

INCH-POUND

MIL-R-3241E  
AMENDMENT 1

29 January 1990

## MILITARY SPECIFICATION

REELS, CABLE (REELS DR-5(), DR-7(),  
DR-8(), RC-453()/G, RL-159()/U)

This amendment forms a part of military specification MIL-R-3241E, dtd 9 July 1985, and is approved for use by all Departments and Agencies of the Department of Defense

## PAGE 1

Paragraph 2 1 1, line 1, delete 'PPP-C-650-Crates, Wood, Open, and Covered '

Paragraph 2 1.1, line 2, delete 'MIL-P-116-Preservation, Methods of '

## PAGE 2

Paragraph 2 1 1, line 1, delete 'MIL-W-6858-Welding, Resistance, Aluminum, Magnesium, Non-Hardening Steel or Alloys, Nickel Alloy Heat-Resisting Alloys, and Titanium Alloys Spot and Seam'

Paragraph 2 1 1, line 4, delete 'MIL-M-10578 and substitute 'MIL-C-10578-Corrosion Removing & Metal Conditioning Compound (Phosphoric Acid Base)'

Paragraph 2 1 1, line 5, delete 'MIL-M-11473-Magnetic Particle Inspection, Soundness Requirements for Weldments' for Ground Signal Equipment'

Paragraph 2 1 1, line 9, delete 'MIL-E-55585-Electronic Equipment and Parts '

Paragraph 2 1 1, add 'MIL-C-46168-Coating, Aliphatic Polyurethane, Chemical Agent Resistant '

Paragraph 2 1 1 add 'MIL-C-53039-Coating, Aliphatic Polyurethane, Single Component, Chemical Agent Resistant

Paragraph 2 1 1, line 18, delete 'MIL-STD-129-Marking for Shipment and Storage '

AMSC N/A

FSC 8130

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PAGE 2 Cont'd

Paragraph 2 1 1, line 19, delete 'MIL-STD-170-Moisture Resistance Test Cycle for Ground Signal Equipment'

Paragraph 2.1.1, line 21, delete 'MIL-STD-726-Packaging Requirments Code'

Paragraph 2 1.1, add 'MIL-STD-1949- Magnetic Particle Inspection.'

PAGE 4

Paragraph 3.3, line 3, delete 'tack and seam welds shall conform to MIL-W-6858', and substitute 'seam, and projection welds shall conform to MIL-W-12332. Butt welds shall conform to the requirements specified in the cable reel drawings in paragraph 3 1'

PAGE 5

Paragraph 3 3 3, line 3, delete 'MIL-M-10578' and substitute 'MIL-C-10578'

Paragraph 3 3.4, line 2, delete 'MIL-M-11473' and substitute 'MIL-M-47230'

Paragraph 3 5, line 4, delete '90'' and substitute '90 degrees'

Paragraph 3 11, delete in its entirety and substitute the following

'Finish and Identification After assembly, the reels shall be finished in accordance with MIL-F-14072, Finish number P210AG. The primer and final paint film shall be applied to all exterior surfaces and to all interior surfaces that can be accessed through the axle and hand holes. Finish on reels shall be smooth and free from defects, and shall be applied after completion of tests specified in 4 9, 4 10, 4.11, and 4 12 have been met. The reel shall be marked with the acronym 'CARC' in accordance with a) or b) as below:

a) Embossed lettering with a height of .060 + .010 inch in an adjacent panel to the panel containing the nomenclature such as 'DR-5()', DR-7(), DR-8(), RC-453()/G or RL-159()/U

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The dimensions (in inches) for the embossed lettering are shown in Figure 1 except for the DR-8 reel. The dimensions (in inches) for the embossed lettering for the DR-8 reel are shown in Figure 2

