

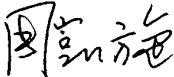
型号认可数据单

TYPE VALIDATION DATA SHEET

No: VTC-155A

改版 (Revision): 0

型号 (Type): Learjet 45

批准 (Approved by): 

日期 (Date): 2004-12-27

本型号认可数据单, 作为型号认可证 No. VTC-155A 的一部分, 规定一些条件和限制, 在此条件和限制下, 获得本型号认可证的产品满足中国民用航空规章的适航要求。

This Type Validation Data Sheet, which is part of Validation of Type Certificate No. VTC-155A, prescribes the conditions and limitations under which the product(s) for which the Validation of Type Certificate was granted meet(s) the airworthiness requirements of Chinese Civil Aviation Regulation.

型号合格证持有人:

Type Certificate Holder:

Learjet Inc.

One Learjet Way

Wichita, Kansas 67209-2942

型号

Models

Learjet 45

美国联邦航空局型号合格证 No. T00008WI 颁发日期: 1997 年 9 月 22 日; CAAC 型号认可证 No. VTC-155A 颁发日期: 2004 年 12 月 27 日。

型号合格证数据单 No. T00008WI, 改版 8, 颁发日期: 2004 年 5 月 19 日; 型号认可证数据单 No. VTC-155A 颁发日期: 2004 年 12 月 27 日。

FAA Type Certificate No. T00008WI, Date of Issue: September 22, 1997; CAAC Validated Type Certification No. VTC-155A, Date of Issue: December 27, 2004.

Type Certificate Data Sheet No. T00008WI, Revision 8, Issue Date: May 19, 2004; CAAC Validated Type Certificate Data Sheet No. VTC-155A, Revision 0, Issue Date: December 27, 2004.

型号数据

Type Data:

I - 45 型 (Learjet 45), 序号 45-002 至 45-2000, (运输类), FAA 于 1997 年 9 月 22 日批准, CAAC 于 2004 年 12 月 27 日认可。

I - Model 45 (Learjet 45), S/N 45-002 through 45-2000, Learjet (Transport Category), Approved September 22, 1997 by FAA, Validated December 27, 2004 by CAAC.

发动机

两台 Honeywell (联信发动机公司) TFE731-20R 或 TFE731-20AR 或 TFE731-20BR-1B 涡扇发动机, FAA 型号合格证 E1NM。适用的件号列于下面。每台发动机由单个动力杆和电子发动机控制 (DEEC) 软件操纵。左右发动机必须利用共同的 DEEC 件号。发动机安装构型由 Learjet 工程更改记录 (ECR) 或 Modsum 定义如下。

Engine

Two Honeywell (AlliedSignal Engines) TFE731-20R or TFE731-20AR or TFE731-20BR-1B turbofan engines, FAA TC E1NM. Eligible part numbers are listed below. Each engine is controlled by a single power lever and by Digital Electronic Engine Control (DEEC) software. Left and right engines must utilize common DEEC part numbers. Engine installation configuration is defined by the Learjet Engineering Change Record (ECR) or Modsum and as noted below.

发动机构型					发动机构型*
标号	TFE731-()-1B	发动机件号	DEEC 件号	ECR/ Modsum	可与互换
A	20R	3060020-8	2118882-1004	4601	A
B	20R	3060020-9	2118882-1004	8711	B
C	20R	3060020-10	2118882-1005	7266	C, J
D	20R	3060020-10	**2118882-1006	7821	D, K
E	20R	3060020-11	#2118882-1007	8778	E, F, G, H, L, M, N, P
F	20R	3060020-12	2118882-1007	***	E, F, G, H, L, M, N, P
G	20R	3060020-13	2118882-1008	****	E, F, G, H, L, M, N, P
H	20R	3060020-14	2118882-1008	****	E, F, G, H, L, M, N, P
J	20AR	3060082-2	2118882-1005	7323	C, J
K	20AR	3060082-2	**2118882-1006	7821	D, K
L	20AR	3060082-3	2118882-1007	8756	E, F, G, H, L, M, N, P
M	20AR	3060082-4	2118882-1007	7944	E, F, G, H, L, M, N, P
N	20AR	3060082-6	2118882-1008	045T020412	E, F, G, H, L, M, N, P
P	20AR	3060082-7	2118882-1008	****	E, F, G, H, L, M, N, P
R	20BR	3060084-1	2118882-1008	7772	R, S
S	20BR	3060084-2	2118882-1008	7772	R, S

* 每行中列出发动机构型可能被单个或成对安装。

** 按服务通告 SB 45-76-2 安装，只对将反推作动到最大反推。

*** 按 Honeywell 发动机和系统公司服务通告 SB TFE 731-72-5149 在停场飞机上安装复合材料的发动机风扇旁通导管。要求在纳入 ECR8778 之前或同时进行。

**** 按 Honeywell 发动机和系统公司服务通告 SB731-72-5120。要求在纳入 ECR8778 或 ECR 7599 之前或同时进行。

按服务通告 SB 45-22-4 安装，以在停场飞机上加入 Honeywell 电子设备公司三阶段和-1007 DEEC。

Engine					Engine Configurations*
Configuration	Model				
Designation	TFE731-()-1	Engine P/N	DEEC P/N	ECR/ Modsum	Interchangeable with
	B				
A	20R	3060020-8	2118882-1004	4601	A
B	20R	3060020-9	2118882-1004	8711	B

C	20R	3060020-10	2118882-1005	7266	C, J
D	20R	3060020-10	**2118882-1006	7821	D, K
E	20R	3060020-11	#2118882-1007	8778	E, F, G, H, L, M, N, P
F	20R	3060020-12	2118882-1007	***	E, F, G, H, L, M, N, P
G	20R	3060020-13	2118882-1008	****	E, F, G, H, L, M, N, P
H	20R	3060020-14	2118882-1008	****	E, F, G, H, L, M, N, P
J	20AR	3060082-2	2118882-1005	7323	C, J
K	20AR	3060082-2	**2118882-1006	7821	D, K
L	20AR	3060082-3	2118882-1007	8756	E, F, G, H, L, M, N, P
M	20AR	3060082-4	2118882-1007	7944	E, F, G, H, L, M, N, P
N	20AR	3060082-6	2118882-1008	045T020412	E, F, G, H, L, M, N, P
P	20AR	3060082-7	2118882-1008	****	E, F, G, H, L, M, N, P
R	20BR	3060084-1	2118882-1008	7772	R, S
S	20BR	3060084-2	2118882-1008	7772	R, S

* Listed Engine configurations in each row may be installed single or pairs.

** Installed by Service Bulletin SB 45-76-2 only for activation of Thrust Reversers to maximum reverse.

*** Installed by Honeywell Engine and Systems Service Bulletin SB TFE 731-72-5149 to install Engine Fan Bypass Duct of Composite Material on fielded airplanes. Requires prior or concurrent incorporation of ECR 8778.

**** Installed by Honeywell Engine and Systems Service Bulletin SB TFE 731-72-5120. Requires prior or concurrent incorporation of ECR 8778 or ECR 7599.

Installed by Service Bulletin SB 45-22-4 to incorporate Honeywell Avionics Phase III and -1007 DEEC on fielded airplanes.

