

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

A17SO  
Revision 12  
Cougar  
GA-7  
August 14, 2019

TYPE CERTIFICATE DATA SHEET NO. A17SO

This data sheet, which is a part of Type Certificate (TC) Number A17SO, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder  
Cougar Aircraft Corporation  
c/o Wayne Mansfield  
28 Glendale Road  
Boxford, MA 01921

Type Certificate Holder Record  
SOCATA, S.A. (known now as Daher Aerospace) 65009 Tarbes Cedex France transferred IMPORT TC A17SO to Cougar Aircraft Corporation c/o Wayne Mansfield on May 23, 2019.  
Grumman American Aviation Corporation transferred to SOCATA, S.A. 65009 Tarbes Cedex France, circa 1995. The Direction Générale de l'Aviation Civile (DGAC) France originally type certificated this aircraft under its type certificate Number TC 190, circa 1997. The European Aviation Safety Agency (EASA) began oversight of this product on September 28, 2003, on behalf of France, deeming the DGAC France TC 190 to be an EASA TC in accordance with Article 3 of Commission Regulation (EU) No. 748/2012. The FAA subsequently validated this product as IMPORT TC A17SO. There was no production.  
Grumman American Aviation Corporation, original holder, date of application August 09, 1974, date of issuance September 22, 1977. Production ceased with serial number 0115.

I. - Model GA-7, Cougar, 4 PCLM Normal Category, approved September 22, 1977

Engine 2 each Lycoming Engines model O-320-D1D with Marvel Schebler Carburetor HA - 6 Setting 10-5189 or 10-5224, TC E-274

Fuel 100 Minimum grade aviation gasoline

Engine Limits For all operations, 2700 RPM (160 HP)

Propeller and Propeller Limits 2 each Hartzell model HC-F2YL-2UF/FC7663D-3, TC P27EA

Pitch setting at 30 inch station:  
Feather  $81.0^\circ \pm 1.0^\circ$ ; High  $17.0^\circ \pm 1.5^\circ$   
Low  $11.5^\circ \pm 0.1^\circ$

Diameter: Maximum 73 inches, Minimum 72 inches, no further tolerance permitted  
Spinners: Spinner Assembly 7P10608  
Governors: Hartzell F-6-40

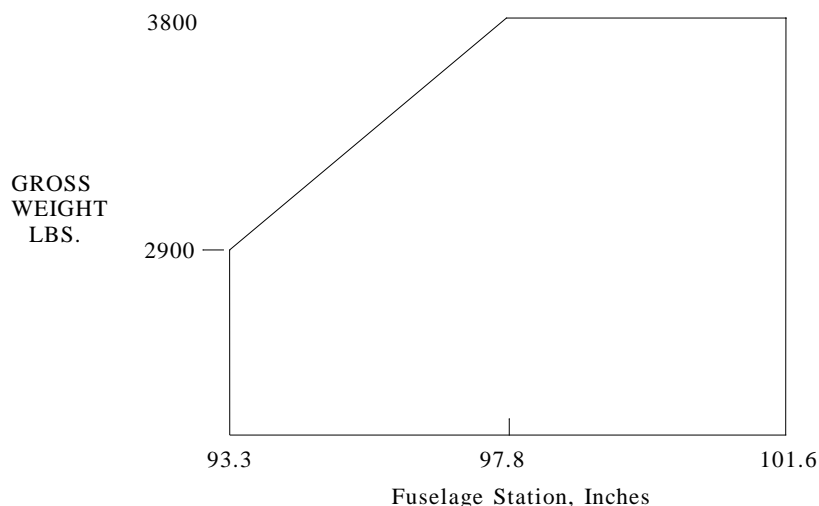
Airspeed Limits  
(calibrated airspeed)

$V_{ne}$ (never exceed)	191 knots	(220 mph)
$V_{no}$ (maximum structural cruise)	162 knots	(186 mph)
$V_a$ (maneuvering, 3800 lbs.)	121 knots	(139 mph)
$V_a$ (maneuvering, 2800 lbs.)	105 knots	(121 mph)
$V_{fe}$ (flaps extended $30^\circ$ )	110 knots	(127 mph)
$V_{lo}$ (landing gear operating extend)	146 knots	(168 mph)
$V_{lo}$ (landing gear operating retract)	115 knots	(132 mph)
$V_{le}$ (landing gear extended)	146 knots	(168 mph)
$V_{mc}$ (minimum control speed)	59 knots	(68 mph)

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C.G. Range  
Landing Gear Extended.

