DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A5CE
Revision 10
LEARJET
23

July 15, 1990

TYPE CERTIFICATE DATA SHEET NO. A5CE

This data sheet which is a part of Type Certificate No. A5CE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Learjet Inc.
8220 West Harry Street
P. O. Box 7707
Wichita, Kansas 67277

I - MODEL 23, 8 PCLM (Normal Category), approved July 31, 1964

Engines

2 General Electric Turbojet CJ-610-1 or -4

Fuel

Commercial kerosene, JP-4 and JP-5 type fuel, conforming to GE jet fuel Spec. D50T1011. Phillips PFA55MB anti-icing additive must be blended into aircraft fuel in concentrations not less than 0.060 or more than 0.5 percent by volume. JP-4 fuel is supplied with necessary anti-icing additive. For emergency use of aviation gasoline and fueling procedures, see Airplane Flight Manual.

Engine limits

Static thrust standard day, sea level:

Takeoff (5 min.) 2850 lb.		16,700 r.p.m.
Max. continuous 2700		16,500 r.p.m.

Max. permissible engine rotor operating speed
17,820 r.p.m. allowable for transient conditions

Max. permissible temperatures:

Turbine outlet - gas

Takeoff (5 min.)	704°C	1300°F
Max. continuous	677°C	1250°F
Max. transient (10 sec.)	782°C	1440°F
Max. transient for starting (momentary)	950°C	1750°F

Airspeed Limits (CAS) (See NOTE 4)

V_{MO}	(Maximum operating)	350K to 23,900 ft.
M_{MO}	M = .81 above 23,900 ft.	
V_A	(Maneuvering)	267.5K
M_A	M = .81 above 36,300 ft.	
V_{FE}	(Flap extension speeds)	150K landing 165K takeoff
V_{MC}	(Air min. control speed)	85K
V_{LO}	(Landing gear operating)	200K
V_{LE}	(Landing gear extended)	260K
V_{S8}	(Speed brakes extended)	ny speed, except extension with flaps extended prohibited in flight

C.G. Range (Landing Gear Extended)
(+223.6) to (+236.7) at 6386 lb.
(+223.6) to (+236.7) at 9000 lb.
(+227.6) to (+236.7) at 12,500 lb.
Variation between points is linear
Landing gear retracting moment (-911.6 in.-lb.)

Datum
14 in. aft nose. Wing jack points are at sta. 264.9

MAC
84.486 in. (L.E. of MAC at sta 210.043)

Leveling Means
Seat rails

Maximum Weights

Takeoff	12,500 lb.
Landing	11,880 lb.
Zero fuel	9,000 lb.

See Gates Learjet ECR 1219 for approved configuration for zero fuel increase to 10,000 lbs.
Ramp 12,750 lb.

Minimum Crew
For all flights: 2 persons (pilot and co-pilot)

No. of Seats
8 (2 at 103, 1 at 132, 2 at 167, 3 at 210)
See Gates Learjet ECR 613A for optional approved 9 and 10 place configuration.

Maximum Baggage
500 lb. at sta. 252

Fuel Capacity (Gal.)

	S/N 003 - 14		S/N 015 - 051		S/N 052 - 099	
	Usable	Arm	Usable	Arm	Usable	Arm
2 Wing tanks	347	235.3	347	235.3	347	235.3
2 Tip tanks	356	239.2	356	239.2	368	239.2
Fuselage tank	112	282.5	125	282.5	125	282.5

See NOTE 1(a) for data on unusable fuel

Oil Capacity (lb.)

	Total	Usable	Arm
2 engine mounted tanks	8 ea.	5.6	308

Maximum Operating Altitude
41,000 ft.

Other Operating Limitations
See FAA Approved Airplane Flight Manual

Control Surface Movements

Horizontal stabilizer		Down 1/2° to 7°
Elevator	Up 15°	Down 15°
Aileron	Up 18°	Down 18°
Aileron trim tab	Up 20°	Down 20°
Aileron geared tabs at ± aileron deflection)	Up 15°	Down 15°
Rudder	Up 30°	Down 30°
Rudder trim tab	Up 11°	Down 11°
Wing flap		Down 0° to 40°
Speed brake	Up 0° to 40°	

See Airplane Service Manual or LES FT 1007 for rigging tolerances or instructions.

Serial Nos. Eligible
003 and up

Certification Basis
Part 3 of the Civil Air Regulations effective May 15, 1956, as amended by 3-1 through 3-8, plus Special Conditions dated November 12, 1963, and Amendment No. 1 dated July 31, 1964, and No. 2 dated March 14, 1966, and Exception No. 352 from compliance with CAR 3.74(a)(2) and (3) fir ground operation at a maximum weight of 12,750 lb.
Type Certificate No. A5CE issued July 31, 1964.
Application for type certificate dated March 7, 1963.

Production Basis	Production Certificate No. 317
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. Learjet Report 23-WB-10, "Master Equipment List," contains a listing of all required equipment as well as optional equipment installations approved by the FAA.
Service Information	Learjet Model 23 Service Manual includes structural component replacement lives from FAA approved Learjet Report 23-S47.

NOTE 1: (a) Current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The empty weight and corresponding center of gravity location must include:

Unusable fuel	27.0 gal. at 221.3
Unusable oil	4.8 lb. at 308.0
Hydraulic fluid	14.0 lb. at 284.0

(b) The airplane must be loaded so that the C.G. is within the specified limits at all times.

NOTE 2: The placards specified in the FAA Approved Airplane Flight Manual must be displayed.

NOTE 3: All replacement seats (crew and passenger), although they may comply with TSO C39 must also be demonstrated to comply with CAR 3.390.

NOTE 4: The Limitations Section of the Airplane Flight Manual contains indicted airspeed (IAS) operating limitations. Airspeed instruments will be marked with appropriate indicated airspeed.

NOTE 5: Model 23 airplanes that have been modified to Model 24 configuration per ECR's 223, 230, or 227 are to be considered transport category airplanes under Part 25 and Type Certificate A10CE. All FAA actions affecting Model 24 airplanes under Type Certificate A10CE are applicable to these modified aircraft.

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