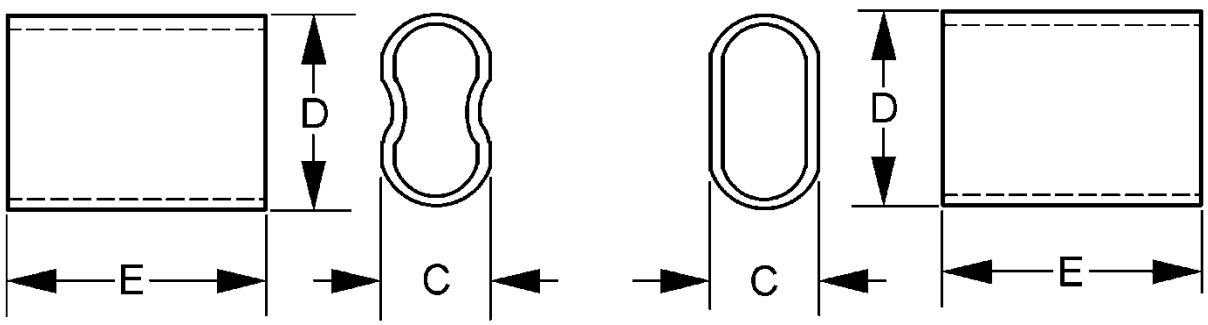
INCH-POUND
MS51844E
w/AMENDMENT 1
3 December 2012
SUPERSEDING
MS51844E
30 September 2011

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.

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)

FIGURE 1. Sleeve dimensions and configuration - Continued.

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 I).
4. Corrosion resistant steel (CRES).
5. Cable can be MIL-DTL-83420 type I, composition A.

FIGURE 1. Sleeve dimensions and configuration - Continued.

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/A511M.

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, de-scaled 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:

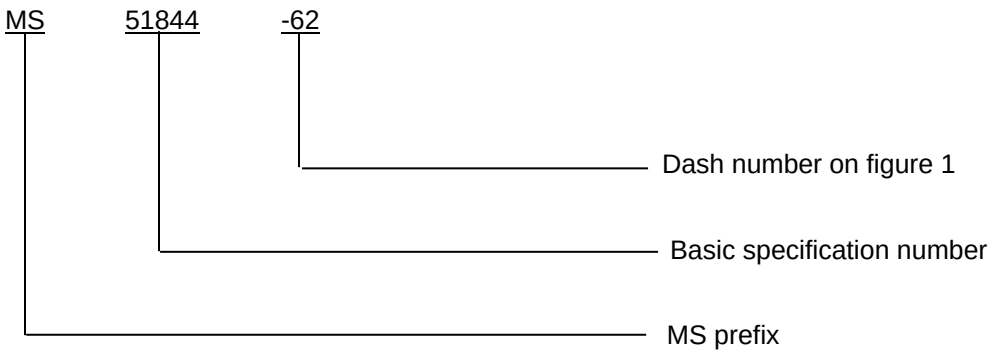


TABLE I. Nominal breaking strength

Cable size nominal	Construction	Nominal breaking strength (lbs) 1/			
		MIL-DTL-83420, type I		RR-W-410, type I, class 2 2/	
		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

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. This document references the following:

MIL-DTL-83420	ASTM-B75
RR-W-410	ASTM-A249/A249M
ASTM-A269	ASTM-B545
ASTM-A380	ASTM-B633
ASTM-A511/A511M	SAE-AMS-C-81562

CONCLUDING MATERIAL

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

Preparing activity:
DLA-CC

(Project 4030-2012-023)

Review activities:
Army - AT, AV, EA, MI
Navy - AS, MC, SA
Air Force - 11, 71
DLA - GS

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 https://assist.dla.mil.