

INCH- POUND

MIL-C-915/5D
29 September 1989
 SUPERSEDING
 MIL-C-915/5C
 18 June 1985

MILITARY SPECIFICATION SHEET

CABLE, POWER ELECTRICAL, 300 VOLTS, FOR OUTBOARD USE ONLY
 (NOT FOR INBOARD USE), TYPE DLT

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation: MIL-C-915.

REQUIREMENTS:

Qualification required.

Construction (non-watertight)Insulated steel core member

- First - One steel strength member in accordance with MIL-W-83420, 7 by 19 stranding, 0.156-inch finished diameter (not preformed).
- Second - 60-percent natural rubber insulation (ASTM D 353). Minimum thickness 0.046 inch, to a nominal diameter of 0.262 inch. The insulation shall fill all outer interstices of the steel strands; this may be applied in one or two layers.

Insulated conductors (four)

- First - Copper conductor. AWG size 18, class M stranding, coated.
- Second - Separator.
- Third - 30-percent natural rubber insulation, (ASTM D 353). Nominal thickness 0.031 inch. Standard identification code applied by method 3.

AMSC N/A

FSC 6145

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

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REQUIREMENTS - Continued

Assembly

- First - The four insulated conductors shall be cabled in a close helix about the steel strength member, with a lay of approximately 0.625 inch, partially embedded in the relatively soft partially vulcanized insulation of the steel core member.
- Second - Synthetic rubber filler, integral with an 0.031-inch nominal thickness for an insulating belt over the assembly.
- Third - Reinforcement under cable jacket.
- Fourth - Polychloroprene jacket (black) minimum thickness 0.078 inch, bonded to the insulating belt. The assembled cable shall be vulcanized into a compact unit. The insulating belt shall be removable from the conductors and the conductors shall be separable without damage to the insulation and without destroying the identity of the color code. Manufacturer's identification shall include molded markings on the jacket at intervals not greater than 25 feet, showing cable type, manufacturer's name or identification, and year of manufacture. Maximum overall diameter 0.710 inch.

EXAMINATION AND TESTS:

	<u>Requirements</u>
<u>Basic electrical:</u>	
Conductor resistance - ohms/1000 feet, at 25°C, maximum.....	7.15
Voltage withstand - volts, root mean square, minimum	
Conductor to conductor.....	2000
Conductor to water (strength member and water bath).....	2000
Insulation resistance - megohms/1000 feet, minimum	
Conductor to conductor.....	200
Conductor to water (strength member and water bath).....	100
<u>Group A:</u>	
Visual and dimensional.....	No failure
<u>Group B:</u>	
Physicals (unaged)	
Insulation (conductor) (ASTM D 353)	
Tensile strength - lbf/in ² , minimum.....	900
Elongation - percent, minimum.....	300
Jacket (cable)	
Tensile strength - lbf/in ² , minimum.....	1800
Elongation - percent, minimum.....	300

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REQUIREMENTS - Continued

Bending endurance - at 25°C on 2-inch maximum
diameter mandrel, cycles, minimum..... 1000

Group C

Flammability - inches, maximum..... 2
Steel strength member..... MIL-W-83420

Physicals (aged)

Insulation (conductor) (ASTM D 353)

Air oven

Tensile strength - percent of unaged,
minimum..... 75
Elongation - percent of unaged, minimum. 75

Oxygen pressure

Tensile strength - percent of unaged,
minimum..... 65
Elongation - percent of unaged, minimum. 65

Jacket (cable)

Air pressure heat

Tensile strength - percent of unaged,
minimum..... 50
Elongation - percent of unaged, minimum. 50

QUALIFICATION INSPECTION:

Qualification inspection shall include basic electrical, all of groups
A, B, and C, plus the following:

Stress endurance..... No failure

UNIT ORDERING LENGTHS:

The DLT cable shall be delivered in nominal lengths of not less than 600 feet and not more than 630 feet. Except where authorized by the contract or order, not more than 30 percent of the total footage of each lot offered for inspection may be accepted in random lengths of not less than 400 feet, and not more than 420 feet or in random lengths of not less than 200 feet and not more than 210 feet. Combinations thereof of random lengths will be permitted. Other lengths are not suitable for the purpose.

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NOTE: Not for Air Force use.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:

Army - MI

Navy - SH

Preparing activity:

Navy - SH

(Project 6145-1127-02)

Review activities:

Army - CR, ER

Navy - EC

DLA - IS

User activities:

Army - AL, AR, ME

Navy - CG