



HOWARD FEATURES

- 1 Structurally the Howard is the strongest approved commercial airplane in America as evidenced by the approval for speed in excess of 300 miles per hour.
- 2 High lift flaps used on the Howard allow extremely steep descent and the unusually low landing speed of less than 50 miles per hour with full load.
- 3 Extraordinarily high wing loading made possible by the use of these flaps assures an almost unbelievable smoothness even in rough air at high speeds.
- 4 The ultimate in aerodynamic efficiency permits cruising speeds greater than the swiftest airline transports without resorting to the complications of retracting gears, the use of excessive power, or the sacrifice of structural strength.
- 5 Airline completeness in equipment, quality of engine, instruments, accessories, built-in stamina, and luxurious appointments complete the airplane for the man who demands airline security and performance without having to adhere to established routes and schedules.

SPECIFICATION and PERFORMANCE HOWARD DGA-8 320 H. P. Wright

SPECIFICATIONS		WEIGHTS		Lbs.
Wing span	38 ft.	4 passengers @ 170		680
Length	25 ft. 8 ins.	Baggage @ 30 lbs. each		120
Height overall	9 ft. 5 ins.	Gasoline 90 gallons		540
Wing area	185.52 sq. ft.	Oil 7 gallons		53
Wing loading	20.48 lbs./sq. ft.			1393
Power loading	11.87 lbs./H.P.	Empty weight		2300
		Total available for extra gasoline and equipment		107
		Gross weight allowable		3800
		Total allowable useful load		1500

PERFORMANCE

Cruising speed and range at optimum altitude	
Cruising speed	190 M.P.H.
Rate of climb	1800 ft. per min.
Service ceiling	20,000 ft.
Cruising range	950 miles
Landing speed	48 M.P.H.

STANDARD EQUIPMENT

Wright Whirlwind R760E2 320 H.P. Engine; Hamilton Standard Controllable Pitch Propeller; Grimes Automatically Retracting Landing Lights; Complete Night-Flying Equipment, Navigation Lights, Instrument Lights; Indirect Lighting of Instrument Panel; Shock Mounted Instrument Panel; 4-1 $\frac{1}{4}$ Minutes International Flares; Goodyear 6-ply 7.50-10 Tires and Tubes; Goodyear Wheels and Hydraulic Brakes; Goodyear 10.50 in. Streamline Tail Wheel and Tire; Parking Lock for Brakes; Tail Wheel Lock; 90-gallon Gasoline Capacity; Rate of Climb Indicator; Bank and Turn Indicator; Airspeed Indicator; Sensitive Type Altimeter; Oil Temperature Indicator; Oil Pressure Indicator; Oil Level Indicator; Compass; Tachometer; Manifold Pressure Gauge; Fuel Pressure Gauge; Fuel Level Indicator; Stabilizer Position Indicator, electrically operated; Ammeter; Clock; Outside Air Temperature Indicator; Cabin Air Temperature; Carburetor Air Temperature Indicator; Cylinder Head Temperature Indicator; Electric Starter; Generator; 12-volt Storage Battery; RCA-AVR 7B or 7C Two-band Radio Receiver; Thorough Bonding and Shielding of Plane and Motor; Built-in Antenna (Rain, Snow and Ice-proof); Cabin Heater and Ventilator with Cabin Control; Oil Heater, Cabin-controlled; Engine-driven Fuel Pump with auxiliary hand wobble pump; Fire Extinguisher; Tools and Log Books; Safety Glass Windows on sides with openings on sides of front seats; Genuine Leather Seats; Assist Cords, Cabin Lights, Ash Trays, and Cabin Accessories; Choice of Berry Colors with Hand-Rubbed Finish (a slight additional charge is made for white or cream and for any special marking problems); Seapak Soundproofing; Wheel Pants; Parachute Door Release; Arens Controls.

SPECIFICATION and PERFORMANCE HOWARD DGA-9 285 H. P. Jacobs

SPECIFICATIONS		WEIGHTS		Lbs.
Wing span	38 ft.	4 passengers @ 170		680
Length	25 ft. 8 ins.	Baggage @ 30 lbs. each		120
Height overall	9 ft. 5 ins.	Gasoline 60 gallons		360
Wing area	185.52 sq. ft.	Oil 7 gallons		53
Wing loading	20.48 lbs./sq. ft.			1213
Power loading	13.33 lbs./H.P.	Empty weight		2150
		Total available for extra gasoline and equipment		437
		Gross weight allowable		3800
		Total allowance useful load		1680

PERFORMANCE

Cruising speed and range at optimum altitude	
Cruising speed	166 M.P.H.
Rate of climb	1200 ft. per min.
Service ceiling	18,000 ft.
Cruising range	650 miles
Landing speed	48 M.P.H.

STANDARD EQUIPMENT

Jacobs L-5 285 H.P. Engine; Curtiss Reed Metal Propeller; Goodyear 6-ply 7.50-10 Tires and Tubes; Goodyear Wheels and Hydraulic Brakes; Goodyear 10.50 Streamline Tail Wheel, Tire, and Tube; Parking Lock for Brakes; Tail Wheel Lock; 60-gallon Gasoline Capacity; Rate of Climb Indicator; Bank and Turn Indicator; Airspeed Indicator; Oil Temperature Indicator; Oil Pressure Indicator; Compass; Tachometer; Altimeter; Manifold Pressure Gauge; Fuel Pressure Indicator; Fuel Level Indicator; Stabilizer Position Indicator, electrically controlled; Ammeter; Clock; Electric Starter; Generator; 12-volt Storage Battery; Cabin Heater and Ventilator; Engine-driven Fuel Pump with Auxiliary hand wobble Pump; Fire Extinguisher; Tools and Log Books; Safety Glass Windows on sides with openings on both sides of front seats; Genuine Leather Seats; Assist Cords, Cabin Lights, Ash Trays, and Cabin Accessories; Seapak Soundproofing; Parachute Door Release; Arens Controls.

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