2.0 AIRPLANE DESCRIPTION

2.1 GENERAL CHARACTERISTICS

Maximum Design Taxi Weight (MTW). Maximum weight for ground maneuver as limited by aircraft strength and airworthiness requirements. (It includes weight of taxi and run-up fuel.)

Maximum Design 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 Design Landing Weight (MLW). Maximum weight for landing as limited by aircraft strength and airworthiness requirements.

Maximum Design Zero Fuel Weight (MZFW). Maximum weight allowed before usable fuel and other specified usable agents must be loaded in defined sections of the aircraft as limited by strength and airworthiness requirements.

Operating Empty Weight (OEW). Weight of structure, powerplant, furnishing systems, unusable fuel and other unusable propulsion agents, and other items of equipment that are considered an integral part of a particular airplane configuration. Also included are certain standard items, personnel, equipment, and supplies necessary for full operations, excluding usable fuel and payload.

Maximum Structural Payload. Maximum design zero fuel weight minus operation empty weight.

Maximum Seating Capacity. The maximum number of passengers specifically certificated or anticipated for certification.

Maximum Cargo Volume. The maximum space available for cargo.

Usable Fuel. Fuel available for aircraft propulsion.

2.1.1 General Characteristics: Model 787-8

CHARACTERISTICS	UNITS	MODEL 787-8 *[1]
MAX DESIGN TAXI WEIGHT	POUNDS	503,500
	KILOGRAMS	228,383
MAX DESIGN TAKEOFF WEIGHT	POUNDS	502,500
	KILOGRAMS	227,930
MAX DESIGN LANDING WEIGHT	POUNDS	380,000
	KILOGRAMS	172,365
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	355,000
	KILOGRAMS	161,025
SEATING CAPACITY	ONE CLASS	359 ALL-ECONOMY SEATS; FAA EXIT LIMIT = 381 SEATS
	MIXED CLASS	242 DUAL-CLASS; 24 BUSINESS CLASS, 218 ECONOMY CLASS (SEE SEC 2.4)
MAX CARGO - LOWER DECK *[2]	CUBIC FEET	4,826
	CUBIC METERS	136.7
USABLE FUEL *[3]	U.S. GALLONS	33,340
	LITERS	126,206
	POUNDS	223,378
	KILOGRAMS	101,343

NOTES:

*[1] GENERAL CHARACTERISTICS ARE THE SAME FOR BOTH GENERAL ELECTRIC AND ROLLS ROYCE ENGINES.

*[2] 16 LD-3 CONTAINERS IN FWD COMPARTMENT AT 158 CU FT (4.5 CU M) EACH; 12 LD-3 CONTAINERS IN AFT COMPARTMENT; 402 CU FT (11.4 CU M) IN BULK CARGO COMPARTMENT. SEE SEC 2.6 FOR OTHER LOADING COMBINATIONS.

*[3] FUEL DENSITY = 6.7 LBS/US GAL

2.1.2 General Characteristics: Model 787-9

CHARACTERISTICS	UNITS	MODEL 787-9 *[1]
MAX DESIGN TAXI WEIGHT	POUNDS	563,000
	KILOGRAMS	255,372
MAX DESIGN TAKEOFF WEIGHT	POUNDS	561,500
	KILOGRAMS	254,692
MAX DESIGN LANDING WEIGHT	POUNDS	425,000
	KILOGRAMS	192,776
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	400,000
	KILOGRAMS	181,436
SEATING CAPACITY	ONE CLASS	406 ALL-ECONOMY SEATS; FAA EXIT LIMIT = 420 SEATS
	MIXED CLASS	290 DUAL-CLASS; 28 BUSINESS CLASS, 262 ECONOMY CLASS (SEE SEC 2.4)
MAX CARGO - LOWER DECK *[2]	CUBIC FEET	6,090
	CUBIC METERS	172.4
USABLE FUEL *[3]	U.S. GALLONS	33,399
	LITERS	126,429
	POUNDS	223,773
	KILOGRAMS	101,522

NOTES:

*[1] GENERAL CHARACTERISTICS ARE THE SAME FOR BOTH GENERAL ELECTRIC AND ROLLS ROYCE ENGINES.

*[2] 20 LD-3 CONTAINERS IN FWD COMPARTMENT AT 158 CU FT (4.5 CU M) EACH; 16 LD-3 CONTAINERS IN AFT COMPARTMENT; 402 CU FT (11.4 CU M) IN BULK CARGO COMPARTMENT. SEE SEC 2.6 FOR OTHER LOADING COMBINATIONS.

