

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

2-572 Revision 1 BOEING O-47B September 29, 2011
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TYPE CERTIFICATION DATA SHEET NO. 2-572

Type Certificate Holder:	The Boeing Company 4000 Lakewood Blvd Long Beach, California 90846																								
Type Certificate Holder Record:	North American Corporation transferred Type Certificate No. 2-572 to The Boeing Company on January 16, 2009																								
<u>Model: O-47B, 1 PCLM (See NOTE 5), Approved August 1, 1945</u>																									
Engine	Wright Cyclone GR-1820G-102 with 3:2 reduction gearing																								
Fuel	90 minimum octane aviation gasoline																								
Engine limits	Maximum, except take-off (Sea level) 36.7 in.Hg., 2200 rpm (900 hp) (Straight line manifold pressure variation with altitude to 6000 ft.) 35.0 in.Hg., 2200 rpm (900 hp) Take-off (one minute) 43.0 in. Hg., 2350 rpm (1100 hp) or 43.0 in. Hg., 2200 rpm (1100 hp)																								
Airspeed limits	Level flight or climb – 210 mph True Indicated Glide or dive – 262 mph True Indicated. Flaps extended – 135 mph True Indicated																								
C.G. range	(Landing gear extended – see NOTE 2) (+21.2) [19.2 percent Mean Aerodynamic Cord (MAC)] to (+26.3) (24.5 percent MAC)																								
Datum	Leading Edge (LE) of wing root																								
MAC	95.9 in. LE MAC (+2.8)																								
Leveling means	Leveling lugs on right side above wing center section (outside of fuselage)																								
Maximum weight	8380 lbs																								
No. of seats	Pilot (+18) (See NOTE 5)																								
Maximum baggage	(See NOTE 1)																								
Fuel Capacity	200 gallons (four tanks – two fuselage 60 gallons each (-2) and (+86) and two wing 40 gallons each (+45))																								
Oil capacity	18 gallons (-29) (See NOTE 4)																								
Control surface movements	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Wing flaps</td> <td style="width: 30%;"></td> <td style="width: 30%;">Down 45 degrees</td> </tr> <tr> <td>Elevator tab</td> <td>Up 6 degrees</td> <td>Down 10 degrees</td> </tr> <tr> <td>Elevator</td> <td>Up 29.5 degrees</td> <td>Down 21 degrees</td> </tr> <tr> <td>Aileron tab</td> <td>Up 12 degrees</td> <td>Down 12 degrees</td> </tr> <tr> <td>Aileron</td> <td>Up 20 degrees</td> <td>Down 14 degrees</td> </tr> <tr> <td>Rudder tab</td> <td>Right 6 degrees</td> <td>Left 11.5 degrees</td> </tr> <tr> <td>Rudder</td> <td>Right 33.5 degrees</td> <td>Left 30 degrees</td> </tr> <tr> <td>Stabilizer</td> <td>Fixed</td> <td></td> </tr> </table>	Wing flaps		Down 45 degrees	Elevator tab	Up 6 degrees	Down 10 degrees	Elevator	Up 29.5 degrees	Down 21 degrees	Aileron tab	Up 12 degrees	Down 12 degrees	Aileron	Up 20 degrees	Down 14 degrees	Rudder tab	Right 6 degrees	Left 11.5 degrees	Rudder	Right 33.5 degrees	Left 30 degrees	Stabilizer	Fixed	
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Stabilizer	Fixed																								
Serial Nos. eligible	All AAF numbers when modified in accordance with NOTE 1																								
Required equipment	1, 2, 101, 103, 104, 107, 108, 201, 202, 301, 302, 401																								
Certification basis	Airworthiness Certificate only (CAR 04 prior to 11/9/45)																								

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Export eligibility

Subject to inspection for equipment specified in Chapter XII of Inspection Handbook:

- (a) Canada – Landplane
Skiplane – not eligible
- (b) All other countries except Australia and New Zealand

Equipment:

Items included in required lists under specifications pertinent to individual model may not be removed unless replaced by approved equivalent items.

The effect upon balance of all equipment changes must be computed and the aircraft operation record revised accordingly.

Values in inches shown in parenthesis after each item represent horizontal arms to the C.G. of the item measured minus (-) ahead and plus (+) to the rear of the datum.

A plus (+) or minus (-) sign preceding the weight of an optional item indicates the net weight change between that item and the equivalent required item.

