

INCH-POUND

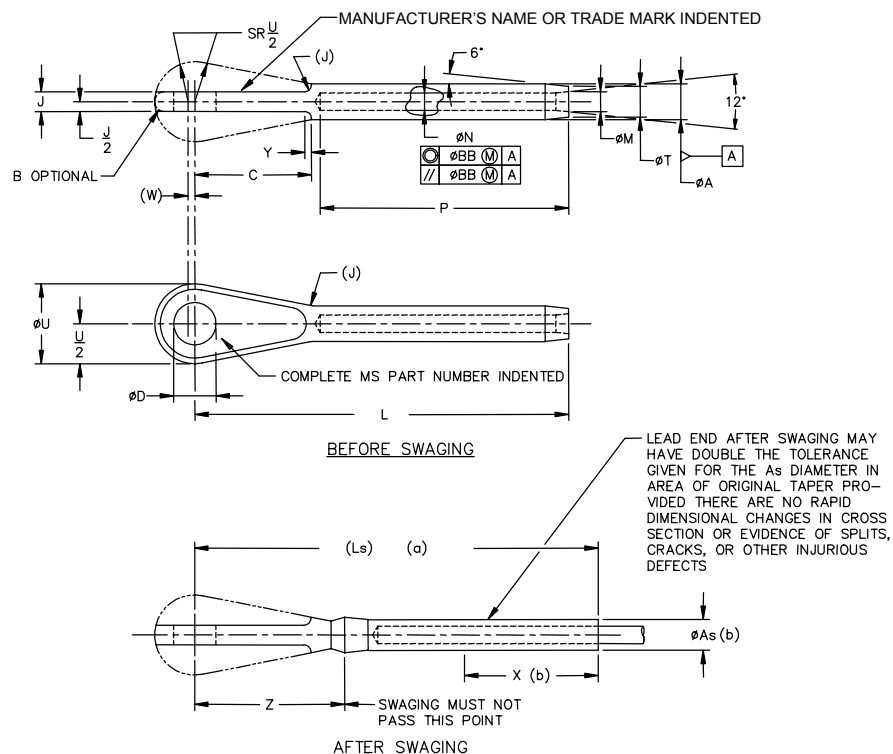
MS20668F
 10 January 2001
 SUPERSEDING
 MS20668E
 30 October 1999

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



- 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. Part numbers and dimensions.

MS part numbers	Wire rope diameter		Minimum breaking strength lb $\frac{1}{2}$	$\varnothing A$		$\varnothing A_s$		B radius	C $\pm .020$
Corrosion resistant steel	Nominal reference	Minimum							
MS20668-2	1/16	.062	480	.160	+ .000 - .005	.138	+ .000 - .005	.062	.523
MS20668-3	3/32	.093	920	.218		.190		.078	.707
MS20668-4	1/8	.125	2,000	.250		.219		.125	.738
MS20668-5	5/32	.156	2,800	.297		.250		.140	.831
MS20668-6	3/16	.187	4,200	.359		.313		.171	.903
MS20668-7	7/32	.218	5,600	.427		.375	+ .000 - .007	.187	1.007
MS20668-8	1/4	.250	7,000	.494		.438		.203	1.133
MS20668-9	9/32	.281	8,000	.563		.500	+ .000 - .008		1.257
MS20668-10	5/16	.312	9,800	.635		.563		.218	1.373
MS20668-12	3/8	.375	14,400	.703		.625		.255	1.688
MS20668-14	7/16	.437	17,600	.781	+ .000 - .005	.688	+ .000 - .009	.275	1.968
MS20668-16	1/2	.500	22,800	.844		.750		.295	2.115
MS20668-18	9/16	.562	28,500	.984		.875		.310	2.625
MS20668-20	5/8	.625	35,000	1.109		1.000	+ .000 - .010	.321	3.062
MS20668-24	3/4	.750	49,600	1.359	+ .000 - .010	1.250	+ .000 - .012	.345	3.093
MS20668-28	7/8	.875	66,500	1.593		1.437		.360	3.515
MS20668-32	1	1.000	85,400	1.812		1.625		.375	3.937

$\frac{1}{2}$ To achieve the minimum breaking strength, for the terminal test only, a galvanized carbon steel wire rope shall be used.