燃油

符合联信工艺规范的商用煤油，EMS 53111 (Jet A), 53112 (Jet A-1 或 JP-8), 53116 (JP-5), 符合 ASTM D1655 的 Jet A-1, 符合 ASTM D1655 的 (Jet A and Jet A-1), 符合 MIL-T-5624G 的 JP-5, 和符合 MIL-T-83133 的 JP-8。对于序号 45-002 至 45-064 未进行 SB 45-11-1 改装的飞机, EGME (ASTM D4171, Class 1, 或 MIL-I-27686) 或 DIEGME (ASTM D4171, Class 3, 或 MIL-I-85470) 防冰添加剂必须按其浓度按体积不低于 .060 (对 MIL-I-85470 为 .10) 或超过 0.15 个百分点被掺入进飞机燃油。如果组合的浓度在限制之内, 允许混合 EGME 和 DIEGME。批准使用 Hammonds Biobor JF 生物杀灭剂添加剂, 硼元素浓度不超过 270 PPM。加油程序见飞机飞行手册

Fuel

Commercial kerosene fuels conforming to AlliedSignal Process Specification, EMS 53111 (Jet A), 53112 (Jet A-1 or JP-8), 53116 (JP-5), and Jet A-1 per ASTM D1655, (Jet A and Jet A-1) per ASTM D1655, JP-5 per MIL-T-5624G, and JP-8 per MIL-T-83133. EGME (ASTM D4171, Class 1, or MIL-I-27686) or DIEGME (ASTM D4171, Class 3, or MIL-I-85470) anti-icing additive must be blended into the aircraft fuel in concentrations of not less than .060 (.10 for MIL-I-85470) or more than 0.15 percent by volume on aircraft 45-002 thru 45-064, not modified by SB 45-11-1. Mixtures of EGME and DIEGME are permissible if combined concentrations are within limits. Hammonds Biobor JF biocide additive is

approved for use at a concentration not to exceed 270 PPM of elemental boron. See Airplane Flight Manual for fueling procedures.

发动机限制

静推力，标准日，海平面：

APR（5 分钟）* 3650 磅

起飞（5 分钟）* 3500 磅

*起飞及以上功率时总计 5 分钟

最大允许的发动机转子转速：

N₁（风扇） 稳定状态 100% N₁ = 21,000 RPM

N₂（燃气发生器） 稳定状态 100% N₂ = 31,173 RPM

N₂（燃气发生器） APR 101% N₂ = 31,485 RPM

N₁（风扇） 100.5% N₁ = 21,105 RPM*

N₂（燃气发生器） 102.5% N₂ = 31,957 RPM*

*减少推力使其进入温度状态限制之内

N₁（风扇）瞬态（10 秒） 103.0% N₁ = 21,630 RPM

N₂（燃气发生器）瞬态（10 秒） 104.0% N₂ = 32,430 RPM

最大允许级间涡轮燃气温度：

发动机型别	TFE731-20R-1B	TFE731-20R-1B	TFE731-20R-1B
（件号）	(P/N:3060020-8	(P/N: 3060020-10)	(P/N: 3060020-11)
	and -9)	TFE731-20AR-1B	(P/N: 3060020-12)
		(P/N: 3060082-2)	(P/N: 3060020-13)
			(P/N: 3060020-14)
			TFE731-20AR-1B
			(P/N: 3060082-3)
			(P/N: 3060082-4)
			(P/N: 3060082-6)
			(P/N: 3060082-7)
起飞（5 分钟）	941°C	941°C	963°C (A/I ON)
			941°C (A/I OFF)
自动功率储备（5 分钟）	963°C	963°C	963°C
最大连续	916°C	941°C (A/I ON)	941°C (A/I ON)
		916°C (A/I OFF)	916°C (A/I OFF)
最大巡航	900°C	900°C	900°C
起动：			
起动机协助	941°C	941°C	941°C
风车	941°C	941°C	941°C

最大允许级间涡轮燃气温度：

发动机型别	TFE731-20BR-1B
（件号）	(P/N:3060084-1)
	(P/N:3060084-2)
起飞（5 分钟）	991°C

自动功率储备(5 分钟)	1013°C
最大连续	991°C
最大巡航	974°C
起动:	
起动机协助	991°C
风车	991°C

Engine Limits

Static thrust, standard day, sea level:

APR (5 min.)*	3650 lbs.
Takeoff (5 min.)*	3500 lbs.

*5 Minutes total at Takeoff or above

Max. permissible engine rotor operating speed:

N ₁ (Fan) steady state	100% N ₁ = 21,000 RPM
N ₂ (Gas gen.) steady state	100% N ₂ = 31,173 RPM
N ₂ (Gas gen.) APR	101% N ₂ = 31,485 RPM
N ₁ (Fan)	100.5% N ₁ = 21,105 RPM*
N ₂ (Gas gen.)	102.5% N ₂ = 31,957 RPM*

*Reduce power to bring within steady state limits

N ₁ (Fan) transient (10 sec.)	103.0% N ₁ = 21,630 RPM
N ₂ (Gas gen.) transient (10 sec.)	104.0% N ₂ = 32,430 RPM

Max. permissible interstage turbine gas temperatures:

<u>Engine Model</u>	<u>TFE731-20R-1B</u>	<u>TFE731-20R-1B</u>	<u>TFE731-20R-1B</u>
<u>(Part Number)</u>	<u>(P/N:3060020-8 and</u>	<u>(P/N: 3060020-10)</u>	<u>(P/N: 3060020-11)</u>
	<u>-9)</u>	<u>TFE731-20AR-1B</u>	<u>(P/N: 3060020-12)</u>
			<u>(P/N: 3060020-13)</u>
		<u>(P/N: 3060082-2)</u>	<u>(P/N: 3060020-14)</u>
			<u>TFE731-20AR-1B</u>
			<u>(P/N: 3060082-3)</u>
			<u>(P/N: 3060082-4)</u>
			<u>(P/N: 3060082-6)</u>
			<u>(P/N: 3060082-7)</u>
Takeoff (5 min.)	941°C	941°C	963°C (A/I ON)
			941°C (A/I OFF)
APR (5 min.)	963°C	963°C	963°C
Max. Continuous	916°C	941°C (A/I ON)	941°C (A/I ON)
		916°C (A/I OFF)	916°C (A/I OFF)
Maximum Cruise	900°C	900°C	900°C
Starting:			
Starter assisted	941°C	941°C	941°C
Windmill	941°C	941°C	941°C

Max. permissible interstage turbine gas temperatures:

<u>Engine Model</u>	<u>TFE731-20BR-1B</u>
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<u>Airspeed Limits</u>	自动功率储备关闭	100 KIAS
	V _{MCL} (最小操纵速度) 着陆襟翼 20°	105 KIAS
	襟翼 40°	97 KIAS
	V _{LO} (起落架操纵速度)	200 KIAS
	V _{LE} (起落架放下)	260 KIAS
	最大轮胎地面速度:	
	前起落架轮胎	210 MPH
	主起落架轮胎	190 MPH
	V _{MO} (Maximum Operating)	
	330 KIAS Sea Level to 26,756 ft.	
	M _{MO} (Maximum Operating)	
	.81 Mach above 26,756 ft.	
	V _A (Sea Level)	
	149 KIAS	12,500 lbs.
	178 KIAS	17,000 lbs.
	192 KIAS	19,200 lbs.
	199 KIAS	20,500 lbs.
	See AFM for variations with weight, altitude, aircraft serial numbers, and modifications.	
	V _B (Speed for maximum gust intensity)	250 KIAS
	V _{FE} (Flaps extended)	
	Flaps 8°	250 KIAS
	Flaps 20°	200 KIAS
	Ldg Position - Full Flaps	150 KIAS
	V _{MCA} (Minimum control speed) Air	
	Flaps 8°	103 KIAS
	Flaps 20°	100 KIAS
	V _{MCG} (Minimum control speed) Ground	
	APR On	103 KIAS
	APR Off	100 KIAS
	V _{MCL} (Minimum control speed) Landing	
	Flaps 20°	105 KIAS
	Flaps 40°	97 KIAS

