

DATA ITEM DESCRIPTION			Form Approved OMB No. 0704-0188	
2. TITLE PROPULSION UNIT DATA		1. IDENTIFICATION NUMBER DI-MISC-80226		
3. DESCRIPTION / PURPOSE 3.1 Propulsion Unit Data consists of two parts. 3.1.1 The Propulsion Unit Data Sheet provides acceptance data for each lot of rocket motor/guided missile propulsion units manufactured for procurement by the Government. (Continued on Page 2)				
4. APPROVAL DATE (YYMMDD) 860904	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR) N/SEA-62Z3	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE	
7. APPLICATION / INTERRELATIONSHIP 7.1 This data item description contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement for this data product included in the contract. 7.2 The Propulsion Unit Data/History Sheet is applicable whenever the contract contains a requirement for propulsion unit lot acceptance data for rocket motor/guided missile propulsion unit manufacture, reload, or modification.				
8. APPROVAL LIMITATION		9a. APPLICABLE FORMS	9b. AMSC NUMBER N3946	
10. PREPARATION INSTRUCTIONS 10.1 <u>Contract</u> . This data item is generated by the contract which contains a specific and discrete work task to develop this data product. 10.2 <u>Content and Format</u> . The Propulsion Unit Data shall be in contractor's format and shall contain the information in 10.3 and 10.4 as appropriate. See Figures 1, 2 and 3 for sample Propulsion Unit Data Sheets and Figure 4 for Propulsion History Data. 10.3 <u>Part I. Propulsion Unit Data Sheet</u> . 10.3.1 <u>Section I</u> . 10.3.1.1 <u>Header information</u> . Contract No. and name of system being provided; that is, rocket motor, booster, or sustainer. 10.3.1.2 <u>Identification of system</u> . The following information as appropriate. a. Nomenclature. Enter MK and MOD. b. Serial No. c. Chamber No. d. Assembly Activity - manufacturer's name and address e. Condition Code 10.3.1.3 <u>Propellant data</u> . Identify whether propellant is for booster or sustainer.				
11. DISTRIBUTION STATEMENT <u>DISTRIBUTION STATEMENT A</u> . Approved for public release; distribution is unlimited.				

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3. DESCRIPTION/PURPOSE (Cont'd)

3.1.2 The Propulsion Unit Data History provides historical data for each lot or rocket motor/guided missile propulsion units manufactured for procurement by the Government.

10. PREPARATION INSTRUCTIONS (Cont'd)

10.3.1.3.1 Booster.

- a. Grain No.
- b. Grain Lot No.
- c. Grain Batch No.
- d. Grain Manufacturer
- e. Grain Manufacture Date
- f. Grain Cast No.
- g. Grain Cure Date
- h. Grain Expiration Date

10.3.1.3.2 Sustainer.

- a. Grain No.
- b. Grain Lot No.
- c. Grain Batch No.
- d. Grain Manufacturer
- e. Grain Manufacture Date
- f. Grain Cast No.
- g. Grain Cure Date
- h. Grain Expiration Date

10.3.1.4 Igniter Data.

- a. Nomenclature. List MK and MOD as appropriate.
- b. Lot No.
- c. Serial No.
- d. Manufacturer
- e. Manufacture Date
- f. Expiration Date

10.3.1.5 Arming and Firing Device-data.

- a. Nomenclature, Enter MK and MOD.
- b. Serial No.
- c. Manufacturer
- d. Manufacture Date
- e. Expiration Date
- f. Drawing and Revision No.