*[3] FUEL DENSITY = 6.7 LBS/US GAL

2.1.3 General Characteristics: Model 787-10

CHARACTERISTICS	UNITS	MODEL 787-10 *[1]
MAX DESIGN TAXI WEIGHT	POUNDS	561,500
	KILOGRAMS	254,692
MAX DESIGN TAKEOFF WEIGHT	POUNDS	560,000
	KILOGRAMS	254,011
MAX DESIGN LANDING WEIGHT	POUNDS	445,000
	KILOGRAMS	201,848
MAX DESIGN ZERO FUEL WEIGHT	POUNDS	425,000
	KILOGRAMS	192,776
SEATING CAPACITY	ONE CLASS	440 ALL-ECONOMY SEATS; FAA EXIT LIMIT = 440 SEATS
	MIXED CLASS	330 DUAL-CLASS; 32 BUSINESS CLASS, 298 ECONOMY CLASS (SEE SEC 2.4)
MAX CARGO - LOWER DECK *[2]	CUBIC FEET	6,722
	CUBIC METERS	190.3
USABLE FUEL *[3]	U.S. GALLONS	33,399
	LITERS	126,429
	POUNDS	223,773
	KILOGRAMS	101,522

NOTES:

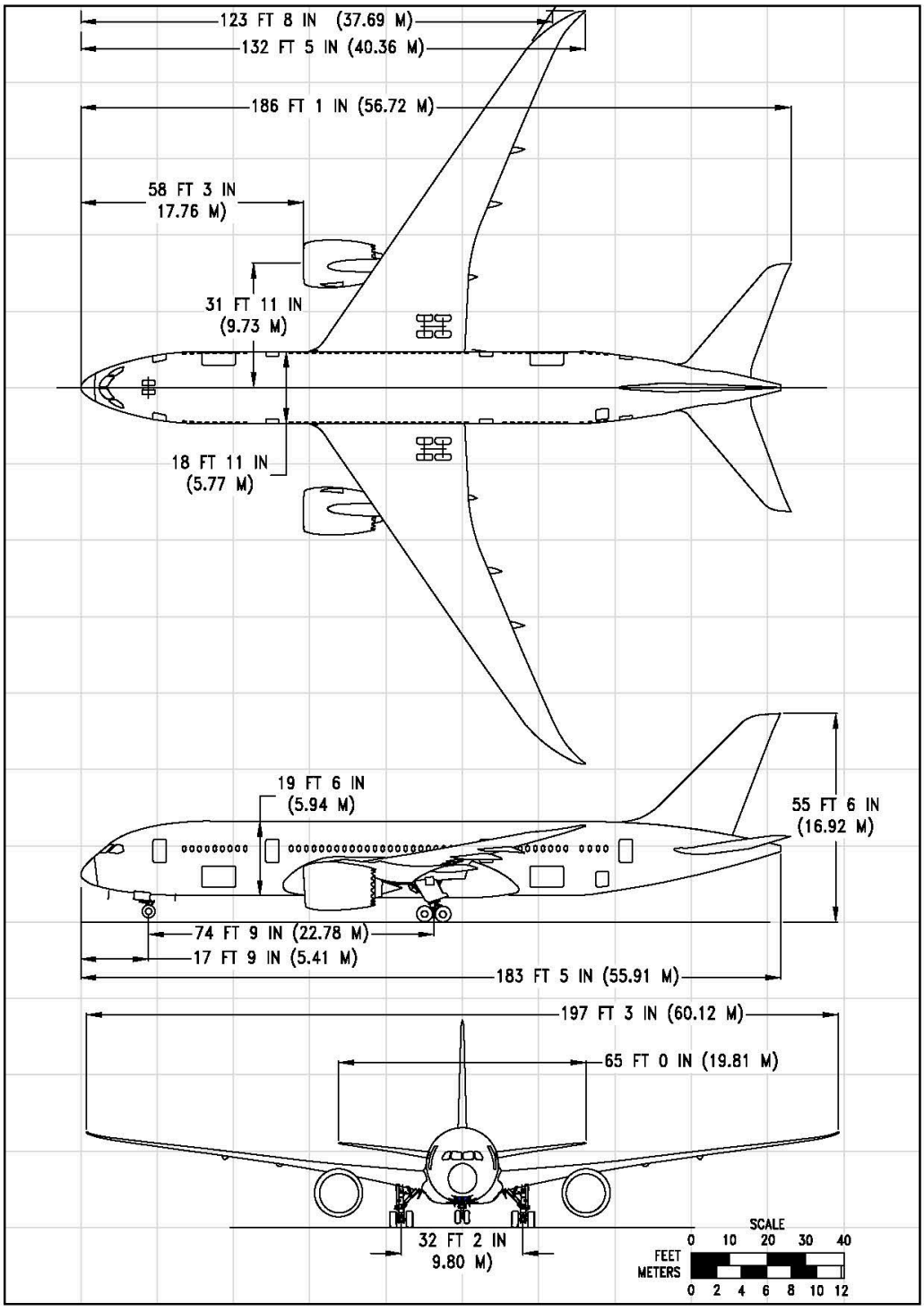
*[1] GENERAL CHARACTERISTICS ARE THE SAME FOR BOTH GENERAL ELECTRIC AND ROLLS ROYCE ENGINES.

*[2] 22 LD-3 CONTAINERS IN FWD COMPARTMENT AT 158 CU FT (4.5 CU M) EACH; 18 LD-3 CONTAINERS IN AFT COMPARTMENT; 402 CU FT (11.4 CU M) IN BULK CARGO COMPARTMENT. SEE SEC 2.6 FOR OTHER LOADING COMBINATIONS.

