# MINISTÉRIO DA AERONÁUTICA DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO CENTRO TÉCNICO AEROESPACIAL

# **TYPE CERTIFICATE DATA SHEET № EA-8211-01**

Type Certificate Holder:

EA-8211-01 Sheet 01

LEARJET INC.

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USA

**LEARJET** 

55, 55B,

55C, 60

February 2001

This data sheet, which is part of Type Certificate No. 8211, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

# I - Model 55 (Transport Category), approved 21 April 1982;

Model 55B (Transport Category), approved 19 February 1988; and

Model 55C (Transport Category), approved 22 March 1989.

**ENGINE** Model 55\*:

(Standard): Two Garrett TFE-731-3A-2B1

(Optional): Two Garrett TFE-731-3A-2B (with fuel heaters)

Two Garrett TFE-731-3AR-2B1

Two Garrett TFE-731-3AR-2B (with fuel heaters)

Model 55B/55C\*:

(Standard): Two Garrett TFE-731-3AR-2B1

(Optional): Two Garrett TFE-731-3AR-2B (with fuel heaters)

Model 55C\*: ECR 2686 (with thrust reversers)

ECR 2701(without thrust reversers)

(Standard): Two Garrett TFE-731-3AR-3B1

(Optional): Two Garrett TFE-731-3AR-3B (with fuel heaters)

\* See Note 15.

FUEL See Note 7(a).

**ENGINE LIMITS**TFE-731-3A-2B/-2B1

TFE-731-3AR-2B/

-2B1/-3B/-3B1

Static Thrust, Standard, Sea Level – lb (daN):

-Takeoff (5 min): 3 700 (1 645) 3 880 (1 725) - Maximum Continuous: 3 700 (1 645) 3 700 (1 645)

Max. Permissible Operating Rotor Speeds:

- Low pressure rotor (N1): 21 000 rpm (101.5%) 21 000 rpm (101.5%) - High pressure rotor (N2): 29 692 rpm (100%) 29 989 rpm (101%)

- Transient conditions, limited to 1 min

N1 101.5% to 103% 101.5% to 103% N2 100% to 103% 100% to 103%

#### TFE-731-3A Series TFE-731-3AR Series **ENGINE LIMITS (Cont.)** Max. Permissible Interstage Turbine Gas Temperatures (°C): - Takeoff (5 min): 929 907 - Maximum continuous: 885 885 - Maximum takeoff transient (10 sec): 917 939 - Maximum transient for starting: 907 907 **AIRSPEED LIMITS (IAS)** Models 55/55B Model 55C Maximum operating $(V_{MO}/M_{MO})$ : - 0 to 8 000 ft (2 438 m) 300 kt 300 kt - 8 000 to 24 000 ft (7 315 m) 350 kt 350 kt - 24 000 to 37 000 ft (11 278 m) 0.82 M 0.82 M- 37 000 to 45 000 ft (13 716 m) 0.82 to 0.78 M 0.82 to 0.78 M (straight line variation between points given) - 45 000 to 51 000 ft (15 545 m) 0.78 M0.78 M- 18 000 to 51 000 ft 0.74 M0.74 M(5 486 to 15 545 m) (autopilot & mach trim or stick-puller inoperative - 55 model) (AP & MT or SP or ADC 1[L] inoperative - 55B model) (AP & MT or ADC 1[L] inoperative - 55C model) Maneuvering $(V_A)$ : (see AFM for variations with weight & altitude) Flaps extended $(V_{EE})$ : - Flaps 8°: 200 kt 250 kt - Flaps20°: 200 kt 200 kt - Flaps 40°: 150 kt 150 kt APR OFF/APR ON\* APR OFF/APR ON\*\* Minimum control speed: 104/106 kt 111/113 kt - Air $(V_{MCA})$ - Flaps $8^{\circ}$ : 99/101 kt 105/107 kt Flaps20° 90/90 kt 94/105 kt - Ground ( $V_{MCG}$ ): \*Sea level, -40° C \*\*Sea level, -53.9° C L. G. operation – extend $(V_{LO})$ : 200 kt 200 kt L. G. extended $(V_{LE})$ : 260 kt 260 kt Spoilers extended $(V_{SB})$ : Any speed below V<sub>MO</sub> or M<sub>MO</sub> except extension is prohibited in flight with flaps extended