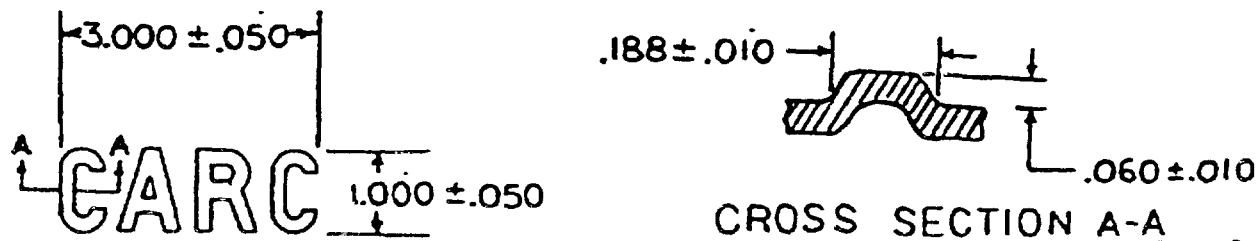


FIGURE 1. EMBOSSED LETTERING  
EXCEPT FOR DR-8 REEL

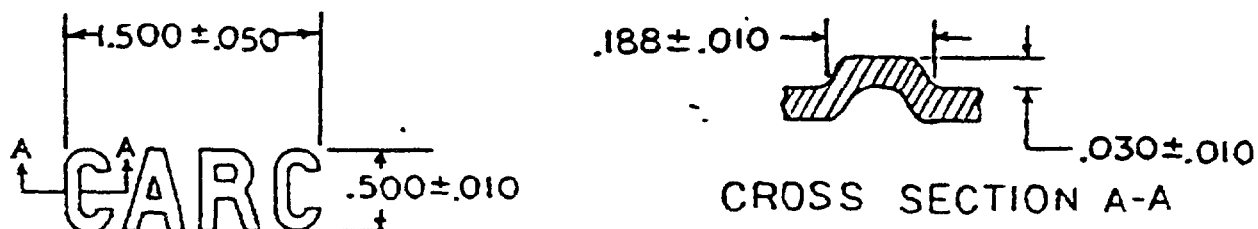


FIGURE 2. EMBOSSED LETTERING  
FOR DR-8 REEL

The marking shall be in accordance with MIL-M-13231

b Stencilled lettering using black CARC paint per MIL-C-46168 or MIL-C-53039 in an adjacent panel to the panel containing the nomenclature such as 'DR-5()', DR-7(), DR-8(), RL-159()/U or RC-453()/G'. The marking shall be in accordance with MIL-M-13231 and given the following lettering sizes:

<u>Type of Reel</u>	<u>Lettering Sizes (inches high)</u>
DR-5()	1
DR-7()	1
DR-8()	1/2
RL-159()/U	1
RC-453()/G	1

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Paragraph 3 12, line 10, delete '3 13 - Nylon Finish (where applicable)'

Paragraph 3 13 through 3 13 2, delete in their entirety

PAGE 7

Paragraph 4.2.a.2, delete in its entirety.

PAGE 8

Table I, line 4 (Fit on Axle), Unit #1 change Sequence '7' to Sequence '5' and Unit #2 change Sequence '8' to Sequence '6'.

Table I, line 7, delete 'Nylon Thickness (if applicable), Rqt paragraph 3 13 1, Test paragraph 4 15 1, Unit #1, Sequence #5, and Unit #2, Sequence #5'.

Table I, line 8, delete 'Nylon Adhesion (if applicable)' Rqt paragraph 3 13 2 Test paragraph 4 15 2, Unit #1, Sequence 6, and Unit #2, Sequence #7'

Table I, line 11, (Moisture Resistance) Unit #2, change Sequence '6' to Sequence '5'

PAGE 9

Paragraph 4 4 2, delete in its entirety

Table III, delete in its entirety

PAGE 10

Paragraph 4 4 3, line 1, delete 'and B'

Table IV, line 9, delete 'Nylon adhesion, Requirement paragraph 3 13 2 and Test Method paragraph 4 15 2'

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Paragraph 4.5, delete in its entirety

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PAGE 13

Paragraph 4.10, add the following

'The reel loaded with wire or cable shall be conditioned in a temperature chamber at -40 degrees F for 24 hours prior to the drop test. The drop test shall be conducted immediately as soon as the reel is removed from the temperature chamber. If all the specified drops cannot be completed within 10 minutes after removal, immediately return the reel to the -40 degree F temperature chamber for 1 hour before proceeding to the next 10 minute test period during which the reel may be dropped. After each 10 minute test period, immediately return the reel to the cold temperature chamber before proceeding to the next 10 minute test period until all the specified drops have been completed.'

Paragraph 4.11, line 2, delete 'MIL-M-11473' and substitute 'MIL-STD-1049'

Paragraph 4.13, delete in its entirety and substitute:

'4.13 Moisture resistance test. The reel shall be subjected to fifteen continuous 48 hour moisture resistance cycles. A single cycle shall consist of Steps 1 through 8. The relative humidity shall be maintained between 90 and 98 percent at all times throughout each cycle and during the first conditioning period. The actual temperature of the conditioning periods and during each cycle at steps 2, 4, 6 and 8 shall be within 3 degrees F of the temperature specified.

Condition the reel at 86 degrees F for 24 hours before test.

Step 1. Raise the internal chamber temperature from 86 to 149 degrees F at a rate of not less than 15 degrees F per hour.

Step 2. Maintain the temperature at 149 degrees F for 8 hours.

Step 3. Lower the temperature from 149 to 86 degrees F at a rate of not less than 15 degrees F per hour.

Step 4. Maintain the temperature at 86 degrees F for 20 hours.

Step 5. Lower the temperature from 86 to 68 degrees F within 2 hours.

Step 6. Maintain the temperature at 68 degrees F for 4 hours.

Step 7. Raise the temperature from 68 to 86 degrees F within 2 hours.

Step 8. Maintain the temperature at 86 degrees F for 4 hours.

After completion of the fifteen cycles, condition the reel at 73 degrees F and between 40 and 60 percent relative humidity for 24 hours. Then inspect the reel for any evidence of corrosion or other deterioration. The reel shall meet the requirements of 3.8.

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Paragraph 4.15 through 4.15.2 delete in their entirety

Paragraph 5, delete in its entirety and substitute the following.

5. PACKAGING

5.1 Packaging Requirements. The packaging requirements for the desired level(s) of protection shall be as specified by the acquisition activity.

PAGE 15

Paragraph 6.1, line 2, delete "2 kilometers of Wire WD-1/TT" and substitute "2 kilometers of Wire WD-1A/TT"

Paragraph 6.1, line 6, delete "1/2 kilometer of Wire WD-1/TT" and substitute "1/2 kilometers of Wire WD-1A/TT".

Paragraph 6.2.c and 6.2.d, delete in their entirety

Paragraph 6.7 and 6.8, delete in their entirety

Custodians

Army-CR

Navy-YD

Air Force-69

Review Activities

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Air Force-99

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User Activities

Marine Corps-MC

Preparing Activity

ARMY-CR

Project 8130-1001