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10. PREPARATION INSTRUCTIONS (Cont'd)

10.3.1.6 Delay Cartridge Data.

- a. Item Identification
- b. Lot No.
- c. Manufacturer
- d. Manufacture Date
- e. Expiration Date

10.3.1.7 Pressure Switch/Booster Ignition Element Data.

- a. Drawing No.
- b. Lot No. or Serial No.
- c. Manufacturer
- d. Manufacture Date
- e. Expiration Date

10.3.2 Section II, Drawing Information. Provide Drawing No. and Revision No. for:

- a. Motor Loaded
- b. Arming and Firing Devices
- c. Igniter
- d. Booster Ignition Element/Pressure Switch

10.3.3 Section III, Weight Data. All measurements shall be stated in metric.

- a. Propellant Weight
- b. Total Loaded Weight
- c. Igniter Explosive Weight
- d. Total Igniter Weight
- e. Propellant Weight (less liner/inhibitor)
- f. Inert Weight
- g. Igniter Charge Weight
- h. Crated Weight

10.3.4 Section IV, Component Parts Data. Provide serial numbers as needed for sustainer.

- a. Forward Head
- b. Motor Tube
- c. Igniter Tube
- d. Nozzle Assembly

10.3.5 Section V, Resistance Data. Shall be measured in ohms as specified in specification for the propulsion unit.

10.3.5.1 Resistance (Ohms) required by propulsion unit specification.

- a. ARM Position Port
- b. ARM Position Starboard
- c. SAFE Position Port

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10. PREPARATION INSTRUCTIONS (Cont'd)

- d. SAFE Position Starboard

10.3.5.2 Actual Resistance (Ohms) measures resistance readings taken of:

- a. ARM Position Port
- b. ARM Position Starboard
- c. SAFE Position Port
- d. SAFE Position Starboard

10.3.6 Section VI, Temperature Limitations. Maximum and minimum temperatures at which propulsion unit can be stored. All measurements shall be in °C.

- a. Firing Temperature Limits
- b. Storage Temperature Limits

10.3.7 Section VII, Shipping Information.

- a. Date Shipped
- b. Shipped From
- c. Shipped To
- d. Loaded Center of Gravity from Designated Station.
- e. Position of Center of Gravity in Relation to a Designated Station.

10.3.8 Remarks. Amplifying information as required.10.4 Part II. Propulsion Unit History,10.4.1 Header Information. Name of system being provided, i.e., rocket motor, booster or sustainer.10.4.2 Identification of System . The following information as appropriate:

- a. Nomenclature. Enter MK and MOD
- b. Serial No.

10.4.1.3 Historical data. The following information as appropriate.

- a. Activity - FMSC
- b. Action Date
- c. Historical Action
- d. Recorded Date
- e. Condition Code

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G/M PROPULSION UNIT DATA SHEET
STANDARD MOTOR

CONTRACT NO.

STANDARD MOTOR		MK	MOD	SERIAL NO.	ASSEMBLY ACT	CHAMBER NO.	CONDITION CODE
DTRM PROPELLANT							
GRAIN	BATCH NO.	GRAIN NO.	LOT NO.	CAST NO.	CURE DATE	EXPIRATION DATE*	
BOOSTER							
SUSTAINER							
IGNITER							
MK	MOD	LOT NO.	SERIAL NO.	MANUFACTURER	MFG. DATE	EXPIRATION DATE*	
ARMING - FIRING DEVICE							
MK	MOD	LOT NO.	SERIAL NO.	MANUFACTURER	MFG. DATE	EXPIRATION DATE*	
PRESSURE SWITCH							
DWG. NO.	SERIAL NO.	MANUFACTURER	MFG. DATE	EXPIRATION DATE			
				N/A			

INSTRUCTIONS

*Do not fire after any of above expiration dates - Notify NAVSEA

DRAWINGS							
MOTOR LOADED		ARMING - FIRING DEVICE			IGNITER		
DWG REV.		DWG REV.		DWG REV.			
LD REV.		LD REV.		LD REV.			
WEIGHTS							
PROPELLANT	TOTAL LOADED	IGNITER EXPLOSIVE	TOTAL IGNITER				
RESISTANCE (OHMS)				TEMPERATURE LIMITS			
ARM	REQUIRED	ACTUAL		FIRING	STORAGE		
	PORT STARBOARD	PORT	STARBOARD				
	.09 TO 1.50			+45°F TO 95°F	-20°F TO 130°F		
SAFE	90 TO 110			SHIPPED			
				DATE	TO		

REMARKS

FIGURE 1. Sample propulsion unit data sheet for standard motor.