	V _{LO} (Landing gear operating)	200 KIAS
	V _{LE} (Landing gear extended)	260 KIAS
	Max. tire ground speeds:	
	Nose Gear Tire	210 MPH
	Main Gear Tire	190 MPH
重心范围：（起落架放下） 最大设计重心限制		
(1) 后飞行限制:	14,000 磅时 FS 435.57 (25.0% MAC), 线性变化到 15,000 磅时的 FS 438.19 (28.0% MAC), 直到 20,500 磅(含)时保持为 FS 438.19 (28.0% MAC)。对于经过 SB 45-11-4 改装的飞机, FS 438.19 (28% MAC)后重心限制延伸到 21,000 磅。随后线性变化到 21,750 磅时的 FS 435.84 (25.3% MAC)。	
(2) 前飞行限制:	重量 14,000 磅到 15,000 磅(含)时为 FS 414.64 (1% MAC), 线性变化到 18,000 磅时的 FS 419.87 (7% MAC), 随后线性变化到 20,500 磅时的 FS 427.15 (15.3% MAC)。对于经过 SB 45-11-4 改装的飞机, 前重心仅一步线性变化到 21,750 磅时的 FS 430.77 (19.5% MAC)。 其他批准的限制见 AFM 第一部分。	
C.G. Range (Landing Gear Extended)	Maximum Design C.G. Limits	
(1) AFT Flight Limit:	FS 435.57 (25.0% MAC) at 14,000 lbs. and tapers to FS 438.19 (28.0% MAC) at 15,000 lbs. and remains at FS 438.19 (28.0% MAC) up to and including 20,500 lbs. For aircraft modified by SB 45-11-4, the aft c.g. limit of FS 438.19 (28% MAC) is extended to 21,000 lbs. It then tapers to FS 435.84 (25.3% MAC) at 21,750 lbs.	
(2) FWD Flight Limit:	FS 414.64 (1% MAC) for weights at 14,000 lbs. up to and including 15,000 lbs. and tapers to FS 419.87 (7% MAC) at 18,000 lbs. then to FS 427.15 (15.3% MAC) at 20,500 lbs.. For aircraft modified by SB 45-11-4, the forward limit further tapers to FS 430.77 (19.5% MAC) at 21,750 lbs. See AFM, Section I, for additional approved limits.	
基准	机鼻前方 75.05 英寸。机翼顶起点位于 STA 468.00 , 机身顶起点位于 STA 158.95 。	
Datum	75.05 inches fwd of nose. Wing jack points are at STA 468.00. Fuselage jack point is at STA 158.95.	
平均气动弦长	87.215 (413.769 处 MAC 的前缘)	
MAC	87.215 (L.E. of MAC 413.769)	
调平方法	横向和纵向调平标记在 FS613.768 处。调平方法见维修手册或 LES 1427 。	
Leveling Means	Lateral and longitudinal leveling marks are provided at FS 613.768. See Maintenance Manual or LES 1427 for leveling instructions.	

经过 SB 45-11-4 改装的飞机

最大重量	停机坪	20,750 磅	21,750 磅
	起飞	20,500 磅	21,500 磅
	着陆	19,200 磅	19,200 磅
	零燃油	16,000 磅	16,000 磅
	最小飞行重量	14,000 磅	14,000 磅
	见 AFM，最大重量随序号和改装变化。		
Maximum Weight (lb.)			A/C modified by SB 45-11-4
	Ramp	20,750 lbs.	21,750 lbs.
	Takeoff	20,500 lbs.	21,500 lbs.
	Landing	19,200 lbs.	19,200 lbs.
	Zero Fuel	16,000 lbs.	16,000 lbs.
	Minimum Flight Weight	14,000 lbs.	14,000 lbs.
	See AFM, maximum weights vary with serial numbers and modifications.		
Minimum Weight	Inflight	12,400 lb.	Inflight 12,400 lb.
最小机组	对于所有飞行：2 人（正驾驶和副驾驶）		
Minimum Crew	For all flights: 2 persons (pilot and co-pilot)		
<u>座位数</u>	11（2 名机组，9 名乘客）		
<u>Number of Seats</u>	11 (2 pilots, 9 passengers)		
<u>最大行李</u>	客舱	170 磅	力臂 425 英寸
	尾舱	500 英寸	力臂 544 英寸
	地板装载强度	75 psf	
Maximum Baggage	Cabin	170 lbs.	Arm 425 inches
	Tail compartment:	500 lbs.	Arm 544 inches
	Floor loading density:	75 psf	
<u>燃油量（加仑）</u>	可用 905 加仑。重量 6,062 磅。力臂 460 英寸		
	不可用燃油数据见注释 1。		
<u>Fuel Capacity (Gal.)</u>	Usable 905 gals. Weight 6,062 lbs. Arm 460 inches		
	See NOTE 1 for data on unusable fuel.		
<u>滑油量（加仑）</u>	两个装于发动机的滑油箱：总计 3.8 加仑。（每个 1.9 加仑）(油箱加系统)，力臂 519 英寸		
<u>Oil Capacity (Gal.)</u>	Two engine mounted tanks: Total 3.8 gal. (1.9 gal. each) (tank plus system), Arm 519 inches		
最大使用高度	51,000英尺		

Maximum
Operating Altitude

51,000 ft.

操纵面位移

合适的调整指导见维修手册或具体的 Learjet 工程规范—以下列出的单个操纵系统的功能试验。

水平安定面	调整指南: LES-FT-1981	
主配平	-0.30°到-0.55 °前缘向上	-9.25°到-9.50°前缘向下
辅助配平	-0.30°到-0.55 °前缘向上	-9.25°到-9.50°前缘向下
升降舵	调整指南: LES-FT-1976	
	15.0° ± 0.5° 后缘向上	15.5° ± 0.5°后缘向下
方向舵	调整指南: LES-FT-1976	
	30° + 2.0°/- 1.0°后缘向左	30° + 2.0°/- 1.0°后缘向右
方向舵配平	调整指南: LES-FT-1979	
	20° ± 1°后缘向左	20° ± 1°后缘向右
副翼	调整指南: LES-FT-1976	
从中立位	18.0° + 1.0°/- 0.0°后缘向下	>18.0 后缘向上
下落位	3.1° ± 0.2°从中立位向下	
副翼配平	调整指南: LES-FT-1979	
	15.0° ± 1.0° 后缘向上	15.0° ± 1.0°后缘向下
襟翼	调整指南: LES-FT-1973	

襟翼位置

允许偏差

0°

调整位

8°

± 1°

20°

± 1°

40°

± 2°

扰流板/减速板

调整指南: LES-FT-1766

第一分卡位: 14.5° ± 2.0°

第二分卡位: 28.5° ± 2.0°

EXT 卡位: 60.0° ± 2.0°

减速模式: 60.0° ± 2.0°

Control Surface Movements

For proper rigging instructions see the Maintenance Manual or the specific Learjet Engineering Specification - Functional Test listed below for the individual control system.

