DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A6WE
Revision 30

BOEING
DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-32F (C-9A, C-9B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, DC-9-51, DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, MD-90-30, 717-200

March 25, 2014

TYPE CERTIFICATE DATA SHEET NO. A6WE

This data sheet, which is a part of Type Certificate No. A6WE, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Civil Air Regulations and Federal Aviation Regulations.

Type Certificate Holder: The Boeing Company
4000 Lakewood Boulevard
Long Beach, California 90808

Type Certificate Ownership Record: McDonnell Douglas Corporation, Long Beach, California merged with the Boeing Company in 1997. They retained ownership of the TC A6WE and on January 30, 1998, granted The Boeing Company a license to manufacture these aircraft under the production certificate. MDC is a subsidiary of The Boeing Company. Transferred Type Certificate to The Boeing Company on September 27, 2010.

Douglas Aircraft Company, Inc., Long Beach, California merged with McDonnell Aircraft Corporation August 25, 1967

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The following table defines how specific airplane models are identified in the applicability of airworthiness directives (AD):

Airplane Model	Applicability of ADs Prior to March 1, 2002	Applicability of ADs as of March 1, 2002
1. DC-9, Series 10	DC-9, series 10; OR DC-9-10 series airplanes; OR DC-9-11 series airplanes, DC-9-12 series airplanes, DC-9-13 series airplanes, DC-9-14 series airplanes, DC-9-15 series airplanes, and DC-9-15F series airplanes.	DC-9-11 airplanes, DC-9-12 airplanes, DC-9-13 airplanes, DC-9-14 airplanes, DC-9-15 airplanes, and DC-9-15F airplanes.
2. DC-9, Series 20	DC-9-20 series airplanes	DC-9-21 airplanes
3. DC-9, Series 30 C-9	DC-9-30 series airplanes; OR DC-9-31 series airplanes, DC-9-32 series airplanes, DC-9-32 (VC-9C) series airplanes, DC-9-32F series airplanes, DC-9-33F series airplanes, DC-9-34 series airplanes, and DC-9-34F series airplanes. C-9 (military) airplanes (Note: may be listed without parenthetical)	DC-9-31 airplanes, DC-9-32 airplanes, DC-9-32 (VC-9C) airplanes, DC-9-32F airplanes, DC-9-33F airplanes, DC-9-34 airplanes, DC-9-34F airplanes, and DC-9-32F (C-9A, C-9B) airplanes.
4. DC-9, Series 40	DC-9-40 series airplanes, OR DC-9-41 series airplanes	DC-9-41 airplanes
5. DC-9, Series 50	DC-9-50 series airplanes, OR DC-9-51 series airplanes	DC-9-51 airplanes
6. DC-9-81 (MD-81) DC-9-82 (MD-82) DC-9-83 (MD-83) DC-9-87 (MD-87)	DC-9-81 (MD-81) series airplanes, DC-9-82 (MD-82) series airplanes, DC-9-83 (MD-83) series airplanes, and DC-9-87 (MD-87) series airplanes; OR DC-9-80 (MD-80) series airplanes. *Note: may be listed without parenthetical	DC-9-81 (MD-81) airplanes, DC-9-82 (MD-82) airplanes, DC-9-83 (MD-83) airplanes, and DC-9-87 (MD-87) airplanes.
7. MD-88	MD-88 airplanes	MD-88 airplanes
8. MD-90	MD-90-30 series airplanes, OR MD-90 series airplanes	MD-90-30 airplanes
9. 717	717-200 series airplanes, OR 717 series airplanes	717-200 airplanes

NOTE: In ADs prior to March 1, 2002, "Model DC-9 series airplanes," as listed in the applicability of the AD, included those models listed in rows one through five above, but did not include DC-9-81 (MD-81), -82 (MD-82), -83, (MD-83), and -87 (MD-97) airplanes. If all Model DC-9 series airplanes are NOT subject to the requirements of the AD, the applicability of the AD lists each affected model. Also, with respect to ADs issued prior to March 1, 2002, the information provided in the table is very general and should not be the only information utilized to determine the applicability of ADs to specific airplane models. The ADs contain separate applicability statements that rely heavily on service bulletins for determination of the applicability.

I - Models DC-9-11, -12, -13, -14 (Transport Aircraft) approved November 23, 1965; Model DC-9-15 (Transport Aircraft), approved January 21, 1966; (See NOTE 9 for conversions, Models DC-9-11, -12, -13 and -14).

Engines — 2 Pratt and Whitney Turbojet JT8D-1, JT8D-1A, JT8D-1B, JT8D-5, JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15 or JT8D-17 (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits — See Section II, Model DC-9-31 for JT8D-9, 9A or -15 engines.
See Section VIII, Model DC-9-21, for JT8D-11 engines.
See Section IX, Model DC-9-51, for JT8D-17 engines.

P&W JT8D-1, JT8D-1A, JT8D-1B, JT8D-7, JT8D-7A and JT8D-7B

Static Thrust, S.L.	
Take-off (5 min.)(JT-8D-1 Std. Day)(JT8-D-7 Flat Rated to 84°F)	14,000 lb
Maximum Continuous	12,600 lb
Maximum permissible engine rotor operating speeds:	
N_1 (Low Compressor)	8,600 rpm (100.1%)
N_2 (High Compressor)	12,250 rpm (100%)

Maximum permissible temperatures:

Turbine exhaust gas	JT8D-1, -7		JT8D-1A, -7A		JT8D-1B, -7B	
Take-off (5 min.)	570°C	1,058°F	580°C	1,076°F	590°C	1,094°F
Maximum Continuous	535°C	995°F	540°C	1,004°F	545°C	1,013°F
Maximum Acceleration	570°C	1,058°F	580°C	1,076°F	590°C	1,094°F
Starting - At ambient temperatures of:						
15°C and above			420°C	788°F		
below 15°C			350°C	662°F		
Oil Inlet (continuous operation)			120°C	248°F		
Oil Inlet (15 min. max.)			157°C	315°F		

P&W JT8D-5

Static Thrust, S.L.	
Take-off (5 min.) (Flat Rated to 90°F)	12,250 lb
Maximum Continuous (Std. Day)	12,250 lb
Maximum permissible engine rotor operating speeds:	
N_1 (Low Compressor)	8,500 rpm (98.9%)
N_2 (High Compressor)	12,100 rpm (98.8%)

Maximum permissible temperatures:

Turbine exhaust gas		
Take-off (5 min.)	555°C	1031°F
Maximum Continuous	535°C	995°F
Maximum Acceleration	555°C	1031°F
Starting - At ambient temperatures of:		
15°C and above	420°C	788°F
below 15°C	350°C	662°F
Oil Inlet (continuous operation)	120°C	248°F
Oil Inlet (15 min. max.)	157°C	315°F

I - Models DC-9-11, -12, -13, -14, -15

APU Limits (if installed)

AiResearch	GTCP85-98D or -98W		GTCP85-98DC[A], 98DC[B], or 98DC[C]	
Maximum permissible EGT temperatures:				
Starting (30 seconds)	760°C	1398°F	760°C	1398°F
Idle (no load)(continuous)	---	----	---	----
Maximum load (continuous)	710°C	1270°F	677°C	1251°F
Transient overload	732°C	1350°F	710°C	1270°F
Maximum rotor speed - all conditions		110%		110%

See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - 25,850' to 35,000')		M=0.84
V_A	(Maneuvering - S.L.)	220K	
V_A	(Maneuvering - 35,000')	249K	
	(See AFM for variation in V_A speed vs. alt.)		
V_{FE}	(Flaps down 0° to 10°)	280K	M=0.57
	(Flaps down 10° to 20°)	240K	M=0.57
	(Flaps down 20° to 30°)	210K	M=0.57
	(Flaps down 30° to 50°)	180K	M=0.57
V_{LO}	(Landing gear operation)	215K	M=0.51
V_{LE}	(Landing gear extended)	215K	M=0.51
V_{LO}	(Landing gear operation)		
	(Gear retraction)	250K (1)	M=0.70
	(Gear extension)	300K (1)	M=0.70
V_{LE}	(Landing gear extended)	300K (1)	M=0.70
V	(Landing light extension)	V_{MO}/M_{MO}	

(1) Airspeed limits after DC-9 Service Bulletin No. 32-50, or production equivalent, has been accomplished.

C.G. Range

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
44,000	569.4	604.6	566.3	604.6
77,000	--	604.6	--	--
78,000	569.4	--	567.7	--
79,000	--	601.7	--	604.6
81,000	--	598.9	--	601.7
81,700	570.4	--	--	--
87,000	571.3	--	569.8	--
90,700		585.2	569.8	588.0
91,500	571.3	584.1		

I - Models DC-9-11, -12, -13, -14, -15 (cont'd)

C.G. Range (cont'd)

(1) Straight line variation between weights shown. Landing gear retraction moment is -38,813 lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum Weights		
	Taxi and Ramp	91,500 lb (1)(2)
	Start of Take-off	90,700 lb (1)(2)(4)
	Zero Fuel	74,000 lb (3)
	Landing	81,700 lb

(1) 20 ply rating main gear tires required for weights 85,700 lb and above.

(2) Brake Assembly P/N 9560743 must be installed for weights above 86,300 lb

(3) All weight above this value must be fuel in main tanks.

(4) Dump system not required (See exemption under Certification Basis).

Minimum Crew For all flights: Pilot and Copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage

Compartment	Fuselage Station	Capacity (lb)	Max. Loading		H-Arm Sta.
			lb/ft^2	lb in.	
Fwd. Belly	218-482.5	5595	150	34.0	352.1
Aft Belly	[646-715	----	---	34.0	-----
	715-817]	3405	150	27.0	724.9
With 1780 Gal. Fuselage Tank (DC-9-15)					
Fwd. Belly	218-373	3900(1)	150	34.0	286.8
Aft Belly	646-817	(no cargo)	---	---	---

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches.

(1) With fuselage tank empty or fueled.

Fuel Capacity	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9947 lb each	9892 lb each	585.7
Center Wing Tank	6518 lb	6442 lb	535.8
Fwd. Fuselage Tank (780 gal.) (1)	5543 lb	5538 lb	421.0
Aft Fuselage Tank (1000 gal.) (1)	7109 lb	7100 lb	706.5

(1) Eligible for installation in Model DC-9-15 airplane (S/N 47151) only.

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for unusable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity		H-Arm Sta.
Engine Oil	31.0 lb each	771.0
CSD	9.4 lb each	811.0
APU (if installed)	7.75 lb each	856.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

I - Models DC-9-11, -12, -13, -14, -15 (cont'd)

Serial Numbers Eligible

DC-9-11: None

DC-9-12: None

DC-9-13: None

DC-9-14: 45695-45709, 45711-45716, 45725-45730, 45735-45737, 45742-45749, 45770, 45771, 45795, 45796, 45825, 45829-45832, 45842-45844, 47043, 47049, 47056, 47060, 47081, 47309.

DC-9-15: 45717-45724, 45731, 45732, 45738-45741, 45772, 45773, 45775, 45776, 45778-45787, 45797-45799, 45841, 47000-47002, 47033-47035, 47048, 47059, 47063, 47064, 47078, 47085, 47100, 47122-47127, 47151, 47204-47206.

DC-9-11: S/Ns 45728-45730 modified to DC-9-14 (See NOTE 11).

DC-9-12: S/N 47056 modified to DC-9-14 (See NOTE 11).

II - Model DC-9-31 (Transport Aircraft) Approved December 19, 1966.

Engines: 2 Pratt and Whitney Turbojet JT8D-1, JT8D-1A, JT8D-1B, JT8D-5, JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel: Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits: See Section I, Models DC-9-11, -12, -13, -14, -15, for JT8D-1, -1A, -1B, -5, -7, -7A or -7B engines.
See Section VIII, Model DC-9-21, for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or JT8D-17A engines.

P&W JT8D-9 and JT8D-9A

Static Thrust, S.L.

Take-off (5 min.) (Flat Rated to 84°F)	14,500 lb
Maximum continuous (Std. Day)	12,600 lb

Maximum permissible engine rotor operating speeds:

N_1 (Low compressor)	8,600 rpm (100.1%)
N_2 (High Compressor)	12,250 rpm (100%)

Maximum permissible temperatures:

	JT8D-9		JT8D-9A	
Turbine exhaust gas				
Take-off (5 min.)	580°C	1076°F	590°C	1094°F
Maximum Continuous	540°C	1004°F	545°C	1013°F
Maximum Acceleration	580°C	1076°F	590°C	1094°F
Starting - At ambient temperatures of:				
15° and above	420°C	788°F		
above 15°C	350°C	662°F		
Oil Inlet (continuous operation)	120°C	248°F		
Oil Inlet (15 min. max.)	157°C	315°F		

II - Model DC-9-31 (Transport Aircraft) Approved December 19, 1966 (cont'd)

Engine Limits (cont'd)

P&W JT8D-15 and JT8D-15A

Static Thrust, S.L.

Take-off (5 min.) (Flat Rated to 84°F)	15,500 lb
Maximum continuous (Std Day)	13,750 lb

Maximum permissible engine rotor operating speeds:

N_1 (Low compressor)	8,800 rpm (102.4%)
N_2 (High Compressor)	12,250 rpm (100%)

Maximum permissible temperatures:

Turbine exhaust gas		
Take-off (5 min.)	620°C	1148°F
Maximum Continuous	580°C	1076°F
Maximum Acceleration (2 min.)	630°C	1166°F
Starting -		
Ground	550°C	1022°F
Inflight	620°C	1148°F
Oil Inlet (continuous operation)	130°C	266°F
Oil Inlet (15 min. max.)	165°C	329°F

APU Limits (If installed)

See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	350K	
V_{MO}	(Normal Operating - 23,500')	367K	M=0.84
V_{MO}	(Normal Operating - 23,500 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.) (below 100,000 lb)	235K	244K (1)
	(Maneuvering - 35,000') (below 100,000 lb)	258K	260K (1)
	(Maneuvering - S.L.) (100,000 lb and up)	241K	
	(Maneuvering - 35,000') (100,000 lb and up)	256K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	M=0.57
	(Flaps down 10° to 20°)	240K	M=0.57
	(Flaps down 20° to 25°)	210K	M=0.57
	(Flaps down 25° to 50°)	180K	M=0.57
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.70
	(Gear extension)	300K	M=0.70
V_{LE}	(Landing gear extended)	300K	M=0.70
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57
	(Landing light extension)	V_{MO}/M_{MO}	

(1) For airplanes with maximum takeoff gross weight 108,000 lb

II - Model DC-9-31 (Transport Aircraft) Approved December 19, 1966 (cont'd)

C.G. Range For Maximum Ramp Weight of 106,000 lb (2) (3)

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
52,000	667.2	709.7		52,000
89,000	667.2	--		89,000
94,000	--	709.7		94,000
104,400	670.8	--		104,400
105,000	672.0 (4)	693.5	669.0	693.5
106,000	672.7 (4)	692.0	--	--

For Maximum Ramp Weight of 109,000 lb (2) (3)

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
52,000	667.2	709.7	662.0	709.7
89,000	667.2	709.7	664.6	709.7
94,000	--	709.7	--	709.7
99,000	669.6	702.3	667.3	702.3
108,000	671.8	689.1 (5)	669.7	689.1 (5)
109,000	672.1	687.6 (5)	--	--

(1) Straight line variation between weights shown. Landing gear retraction moment is -48,900 in lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction, and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within the approved C.G. limits. (See NOTE 1(b) and (e)).

(2) Airplanes with ramp weight greater than 104,000 lb not approved for operations with low pressure tires.

(3) Airplanes with ramp weight greater than 104,000 lb must use 10 ply nose tires and 24 ply main tires.

(4) Forward C.G. limits may be extended to 671.1 @ 105,000 lb and 671.4 @ 106,000 lb when tires are installed in accordance with (3) above.

(5) Aft C.G. limits may be extended to 698.8 @ 108,000 lb and 697.6 @ 109,000 lb when tires are installed in accordance with (3) above.

Maximum Weights

Taxi and Ramp	106,000 lb (2)(3)	109,000 lb(3)
Start of Take-off	105,000 lb (2)(3)	108,000 lb(3)
Zero Fuel	87,000 lb (1)	
Landing	99,000 lb	

(1) All weight above this value must be fuel in main tanks. Additional fuel may be added to the center wing tank when the main tanks are full to attain max. ramp weights.

(2) Maximum for Airplane Serial Numbers 45733, 45734, 45833, 45834, 47003, 47004, 47007.

(3) Seven (7) rotor disk brakes required for weights over 103,000 pounds.

Minimum Crew For all flights: Pilot and Copilot.

Maximum Passengers See NOTES 6 and 8.

II - Model DC-9-31 (Transport Aircraft) approved December 19, 1966 (cont'd)

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-596]	8430	150	26 34	408.9
Aft Belly	[760-897 897-996]	4995	150	34 18	868.4

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches.

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	699.6
Center Wing Tank	6518 lb	6442 lb	649.8

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

45733, 45734, 45833-45840, 45846, 45863-45876, 47003-47009, 47020, 47023, 47026, 47036, 47042, 47050-47054, 47057, 47058, 47065-47068, 47072-47075, 47082, 47083, 47095-47099, 47119-47121, 47130, 47134-47146, 47149, 47150, 47157-47167, 47171, 47181-47189, 47202, 47203, 47207-47212, 47214-47217, 47244-47256, 47263, 47264, 47267-47272, 47280, 47310, 47315, 47316, 47325-47338, 47343-47347, 47351, 47352, 47362, 47369-47375, 47382, 47389-47391, 47393, 47399-47406, 47411, 47412, 47415-47421, 47429, 47439-47441, 47487, 47490, 47491, 47501, 47505-47508, 47517, 47526-47528, 47547-47552, 47564, 47574, 47576, 47583, 47588-47590, 47593, 48114-48120, 48131, 48138-48147, 48154-48159.

DC-9-31, S/N 47442, 47450, 47566, 47572, 47573, 47638, 47647, 47649, 47664, 47720, 47721, and 47727 modified to DC-9-32 (See NOTE 11).

S/N 45846, 47020, 47023, 47026, 47068, 47351 and 47352 were DC-9-32 modified to DC-9-31 (See NOTE 11).

The following serial numbered airplanes demonstrated compliance at time of delivery with FAR 36 dated December 1, 1969 and Amendments 36-1 and 36-2: 47589, 48114-48120, 48131, 48138-48147, 48154-48159.

III - Model DC-9-15F (Transport Aircraft) Approved March 1, 1967.

Engines — 2 Pratt and Whitney Turbojet JT8D-1, JT8D-1A, JT8D-1B, JT8D-5, JT8D-7, JT8D-7A, T8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15 or JT8D-17 (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

III - Model DC-9-15F (Transport Aircraft) Approved March 1, 1967 (cont'd)

Engine Limits See Section I, Models DC-9-11, -12, -13, -14, and -15 for JT8D-1, -1A, -1B, -5, -7, -7A, or -7B engines.
See Section II, Model DC-9-31 for JT8D-9, -9A or -15 engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17 engines.

APU Limits (if installed) See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits See Section I, Model DC-9-11, -12, -13, -14, and -15.

C.G. Range

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
44,000	569.4	604.6	566.3	604.6
77,000	--	604.6	--	--
79,000	--	601.7	--	604.6
81,000	569.4	598.9	567.7	601.7
90,700	571.3	585.2	569.7	588.0
91,500	571.5	584.1		

(1) Straight line variation between weights shown. Landing gear retraction moment is -38,813 in.-lb. Moves C.G. fwd. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum Weights

Taxi and Ramp	91,500 lb (1)
Start of Takeoff	90,700 lb (1) (3)
Zero Fuel	74,000 lb (2)
Landing	81,700 lb

(1) With 20 ply rating main gear tires.

(2) All weight above this value must be fuel in main tanks.

(3) Dump system not required (See exemption under Certification Basis).

Minimum Crew For all flights: Pilot and Copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	218-482.5	5595	150	34.0	352.1
Aft Belly	[646-718 718-817]	---- 3405	--- 150	34.0 27.0	----- 724.9

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches when operating as a passenger airplane.

Maximum Baggage (cont'd)

For additional information concerning loading limitations when operating as a passenger airplane as well as when operating as a cargo or combination passenger/cargo airplane, see NOTE 1(a).

Fuel Capacity See Section I, Models DC-9-11, -12, -13, -14, and -15.

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	771.0
CSD	9.4 lb each	811.0
APU (if installed)	7.75 lb each	856.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

45826, 45828, 47010-47018, 47044, 47045, 47055, 47061, 47062, 47086, 47087, 47152-47156, 47240.

IV - Model DC-9-32 (Transport Aircraft), Approved March 1, 1967.

Engines 2 Pratt and Whitney Turbojet JT8D-1, JT8D-1A, JT8D-1B, JT8D-5, JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7)

Engine Limits See Section I, Models DC-9-11, -12, -13, -14, -15 for JT8D-1, -1A, -1B, -5, -7, -7A, or -7B engines.
See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or -17A engines.

APU Limits (if installed) See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	350K	
V_{MO}	(Normal Operating - 25,850')	350K	M=0.84
V_{MO}	(Normal Operating - 25,850 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.) (below 100,000 lb)	235K	
	(Maneuvering - 35,000') (below 100,000 lb)	257K	
	(Maneuvering - S.L.) (100,000 to 108,000 lb)	245K	
	(Maneuvering - S.L.) (above 108,000 lb)	250.4K	
	(Maneuvering - 35,000') (above 108,000 lb)	262.5K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	M=0.57
	(Flaps down 10° to 20°)	240K	M=0.57
	(Flaps down 20° to 25°)	210K	M=0.57
	(Flaps down 25° to 50°)	180K	M=0.57

IV - Model DC-9-32 (Transport Aircraft), Approved March 1, 1967 (cont'd)

Airspeed Limits (CAS) (cont'd)

V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.70
	(Gear extension)	300K	M=0.70
V_{LE}	(Landing gear extended)	300K	M=0.70
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57
	(Landing light extension)	V_{MO}/M_{MO}	

C.G. Range For Maximum Ramp Weight of 109,000 lb

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
58,000	667.2	709.7	663.3	709.7
89,000	667.2	--	664.6	--
94,000	--	709.7	--	709.7
108,000	668.9	689.1	666.7	689.1
109,000	668.9	687.6		

For Maximum Ramp Weight of 111,000 lb

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
58,000	667.2	709.7	663.3	709.7
89,000	--	--	664.6	--
94,000	--	709.7	--	709.7
96,000	667.2	--	--	
100,200	--	708.2	--	708.2
109,000	--	697.6	--	697.6
110,000	672.5	694.8	670.3	694.8
111,000	672.8	691.9		

(1) Straight line variation between weights shown. Landing gear retraction moment is -48,900 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction, and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum Weights

		ALTERNATE CONFIGURATION (3)	VC-9C (4)
Taxi and Ramp	109,000 lb	111,000 lb	111,000 lb
Start of Takeoff	108,000 lb (2)	110,000 lb (2)	110,000 lb (2)
Zero Fuel	89,000 lb (1)	92,000 lb (1)	92,000 lb (1)
Landing	99,000 lb	102,000 lb (5)	99,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or forward fuselage tank (if installed) when the main tanks are full to attain max. ramp weight.