(+97.8 to (+101.6) at 3800 lbs.  
(+93.3) to (+101.6) at 2,900 lbs.  
Straight line variation between points given.



Empty weight C.G. Range

None

Datum

50.00 inches forward of the forward fuselage bulkhead.

Leveling Means

Bottom of Fuselage WL 23.0

Maximum Weight

3800 lbs.

Minimum Crew

One, left seat.

Number of Seats

2 at (+91.0)  
2 at (+128.0)

Maximum Compartments Weight

75 lbs. at (+26.0)  
175 lbs. at (+160.0)

Fuel Capacity

118 U.S. gallons (2 wing tanks) at 112.0.  
(114. U.S. gallons usable) See NOTE 1 for unusable fuel.

Oil Capacity

8 quarts per engine (6 quarts usable, each engine) See NOTE 1.

Control Surface Movements  
(Nominal from Neutral)

Ailerons	Up $25^\circ \pm 2^\circ$	Down $15^\circ \pm 2^\circ$
Elevator	Up $17^\circ \pm 1^\circ$	Down $16^\circ \pm 1^\circ$
Elevator Trim Tab		
(elevator neutral) trailing edge	Up $4^\circ \pm 1^\circ$	Down $30^\circ + 2^\circ - 3^\circ$
Flaps		Down $30^\circ \pm 2^\circ$
Rudder (left & right)	$40^\circ \pm 2^\circ$	
Rudder Trim Tab		
(left & right)		
(rudder neutral)	$15^\circ \pm 1.5^\circ$	
Nose wheel travel,		
(controllable left and right)	$18^\circ \pm 2^\circ$	

Manufacturer's Serial Numbers

0001 through 0115 reserved for original TC holder, EASA confirms that no aircraft  
where manufactured by SOCATA, S.A.  
0116 and subsequent reserved for current TC holder

Certification Basis

FAR 23 effective February 1, 1965, and amendments 23-1 through 23-14; and FAR 36 effective December 1, 1969, and amendments 36-1 through 36-4.

Findings of equivalent levels of safety were made for the emergency exit window (FAR 23.807), and the airspeed indicator (FAR 23.1545(a)).

Production Basis

None. Before original airworthiness certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics. In the event of an application for a standard airworthiness certificate or, if an applicant intends to produce a new aircraft under 14 CFR §21.183(d), and the applicant is manufacturing, building, or assembling to another person's type certificate, the applicant must provide written evidence of permission from the type certificate holder. Conduct of such activity without written evidence of permission may be a violation of 49 U.S.C. §44704(a)(3).

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, Aircraft Flight Manual GA-7, dated September 22, 1977 for serial number 0001 through 0040 is required; Pilot's Operating Handbook and Aircraft Flight Manual dated April 10, 1978, revised October 15, 1978, for serial number 0041 and subsequent is required.

## NOTE 1:

Weight and Balance

A current weight and balance report, including the list of equipment included in the certificated empty weight and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center-of-gravity locations must include undrainable oil and unusable fuel as noted below:

Fuel (both tanks)	24 lb. at 112.0
Oil (both tanks)	7.5 lb. at 64.4

## NOTE 2:

Required Placards

All placards required by either the FAA approved Aircraft Flight Manual, the applicable operating rules, or the certification basis must be installed as specified.

## NOTE 3:

Instructions for Continued Airworthiness

Information with respect to service life limited parts on this model is contained in section "Service Life Limited Components" of the Model GA-7 Service Manual. Service life limits appearing in this manual may not be changed without FAA engineering approval. See GA-7 service manual for inspection requirements. Service Life Limited parts must be retired in accordance with the following schedule:

<u>Component</u>	<u>Part Number</u>	<u>Service Life (hours)</u>
Inboard Spar Assembly	7W10201-1	47,674

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