#### C. G. RANGE

(Landing Gear Extended)

## Model 55

- Forward Flight Limit F.S. 361.88 (-4.0% MAC) for all weights up to and including 6 804 kg (15 000 lb) and tapers through F.S. 376.30 (14.0% MAC) at 8 845 kg (19 500 lb).
- Aft Flight Limit F.S. 379.11 (17.5% MAC) for all weights up to and including 5 443 kg (12 000 lb) tapers to F.S. 388.31 (29.0% MAC) at 6 804 kg (15 000 lb) and remains at F.S. 388.31 (29.0% MAC) up to and including 8 845 kg (19 500 lb).
- Ground Handling Limit The forward limit is the same as the forward flight limit up to and including 8 845 kg (19 500 lb) and then tapers to F.S. 377.10 (15.0% MAC) at 8,958 kg (19 750 lb). The aft limit is F.S. 391.92 (33.5% MAC) at all weights.

# C. G. RANGE (Cont.) (Landing Gear Extended)

### Model 55B

- Forward Flight Limit F.S. 361.88 (-4.0% MAC) for all weights up to and including 6 804 kg (15 000 lb) and tapers to F.S. 378.36 (16.6% MAC) at 9 752 kg (21 500 lb).
- Aft Flight Limit F.S. 379.10 (17.5% MAC) for all weights up to and including 5 443 kg (12 000 lb), tapers to F.S. 388.31 (29.0% MAC) at 6 804 kg (15 000 lb), remains at F.S. 388.31 (29.0% MAC) up to and including 9 299 kg (20 500 lb), and tapers to F.S. 385.10 (25.0% MAC) at 9 752 kg (21 500 lb).
- Ground Handling Limit The forward limit is the same as the forward flight limit up to and including 9 752 kg (21 000 lb) and tapers to F.S. 379.00 (17.4% MAC) at 9 866 kg (21 750 lb). The aft limit is F.S. 391.92 (33.5% MAC) at all weights.

#### Model 55C

- Forward Flight Limit F.S. 361.88 (-4.0% MAC) for all weights up to and including 6 804 kg (15 000 lb) and tapers to F.S. 377.11 (15.02% MAC) at 9 525 kg (21 000 lb).
- Aft Flight Limit F.S. 379.10 (17.5% MAC) for all weights up to and including 6 804 kg (15 000 lb), tapers to F.S. 386.67 (26.0% MAC) at 8 165 kg (18 000 lb), remains at F.S. 386.67 (26.0% MAC) up to and including 9 525 kg (21 000 lb).
- Ground Handling Limit The forward limit is the same as the forward flight limit up to and including 9 525 kg (21 000 lb) and tapers to F.S. 377.75 (15.8% MAC) at 9 639 kg (21 250 lb). The aft limit is F.S. 391.92 (33.5% MAC) at all weights.

#### **MAXIMUM WEIGHTS**

	Model 55	Model 55B	Model 55C
Ramp:	8 959 kg	9 866 kg	9 639 kg
Kamp.	(19 750 lb)	(21 750 lb)	(21 250 lb)
Takeoff:	8 845 kg	9 752 kg	9 526 kg
	(19 500 lb)	(21 500 lb)	(21 000 lb)
Landing:	7 711 kg	8 165 kg	8 165 kg
	(17 000 lb)	(18 000 lb)	(18 000 lb)
Zero Fuel:	6 804 kg	6 804 kg	6 804 kg
	(15 000 lb)	(15 000 lb)	(15 000 lb)

See Note 10 for optional weights, Model 55 only. See Note 14 for optional weights, Model 55C only.

MINIMUM CREW

For all flights, 2 persons (pilot and copilot).

**MAXIMUM OCCUPANTS** 

10 (2 crew and 8 passengers)

See Note 8 for optional seating configurations.

**MAXIMUM BAGGAGE** 

227 kg (500 lb) at Sta. 380.1 (Cabin) 91 kg (200 lb) at Sta. 496.6 (Tail) 34 kg (75 lb) at Sta. 108.4 (Nose)

FUEL CAPACITY Usable – kg (lb) Arm – cm (in)

Two main tanks: 1 292 (2 848) 996.4 (392.3) Fuselage tank 1 750 (3 859) 1 088.4 (428.5)

See Note 1(a) for data on unusable fuel.