(2) Dump system not required (See exemption under Certification Basis).

Maximum Weights (cont'd)

(3) Passenger seating limited to 5 abreast between stations 222 and 935 with a minimum spacing of 31 inches.

(4) Passenger seating limited to 5 abreast between stations 213 and 857 with minimum seat spacing of 36 inches (for VC-9C).

(5) See NOTE 3 for nose landing gear component safe life limits.

Minimum Crew For all flights: Pilot and copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-596]	8430	150	26 34	408.9
Fwd. Belly	[218-370 370-511]	(1)	150	24.2 34	361.5
Aft Belly	[760-897 897-996]	4995	150	34 18	868.4

With 1780 Gal. Fuselage Tank (108,000 lb maximum ramp weight only)

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-487]	(2)	150	26 34	347.3
Aft Belly	[881-897 897-996]	(3)	150	24 18	946.8

With 2250 Gal. Fuselage Tank (VC-9C Only)

Fwd. Belly	[218-432]	(4)	150	27.85	314.6
Aft Belly	[882-996]	(5)	150	23.70	938.2

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches (alternate configuration of 111,000 lb maximum ramp weight has a minimum seat spacing of 31 inches). Alternate configuration of 111,000 lb maximum ramp weight with 2250 gallon fuselage tank installation has a minimum seat spacing of 36 inches.

(1) With 580 gal fwd fuselage tank, 7215 lb with fuselage tank empty and 6330 lb with fuselage tank fueled (up to full).

(2) With 780 gal fwd fuselage tank, 6655 lb with fuselage tank empty and 5760 lb with fuselage tank fueled.

(3) With 1000 gal aft fuselage tank, 2106 lb with fuselage tank empty and 2025 lb with fuselage tank fueled.

(4) With 1250 gal fwd fuselage tank (and 1000 gal aft fuselage tank), 5960 lb with fwd. fuselage tank empty or fueled.

(5) With 1000 gal aft fuselage tank (and 1250 gal fwd. fuselage tank), 2700 lb with aft fuselage tank empty or fueled.

IV - Model DC-9-32 (Transport Aircraft), Approved March 1, 1967 (cont'd)

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb ea	699.6
Center Wing Tank	6518 lb	6442 lb	649.8
Fwd. Fuselage Tank (580 gal) or	4122 lb	4118 lb	547.0
Fwd. Fuselage Tank (780 gal) *	5543 lb	5538 lb	535.0
Aft Fuselage Tank (1000 gal) *	7109 lb	7100 lb	820.5
Fwd. Fuselage Tank (1250 gal)*	8903 lb	8875 lb	507.7

* (if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

45710, 45774, 45788-45793, 45827, 45845, 45847, 47019, 47021, 47022, 47024, 47025, 47027-47032, 47037-47039, 47046, 47047, 47069-47071, 47076, 47077, 47079, 47080, 47084, 47088-47094, 47101-47113, 47118, 47128, 47129, 47131-47133, 47168-47170, 47172-47177, 47190, 47195-47201, 47213, 47218, 47219, 47222-47239, 47243, 47257-47262, 47265, 47266, 47273-47278, 47281-47285, 47289, 47290, 47292-47294, 47311-47314, 47317-47324, 47339-47342, 47348-47350, 47353, 47354, 47356-47359, 47364, 47365, 47368, 47376-47381, 47383, 47385, 47386, 47392, 47394, 47397, 47422-47427, 47430-47438, 47442-47447, 47450-47461, 47463, 47466, 47468-47470, 47472-47474, 47477-47482, 47484-47486, 47488, 47489, 47500, 47502-47504, 47514, 47516, 47518-47525, 47529, 47531-47535, 47539, 47542-47544, 47546, 47553-47557, 47559-47563, 47566-47573, 47575, 47579, 47582, 47591, 47592, 47594, 47595, 47598, 47600-47602, 47607, 47609, 47611, 47621, 47622, 47635-47645, 47647-47650, 47653, 47664, 47666, 47667, 47669, 47672-47675, 47678, 47680, 47701, 47720-47723, 47727, 47730, 47734, 47740, 47741, 47744, 47765, 47788-47795, 47797-47799, 48111-48113, 48125-48130, 48132, 48133, 48150, 48151.

S/N 47442, 47450, 47566, 47572, 47573, 47638, 47647, 47649, 47664, 47720, 47721, and 47727 were DC-9-31 modified to DC-9-32 (See NOTE 11).

DC-9-32, S/N 45846, 47020, 47023, 47026, 47068, 47351 and 47352 modified to DC-9-31 (See NOTE 11).

DC-9-32 (VC-9C)
47668, 47670, 47671.

The following serial numbered airplanes demonstrated compliance at time of delivery with FAR 36 dated December 1, 1969 and Amendments 36-1 and 36-2.
47592, 47594, 47598, 47601, 47602, 47607, 47609, 47611, 47621, 47622, 47635-47645, 47647-47650, 47653, 47664, 47666-47675, 47678, 47680, 47701, 47720-47723, 47727, 47730, 47734, 47740, 47741, 47744, 47765, 47788-47795, 47797-47799, 48111-48113, 48125-48130, 48132-48133, 48150, 48151.

STC Note
S/N 47431, 47474, 47477, and 47639 modified with STCs SA2541SO, SA2542SO, and SA2446SO: (See NOTE 26 for special instructions)

V - Model DC-9-32F (Transport Aircraft), Approved October 4, 1967.
(C-9A, C-9B, See NOTE 10 Regarding Certification).

Engines — 2 Pratt and Whitney Turbojet JT8D-1, JT8D-1A, JT8D-1B, JT8D-5, JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17 or JT8D-17A. (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits — See Section I, Models DC-9-11, -12, -13, -14, -15 for JT8D-1, -1A, -1B, -5, -7, -7A, or -7B engines.
See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or -17A engines.

APU Limits (if installed) — See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits

(1) For Model DC-9-32F (All-passenger and All-cargo configurations, and DC-9-32F (C-9B)), see Airspeed Limits as specified for Model DC-9-32.

(2) For Model DC-9-32F (C-9A Aeromed), See Airspeed Limits as specified for Model DC-9-31.

C.G. Range: For Model DC-9-32F All passenger configuration, all-cargo configuration, Passenger/Cargo passenger/cargo configuration and C-9B configuration.

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
58,000	667.2	709.7	663.3	709.7
89,000	--	--	664.6	--
94,000	--	709.7	--	709.7
96,000	667.2	--	--	--
100,200	--	708.2	--	708.2
109,000	--	697.6	--	697.6
110,000	672.5	694.8	670.3	694.8
111,000	672.8	691.9	--	--

For Model DC-9-32F, (C-9A Aeromed configuration)

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
58,000	667.2	709.7	663.3	709.7
89,000	--	--	664.6	--
94,000	--	709.7	--	709.7
96,000	667.2	--	--	--
100,200	--	708.2	--	708.2
108,000	671.8	698.8	669.7	698.8
109,000	672.1	697.6		

V - Model DC-9-32F (Transport Aircraft), Approved October 4, 1967 (cont'd).

(1) Straight line variation between weights shown. Landing gear retraction moment is -48,900 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned position is accounted for; and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. [(SEE NOTE 1(b) and (e)]

Maximum Weights

	DC-9-32F All Passenger, All Cargo	C-9B	C-9A
Taxi and Ramp	111,000 lb	111,000 lb	109,000 lb,
Start of Takeoff	110,000 lb (2)	110,000 lb (2)	108,000 lb (2)
Zero Fuel	96,000 lb (1)	92,000 lb (1)	90,000 lb (1)
Landing	102,000 lb (3)	99,000 lb (3)	99,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or fuselage tank (if installed) when the main tanks are full to attain max. ramp weight.

(2) Dump system not required (see exemption under Certification Basis).

(3) See NOTE 3 for nose landing gear component safe-life limits.

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-596]	8430	150	26 34	408.9
Fwd. Belly	[218-370 370-596]	(1)	150	24.2 34	361.5
Aft Belly	[760-897 897-996]	4995	150	34 18	868.4

With 1780 Gal. Fuselage Tank (C-9A only)

Fwd. Belly	[218-370 370-487]	(2)	150	26 34	347.3
Aft Belly	[897-996]	(3)	150	18	946.8

With 2250 Gal. Fuselage Tank (C-9B only)

Fwd. Belly	[218-432]	(4)	150	27.85	314.6
Aft Belly	[882-996]	(5)	150	23.70	938.2

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches (36 inches minimum seat spacing for C-9B).

(1) With 580 gal fwd fuselage tank, 7215 lb with fuselage tank empty and 6330 lb with fuselage tank fueled (up to full).

(2) With 780 gal fwd fuselage tank 7680 lb with fuselage tank empty and 5760 lb with fuselage tank fueled.

(3) With 1000 gal aft fuselage tank, 2700 lb with fuselage tank empty and 2025 lb with fuselage tank fueled.

V - Model DC-9-32F (Transport Aircraft), Approved October 4, 1967 (cont'd).

(4) With 1250 gal fwd fuselage tank (and 1000 gal. aft fuselage tank), 5960 lb with fwd. fuselage tank empty or fueled.

(5) With 1000 gal aft fuselage tank (and 1250 gal. fwd. fuselage tank), 2700 lb with fwd. fuselage tank empty or fueled.

For additional information concerning loading limitations when operation as passenger airplane as well as where operating as a cargo or combination passenger/cargo airplanes, see NOTE 1 (a).

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	699.6
Center Wing Tank	6518 lb	6442 lb	649.8
Fwd. Fuselage Tank (580 gal) or	4122 lb	4118 lb	547.0
Fwd. Fuselage Tank (780 gal) *	5543 lb	5538 lb	535.0
Aft Fuselage Tank (1000 gal) *	7109 lb	7100 lb	820.5
Fwd. Fuselage Tank (1250 gal)*	8903 lb	8875 lb	507.7

* (if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

DC-9-32F
47040, 47041, 47147, 47148, 47220, 47221, 47355.

DC-9-32F (C-9A)
47241, 47242, 47295, 47297-47300, 47366, 47367, 47448, 47449, 47467, 47471, 47475, 47495, 47536-47538, 47540, 47541.

DC-9-32F (C-9B)
47577, 47578, 47580, 47581, 47584-47587, 47681, 47684, 47687, 47690, 47691, 47698-47700, 48137, 48165, 48166.

The following serial numbered airplanes demonstrated compliance at time of delivery with FAR 36 dated December 1, 1969 and Amendments 36-1 and 36-2: 47681, 47684, 47687, 47690, 47691, 47698-47700, 48137, 48165, 48166.

VI - Model DC-9-41 (Transport Aircraft), Approved February 21, 1968.

Engines — 2 Pratt and Whitney Turbojet JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel conforming to P&W specification 522 as revised (See NOTE 7).

Engine Limits — See Section I, Models DC-9-11, -12, -13, -14, -15 for JT8D-1, -1A, -1B, -5, -7, -7A, or -7B engines.
See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.

VI - Model DC-9-41 (Transport Aircraft), Approved February 21, 1968 (cont'd)

Engine Limits (cont'd) See Section IX, Model DC-9-51 for JT8D-17, or -17A engines.

APU Limits (if installed) See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits See Section VII, Model DC-9-33F.

C.G. Range:

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
50,000	703.8	749.6	699.2	749.6
97,000	703.8	--	701.4	--
105,000	--	749.6	--	749.6
107,000 (2)	--	749.6 (2)	--	749.6 (2)
114,000	705.4	731.0	703.3	731.0
		739.2 (2)		739.2
115,000	705.4	729.0		
		737.8 (2)		

C.G. Range (1) Straight line variation between weights shown. Landing Gear Retraction Moment is -53,882 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTES 1(b) and (e)).

(2) For airplanes with 1360 gal. fuselage tanks.

Maximum weights

Taxi and Ramp	115,000 lb
Start of Takeoff	114,000 lb (2)
Zero Fuel	96,000 lb (1)
Landing	102,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or fuselage tank (if installed) when the main tanks are full to attain max. ramp weight.

(2) Dump system not required (see exemption under Certification Basis).

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-634]	370-350	150	26 34	429.2
Fwd. Belly	[218-370 370-549]	(1)	150	24 34	382.2
Aft Belly	[798-973 973-1072]	5925	150	34 18	924.4

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches.

Maximum Baggage

With 1360 Gal. Fuselage Tank

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-549]	(1)	150	24.18 26.7	382.2
Aft Belly	[894-973 973-1072]	(2)	150	30.89 17.58	976.0

With 2250 Gal. Fuselage Tank (C-9B only)

Fwd. Belly	[218-432]	(4)	150	27.85	314.6
Aft Belly	[882-996]	(5)	150	23.70	938.2

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 32 inches between stations 222-414 and 31 inches between stations 414-1039.

(1) With 580 gal. aft fuselage tank, 5925 lb with fuselage tank empty and 3570 lb with fuselage tank fueled (up to full).

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	737.6
Center Wing Tank	6518 lb	6442 lb	687.8
Fwd. Fuselage Tank (580 gal) or	4122 lb	4118 lb	585.0
Aft Fuselage Tank (780 gal) *	5543 lb	5538 lb	845.9

* (if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

47114-47117, 47178-47180, 47286-47288, 47395, 47396, 47464, 47492-47494, 47497-47499, 47509-47513, 47596, 47597, 47599, 47603-47606, 47608, 47610, 47612-47620, 47623-47634, 47646, 47725, 47747, 47748, 47750, 47759-47762, 47766-47768, 47777-47781.

The following serial numbered airplanes demonstrated compliance at time of delivery with FAR 36 dated December 1, 1969, and Amendments 36-1 and 36-2.
47596, 47597, 47599, 47603-47606, 47608, 47610, 47612-47620, 47623-47634, 47646, 47725, 47747, 47748, 47750, 47759-47762, 47766-47768, 47777-47781.

VII - Model DC-9-33F (Transport Aircraft), Approved April 5, 1968.

Engines — 2 Pratt and Whitney Turbojet JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel Conforming to P&W Specification 522 as revised. (See NOTE 7)

Engine Limits — See Section I, Models DC-9-11, -12, -13, -14, -15 for JT8D-1, -1A, -1B, -5, -7, -7A, or -7B engines.
See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or -17A engines.

APU Limits (if installed) — See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	340K	
V_{MO}	(Normal Operating - 27,260')	340K	M=0.84
V_{MO}	(Normal Operating - 27,260 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.) (below 100,000 lb)	235K	
	(Maneuvering - 35,000') (below 100,000 lb)	258K	
	(Maneuvering - S.L.) (114,000 lb)	250K	
	(Maneuvering - 35,000') (114,000 lb)	267K	
	(See AFM for variation in V_A speed vs. alt)		
	(V_A speeds Linear between 100,000 lb & 114,000 lb)		
V_{FE}	(Flaps down 0° to 10°)	280K	M=0.57
	(Flaps down 10° to 20°)	240K	M=0.57
	(Flaps down 20° to 25°)	220K	M=0.57
	(Flaps down 25° to 50°)	190K	M=0.57
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.70
	(Gear extension)	300K	M=0.70
V_{LE}	(Landing gear extended)	300K	M=0.70
V	(Landing light extension)	V_{MO}/M_{MO}	
V	(Slat operation or extended)		
	(S.L. to 15,500')	280K	M=0.57
	(Above 15,540')		M=0.57

C.G. Range

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
52,000	667.2	709.7	662.8	709.7
89,000	667.2	--	664.6	--
94,000	--	709.7	--	709.7
111,700	--	705.7	--	705.7
114,000	668.9	693.3	666.8	693.3
115,000	668.9	688.0		

VII - Model DC-9-33F (Transport Aircraft), Approved April 5, 1968 (cont'd)

C.G. Range (cont'd)

(1) Straight line variation between weights shown. Landing gear retraction moment is -53,882 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum weights

Taxi and Ramp	115,000 lb
Start of Takeoff	114,000 lb (2)
Zero Fuel	96,000 lb (1)
Landing	102,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or forward fuselage tank (if installed) when the main tanks are full to attain max. ramp weight, not to exceed their individual capacities.

(2) Dump system not required. (See exemption under Certification Basis)

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370 370-596]	8430	150	26 34	408.9
Fwd. Belly	[218-370 370-511]	(1)	150	24.2 34	361.5
Aft Belly	[760-897 897-996]	4995	150	34 18	868.4

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches between stations 238-628 and 30 inches between stations 628-1005.

(1) With 580 gal fwd fuselage tank, 7215 lb with fuselage tank empty and 6330 lb with fuselage tank full.

For additional information concerning loading limitations when operating as passenger airplane as well as when operating as a cargo or combination passenger/cargo airplane, see NOTE 1(a).

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	699.6
Center Wing Tank	6518 lb	6442 lb	649.8
Fwd. Fuselage Tank (580 gal) or	4122 lb	4118 lb	547.0
Fwd. Fuselage Tank (780 gal) *	5543 lb	5538 lb	535.0
Aft Fuselage Tank (1000 gal) *	7109 lb	7100 lb	820.5
Fwd. Fuselage Tank (1250 gal)*	8903 lb	8875 lb	507.7

* (if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

47191-47194, 47279, 47291, 47363, 47384, 47407-47410, 47413, 47414, 47428, 47462, 47465, 47476, 47496, 47530, 47545, 47565.

VIII - Model DC-9-21 (Transport Aircraft), Approved November 25, 1968.

Engines: 2 Pratt and Whitney Turbojet JT8D-9, JT8D-9A or JT8D-11 (See NOTE 5 regarding intermixing of engines).

Fuel: Commercial Aircraft Turbine Fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits See Section II, Model DC-9-31 for JT8D-9 or -9A engines.

P&W JT8D-15 and JT8D-15A

Static Thrust, S.L.

Take-off (5 min.)(Flat Rated to 84°F)	15,500 lb
Maximum continuous (Std. Day)	13,750 lb

Maximum permissible engine rotor operating speeds:

N_1 (Low compressor)	8,800 rpm (102.4%)
N_2 (High Compressor)	12,250 rpm (100%)

Maximum permissible temperatures:

Turbine exhaust gas		
Take-off (5 min.)	620°C	1148°F
Maximum Continuous	580°C	1076°F
Maximum Acceleration (2 min.)	630°C	1166°F
Starting - Ground	550°C	1022°F
Inflight	620°C	1148°F
Oil Inlet (continuous operation)	130°C	266°F
Oil Inlet (15 min. max.)	165°C	329°F

P&W JT8D-11

Static Thrust, S.L.

Take-off (5 min.) (Flat Rated to 84°F)	15,000 lb
Maximum continuous (Std. Day)	12,600 lb

Maximum permissible engine rotor operation speeds:

N_1 (Low Compressor)	8,600 rpm (100.1%)
N_2 (High Compressor)	12,250 rpm (100%)

VIII - Model DC-9-21 (Transport Aircraft), Approved November 25, 1968 (cont'd)

Engine Limits P&W JT8D-11 (cont'd)

Maximum permissible temperatures:

Turbine exhaust gas		
Take-off (5 min.)	595°C	1103°F
Maximum Continuous	550°C	1022°F
Maximum Acceleration (2 min.)	595°C	1103°F
Starting - Ground	510°C	950°F
Inflight	550°C	1022°F
Oil Inlet (continuous operation)	130°C	266°F
Oil Inlet Transient (15 min. max.)	165°C	329°F

APU Limits (if installed) See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	350K	
V_{MO}	(Normal Operating - 23,500')	367K	M=0.84
M_{MO}	(Normal Operating - 23,500 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.)	226K	
V_A	(Maneuvering - 35,000')	263K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	M=0.57
	(Flaps down 10° to 20°)	240K	M=0.57
	(Flaps down 20° to 25°)	210K	M=0.57
	(Flaps down 25° to 50°)	180K	M=0.57
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.70
	(Gear extension)	300K	M=0.70
V_{LE}	(Landing gear extended)	300K	M=0.70
V	(Landing light extension)	V_{MO}/M_{MO}	
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57

C.G. Range

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
50,000	562.2	596.1	559.0	596.1
86,000	562.2	--	560.3	--
95,300	564.1	--	562.5	--
100,000	563.1	--	561.5	--
101,000	563.0	596.1		

(1) Straight line variation between weights shown. Landing gear retraction moment is -48,900 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned position is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

VIII - Model DC-9-21 (Transport Aircraft), Approved November 25, 1968 (cont'd)

Maximum weights

Taxi and Ramp	101,000 lb
Start of Takeoff	100,000 lb
Zero Fuel	84,000 lb (1)
Landing	95,300 lb

(1) All weight above this value must be fuel in main tanks.

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	218-482.5	7460	150	34	352.1
Aft Belly	646-817	4540	150	27	724.9

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 29 inches.

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	585.6
Center Wing Tank	6518 lb	6442 lb	535.8

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	771.0
CSD	9.4 lb each	811.0
APU (if installed)	7.75 lb each	856.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible 47301-47308, 47360, 47361.

IX - Model DC-9-51 (Transport Aircraft), Approved August 11, 1975.

Engines 2 Pratt and Whitney Turbojet JT8D-15, JT8D-15A, JT8D-17, JT8D-17A.

Fuel Commercial Aircraft Turbine Fuel Conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits See Section II, Model DC-9-31 for JT8D-15 or JT8D-15A engines.

P&W JT8D-17 and JT8D-17A

Static Thrust, S.L.

Take-off (5 min.)(Flat Rated to 84°F)	16,000 lb
Maximum Continuous (Std. Day)	15,200 lb

Maximum permissible engine rotor operation speeds:

N_1 (Low Compressor)	8,800 rpm (102.4%)
N_2 (High Compressor)	12,250 rpm (100%)

IX - Model DC-9-51 (Transport Aircraft), Approved August 11, 1975 (cont'd)

Engine Limits — P&W JT8D-17 and JT8D-17A (cont'd)

Maximum permissible temperatures:

Turbine outlet gas		
Take-off (5 min.)	650°C	1202°F
Maximum Continuous	610°C	1130°F
Maximum Acceleration (2 min.)	660°C	1220°F
Starting - Ground	550°C	1022°F
Inflight	650°C	1202°F
Oil Inlet (continuous operation)	130°C	266°F
Oil Inlet Transient (15 min. max.)	165°C	329°F

APU Limits (if installed) — See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section XII, Model DC-9-81 for GTCP85-98DHF.

AiResearch	GTCP85-98DCK
Maximum permissible EGT temperatures:	
Starting (30 seconds)	760°C
Idle (no load)(continuous)	---
Maximum allowable (continuous)	663°C
Maximum Rated	621°C
Maximum rotor speed - all conditions	110%

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	340K	
V_{MO}	(Normal Operating - 27,260')	321K	M=0.84
V_{MO}	(Normal Operating - 27,260 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.)	242K	
V_A	(Maneuvering - 35,000')	254K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	
	(Flaps down 10° to 20°)	240K	
	(Flaps down 20° to 25°)	222K	
	(Flaps down 25° to 40°)	195K	
	(Flaps down 40° to 50°)	190K	
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.7
	(Gear extension)	300K	M=0.7
V_{LE}	(Landing gear extended)	300K	M=0.7
V	(Landing light extension)	350K	M=0.84
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57

IX - Model DC-9-51 (Transport Aircraft), Approved August 11, 1975 (cont'd)

C.G. Range

Gross Weight Pounds	LANDING GEAR EXTENDED (1) Forward	LANDING GEAR EXTENDED (1) Aft	LANDING GEAR RETRACTED (1) Forward	LANDING GEAR RETRACTED (1) Aft
58,000	752.7	806.5	749.0	806.5
90,000	752.7	806.5	749.0	806.5
102,500	752.7	806.5	752.7	806.5
110,000	754.9	806.5	754.9	806.5
116,000	756.7	806.5	756.7	806.5
122,200	758.6	782.6	758.6	782.6

At intermediate weights, C.G. limits vary linearly.

