INCH-POUND
MIL-DTL-32183 (OS)
21 December 2004

#### DETAIL SPECIFICATION

# CATAPULT, AIRCRAFT EJECTION SEAT: CKU-5C/A REWORK ASSEMBLY

This specification is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and agencies of the Department of Defense.

#### 1. SCOPE

**1.1 Scope.** This specification establishes the requirement for the refurbishment (rework) of the CKU-5C/A rocket catapults (ROCAT) for aircraft ejection seat assemblies. This specification includes only the requirements for restoration of salvageable hardware. All other requirements for the CKU-5C/A ROCAT are specified in the new unit specification, MIL-DTL-32127 and drawing 512-174-0068. The earlier versions of the CKU-5C/A ROCAT, the CKU-5/A/A and CKU-5B/A, may be converted to the CKU-5C/A configuration during the rework.

#### 2. APPLICABLE DOCUMENTS

**2.1 General.** The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this specification, whether or not they are listed.

### 2.2 Government documents.

**2.2.1 Specifications, standards, and handbooks.** The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

## DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-DTL-32127 Catapult, Aircraft Ejection Seat CKU-5C/A Assembly

#### DEPARTMENT OF DEFENSE STANDARDS

Comments, suggestions, or questions on this document should be addressed to Commander, Indian Head Division, Naval Surface Warfare Center, Technical Information Branch (Code 4230), 101 Strauss Avenue, Indian Head, Maryland 20640-5035, or emailed to amanda.penn@navy mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at http://assist.daps.dla.mil.

AMSC N/A FSC 1377

**DISTRIBUTION STATEMENT A:** Approved for public release; distribution is unlimited.

DOD-STD-2101 Classification of Characteristics

(Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following Government drawings form a part of this specification to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation (see 6.2).

### **DRAWINGS**

# NAVAL SURFACE WARFARE CENTER, INDIAN HEAD DIVISION (CAGE Code 14083)

DL 512-174-0068	Catapult, Aircraft Ejection Seat, CKU-5C/A Assembly
512-174-0068	Catapult, Aircraft Ejection Seat, CKU-5C/A Assembly
5184315	Plug, Breech
11743978	Nozzle
11743979	Breech
11726650	Tube, Motor
11726656	Tube, Booster
11726657	Tang
11726800	Launcher Tube Assembly
512-174-0076	Plug
512-174-0078	Tang - Modified
512-174-0079	Tube, Metering
512-174-0083	Tang

(Copies of drawings should be obtained from the Commanding Officer, Indian Head Division, Naval Surface Warfare Center, Attn: Technical Information Branch (Code 4230), Indian Head, MD 20640-5035.)

**2.3 Non-Government publications and drawings** The following document form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME B46.1 Surface Texture (Surface Roughness, Waviness, and Lay) (DOD adopted)

(Copies of this document are available online at <a href="http://www.asme.org">http://www.asme.org</a> or from American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990)

**2.4 Order of precedence.** In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

# 3. REQUIREMENTS

- **3.1 Materials.** Materials, parts and assemblies, reusable and new, shall comply with the requirements specified on DL 512-174-0068, this specification, and the documents referenced herein.
- **3.2 Catapult receipt, inspection, and disposition.** ROCAT receipt, inspection, and disposition shall meet the requirements specified in 3.2.1 through 3.2.6.
  - **3.2.1 Catapult lot number.** Record the lot number of each ROCAT.
- **3.2.2 Reusable components.** The components listed in table I are expected to have a 90 percent or greater recovery rate, except as noted, and are to be retained for reclamation or restoration. Parts are to be inspected according to 4.2.2.1. Reusable components are subject to the limitations of 3.2.2.1 through 3.2.2.3.

Number required Component Drawing/part number 1 512-174-0083 Tang 1 Plug 512-174-0076 Breech 1 11743979 1 Nozzle 11743978 1 Tube, Booster 11726656 1 Launcher Tube Assembly 11726800 1 Tube, Motor 11726650 4 Plug, Breech 5184315 1 Tube, Metering 512-174-0079

TABLE I. Reusable components.

