

RESTRICTED

Only rockets for which there is or has been a requirement by the USAF are shown. Complete information on these and other rocket units may be obtained from the "JATO MANUAL, SPIA/MI, compiled and published under Government contract by the SPIA, Applied Physics Laboratory, John Hopkins University, Silver Springs, Maryland.

ROCKET ENGINE CHARACTERISTICS (SOLID PROPELLANT)

MODEL DESIGNATION (USAF & MFR) MANUFACTURER	AIRCRAFT INSTALLED IN	DESCRIPTION	* ENGINE RATINGS			PROPELLANT		TEMPERATURE LIMITATIONS		SIZE (INCHES)	WEIGHT (LB)
			THRUST (LB)	DURATION (SECONDS)	OVERALL SPEC. IMP LB-SEC/LB	TYPE	EXHAUST	STORAGE	OPERATING	LENGTH DIAMETER	LOADED EMPTY
.5-ES-14,000 (T-32) Picatinny		Rocket unit for launching the Q-1 Target Plane from the A-9 catapult. Project cancelled. Ref: JATO Manual SPIA/MI, dated March 1949.	14,000	0.5	67	T-2	Smokeless	-20°F to +70°F	0°F to +130°F	41.0 7.3	105.0 69.0
.7-ES-2,500 (M2 or T-28) Picatinny		Rocket unit for launching OQ-14 Target Plane from the A-7 catapult. Development completed. Ref: Picatinny Arsenal Note No. 3, dated 20 April 1949	2,150	0.7	70	T-6 (MRP)	"	-40°F to +120°F	-40°F to +120°F	19.7 5.3	24.0 15.9
.9-ES-800 (T-31) Picatinny		Rocket unit under development for launching OQ-14 Target Plane from the A-7 catapult. Project cancelled. Ref: JATO Manual SPIA/MI, dated March 1949	800	0.9	63	T-2	"	-20°F to +70°F	0°F to +130°F	17.7 3.5	11.4 7.6
1-ES-2,800 (T-35) Picatinny		Rocket unit for Guided Missile application. Project cancelled. Ref: JATO Manual SPIA/MI, dated March 1949.	2,800	1.0	89	T-8	"	"	-20°F to +120°F	22.3 5.9	31.4 17.7
1-KS-2,800A Aerojet		Rocket unit for Guided Missile application. Project cancelled. Ref: JATO Manual SPIA/MI, dated March 1949.	"	"	83	Aeroplex AK-14	Dense White Smoke	-40°F to +140°F	-30°F to +130°F	25.5 5.4	33.6 17.2
(T-41) Red Stone Ars.		Rocket unit for Guided Missile application. Production terminated. All Performance and Characteristics data are classified confidential.									
(T-42) Red Stone Ars.		Rocket unit for Guided Missile application. All Performance and Characteristics data are classified confidential.									
2-CS-10,000 (T-10) Monsanto		Rocket unit for Guided Missile application. Used on the JB-2 and the "Navy Loon."	9,600	2.15	65	T-9 (CP-492)	Dense White Smoke	-20°F to +120°F	+20°F to +140°F	54.4 10.4	315.0 195.0
2-CS-10,000 (T-10E1) Dayton Powder		Rocket unit for Guided Missile application. Improved version of the T-10. Used on the JB-2, the "Navy Loon" and for miscellaneous application. Ref: JATO Manual SPIA/MI, dated March 1949.	"	"	81	"	"	"	"	54.9 10.0	240.0 117.0
2-CS-10,000 (T-10E3) Picatinny		Rocket unit for Guided Missile application. Improved version of the T-10E1. Used on the JB-2, the "Navy Loon" and for miscellaneous application. Ref: JATO Manual SPIA/MI, dated March 1949.	"	"	"	"	"	"	"	54.5 10.0	"
2-KS-11,000 (X102C1) Aerojet		Rocket unit for Guided Missile application. Used on the "Navy Loon" and for miscellaneous application. Ref: JATO Manual SPIA/MI, dated March 1949.	11,000	2.00	"	Aeroplex AK-14	"	-10°F to +140°F	0°F to +130°F	52.7 11.0	270.0 125.0

*Thrust and duration data based on ambient temperatures ranging from 60° to 80°F.

