

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION

A-784
Revision 3
GOODYEAR
GA-2
GA-2B

December 2, 1949

AIRCRAFT SPECIATION NO. A-784

Manufacturer Goodyear Aircraft Corporation
Akron, Ohio

I. Model GA-2, 3 PCAmM, approved February 28, 1947

Engine	Franklin GA4-145-A3
Fuel	80 min. octane aviation gasoline
Engine Limits	For all operations, 2600 rpm (145 hp)
Airspeed Limits	Level flight or climb 120 mph True Ind. Glide or dive 150 mph True Ind. Landing gear down 115 mph True Ind.
C.G. Range	(+53.2) to (+60.6)
Empty Weight C. G. Range	(+61.5) to (+64.3). When empty weight C.G. falls within this range, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.
Maximum Weight	2200 lbs.
No. Seats	3 (two at +18, one at +46)
Maximum baggage	80 lb. (+67) (except none for Serial No. XA-11)
Fuel Capacity	30 gal. (one 30-gal. tank) (+68)
Oil Capacity	2 gal. (+70)
Control surface movements	Elevator Up 23° Down 13° Elevator tab Up 23° Down 23° Rudder Left 20° Right 20° Aileron Up 25° Down 15°
Serial nos. eligible	XA-11, 4021, 4025 to 4032, inclusive.
Required equipment	Items 1, 101, 102, 103, 104, 105, 106, 201, 202, 203 and 302.

II. Model GA-2B, 3PCAmM, approved August 12, 1949

Engine	Franklin 6A4-165-B3
Fuel	80 min. octane aviation gasoline
Engine Limits	For all operations, 2800 rpm (165 hp)
Airspeed Limits	Level flight or climb 120 mph True Ind. Glide or dive 150 mph True Ind. Landing gear down 115 mph True Ind.

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C.G. Range	(+53.2) to (+60.6)			
Empty Weight C.G. Range	(+61.5) to (+65.0). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Range is not valid for non-standard arrangements.			
Maximum Weight	2300 lbs.			
No. Seats	3 (two at +18, one at +46)			
Maximum Baggage	80 lbs. (+67)			
Fuel Capacity	42 gal. (two 21 gal. wing tanks) (+50)			
Oil Capacity	9 qts. (+70)			
Control surface movements	Elevator	Up	20°	Down 16°
	Elevator tab	Up	18°	Down 23°
	Rudder	Left	20°	Right 20°
	Aileron	Up	25°	Down 15°
	Stabilizer	Fixed		
Serial nos. eligible	4019, 4020, 4022, 4023, 4024, 4033 and up.			
Required equipment	Items 2, 101, 102, 103, 104, 105, 106, 201, 202, 203, and 302.			

SPECIFICATIONS PERTINENT TO ALL MODELS

Datum	Any point on aft face of vertical windshield frame.
Leveling means	Bottom of door frame.
Certification basis	Type Certificate No. 784 (CAR 4a)
Production basis	None. Prior to original certification a CAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.
Export eligibility	<p>Eligible for export to all countries except as follows, subject to the provisions of ASR 312 (MOP 2-4 contains the same information:</p> <p>Canada - Landplane: eligible</p> <p>Skiplane: not eligible</p>

Equipment: A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.

Propellers and Propeller Accessories

1. Koppers Aeromatic F200 with 00-78 blades (Model GA-2) 32 lbs. (+93)
Pitch range, 12.8° to 26.3° at 24 in. sta.
Static rpm at max. permissible throttle setting -
Not over 2570, not under 2470. No additional tolerance permitted.
2. Koppers Aeromatic F200/00-76BL (Model GA-2B) 32 lbs. (+93)
Parts List Assembly No. 4378-1
Installation and operation must be accomplished in accordance with Koppers "Installation Procedure and Operating Limitations No. 48."
Low pitch setting 13° at 24 in. sta.
Static rpm at max. permissible throttle setting -
Not over 2750, not under 2680. No additional tolerance permitted.
Diameter: Not over 76 in., not under 74.5 in.
3. Sensenich 2 position controllable Model LCS-3FR5/LPC 376B4-2 (Model GA-2B) 36 lbs. (+90)
Pitch at 28 in. station: Low 11.5°, high 16.6°.
Diameter: Not over 74 in., not under 72.5 in.

