INCH-POUND

MS20668G
5 November 2001
SUPERSEDING
MS20668F
10 January 2001

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DETAIL SPECIFICATION SHEET

TERMINAL, WIRE ROPE, SWAGING, EYE END

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 MIL-DTL-781 and QPL-781 listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation.

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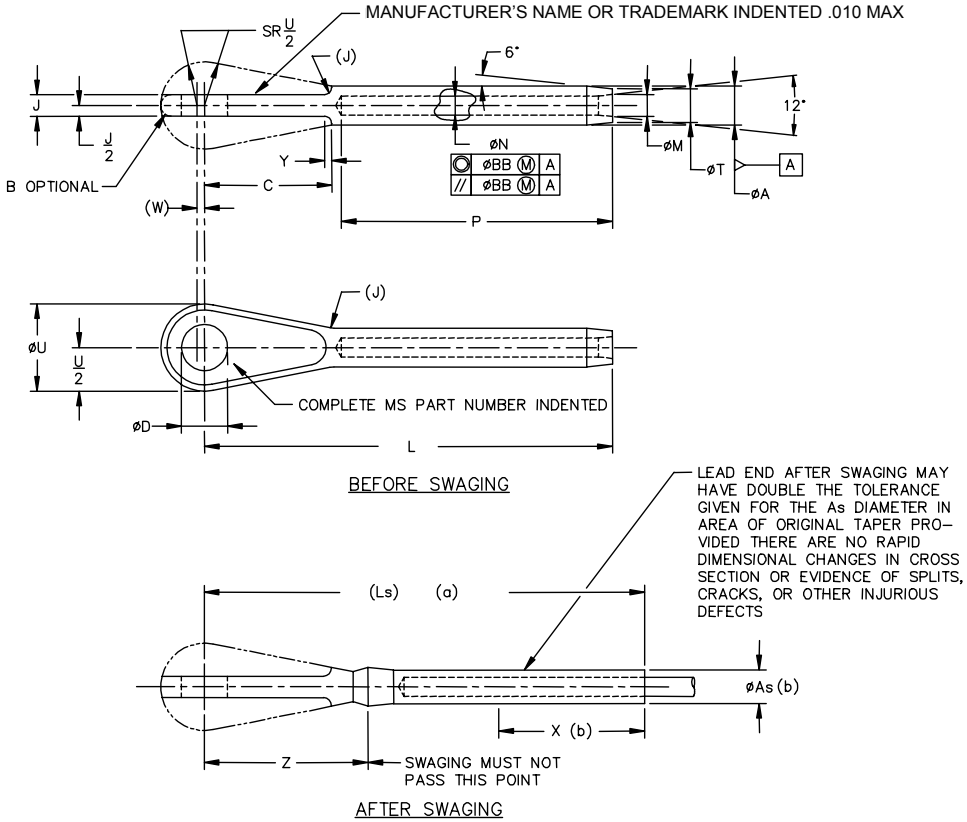

NOTES: (a) Reference dimensions are for design purposes only and are not an inspection requirement.
(b) Swaged terminals shall conform to ØAs for length X.

FIGURE 1. Terminal, wire rope, swaging, eye end.

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TABLE I. Dash numbers and dimensions.

Dash number	Wire rope diameter		Minimum breaking strength lb 1/	ØA		ØAs		B radius	C ±.020
	Nominal reference	Minimum							
-2	1/16	.062	480	.160	+.000 -.005	.138	+.000 -.005	.062	.523
-3	3/32	.093	920	.218		.190		.078	.707
-4	1/8	.125	2,000	.250		.219		.125	.738
-5	5/32	.156	2,800	.297		.250		.140	.831
-6	3/16	.187	4,200	.359		.313		.171	.903
-7	7/32	.218	5,600	.427		.375	+.000 -.007	.187	1.007
-8	1/4	.250	7,000	.494		.438		.203	1.133
-9	9/32	.281	8,000	.563		.500	+.000 -.008		1.257
-10	5/16	.312	9,800	.635		.563		.218	1.373
-12	3/8	.375	14,400	.703	+.000 -.005	.625		.255	1.688
-14	7/16	.437	17,600	.781		.688		.275	1.968
-16	1/2	.500	22,800	.844		.750	+.000 -.009	.295	2.115
-18	9/16	.562	28,500	.984		.875		.310	2.625
-20	5/8	.625	35,000	1.109		1.000	+.000 -.010	.321	3.062
-24	3/4	.750	49,600	1.359		1.250	+.000 -.012	.345	3.093
-28	7/8	.875	66,500	1.593	+.000 -.010	1.437		.360	3.515
-32	1	1.000	85,400	1.812		1.625		.375	3.937

1/ To achieve the minimum breaking strength, for the terminal test only, a galvanized carbon steel wire rope shall be used.

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TABLE I. Dash numbers and dimensions - Continued.

