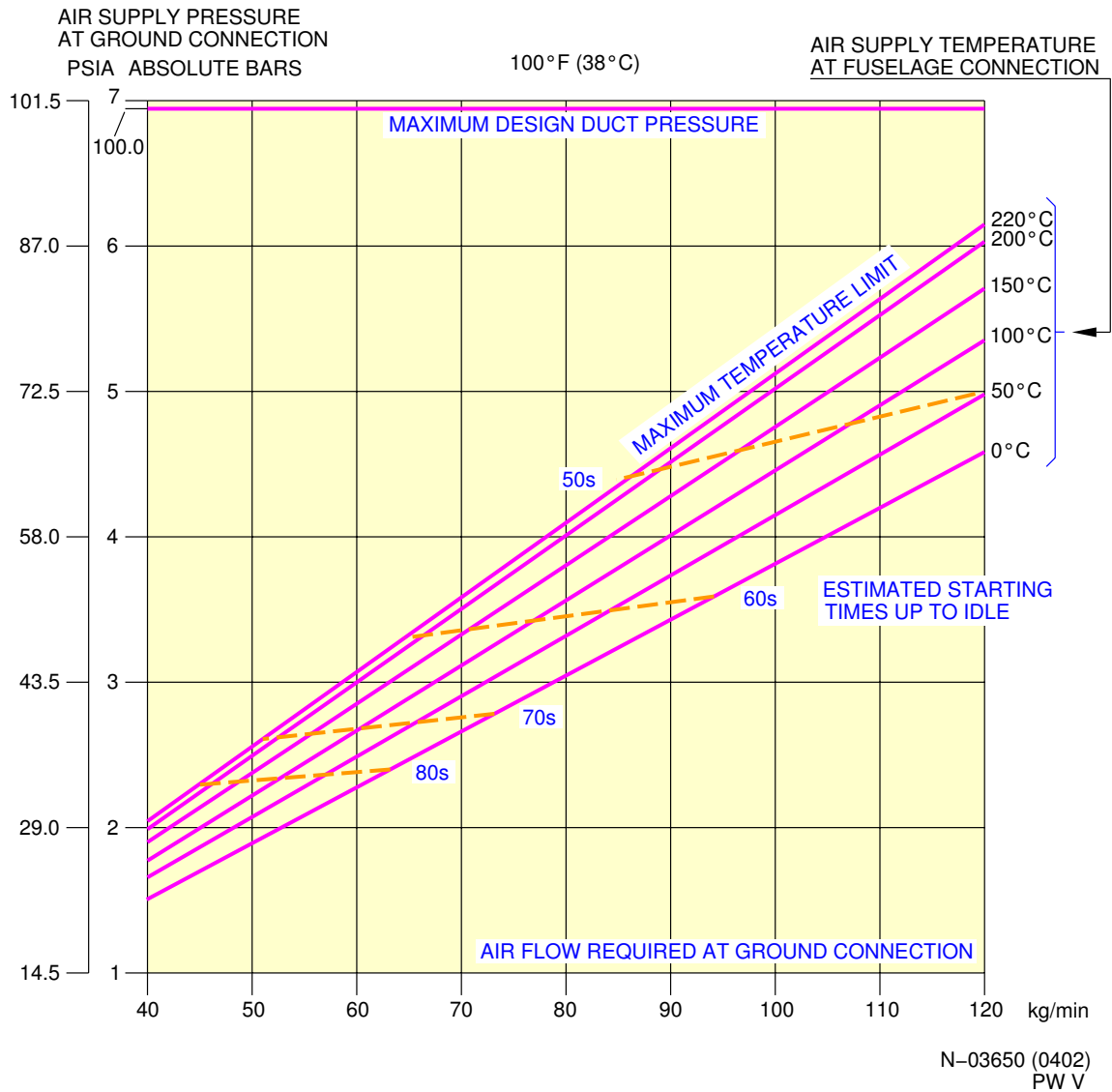
****ON A/C A318-100**



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Engine Starting Pneumatic Requirements
High Ambient Temperature +50 °C (+122 °F) – CFM56 series engine
FIGURE-5-5-3-991-001-A01

****ON A/C A318-100**



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Engine Starting Pneumatic Requirements
High Ambient Temperature +38°C (+100°F) – PW 6000 series engine
FIGURE-5-5-3-991-002-A01

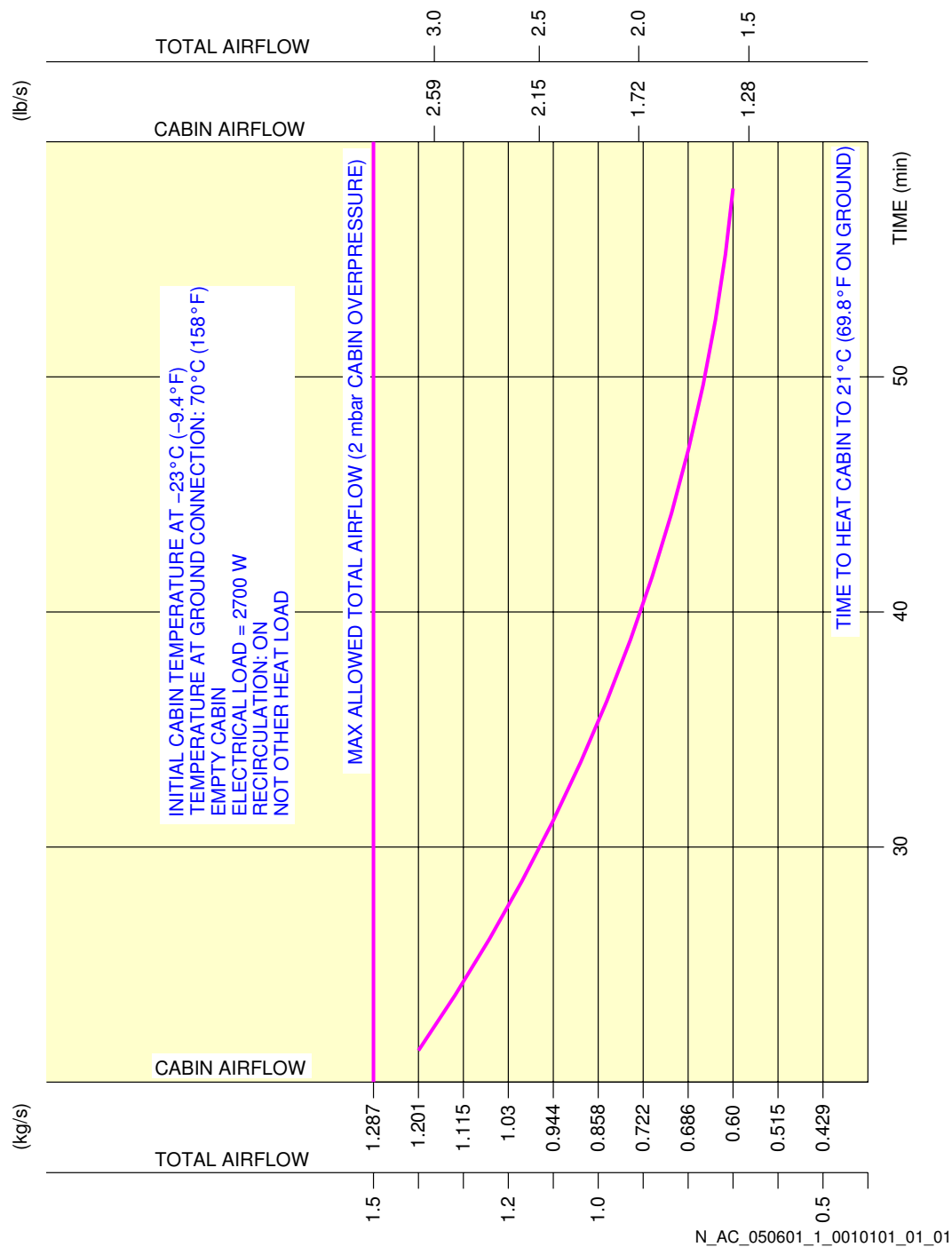
5-6-0 Ground Pneumatic Power Requirements****ON A/C A318-100**Ground Pneumatic Power Requirements**1. Ground Pneumatic Power Requirements**

NOTE : The air flow rates and temperature requirements given in sections 5.6 and 5.7 are given at aircraft connection.

5-6-1 Heating****ON A/C A318-100**Heating

1. This section provides the ground pneumatic power requirements heating.

****ON A/C A318-100**



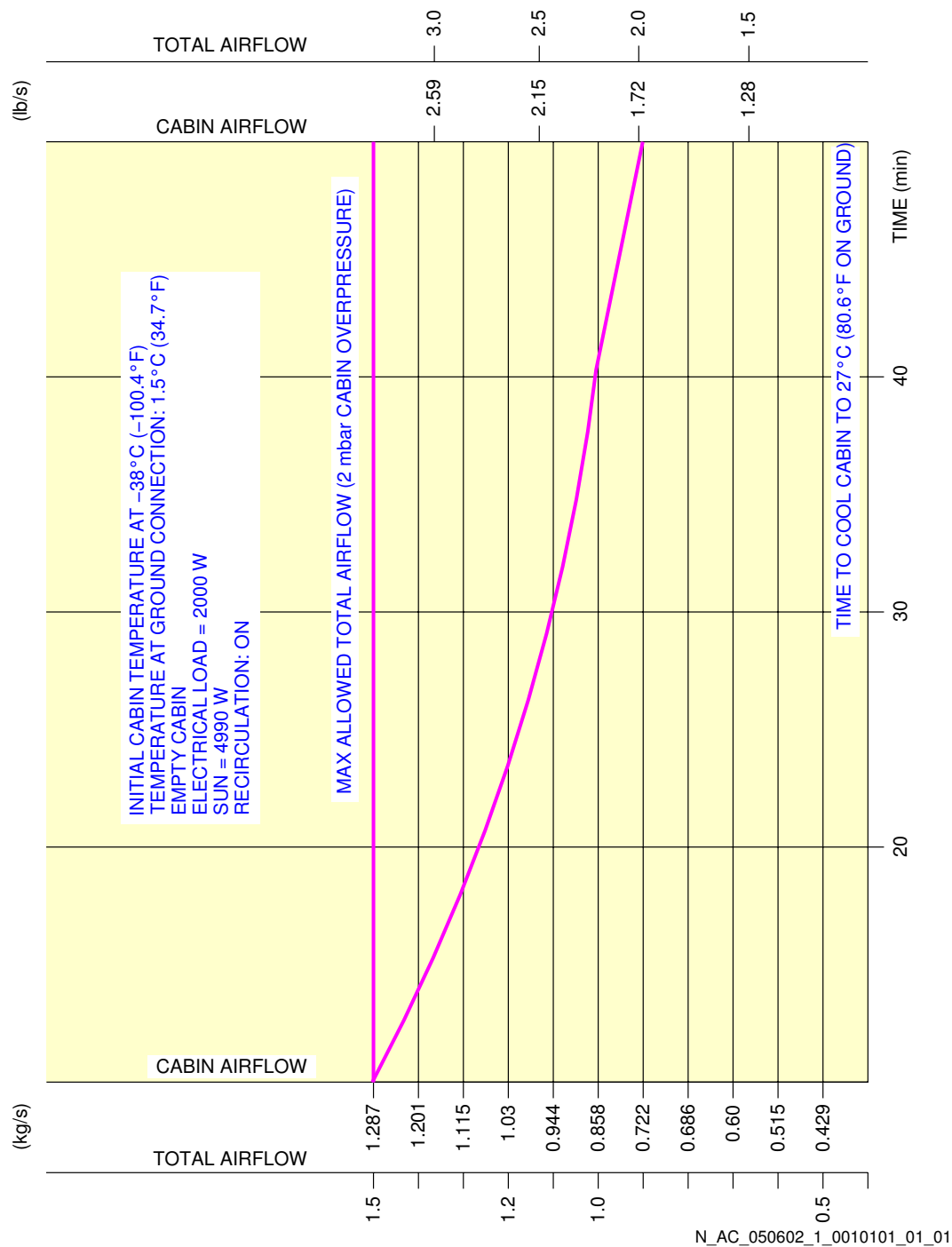
Ground Pneumatic Power Requirements
Heating

FIGURE-5-6-1-991-001-A01

5-6-2 Cooling****ON A/C A318-100**Cooling

1. This section provides the ground pneumatic power requirements cooling.

****ON A/C A318-100**



Ground Pneumatic Power Requirements
Cooling

FIGURE-5-6-2-991-001-A01



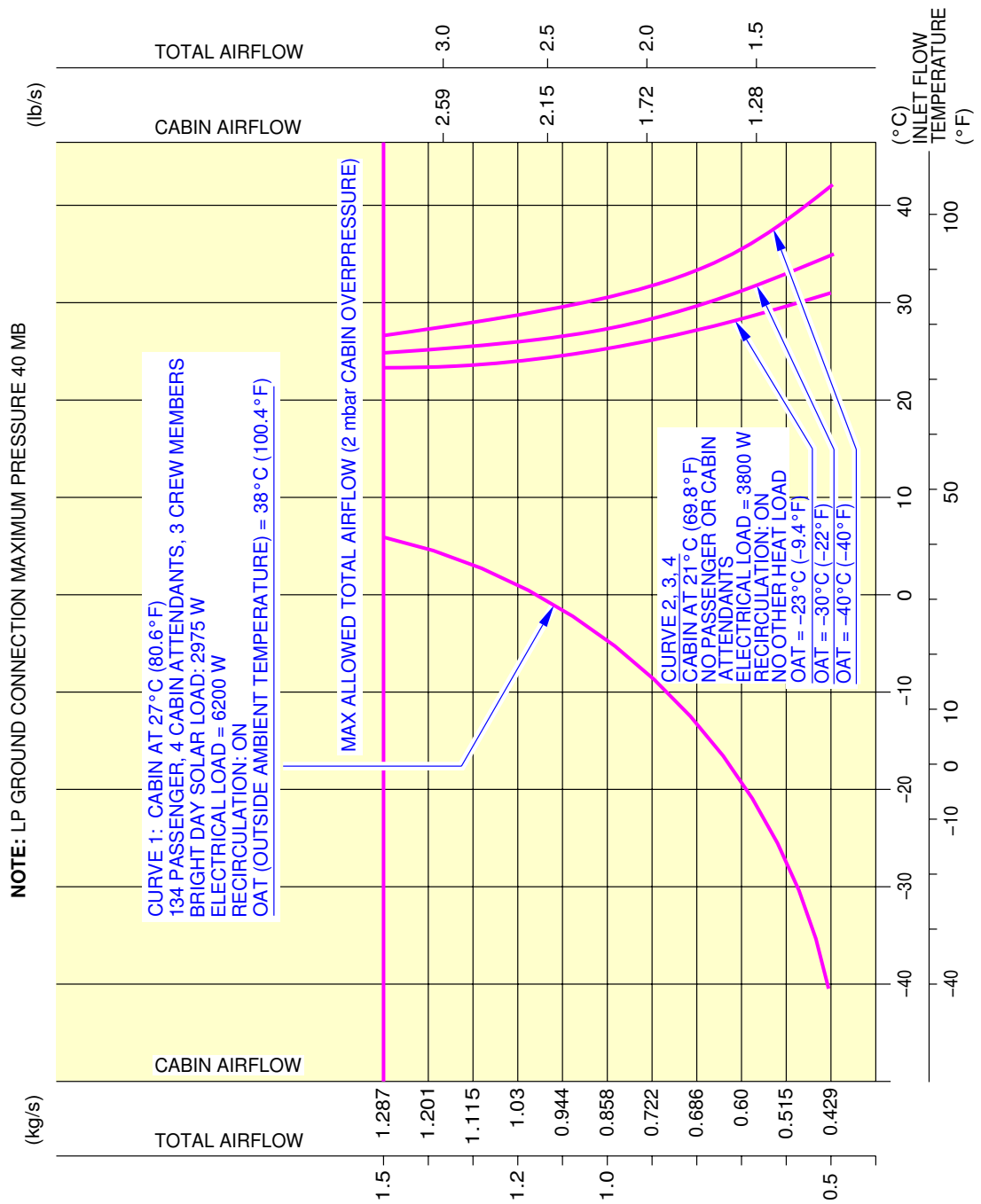
5-7-0 Preconditioned Airflow Requirements

****ON A/C A318-100**

Preconditioned Airflow Requirements

1. This section gives the preconditioned airflow requirements for cabin air conditioning.

****ON A/C A318-100**



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Preconditioned Airflow Requirements
 FIGURE-5-7-0-991-001-A01

5-8-0 Ground Towing Requirements

****ON A/C A318-100**

Ground Towing Requirements

1. General

This section provides information on aircraft towing.

This aircraft 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 SIL 09-002.

It is possible to tow or push the aircraft, at maximum ramp weight with engines at zero or up to idle thrust, using a tow bar attached to the nose gear leg (refer to AMM chap 9 for conditions and limitations).

One tow bar fitting is installed at the front of the leg.

The main landing gears have attachment points for towing or debogging (for details, refer to chapter 07 of the Aircraft Recovery Manual).

A. The first part of this section shows the chart to determine the draw bar pull and tow tractor mass requirements as function of the following physical characteristics:

- Aircraft weight.
- Number of engines at idle.
- Slope.

The chart is based on the engine type with the highest idle thrust level.

B. The second part of this section supplies guidelines for the tow bar.

NOTE : Information on aircraft towing procedures and corresponding aircraft limitations are given in chapter 9 on the Aircraft Maintenance Manual.

The aircraft tow bar shall respect the following norms:

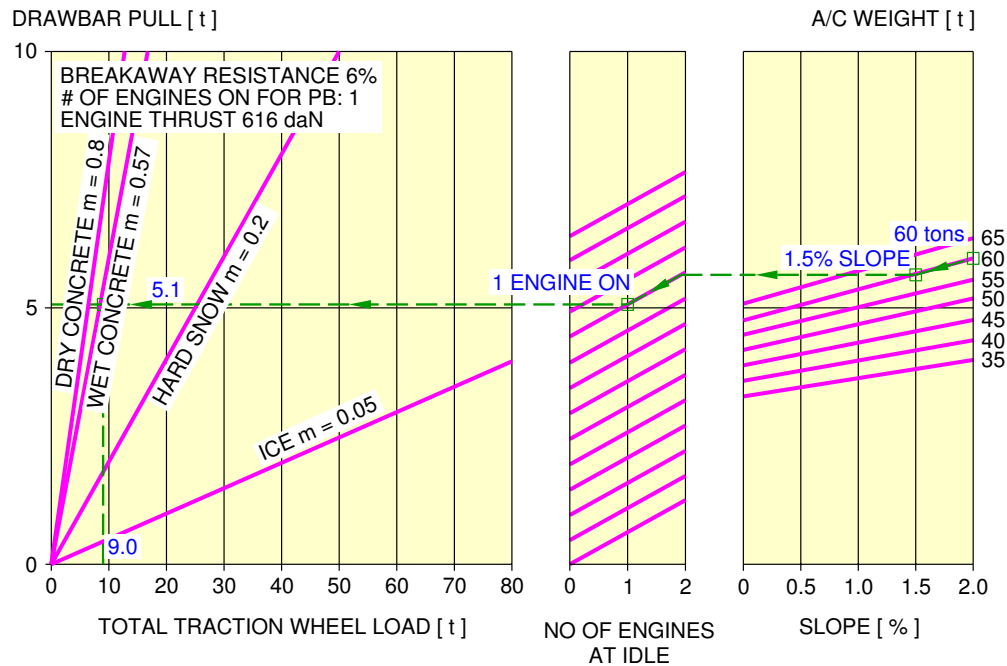
- SAE AS1614 C, "Main Line Aircraft Tow Bar Attach Fitting Interface".
- SAE ARP1915 D, "Aircraft Tow Bar".
- ISO 8267-1, "Aircraft - Tow bar attachment fitting - Interface requirements - Part 1: Main line aircraft".
- ISO 9667, "Aircraft ground support equipment - Tow bars".
- IATA Airport Handling Manual AHM 958, "Functional Specification for an Aircraft Tow bar".

A conventional type tow bar is required which should be equipped with a damping system to protect the nose gear against jerks and with towing shear pins:

- A traction shear pin calibrated at 9425 daN (21188 lbf).
- A torsion pin calibrated at 826 m.daN (7311 lbf.in).

The towing head is designed according to SAE AS1614 C (Aircraft Weight Category I).

****ON A/C A318-100**



EXAMPLE HOW TO DETERMINE THE MASS REQUIREMENT TO TOW A A318 AT 60 t, 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 (60 t)
- 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 NUMBER 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 (5.1 t)
- SEARCH THE INTERSECTION WITH THE "WET CONCRETE" LINE. THE OBTAINED X-COORDINATE IS THE RECOMMENDED MINIMUM TRACTOR WEIGHT (9 t)

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Ground Towing Requirements
FIGURE-5-8-0-991-001-A01

5-9-0 De-Icing and External Cleaning

**ON A/C A318-100

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 13 m (42.65 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)	
	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²
A318	99.7	1073.16	1.8	19.38	27	290.63	46.2	497.29
A318 Sharklet	99.7	1073.16	9.6	103.33	27	290.63	46.2	497.29

AIRCRAFT TYPE	Fuselage Top Surface (Top Third - 120° Arc)		Nacelle and Pylon (Top Third - 120° Arc) (All Engines)		Total De-Iced Area	
	m ²	ft ²	m ²	ft ²	m ²	ft ²
A318	111.9	1204.48	23.6	254.03	310	3337
A318 Sharklet	111.9	1204.48	23.6	254.03	318	3423

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)	
	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²
A318	99.7	1073.16	103.4	1112.99	1.8	19.38	27	290.63	27	290.63
A318 Sharklet	99.7	1073.16	103.4	1112.99	9.6	103.33	27	290.63	27	290.63

AIRCRAFT TYPE	VTP (Both Sides)		Fuselage and Belly Fairing		Nacelle and Pylon (All Engines)		Total Cleaned Area	
	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²
A318	46.2	497.29	343.2	3694.17	73.2	787.92	723	7782



AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING

AIRCRAFT TYPE	VTP (Both Sides)		Fuselage and Belly Fairing		Nacelle and Pylon (All Engines)		Total Cleaned Area	
	m ²	ft ²	m ²	ft ²	m ²	ft ²	m ²	ft ²
A318 Sharklet	46.2	497.29	343.2	3694.17	73.2	787.92	731	7868

NOTE : Dimensions are approximate



OPERATING CONDITIONS

6-1-0 Engine Exhaust Velocities and Temperatures

****ON A/C A318-100**

Engine Exhaust Velocities and Temperatures

1. General

This section shows the estimated engine exhaust efflux velocities and temperatures contours for Ground Idle, Breakaway, Maximum Takeoff conditions.



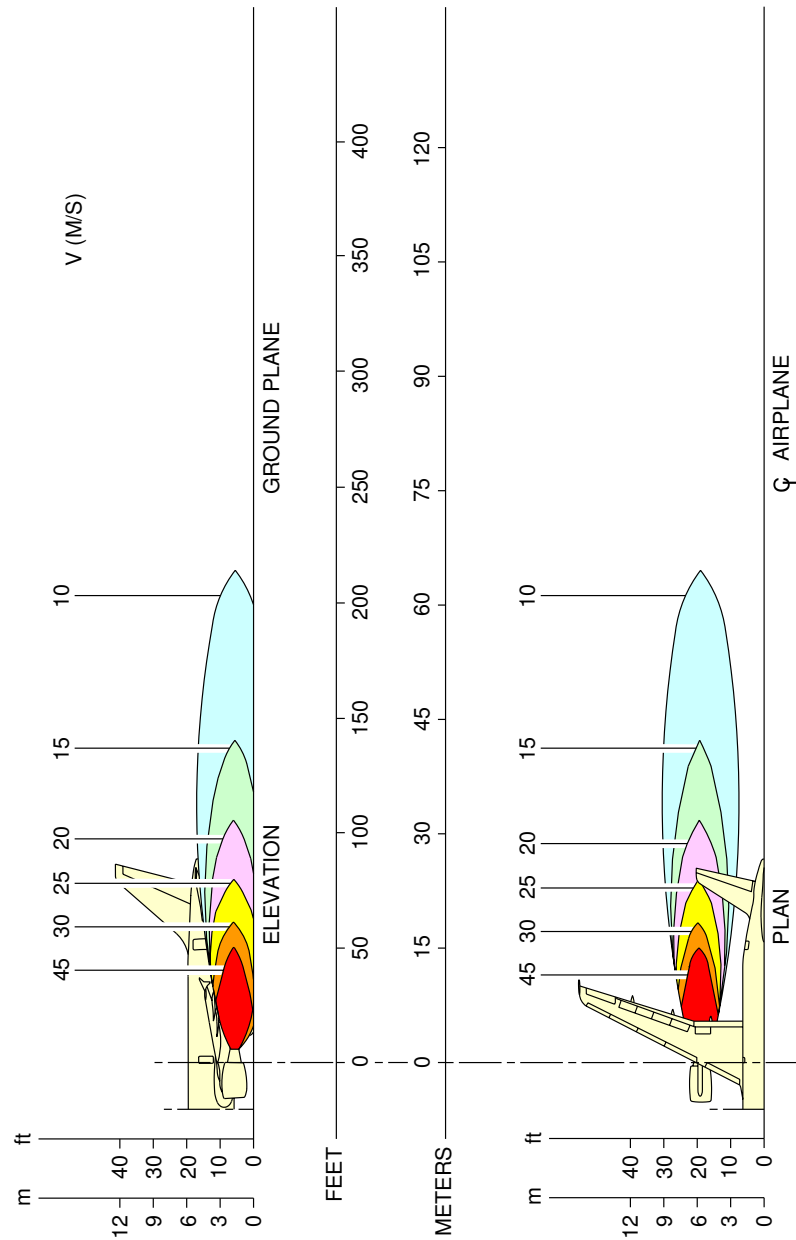
6-1-1 Engine Exhaust Velocities Contours - Ground Idle Power

****ON A/C A318-100**

Engine Exhaust Velocities Contours - Ground Idle Power

1. This section gives engine exhaust velocities contours at ground idle power.

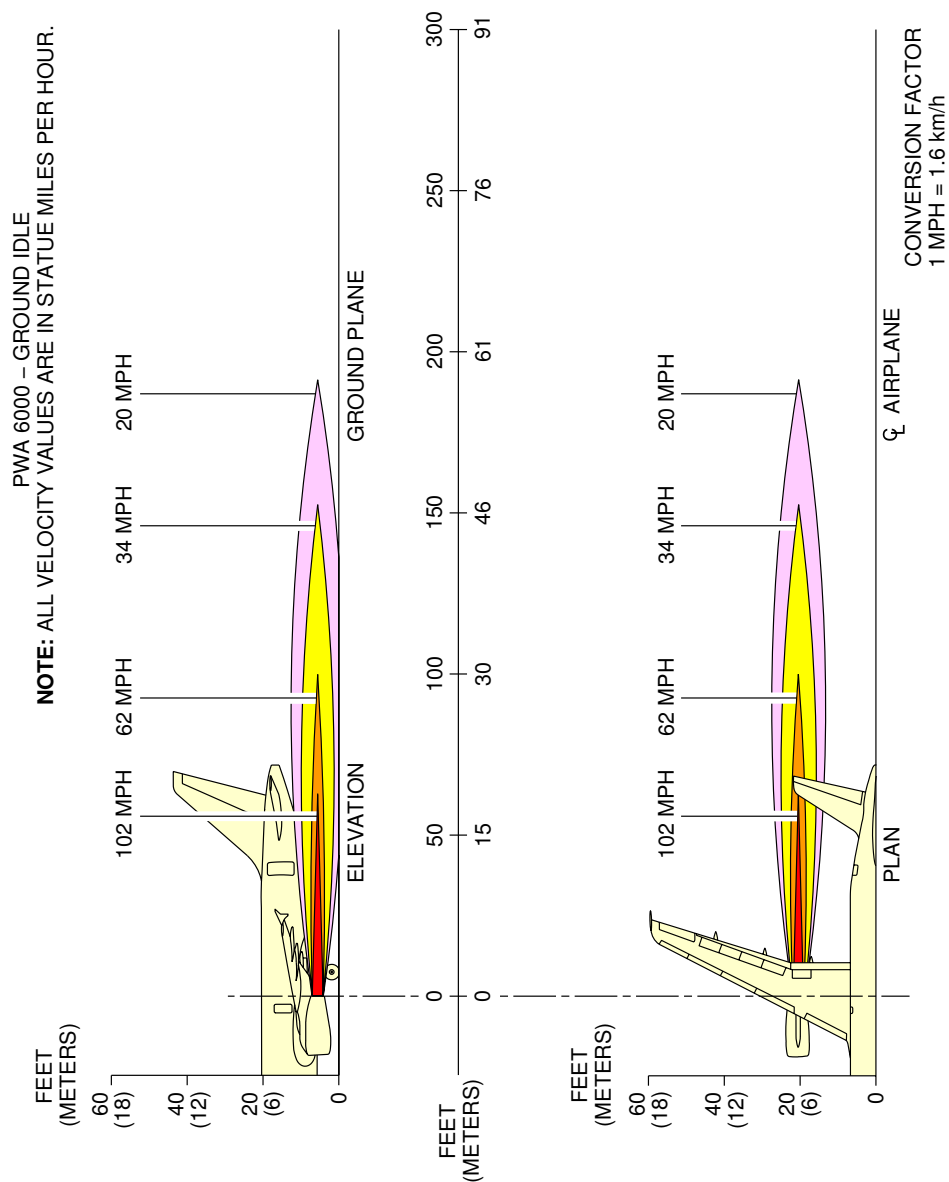
****ON A/C A318-100**



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Engine Exhaust Velocities
Ground Idle Power – CFM56 series engine
FIGURE-6-1-1-991-001-A01

****ON A/C A318-100**



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Engine Exhaust Velocities
Ground Idle Power – PW 6000 series engine
FIGURE-6-1-1-991-002-A01

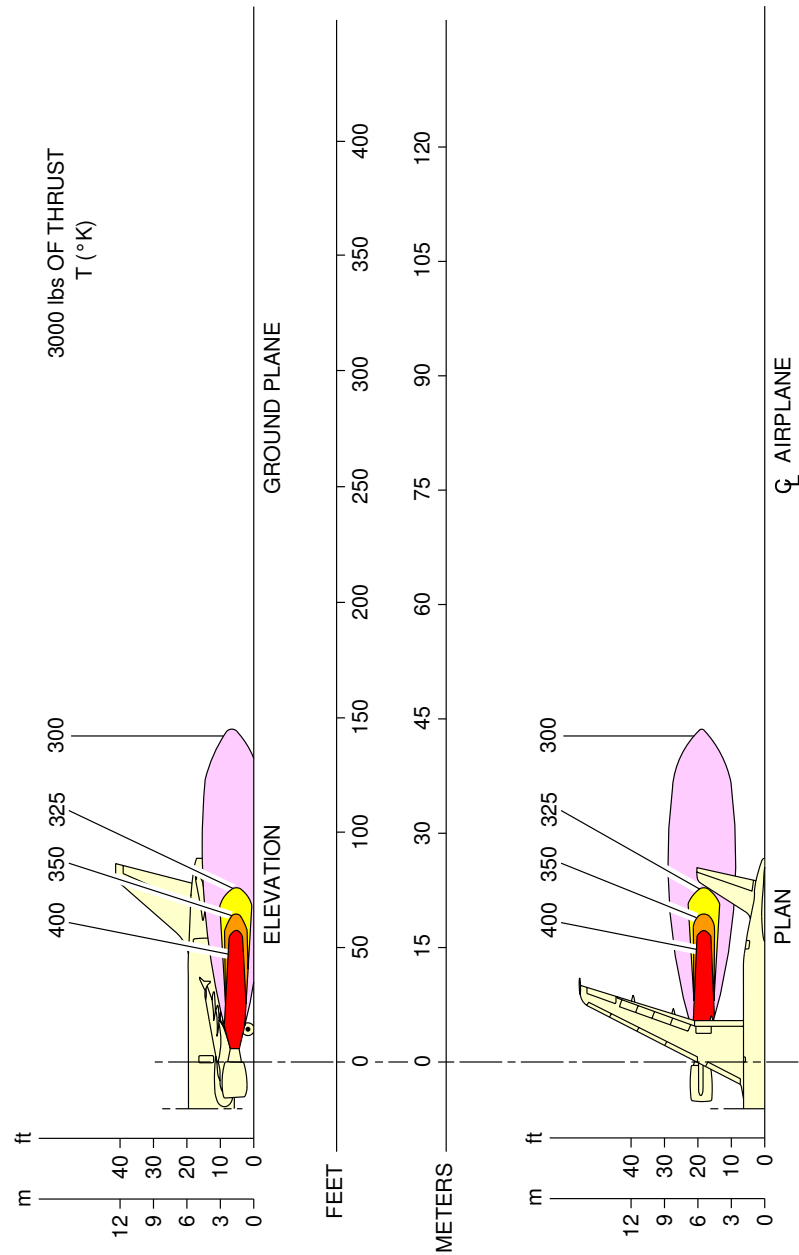
6-1-2 Engine Exhaust Temperatures Contours - Ground Idle Power

****ON A/C A318-100**

Engine Exhaust Temperatures Contours - Ground Idle Power

1. This section gives engine exhaust temperatures contours at ground idle power.

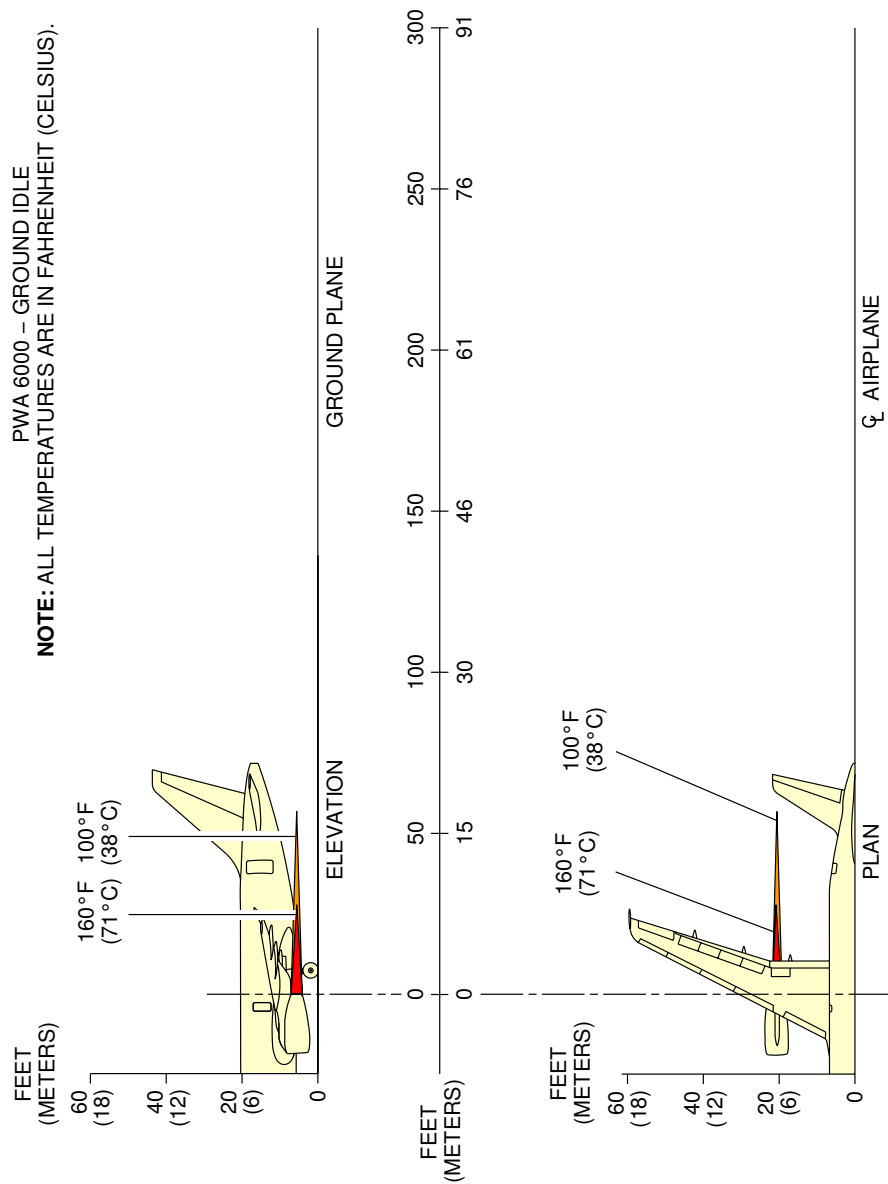
****ON A/C A318-100**



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Engine Exhaust Temperatures
Ground Idle Power – CFM56 series engine
FIGURE-6-1-2-991-001-A01

****ON A/C A318-100**



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Engine Exhaust Temperatures
Ground Idle Power – PW 6000 series engine
FIGURE-6-1-2-991-002-A01

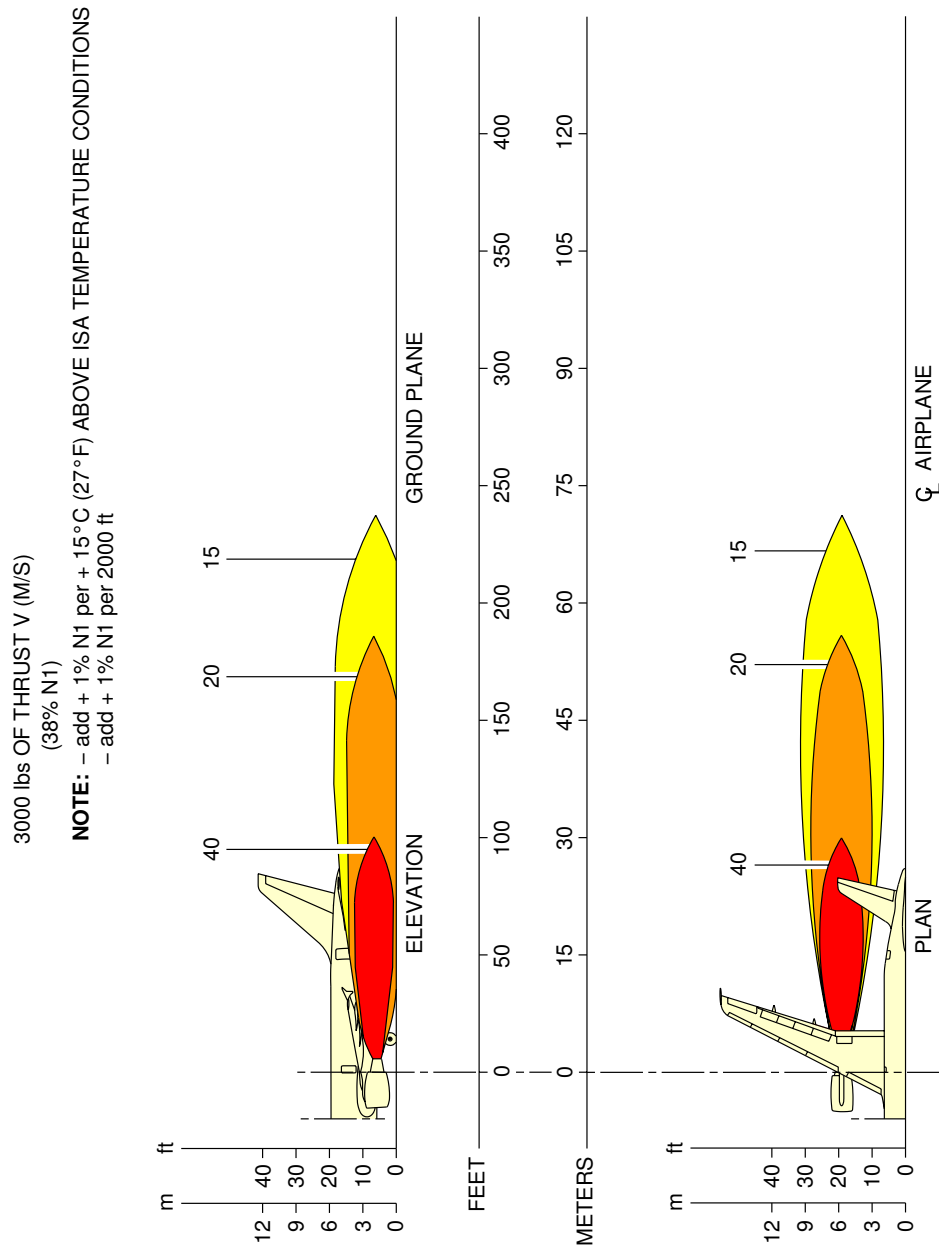
6-1-3 Engine Exhaust Velocities Contours - Breakaway Power

****ON A/C A318-100**

Engine Exhaust Velocities Contours - Breakaway Power

1. This section gives engine exhaust velocities contours at breakaway power.

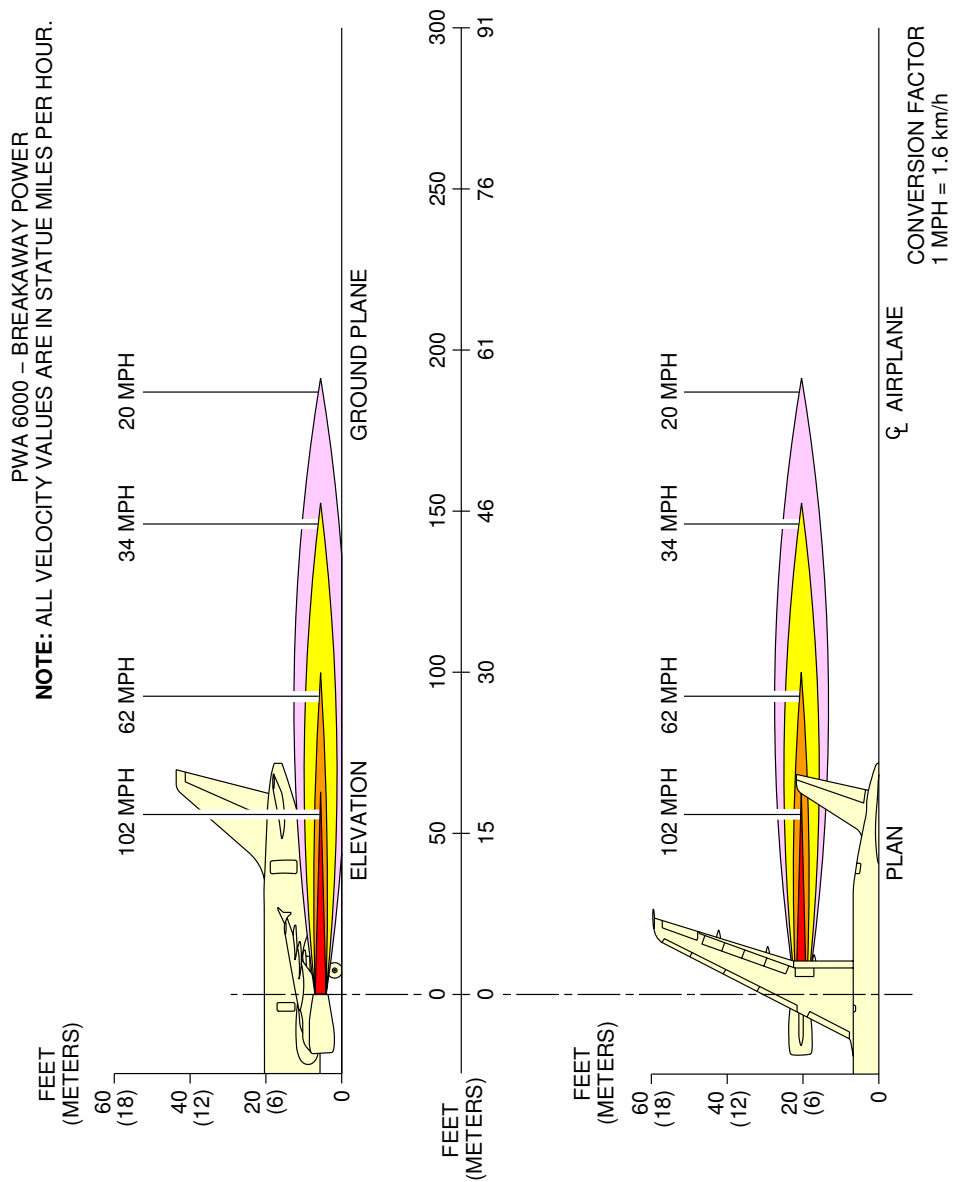
****ON A/C A318-100**



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Engine Exhaust Velocities
Breakaway Power – CFM56 series engine
FIGURE-6-1-3-991-001-A01

****ON A/C A318-100**



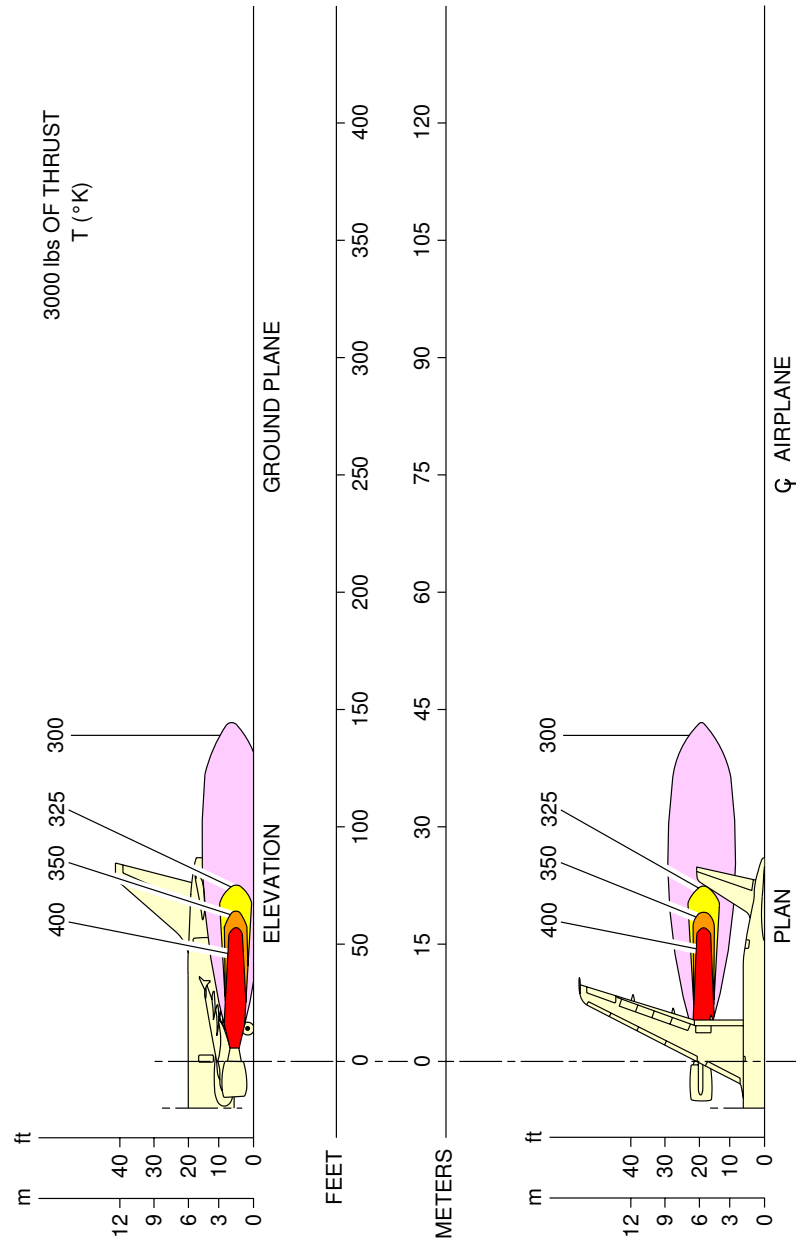
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Engine Exhaust Velocities
Breakaway Power – PW 6000 series engine
FIGURE-6-1-3-991-002-A01

6-1-4 Engine Exhaust Temperatures Contours - Breakaway Power****ON A/C A318-100**Engine Exhaust Temperatures Contours - Breakaway Power

