

REVIEWER: AV, IS, NS
USER: AS, MC, ME, MU, OS, SH, WT

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FED. SUP CLASS 5305							
TABLE I							
NOMINAL SIZE	.138 .164 .190 .250 .3125 .375						
THREADS PER INCH (UNC-2A)	32 32 24 20 18 16						
A HEAD WIDTH	MAX .31 .36 .42 .55 .70 .83 MIN .29 .34 .40 .52 .67 .80						
B HEAD HEIGHT	MAX .33 .38 .48 .64 .78 .95 MIN .31 .36 .46 .61 .75 .92						
C HEAD THICKNESS	MAX .05 .06 .06 .07 .09 .11 MIN .04 .05 .05 .05 .07 .09						
D DIAMETER OF FLAT	MAX .07 .09 .10 .13 .17 .21 MIN .06 .08 .09 .12 .16 .19						
E SHOULDER DIAMETER	MAX .25 .31 .35 .47 .59 .76 MIN .23 .29 .32 .44 .56 .71						
L LENGTH	TOLERANCE DASH NO. DASH NO. DASH NO. DASH NO. DASH NO. DASH NO.						
.25	±.03	1					
.38		3	13	22	33	43	
.50				23	34		
.62		5	15	24	35	45	
.75				25	36	46	56
1.00				26			57
1.50	±.06			27	37	47	58
2.00				28	38	48	59
2.50	±.09				39	49	60
3.00					50		61
<p>NOTES:</p> <ol style="list-style-type: none"> MATERIAL: Carbon steel in accordance with Fed. Std. No. 66 having a minimum ultimate tensile strength of 48,000 PSI. PROTECTIVE COATING: Cadmium plated in accordance with QQ-P-416, Type II, Class 3 or MIL-C-81562, Type II, Class 3. THREADS: The threads shall be in accordance with Screw-Thread Standards for Federal Services, Handbook H28. Full form threads shall extend as close to the shoulder as practicable and shall be within 2-1/2 threads of the shoulder bearing surface. BEARING SURFACE: The bearing surface of the shoulder shall be at right angles to the axis of the thumbscrew within ±2°. DIMENSIONS: All dimensions in Table I are in inches. All dimensions in Table II are in millimetres. PART NUMBER: The MS part number consists of the MS number, plus the dash number. Example: MS21316-1. Referenced documents shall be of the issue in effect on date of invitations for bid. For design feature purposes, this standard takes precedence over procurement documents referenced herein. 							
(C) ENTIRE STANDARD REVISED							
P.A. WC Other Cust YD 82	TITLE THUMBSCREW (SHOULDERED), FLAT POINT, CARBON STEEL, CADMIUM PLATED, UNC-2A					MILITARY STANDARD MS21316	
PROCUREMENT SPECIFICATION FF-T-305	SUPERSEDES MS21317 and BTAX1					SHEET 1 OF 2	

TABLE II METRIC TRANSLATION OF TABLE I								FED. SUP CLASS 5305	
NOMINAL SIZE		3.50	4.17	4.83	6.35	7.94	9.52		
THREAD PITCH		.79	.79	1.06	1.27	1.41	1.59		
A	HEAD WIDTH	MAX MIN	7.9 7.4	9.1 8.6	10.7 10.2	14.0 13.2	17.8 17.0	21.1 20.3	
B	HEAD HEIGHT	MAX MIN	8.4 7.9	9.7 9.1	12.2 11.7	16.3 15.5	19.8 19.0	24.1 23.4	
C	HEAD THICKNESS	MAX MIN	1.3 1.0	1.5 1.3	1.5 1.3	1.8 1.3	2.3 1.8	2.8 2.3	
D	DIAMETER OF FLAT	MAX MIN	1.8 1.5	2.3 2.0	2.5 2.3	3.3 3.0	4.3 4.1	5.3 4.8	
E	SHOULDER DIAMETER	MAX MIN	6.4 5.8	7.9 7.4	8.9 8.1	11.9 11.2	15.0 14.2	19.3 18.0	
L LENGTH		TOLERANCE	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	
6.4 9.6 12.7 15.7 19.0 25.4		±.8	1		22				
			3	13	23	33	43		
38.1 50.8		±1.5	5	15	24	34	45	56	
					25	35	46	57	
63.5 76.2		±2.3			26	36	47	58	
					27	37	48	59	
					28	38	49	60	
						39	50	61	

INTERCHANGEABILITY							
<p>Thumbscrews covered by the following dash numbers given in MS21317 are canceled after 16 February 1967. The canceled thumbscrews cannot always replace the new ones and should be used until existing stocks are depleted. Use only the new dash numbers for new design and replacement. Replacement shall be in accordance with Table III.</p>							
TABLE III							
PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER	
CANCELED	NEW	CANCELED	NEW	CANCELED	NEW	CANCELED	NEW
MS21317	MS21316	MS21317	MS21316	MS21317	MS21316	MS21317	MS21316
1	1	29	23	47	37	64	56
2	*	30	24	48	38	65	57
3	3	31	25	49	39	66	*
4	*	32	26	50	*	67	58
5	5	33	*	53	43	68	59
6	*	34	27	54	45	69	60
15	*	35	28	55	46	70	61
16	13	42	33	56	*	75	*
17	*	43	34	57	47	77	*
18	15	44	35	58	48	78	*
19	*	45	36	59	49	79	*
28	22	46	*	60	50	80	*

* No replacement

P.A. VC	TITLE	MILITARY STANDARD
Other Cont YD 82	THUMBSCREW (SHOULDERED), FLAT POINT, CARBON STEEL, CADMIUM PLATED, UNC-2A	MS 21316
PROCUREMENT SPECIFICATION FF-T-305	SUPERSEDES MS21317 and BTAX1	SHEET 2 OF 2

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APPROVED 13 JUL 1959 REVISED (A) 21 SEP 1965 (B) 16 FEB 1967 (C) FOR CHANGES SEE SHEET 1.