Horizontal Stabilizer	Rigging Instructions: LES-FT-1981	
Primary Trim	-0.30° to -0.55 ° L E UP	-9.25° to -9.50° L E DN
Secondary Trim	-0.30° to -0.55 ° L E UP	-9.25° to -9.50° L E DN
Elevator	Rigging Instructions: LES-FT-1976	
	15.0° ± 0.5° Trailing Edge UP	15.5° ± 0.5° Trailing Edge DN
Rudder	Rigging Instructions: LES-FT-1976	
	30° + 2.0°/- 1.0° Trailing Edge Left	30° + 2.0°/- 1.0° Trailing Edge Right
Rudder trim	Rigging Instructions: LES-FT-1979	
	20° ± 1° Trailing Edge Left	20° ± 1° Trailing Edge Right

Aileron	Rigging Instructions: LES-FT-1976	
From faired position	18.0° + 1.0°/- 0.0° Trailing Edge DN	>18.0° Trailing Edge UP
Droop position	3.1° ± 0.2° down from faired	
Aileron Trim	Rigging Instructions: LES-FT-1979	
	15.0° ± 1.0° Trailing Edge UP	15.0° ± 1.0° Trailing Edge DN
Flaps	Rigging Instructions: LES-FT-1973	
	<u>Flap Position</u>	<u>Allowable Tolerance</u>
	0°	Rig Position
	8°	± 1°
	20°	± 1°
	40°	± 2°
Spoiler/ Spoileron	Rigging Instructions: LES-FT-1766	
	First partial detent:	14.5° ± 2.0°
	Second partial detent:	28.5° ± 2.0°
	EXT detent:	60.0° ± 2.0°
	Spoileron Mode:	60.0° ± 2.0°
适合的序号	45-002至45-2000	
Serial Nos. Eligible	45-002 through 45-2000	
<u>FAA 审定基础</u>	联邦航空条例 25 部（1965 年 2 月 1 日生效），修正案 25-1 至 25-77。联邦航空条例 34 部（1990 年 9 月 10 日生效），修正案 34-1 至 34-2。联邦航空条例 36 部（1969 年 12 月 1 日生效），修正案 36-1 至 36-21。1972 年噪声控制法案。	
<u>专用条件:</u>	a) No. 25-ANM-81 高高度运行（见注释 8） b) No. 25-ANM-88 闪电和高强度辐射场	
<u>等效安全项目:</u>	a) 25.841(b)(6) 高高度机场运营 b) 25.109 及相关条款，见 NPRM 93-8 加速停止距离 c) 25.103 及相关条款，见 NPRM 95-17 1 “g”失速速度 d) 25.1549 & 25.1321(c) 数字式 N ₂ 指示 e) 25.1549 数字式滑油指示 f) 25.811(d)(1),(2) 应急出口标识 g) 25.813(e) 易碎的厕所门	
<u>豁免:</u>	a) 豁免 No. 6021 于 1995 年 1 月 26 日给予。 对 FAR 25.571(e)(1)豁免，使用在海平面的 V _c 或 8000 英尺高度的 0.85 V _c ，取最临界者。 b) 豁免 No. 6468A 于 1997 年 12 月 29 日给予。 对 FAR 25.783(h)豁免，允许使用两部分客舱门的上半部分作为被要求的应急出口。 FAR 25.783(h)有关应急出口通道、应急出口照明等的其他要求，如针对于二型应急出口则仍适用。 FAR § 25.801 水上迫降没有被符合。	

申请型号合格证的日期: 1992 年 1 月 27 日

FAA Certification Basis Part 25 of the Federal Aviation Regulations effective February 1, 1965, as amended by amendments 25-1 through 25-77. Part 34 of the Federal Aviation Regulations effective September 10, 1990, as amended by amendments 34-1 through 34-2. Part 36 of the Federal Aviation Regulations effective December 1, 1969, as amended by amendments 36-1 through 36-21. Noise Control Act of 1972.

Special Conditions: a) No. 25-ANM-81 High Altitude Operation (See Note 8)
b) No. 25-ANM-88 Lightning and High Intensity Radiated Fields

Equivalent Safety Items: 25.841(b)(6) High Altitude airport operation
25.109 & related para., see NPRM 93-8 Accelerate Stop Distance
25.103 & related para., see NPRM 95-17 1 "g" stall speeds
25.1549 & 25.1321(c) Digital N₂ indication
25.1549 Digital Oil indication
25.811(d)(1),(2) Emergency Exit Sign
25.813(e) Frangible Lavatory Door

Exemptions: a) Exemption No. 6021 was granted on January 26, 1995.
Exemption from FAR 25.571(e)(1) to use V_c at sea level or 0.85 V_c at 8000 feet, whichever is the more critical.
b) Exemption No. 6468A was granted on December 29, 1997.
Exemption from FAR 25.783(h) to allow the use of the upper half of the two part cabin door as the required emergency exit. Other requirements of FAR 25.783(h) which relate to emergency exit access, emergency exit lighting etc., as they pertain to Type II emergency exits still apply.

FAR § 25.801 ditching not complied with.

Date of Application for Type Certificate: January 27, 1992

CAAC 认可审定基础 CAAC 接受 FAA 的审定基础为认可审定基础。

CAAC Validation Basis CAAC accepts FAA Certification Basis as Validation Basis.

生产基础

Production Basis Serial Numbers 45-002 through 45-2000.

设备

Equipment 相关适航规章（见审定基础）中规定的基本必须设备必须装于审定的飞机。
The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

II - 45 型 (Learjet 40), 序号 45-2001 至 45-4000, (运输类), FAA 于 2003 年 7 月 11 日批准, CAAC 于 2004 年 12 月 27 日认可。

II – Model 45 (Learjet 40), S/N 45-2001 through 45-4000, Learjet (Transport Category), Approved July 11, 2003 by FAA, Validated December 27, 2004 by CAAC.

发动机

两台 Honeywell (联信发动机公司) TFE731-20AR 涡扇发动机, FAA 型号合格证 E1NM。适用的件号列于下面。每台发动机由单个动力杆和电子发动机控制 (DEEC) 软件操纵。左右发动机必须利用共同的 DEEC 件号。发动机安装构型由 Learjet 工程更改记录 (ECR) 定义如下。

Engine

Two Honeywell (AlliedSignal Engines) TFE731-20AR turbofan engines, TC E1NM. Eligible part numbers are listed below. Each engine is controlled by a single power lever and by Digital Electronic Engine Control (DEEC) software. Left and right engines must utilize common DEEC part numbers. Engine installation configuration is defined by the Learjet Engineering Change Record (ECR) and as noted below.