1. This section gives engine exhaust temperatures contours at breakaway power.

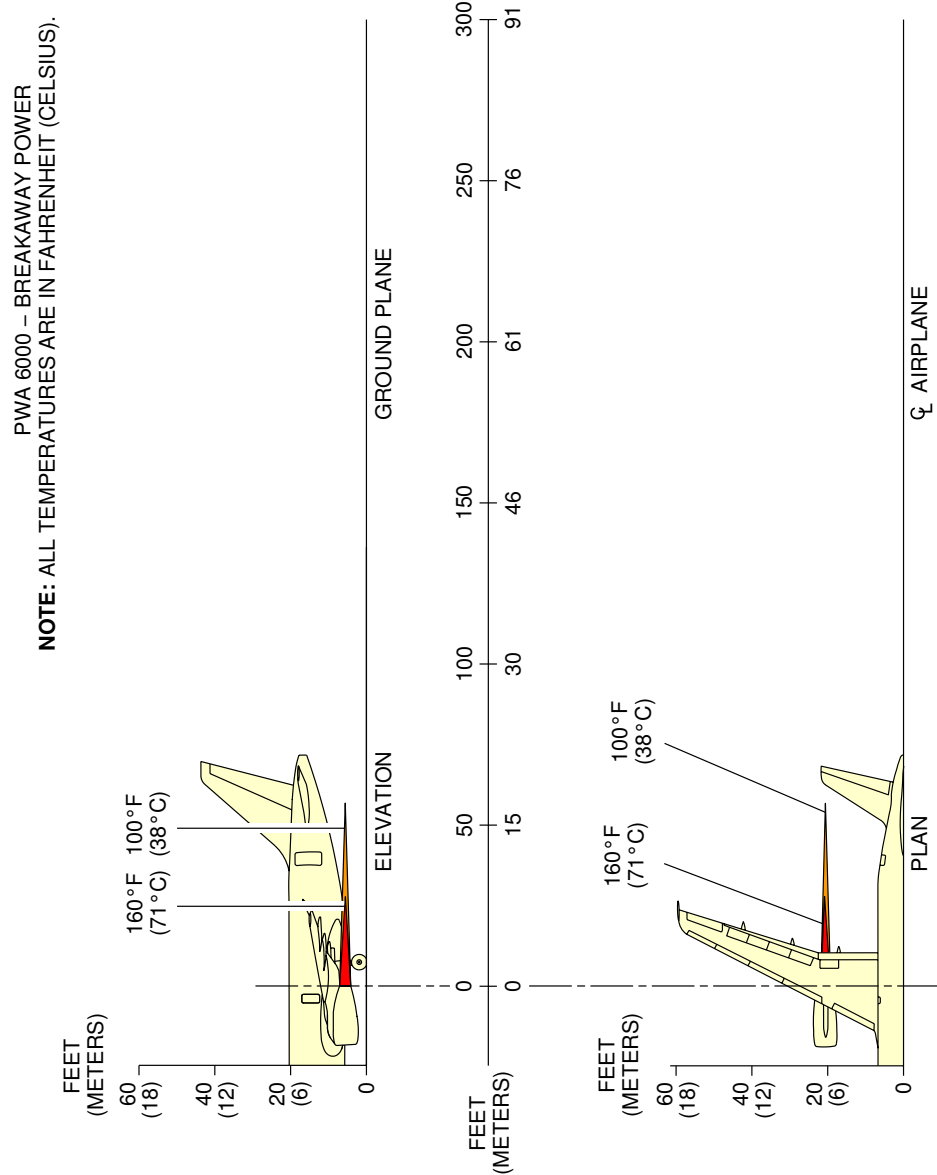
****ON A/C A318-100**



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Engine Exhaust Temperatures
Breakaway Power – CFM56 series engine
FIGURE-6-1-4-991-001-A01

****ON A/C A318-100**



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Engine Exhaust Temperatures
Breakaway Power – PW 6000 series engine
FIGURE-6-1-4-991-002-A01



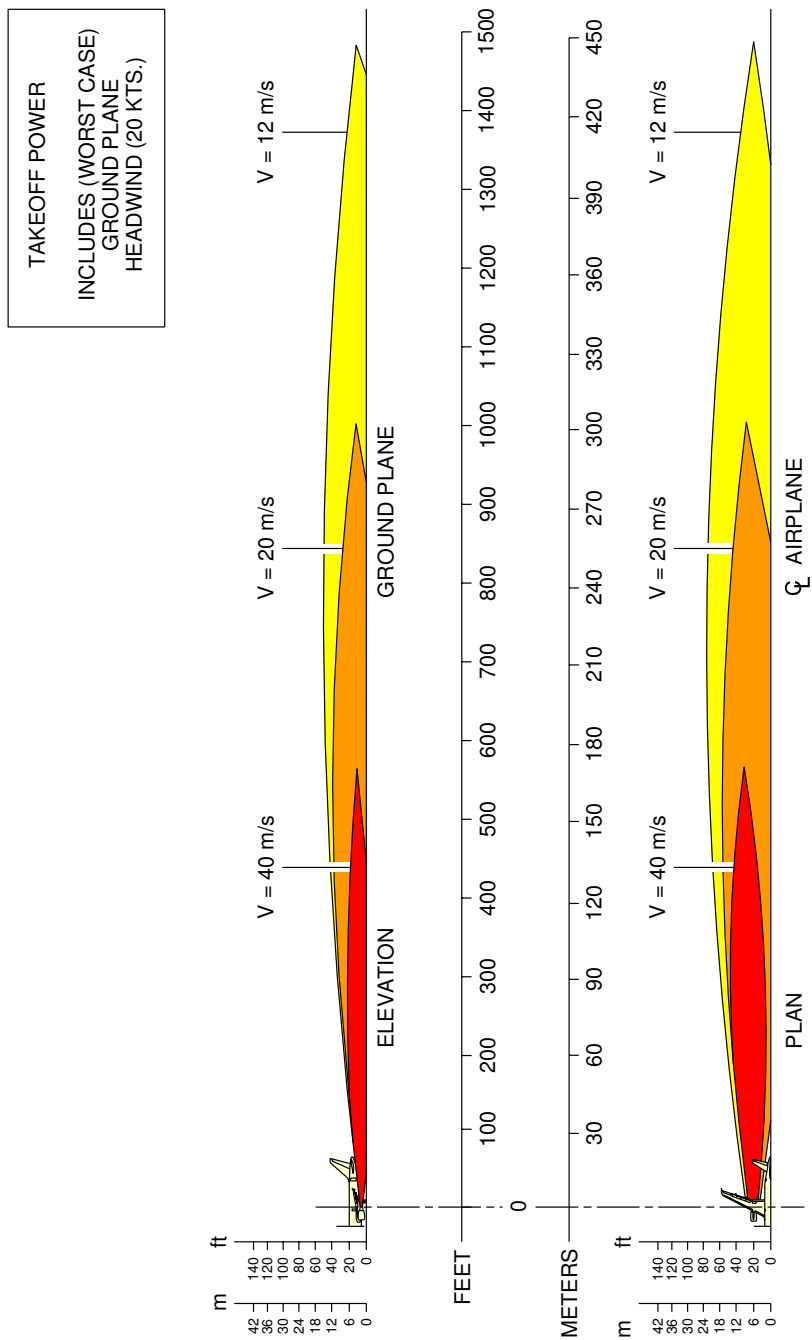
6-1-5 Engine Exhaust Velocities Contours - Takeoff Power

****ON A/C A318-100**

Engine Exhaust Velocities Contours - Takeoff Power

1. This section gives engine exhaust velocities contours at takeoff power.

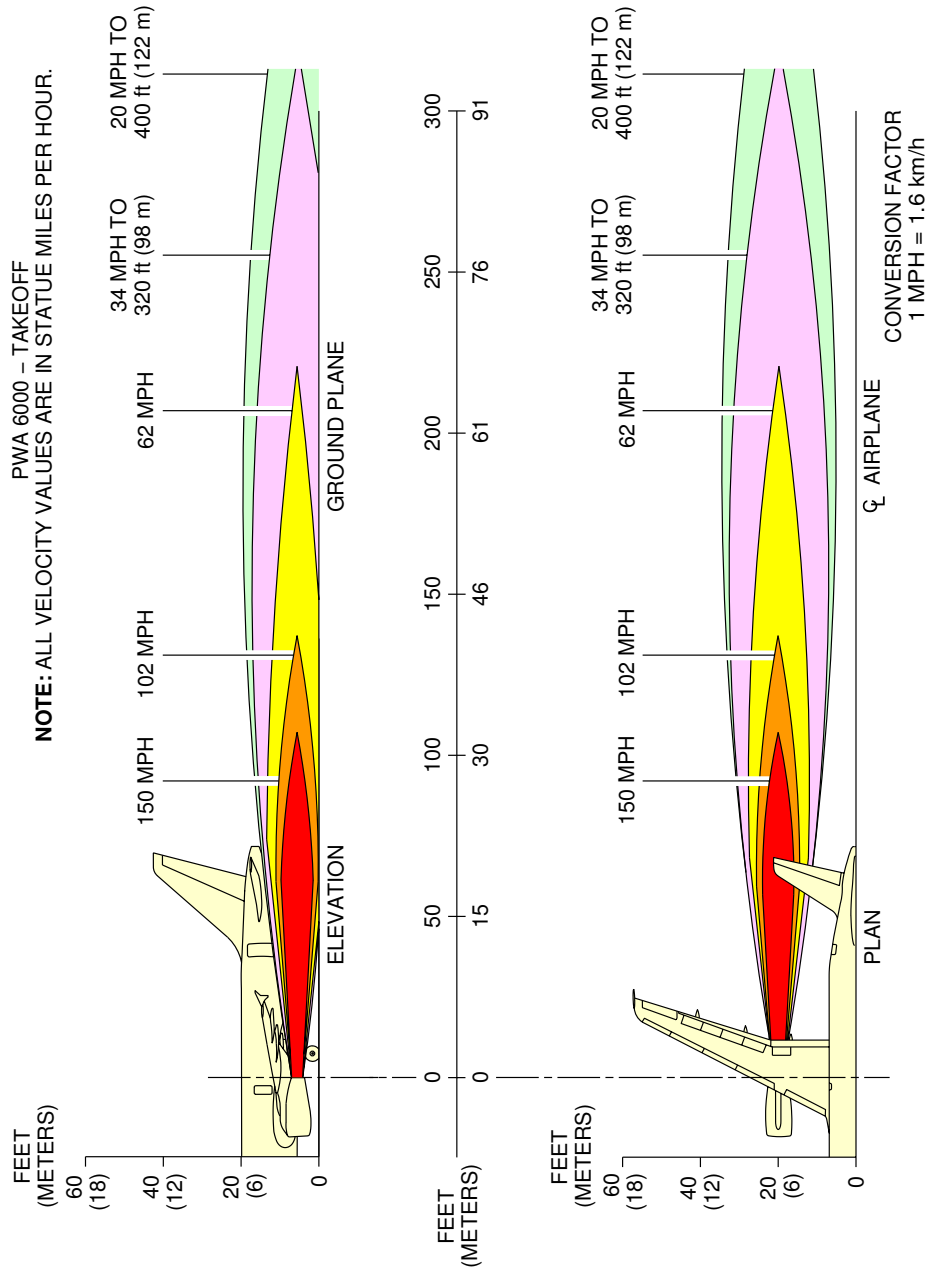
****ON A/C A318-100**



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Engine Exhaust Velocities
Takeoff Power – CFM56 series engine
FIGURE-6-1-5-991-001-A01

****ON A/C A318-100**



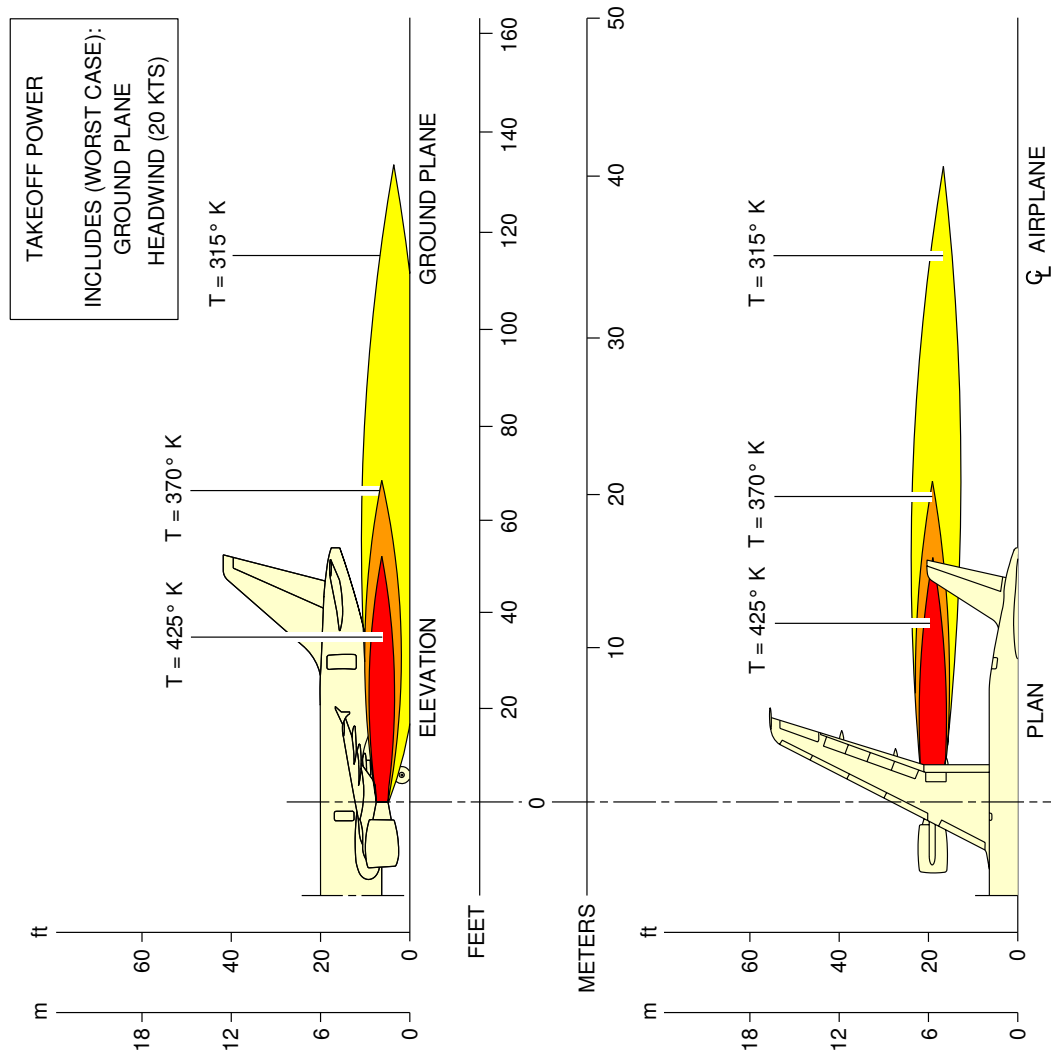
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Engine Exhaust Velocities
Takeoff Power – PW 6000 series engine
FIGURE-6-1-5-991-002-A01

6-1-6 Engine Exhaust Temperatures Contours - Takeoff Power****ON A/C A318-100**Engine Exhaust Temperatures Contours - Takeoff Power

1. This section gives engine exhaust temperatures contours at takeoff power.

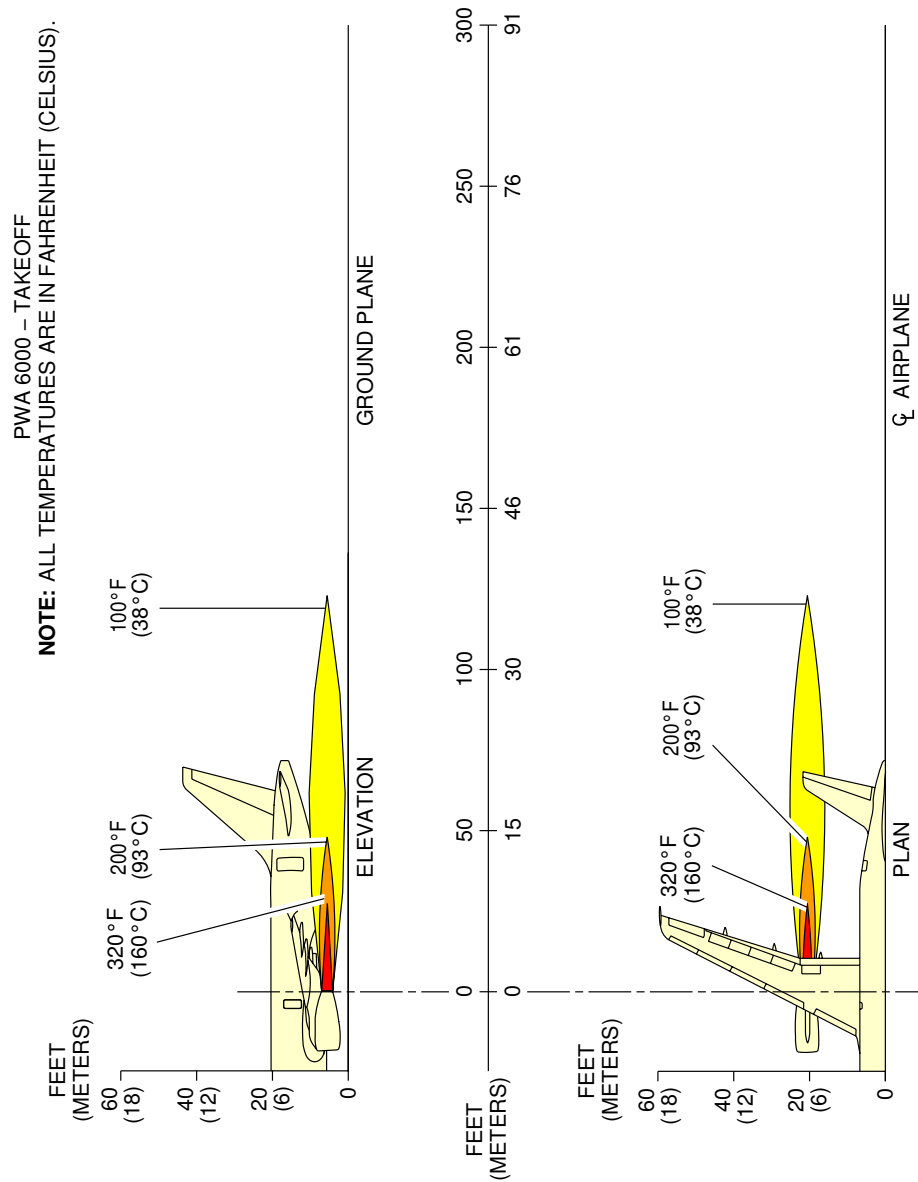
****ON A/C A318-100**



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Engine Exhaust Temperatures
Takeoff Power – CFM56 series engine
FIGURE-6-1-6-991-001-A01

****ON A/C A318-100**



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Engine Exhaust Temperatures
Takeoff Power – PW 6000 series engine
FIGURE-6-1-6-991-002-A01

6-2-0 Airport and Community Noise****ON A/C A318-100**Airport and Community Noise**1. Airport and Community Noise Data**

This section gives data concerning engine maintenance run-up noise to permit evaluation of possible attenuation requirements.

6-2-1 Noise Data****ON A/C A318-100**Noise Data

1. Noise Data for CFM56-5A series engine

A. Description of test conditions:

The arc of circle (radius = 60 m (196.85 ft)), with microphones 1.2 m (3.94 ft) high, is centered on the position of the noise reference point.

A.P.U.: off; E.C.S.: Packs off.

B. Engine parameters: 2 engines running

C. Meteorological data:

The meteorological parameters measured 1.6 m (5.25 ft) from the ground on the day of test were as follows:

- Temperature: 3 °C (37 °F)
- Relative humidity: 66%
- Atmospheric pressure: 1016 hPa
- Wind speed: Negligible
- No rain

2. Noise Data for CFM56-5B series engine

A. Description of test conditions:

The arc of circle (radius = 60 m (196.85 ft)), with microphones 1.2 m (3.94 ft) high, is centered on the position of the noise reference point.

A.P.U.: off; E.C.S.: Packs off.

B. Engine parameters: 2 engines running

C. Meteorological data:

The meteorological parameters measured 1.6 m (5.25 ft) from the ground on the day of test were as follows:

- Temperature: 22 °C (72 °F)
- Relative humidity: 42%
- Atmospheric pressure: 1003 hPa
- Wind speed: Negligible
- No rain

3. Noise Data for PW 6000 series engine

A. Description of test conditions:

The arc of circle (radius = 60 m (196.85 ft)), with microphones 1.2 m (3.94 ft) high, is centered on the position of the noise reference point.

A.P.U.: off; E.C.S.: Packs off.

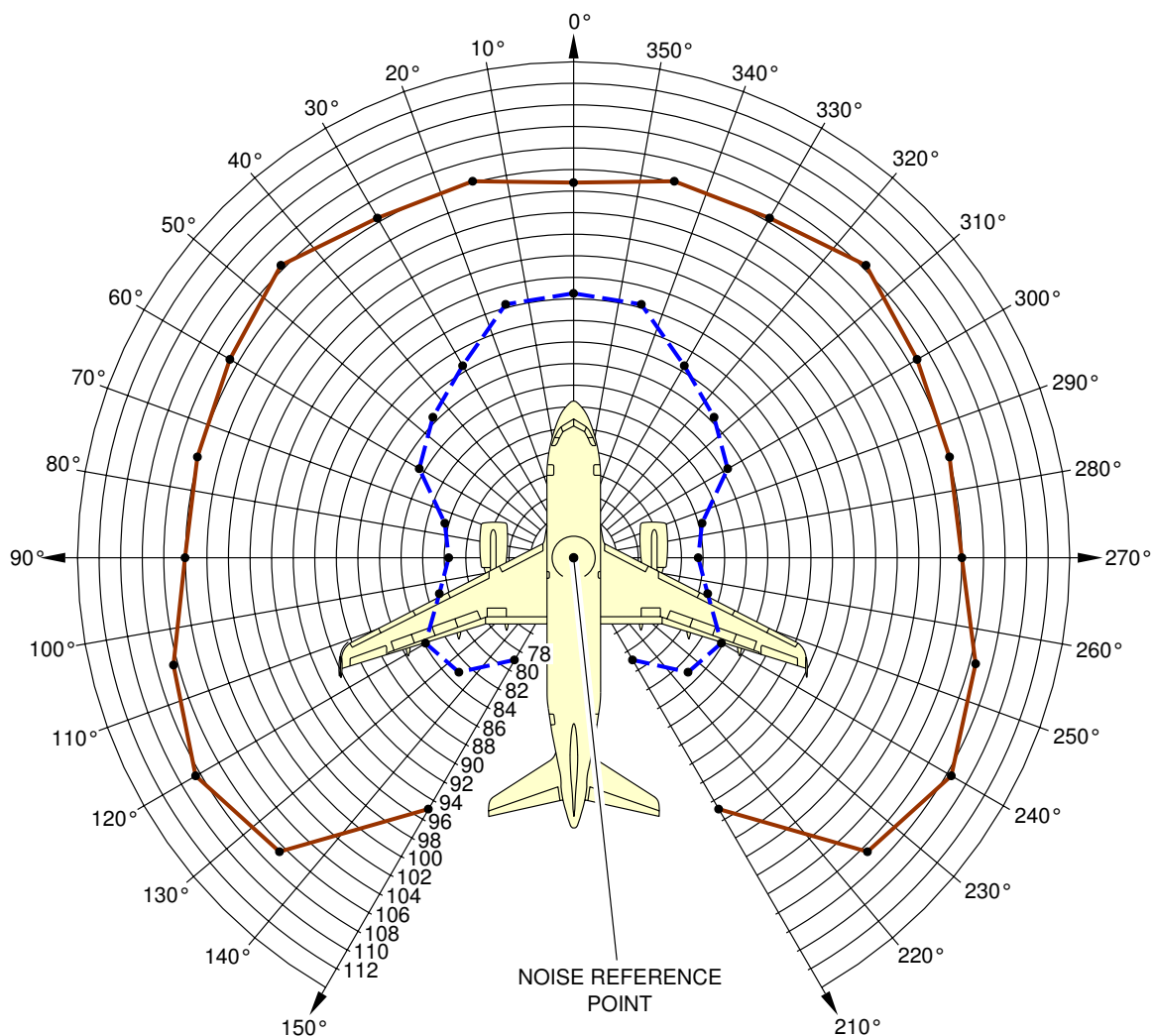
- B. Engine parameters: 2 engines running
- C. Meteorological data:

The meteorological parameters measured 1.6 m (5.25 ft) from the ground on the day of test were as follows:

- Temperature: 28 ° C (82 ° F)
- Relative humidity: 47%
- Atmospheric pressure: 1004 hPa
- Wind speed: Negligible
- No rain

****ON A/C A318-100**

	GROUND IDLE	MAX THRUST POSSIBLE ON BRAKES
N1	20.8%	90%
CURVE		

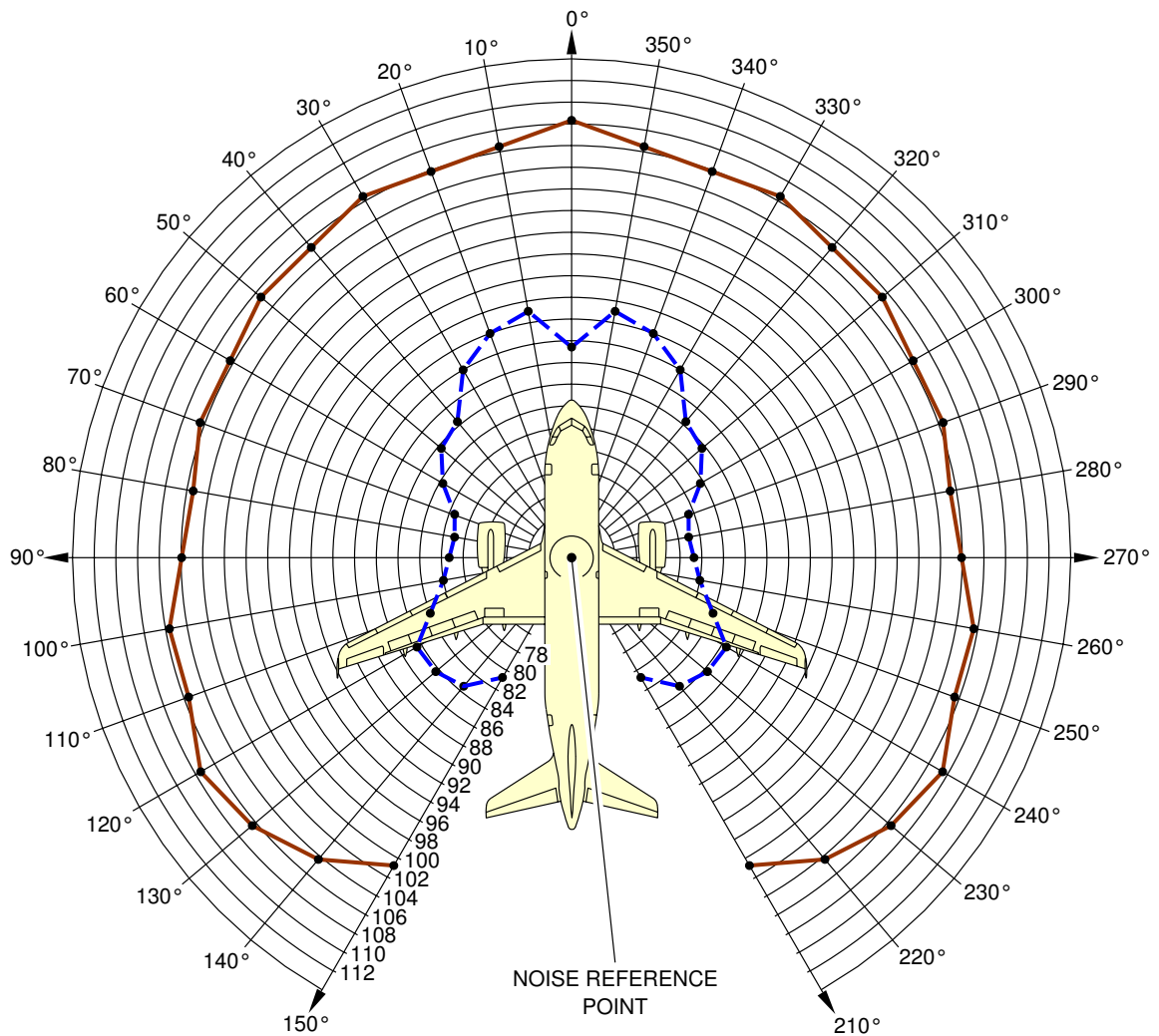


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Airport and Community Noise
CFM56-5A series engine
FIGURE-6-2-1-991-001-A01

****ON A/C A318-100**

	GROUND IDLE	MAX THRUST POSSIBLE ON BRAKES
N1	18.9%	87%
CURVE		

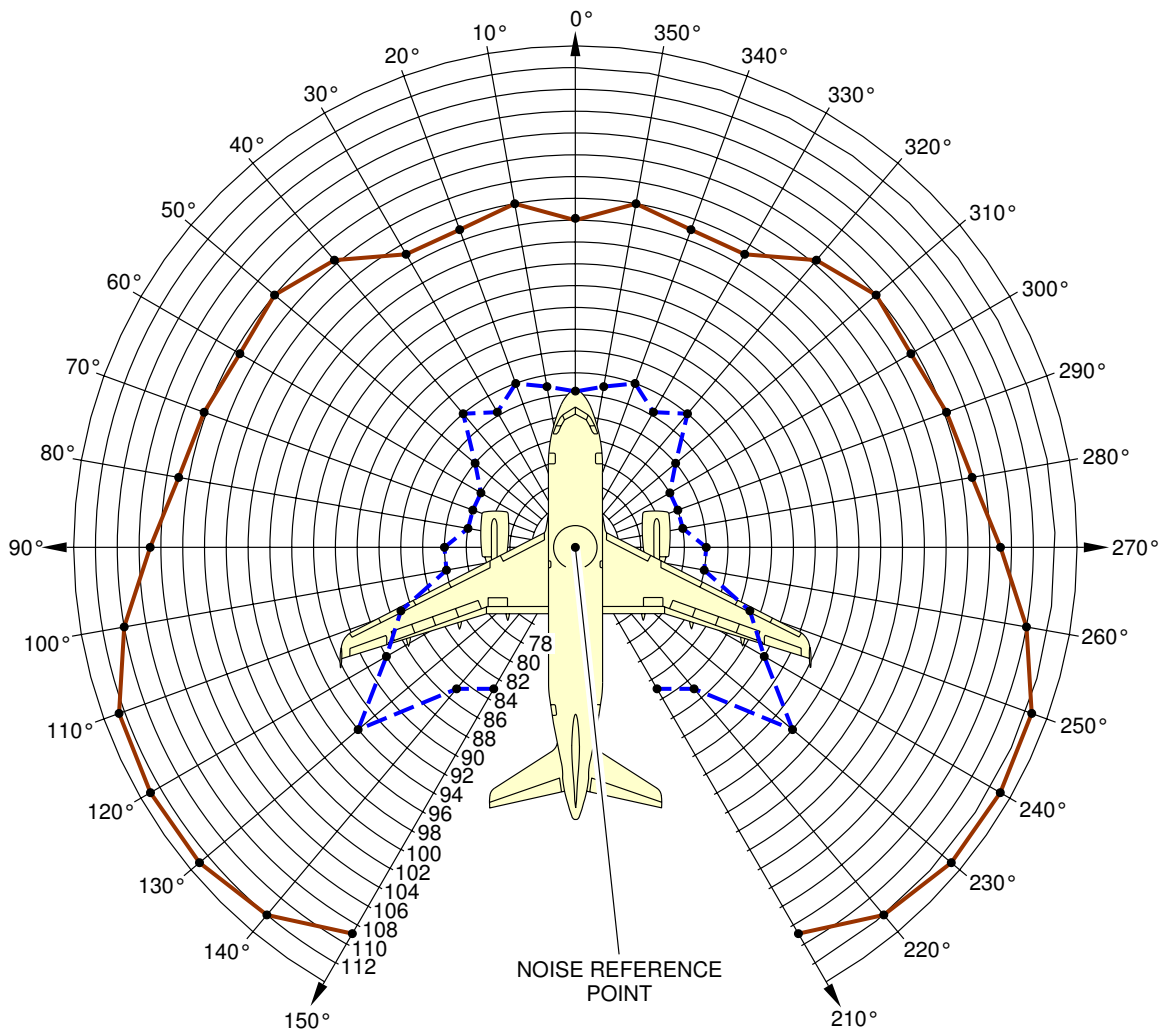


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Airport and Community Noise
CFM56-5B series engine
FIGURE-6-2-1-991-002-A01

****ON A/C A318-100**

	GROUND IDLE	MAX THRUST POSSIBLE ON BRAKES
N1	23.4%	92.7%
CURVE		



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Airport and Community Noise
PW 6000 series engine
FIGURE-6-2-1-991-003-A01

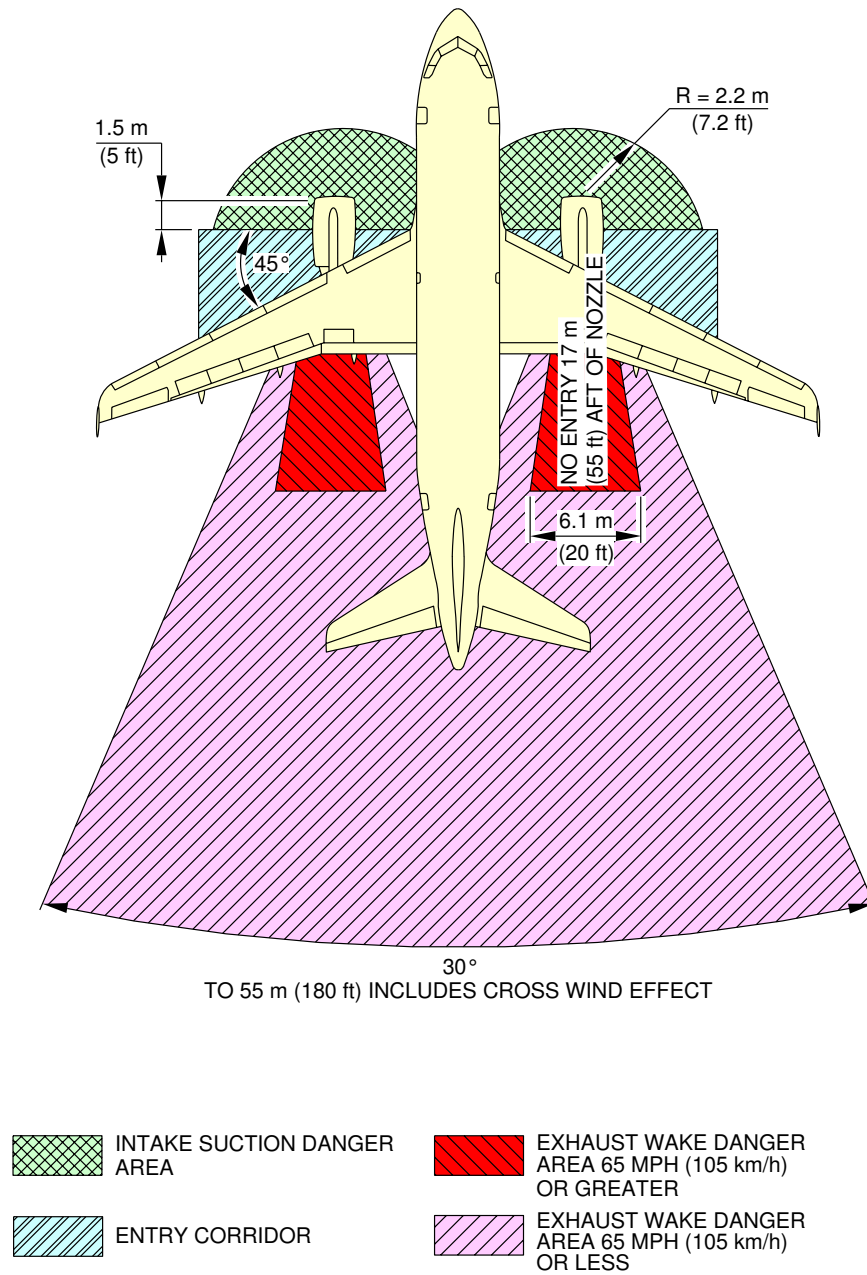
6-3-0 Danger Areas of Engines****ON A/C A318-100****Danger Areas of Engines**

1. Danger Areas of the Engines.

6-3-1 Ground Idle Power****ON A/C A318-100**Ground Idle Power

1. This section gives danger areas of the engines at ground idle power conditions.

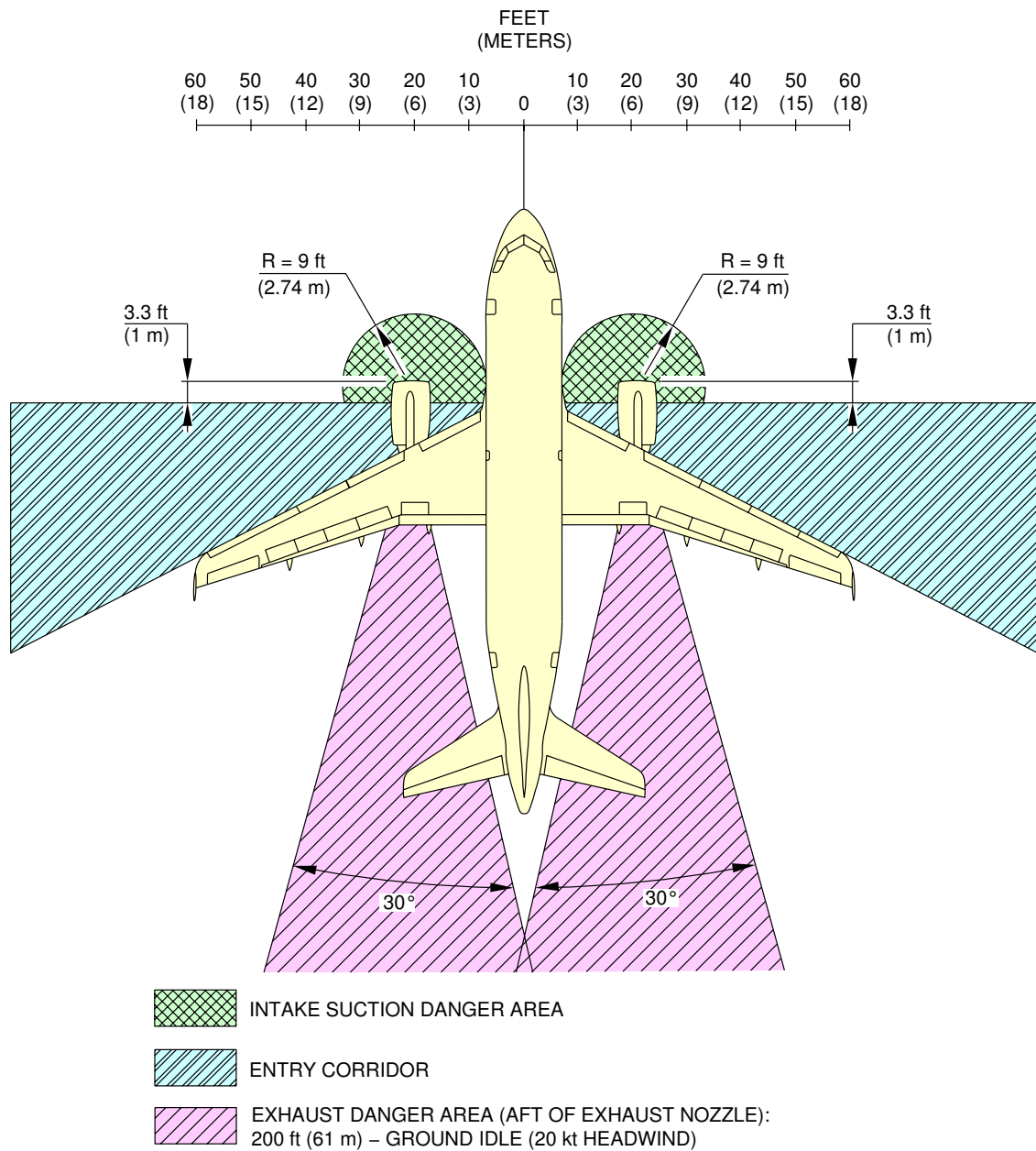
****ON A/C A318-100**



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Danger Areas of Engines
CFM56 series engine
FIGURE-6-3-1-991-001-A01

****ON A/C A318-100**



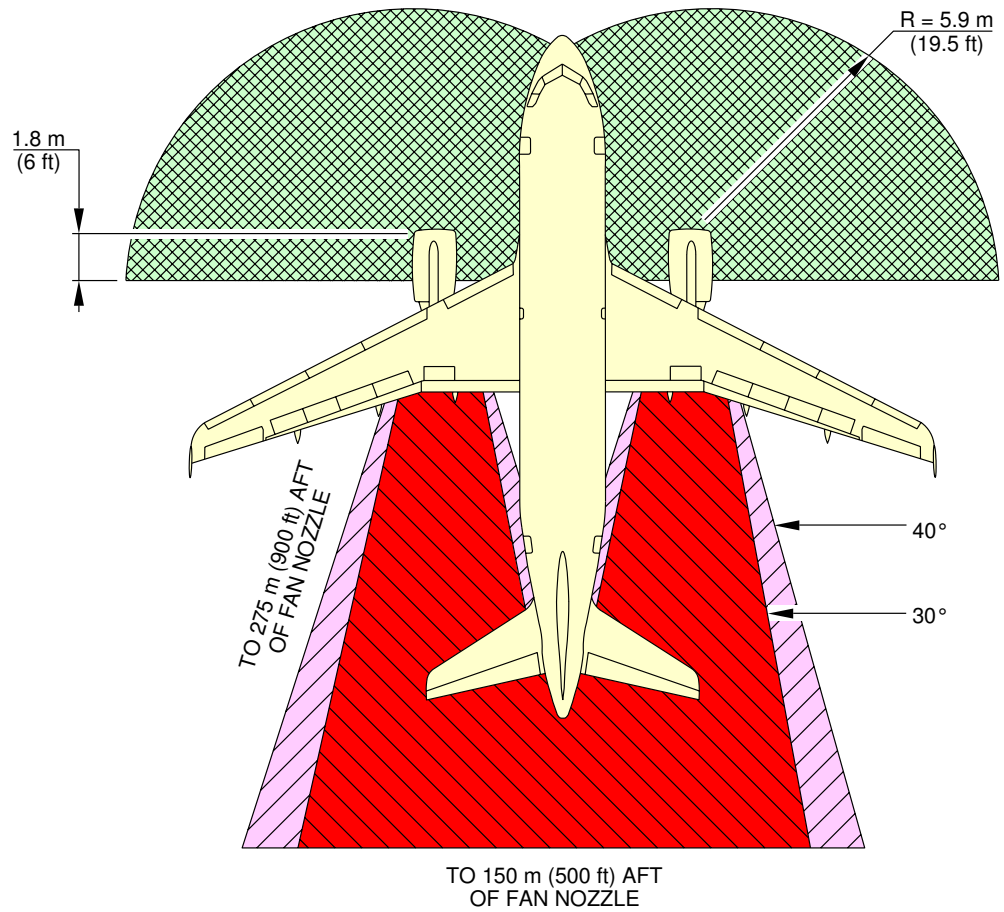
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Danger Areas of Engines
PW 6000 series engine
FIGURE-6-3-1-991-002-A01

6-3-2 Takeoff Power****ON A/C A318-100**Takeoff Power

1. This section gives danger areas of the engines at max takeoff conditions.

****ON A/C A318-100**



INLET SUCTION DANGER
AREA



EXHAUST WAKE DANGER
AREA 65 MPH (105 km/h)
OR LESS

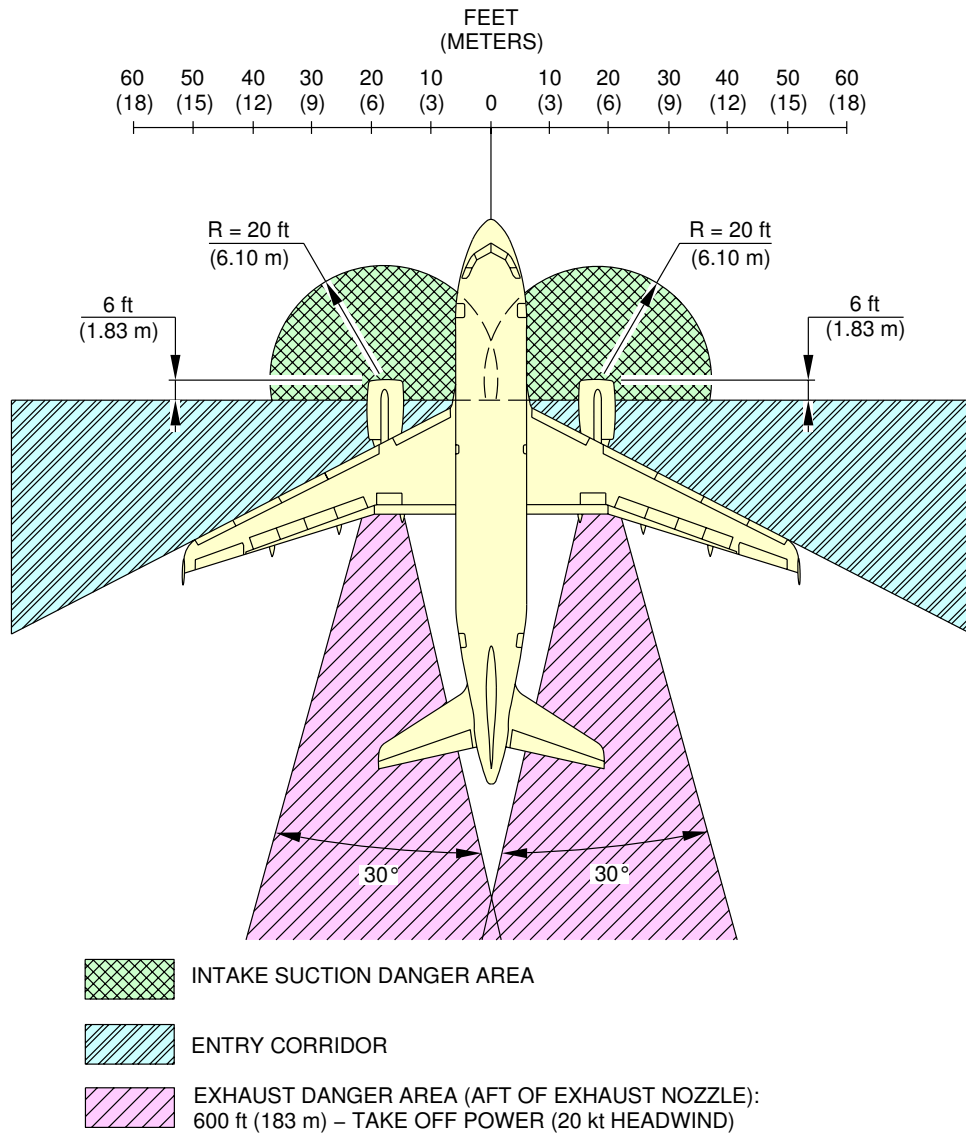


EXHAUST WAKE DANGER
AREA 65 MPH (105 km/h)
OR GREATER

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Danger Areas of Engines
CFM56 series engine
FIGURE-6-3-2-991-001-A01

****ON A/C A318-100**



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Danger Areas of Engines
PW 6000 series engine
FIGURE-6-3-2-991-002-A01

6-4-0 APU Exhaust Velocities and Temperatures****ON A/C A318-100**APU Exhaust Velocities and Temperatures

1. APU Exhaust Velocities and Temperatures.



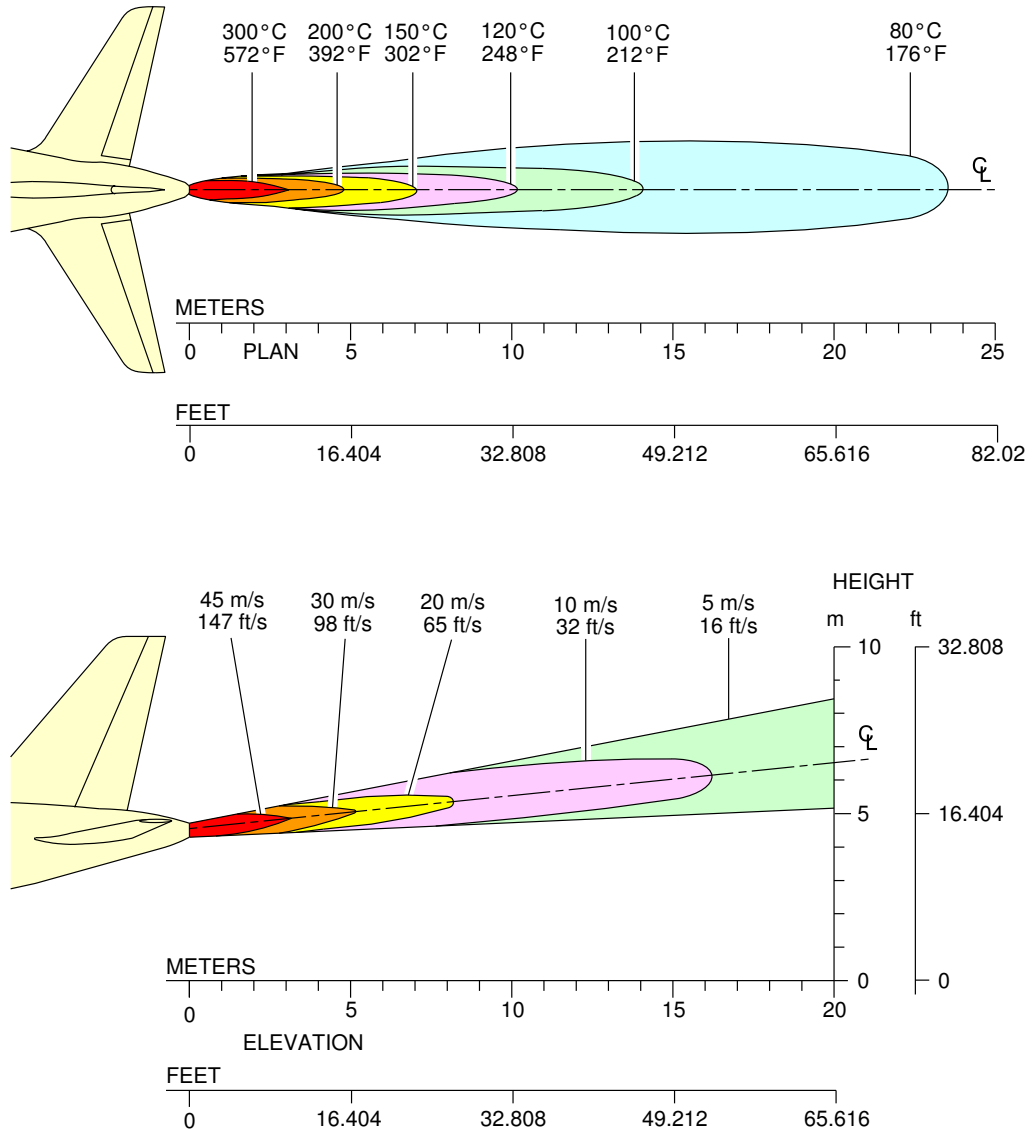
6-4-1 APU

****ON A/C A318-100**

APU - APIC & GARRETT

1. This section gives APU exhaust velocities and temperatures.

****ON A/C A318-100**



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Exhaust Velocities and Temperatures
APU – APIC & GARRETT
FIGURE-6-4-1-991-001-A01

PAVEMENT DATA**7-1-0 General Information******ON A/C A318-100**General Information**1. General Information**

This brief description of the pavement charts that follow will help in their use for airport planning.