**3.2.2.1 Tang.** Tangs conforming to drawing 11726657 may also be reused in the rework assembly when modified in accordance with 3.2.4.1. After modification, tang recovery rate is expected to be 90 percent or greater.

- **3.2.2.2 Nozzle.** Nozzles conforming to drawing 11743978 revision (G) and subsequent revisions may be reused in the rework assembly if they meet all of the following requirements. All others must be rejected.
  - a. Overall nozzle height (along ROCAT axis) not less than 2.43 inches
  - b. Diameter of o-ring groove in nozzle interior no greater than 1.233 inches
  - c. Nozzle exhaust port exterior shape is as illustrated in Figure 1.

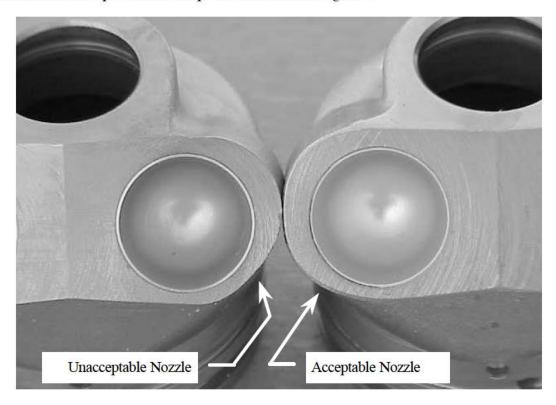


Figure 1. Acceptable and Unacceptable Nozzle Exhaust Port Shape.

- **3.2.2.3 Motor Tube.** Reuse of motor tubes requires removal of propellant grain prior to inspection. All motor tubes will require restoration prior to inspection.
- **3.2.3** New components. All components of the reworked catapult assembly that are not listed in table 1 shall be new components.
- **3.2.4 Modified components.** Conversion of CKU-5/A/A, and CKU-5B/A catapults to the latest CKU-5C/A catapult configuration shall be accomplished by modifying the tang component as described in 3.2.4.1.
- **3.2.4.1 Tang.** Tangs that conform to drawing 11726657 shall be modified in accordance with drawing 517-174-0078. The tangs that conform to drawing 11726657 do not have a 15° 20° chamfer on the end of the bore.
- **3.2.5 Cartridge disposition.** The contracting activity will provide disposition instructions for CCU-22/A/A, and/or CCU-22B/A Impulse Cartridges (see 6.2).

- **3.2.6 Hardware disposition.** Contractor shall report final yield of reusable components, after restoration, modification, and inspection is completed, to the contracting activity before proceeding with assembly. All rejected hardware shall be returned to the Government (see 6.2).
- **3.3 Performance.** Reusable components of the reworked ROCATs shall meet the performance requirements of 3.3.1.
- **3.3.1 Hydrostatic pressure.** The motor tube, launcher tube assembly, and booster tube shall withstand the internal hydrostatic pressure test specified in MIL-DTL-32127. During the hydrostatic pressure test of the launcher tube assembly, ensure that the fiberglass wrap is kept dry at all times. It is acceptable to test only the portion of the launcher tube assembly beyond the holes. The untested portion of the launcher tube assembly shall be approximately 2 1/2" inches in length.
- **3.4 Identification marking.** The reusable components shall require identification markings (part number and serial number) in accordance with the following guidelines.
- **3.4.1 Stamp out previous ROCAT lot and serial number identification markings on breech.** Each breech shall have the previous CKU-5 ROCAT serial number and lot number stamped out.
- **3.4.2 Identification marking not required.** The following reusable components require no part number or serial number marking.
  - a. Plug
  - b. Breech Plug
  - c. Metering Tube
- **3.4.3 Identification marking required.** Unless otherwise specified in the contract or purchase order (see 6.2), the following reusable components require part number and serial number marking:
  - a. Tang
  - b. Breech
  - c. Nozzle
  - d. Booster Tube
  - e. Launcher Tube Assembly
  - f. Motor Tube

These parts shall be marked in accordance with 3.4.3.1 through 3.4.3.3.