RESTRICTED

Only rockets for which there is or has been a requirement by the USAF are shown. Complete information on these and other rocket units may be obtained from the "JATO MANUAL, SPIA/M1, compiled and published under Government contract by the SPIA, Applied Physics Laboratory, John Hopkins University, Silver Spring, Maryland.

ROCKET ENGINE CHARACTERISTICS (SOLID PROPELLANT)

MODEL DESIGNATION (USAF & MFR) MANUFACTURER	AIRCRAFT INSTALLED IN	DESCRIPTION	ENGINE RATINGS			PROPELLANT		TEMPERATURE LIMITATIONS		SIZE (INCHES)		WEIGHT (LB)
			THRUST (LB)	DURATION (SECONDS)	OVERALL SPEC IMP LB-SEC/LB	TYPE	EXHAUST	STORAGE	OPERATING	LENGTH DIAMETER	LOADED EMPTY	
2-KS-33, 000A Aerojet		Rocket unit for Guided Missile application. Ref: JATO Manual SPIA/M1, dated March 1949.	33,000	2.00	88	Aeroplex AK-14	Dense White Smoke	-10°F to +140°F	-10°F to +75°F	114.5 14.2	748.0 331.0	
2-ES-40, 000 (T-29) Picatinny		Rocket unit for launching of Guided Missiles. Ref: JATO Manual SPIA/M1, dated March 1949.	40,000	2.00	90	T-8	Smokeless	-20°F to +70°F	-20°F to +120°F	90.0 15.9	902.0 482.0	
2-ES-40, 000 (T-29E1) Picatinny		Rocket unit for launching of Guided Missiles. Improved version of the T-29. Ref: JATO Manual SPIA/M1, dated March 1949.	"	"	126	"	"	"	"	95.3 16.0	636.0 202.0	
2.5-DS-12, 500 (T-30) Allegany B. Lab		Rocket unit for Guided Missile application. Design study only, project completed. No further data available than that shown.	12,500	2.50								
2.5-KS-18, 000 (X103C1) Aerojet		Rocket unit for launching of Guided Missiles. Ref: JATO Manual SPIA/M1, dated March 1949.	18,000	"	83	Aeroplex AK-14	Dense White Smoke	-10°F to +140°F	+40°F to +100°F	76.3 13.6	544.0 283.0	
2.5-ES-37, 000 (T-29E2) Picatinny		Rocket unit for launching of Guided Missiles. Improved version of the T-29E1.	39,600	2.42	113	T-8	Smokeless		-20°F to +120°F	100.0 15.8	845	
2.6-DS-51, 000 (T-39) Allegany B. Lab		Rocket unit for launching of Guided Missiles. Under development. Ref: JATO Manual SPIA/M1, dated March 1949.	51,000	2.60	100	Type O Cast Double Base	"		+32°F to +120°F	127.8 16.5	1325.0 575.0	
2.6-DS-51, 000 (T-39E1) Allegany B. Lab		Rocket unit for launching of Guided Missiles. Improved version of the T-39. Also known as the Navy model 3-DS-47,000. Under development. Ref: JATO Manual SPIA/M1, dated March 1949.	"	"	"	"	"	"	"	"	"	
3-ES-310 (T-36) Picatinny		Rocket unit for Guided Missile application. Project cancelled. Ref: JATO Manual SPIA/M1, dated March 1949.	310	3.0		Extruded Double Base	white Smoke	-20°F to +70°F	+40°F to +100°F	17.5 3.3		
3-ES-1, 800 (T-21) Allegany B. Lab		Rocket unit for glider deceleration. Known as the "Kent" accelerator or decelerator. Development complete. Formerly known as 4-ES-1, 200. Ref: ABL Progress Report R-24, dated May 1949.	1,600	"	81	T-8 Double Base	Smokeless	+40°F to +100°F	"	37.8 6.3	62.0 36.6	
4-DS-88, 000 (X202B1) Allegany B. Lab		Rocket unit for launching of Guided Missiles. Ref: JATO Manual SPIA/M1, dated March 1949.	90,900	3.6	106	Type O Cast Double Base	"		"	163.1 23.0	3300.0 1510.0	