Engines and Engine Accessories - Fuel and Oil System

101.	Starter (Delco-Remy with solenoid), Model No. 1109681	16 lbs. (+56)
102.	Carburetor air heater and scoop, Goodyear Dwg. 2A600-2 (Model GA-2)	11 lbs. (+65)
	Carburetor air heater and scoop, Goodyear Dwg. No. 2A600-602 (Model GA-2B)	11 lbs. (+65)
103.	Engine-driven fuel pump, AC No. EC-1539072	3 lbs. (+62)
104.	Emergency hand fuel pump, Aero Mfg. Co. Model 560 Type D2	4 lbs. (+39)
105.	Oil cooler, Heat Exchanger's Inc. Model 100 (Model GA-2)	7 lbs. (+66)
	Oil cooler, Heat Exchanger's Inc. Model 100 (Model GA-2B) (both required)	
	Model 102-C	7 lbs. (+66)
	Model 1050	5 lbs. (+75)
106.	Engine cooling blower, Goodyear Dwg. No. 2A660-2	16 lbs. (+89)
	All airplanes also require propeller flange extension, Dwg. No. 2A660-4.	
107.	Auxiliary wing tank, Goodyear Dwg. 2A100S501 (Model GA-2 only)	11 lbs. (+44)
108.	Cabin heater (Model GA-2B)	13 lbs. (+64)

Landing Gear

201.	Two main wheel-brake assemblies, 6.00-6, Type III and 7.00-6 4-ply rating tires with tubes	
(a)	Goodyear Model L6HBD	37 lbs. (+39)
	Wheel Assembly No. 511413-M	
	Brake Assembly No. 9520292	
(b)	Goodyear Model CL6HBM	47 lbs. (+39)
	(cross-wind wheel)	
	Wheel-brake Assembly No. 266AX36	
	Wheel installation Dwg. No. 280AX1	
202.	Tai Wheel Assembly	
(a)	Goodyear Dwg. No. 2A421-2-100	14 lbs. (+213)
(b)	Goodyear Dwg. No. SK-12148 (for XA-11 only)	12 lbs. (+220)
203.	Landing gear retraction crank Goodyear Dwg. No. 2A417-18	1 lb. (+37)

Electrical Equipment

301.	Generator, Delco-Remy 25 amp., with voltage regulator	16 lbs. (+55)
302.	Battery, Reading Model R33L, and box (Model GA-2)	31 lbs. (-31)
	Battery, Reading Model R33L, and box (Model GA-2B)	31 lbs. (+39)
303.	Landing lights, Goodyear Dwg. 2A100S500 (Model GA-2)	3 lbs. (+47)
	Landing lights, Goodyear Dwg. 2A100-634 (Model GA-2B)	3 lbs. (+47)

Interior Equipment

401.	Life Preservers - Inflated seat back cushions (3)	
	2 front	5 lbs. (+18)
	1 rear	2 lbs. (+46)

Miscellaneous (not listed above)

601.	Water anchor, Northill Co., No. 6, with line and clevis (Model GA-2)	8 lbs. (-43)
	Water anchor, Danforth Mark V, with line and clevis (Model GA-2B)	3 lbs. (-43)
602.	Water rudder, retractable, Goodyear Drawing No. 2A200-5	3 lbs. (+240)

NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

NOTE 2. The following placards must be displayed in front of and in clear view of the pilot:

- (a) "Do not extend landing gear above 115 mph."
- (b) "Intentional spins prohibited."

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