(1) Straight line variation between weights shown. Landing gear retraction moment is -53,882 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned position is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum weights

Taxi and Ramp	123,200 lb
Start of Takeoff	122,200 lb (2)
Zero Fuel	100,500 lb (1)
Landing	110,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or fuselage tank (if installed) when the main tanks are full to attain max. ramp weight not to exceed their individual capacities.

(2) Dump system not required (See exemption under Certification Basis).

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

Compartment	Fuselage Station	Capacity (lb)	Max. Loading lb/ft^2	Max. Loading lb in.	H-Arm Sta.
Fwd. Belly	[218-370 370-693]	-- 10,755	150 150	24.18 29.23	-- 459.5
Aft Belly	[855-1068 1068-1167	-- 6,855	150 150	32.02 17.58	-- 1001.2
With 580 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370 370-554]	-- 8,655	150 150	24.18 24.14	-- 413.9
Aft Belly	[851-1068 1068-1167]	-- 6,855	150 150	32.02 17.58	-- 1001.2
With 1360 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370] 370-606]	-- 8,655	150 150	24.18 28.14	-- 413.9
Aft Belly	[951-1068 1068-1167]	-- 4,500	150 150	31.45 17.58	-- 1051.4

IX - Model DC-9-51 (Transport Aircraft), Approved August 11, 1975 (cont'd)

Maximum Baggage (cont'd)

With 780 gal. Fuselage Tank (1)

	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370	--	150	24.18	--
	370-582]	8,085	150	27.74	400.9
Aft Belly	[855-1068	--	150	32.02	--
	1068-1167]	6,855	150	17.58	1001.2

With 1000 gal. Fuselage Tank (1)

Fwd. Belly	[218-370		150	24.18	
	370-554]	7,395	150	26.96	385.2
Aft Belly	[835-1068	--	150	32.02	--
	1068-1167]	6,855	150	17.58	1001.2

Above values satisfactory for a maximum of 5 abreast seating and a minimum seat spacing of 31 inches. Three seats in the first row of the passenger cabin may be spaced 30 inches from the second row instead of 31 inches.

(1) With Fuselage Tank(s) empty or fueled.

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	794.6
Center Wing Tank	6518 lb	6442 lb	744.8
Fus. Tank (580 gal)*	4122 lb	4118 lb	642.0
Fus. Tank (780 gal)*	5543 lb	5538 lb	630.0
Fus. Tank (1000 gal)*	7109 lb	7100 lb	622.0
Aft Fus. Tank (780 gal)*	5543 lb	5538 lb	909.0

*(if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	1121.0
CSD	9.4 lb each	1161.0
APU (if installed)	7.75 lb each	1206.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible

47651, 47652, 47654-47663, 47665, 47676, 47677, 47679, 47682, 47683, 47685, 47686, 47688, 47689, 47692-47697, 47703, 47705, 47708-47710, 47712-47719, 47724, 47726, 47728, 47729, 47731-47733, 47735-47739, 47742, 47743, 47745, 47746, 47749, 47751, 47753-47758, 47763, 47764, 47769-47776, 47782-47787, 47796, 48100-48102, 48107-48110, 48121, 48122, 48134-48136, 48148, 48149.

Noise Standards : Airplanes of the Model DC-9-51 issued an original U.S. Standard Airworthiness Certificate comply with FAR 36 dated December 1, 1969, and Amendment 36-1 and 36-2.

Airplane operation in excess of 121,000 pounds has not been evaluated for compliance with FAR Part 36 dated December 1, 1969, and amendments 36-1 and 36-2.

X - Model DC-9-34F (Transport Aircraft) Approved April 20, 1976.

Engines — 2 Pratt and Whitney Turbojet JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel — Commercial Aircraft Turbine Fuel Conforming to P&W Specification No. 522 as revised. (See NOTE 7).

Engine Limits — See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or 17A engines.

APU Limits (if installed) — See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	340K	
V_{MO}	(Normal Operating - 27,260')	321K	M=0.84
V_{MO}	(Normal Operating - 27,260 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.)	248.7K	
V_V	(Maneuvering - 35,000')	254K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	
	(Flaps down 10° to 20°)	240K	
	(Flaps down 20° to 25°)	220K	
	(Flaps down 25° to 40°)	195K	
	(Flaps down 40° to 50°)	190K	
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.7
	(Gear extension)	300K	M=0.7
V_{LE}	(Landing gear extended)	300K	M=0.7
V	(Landing light extension)	350K	M=0.84
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57

C.G. Range

	LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Gross Weight Pounds	Forward	Aft	Forward	Aft
Up to 52,000	667.1	709.6	662.7	709.6
Up to 89,000	667.1	709.6	--	709.6
At 89,000	667.1	709.6	664.5	709.6
94,000	--	709.6	--	709.6
111,700	--	705.6	--	705.6
121,000	669.0	689.7	667.3	689.7
122,000	669.2	687.9		

At intermediate weights, C.G. limits vary linearly.

X - Model DC-9-34F (Transport Aircraft) Approved April 20, 1976 (cont'd)

C.G. Range (cont'd)

(1) Straight line variation between weights shown. Landing gear retraction moment is -53,903 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned position is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum weights

Taxi and Ramp	122,000 lb
Start of Takeoff	121,000 lb (2)
Zero Fuel	98,500 lb (1)
Landing	110,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or fuselage tank (if installed) when the main tanks are full to attain max. ramp weight not to exceed their individual capacities.

(2) Dump system not required (See exemption under Certification Basis).

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

With 780 gal. Fuselage Tank (1)					
	Fuselage	Capacity	Max. Loading		H-Arm
Compartment	Station	(lb)	lb/ft^2	lb in.	Sta.
Fwd. Belly	[218-370		150	24	
	370-465		150	23	
	465-597]	8430	150	32	408.7
Aft Belly	[856-897		150	29.48	
	897-996]	2640	150	17.58	922
With 1360 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370		150	24.18	
	370-511]	6330	150	25.11	361.5
Aft Belly	[856-897		150	29.48	
	897-996]	2640	150	17.58	922.2

Above values satisfactory for a maximum for 5 abreast seating and a minimum seat spacing of 30 inches.

(1) With fuselage tank(s) empty or fueled.

For additional information concerning loading limitations when operating as a passenger airplane as well as when operating as a cargo airplane, see NOTE 1(a).

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	699.6
Center Wing Tank	6518 lb	6442 lb	649.8
Fwd. Tank (580 gal)	4122 lb	4118 lb	547.0
Aft Fus. Tank (780 gal)	5543 lb	5538 lb	807.9

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

X - Model DC-9-34F (Transport Aircraft) Approved April 20, 1976 (cont'd)

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible 47702, 47704, 47706, 47707, 47752.

Noise Standards Airplanes of the Model DC-9-34F issued an original U.S. Standard Airworthiness Certificate comply with FAR part 36 dated December 1, 1969, and Amendments 36-1 and 36-2.

XI - Model DC-9-34 (Transport Aircraft) Approved November 3, 1976.

Engines 2 Pratt and Whitney Turbojet JT8D-9, JT8D-9A, JT8D-11, JT8D-15, JT8D-15A, JT8D-17, or JT8D-17A (See NOTE 5 regarding intermixing of engines).

Fuel Commercial Aircraft Turbine Fuel Conforming to P&W Specification No. 522 as revised. (See NOTE 7).

Engine Limits See Section II, Model DC-9-31 for JT8D-9, -9A, -15, or -15A engines.
See Section VIII, Model DC-9-21 for JT8D-11 engines.
See Section IX, Model DC-9-51 for JT8D-17, or 17A engines.

APU Limits (if installed) See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Normal Operating - S.L.)	340K	
V_{MO}	(Normal Operating - 27,260')	321K	M=0.84
V_{MO}	(Normal Operating - 27,260 to 35,000')		M=0.84
V_A	(Maneuvering - S.L.)	248.7K	
V_V	(Maneuvering - 35,000')	254K	
	(See AFM for variation in V_A speed vs. alt)		
V_{FE}	(Flaps down 0° to 10°)	280K	
	(Flaps down 10° to 20°)	240K	
	(Flaps down 20° to 25°)	220K	
	(Flaps down 25° to 40°)	195K	
	(Flaps down 40° to 50°)	190K	
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	M=0.7
	(Gear extension)	300K	M=0.7
V_{LE}	(Landing gear extended)	300K	M=0.7
V	(Landing light extension)	350K	M=0.84
V	(Slat operation or extended)		
	(S.L. to 15,540')	280K	M=0.57
	(Above 15,540')		M=0.57

XI - Model DC-9-34 (Transport Aircraft) Approved November 3, 1976 (cont'd)

C.G. Range

Gross Weight Pounds	LANDING GEAR EXTENDED (1) Forward	LANDING GEAR EXTENDED (1) Aft	LANDING GEAR RETRACTED (1) Forward	LANDING GEAR RETRACTED (1) Aft
Up to 52,000	667.1	709.6	662.7	709.6
Up to 89,000	667.1	709.6	--	709.6
At 89,000	667.1	709.6	664.5	709.6
94,000	--	709.6	--	709.6
111,700	--	705.6	--	705.6
121,000	669.0	689.7	667.3	689.7
122,000	669.2	687.9		

(1) Straight line variation between weights shown. Landing gear retraction moment is -53,903 in-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned position is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits. (See NOTE 1(b) and (e)).

Maximum weights

Taxi and Ramp	122,000 lb
Start of Takeoff	121,000 lb (2)
Zero Fuel	98,500 lb (1)
Landing	110,000 lb

(1) All weight above this value must be fuel in main tanks. Additional fuel may then be added to the center wing and/or fuselage tank (if installed) when the main tanks are full to attain max ramp weight not to exceed their individual capacities.

(2) Dump system not required (See exemption under Certification Basis).

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

Maximum Baggage

Compartment	Fuselage Station	Capacity (lb)	Max. Loading lb/ft^2	Max. Loading lb in.	H-Arm Sta.
With 1360 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370 370-511]	6330	150 150	24.18 25.11	361
Aft Belly	[856-897 897-996]	2640	150 150	29.48 17.58	922.2
With 1780 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370 370-489]	5760	150 150	23.88 23.87	347.3
Aft Belly	[882-897 897-996]	2025	150 150	25.33 17.58	938.2
With 2250 gal. Fuselage Tank (1)					
Fwd. Belly	[218-370 370-432]	4470	150 150	23.88 18.06	314.6
Aft Belly	[882-897 897-996]	2025	150 150	25.33 17.58	938.2

XI - Model DC-9-34 (Transport Aircraft) Approved November 3, 1976 (cont'd)

Maximum Baggage (cont'd)

Above values satisfactory for a maximum for 5 abreast seating and a minimum seat spacing of 30 inches.

(1) With fuselage tank(s) empty or fueled.

For additional information concerning loading limitations when operating as a passenger airplane as well as when operating as a cargo airplane, see NOTE 1(a).

Fuel Capacity

	Total	Usable	H-Arm Sta.
#1 and #2 Main Tank	9893 lb each	9838 lb each	699.6
Center Wing Tank	6518 lb	6442 lb	649.8
Fwd. Fus. Tank (580) *	4122 lb	4118 lb	547.0
Aft Fus. Tank (780) *	5543 lb	5538 lb	807.9
Fwd. Fus. Tank (780) *	5543 lb	5538 lb	535.0
Fwd. Fus. Tank (1250) *	8903 lb	8875 lb	507.7
Aft Fus. Tank (1000) *	7109 lb	7100 lb	820.5

* (if installed)

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for usable fuel; NOTE 1(e) for fuel loading and usage procedures).

Oil Capacity

		H-Arm Sta.
Engine Oil	31.0 lb each	950.0
CSD	9.4 lb each	990.0
APU (if installed)	7.75 lb each	1035.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil).

Serial Numbers Eligible: 47711, 48103-48106, 48123, 48124.

Noise Standards : Airplanes of the Model DC-9-34F issued an original U.S. Standard Airworthiness Certificate comply with FAR part 36 dated December 1, 1969, and Amendments 36-1 and 36-2.

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980.
(MD-81, See NOTE 14, regarding certification)

Engines 2 Pratt and Whitney Turbofan JT8D-209, -217, -217A, -217C, or -219. (See NOTE 5 regarding intermixing of engines).

Oil P&W Turbojet Engine Service Bulletin No. 238 lists approved brand oils. Synthetic type oil conforming to P&W Specification 521 as revised.

Fuel Commercial aircraft turbine fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Engine Limits See Section XIII, Model DC-9-82 for JT8D-217, -217A and -217C engines.

Power Rating	JT8D-209	JT8D-219
Maximum Static Thrust at sea level		
Maximum Takeoff (5 min. flat-rated to 84°F)*	19,250 lb	21,700 lb
Normal Takeoff (5 min. flat-rated to 77°F)*	18,500 lb	21,000 lb
Maximum Takeoff, Engine Inoperative (10 min)**	19,250 lb	21,700 lb

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

Engine Limits (cont'd)

Maximum Takeoff Rating is the maximum thrust certified for takeoff operation. The Maximum takeoff Rating is available through actuation of the fuel control Automatic Reserve Thrust System (ARTS) when the engine is operating at the Normal Takeoff Rating, or manually by throttle movement.

Normal Takeoff Rating is the maximum thrust to be set for takeoff operation with the aircraft Automatic Reserve Thrust System (ARTS) operative. When set, this rating ensures that the Takeoff Rating will be achieved upon actuation of ARTS.

Maximum Continuous		16,000 lb	18,900 lb
Rotor Speed, Maximum			
N_1 (Low Compressor)	Takeoff	8,150 rpm (99.2%)	8,350 rpm (101.6%)
	Normal Takeoff	7,850 rpm (95.5%)	8,120 rpm (98.8%)
N_2 (High Compressor)	Takeoff	12,370 rpm (101.0%)	12,550 rpm (102.5%)
	Normal Takeoff	12,150 rpm (99.2%)	12,350 rpm (100.9%)
Exhaust Gas Temperature, Maximum			
Maximum Takeoff (2 min.)		630°C (1166°F)	
Maximum Takeoff (5 min.)*, (10 min)**		570°C (1058°F)	625°C (1157°F)
Normal Takeoff (2 min.)*		595°C (1103°F)	
Normal Takeoff (5 min.)*		550°C (1022°F)	590°C (1094°F)
Continuous		530°C (986°F)	580°C (1076°F)
Starting			
Ground ***		475°C (887°F)	475°C (887°F)
In-Flight		570°C (1058°F)	625°C (1157°F)

* The total time at both Takeoff Thrust Levels must not exceed 5 minutes.

** In the event of an engine failure during Takeoff or Go-Around, a total time of Ten (10) minutes of Takeoff Thrust is required.

*** The ground starting EGT limit for the JT8D-209/-217/-217A/-217C/-219 engines is increased to 500°C (932°F) when Appendix 11 of the applicable FAA Approved Airplane Flight Manual is utilized.

Oil-Inlet Temperature-Maximum	
Continuous operation	135°C (275°F)
Transient operation	165°C (329°F)

Transient operation above 135°F (275°C) is limited to 15 minutes.

Oil Pressure Limits 40 to 55 psi

Fuel Pressure Limits

Normal	at engine pump inlet -15 psi
Minimum	at engine pump inlet -not less than 5 psi above true fuel vapor pressure
Maximum	at engine pump inlet -no greater than 50 psi with a vapor liquid ratio of zero

Air Bleed Extraction	% High Compressor Bleed 13th Stage	
	Normal	Maximum
At 90% and below Max. Cont. Thrust	8.0	8.0
Above 90% Max. Cont. Thrust	3.5	5.5

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

Engine Limits (cont'd)

Air Bleed Extraction	% Low Compressor Bleed 8th Stage	
	Normal	Maximum
At and below Max. Cont. Thrust	4.0	4.0
Above Max. Cont. Thrust	2.75	3.25

APU Limits (if installed)

See Section I, Models DC-9-11, -12, -13, -14, -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A],-98DC[B] and -98DC[C].
See Section IX, Model DC-9-51, for GTCP85-98DCK.

AiResearch	GTCP85-98DHF
Maximum permissible EGT temperatures:	
Starting (30 seconds)	760°C
Maximum allowable (continuous)	663°C
Maximum Rated	621°C
Maximum rotor speed - all conditions	46,000 (110%)
Maximum allowable rotor speed	110%
Maximum rated RPM - all conditions	42,000
100% RPM	42,000
Fuel Pressure Limits, Minimum of 5 psi above true vapor pressure up to 40 psi.	
Oil Capacity total	5 qts
Oil Capacity usable	4 qts
Oil Pressure, Normal and Idle operation	95 + 5 psi
Low Oil pressure (Master Caution)	45 psi
Maximum Oil Temperature	255°F
APU Envelope, Start	up to 30,000 feet
Operate	up to 35,000 feet
APU Electrical Load must not exceed 57% of rated load above 25,000 ft.	

Airspeed Limits (CAS)

V_{MO}	(Maximum Operating - S.L.)	340K	
V_{MO}	(Maximum Operating - 27,240')	340K	(M=0.84)
V_{MO}	(Maximum Operating - 27,300 to 37,000')		(M=0.84)
V_A	(Maneuvering - S.L.)	263K	
	(Maneuvering - 30,000')	297K	
	(Maneuvering - 37,000')	262K	
	(See AFM for variation in V_A speeds vs. altitude.)		
V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)
	(Flaps down 13.1° - 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	200K	(M=0.57)
	(Flaps down 31° - 40°)	195K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.51)
	(Slat Extended Landing, 21°)	240K	(M=0.51)
	(Autoslat Extension)	280K	(M=0.51)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended)	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)

XII - Model DC-9-81 (Transport Aircraft), Approved August 25, 1980 (cont'd)

C.G. Range

Gross Weight		LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Pounds	Kilograms	Forward	Aft	Forward	Aft
70,000	31,751	884.3	938.5	881.1	938.5
118,000	53,524	--	938.5	--	938.5
124,000	56,245	884.3	936.0	881.1	936.0
130,000	58,967	886.0	933.6	883.3	933.6
140,000	63,503	--	929.5	887.8	929.5
141,000	63,957	890.5	929.1		
142,000	64,410	--	928.8	888.7	928.8
143,000	64,864	891.4	928.5		

NOTE: Inflight weight limited to 79,000 pounds (35,834 kg) minimum.

(1) Straight line variation between weights shown. Gear retraction moment is -10,154 in.-lb which moves C.G. Forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits.

(2) Main landing gear has "zero" retraction moment.

Maximum weights

Taxi and Ramp	143,000 lb (3)
Start of Takeoff	142,000 lb (2)
Zero Fuel	120,000 lb (1)
Landing	130,000 lb

(1) All weight in excess of 120,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) Fuel jettisoning system not installed. (See exemption under Certification Basis).

(3) 26 Ply rating MLG tires required for all ramp weights over 141,000 lb

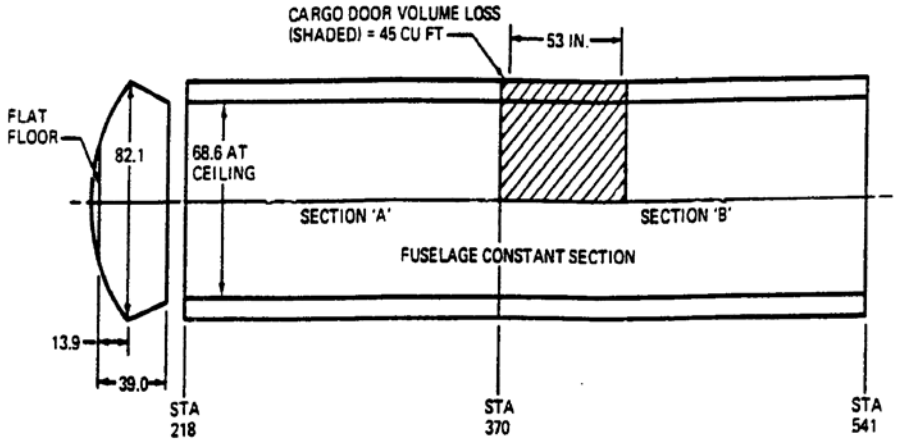
Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

Maximum Baggage:

FORWARD CARGO COMPARTMENT



Area Designation	A	B	A + B
Location (Sta. to Sta.)	218 to 370	370 to 541	218 to 541
H-Arm (Fus. Sta.)	294.9	467.5	378.6
Usable Volume (Cu/Ft)	239	225	464
Maximum Running Load (lb/in. of Fuselage Length)	24.0	24.0	24.0
Placard Capacity (lb)	3585	3375	6960
Combined Capacity (lb) Sta. 218 to 541	--	--	6960

Maximum floor loading not to exceed 150 lb/ft^2

Each of the above limitations is independent of the others. Do not exceed any limitation.

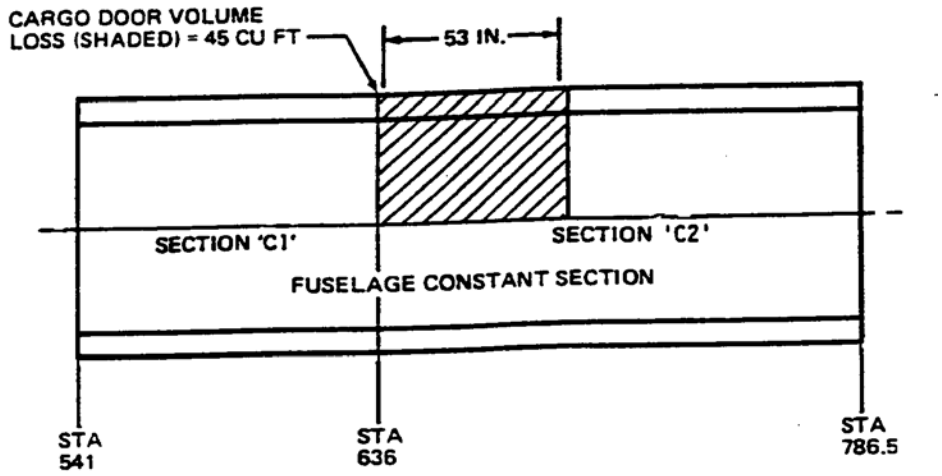
NOTE: The combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 12,150 pounds.

NOTE: The above section and compartment limitations are applicable only to the following Factory Serial Numbers: 48002-48022, 48024-48059, 48062, 48063, 48066-48074, 48079, 48080, 48083, 48086-48099, 49100-49104, 49110-49127, 49138-49145, 49149-49190, 49192-49222, 49229, 49230, 49237, 49245, 49246, 49249-49251, 49253-49265, 49269-49273, 49277, 49278, 49286-49289, 49430-49435, 49531, 49549-49552, 49669, 49740, 49794-49796, 49969-49975, 53053-53062, 53176-53181, 53203-53206, 53216-53235.

