

**TYPE CERTIFICATE DATA SHEET NO. 1**

T.C. 1 Revision 2 TZ-123000 GZ-19 GZ-19A GZ-20 GZ-20A Reissued 5/4/01
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**Current type certificate holder:**     **LOCKHEED MARTIN NAVAL ELECTRONICS & SURVEILLANCE SYSTEMS - AKRON**  
(LOCKHEED MARTIN TACTICAL DEFENSE SYSTEMS, LORAL DEFENSE SYSTEMS - AKRON, GOODYEAR AEROSPACE CORPORATION)

MODELS: Goodyear Airship TZ-123000 (Navy L). GZ-19, GZ-19A, GZ-20, GZ-20A  
(Revised 7/12/96)

**I - Specifications Pertinent to All Models**

Certification basis                   Type Certificate No. 1 (This type airship originally certificated January 1935 on basis of Navy approval.)

NOTE 1. Helium only to be used for lifting gas.

**II - Model TZ-123000 (Navy L), Approved 6/21/46**

Engines	2 Warner Super Scarabs
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2050 rpm (145 hp)
Maximum weight	7626 lbs.
No. seats	7
Maximum baggage	41 lbs. (aft of cabin)
Fuel capacity	100 gallons (two 50 gallon tanks on top of car)
Oil capacity	10 gallons
Serial Nos. eligible	All Navy serial numbers

**III - Model GZ-19 Airship, Approved 9/16/59**

Engines	2 Continental G0-300-A. Serial Nos. 5276 and 5277 eligible for pusher operation and propeller reversing.
Fuel	80/87 minimum octane aviation gasoline
Engine limits	All operations, 2800 rpm at 29.3" Hg. (154 hp) (derated)
Propeller and propeller limits	Hartzell constant-speed reversible propeller; hub HC-82XF-3L, blades L9333CH-3. Pitch settings at 30 in. sta: High +20.5 degrees, reverse -12 degrees.
Maximum weight	8336 lbs.
No. seats	7
Fuel capacity	100 gallons (two 50 gallon tanks on top of car)
Oil capacity	5 gallons (10 quarts per engine)
Serial Nos. eligible	C-135

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**IV - Model GZ-19A Airship, Approved 8/8/63**

Engines	2 Continental G0-300A. Serial Nos. 5276 and 5277, 5776-8-A, 6314-0-A, 6316-3-A, 6317-3-A and 6318-3-A eligible for pusher operation and propeller reversing.
Fuel	80/87 minimum octane aviation gasoline
Engine limits	All operations, 2800 rpm at 29.3" Hg. (154 hp) (derated)
Propeller and propeller limits	Hartzell constant-speed reversible propeller; hub HC-82XF-3L, blades L9333CH-3. Pitch settings at 30 in. sta: High +20.5 degrees, reverse -12 degrees.
Maximum weight	9234 lbs.
No. seats	7
Fuel capacity	145 gallons (two 50 gallon tanks and 45 gallon tank on top of car)
Oil capacity	5 gallons (10 quarts per engine)
Serial Nos. eligible	C-135; Serial Nos. C-137, C-138, C-139, C-46, C-49, and C-63 will be eligible when modified in accordance with type design data.
Equipment	Approved Equipment List GZ-19A AOE 43-63, latest revision dated 5/9/66

NOTE 1. AiResearch GTP 30-54 Auxiliary Power Unit approved for optional installation in accordance with Goodyear Drawing 6071-1900, Dump chute extension required.

NOTE 2. Placard required:

Warning: Do not transfer fuel while APU is operating.

Warning: Do not dump fuel while APU is operating.

**V - Model GZ-20 Airship, Approved 7/6/69**

Engines	2 Continental IO-360-D (Eligible for pusher operation and propeller reversing)
Fuel	100/130 minimum grade aviation gasoline, 100, 100LL
Engine limits	All operations, 2800 rpm (210 hp) at 28 in. Hg.
Propeller and propeller limits	(a) 2 Hartzell constant speed (non-feathering) reversing BHC-92WF-3LG/LW8447A-6R pitch setting at the 30 in. station - low: 8.75 degrees, high: 21.0 degrees, reverse: -13 degrees. Diameter: Maximum 78 inches, no reduction permitted. Governor: Hartzell F-6-19 or F-6-19A. (b) 2 Hartzell constant speed (non-feathering) reversing BHC-92WF-3LG/LW8447A-8Q pitch setting at the 30 in. station - low: 8.75 degrees, high: 21.0 degrees, reverse: -13 degrees. Diameter: Maximum 76 inches, no reduction permitted. Governor: Hartzell F-6-19 or F-6-19A.
Maximum weight	12,320 lbs.
No. seats	7
Fuel capacity	306 gal. (5 tanks), right 49 gal. (48 gal. usable), left 44 gal. (43 gal. usable), reserve 49 gal. (48 gal. usable), 2 Auxiliary 82 gal. each (80 gal. usable).
Oil capacity	10 qt. (7 qt. usable)
Serial Nos. eligible	C-64; C-137 and C-49, will be eligible when modified in accordance with type design data.
Equipment	Approved Equipment List GZ-20 airship, revision F, dated 3/17/80 and FAA Approved Flight Manual revised 3/15/80 or subsequent FAA Approved revision.