To aid in the interpolation between the discrete values shown, each airplane configuration is shown with a minimum range of five loads on the main landing gear.

All curves on the charts represent data at a constant specified tire pressure with:

- The airplane loaded to the maximum ramp weight.
- The Center of Gravity (CG) at its maximum permissible aft position.

Pavement requirements for commercial airplanes are derived from the static analysis of loads imposed on the main landing gear struts.

The A/C codes are used for configuration management of chapter 07 only. There is no relation between these A/C codes and the ICAO A/C codes used for determining the airplane wing span and outer main gear wheel span as described in ICAO-Annex 14 Volume 1, Aerodrome Design and Operation Chapter 1.4, Table 1-1.

Section 7-2-0 presents basic data on the landing gear footprint configuration, maximum ramp weights and tire sizes and pressures.

Section 7-3-0 shows maximum vertical and horizontal pavement loads for certain critical conditions at the tire-ground interfaces.

Section 7-4-1 contain charts to find these loads throughout the stability limits of the airplane at rest on the pavement.

These main landing gear loads are used as the point of entry to the pavement design charts which follow, interpolating load values where necessary.

Section 7-5-1 uses procedures in Instruction Report No S-77-1, "Procedures for Development of CBR Design Curves", dated June 1977 and as modified according to the methods described in ICAO Aerodrome Design Manual, Part 3. Pavements, 2nd Edition, 1983, Section 1.1 (The ACN-PCN Method), and utilizing the alpha factors approved by ICAO in October 2007.

The report was prepared by the U.S Army Corps Engineers Waterways Experiment Station, Soils and Pavement Laboratory, Vicksburg, Mississippi.

The line showing 10 000 coverages is used to calculate Aircraft Classification Number (ACN).

The procedure that follows is used to develop flexible pavement design curves such as shown in Section 7-5-1.

- With the scale for pavement thickness at the bottom and the scale for CBR at the top, an arbitrary line is drawn representing 10 000 coverages.
- Incremental values of the weight on the main landing gear are then plotted.
- Annual departure lines are drawn based on the load lines of the weight on the main landing gear that is shown on the graph.

Section 7-7-1 gives the rigid pavement design curves that have been prepared with the use of the Westergaard Equation. This is in general accordance with the procedures outlined in the Portland Cement Association publications, "Design of Concrete Airport Pavement", 1973 and "Computer Program for Airport Pavement Design", (Program PDILB), 1967 both by Robert G. Packard.

The procedure that follows is used to develop rigid pavement design curves such as shown in Section 7-7-1.

- With the scale for pavement thickness to the left and the scale for allowable working stress to the right, an arbitrary load line is drawn. This represents the maximum weight to be shown for the main landing gear .
- All values of the subgrade modulus (k values) are then plotted
- Additional load lines for the incremental values of weight on the main landing gear are drawn on the basis of the curve for $k = 300$ already shown on the graph.

All Load Classification Number (LCN) curves shown in Section 7-6-1 and Section 7-8-2 have been developed from a computer program based on data provided in International Civil Aviation Organisation (ICAO) document 7920-AN/865/2, Aerodrome Manual, Part 2, "Aerodrome Physical Characteristics", Second Edition, 1965.

The flexible pavement charts, section 7-6-1, show LCN against equivalent single wheel load and equivalent single wheel load against pavement thickness.

The rigid pavement charts in section 7-8-2 show LCN against equivalent single wheel load and equivalent single wheel load against radius of relative stiffness.

Section 7-9-0 gives ACN data prepared in accordance with the ACN/PCN system as referenced in ICAO Annex 14, "Aerodromes", Volume 1 Fourth Edition July 2004, incorporating Amendments 1 to 6.

The ACN/PCN system gives a standardized international airplane/pavement rating system replacing the various S, T, TT, LCN, AUW, ISWL, etc., rating systems used throughout the world.

The ACN is the Aircraft Classification Number and PCN is the corresponding Pavement Classification Number.

An aircraft having an ACN equal to or less than 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 is defined as the load on a single tire inflated to 1.25 Mpa (181 psi) that would have the same pavement requirements as the aircraft.

Computationally, the ACN/PCN system uses PCA program PDILB for rigid pavements and S-77-1 for flexible pavements to calculate ACN values.

The Airport Authority must decide on the method of pavement analysis and the results of their evaluation shown as follows:

PCN			
PAVEMENT TYPE	SUBGRADE CATEGORY	TIRE PRESSURE CATEGORY	EVALUATION METHOD
R – Rigid F – Flexible	A – High B – Medium C – Low D – Ultra Low	W – No Limit X – To 1.5 Mpa (217 psi) Y – To 1 Mpa (145 psi) Z – To 0.5 Mpa (73 psi)	T – Technical U – Using Aircraft

Section 7-9-1, 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

Section 7-9-2, shows the aircraft ACN values for rigid pavements.

The four subgrade categories are:

- A. High Strength Subgrade $k = 150 \text{ MN/m}^3$ (550 pci)
- B. Medium Strength Subgrade $k = 80 \text{ MN/m}^3$ (300 pci)
- C. Low Strength Subgrade $k = 40 \text{ MN/m}^3$ (150 pci)
- D. Ultra Low Strength Subgrade $k = 20 \text{ MN/m}^3$ (75 pci)

****ON A/C A318-100**

MODEL	WV	AIRCRAFT CODE
A318-100	06	C
A318-100	00	D
A318-100	07	E
A318-100	01	F
A318-100	02	G
A318-100	08	H
A318-100	03	I
A318-100	04	J
A318-100	05	K

NOTE: FOR WEIGHT VARIANT DEFINITION, REFER TO CHAPTER 02-01-01.

NOTE: THE A/C CODES ARE USED FOR CONFIGURATION MANAGEMENT OF CHAPTER 07 ONLY.THERE IS NO RELATION BETWEEN THESE A/C CODES AND THE ICAO A/C CODES USED FOR DETERMINING THE AIRPLANE WING SPAN AND OUTER MAIN GEAR WHEEL SPAN AS DESCRIBED IN ICAO-ANNEX 14 VOLUME 1, AERODROME DESIGN AND OPERATION CHAPTER 1.4, TABLE 1-1.

N_AC_070100_1_0010101_01_00

Aircraft Codes
FIGURE-7-1-0-991-001-A01

7-2-0 Landing Gear Footprint

****ON A/C A318-100**

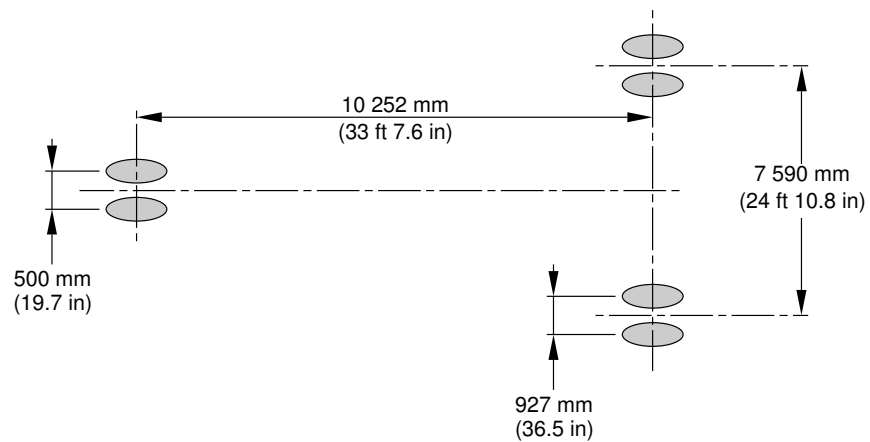
Landing Gear Footprint

1. This section gives Landing Gear Footprint.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**

A/C CODE	C
PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP	SEE SECTION 7-4-1
NOSE GEAR TIRE SIZE	30 x 8.8 R15 (30 x 8.8 – 15)
NOSE GEAR TIRE PRESSURE	12.3 bar (178 psi)
MAIN GEAR TIRE SIZE	46 x 17 R20 (46 x 16 – 20)
MAIN GEAR TIRE PRESSURE	10.2 bar (148 psi)

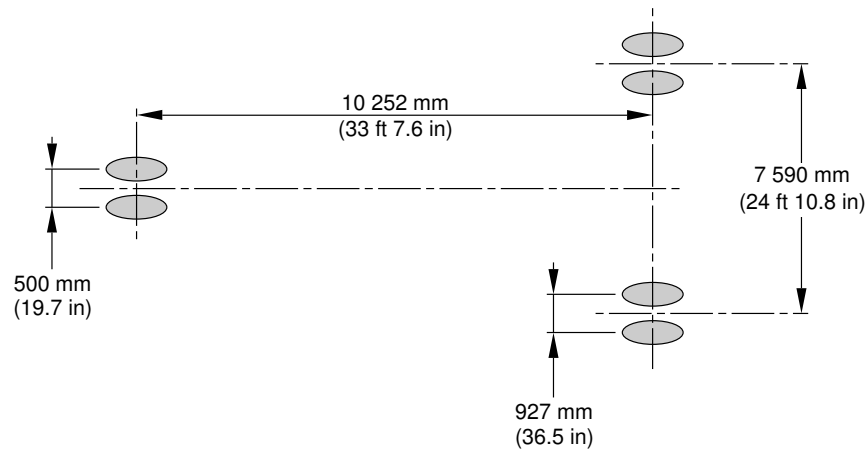


N_AC_070200_1_0010101_01_01

Landing Gear Footprint
Landing Gear Footprint
FIGURE-7-2-0-991-001-A01

****ON A/C A318-100**

A/C CODE	D – E – F – G
PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP	SEE SECTION 7-4-1
NOSE GEAR TIRE SIZE	30 x 8.8 R15 (30 x 8.8 – 15)
NOSE GEAR TIRE PRESSURE	12.8 bar (186 psi)
MAIN GEAR TIRE SIZE	46 x 17 R20 (46 x 16 – 20)
MAIN GEAR TIRE PRESSURE	11.4 bar (165 psi)

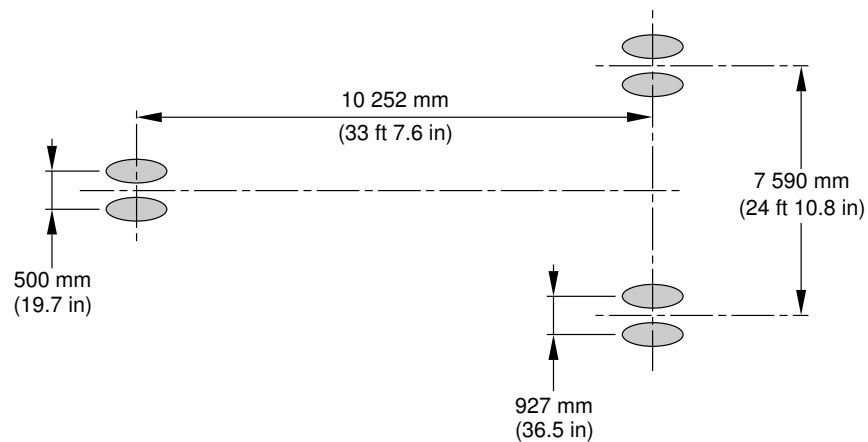


N_AC_070200_1_0020101_01_01

Landing Gear Footprint
Landing Gear Footprint
FIGURE-7-2-0-991-002-A01

****ON A/C A318-100**

A/C CODE	H – I – J – K
PERCENTAGE OF WEIGHT ON MAIN GEAR GROUP	SEE SECTION 7-4-1
NOSE GEAR TIRE SIZE	30 x 8.8 R15 (30 x 8.8 – 15)
NOSE GEAR TIRE PRESSURE	13.5 bar (196 psi)
MAIN GEAR TIRE SIZE	46 x 17 R20 (46 x 16 – 20)
MAIN GEAR TIRE PRESSURE	12.4 bar (180 psi)



N_AC_070200_1_0030101_01_01

Landing Gear Footprint
Landing Gear Footprint
FIGURE-7-2-0-991-003-A01

7-3-0 Maximum Pavement Loads

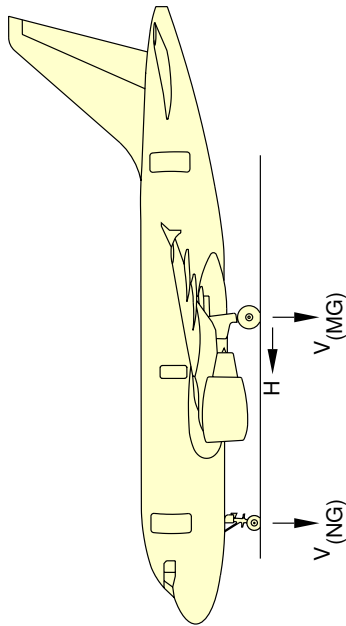
****ON A/C A318-100**

Maximum Pavement Loads

1. This section gives Maximum Pavement Loads.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**



1	2		3		4		5		6			
A/C CODE	MAXIMUM RAMP WEIGHT		STATIC LOAD AT MOST FWD CG (1)		STATIC BRAKING @ 10 ft/s ² DECELERATION		STATIC LOAD AT MAX AFT CG (2)		STEADY BRAKING @ 10 ft/s ² DECELERATION		AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg		
C	124 350	56 400	23 250	10 550	35 875	16 270	56 075	25 430	19 325	8 760	44 850	20 340
D	130 950	59 400	23 900	10 840	37 150	16 850	58 750	26 650	20 350	9 230	47 000	21 320
E	135 375	61 400	24 700	11 200	38 350	17 400	60 450	27 430	21 025	9 540	48 375	21 940

	MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FORWARD CG	MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MOST AFT CG	MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING
$V_{(NG)}$			
$V_{(MG)}$			
H			

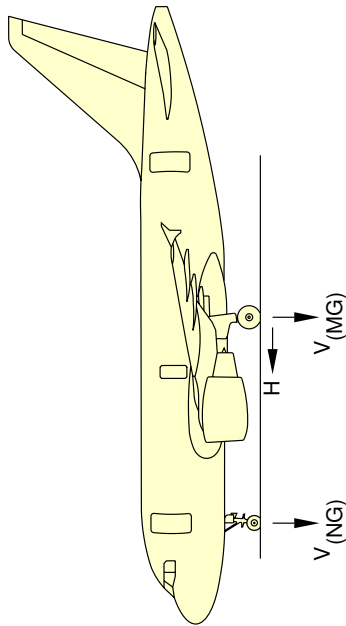
(1)	C	MRW = 56 400 kg	FWD CG = 14 % MAC AT A/C WEIGHT = 56 400 kg
	D	MRW = 59 400 kg	FWD CG = 15 % MAC AT A/C WEIGHT = 59 400 kg
	E	MRW = 61 400 kg	FWD CG = 15 % MAC AT A/C WEIGHT = 61 400 kg
(2)	C	MRW = 56 400 kg	AFT CG = 35 % MAC AT A/C WEIGHT = 56 400 kg
	D	MRW = 59 400 kg	AFT CG = 33.9 % MAC AT A/C WEIGHT = 59 400 kg
	E	MRW = 61 400 kg	AFT CG = 32.9 % MAC AT A/C WEIGHT = 61 400 kg

NOTE: ALL LOADS CALCULATED USING AIRPLANE MAXIMUM RAMP WEIGHT

N_AC_070300_1_0200101_01_00

Maximum Pavement Loads
Maximum Pavement Loads
FIGURE-7-3-0-991-020-A01

****ON A/C A318-100**



1	2	3	4	5	6
A/C CODE	MAXIMUM RAMP WEIGHT	STATIC LOAD AT MOST FWD CG (1)	STATIC BRAKING @ 10 ft/s ² DECELERATION	STATIC LOAD AT MAX AFT CG (2)	STEADY BRAKING @ 10 ft/s ² DECELERATION AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8
	lb kg	lb kg	lb kg	lb kg	lb kg
F	136 475 61 900	24 900 11 290	38 675 17 540	60 900 27 620	21 200 9 620
G	139 775 63 400	25 475 11 560	39 575 17 950	62 175 28 200	21 725 9 850
H	141 975 64 400	25 400 11 520	39 700 18 010	63 150 28 640	22 075 10 010
					50 525 22 920

V (NG) MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FORWARD CG
V (MG) MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MOST AFT CG
H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

A/C CODE

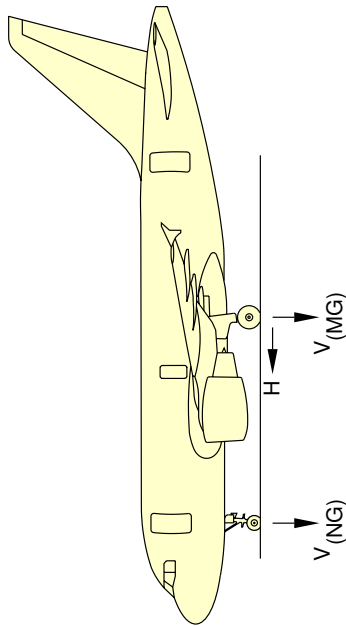
(1) F MRW = 61 900 kg FWD CG = 15 % MAC AT A/C WEIGHT = 61 900 kg
G MRW = 63 400 kg FWD CG = 15 % MAC AT A/C WEIGHT = 63 400 kg
H MRW = 64 400 kg FWD CG = 15.8 % MAC AT A/C WEIGHT = 64 400 kg
(2) F MRW = 61 900 kg AFT CG = 32.7 % MAC AT A/C WEIGHT = 61 900 kg
G MRW = 63 400 kg AFT CG = 32 % MAC AT A/C WEIGHT = 63 400 kg
H MRW = 64 400 kg AFT CG = 32 % MAC AT A/C WEIGHT = 64 400 kg

NOTE: ALL LOADS CALCULATED USING AIRPLANE MAXIMUM RAMP WEIGHT

N_AC_070300_1_0210101_01_00

Maximum Pavement Loads
Maximum Pavement Loads
FIGURE-7-3-0-991-021-A01

****ON A/C A318-100**



1 A/C CODE	2 MAXIMUM RAMP WEIGHT		3 STATIC LOAD AT MOST FWD CG (1)		4 STATIC BRAKING @ 10 ft/s ² DECELERATION		5 STATIC LOAD AT MAX AFT CG (2)		6 STEADY BRAKING @ 10 ft/s ² DECELERATION		7 AT INSTANTANEOUS BRAKING COEFFICIENT = 0.8	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
I	143 075	64 900	25 350	11 500	39 775	18 040	63 650	28 870	22 225	10 090	50 925	23 090
J	146 375	66 400	25 325	11 490	39 275	17 820	65 125	29 540	22 750	10 320	52 100	23 630
K	150 800	68 400	25 325	11 490	39 250	17 810	67 100	30 430	23 425	10 630	53 675	24 340

V (NG) MAXIMUM VERTICAL NOSE GEAR GROUND LOAD AT MOST FORWARD CG
 V (MG) MAXIMUM VERTICAL MAIN GEAR GROUND LOAD AT MOST AFT CG
 H MAXIMUM HORIZONTAL GROUND LOAD FROM BRAKING

A/C CODE	(1)	(2)	MRW = 64 900 kg	FWD CG = 16.2 % MAC AT A/C WEIGHT = 64 900 kg
I	I	I	MRW = 64 900 kg	FWD CG = 16.2 % MAC AT A/C WEIGHT = 64 900 kg
J	J	J	MRW = 66 400 kg	FWD CG = 15 % MAC AT A/C WEIGHT = 63 000 kg
K	K	K	MRW = 68 400 kg	FWD CG = 15 % MAC AT A/C WEIGHT = 63 000 kg
I	I	I	MRW = 64 900 kg	AFT CG = 32 % MAC AT A/C WEIGHT = 64 900 kg
J	J	J	MRW = 66 400 kg	AFT CG = 32 % MAC AT A/C WEIGHT = 66 400 kg
K	K	K	MRW = 68 400 kg	AFT CG = 32 % MAC AT A/C WEIGHT = 68 400 kg

NOTE: ALL LOADS CALCULATED USING AIRPLANE MAXIMUM RAMP WEIGHT

N_AC_070300_1_0220101_01_00

Maximum Pavement Loads
Maximum Pavement Loads
FIGURE-7-3-0-991-022-A01

7-4-0 Landing Gear Loading on Pavement

****ON A/C A318-100**

Landing Gear Loading on Pavement

1. General

In the example shown in Section 7-4-1 Landing Gear Loading on Pavement, A/C Code C, the Gross Aircraft Weight is 48 000 kg (105 825 lb) and the percentage of weight on the Main Landing Gear is 90.2 %.

For these conditions, the total weight on the Main Landing Gear is 43 280 kg (95 425 lb).

7-4-1 Landing Gear Loading on Pavement

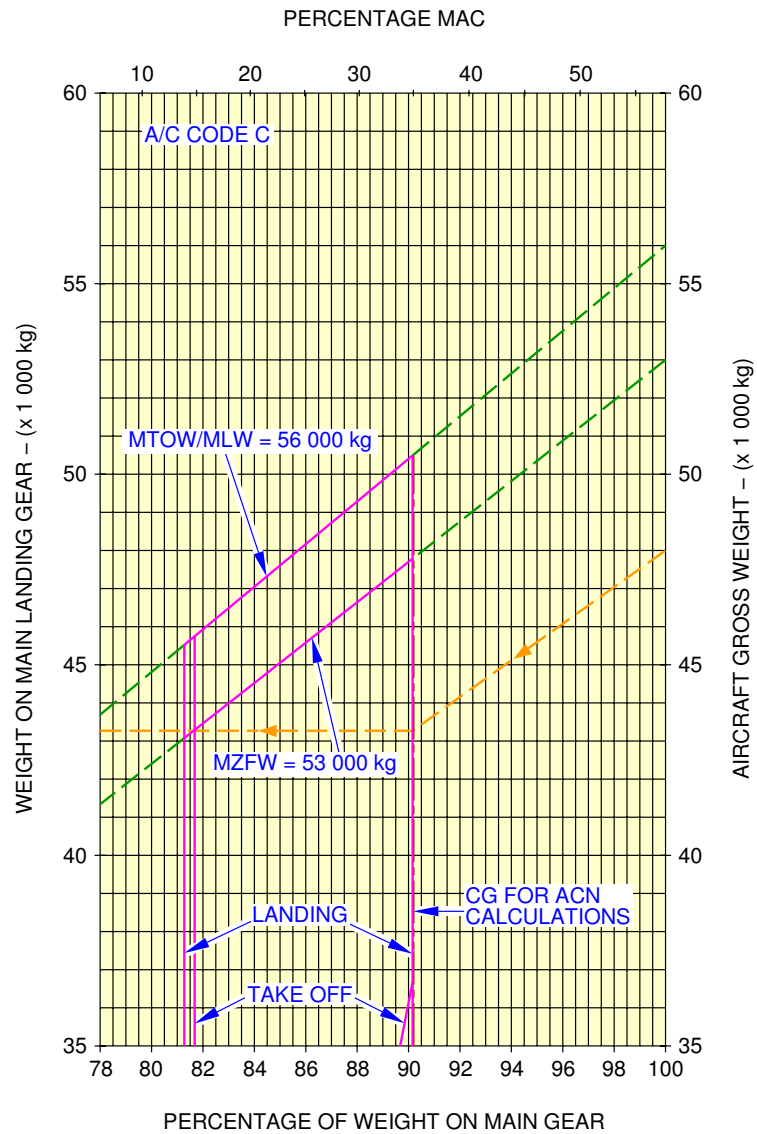
****ON A/C A318-100**

Landing Gear Loading on Pavement

1. This section gives Landing Gear Loading on Pavement.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

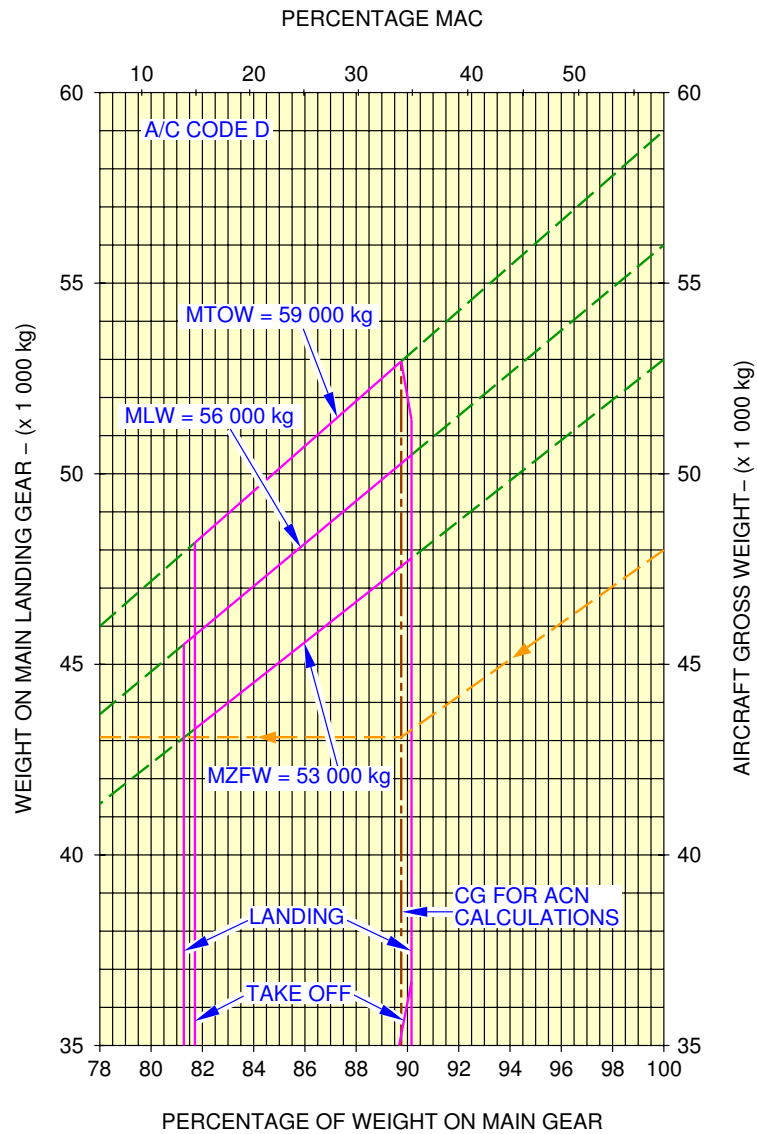
****ON A/C A318-100**



N_AC_070401_1_0290101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-029-A01

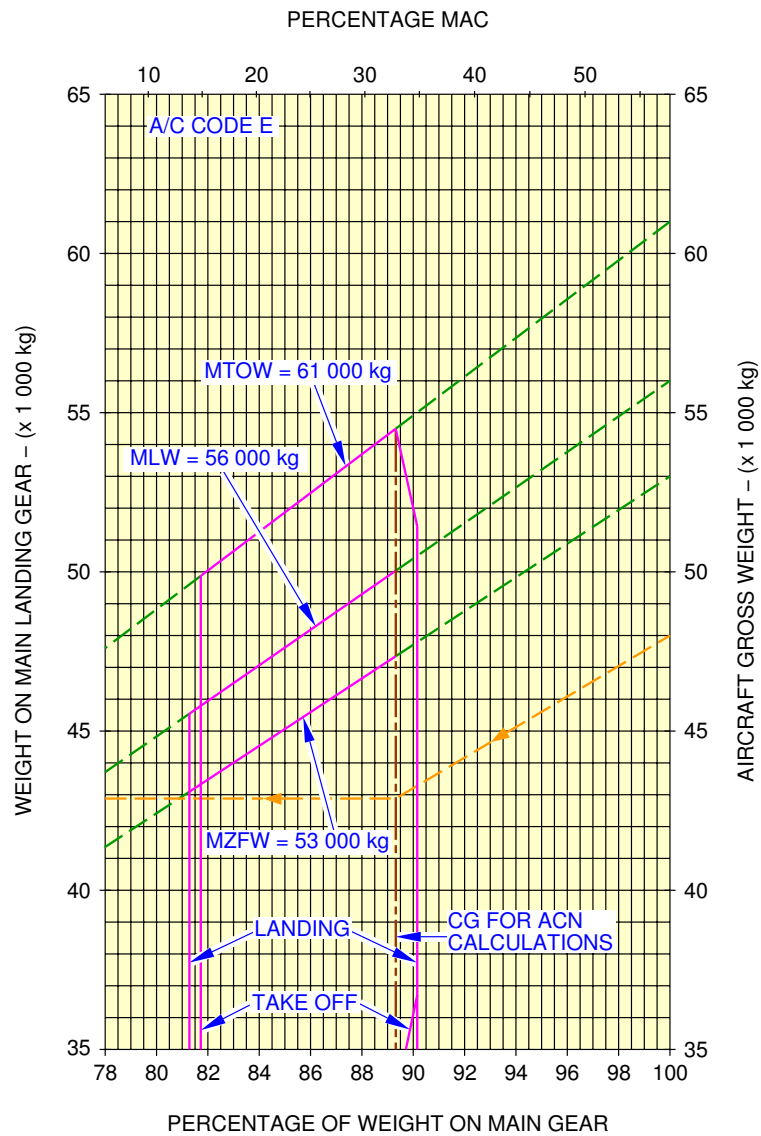
****ON A/C A318-100**



N_AC_070401_1_0300101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-030-A01

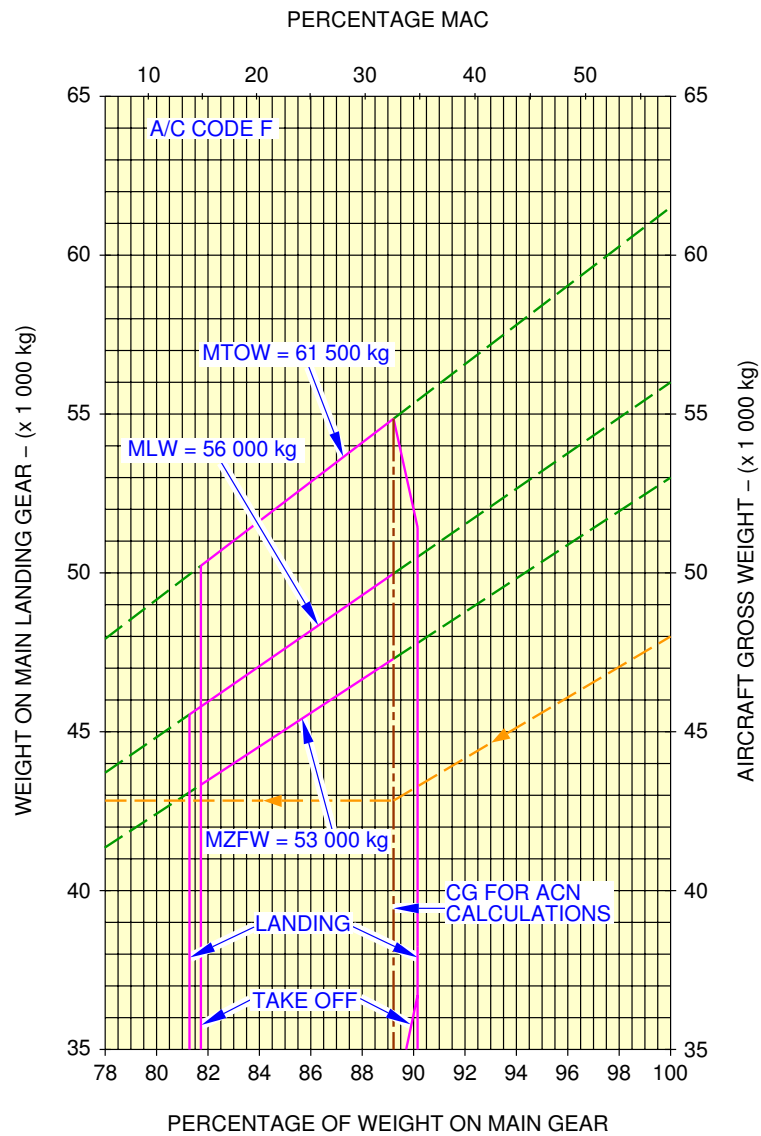
****ON A/C A318-100**



N_AC_070401_1_0310101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-031-A01

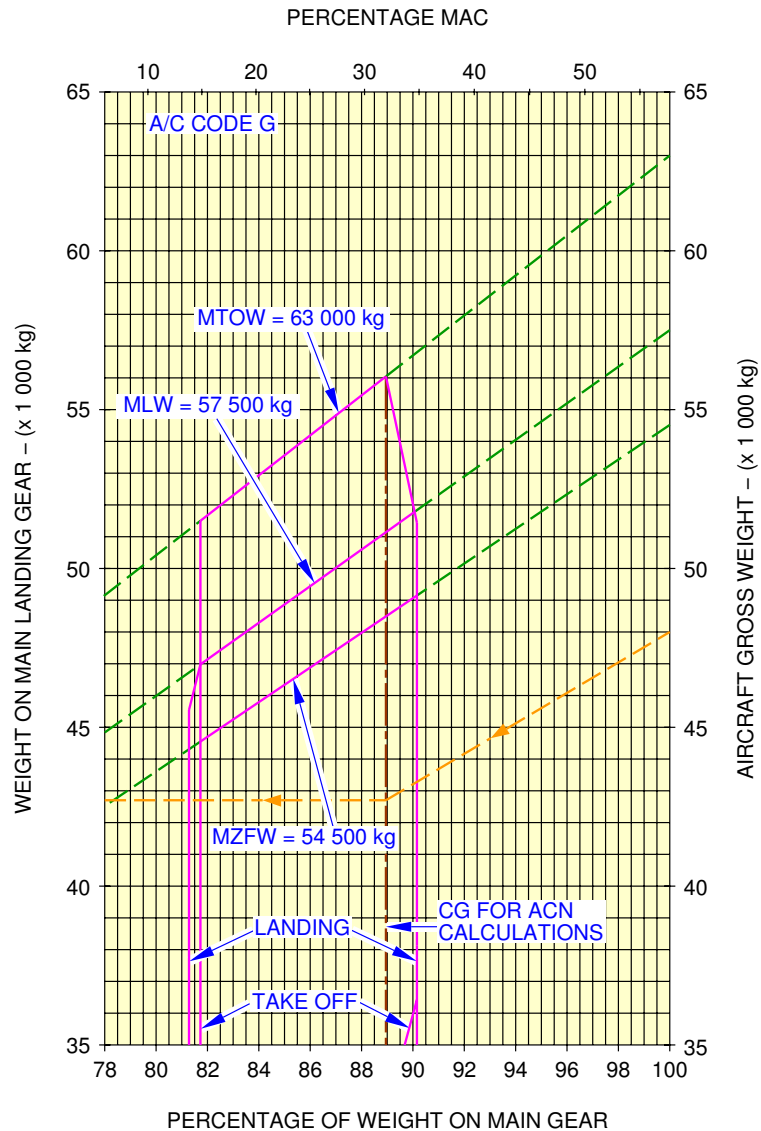
****ON A/C A318-100**



N_AC_070401_1_0320101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-032-A01

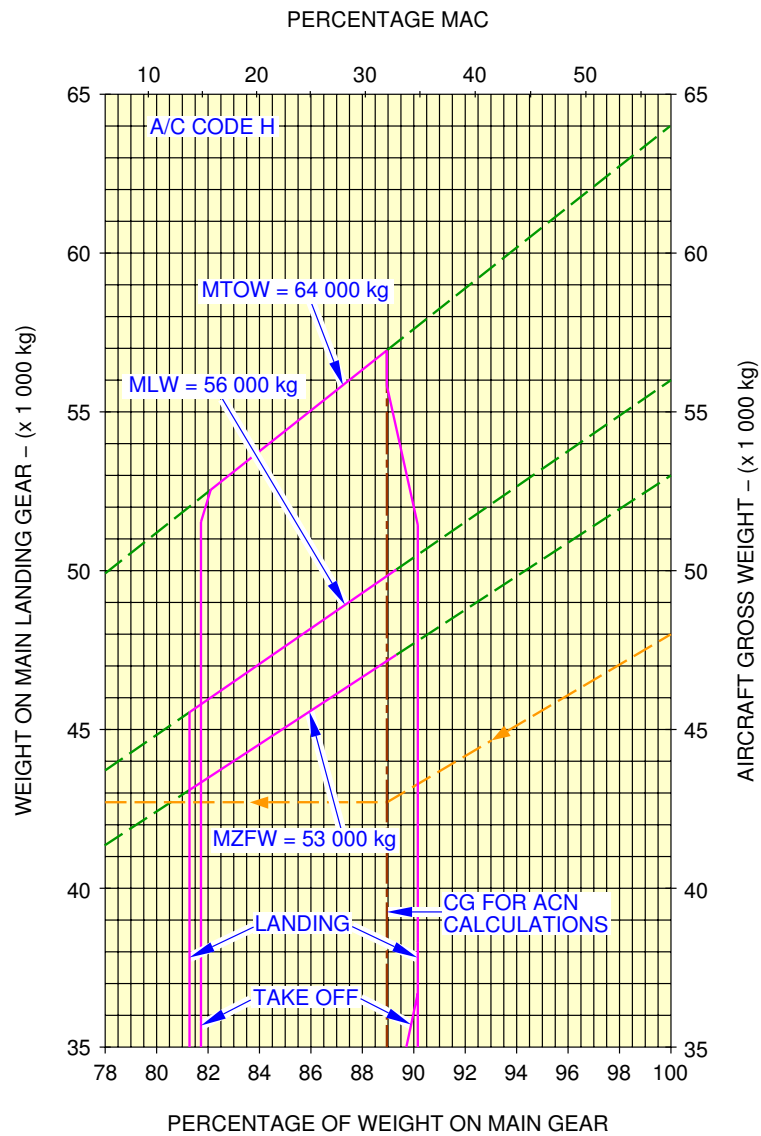
****ON A/C A318-100**



N_AC_070401_1_0330101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-033-A01

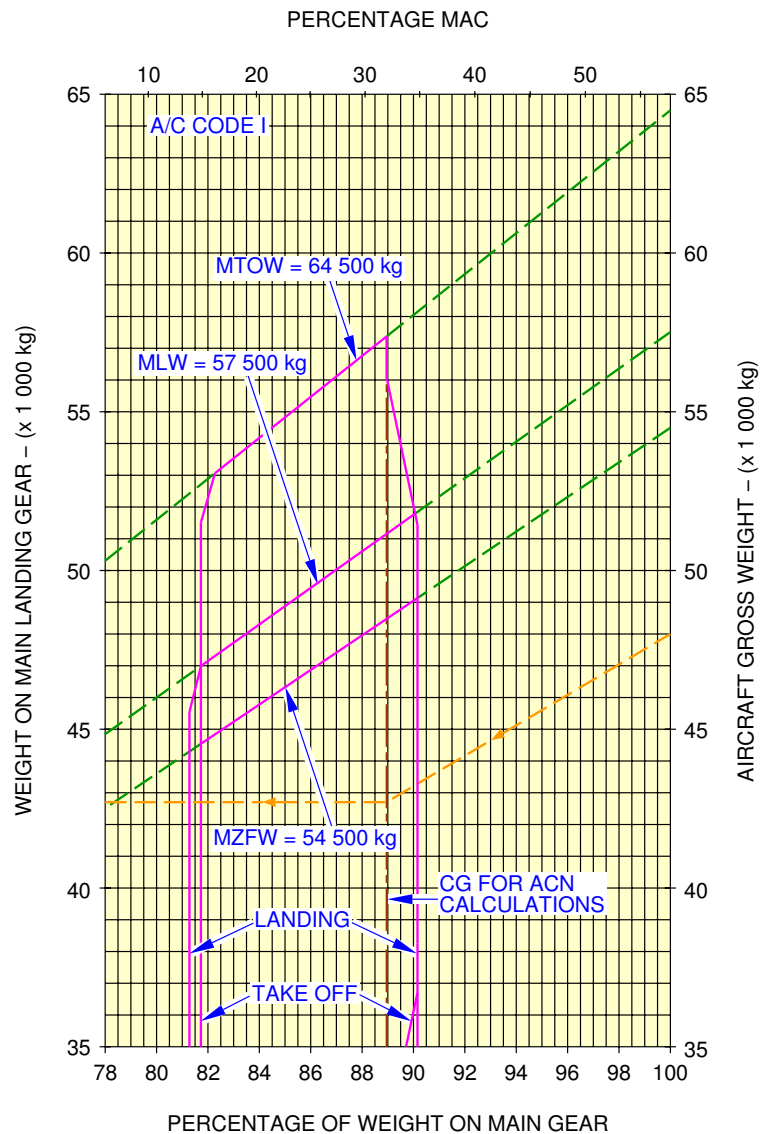
****ON A/C A318-100**



N_AC_070401_1_0340101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-034-A01

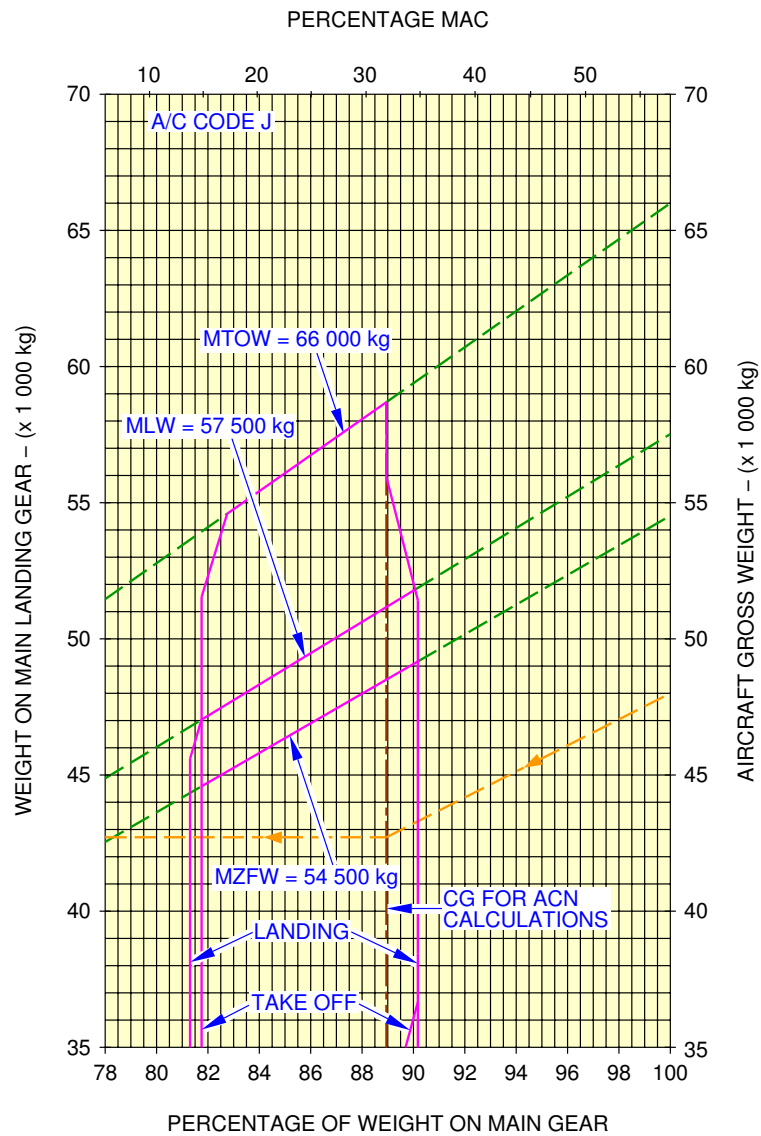
****ON A/C A318-100**



N_AC_070401_1_0350101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-035-A01

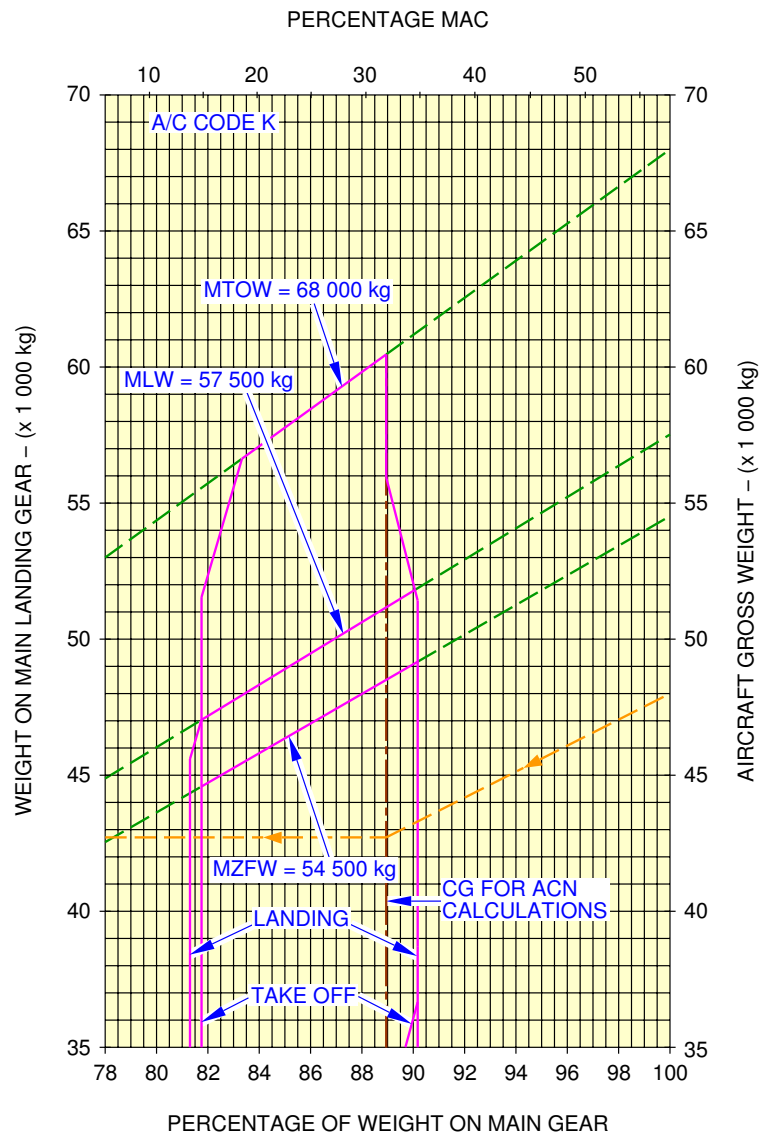
****ON A/C A318-100**



N_AC_070401_1_0360101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-036-A01

****ON A/C A318-100**



N_AC_070401_1_0370101_01_00

Landing Gear Loading on Pavement
FIGURE-7-4-1-991-037-A01

7-5-0 Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method****ON A/C A318-100**Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method**1. General**

In order to determine a particular Flexible Pavement Thickness, the Subgrade Strength (CBR), the Annual Departure Level and the weight on one Main Landing Gear must be known.

In the example shown in Section 7-5-1 Flexible Pavement Requirements, A/C Code C for:

- a CBR value of 10
- an Annual Departure Level of 25 000
- the Load on one MLG of 20 000 kg (44 100 lb).

For these conditions, the Flexible Pavement Thickness is 40.9 cm (16.1 in).

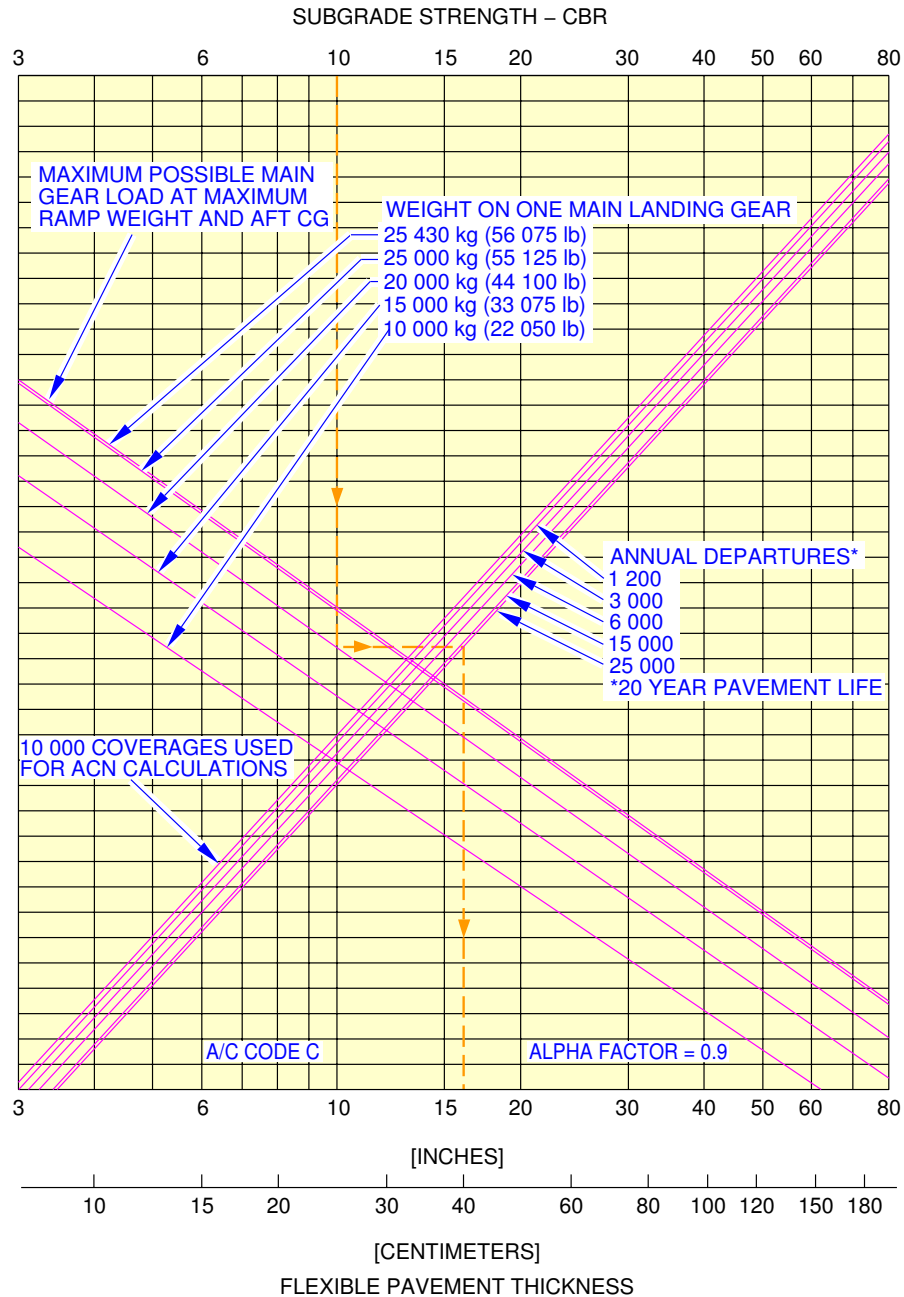
The line showing 10 000 Coverages is used to calculate the Aircraft Classification Number (ACN).