OIL CAPACITY Total Usable Arm

Two engine mounted 8.5 liters 1.9 liters 1 166 cm tanks (2.25 US gal) (0.5 US gal) (459 in)

See Note 1(a) for data on unusable oil.

**MAXIMUM OPERATING** 

**ALTITUDE** 

51 000 ft (15 545 m)

Aileron geared tabs:

OTHER OPERATING

**LIMITS** 

See appropriate FAA Approved Brazilian Airplane Flight Manual

CONTROL SURFACE Horizontal stabilizer - Models 55/55B: L.E. Down 0.75° to 11.25°

MOVEMENTS Horizontal stabilizer - Model 55C: L.E. Down 1.37° to 11.37°

Up 15° Down 15° Elevator- Models 55/55B: Up 15° Elevator - Model 55C: Down 16.5° Rudder: Right 30° Left 30° Rudder trim tab: Right 11° Left 11° Up 18° Aileron: Down 18° Up 8° Down 8° Aileron trim tab:

Wing flaps: Down  $0^{\circ}$  to  $40^{\circ}$ Spoilers: Up  $0^{\circ}$  to  $40^{\circ}$ 

See Airplane Maintenance Manual or LES FT-1206 and LES-FT-1207

 $\pm 15^{\circ}$  at  $\pm 18^{\circ}$  aileron defl.

for rigging tolerances or instructions.

# II - Model 60 (Transport Category), approved 15 August 1994.

ENGINE Two Pratt & Whitney Canada PW305A (P/N 3184067-01) equipped

with P/N 3184741-01 Electronic Engine Controls;

or,

Two P&W Canada PW305A (P/N 3164067-02) equipped with P/N

3184741-02 Electronic Engine Controls (See Note 17)

FUEL See Note 7(b).

**ENGINE LIMITS** Static Thrust, Standard, Sea Level - lb (daN):

-Takeoff (5 min): 4 600 (2 045) - Maximum Continuous: 4 600 (2 045)

# ENGINE LIMITS

(Cont.)

Maximum Permissible Operating Rotor Speeds:

- Low pressure rotor (N1): 10 820 rpm (102%) - High pressure rotor (N2): 27 469 rpm (102%)

- Transient conditions, limited to 20 sec

N1 102% to 102.5% N2 102% to 102.5%

Maximum Permissible Interstage Turbine Gas Temperatures (°C):

Takeoff: 785
Maximum continuous: 785
Maximum transient (20 sec): 825
Maximum transient for starting: 950

#### **AIRSPEED LIMITS (IAS)**

Maximum operating  $(V_{MO}/M_{MO})$ :

- 0 to 8 000 ft (2 438 m) 300 kt - 8 000 to 20 000 ft (6 096 m) 340 kt - 20 000 to 23 000 ft (7 010 m) 340 to 330 kt

(straight line variation between points given)

- 23 000 to 27 000 ft (8 230 m) 330 kt - 27 000 to 37 000 ft (11 278 m) 0.82 M - 37 000 to 43 000 ft (13 106 m) 0.82 to 0.78M

(straight line variation between points given)

- 43 000 to 51 000 ft (15 545 m) 0.78 M - 24 000 to 51 000 ft (7 315 to 15 545 m) 0.74 M

(w/ autopilot & mach trim inoperative)

Maneuvering  $(V_A)$ : (see AFM for variations

with weight & altitude)

Flaps extended  $(V_{FE})$ :

- Flaps 8°: 250 kt - Flaps20°: 200 kt - Flaps 40°: 165 kt

Minimum control speed:

- Air  $(V_{MCA})$  - Flaps 8°: 120 kt Flaps 26°: 110 kt

- Ground ( $V_{MCG}$ ): 116/95 kt \*

\*Rudder Boost Off/Rudder Boost On

L. G. operation - extend  $(V_{LO})$ : 200 kt L. G. extended  $(V_{LE})$ : 260 kt

Spoilers extended ( $V_{SB}$ ): Any speed below  $V_{MO}$  or  $M_{MO}$  except

extension is prohibited in flight with flaps

extended or with autopilot engaged

## C. G. RANGE

(Landing Gear Extended)