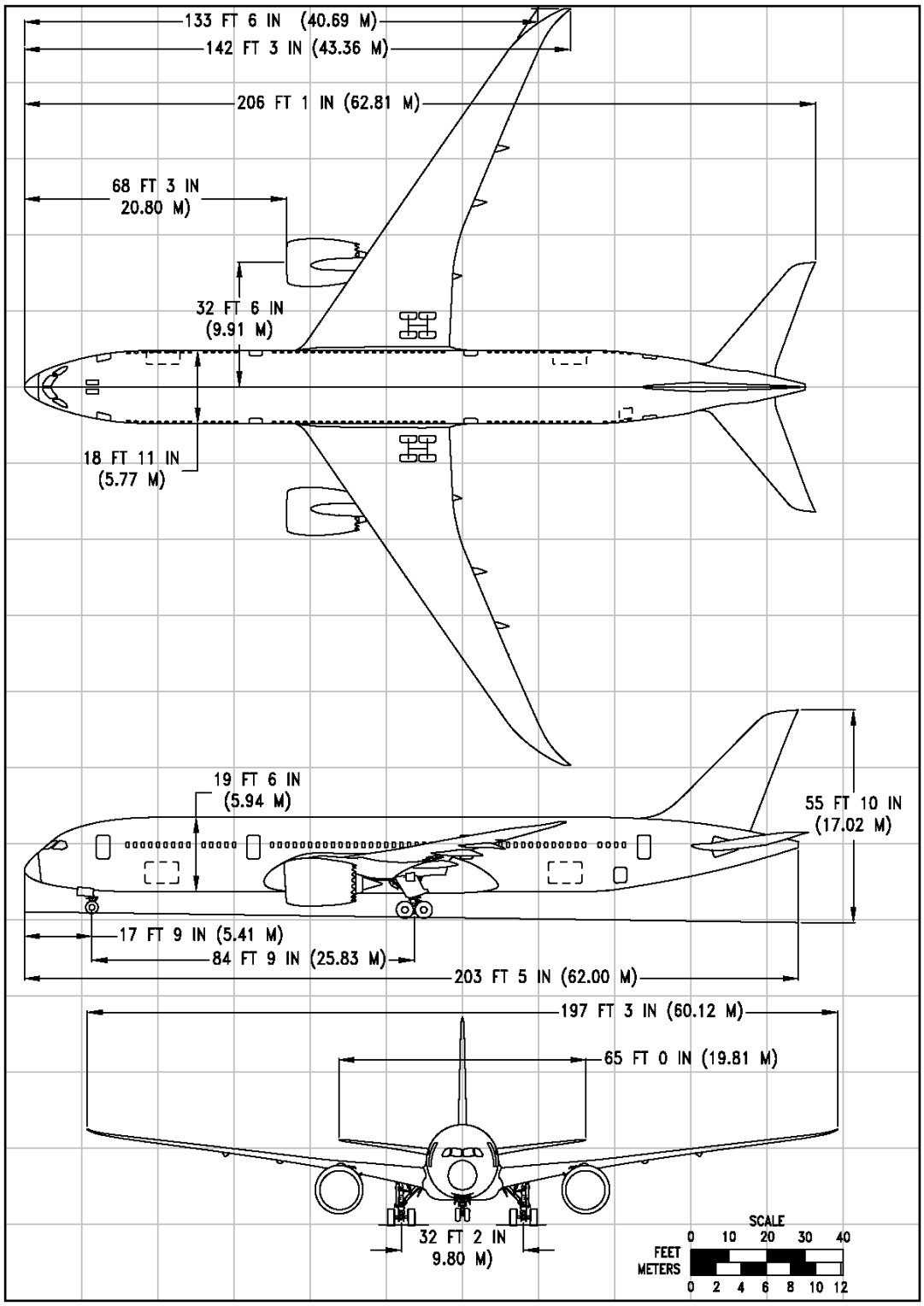
*[3] FUEL DENSITY = 6.7 LBS/US GAL

2.2 GENERAL DIMENSIONS

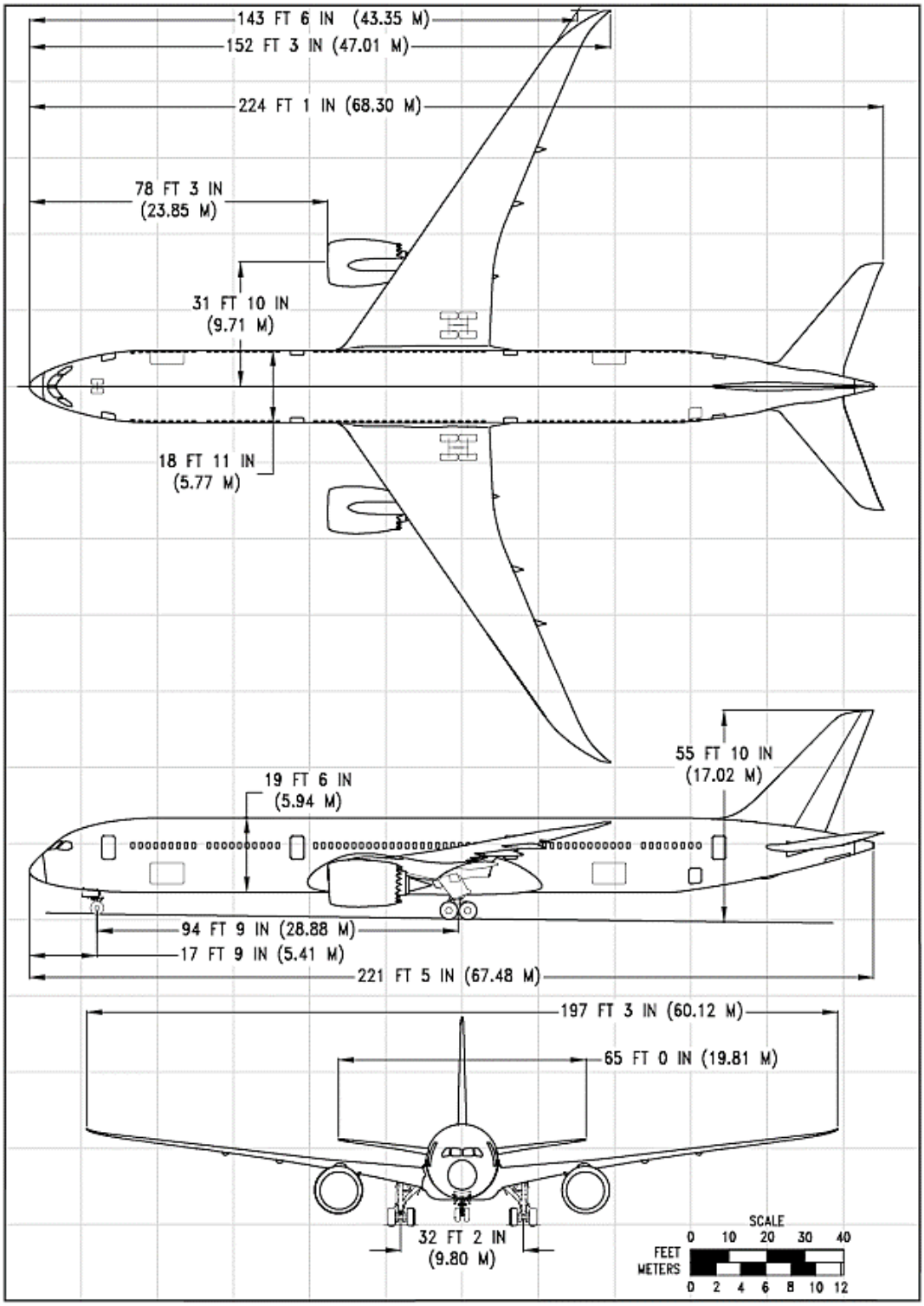
2.2.1 General Dimensions: Model 787-8



2.2.2 General Dimensions: Model 787-9

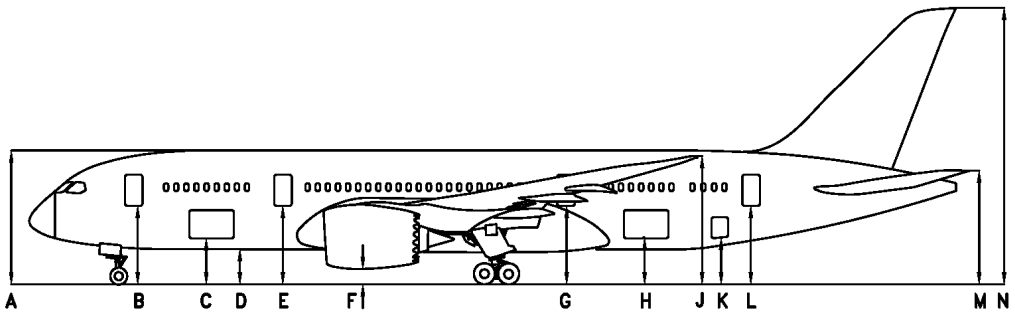


2.2.3 General Dimensions: Model 787-10



2.3 GROUND CLEARANCES

2.3.1 Ground Clearances: Model 787-8



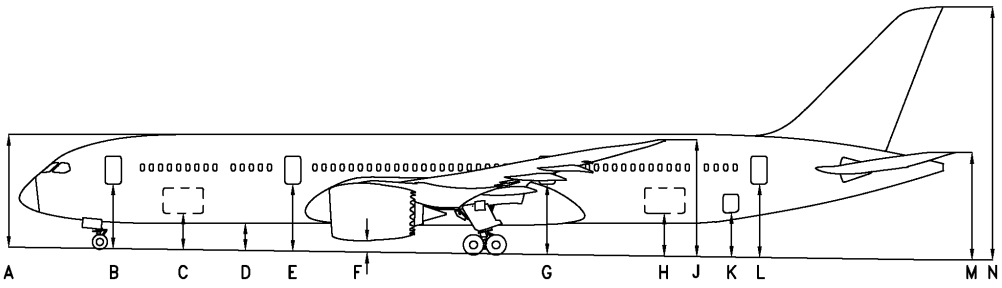
Dimension	MINIMUM		MAXIMUM	
	FT - IN	M	FT - IN	M
A	25 – 2	7.67	26 – 4	8.03
B	13 – 11	4.24	15 – 6	4.72
C	7 – 9	2.36	9 – 0	2.74
D	5 – 6	1.68	6 – 10	2.08
E	14 – 5	4.39	15 – 5	4.70
F (GE ENGINES)	2 – 5	0.74	3 – 6	1.07
F (RR ENGINES)	2 – 4	0.71	3 – 6	1.07
G	15 – 1	4.60	15 – 8	4.78
H	8 – 9	2.67	9 – 6	2.90
J	23 – 10	7.26	25 – 5	7.75
K	8 – 11	2.72	9 – 10	3.00
L	15 – 3	4.65	16 – 2	4.93
M	22 – 3	6.78	23 – 5	7.14
N	54 – 5	16.59	56 – 1	17.09