发动机构型

标号	TFE731-()-1B	发动机件号	DEEC 件号	ECR/ Modsum	发动机构型*
L	20AR	3060082-3	2118882-1007	8756	L, M, N, P
M	20AR	3060082-4	2118882-1007	7944	L, M, N, P
N	20AR	3060082-6	2118882-1008	045T020412	L, M, N, P
P	20AR	3060082-7	2118882-1008	***	L, M, N, P

* 每行中列出发动机构型可能被单个或成对安装。

*** 按 Honeywell 发动机和系统公司服务通告 SB731-72-5120。要求在纳入 ECR8778 或 ECR 7599 之前或同时进行。

Engine

Configuration	Model	Engine P/N	DEEC P/N	ECR/ Modsum	Engine Configurations*
Designation	TFE731-()-1B	Engine P/N	DEEC P/N	ECR/ Modsum	Interchangeable with
L	20AR	3060082-3	2118882-1007	8756	L, M, N, P
M	20AR	3060082-4	2118882-1007	7944	L, M, N, P
N	20AR	3060082-6	2118882-1008	045T020412	L, M, N, P
P	20AR	3060082-7	2118882-1008	***	L, M, N, P

* Listed Engine configurations in each row may be installed single or pairs.

*** Installed by Honeywell Engine and Systems Service Bulletin SB TFE 731-72-5120. Requires prior or concurrent incorporation of ECR 8778 or ECR 7599.

燃油

符合联信工艺规范的商用煤油, EMS 53111 (Jet A), 53112 (Jet A-1 或 JP-8), 53116 (JP-5), 符合 ASTM D1655 的 Jet A-1, 符合 ASTM D1655 的 (Jet A and Jet A-1), 符合 MIL-T-5624G 的 JP-5, 和符合 MIL-T-83133 的 JP-8。对于序号 45-002 至 45-064 未进行 SB 45-11-1 改装的飞机, EGME (ASTM

Fuel

D4171, Class 1, 或 MIL-I-27686) 或 DIEGME (ASTM D4171, 3 级, 或 MIL-I-85470) 防冰添加剂必须被混合进飞机燃油, 其浓度按体积不超过 .060 (对 MIL-I-85470 为 .10) 或超过 0.15 个百分点。如果组合的浓度在限制之内, 允许混合 EGME 和 DIEGME。批准使用 Hammonds Biobor JF 生物杀灭剂添加剂, 硼元素浓度不超过 270 PPM。

Commercial kerosene fuels conforming to AlliedSignal Process Specification, EMS 53111 (Jet A), 53112 (Jet A-1 or JP-8), 53116 (JP-5), and Jet A-1 per ASTM D1655, (Jet A and Jet A-1) per ASTM D1655, JP-5 per MIL-T-5624G, and JP-8 per MIL-T-83133. EGME (ASTM D4171, Class 1, or MIL-I-27686) or DIEGME (ASTM D4171, Class 3, or MIL-I-85470) anti-icing additive must be blended into the aircraft fuel in concentrations of not less than .060 (.10 for MIL-I-85470) or more than 0.15 percent by volume on aircraft 45-002 thru 45-064, not modified by SB 45-11-1. Mixtures of EGME and DIEGME are permissible if combined concentrations are within limits. Hammonds Biobor JF biocide additive is approved for use at a concentration not to exceed 270 PPM of elemental boron. See Airplane Flight Manual for fueling procedures.

发动机限制

静推力, 标准日, 海平面:

APR (5 分钟) * 3650 磅

起飞 (5 分钟) * 3500 磅

*起飞及以上功率时总计 5 分钟

最大允许的发动机转子转速:

N₁ (风扇) 稳定状态 100% N₁ = 21,000 RPM

N₂ (燃气发生器) 稳定状态 100% N₂ = 31,173 RPM

N₂ (燃气发生器) APR 101% N₂ = 31,485 RPM

N₁ (风扇) 100.5% N₁ = 21,105 RPM*

N₂ (燃气发生器) 102.5% N₂ = 31,957 RPM*

*减少推力使其进入温度状态限制之内

N₁ (风扇) 瞬态 (10 秒) 103.0% N₁ = 21,630 RPM

N₂ (燃气发生器) 瞬态 (10 秒) 104.0% N₂ = 32,430 RPM

最大允许级间涡轮燃气温度:

发动机型别 TFE731-20AR-1B

(件号) (P/N: 3060082-3)

(P/N: 3060082-4)

(P/N: 3060082-6)

(P/N: 3060082-7)

起飞 (5 分钟) 963°C (A/I 开)

941°C (A/I 关)

自动功率储备 (5 分钟) 963°C

最大连续 941°C (A/I 开)

916°C (A/I 关)

最大巡航 900°C

起动:

Engine Limits

起动机协助	941°C
风车	941°C

Static thrust, standard day, sea level:

APR (5 min.)*	3650 lbs.
Takeoff (5 min.)*	3500 lbs.

*5 Minutes total at Takeoff or above

Max. permissible engine rotor operating speed:

N ₁ (Fan) steady state	100% N ₁ = 21,000 RPM
N ₂ (Gas gen.) steady state	100% N ₂ = 31,173 RPM
N ₂ (Gas gen.) APR	101% N ₂ = 31,485 RPM
N ₁ (Fan)	100.5% N ₁ = 21,105 RPM*
N ₂ (Gas gen.)	102.5% N ₂ = 31,957 RPM*

*Reduce power to bring within steady state limits

N ₁ (Fan) transient (10 sec.)	103.0% N ₁ = 21,630 RPM
N ₂ (Gas gen.) transient (10 sec.)	104.0% N ₂ = 32,430 RPM

Max. permissible interstage turbine gas temperatures:

<u>Engine Model</u>	<u>TFE731-20AR-1B</u>
<u>(Part Number)</u>	(P/N: 3060082-3)
	(P/N: 3060082-4)
	(P/N: 3060082-6)
	(P/N: 3060082-7)
Takeoff (5 min.)	963°C (A/I ON)
	941°C (A/I OFF)
APR (5 min.)	963°C
Max. Continuous	941°C (A/I ON)
	916°C (A/I OFF)
Maximum Cruise	900°C
Starting:	
Starter assisted	941°C
Windmill	941°C

APU	无
APU	None

空速限制

V_{MO} (最大使用速度)
海平面至 26,756 英尺, 330 KIAS

M_{MO} (Maximum Operating)
26,756 英尺以上, .81 马赫

V_A (海平面)
149 KIAS 12,500 lbs.

	178 KIAS	17,000 lbs.
	192 KIAS	19,200 lbs.
	199 KIAS	20,350 lbs.
	随重量、高度、飞机序号，和改装的变化见 AFM。	
	V _B （最大阵风强度下的速度）	250 KIAS
	V _{FE} （襟翼展开）	
	襟翼 8°	250 KIAS
	襟翼 20°	200 KIAS
	着陆位置—全襟翼	150 KIAS
	V _{MCA} （最小操纵速度）空中	
	襟翼 8°	103 KIAS
	襟翼 20°	100 KIAS
	V _{MCG} （最小操纵速度）地面	
	自动功率储备打开	103 KIAS
	自动功率储备关闭	100 KIAS
	V _{MCL} （最小操纵速度）着陆	
	襟翼 20°	105 KIAS
	襟翼 40°	97 KIAS
	V _{LO} （起落架操纵速度）	200 KIAS
	V _{LE} （起落架放下）	260 KIAS
	最大轮胎地面速度：	
	前起落架轮胎	210 MPH
	主起落架轮胎	190 MPH
<u>Airspeed Limits</u>	V _{MO} (Maximum Operating)	
	330 KIAS Sea Level to 26,756 ft.	
	M _{MO} (Maximum Operating)	
	.81 Mach above 26,756 ft.	
	V _A (Sea Level)	
	149 KIAS	12,500 lbs.
	178 KIAS	17,000 lbs.
	192 KIAS	19,200 lbs.
	199 KIAS	20,350 lbs.
	See AFM for variations with weight, altitude, aircraft serial numbers, and modifications.	