- Forward Flight Limit F.S. 363.08 (-2.5% MAC) for all weights up to and including 7 484 kg (16 500 lb) and tapers to F.S 378.10 (16.25% MAC) at 10 319 kg (22 750 lb).
- Aft Flight Limit F.S. 379.10 (17.5% MAC) for all weights up to and including 7 258 kg (16 000 lb), tapers to F.S. 385.11 (25.0% MAC) at 8 392 kg (18 500 lb), remains at F.S. 385.11 (25.0% MAC) up to and including 10 319 kg (22 750 lb).
- Ground Handling Limit The forward limit is the same as the forward flight limit up to and including 10 319 kg (22 750 lb) and tapers to F.S. 378.70 (17.0% MAC) at 10 433 kg (23 000 lb). The aft limit is F.S. 391.92 (33.5% MAC) for all weights up to and including 10 427 kg (22 987 lb) and tapers to F.S.391.75 (33.3% MAC) at 10 433 kg (23 000 lb).

See Note 18 for optional C.G. range

**MAXIMUM WEIGHT** 

Ramp: 8 959 kg (23 000 lb)
Takeoff: 8 845 kg (22 750 lb)
Landing: 7 711 kg (19 500 lb)
Zero Fuel: 6 804 kg (16 500 lb)
See Note 16 for optional weights.

**MINIMUM CREW** 

For all flights, 2 persons (pilot and copilot).

**MAXIMUM OCCUPANTS** 

10 (2 crew and 8 passengers)

See Note 8 for optional seating configurations.

MAXIMUM BAGGAGE

Max. load Arm
Cabin 118 kg (260 lb) 932 cm (367 in)
Tail 136 kg (300 lb) 1 308 cm (515 in)

**FUEL CAPACITY** 

Usable – kg (lb) Arm – cm (in)
Two wing tanks: 1 314 (2 898) 994.9 (391.7)
Fuselage tank 2 273 (5 012) 1 084.8 (427.1)

See Note 1(a) for data on unusable fuel.

**OIL CAPACITY** 

One integral tank per engine

 Total (ea)
 Usable
 Arm

 8.0 liters ea.
 3.8 liters ea.
 1 186 cm

 (2.11 US gal)
 (1.0 US gal)
 (467.1 in)

See Note 1(a) for data on unusable oil.

MAXIMUM OPERATING

**ALTITUDE** 

15 545 m (51 000 ft)

OTHER OPERATING

See appropriate FAA Approved Brazilian Airplane Flight Manual

**LIMITS** 

# CONTROL SURFACE MOVEMENTS

Horizontal stabilizer:

upper limit: L.E Down 1° 6' to 1° 21'
lower limit: L.E Down 11° 9' to 11° 25'

Elevator: Up 15°±30′ Down 16.5°±30' Rudder: Right  $30^{\circ} + 2^{\circ} - 1^{\circ}$ Left  $30^{\circ} + 2^{\circ} - 1^{\circ}$ Rudder trim tab: Right  $20^{\circ} \pm 1^{\circ}$ Left 20° ±1° Aileron: Up 18° ±1° Down  $18^{\circ} + 1^{\circ}$ ,  $-2^{\circ}$ Aileron trim tab: Up 8° ±1° Down  $8^{\circ} \pm 1^{\circ}$ Aileron balance tabs: Up 15° ±2° Down  $15^{\circ} \pm 2^{\circ}$ 

Wing flaps: Down 0 to  $40^{\circ} + 5^{\circ} - 0^{\circ}$ 

Spoilers:

- 1st Partial Detent: Up  $10^{\circ} \pm 3^{\circ}$ - 2nd Partial Detent: Up  $20^{\circ} \pm 3^{\circ}$ - Full Deploy: Up  $47^{\circ} + 0^{\circ} -7^{\circ}$ 

For rigging tolerances and instructions, see Maintenance Manual or LES-FT-1588 for primary controls, and LES-FT-1589 for secondary controls.

#### DATA PERTINENT TO ALL MODELS

Models 55, 55B, and 55C: 103.6 cm (40.77 in) forward of nose. Wing jack points are at sta. 414.85. Fuselage jack points are at sta.

129.53.