NOTES:

1. VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATION IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.
2. DURING ROUTINE SERVICING, THE AIRPLANE REMAINS RELATIVELY STABLE, PITCH AND ELEVATION CHANGES OCCURRING SLOWLY.

* NOMINAL DIMENSIONS ROUNDED TO NEAREST INCH AND NEAREST CENTIMETER.

2.3.2 Ground Clearances: Model 787-9



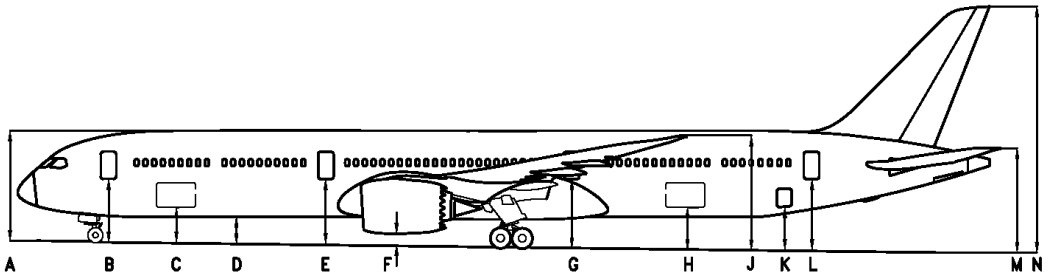
Dimension	MINIMUM		MAXIMUM	
	FT - IN	M	FT - IN	M
A	24 – 4	7.42	25 - 8	7.82
B	13 – 11	4.24	15 – 9	4.80
C	7 – 8	2.34	9 – 3	2.82
D	5 – 9	1.75	6 – 1	1.85
E	14 – 6	4.42	15 – 9	4.80
F (GE ENGINES)	2 – 3	0.69	2 - 6	0.76
F (RR ENGINES)	2 – 0	0.61	2 – 7	0.79
G	15 – 2	4.62	16 – 0	4.88
H	8 – 10	2.69	9 – 11	3.02
J	24 – 0	7.32	25 – 6	7.77
K	9 – 0	2.74	10 - 0	3.05
L	15 – 5	4.70	16 – 8	5.08
M	22 – 7	6.88	23 – 5	7.14
N	55 – 2	16.81	56 – 1	17.09

NOTES:

1. VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATION IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.
2. DURING ROUTINE SERVICING, THE AIRPLANE REMAINS RELATIVELY STABLE, PITCH AND ELEVATION CHANGES OCCURRING SLOWLY.

* NOMINAL DIMENSIONS ROUNDED TO NEAREST INCH AND NEAREST CENTIMETER.

2.3.3 Ground Clearances: Model 787-10



Dimension	MINIMUM		MAXIMUM	
	FT - IN	M	FT - IN	M
A	26-0	7.92	26-9	8.15
B	14-0	4.27	15-5	4.70
C	7-9	2.36	9-0	2.74
D	6-6	1.98	7-3	2.21
E	14-8	4.47	15-7	4.75
F (GE ENGINES)	2-5	0.74	3-3	0.99
F (RR ENGINES)	2-5	0.74	3-2	0.97
G	15-4	4.67	16-0	4.88
H	9-2	2.79	9-9	2.97
J	25-4	7.72	25-11	7.90
K	9-6	2.90	10-1	3.07
L	15-10	4.83	16-5	5.00
M	23-3	7.09	23-8	7.21
N	55-5	16.89	55-10	17.02

