DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A25WE Revision 5 Grumman TS-2A

April 9, 1984

TYPE CERTIFICATE DATA SHEET NO. A25WE

This data sheet, which is a part of Type Certificate No. A25WE, 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 California Division of Forestry

Department of Conservation

1416 Ninth Street

Sacramento, California 95814

I - Model TS-2A (Restricted Category) Approved August 2, 1974

(See NOTES 2, 4, and 5,)

Engine 2 Wright R1820-82 using 100/130 grade fuel; retimed and operated to Wright R1820-80

specifications

Fuel Minimum grade as above

Oil Esso 100 or equivalent;

3-GP-100, Mil-L-6082 grade 1100

Engine limits (BHP/RPM/MAP/ALT)

Takeoff 1475/2800/54.5/S.L. (5 Minutes) 1475/2800/54.0/1700

Normal Rated 1275/2500/46.5/S.L. (Meto) 1275/2500/45.5/3500

Propeller Hamilton Standard Three-bladed Hydromatic

Hub Model - 43D51-303, -329, -341, -343, -355 Blade - 6915C-7, 6915E-7, 6985B-7, or 6985C-7

Diameter - 11 ft. 0 in.

Airspeed limits Vmo (Maximum operating) 221 KTS - 252 MPH

Va (Maneuvering)175 KTS - 201 MPHVf (Flaps extended)150 KTS - 172 MPHVle (Landing gear extended)150 KTS - 172 MPHMaximum retardant drop speed130 KTS - 149 MPH

C.G. range Fwd. 213.4 in. aft of ref. Datum '0' Landing Gear

Aft. 219.63 in. aft of ref. Datum '0' Extended

Fwd. 216.05 in. aft of ref. Datum '0' Landing Gear Aft. 220.94 in. aft of ref. Datum '0' Retracted

Landing Gear Retraction Moment/1000 = 32.0 in. -lb.

(Moves C.G. aft)

Datum Reference Datum '0' is located 94.64 forward of jig point forward face of bulkhead

at Sta. 96.

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(IAS)

Leveling means Exterior skin edge along stringer 12 between Sta. 205 and 255.

Maximum weights Takeoff 27,000 lbs. Landing 24,500 lbs.

Minimum crew One pilot @ Sta. 111.0

Number of seats 2 at Sta. 110.9

Fuel capacity Two wing tanks, for total of 521 gals. at 227.25 in.

Oil capacity One tank each Nacelle, for total of 27 gals. at 192.5 in.

Maximum operating altitude 22,000 ft.

Control surface movements See Navair 01-85SAA-2 (Handbook of Maintenance Instruction)

Serial Numbers eligible

The original Navy designation for the following airplanes was the S2F-1 and this designation will appear on the nameplate. Post- delivery modifications were made resulting in S2F-1T for training use. In 1962, a new numbering system was established for all military airplanes and the S2F-1 became the S2A. Consequently, the trainer S2F-1T version was called the TS-2A. Only those airplanes listed below are eligible for Airworthiness Certification.

Airplanes modified for the special purpose of forest and wildlife conservation (fire fighting) in accordance with CDF Drawing List 1277-2000:

Grumman S/N	Navy S/N
367	136458
423	136514

Airplanes modified for the special purpose of forest and wildlife conservation (fire fighting) in accordance with CDF Drawing List 1277-1000:

Grumman S/N	Navy S/N	Grumman S/N	Navy S/N
016	133045	383	136474
017	133046	388	136479
027	133056	399	136490
052	133081	403	136494
061	133090	404	136495
114	133143	410	136501
119	133148	416	136507
128	133157	417	136508
152	133181	419	136582
161	133190	421	136512
170	133199	455	136546
175	133204	476	136567
179	133208	477	136568
195	133224	481	136572
204	133233	492	136583
205	133234	503	136594
208	133237	504	136595
212	133241	522	136613
216	133245	527	136618
217	133246	543	136634
222	133251	549	136640
247	133276	569	136660
249	133278	570	136661
254	133283	572	136663
255	133284	578	136669

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256	133285	585	136676
259	133288	590	136681
266	133295	613	136704
276	133305	624	136715
281	133310	656	136747
293	133322	665	136726
295	133324	666	144705
298	133327	673	144712
308	136399	675	144714
330	136421	684	144723
369	136460	695	147551

Certification basis

FAR 21.25(a)(2) effective February 1, 1965. Restricted Type Certificate No. A25WE dated August 2, 1974, issued for the special purpose of forest and wildlife conservation (fire fighting). Application for Restricted Type Certificate dated October 26, 1973.

Production

None. Prior to original certification of each aircraft, an FAA representative must perform an inspection for workmanship, materials, and conformity with the approved technical data.

Equipment

The basic required equipment as prescribed in the applicable Airworthiness Regulations must be installed in the aircraft for certification.

- 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 the time of original certification.
- NOTE 2. The aircraft shall be operated in accordance with the NATOPS Flight Manual 01-85SAA-1, plus the FAA Approved Airplane Flight Manual Supplement dated August 2, 1974, required for the special purpose usage.
- NOTE 3. Reserved.
- NOTE 4. Prior to issuance of an airworthiness certificate for each aircraft and at the prescribed intervals, all inspections and modifications must be accomplished per the latest revision of the California Department of Forestry S-2 Airtanker Technical Directive Index.
- NOTE 5. Upon completion of the conversion to certificated status in the restricted category, the manufacturer's nameplate on the aircraft must be altered to include the TS-2A designation and that it has been modified per T.C. A25WE. In case the original nameplate is not sufficiently large enough to include this additional information, a similar plate should be installed near the original plate. Under no circumstances should the original or any succeeding nameplate be removed from the aircraft.

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