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**G/M PROPULSION UNIT DATA SHEET
STANDARD MISSILE BOOSTER**

STANDARD MISSILE BOOSTER		MK	MOD	SERIAL NO.	ASSEMBLY ACTIVITY	CONDITION CODE
BOOSTER GRAIN/PROPELLANT						
MK	MOD	BATCH NO.	LOT NO.	MANUFACTURER	MFG. DATE	EXPIRATION DATE*
IGNITER						
MK	MOD	LOT NO.	SERIAL NO.	MANUFACTURER	PELLET MFG. DATE	EXPIRATION DATE*
DELAY CARTRIDGE						
ITEM I. D.	LOT NO.		MANUFACTURER	MFG. DATE	EXPIRATION DATE*	
BOOSTER IGNITION ELEMENT						
DRAWING NO.	LOT NO.		MANUFACTURER	MFG. DATE	EXPIRATION DATE*	
INSTRUCTIONS						
*DO NOT FIRE AFTER ANY OF ABOVE EXPIRATION DATES - NOTIFY NAVSEA						
WEIGHTS (LBS.)						
PROPELLANT (LESS LINER/INHIBITOR)	INERT		TOTAL LOAD	CRATED	IGNITER CHARGE	
RESISTANCE (OHMS)				TEMPERATURE LIMITS		
REQUIRED		ACTUAL		FIRING	STORAGE	
ARM	PORT	STARBOARD	PORT	STARBOARD	+45°F to 95°F	+10°F to 130°F
	.87 to 1.23					
SAFE	.01 to .05				CONTRACT NUMBER	SHIPPED
						DATE
LOADED C. G. FROM STATION 184.0			MOMENT ABOUT STATION			TO
ADDITIONAL COMPONENTS						
ITEM				SERIAL NO.		DATE
CERTIFIED CLAMP RING						
DUAL RELEASE MECHANISM						

FIGURE 2. Sample propulsion unit data sheet for standard missile booster.

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G/M PROPULSION UNIT DATA SHEET

		MOD	SERIAL NUMBER	GRAIN MANUFACTURE DATE	IGNITER MANUFACTURE DATE		
ARMING & FIRING DEVICE MFG DATE	CONDITION CODE	ASSEMBLY ACTIVITY	GRAIN				
			GRAIN NO.	BATCH	LOT		
IGNITER			ARMING AND FIRING DEVICE				
MK	MOD	SERIAL NUMBER	LOT	MK	MOD	SERIAL NUMBER	LOT
DRAWINGS	LOAD & SERVICE DWG. NO. AND REV. LETTER		GEN. ARRANGE. DWG. NO. & REV. LETTER		INERT PARTS DWG. NO. & REV. LETTER		
	GRAIN	IGNITER	ARMING & FIRING DEVICE	METAL PARTS			
WEIGHTS	PROPELLANT		INERT	TOTAL LOADED	CRATED		
	FORWARD HEAD SERIAL NO.		MOTOR TUBE SERIAL NO.	IGNITER TUBE SERIAL NO.	NOZZLE ASSEMBLY SERIAL NO.		
O/A DEVICE	RESISTANCE (OHMS)				TEMPERATURE LIMITS		
	REQUIRED				ACTUAL	FIRING	STORAGE
	POSITION	MINIMUM	MAXIMUM	MEASURED BETWEEN POINTS		SERVICE LIFE EXPIRATION DATES	
	SAFE				GRAIN	IGNITER	ARMING & FIRING
	SAFE				DO NOT FIRE AFTER ANY OF ABOVE DATES		
SAFE				SHIPPED			
TEST ARMED				FROM/DATE	TO	MISSILE SER. NO.	
LOADED C.B. FROM STATION		MOMENT ABOUT STATION					
REMARKS							

FIGURE 3. Sample propulsion unit data sheet for sustainer.