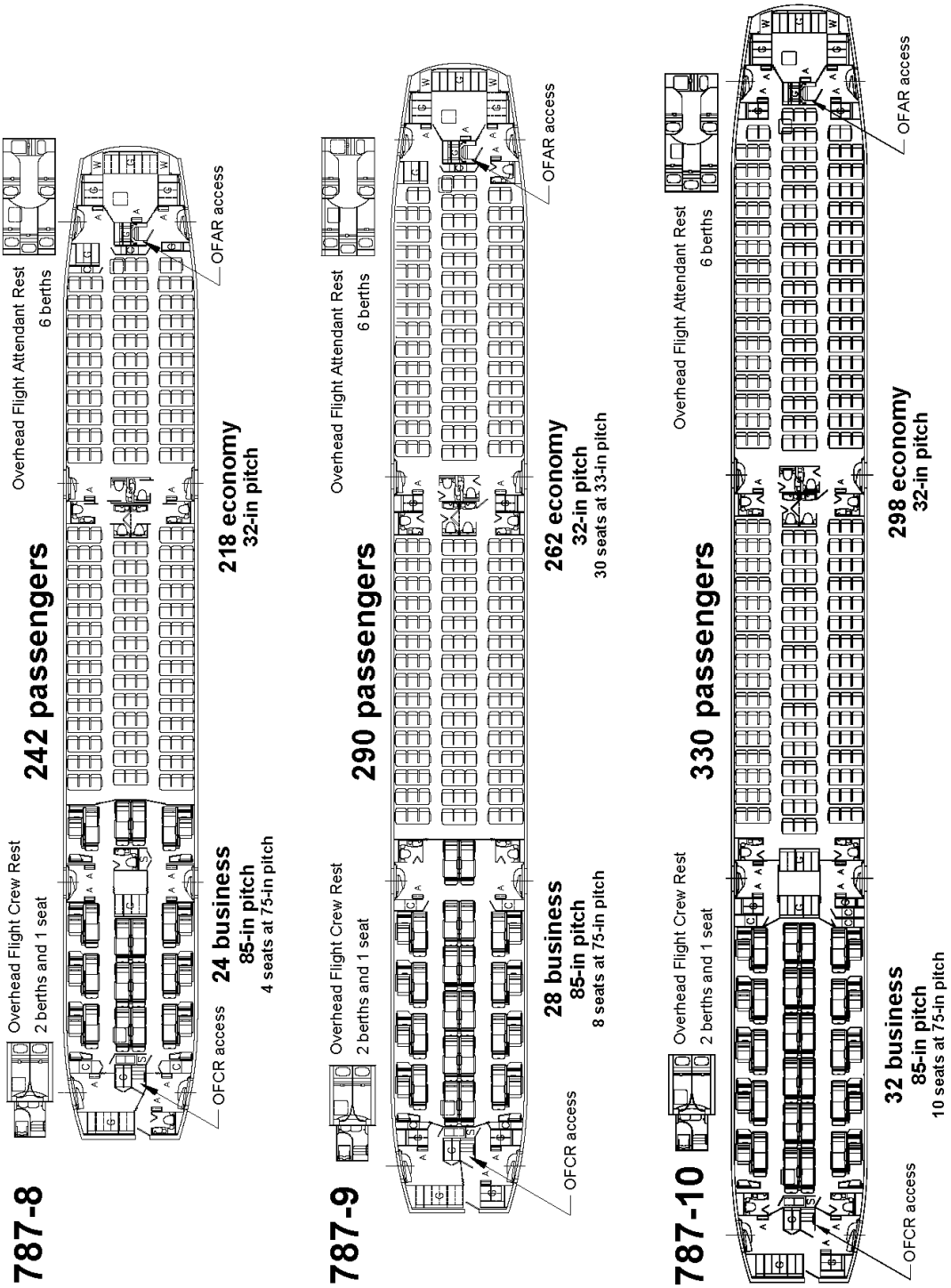
NOTES:

1. VERTICAL CLEARANCES SHOWN OCCUR DURING MAXIMUM VARIATIONS OF AIRPLANE ATTITUDE. COMBINATIONS OF AIRPLANE LOADING AND UNLOADING ACTIVITIES THAT PRODUCE THE GREATEST POSSIBLE VARIATION IN ATTITUDE WERE USED TO ESTABLISH THE VARIATIONS SHOWN.
2. DURING ROUTINE SERVICING, THE AIRPLANE REMAINS RELATIVELY STABLE, PITCH AND ELEVATION CHANGES OCCURRING SLOWLY.

* NOMINAL DIMENSIONS ROUNDED TO NEAREST INCH AND NEAREST CENTIMETER.