See Section XIV for limitations applicable to other DC-9-81 and -82 airplanes.

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

MIDDLE CARGO COMPARTMENT



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	541 to 636	636 to 786.5	541 to 786.5
H-Arm (Fus. Sta.)	588.5	721.9	663.7
Usable Volume (Cu/Ft)	151	195	346
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	3020	3900	6920
Combined Capacity (lb) Sta. 541 to 786.5	-	-	6920

Maximum floor loading must not exceed 150 lb/ft^2.

Each of the above limitations is independent of the other. Do not exceed any limitation.

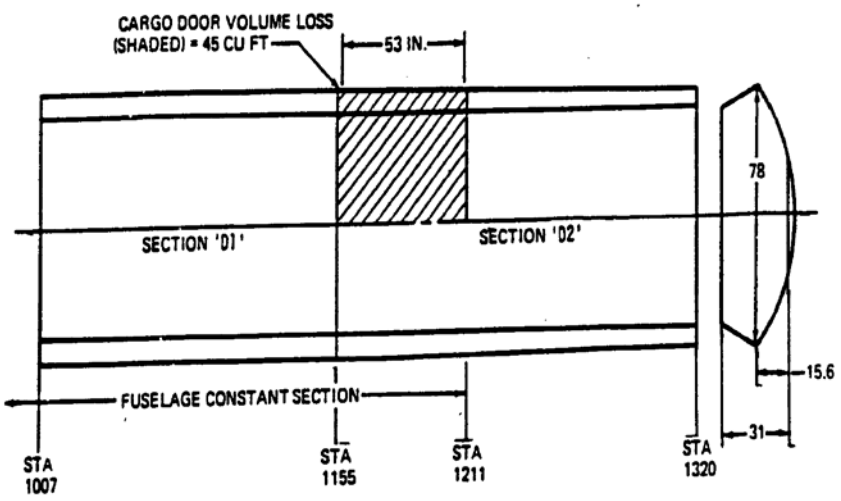
NOTE: Combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 12,150 pounds.

The above section and compartment limitations are applicable only to the following Factory Serial Numbers - 48002-48022, 48024-48059, 48062, 48063, 48066-48074, 48079, 48080, 48083, 48086-48099, 49100-49104, 49110-49127, 49138-49145, 49149-49190, 49192-49222, 49229, 49230, 49237, 49245, 49246, 49249-49251, 49253-49265, 49269-49273, 49277, 49278, 49286-49289, 49430-49435, 49531, 49549-49552, 49669, 49740, 49794, 49796, 49969-49975, 53053-53062, 53176-53181, 53203-53206, 53216-53235.

See Section XIV for limitations applicable to other DC-9-81 and -82 airplanes.

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

AFT CARGO COMPARTMENT
(WITHOUT AUXILIARY FUEL SYSTEM)



Area Designation	D1	D2	D1 + D2 = D
Location (Sta. to Sta.)	1007 to 1155	1155 to 1320	1007 to 1320
H-Arm (Fus. Sta.)	1081	1245.4	1157.8
Usable Volume (Cu/Ft)	236	207	443
Maximum Running Load (lb/in. of Fuselage Length)	32	22.5	--
Placard Capacity (lb)	4720	3105	6645
Combined Capacity (lb)	-	-	6645

Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

NOTE: The above section and compartment limitations are applicable to all DC-9-81, -82, -83 Factory Serial Numbers, except as specified in certain other cargo compartment limitation sections.

Fuel Capacity

Three Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	951.0
Center Wing Tank	21,867 lb	21,825 lb	884.8
Lines	120 lb	36 lb	1006.0
Engine	26 lb	7 lb	1322.0
Total	41,765 lb	41,506 lb	916.3

NOTE: H-ARM applies to usable fuel.

Fuel Weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for unusable fuel; NOTE 1(e) for fuel loading and usage procedures).

XII - Model DC-9-81 (Transport Aircraft) Approved August 25, 1980 (cont'd)

Oil Capacity

	Total Capacity	Total volume Usable	Per engine Usable weight	H-Arm Sta.
Engine Oil	6.92 gal	4 gal	31.0 lb	1300.0
CSD	1.25 gal	1.23 gal	9.4 lb	1319.0
APU	1.1 gal	1.1 gal	7.75 lb	1377.5

Oil Weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil)

Serial Numbers Eligible

48002-48021, 48024-48046, 48049-48053, 48058, 48059, 48070-48074, 48092-48094, 48099, 49100, 49115, 49164, 49278-49283, 49356-49359, 49380-49382, 49420, 49422, 49436, 49438, 49461-49463, 49554, 49570-49572, 49603, 49613, 49820, 49821, 49907-49914, 49998, 49999, 53000-53008, 53043, 53275, 53297-53302, 53314, 53315, 53347, 53365, 53366, 53368.

See NOTE 11 for model conversion.

XIII - Model DC-9-82 (Transport Aircraft) Approved July 29, 1981
(MD-82, See NOTE 14, regarding certification)

Engines — 2 Pratt and Whitney Turbofan JT8D-209, -217, -217A, -217C, or -219.
(See NOTE 5 regarding intermixing of engines).

Fuel — Commercial aircraft turbine fuel conforming to P&W Specification 522 as revised (see NOTE 7).

Oil — P&W Turbojet Engine Service Bulletin Number 238 lists approved brand oils.
Synthetic type oil conforming to P&W Specifications 521 as revised.

Engine Limits — See Section XII, Model DC-9-81 for JT8D-209 and JT8D-219 engines.

P&W JT8D-217, -217A and -217C

Power Rating
Maximum Static Thrust at sea level

Maximum Takeoff (5 min. flat-rated to 84°F)*	20,850 lb
Normal Takeoff (5 min. flat-rated to 77°F)*	20,000 lb
Maximum Takeoff, Engine Inoperative (10 min)**	20,850 lb

NOTE: Maximum Takeoff Rating is the maximum thrust certified for takeoff operation. The Maximum Takeoff Rating is available through actuation of the fuel control Automatic Reserve Thrust System (ARTS) when the engine is operating at the Normal Takeoff Rating, or manually by throttle movement.

Normal Takeoff Rating is the maximum thrust to be set for takeoff operation with the aircraft Automatic Reserve Thrust System (ARTS) operative. When set, this rating ensures that the Takeoff Rating will be achieved upon actuation of ARTS.

XIII - Model DC-9-82 (Transport Aircraft), Approved July 29, 1981 (cont'd)

Engine Limits (cont'd)

Exhaust Gas Temperature, Maximum

Maximum Takeoff (2 min.)*	630°C (1166°F)
Maximum Takeoff (5 min.)*, (10 min)**	625°C (1157°F)
Normal Takeoff (2 min.)*	595°C (1103°F)
Normal Takeoff (5 min.)*	590°C (1094°F)
Maximum Continuous	580°C (1076°F)
Starting - Ground ***	475°C (887°F)
- In-Flight	625°C (1157°F)

* The total time at both Takeoff Thrust Levels must not exceed 5 minutes.

** In the event of an engine failure during Takeoff or Go-Around, a total time of Ten (10) Minutes at Takeoff Thrust is required.

*** The ground starting EGT limit for the JT8D-209/-217/-217A/-217C/-219 engines is increased to 500°C (932°F) when Appendix 11 of the applicable FAA Approved Airplane Flight Manual is utilized.

Oil-Inlet Temperature-Maximum

Continuous operation	135°C (275°F)
Transient operation	165°C (329°F)

Transient operation above 135° C (275°C) is limited to 15 minutes.

Oil Pressure Limits 40 to 55 psi

Fuel Pressure Limits

Normal	at engine pump inlet -15 psi
Minimum	at engine pump inlet -not less than 5 psi above true fuel vapor pressure
Maximum	at engine pump inlet -no greater than 50 psi with a vapor liquid ratio of zero

Air Bleed Extraction

	% High Compressor Bleed 13th Stage	
	Normal	Maximum
At 90% and below Max. Cont. Thrust	8.0	8.0
Above 90% Max. Cont. Thrust	3.5	5.5

	% Low Compressor Bleed 8th Stage	
	Normal	Maximum
At and below Max. Cont. Thrust	4.0	4.0
Above Max. Cont. Thrust	2.75	3.25

APU Limits See Section I, Models DC-9-11, -12, -13, -14 and -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A], GTCP85-98DC[B] and GTCP85-98DC[C].
See Section IX, Model DC-9-51, for GTCP85-98DCK.
See Section XII, Model DC-9-81, for GTCP85-98DHF.

Airspeed Limits (CAS)

		147,000 lb		149,500 lb
V_{MO}	(Maximum Operating - S.L.)	340K		
V_{MO}	(Maximum Operating - 27,240')	340K	(M=0.84)	
V_{MO}	(Maximum Operating -			270.8K
	27,240 to 37,000')		(M=0.84)	304.0K
V_A	(Maneuvering - S.L.)	268.5K		270.0K
V_A	(Maneuvering - 29,000)	303.0K		304.1K
V_A	(Maneuvering - 30,000')	298.4K		299.0K
V_A	(Maneuvering - 37,000')	263.8K		262.1K

(See AFM for variation in V_A speeds vs. altitude)

XIII - Model DC-9-82 (Transport Aircraft), Approved July 29, 1981 (cont'd)

Airspeed Limits (CAS) (cont'd)

V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)
	(Flaps down 13.1° 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	200K	(M=0.57)
	(Flaps down 31° - 40°)	195K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.57)
	(Slat Extended Landing, 21°)	240K	(M=0.57)
	(Autoslat Extension)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended)	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)

C.G. Range

Gross Weight		LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Pounds	Kilograms	Forward	Aft	Forward	Aft
70,000	31,751	884.3	938.5	881.1	938.5
118,000	53,524	--	938.5	--	938.5
126,000	57,153	884.3	935.3	881.1	935.3
130,000	58,967	--	933.6	--	933.6
140,000	63,503	890.1	929.5	--	929.5
141,000	63,967	--	--	888.4	--
147,000	66,678	--	--	888.4	927.6
148,000	67,132	890.6	927.1		
149,500	67,812	891.3	926.6	888.4	926.6
150,500	68,266	891.9	926.3		

NOTE: Inflight weight limited to 79,000 pounds (35,834 kg) minimum.

(1) Straight line variation between weights shown. Gear retraction moment is -10,154 in.-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits.

Maximum weights

Taxi and Ramp	150,000 lb (3)
Start of Takeoff	149,500 lb (2)
Zero Fuel	122,000 lb (1)
Landing	130,000 lb

(1) All weight in excess of 122,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) Fuel jettisoning system not installed. (See exemption under Certification Basis).

(3) 26 ply rating MLG tires required for all ramp weights over 141,000 lb

Minimum Crew For all flights. Pilot and Copilot.

Maximum Passengers SEE NOTES 6 and 8.

XIII - Model DC-9-82 (Transport Aircraft), Approved July 29, 1981 (cont'd)

Maximum Baggage See Section XII, Model DC-9-81.

Fuel Capacity See Section XII, Model DC-9-81 for DC-9-82s with three tank system. See Section XIV, Model DC-9-83, for DC-9-82s with 1130 Gallon Auxiliary Fuel Five Tank System.

Oil Capacity: See Section XII, Model DC-9-81.

Serial Numbers Eligible

48022, 48047, 48048, 48054-48057, 48062, 48063, 48066-48069, 48079, 48080, 48083, 48086-48091, 48095-48098, 49101-49104, 49110-49114, 49116-49127, 49138-49145, 49149-49163, 49165-49190, 49192-49222, 49229-49237, 49245-49251, 49253-49267, 49269-49273, 49277, 49286-49329, 49331-49343, 49350, 49355, 49363-49374, 49379, 49383-49387, 49391-49394, 49415-49419, 49421, 49423-49435, 49437, 49439-49441, 49443, 49444, 49450-49457, 49459, 49460, 49468-49494, 49501-49524, 49531, 49549-49553, 49555, 49558-49566, 49569, 49580-49582, 49592-49601, 49604, 49615, 49634, 49635, 49647-49656, 49660, 49661, 49667, 49669, 49675-49684, 49701-49704, 49728, 49730-49740, 49794-49806, 49825, 49844, 49849-49853, 49877, 49889-49903, 49905, 49906, 49915-49925, 49931, 49932, 49969-49975, 49987-49996, 53017, 53025-53034, 53053-53062, 53064-53066, 53083-53092, 53117-53119, 53121, 53147, 53148-53160, 53162-53171, 53173-53181, 53203-53206, 53216-53235, 53244-53250, 53294-53296, 53468-53469, 53479, 53480, 53481, 53542, 53577, and 53581.

See NOTE 11 for model conversion.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985

(MD-83, See NOTE 14, regarding certification)

Engines 2 Pratt and Whitney Turbofan JT8D-209, -217, -217A, -217C, or -219 engines. (See NOTE 5 regarding intermixing of engines).

Fuel Commercial aircraft turbine fuel conforming to P&W Specification 522 as revised (see NOTE 7).

Oil P&W Turbojet Engine Service Bulletin Number 238 lists approved brand oils. Synthetic type oil conforming to P&W Specification 521 as revised.

Engine Limits See Section XII, Model DC-9-81 for JT8D-209 and JT8D-219 engines. See Section XIII, Model DC-9-82 for JT8D-217, -217A and -217C engines.

APU Limits See Section I, Models DC-9-11, -12, -13, -14 and -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A], GTCP85-98DC[B] and GTCP85-98DC[C].

See Section IX, Model DC-9-51 for GTCP85-98DCK

See Section XII, Model DC-9-81, for GTCP85-98DHF.

Airspeed Limits (CAS)

V_{MO}	(Maximum Operating - S.L.)	340K	
	(Maximum Operating - 27,240')	340K	(M=0.84)
	(Maximum Operating 27,300 to 37,000')		(M=0.84)
V_A	(Maneuvering - S.L.)	280.6K	
	(Maneuvering - 29,000')	306.2K	
	(Maneuvering - 30,000')	301.1K	
	(Maneuvering - 37,000')	263.5K	

(See AFM for variation in V_A speeds vs. altitude)

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

Airspeed Limits (CAS) (cont'd)

V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)
	(Flaps down 13.1° - 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	205K	(M=0.57)
	(Flaps down 31° - 40°)	200K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.57)
	(Slat Extended Landing, 21°)	240K	(M=0.57)
	(Autoslat Extension)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended)	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)

K = KCAS

C.G. Range

Gross Weight		LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Pounds	Kilograms	Forward	Aft	Forward	Aft
80,000*	36,287	884.3	938.5	881.1	938.5
118,000	53,524	--	938.5	--	938.5
126,000	57,153	884.3	935.3	881.1	935.3
130,000	58,967	--	933.6	--	933.6
139,500	63,276	887.8	--	884.4	--
140,000	63,503	--	929.5	--	929.5
149,500	67,812	--	926.4	884.3	926.6
150,500	68,266	--	926.3	--	926.3
156,000	70,760	887.4	--	884.1	--
156,000	70,760	887.9	--	884.8	--
160,000	72,575	--	923.9	884.6	923.9
161,000	73,028	887.8	923.6		

NOTE: *Inflight weight limited to 80,000 pounds (36,287 kg) minimum.

(1) Straight line variation between weights shown. Gear retraction moment is -10,154 in.-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits.

Maximum weights

Taxi and Ramp	150,500 lb (5)	161,000 lb (3)(4)
Start of Takeoff	149,500 lb (5)	160,000 lb (2)(3)(4)
Zero Fuel		122,000 lb (1)
Landing	130,000 lb (5)	

(1) All weight in excess of 122,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) Fuel jettisoning system not installed. (See exemption under Certification Basis).

(3) 26 ply rating MLG tires required for all ramp weights over 141,000 lb

(4) 28 ply rating MLG tires required for all ramp weights over 150,500 lb

Maximum weights (cont'd)

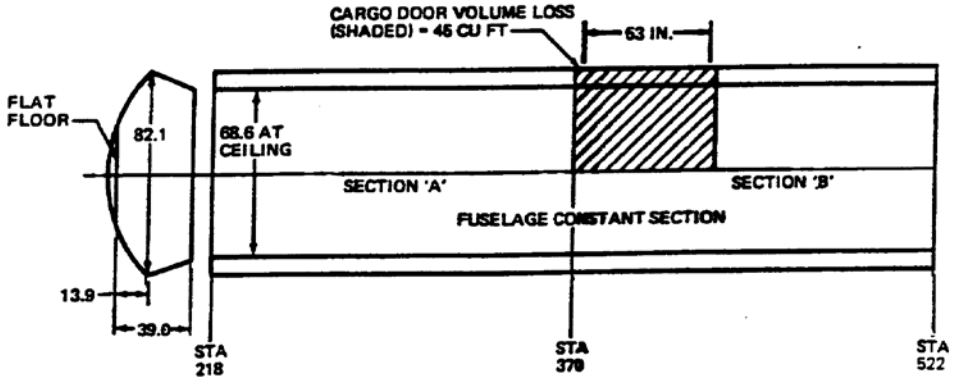
(5) Maximum weights with Sperry 4034241-906 Digital Flight Guidance Computer (DFGC) installed.

Minimum Crew For all flights: Pilot and Copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage:

FORWARD CARGO COMPARTMENT



Area Designation	A	B	A + B
Location (Sta. to Sta.)	218 to 370	370 to 522	218 to 522
H-Arm (Fus. Sta.)	294.9	459.0	368.7
Usable Volume (Cu/Ft)	239	195	434
Maximum Running Load (lb/in. of Fuselage Length)	24.0	24.0	24.0
Placard Capacity (lb)	3585	2925	6510
Combined Capacity (lb) Sta. 218 to 522	-	-	6510

Maximum floor loading not to exceed 150 lb/ft^2.

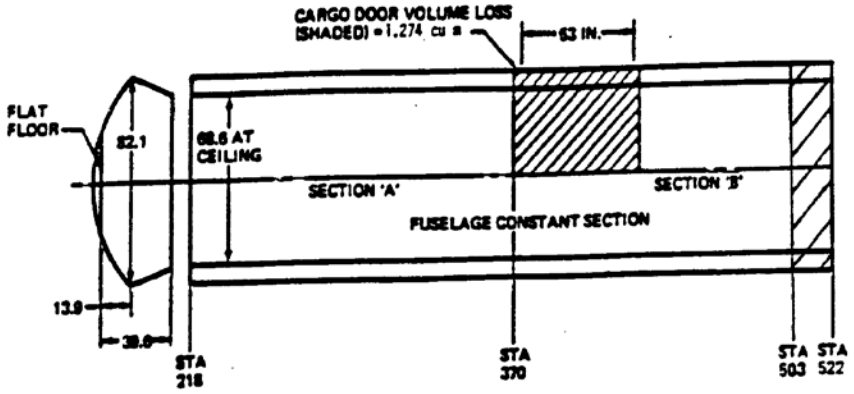
Each of the above limitations is independent of the others. Do not exceed any limitation.

NOTE: The combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 10,305 pounds.

The above section and compartment limitations are applicable to all DC-9-81, -82, -83 and MD-88 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

FORWARD CARGO COMPARTMENT
(WITH 1960 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	A	B	A + B
Location (Sta. to Sta.)	218 to 370	370 TO 503	218 TO 503
H-Arm (Fus. Sta.)	294.9	449.1	357.8
Usable Volume (Cu/Ft)	239	165	404
Maximum Running Load (lb/in. of Fuselage Length)	24.0	24.0	24.0
Placard Capacity (lb)	3585	2460	6045
Combined Capacity (lb) Sta. 218 to 503	-	-	6045

Maximum floor loading not to exceed 150 lb/ft^2.

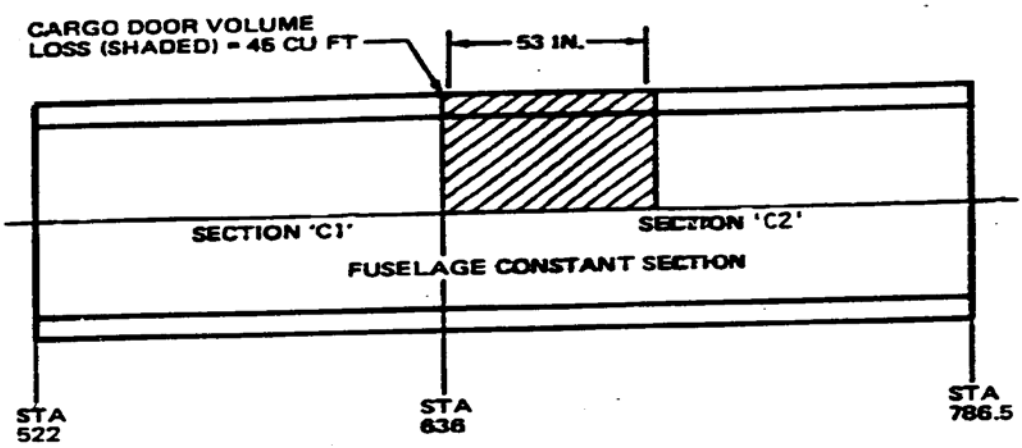
Each of the above limitations is independent of the others. Do not exceed any limitation.

NOTE: The combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 9839 pounds.

The above section and compartment limitations are applicable to all DC-9-81, -82, -83 and MD-88 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

MIDDLE CARGO COMPARTMENT
(WITHOUT AUXILIARY FUEL SYSTEM)



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	522 to 636	636 to 786.5	522 to 786.5
H-Arm (Fus. Sta.)	579.1	721.9	653.2
Usable Volume (Cu/Ft)	181	195	376
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	3620	3900	7520
Combined Capacity (lb) 522 to 786.5	-	-	7520

Maximum floor loading must not exceed 150 lb/ft^2

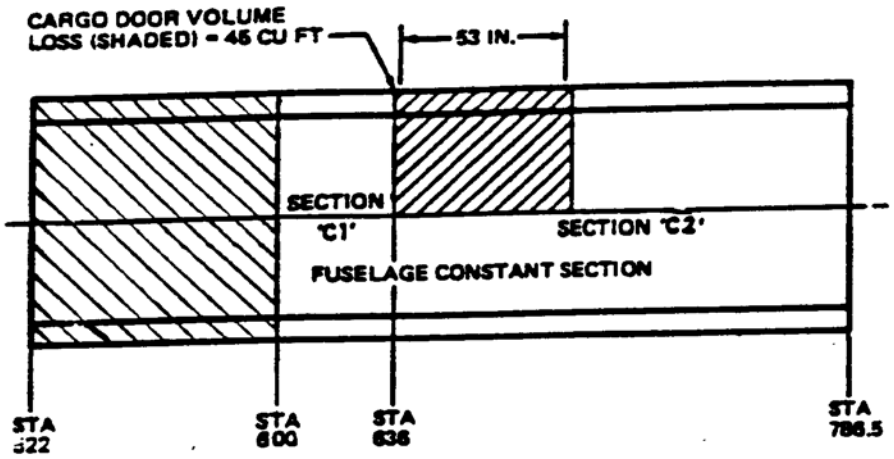
Each of the above limitations is independent of the other. Do not exceed any limitation.

NOTE: Combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 12,150 pounds.

