

FEDERAL AVIATION ADMINISTRATION

A-794
Revision 7
RAWDON
T1

May 1, 1978

AIRRAFT SPECIFICATION NO. A-794

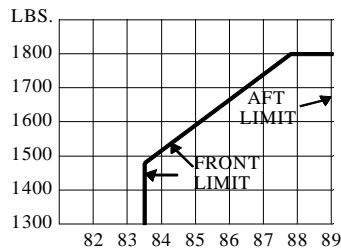
Manufacturer M. H. Spinks, Sr.
Spinks Industries
Oak Grove Airport
Fort Worth, Texas

I - Model T-1, 2 PCLM Approved September 8, 1947

Engine Lycoming O-290-C (See Item 105 for optional engine)
Fuel 73 minimum octane aviation gasoline
Engine limits For all operations, 2600 rpm (125 hp)

Airspeed limits
Level flight or climb 134 m.p.h. (117 knots) True Ind.
Glide or dive 180 m.p.h. (157 knots) True Ind.
Flaps extended 99 m.p.h. (86 knots) True Ind.

C.G. range
(+87.9) to (+89.0) at 1800 lb.s
(+83.5) to (+89.0) at 1472 lbs. or less.
Straight line variation between points given.



Empty wt. C.G. range (+83.8 to +86.2) 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.

Leveling means Upper right longeron in front cockpit.

Datum 73.3 in. forward of wing leading edge.

Maximum weight 1800 lbs. (See NOTE 4 for "Restricted" category)

No. seats 2 (one at +79 and one at +111)
Placard: "Solo from front seat only."

Maximum baggage 40 lbs. (+135)

Fuel capacity 29 gals. (+102) (with fabric covered wings installed)
38 gals. (+100) (with metal wings Item 602 installed)

Oil capacity 2 gals. (+23.5)

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| Control surface movements | Elevator | Up | 26° | Down | 28° |
| | | Up | 26° | Down | 25° (with hydraulic or hydraulic damped trim tabs). |
| | Elevator tab | Up | 11° | Down | 19° |
| | Rudder | Right | 26° | Left | 26° (fabric covered wings) |
| | | Right | 21° | Left | 21° (metal wings, Item 602) |
| | Aileron | Up | 23° | Down | 17° |
| | Flaps | Down | 30° | | |
| Serial Nos. eligible | T1-2 and up. (See NOTE 3 for serial No. T1-1). | | | | |
| Required equipment | Items 2, 102(b), 103, 104, 201(a, -2) and 202(b). | | | | |

SPECIFICATIONS PERTINENT TO ALL MODELS

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| Certification basis | Type Certificate No. 794 (CAR 4a). |
| 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. |
| Export eligibility | Eligible for export to all countries, subject to the provisions of ASR 312 (MOP 2-4 contains the same information) except as follows: (a) Canada - Landplane - eligible Skiplane - not eligible |

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. Propeller-Beech R-100 controllable with R100-217-80 blades 40 lbs. (+7)
Low pitch at 3/4R.-10° (static rpm 2300):
High pitch - 21 1/2° (eligible Serial No. T1-1 only)
2. Propeller-Fahlin D631-52 or any other fixed pitch wood propeller 13 lbs. (+7)
which is eligible for the engine power and speed and which meets the following limits: Static rpm at maximum permissible throttle setting:
Not over 2270; not under 2170. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
3. Propeller - McCauley 1A170 with the following limits: 33 lbs. (+7)
Static rpm at max. permissible throttle setting:
Not over 2220; not under 2120. No additional tolerance permitted.
Diameter: Not over 76 in., not under 74.5 in.
4. Propeller spinner (Stinson 6921000) 3 lbs. (+7)
5. Propeller-fixed pitch metal, Sensenich M76AM-2 (Eligible and required with Item 105 only) 25 lbs. (+7)
Static rpm at maximum permissible throttle setting:
Not over 2470, not under 2370. No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
6. Propeller spinner - Piper 13661-00 2 lbs. (+7)