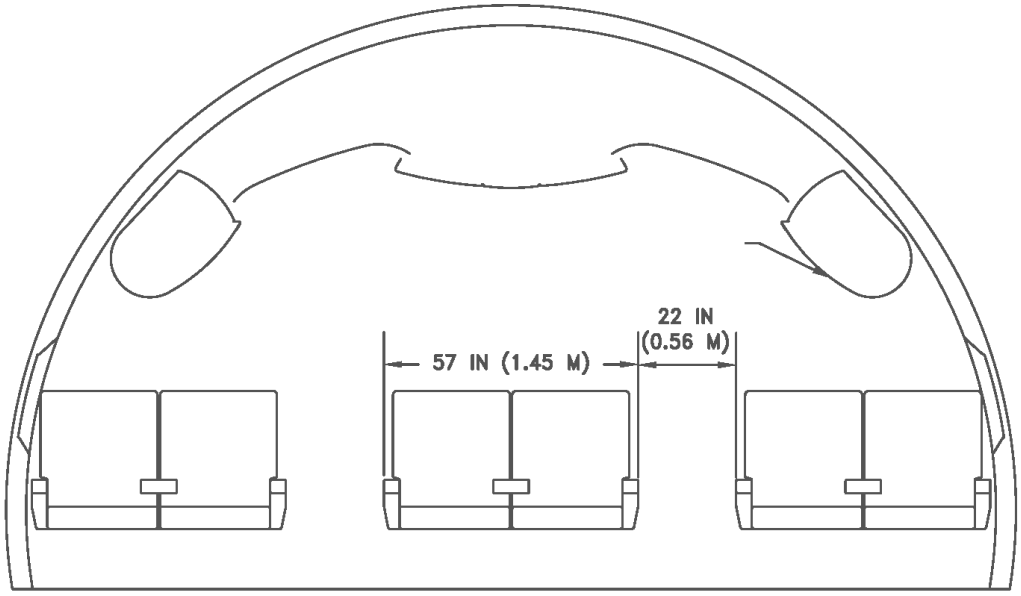
2.4 INTERIOR ARRANGEMENTS

2.4.1 Interior Arrangements - Typical: Model 787-8, 787-9, 787-10

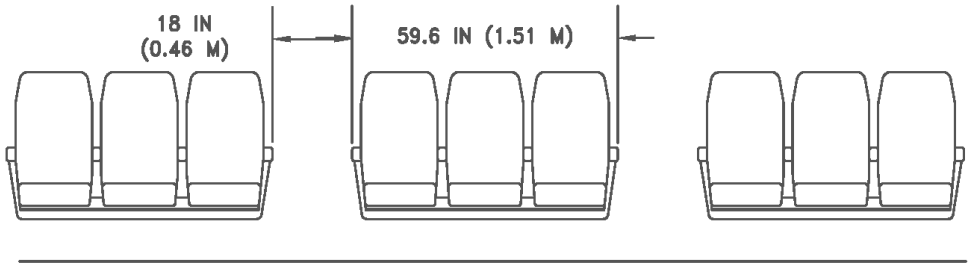


2.5 CABIN CROSS SECTIONS

2.5.1 Cabin Cross-Sections: Model 787-8, 787-9, 787-10



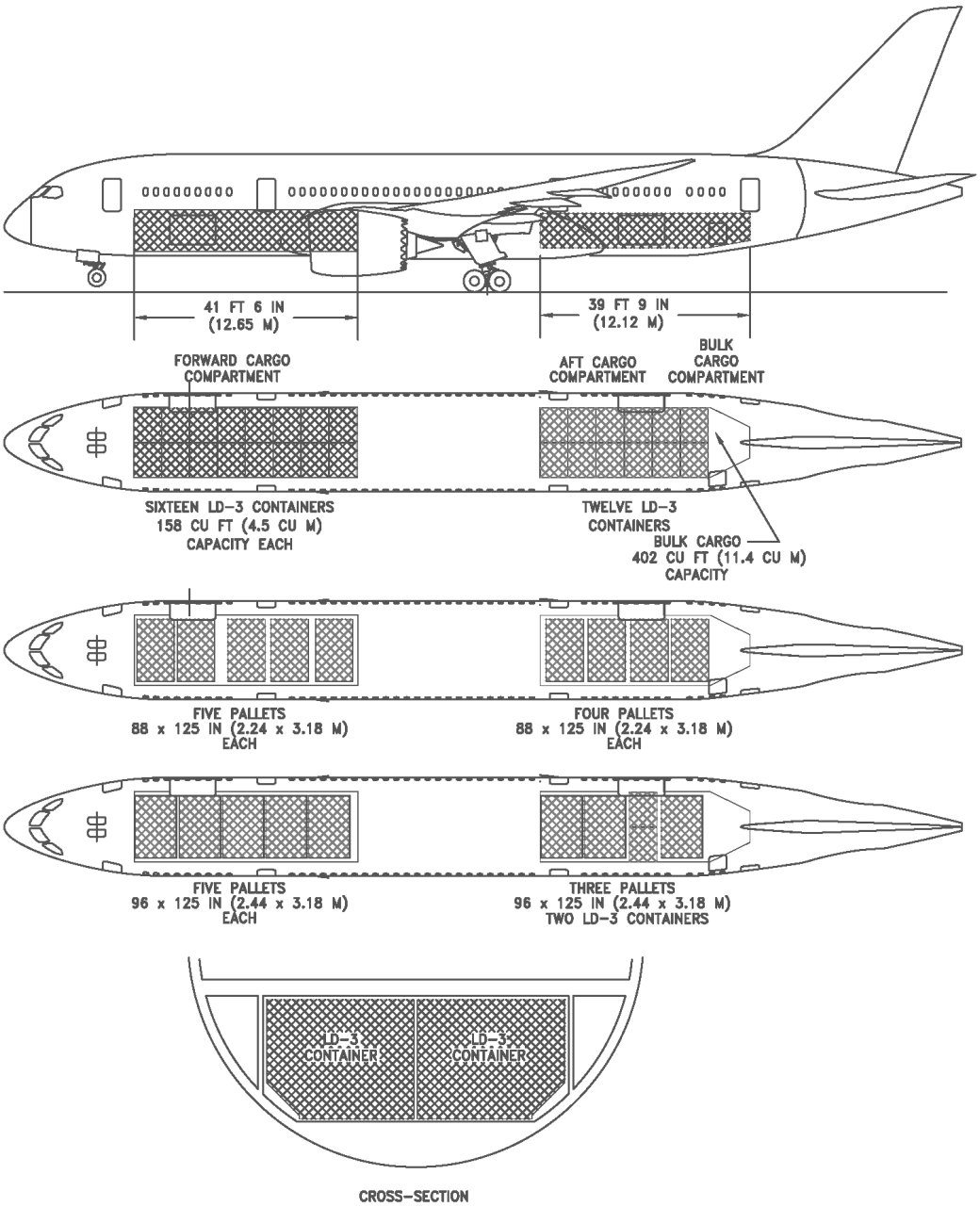
FIRST CLASS/BUSINESS CLASS SEATS