- **3.4.3.1 Parts with existing serial number.** On parts with an existing serial number, add an "R" to the end of the serial number. Use an appropriate permanent marking method (stamp, engrave, permanent ink, etc.). For parts that already have an "R" from previous rework, add an additional "R".
- **3.4.3.2 Parts with existing part number but no serial number.** Add a non-recurring serial number to parts that have an existing part number but no serial number. Use an appropriate permanent marking method (stamp, engrave, permanent ink, etc.). Serial number shall begin with an "R" followed by a five-digit, consecutive number. Serial number shall normally be located below or following the part number.
- **3.4.3.3 Parts with no existing part number.** Contact the contracting activity for instructions on marking parts with no existing part number.

- **3.5 Protective finish.** Protective finish shall be in accordance with the applicable specification referenced on the drawings and shall apply to all surfaces regardless of configuration. All reusable parts, which fail the protective finish requirements of tables II through X, shall be replated or repaired as applicable.
- **3.5.1 Protective finish touch up repair.** If the defective area of the protective finish is small, the defects may be repaired as follows. The protective finish on steel parts may be touched up with zinc chromate primer in accordance with TT-P-1757, type I, class C, color Y. The protective finish on aluminum parts may be touched up with chemical film in accordance with MIL-C-5541, class 1A.
- **3.6 Workmanship.** Workmanship shall be that required by the applicable drawings, referenced specifications and the best industrial practices governing the quality production of interchangeable parts for maintaining the dimensions, finishes, tolerances, and quality specified herein. All components and assemblies shall be free from burrs, contamination, corrosion, sharp edges, or foreign material which could result in malfunction of the unit or components, or be a safety hazard in handling.

#### 4. VERIFICATION

- **4.1 Classification of inspections.** The inspection requirements specified herein are classified as follows:
  - a. Conformance inspection (see 4.2)
- **4.1.1 Inspection conditions.** Unless otherwise specified in the contract or purchase order (see 6.2), all inspections shall be performed under the following conditions:
  - a. Temperature: Room ambient (65 to 95°F)
  - b. Altitude: Normal ground
  - c. Humidity: Room ambient to 95 Percent relative, maximum.
- **4.2 Quality conformance inspection.** Quality conformance inspection shall consist (at a minimum) of the examinations and tests specified in 4.2.2 and 4.2.3. When specified, items of inspection shall be serialized and inspection data traceable to a specific serial number. The requirements specified are the minimum needed to insure the quality of the rocket catapult. Based upon the manufacturer's process or the state of material, additional inspections may be required. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the government for acceptance comply with all the requirements of the contract. When specified, sampling inspection is an acceptable practice to ascertain conformance to requirements; however, it does not authorize submission of known nonconforming material, either indicated or actual, nor does it commit the Government to accept nonconforming material.
- **4.2.1 Sampling.** One hundred percent examination shall be performed for all examinations of 4.2.2 unless otherwise specified. Sampling for tests shall be as specified in 4.2.3.
- **4.2.2 Quality conformance examination.** Quality conformance examinations for major and minor characteristics shall be performed in accordance with tables II through X. Classification designations are in accordance with DOD-STD-2101. All defective material shall be removed from the lot. The roughness comparison specimens prescribed in ASME B46.1 shall be used as a basis of comparison for surface roughness determination. Any component with a critical defect shall be rejected.

TABLE II. Classification of Motor Tube Defects

Tube, Motor, P/N 11726650				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual, Borescope, and Radiographic	100%	Footnote 2.1
M102	Protective finish inadequate or defective (after propellant removal).	Visual	100%	Footnote 2.2
M103	Burrs or sharp corners.	Visual	100%	Footnote 2.3

- 2.1 Inspect interior of all motor tubes with a borescope. If thin wall defects are suspected, verify wall thickness radiographically. Thin wall defects are acceptable if they meet the requirements of 4.2.2.1.1.
- 2.2 Strip and replate 100% of parts. Part must undergo a full inspection after replating is complete.
- 2.3 All burrs and sharp corners will be repaired. After repair, strip and replate part. Part must be reinspected using full inspection after replating.

