

Propeller oil	MIL-H-5606B																																	
Airspeed limits	Vmo (Maximum operating) Va (maneuvering)	See Fig. 1 of AFM Supplement No. 3587-1																																
	Vb (turbulent air penetration) Vfe (take-off & approach 50%) Vfe (landing, 100%) Vlo (landing gear operation) Vle (landing gear extended) Vll (landing light extended)	183 K 145 K 168 K 168 K 168 K																																
Heated windshield limitations	If electric windshield heat is operative, it must be used for all flight operations. Operation without electric windshield heat, on any or all portions of the windshield, is permissible provided (1) The airplane is not flown in known icing conditions, and (2) The maximum speed limit below 10,000 ft. is 187 KCAS.																																	
Weight & c.g. limits (gear up or down)	<table border="0"> <thead> <tr> <th rowspan="2"><u>Condition</u></th> <th rowspan="2"><u>Wt./Lbs.</u></th> <th colspan="2"><u>Most fwd. (c.g.)</u></th> <th colspan="2"><u>Most Aft.</u></th> </tr> <tr> <th><u>%MAC</u></th> <th><u>E.S.</u></th> <th><u>%MAC</u></th> <th><u>E.S.</u></th> </tr> </thead> <tbody> <tr> <td>Takeoff</td> <td>135,000</td> <td>20.8</td> <td>521.6</td> <td>30.0</td> <td>536.8</td> </tr> <tr> <td>Landing</td> <td>118,000</td> <td>18.6</td> <td>518.0</td> <td>30.0</td> <td>536.8</td> </tr> <tr> <td>Zero Fuel</td> <td>105,000</td> <td>16.1</td> <td>513.9</td> <td>29.2</td> <td>535.4</td> </tr> </tbody> </table> <p>Reference U.S.A.F. T.O. 1C-130B-1</p>		<u>Condition</u>	<u>Wt./Lbs.</u>	<u>Most fwd. (c.g.)</u>		<u>Most Aft.</u>		<u>%MAC</u>	<u>E.S.</u>	<u>%MAC</u>	<u>E.S.</u>	Takeoff	135,000	20.8	521.6	30.0	536.8	Landing	118,000	18.6	518.0	30.0	536.8	Zero Fuel	105,000	16.1	513.9	29.2	535.4				
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Datum	Fuselage Station 94.0, W.L. 142.98, BL 0 (NAS 221 screw head on bottom of forward fuselage, 71.0" forward of center line of nose gear strut).																																	
M.A.C.	164.5", leading edge M.A.C., F.S. 487.4																																	
Leveling means	Provisions for leveling by plum line are installed in the cargo compartment on the left side of approximately F.S. 637. A plumb line support bracket is located on the fuselage side panel at approximately W.L. 252, B.L. 64L, and a leveling plate is located on top of the cargo floor curb at approximately W.L. 150, B.L. 64L.																																	
Minimum crew	Three (3) - Pilot, Co-Pilot, and Flight Engineer																																	
Passengers	None, except for essential crew as defined in FAR 91.																																	
Cargo compartment	Length Width Height Usable volume Maximum cargo	40 ft. 9 ft., 11 1/2 in. 9 ft. 3,780 cu. ft. 35,000 lbs.																																
	Reference Loading Data for approved loading schedule: U.S.A.F. T.O. 1C-130A-9, "Cargo loading Handbook," and Supplement No. 1, dated April 28, 1967																																	
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The above fuel weights are not to be exceeded. (Tank Volume may be calculated using fuel density of 6.5 lbs./gal.) Arm varies with fuel loading. Reference Loading Data in U.S.A.F. T.O. 1C-130B-1.
See Note 1 for unusable fuel

Oil capacity Four (4) independent tanks, one in each nacelle above the engine (Arm 442.0). Capacity for each, 8 gallons usable, total 12 gallons. Capacity for all, 32 gallons usable, total 48 gallons.

See Note 1 for system oil

Maximum operating alt. 32,000 feet.

