

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE BOOKS SPECIFIED IN THE SOLICITATION: MIL-F-81177

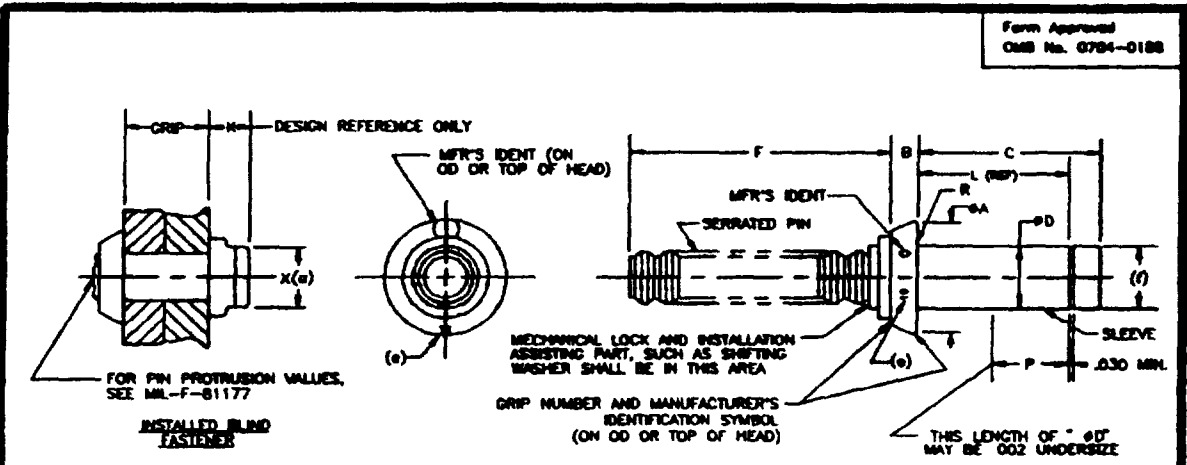


TABLE I. FASTENER DIMENSIONS AND STRENGTHS

SIZE DASH NUMBER	DOUBLE ACTION	SINGLE ACTION	NOM. SIZE	6A	B	6D	F	K	P	R	X	INSTALLED FASTENER		HOLE LIMITS
												MINIMUM SINGLE SHEAR LBS.	MINIMUM TENSILE LBS.	
(c)	(d)	(e)					MIN	MAX		RAD MAX	(e) MIN			
05	S05	U05	5/32	.272 .250	.070 .062	.184 .182	.844	.202	.215	.010	.195	2340	1350	.184 .187
06	S06	U06	3/16	.332 .308	.125 .125	.198 .197	.875	.231	.250	.015	.238	3450	2100	.188 .202
-	08	U08	1/4	.432 .408	.140 .130	.280 .258	1.080	.278	.306	.018	.318	5800	3650	.280 .283
-	10	U10	5/16	.522 .480	.141 .131	.312 .310	1.218	.319	.380	.021	.373	8500	5200	.312 .315
-	12	U12	3/8	.627 .580	.185 .185	.374 .372	1.842	.384	.405	.025	.448	12200	7500	.374 .377
-	14	U14	7/16	.727 .675	.207 .187	.437 .436	1.562	.419	.480	.030	.522	18700	10150	.437 .441
-	16	U16	1/2	.832 .770	.270 .280	.498 .498	1.562	.540	.598	.035	.588	21800	13500	.500 .504

- (a) MAXIMUM DIAMETER OF BLIND HEAD (X) SHALL NOT EXCEED MAXIMUM DIAMETER OF MANUFACTURED HEAD (A)
- (b) SIZES "05" AND "06" WITH "-" ARE INSTALLED WITH A DOUBLE ACTION TOOL. ALL OTHER SIZES ARE INSTALLED WITH A SINGLE ACTION TOOL. SIZES "U05" AND "U06" MAY BE INSTALLED WITH A DOUBLE OR SINGLE ACTION TOOL. SEE MIL-F-81177, APPENDIX A FOR TOOL SELECTION CHART
- (c) -05, -08, -09, -09S, -08, -10, -12, -14 AND -16 ARE INACTIVE FOR NEW DESIGN AFTER 1 JAN 91. USE U05, U06, S05 AND S06
- (d) LETTER "U" SIGNIFIES SINGLE ACTION FASTENER WITHOUT FRANGIBLE TYPE OF LOCKING COLLAR OR LOCKING COLLAR CAP. "U" AND "S" CODE FASTENERS IN SIZES "06" AND "08" ARE COLOR IDENTIFIED GREEN ON LOCKING COLLAR, SHIFTING WASHER, OR SERRATED PIN. "S" CODE FASTENERS MAY BE SUPPLIED WITH A LOCKING COLLAR CAP
- (e) SINGLE DIGIT MARKING IS PERMISSIBLE FOR GRIP DASH NUMBERS LESS THAN 10.
- (f) DIAMETER OF SERRATED PIN HEAD SHALL NOT EXCEED "#D" MAX AND MAY BE .002 BELOW "#D" MIN IN AREA "P" ONLY