7-5-1 Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method****ON A/C A318-100**Flexible Pavement Requirements - U.S. Army Corps of Engineers Design Method

1. This section gives Flexible Pavement Requirements.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**



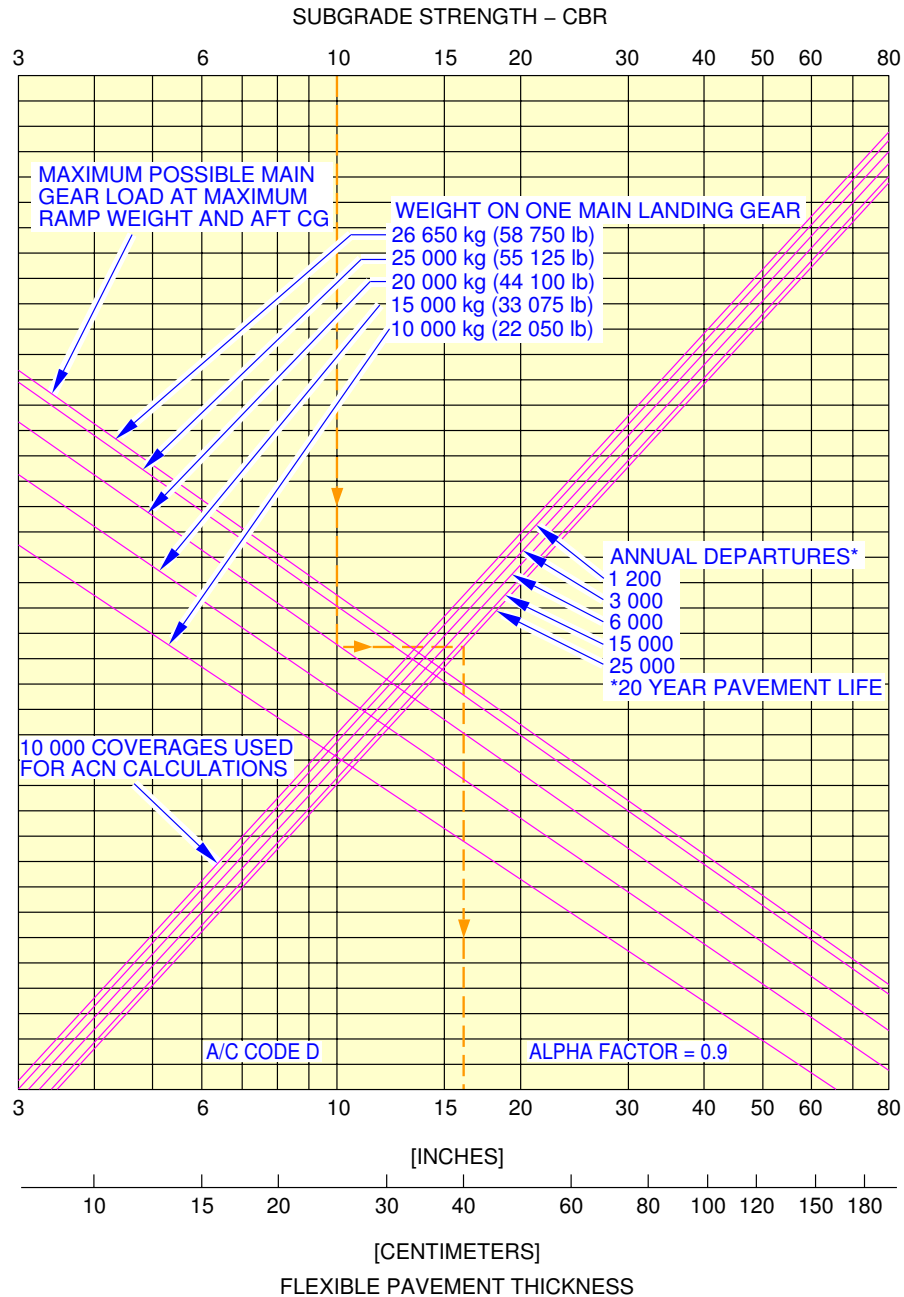
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 10.2 bar (148 psi)

N_AC_070501_1_0290101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-029-A01

****ON A/C A318-100**



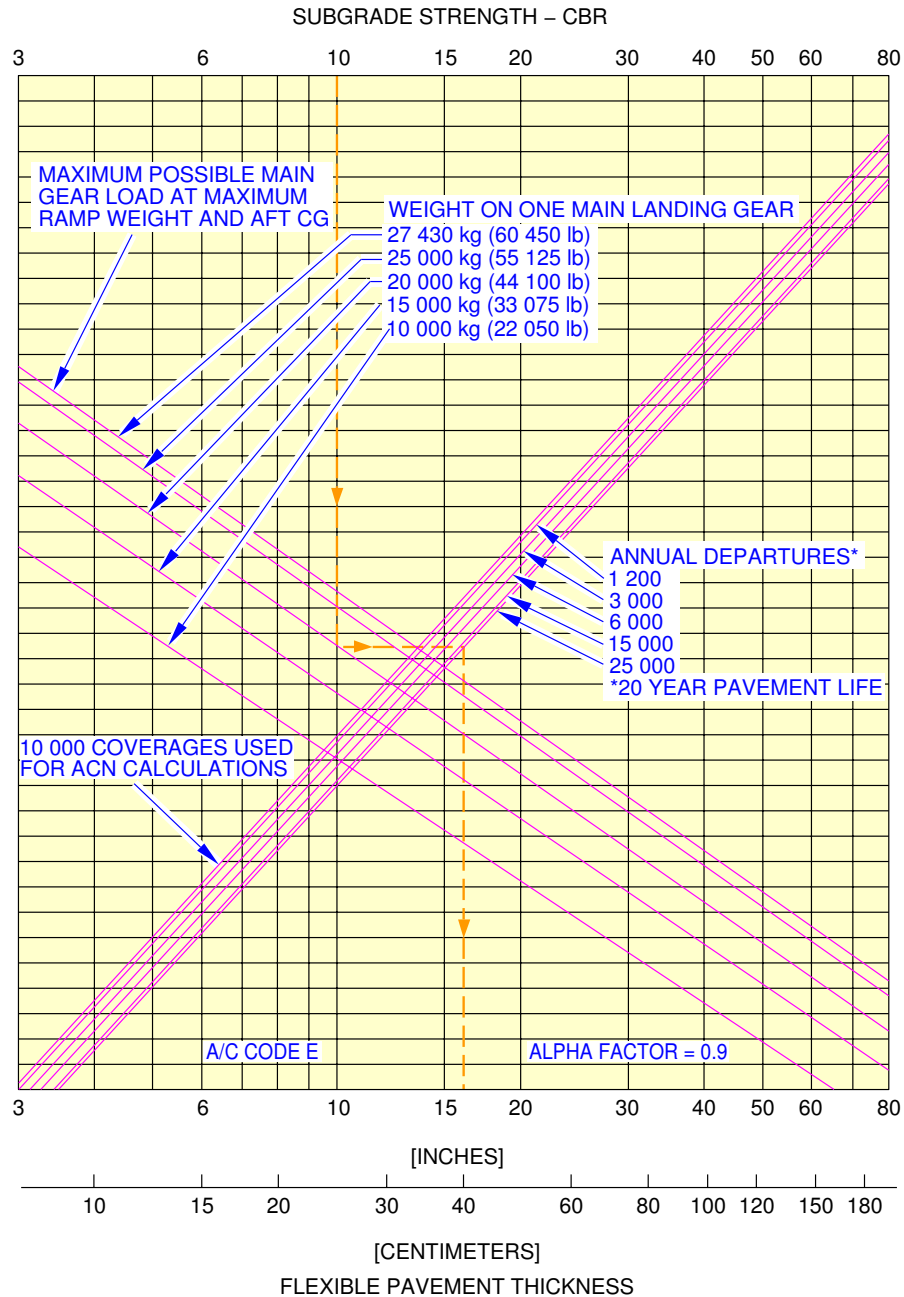
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)

N_AC_070501_1_0300101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-030-A01

****ON A/C A318-100**



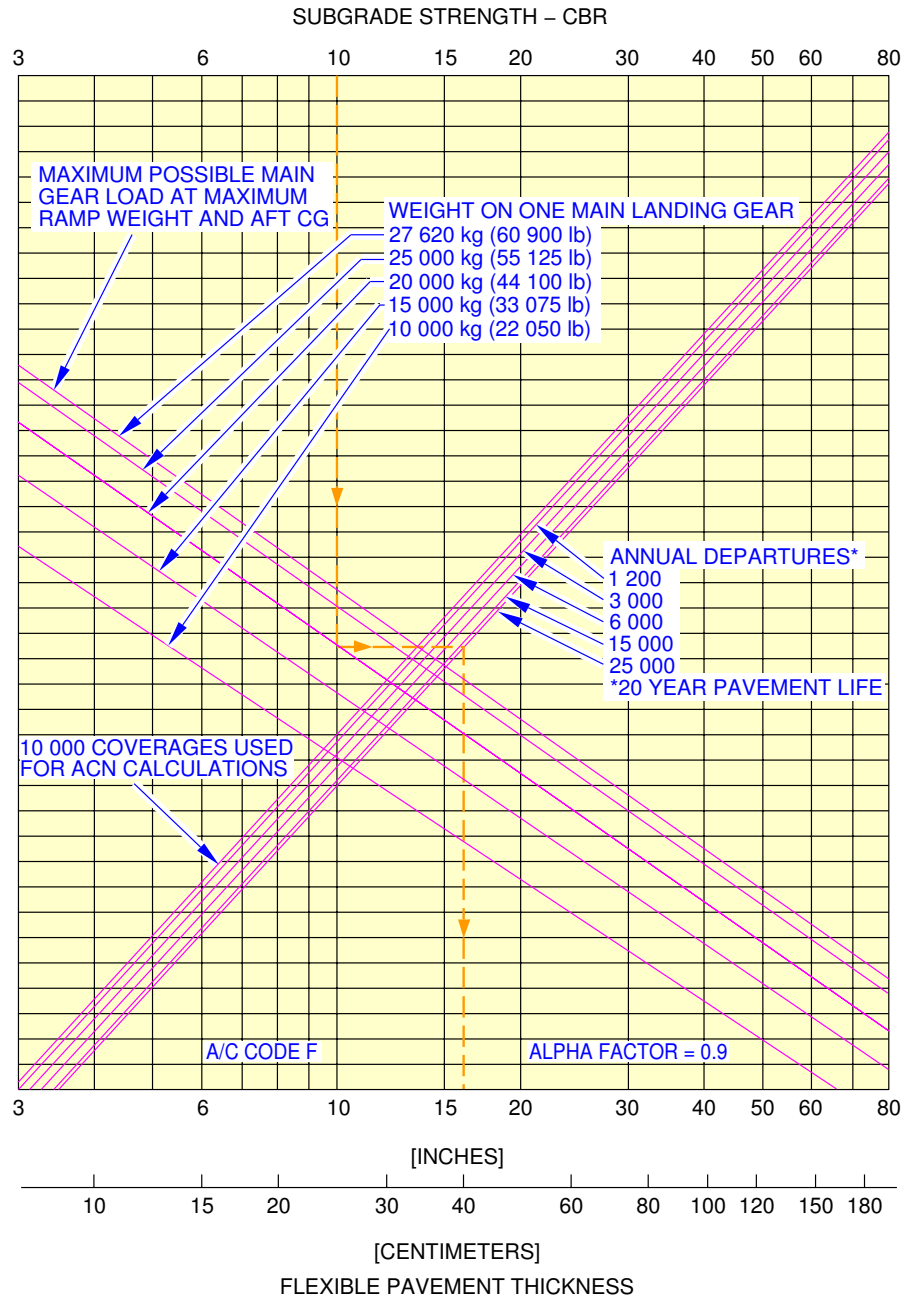
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)

N_AC_070501_1_0310101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-031-A01

****ON A/C A318-100**



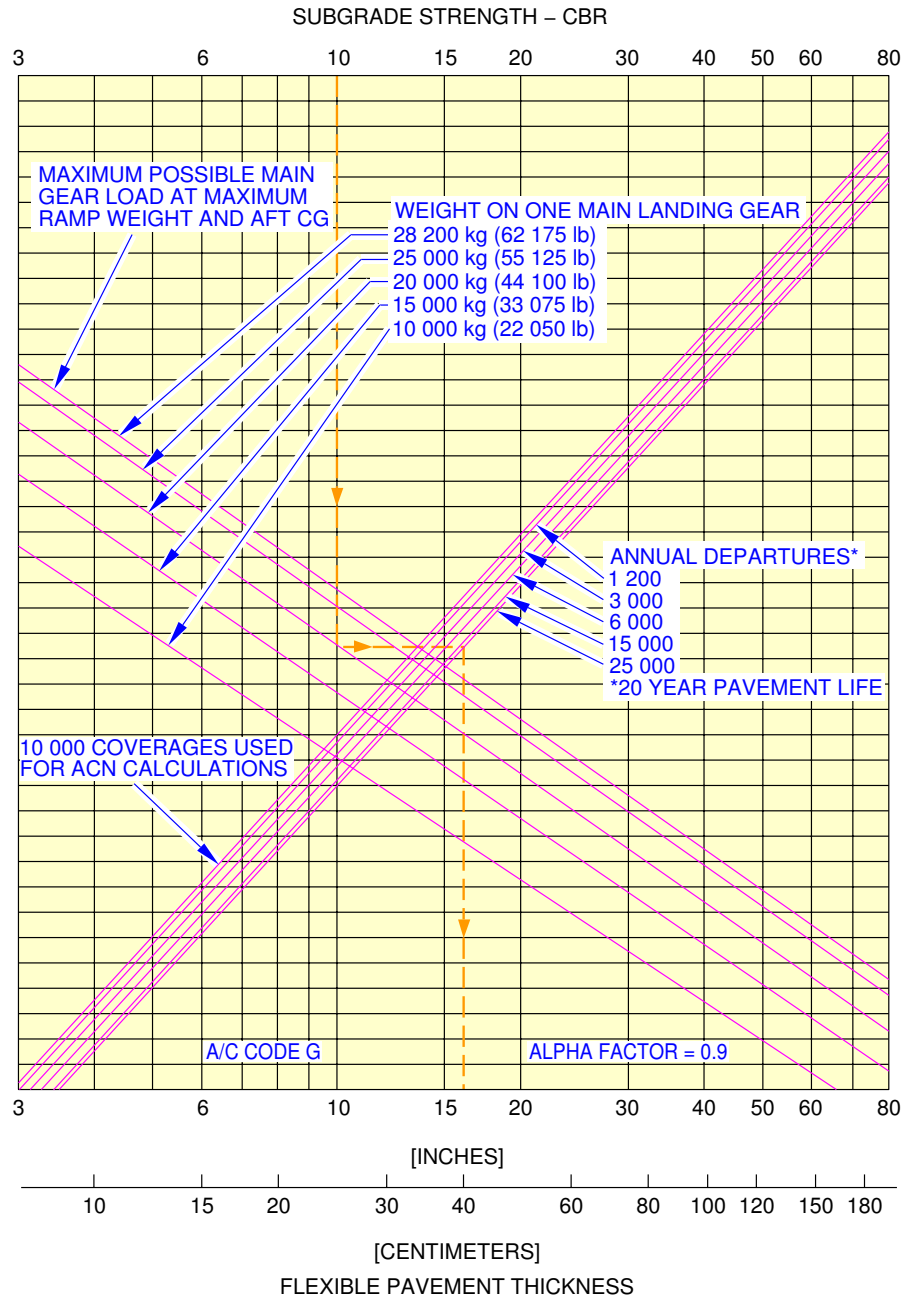
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)

N_AC_070501_1_0320101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-032-A01

****ON A/C A318-100**



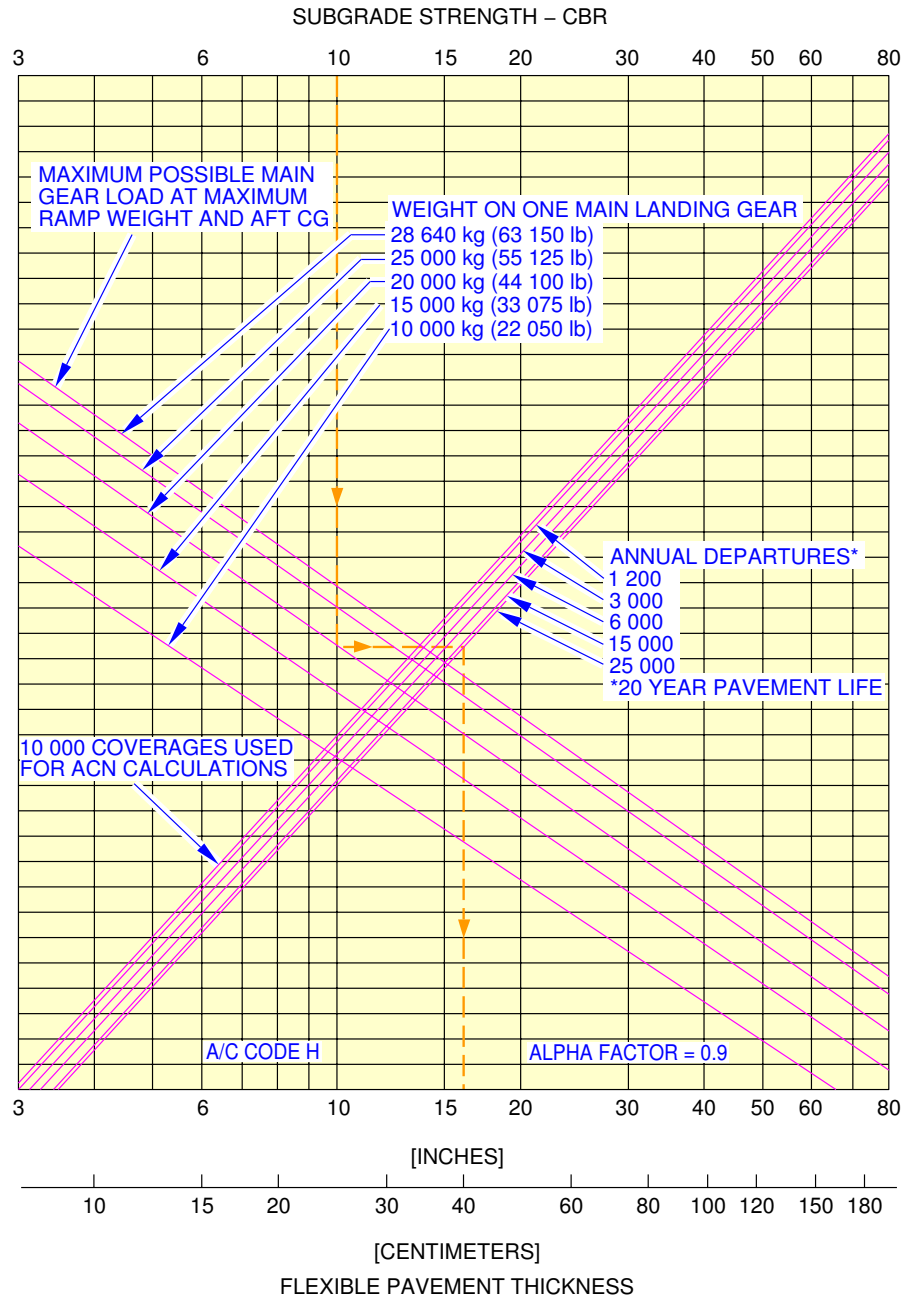
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)

N_AC_070501_1_0330101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-033-A01

****ON A/C A318-100**

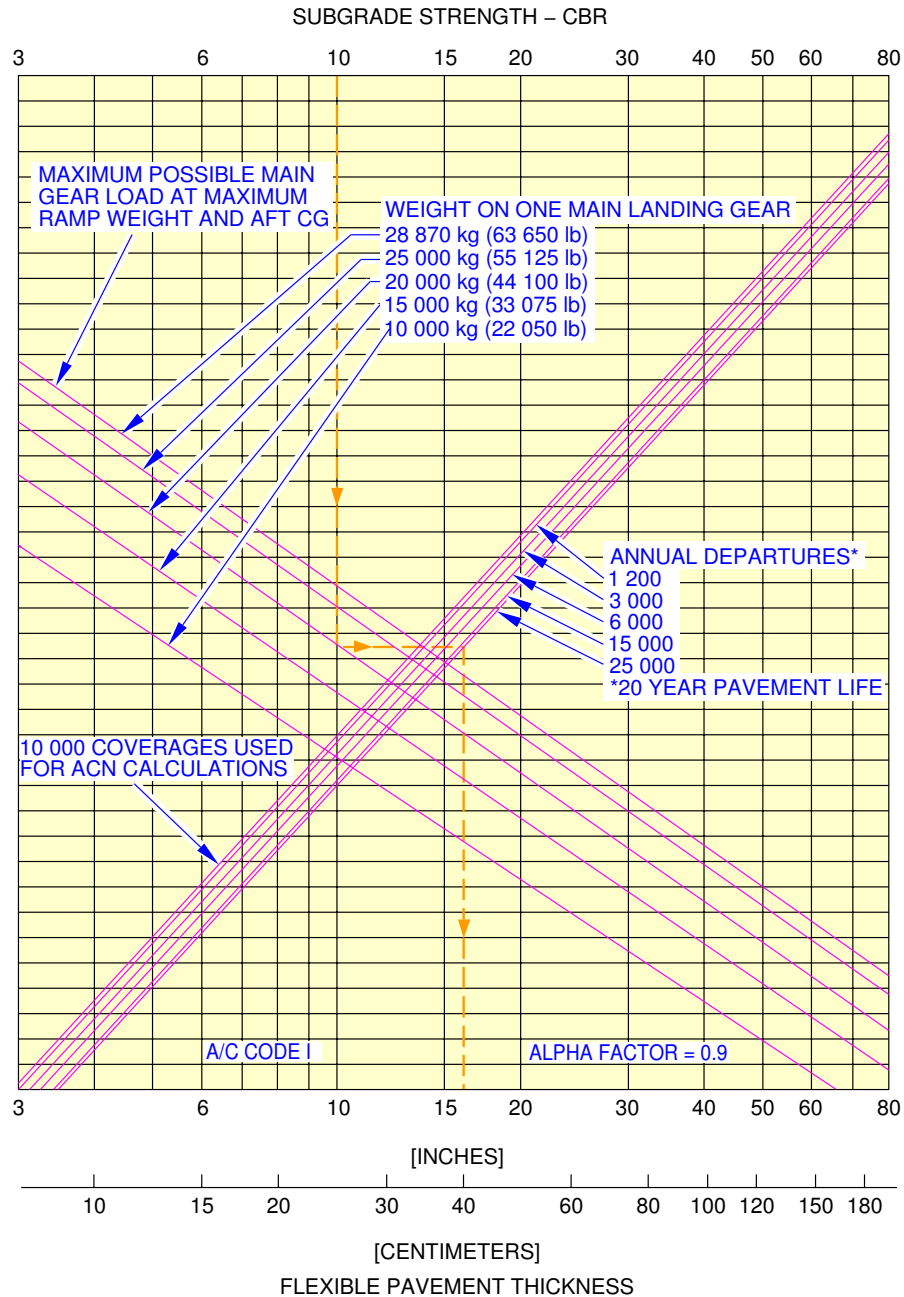


46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)

N_AC_070501_1_0340101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-034-A01

****ON A/C A318-100**

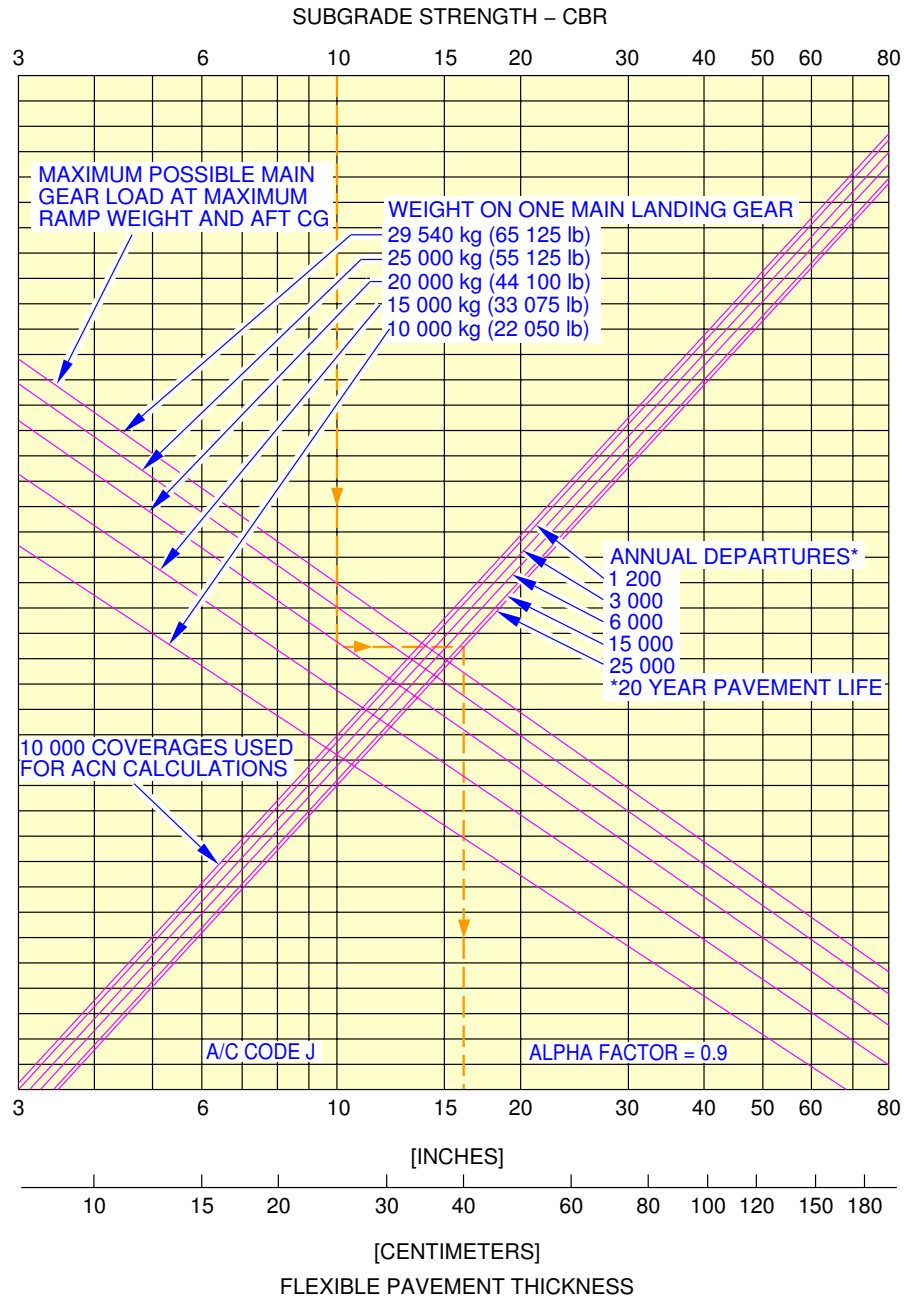


46 x 17 R20 (46 x 16–20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)

N_AC_070501_1_0350101_01_00

Flexible Pavement Requirements
Flexible Pavement Requirements
FIGURE-7-5-1-991-035-A01

****ON A/C A318-100**



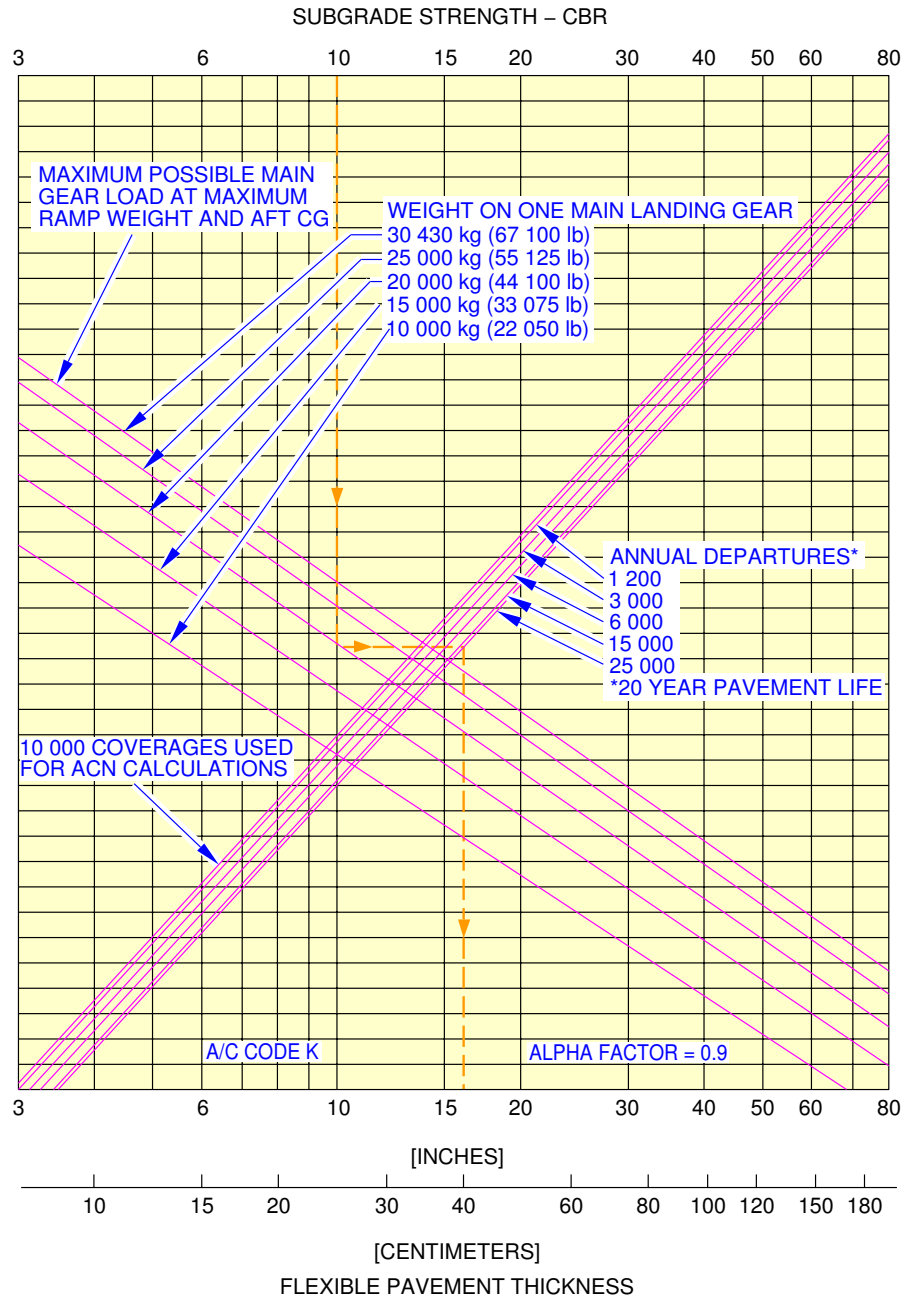
46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)

N_AC_070501_1_0360101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-036-A01

****ON A/C A318-100**



46 x 17 R20 (46 x 16-20) TIRES

TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)

N_AC_070501_1_0370101_01_00

Flexible Pavement Requirements
FIGURE-7-5-1-991-037-A01

7-6-0 Flexible Pavement Requirements - LCN Conversion****ON A/C A318-100**Flexible Pavement Requirements - LCN Conversion**1. General**

In order to determine the airplane weight that can be accommodated on a particular Flexible Pavement, both the LCN of the pavement and the thickness (h) must be known.

In the example shown in Section 7-6-1 Flexible Pavement Requirements - LCN Conversion, A/C Code C for:

The thickness (h) is shown at 20 inches with an LCN of 47.7.

For these conditions, the weight on one Main Landing Gear is 25 000 kg (55 125 lb).

7-6-1 Flexible Pavement Requirements - LCN Conversion

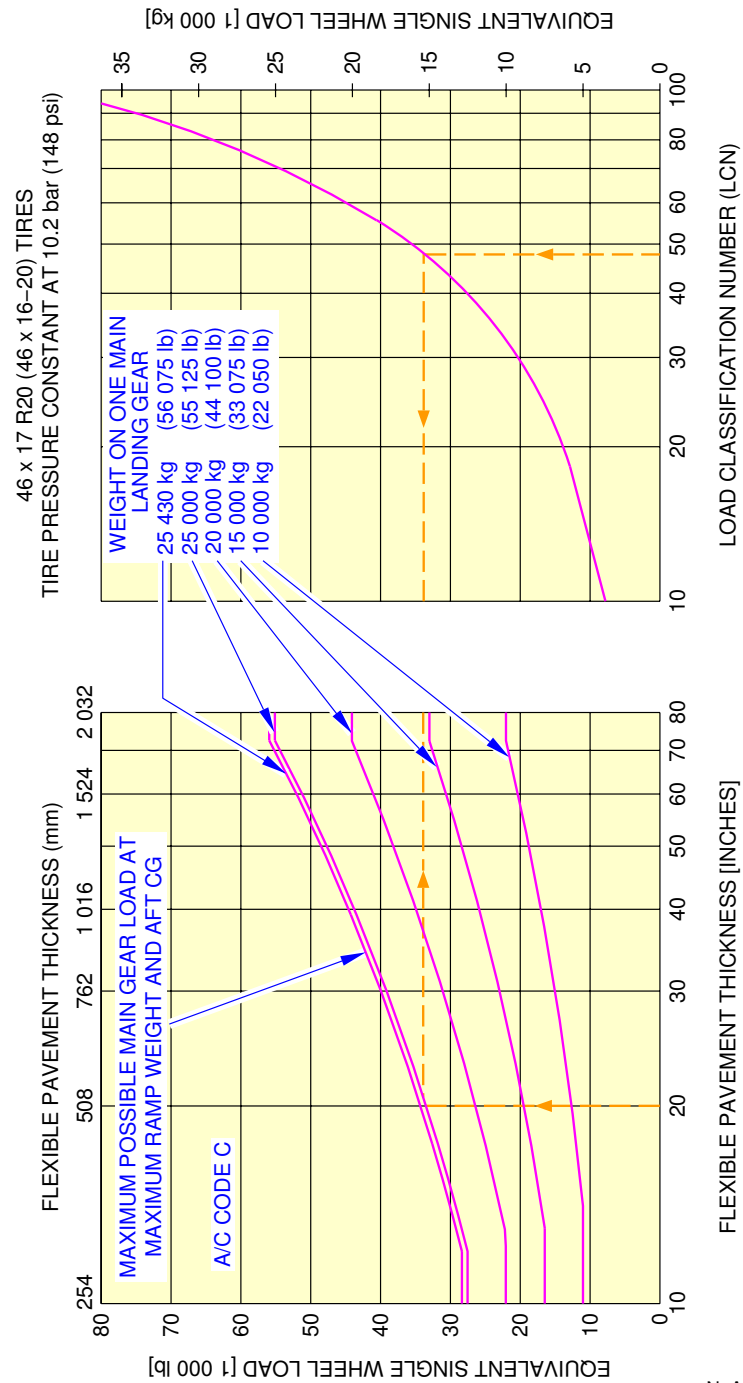
****ON A/C A318-100**

Flexible Pavement Requirements - LCN Conversion

1. This section gives Flexible Pavement Requirements - LCN Conversion.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**

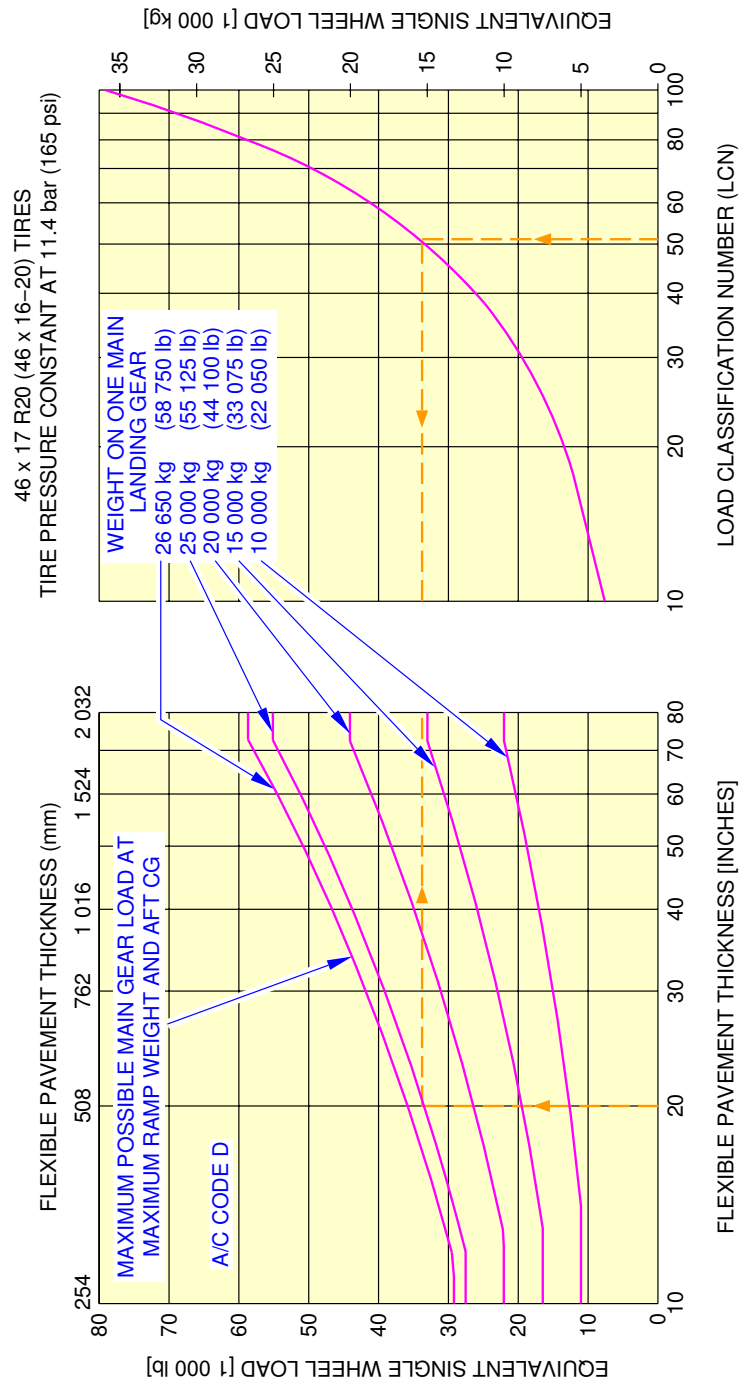


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0320101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-032-A01

****ON A/C A318-100**

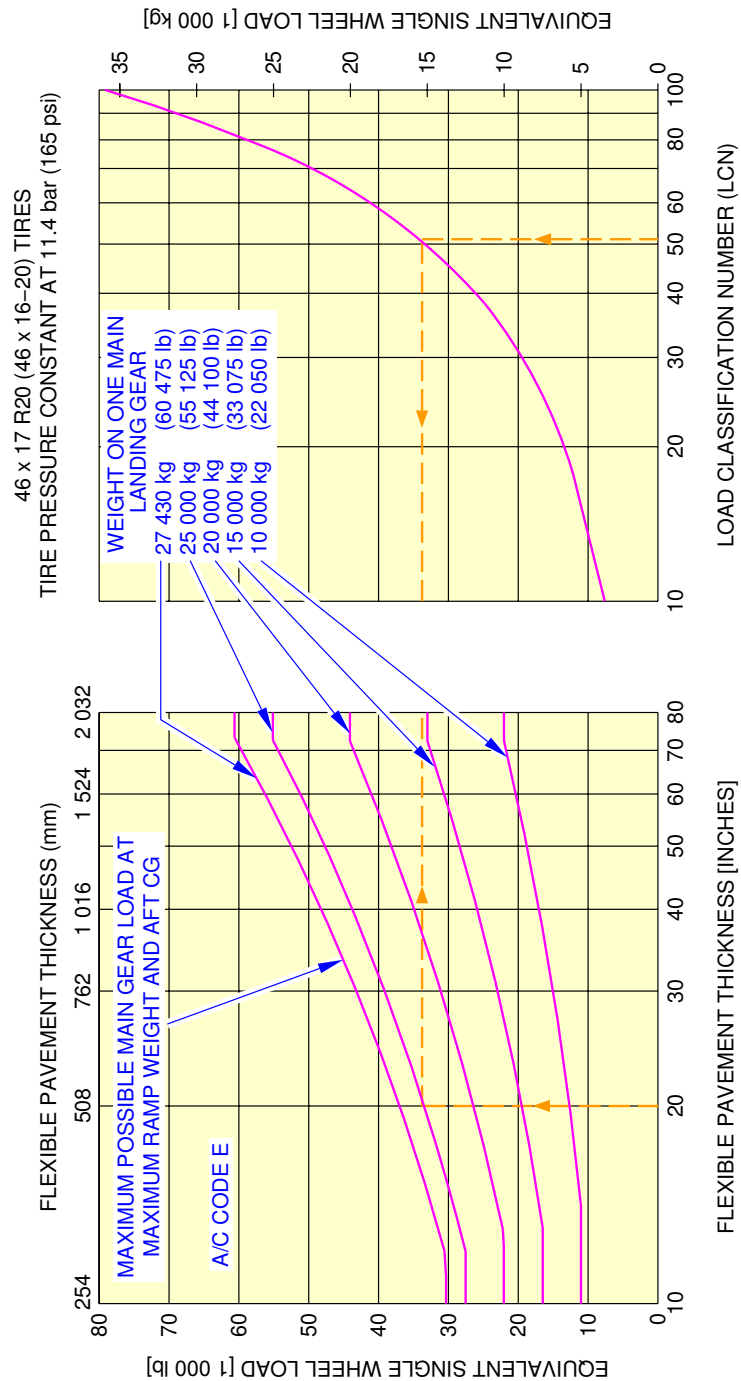


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0330101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-033-A01

****ON A/C A318-100**

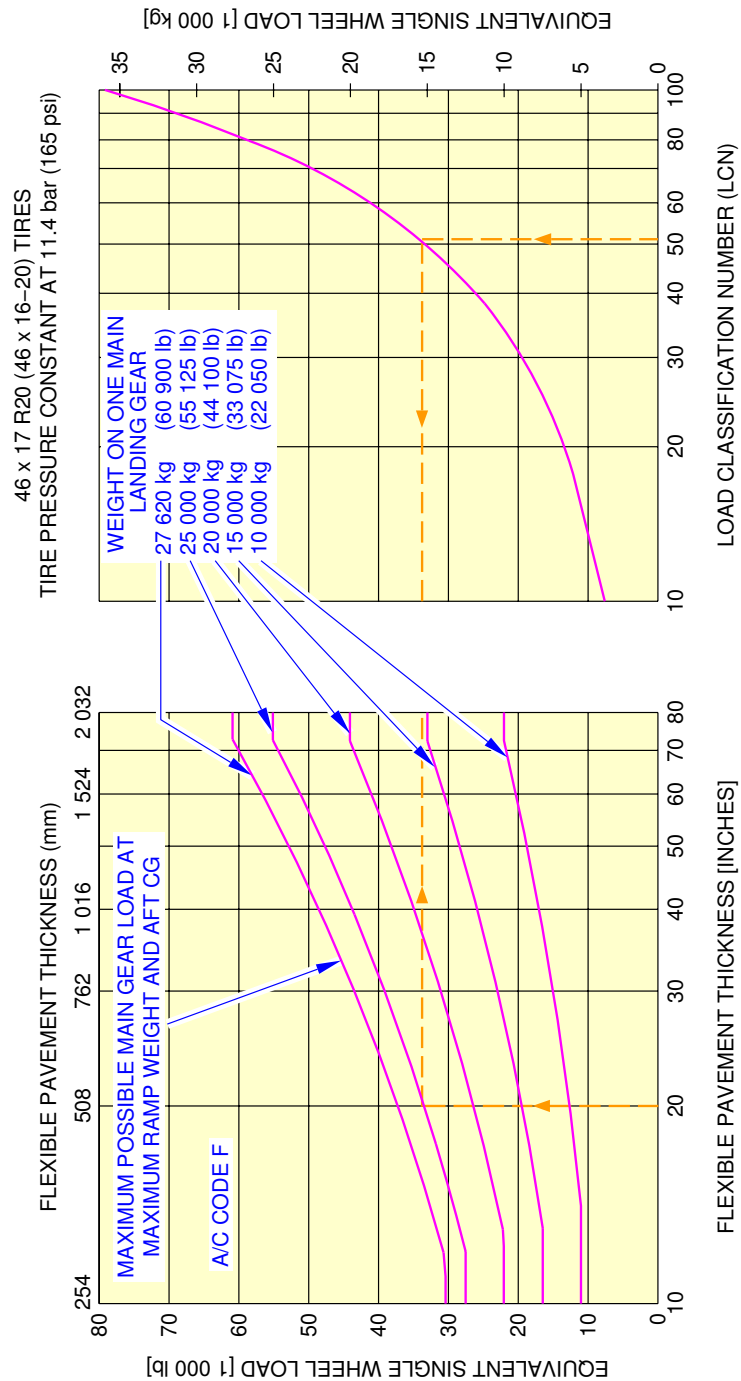


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0340101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-034-A01

****ON A/C A318-100**

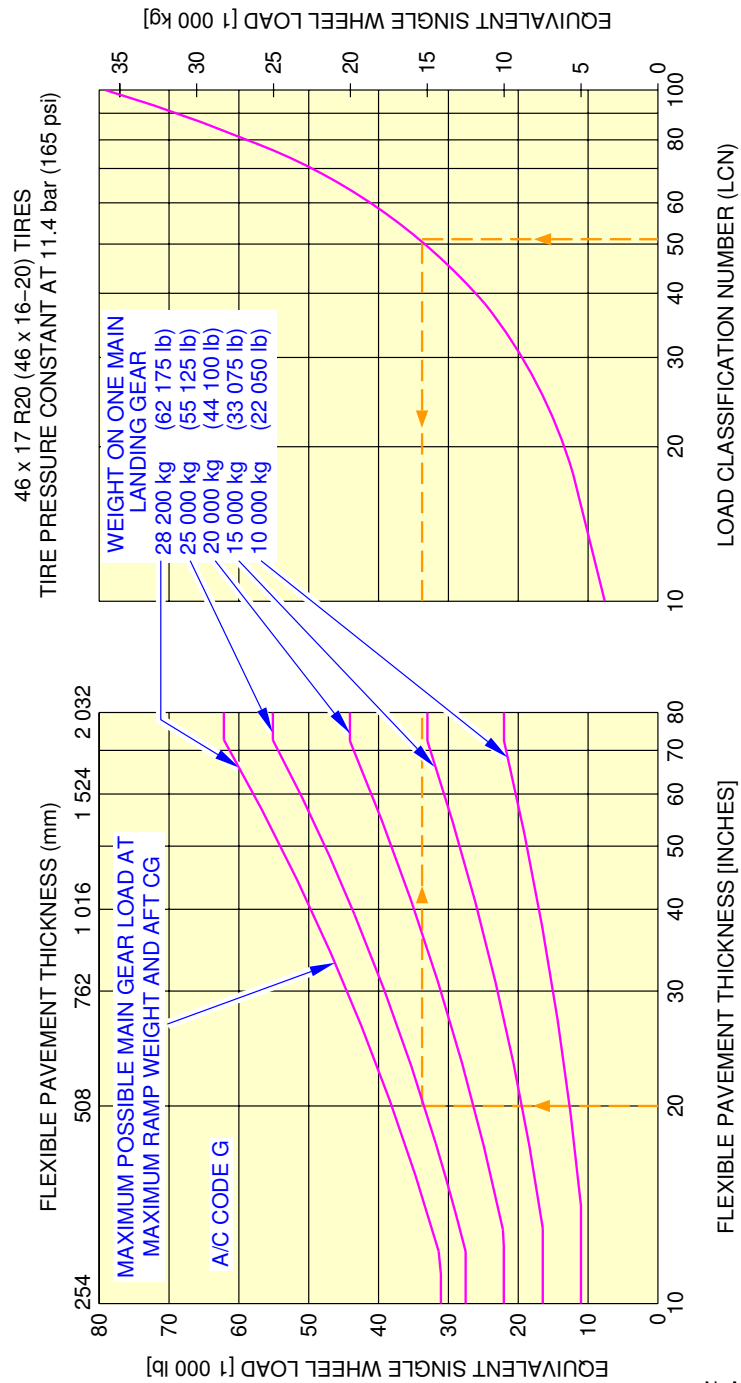


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0350101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-035-A01