Engine and Engine Accessories - Fuel and Oil Systems

101. Starter:
 - (a) Eclipse type 397, model E80 or 19 lbs. (+37)
 - (b) Eclipse type 635, model 4 or 18 lbs. (+37)
 - (c) Champion type 1150 16 lbs. (+37)
 - (d) Delco Remy 1109657 (Eligible with Item 105 only) 17 lbs. (+17)

102. Carburetor air heater:
- (a) Rawdon Dwg. T1-2803-20 (Eligible Serial No. T1-1 only) 4 lbs. (+36)
 - (b) Rawdon Dwg. T2-2814 (Eligible Serial No. T1-2 and up only) 1 lb. (+23)
 - (c) Rawdon Dwg. T2-2815-20 (Eligible Serial No. T1-2 and up only) 4 lbs. (+38)
103. Engine-driven fuel pump:
- (a) Pesco 2P386C 2 lbs. (+33)
 - (b) Chandler Evans 9104 2 lbs. (+33)
 - (c) AC Type AH, OP18214 (Required with Item 105) 3 lbs. (+17)
104. Hand emergency fuel pump:
- (a) AC-1523869 2 lbs. (+80)
 - (b) Aero Supply #54808 1 lb. (+70)
105. Lycoming O-290-D2 engine (Eligible Serial No. T1-2 and up only) Use actual wt increase
Limits: For all operations, 2600 rpm (135hp)
Fuel, 80/87 Grade minimum octane aviation gasoline.
106. Oil cooler-Harrison APO6C-104-02 (Required with Item 105) 3 lbs. (+17)

Landing Gear

201. Two main wheel-brake assemblies, 6.00-6, Type III:
- (a) Goodyear Model L6HBD Wheel Assembly No. Brake Assembly No. 9520298
 - (1) With 6.00-6 4-ply rating tires and tubes 36 lbs. (+73)
(Eligible Serial No. T1-1 only)
 - (2) With 7.00-6 4 ply rating tires and tubes 38 lbs. (+71)
202. Tail wheel assembly:
- (a) Hayes SC-376 (Eligible Serial No. T1-1 only) 4 lbs. (+265)
 - (b) Maule SFS-1-2 6 lbs. (+267)

Electrical Equipment

301. Generator - Eclipse type 307, model 8 and cowl support bracket 16 lbs. (+36)
302. (a) Battery 12 volt, 24 amp. hr. (5 hr. rate) 24 lbs. (+132)
- (b) Battery - NAF 1062-17A, 12 volt or equivalent 27 lbs. (+49)
(Placard required: "Use only spill proof type battery.")
303. Generator - Delco Remy 1101891 11 lbs. (+15)

Interior Equipment

401. Cabin heater:
- (a) Rawdon Dwg. T1-2803-33 including EC117 (Eligible Serial No. T1-1 only) 4 lbs. (+39)

Miscellaneous (Not listed above)

601. Rawdon T1-CS Sprayer (See NOTE 4 for restrictions)
Equipment 45 lbs. (+95)
Spray fluid Maximum 507 lbs. (+108.5)
602. Metal wings (replacing fabric covered wings required weighing of airplane).

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. For "Standard Version" Aircraft, the following placards must be displayed:

- (a) In the rear cockpit in full view: "Solo from front seat only."
- (b) Adjacent to the battery in full view: "Use only spill proof type battery."
For "Restricted Category" Aircraft modified for crop spraying, the following placard must be displayed:
- (c) In front cockpit in full view:
"Maneuvering Speed, $V_p = 110$ mph.
Severe Pull-ups Should be Confined to Speeds Below 110 mph.
No Acrobatic Maneuver Including Spins Approved with Spray Tank Installed."

NOTE 3. Serial No. T1-1 is eligible for certification under the conditions outlined below. This airplane is similar to serial No. T1-2 and up except that serial No. T1-2 and up have revised wings, fuselage and landing gear structure, power plant installation, and control surfaces and systems; increased gross weight, wheel tread and flap area; and addition of elevator tab replacing adjustable stabilizer, control quadrant, baggage compartment, relocated fuel tanks (Goodyear pliocol tanks replace metal tanks) and revised fuel system.