Propellers and Propeller Accessories (except De-Icing Equipment)

- | | | | |
|----|---|----------|-------|
| 1. | Hamilton Standard propeller, hub 3E50, blades 6111A-12 to 6111A-14, inclusive. Diameter 10' 6-3/8" maximum, 10' 3-5/8" minimum. Low pitch setting 17 degrees at station 42. | 345 lbs. | (-76) |
| 2. | Propeller governor (Hamilton Standard W-535) | | (-69) |

Engine and Engine Accessories – Fuel and Oil System

- | | | | |
|------|---|---------|-------|
| 101. | Oil radiator (UAP 10 in. type C8) | 25 lbs. | (-32) |
| 102. | Starter (Eclipse model 10, type 426) | 48 lbs. | (-29) |
| 103. | Hydraulic pump (Eclipse type GE-1) | 3 lbs. | (-39) |
| 104. | Fuel pump, engine-driven (Chandler-Evans type AN4101CE) | | (-25) |
| 105. | Exhaust gas analyzer (Breeze) (Army 27872) | | (-23) |
| 106. | Oil dilution system | | |
| 107. | Wobble pump (Aero type D-2) | 3 lbs. | (-24) |
| 108. | Oil filter (Cuno type AR4) | | (-42) |
| 109. | Vapor eliminator (King Seeley type A-6) (with relief valve) | | (-38) |

Landing Gear and Floats

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|------|--|----------|--------|
| 201. | 33 inch wheels (Bendix No. 55902) with 13 x 2-1/2 brakes (Bendix No. 55941) and 8-ply smooth contour tires | 188 lbs. | (+8) |
| 202. | 12.5 inch tail wheel (Hayes D-3746A) with 4-ply smooth contour tire | 10 lbs. | (+262) |
| 203. | Parking brake | | |

Electrical and Radio Equipment

- | | | | |
|------|---|---------------|-------|
| 301. | Generator (Eclipse Type D-7) | 32 lbs. | (-35) |
| 302. | Battery (58 amp hr. (5 hr. rate)) | 71 lbs. | (-25) |
| 303. | Two landing lights (fixed) | 2.6 lbs. each | |
| 304. | Passing light | 1 lb. | |
| 305. | Radio, variable. Weight and location of items should be shown in weight and balance report. | | |

Interior Equipment

- | | | | |
|------|-----------------------------------|---------|--------|
| 401. | Vacuum pump (Type B-3) | 8 lbs. | (-39) |
| 402. | Flare rack | 6 lbs. | (+188) |
| 403. | Cabin heater | | |
| 404. | Oxygen control valve and cylinder | 23 lbs. | |
| 405. | Oxygen bottles | 20 lbs. | (+125) |

Miscellaneous (not listed above)

- | | | | |
|------|---|--|--|
| 600. | Miscellaneous items as noted under this number in approved weight and balance report. | | |
|------|---|--|--|

NOTE 1. Eligible for civil certification for solo flying or carriage of cargo or goods only. Prior to original certification the following must be accomplished:

- (a) Carburetor Anti-icing
 - (1) Add an alcohol anti-icing system of not less than 3 gallon tank capacity. The anti-icing fluid pump must be capable of delivering a flow rate of not less than 10 gallons per hour.
 - (2) As an alternate to (1) above, an improved preheat system capable of providing a 100 degree F. heat rise at 75 percent power in 30 degree F. outside air may be installed.
- (b) In order to be eligible for certification for day operation, fuses in circuits to electrical equipment used in such operation must be made accessible to the pilot in flight.
- (c) In order to be eligible for night operation the position lights must be replaced with approved type lights. In addition, fuses in circuits to electrical equipment used in such operation must be made accessible to the pilot in flight.
- (d) Seats. Remove the center and rear seats and install suitable cargo tie-downs or cargo compartments.
- (e) Dual Flight Controls. Remove the dual flight controls from the center compartment, or "box-in" these controls in such a manner as to render them inoperative as well as to preclude the possibility of interference by cargo.
- (f) Submit a weight and balance report, loading schedule and/or loading placard showing the cargo load and disposition and order of fuel tank usage. Two hundred pounds (maximum) may be carried in the baggage compartment and 200 lbs. (plus weight of seats and other equipment removed) may be carried in the center and rear seat compartments.

The changes made to comply with Items (a), (c), (d), and (e) should be submitted to the nearest FAA Aircraft Certification Office for approval.

NOTE 2. The C.G. limits were determined with the landing gear extended. The airplane must be loaded so that its C.G. position with the landing gear extended is always between the limits shown.

NOTE 3. The following placards must be displayed on the instrument panel in full view of the pilot:

- (a) "Do not lower landing gear when speed is above 125 mph."
- (b) "Intentional acrobatics prohibited."

NOTE 4. Unless suitable oil measuring device is installed, oil tank must be placarded: "Fill at least until oil can be drained from petcock."

NOTE 5. Airplane eligible for patrol and photographic operation. The center and rear seats may be retained in the airplane for these operations, but the following placard must be installed on instrument panel: "Only personnel essential to the purpose of the flight may be carried."

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