FEDERAL AVIATION AGENCY

A1WE
Revision 2
HAMILTON
T-28R-1
T-28R-2

October 1, 1963

TYPE CERTIFICATE DATA SHEET NO. A1WE

This data sheet which is a part of type certificate No. A1WE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder: Hamilton Aircraft Company, Inc.
6501 South Park Avenue
Tucson, Arizona

I - Model Hamilton T28R-2 (Normal Category), approved January 31, 1962 (see NOTE 2 regarding modifications required for conversion from Military T-28-A)

Engine: (1) Wright R-1820-56A, -66, -72A (with 3:2 reduction gear ratio) See NOTE 5
or (2) Wright 704C9GC1 (with 3:2 reduction gear ratio)

Fuel: 100/130 minimum grade aviation fuel

Engine limits

Engine (1)	HP.	R.P.M.	M.P. In.Hg.	Alt. Ft.
Low Impeller Ratio				
Takeoff (five min.)	1350	2700	48.0	S.L.
Maximum continuous	1200	2500	44.0	S.L.
Maximum continuous	1200	2500	43.5	2500
High Impeller Ratio				
Takeoff (five min.)	1000	2600	44.5	14500
Maximum continuous	900	2500	42.0	11000
Maximum continuous	900	2500	40.0	17000
Engine (2)				
Low Impeller Ratio				
Takeoff (five min.)	1200	2500	45.5	S.L.
Takeoff (five min.)	1200	2500	43.0	4300
Maximum continuous	1000	2300	39.5	S.L.
Maximum continuous	1000	2300	37.2	6900
High Impeller Ratio				
Takeoff (five min.)	1000	2500	44.5	14200
Maximum continuous	900	2300	40.0	15200
Maximum continuous	900	2300	42.5	9700

Propeller and propeller limits: Hamilton Standard, constant speed, 33D50 or 43D50 hub with 6601-17S blades
Diameter: Max. 121-7/8", min. allowable for repairs 120" (See NOTE 4)
Pitch setting at 42 in. station:
Engine (1) Low 20.0°, high 57°
Engine (2) Low 20.5°, high 57°

Airspeed limits

Never exceed	307 m.p.h. (266 knots) CAS
Maximum structural cruising	236 m.p.h. (205 knots) CAS
Maneuvering	180 m.p.h. (156 knots) CAS
Flaps extended	160 m.p.h. (139 knots) CAS
Landing gear extended	160 m.p.h. (139 knots) CAS

C.G. range: (+144.6) to (+150.2)
(effect of landing gear extension - 2700 in.-lb.)

Empty weight C.G. range: None

Maximum weight	Takeoff 7600 lb., Landing 7600 lb.
No. seats	5(1 at 138.5) (2 at +171.5) (2 at +200.5)
Baggage	None
Fuel capacity	170 gal. with 4 cells (two 66 gal. main wing tanks at +114 and two 19 gal. aux. wing tanks at +110) or 125 gal. with 2 cells (two 62.5 gal. main tanks at +164) See NOTE 3
Oil capacity	10 gal. (+65.2)

Control surface movements

Wing flaps		Down	36.5°	
Aileron tab	Up	12.0°	Down	3°
Aileron	Up	15.5°	Down	10°
Elevator tab	Up	15.0°	Down	15°
Elevator	Up	24.0°	Down	16.0°
Rudder tab	Left	19.0°	Right	11.0°
Rudder	Left	25.5°	Right	24.5°

(Allowable limits plus or minus 1/2°)

Serial Nos. eligible: All UASF serial Nos.

II - Model Hamilton T28R-1 (Normal Category), approved March 26, 1962 (see NOTE 2 regarding modifications required for conversion from Military T-28-A)

Same as Model T28R-2 except for tandem cockpits, interior arragement, and flight controls

Engine:
(1) Wright 1820-56A, -66, -72A (with 3:2 reduction gear ratio) See NOTE 5
(2) Wright 704C9GC1 (with 3:2 reduction gear ratio) Augmenters per Hamilton Dwg. 674-51 optional with 704C9GC1 engine.

