

INCH-POUND

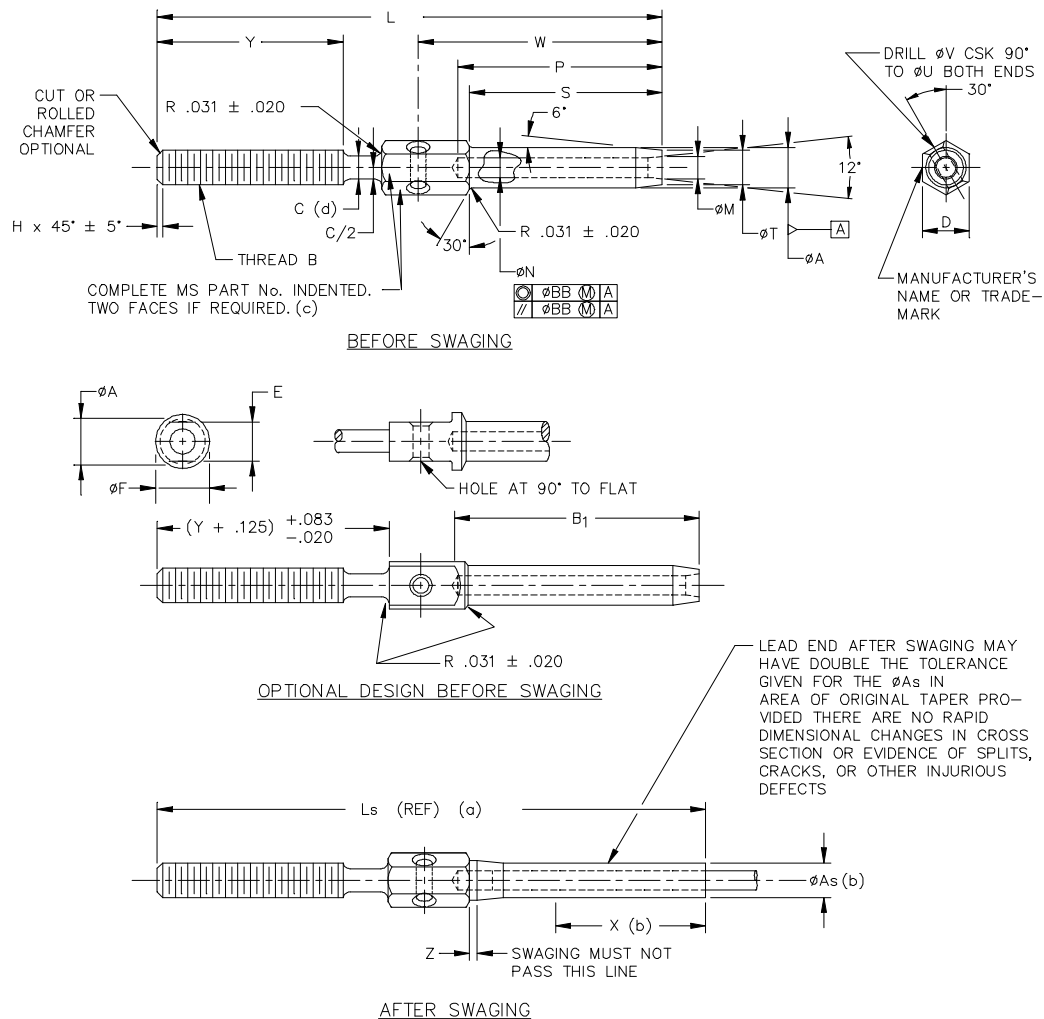
MS21259G  
 14 February 2000  
 SUPERSEDING  
 MS21259F  
 22 February 1999

## MILITARY SPECIFICATION SHEET

## TERMINAL, WIRE ROPE, SWAGING, STUD

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.



- (a) Reference dimensions are for design purposes only and are not an inspection requirement.  
 (b) Swaged terminals shall conform to  $\phi A_s$  for length  $X$ .  
 (c) For terminal sizes -2 thru -5 use basic part number only, example: MS21259.  
 (d) Undercut ( $\phi C$ ) is optional for rolled threads only. The  $.031 \pm .020$  shall be required in any case.