****ON A/C A318-100**

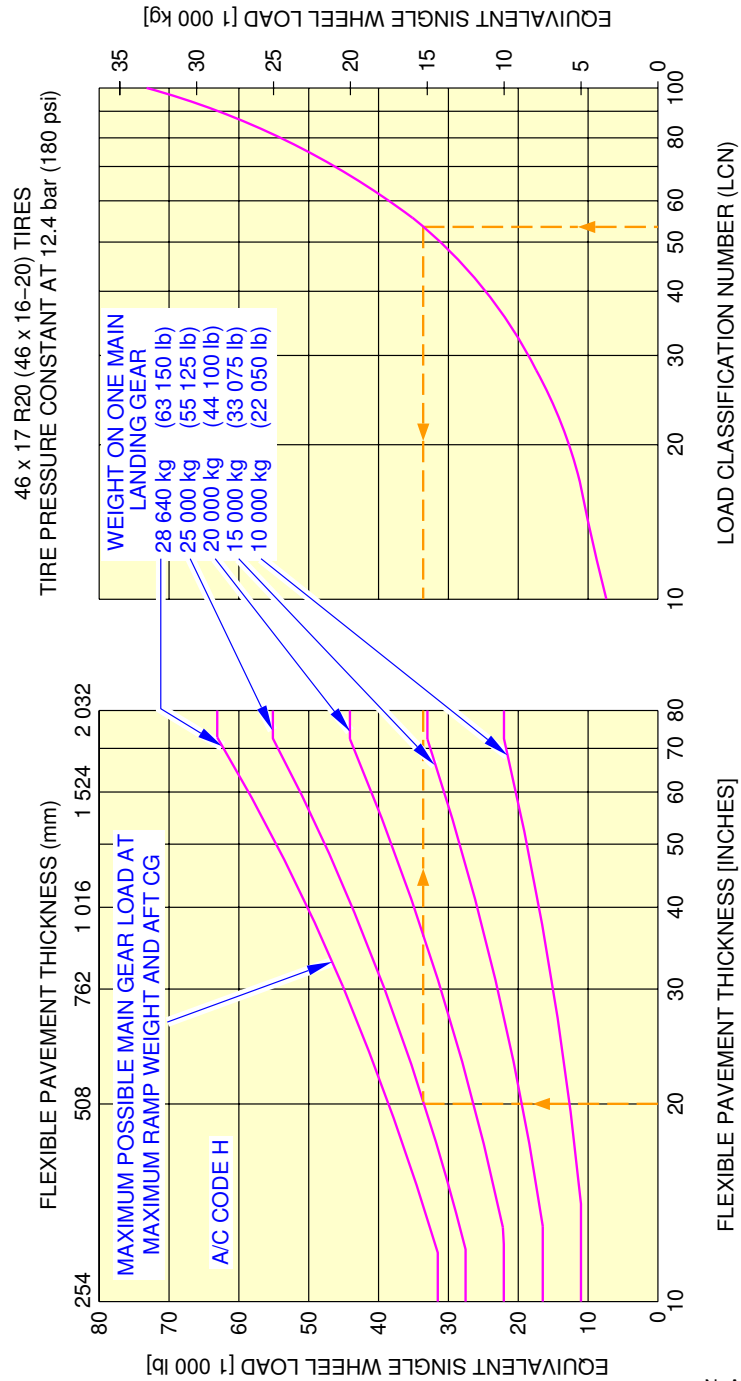


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0360101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-036-A01

****ON A/C A318-100**

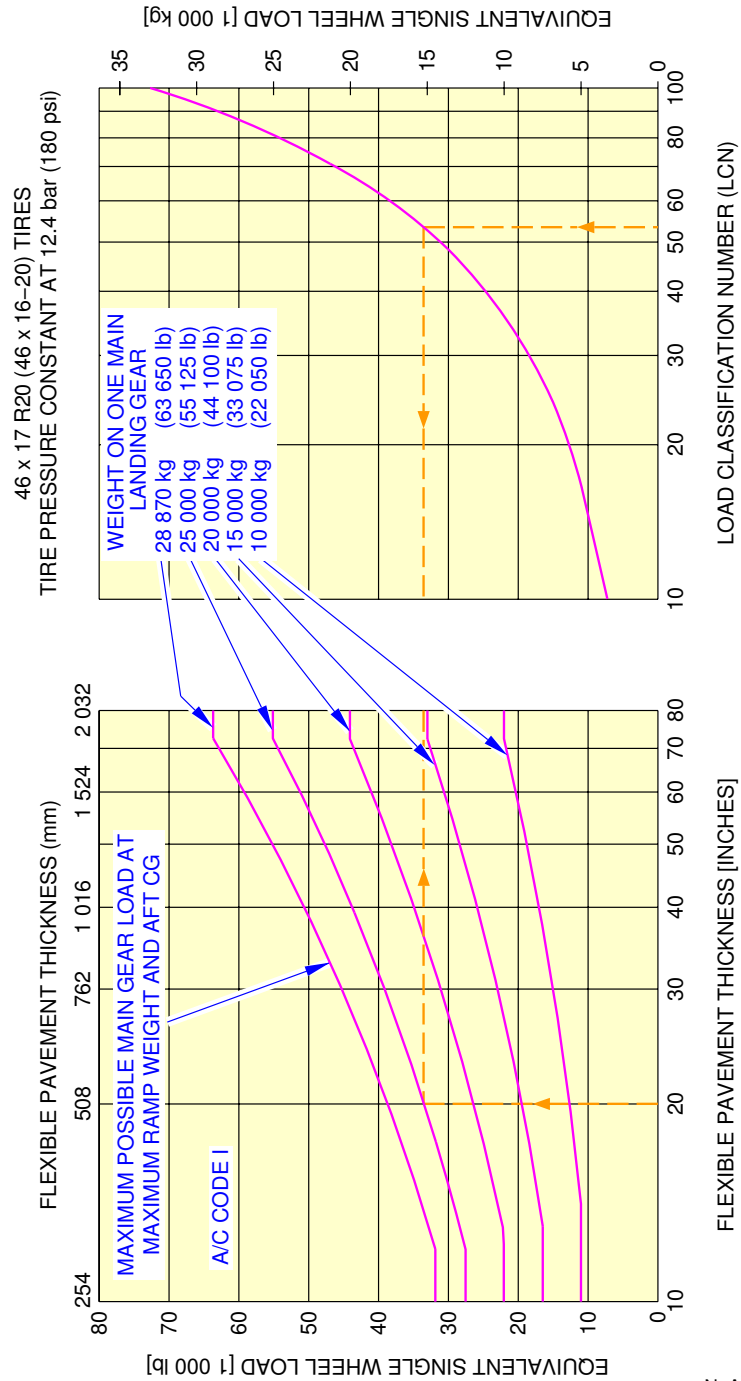


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0370101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-037-A01

****ON A/C A318-100**

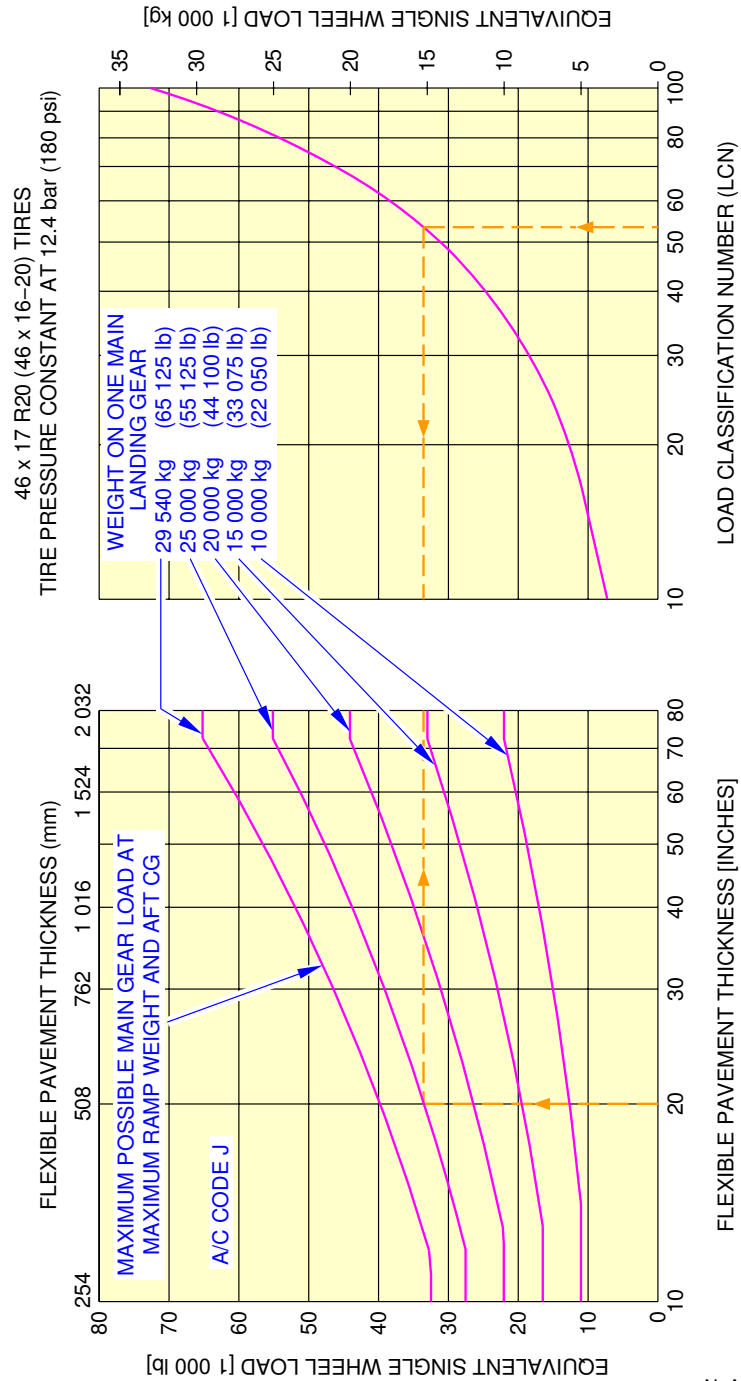


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0380101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-038-A01

****ON A/C A318-100**

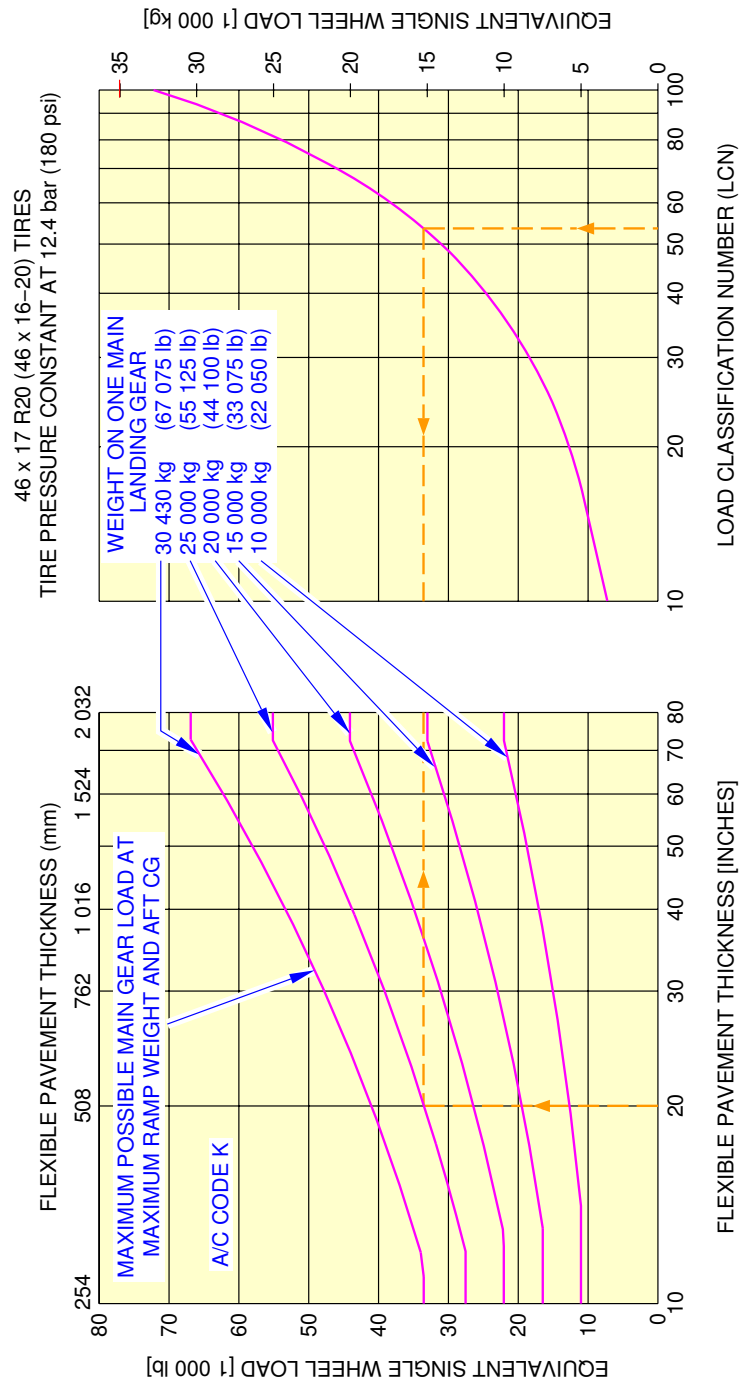


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0390101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-039-A01

****ON A/C A318-100**



NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070601_1_0400101_01_00

Flexible Pavement Requirements - LCN Conversion
FIGURE-7-6-1-991-040-A01

7-7-0 Rigid Pavement Requirements - Portland Cement Association Design Method****ON A/C A318-100**Rigid Pavement Requirements - Portland Cement Association Design Method**1. General**

In order to determine a particular Rigid Pavement Thickness, the Subgrade Modulus (k), the allowable working stress and the weight on one Main Landing Gear must be known.

In the example shown in Section 7-7-1 Rigid Pavement Requirements (PCA), A/C Code C for:

- a "k" value of 150 MN/m³ (550 lbf/in³)
- an allowable working stress of 31.6 kgf/cm² (450 lbf/in²)
- the load on one MLG of 20 000 kg (44 100 lb).

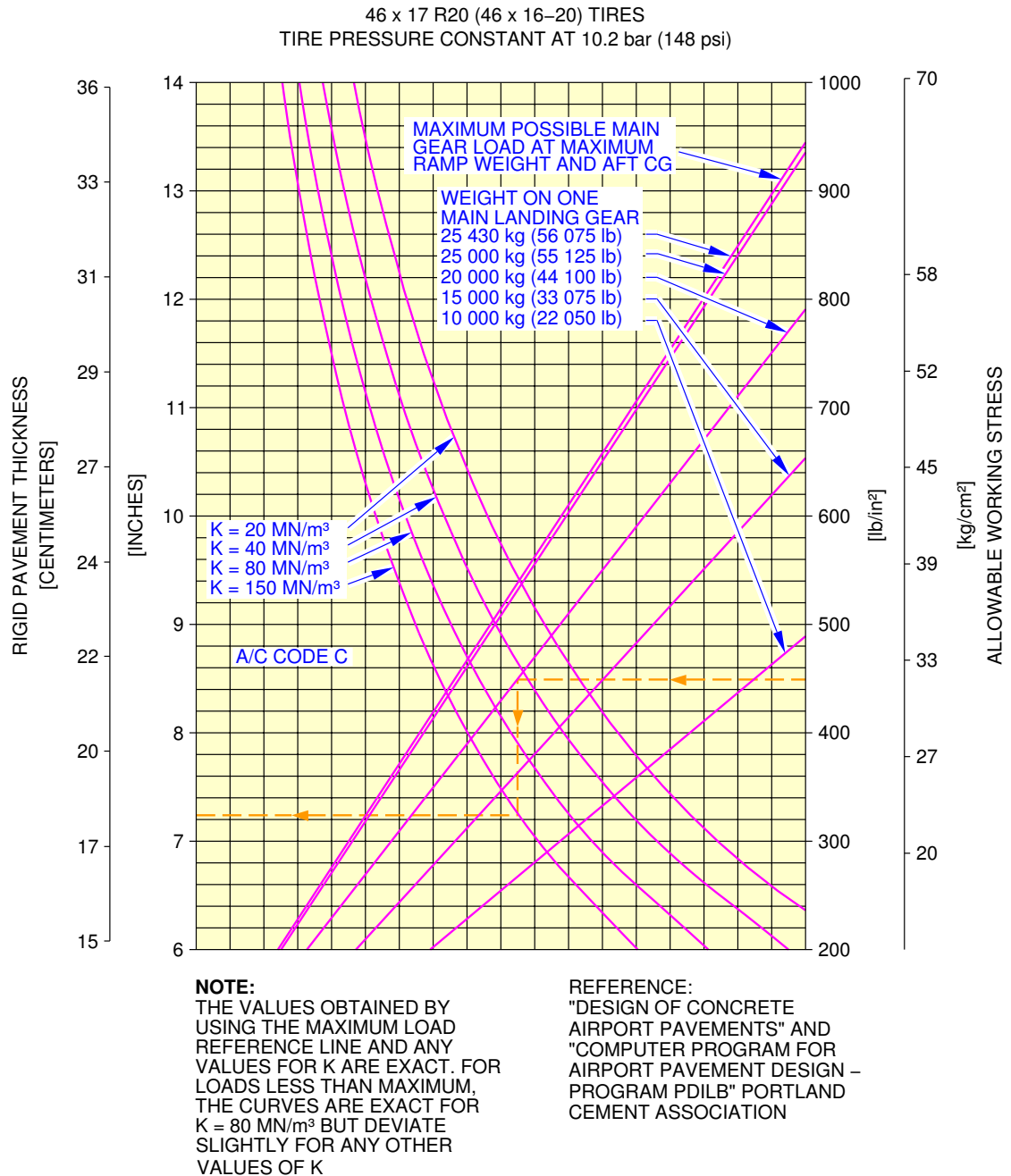
For these conditions, the Rigid Pavement Thickness is 18.4 cm (7.2 in).

7-7-1 Rigid Pavement Requirements - Portland Cement Association Design Method****ON A/C A318-100**Rigid Pavement Requirements - Portland Cement Association Design Method

1. This section gives Rigid Pavement Requirements.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

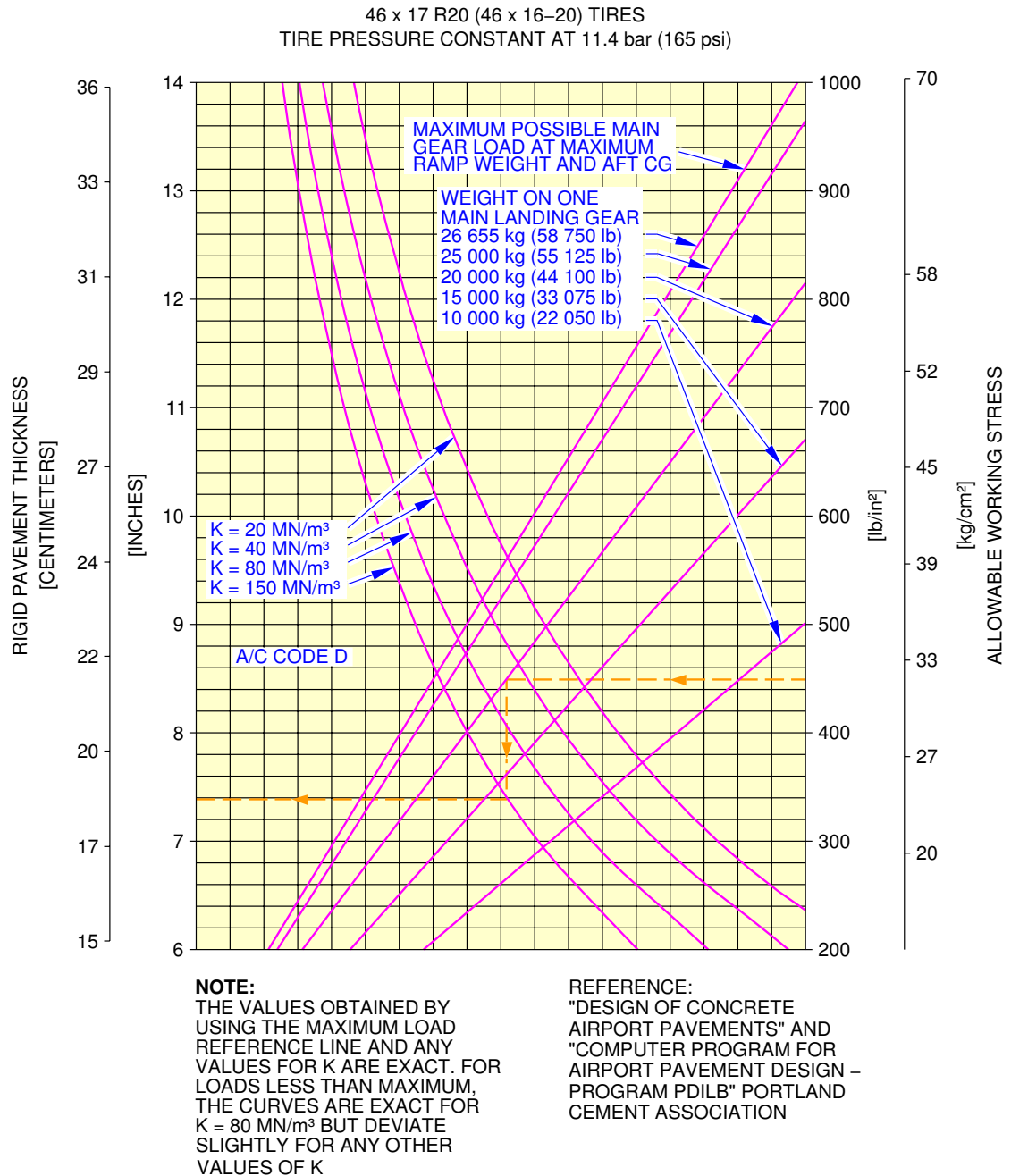
****ON A/C A318-100**



N_AC_070701_1_0290101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-029-A01

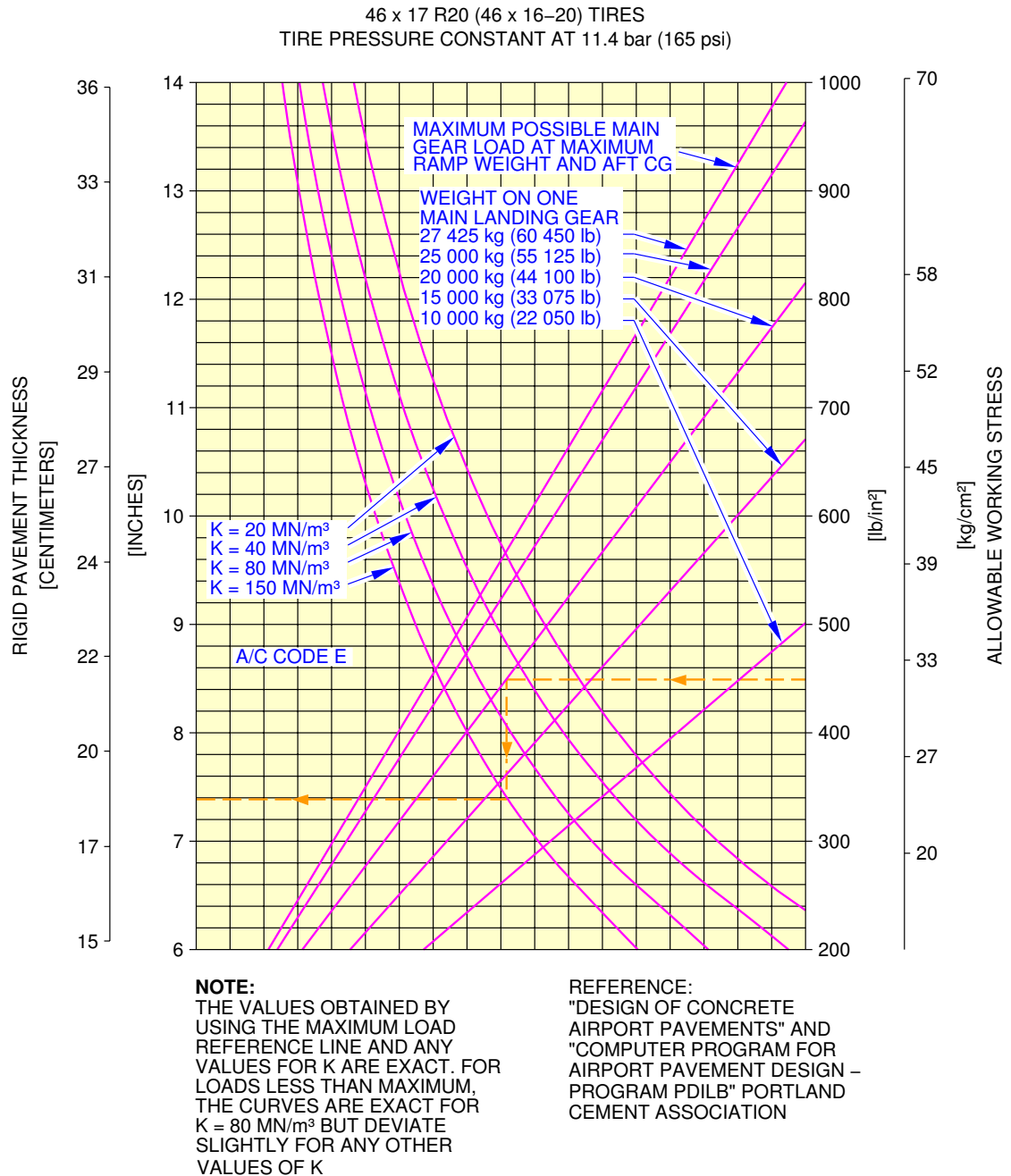
****ON A/C A318-100**



N_AC_070701_1_0300101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-030-A01

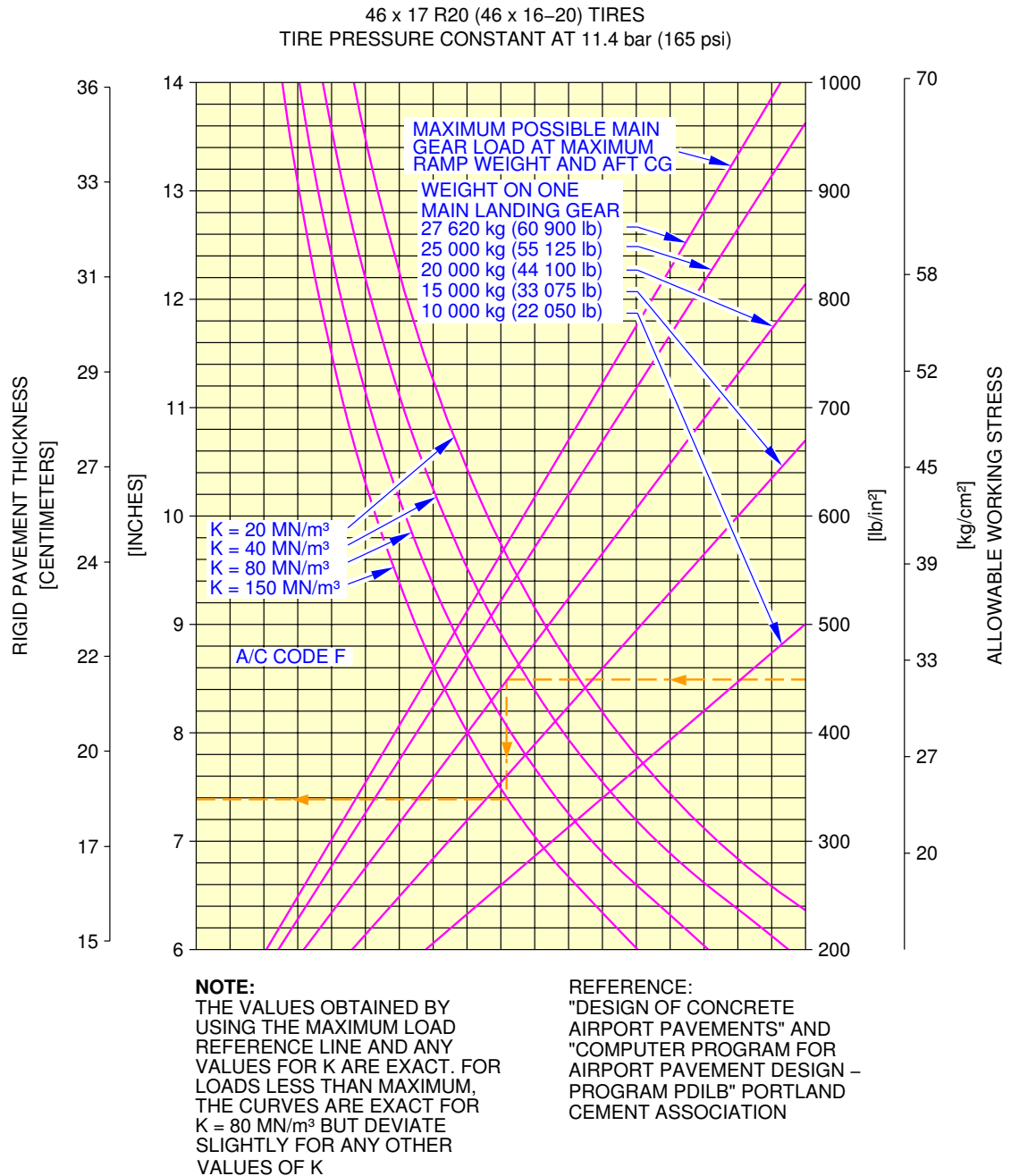
****ON A/C A318-100**



N_AC_070701_1_0310101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-031-A01

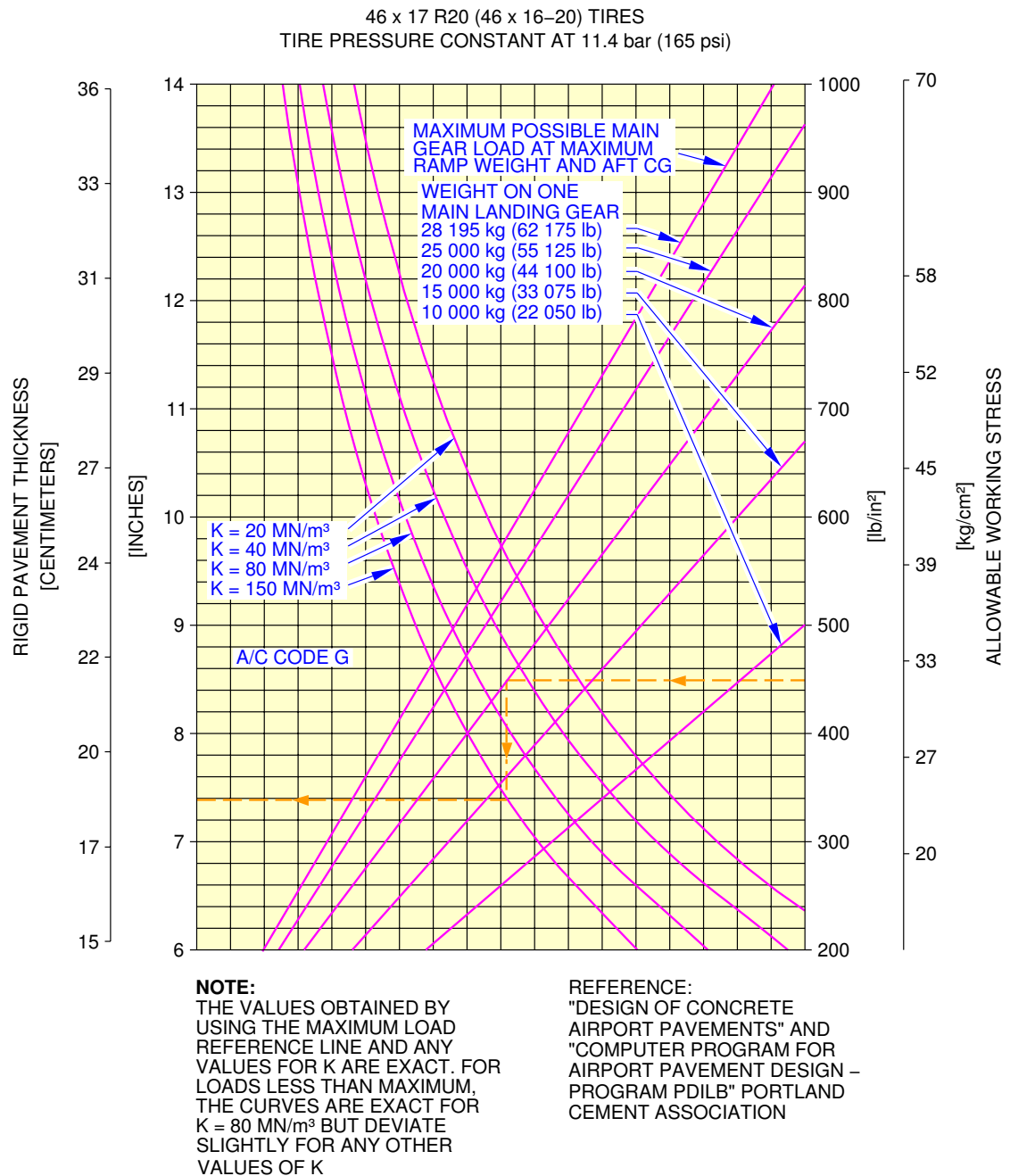
****ON A/C A318-100**



N_AC_070701_1_0320101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-032-A01

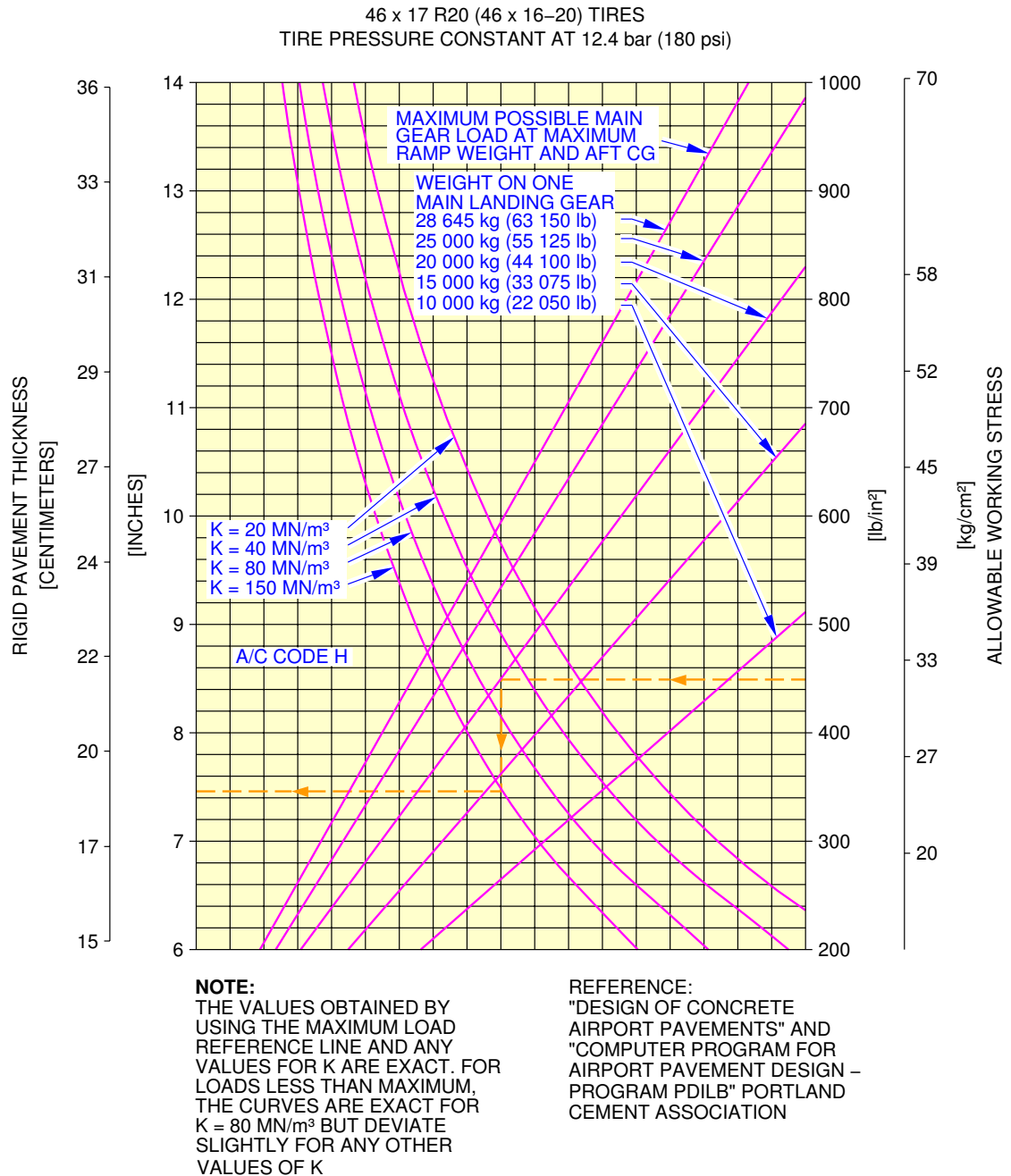
****ON A/C A318-100**



N_AC_070701_1_0330101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-033-A01

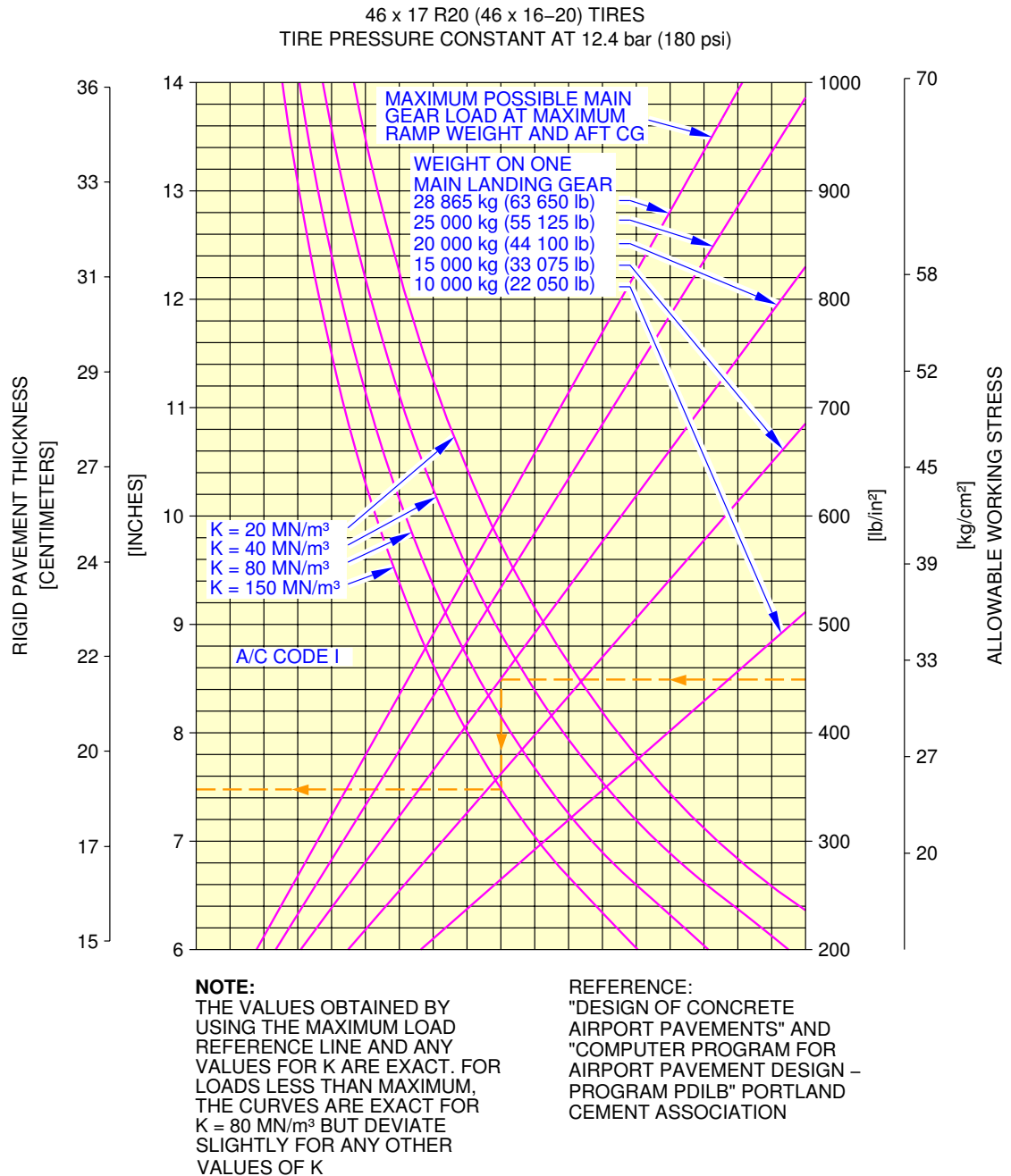
****ON A/C A318-100**



N_AC_070701_1_0340101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-034-A01

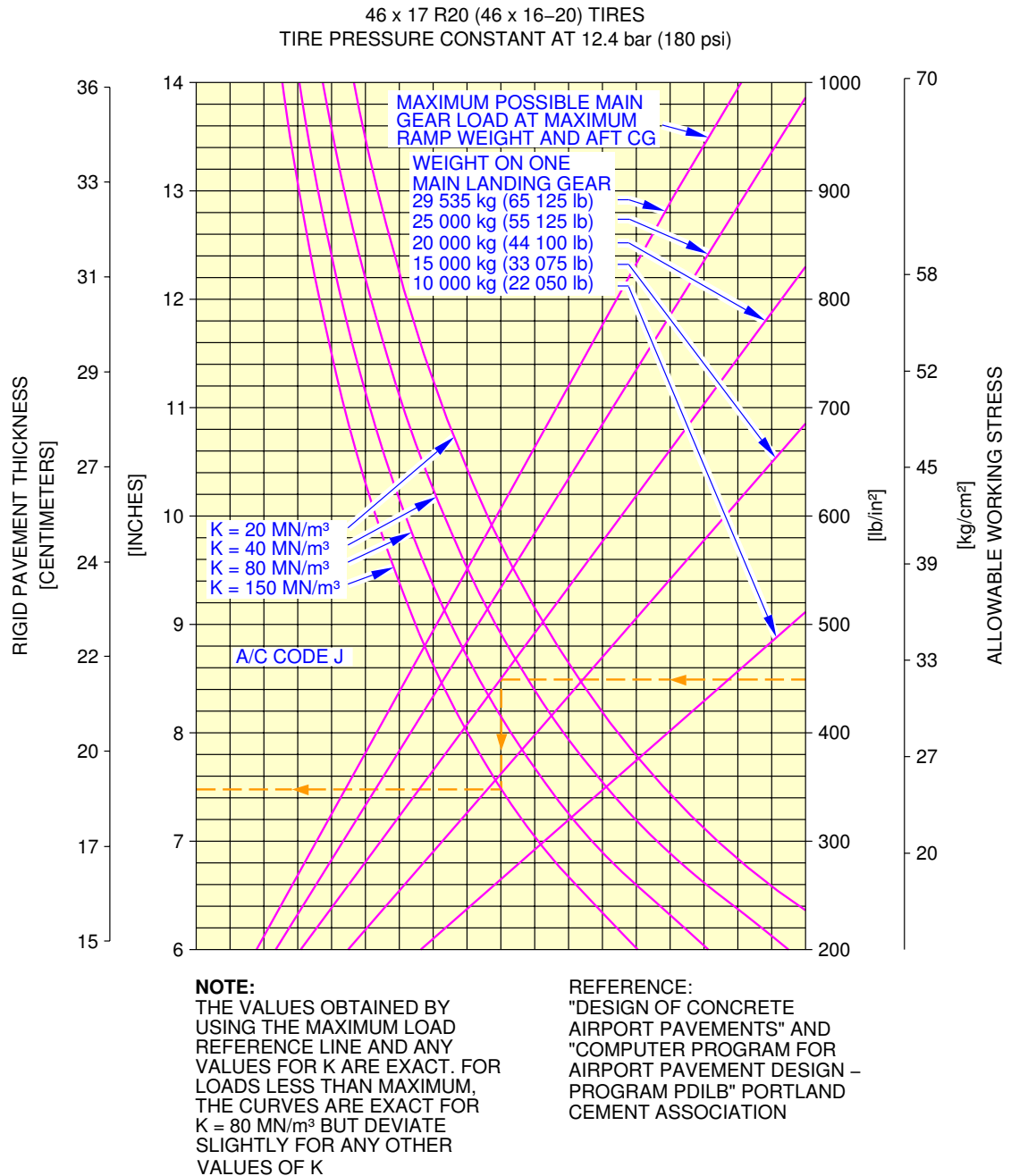
****ON A/C A318-100**



N_AC_070701_1_0350101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-035-A01

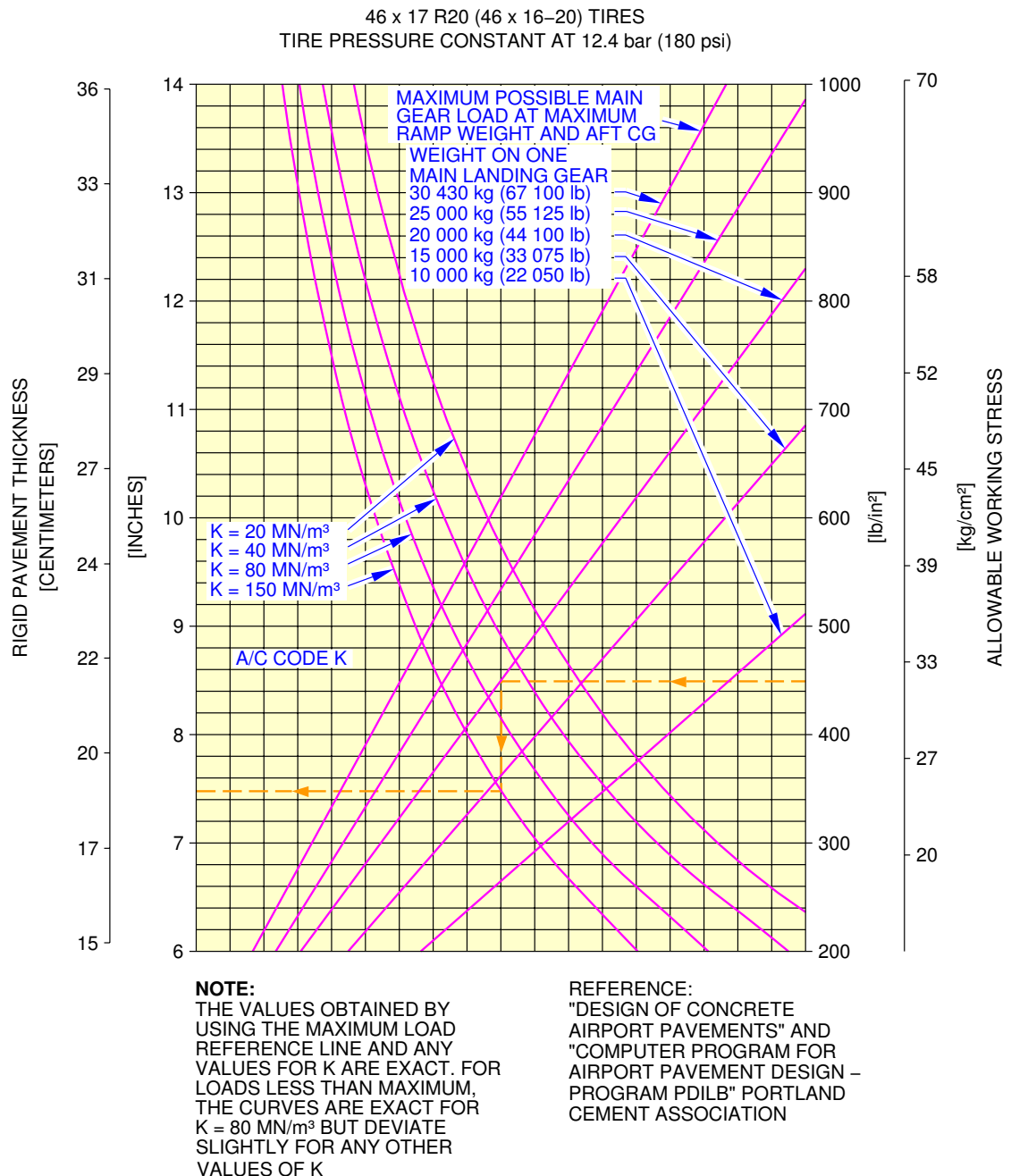
****ON A/C A318-100**



N_AC_070701_1_0360101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-036-A01

****ON A/C A318-100**



N_AC_070701_1_0370101_01_00

Rigid Pavement Requirements (PCA)
FIGURE-7-7-1-991-037-A01

7-8-1 Radius of Relative Stiffness****ON A/C A318-100**Radius of Relative Stiffness

1. This section gives Radius of Relative Stiffness.

****ON A/C A318-100**

RADIUS OF RELATIVE STIFFNESS (L)
VALUES IN INCHES

$$L = \sqrt[4]{\frac{Ed^3}{12(1-\mu^2)k}} = 24.1652 \sqrt[4]{\frac{d^3}{k}}$$

WHERE E = YOUNG'S MODULUS = 4×10^6 psi

k = SUBGRADE MODULUS, lb/in³

d = RIGID PAVEMENT THICKNESS, (in)

μ = POISSON'S RATIO = 0.15

d	k=75	k=100	k=150	k=200	k=250	k=300	k=350	k=400	k=550
6.0	31.48	29.30	26.47	24.63	23.30	22.26	21.42	20.72	19.13
6.5	33.43	31.11	28.11	26.16	24.74	23.64	22.74	22.00	20.31
7.0	35.34	32.89	29.72	27.65	26.15	24.99	24.04	23.25	21.47
7.5	37.22	34.63	31.29	29.12	27.54	26.32	25.32	24.49	22.61
8.0	39.06	36.35	32.85	30.57	28.91	27.62	26.58	25.70	23.74
8.5	40.88	38.04	34.37	31.99	30.25	28.91	27.81	26.90	24.84
9.0	42.67	39.71	35.88	33.39	31.58	30.17	29.03	28.08	25.93
9.5	44.43	41.35	37.36	34.77	32.89	31.42	30.23	29.24	27.00
10.0	46.18	42.97	38.83	36.14	34.17	32.65	31.42	30.39	28.06
10.5	47.90	44.57	40.28	37.48	35.45	33.87	32.59	31.52	29.11
11.0	49.60	46.16	41.71	38.81	36.71	35.07	33.75	32.64	30.14
11.5	51.28	47.72	43.12	40.13	37.95	36.26	34.89	33.74	31.16
12.0	52.94	49.27	44.52	41.43	39.18	37.44	36.02	34.84	32.17
12.5	54.59	50.80	45.90	42.72	40.40	38.60	37.14	35.92	33.17
13.0	56.22	52.32	47.27	43.99	41.61	39.75	38.25	36.99	34.16
13.5	57.83	53.82	48.63	45.26	42.80	40.89	39.35	38.06	35.14
14.0	59.43	55.31	49.98	46.51	43.98	42.02	40.44	39.11	36.12
14.5	61.02	56.78	51.31	47.75	45.16	43.15	41.51	40.15	37.08
15.0	62.59	58.25	52.63	48.98	46.32	44.26	42.58	41.19	38.03
15.5	64.15	59.70	53.94	50.20	47.47	45.36	43.64	42.21	38.98
16.0	65.69	61.13	55.24	51.41	48.62	46.45	44.70	43.23	39.92
16.5	67.23	62.56	56.53	52.61	49.75	47.54	45.74	44.24	40.85
17.0	68.75	63.98	57.81	53.80	50.88	48.61	46.77	45.24	41.78
17.5	70.26	65.38	59.08	54.98	52.00	49.68	47.80	46.23	42.70
18.0	71.76	66.78	60.34	56.15	53.11	50.74	48.82	47.22	43.61
19.0	74.73	69.54	62.84	58.48	55.31	52.84	50.84	49.17	45.41
20.0	77.66	72.27	65.30	60.77	57.47	54.91	52.84	51.10	47.19
21.0	80.55	74.96	67.74	63.04	59.62	56.96	54.81	53.01	48.95
22.0	83.41	77.63	70.14	65.28	61.73	58.98	56.75	54.89	50.69
23.0	86.24	80.26	72.52	67.49	63.83	60.98	58.68	56.75	52.41
24.0	89.04	82.86	74.87	69.68	65.90	62.96	60.58	58.59	54.11
25.0	91.81	85.44	77.20	71.84	67.95	64.92	62.46	60.41	55.79

N_AC_070801_1_0010101_01_01

Radius of Relative Stiffness
(Reference: Portland Cement Association)
FIGURE-7-8-1-991-001-A01

7-8-2 Rigid Pavement Requirements - LCN Conversion

****ON A/C A318-100**

Rigid Pavement Requirements - LCN Conversion

1. General

In order to determine the airplane weight that can be accommodated on a particular Rigid Pavement, both the LCN of the pavement and the Radius of Relative Stiffness (L) must be known.