The above section and compartment limitations are applicable to all DC-9-81, -82, -83 and MD-88 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

MIDDLE CARGO COMPARTMENT
(WITH 1130 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	600 to 636	636 to 786.5	600 to 786.5
H-Arm (Fus. Sta.)	618	721.9	698.1
Usable Volume (Cu/Ft)	58	195	253
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	1160	3900	5060
Combined Capacity (lb) 600 to 786.5			5060

Maximum compartment floor loading must not exceed 150 lb/ft^2.

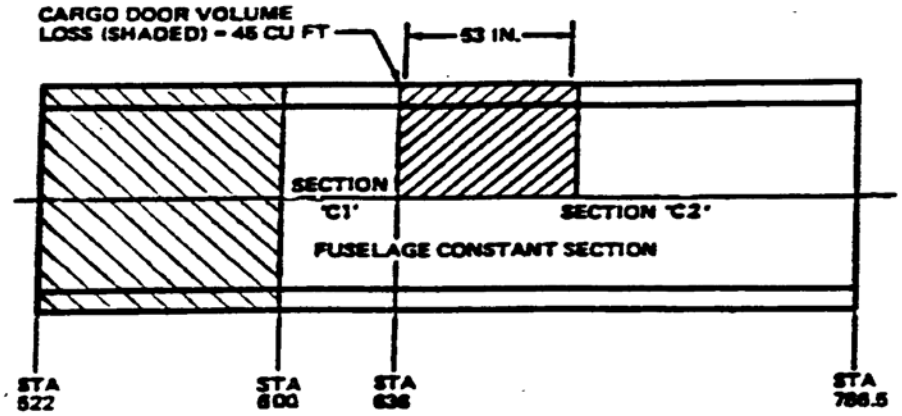
Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

NOTE: Combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 10,305 pounds.

The above section and compartment limitations are applicable to all DC-9-81, -82, and -83 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

MIDDLE CARGO COMPARTMENT
(WITH 1960 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	600 to 636	636 to 786.5	600 to 786.5
H-Arm (Fus. Sta.)	618	721.9	698.1
Usable Volume (Cu/Ft)	58	195	253
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	1160	3900	5060
Combined Capacity (lb) 600 to 786.5			5060

Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

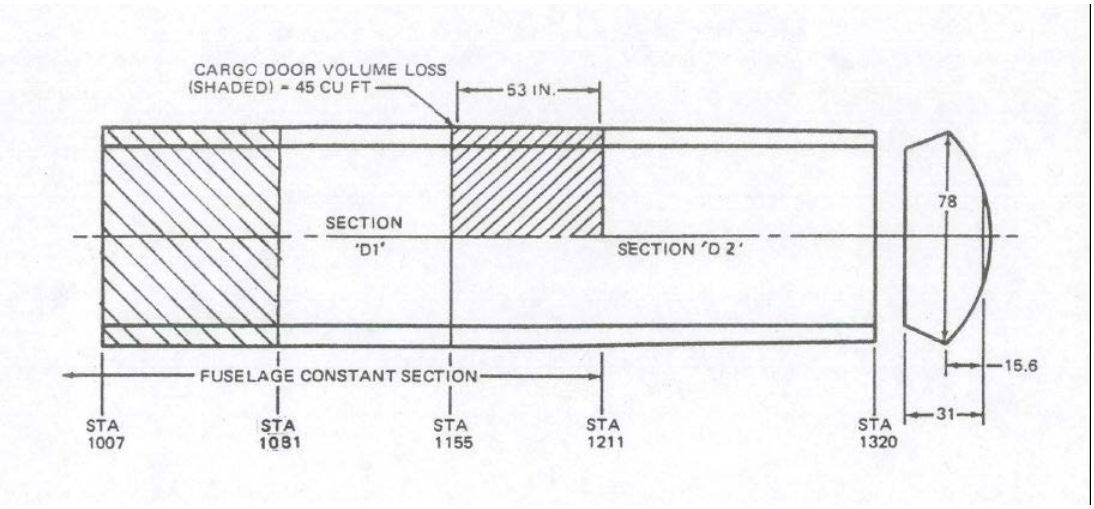
NOTE: Combined capacity of Fus. Sta. 218 to 786.5 is not to exceed 9,841 pounds.

The above section and compartment limitations are applicable to all DC-9-81, -82, or -83 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

AFT CARGO COMPARTMENT

(WITH 1130 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	D1	D2	D1 + D2 = D
Location (Sta. to Sta.)	1081 to 1155	1155 to 1320	1081 to 1320
H-Arm (Fus. Sta.)	1118.0	1245.4	1198.6
Usable Volume (Cu/Ft)	119	207	326
Maximum Running Load (lb/in. of Fuselage Length)	32	22.5	--
Placard Capacity (lb)	2380	3105	4890
Combined Capacity (lb)	--	--	4890

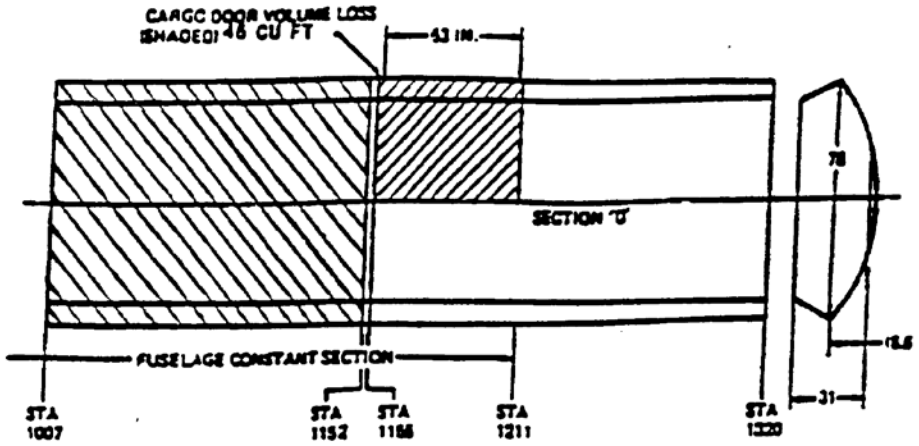
Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

NOTE: The above section and compartment limitations are applicable to all DC-9-81, -82, or -83 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

AFT CARGO COMPARTMENT
(WITH 1960 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	D
Location (Sta. to Sta.)	1152 to 1320
H-Arm (Fus. Sta.)	1242.3
Usable Volume (Cu/Ft)	213
Maximum Running Load (lb/in. of Fuselage Length)	22.5
Placard Capacity (lb)	3194

Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

NOTE: The above section and compartment limitations are applicable to all DC-9-81, -82, or -83 Factory Serial Numbers except as specified in certain other cargo compartment limitation sections.

Fuel Capacity

Three Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	951.0
Center Wing Tank	21,867 lb	21,825 lb	884.8
Lines	120 lb	36 lb	1006.0
Engine	26 lb	7 lb	1322.0
Total	41,765 lb	41,506 lb	916.3

XIV - Model DC-9-83 (Transport Aircraft) Approved: October 17, 1985 (cont'd)

Fuel Capacity (cont'd)

Five Tank System (1130 Gallons)	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	951.0
Center Wing Tank	21,867 lb	21,825 lb	884.8
Fwd Fus Aux Tank	4,056 lb	4,019 lb	564.0
Aft Fus Aux Tank	4,056 lb	4,019 lb	1042.8
Lines	147 lb	56 lb	935.5
Engine	26 lb	7 lb	1322.0
Total	49,904 lb	49,564 lb	897.9

Five Tank System (196 Gallons)	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	951.0
Center Wing Tank	21,843 lb	21,801 lb	884.8
Fwd Fus Aux Tank	5,566 lb	5,500 lb	551.3
Aft Fus Aux Tank	8,487 lb	8,399 lb	1080.0
Lines	175 lb	41 lb	1005.8
Engine	26 lb	7 lb	1322.0
Total	55,849 lb	55,386 lb	904.9

NOTE: H-ARM applies to usable fuel.

Fuel weights based upon fuel density of 7.1 lb/gal. (See NOTE 1(c) for system fuel; NOTE 1(d) for unusable fuel; NOTE 1(e) for fuel loading and usage procedure).

Oil Capacity: See Section XII, Oil Capacity

Serial Nos. Eligible

49252, 49284, 49344-49349, 49351-49353, 49390, 49395-49402, 49442, 49448, 49449, 49458, 49525-49530, 49556, 49557, 49567, 49568, 49574-49579, 49602, 49617-49632, 49642, 49643, 49657-49659, 49662, 49663, 49668, 49672, 49707-49710, 49741, 49769, 49784-49793, 49807-49809, 49822-49824, 49826, 49845-49848, 49854-49857, 49904, 49930, 49933-49952, 49965, 49966, 49968, 49985, 49986, 53012-53016, 53018-53024, 53044-53046, 53050-53052, 53063, 53074-53079, 53093, 53120, 53122-53126, 53137-53141, 53182-53192, 53198, 53199, 53251-53256, 53284-53293, 53377, 53435, 53436, 53448-53453, 53463-53467, 53470-53473, 53485-53488, 53520, 53561-53566, 53591-53599, 53602, 53603, and 53611-53634.

See NOTE 11 for model conversion.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987
(MD-87, See NOTE 14, regarding certification)

Engines 2 Pratt and Whitney Turbofan JT8D-217A, -217C, and -219 engines.
(See NOTE 5 regarding intermixing of engines).

Engine Limits See Section XII, Model DC-9-81 for JT8D-219 engines.
See Section XIII, Model DC-9-82 for JT8D-217A and -217C engines.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

APU Limits — See Section I, Models DC-9-11, -12, -13, -14, and -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A], GTCP85-98DC[B] and GTCP85-98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81, for GTCP85-98DHF.

Fuel — Commercial aircraft turbine fuel conforming to P&W Specification 522 as revised. (See NOTE 7).

Oil — P&W Turbojet Engine Service Bulletin Number 238 lists approved brand oils. Synthetic type oil conforming to P&W Specification 521 as revised.

Airspeed Limits (CAS)

V_{MO}	(Maximum operating - S.L.)	340K	
V_{MO}	(Maximum Operating - 25,970')	340K	(M=0.82)
V_{MO}	(Maximum Operating - 25,970 to 37,000')		(M=0.82)
V_A	(Maneuvering - S.L.)	272.1K	
	(Maneuvering - 29,000')	303.3K	
	(Maneuvering - 30,000')	298.0K	
	(Maneuvering - 37,000')	262.9K	
	(See AFM for variation in V_A speeds vs. altitude)		
V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)
	(Flaps down 13.1° - 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	200K	(M=0.57)
	(Flaps down 31° - 40°)	195K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.57)
	(Slat Extended Landing, 21°)	240K	(M=0.57)
	(Autoslat Extension)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended)	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)
		K = CAS	

C.G. Range

Gross Weight		FUSELAGE STATIONS LANDING GEAR RETRACTED	
Pounds	Kilograms	Forward	Aft
*70,500	31,752	774.56	823.22
130,000	58,967	774.56	----
140,000	63,503	----	----
141,000	63,957	775.19	823.22
149,500	67,812	----	815.77
150,500	68,266	775.67	815.14

* Inflight weight limited to 71,600 pounds (32,477 kg) minimum.

NOTE: Straight line variation between weights shown. Gear retraction moment is -10,154 in.-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits.

Maximum weights

Taxi and Ramp	126,000 lb (4)	150,500 lb (3)
Start of Takeoff	125,000 lb (2)(4)	149,500 lb (2)(3)
Zero Fuel	112,000 lb (1)(4)	112,000 lb (1)
Landing	120,000 lb (4)	130,000 lb (3)

(1) All weight in excess of 112,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) Fuel jettisoning system not installed. (See exemption under Certification Basis).

(3) 26 ply rating MLG tires required for all ramp weights over 141,000 lb

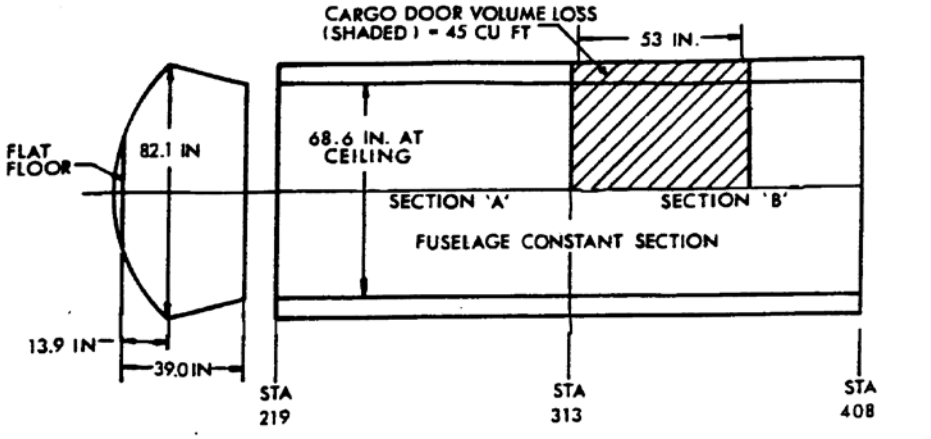
(4) Maximum for airplane serial numbers 49464 and 49465.

Minimum Crew: For all flights: Pilot and Copilot.

Maximum Passengers: See NOTES 6 and 8.

Maximum Baggage:

FWD CARGO COMPARTMENT



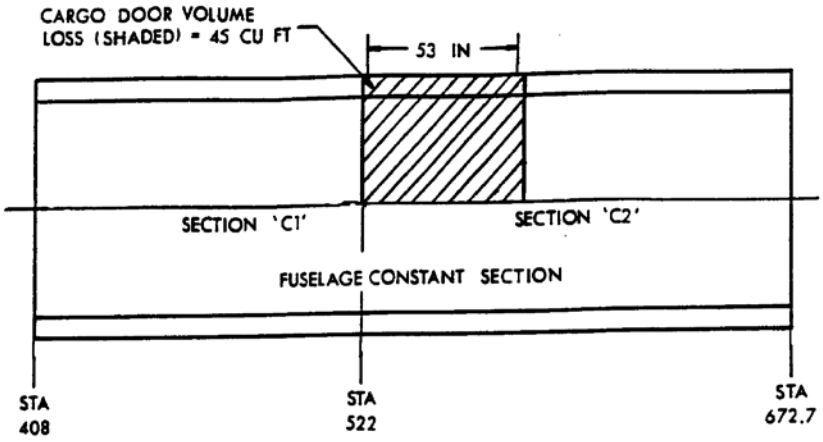
Area Designation	A	B	A + B
Location (Sta. to Sta.)	219 to 313	313 to 408	219 to 408
H-Arm (Fus. Sta.)	266.8	368.6	309.5
Usable Volume (Cu/Ft)	146	106	252
Maximum Running Load (lb/in. of Fuselage Length)	24.0	24.0	24.0
Placard Capacity (lb)	2190	1590	3780
Combined Capacity (lb) Sta. 219 to 408	-	-	3780

Maximum floor loading not to exceed 150 lb/ft^2.

Each of the above limitations is independent of the other. Do not exceed any limitation.

NOTE: The combined capacity of Fus. Sta. 219 to 672.7 is not to exceed 9,420 pounds.

MIDDLE CARGO COMPARTMENT
(WITHOUT AUXILIARY FUEL TANK)



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	408 to 522	522 to 672.7	408 to 672.7
H-Arm (Fus. Sta.)	465.0	608.2	539.2
Usable Volume (Cu/Ft)	181	195	376
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	3620	3900	7520
Combined Capacity (lb) Sta. 408 to 672.7	-	-	7520

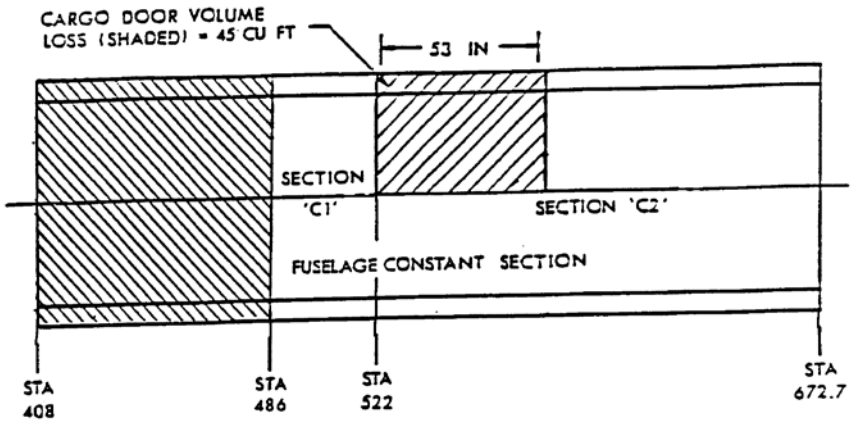
Maximum floor loading must not exceed 150 lb/ft^2.

Each of the above limitations is independent of the other. Do not exceed any limitation.

NOTE: Combined capacity of Fus. Sta. 219 to 672.7 is not to exceed 9,420 pounds.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

MIDDLE CARGO COMPARTMENT
(WITH 1130 AUXILIARY FUEL SYSTEM)



Area Designation	C1	C2	C1 + C2 = C
Location (Sta. to Sta.)	486 to 522	522 to 672.7	408 to 672.7
H-Arm (Fus. Sta.)	504.0	608.2	584.3
Usable Volume (Cu/Ft)	58	195	253
Maximum Running Load (lb/in. of Fuselage Length)	32	32	32
Placard Capacity (lb)	1160	3900	5060
Combined Capacity (lb) Sta. 486 to 672.7	---	---	5060

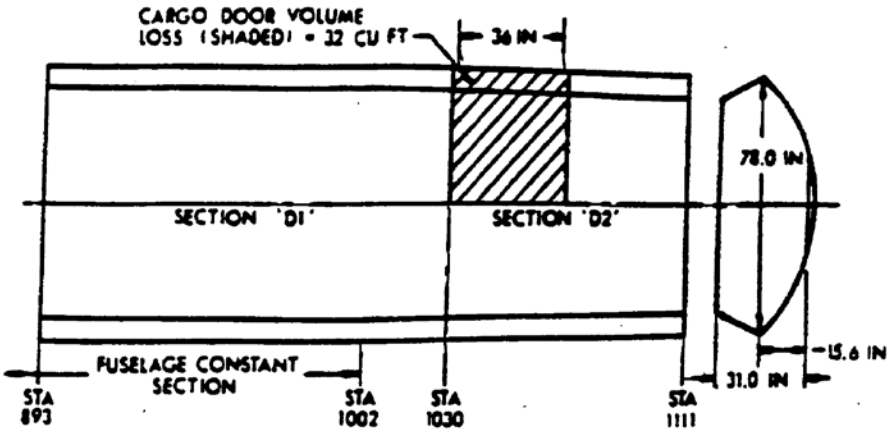
Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

NOTE: Combined capacity of Fus Sta 219 to 672.7 is not to exceed 9,420 pounds.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

AFT CARGO COMPARTMENT
(WITHOUT AUXILIARY FUEL SYSTEM)



Area Designation	D1	D2	D1 + D2 = D
Location (Sta. to Sta.)	893 to 1030	1030 to 1111	893 to 1111
H-Arm (Fus. Sta.)	960.4	1068.8	992.2
Usable Volume (Cu/Ft)	219	91	310
Maximum Running Load (lb/in. of Fuselage Length)	*	22.5	---
Placard Capacity (lb)	4111	1380	4650
Combined Capacity (lb) Sta. 893 to 1111	---	---	4650

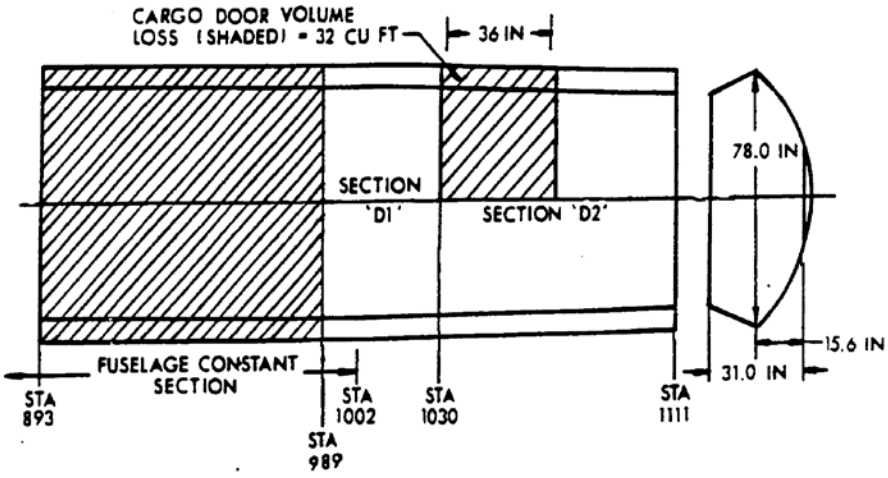
Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

*Sta. 893 to Sta. 1002: 32 lb/in.
*Sta. 1002 to Sta. 1030: 22.5 lb/in.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

AFT CARGO COMPARTMENT
(WITH 780 GALLON AUXILIARY FUEL TANK)



Area Designation	D1	D2	D1 + D2 = D
Location (Sta. to Sta.)	989 to 1030	1030 to 1111	989 to 1111
H-Arm (Fus. Sta.)	1008.9	1068.8	1044.3
Usable Volume (Cu/Ft)	63	91	154
Maximum Running Load (lb/in. of Fuselage Length)	*	22.5	---
Placard Capacity (lb)	1029	1380	2310
Combined Capacity (lb) Sta. 893 to 1111	---	---	2310

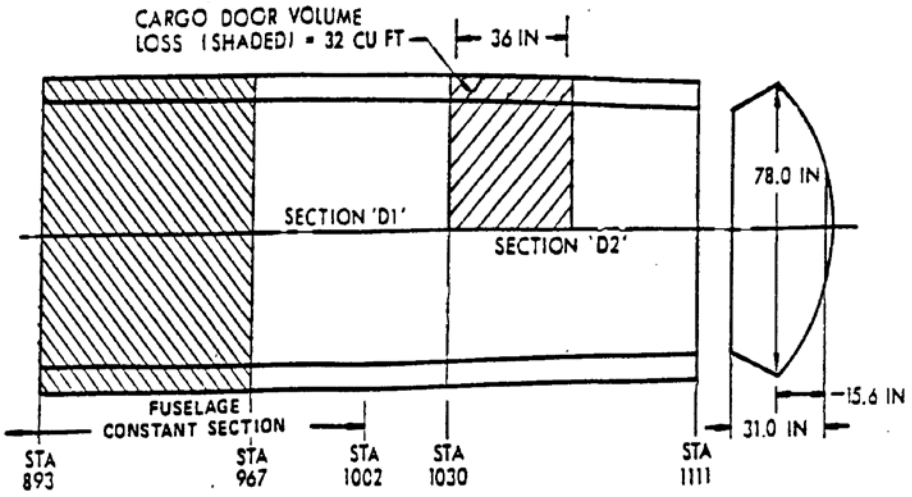
Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above limitations is independent of the other. Do not exceed any limitation.

*Sta. 989 - Sta. 1002: 32 lb/in.
*Sta. 1002 - Sta. 1030: 22.5 lb/in.

