

INCH-POUND

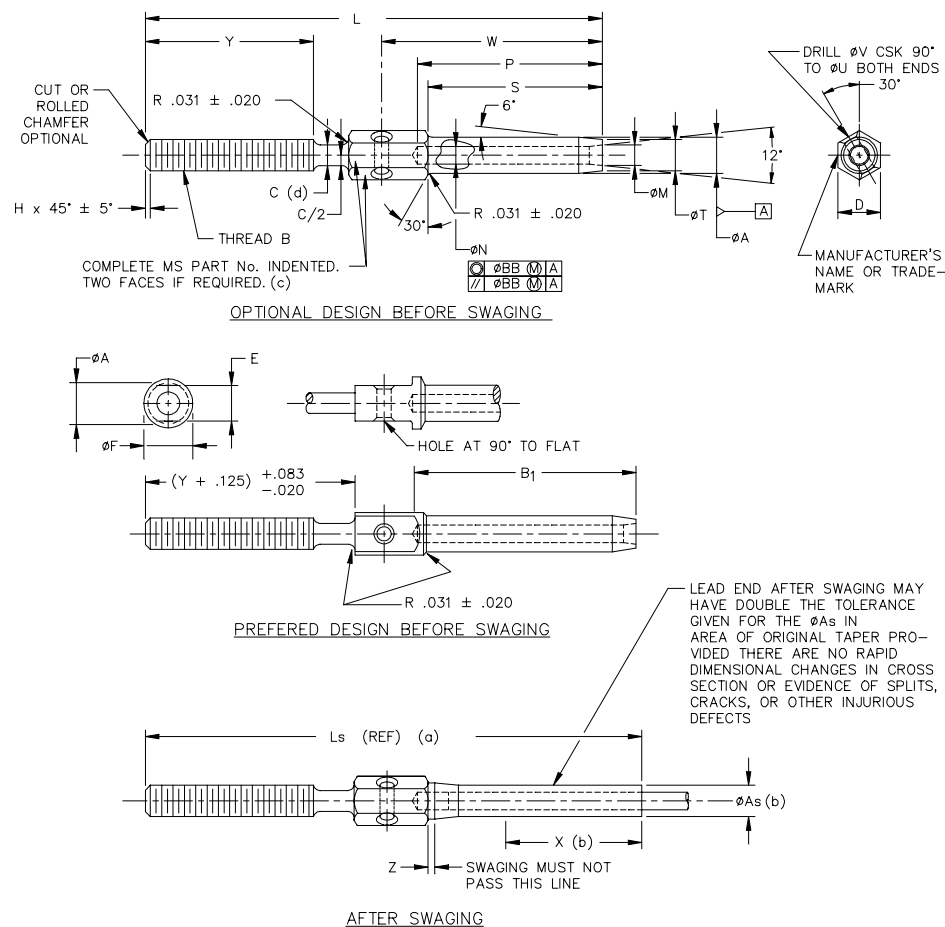
MS21259H
 10 January 2001
 SUPERSEDING
 MS21259G
 14 February 2000

MILITARY SPECIFICATION SHEET

TERMINAL, WIRE ROPE, SWAGING, STUD, LONG THREAD

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.
 - (c) For terminal sizes -2 through -5 use basic part number only, example: MS21259.
 - (d) Undercut (ØC) is optional for rolled threads only. The .031 ± .020 shall be required in any case.

FIGURE 1. Terminal, wire rope, swaging, stud, long thread.

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TABLE I. Part numbers and dimensions.

MS part numbers		Wire rope diameter		Minimum breaking strength lb <u>1</u> /	Thread B UN-3A UNF-3A	ØA		ØAs	
Corrosion resistant steel									
RH thread	LH thread	Nominal	Minimum						
MS21259-2RH	MS21259-2LH	1/16	.062	480	.1380 (# 6)-40	.160	+ .000 - .005	.138	+ .000 - .005
MS21259-3RH	MS21259-3LH	3/32	.093	920	.1900 (#10)-32	.218		.190	
MS21259-4RH	MS21259-4LH	1/8	.125	2,000	.2500 (1/4)-28	.250		.219	
MS21259-5RH	MS21259-5LH	5/32	.156	2,800		.297		.250	
MS21259-6RH	MS21259-6LH	3/16	.187	4,200	.3125 (5/16)-24	.359		.313	+ .000 - .007
MS21259-7RH	MS21259-7LH	7/32	.218	5,600	.3750 (3/8)-24	.427		.375	
MS21259-8RH	MS21259-8LH	1/4	.250	7,000		.494		.438	
MS21259-9RH	MS21259-9LH	9/32	.281	8,000	.4375 (7/16)-20	.563		.500	+ .000 - .008
MS21259-10RH	MS21259-10LH	5/16	.312	9,800	.5000 (1/2)-20	.635		.563	
MS21259-12RH	MS21259-12LH	3/8	.375	14,400	.5625 (9/16)-18	.703		.625	
MS21259-14RH	MS21259-14LH	7/16	.437	17,600	.6250 (5/8)-18	.781		.688	
MS21259-16RH	MS21259-16LH	1/2	.500	22,800		.844		.750	+ .000 - .009
MS21259-18RH	MS21259-18LH	9/16	.562	28,500	.7500 (3/4)-16	.984		.875	
MS21259-20RH	MS21259-20LH	5/8	.625	35,000	.8750 (7/8)-14	1.109		1.000	
MS21259-24RH	MS21259-24LH	3/4	.750	49,600	1.0000 (1)-12	1.359	+ .000 - .010	1.250	+ .000 - .012
MS21259-28RH	MS21259-28LH	7/8	.875	66,500	1.1250 (1 1/8)-12	1.593		1.437	
MS21259-32RH	MS21259-32LH	1	1.000	85,400	1.2500 (1 1/4)-12	1.812		1.625	

