

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

672  
Revision 3  
  
HOWARD  
DGA-11  
  
August 17, 2009

AIRCRAFT SPECIFICATION NO. 672

Holder of Type Certificate:      Howard Aircraft Foundation  
P.O. Box 649  
Washington, OK 73093

Type Certificate Holder Record:      Jobmaster Co. transferred ownership to the Howard Aircraft Foundation on  
December 10, 2003.

I - Model DGA-11, 5 PCLM, Approved October 30, 1937

Engine	P&W Wasp Jr. SB with one 4-1/2N and one 9 N damper
Fuel	80 minimum octane (CFR) (87 minimum for takeoff)
Placard limits	Maximum, except takeoff: (Sea level) 34.5 in. Hg., 2200 rpm (400 hp) (Straight line manifold pressure variation with altitude to 5000 ft.) 33.5 in. Hg., 2200 rpm (400 hp) Takeoff (one minute): 36.5 in. Hg., 2300 rpm (450 hp)
Propeller	Maximum permissible diameter 103 in.
Placard speeds	Level flight or climb – 200 mph True Ind. Glide of dive – 270 mph True Ind. Flaps extended – 108 mph True Ind.
Fuel capacity	127 gallons max. (three tanks in fuselage) (See Item 208 and NOTE 4)
Oil capacity	8 gallons (-30)
No. passengers	4 (front +14, rear +56)
Baggage	120 lbs. (compartment aft of rear seats) (+84)
Standard weight	4100 lbs.
C.G. limits	(+10.2) and (+20.6)
Control surface movements	Elevators      28°      up      22°      down (measured from centerline of stabilizer when cord line of stabilizer is parallel to thrust line) Rudder      30°      right      30°      left Aileron      28°      up      22°      down Stabilizer      4°      up      8°      down Wing flaps      45°      down
Spec. basis	Type Certificate No. 672 (Aero. Bulletin 7A requirements)
Serial Nos. eligible	300 to 303 inclusive (see NOTE A).

**EQUIPMENT:**

(Datum is wing leading edge) (\* Means net increase) (See NOTE 3)

**Class I:**

- |  |         |         |
|--|---------|---------|
| 101. Engine ring cowl (See NOTE 2)                       | 35 lbs. | (-39.5) |
| 102. 10.5 in. streamline steerable tail wheel (Goodrich) | 7 lbs.  | (+194)  |

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103. 7.50- 10 wheels (Goodyear 10HBM) with 8.50- 10 6-ply tires (wheels must be placarded for these tires)	76 lbs	(0)
104. Propeller - Hamilton Standard 2D30 hub with 6095A-15, 6095A-16, 6167A-15, or 6167A-16 blades. For interchangeable blade models see Propeller Specification No. 206 (NOTE 6). Diameter 8' 3-1/8" maximum, 8' 7/8" minimum.	154 lbs.	(-62)
105. Oil cooler (G & O Model B-2617-1)	15 lbs.	(-28)

## Class II:

200. Miscellaneous items as noted in approved weight and balance report.		
201. Starter (Eclipse F-141-M-2394)	25 lbs.	(-29)
202. Generators		
(a) Eclipse G	17 lbs	(-34.5)
(b) Eclipse D	23 lbs.	(-34.5)
203. Wheel streamlines	24 lbs.	(+5)
204. Battery (12V, aft of baggage compartment)	(use actual wt.)	(+104)
205. One or two landing lights (Grimes)	4 lbs. each	(+19)
206. Heater (cabin and carburetor)	7 lbs.	(-39)
207. Flares (four 1-1/2 minute)	21 lbs.	(+80)
208. Fuel Tanks:		
(a) Front tank – 30 gallons (optional)	17 lbs.	(-10)
(b) Main tank -- 60 gallons (standard)		(+28)
(c) Rear tank – 37 gallons (standard)	21 lbs.	(+61)
209. Constant speed propeller control	5 lbs.	(-32)
210. Pressure fire extinguisher	12 lbs.	(-27) or (+14)
211. Radio, variable (location and actual weight of installation including controls, etc., or name of manufacturer and model if already installed and included in the actual weight empty, should be noted on inspector's report)		
212. Cambridge exhaust analyzer	11 lbs.	(-22)
213. Built-in parachutes (rear)	20 lbs. each	(+57)
214. Vacuum pump (Romec B2A)	4 lbs.	(-36)
215. Miscellaneous extra instruments	5 lbs	(-15)
216. Engine (must have one 4 1/2 N and one 9 N damper)		Use actual weight increase
(a) P & W Wasp Jr. SB-2 (limits same as SB)		
(b) P & W Wasp Jr. SB-3 (limits same as SB)		
(c) P & W Wasp Jr. T1B2 limits: Maximum, except takeoff: (Sea level) 35 in. Hg., 2200 rpm (400 hp) (Straight line manifold pressure variation with altitude to 3800 ft.) 34 in. Hg., 2200 rpm (400 hp) Takeoff (one minute): 35 in. Hg., 2200 rpm (400 hp) 37.5 in. Hg., 2300 rpm (450 hp)		
(d) P & W Wasp Jr. T1B3 (limits same as T1B2, Item 216(c) above)		
(e) Military R-985-AN-4 (limits same as SB)		
(f) Military R-985-AN-6 or -AN-6B (limits same as SB)		
(g) Military R-985-AN-12 or -AN-12B (limits same as SB)		
(h) Military R-985-AN-14B (limits same as SB)		
(i) Military R-985-25 (limits same as T1B2, item 216(c) above)		

- (j) Military R-985-AN-1 or -AN-3  
(limits same as T1B2, Item 216(c) above)
- (k) R-985-13, -17, -19, -23, -48, -50,  
-AN-2, or -AN-9 (limits same as SB)
- (l) R-985-27 (limits same as T1B2)

## Class III:

- 301. Built-in parachutes (front) 20 lbs each (+15)
- 302. 10.5 in. streamline steerable tailwheel  
(per Drawing D-13-02, change C) No change in weight

NOTE A. Serial numbers 300 to 303 were produced by Howard Aircraft Corp. as Model DGA-11 in 1938 and 1939. Additionally, each new aircraft manufactured after 11/12/40, must, prior to original certification, satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before any covering, metal priming or final finish is applied. All woodwork may be varnished.
- (b) A final inspection of the completed aircraft.
- (c) A check of the flight characteristics.

NOTE 1. Eligible for export as follows subject to inspection for equipment Specified in Chapter XII of Inspection Handbook:

- (a) Canada
  - Landplane
  - Skiplane - not eligible.
- (b) All other countries except Great Britain, Australia and New Zealand.

NOTE 2. Serial Nos. 302 and up incorporate modified engine cowl, electrical equipment, instrument panel, and minor structural changes.

NOTE 3. Weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be submitted for each aircraft with original inspector's report, and each subsequent report covering changes in Class I or Class II equipment.

NOTE 4. Fuel tanks and fuel selector valves must be placarded as shown in pertinent weight and balance report.

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