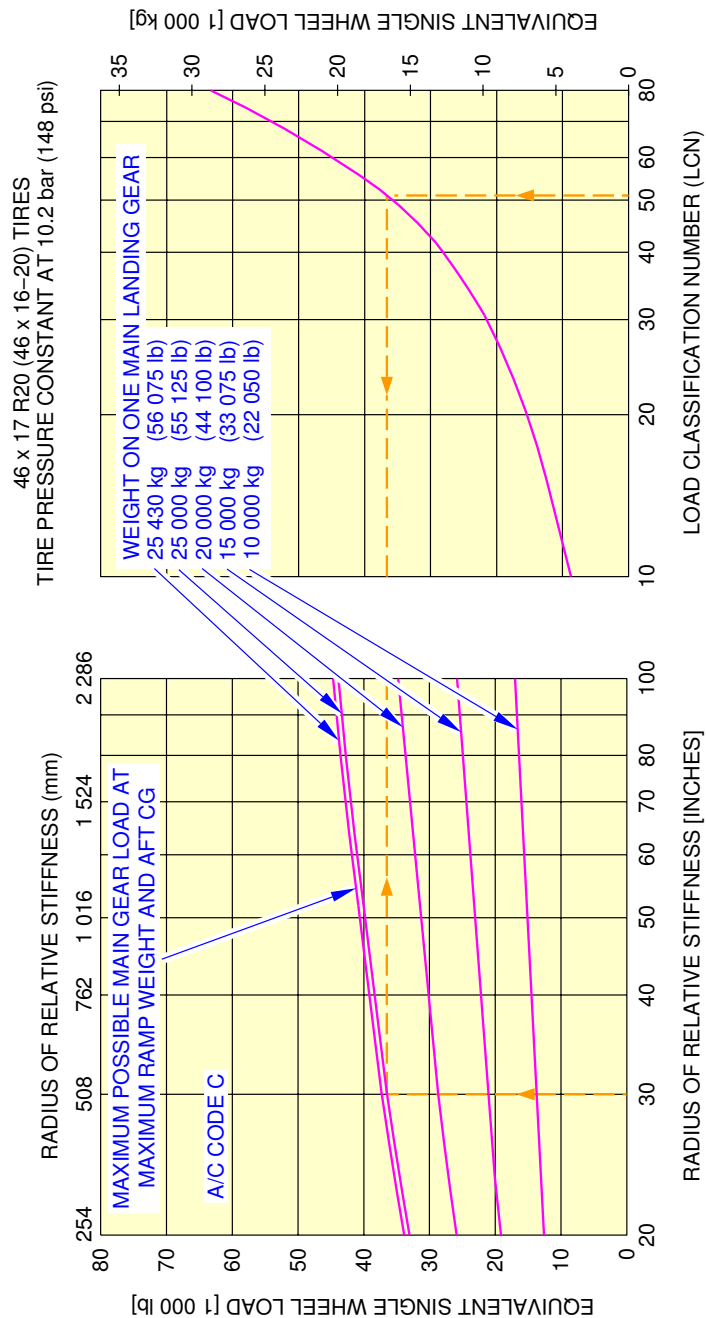
In the example shown in this section Rigid Pavement Requirements - LCN Conversion, A/C Code C for:

- The Radius of Relative Stiffness is shown at 762 mm (30 in) with an LCN of 51.1.

For these conditions, the weight on one Main Landing Gear is 25 000 kg (55 125 lb).

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**

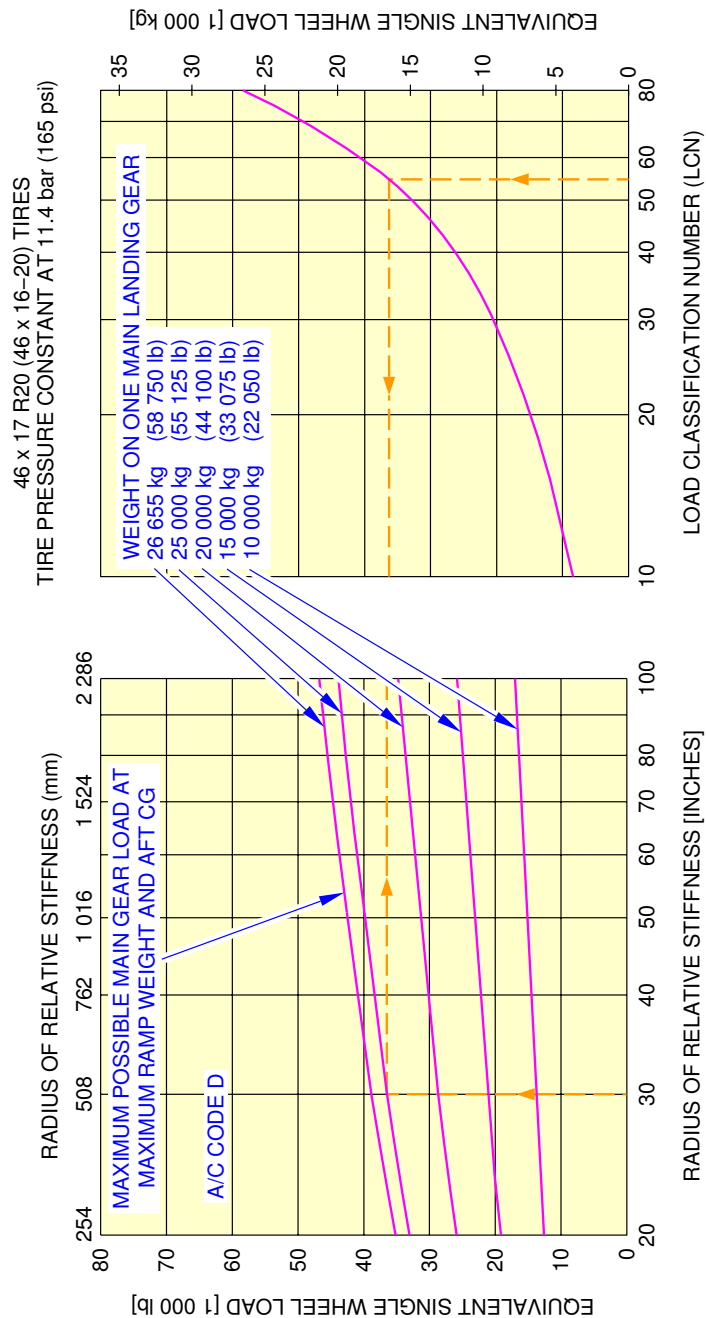


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0320101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-032-A01

****ON A/C A318-100**

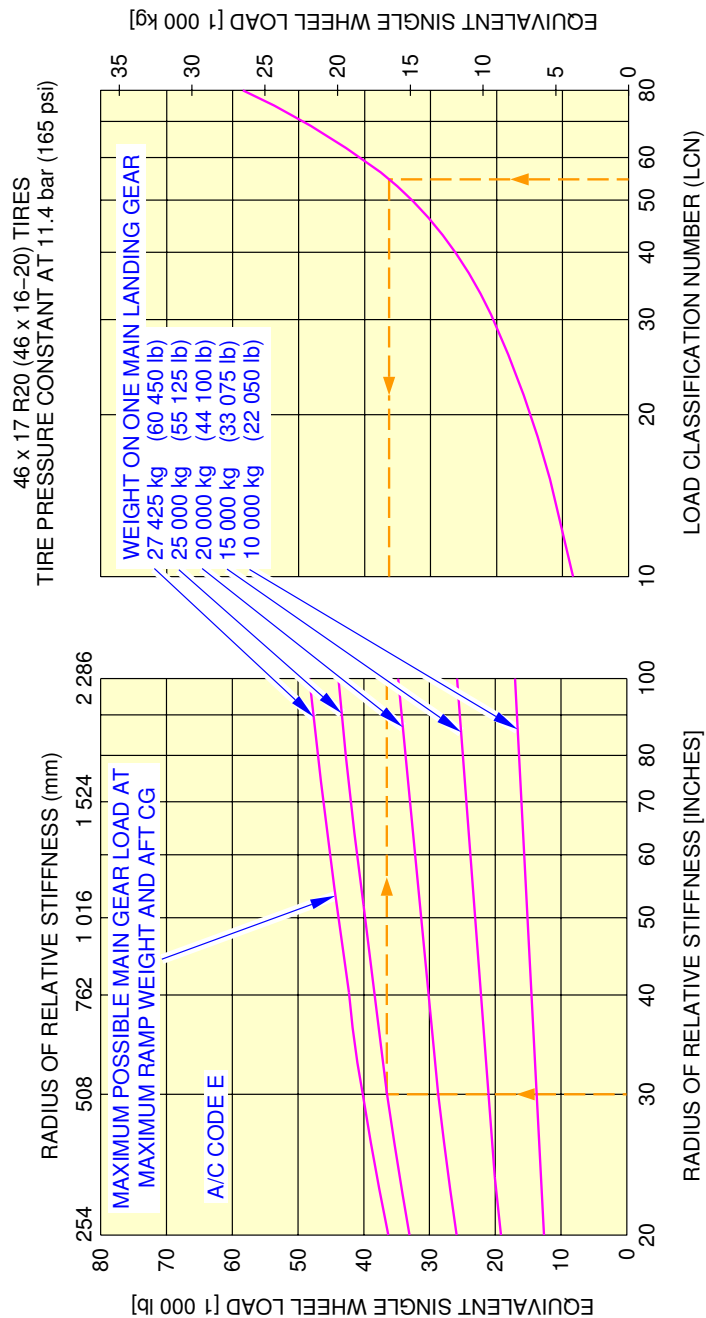


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0330101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-033-A01

****ON A/C A318-100**

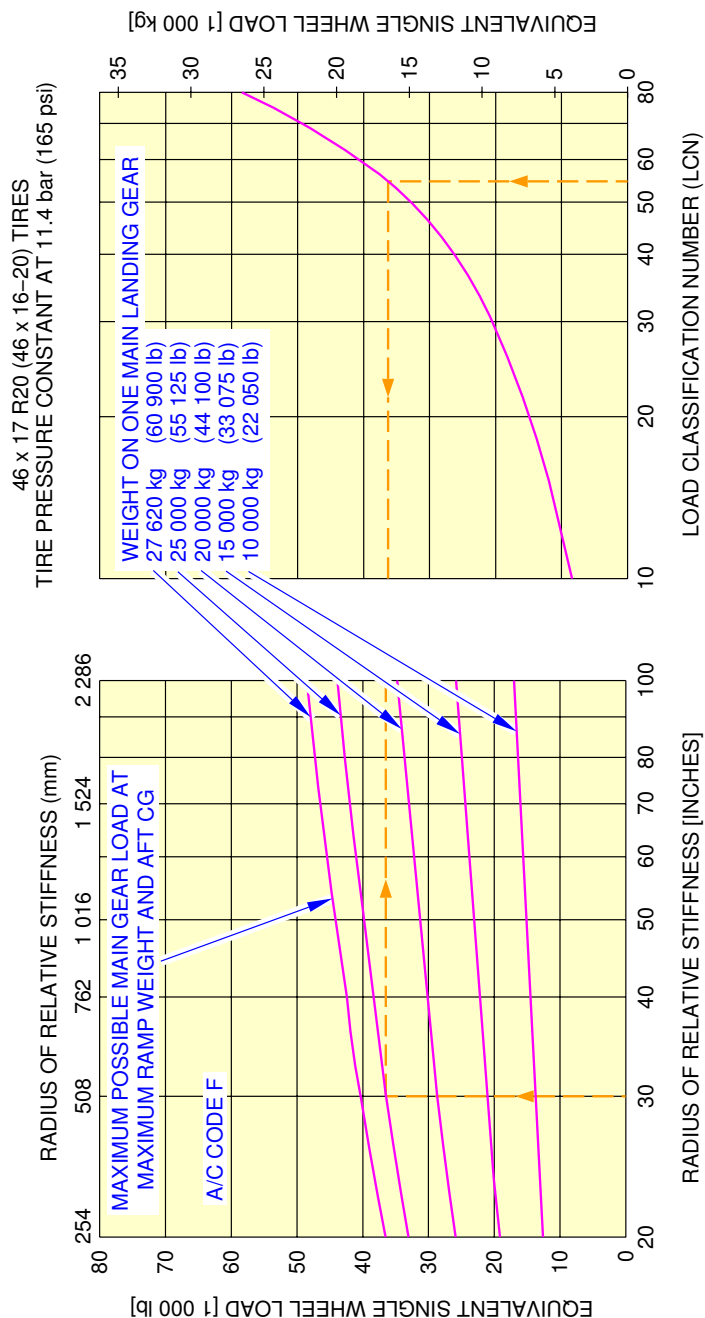


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0340101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-034-A01

****ON A/C A318-100**

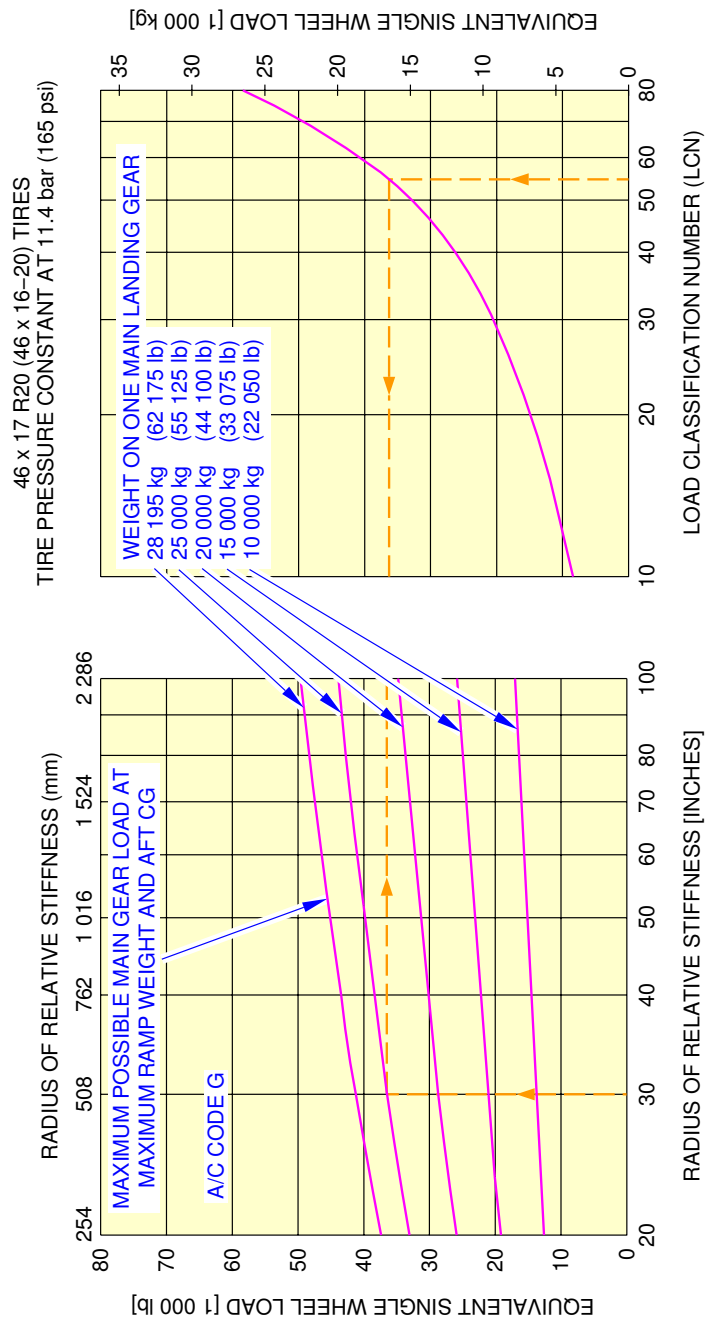


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0350101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-035-A01

****ON A/C A318-100**

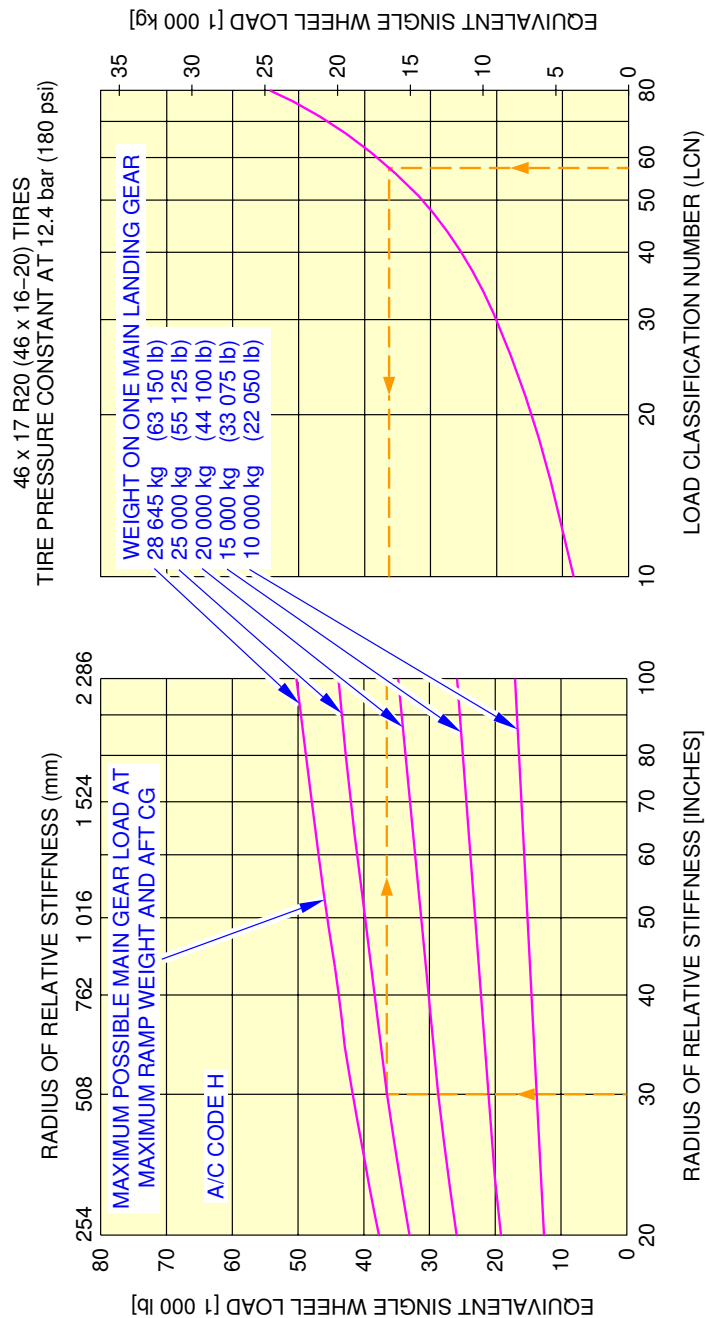


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0360101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-036-A01

****ON A/C A318-100**

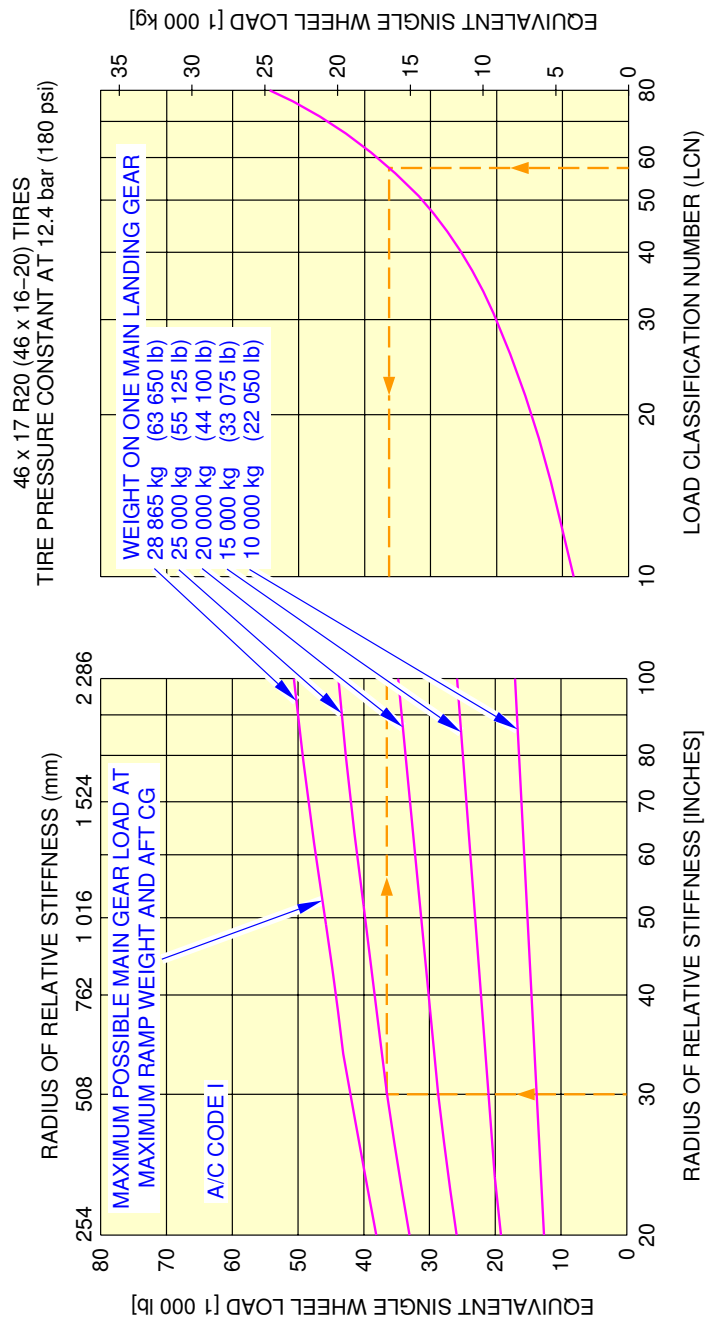


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0370101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-037-A01

****ON A/C A318-100**

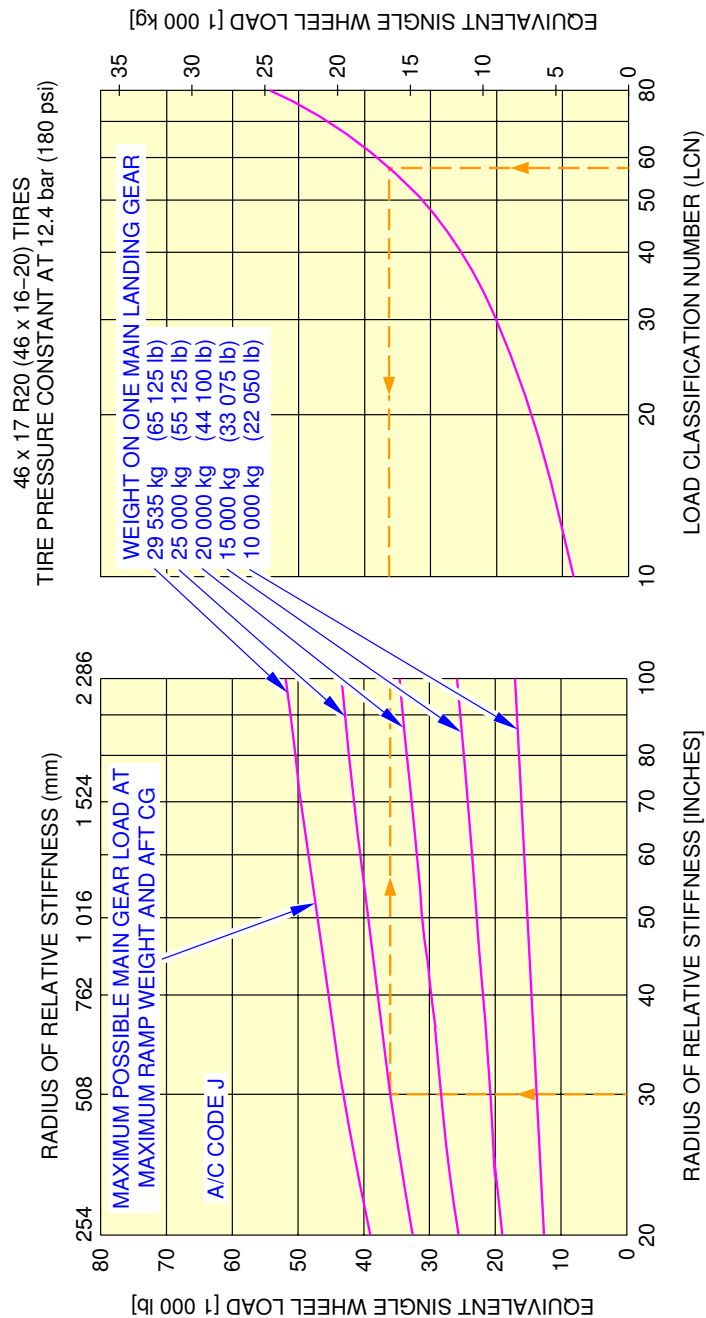


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0380101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-038-A01

****ON A/C A318-100**

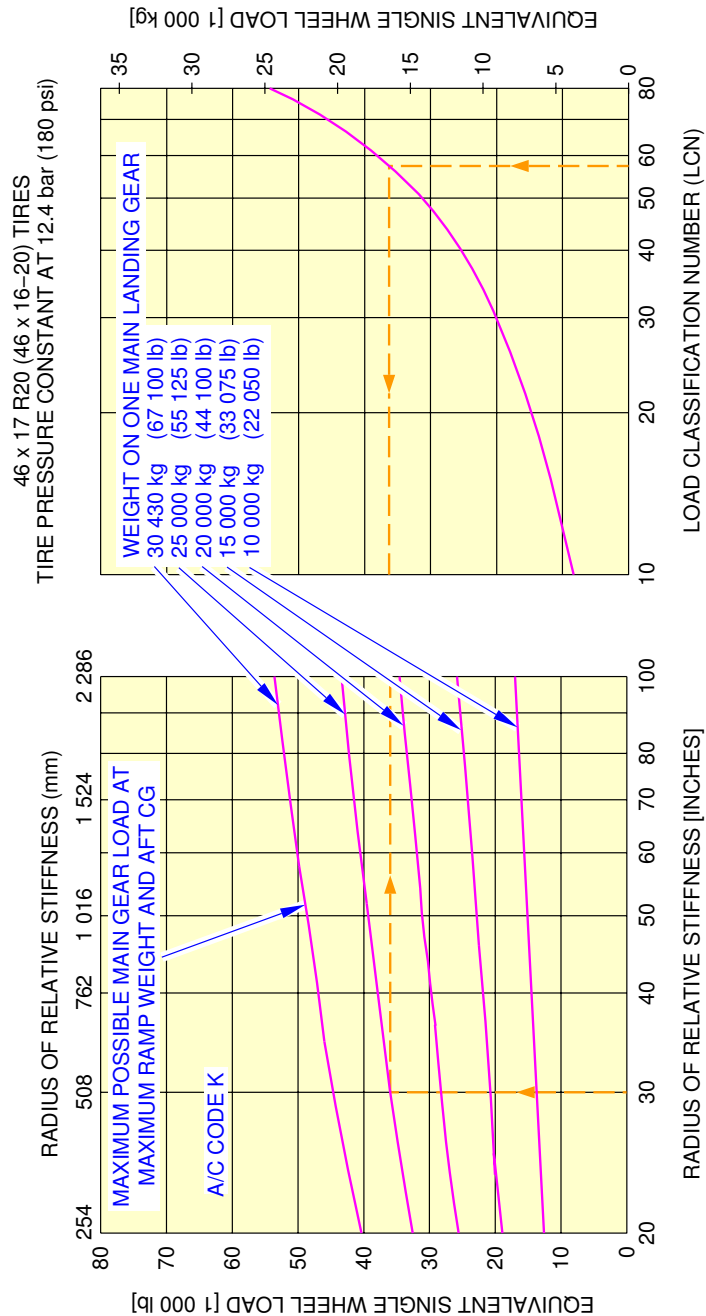


NOTE: EQUIVALENT SINGLE WHEEL LOADS ARE DERIVED BY METHODS SHOWN IN
ICAO AERODROME MANUAL PART 2 PAR 4.1.3 Second Edition 1965

N_AC_070802_1_0390101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-039-A01

****ON A/C A318-100**



N_AC_070802_1_0400101_01_00

Rigid Pavement Requirements - LCN Conversion
FIGURE-7-8-2-991-040-A01

7-8-3 Radius of Relative Stiffness (Other values of E and L)

****ON A/C A318-100**

Radius of Relative Stiffness (Other values of "E" and "L")

1. General

The table of Section 7-8-1, Radius of Relative Stiffness, presents "L" values based on Young's Modulus (E) of 4 000 000 psi and Poisson's Ratio (μ) of 0.15.

To find "L" values based on other values of "E" and " μ ", see Section 7-8-4.

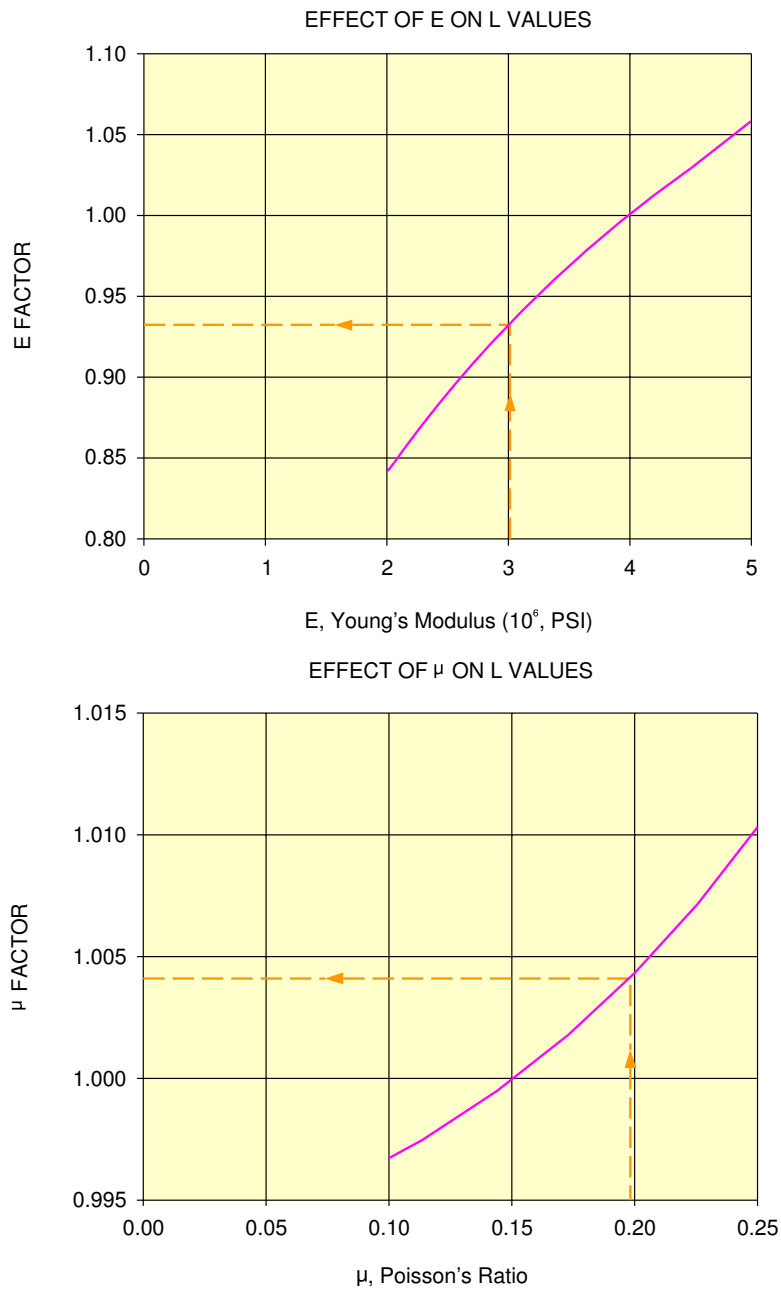
For example, to find an "L" value based on an "E" of 3 000 000 psi, the "E" factor of 0.931 is multiplied by the "L" value found in the table of Section 7-8-1.

The effect of variations of " μ " on the "L" value is treated in a similar manner.

7-8-4 Radius of Relative Stiffness****ON A/C A318-100**Radius of Relative Stiffness

1. This section gives Radius of Relative Stiffness.

****ON A/C A318-100**



NOTE: BOTH CURVES ON THIS PAGE ARE USED TO ADJUST THE L VALUES OF TABLE 7.8.1

N_AC_070804_1_0010101_01_02

Radius of Relative Stiffness
(Effect E and μ on "L" values)
FIGURE-7-8-4-991-001-A01

7-9-0 ACN/PCN Reporting System****ON A/C A318-100**ACN/PCN Reporting System**1. General**

To determine the ACN of an aircraft on flexible or rigid pavement, both the aircraft gross weight and the subgrade strength must be known.

In the example shown in Section 7-9-1 Aircraft Classification Number – Flexible Pavement, A/C Code C, for an aircraft gross weight of 50 000 kg (110 225 lb) and low subgrade strength (code C), the ACN for the flexible pavement is 25.5.

In the example shown in Section 7-9-2 Aircraft Classification Number – Rigid Pavement, A/C Code C, for an aircraft gross weight of 50 000 kg (110 225 lb) and medium subgrade strength (code B), the ACN for the rigid pavement is 25.5.

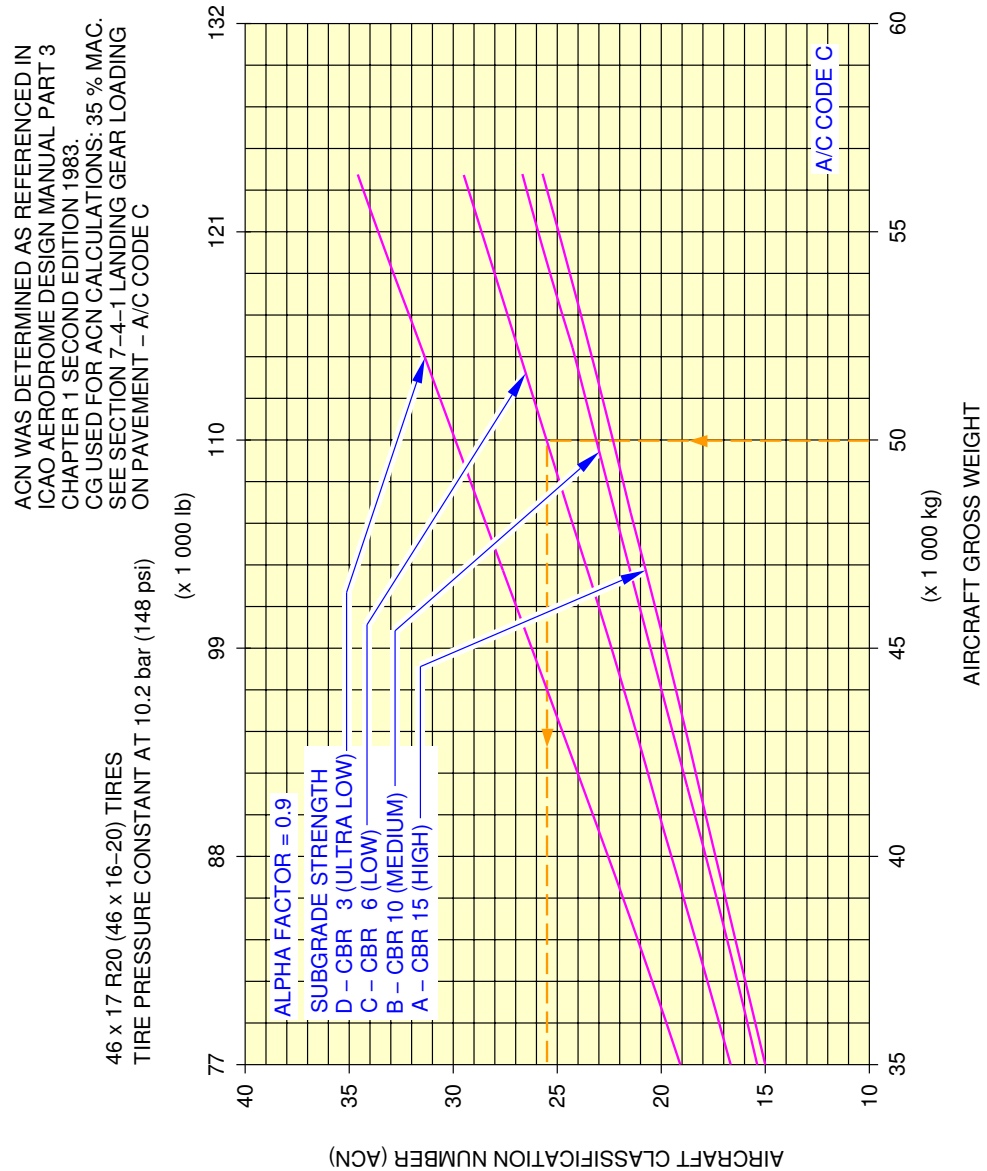
NOTE : An aircraft with an ACN equal to or less than the reported PCN can operate on that pavement, subject to any limitation on the tire pressure.
(Ref.: ICAO Aerodrome Design Manual Part 3 Chapter 1 Second Edition 1983).

7-9-1 Aircraft Classification Number - Flexible Pavement****ON A/C A318-100**Aircraft Classification Number - Flexible Pavement

1. This section gives the Aircraft Classification Number - Flexible Pavement.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

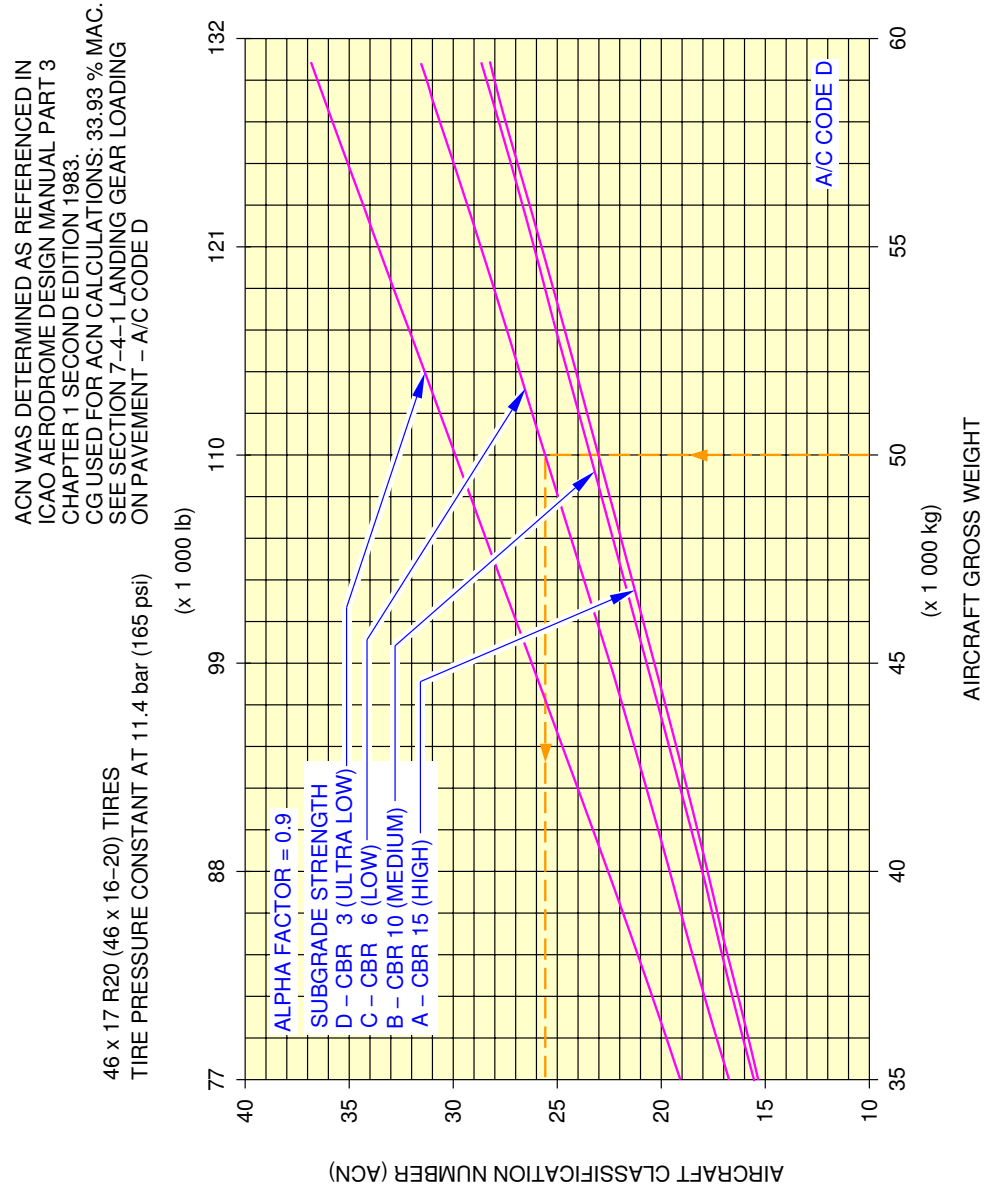
****ON A/C A318-100**



N_AC_070901_1_0420101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-042-A01

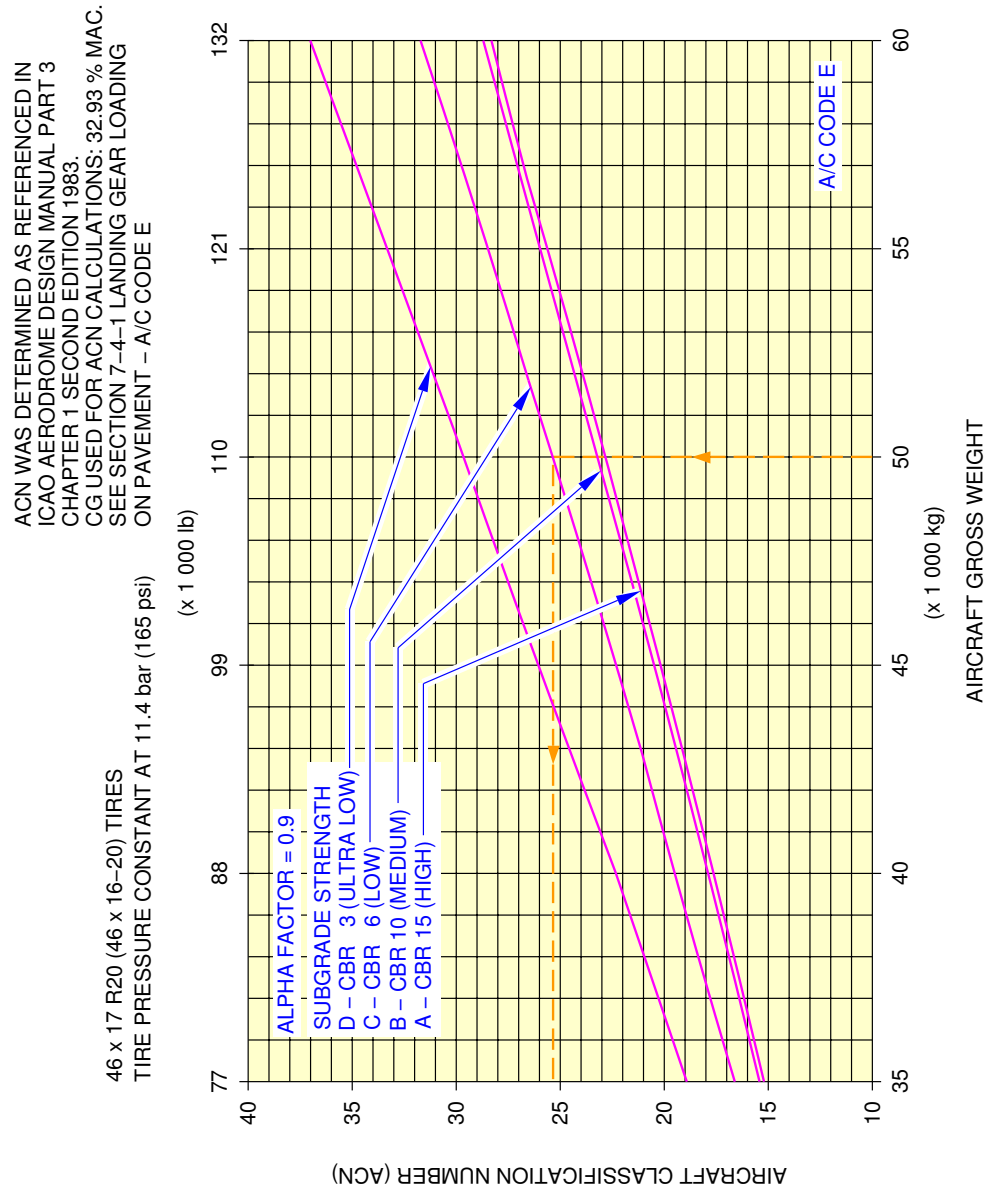
****ON A/C A318-100**



N_AC_070901_1_0430101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-043-A01

