DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E1WE
Revision No. 6
DEVORE
12NS-350

August 21, 1978

TYPE CERTIFICATE DATA SHEET NO. E1WE

Engines of models described herein conforming with this data sheet (which is part of Type Certificate No. E1WE) and the approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft specifications and applicable portions of the Civil Air Regulations/Federal Aviation Regulations, provided they are installed, operated and maintained as prescribed by the approved Type Certificate holder's manuals and other approved instructions.

Type Certificate Holder	DeVore Aviation Corporation Plainview, New York 11803		
Model	12NS-350		
Type	Cylindrical case, self-contained, solid propellant, reloadable, electrically fired rocket.		
Thrust characteristics (nominal value)			
Temperature of Propellant	-30°F (-34.4°C)	60°F (15.6°C)	125°F (51.5°C)
Thrust lb.	250	350	455
Duration, seconds	16.0	11.8	9.3
Rated impulse, lb-seconds	4025	4135	4215
Nominal rated thrust, lbs. at sea level and 60°F Propellant Temperature	350		
Maximum usable impulse, lb-seconds At -20°F Propellant Temp.	4035		
Temperature Range			
Operating	-30°F (-34.5°C) to 125°F (51.7°C)		
Storage	-65°F (-53.9°C) to 160°F (71.1°C)		
Altitude Limits			
Operating and Storage	Sea level to 35,000 ft.		
Propellent (Fuel)	AMT-2091 LV-MOD IV		
Principal Dimensions of case in.			
Diameter	6.0		
Length, Over-all	28.00		
Weights			
Loaded (charged)	46.2 lb.		
Empty (expended)	23.9 lb.		
Ignition			
Recommended Current	25 ampares at 12 or 24 volts		
Duration of Interval	0.5 seconds maximum		
Notes	1 through 7		

Certification basis:

Regulations and Amendments	Engine Model	Date of T.C. Application	Date TC E1WE Issued/Revised
CAR 13 effective June 15, 1956; and special conditions as incorporated into Aerojet-General Corporation Final Qualification Test Program Report No. 8328-81-F, dated January 1964.	12NS-350	August 15, 1963	February 11, 1964

Production basis: None

NOTE 1: Engines and igniters shall be rebuilt by the Type Certificate holder or his authorized source only.

NOTE 2: All 12NS-350 JATO installations basically shall be in accordance with the engineering criteria in Aerojet-Bristol-DeVore Report No. 981. Each new type installation shall be reviewed and concurred in by DeVore Aviation Service Corp. or its authorized representative, and approved by the Federal Aviation Administration or by the Civil Aviation Authority of the country involved.

NOTE 3: Maximum storage period shall be two years from shipping date stencilled on the unit. Temperature storage limits are -65°F (-53.9°C) minimum and 160°F (71.1°C) maximum.

NOTE 4: 12NS-350 rocket engines may be carried on an aircraft ready for operation for a maximum of 1000 hours cumulative flying time or 24 months, whichever occurs first, in addition to the two year storage period.

NOTE 5: The rocket engines may be fired prior to removal for pilot familiarization and checkout if desired.

NOTE 6: The "Temperature of Propellant" is the temperature of the propellant mass. This temperature approximates the average of the temperatures to which the rocket engine has been exposed in the previous 24 hour period.

NOTE 7: Thrust and impulse of this rocket engine increase slightly with increase in altitude. See 12NS-350 and 12NS-350 CBA Aircraft Rocket Engines Operation & Service Instructions, STM 164.

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