① DENOTES CHANGE(S)

INCH-POUND

PREPARING ACTIVITY: NAVY-AS CUSTODIANS: ARMY-AN NAVY-AS AIR FORCE-89 DLA-15 REVIEW: ML, 82 USER: PROJECT NUMBER: 5320-0816 DISTRIBUTION STATEMENT:	<p align="center">MILITARY SPECIFICATION SHEET</p> TITLE FASTENER, BLIND, HIGH STRENGTH, PULL TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, ALLOY STEEL, 112 K.B.J. Fou	SPECIFICATION SHEET NUMBER <p align="center">MS90354</p> 28 FEB 84 REV T SUPERSEDING MS90354 R 13 AUG 1993 AMSC- N/A FSC 5320
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THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

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TABLE N GRIP NUMBER TABULATION

GRIP DASH NO	#5/32 (-05)			#3/16 (-06)			#1/4 (-08)			#5/16 (-10)			L REF	C (U) MAX	L REF	C (U) MAX						
	GRIP RANGE	MIN	MAX	GRIP DASH NO	L REF	C (U) MAX	GRIP RANGE	MIN	MAX	GRIP DASH NO	L REF	C (U) MAX					GRIP RANGE	MIN	MAX	GRIP DASH NO	L REF	C (U) MAX
-0501	031	095	372	217	303	479	-0602	094	157	553	344	553	-1002	094	157	553	344	618				
-0502	094	156	434	280	365	541	-0603	156	220	616	408	616	-1003	156	220	616	408	690				
-0503	156	220	496	342	428	604	-0604	219	282	678	468	678	-1004	219	282	678	468	743				
-0504	219	282	558	405	490	666	-0605	281	345	740	531	740	-1005	281	345	740	531	805				
-0505	281	345	620	467	553	729	-0606	344	407	803	594	803	-1006	344	407	803	594	868				
-0506	344	407	684	530	615	791	-0607	406	470	866	658	866	-1007	406	470	866	658	930				
-0507	406	470	746	592	678	854	-0608	468	532	928	718	928	-1008	468	532	928	718	993				
-0508	468	532	808	655	740	916	-0609	531	595	990	781	990	-1009	531	595	990	781	1055				
-0509	531	595	872	717	803	979	-0610	594	657	1053	844	1053	-1010	594	657	1053	844	1116				
-0510	594	657	934	780	865	1041	-0611	656	720	1116	908	1116	-1011	656	720	1116	908	1180				
-0511	656	720	996	842	928	1104	-0612	719	782	1178	968	1178	-1012	719	782	1178	968	1243				
-0512	719	782	1058	905	990	1166	-0613	781	845	1240	1031	1240	-1013	781	845	1240	1031	1305				
-0513	781	845	1120	967	1053	1229	-0614	844	907	1303	1054	1303	-1014	844	907	1303	1054	1368				
-0514	844	907	1184	1030	1115	1291	-0615	906	970	1366	1158	1366	-1015	906	970	1366	1158	1430				
-0515	906	970	1246	1082	1176	1354	-0616	968	1032	1428	1218	1428	-1016	968	1032	1428	1218	1493				
-0516	968	1032	1308	1155	1240	1416	-0617	1031	1095	1490	1281	1490	-1017	1031	1095	1490	1281	1555				
					1479	1653	-0618	1094	1158	1553	1344	1553	-1018	1094	1158	1553	1344	1616				
					1620	1794	-0619	1156	1220	1616	1406	1616	-1019	1156	1220	1616	1406	1680				
					1755	1909	-0620	1219	1282	1678	1468	1678	-1020	1219	1282	1678	1468	1743				
					1810	1964	-0621	1281	1345	1740	1531	1740	-1021	1281	1345	1740	1531	1805				
					1865	2020	-0622	1344	1407	1803	1594	1803	-1022	1344	1407	1803	1594	1868				
					1920	2075	-0623	1406	1470	1866	1656	1866	-1023	1406	1470	1866	1656	1930				
					1975	2130	-0624	1468	1532	1928	1718	1928	-1024	1468	1532	1928	1718	1993				
					2030	2185	-0625	1531	1595	1990	1781	1990	-1025	1531	1595	1990	1781	2055				
					2085	2240	-0626	1594	1657	2053	1843	2053	-1026	1594	1657	2053	1843	2116				
					2140	2295	-0627	1656	1720	2116	1908	2116	-1027	1656	1720	2116	1908	2180				
					2195	2350	-0628	1719	1782	2178	1968	2178	-1028	1719	1782	2178	1968	2243				
							-0629	1781	1845	2240	2031	2240	-1029	1781	1845	2240	2031	2305				
							-0630	1844	1907	2303	2094	2303	-1030	1844	1907	2303	2094	2368				
													-1031	1908	1970	2368	2131	2430				
													-1032	1968	2032	2430	2193	2493				