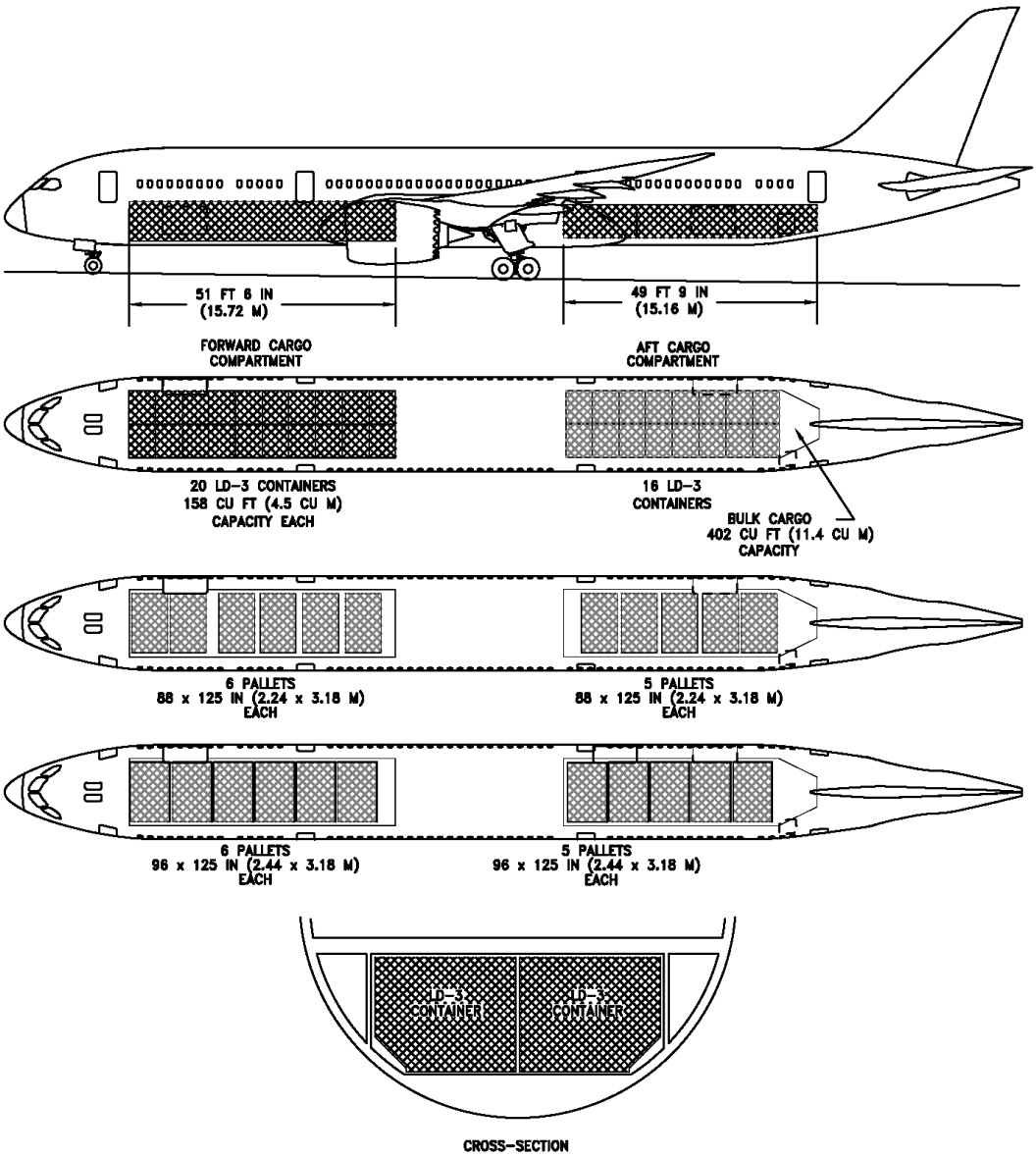
9–ABREAST ECONOMY SEATS

2.6 LOWER CARGO COMPARTMENTS

2.6.1 Lower Cargo Compartments: Model 787-8, Containers and Bulk Cargo



2.6.2 Lower Cargo Compartments: Model 787-9, Containers and Bulk Cargo



2.6.3 Lower Cargo Compartments: Model 787-10, Containers and Bulk Cargo