Model 60: 32.4 cm (12.77 in) forward of nose. Wing jack points are at

sta. 414.832. Fuselage jack point is at Sta. 100.703.

LEVELING MEANS See Airplane Maintenance Manual or LES 1061 for leveling

instructions.

MEAN AERODYNAMIC

**CHORD** 

**DATUM** 

203.4 cm (80.09 in). L.E. of MAC at sta. 365.085.

IMPORT ELIGIBILITY

A Brazilian Certificate of Airworthiness may be issued on the basis of on an FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 8211 and in condition of safe operation".

The latest version of the CTA Report H.10-043 contains the Brazilian requirements for the acceptance of these airplanes. (See Note 4).

# **CERTIFICATION BASIS**

RBHA 25 corresponding to the FAR 25 effective 01 Feb. 65, as amended by 25-2 and 25-4. In addition:

- Models 55 and 55B: comply with: Amendments 25-3, 25-7, 25-10, 25-12, 25-18, 25-21, and 25-30, plus Section 25.955(b)(2) of Amendment 25-11, Section 25.954 of Amendment 25-14, Sections 25.803(e), 25.811(f), 25.853(a), 25.853(b), and 25.855(a) of Amendment 25-15, Section 25.1359 of Amendment 25-17, Section 25.785(c) of Amendment 25-20, Sections 25.251(c), 25.251(d), 25.251(e), 25.303, 25.305(b), 25.331(a)(3), 25.335(b), 25.335(f), 25.307(d), 25.349(b), 25.351(a), 25.363, 25.395(a), 25.395(b), 25.471(a)(1), 25.471(a)(2), 25.473, 25.493(b), 25.499(b), 25.499(c), 25.499(d), 25.509(a)(3), 25.561(b)(3), 25.581, 25.607, 25.615, 25.619, 25.625, 25.629, 25.677, 25.697, 25.699, 25.701, 25.721, 25.723, 25.725, 25.727, 25.729, 25.733, 25.735, 25.865, 25.867, 25.871, 25.903(d), 25.934, 25.994, 25.1103(d), 25.1143(e), 25.1303, 25.1307, 25.1331, and 25.1585(c) of Amendment 25-23, Sections 25.1013(e), 25.1305(c)(4), and 25.1305(c)(6) of Amendment 25-36, Sections 25.815, 25.1322, and 25.1403 of Amendment 25-38, and Sections 25.903(e), 25.939, and 25.943 of Amendment 25-40, Section 25.255 of Amendment 25-42, Section 25.1326 of

RBHA 36 corresponding to the FAR Part 36 effective 01 Dec. 1969, as amended through Amendment 36-10;

Special Federal Aviation Regulation (SFAR) 27 effective 01 Feb. 1974, as amended through Amendment SFAR 27-2; and Special Conditions 25-99-CE-14.

- <u>Model 55 configured per ECR 2377A or modified per AAK 55-83-4</u>: In addition to the basis listed above, Special Conditions 25-ANM-2 dated 24 June 1983.
- Model 55C: Comply with:

Amendment 25-43:

Amendments 25-3, 25-7, 25-10, 25-12, 25-18, 25-21, and 25-30, plus Section 25.955(b)(2) of Amendment 25-11, Section 25.954 of Amendment 25-14, Sections 25.803(e), 25.811(f), and 25.855(a) of Amendment 25-15, Section 25.1359 of Amendment 25-17, Section 25.785(c) of Amendment 25-20, Sections 25.251(c), 25.251(d), 25.251(e), 25.303, 25.305(b), 25.307(d), 25.331(a)(3), 25.335(b), 25.335(f), 25.337(b), 25.349(b), 25.351(a), 25.363, 25.395(a), 25.395(b), 25.471(a)(1), 25.471(a)(2), 25.473, 25.493(b), 25.499(b), 25.499(c), 25.499(d), 25.509(a)(3), 25.561(b)(3), 25.581, 25.607, 25.615, 25.619, 25.625, 25.629, 25.677, 25.697, 25.699, 25.701, 25.721, 25.723, 25.725, 25.727, 25.729, 25.733, 25.735, 25.865, 25.867, 25.871, 25.903(d), 25.934, 25.994, 25.1103(d), 25.1143(e), 25.1303(a)(1), 25.1303(a)(3), 25.1303(b), 25.1303(c), 25.1307, 25.1331, and 25.1585(c) of Amendment 25-23 Sections 25 1013(e) 25 1305(c)(4) and 25 1305(c)(6) of

