

MIL-C-45224C  
Amendment 2  
15 April 1980

MILITARY SPECIFICATION  
CABLE AND HARDNESS ASSEMBLIES, ELECTRICAL  
MISSILE SYSTEM  
GENERAL SPECIFICATION FOR

This amendment forms a part of Military Specification MIL-C-45224, dated 28 January 1970, and is approved for use by all Departments and Agencies of the Department of Defense.

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Add the following paragraph to bottom of page.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, US Army Missile Command, ATTN: DRSMI-ED, Redstone Arsenal, AL 35809, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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Paragraph 2.1

Add: "TT-S-1732, sealing compound, pipe joint and thread, lead free general purpose."

Delete: "TT-A-580, antiseize compound, white lead base, general purpose (for thread fittings)."

Delete: "MIL-W-7139, wire electrical, polytetrafluoroethylene insulated, copper, 600 volts."

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Paragraph 2.1

Delete: "MIL-C-1377, cable, special purpose, electrical, general specification for."

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And substitute: "MIL-C-13777, Cable, special purpose, electrical conductors, general specification for."

Delete: "MIL-T-22520, Tool, crimping, contact, electrical connector." And substitute: "MIL-C-22520, Crimping tools, terminal, hand or power actuated, wire termination and tool kits general."

Delete: "MIL-I-23053, Insulation tubing, electrical, heat shrinkable." And substitute: "MIL-I-23053, Insulation sleeving, electrical, heat shrinkable, general specification for."

Delete: "MIL-C-26482, Connectors, electric, circular, miniature, quick disconnect." And substitute: "MIL-C-26482, Connectors, electrical (circular, miniature, quick disconnect environmental (resisting) receptacles and plugs, general specification for."

Delete: "MIL-C-27500, Cable, electrical, shielded and unshielded, aircraft and missile." And substitute: "MIL-C-27500, Cable, electrical shielded and unshielded, aerospace."

Delete: "MIL-C-38999, Connector, electrical, miniature, quick disconnect with removable crimp type contacts (for special weapons systems circuitry), established reliability." And substitute: "MIL-C-38999, Connector, electrical, circular, miniature, high density, quick disconnect (bayonet threaded, and breech coupling), environment resistance, removable crimp and hermetic solder contacts, general specification for."

Add: "MIL-C-23190 straps, clamps and mounting hardware, plastic for cable harness tying and support."

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Paragraph 2.1

Delete: "MIL-S-45743, Soldering, manual type, high reliability, electrical connections, for missile systems, procedures for." And substitute: "MIL-S-45743, Soldering, manual type, high reliability, electrical and electronic equipment."

Delete: "MIL-W-81044, Wire, electric, crosslinked polyalkene insulated, copper." And substitute: "MIL-W-81044, Wire, electric, crosslinked polyalkene, crosslinked alkaneimide polymer or polyarylene insulated, copper or copper alloy."

Delete: "MIL-C-81511 - Connector, electric, circular, high density, quick disconnect, environment resisting, general specification for".

And substitute: "MIL-C-81511 connector, electric, circular, high density, quick disconnect environment resisting, and accessories, general specification for."

Delete: "MIL-STD-105 - Sampling procedures and tables of inspection by attributes."

And substitute: "MIL-STD-105 Sampling procedures and tables for inspection by attributes."

Delete: "MIL-STD-202 - Test methods for electronic and electrical equipment parts."

And substitute: "MIL-STD-202 - Test methods for electronic and electrical component parts."

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Para 2.1

Delete: "MS 3420 - Bushing, cable adapter, telescoping."

And substitute: "MS 3420, Adapter, cable clamp to cable, bushing, telescoping."

Add: "MS 90387 - Tool, hand adjustable for plastic cable straps."

Delete: "AMS 3632 - Plastic tubing, electrical insulation."

And substitute: "AMS 3632 - Plastic tubing, electrical insulation irradiated polyvinylidene fluoride, semi-rigid, heat shrinkable 2 to 1 shrink ratio."

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Para 3.2.4, line 2 - Delete: "MIL-W-7139."

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Para 3.2.6.3, line 2 - Delete: "TT-A-580."

And substitute: "TT-S-1732."

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Add the following paragraphs:

"3.2.9 Straps. Cable straps shall be in accordance with MIL-S-23190, associated Military Standard, or as specified on applicable drawing."

"3.2.10 Tools. Tools to install cable straps shall be in accordance with MIL-S-23190, MS 90387, or shall be in accordance with the strap manufacturer's specifications subject to approval by the procuring activity."

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Add the following paragraphs:

"3.3.1.1 Harness straps. As an alternate method, cable or harness straps may be used, if approved, in lieu of lacing. Plastic or polyamide straps of an approved source may be used on harness or wire bundles. The straps shall be mounted snugly on the assembly conductors and be capable of being locked to prevent loosening or opening. These straps shall be positioned to correspond with the stitching interval specified in MIL-E-45782 or as specified on applicable drawing. Procedures for installation of harness or cable shall be in accordance with instructions of the strap manufacturer subject to approval of the procuring activity."

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Defects, add the following:

<u>Minor</u>		<u>Inspection Method</u>
217	Straps not tight	Visual
*218	Straps too tight	Visual
219	Improper spacing interval	Visual
220	Straps damaged	Visual
221	Straps not locked	Visual

\*Caution. With automatic ratchet type tools, straps can be tensioned too tight resulting in cold flow and ultimate failure of the insulation under the strap.

Custodians:  
 Army-MI  
 Air Force-99

Preparing activity:  
 Army-MI

Project No. 1410-0101

Review activities:  
 Army-CR, AT, AR, ER  
 Air Force-19

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