*Thrust and duration data based on ambient temperatures ranging from 60° to 80°F.

Only rockets for which there is or has been a requirement by the USAF are shown. Complete information on these and other rocket units may be obtained from the "JATO MANUAL, SPIA/M1, compiled and published under Government contract by the SPIA Applied Physics Laboratory, John Hopkins University, Silver Spring, Maryland.

ROCKET ENGINE CHARACTERISTICS (SOLID PROPELLANT)

MODEL DESIGNATION (USAF & MFR) MANUFACTURER	AIRCRAFT INSTALLED IN	DESCRIPTION	ENGINE RATINGS			PROPELLANT		TEMPERATURE LIMITATIONS		SIZE (INCHES)	WEIGHT (LB)
			THRUST (LB)	DURATION (SECONDS)	OVERALL SPEC. IMP. LB-SEC/LB	TYPE	EXHAUST	STORAGE	OPERATING	LENGTH DIAMETER	LOADING SHFT
4-DS-105,000 Allegany B. Lab		Rocket unit for launching of Guided Missiles.	105,000	4.0	111	Double Base OV	Smokeless	+40°F to +100°F			3800.0 -----
5-AS-1,000C Aerojet		Rocket unit for miscellaneous assisted take-off and testing. Ref: Aerojet Spec. ATS-S2, 104, dated 15 September 1949.	1,000	5.0	45	ALT-161	White Smoke	-10°F to +140°F	0°F to +130°F	23.7 9.6	112.0 85.0
6.15-KS-155A Aerojet		Rocket unit used as assisted take-off for Guided Missiles. Ref: Aerojet Report No. 298, dated 20 April 1948.	155	6.0	81	Aeroplex AK-14	Dense White Smoke	+40°F to +140°F	0°F to +80°F	17.5 3.3	11.5 7.4
7-KS-6,000 (T-27) Aerojet		Rocket unit used as assisted take-off for launching test vehicles for NACA ram-jets. Project completed. Ref: JATO Manual SPIA/M1, dated March 1949.	6,000	7.0	82	Paraplex	"	0°F to +130°F	+40°F to +100°F	61.6 12.9	510.0 294.0
8-AS-200 Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report No. 222, dated 20 December 1946.	200	8.0	40	Galcit 53	"	+40°F to +110°F	+40°F to +110°F	16.0 6.2	40.3 29.0
8-AS-500 Aerojet		Rocket unit used for assisted take-off.	500	"	43	Galcit 58	White Smoke	+32°F to +110°F	+32°F to +110°F	21.9 6.2	92.0 61.0
8-AS-750 Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report No. 105, dated 6 June 1944.	750	"		ALP-1	"	"	"	19.8 9.6	
8-AS-1,000 Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report on 8-AS-1000, undated.	1,000	"	54	Galcit 58	"	+40°F to +110°F		26.9 9.6	152.0 85.0
10-AS-1,000A Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report No. 119, dated 26 July 1944.	"	10.0	58	Galcit 61C	"	"		32.8 9.6	172.0 88.0
12-KS-250 Aerojet		Rocket unit used for assisted take-off with Army Liaison planes. Ref: JATO Manual SPIA/M1, dated March 1949.	250	12.0	55	Aeroplex AK-11	Dense White Smoke	-40°F to +150°F	-40°F to +150°F	19.5 6.0	55.0 35.0
14-AS-1,000 (D-4) Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report No. 6, dated 19 May 1947.	1,000	14.0	70	Galcit 61C	White Smoke	0°F to +130°F	0°F to +130°F	36.0 9.6	200.0 115.0

*Thrust and duration data based on ambient temperatures ranging from +60° to +80°F.

