

DOUGLAS AIRCRAFT CO., INC.

MODELS: Douglas (Army) A-20B, C, G, H and J (Approved 3/31/47)

SPEC. NUMBER: L-9-2

(Eligible for Certification in Limited Category Only.)

(Holder of Limited Type Certificate Hughes Aircraft Co., Culver City, CA)

Engines	2 Wright R-2600-11, -23 or -29
Fuel	100 octane (R-2600-11 and -29) 91 octane (R-2600-23)
Engine limits	R-2600-11: Maximum, except takeoff (low blower) (Sea level) 34.6 in. Hg., 2300 rpm (1290 hp) (6500 ft.) 34.6 in. Hg., 2300 rpm (1350 hp) Maximum, except takeoff (high blower) (9000 ft.) 37.8 in. Hg., 2300 rpm (1230 hp) (12,600 ft.) 37.8 in. Hg., 2300 rpm (1275 hp) Takeoff (five minutes) (low blower) (Sea level) 43.0 in. Hg., 2400 rpm (1600 hp) R-2600-23: Maximum, except takeoff (low blower) (Sea level) 38.5 in. Hg., 2300 rpm (1350 hp) Maximum, except takeoff (high blower) (9300 ft.) 39.5 in. Hg., 2300 rpm (1275 hp) (13,800 ft.) 38.0 in. Hg., 2300 rpm (1275 hp) Takeoff (five minutes) (low blower) (Sea level) 44.0 in. Hg., 2400 rpm (1600 hp) R-2600-29: Maximum, except takeoff (low blower) (Sea level) 40.5 in. Hg., 2400 rpm (1500 hp) (5000 ft.) 19.0 in. Hg., 2400 rpm (1500 hp) Maximum, except takeoff (high blower) (8700 ft.) 43.5 in. Hg., 2400 rpm (1350 hp) (14,500 ft.) 41.0 in. Hg., 2400 rpm (1350 hp) Takeoff (five minutes) (low blower) (Sea level) 44.5 in. Hg., 2600 rpm (1700 hp) or 44.5 in. Hg., 2300 rpm (1700 hp)
Propellers	Hamilton Standard 23E50-343, -381, -407, -473, -483, -505 or -573 hub; 6353A-21 or 6193A-3 blades. Diameter 11'4" Governor 4C8, 4H8, or 4X11
Airspeed limits	(See NOTE 2) Glide or dive - 395 mph
Maximum weight	Landing 24,000 lbs. Takeoff 25,200 lbs.
C.G. range	16 percent to 31.5 percent MAC (wheels down) (C.G. movement caused by gear retraction of maximum takeoff weight - 1.5 in. (1.5 percent))
Datum	234 in. forward of main wheel centerline
MAC	100.23 in. L.E. MAC 180 in.
Other operating Limitations	Army Technical Order AN-01-40AL-1
Certification basis	Limited Type Certificate No. 9 (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 C.A.A. representative, and in such form that it can be attached to the C.A.A. Operation Limitations.

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

- a. In full view of all 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:
  - "Do not extend flaps above 175 mph."
  - "Do not extend landing gear above 175 mph."
  - "Do not operate emergency landing control above 150 mph."
  - "All acrobatics prohibited."

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-01-40AL-1 except for limitations specifically called out in Aircraft Specification AL-9 in which case the values given in the specification must be observed. A copy of the pertinent Army Technical Order and Aircraft Specification AL-9 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 C.A.A. does not have these documents available for distribution.

NOTE 4. All structural repairs should be made in accordance with Army Technical Order AN-40AL-2 for the A20C, G, H and J models and AN-40AC-2 for the A20B. If any repairs or modifications (other than those covered in the pertinent Army or Navy 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 C.A.A. representative to show that the modified airplane maintains the same degree of airworthiness as the original. The C.A.A. 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 C.A.A.

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 present Type A-7, A-8 and A-9 light assemblies on the vertical stabilizer or the Type D-1 (AN-3091-1 through -3) and the Type D-2 (AN-3092-1 through -3) light assemblies on the tail cone are unsatisfactory and must be replaced with type certificated units.

(2) Position Light Installation

The position light shall be installed to comply with the requirements of the CAR, Parts 15.2 and 3.538.

(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. On the later models the individual wing tip and tail light switches with dim and bright positions shall be removed and the dimming resistors 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.

No original NL airworthiness certificates may be issued after 8/31/48. The list of mandatory changes required prior to original certification may be obtained from CAA Aircraft Service, Washington 25, D.C. Attn: A-298.