TABLE III. Classification of Booster Tube Defects

Tube, Booster, P/N 11726656				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate or defective.	Visual	See 4.2.1	Footnote 3.1 Footnote 3.2
M103	Burrs or sharp corners.	Visual	100%	Footnote 3.3
M104	Foreign material in threads.	Visual	100%	Footnote 3.4

- 3.1 If the number of scratches is small, repair in accordance with 3.5.1. If there is a large number of scratches or larger defects, then strip and replate tube. Part must undergo a full inspection after replating is complete. Full inspection after replating is to include gage inspection of pitch diameter and minor diameter of 1.125-12UNF-2A thread.
- 3.2 No scratches allowed in area of o-ring groove.
- 3.3 All burrs and sharp corners will be repaired. After repair, strip and replate part. Part must be reinspected using full inspection after replating. Full inspection after replating is to include gage inspection of pitch diameter and minor diameter of 1.125-12UNF-2A thread.
- 3.4 Clean part. Reinspect using rework specification.

TABLE IV. Classification of Tang Defects

Tang, P/N 512-174-0083				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	Footnote 4.1
M102	Protective finish inadequate or defective.	Visual	100%	
M103	Burrs or sharp corners.	Visual	100%	Footnote 4.2
M104	Foreign material.	Visual	100%	Footnote 4.3
M105	Foreign material in threads.	Visual	100%	Footnote 4.3
M106	Bore chamfer (Ø.677", 20°) not present.	Visual	100%	
M107	Threads not conforming to 1.375-16UN-2A pitch diameter requirement.	Gage	100%	
M108	Threads not conforming to 1.375-16UN-2A minor diameter requirement.	Gage	100%	

- 4.1 No scratches allowed in area of o-ring groove.
- 4.2 All burrs and sharp corners will be repaired. After repair, repassivate part. Part must be reinspected using full inspection after repassivating. Full inspection after repassivating is to include gage inspection of pitch diameter and minor diameter of 1.375-16UN-2A and .750-16UNF-2B threads.
- 4.3 Clean part. Reinspect using rework specification.

TABLE V. Classification of Launcher Tube Assembly Defects

Tube, Launcher Assembly, P/N 11726800				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Wrap defective.	Visual	100%	
M103	Corrosion or surface damage.	Visual	100%	

TABLE VI. Classification of Breech Defects

Breech, P/N 11743979				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
Critical	Previous lot and serial number stamped out.	Visual	100%	Footnote 6.1
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate.	Visual	100%	Footnote 6.2 Footnote 6.3
M103	Burrs or sharp corners.	Visual	100%	Footnote 6.4
M104	Foreign material.	Visual	100%	Footnote 6.5
M105	Threads not conforming to 0.4375-20UNJF-3B pitch diameter requirement (maximum).	Gage	100%	
M106	Threads not conforming to 0.4375-20UNJF-3B minor diameter requirement (maximum).	Gage	100%	
M107	Threads not conforming to 1.125-12UNF-2B pitch diameter requirement.	Gage	100%	
M108	Threads not conforming to 1.125-12UNF-2B minor diameter requirement.	Gage	100%	

- 6.1 Stamp out any existing lot and serial number information. Repair stamped area only in accordance with 3.5.1 if finish is inadequate after stamping.
- 6.2 If defect is located on threads, reject part, otherwise, repair nonconforming area only in accordance with 3.5.1 and reinspect.
- 6.3 No scratches allowed in area of o-ring groove.
- 6.4 If defect is located on threads then reject part. All other burrs and sharp corners will be repaired. After repair, touch up repaired area only in accordance with 3.5.1.
- 6.5 Clean part. Reinspect using rework specification.