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Denotes change(s)

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Table 1 Dimensions

MS PART NUMBERS		CABLE DIA		MIN. BREAKING STRENGTH LB (a)	THREAD B UN-3A UNF-3A	ØA		ØAs	
CORROSION RESISTANT STEEL									
RH THREAD	LH THREAD	NOM	MIN						
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	2000	.2500 (1/4)-28	.250		.219	
MS21259-5RH	MS21259-5LH	5/32	.156	2800		.297		.250	
MS21259-6RH	MS21259-6LH	3/16	.187	4200	.3125 (5/16)-24	.359		.313	+ .000 - .007
MS21259-7RH	MS21259-7LH	7/32	.218	5600	.3750 (3/8)-24	.427		.375	
MS21259-8RH	MS21259-8LH	1/4	.250	7000		.494		.438	+ .000 - .008
MS21259-9RH	MS21259-9LH	9/32	.281	8000	.4375 (7/16)-20	.563		.500	
MS21259-10RH	MS21259-10LH	5/16	.312	9800	.5000 (1/2)-20	.635		.563	
MS21259-12RH	MS21259-12LH	3/8	.375	14400	.5625 (9/16)-18	.703		.625	
MS21259-14RH	MS21259-14LH	7/16	.437	17600	.6250 (5/8)-18	.781		.688	+ .000 - .009
MS21259-16RH	MS21259-16LH	1/2	.500	22800		.844		.750	
MS21259-18RH	MS21259-18LH	9/16	.562	28500	.7500 (3/4)-16	.984		.875	+ .000 - .010
MS21259-20RH	MS21259-20LH	5/8	.625	35000	.8750 (7/8)-14	1.109		1.000	
MS21259-24RH	MS21259-24LH	3/4	.750	49600	1.0000 (1)-12	1.359		1.250	+ .000
MS21259-28RH	MS21259-28LH	7/8	.875	66500	1.1250 (1 1/8)-12	1.593	+ .000	1.437	- .012
MS21259-32RH	MS21259-32LH	1	1.000	85400	1.2500 (1 1/4)-12	1.812	- .010	1.625	

Table 1 (continued)

MS PART NUMBERS CORROSION RESISTANT STEEL		B <sub>1</sub> ±.063	ØC		D	E +.000 -.010
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 2 Dash Numbers/Sizes

DASH NUM (SIZE)	ØF	H		L +.016 -.000	Ls REF	ØM		ØN		P	
		MAX	MIN								
-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			5.391	5.75	.326		.297		2.761	
-10	.688	.063	.031	5.844	6.27	.360	+.012 -.000	.328	+.008 -.000	3.011	+.047 -.000
-12	.750			6.656	7.06	.430		.390		3.511	
-14	.812			7.437	7.91	.514		.468		4.011	
-16	.875			8.187	8.75	.584		.531		4.698	
-18	1.000	.078	.046	9.125	9.72	.653	+.015 -.000	.594	+.009 -.000	5.011	+.062 -.000
-20	1.125			10.375	11.06	.722		.656		5.511	
-24	1.438			12.063	12.64	.860		.781		6.511	
-28	1.625	.094	.062	13.226	13.99	1.013	-.000	.921	-.000	7.166	-.000
-32	1.812			14.969	15.88	1.151		1.046		8.229	

Table 2 – (continued)

DASH NUM (SIZE)	S +.062 -.000	ØT		ØU REF	ØV ±.005	W ±.016	X MIN	Y +.083 -.020 (b)	Z MIN	ØBB
-2	.969	.138	+.000 -.005	.094	.063	1.174	.70	1.045	.03	.008 (1/16 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		.015 (.030 FIM)
-16	4.625	.750				5.093	4.31			
-18	4.938	.875	5.468	4.51	3.000	.020 (.040 FIM)				
-20	5.438	1.000	6.093	5.04	3.500					
-24	6.438	1.250	7.188	5.80	4.000					
-28	7.094	1.437	7.846	6.31	4.500					
-32	8.156	1.625	-.012			9.000	7.26	5.000		

- (a) TO ACHIEVE THE MINIMUM BREAKING STRENGTH, FOR THE TERMINAL TEST ONLY, A GALVANIZED CARBON STEEL WIRE ROPE SHALL BE USED.
- (b) INCLUDES LAST FULL THREAD ENGAGEMENT.

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### REQUIREMENTS:

1. Material: In accordance with MIL-DTL-781.
2. Finish: In accordance with MIL-DTL-781.
3. Threads: Shall be in accordance with FED-STD-H28/20.
4. Swage: Shall be in accordance with specification MIL-DTL-6117.
5. Tolerance: 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). G
3. Interpret drawing in accordance with ASME Y14.5M.
4. These terminals are not to be used with turnbuckle 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.

### MILITARY INTERESTS

Custodians  
 Army - AR  
 Navy - AS  
 Air Force - 99

Preparing Activity:  
 DLA - GS

Reviewers  
 Navy - MC  
 Air Force - 82

(PROJECT: 1560-0255)

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