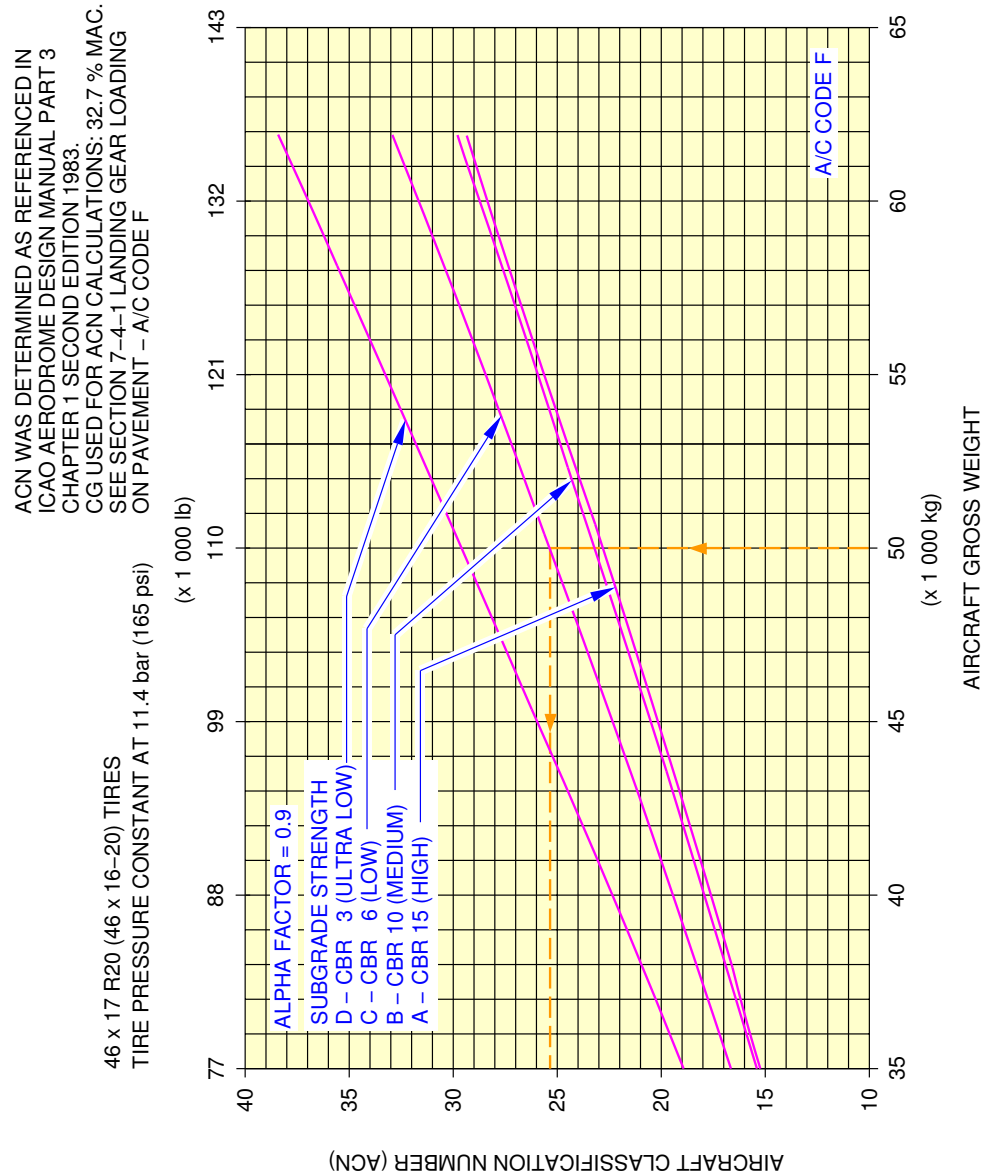
****ON A/C A318-100**



N_AC_070901_1_0440101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-044-A01

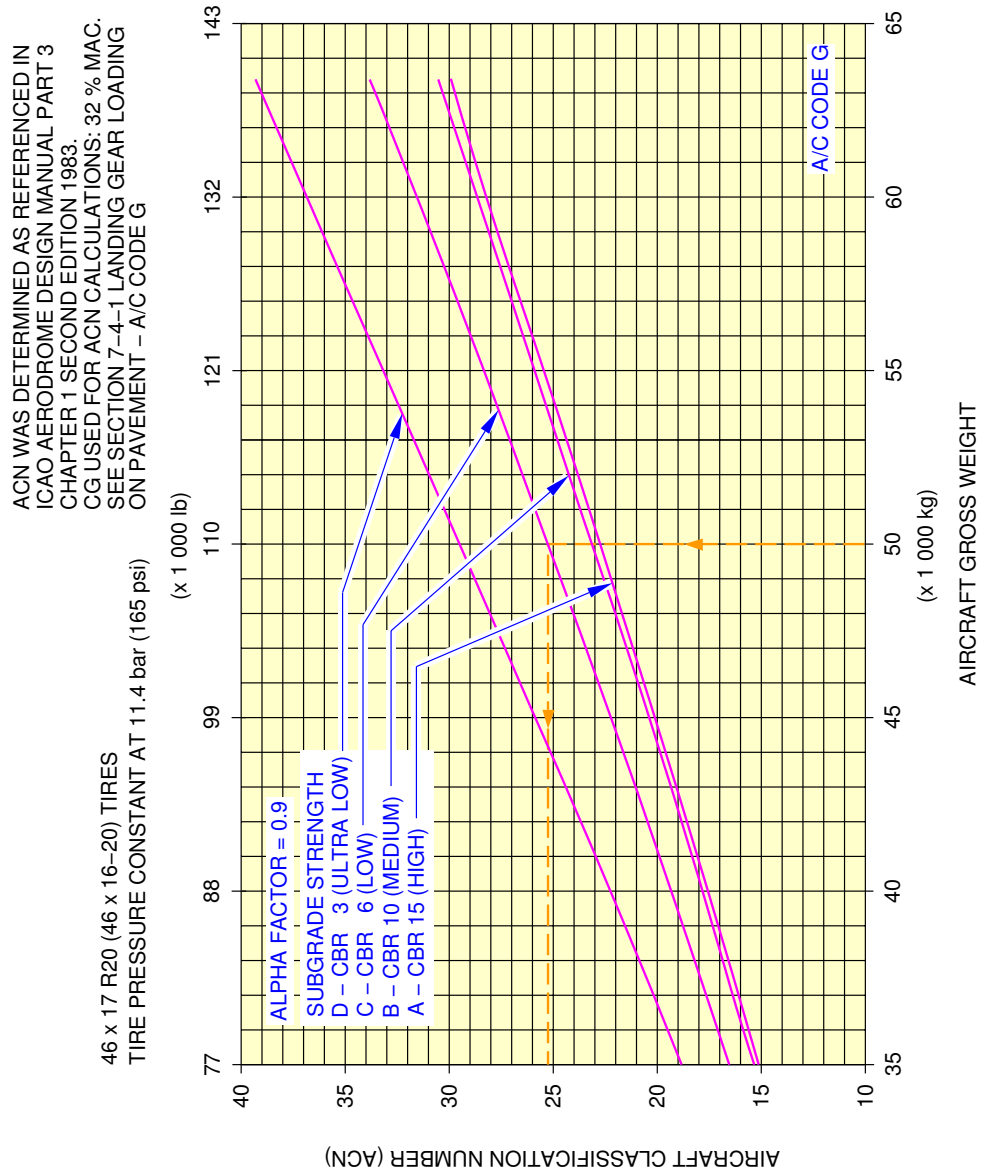
****ON A/C A318-100**



N_AC_070901_1_0450101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-045-A01

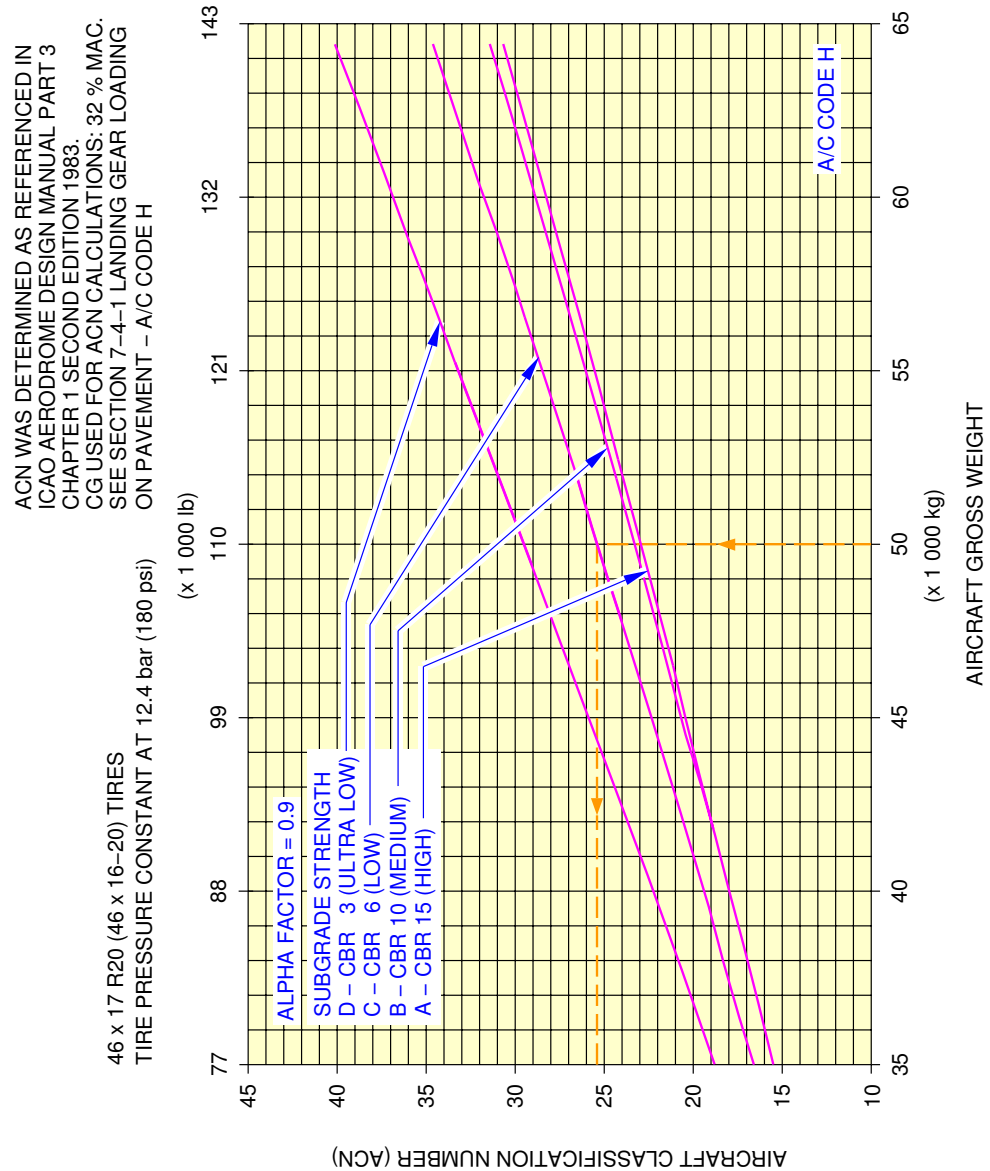
****ON A/C A318-100**



N_AC_070901_1_0460101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-046-A01

****ON A/C A318-100**

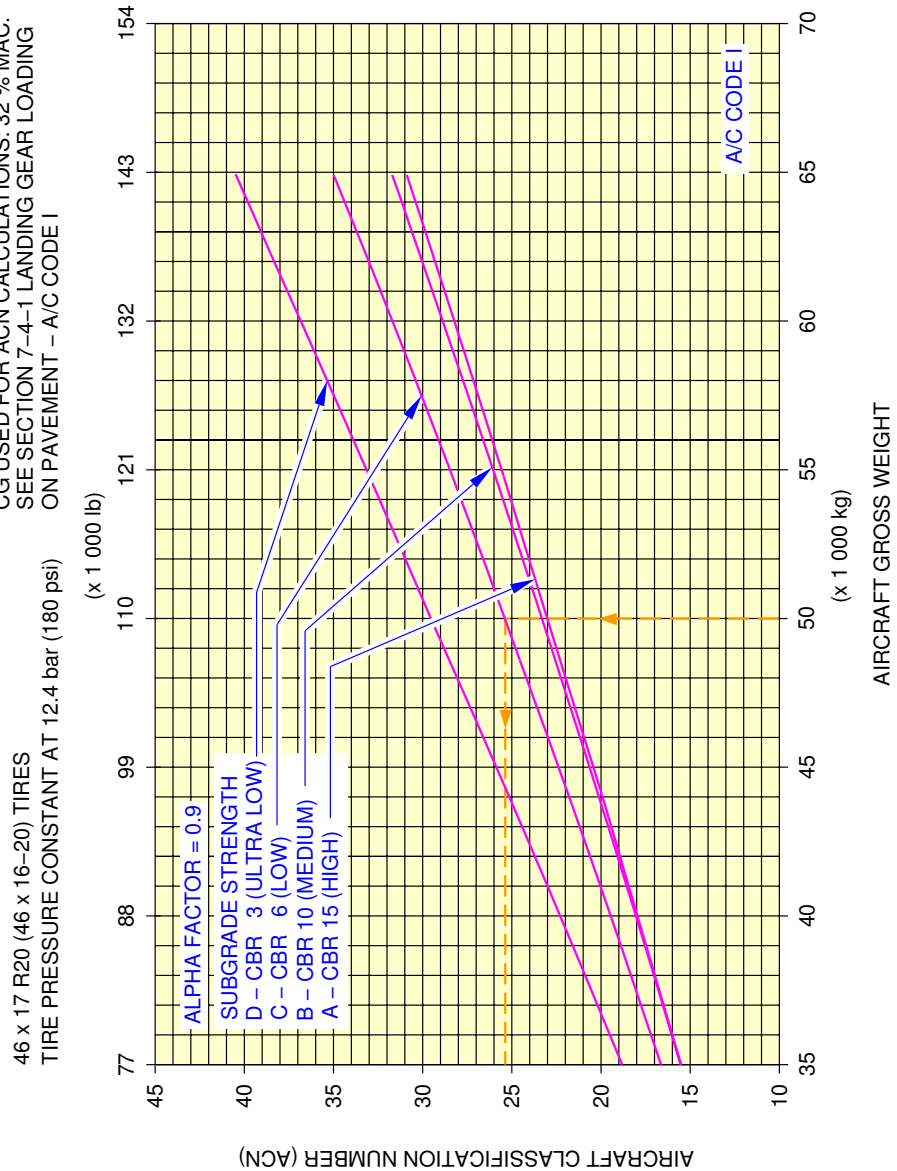


N_AC_070901_1_0470101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-047-A01

****ON A/C A318-100**

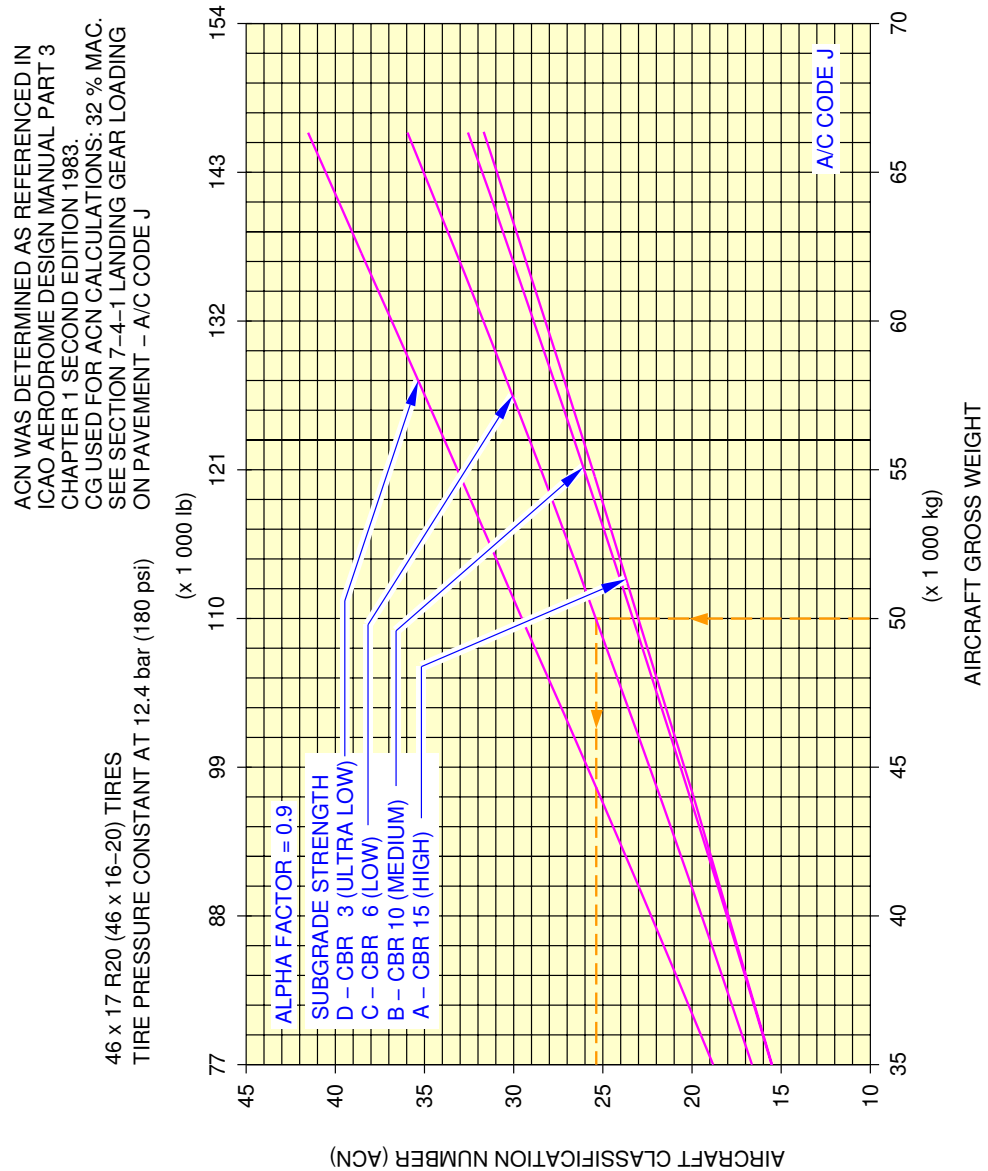
ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE I



N_AC_070901_1_0480101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-048-A01

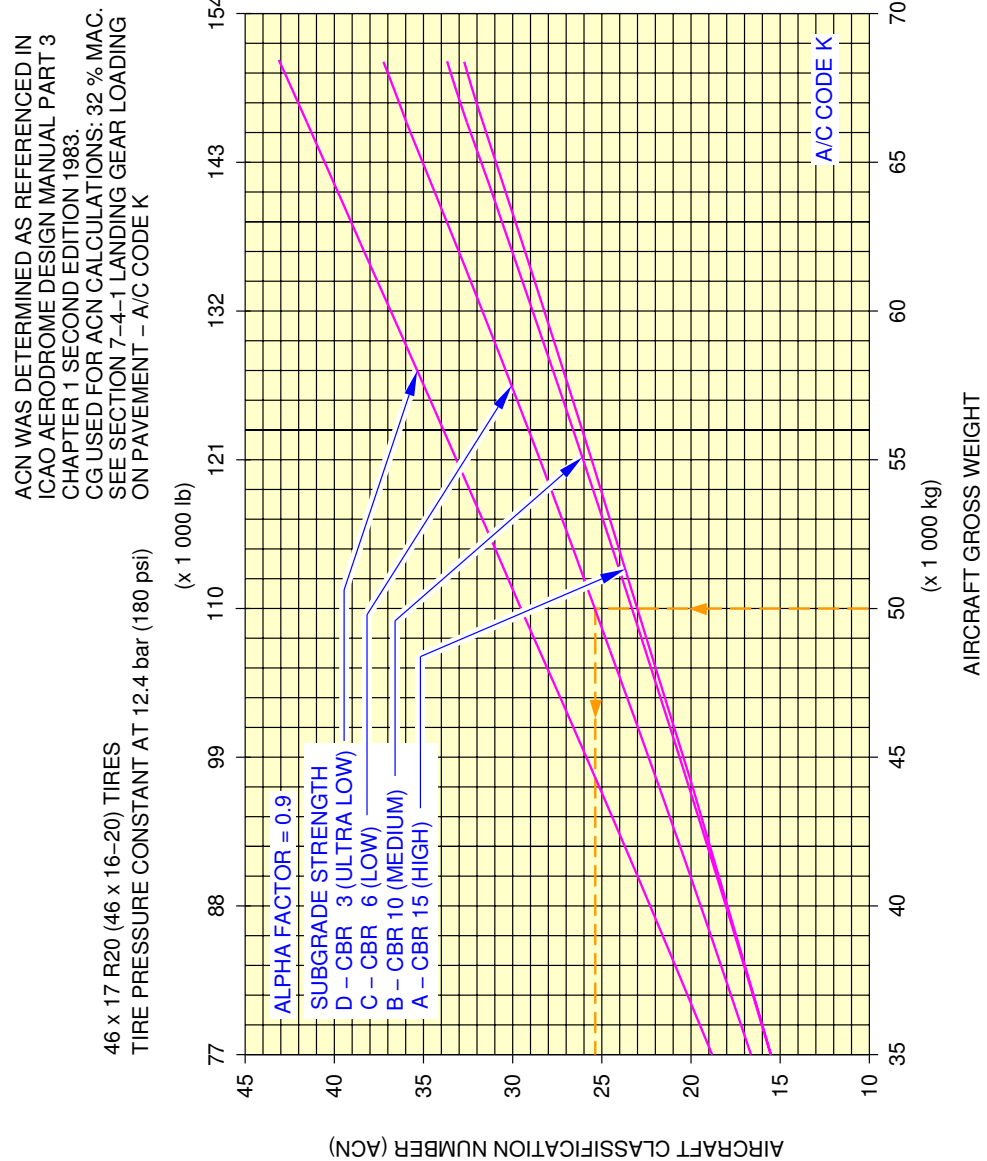
****ON A/C A318-100**



N_AC_070901_1_0490101_01_00

Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-049-A01

****ON A/C A318-100**



N_AC_070901_1_0500101_01_00

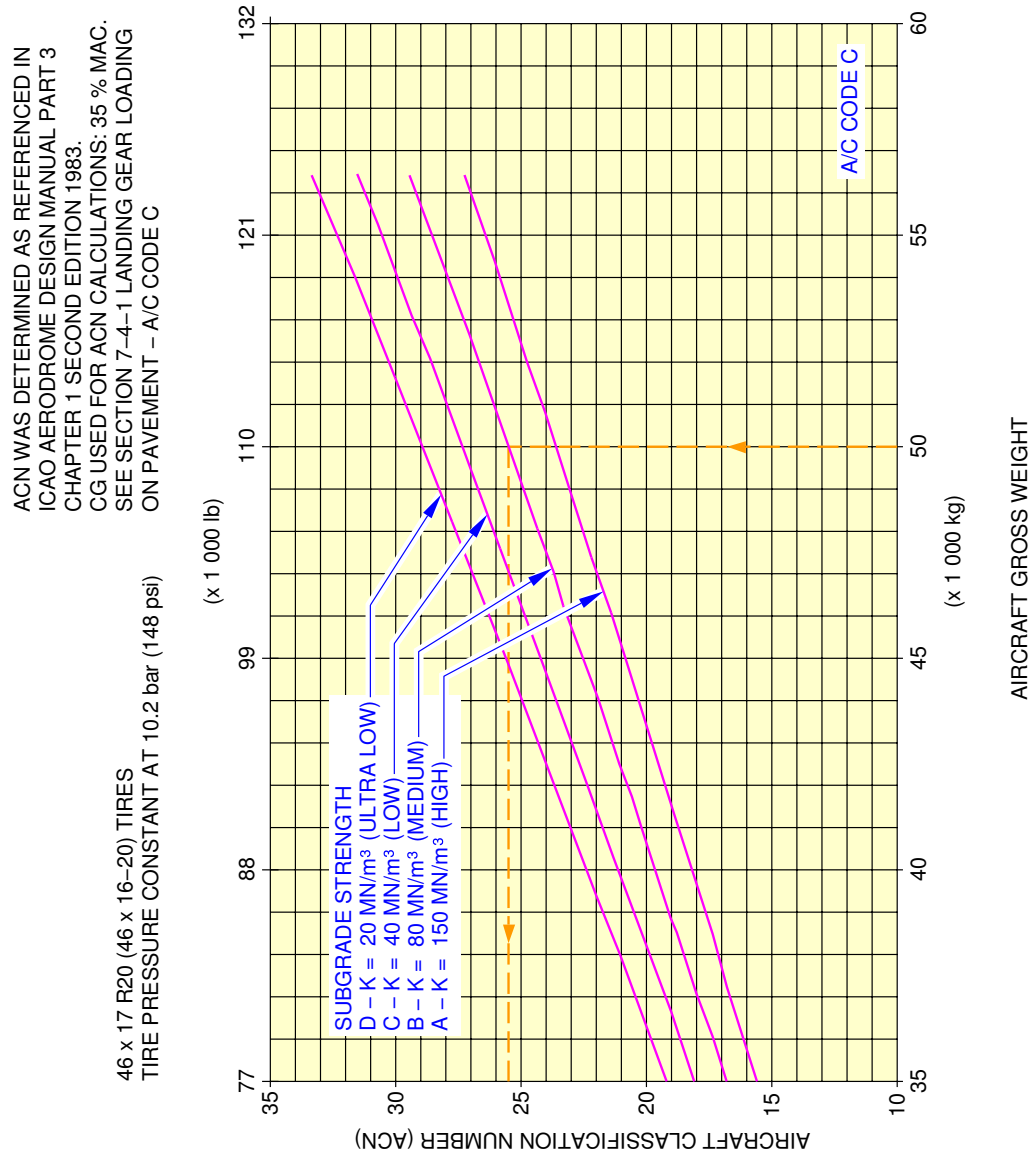
Aircraft Classification Number – Flexible Pavement
FIGURE-7-9-1-991-050-A01

7-9-2 Aircraft Classification Number - Rigid Pavement****ON A/C A318-100**Aircraft Classification Number - Rigid Pavement

1. This section gives the Aircraft Classification Number - Rigid Pavement.

NOTE : For A/C Code definition, refer to chapter 7-1-0.

****ON A/C A318-100**



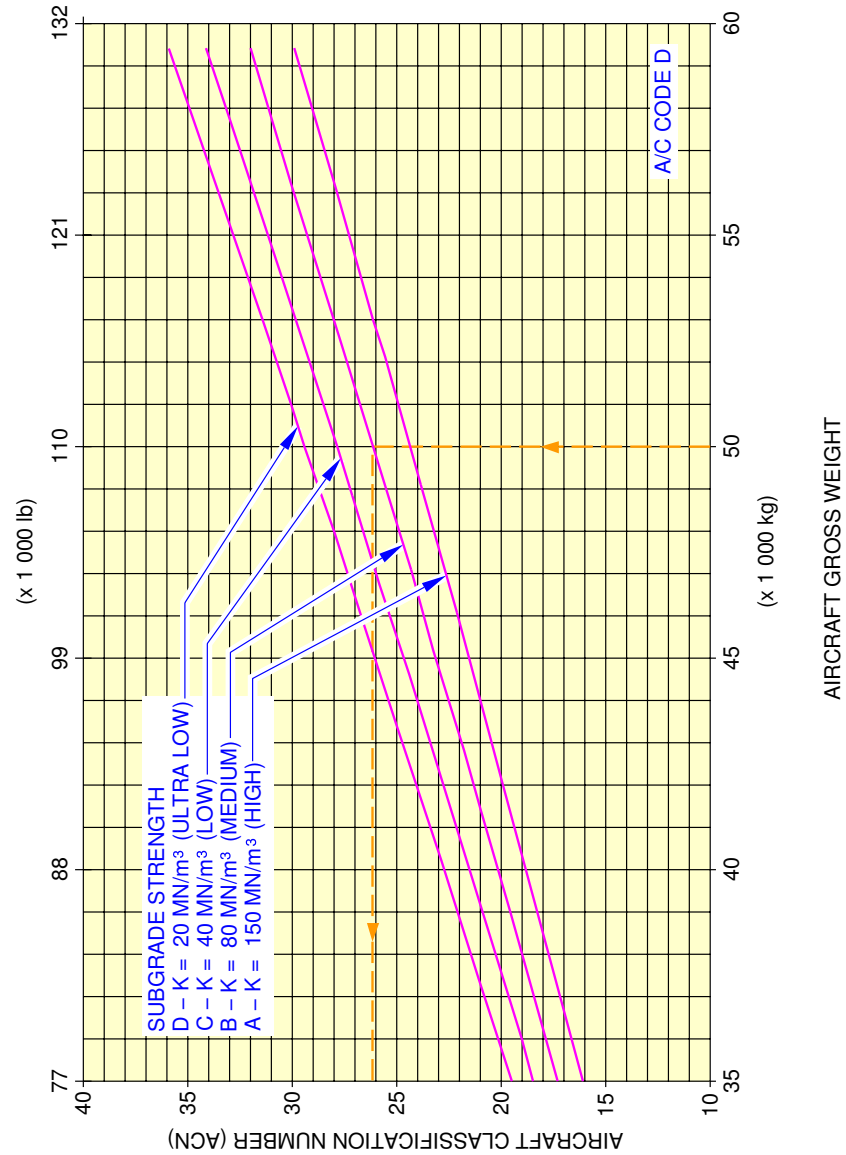
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Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-041-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 33.93 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE D

46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)



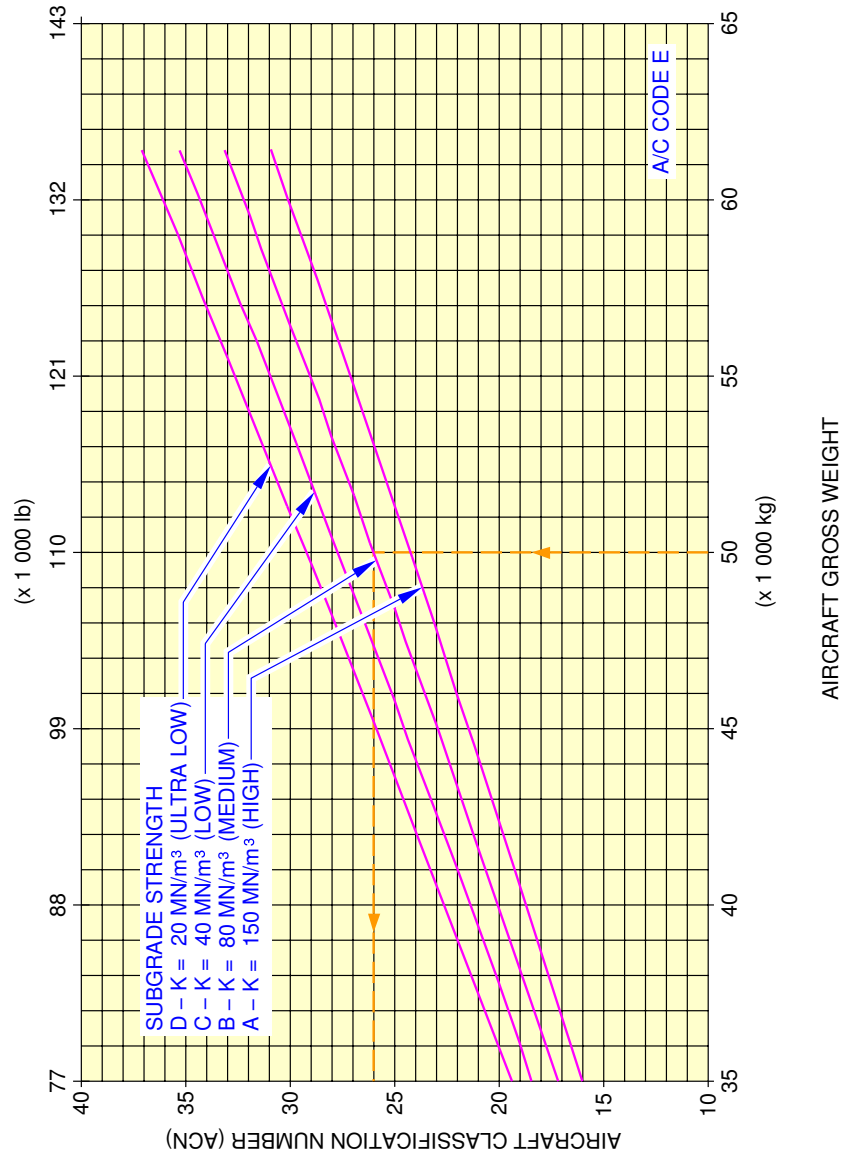
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Aircraft Classification Number – Rigid Pavement
FIGURE-7-9-2-991-042-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32.93 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE E

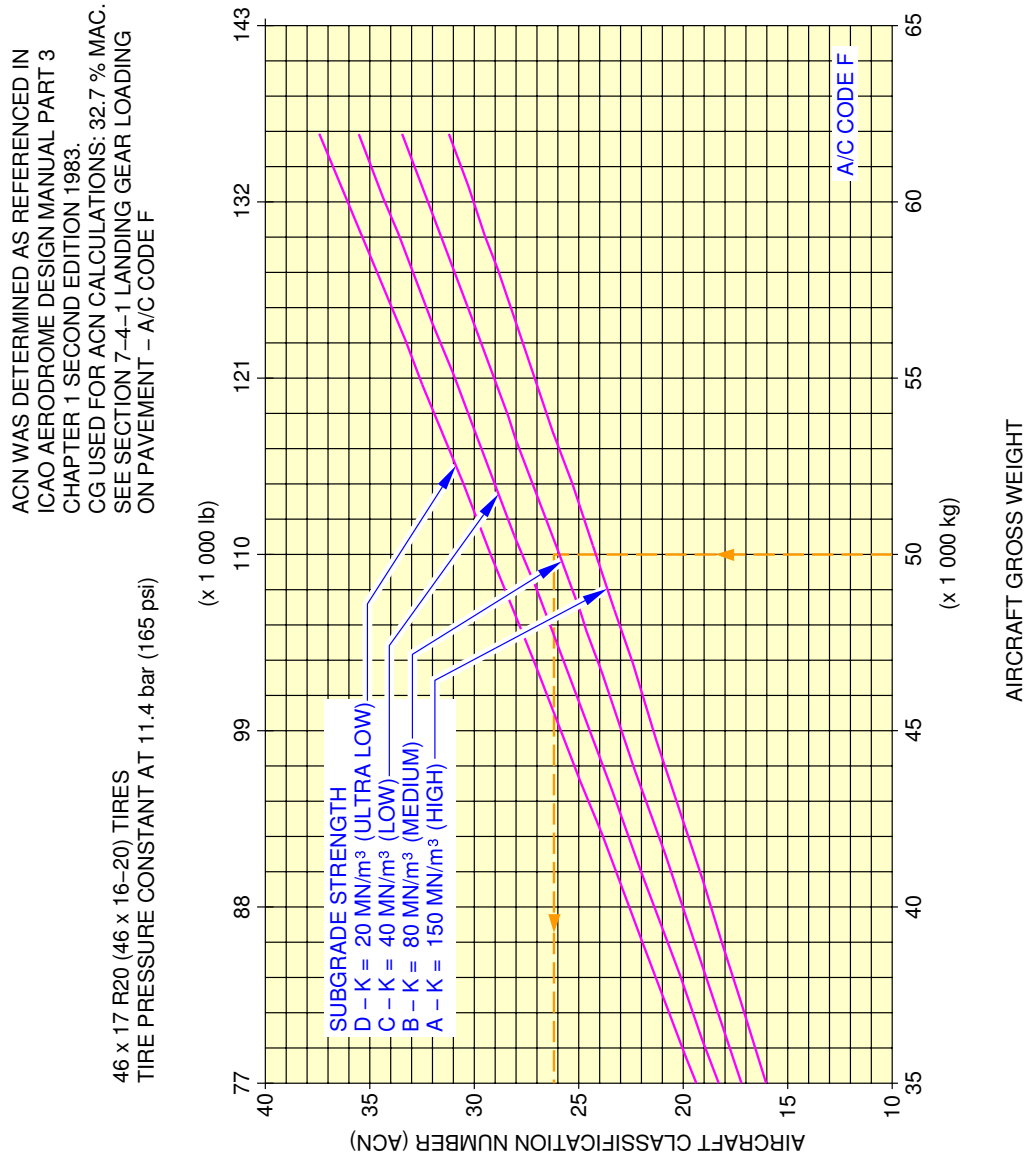
46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 11.4 bar (165 psi)



N_AC_070902_1_0430101_01_00

Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-043-A01

****ON A/C A318-100**

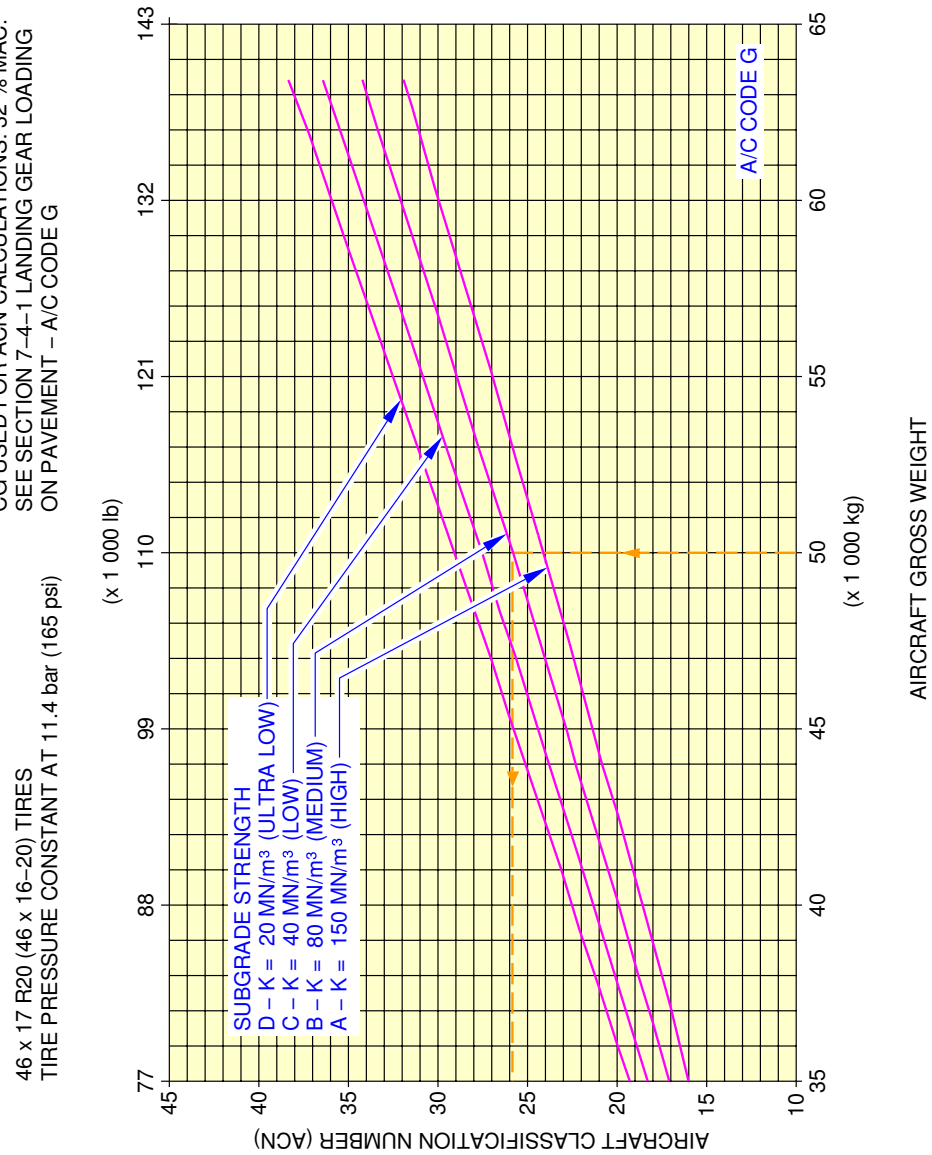


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Aircraft Classification Number – Rigid Pavement
FIGURE-7-9-2-991-044-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE G



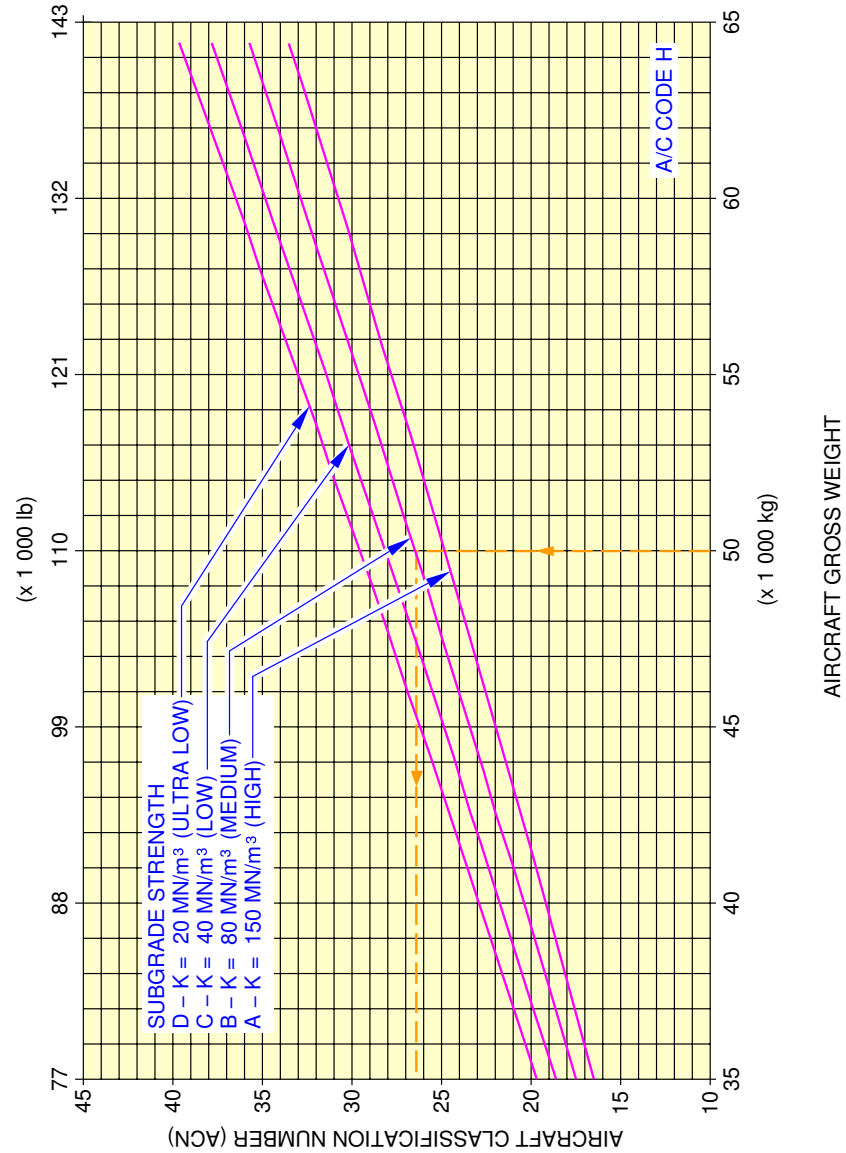
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Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-045-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE H

46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)



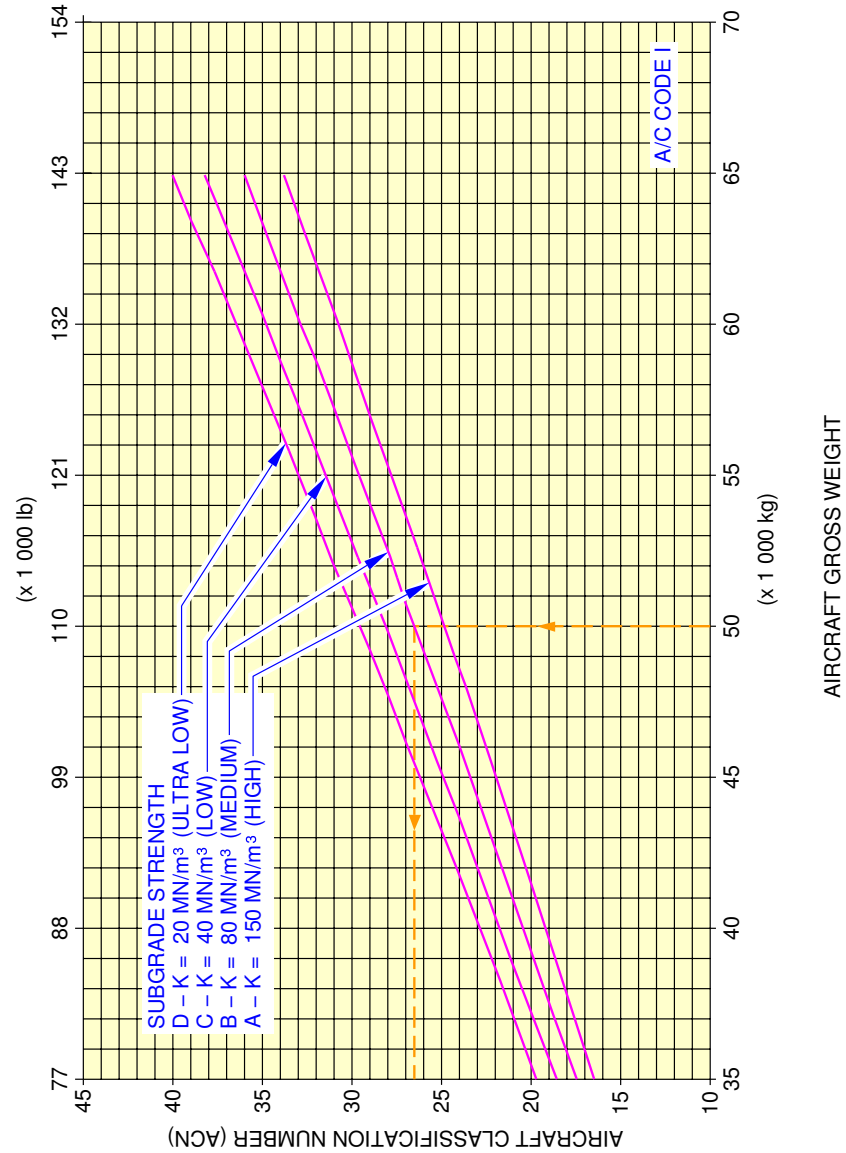
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Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-046-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE I

46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)



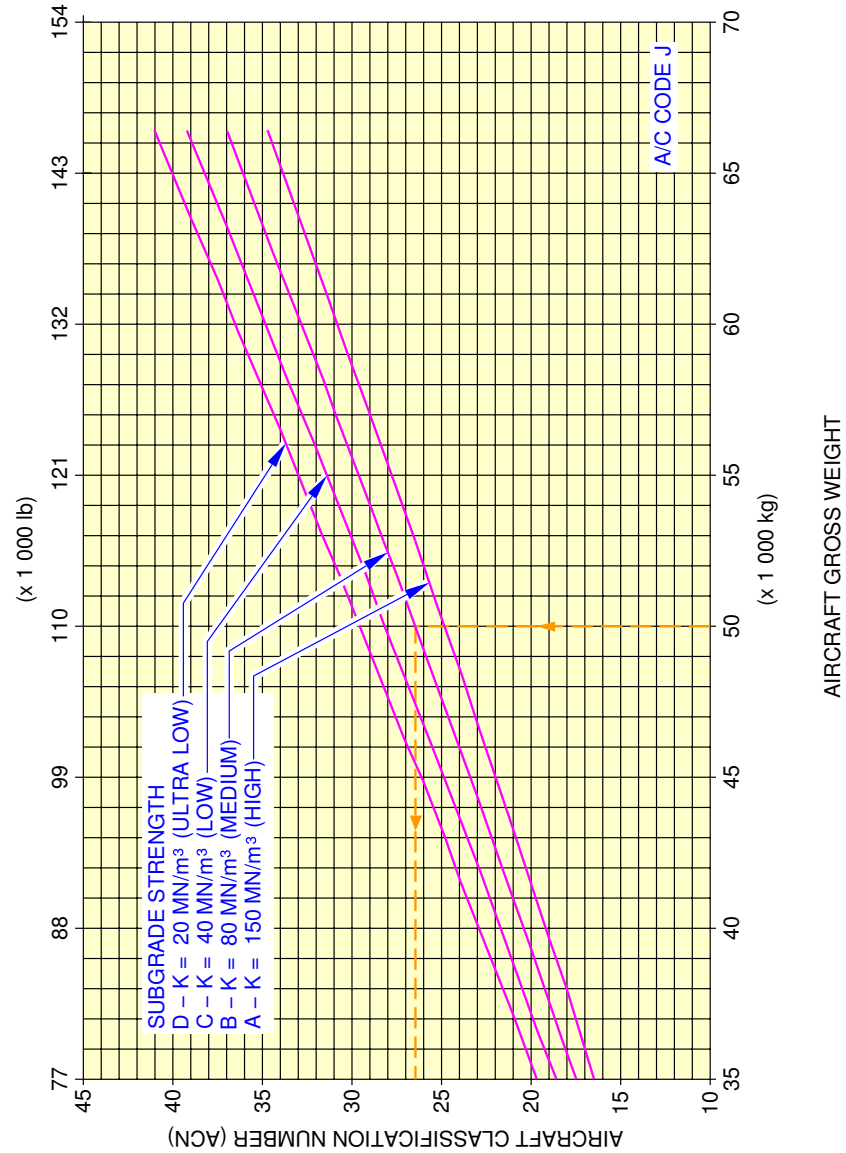
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Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-047-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE J

46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)



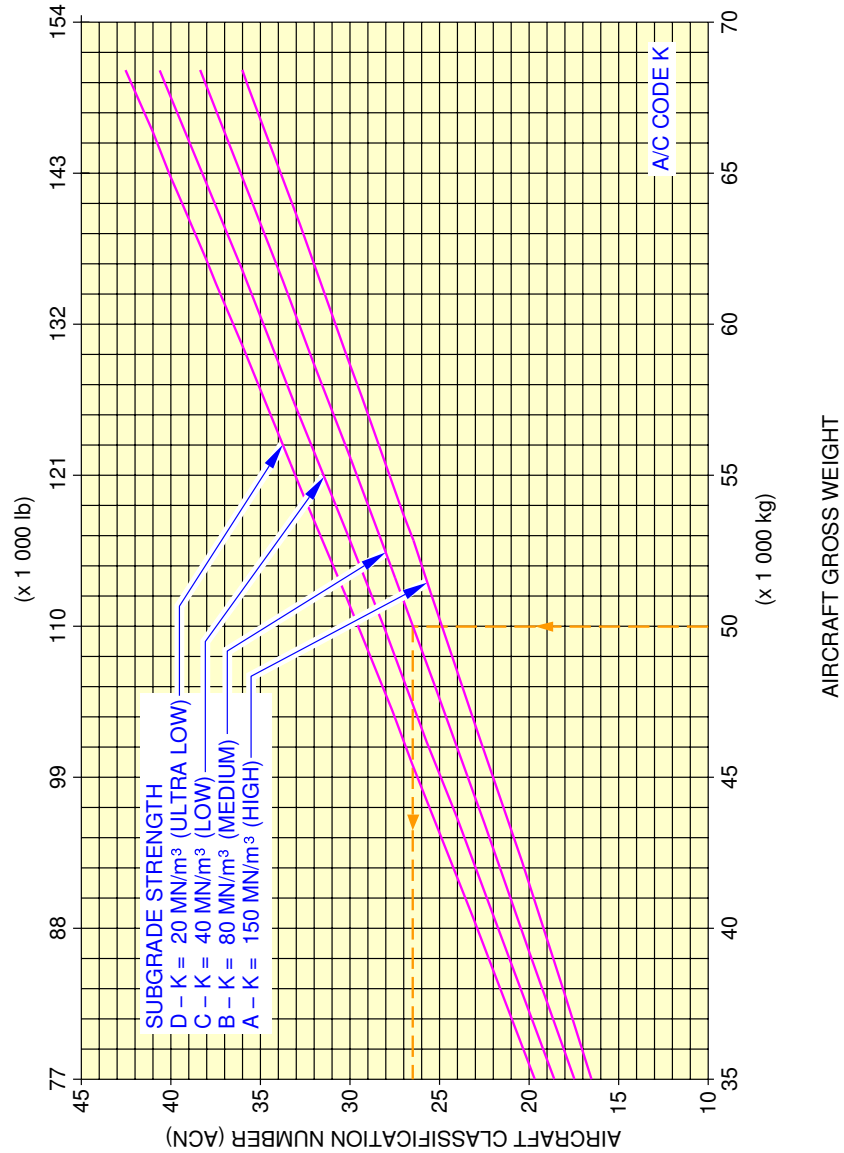
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Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-048-A01

****ON A/C A318-100**

ACN WAS DETERMINED AS REFERENCED IN
ICAO AERODROME DESIGN MANUAL PART 3
CHAPTER 1 SECOND EDITION 1983.
CG USED FOR ACN CALCULATIONS: 32 % MAC.
SEE SECTION 7-4-1 LANDING GEAR LOADING
ON PAVEMENT - A/C CODE K

46 x 17 R20 (46 x 16-20) TIRES
TIRE PRESSURE CONSTANT AT 12.4 bar (180 psi)



N_AC_070902_1_0490101_01_00

Aircraft Classification Number - Rigid Pavement
FIGURE-7-9-2-991-049-A01



SCALED DRAWINGS

8-0-0 SCALED DRAWINGS

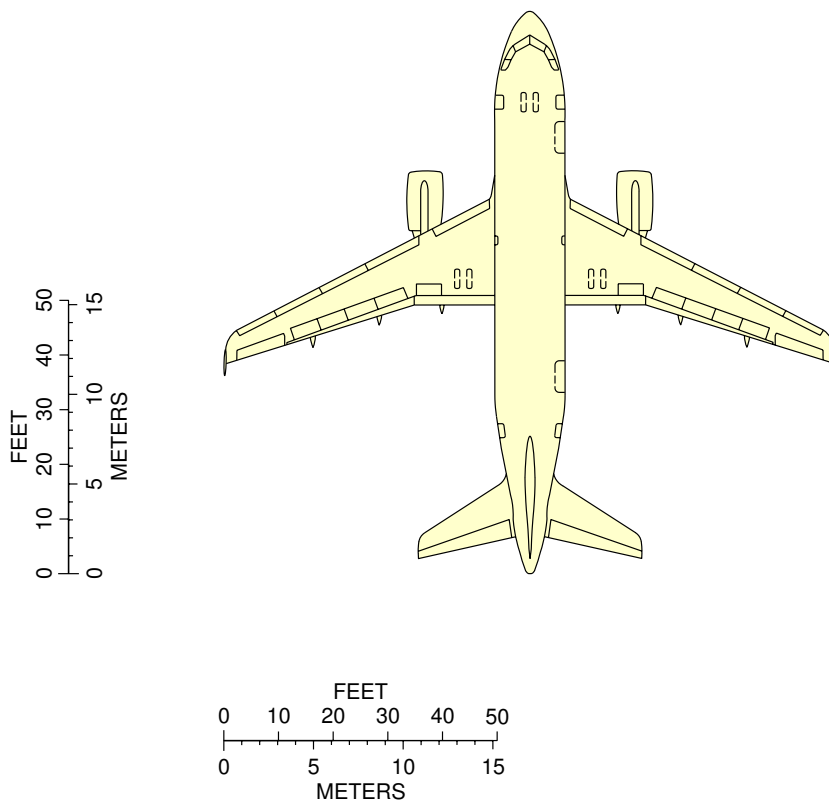
****ON A/C A318-100**

Scaled Drawings

1. This section provides the scaled drawings.

NOTE : When printing this drawing, make sure to adjust for proper scaling.