Only rockets for which there is or has been a requirement by the USAF are shown. Complete information on these and other rocket units may be obtained from the "JATO MANUAL, SPIA/MI, compiled and published under Government contract by the SPIA, Applied Physics Laboratory, John Hopkins University, Silver Spring, Maryland.

ROCKET ENGINE CHARACTERISTICS (SOLID PROPELLANT)

MODEL DESIGNATION (USAF & MFR) MANUFACTURER	AIRCRAFT INSTALLED IN	DESCRIPTION	ENGINE RATINGS			PROPELLANT		TEMPERATURE LIMITATIONS		SIZE (INCHES)	WEIGHT (LB)
			THRUST (LB)	DURATION (SECONDS)	OVERALL SPEC. IMP. LB-SEC/LB	TYPE	EXHAUST	STORAGE	OPERATING	LENGTH DIAMETER	LOADING EMPTY
14-AS-1,000 (D-5) Aerojet		Rocket unit used for assisted take-off.	1,000	14.0	70	Galcit 61C	White Smoke	0°F to +130°F	0°F to +130°F	36.0 9.6	200.0 115.0
14-DS-1,000 (T-33) Picatinny		Rocket unit used as assisted take-off on jet fighters. Project suspended. Ref: JATO Manual SPIA/MI, dated March 1949	"	"	88	Type I Cast Double Base	Smokeless	-20°F to +70°F	-20°F to +130°F	---	160.0 80.0
14-DS-1,000 (T-37) Allegany B. Lab		Rocket unit used as assisted take-off on jet fighters. Under development. Ref: Allegany B. Lab Report M-8, dated March 1949.	"	"	90	Type O Cast Double Base	"		+32°F to +120°F	36.0 9.4	187.0 115.0
15-KS-1,000 Aerojet		Rocket unit used for assisted take-off on light and medium aircraft. Under development. Ref: Aerojet Report No. 423, undated.	"	15.0	120	AN	Smokeless (up to 80% humidity)	-40°F to +140°F	-40°F to +140°F	32.3 10.3	125.0 54.0
30-AS-1,000C Aerojet		Rocket unit used for assisted take-off. Ref: Aerojet Report No. 136, dated 25 October 1944.	"	30.0	73	Galcit 61C	White Smoke			65.5 9.6	407.3 211.3
30-DS-1,000 (T-22) Picatinny		Rocket unit used as assisted take-off for bomber application. Development cancelled. Ref: JATO Manual SPIA/MI, dated March 1949.	"	"	100	Type I Cast Double Base	Smokeless	-20°F to +70°F	-20°F to +130°F		300.0 150.0
30-DS-4,000 (T-34) Picatinny		Rocket unit used as assisted take-off for bomber application. Ref: JATO Manual SPIA/MI, dated March 1949.	4,000	"	75	Type O Cast Double Base	"	"	"	83.0 22.5	1610.0 910.0
60-DS-4,000 (T-25) Picatinny		Rocket unit used as assisted take-off for bomber application. Development incomplete, cancelled. Ref: JATO Manual SPIA/MI, dated March 1949.	"	60.0	110	"	"	"	"	100.0 23.5	2200.0 1000.0
5.0 inch rocket (AIK 2 Mod 3) Navy		A 5.0 inch rocket for miscellaneous thrust application.	5,980	0.88	60	JPN	"	0°F to +120°F		51.3 5.0	88.0 64.0

*Thrust and duration data based on ambient temperatures ranging from 60°F to 80°F.