

MS20427 REV H ■ 9999912 0086747 841 ■

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 DODDSS SPECIFIED IN THE SOLICITATION: NONE

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

Form Approved
 OMB No. 0704-0188

TABLE I.

NOM. DIA	ØA MAX	ØA' MIN	B MAX	C	ØD		E MAX	M		ØW		S MAX	T MAX
					MAX	MIN		MAX	MIN	MAX	MIN		
1/16	.1346	.0886	.0317	.094	.065	.061		.0165	.0105	.0842	.0840	.016	.019
3/32	.1900	.1548	.0418	.140	.097	.093	.008	.0179	.0118	.1462	.1460	.023	.029
1/8	.2360	.2008	.0483	.187	.128	.124		.0191	.0130	.1892	.1890	.031	.039
5/32	.2876	.2566	.0614	.234	.159	.155	.010	.0226	.0163	.2422	.2420	.039	.049
3/16	.3634	.3234	.0789	.281	.190	.186		.0252	.0185	.3038	.3036	.047	.059
1/4	.4880	.4412	.1034	.379	.253	.249		.0289	.0220	.4182	.4180	.062	.078
5/16	.5772	.5288	.1147	.469	.315	.311	.012	.0315	.0245	.5000	.4998	.078	.098
3/8	.7074	.6586	.1438	.562	.378	.374		.0341	.0270	.6240	.6238	.084	.117

(a) SHANK DIAMETER TO BE MEASURED WITHIN .10 INCH OF BASE HEAD.
 (b) RECESSED TRIANGLE FOR MILD STEEL RIVETS ONLY. RECESSED DASH FOR CORROSION-RESISTANT STEEL RIVETS ONLY. NO HEAD MARKING REQUIREMENT FOR COPPER OR MONEL RIVETS.
 (c) THE CONICAL SURFACE OF THE HEAD SHALL BE CONCENTRIC WITH THE SHANK OF THE RIVET WITHIN .005 TOTAL RUNOUT.
 (d) HEAD COCKING ANGLE RELATIVE TO AXIS OF RIVET 1/2° MAXIMUM.
 (e) RIVETS MAY BE FURNISHED WITH PLAIN ENDS, OR A RADIUS TO T DIMENSION OR A 20° CHAMFER TO S DIMENSION.

REQUIREMENTS:

- MATERIAL:** CARBON STEEL, FED. STD 88, C1010-C1015, ANNEALED AFTER HEADING; CORROSION-RESISTANT STEEL, FED. STD 88, 300 SERIES, COMOTION A, ANNEALED AFTER HEADING BY HEATING AT 1,950 TO 2,000°F FOR 5 MINUTES, FOLLOWED BY WATER QUENCH; MONEL, QQ-N-281, ANNEALED; COPPER, QQ-W-343, ANNEALED.
- FINISH:** CARBON STEEL: CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3, OR BLACK OXIDE COATING PER MIL-C-13624, CLASS 1. MONEL: WHEN SPECIFIED, CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3.
- SHEAR STRENGTH:** CORROSION-RESISTANT STEEL, 85,000 PSI TO 85,000 PSI. CARBON STEEL 38,000 PSI TO 48,000 PSI. MONEL, 49,000 PSI TO 59,000 PSI. COPPER, 23,000 PSI TO 27,000 PSI.
- RIVETS SHALL DRIVE COLD SATISFACTORILY WITH A FULL HEAD FREE FROM CRACKS.
- RIVETS MUST BE TRUE TO FORM, CONCENTRIC, AND FREE FROM INJURIOUS SCALE, FINN, SEAMS AND ALL OTHER INJURIOUS DEFECTS WHEN SPECIFIED, ADD "C" IN LIEU OF DASH FOR CADMIUM PLATED MONEL RIVETS.
- PART NUMBERS:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER TAKEN FROM TABLE II.

EXAMPLES OF PART NUMBERS:

- MS20427-2X2 = RIVET, CARBON STEEL, BLACK OXIDE COATING, 1/16 DIAMETER, 1/8 LONG.
- MS20427-2C2 = RIVET, CARBON STEEL, CADMIUM PLATED, 1/16 DIAMETER, 1/8 LONG.
- MS20427F2-2 = RIVET, CORROSION-RESISTANT STEEL, 1/16 DIAMETER, 1/8 LONG.
- MS20427M2-2 = RIVET, MONEL, 1/16 DIAMETER, 1/8 LONG.
- MS20427C2-2 = RIVET, COPPER, 1/16 DIAMETER, 1/8 LONG.
- MS20427M2C2 = RIVET, MONEL, CADMIUM PLATED, 1/16 DIAMETER, 1/8 LONG.
- MS20427M3-3-5 = RIVET, MONEL, 3/32 DIAMETER, 7/32 LONG.

- FOR PART NUMBER OF RIVET LENGTH NOT LISTED ON SHEET 2, SHOW 1/16 INCREMENT REQUIRED, 1/32 INCREMENTS MAY BE OBTAINED BY ADDING -5 AFTER LAST DASH NUMBER.