PREPARING ACTIVITY NAVY-AS CUSTODIANS. ARMY-AN NAVY-AS AIR FORCE-99 DLA-15 REVIEW IS, MI, 82 USER: PROJECT NUMBER 5320-0818 DISTRIBUTION STATEMENT	MILITARY SPECIFICATION SHEET TITLE FASTENER, BLIND, HIGH STRENGTH, PULL TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, ALLOY STEEL, 112 K.S.I Fm	SPECIFICATION SHEET NUMBER MS90354 28 FEB 84 REV 1 SUPERSEDING MS90354 R 13 AUG 1993 AMSC- N/A FSC 5320
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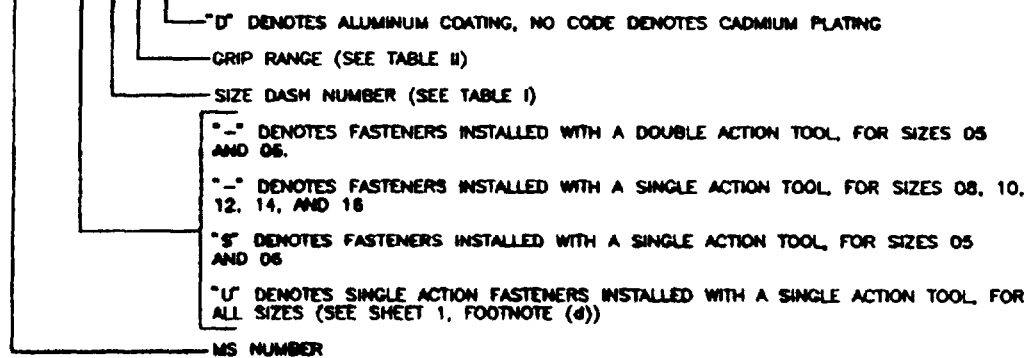
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REQUIREMENT

- 1 MATERIAL
 - SLEEVE AND SERRATED PIN - ALLOY STEEL PER ASTM-A-331
 - MECHANICAL LOCK CARBON STEEL OR ALLOY STEEL CONFORMING TO THE CHEMICAL COMPOSITION OF 1010, 1020, 1144, 4037, OR 4130 OF FEDERAL STANDARD 66 OR A286 CRES CONFORMING TO THE CHEMICAL LIMITS OF AMS 5737, OR TYPE 316 CRES CONFORMING TO THE CHEMICAL REQUIREMENTS OF AMS5690
- 2 HARDNESS
 - SLEEVE. KNOOP (1000 GRAM LOAD) 326-466
 - SERRATED PIN. ROCKWELL "C" 48 TO 53
 - MECHANICAL LOCK NOT APPLICABLE
- 3 PROTECTIVE TREATMENT
 - SLEEVE CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2 OR ALUMINUM COATING PER MIL-C-83488.
 - SERRATED PIN CADMIUM PLATE PER QQ-P-416, TYPE I, CLASS 3 WITH HYDROGEN EMBRITTLEMENT RELIEF PER MIL-F-81177 OR ALUMINUM COATING PER MIL-C-83488.
 - MECHANICAL LOCK CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2 (CARBON AND ALLOY STEEL) PASSIVATE PER QQ-T-35 (A286 AND TYPE 308 CRES) OR ALUMINUM COATING PER MIL-C-83488, AT MANUFACTURER'S OPTION
- 4 INSPECTION DUE TO INSTALLATION LOADS BEING HIGHER THAN PERFORMANCE LOAD REQUIREMENTS, MAGNETIC PARTICLE INSPECTION IS NOT REQUIRED
- 5 LUBRICATION: NONE, EXCEPT MANUFACTURER'S OPTION TO LUBRICATE LOCK MECHANISM WITH LOX COMPATIBLE DRY FILM LUBRICANTION
- 6 EXAMPLE OF PART NUMBER.

MS 90354 - 0806 D - 1/4 DIA. NOM SIZE, 156 MIN GRIP, INSTALLED WITH A SINGLE ACTION TOOL



NOTES

- 1 DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED TOLERANCES DECIMALS ± 010
- 2 IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS DOCUMENT AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS DOCUMENT SHALL TAKE PRECEDENCE
- 3 UNLESS OTHERWISE SPECIFIED, ISSUES OF REFERENCED DOCUMENTS ARE THOSE IN EFFECT AT THE TIME OF SOLICITATION

PREPARING ACTIVITY: NAVY-AS CUSTOMANS: ARMY-AV NAVY-AS AIR FORCE-99 DLA-IS REVIEW: IS M, B2 USER: PROJECT NUMBER: 5320-0818	MILITARY SPECIFICATION SHEET TITLE FASTENER, BLIND, HIGH STRENGTH, PULL TYPE, POSITIVE MECHANICAL LOCK, PROTRUDING HEAD, ALLOY STEEL, 112 K 51 Fin	SPECIFICATION SHEET NUMBER MS90354 28 FEB 1994 REV 1 SUPERSEDING MS90354 R 13 AUG 1993 AMSC- N/A FSC 5320
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