****ON A/C A318-100**



NOTE: WHEN PRINTING THIS DRAWING, MAKE SURE TO ADJUST FOR PROPER SCALING.

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Scaled Drawing
FIGURE-8-0-0-991-001-A01

AIRCRAFT RESCUE AND FIRE FIGHTING**10-0-0 AIRCRAFT RESCUE AND FIRE FIGHTING******ON A/C A318-100****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 A318-100****A318**

Aircraft Rescue and Fire Fighting Chart ARFC

NOTE:

THIS CHART GIVES THE GENERAL LAYOUT OF THE A318 STANDARD VERSION.
THE NUMBER AND ARRANGEMENT OF THE INDIVIDUAL ITEMS VARY WITH THE CUSTOMERS.
FIGURES CONTAINED IN THIS POSTER ARE AVAILABLE SEPARATLY IN THE CHAPTER 10 OF THE
"AIRCRAFT CHARACTERISTICS - AIRPORT AND MAINTENANCE PLANNING" DOCUMENT.

ISSUED BY:

AIRBUS S.A.S
CUSTOMER SERVICES
TECHNICAL DATA SUPPORT AND SERVICES
31707 BLAGNAC CEDEX
FRANCE

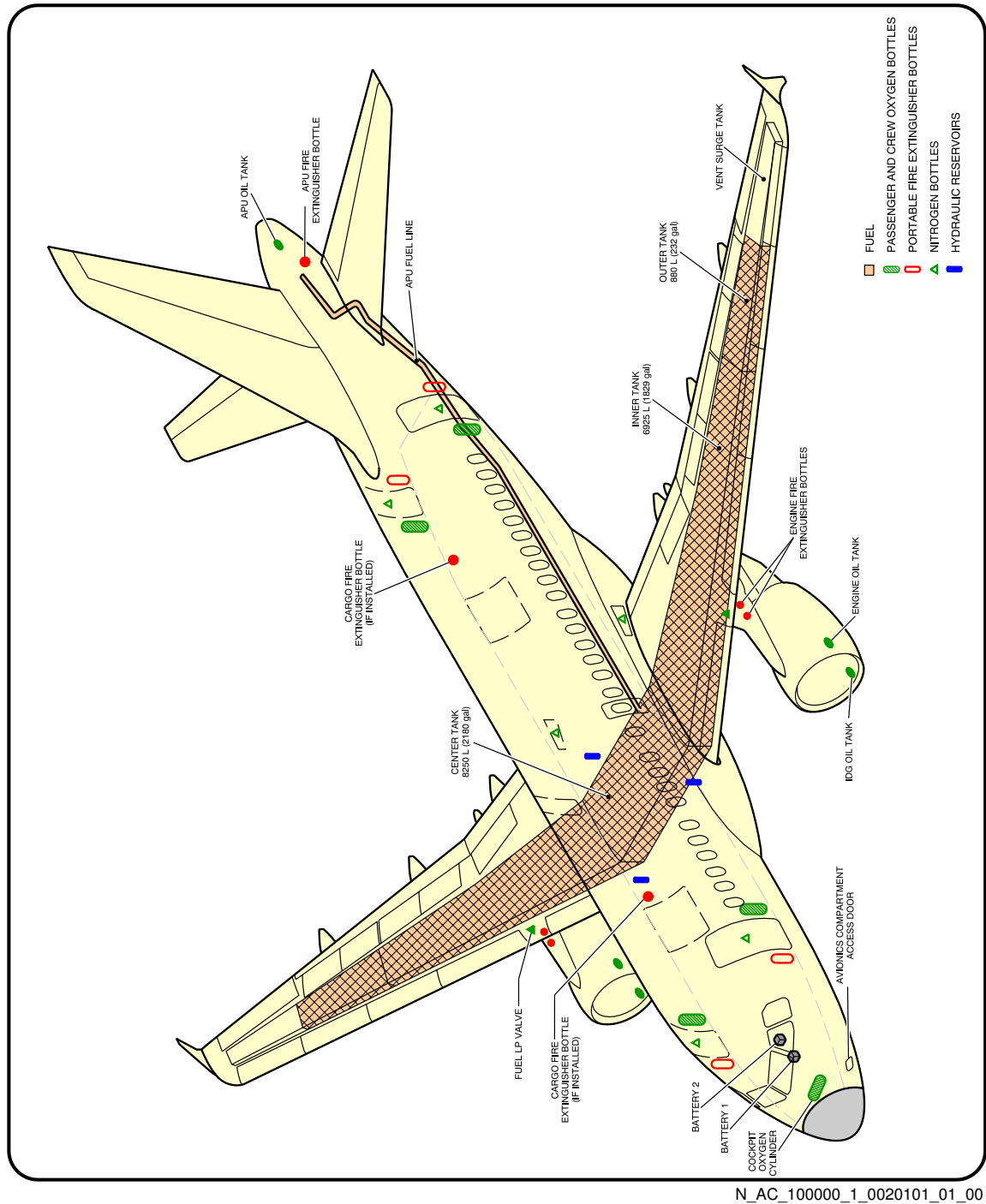
REVISION DATE: JUNE 2012
REFERENCE : N_RF_000000_1_A318000
SHEET 1/2

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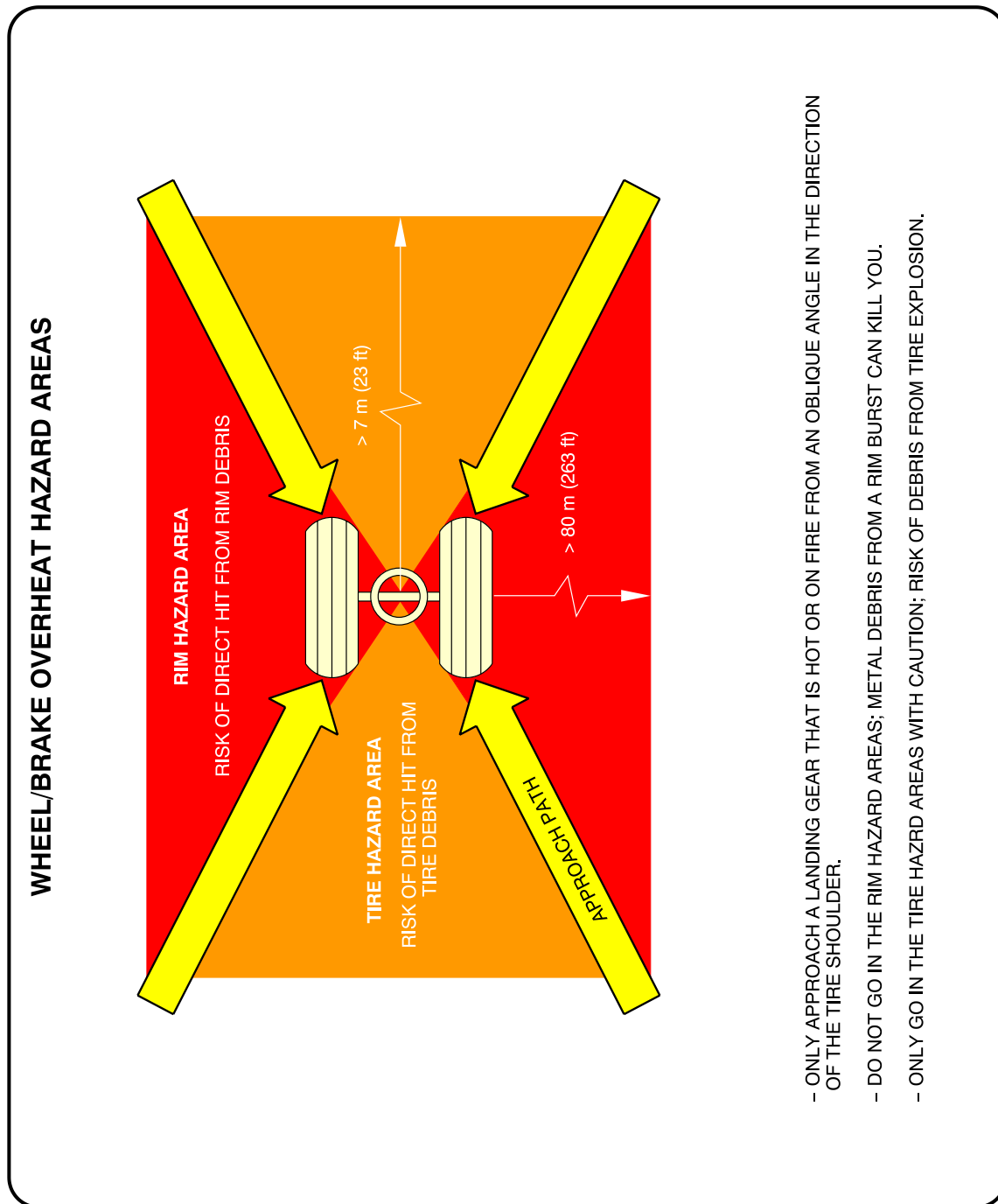
Front Page
FIGURE-10-0-0-991-001-A01

****ON A/C A318-100**



Highly Flammable and Hazardous Materials and Components
FIGURE-10-0-0-991-002-A01

****ON A/C A318-100**



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Wheel Safety Area
(Sheet 1 of 2)
FIGURE-10-0-0-991-003-A01

****ON A/C A318-100**

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 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 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. IF POSSIBLE, STAY IN A VEHICLE.

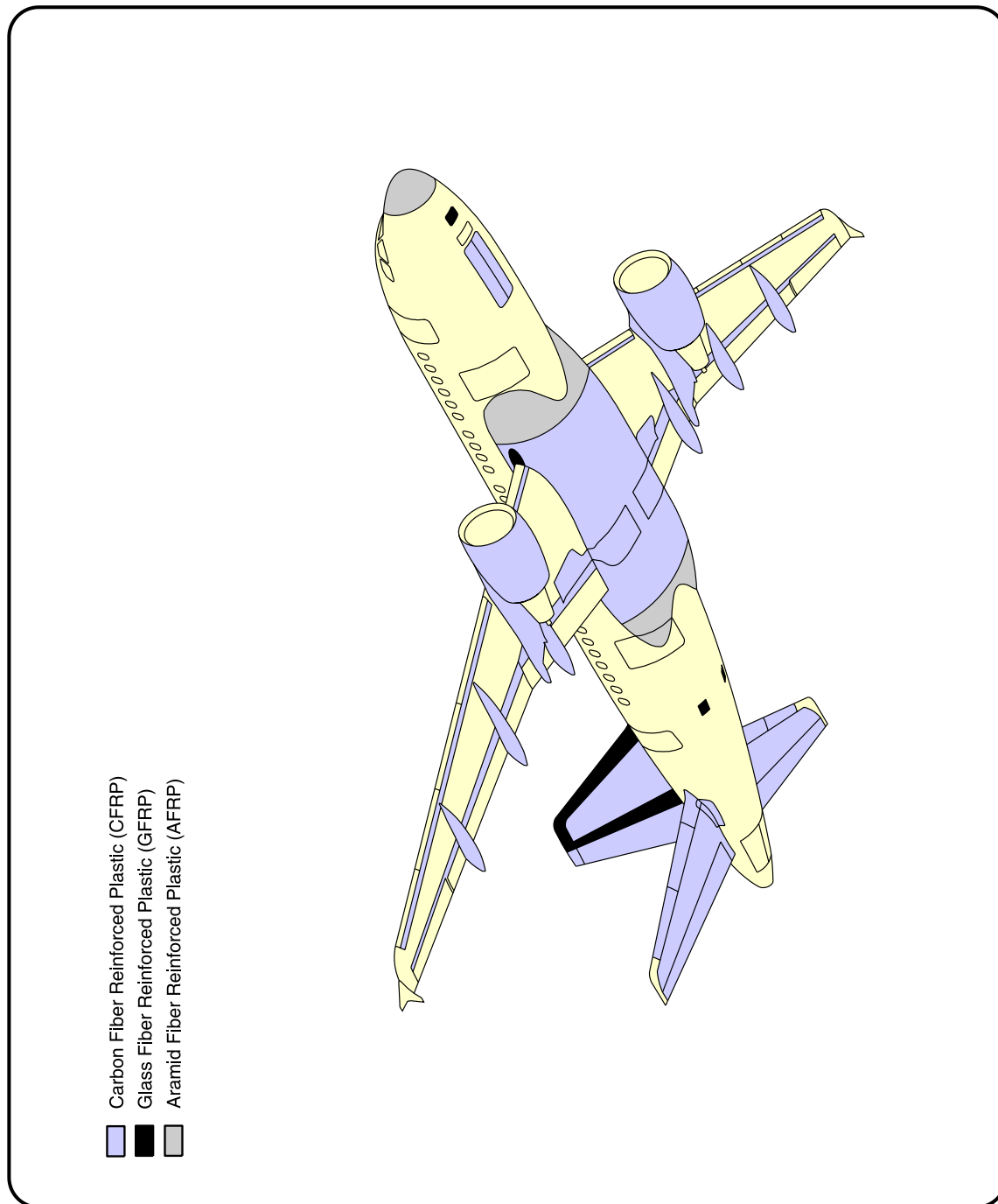
B) USE LARGE AMOUNTS OF WATER, WATER MIST; IF THE FUEL TANKS ARE AT RISK, USE FOAM. USE A TECHNIQUE THAT PREVENTS SUDDEN COOLING. SUDDEN COOLING CAN CAUSE WHEEL CRACKS OR RIM BURST.

C) DO NOT USE FANS OR BLOWERS.

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Wheel Safety Area
Recommendations (Sheet 2 of 2)
FIGURE-10-0-0-991-003-A01

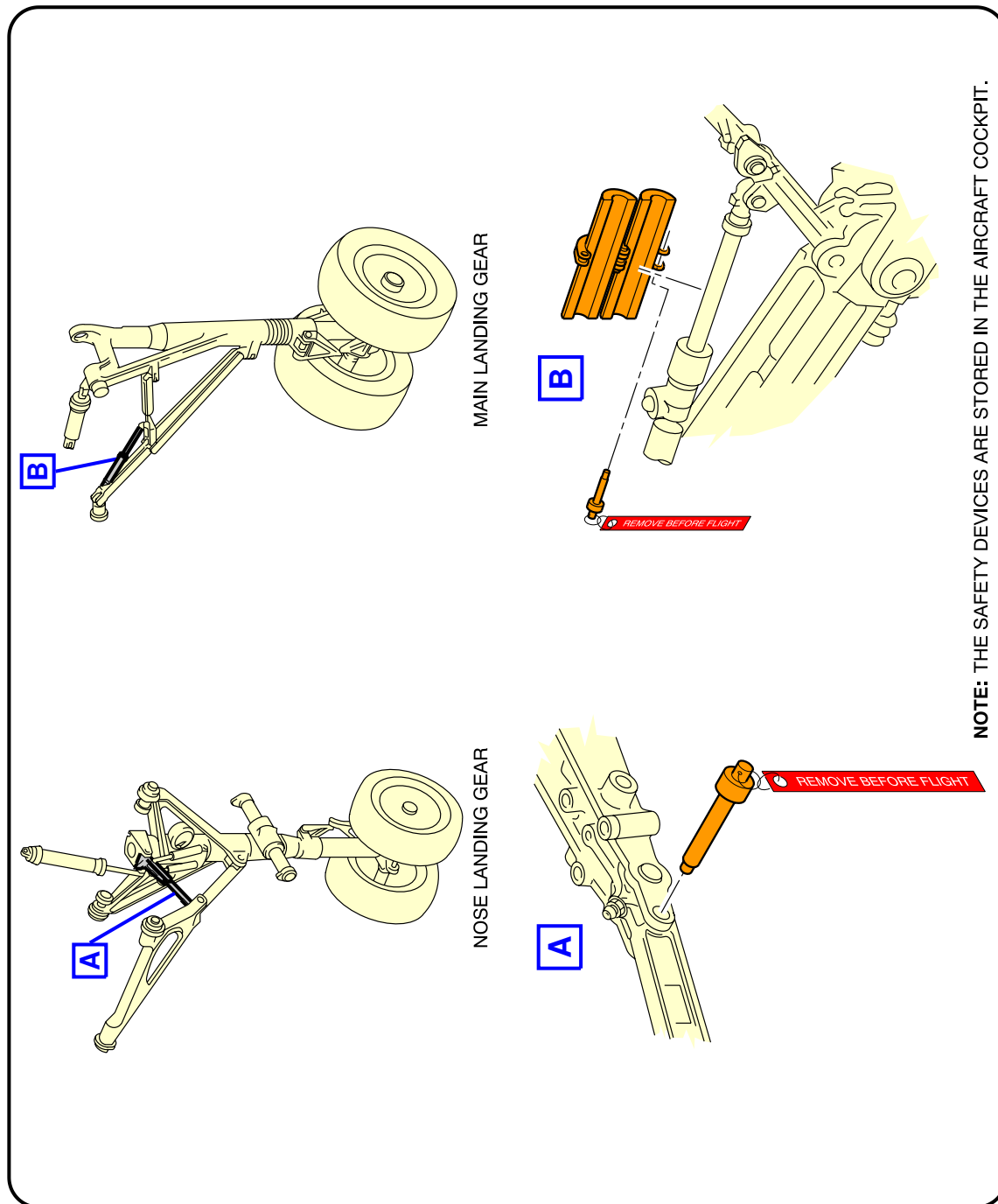
**ON A/C A318-100



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Composite Materials
FIGURE-10-0-0-991-004-A01

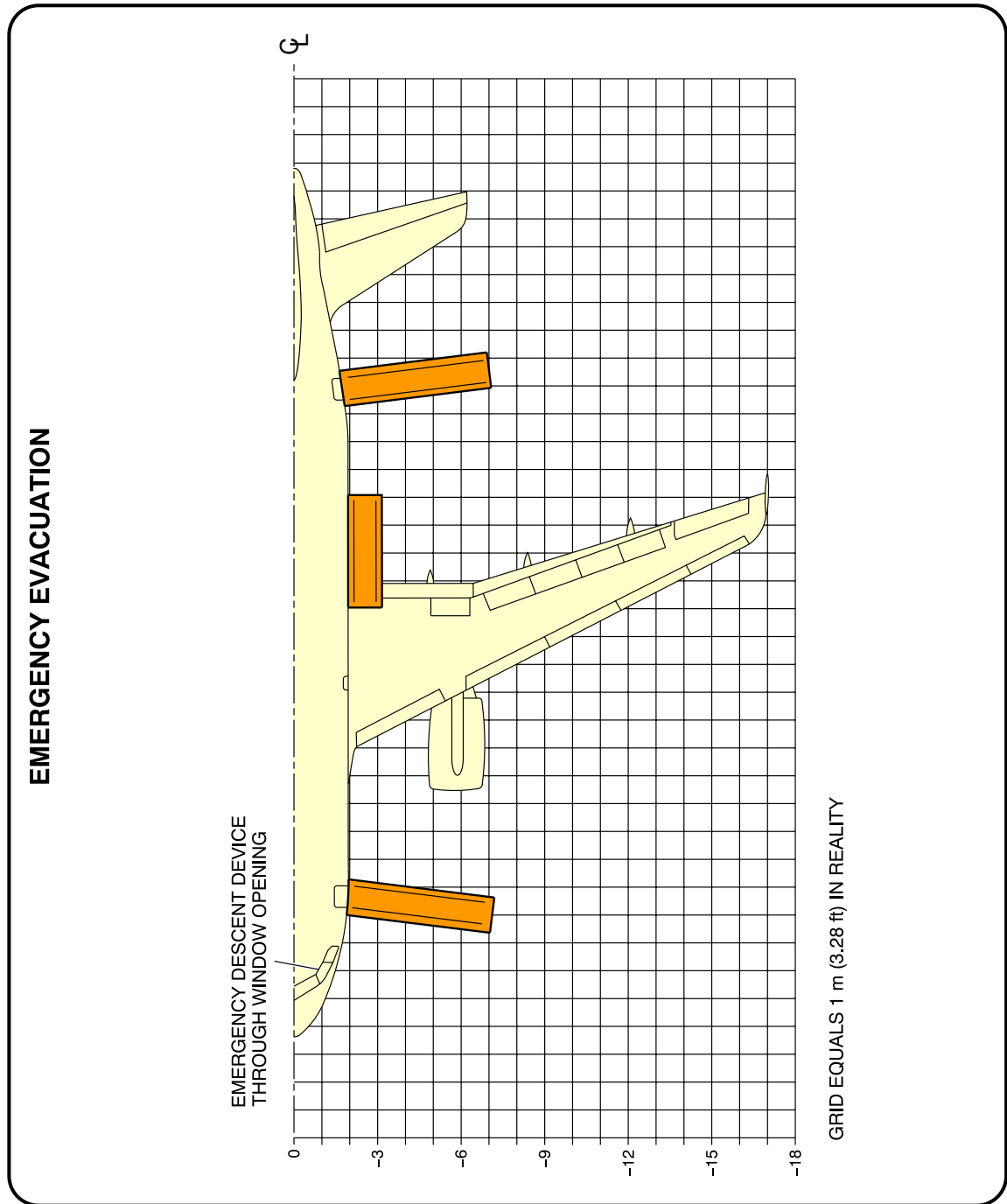
****ON A/C A318-100**



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LG Ground Lock Safety Devices
FIGURE-10-0-0-991-005-A01

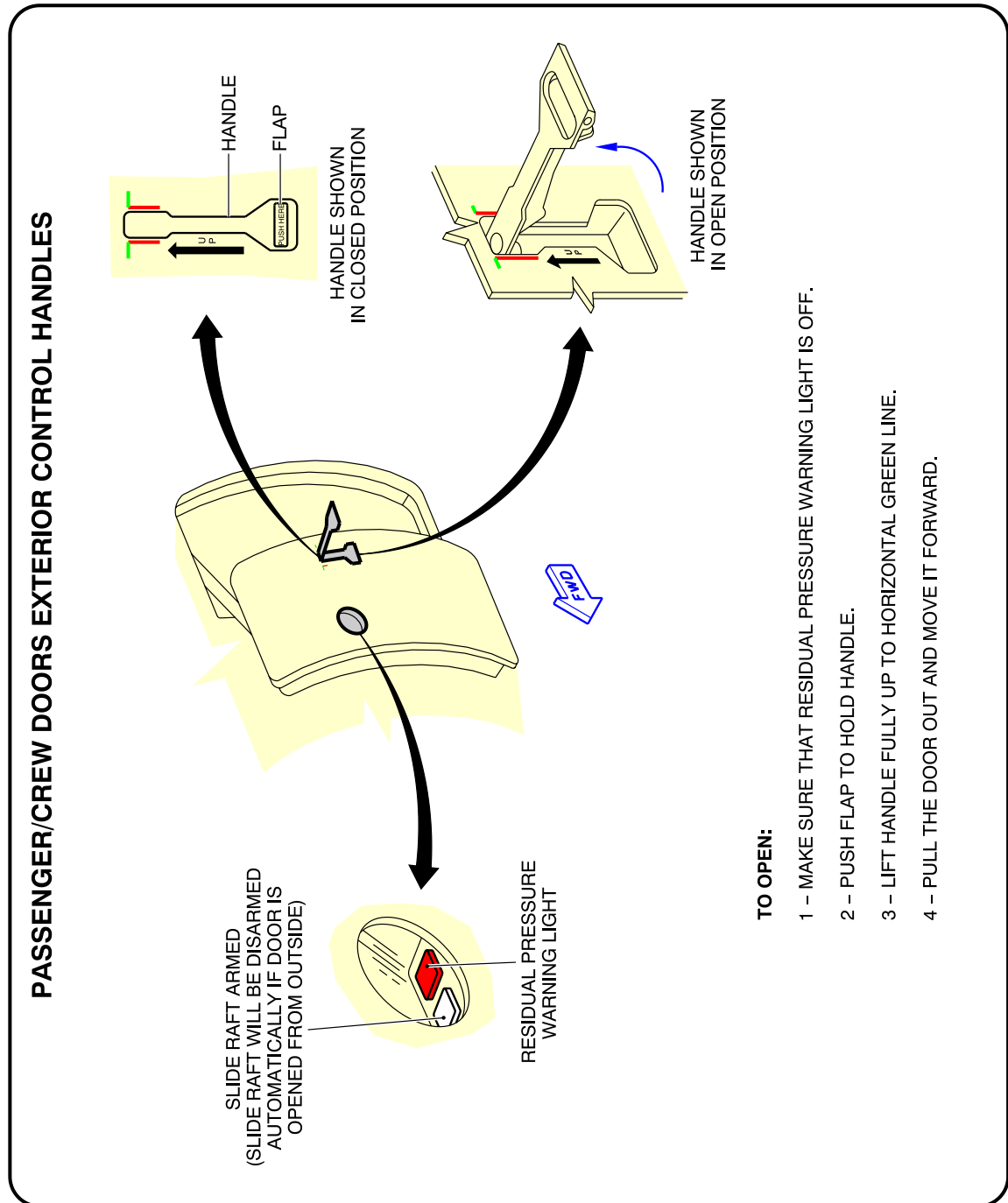
****ON A/C A318-100**



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Evacuation/Escape Slide/Raft
FIGURE-10-0-0-991-006-A01

****ON A/C A318-100**



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Pax/Crew Doors
FIGURE-10-0-0-991-007-A01

EMERGENCY EXIT HATCH

RED MARKED FLUSH PANEL

COLORLED

TO OPEN

EXIT

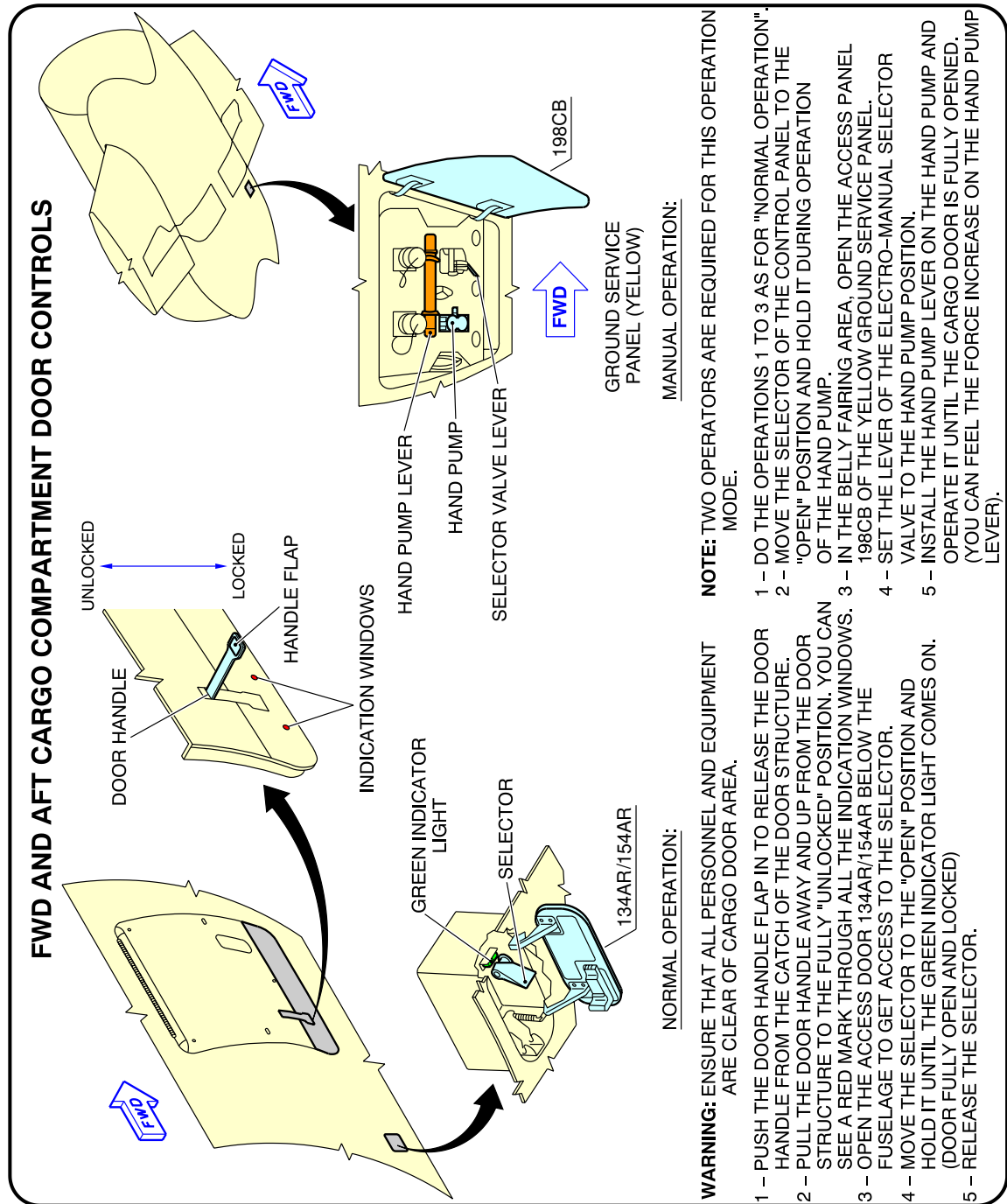
OPERATION:

- 1 - PUSH RED MARKED FLUSH PANEL IN.
- 2 - PUSH HATCH IN AND REMOVE IT.

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Emergency Exit Hatch
FIGURE-10-0-0-991-008-A01

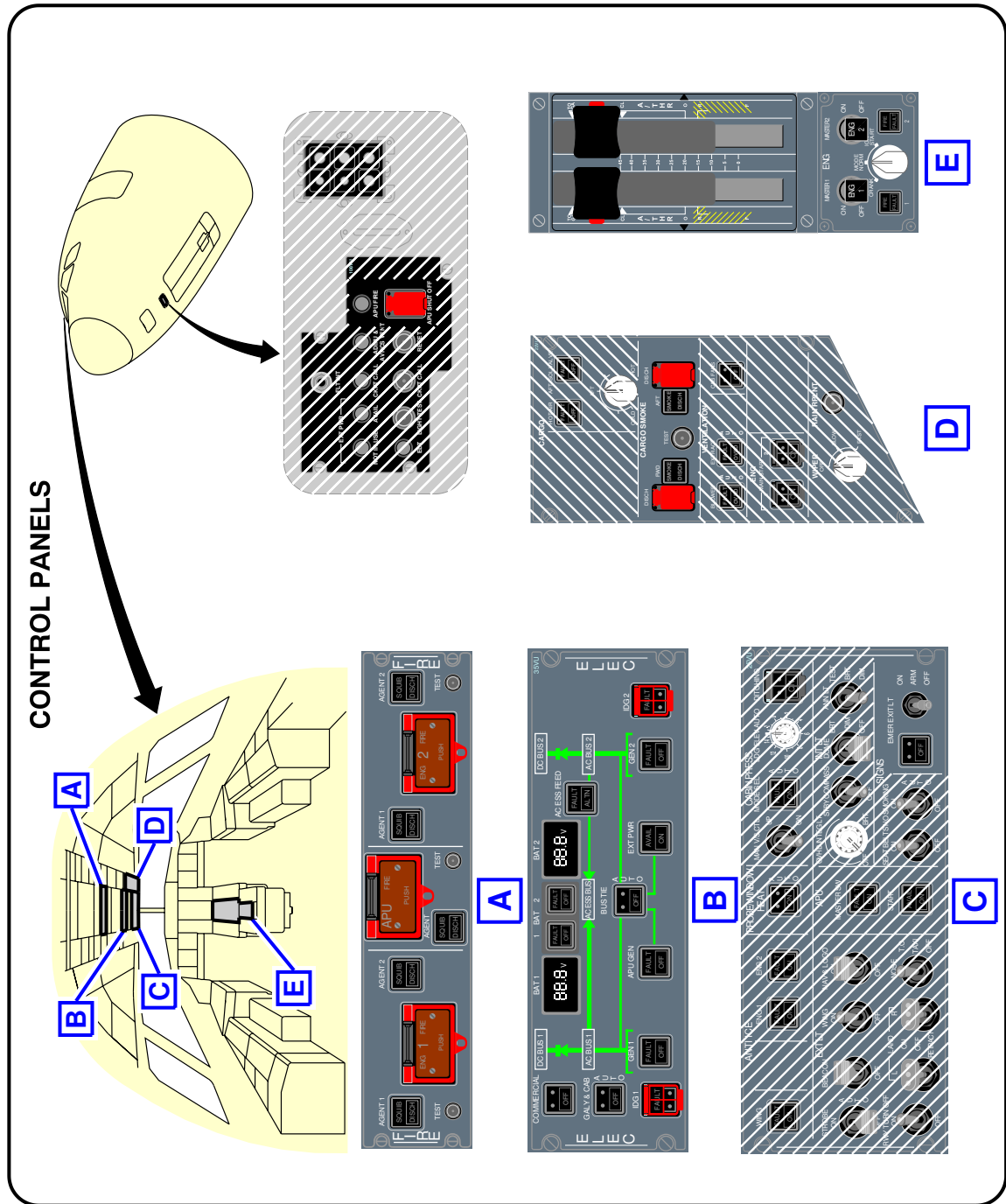
**ON A/C A318-100



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FWD and AFT Lower Deck Cargo Doors
FIGURE-10-0-0-991-009-A01

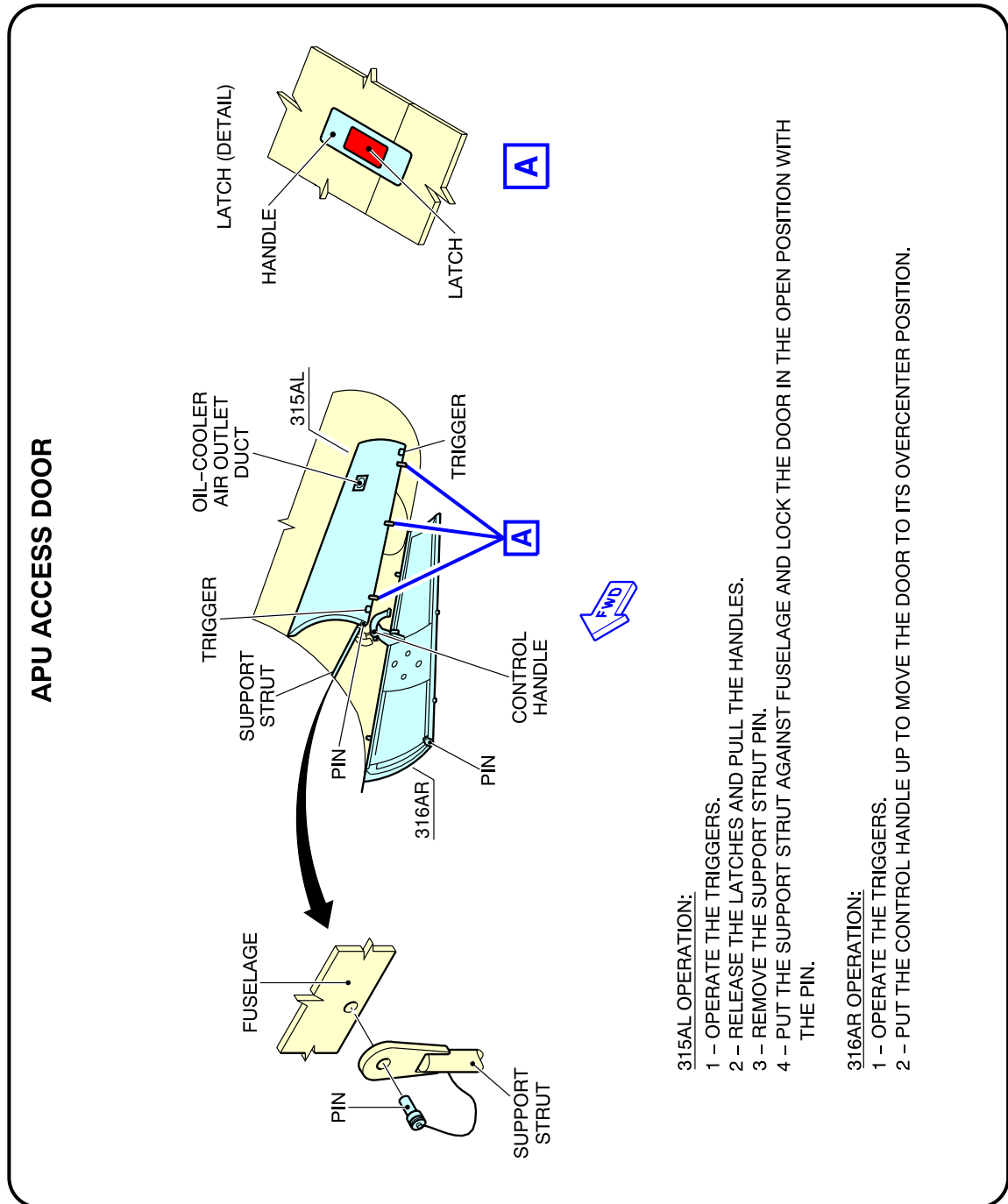
**ON A/C A318-100



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Control Panels
FIGURE-10-0-0-991-012-A01

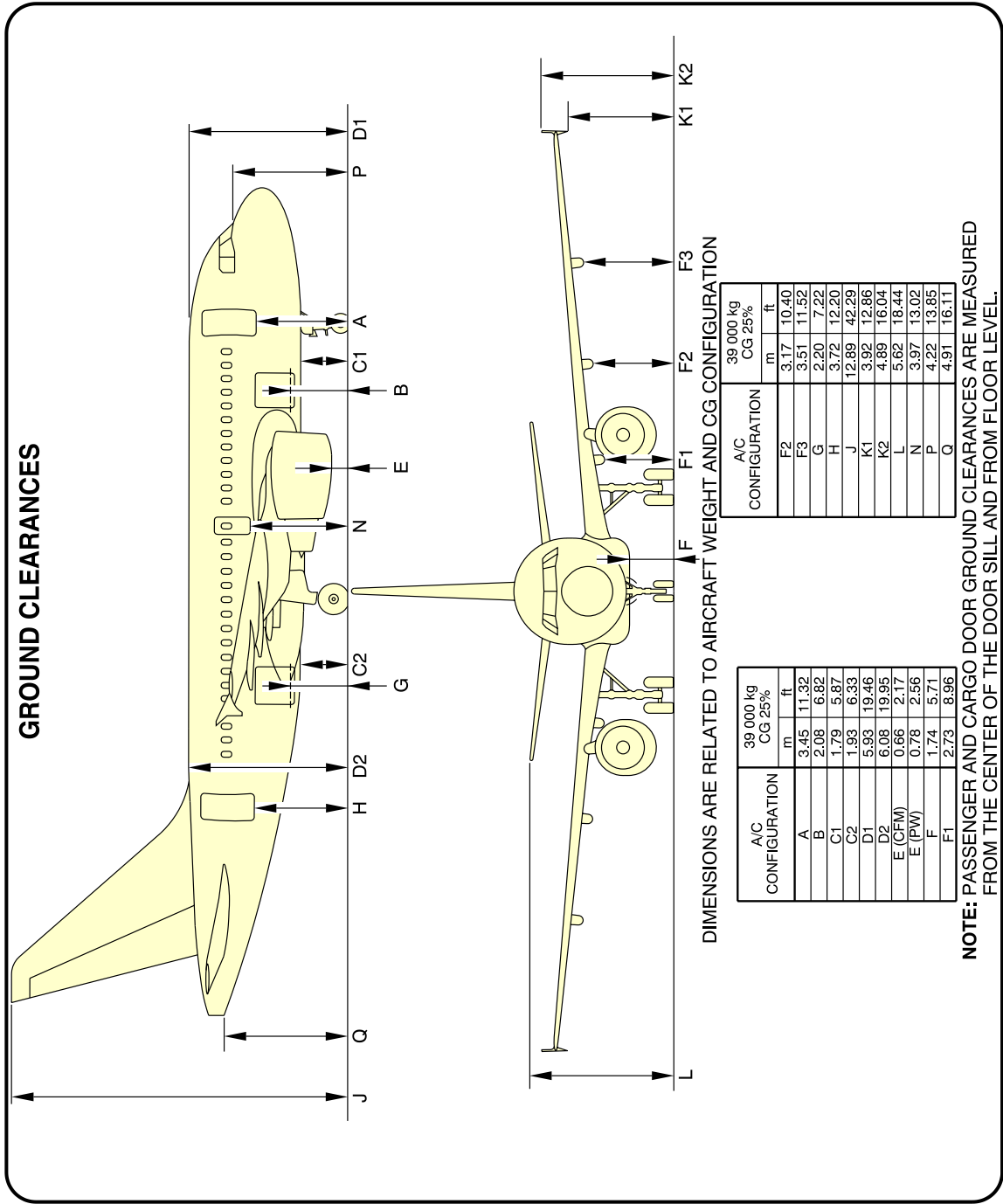
**ON A/C A318-100



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APU Access Door
FIGURE-10-0-0-991-013-A01

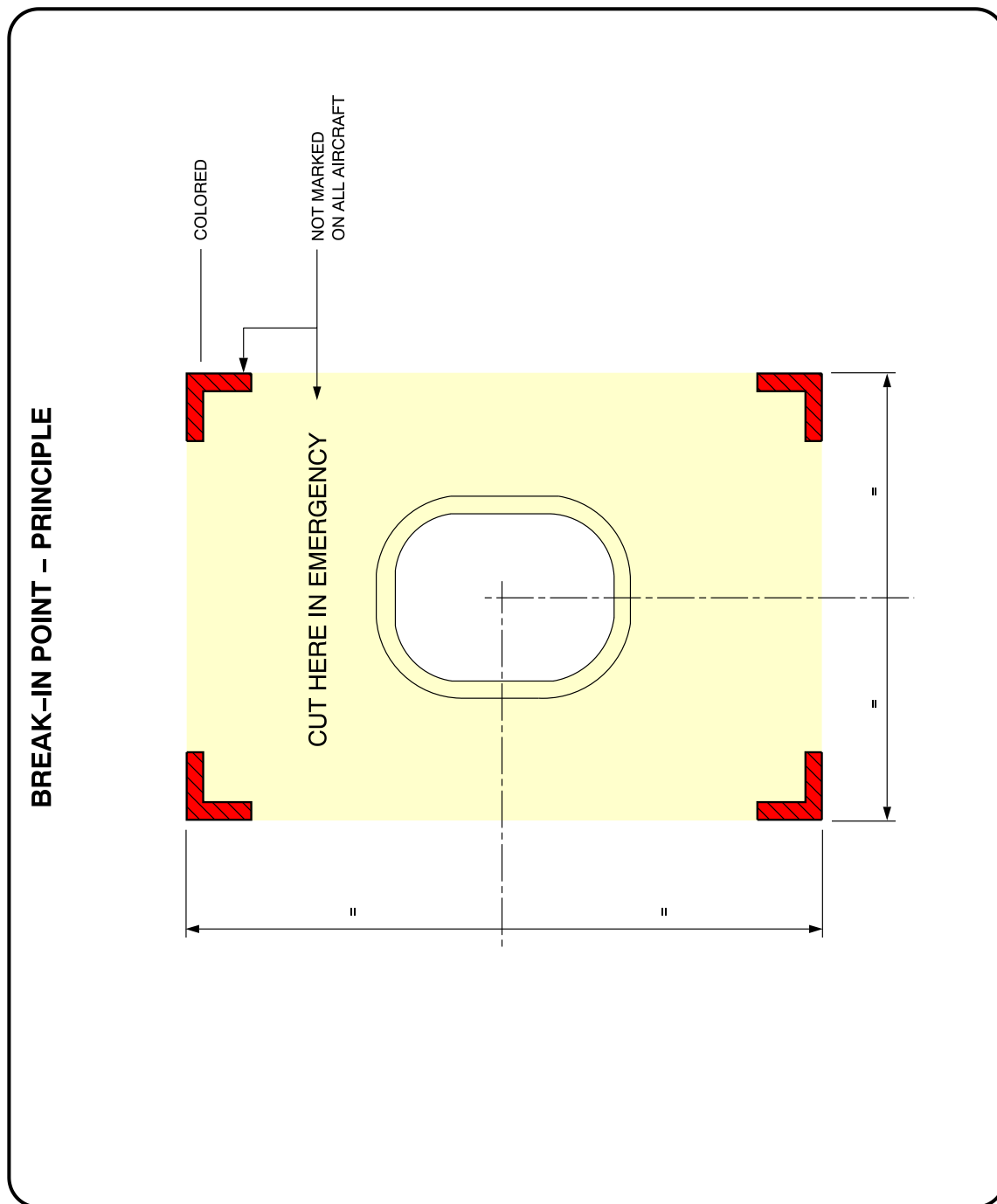
**ON A/C A318-100



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Aircraft Ground Clearances
FIGURE-10-0-0-991-014-A01

****ON A/C A318-100**



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Structural Break-in Points
FIGURE-10-0-0-991-015-A01