Other operating limitations Aircraft shall be operated in compliance with the operating limitations specified in the following documents:

- (1) U.S.A.F. T.O. 1C-130B-1, dated 17 September 1965, changed 26 September 1966.
- (2) Flight Crew Checklist, T.O. 1C-130B-1CL-1, dated 17 September 1965.
- (3) FAA Approved AFM Supplement No. 3587-1 for Lockheed C-130B Airplane S/N 3587(AF60-5452)

Control surface movements

					Rigging Inst. <u>Drawings</u>
Rudder	35°	Right	35°	Left	371951
Elevator	40°	Up	15°	Down	374429
Ailerons	25°	Up	15°	Down	356300
Rudder Tab	25°	Right	25°	Left	371951
Elevator Tab	6°	Up	25°	Down	374429
Aileron Tab	20°	Up	20°	Down	356300
Wing Flap	36°	Down (100%)			372066

Serial Nos. eligible 3587

Certification basis FAR 21.25(a)(2) effective February 1, 1965

Type Certificate No. A5SO issued April 27, 1967 for the carriage of outsize cargo in the furtherance of the C-5 airplane program. This operation to be conducted in furtherance of operator's own business only.

Application for Type Certificate dated April 21, 1967.

Production basis None - Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.

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

Service information Maintenance of the aircraft will be in accordance with the approved procedures of the company. A Progressive Inspection System will be established per FAR 91.171.

- NOTE 1. (a) Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary 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.
- (b) The Airplane must be loaded so that the c.g. is within the specified limits at all times. Moment change due to gear retraction is negligible.

- (c) The weight of the system fuel and oil as defined below, and hydraulic fluid, must be included in the airplane empty weight.

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 level flight attitude.

Unusable (includes drainable and trapped fuel):

Tank	<u>Lbs.</u>	<u>Arm</u>
1	65	555.3
2	65	565.4
3	65	565.4
4	65	555.3
Left Aux.	0	
Right Aux.	0	
TOTAL	260	
Trapped or line fuel	149	563.5

*This column includes 41 lbs. of fuel (trapped in lines) distributed to each tank at 5 lbs. per tank.

System Oil: The weight of oil remaining in the engine, lines, and tanks after subtracting the usable oil from the total capacity.

Total: 221 lbs., Arm 442.0

- (d) Fuel Loading and Usage.

- (1) Fuel must be loaded and used to provide compliance with the "Fuel Unbalance" limitation contained in U.S.A.F. T.O. 1C-130B-1. Refer to U.S.A.F. T.O. 1C-130B-1 for normal fuel management procedures.
- (2) Phillips fuel additive PFA-55MB may be used in concentrations not to exceed 0.15% by volume. No fuel system anti-icing credit is allowed.

NOTE 2. The following documents are required for the Model C-130B:

- (a) U.S.A.F. T.O. 1C-130B-1, dated 17 September 1965, changed 26 September 1966, "Flight Manual."
- (b) U.S.A.F. T.O. 1C-130B-1CL-1, dated 17 September 1965, "Pilots' and Flight Mechanic's abbreviated Flight Crew Checklist."
- (c) FAA Approved AFM Supplement No. 3587-1 for Lockheed C-130B Airplane S/N 3587(AF60-5452)
- (d) U.S.A.F. T.O. 1C-130A-9, "Cargo Loading Handbook," and Supplement No. 1, dated April 28, 1967.
- (e) U.S.A.F. T.O. 1-1B-40, "Handbook of Weight and Balance Data for AF60-5452."

- NOTE 3. (a) Propeller blade angles are measured at the blade 42 inch stations with the propeller on a test post under conditions established by the applicable Hamilton Standard Maintenance Manual.
- (b) Propeller blade angles are indicated on the back-up valve housing under conditions established in the applicable Lockheed Model C-130B Maintenance Manual.

NOTE 4. Prior to civil airworthiness certification, Lockheed-Georgia Company must show that the following has been accomplished:

- (a) Modifications in accordance with Lockheed-Georgia Company Drawing No. 397582.
- (b) Compliance with Lockheed-Georgia Service Bulletin 82-153, dated December 1, 1966.
- (c) Compliance with all U.S.A.F. Technical Orders which affect airworthiness.
- (d) Inspect all fuel tanks for sealant deterioration and repair as necessary.

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