TABLE I. Part numbers and dimensions - Continued.

MS part numbers	ØD		J radius reference		L +.020 -.000	LS
Corrosion resistant steel						
MS20668-2	.190	+.002 -.000	.088	+.000 -.005	1.631	1.809
MS20668-3			.103		2.043	2.160
MS20668-4			.190		2.337	2.593
MS20668-5	.250		.197		2.684	3.029
MS20668-6	.313		.255		3.019	3.187
MS20668-7			.291		3.382	3.678
MS20668-8			.307		3.763	4.062
MS20668-9	.438		.322		4.153	4.512
MS20668-10			.343		4.546	4.969
MS20668-12	.500	+.005 -.000	.375	+.000 -.015	5.562	5.968
MS20668-14	.562		6.398		6.867	
MS20668-16	.625		.468		7.323	7.886
MS20668-18	.750		.562		8.185	8.778
MS20668-20	.875		.657		9.167	9.854
MS20668-24					10.328	10.900
MS20668-28			1.000		.750	11.530
MS20668-32	1.125		.844			13.156

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TABLE I. Part numbers and dimensions - Continued.

MS part numbers	ØM		ØN		P		ØT	
Corrosion resistant steel								
MS20668-2	.090	+.010 -.000	.078	+.005 -.000	1.042	+.031 -.000	.136	+.000 -.005
MS20668-3	.119		.109		1.261		.190	
MS20668-4	.154		.141		1.511		.219	
MS20668-5	.188		.172		1.761		.250	
MS20668-6	.223		.203		2.011		.313	+.000 -.007
MS20668-7	.257		.234		2.261		.375	
MS20668-8	.291		.265		2.511		.438	+.000 -.008
MS20668-9	.326	+.012 -.000	.297	+.008 -.000	2.761	+.047 -.000	.500	
MS20668-10	.360		.328		3.011		.563	
MS20668-12	.430		.390		3.511		.625	
MS20668-14	.514		.468		4.011		.688	+.000 -.009
MS20668-16	.584		.531		4.698		.750	
MS20668-18	.653		.594		5.011		.875	+.000 -.010
MS20668-20	.722		.656		5.511	+.062 -.000	1.000	
MS20668-24	.860	+.015 -.000	.781	+.012 -.000	6.511		1.250	+.000 -.012
MS20668-28	1.013		.921		7.166		1.437	
MS20668-32	1.151		1.046		8.229		1.625	

TABLE I. Part numbers and dimensions - Continued.

MS part numbers	ØU +.025 -.010	W	X	Y	Z	ØBB (FIM)
Corrosion resistant steel		Reference	Minimum			
MS20668-2	.359	.031	.70	.072	.662	.016
MS20668-3	.438		.80	.092	.856	
MS20668-4	.500		1.05	.103	.900	
MS20668-5	.640		1.29	.131	.997	
MS20668-6	.781	.047	1.31	.155	1.082	
MS20668-7	.813		1.55	.187	1.195	
MS20668-8	.968		1.70	.221	1.326	
MS20668-9	1.109		1.89	.251	1.465	
MS20668-10	1.218	.063	2.06	.281	1.609	.020
MS20668-12	1.500		3.12	.320	2.124	
MS20668-14	1.750		3.57	.350	2.460	
MS20668-16	1.875		4.31	.406	2.698	
MS20668-18	2.340		4.51	.450	3.247	
MS20668-20	2.730		5.04	.515	3.729	
MS20668-24	2.750	.093	5.80	.600	3.890	.030
MS20668-28	3.125		6.31	.675	4.437	.040
MS20668-32	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.

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4. Tolerances: Unless otherwise specified, tolerances: decimals $\pm .010$, angles $\pm 3^\circ$.

NOTES:

1. Dimensions are in inches.
2. Remove all burrs and sharp edges. (See procurement specification for definition.)
3. Interpret drawing in accordance with ASME Y14.5M.
4. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence.
5. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.
6. 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

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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.

Custodians:

Army - CR4

Navy - AS

Air Force - 99

Preparing activity:

DLA - GS5

(Project 1560-0291)

Reviewer:

Air Force - 82