

INCH-POUND

MS51844D
19 April 2007
SUPERSEDING
MS51844C
28 June 1985

DETAIL SPECIFICATION SHEET

SLEEVE, SWAGING-WIRE ROPE

This specification 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.

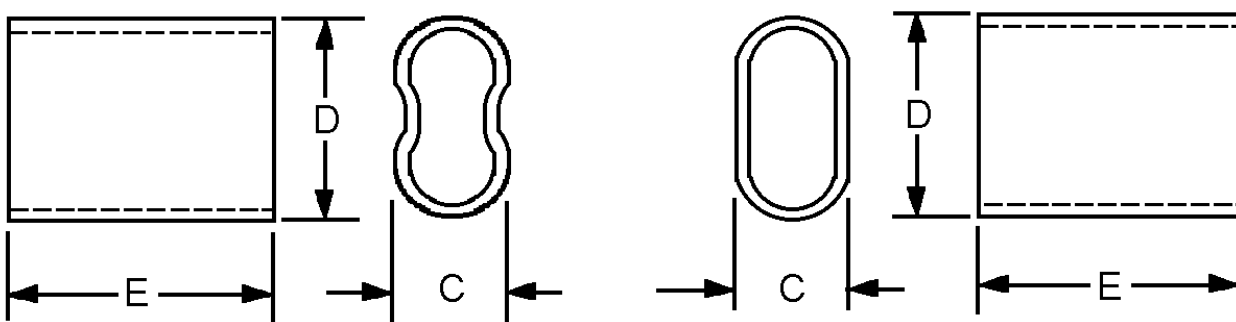
OPTIONAL DESIGNS

FIGURE 1. Sleeve dimensions and configuration.

MS51844D

For use with zinc or tin coated carbon steel cable (see note 3)		For use with CRES cable (see notes 3 and 4)	Cable size nominal	C Max inches (mm)	D Max inches (mm)	E Max inches (mm)
Zinc coated copper sleeve dash number	Plain copper sleeve dash number	Tin coated copper sleeve dash number				
20	40	---	1/32	.094 (2.39)	.140 (3.56)	.310 (7.87)
21	41	81	3/64	.140 (3.56)	.206 (5.23)	.440 (11.18)
22	42	82	1/16	.180 (4.57)	.270 (6.86)	.440 (11.18)
23	43	83	3/32	.240 (6.10)	.380 (9.65)	.440 (11.18)
24	44	84	1/8	.340 (8.64)	.512 (13.00)	.750 (19.05)
25	45	85	5/32	.370 (9.40)	.600 (15.24)	.750 (19.05)
26	46	86	3/16	.450 (11.43)	.710 (18.03)	1.000 (25.40)
27	47	87	7/32	.480 (12.19)	.740 (18.80)	.940 (23.88)
28	48	88	1/4	.540 (13.72)	.840 (21.34)	1.190 (30.23)
29	49	89	5/16	.680 (17.27)	1.030 (26.16)	1.125 (28.58)
30	50	90	3/8	.750 (19.05)	1.143 (29.03)	1.312 (33.32)
31	51	91	7/16	.870 (22.10)	1.320 (33.53)	1.813 (46.05)
32	52	92	1/2	.980 (24.89)	1.490 (37.85)	1.940 (49.28)
33	53	93	9/16	1.100 (27.94)	1.710 (43.43)	2.062 (52.37)
34	54	94	5/8	1.200 (30.48)	1.880 (47.75)	2.440 (61.98)

For use with CRES cable (see note 3)	Cable size Nominal	C Max inches (mm)	D Max inches (mm)	E Max inches (mm)
CRES sleeve dash number				
60	1/32	.094 (2.39)	.143 (3.63)	.310 (7.87)
61	3/64	.140 (3.56)	.206 (5.23)	.440 (11.18)
62	1/16	.143 (3.63)	.236 (5.99)	.440 (11.18)
63	3/32	.190 (4.83)	.304 (7.72)	.440 (11.18)
64	1/8	.241 (6.12)	.387 (9.83)	.440 (11.18)
65	5/32	.322 (8.18)	.500 (12.70)	.750 (19.05)
66	3/16	.360 (9.14)	.567 (14.40)	1.000 (25.40)
67	7/32	.430 (10.92)	.667 (16.94)	.900 (22.86)
68	1/4	.460 (11.68)	.724 (18.39)	1.150 (29.21)
69	5/16	.690 (17.53)	1.070 (27.18)	1.440 (36.58)
70	3/8	.750 (19.05)	1.130 (28.70)	1.688 (42.88)
71	7/16	.940 (23.88)	1.380 (35.05)	1.813 (46.05)
72	1/2	1.000 (25.40)	1.440 (36.58)	2.062 (52.37)
73	9/16	1.190 (30.23)	1.750 (44.45)	2.312 (58.72)
74	5/8	1.250 (31.75)	1.820 (46.23)	2.440 (61.98)
75	3/4	1.440 (36.58)	2.250 (57.15)	3.062 (77.77)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Cable can be either MIL-DTL-83420 type I or RR-W-410, type I, class 2 (see table II).
4. Corrosion resistant steel (CRES).