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

AFT CARGO COMPARTMENT
(WITH 1130 GALLON AUXILIARY FUEL SYSTEM)



Area Designation	D1	D2	D1 + D2 = D
Location (Sta. to Sta.)	967 to 1030	1030 to 1111	967 to 1111
H-Arm (Fus. Sta.)	997.6	1068.8	1031.7
Usable Volume (Cu/Ft)	99	91	190
Maximum Running Load (lb/in. of Fuselage Length)	*	22.5	---
Placard Capacity (lb)	1760	1380	2850
Combined Capacity (lb)	---	---	2850

Maximum compartment floor loading must not exceed 150 lb/ft^2.

Each of the above section and compartment limitations is independent of the other. Do not exceed any limitation.

*Sta. 967 to Sta. 1002: 32 lb/in.
*Sta. 1002 to Sta. 1030: 22.5 lb/in.

Fuel Capacity

Three Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	837.0
Center Wing Tank	21,867 lb	21,825 lb	770.8
Lines	111 lb	28 lb	943.9
Engine	26 lb	7 lb	1113.0
Total	41,756 lb	41,498 lb	802.3

XV - Model DC-9-87 (Transport Aircraft) Approved: October 21, 1987 (cont'd)

Fuel Capacity (cont'd)

Four Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	837.0
Center Wing Tank	21,867 lb	21,825 lb	770.8
Aft Fus Aux Tank	5,581 lb	5,512 lb	940.9
Lines	125 lb	34 lb	927.0
Engine	26 lb	7 lb	1113.0
Total	47,351 lb	47,016 lb	818.6

Five Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,752 lb	19,638 lb	837.0
Center Wing Tank	21,867 lb	21,825 lb	770.8
Fwd Fus Aux Tank	4,056 lb	4,019 lb	449.0
Aft Fus Aux Tank	4,056 lb	4,019 lb	930.3
Lines	138 lb	47 lb	704.0
Engine	26 lb	7 lb	1113.0
Total	49,895 lb	49,555 lb	783.9

Oil Capacity

	Total Capacity	Total volume Usable	Per engine Usable weight	H-Arm STA.
Engine oil	6.92 gal	4.2 gal	31.0 lb	1091.0
CSD	1.25 gal	1.23 gal	9.4 lb	1110.0
APU	1.1 gal	1.1 gal	7.75 lb	1168.5

Oil weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil)

Serial Nos. Eligible

49389, 49403-49405, 49411-49414, 49464-49467, 49585-49587, 49605-49612, 49614, 49641, 49670, 49671, 49673, 49706, 49724-49727, 49767, 49768, 49777-49780, 49827-49843, 49888, 49997, 53009-53011, 53039-53042, 53207-53213, 53336, 53337, 53340, 53348, 53351, 53416-53423, 53446, and 53447.

XVI - Model MD-88 (Transport Aircraft) Approved December 8, 1987

Engines — 2 Pratt and Whitney Turbofan JT8D-217A, -217C and -219 engines. (See NOTE 5 regarding intermixing of engines).

Engine Limits — See Section XII, Model DC-9-81 for JT8D-219 engines.
See Section XIII, Model DC-9-82 for JT8D-217A and -217C engines.

APU Limits — See Section I, Models DC-9-11, -12, -13, -14 and -15 for GTCP85-98D, GTCP85-98W, GTCP85-98DC[A], GTCP85-98DC[B] and GTCP85-98DC[C].
See Section IX, Model DC-9-51 for GTCP85-98DCK.
See Section XII, Model DC-9-81 (MD-81) for GTCP85-98DHF.

Fuel — Commercial aircraft turbine fuel conforming to P&W Specification 522 as revised (See NOTE 7).

XVI - Model MD-88 (Transport Aircraft) Approved December 8, 1987 (cont'd)

Oil P&W Turbojet Engine Service Bulletin 238 lists approved brand oils.
Synthetic type oil conforming to P&WA Specifications 521, as revised.

Airspeed Limits (CAS)

		149,500 lb		160,000 lb	
V_{MO}	(Maximum Operating - S.L.)	340K		340K	
	(Maximum Operating - 27,240 ')	340K	(M=0.84)	340K	(M=0.84)
	(Maximum Operating - 27,240 to 37,000 ')		(M=0.84)		(M=0.84)
V_A	(Maneuvering - S.L.)	270.0K		280.6K	
	(Maneuvering - 29,000 ')	340.1K		306.2K	
	(Maneuvering - 30,000 ')	299.0K		301.1K	
	(Maneuvering - 37,000 ')	262.1K		263.5K	
	(See AFM for variation in V_A speeds versus altitude)				
V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)	280K	(M=0.57)
	(Flaps down 13.1° - 20°)	240K	(M=0.57)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	200K	(M=0.57)	205K	(M=0.57)
	(Flaps down 31° - 40°)	195K	(M=0.57)	200K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.57)	280K	(M=0.57)
	(Slat Extended Landing, 21°)	240K	(M=0.57)	240K	(M=0.57)
	(Autoslat Extension)	280K	(M=0.57)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)				
	(Gear retraction)	250K	(M=0.70)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)	300K	(M=0.70)
V_{LE}	(Landing gear extended	300K	(M=0.70)	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)	350K	(M=0.84)
		K=KCAS			

C.G. Range

Gross Weight		LANDING GEAR EXTENDED (1)		LANDING GEAR RETRACTED (1)	
Pounds	Kilograms	Forward	Aft	Forward	Aft
70,000	31,751	884.3	938.5	881.1	938.5
80,000*	36,287	884.3	938.5	881.1	938.5
117,000	53,524	--	938.5	--	938.5
126,000	57,153	884.3	935.3	881.1	935.3
130,000	58,967	--	933.6	--	933.6
139,500	63,276	887.8	--	884.4	--
140,000	63,503	--	929.5	--	929.5
141,000	63,957	--	929.5	--	929.5
148,000	67,132	890.6	--	--	--
149,500	67,812	--	926.4	884.3	926.6
150,500	68,266	--	926.3	--	926.3
156,000	70,760	887.4	--	884.1	--
156,000	70,760	887.9	--	884.8	--
160,000	72,575	--	923.9	884.6	923.9
161,000	73,028	887.8	923.6	--	--

NOTE: *Inflight weight limited to 80,000 pounds (36,287 kg) minimum.

XVI - Model MD-88 (Transport Aircraft) Approved December 8, 1987 (cont'd)

C.G. Range: (cont'd)

(1) Straight line variation between weights shown. Gear retraction moment is -10,154 in.-lb which moves C.G. forward. When the aircraft is loaded within the above limits and the effect of landing gear retraction and crew and passenger movement from their assigned positions is accounted for and the fuel is loaded (up to the maximum takeoff weight) and used in the approved sequence, the aircraft will remain within approved C.G. limits.

Maximum weights

Taxi and Ramp	161,000 lb (3)(4)
Start of Takeoff	160,000 lb (2)(3)(4)
Zero Fuel	122,000 lb (1)
Landing	150,000 lb (3)

(1) All weight in excess of 122,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) Fuel jettisoning system not installed. (See exemption under Certification Basis).

(3) 26 ply rating MLG tires required for all ramp weights over 141,000 lb

(4) 28 ply rating MLG tires required for all ramp weights over 150,500 lb

Minimum Crew For all flights: Pilot and Copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage See Section XIV, Model DC-9-83.

Fuel Capacity See Section XIV, Model DC-9-83.

Oil Capacity See Section XII, Model DC-9-81.

Serial Numbers Eligible

49532-49546, 49573, 49583, 49584, 49591, 49644-49646, 49705, 49711-49723, 49759-49766, 49810-49819, 49878-49887, 49926-49929, 49956-49959, 49967, 49976-49984, 49997, 53047-53049, 53115, 53116, 53161, 53172-53175, 53193-53197, 53214, 53215, 53241-53243, 53257-53259, 53266-53268, 53273, 53274, 53303-53310, 53311-53313, 53338, 53339, 53341-53346, 53351, 53362-53364, 53370-53372, 53378-53380, 53409, 53410, 53415-53423, 53446, 53447, 53546, 53547-53549, and 53550.

XVII - Model MD-90-30 (Transport Aircraft) Approved November 4, 1994

(Note: For Model MD-90-30 equipped with Enhanced Flight Deck configuration, approved on March 3, 1998, refer to additional certification basis.)

Engines 2 International Aero Engines (IAE) V2525-D5 or V2528-D5 engines. (Intermixing of engines not permitted. See NOTE 5).

Engine Limits

Thrust Ratings	V2525-D5	V2528-D5
Takeoff (5 min.) (static thrust at sea level, flat-rated to 86°F)	25,000 lb	28,000 lb
Takeoff, Engine Inoperative (10 min.) (static thrust at sea level, flat-rated to 86°F)	25,000 lb	28,000 lb

(Takeoff Rating is the maximum thrust certified for takeoff operation.)

XVII - Model MD-90-30 (Transport Aircraft) Approved November 4, 1994 (cont'd)

Engine Limits (cont'd)

	V2525-D5	V2528-D5
Maximum Continuous (static thrust at sea level)	23,900 lb	25,660 lb
Maximum Permissible Engine Operating Speeds (All Models)		
N_1 (Low Pressure Rotor) Takeoff	5,650 rpm (100%)	5,650 rpm (100%)
N_2 (High Pressure Rotor) Takeoff	14,950 rpm (100%)	14,950 rpm (100%)
Maximum Permissible Indicated Engine Exhaust Gas Temperatures *		
Takeoff (5 min.)	620°C	635°C
Maximum Continuous	610°C	610°C
Starting on Ground	635°C	635°C
in Flight	635°C	635°C

* See NOTE 19 of Engine TCDS E40NE.

Oil Outlet Temperature (All Models)	
Continuous Operation	155°C/311°F
Transient Operation (15 min.)	165°C/329°F Maximum
Oil Pressure Limits	60 psig Minimum
Fuel Pressure	At the inlet to the engine system pump, not less than 5 psig above the true vapor pressure of the fuel and not greater than 70 psig with a vapor/liquid ratio of zero.

Maximum permissible air bleed extraction is as follows: (All Models)

	Max Bleed Limit **
7th Stage Bleed	% of Inlet Core Flow (WA26)
At or below 90% corrected high rotor speed	8.2%
From 90% to 97% corrected high rotor speed	Linear variation from 8.2% to 6.0%
At or above 97% corrected high rotor speed	6.0%
10th Stage Bleed *	
At or below 61% corrected high rotor speed	13.7%
From 61% to 78% corrected high rotor speed	Linear variation from 13.7% to 12%
From 78% to 97% corrected high rotor speed	Linear variation from 12.0% to 6.0%
At or above 97% corrected high rotor speed	6.0%

* Below 24,000 ft:
- at ambient temperatures above 40°F, no 10th stage bleed is allowed at max. continuous rating and above.
- at 40°F ambient temperatures and below, a maximum of 2% 10th stage bleed is allowed at takeoff rating and 4% 10th stage bleed at max. continuous rating.

** Simultaneous use of 7th and 10th stage bleed due to a malfunction is allowed only until the next landing.

Airspeed Limits (KCAS)

V_{MO}	(Maximum Operating - S.L.)	340K	
V_{MO}	(Maximum Operating - 27,240')	340K	(M=0.84)
V_{MO}	(Maximum Operating - 27,240' to 37,000')		(M=0.84)
V_A	(Maneuvering - S.L.)	273K	
V_A	(Maneuvering - 29,000')	296K	

XVII - Model MD-90-30 (Transport Aircraft) Approved November 4, 1994 (cont'd)

Airspeed Limits: (cont'd)

V_A	(Maneuvering - 30,000')	290K	
	(Maneuvering - 37,000')	256K	
	(See AFM for variation in V_A with altitude)		
V_{FE}	(Flaps down 0.1° - 13°)	280K	(M=0.57)
	(Flaps down 13.1° - 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 30°)	205K	(M=0.57)
	(Flaps down 31° - 40°)	200K	(M=0.57)
V	(Slat Extended Takeoff, 17.8°)	280K	(M=0.57)
	(Slat Extended Landing, 21°)	240K	(M=0.57)
	(Autoslat Extension)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended	300K	(M=0.70)
V	(Landing light extension)	350K	(M=0.84)

C.G. Range See FAA Approved Airplane Flight Manual

Maximum weights

Taxi and Ramp	161,000 lb	166,500 lb	168,500 lb
Start of Takeoff	160,500 lb	166,000 lb (2)	168,000 lb (2)
Zero Fuel	132,000 lb (1)	132,000 lb (1)	132,000 lb (1)
Landing	142,000 lb	142,000 lb	142,000 lb

(1) All weight in excess of 132,000 lb must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

(2) 28 ply tires are required for all ramp weights over 166,000 lb

Minimum Crew For all flights: Pilot and copilot.

Maximum Passengers See NOTES 6 and 8.

Maximum Baggage See Weight and Balance Manual Report No. MDC-91K0981.

Fuel Capacity

Three Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,964 lb	19,837 lb	1008.8
Center Wing Tank	21,656 lb	21,612 lb	941.9
Lines	124 lb	36 lb	1063.0
Engine	28 lb	7 lb	1398.0
Total	41,772 lb	41,492 lb	974.1

XVII - Model MD-90-30 (Transport Aircraft) Approved November 4, 1994 (cont'd)

Fuel Capacity: (cont'd)

Four Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,964 lb	19,837 lb	1008.8
Center Wing Tank	21,656 lb	21,612 lb	941.9
Fwd Aux Tank	4,056 lb	4,019 lb	564.0
Lines	157 lb	36 lb	1063.0
Engine	28 lb	7 lb	1398.0
Total	45,861 lb	45,511 lb	937.9

NOTE: H-ARM applies to usable fuel.

Fuel weights based upon fuel density of 7.1 lb/gal (See NOTE 1(c) for system fuel; NOTE 1(d) for unusable fuel; NOTE 1(e) for fuel loading and usage procedures)

Oil Capacity		TOTAL CAPACITY	TOTAL VOLUME USABLE	PER ENGINE USABLE WEIGHT	H-ARM STA.
	ENGINE OIL (2)	11.5 gal	6.0 gal	44.4 lb	1365.0
	VSCF (2)	0.7 gal	0.5 gal	3.7 lb	1360.3
	APU (1)	1.6 gal	0.85 gal	6.3 lb	1422.5

Oil Weight based upon 7.4 lb/gal. (See NOTE 1(c) for system oil)

Serial Numbers Eligible

Maximum Takeoff Weight of 160,500 lb
53352-53355, 53381-53392*, 53489, 53490, 60001, and 60002.

Maximum Takeoff Weight of 166,000 lb
53356-53359, 53360, 53361, 53393-53396, 53457-53462, 53491-53493, 53523-53526, 53527, 53528, 53534-53538, 53539, 53543, 53544, 53551-53554, 53555-53557, 53567, 53568-53570, 53571, 53573, 53574, and 53582-53584.

Maximum Takeoff Weight of 168,000 lb
53494-53519, 53529, 53530, 53531, 53532, 53533, 53558, 53559, 53560, 53572, 53576, 53578, 53579, 53580, 53585, 53586, 53587, 53588, 53589, 53590, and 53601.

(*) Serial numbers within the range of 53381 thru 53392 are eligible to operate at maximum takeoff weight of 166,000 lb provided Boeing Service Bulletin MD90-57-028 is installed.

APU Limits

AlliedSignal Engines 131-9 [D]

Rotor Speeds, Maximum Allowable	(108%)	52,704 RPM
Maximum for normal operation	(104%)	50,752 RPM
Minimum for normal operation	(96%)	46,848 RPM

Exhaust Gas Temperatures

Maximum allowable for all operations including starting and transients: 106% on EGT gauge*

* 1235°F for standard day at sea level, ECS and MES mode.

Maximum rated for continuous operation: 100% on EGT gauge**

** 1052°F for standard day at sea level, ECS mode.

XVII - Model MD-90-30 (Transport Aircraft) Approved November 4, 1994 (cont'd)

APU Limits (cont'd)

Fuel Pressure Limits, Minimum of 4 psig.	
Oil Capacity, 6.5 qt total, 3.4 qt usable.	
Oil Pressure, Normal operation	67.5 ± 7.5 psi
Low Oil pressure (Master Caution)	35.0 ± 5.0 psi
Oil Temperature, Maximum	325°F
APU Envelope, Start	up to 35,000 feet
Operate	up to 37,000 feet
APU Maximum Continuous Electrical Loads must not exceed:	
Ground	1.00 Indicated
Inflight	0.6

Fuel — Commercial aircraft turbine fuel conforming to specifications listed in NOTE 7.

Oil — Oil to be used in the IAE V2525-D5 and V2528-D5 engines must conform to the following specification: MIL-L-23699. Oil brands qualified for use include: Mobil Jet II and Exxon 2380.

XVIII - Model 717-200 (Transport Aircraft) Approved September 1, 1999

(See NOTE 22, regarding certification, NOTE 29, regarding flammability)

Engines — 2 Rolls-Royce Deutschland Ltd & Co KG BR700-715A1-30 or BR700-715C1-30 engines. (See Notes 5, 25)

Engine Limits

Thrust Ratings	BR700-715A1-30	BR700-715C1-30
Takeoff (5 min.)	18,920 lb	21,430 lb
(static thrust at sea level, flat-rated to 86°F)		
Takeoff, Engine Inoperative (10 min.)	18,920 lb	21,430 lb
(static thrust at sea level, flat-rated to 86°F)		
(Takeoff Rating is the maximum thrust certified for takeoff operation.)		
Maximum Continuous	18,700 lb	20,420 lb
(static thrust at sea level)		

Maximum Permissible Engine Operating Speeds

N_1 (Low Pressure Rotor) Takeoff	6,096 rpm (100.0%)
N_2 (High Pressure Rotor) Takeoff	16,661 rpm (100.0%)

Maximum Permissible Indicated Engine Exhaust Gas Temperatures

*Takeoff (5 min.)	900°C
Maximum Continuous	850°C
Starting on Ground	700°C
Starting in Flight	850°C

*Takeoff rating may be used for 10 min. if an engine becomes inoperative.

Oil Outlet Temperature:

Continuous Operation	160°C/320°F
Transient Operation (15 min.)	160°C/320°F Maximum
Oil Pressure Limits	25 psig for N2 less than 72.3%
	35 psig for N2 more than 90%

XVIII - Model 717-200 (Transport Aircraft) Approved September 1, 1999 (cont'd)

Airspeed Limits (KCAS)

V_{MO}	(Maximum Operating - S.L.)	340K	
V_{MO}	(Maximum Operating - 26,000')	340K	(M=0.82)
V_{MO}	(Maximum Operating -26,000 to 37,000')		(M=0.82)
V_A	(Maneuvering - S.L.)	263K	
	(Maneuvering - 26,000')	297K	
	(Maneuvering - 31,000')	279K	
	(Maneuvering - 35,000')	259K	
	(See AFM for variation in V_A with altitude)		
V_{FE}	(Flaps down 0.1° - 10°)	280K	(M=0.57)
	(Flaps down 10.1° - 20°)	240K	(M=0.57)
	(Flaps down 20.1° - 25°)	220K	(M=0.57)
	(Flaps down 25.1° - 40°)	200K	(M=0.57)
V	(Slat Operation or Extended)	280K	(M=0.57)
V_{LO}	(Landing Gear operation)		
	(Gear retraction)	250K	(M=0.70)
	(Gear extension)	300K	(M=0.70)
V_{LE}	(Landing gear extended	300K	(M=0.70)
V	(Landing light extension)	340K	(M=0.82)

C.G. Range: See FAA Approved Airplane Flight Manual

Maximum weights

Taxi and Ramp	122,000 lb/55,338 kg
Start of Takeoff	121,000 lb/54,885 kg
Zero Fuel	100,500 lb/45,586 kg (1)
Landing	110,000 lb/49,895 kg

(1) All weight in excess of 100,500 lb (45,586 kg) must be in usable fuel. After filling the main wing tanks, additional fuel may then be added to the center wing tank to attain the maximum design taxi weight.

Minimum Crew For all flights: Pilot and copilot.

Maximum Passengers See NOTE 6.

Maximum Baggage See Weight and Balance Manual Report No. MDC 97K9261

Fuel Capacity

Three Tank System	Total Capacity	Total Usable	H-Arm STA.
Main Wing Tanks (2)	19,687 lb	19,638 lb	762.3
Center Wing Tank	6,526 lb	6,440 lb	705.4
Lines	108 lb	36 lb	870.7
Engine	25 lb	7 lb	1036.0
Total	26,346 lb	26,121 lb	748.5

NOTE: H-ARM applies to usable fuel.

Fuel weights based upon fuel density of 7.1 lb/gal (See NOTE 1(c) for system fuel; NOTE 1(d) for unusable fuel; NOTE 1(e) for fuel loading and usage procedures)

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Oil Capacity		TOTAL CAPACITY	TOTAL VOLUME USABLE	PER ENGINE USABLE WEIGHT	H-ARM STA.
	Engine Oil Tank Only (2)	2.97 US gal	1.64 US gal	12.7 lb	1034.0
	Total Engine Oil (2)	5.30 US gal	1.64 US gal	12.7 lb	1034.0
	IDG Sump Only (2)	0.44 US gal	0. 44 US gal	3.3 lb	1033.0
	APU (1)	0.8 US gal	0.25 US gal	1.8 lb	1080.0

Oil Weight based upon 7.74 lb/gal. (See NOTE 1(c) for system oil)

Serial Numbers Eligible

55001, 55002, 55003-55042, 55043-55048, 55049-55051, 55052, 55053-55057, 55058, 55059-55068, 55069-55117, 55118, 55121-55125, 55126-55129, 55130-55132, 55134-55140, 55141-55150, 55151-55155, 55166-55185, 55186-55187, 55190-55194, 55195-55196

APU Limits

Auxiliary Power International Corporation (APIC) APS 2100

Rotor Speeds, Maximum Allowable	(105%)	47,486 RPM
Maximum for normal operation	(103%)	46,582 RPM
Minimum for normal operation	(97%)	43,868 RPM

Exhaust Gas Temperatures

Maximum allowable for all operations including starting and transients	100% on EGT display
Maximum rated for continuous operation	100% on EGT display*****

***** 1345°F for standard day at sea level

Fuel Pressure Limits	Minimum of 5 psig.
Oil Capacity	3.3 qt total, 1.0 qt usable.
Oil Pressure, Normal operation	42.5 psig +/- 2.5 psi
Low Oil pressure (Master Caution)	20 psig +/- 2.0 psi
Oil Temperature, Maximum 275°F	
APU Envelope:	Start (up to 37,000 feet) Operate (up to 37,000 feet)

APU Maximum Continuous Electrical Loads must not exceed:

Ground (60 KVA)	1.0 Indicated
Inflight (40 KVA)	1.0 indicated

Fuel — Commercial aircraft turbine fuel conforming to specifications listed in NOTE 7.

Oil — For 717-200 approved engine oils, see latest revision of the BR715 Engine Operating Instructions, OI-715-3BR, as indicated by FAA Type Certificate Data Sheet E00061EN.

Data Pertinent to All Models

Maximum Operating Altitude

35,000 ft. (DC-9-11 thru DC-9-51)
37,000 ft. (DC-9-81, -82, -83, -87, MD-88, MD-90-30 and 717-200)

Data Pertinent to All Models (cont'd)

Operating Limitations

See NOTES 2, 3, and 4.