Fuel: 100/130 minimum grade aviation fuel

Engine limits

Engine (1)	HP.	R.P.M.	M.P. In.Hg.	Alt. Ft.
Low Impeller Ratio				
Takeoff (five min.)	1350	2700	48.0	S.L.
Takeoff (five min.)	1350	2700	47.0	1300
Maximum continuous	1200	2500	44.0	S.L.
Maximum continuous	1200	2500	43.5	2500
High Impeller Ratio				
Takeoff (five min.)	1000	2600	44.5	14500
Maximum continuous	900	2500	42.0	11000
Maximum continuous	900	2500	40.0	17000
Engine (2)				
Low Impeller Ratio				
Takeoff (five min.)	1200	2500	45.5	S.L.
Takeoff (five min.)	1200	2500	43.0	4300
Maximum continuous	1000	2300	39.5	S.L.
Maximum continuous	1000	2300	37.2	6900
High Impeller Ratio				
Takeoff (five min.)	1000	2500	44.5	14200
Maximum continuous	900	2300	40.0	15200
Maximum continuous	900	2300	42.5	9700

Propeller and propeller limits: Hamilton Standard, constant speed, 33D50 or 43D50 hub with 6601-17S blades
Diameter: Max. 121-7/8", min. allowable for repairs 120" (See NOTE 4)
Pitch setting at 42 in. station:
Engine (1) Low 20.0°, high 57°
Engine (2) Low 20.5°, high 57°

Airspeed limits

Never exceed	307 m.p.h. (266 knots) CAS
Maximum structural cruising	236 m.p.h. (205 knots) CAS
Maneuvering	180 m.p.h. (157 knots) CAS
Flaps extended	160 m.p.h. (139 knots) CAS
Landing gear extended	160 m.p.h. (139 knots) CAS

C.G. range: (+144.6) to (+150.2)
(effect of landing gear extension - 2700 in.-lb.)

Empty weight C.G. range: None

Maximum weight	Takeoff 7600 lb., Landing 7600 lb.				
No. seats	2 (1 at 145) (1 at +198)				
Baggage	None				
Fuel capacity	170 gal. with 4 cells (two 66 gal. main wing tanks at +114 and two 19 gal. aux. wing tanks at +110) or 125 gal. with 2 cells (two 62.5 gal. main tanks at +164) See NOTE 3				
Oil capacity	10 gal. (+65.2)				
Control surface movements	Wing flaps			Down	36.5°
	Aileron tab	Up	12.0°	Down	3.0°
	Aileron	Up	15.5°	Down	10.0°
	Elevator tab	Up	15.0°	Down	15.0°
	Elevator	Up	24.0°	Down	16.0°
	Rudder tab	Left	19.0°	Right	11.0°
	Rudder	Left	25.5°	Right	24.5°
	(Allowable limits plus or minus 1/2°)				
Serial Nos. eligible	All UASF serial Nos.				

Data Pertinent to All Models

Datum	100.5 in. forward of fuselage nose jacking fitting (fitting located at Fuselage Station 50.5 right side of firewall)
Leveling means	Lugs in nose wheel well on aft bulkhead and side beams
Certification basis	CAR 3 as amended to May 15, 1956, and Amendments 3-1 thru 3-5. Type Certificate No. A1WE issued January 31, 1962. Date of Application for Type Certificate November 16, 1959
Production basis	None. Prior to original certification of each aircraft, an FAA representative must perform an inspection for workmanship, material and conformity with the approved technical data for the modification from military to civil version; and a check of the flight characteristics.
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certifcation. In addition, the following items of equipment are required: (a) FAA Approved Airplane Flight Manual, dated January 31, 1962, for Model T28R-2, and March 26, 1962, for Model T28R-1.

NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at time of original certification. The certificated empty weight and corresponding center of gravity locations must include system oil of 41 lb. at (+65.2) and unusable fuel of 72 lb. at (+164) with standard two-cell installation with or without integral wing tip tanks and unusable fuel of 44 lb. at (+151.5) with four-cell installation.

NOTE 2. Prior to civil certification, military model T-28A aircraft must be modified in accordance with Hamilaton Aircraft Dwg. List No. 674 to become Model T28R-2 aircraft or Dwg. List No. 674-1000 to become Model T28R-1 aircraft.

NOTE 3. Integral wing tip tanks (42 gal. each wing) are approved for the 2 cell (125 gal.) fuel system only in accordance with Hamilton Aircraft Dwg. No. 674-56.

NOTE 4. Placard on Instrument Panel in full view of the pilot:
"Avoid continuous engine operation between 1850 and 2200 rpm during ground operation and in flight with landing gear or flaps extended.

NOTE 5. The Wright 1820-56A, -66 and -72A engines are not approved for use on aircraft equipped with the 4 cell (170 gal.) fuel system.

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