TABLE VII. Classification of Nozzle Defects

Nozzle, P/N 11743978				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate or defective.	Visual	See 4.2.1	Footnote 7.1 Footnote 7.2
M103	Burrs or sharp corners.	Visual	100%	Footnote 7.3
M104	Foreign material.	Visual	100%	Footnote 7.4
M105	Overall nozzle height (along ROCAT axis) not less than 2.43 inches	Gage	100%	
M106	Diameter of o-ring groove in nozzle interior no greater than 1.233 inches	Gage	100%	
M107	Nozzle exhaust port exterior shape is as illustrated in Figure 1	Visual	100%	

- 7.1 Strip and replate 100% of parts. Part must undergo a full inspection after replating is complete.
- 7.2 No scratches allowed in area of o-ring groove.
- 7.3 All burrs and sharp corners will be repaired. After repair, strip and replate part. Part must be reinspected using full inspection after replating.
- 7.4 Clean part. Reinspect using rework specification.

TABLE VIII. Classification of Plug Defects

Plug, P/N 512-174-0076				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate or defective.	Visual	See 4.2.1	Footnote 8.1 Footnote 8.2
M103	Burrs or sharp corners.	Visual	100%	
M104	Foreign material.	Visual	100%	

- 8.1 No scratches allowed in area of o-ring groove.
- 8.2 Repair scratched areas in accordance with 3.5.1.

TABLE IX. Classification of Metering Tube Defects

Tube, Metering, P/N 512-174-0079				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate or defective.	Visual	100%	
M103	Burrs and sharp corners.	Visual	100%	Footnote 9.1
M104	Foreign material.	Visual	100%	
M105	0.031" diameter holes (8 places) blocked.	Visual	100%	

9.1 All burrs and sharp corners will be repaired. After repair, repassivate part. Part must be reinspected using full inspection after repassivating. Full inspection after repassivating is to include gage inspection of pitch diameter and minor diameter of .250-28UNF-2A thread.

TABLE X. Classification of Breech Plug Defects

Plug, Breech, P/N 5184315				
Classification	Defect	Inspection Method	Sampling	Restoration Notes
M101	Metal defective.	Visual	100%	
M102	Protective finish inadequate or defective.	Visual	100%	
M103	Burrs or sharp corners.	Visual	100%	Footnote 10.1
M104	Foreign material.	Visual	100%	Footnote 10.2
M105	Foreign material in threads.	Visual	100%	Footnote 10.2

- 10.1 All burrs and sharp corners will be repaired. After repair, repassivate part. Part must be reinspected using full inspection after repassivating.
- 10.2 Clean part. Reinspect using rework specification.

- **4.2.2.1 Reusable parts.** Examination of reusable parts shall be limited to inspection of defects as listed in tables II through X. One hundred percent examination shall be performed for all such defects unless otherwise specified. All nonconforming parts shall be restored following the requirements of tables II through X or rejected. Motor tubes with thin wall defects may be reused if the requirements of 4.2.2.1.1 are met.
- **4.2.2.1.1 Acceptable Motor Tube Defect.** Motor tube thin wall defects are acceptable if they conform to all of the following requirements.
  - a. Minimum wall thickness is not less than .055 inch.
  - b. Thin wall region of the motor tube is oriented radially.

The following motor tube defects that meet the above criteria have been observed. Some motor tubes assembled by spin welding have a slight misalignment at the transition point between the cylindrical mid section of the tube and the tapered end. Machining grooves on the inner diameter at the center of the motor tube are found in tubes whose inner diameter was produced by machining from both ends. Radial scratches caused by machining are also seen on the inner diameter at any point along the length.

