

MODELS: North American (Army) P-51C, P-51D and P-51K (Approved 4/10/47)

SPECIFICATION NUMBER: L-11-3

(Eligible for certification in Limited Category only.)

(Holder of Limited Type Certificate: Cavalier Aircraft Corp., P.O. Box 1719, Sarasota, FL)

Engines	Rolls-Royce V-1650-3 or -7
Fuel	Grade 100/130
Engine limits	V-1650-3: Maximum continuous (low blower) (17,400 ft.) 46 in.Hg., 2700 rpm (1110 hp) Maximum continuous (high blower) (29,500 ft.) 46 in.Hg., 2700 rpm (950 hp) Takeoff (five minutes) (Sea level) 60 in.Hg., 3000 rpm (1380 hp) V-1650-7: Maximum continuous (low blower) (11,300 ft.) 46 in.Hg., 2700 rpm (1180 hp) Maximum continuous (high blower) (23,400 ft.) 46 in.Hg., 2700 rpm (1065 hp) Takeoff (five minutes) (Sea level) 61 in.Hg., 3000 rpm (1490 hp)
Propellers	Diameter 11'2", Governor 4010, Hamilton Standard 24D50 hubs
	Blades Stop settings at 42" sta. Low High
	J6523A-24 23.2 degrees 65.2 degrees
	J6487A-24
	K6523A-24
	J6487A-24 24.2 degrees 55.2 degrees
	6547A-6 23.2 degrees 65.2 degrees
	Aeroproducts A542A1 hub, A20-156-24M blades; diameter 11'0".
Airspeed limits	(See NOTE 2)
	Altitude Maximum Glide or Dive Speed
	0 to 10,000 505 mph
	10,000 to 20,000 400 mph
	20,000 to 30,000 325 mph
	Level flight or climb speed 325 mph
Maximum weight	10,500 lbs.
C.G. range	21 percent to 31 percent MAC gear down. (Landing gear retraction has negligible effect on C.G. movement.)
Datum	139 inches forward of jig point (Tapped hole on bottom of wing center rib.)
MAC	79.6 inches, L.E. MAC 119.1 inches
Other operating limitations	Army T.O. AN-01-60JD-1 and AN-01-60JE-1
Certification basis	Limited Type Certificate No. 11 (CAR 9 effective 11/21/46)
Production basis	None may be produced under this approval
Export eligibility	Not eligible for a Certificate of Airworthiness for

Export

Equipment:

No equipment other than engines and propellers are specified. However, such equipment as required by Civil Air Regulations Part 43.30 for the particular operation authorized for NC aircraft must be installed. Also, any additional equipment necessary for the proper operation of the aircraft. In addition, the aircraft may incorporate such military equipment (except armament) as was originally incorporated in the type for military or naval service. Additional equipment may be installed as can be substantiated on the basis that it presents no obvious hazard to safety.

NOTE 1. Weight and Balance Report including list of equipment included in the certificated empty weight must be submitted for each aircraft. Army or Navy weight records in current condition may be submitted in lieu of an actual weight. The equipment list need include no more than the following:

- (a) Required equipment as defined under "Equipment" above.
- (b) Additional items as may be reasonably considered removable and are so located or of such weight that their removal or addition could noticeably affect the weight and balance of the aircraft. Items built into the aircraft structure need not be listed. The equipment list must be prepared by the applicant for the approval of the certificating FAA representative, and in such form that it can be attached to the FAA Operation Limitations.

NOTE 2. The following placards must be prominently displayed in the positions indicated:

- (a) In full view of passengers: "This is a military type aircraft and under the Civil Air Regulations shall not be used for the carriage of passengers or cargo for compensation or hire."
- (b) In the cockpit in full view of the pilot:
 - (1) A dive limits placard in accordance with Figure 28, T.O. AN-01-60JE-1 for all models.
 - (2) "Do not extend full flaps above 165 mph."
 - (3) "Do not operate landing gear above 170 mph."
- (c) The airspeed indicator shall be marked as follows:
 - (1) A red radial line at 505 mph.
 - (2) A green radial line at 325 mph.
 - (3) A yellow arc (precautionary range) shall extend from the green radial line to the red radial line.

NOTE 3. The following statement must appear on the Operation Limitations: "This airplane must be operated at all times within the limitations set forth in Army Technical Order No. AN-01-60JD-1 for the P-51C and AN-01-60JE-1 for the P-51D and P-51K, and T.O. 01-60-123, 01-60-126 and 01-60J-26 for applicable model except for limitations specifically called out in Aircraft Specification AL-11 in which case the values given in the Specification must be observed. A copy of Army Technical Order (insert correct T.O. number) and Aircraft Specification AL-11 must be carried during flight." In all cases it will be the responsibility of the applicant to secure copies of the Army Technical Orders. The FAA does not have these documents available for distribution.

NOTE 4. All structural repairs should be made in accordance with Army Technical Orders AN-01-60JD-3 for the P-51C, and AN--1-60JE-3 for the P-51D and P-51K. If any repairs or modifications (other than those covered in the pertinent Army repair manual) are made prior to and/or subsequent to NL certification, it is the responsibility of the owner to furnish sufficient evidence to a FAA representative to show that the modified airplane maintains the same degree of airworthiness as the original. The FAA can give no technical assistance on such matters since complete structural data for NL aircraft are not required by Part 9 and therefore are not available in the FAA.

NOTE 5. Prior to obtaining certification for night operation, the following modifications to the exterior lighting must be made in order to comply with the general requirements of the Civil Air Regulations.

- (1) Position Lights
 - (a) Wing Tip - If Type A-7 or A-8 light assemblies are installed, they must be replaced with type certificated light assemblies. If Type A-9 (AN-3033-10 or AN-3033-5 through 8) light assemblies are installed, they may be satisfactorily modified by painting the sand blasted portion of the inner surface of the AN-1042-3 and -4 covers black. The AN-3033-9 or AN-3033-1 through -4 light assemblies are satisfactory without modification.
 - (b) Tail - The Type D-1 (AN-3091-1 through -3) and the Type D-2 (AN-3092-1 through -3) light assemblies are unsatisfactory and must be replaced with type certificated units.
- (2) Position Light Installation
The position lights shall be installed to comply with the requirements of the CAR, Parts 15.2 and 03.538.
- (3) Position Light Circuit and Control

The position lights (wing tips and tail) shall be controlled by one SPST switch. The circuit should be protected by its own fuse or circuit breaker. The individual wing tip and tail light switches with dim and bright positions shall be removed and the dimming resistors presently installed shall be disconnected.

(4) Other Exterior Lights

With the exception of the landing lights, any other exterior lights are not required and may be removed if so desired.

The list of mandatory changes required prior to original certification may be obtained from Federal Aviation Administration, Washington, D.C. 20590.