V _B (Speed for maximum gust intensity)	250 KIAS
V _{FE} (Flaps extended)	
Flaps 8°	250 KIAS
Flaps 20°	200 KIAS
Ldg Position - Full Flaps	150 KIAS
V _{MCA} (Minimum control speed) Air	
Flaps 8°	103 KIAS
Flaps 20°	100 KIAS
V _{MCG} (Minimum control speed) Ground	
APR On	103 KIAS
APR Off	100 KIAS
V _{MCL} (Minimum control speed) Landing	
Flaps 20°	105 KIAS
Flaps 40°	97 KIAS
V _{LO} (Landing gear operating)	200 KIAS
V _{LE} (Landing gear extended)	260 KIAS
Max. tire ground speeds:	
Nose Gear Tire	210 MPH
Main Gear Tire	190 MPH

重心范围：（起落架放下）	最大设计重心限制
(1) 后飞行限制:	13,500 磅时 FS 434.26 (23.5% MAC), 线性变化到 15,000 磅时的 FS 438.19 (28.0% MAC), 直到 20,350 磅(含)时保持为 FS 438.19 (28.0% MAC)。
(2) 前飞行限制:	重量 13,500 磅到 15,000 磅(含)时为 FS 419.87 (7% MAC), 线性变化到 18,500 磅时的 FS 425.98 (14% MAC), 随后线性变化到 19,200 磅时的 FS 427.35 (15.57% MAC), 随后线性变化到 20,350 磅时的 FS 429.59 (18.14% MAC)。 其他批准的限制见 AFM 第一部分。
C.G. Range (Landing Gear Extended)	Maximum Design C.G. Limits
(1) AFT Flight Limit:	FS 434.26 (23.5% MAC) at 13,500 lbs and tapers to FS 438.19 (28.0% MAC) at 15,000 lbs and remains at FS 438.19 (28.0% MAC) up to and including 20,350 lbs.
(2) FWD Flight Limit:	FS 419.87 (7% MAC) for weights at 13,500 lbs up to and including 15,000 lbs and tapers to FS 425.98 (14% MAC) at 18,500 lbs then to FS 427.35 (15.57% MAC) at 19,200 lbs then to FS 429.59 (18.14% MAC) at 20,350 lbs. See AFM, Section I, for additional approved limits.

<u>基准</u>	机鼻前方 99.56 英寸。机翼顶起点位于 STA 468.00，机身顶起点位于 STA 183.46。		
Datum	99.56 inches fwd of nose. Wing jack points are at STA 468.00. Fuselage jack point is at STA 183.46.		
平均气动弦长	87.215 (413.769 处 MAC 的前缘)		
MAC	87.215 (L.E. of MAC 413.769)		
调平方法	横向和纵向调平标记在 FS613.768 处。调平方法见维修手册或 LES 1427。		
Leveling Means	Lateral and longitudinal leveling marks are provided at FS 613.768. See Maintenance Manual or LES 1427 for leveling instructions.		
最大重量	停机坪	20,600 磅	
	起飞	20,350 磅	
	着陆	19,200 磅	
	零燃油	16,000 磅	
	最小飞行重量	13,500 磅	
	见 AFM，最大重量随序号和改装变化。		
	Maximum Weight (lb.)		
	Ramp	20,600 lbs.	
	Takeoff	20,350 lbs.	
	Landing	19,200 lbs.	
Minimum Weight	Zero Fuel	16,000 lbs.	
	Minimum Flight Weight	13,500 lbs.	
	See AFM, maximum weights vary with serial numbers and modifications.		
	Minimum Weight	Inflight 12,400 lb.	Inflight 12,400 lb.
最小机组	对于所有飞行：2 人（正驾驶和副驾驶）		
Minimum Crew	For all flights: 2 persons (pilot and co-pilot)		
<u>座位数</u>	9（2 名机组，7 名乘客）		
<u>Number of Seats</u>	9 (2 pilots, 7 passengers)		
最大行李	客舱	170 磅	力臂 425 英寸
	尾舱	500 磅	力臂 544 英寸
	地板装载强度	75 psf	
	Maximum Baggage		
	Cabin	170 lbs.	Arm 425 inches
Maximum Baggage	Tail compartment:	500 lbs.	Arm 544 inches
	Floor loading density:	75 psf	
<u>燃油量（加仑）</u>	可用 802 加仑。重量 5,375 磅。力臂 458 英寸		
	不可用燃油数据见注释 1。		

Fuel Capacity (Gal.)

Usable 802 gals. Weight 5,375 lbs. Arm 458 inches

See NOTE 1 for data on unusable fuel.

滑油量 (加仑)

两个装于发动机的滑油箱：总计 3.8 加仑。（每个 1.9 加仑）(油箱加系统)，力臂 519 英寸

Oil Capacity (Gal.)

Two engine mounted tanks: Total 3.8 gal. (1.9 gal. each) (tank plus system), Arm 519 inches

最大使用高度

51,000英尺

Max. Operating Altitude

51,000 ft.

操纵面位移

合适的调整指导见维修手册或具体的 Learjet 工程规范—以下列出的单个操纵系统的功能试验。

水平安定面

调整指南: LES-FT-1981

主配平

-0.30°到-0.55 °前缘向上

-9.25°到-9.50°前缘向下

辅助配平

-0.30°到-0.55 °前缘向上

-9.25°到-9.50°前缘向下

升降舵

调整指南: LES-FT-1976

15.0° ± 0.5° 后缘向上

15.5° ± 0.5°后缘向下

方向舵

调整指南: LES-FT-1976

30° + 2.0°/- 1.0°后缘向左

30° + 2.0°/- 1.0°后缘向右

方向舵配平

调整指南: LES-FT-1979

20° ± 1°后缘向左

20° ± 1°后缘向右

副翼

调整指南: LES-FT-1976

从中立位

18.0° + 1.0°/- 0.0°后缘向下

>18.0 后缘向上

下落位

3.1° ± 0.2°从中立位向下

副翼配平

调整指南: LES-FT-1979

15.0° ± 1.0° 后缘向上

15.0° ± 1.0°后缘向下

襟翼

调整指南: LES-FT-1973

襟翼位置**允许偏差**

0°

调整位

8°

± 1°

20°

± 1°

40°

± 2°

扰流板/减速板

调整指南: LES-FT-1766

第一分卡位: 14.5° ± 2.0°

第二分卡位: 28.5° ± 2.0°

EXT 卡位: 60.0° ± 2.0°

减速模式: 60.0° ± 2.0°

Control Surface Movements

For proper rigging instructions see the Maintenance Manual or the specific Learjet Engineering Specification - Functional Test listed below for the individual control system.