Other Operating Limitations

See FAA Approved Airplane Flight Manual.

Datum

7 inches forward of nose (Sta. 0).

MAC

141.5 in. (L.E. of MAC at Sta. 549.1). Models DC-9-11, -12, -13, -14, -15, -15F
147.4 in. (L.E. of MAC at Sta. 544.5). Model DC-9-21
147.4 in. (L.E. of MAC at Sta. 658.5). Models DC-9-31, -32, -32F, -33F
147.4 in. (L.E. of MAC at Sta. 696.5). Model DC-9-41
147.4 in. (L.E. of MAC at Sta. 753.4). Model DC-9-51
147.4 in. (L.E. of MAC at Sta. 658.4). Models DC-9-34, -34F
158.5 in. (L.E. of MAC at Sta. 885.5). Models DC-9-81, -82, -83 and MD-88
158.5 in. (L.E. of MAC at Sta. 771.5). Model DC-9-87
158.5 in. (L.E. of MAC at Sta. 942.5). Model MD-90-30
147.4 in. (L.E. of MAC at Sta. 715.5). Model 717-200

Leveling Means

One of two systems in each airplane:
(a) Spirit levels and leveling pads at Sta. 58.7 or
(b) Plumb bob and grid plate at Sta. 69.5

Control Surface Movements

To ensure proper operation of the airplane, the movement of the various control surfaces must be carefully controlled by proper rigging of the Flight Control Systems. The airplane must therefore be rigged in accordance with the following: Model DC-9 Douglas Dwg. 7910641, Model MD-90 Douglas Dwg. 7940643 or Model 717-200 Douglas Dwg. 7940906 "Inspection Procedure - Surface Throws, Flight Control" new or later change.

Service Life Limits

See NOTE 3

Certification Basis:

Models DC-9-11, -12, -13, -14, -15, -15F, -21, -31, -32, -32F -33F, -34,-34F, -41, -51

CAR 4b dated December 31, 1953, Amendments 4b-1 thru 4b-16, the Special Conditions contained in Attachment "A" of FAA letter to Douglas dated October 20, 1965, the provisions of SR-422B and the following exemptions:

415D - CAR 4b.437, "Fuel Jettisoning System" (See wts. DC-9-10, -30, -40 and -50 Series Airplanes).

424 - CAR 4b.362, "Emergency Exit/Passenger Ratio" (DC-9-11, -12, -13, -14, -15, and 15F that incorporate one Type I and one Type III exit per side and tail cone exit).

NOTE: CAR 4b with Amendments 4b-1 thru 4b-16 is considered equivalent to FAR Part 25 (New) effective February 1, 1965.

All aircraft not flown before December 1, 1973 must comply with FAR 36 dated December 1, 1969, and Amendments 36-1 and 36-2.

Compliance with the following optional requirements has been established:

Data Pertinent to All Models (cont'd)

Certification Basis (cont'd)

Ditching Provision 4b.361, including 4b.362(d) and 4b.742(e) and excluding 4b.645 and 4b.646. When the operating rules require emergency ditching equipment, compliance with 4b.645 and 4b.646 must be demonstrated. In such cases when the manufacturer has complied with part or all of the provisions of 4b.645 and 4b.646, the items of equipment will be called out on the pertinent interior arrangement drawing, entitled "FAA Approval Drawing," or "FAA Interior Schematic."

Ice Protection Provisions 4b.640.

Based on 14 CFR § 21.101(g) for changes to type certificates (TC), applicable provisions of 14 CFR part 26 are included in this certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations: 14 CFR § 26.11 (Amdt. No. 26-0), § 26.43 and 26.45 (Amdt.No. 26-1).

Models DC-9-81 and -82

FAR 25, effective February 1, 1965, as amended by amendments 25-1 through 25-40, effective May 2, 1977, except for the following sections which are limited to showing compliance with the amendments indicated:

Section	Amendment	Section	Amendment	Section	Amendment
25.21	25-7	25.701	*	25.979	*
25.251(a)	25-23	25.721	25-15	25.1001	*
25.251(b)	25-23				
25.251(c)	25-23	25.787	*		
25.251(e)	25-23	25.803(c)	25-46		
25.255	25-42	25.803(e)	25-15		
25.395	*	25.807	25-15	25.1093	25-36
25.571	25-10	25.809	25-15	25.1203	*
25.607	*	25.811	25-15	25.1305	25-11
25.631	(N/A)	25.812	25-28	25.1309	*, **
25.671	*	25.863	*	25.1333*	*
				25.1351(d)	**
25.672	(N/A)	25.933	*	25.1401	25-27
25.695	*			25.1435	*
25.697	*	25.951	*		
25.699	*	25.955	*		

Based on 14 CFR § 21.101(g) for changes to type certificates (TC), applicable provisions of 14 CFR part 26 are included in this certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations: 14 CFR § 26.11 (Amdt. No. 26-0), § 26.33 (Amdt. No 26-3), and § 26.43 and 26.45 (Amdt.No. 26-1).

Data Pertinent to All Models (cont'd)

Certification Basis (cont'd)

Models DC-9-83, -87 and MD-88

All provisions, as applicable, including Special Conditions and Exemptions mandated for the DC-9-80 series airplanes are applicable in total for the MD-88 airplane.

Part 25, effective February 1, 1965, as amended by Amendments 25-1 through 25-40, effective May 2, 1977, except showing compliance with the following sections is limited to the amendments as shown in the following table:

Models DC-9-83, -87 and MD-88 (cont'd)

Section	Amendment	Section	Amendment	Section	Amendment
25.21	25-7	25.701	*	25.955	*
25.251(d)	(N/A)	25.721	25-15	25.979	*
25.255	25-42	25.787	*	25.1001	*
25.395	*	25.803(c)(d)	25-46	25.1093	25-36
25.571	25-10	25.803(e)	25-15	25.1203	*
25.607	*	25.807	25-15	25.1305	25-11
25.631	(N/A)	25.809	25-15	25.1309	*, **
25.671	*	25.811	25-15	25.1333	*
25.672	(N/A)	25.812	25-28	25.1351(d)	**
25.695	*	25.863	*	25.1401	25-27
25.697	*	25.933	*	25.1435	*
25.699	*	25.951	*		

Based on 14 CFR § 21.101(g) for changes to type certificates (TC), applicable provisions of 14 CFR part 26 are included in this certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations: 14 CFR § 26.11 (Amdt. No. 26-0), § 26.33 (Amdt. No 26-3), and § 26.43 and 26.45 (Amdt.No. 26-1).

Applies to DC-9-81, -82, -83, -87, MD-88 and MD-90-30

(N/A) indicates sections added to FAR 25 by later amendments for which compliance is not applicable.

(*) as Adopted at original issuance of FAR 25.

(**) Thru Amendment 25-41 for operation without normal electrical power, autoland system and post stall recovery (stick pusher) system.

Special Condition, No. 25-88-WE-25, "Automatic Takeoff Thrust Control System (ATTCS)", issued March 9, 1979, for the Model DC-9-80/MD-80 series airplanes.

Special Conditions, No. 25-95-WE-27, "Hydraulic System Failure", "In Flight Thrust Reversal", and "Environmental Flight Testing", issued April 3, 1980, for the Model DC-9-80/MD-80 series airplanes.

Special Condition No. 25-ANM-15, "Lightning Protection for new Electronic Systems," issued October 19, 1987, for the Model DC-9-80/MD-80 series airplanes.

Exemption No. 415D, FAR 25.1001, "Fuel Jettisoning System", issued June 23, 1980, for the Model DC-9-80/MD-80 series airplanes, (See Maximum Weights DC-9-81, -82, -83, -87 and MD-88).

Applicable noise standards per FAR 36, effective December 1, 1969, as amended by Amendments 36-1 through 36-11 for the DC-9-81, and through 36-12 for the -82, -83, -87 and MD-88, and through 36-20 for the MD-90-30. This includes retroactive noise requirements and requirements for an acoustical change in accordance with FAR 36-2 and 36-7 respectively.

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Applies to DC-9-81, -82, -83, -87, MD-88 and MD-90-30 (cont'd)

Air Pollution requirements of EPA regulations Part 87, as implemented by SFAR 27, at the amendment current on the date of certification.

Compliance with the following optional requirements has been established:

Ditching Provisions 25.801, including 25.807 (d) and excluding 25.1411 and 25.1415. When the operating rules require emergency ditching equipment, compliance with 25.1411 and 25.1415 must be demonstrated. In such cases when the manufacturer has complied with part or all of the provisions of 25.1411 and 25.1415, the items of equipment will be called out on the pertinent interior arrangement drawing, entitled "FAA Interior Schematic."

Ice Protection Provisions 25.1419

Part 25, as amended by Amendment 25-1 thru 25-59 (except Section 25.1333), is applicable for the new equipment identified for the Model MD-88.

Model MD-90-30

The type certification basis for the MD-90-30 Model airplane is Federal Aviation Regulations Part 25, effective February 1, 1965, as amended by Amendments 25-1 through 25-70 except as indicated below:

SECTION	THRU AMENDMENT 25-XX
25.109(a)	(*)
25.251(d)	22 (**)
25.561(b)(3)(iii)	63
25.562(a), (c)(1), (c)(3), (c)(5), & (c)(6)	63 (**)
25.571(e)(1)	44 (**)
25.607	22
25.631	22 (**)
25.699(a)	22
25.701	22
25.777(c)	45
25.783	53
25.807(c)	31
25.809(b) & (f)(1)(i)	31
25.809(f)(1)(v)	45 (**)
25.979	10
25.1309	22 (***)
25.1401(b) & (f)	26

(*) Compliance with Amendment 25-42 as modified by the proposed requirements developed from results of FAA/JAA harmonization.

(**) Requirements of this section have been added to FAR Part 25 by amendment since the original type certification basis and are not applicable to this type design.

See NOTE 8 for additional Seats and Stowable Berth information.

(***) Compliance as defined in McDonnell Douglas Report MDC-K4925 where some equipment installations and equipment comply with §25.1309 as amended by Amendment 25-22 and others comply with §25.1309 as amended through Amendment 25-41.

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Model MD-90-30 (cont'd)

Based on 14 CFR § 21.101(g) for changes to type certificates (TC), applicable provisions of 14 CFR part 26 are included in this certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations: 14 CFR § 26.11 (Amdt. No. 26-0), § 26.33 (Amdt. No 26-3), and § 26.43 and 26.45 (Amdt.No. 26-1).

The Special Conditions applying to the Model MD-90-30 are as follows:

(1) Special Conditions No. 25-95-WE-27

Airframe "Hydraulic System Failure" is applicable.

Powerplant "In-Flight Thrust Reversal" is applicable.

Flight Test "Environmental Flight Testing" is not required since FAR 25.253(a)(2)(iii) Amendment 54 incorporates its intent.

(2) Special Condition, No. 25-88-WE-25, "Automatic Takeoff Thrust Control System" is not required since "Automatic Reserve Thrust Control System" (ARTS) is deleted.

(3) Special Condition No. 25-ANM-26 "Windshear" is applicable.

(4) Special Condition No. 25-ANM-15 "Lightning Protection for New Electronic Systems" is applicable.

A Special Condition on High Intensity Radiated Fields (HIRF) (S.C. No. 25-ANM-60) is required as indicated in Issue Paper G-4, Stage 3, Closed May 6, 1992.

Note: For Model MD-90-30 equipped with Enhanced Flight Deck configuration, approved on March 3, 1998, refer to additional certification basis.

Additional Certification Basis for Model MD-90-30 Equipped with Enhanced Flight Deck Configuration: (Approved March 3, 1998)

The Saudi Arabian Airlines MD-90-30 configuration is equipped with six-across flight deck Liquid Crystal Displays. For this configuration, an additional certification basis was established.

Based on the date of notification of major changes, April 5, 1996, in conjunction with the MD-90-30 certification basis, the certification basis for the Saudi Arabian Airlines MD-90-30 configuration is Federal Aviation Regulations Part 25, effective February 1, 1965, as amended by Amendments 25-1 through 25-84. In addition, a new Special Condition concerning aircraft operations without normal electrical power has been applied to the MD-90-30 model equipped with Enhanced Flight Deck Configuration. For those areas and components for which, as part of the original MD-90-30 certification, exceptions were granted and are not impacted by the changes, no additional justification is required.

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Model MD-90-30 (cont'd)

There are four significant changes that constitute a substantial flight deck change and are required to be certified to Federal Aviation Regulations Part 25 as amended by Amendments 25-1 through 25-84. These changes relate to the incorporation of the new Electronic Display System which feature an integrated flight deck display system with six-across Liquid Crystal Displays. These changes are:

- Six Across Liquid Crystal Displays / Electronic Instrument System
- Dual Pegasus Flight Management Computers
- Improved Overhead Control Panel
- Integrated Standby Instrument System

(Note: Takeoff Operation System / Host Performance Computer portion was canceled and is not installed in the Saudi Arabian Airlines Enhanced Flight Deck Configuration.)

In addition, there are eight major changes that support the flight deck changes. These are for systems and components where a fundamental design change was not made to the system but certain changes were necessary for interfacing these systems and components to the new flight deck. These changes do not constitute a substantial change and therefore compliance was substantiated to the certification basis of the baseline MD-90-30.

- Brake Temperature Monitor System
- Pneumatic System Controller Part Number Change
- Fuel System Interface to Electronic Instrument System (EIS)
- Flight Deck Lighting
- Cabin Pressure Acquisition Module
- Landing Gear Control Handle
- Control Wheel Interface to EIS
- 115V 60HZ and 12V DC Medical Outlets

Serial Number Eligible for Model MD-90-30 Enhanced Flight Deck Configuration:
53491 through 53519

Model 717-200

The type certification basis for the 717-200 Model airplane is Federal Aviation Regulations Part 25, effective February 1, 1965, as amended by Amendments 25-1 through 25-82 except as indicated below:

SECTION	SUBJECT	THRU AMENDMENT 25-XX
25.519(b)(2)	Static Ground Load Conditions	81 (Note 1)
25.562	Emergency Landing Dynamic Conditions	64
(b)(2)	(Note 2)	
(c)(5)	(Note 3)	
(c)(6)	(Note 4)	
25.571(e)(1)	Bird Strike Speed	71
25.607	Fasteners	22 (Note 5)
25.631	Bird Strike Damage (8lb)	22
25.701(d)	Flap & Slat Interconnection	22 (Note 6)
25.783(f)	Doors	53
25.809(b)	Emergency Exit Arrangement (Not part of TC Basis)	31
25.810(a)(1)(i)	Emergency Egress Assist Means & Escape Routes	(Note 7)

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Model 717-200 (cont'd)

25.810(a)(1)(v)	Emergency Egress Assist Means & Escape Routes	(Note 8)
25.856(a)	Thermal/Acoustic Insulation Materials	(Note 29)
25.979(b)	Pressure Fueling System	10
25.1141(f)(2)	Powerplant Controls for APU	39
25.1309	Equipment, Systems & Installation Safety Analysis	22 (Note 9)

(Note 1) Except that §25.519(b)(2)(ii) is applicable only for a vertical limit load of 1.33 times the vertical static reaction at each jacking point acting singly and in combination with the horizontal load of 0.33 times the vertical static reaction applied in any direction.

(Note 2) Except for cockpit floor deformation only. Compliance required for the passenger cabin floor.

(Note 3) Exception for HIC for pilot/co-pilot seats, observer seat and front row passenger seats only. Compliance required with row to row HIC requirements for all seating in addition to cabin attendant seats.

(Note 4) Exception for leg injury criterion for pilot/co-pilot seats and observer seats.

(Note 5) This exception is for derivative structure only. The landing gear and all new 717-200 structure and design areas of the MD-90 which were incorporated in the 717-200 design will comply with amendment.

(Note 6) Exception for the flap system only.

(Note 7) Compliance to § 25.809(f)(1)(i), Amendment 25-15, in lieu of § 25.810(a)(1)(i), Amendment 25-72.

(Note 8) Compliance to § 25.809(f)(1)(v), Amendment 25-45, in lieu of § 25.810(a)(1)(v), Amendment 25-72.

(Note 9) Exception applies to DC-9 and MD-80 systems designed to the single failure concept that are unchanged or have minor alterations or improvements will comply through Amendment 25-22. New or significantly modified DC-9, MD-80, and MD-90 systems, or those 717-200 systems common to the MD-80 or MD-90 that have prior safety analysis performed, will comply with Amendments 25-82. DC-9, MD-80, and MD-90 systems modified to implement new functions or applications for the 717-200 design will comply with Amendment 82 for the modified areas. The detail information is provided in MDC report MDC 95K9080. All systems that the FAA considers new or significantly modified as well as for all existing systems affected by the changes will require compliance through 25-82.

Based on 14 CFR § 21.101(g) for changes to type certificates (TC), applicable provisions of 14 CFR part 26 are included in this certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations: 14 CFR § 26.11 (Amdt. No. 26-0), § 26.33 (Amdt. No 26-3), and § 26.43 and 26.45 (Amdt.No. 26-1).

The type certification basis for the 717-200 Model airplane includes the following Equivalent Safety as indicated below:

(1) FAR 25.103, "Stall Speed", CIP B-04

(2) FAR 25.109(a), "Accelerate-stop Distance", CIP B-01

(3) FAR 25.807(a)(3), "Emergency Exits", CIP D-06

(4) FAR 25.813(c)(1), "Emergency Exit Access", CIP D-14

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Model 717-200 (cont'd)

(5) FAR 25.1397(a), "Color Specifications", CIP F-18

The Special Conditions applying to the Model 717-200 are as follows:

(1) Special Conditions No. 25-ANM-26, "Windshear Triggered Autothrottle System" is applicable.

(2) Special Condition No. 25-ANM-60, "High Intensity Radiated Fields (HIRF) is applicable.

(3) Special Condition No. 25-95-WE-27, "Dual Hydraulic System Failure" is applicable.

(4) Special Condition No. 25-144-SC, "Operation Without Normal Electric Power" is applicable.

(5) Special Condition No. 25-489-SC, "Seats With Inflatable Lapbelts" is applicable.

The Environmental Standards applying to the Model 717-200 are as follows:

Applicable fuel venting and emission standards per US Environmental Protection Agency part 87, as implemented by FAR part 34.

Applicable noise standards per FAR part 36, effective on December 1, 1969, as amended by Amendment 36-1 through Amendment 36-21 for the 717-200 airplane.

McDonnell Douglas Corporation originally made application for Type Certification of the MD-95-30 on August 8, 1994. Subsequently, McDonnell Douglas Corporation merged with The Boeing Company, and updated its application for Type Certification on March 27, 1998 with the new model designation of 717-200. The FAA/JAA initially accepted the change in model designation on May 4, 1998. The FAA/JAA formally accepted the change in model designation on August 21, 1998. All compliance substantiation and related correspondence from the FAA/JAA using the MD-95 or MD-95-30 model designator is applicable to the 717 or 717-200, as applicable.

Type Certificate/Production Basis

Type Certificate No. A6WE approved:

November 23, 1965 for Models DC-9-11, -12, -13, and -14
January 21, 1966 for Model DC-9-15
December 19, 1966 for Model DC-9-31
March 1, 1967 for Models DC-9-15F and -32
October 4, 1967 for Model DC-9-32F
February 21, 1968 for Model DC-9-41
April 5, 1968 for Model DC-9-33F
November 25, 1968 for Model DC-9-21
August 11, 1975 for Model DC-9-51
April 20, 1976 for Model DC-9-34F
November 3, 1976 for Model DC-9-34
August 25, 1980 for Model DC-9-81
July 29, 1981 for Model DC-9-82
October 17, 1985 for Model DC-9-83
October 21, 1987 for Model DC-9-87
December 10, 1987 for Model MD-88
November 4, 1994 for Model MD-90-30
September 1, 1999 for Model 717-200

Data Pertinent to All Models (cont'd)

Certification Basis: (cont'd)

Production Basis: Production Certificate Number 700.

On January 30, 1998, The Boeing Company and the McDonnell Douglas Corporation (MDC) merged the two Production Certificates, PC-27 and PC-700 into one Production Certificate, PC-700.

The following aircraft factory serial numbers were produced under PC-27:
45695 (fus 001) thru 53581 (fus 2204)
53566 (fus 2206) thru 53591 (fus 2208)
53566 (fus 2210) thru 53558 (fus 2212)
53602 (fus 2214) thru 53572 (fus 2217)

The following aircraft factory serial numbers were produced under PC-700:
53492 (fus 2205), -53493 (fus 2209), 53494 (fus 2213)
53495 (fus 2215), 53496 (fus 2216), 53603 (fus 2218)
53497 (fus 2219), 53496 (fus 2220) and subsequent.

Required Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification. All of the required equipment that must be installed as well as optional equipment installations approved by the FAA are contained in Chapter 2 of Master Weight and Balance Manual listed in NOTE 1(a) below.

Service Information

The repairs called out in the Douglas Model DC-9 Structural Repair Manual are FAA approved. All Douglas Service Bulletins and other service information, when FAA approved, will carry a statement to that effect.

NOTES

NOTE 1. (a) A current weight and balance report, including a list of equipment included in certificated empty weight, and loading instructions must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system. The following McDonnell Douglas Reports contain loading information and interior arrangement configuration(s) for each airplane (listed by fuselage number and factory serial number) as delivered. These reports contain, or refer to, information relative to location of all passenger and crewmember seats, location and capacity of all cargo and baggage compartments, buffets, storage spaces and coatrooms, location and capacity of lounges and lavatories, and the required placards in the passenger compartment. Refer to appropriate Model DC-9 Report(s) for factor serial number affectivity.

Models DC-9-11, -12, -13, -14, and -15
Report No. LB-32360, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-15F
Report No. DAC-33247, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-21
Report No. DAC-66957, Chapter 1, "Master Weight and Balance Manual."

Models DC-9-31, -32
Report No. DAC-33098, Chapter 1, "Master Weight and Balance Manual."
Report No. MDC-07282, Chapter 1, "Master Weight and Balance Manual."

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 1. (cont'd)

Model DC-9-32F, Serial Nos. 47040, 47041, 47147 and 47148.
Report No. DAC-33098, Chapter 1 with Section 1-8 "Master Weight and Balance Manual."

Models DC-9-32F, (except as noted above) -33F and -34F
Report No. DAC-33870, Chapter 1, "Master Weight and Balance Manual."
Report No. MDC-J7283, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-32F (C-9A Aeromed), -32 (VC-9C)
Report No. DAC-33756, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-32F (C-9B)
Report AN 01-1B-40, "Weight and Balance Data Handbook."
Report No. MDC-J7283, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-34
Report No. MDC-J7282, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-41
Report No. DAC-33871, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-51
Report No. MDC-J6201, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-81, -82, -83, and MD-88
Report No. MDC-J8358, Chapter 1, "Master Weight and Balance Manual."

Model DC-9-87
Report No. MDC-J3855, Chapter 1, "Master Weight and Balance Manual."

Model DC-90-30
Report No. MDC-91K0981, Chapter 1, "Master Weight and Balance Manual."

Model 717-200
Report No. MDC-97K9261, Chapter 1, "Master Weight and Balance Manual."

(b) The airplane must be loaded so that the C.G. is within specified limits at all times, considering fuel loading and usage, gear retraction, and movement of crew and passengers from their assigned positions.

