

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

A17SO  
Revision 8  
  
SOCATA, S.A.  
GA-7  
January 12, 1998

TYPE CERTIFICATE DATA SHEET NO. A17SO

This data sheet which is a part of type certificate No. 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                      SOCATA, S.A.  
Socata Groupe Aerospatiale  
Aeroport Tarbes - Ossun - Lourdes  
B.P. 930  
65009 Tarbes Cedex  
France

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

Engine    2 Lycoming O-320-D1D with Marvel Schebler  
Carburetor HA - 6 Setting 10-5189 or 10-5224

Fuel     100 Minimum grade aviation gasoline

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

Propeller and Propeller Limits            2 Hartzell HC-F2YL-2UF/FC7663D-3

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

Spinners:      Spinner Assembly 7P10608

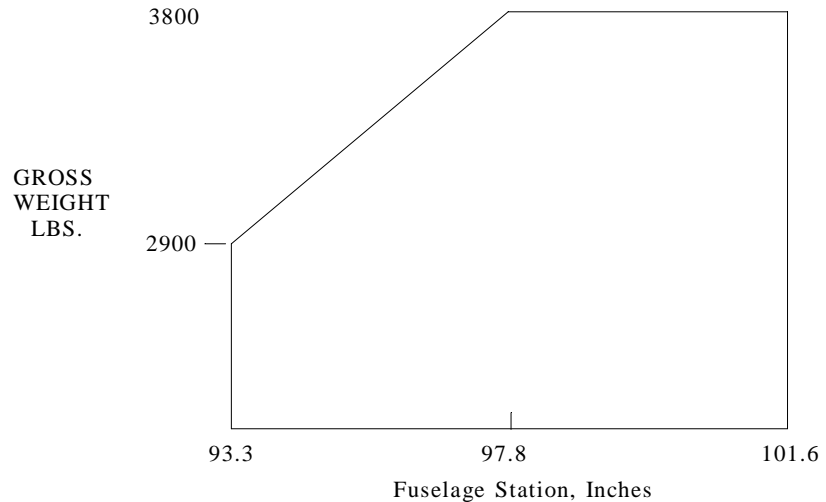
Governors:     Hartzell F-6-40

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°)	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 (+97.8 to (+101.6) at 3800 lbs.  
Landing Gear Extended. (+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.

Number of Seats

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

Maximum Baggage

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)		$18^\circ \pm 2^\circ$		

Serial Numbers Eligible

0001 through 0115

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Certification Basis

For serial numbers 0001 through 0115, inclusive:

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.

Type Certificate No. A17SO issued September 22, 1977. Date of Application for Type Certificate August 9, 1974.

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

Production in the United States ceased with serial number 0115.

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, S/N 1 through 40: A GA-7/Cougar Pilot's Operating Handbook and FAA Approved Airplane Flight Manual dated September 22, 1979; S/N 40 and subsequent: Pilot's Operating Handbook and Airplane Flight Manual dated April 10, 1978, revised October 15, 1978, is required.

NOTE 1: Current weight and balance report including the list of equipment included in certificated empty weight and loading instructions, must be provided for each aircraft at the time of airworthiness 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: All placards required in the approval airplane flight manual must be installed in the appropriate locations.

NOTE 3: Service Life Limit

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

NOTE 4: By virtue of licensing agreement, product support and parts availability reside with Fletcher Inc., 9000 Randolph St., Houston, TX, 77061, (713)-649-8700 or (800)-329-4647.

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