Horizontal Stabilizer	Rigging Instructions: LES-FT-1981	
Primary Trim	-0.30° to -0.55 ° L E UP	-9.25° to -9.50° L E DN
Secondary Trim	-0.30° to -0.55 ° L E UP	-9.25° to -9.50° L E DN
Elevator	Rigging Instructions: LES-FT-1976	
	15.0° ± 0.5° Trailing Edge UP	15.5° ± 0.5° Trailing Edge DN
Rudder	Rigging Instructions: LES-FT-1976	
	30° + 2.0°/- 1.0° Trailing Edge Left	30° + 2.0°/- 1.0° Trailing Edge Right
Rudder trim	Rigging Instructions: LES-FT-1979	
	20° ± 1° Trailing Edge Left	20° ± 1° Trailing Edge Right
Aileron	Rigging Instructions: LES-FT-1976	
From faired position	18.0° + 1.0°/- 0.0° Trailing Edge DN	>18.0° Trailing Edge UP
Droop position	3.1° ± 0.2° down from faired	
Aileron Trim	Rigging Instructions: LES-FT-1979	
	15.0° ± 1.0° Trailing Edge UP	15.0° ± 1.0° Trailing Edge DN
Flaps	Rigging Instructions: LES-FT-1973	

Flap Position

Allowable Tolerance

0°

Rig Position

8°

± 1°

20°

± 1°

40°

± 2°

Spoiler/ Spoileron

Rigging Instructions: LES-FT-1766

First partial detent: 14.5° ± 2.0°

Second partial detent: 28.5° ± 2.0°

EXT detent: 60.0° ± 2.0°

Spoileron Mode: 60.0° ± 2.0°

适合的序号

45-2001至45-4000

Serial Nos. Eligible

45-2001 through 45-4000

FAA 审定基础

联邦航空条例 25 部 (1965 年 2 月 1 日生效), 修正案 25-1 至 25-77。联邦航空条例 34 部 (1990 年 9 月 10 日生效), 修正案 34-1 至 34-2。联邦航空条例 36 部 (1969 年 12 月 1 日生效), 修正案 36-1 至 36-21。1972 年噪声控制法案。

专用条件:

a) No. 25-ANM-81 高高度运行 (见注释 8)

b) No. 25-ANM-88 闪电和高强度辐射场

等效安全项目:

a) 25.841(b)(6) 高高度机场运营

b) 25.109 及相关条款, 见 NPRM 93-8 加速停止距离

c) 25.103 及相关条款, 见 NPRM 95-17 1 “g”失速速度

d) 25.1549 & 25.1321(c) 数字式 N₂ 指示

e) 25.1549 数字式滑油指示

- f) 25.811(d)(1),(2) 应急出口标识
- g) 25.813(e) 易碎的厕所门
- 豁免:
- a) 豁免 No. 6021 于 1995 年 1 月 26 日给予。
对 FAR 25.571(e)(1)豁免, 使用在海平面的 V_c 或 8000 英尺高度的 $0.85 V_c$, 取最临界者。
- b) 豁免 No. 6468A 于 1997 年 12 月 29 日给予。
对 FAR 25.783(h)豁免, 允许使用两部分客舱门的上半部分作为被要求的应急出口。FAR 25.783(h)有关应急出口通道、应急出口照明等的其他要求, 如针对二型应急出口则仍适用。

FAR § 25.801 水上迫降没有被符合。

FAA Certification Basis

Part 25 of the Federal Aviation Regulations effective February 1, 1965, as amended by amendments 25-1 through 25-77. Part 34 of the Federal Aviation Regulations effective September 10, 1990, as amended by amendments 34-1 through 34-2. Part 36 of the Federal Aviation Regulations effective December 1, 1969, as amended by amendments 36-1 through 36-21. Noise Control Act of 1972.

Special Conditions:

- a) No. 25-ANM-81 High Altitude Operation (See Note 8)
- b) No. 25-ANM-88 Lightning and High Intensity Radiated Fields

Equivalent Safety Items:

- 25.841(b)(6) High Altitude airport operation
- 25.109 & related para., see NPRM 93-8 Accelerate Stop Distance
- 25.103 & related para., see NPRM 95-17 1 "g" stall speeds
- 25.1549 & 25.1321(c) Digital N_2 indication
- 25.1549 Digital Oil indication
- 25.811(d)(1),(2) Emergency Exit Sign
- 25.813(e) Frangible Lavatory Door

Exemptions:

- a) Exemption No. 6021 was granted on January 26, 1995.
Exemption from FAR 25.571(e)(1) to use V_c at sea level or $0.85 V_c$ at 8000 feet, whichever is the more critical.
- b) Exemption No. 6468A was granted on December 29, 1997.
Exemption from FAR 25.783(h) to allow the use of the upper half of the two part cabin door as the required emergency exit. Other requirements of FAR 25.783(h) which relate to emergency exit access, emergency exit lighting etc., as they pertain to Type II emergency exits still apply.

FAR § 25.801 ditching not complied with.

CAAC 认可审定基础

CAAC 接受 FAA 的审定基础为认可审定基础。

CAAC Validation Basis

CAAC accepts FAA Certification Basis as Validation Basis.

生产基础

Production Basis

Serial Numbers 45-2001 through 45-4000.

设备

相关适航规章中（见审定基础）规定的基本必须设备必须装于审定的飞机。

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

III – TCDS注释

III – TCDS Notes

注释 1: 当前的重量和平衡报告，装载指南（必要时），和包括在审定空重内的设备清单必须在每架飞机进行初始适航审定时提供。

审定空重和相应重心位置必须包括：

	重量	力臂
液压油	21.5 磅	473 英寸
不可用燃油	93.1 磅	427 英寸
残留的燃油	14.0 磅	425 英寸
发动机残留滑油（每台）	4.0 磅	520 英寸
发动机可排放燃油（每台）	10.7 磅	520 英寸

NOTE 1: The current weight and balance report, loading instructions (when necessary), and a list of equipment included in the certificated empty weight must be provided for each airplane at the time of original airworthiness certification.

The certified empty weight and corresponding center of gravity location must include:

	<u>WEIGHT</u>	<u>ARM</u>
Hydraulic Fluid	21.5 lbs.	473 in.
Unusable Fuel	93.1 lbs.	427 in.
Trapped Fuel	14.0 lbs.	425 in.
Engine Trapped Oil (Each)	4.0 lbs.	520 in.
Engine Drainable Oil (Each)	10.7 lbs.	520 in.

注释 2: FAA 批准的飞机飞行手册：飞机必须按照相关的 FAA 批准的飞行手册运行。要求的标牌包括在维修手册（最新批准的版本）第 11 章，标牌和标记中，对于 Learjet 45 维修手册件号为 MM-104，对于 Learjet 40 为 MM-105。

NOTE 2: FAA Approved Airplane Flight Manual: The airplane must be operated according to the appropriate FAA Approved Airplane Flight Manual. Required placards are included in the Maintenance Manual, part number MM-104 for the Learjet 45 and MM-105 for the Learjet 40, (latest approved revision), Chapter 11, Placards and Markings.

