

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

612 Revision 3
HOWARD DGA-8 (Army UC-70C)
August 17, 2009

AIRCRAFT SPECIFICATION NO. 612

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.

Model DGA-8 (Army UC-70C), 5 PCL-SM, Approved July 15, 1936

Engine	Wright R-760E-2
Placard limits	Maximum, except takeoff - 2200 rpm (320 hp) Takeoff (one minute) - 2400 rpm (350 hp)
Placard speeds	Landplane: Level flight or climb -- 202 mph True Ind. Glide or dive -- 288 mph True Ind. Flaps extended -- 108 mph True Ind. Seaplane: Level flight or climb -- 190 mph True Ind. Glide or dive -- 270 mph True Ind. Flaps extended -- 108 mph True Ind.
Fuel capacity	127 gallons (three tanks in fuselage): Front 30 gallons (-10), Main 60 gallons (+28), and rear 37 gallons (+61) (See Note 1.)
Oil capacity	8 gallons (-30)
Number of passengers	4, front (+13.8), rear (+56.3)
Baggage	120 lbs. (compartment aft of rear seats) (+84)
Weights	Empty -- Use actual (Seaplane approximately 336 lbs. increase over landplane) Standard (landplane) 3800 lbs., Seaplane 3899 lbs.
C.G. limits	Landplane: (+6.3) and (+19.0) Seaplane: (+7.6) and (+14.5)
Control surface movements	(per Dwg. D-16-13) Elevators 28° up 22° down (measured from centerline of stabilizer when chord line of stabilizer is parallel to thrust line) Rudder 30° right 30° left Ailerons 28° up 22° down Stabilizer 4° up 8° down Wing flaps 45° down
Spec. basis	Type Certificate No. 612 (Aero. Bulletin 7A requirements)
Serial numbers eligible	71 to 88 inclusive (see Note A).

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Equipment: (Datum is wing leading edge.) (\*Means net increase) (See Note 3.)

Class I:

(a) Landplane

101. Engine ring cowl	35 lbs.	(-50)
102. Starter (Eclipse E-80)	25 lbs.	(-35)
103. Generator (Eclipse G)	17 lbs.	(-34)
104. Wheel streamlines (Dwg. D-13-10)	18 lbs.	(+ 4)
105. Battery (12V, in engine compartment)	(use actual wt.)	(-29)
106. 10.5 in. streamline tail wheel (Goodrich)	7 lbs.	(+194)
107. 7.50-10 wheels (Goodyear 10 HBM) with 7.50-10 6-ply tires (wheels must be placarded for these tires)	70 lbs.	( 0)
108. Propeller - controllable metal (Hamilton Standard 2B20 hub, blades 6135A-12 or 6109A-12) (Low pitch setting - Landplane 14 degrees)	107 lbs.	(-68)

(b) Seaplane: Items 101, 102, 103, 105, 108, 207 PLUS

151. EDO 39-4000 floats with water rudders	545 lbs.	(-21)
152. Seaplane fin under fuselage	12 lbs.	(+171)
153. Large fin and rudder	6 lbs.*	(+165)

Class II:

200. Miscellaneous items as noted in approved weight and balance report.		
201. Landing lights		
(a) One or two (Grimes retractable ST-250)	3.5 lbs.each	(+19)
(b) One or two (Grimes retractable ST-1000)	3.0 lbs. each	(+19)
202. 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 empty weight, should be noted on Inspector's report.)		
203. Flares		
(a) Three 1-1/2 minute	21 lbs.	(+80)
(b) Four 1-1/2 minute	24 lbs.	(+80)
204. Heater	4 lbs.	(-28)
205. Miscellaneous extra instruments	5 lbs.	(-15)
206. Seaplane fittings	7 lbs.	(+20)
207. 7.50-10 wheels (Hayes 750A or Goodyear 10MBM)	No change in weight	
208. Optional fuel tanks for 180 gallon capacity (per Dwg C-15-11, Rev A):		
(a) Front tank - 43 gallons (replacing std. 30-gallon tank)	19 lbs.	(-10)
(b) Main tank - 100 gallons (replacing std. 60-gallon tank)	3 lbs.*	(+23)
(c) Rear tank - 37 gallons (std.)	17 lbs.	(+61)
209. 11-gallon oil tank (may be placarded for less capacity when used with various fuel capacities)	2 lbs.*	(-30)
210. Constant speed propeller control	5 lbs.	(-34)
211. Pressure fire extinguisher		(-27) or (+14)
(a) Pyrene 52	10 lbs.	
(b) Lux	19 lbs.	
(c) 2 Pyrene C62	12 lbs.	
212. Generator		
(a) Eclipse Type D	23 lbs.	(-34)
(b) Eclipse E-6 (with control box)	35 lbs.	(-29)
213. Cambridge exhaust analyzer	11 lbs.	(-22)
214. Built-in parachutes (rear)	20 lbs. each	(+57)
215. Vacuum pump (Romec B2A)	4 lbs.	(-34)
216. Battery (12V, in engine compartment)	(use actual wt.)	(-29)
217. Electric auxiliary fuel pump (Pesco R-400-BRD)	6 lbs.	(-28)

## Class III.

- |      |  |                     |
|------|--|---------------------|
| 301. | Tail wheels  |                     |
|      | (a) 10.5 in. streamline steerable (per Dwg. D-13-02, change C) | No change in weight |
|      | (b) 10 in. smooth contour                                      | No change in weight |
| 302. | Built-in parachutes (front)                                    | 20 lbs. each (+15)  |

Note A. Serial numbers 71 to 88 were produced by Howard Aircraft Corp. as Model DGA-8 from 1936 to 1938. Additionally, each new aircraft manufactured after 11/12/40, prior to original certification, must 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. Fuel tanks and fuel selector valves must be placarded as shown in pertinent weight and balance report.

Note 2. Eligible for export as follows subject to inspection for equipment specified in Chapter III of Inspection Handbook (8/7/41):

- (a) Canada
  - Landplane
  - Skiplane -- not eligible
  - Seaplane -- maximum standard weight 3899 lbs.
- (b) All other countries except Great Britain, Australia, and New Zealand.

Note 3. Weight and balance report including a 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.

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