- NOTE 1. AiResearch GTP 30-54 Auxiliary Power Unit approved for optional installation in accordance with Goodyear Drawing 20Z050-001. Dump chute extension required.
- NOTE 2. Stewart Warner 940F-24 Combustion Heater approved for optional installation in accordance with Dwg. 20Z374-001.
- NOTE 3. Placard required:
- (a) Caution: Continuous operation not permitted between 2150 and 2450 R.P.M. with external fuel tanks installed.
  - (b) The following placard is optional in lieu of the placard described in Note 3.(a) when Hartzell BHC-92WF-3LG/LW8447A-6R propellers are installed: "Caution: Continuous operation not permitted between 2150 and 2400 R.P.M. with external fuel tanks installed."
  - (c) Warning: Do not transfer fuel while APU is operating.

#### **VI - Model GZ-20A Airship, Approved 4/19/72**

Engines	2 Continental IO-360-D (Eligible for pusher operation and propeller reversing)
Fuel	100/130 minimum grade aviation gasoline, 100, 100LL
Engine limits	All operations, 2800 rpm (210 hp) at 28 in. Hg.
Propeller and propeller limits	(a) 2 Hartzell constant speed (non-feathering) reversing BHC-92WF-3LG/LW8447A-6R pitch setting at the 30 in. station - low: 8.75 degrees, high: 21.0 degrees, reverse: -13 degrees. Diameter: Maximum 78 inches, no reduction permitted. Governor: Hartzell F-6-19 or F-6-19A. (b) 2 Hartzell constant speed (non-feathering) reversing BHC-92WF-3LG/LW8447A-8Q pitch setting at the 30 in. station - low: 8.75 degrees, high: 21.0 degrees, reverse: -13 degrees. Diameter: Maximum 76 inches, no reduction permitted. Governor: Hartzell F-6-19 or F-6-19A.
Maximum weight	12,840 lbs.
No. seats	7
Fuel capacity	306 gal. (5 tanks), right 49 gal. (48 gal. usable), left 44 gal. (43 gal. usable), reserve 49 gal. (48 gal. usable), 2 external auxiliary 82 gal. each (80 gal. usable).
Oil capacity	10 qt. (7 qt. usable)
Serial Nos. eligible	4116, 4117, 4118, 4119
Equipment	Approved Equipment List GZ-20A Airship, Revision G, dated 6/20/86 and FAA Approved Flight Manual revised 3/15/80 or subsequent FAA Approved revision.

- NOTE 1. AiResearch GTP 30-54 Auxiliary Power Unit approved for optional installation in accordance with Goodyear Drawing 20Z050-001. Dump chute extension required.
- NOTE 2. Stewart Warner 940F-24 Combustion Heater approved for optional installation in accordance with Dwg. 20Z374-001.
- NOTE 3. Placard required (on Main Instrument Panel):
- (a) Caution: Continuous operation not permitted between 2150 and 2450 R.P.M. with external fuel tanks installed.
  - (b) The following placard is optional in lieu of the placard described in Note 3.(a) when Hartzell BHC-92WF-3LG/LW8447A-6R propellers are installed: "Caution: Continuous operation not permitted between 2150 and 2400 R.P.M. with external fuel tanks installed."

- (c) This airship must be operated as a normal category aircraft in compliance with operating limitations stated in the form of placards, markings, and Approved Flight manuals.
- (d) This airship is Approved for VFR-IFR, day-night.
- (e) Warning: Do not refuel or dump fuel while APU is operating.
- (f) (AFT COMPARTMENT) Warning: Do not refuel while APU is operating.
- (g) (ON CONTROL LINE) Warning - Air-to-Helium sleeve Tie-Off-Pull only in emergency after removing external binding cord.
- (h) Warning - Airline control - pull chord to increase air flow into helium only after Air-to-Helium system is in operation.

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