- **4.2.2.2 Restored parts.** One hundred percent examination shall be performed on all restored parts in accordance with tables II through X. If specified, examination for major and minor defects shall be performed in accordance with the requirements of MIL-DTL-32127. All nonconforming material and parts shall be rejected.
- **4.2.2.3 Modified Parts.** Modified parts will be subjected to the inspections listed in tables II through X. If specified, examination for major and minor defects shall be performed in accordance with the requirements of MIL-DTL-32127. All nonconforming material and parts shall be rejected.
- **4.2.2.4 New parts.** New hardware shall be inspected in accordance with the requirements of MIL-DTL-32127.
- **4.2.3 Tests.** Parts shall be subjected to the following tests. Unless otherwise specified, sampling for tests shall be in accordance with the component sampling requirements of MIL-DTL-32127. When specified in the contract or order (see 6.2), the contractor shall furnish test reports (see 6.3) detailing the results of all tests.
- **4.2.3.1 Protective finish.** Sampled parts shall be inspected for conformance to the criteria for protective finish specified in the applicable documents listed on the drawings.
- **4.2.3.2 Hydrostatic pressure.** Each motor tube, launcher tube assembly, and booster tube shall withstand the internal hydrostatic pressure test specified in MIL-DTL-32127. Any evidence of leakage or mechanical failure shall be cause for rejection of that component.
- **4.2.4 Test reports**. When specified in the contract or order (see 6.2), the contractor shall furnish test reports (see 6.3) to the contracting activity for each inspection lot. Test reports shall include the sample size, number and nature of defects found, the disposition (accepted or rejected), and other items as specified in the contract or order.

## 5. PACKAGING

(This section is not applicable to this specification.)

#### 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

- **6.1 Intended use.** The CKU-5C/A Aircraft Ejection Seat Catapult Rework Assembly composed of new, reused, restored, and modified components as applicable and as described herein and when loaded with propellant, in accordance with MIL-DTL-32124 Type IV and drawing 512-174-0071 and a CCU-22B/A Impulse Cartridge, drawing 512-174-0069, will produce the catapult CKU-5C/A assembly. The catapult assembly is to meet the requirements of MIL-DTL-32127 and is intended to be used in conjunction with other propellant actuated devices in aircrew emergency escape systems used in jet aircraft. The CKU-5C/A is designed for use in military aircraft, and has no commercial application.
  - **6.2 Acquisition requirements.** Acquisition documents should specify the following:
  - a. Title, number and date of this specification.
  - b. Disposition of hardware, scrap propellant and metal parts (see 3.2.5, 3.2.6 and 6.5).
  - c. Reusable component identification marking if other than as specified (see 3.4.3).
  - d. Inspection conditions when other than as specified (see 4.1.1).
  - e. Whether test reports are required (see 4.2.3 and 4.2.4).
  - f. Safety precautions (see 6.4).
- **6.3 Consideration of data requirements.** The following data requirements should be considered when this specification is applied on a contract. The specific acquisition should be reviewed to ensure that only essential data are requested/provided. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD Form 1423) must be prepared to obtain the data, except where DOD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

Ref. Paragraph Title

4.2.3, 4.2.4 Reports, Test

- **6.4 Safety precautions.** The safety precaution requirements of the "Contractors' Safety Manual for Ammunition, Explosives and Related Dangerous Material" (DOD 4145.26M) are applicable and should be specified in the contract or order as required by the Armed Services Procurement Regulations (ASPR) 1-323.
- **6.4.1 Explosive hazard classification.** The explosive hazard classification for this rocket catapult has been designated as:

Explosive Hazard Classification - Class 1 Division 3 Storage Compatibility Group - Group C Department of Transportation (DOT) Hazard Class - Class B DOT Marking - Rocket Motors

**6.4.2 Hazard notice.** The rocket catapult described herein is flammable and/or explosive and consequently presents a hazard in manufacture, handling, storage and shipment. The contractor should

recognize this hazard and take appropriate measures to guard and protect against fire, explosion, adverse environment, corrosive atmosphere, rough handling and electrically induced incidents.

**6.5 Disposition of hardware, scrap propellant, and metal parts.** The contract shall specify that all items purchased become the property of the U. S. Government; no hardware, propellant, or metal parts (acceptable, scrapped or tested) be disposed of without authorization of the contracting activity; all items be made available to the contracting activity upon request; and that the disposal of any tested hardware, propellant, or metal parts without authorization by the contracting activity will result in the test being declared invalid, and a retest will be required.

# 6.6 Subject term (key word) listing.

Explosives Launcher Propellant Rocket motor

Custodian: Navy - OS Preparing Activity: Navy - OS (Project 1377-0235)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <a href="http://assist.daps.dla.mil">http://assist.daps.dla.mil</a>.