

FEDERAL AVIATION ADMINISTRATION

A-801  
Revision 4  
EMIGH  
Trojan A-2

January 18, 1994

TYPE CERTIFICATE DATA SHEET NO. A-801

Type Certificate Holder      Edward Scott Kearns  
13030 North 85th Street  
Scottsdale, Arizona 85620

I - Model Trojan A-2, 2 PCLM (Utility Category) Approved December 21, 1948

Engine	Continental C85-12F (See Item 103 for optional engine).		
Fuel	80 min. octane aviation gasoline		
Engine limits	For all operations, 2575 rpm (85 hp)		
Airspeed limits	Vp (maneuvering speed)	99 mph True Ind.	
	Vno (max. structural cruising speed)	126 mph True Ind.	
	Vne (never exceed speed)	156 mph True Ind.	
C.G. range	(82.8) to (85.2)		
Empty weight C.G. range	(81.2) to (82.6) When E. W. 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.		
Datum	60.5 in. forward of leading edge of wing center section. (Due to structural change in later serial numbers, description of datum has changed. Datum itself remains unchanged).		
Leveling means	(Longitudinal) Canopy ledge (either side) (Lateral) Cabin floor.		
Maximum weight	1450 lbs.		
No. of seats	2 (86)		
Maximum baggage	100 lbs. (105)		
Fuel capacity	28 gals. (87) Seven gals. of fuel not shown on gauge must be included in empty weight.		
Oil capacity	4.5 qts. (39); (6 qts. (39) for Item 103).		
Control surface movements	Elevator	15° Up	15° Down
	Aileron	15° Up	15° Down
	Rudder	20° Right	20° Left
Serial Nos. eligible	3 and up		
Required equipment	1(a), 102, 201, 202, and 401.		

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Specifications Pertinent to All Models

Certification basis	Type Certificate No. 801 (CAR 3 - Utility Category)
Production basis	None. Prior to original certification an FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.

Equipment:

Propellers and Propeller Accessories

- |   |                     |
|---|---------------------|
| 1. (a) Propeller - McCauley 1A90CF-7148             | 21 lbs. (+20)       |
| Static rpm at maximum permissible throttle setting: |                     |
| Not over 2250 , not under 2150.                     |                     |
| No additional tolerance permitted.                  |                     |
| Diameter: Not over 71 in., not under 69.5 in.       |                     |
| (b) Propeller - McCauley 1A90CF-7146                | No change in weight |
| Static rpm at maximum permissible throttle setting: |                     |
| Not over 2350 , not under 2250.                     |                     |
| No additional tolerance permitted.                  |                     |
| Diameter: Not over 71 in., not under 69.5 in.       |                     |
| (c) Propeller - McCauley 1B90CM-7150                | 21 lbs. (+20)       |
| Static rpm at maximum permissible throttle setting: |                     |
| Not over 2250 , not under 2150.                     |                     |
| No additional tolerance permitted.                  |                     |
| Diameter: Not over 71 in., not under 69.5 in.       |                     |
| (Eligible only with Item 103)                       |                     |

Engines and Engine Accessories - Fuel and Oil System

- |   |               |
|---|---------------|
| 101. Starter (Delco Remy No. 1109655)   | 16 lbs. (45)  |
| 102. Carburetor Air Intake, Filter & Heater Assem.<br>(Continental No. A40522)  | 3 lbs. (30)   |
| 103. Engine - Continental C90-12F (Item 402 required with this engine<br>in lieu of Item 401)   |               |
| Engine limits: All operations, 2475 rpm (90 hp)   |               |
| 104. Autopulse Corp. - Autopulse Model No. 500, modified and installed<br>in accordance with Emigh Aircraft Corp. Dwgs. A2-704-A2 and<br>A2-805-B2. | 3 lbs. (50)   |
| 105. Oil filter, Fram PB-5, Kit No. K510, Fram Dwg. 62826 and<br>Instruction Sheet 62825. (Weight includes 1 qt. oil)                               | 4 lbs. (49.5) |

Landing Gear

- |  |         |
|--|---------|
| 201. Two main wheel-brake assemblies, 5.00-5, Type III                               |         |
| (a) Goodyear Model L5HBM   | (103.5) |
| Wheel assembly No. 9520265   |         |
| Brake assembly No. 9520264   |         |
| 202. (a) Two main wheel 4 ply-rating tires, 5.00-5, Type III<br>(with regular tubes) | (103.5) |
| 205. One steerable nose wheel assembly, 5.00-5 Type III                              |         |
| (a) Goodyear Model L5NBM   | (46)    |
| Wheel assembly No. 9520276   |         |
| 206. (a) One nose wheel, 4 ply-rating tire, 5.00-5, Type III<br>(with regular tube)  | (46)    |

Electrical Equipment

- |      |   |                |
|------|---|----------------|
| 301. | One battery, 12 volt, 10 amp. hr. capacity<br>Item 302 is required when this item is installed. | 16 lbs. (49.5) |
| 302. | One battery vent and drain assembly   | Neglect weight |
| 303. | One generator (Delco Remy No. 1101876)  | 10 lbs. (45)   |
| 304. | One voltage regulator (Delco Remy)  | 1 lb. (51)     |
| 305. | Battery-Reading Type S24 and box (24 amp. hr.)  | 23 lbs. (110)  |

Interior Equipment

401. CAA Approved Airplane Flight Manual.
402. CAA Approved Model A-2 Airplane Flight Manual, revised July 15, 1949, applicable to both Continental C85 and C90 equipped aircraft.

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). 7 gallons of fuel that are not shown on the fuel gauge must be added into the empty weight at arm (87).

- NOTE 2. The following placards must be displayed in full view of the pilot:
- (a) "This airplane must be operated in accordance with Utility Category requirements. See Airplane Flight Manual for operating limitations and approved acrobatic maneuvers. Intentional spins prohibited."
  - (b) "No Smoking."

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