# **CERTIFICATION BASIS** (Cont.)

of Amendment 25-43, Section 25.853 of Amendment 25-51, Section 25.851 of Amendment 25-54;

RBHA 36 corresponding to the FAR Part 36 effective 01 Dec. 1969, as amended through Amendment 36-15;

SFAR 27 effective 01 Feb 1974, as amended through Amendment SFAR 27-6; and

Special Conditions 25-ANM-2 dated 24 Jun. 1983; and Special Condition 25-99-CE-14 dated 10 March 1981.

# - Model 60: Comply with:

Amendments 25-1, 25-3, 25-5 through 25-73, except as stated: Sections 25.305(d), 25.562, 25.631, 25.672, 25.773(d), 25.812 and 25.832 are not applicable. The following sections are effective at the amendment level noted: Sections 25.109, 25.365, 25.671, 25.695, 25.775, 25.783, 25.801, 25.805, 25.979, 25.1309, 25.1401 and 25.1435 effective February 1, 1965; Sections 25.807 and 25.855 of Amendment 25-15; Section 25.1529 of Amendment 25-21; Sections 25.561, 25.571, 25.625, and 25.721 of Amendment 25-23; Sections 25.785, 25.853 and 25.1413 of Amendment 25-51; Section 25.1307 of Amendment 25-54; RBHA 34 corresponding to the FAR Part 34 effective 10 Sep. 1990;

RBHA 36 corresponding to the FAR Part 36 effective 01 Dec. 1969, as amended by Amendments 36-1 through 36-18; Special Conditions 25-99-CE-14 dated 10 Mar. 1981 and Special Conditions 25-ANM-46 dated 17 Jul. 1991 (Lightning Protection and High Intensity Radiated Fields).

For the Electronic Flight Instrument System (EFIS) with associated components, and the fully modulated spoiler system, RBHA/FAR 25.1309 as amended through Amendment 25-41 is applicable in addition to the above certification basis.

For the landing gear position indication system, RBHA 25.729(e)(5) issued in 04 Sep. 1990 is also applicable.

Compliance with the following optional requirements has been established:

 Ice Protection: RBHA/FAR 25.1419 when ice protection system is installed per: ECR 1906 -(Models 55, 55B, and 55C) or ECR 2952
 - (Model 60).

Equivalent Levels of Safety exist in respect to following RBHA/FAR 25 requirements:

- 25.201(c)(2) (except models 55C and 60);
- 25.773(b)(2) (except model 60);
- 25.813(e) (model 60 only);
- 25.841(b)(6) (model 60 only);
- 25.1305(r) (except model 60); and
- 25.1505(b)(1) (except models 55C and 60).

Application for Type Certificate: 17 December 1981 - model 55; 6 November 1987 - model 55B; - 7 September 1988 - model 55C; and 12 October 1992 - model 60.

**PRODUCTION BASIS** FAA Production Certificate No. 317 for Models 55, 55B and 55C,

S/N 135 through 143.

FAA Production Certificate No. 329CE for Models 55C, S/N 144 and

on; and 60, S/N 001 and on.

**REQUIRED EQUIPMENT** The basic required equipment, as prescribed in the applicable

airworthiness regulations (see Certification Basis) must be installed in the

airplane for certification.

SERIAL NUMBERS 001 through 126 (Model 55)

ELIGIBLE 127 through 134 (Model 55B)

135 and on (Model 55C) 001 and on (Model 60).

