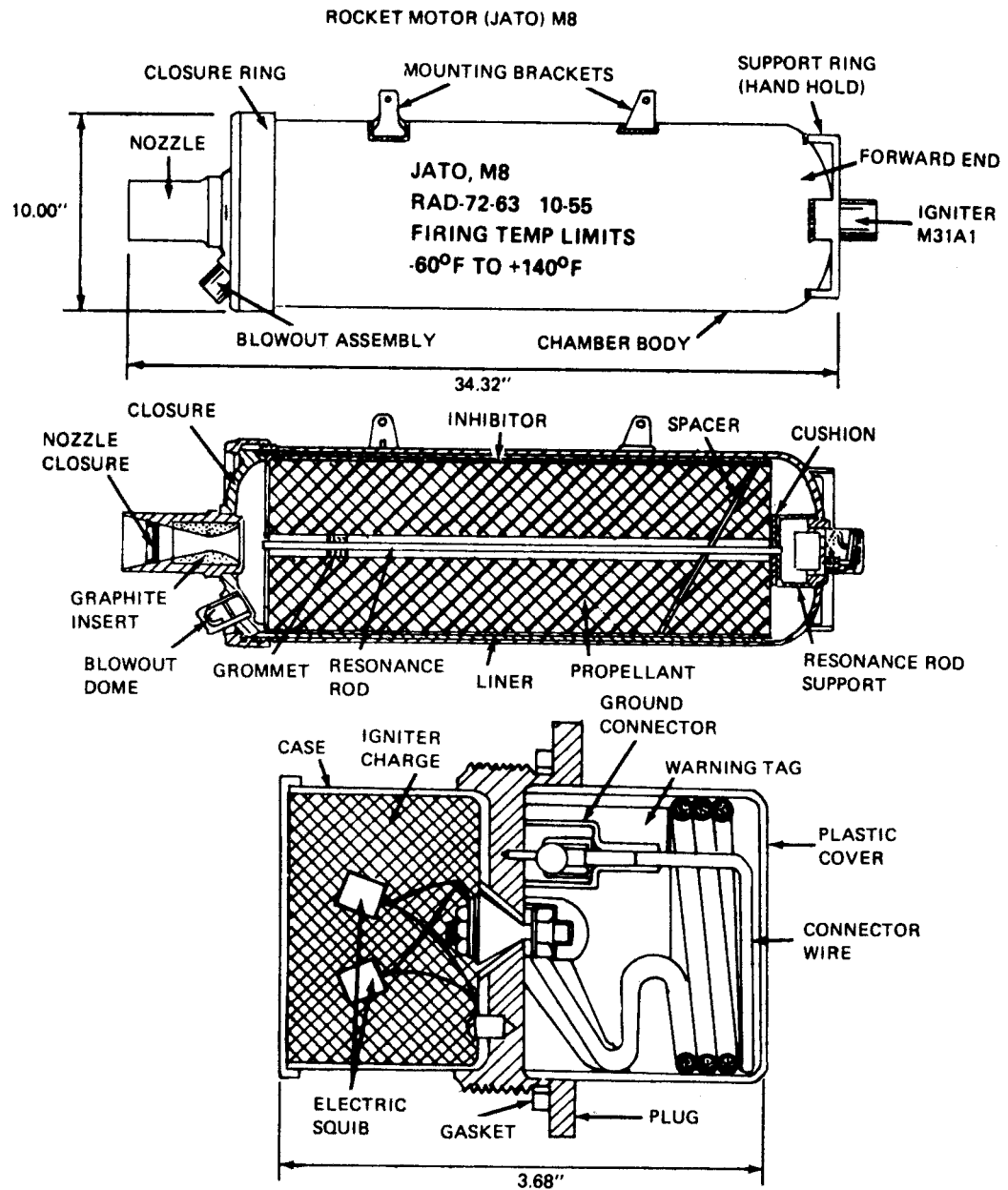


ROCKET MOTOR (JATO) M8



ARD80-0521

Type Classification:

STD OTCM/AMCTC 36841

Use:

The JATO M8 is a solid-propellant thrust unit used primarily for applying thrust to assist aircraft on take-off. It can be used for other applications requiring units of the same characteristics.

Description:

The JATO M8 rocket motor consists of the following:

Body assembly — a deep-drawn steel case with a thicker ring welded to the rear (aft) end, which provides the chamber for loading the propelling charge.

Closure assembly — which seals the rear (aft) end of the JATO and provides a mount for the nozzle and blowout assemblies.

Igniter assembly — consists of a plastic igniter case which contains the igniter charge.

Functioning:

The igniter assembly is ignited by two electric squibs, Mk 1 Mod 0, connected in parallel. In turn, the propellant is ignited. The pressure created by the expanding propellant gases can only be vented through the nozzle assembly. The nozzle assembly is designed for a venture effect which compresses the gases generated and increases the thrust required to assist launch of the desired item.

Tabulated Data:

Complete Rocket Motor:

Type - - - - - JATO M8
 Weight, loaded - - 158.5 lb
 Length (max) - - - 34.32 in.
 Diameter (max) - - 10.0 in.
 Used with - - - - - Assist aircraft on
 take-off

Components:

Propelling charge:

Type - - - - - M301, Cast OGK
 Weight - - - - - 70.0 lb

Igniter assembly:

Type - - - - - M31A1
 Igniter charge - - 87 grains of igniter
 composition
 Electric squibs - 2 (Mk 1 Mod 0)
 Length - - - - - 3.68 in.

Performance:

Burning time - - - 14.0 sec
 Thrust - - - - - 1000 lb

Temperature limits:

Firing - - - - - -60° to +140°F
 (-51° to +59°C)
 Restricted to temperature ranges
 marked on JATO)
 Storage - - - - - 60° to 70°F
 (15° to 21°C) (cool
 dry area)

Packing - - - - - One per wooden box

Packing box

Wooden

Weight - - - - - 224.9 lb
 Dimensions - - - - 39-3/4 in. x
 16-7/32 in. x 12-1/8
 in.

Volume - - - - - 4.5 ft³

Shipping and storage data:

Storage class/

SCG - - - - -

DOT shipping

class - - - - -

DOT designation - --ROCKET MOTOR
TO ASSIST IN AIR-
CRAFT TAKE-OFF

DODAC - - - - - 1340-

Drawing number - - - 82-6-25