1/ 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		B ₁ ±.063	ØC		D	E +.000 -.010
Corrosion resistant steel						
RH thread	LH thread					
MS21259-2RH	MS21259-2LH	1.042	.121	+017 -.005	.188	.156
MS21259-3RH	MS21259-3LH	1.261	.169	+021 -.005	.250	.187
MS21259-4RH	MS21259-4LH	1.511	.226	+024 -.005	.313	.250
MS21259-5RH	MS21259-5LH	1.761				
MS21259-6RH	MS21259-6LH	2.011	.285	+028 -.005	.375	.312
MS21259-7RH	MS21259-7LH	2.261	.347		.438	.375
MS21259-8RH	MS21259-8LH	2.511			.500	.438
MS21259-9RH	MS21259-9LH	2.761	.405		.625	.563
MS21259-10RH	MS21259-10LH	3.011	.467	+033 -.005	.688	.625
MS21259-12RH	MS21259-12LH	3.511	.529		.750	.688
MS21259-14RH	MS21259-14LH	4.011	.592		.812	.750
MS21259-16RH	MS21259-16LH	4.698			.875	.812
MS21259-18RH	MS21259-18LH	5.011	.717		1.000	.875
MS21259-20RH	MS21259-20LH	5.511	.842		1.125	1.000
MS21259-24RH	MS21259-24LH	6.511	.967		1.437	1.125
MS21259-28RH	MS21259-28LH	7.166	1.092		1.625	1.437
MS21259-32RH	MS21259-32LH	8.229	1.217		1.875	1.625

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TABLE I. Part numbers and dimensions - Continued.

Dash numbers (size)	ØF	H		L +.016 -.000	Ls reference	ØM		ØN		P	
		Maximum	Minimum								
-2	.188	.031	.015	2.473	2.65	.090	+.010 -.000	.078	+.005 -.000	1.042	+.031 -.000
-3	.250	.047		2.879	3.00	.119		.109		1.261	
-4	.313			3.333	3.59	.154		.141		1.511	
-5	.313			3.627	3.97	.188		.172		1.761	
-6	.375			4.002	4.17	.223		.203		2.011	
-7	.438			4.516	4.81	.257		.234		2.261	
-8	.500			4.937	5.24	.291		.265		2.511	
-9	.625			.063	.031	5.391		5.75		.326	
-10	.688	5.844	6.27			.360	.328	3.011			
-12	.750	6.656	7.06			.430	.390	+008	3.511		
-14	.812	7.437	7.91			.514	.468	-.000	4.011		
-16	.875	8.187	8.75			.584	.531	+009	4.698		
-18	1.000	.078	.046			9.125	9.72	.653	.594	-.000	5.011
-20	1.125					10.375	11.06	.722	.656	+010 -.000	5.511
-24	1.438	.094	.062	12.063	12.64	.860	+.015 -.000	.781	+.012 -.000	6.511	+.062 -.000
-28	1.625			13.226	13.99	1.013		.921		7.166	
-32	1.812			14.969	15.88	1.151		1.046		8.229	

TABLE I. Part numbers and dimensions - Continued.

Dash numbers (size)	S +.062 -.000	ØT		ØU reference	ØV ±.005	W ±.016	X	Y +.083 -.020 2/	Z	ØBB		
							Minimum		Minimum			
-2	.969	.138	+.000 -.005	.094	.063	1.174	.70	1.045	.03	.008 (.016 FIM)		
-3	1.188	.190				1.411	.80	1.204				
-4	1.438	.219				1.682	1.05	1.376				
-5	1.688	.250				1.958	1.29	1.376				
-6	1.938	.313	+.000 -.007	.125	.098	2.237	1.31	1.453				
-7	2.188	.375				2.518	1.55	1.625				
-8	2.438	.438				2.784	1.70	1.750				
-9	2.688	.500				3.076	1.89	1.875				
-10	2.938	.563	+.000 -.008	.156	.125	3.326	2.06	2.000		.010 (.020 FIM)		
-12	3.438	.625				3.828	3.12	2.250				
-14	3.938	.688				4.375	3.57	2.500				
-16	4.625	.750				5.093	4.31					
-18	4.938	.875	+.000 -.010			5.468	4.51	3.000		.015 (.030 FIM)		
-20	5.438	1.000				6.093	5.04	3.500				
-24	6.438	1.250				7.188	5.80	4.000		.020 (.040 FIM)		
-28	7.094	1.437				7.846	6.31	4.500				
-32	8.156	1.625				9.000	7.26	5.000				

2/ Includes last full thread engagement.

REQUIREMENTS:

1. Material: Material shall be in accordance with MIL-DTL-781.
2. Finish: Finish shall be in accordance with MIL-DTL-781.
3. Threads: Threads shall be in accordance with FED-STD-H28/20.

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4. Swage: Swage shall be in accordance with MIL-DTL-6117.
5. Tolerances: Unless otherwise specified, tolerances: decimals $\pm .010$, angles $\pm 3^\circ$.

NOTES:

1. Dimensions are in inches.
2. Remove burrs and sharp edges. (See procurement specification for definition.)
3. Interpret drawing in accordance with ASME Y14.5M.
4. These terminals are not to be used with turnbuckle bodies (barrels).
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 reference documents are those in effect at the time of solicitation.
7. Interchangeability relationship: MS21259 parts can universally replace the canceled AN666 parts identified by the same dash number; but the canceled AN666 parts cannot replace the superseding MS21259 parts. MS21259 corrosion resistant steel parts can universally replace the canceled carbon and alloy steel parts identified by the same dash number.
8. Carbon and alloy steel parts are inactive for new design.

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.

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