

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

E-249
Revision 19
DEVORE
15KS-1000-A1

12 October 1972

TYPE CERTIFICATE DATA SHEET NO. E-249

Engines of models described herein conforming with this data sheet (which is part of Type Certificate No. 249) and 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 Service Corp. Roslyn Heights, New York 11577		
Model	15KS-1000-A1		
Type	Cylindrical case, self-contained, solid propellant, reloadable, electrically fired		
Thrust characteristics (nominal value)			
Temperature of Propellant	-65°F (-53.9°C)	60°F (15.5°C)	140°F (60°C)
Thrust lb.	815	1062	1320
Duration, second	18.0	14.0	11.5
Ignition lag, second	0.21	0.11	0.09
Nominal Rated Thrust, Lb. at sea level and 35°F propellant temperature	1,000		
Nominal Rated Impulse lb.-second	15,000		
Maximum usable Impulse, lb.-second	14,400		
Temperature Range			
Operating	-75°F (-59.4°C) to 140°F (60°C)		
Storage	-75°F (-59.4°C) to 160°F (71.1°C)		
Altitude Limit			
Operating	42,000 ft. above mean sea level		
Storage	35,000 ft. above mean sea level		
Fuel (Propellant)			
Solid	Aeroplex AN-583AF - smokeless		
Ignition			
Recommended Current	25 ampere at 12 or 24 volt		
Duration of Interval	0.5 second maximum		
Principal Dimensions of Case, in.			
Diameter	10.30		
Length, over-all	33.45		
Weights, Lb.			
Loaded (charged)	144		
Empty (expended)	72		
Notes	1 through 7		

Page No.		2
Rev No.	19	19

Reformatted 12/93.

Certification basis:

	Engine Model	Application	Date TC E-249	Cancelled
CAR 13 effective 1 August 1941 and special conditions	12AS-1000D-5	-	13 September 1946 Rocket Engine Type Certificate ER-1	
	12AS-1000D-5	-	15 October 1947 Type Certificate No. E-249 issued to replace Rocket Engine Type Certificate ER-1	Rocket Engine Type Certificate ER-1 cancelled
	14AS-1000D-5	-	8 October 1948	12AS-1000D-5 cancelled and redesignated 14AS-1000D-5
	14AS-1000D-5 14AS-1000-G1	-	2 April 1953	cancelled 5 July 1955 cancelled 5 July 1955
CAR 13 effective 5 March 1952 CAR 13-1 effective 16 May 1953 CAR 13-2 effective 18 May 1954 and special conditions consisting of tests described in Aero-Jet-General Corporation Letter No. 300-3905 dated 15 December 1954 to the Bureau of Aeronautics, U.S. Department of the Navy	15KS-1000-A1 (Navy Desig. Mark 6 Mod 1)	24 June 1955	5 July 1955 (Deleted Navy Designation 26 June 1964)	

Production basis: None

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

NOTE 2: All 15KS-1000-A1 JATO installations are to be basically 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 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 is four years from stenciled shipping date. Temperature storage limits are -75°F (-59.4°C) minimum, 160°F (71.1°C) maximum.

NOTE 4. 15KS-1000-A1 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; however, this maximum may be extended up to 1600 hours provided that the increases are in increments and are accomplished in accordance with procedures approved by the Chief, Aircraft Engineering Branch, FAA Eastern Region. These allowances are in addition to the four year storage period.

NOTE 5. It is suggested that the rocket engines be fired just prior to normal removal, for time, for pilot familiarization and checkout.

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 15KS-1000-A1 and 15KS-1000-A1(B) Aircraft Rocket Engines Operation and Service Instructions, STM-159 Revised.

....END....