The aircraft limitations of serial No. T1-1 are the same as serial nos. T1-2 and up except as follows:

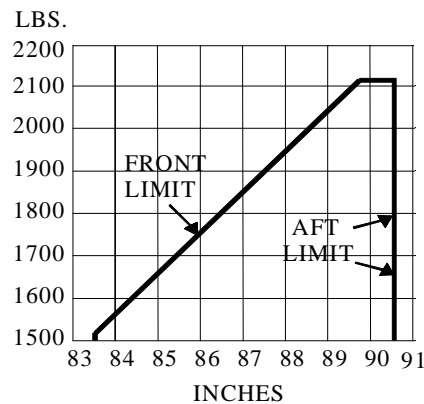
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| Airspeed limits | Glide or dive | 160 mph (139 knots) True Ind. |
| Maximum weight | 1710 lbs. | |
| No. seats | 2 (+79) and (+110) | |
| Maximum baggage | None | |
| Fuel capacity | 24 gal. (+107) | |
| Control surface movements | Rudder | Right 30° Left 30° |
| | Aileron | Up 15° Down 14° |
| | Stabilizer | Up -1° Down -6° |
| | Flaps | Down 45° |

Required equipment Items 1, 102(a), 103, 104, 201, and 202.

NOTE 4. Serial No. T1-3 and up were eligible for certification as crop sprayers under the "Restricted" category effective prior to October 11, 1950, when modified in accordance with Rawdon Installation Dwg. Nos. T2S-6001, T2S-6004, and T2S-3101 pertaining respectively to the installation of the sprayer tank and system (fuselage), spray boom and details (wing), and revised fuel tanks.

Aircraft certificated as crop sprayers in the "Restricted" category prior to October 11, 1950, are subject to the same limitations as serial No. T1-2 and up except as follows:

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| Airspeed limits | Level flight or climb 110 m.p.h. (96 knots) True Ind. |
| | Glide or dive 154 m.p.h. (134 knots) True Ind. |
| C.G. range | (+89.7) to (+90.5) at 2110 lbs. |
| | (+83.5) to (+90.5) at 1519 lbs. or less |
| | Straight line variation between points given. |



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| Empty wt. C.G. range | None |
| Maximum weight | Take-off 2110 lbs. |
| | Landing 1918 lbs. |
| No. of seats | 1 (+79) |
| Fuel capacity | 27 gals. (+102) |
| Serial Nos. eligible | T1-3 and up |

All original certification in the "Restricted" category after October 11, 1950, must be in accordance with CAR and CAM 8.

NOTE 5. Serial Nos. T1-15 through T1-19 and T1-20SD were certificated under CAR 8 and CAM 8. Any attempt to convert these airplanes to standard certification should be coordinated with the FAA Aircraft Engineering Division, Kansas City, Missouri.

Serial Nos. T1-23SD through T1-28SD are eligible for certification in the Restricted Category when manufactured in conformance with Rawdon Dwg. List No. DL-204B. The SD designation in the serial number indicates sprayer-duster. These airplanes are eligible for certification under CAR 8 only, and are subject to the following limitations:

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| Engine | Lycoming O-320-A2A |
| Fuel | 80/87 minimum grade aviation gasoline |
| Engine limits | For all operations, 2700 rpm (150 hp) |
| Propeller | Fixed pitch metal, Sensenich M74DM-0 Static rpm at maximum permissible throttle setting: Not over 2350, not under 2250. No additional tolerance permitted. Diameter: Not over 74 in., not under 72.5 in. |
| Airspeed limits | Level flight or climb 110 m.p.h. (96 knots) True Ind. Glide or dive 154 m.p.h. (134 knots) True Ind. |
| Hopper weight | Maximum structural compliance with CAM 8 is 800 lbs. The following placard must be displayed on the hopper in plain view of ground crew filling the hopper, "MAXIMUM WEIGHT OF CONTENTS ____ LBS." The actual weight to be determined in accordance with CAM 8.10-3(e)(3). |
| No. seats | 1 (+79) |
| Fuel capacity | 36 gals. (+100) |
| Required equipment | Refer to approved Rawdon equipment List DL-205B dated September 30, 1958. |

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