### **NOTES:**

# **NOTE 1:** Weight and Balance.

(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 locations must include:

	Models 55/55B/55C	Model 60		
Unusable fuel	54.9 kg (121.0 lb) at	14.5 kg (32 lb) at		
(6.7 lb/US gal)	976.4 cm (384.4 in)	971.8 cm (382.6 in)		
Unusable oil	7.5 kg (16.6 lb)	8.1 kg (17.8 lb) at		
Offusable off	at 1 166 cm (459.0 in)	1 186 cm (467.1 in)		
Hydraulic fluid	6.4 kg (14.0 lb)	6.9 kg (15.2 lb) at		
	at 1 289 cm (507.6 in)	1 315 cm (517.8 in)		

- (b) The airplane must be so loaded that the C.G. is within the specified limits at all times.
- NOTE 2: Markings and placards. The placards specified in the CTA Report H-10-043-XX, or in the Brazilian Airplane Flight Manual (see paragraph "Importation Requirements"), and in the Maintenance Manual, must be displayed.
- NOTE 3: Continued Airworthiness. Learjet Service Manuals or Maintenance Manuals for the Models 55, 55B, 55C, and 60 include structural component replacement lives from FAA Approved Learjet Reports 54/55-S47, and 60-S47 respectively.
- **NOTE 4:** The differences of the Brazilian airplanes in relation to the basic FAA type design are summarized below:
  - 1. Brazilian Airplane Flight Manual Supplement W1015 to FAA FM 103 (model 55); Brazilian Airplane Flight Manual Supplement W1074 to FAA FM 110 (model 55B); Brazilian Airplane Flight Manual FM 116 (model 55C) or Brazilian Airplane Flight Manual FM 127 (model 60), all FAA approved on behalf of CTA;
  - 2. All required markings, placards and luminous placarded signs located in the passenger cabin or in the aircraft exterior, presented in Portuguese language or bilingual (Portuguese-English);

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- NOTE 4: 3. Identification of pitch trim and rudder trim control switches in the pedestal (model 55 only); (Cont.)
  - 4. Deletion of the 30° marking on the flap position indicator (model 55 & 55B);
  - 5. TSO approved, automatic type, ELT installation for compliance with the RBHA 91.207;
  - 6. Minimum altitude autopilot operational limitation placard (models 55 & 55B);
  - 7. Clear open/closed position indication for precheck valves knob in the pressure refueling panel (model 55 only);
  - 8. Flow direction indicators in hydraulic tubing on proximity of check valves;
  - 9. Adjustment of rear passenger seat installation to permit an easy and correct operation of right emergency exit;
  - 10. Installation of restricting orifices on powerplant instrument lines carrying flammable fluids under pressure;
  - 11. Barometric setting units of the altitude indication instruments including standby altimeters and cabin altitude indicators presented in "mbar" or "hPa";
  - 12. Additional equipment on emergency electrical bus as follows: one ADF, one RMI, pitot heating and indication(one side), engine ignition(both sides); fuel shutoff valve, hydraulic shutoff valve, bleed air shutoff valve, fire detection system and fire extinguishing system (models 55B & 55C);
  - 13. Secondary latch mechanism of lower entrance door deleted or modified per ECR 3742 or related SB (models 55B & C);
  - 14. Change DC ammeter and voltmeter to avoid use of red ranges (should be changed by yellow range and red radial at end of scale) (models 55B & 55C);
  - 15. Low brightness landing gear mute light installation in the LG control panel (model 60 only);
  - 16. Fire-blocking passenger seats cushions for compliance with the FAR 135.170 (LJ-60 model for air taxi operators only);
  - 17. Entry door secondary latch mechanism installation per ECR 3742 or related SB (model 60 only):
  - 18. Additional warning on alarm panel for LG lever and LG position disagreement per ECR 3783 (model 60 only).

See also Notes 9 and 19.

- NOTE 5: All replacement seats (crew and passenger), although they may comply with TSO C39 must also be demonstrated to comply with FAR 25.785.
- NOTE 6: The limitations section of the Airplane Flight Manual contains indicated airspeed (IAS) operating limitations. Airspeed instrument will be marked with appropriate indicated airspeed.
- **NOTE 7:** (a) Commercial kerosene, JP-4 and JP-5 fuel, conforming to AiResearch Manufacturing Co. Fuel Specification EMS 53111, EMS 53112, EMS 53113, or EMS 53116. MIL-I-27686 anti-icing additive must be blended into aircraft fuel in concentrations of not less than 0.060 or more than 0.15 percent by volume except on those Model 55, 55B, and 55C aircraft equipped with fuel heaters per ECR 2051 or AAK 55-81-1. JP-4 fuel supplied in other countries may not contain the anti-icing additive. See Airplane Flight Manual for fuel procedures.