(c) The weight of system fuel and oil, as defined below, and hydraulic fluid, all of which must be included in the airplane empty weight, is listed in the Master Weight and Balance Manual specified in paragraph (a) above, for each airplane.

System Fuel: The weight of all fuel required to fill all lines and tanks up to the zero fuel point on the fuel gages in the most critical flight attitude. This includes the unusable tank fuel as defined by CAR 4b.416 (DC-9-11 thru -51) or FAR 25.959 (DC-9-81, -82, -83, -87, MD-88 , MD-90-30 and 717-200).

System Oil: The weight of oil remaining in the engine, constant speed drive and starter for the DC-9 airplane (VSCF generator for MD-90-30 or IDG for 717-200), lines and tanks after subtracting the oil in the tanks which is above the standpipe (zero gage) levels. The engine oil tank capacities shown elsewhere in this data sheet include only the usable oil for which the tanks must be placarded.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 1. (cont'd)

(d) The "unusable" fuel is that amount of fuel, including tank trapped fuel, in the tanks which is unavailable to the engines under critical flight conditions as defined in CAR 4b.416 (DC-9-11 thru -51) or FAR 25.959 (DC-9-81, -82, -83, -87, MD-88 , MD-90-30 and 717-200) and may be obtained by taking the differences between the "total" and "usable" tank capacities shown under "fuel capacity." This "unusable" fuel is included in system fuel as indicated in 1(c) above and need not be accounted for separately.

(e) All weight in excess of the maximum certificated zero fuel weight must be fuel in the main tanks, except for Models DC-9-31, -32, -32F, -33F, -34, -34F, -41, -51, -81, -82, -83, -87, MD-88, MD-90-30 and 717-200, (See Footnote (1) under Maximum Weights). Two fuel pumps must be operating in each main tank unless extra reserve fuel is loaded to compensate for an inoperative pump in accordance with the AFM. The center wing tank will supply fuel to both engines directly. Fuselage tank pumps must be off for all take-offs and landings for those airplanes which have fuselage tanks that supply the engines directly. The maximum unbalance in fuel between the main tanks should not exceed 1,500 lb in flight.

NOTE 2. Refer to Cabin Pressurization in the FAA Approved Airplane Flight Manual (AFM) Limitations Section 1 for Takeoff and Landing Unpressurized.

NOTE 3. Life Limited Parts and Airworthiness Limitations.

DC-9 and MD-80 structural components which are life limited are listed in Report MDC-J0005 and must be replaced as indicated therein. MD-90 structural components which are life limited are listed in Part 1, Safe Life Limits, of Section 1 to the Airworthiness Limitations Instructions (ALI) Document, Report MDC-94K9000, and must be replaced as indicated therein. 717 structural components which are life limited are listed in Report MDC-96K9063 (717 ALI), and must be replaced as indicated therein. The MD-90 damage tolerance inspections must be conducted in accordance with Report MDC-94K9000 and the 717 damage tolerance inspections must be performed in accordance with Report MDC-96K9063.

DC-9, MD-80, MD-90 and 717 non-structural components which are life limited, fuel system Critical Design Configuration Design Limitations (CDCCL), and fuel system ALIs are listed in report MDC-92K9145, "DC-9/ MD-80/ MD-90/ 717 Special Compliance Items Report."

Reports MDC-J0005, MDC-94K9000, MDC-96K9063 and MDC-92K9145, and revisions thereto, are hereby incorporated as part of Data Sheet No. A6WE. Copies of these reports may be obtained from the manufacturer at the address below:

The Boeing Company
Attn: Data & Services Management
2401 E Wardlow Rd
Long Beach, CA 90807-5309

OR

Please send a Service Request via the Boeing Communication System (BCS)

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 3. (cont'd)

The following applies to the Models DC-9-81, -82, -83, -87, MD-88, MD-90-30 and 717-200 as applicable:

Equipment Functional Check Intervals as defined in FAA Approved MDC Report MDC-J1271, "DC-9-80 Fixed Maintenance Intervals" for the MD-80, MDC-93K9014 "MD-90 Certification Maintenance Requirements" for the MD-90 and MDC 98K9284 "717-200 Certification Maintenance Requirements" for the 717-200, shall not be extended, and any later approved revisions thereto, are hereby incorporated as part of Data Sheet No. A6WE. Such later revisions may be used only if approved by the Manager, Los Angeles Aircraft Certification Office. Copies may be obtained from the manufacturer at the above address.

Brake Wear Limits: See Report No. MDC-92K9064, "Twinjet Brake Wear Limits."

NOTE 4. For specific dimensional and weight limits, static unbalance, rated pressure, load rating, speed rating, etc., see the following McDonnell Douglas Tire Specification Drawing: (See Note 14 for DC-9 Series explanation.)

Tire Spec. Dwg.	Tire	Max. Weight	Airplane Series
7924523	26x6.6 (Chine)	40 lb	Series 10, Models -31, -32, and -41
7929726	26x6.6 (Bias)	40 lb	Series 10, -20, -30, -40, -50, -80, MD-88, MD-90-30 and 717-200 (see Note 4a)
7929726	26x6.6R14 (Radial)	40 lb	717-200 [see Note 4.(a)]
7911309	40x14	150 lb	Series 10, -20, and Models -31, -32, and -32F
7926174	41x15-18	175 lb	Series 40, -50 and Models -33F, -34 and -34F
7935357	H44.5x16.5-20	240 lb	Series 80 and MD-88
PS5554	H44.5x16.5-21	220lb	MD-90-30
PS5621	H41x15.0-19	170 lb	717-200

NOTE 4. (a) For 717-200: Bias/Radial nose tire intermix not permitted.

NOTE 5. If engines are intermixed, the maximum thrust must be limited to that associated with the lowest powered engine. Combinations of engines which can be intermixed and their respective limitations are covered in the FAA Approved Airplane Flight Manual.

For DC-9-81, -82, -83, -87 and MD-88: Engine installation "Intermix" configurations may be utilized in accordance with MDC DC-9-80 Maintenance Manual, Chapter 71, Engine Intermix, and the applicable appendices of the FAA Approved Airplane Flight Manual.

For DC-9-83: Pratt and Whitney JT8D-219 engines may be intermixed in combination with JT8D-209, -217, -217A and -217C engines on the DC-9-83 airplanes, provided that the intermixed combinations and their respective limitations are covered in the FAA Approved Airplane Flight Manual.

For DC-9-87 and MD-88: Pratt and Whitney JT8D-219 engines may be intermixed in combination with JT8D-217A and JT8D-217C engines on the DC-9-87 and MD-88 airplanes provided that the intermixed combinations and their respective limitations are covered in the FAA Approved Airplane Flight Manual.

For MD-90-30: Intermix not permitted.

For 717-200: Intermix not permitted.

NOTES (cont'd)

NOTE 6. (a) To assure that required overwing emergency exits will meet the pertinent CAR, or FAR, refer to the passenger seat installation drawing prepared by the manufacturer for each operator and approved by the Aircraft Engineering Division. The Drawings define the dimensions for locating seats in relation to the center line of the Type III overwing emergency exits and other limitations relative to type of seats, location of armrest and seat back recline, etc., for each of the approved seat models called out on the drawings.

(b) Maximum Passenger Capacity:

DC-9-11, -12, -13, -14, -15, -15F and –21

	EXITS REQUIRED		
PASSENGER CAPACITY (1)	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT
79	1	1	1 (3)
94	1	1	1 (4)
109	1	2 (2)	1 (3)

DC-9-31, -32, -32F, -33F, -34, and -34F

	EXITS REQUIRED		
PASSENGER CAPACITY (1)	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT
109 (1)	1	2 (2)	1 (3)
127	1	2 (2)	1 (5)
127	1 (9)	2 (2)	1 (10)

DC-9-41

	EXITS REQUIRED		
PASSENGER CAPACITY (1)	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT
128 (6)	1	2 (2)	1 (5)

DC-9-51

	EXITS REQUIRED		
PASSENGER CAPACITY (1)	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT
139 (6)	1	2 (2)	1 (5)

DC-9-81, -82, -83, MD-88 and MD-90-30

PASSENGER CAPACITY (1)	EXITS REQUIRED			
	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT	TYPE I LH SIDE AFT
172 (6) (12)	1	2 (7)	1 (8)	1

DC-9-87

PASSENGER CAPACITY (1)	EXITS REQUIRED			
	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT	TYPE I LH SIDE AFT
139 (6)	1	2 (7)	1 (8)	1 (11)

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 6. (cont'd)

717-200

	EXITS REQUIRED		
PASSENGER CAPACITY (1)	TYPE I / SIDE	TYPE III / SIDE	TAIL EXIT
134 (6)	1	2 (7)	1

(1) Passenger capacity may be increased by 5 when inflatable slides are installed at Type I exits.

(2) Aft Type III exit per side may be limited to Type IV qualifications.

(3) Required exit consists of tail cone exit with assist rope.

(4) Required exit consists of tail cone exit, slide and assist space per Exemption No. 424.

(5) Tail cone exit must show compliance with§ 25.807(c)(6)(ii), effective October 24, 1967.

(6) Aircraft must show compliance with § 25.2.

(7) Aft overwing exit per side is considered Type III exit by equivalent safety finding per FAA letter to Douglas Aircraft Company, dated August 22, 1980.

(8) Tail cone exit must be in compliance with the FAA requirements contained in FAA letter dated November 16, 1977.

(9) Installation of approved inflatable slide required.

(10) Tail cone exit must show compliance with § 25.807(c)(6)(iii) and FAR 25.809(f)(1) effective October 24, 1967.

(11) Optional, not installed on all aircraft and not required for the maximum passenger capacity. If installed, must meet all Type I exit requirements of FAR 25.807 through 25.813 (see certification basis for applicable amendment).

(12) Issue Paper SE-1 allows a maximum of 103 seats to be installed forward of the forward overwing exit on the MD-90-30.

NOTE 7. (a) For Pratt and Whitney engines, the following fuels are eligible provided and to the extent they are allowed by P & W Service Bulletin No. 2016, and provided that for any wide cut fuels the JP-4/JET B procedures (restrictions and limitations) are followed:

MIL-J-5624E (Grades JP-4 & JP-5), ASTM D1655 (Type JET A, A-1, & JET B) Russian fuels conforming to specification GOST 10227 (RT and TS-1), Chinese fuel conforming to Specification SY 1008-80 (RP-3/Number 3 Jet Fuel), and any other fuels conforming to P & W Service Bulletin No. 2016 or P & W

Specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types.

(b) Shell anti-static fuel additive ASA-3 may be used if concentration delivered to the engine does not exceed 1 (one) p.p.m.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 7. (cont'd)

(c) MALCO 5403 corrosion inhibitor fuel additive may be used if concentration delivered to airplane does not exceed 8 lb/1000bbl (23mg/l) of turbine fuel.

(d) For IAE engines, the following fuels are eligible provided and to the extent they are allowed by the International Aero Engines V2500A5/-D5 Installation and Operating Manual (IAE-0043)/(IAE-0174), and provided that for any wide cut fuels, the JP-4/JET B procedures (restrictions and limitations) are followed:

Kerosene type fuels as defined in ASTM D-1655 (Type JET A, A-1, & JET B) , MIL-T-5624 (Grades JP-4 and JP-5), MIL-T-83133 (Grade JP-8), as specified in engine Type Certificate Data Sheet E40NE, may be used. Russian fuels conforming to Specification GOST 10227 (RT and TS-1), Chinese fuel conforming to Specification SY 1008-80 (RP-3/Number 3 Jet Fuel), and fuels conforming to the specifications listed in the latest applicable issue of the International Aero Engines V2500A5/-D5 Installation and Operating Manual (IAE-0043)/(IAE-0174) may be used. These fuels may be used separately or mixed in any proportions without adversely affecting the engine operation or power output.

(e) For BR700-715 Engines, fuel conforming to ASTM- D-1655, Jet A or A-1, MIL-T-5624 Grade JP5 and MIL-T-83133 Grade JP8, British: Def. Stan. 91-87, 91-91, 91-86, IATA Kerosene Type, Air 3404 and 3405 (French), CAN/CGSB-3.23 and 3-GP-24 (Canadian), and Russian fuels conforming to specifications GOST 10227-86 (RT and TS-1). Also wide cut fuel grades conforming to ASTM D1655-94 Jet B, MIL-T-5624 Grade JP4. British: Def. Stan. 91-88, Canadian: CAN/CGSB-3.22, French: AIR 3407, IATA: JP-4 type fuel (1994).

Fuels and fuel additives approved for use are listed in and will conform to specifications in accordance with BMW Rolls-Royce operating manual OI-715-3BR (see NOTE 15 of the FAA engine type certification data sheet E00061EN).

NOTE 8. All replacement seats (crew, passenger and lounge), although they may comply with TSO-C39 or TSO C-127, must also be demonstrated to comply with CAR 4b.358(c)(DC-9-11 thru -51), § 25.785(i) (DC-9-81,-82,-83,-87, MD-88 and MD-90-30) (Certification basis for applicable amendment) (DC-9-81, -82, -83, -87, MD-88 and MD-90-30). For the 717-200, all replacement seats (crew, passenger and lounge), although they may comply with TSO-C127, must also be demonstrated to comply with FAR 25.785(f). Other installations, such as berths, buffets, compartments, or items of mass which could create a hazard to the safety of passengers and crew must also be demonstrated to meet the same requirements. MD-90-30 passenger seats must also comply with FAR 25.562(b), (c)(2), (c)(4), (c)(7), (c)(8) and stowable berth is not required to comply with FAR 25.562 for transporting non-ambulatory occupant. All 717-200 seats must comply with § 25.562 as defined by the type certification basis.

NOTE 9. Any serial numbers eligible for Model DC-9-11, -12, -13, -14 may be converted to another model (DC-9-11, -12, -13, -14) by adding a new nameplate, obtained from the manufacturer, installed adjacent to the original nameplate. The new nameplate must include the date of conversion and the new model designation. The original nameplate must not be removed. Appropriate FAA Airplane Approved Flight Manual pages must be obtained from the manufacturer for the new model. The model designation for serial numbers noted is as delivered by the manufacturer.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 10. C-9A airplanes are the same as the basic Model DC-9-32F except for the interior and loading ramp. The limitations applicable to C-9A Aeromed airplanes are based on the fuselage loading distributions associated with this particular interior configuration and are not therefore applicable to other Model DC-9-32F airplanes.

C-9B airplanes are the same as the basic Model DC-9-32F.

VC-9C airplanes are the same as the basic Model DC-9-32 except for interior configuration and installation of 2250 gal. auxiliary fuselage belly tanks. The limitations applicable to the VC-9C airplanes are based on loading distribution associated with this particular configuration and are not therefore applicable to other Model DC-9-32 airplanes.

Prior to operation as a commercial aircraft, the following must be accomplished:

(a) The C-9A Aeromed military litters are not FAA approved and must be removed from the aircraft.

(b) The maintenance, overhaul and modifications records of each aircraft must be reviewed for changes made by the military services that may affect the airworthiness of the aircraft. Modifications, changes of equipment and repairs, which affect the safety or performance of the aircraft, must be approved by the FAA.

(c) All aircraft returned to civil operations must comply with all applicable Airworthiness Directives.

(d) Aircraft will be certificated as a Model DC-9-32 or DC-9-32F as applicable. A modification nameplate shall be installed adjacent to the original nameplate and shall contain the following information:

Modifier's Name _____

Civil Model _____

Date of Modification _____

(e) An FAA Approved Airplane Flight Manual applicable to the Model DC-9-32 or DC-9-32F as modified for the particular operation intended must be provided for each airplane.

NOTE 11. DC-9-11 aircraft, S/N 45728 was modified to a DC-9-14 per MDC Letter C1-25-6317, dated August 26, 1971; DC-9-11 aircraft, S/N's 45729 and 45730 were modified to DC-9-14, per MDC Letter C1-25-2156, dated March 9, 1970.

DC-9-12 aircraft, S/N 47056 was modified to a DC-9-14 per MDC Letter C1-25-3641, dated May 10, 1967.

DC-9-31 aircraft, S/N's 47442, 47450, 47566, 47572, 47573, 47638, 47647, 47649, 47664, 47720, 47721 and 47727, were modified to Model DC-9-32 in accordance with Report No. MDC-J0846, and a new nameplate was installed adjacent to the original to include this new model designation and date of conversion.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 11 (cont'd)

DC-9-32 aircraft, S/N's 45846, 47020, 47023, 47026, 47068, 47351, 47352, were modified to a DC-9-31. A new nameplate was installed adjacent to the original to include this new model designation and date of conversion. Subsequent changes of model designation to S/N's 47026, 47351, 47352, airplanes must be made in accordance with Douglas Report MDC-J0846.

DC-9-81 airplane S/N's 48095-48098 were reassigned to DC-9-82 airplanes prior to manufacture and delivery.

A DC-9-81 airplane, may be designated a DC-9-82, a DC-9-82 airplane may be designated a DC-9-83 and a DC-9-82 may be designated a DC-9-81 when modified in accordance with McDonnell Douglas Report MDC-J2725; and, by adding a new nameplate, obtained from the manufacturer, installed adjacent to the original nameplate. The new nameplate must include the date of conversion and the new model designation. The original nameplate must not be removed. Appropriate FAA Airplane Approved Flight Manual pages must be obtained from the manufacturer for the new model.

DC-9-82 airplanes, S/Ns 49532 through 49539, were converted to MD-88s in accordance with McDonnell Douglas Service Bulletins 22-89, 34-183, 34-188, and 53-199 and McDonnell Douglas letter 88FAA-C1-E65-3498, dated June 1, 1988. Appropriate FAA Approved Airplane Flight Manual pages must be obtained from the manufacturer for the new model.

NOTE 12. The use of the suffix - CF instead of -F when referring to the DC-9-15F, DC-9-32F, DC-9-33F or DC-9-34F Model designations does not alter the aircraft. For example, a DC-9-34F airplane and a DC-9-34CF airplane are the same and the Model designations may be referred to interchangeable.

NOTE 13. In the DC-9-81, -82, -83, -87, and MD-88, all interior materials must comply with the fire protection requirements of § 25.853, effective May 2, 1977. In the MD-90-30, all interior materials must comply with the fire protection requirements of § 25.853, effective September 26, 1988. In the 717-200, all interior materials must comply with the fire protection requirements of FAR 25.853, effective August 20, 1990.

NOTE 14. The official designator for the McDonnell Douglas Model DC-9-81, -82, -83, or -87 is the DC-9-81, -82, -83, or -87. The "MD" designator may be used in parentheses, but, must be accompanied by the official designator (i.e., DC-9-81 (MD-81)).

The DC-9 Series 10 (DC-9-10) includes DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F;

Series 20 (DC-9-20) include DC-9-21; Series 30 (DC-9-30) includes DC-9-31, DC-9-32, DC-9-32 (VC-9C),

DC-9-32F, DC-9-32F (C-9A, C-9B), DC-9-33F, DC-9-34, and DC-9-34F; Series 40 (DC-9-40) includes DC-9-41; Series 50 (DC-9-50) includes DC-9-51.

NOTE 15. The Model DC-9 Series airplanes have a mandated supplemental Structural Inspection Program (SIP). These programs were prepared in accordance with the provisions of AC 91-56. Evaluation of structural elements, type of damage considered (fatigue, corrosion, service, and production damage) and the inspection and/or modification criteria should, to the extent practicable, be in accordance with the damage tolerance principles (Amendment 25-45) of the current FAR 25.571 standards.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 16. The location of flight attendant seats demonstrated to comply with the direct view requirements of § 25.785(h)(1), for the MD-90-30, and 25.785(h)(2), for the 717-200, are shown on the manufacturers interior arrangement drawing, entitled, "FAA Interior Schematic."

NOTE 17. McDonnell Douglas MD-80, MD-90 and 717-200 FAA accepted Maintenance Review Board reports contain the initial minimum maintenance/inspection requirements to be used in the development of an approved continuous airworthiness maintenance program for the airframe, engines, systems and components. The tasks and their frequencies given in this report form a part of the instructions for continued airworthiness as required by FAR Part 25, Appendix H.

NOTE 18. For MD-90-30 Model, the APU life limited components are listed in the manufacturer's maintenance manual.

NOTE 19. For MD-90-30 Systems Anomalies, refer to McDonnell Douglas Report No. 94K9143 "Nuisance Discrepancies Report."

NOTE 20 The DC-9-81, -82, -83, -87 and MD-88 aircraft are qualified for operations within Reduced Vertical Separation (RVSM) airspace. See MDC Service Bulletin MD-80-34-289 for establishing the basis for operational approval.

NOTE 21 The MD-90-30 airplane is qualified for operations within Reduced Vertical Separation (RVSM) airspace. See MDC Service Bulletin MD-90-34-006 for establishing the basis for operational approval.

The 717-200 airplane is qualified for operations within Reduced Vertical Separation (RVSM) airspace. See

MDC Report 99K9203 (latest revision) for establishing the basis for operational approval.

NOTE 22 Deleted.

NOTE 23 For the 717-200 airplane, the lower cargo compartments are certified as "Class C" equipped with smoke detection system and fire suppression system.

NOTE 24 The 717-200 airplane time limited exemption has been removed since Boeing has shown compliance to § 25.571(b), Amendment 25-72 and § 25.671(c)(1), Amendment 25-23 for the 717-200 flap system (ref: CIP C-08)

NOTE 25 At the time of the original 717-200 airplane certification on September 1, 1999, the engine suppliers name was BMW Rolls-Royce Aero Engines. In January 2000, the engine supplier changed their name to Rolls-Royce Deutschland GmbH. In December 2000, the engine supplier has changed their name to Rolls-Royce Deutschland Ltd & Co KG. All compliance substantiation and related correspondence from the FAA/JAA using the BMW Rolls-Royce Aero Engines or Rolls-Royce Deutschland GmbH name remains applicable to the 717 airplane using engines with Rolls-Royce Deutschland Ltd & Co KG engine nameplates.

NOTE 26 For DC-9-32, FSN's 47431, 47474, 47477, and 47639; issuance of a Standard Airworthiness Certificate is prohibited unless modifications of STC's SA2541SO, SA2542SO, and SA2446SO are removed and the airplanes are returned to original type design.

Data Pertinent to All Models (cont'd)

NOTES (cont'd)

NOTE 27 The type design reliability and performance of the Model DC-9-81, -82, -83, -87, and MD-88 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for 120 minute Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Douglas Report MDC-K1629 entitled, "MD-80 Extended Range Operations Configuration, Maintenance, and Procedures". This finding does not constitute approval to conduct ETOPS operations.

NOTE 28 The type design reliability and performance of the Model 717-200 airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for 75 minute Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Report MDC-04K9007 entitled, "717 Extended Range Operations Configuration, Maintenance, and Procedures". This finding does not constitute approval to conduct ETOPS operations.

NOTE 29 14 CFR § 121.312(e), Amendment 121-289 requires thermal/acoustic insulation materials installed in the fuselage to meet the requirements of § 25.856, Amendment 25-111, effective September 2, 2003. Compliance to § 25.856(a), Amendment 25-111, for the 717-200 was met on airplane serial numbers 55051, 55052, 55098, 55099, 55187, and 55190-55194.

.....END.....