FIGURE 1. Sleeve dimensions and configuration - Continued.

MS51844D

REQUIREMENTS

Material:

CRES, type 304 (UNS S30400) in accordance with ASTM A249/A249M or ASTM A269 or type 305 (UNS S30500) in accordance with ASTM A249/A249M or ASTM A511.

Copper, alloy type 102 (UNS C10200), type 103 (UNS C10300) or type 122 (UNS C12200) in accordance with ASTM B75 (except yield strength does not apply).

Finish:

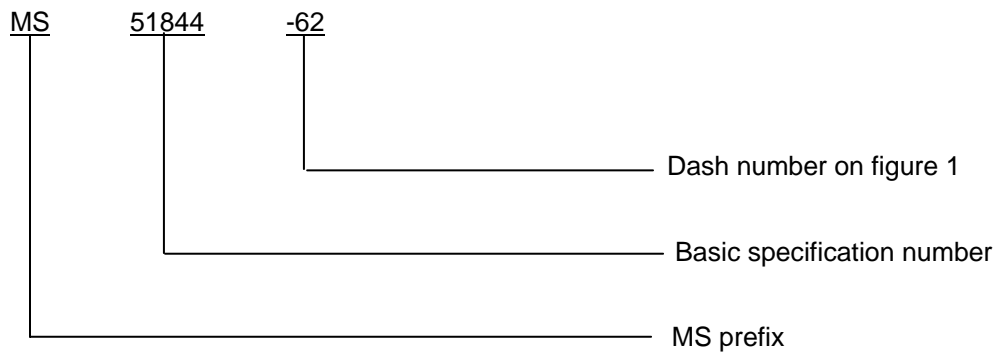
Corrosion resistant steel. Sleeve shall be cleaned, descaled and passivated in accordance with ASTM A380.

Copper alloy.

Zinc coated in accordance with ASTM B633 type I, Fe/Zn5 or SAE AMS-C-81562, type I, class 6.

Tin coated in accordance with ASTM B545, class C minimum thickness.

Part or Identifying Number (PIN) example:



MS51844D

TABLE I. Nominal breaking strength

Cable size nominal	Construction	Nominal breaking strength (lbs) <u>1/</u>			
		MIL-DTL-83420, type I		RR-W-410, type I, class 2 <u>2/</u>	
		Zinc or tin coated carbon steel comp A	Corrosion resistant steel comp B	Zinc coated steel	Corrosion resistant steel
1/32	3 X 7	110	110		
3/64	7 X 7	270	270		
1/16	7 X 7	480	480		
1/16	7 X 19	480	480		
3/32	7 X 7	920	920		
3/32	7 X 19	1000	920		
1/8	7 X 19	2000	1760		
5/32	7 X 19	2800	2400		
3/16	7 X 19	4200	3700		
7/32	7 X 19	5600	5000		
1/4	7 X 19	7000	6400		
5/16	7 X 19	9800	9000		
3/8	7 X 19	14400	12000		
7/16	6 X 19 IWRC			18360	16300
1/2	6 X 19 IWRC			24000	22800
9/16	6 X 19 IWRC			30200	28500
5/8	6 X 19 IWRC			37000	35000
3/4	6 X 19 IWRC			53000	49600

1/ Nominal breaking strength. Eye splices, when properly assembled using the manufacturer's recommended tools and splicing instructions and when pulled with increasing tension, shall hold until wire rope breaks. It is preferred that tensile loads at failure be not less than 90 percent of the breaking strength specified in table I.

2/ In all applications where RR-W-410 type I, class 2 wire rope is being used, proof tests should be conducted to determine if one or two sleeves are required.

Cross-reference data see table II.

TABLE II. Cross-reference.

MS replacement PIN	MS PIN (inactive for new design)
MS51844-62	MS51844-1
MS51844-64	MS51844-2
MS51844-66	MS51844-3
MS51844-68	MS51844-4
MS51844-90	MS51844-5
MS51844-92	MS51844-6
MS51844-94	MS51844-7

MS51844D

Referenced documents. This document references the following:

MIL-DTL-83420	ASTM A511
RR-W-410	ASTM B75
ASTM A249/A249M	ASTM B545
ASTM A269	ASTM B633
ASTM A380	SAE AMS-C-81562

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:

Army - AR
Navy - SH
Air Force - 99
DLA - CC

Preparing activity:
DLA-CC

(Project 4030-2006-010)

Review activities:

Army - AT, AV, EA, MI
Navy - AS, MC, SA
Air Force - 11, 71
DLA - GS5

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 <http://assist.daps.dla.mil>.