NOTE 7: (b) Commercial JP-5, JP-8, Jet A, Jet A-1 type fuels, conforming to Pratt & Whitney Canada (Cont.) Specification CPW204 and Service Bulletin No. 24004 and later revisions. See Airplane Flight Manual for fuel procedures.

**NOTE 8:** The following optional seating configurations are eligible for approval:

- Models 55, 55B, 55C: Maximum number of occupants: 13 (Two pilots, 10 passengers, 1 attendant) Ref. Learjet Report No. ER-084-TUC for approved seating configurations.
- Model 60: Maximum number of occupants: 13 (two pilots, 10 passengers, 1 attendant) Ref. Learjet Report No. ER-211 for approved seating configurations.
- **NOTE 9:** Special Conditions for export.
  - Model 55 and 55B eligible for export to Brazil when modified according to Learjet Corporation ECR 2576.
  - Model 55C eligible for export to Brazil when modified according to Learjet Corporation ECR 2683.
  - Model 60 eligible for export to Brazil when modified according to Learjet Inc. ECR 3705.
- NOTE 10: Model 55 configured per ECR 2173 is eligible for a takeoff gross weight of 9 299 kg (20 500 lb). Model 55 configured per ECR 2554 or modified per AAK 55-82-3 is eligible for a takeoff gross weight of 9 526 kg (21 000 lb). Model 55 configured per ECR 2431 or modified per AAK 55-84-6 is eligible for takeoff gross weight of 9 752 kg (21 500 lb). Model 55 configured per ECR 2432 or modified per AAK 55-84-3 is eligible for landing weight of 8 165 kg (18 000 lb). Refer to Airplane Flight Manual for operating limitations with this modification.
- **NOTE 11:** Models 55, 55B, 55C, and 60 equipment installations or other modifications to the tailcone area must be approved by the CTA.
- NOTE 12: The Model 55 is defined by ECR 2515.

  The Model 55B is defined by ECR 2604.

  The Model 55C is defined by ECR 2629.

  The Model 60 is defined by ECR 2940.
- **NOTE 13:** Models 55, 55B, 55C, and 60 instrument panel and center console modifications must be approved by the CTA.
- **NOTE 14:** Model 55C is eligible for optional takeoff gross weight of 9 752 kg (21 500 lb) as defined by Learjet drawing N° 5500004.
- **NOTE 15:** Engines are eligible for installation only in pairs of identical model number.
- **NOTE 16:** The Model 60 is eligible for optional takeoff gross weight of 10 478 kg (23 100 lb) as defined by Learjet Drawing No. 6088001. The expanded C.G. (ECR 3845), see Note 18, also includes an increased ramp and takeoff gross weight.

- NOTE 17: These engines are eligible at Serial Number –026 and on and Serial Number -002 through 025 incorporating Learjet SB 60-78-1.
- **NOTE 18:** Model 60 is eligible for Expanded C.G. Envelope as defined by Learjet Inc. ECR 3845.
- NOTE 19: The following FAA STCs owned by Learjet Inc. applicable to the 60 models were validated by CTA (no Brazilian validation STC was required) and may be incorporated on Brazilian registered aircraft, provided the modification does not affect compliance with the Brazilian acceptance requirements (see § Importation Requirements) and the corresponding Brazilian Airplane Flight Manual Supplement, if applicable, approved by the FAA on behalf of the CTA, is included in the Brazilian Flight Manual:
  - SA.8105NM-D Dual FMS Universal UNS-1C Installation;
  - SA 8131NM-D Collins VHF 422C/D Installation;
  - SA 8098NM-D R134a Air Conditioning System;
  - ST 00498WI Dual FMS Universal UNS-1C Installation;
  - ST 00646WI Allied Signal EGPWS Installation;
  - ST 00311WI Collins VHF 422B Installation;
  - ST 00238WI 77 cu ft Oxygen Bottle Installation;
  - ST 00314WI Emergency Battery Rebus;
  - ST 00141WI Allied Signal Airborne Flight Information System (AFIS) Installation;
  - ST 00181WI Magnastar C200 Flightphone System Installation;
  - ST 00359WI 1200 VA Inverter Installation;
  - ST 00547WI Airshow Network Briefing & Entertainment System Installation; and
  - ST 00606WI Audio/Video Entertainment Cabin Management System.

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