注释 3: FAA 批准的要求强制符合退役寿命或检查的适航限制被包括在维修手册（持续适航指南）的第 4 章。

- NOTE 3: FAA approved Airworthiness Limitations for mandatory compliance retirement life or inspection are included in the Maintenance Manual (Instructions for Continued Airworthiness), Chapter 4.
- 注释 4: 审定维修要求 (CMR) 在维修手册第 4 章中, 对于 Learjet 45 维修手册件号为 MM-104, 对于 Learjet 40 为 MM-105。CMR 的工程批准记录在 Learjet 报告 45-D1503 中。
- NOTE 4: Certification Maintenance Requirements (CMR) are found in Maintenance Manual MM-104, Chapter 4, for the Learjet 45 and MM-105, Chapter 4, for the Learjet 40. Engineering approval of the CMR is documented in Learjet Report 45-D1503.
- 注释 5: 所有更换座椅 (机组和乘客) 和泡沫椅垫构造偏离即使符合 TSO C127, 也必须评估他们对周围座椅包线 (即橱柜更改, 厨房更改, 侧壁更改, 地板平面图更改, 等) 的影响及其对 FAR 25.562(c)(5) 和 25.803 至 25.815 相关部分的审定方面的影响。这些项目必须演示对 FAR 25.333, 25.561, 25.562, 25.785, 和 25.853 的相关要求的符合性。
- NOTE 5: All replacement seats (crew and passenger) and foam cushion construction deviations even though compliant with TSO C127, must be evaluated for their impact to the surrounding seat envelope (i.e. cabinet changes, galley changes, sidewall changes, floor plan changes, etc.) and its certification effect on FAR 25.562(c)(5) and the applicable parts of 25.803 through 25.815. These items must demonstrate compliance with the requirements of FAR paragraphs 25.333, 25.561, 25.562, 25.785, and 25.853 as applicable.
- 注释 6: Learjet 45 (型别 45 序号 45-002 至 45-2000) 由 Learjet 工程更改记录 ECR 4601 定义。
- Learjet 40 (型别 45 序号 45-2001 至 45-4000) 由 Learjet 工程构型申明 RAL-045-CP223 定义。
- NOTE 6: The Learjet 45 (Model 45 S/N 45-002 through 45-2000) is defined by Learjet Engineering Change Record ECR 4601.
- The Learjet 40 (Model 45 S/N 45-2001 through 45-4000) is defined by Learjet Engineering Configuration Statement RAL-045-CP223.
- 注释 7: 按照 25.815 批准的离地板 25 英寸以下的最小走道宽度为 9.0 英寸。对最小走道宽度的批准记录在 Learjet 报告 ER-221 (Rev B) 的 31 页, 6-10 节。批准的 25 英寸以上的型号设计通道宽度包括一个由于座椅背部填料引起的突出物, 对于 45-002 至 45-231 飞机, 这由 Learjet 图纸 No. 4525203000 “装璜组件, 乘客座椅” 定义。对于 45-232 至 45-2000 和 45-2001 至 45-4000 飞机, 参考 Learjet 图纸 No. M6613100。任何更改座椅, 通道宽度, 或者布置的对内饰的改装应与 Wichita 航空器审定重心协调或者从 Learjet 公司得到 FAA 批准的符合性数据的证实。
- NOTE 7: The approved minimum aisle width below 25 inches from the floor is (9.0) inches in accordance with FAR 25.815. Approval of the minimum aisle width is documented in Learjet Report ER-221 (Rev B) - page 31, Section 6-10. The approved Type Design aisle width above 25 inches includes an intrusion due to the padding on the seat-backs as defined by Learjet Dwg. No. 4525203000, "Upholstery Assy, Passenger Seat", for aircraft 45-002 through 45-231. For aircraft 45-232 through 45-2000 and 45-2001 through 45-4000, refer to Learjet Dwg No. M6613100. Any modifications to the interior that change the seats, aisle width, or layout shall be coordinated with the Wichita Aircraft Certification Office or substantiated with FAA approved compliance data from Learjet Inc.

注释 8: 45 型飞机使用了有关高高度运行的专用条件。此专用条件包括增压系统要求, 以及对增压舱的损伤容限要求。因此, 任何对增压系统的更改或对增压舱的改装或修理必须安装专用条件中的要求进行批准。

专用条件中的损伤容限要求用客舱高度时间历程规定, 它是客舱泄漏率的函数。对于 45 型飞机规定的客舱高度时间历程要求可以通过增压舱开口 1.9 平方英寸来满足, (假设应急下降)。等效的裂纹长度的确认将取决于裂纹的具体位置, 此位置的增压舱构型, 和裂纹的方向等。批准的改装和/或修理必须考虑专用条件的要求已经如何将它们应用到具体进行改装或修理的位置和构型。最终的检查方案必须考虑其他相关结构标准。Learjet 45 (45 型序号 45-002 至 45-2000) 的工程批准记录在 Learjet 报告 45-D1185 的 3.16 节, Learjet 40 (45 型序号 45-2001 至 45-4000) 为 Learjet 报告 45-D1184 附录 G。

NOTE 8: Airplane model 45 is the subject of Special Condition related to operation at high altitude. This special condition includes pressurization system requirements, as well as damage tolerance requirements on the pressure vessel. Therefore, any changes to the pressurization system or modifications or repairs to the pressure vessel must be approved in accordance with the requirements defined in the special condition.

The damage tolerance requirements in the special condition are specified in terms of cabin altitude time history, which is a function of the cabin leak rate. For model 45 specified cabin altitude time history requirement can be met with a pressure vessel opening of 1.9 square inches, (assuming an emergency descent). The determination of an equivalent crack length will depend upon the particular location of the crack, the pressure vessel configuration in that location, and the direction of the crack, etc. The approval of modifications and/or repairs must take into account the requirements of the special condition and how they apply to the particular location and configuration being modified or repaired. The resulting inspection program must also consider other applicable structural criteria. Engineering Approval is documented in Learjet Report 45-D1185, Paragraph 3.16, for the Learjet 45 (Model 45 S/N 45-002 through 45-2000) or Learjet Report 45-D1184, Appendix G, for the Learjet 40 (Model 45 S/N 45-2001 through 45-4000).

注释 9: 装有 TFE731-20R-1B 或 TFE731-20AR-1B 发动机 Learjet 45 (45 型序号 45-002 至 45-2000) 和 Learjet 40 (45 型序号 45-2001 至 45-4000) 已表明符合在 29,000 至 41,000 英尺之间的缩短垂直最小间隔 (RVSM) 空域运行的适航要求。对此要求没有相关服务通告。所有序号都适用。适航批准记录在 FAA 批准的 ECR 7539 和 Learjet 符合性报告 45-D1665, RVSM 符合性和数据分析, M45 中。

NOTE 9: The Learjet 45 (Model 45 S/N 45-002 through 45-2000) and Learjet 40 (Model 45 S/N 45-2001 through 45-4000) with TFE731-20R-1B or TFE731-20AR-1B engines installed have been shown to meet the airworthiness requirements for operations in Reduced Vertical Separation Minimum (RVSM) airspace between 29,000 and 41,000 feet. No Service Bulletin is associated with this requirement. All serial numbers are eligible. Airworthiness approval is documented in FAA approved ECR 7539 and Learjet Compliance Report 45-D1665, RVSM Compliance and Data Analysis, M45.

结束
.....END.....