Dash number	ØD		J radius reference		L +.020 -.000	Ls reference
-2	.190	+.002 -.000	.088	+.000 -.005	1.631	1.809
-3			.103		2.043	2.160
-4			.190		2.337	2.593
-5	.250		.197		2.684	3.029
-6	.313		.255		3.019	3.187
-7			.291		3.382	3.678
-8	.375		.307		3.763	4.062
-9	.438		.322		4.153	4.512
-10			.343		4.546	4.969
-12	.500	+.005 -.000	.375	+.000 -.015	5.562	5.968
-14	.562				6.398	6.867
-16	.625		.468		7.323	7.886
-18	.750		.562		8.185	8.778
-20	.875		.657		9.167	9.854
-24					10.328	10.900
-28	1.000		.750		11.530	12.290
-32	1.125		.844		13.156	14.062

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TABLE I. Dash numbers and dimensions - Continued.

Dash number	ØM		ØN		P		ØT	
-2	.090	+.010 -.000	.078	+.005 -.000	1.042	+.031 -.000	.136	+.000 -.005
-3	.119		.109		1.261		.190	
-4	.154		.141		1.511		.219	
-5	.188		.172		1.761		.250	
-6	.223		.203		2.011		.313	
-7	.257		.234		2.261		.375	+.000 -.007
-8	.291		.265		2.511		.438	
-9	.326		.297		2.761		.500	+.000 -.008
-10	.360		.328		3.011		.563	
-12	.430	+.012 -.000	.390	+.008 -.000	3.511	+.047 -.000	.625	
-14	.514		.468		4.011		.688	
-16	.584		.531	+.009 -.000	4.698		.750	+.000 -.009
-18	.653		.594		5.011		.875	
-20	.722		.656	+.010 -.000	5.511	+.062 -.000	1.000	+.000 -.010
-24	.860	+.015 -.000	.781	+.012 -.000	6.511		1.250	+.000 -.012
-28	1.013		.921		7.166		1.437	
-32	1.151		1.046		8.229		1.625	

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TABLE I. Dash numbers and dimensions - Continued.

Dash number	ØU +.025 -.010	W Reference	X Minimum	Y	Z	ØBB (FIM)
-2	.359	.031	.70	.072	.662	.016
-3	.438		.80	.092	.856	
-4	.500		1.05	.103	.900	
-5	.640		1.29	.131	.997	
-6	.781	.047	1.31	.155	1.082	
-7	.813		1.55	.187	1.195	
-8	.968		1.70	.221	1.326	
-9	1.109	.063	1.89	.251	1.465	
-10	1.218		2.06	.281	1.609	
-12	1.500		3.12	.320	2.124	.020
-14	1.750		3.57	.350	2.460	
-16	1.875		4.31	.406	2.698	
-18	2.340		4.51	.450	3.247	
-20	2.730		5.04	.515	3.729	.030
-24	2.750	.093	5.80	.600	3.890	
-28	3.125		6.31	.675	4.437	.040
-32	3.510		7.26	.775	5.000	

REQUIREMENTS:

1. Material: Material shall be in accordance with MIL-DTL-781.

2. Finish: Finish shall be in accordance with MIL-DTL-781.

3. Swage: Swage shall be in accordance with MIL-DTL-6117.

4. Tolerances: Unless otherwise specified, tolerances: decimals ± .010, angles ± 3 .

NOTES:

* 1. The part or identifying number (PIN) consists of the letters MS, the specification sheet
* number, and a dash number taken from table I.

* EXAMPLE: MS 20668 - 5

- 5 — Dash number
- 20668 — Specification sheet number
- MS — MS prefix

2. Dimensions are in inches.

* 3. Remove burrs and sharp edges. (See MIL-DTL-781.)

4. Interpret drawing in accordance with ASME Y14.5M.

5. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence.

6. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.

7. Corrosion resistant steel parts can universally replace carbon and alloy steel parts as shown in table II. Carbon and alloy steel parts are inactive for new design and cannot be substituted for corrosion resistant steel parts.

TABLE II. Substitution table.

MS PART NUMBERS	
Corrosion resistant steel	Carbon steel, cadmium plated
MS20668-2	MS20668F2
MS20668-3	MS20668F3
MS20668-4	MS20668F4
MS20668-5	MS20668F5
MS20668-6	MS20668F6
MS20668-7	MS20668F7
MS20668-8	MS20668F8
MS20668-9	MS20668F9
MS20668-10	MS20668F10
MS20668-12	MS20668F12
MS20668-14	MS20668F14
MS20668-16	MS20668F16
MS20668-18	MS20668F18
MS20668-20	MS20668F20
MS20668-24	MS20668F24
MS20668-28	MS20668F28
MS20668-32	MS20668F32

CHANGES FROM PREVIOUS ISSUE: The margins of this specification sheet are marked with asterisks to indicate where changes from the previous issue were made. 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 and relationship to the previous issue.

Custodians:
Army - CR4
Navy - AS
Air Force - 99

Reviewer:
Air Force - 71

Preparing activity:
DLA - GS5

(Project 1560-0016)