NOTES:

- DIMENSIONS IN INCHES. ANGLE TOLERANCE ±5°.
- DIMENSIONS ØA, ØA', AND B ARE INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY AND ARE NOT TO BE USED FOR INSPECTION PURPOSES. VALUES ØA, ØA', AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON ØW, M, E AND HEAD ANGLE.
- MS20427 SUPERSEDES AN427 IN PART.
- INTERCHANGEABILITY RELATION WITH AN427 RIVETS: MS20427 RIVETS AND AN427 RIVETS OF LIKE DASH NUMBERS ARE UNIVERSALLY, FUNCTIONALLY, AND DIMENSIONALLY INTERCHANGEABLE.
- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODDSS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

(H) DENOTES CHANGE(S)

INCH-POUND

PREPARING ACTMITY: DLA-IS CUSTODIANS: ARMY- AR NAVY- AS AIR FORCE- 99 DLA-	MILITARY SPECIFICATION SHEET TITLE RIVET, SOLID-100° COUNTERSUNK HEAD, CARBON STEEL, CORROSION-RESISTANT STEEL, MONEL AND COPPER	SPECIFICATION SHEET NUMBER MS20427 8 FEB 94 REV H SUPERSEDING MS20427 G 17 JUN 93 (SEE NOTE 3.) AMSC- N/A FSC 5320
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.		Page <u>1</u> of <u>2</u>

DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE

MS20427 REV H ■ 9999912 0086748 788 ■

THE REQUIREMENTS FOR ACQUIRING THIS PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DOORS SPECIFIED IN THE SOLICITATION: NONE

 THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENT AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

Form Approved
 OMB No. 0704-0188

TABLE II.

CARBON STEEL CADMIUM PLATED	CORROSION RESISTANT STEEL	MONEL	COPPER	LENGTH	CARBON STEEL CADMIUM PLATED	CORROSION RESISTANT STEEL	MONEL	COPPER	LENGTH
DASH NO.	DASH NO.	DASH NO.	DASH NO.		DASH NO.	DASH NO.	DASH NO.	DASH NO.	
1/16 NOM. DIA					3/16 NOM. DIA				
-2C2	F2-2	M2-2	C2-2	1/8	-8C6	F8-6	M8-6	C8-6	3/8
-2C3	F2-3	M2-3	C2-3	3/16	-8C7	F8-7	M8-7	C8-7	7/16
-2C4	F2-4	M2-4	C2-4	1/4	-8C8	F8-8	M8-8	C8-8	1/2
-2C5	F2-5	M2-5	C2-5	5/16	-8C9	F8-9	M8-9		9/16
-2C6	F2-6	M2-6	C2-6	3/8	-8C10	F8-10	M8-10	C8-10	5/8
-2C7	F2-7	M2-7	C2-7	7/16	-8C12	F8-12	M8-12	C8-12	3/4
-2C8	F2-8	M2-8	C2-8	1/2	-8C14	F8-14	M8-14	C8-14	7/8
-2C9	F2-9	M2-9		9/16	-8C16	F8-16	M8-16	C8-16	1
-2C10	F2-10	M2-10		5/8	-8C18	F8-18	M8-18	C8-18	1-1/8
3/32 NOM. DIA					1/4 NOM. DIA				
-3C3	F3-3	M3-3	C3-3	3/16	-8C20	F8-20	M8-20	C8-20	1-1/4
-3C4	F3-4	M3-4	C3-4	1/4	-8C22	F8-22	M8-22	C8-22	1-3/8
-3C5	F3-5	M3-5	C3-5	5/16	-8C24	F8-24	M8-24	C8-24	1-1/2
-3C6	F3-6	M3-6	C3-6	3/8	-8C28	F8-28	M8-28		1-3/4
-3C7	F3-7	M3-7	C3-7	7/16	-8C32	F8-32	M8-32		2
-3C8	F3-8	M3-8	C3-8	1/2	-8C40	F8-40	M8-40		2-1/2
-3C9	F3-9	M3-9		9/16	-8C48	F8-48	M8-48		3
-3C10	F3-10	M3-10	C3-10	5/8	5/16 NOM. DIA				
-3C12	F3-12	M3-12	C3-12	3/4	-10C10	F10-10	M10-10		5/8
-3C14	F3-14	M3-14	C3-14	7/8	-10C12	F10-12	M10-12		3/4
-3C16	F3-16	M3-16	C3-16	1	-10C14	F10-14	M10-14		7/8
1/8 NOM. DIA					3/8 NOM. DIA				
-4C4	F4-4	M4-4	C4-4	1/4	-10C16	F10-16	M10-16		1
-4C5	F4-5	M4-5	C4-5	5/16	-10C18	F10-18	M10-18		1-1/8
-4C6	F4-6	M4-6	C4-6	3/8	-10C20	F10-20	M10-20		1-1/4
-4C7	F4-7	M4-7	C4-7	7/16	-10C22	F10-22	M10-22		1-3/8
-4C8	F4-8	M4-8	C4-8	1/2	-10C24	F10-24	M10-24		1-1/2
-4C9	F4-9	M4-9		9/16	-10C28	F10-28	M10-28		1-3/4
-4C10	F4-10	M4-10	C4-10	5/8	-10C32	F10-32	M10-32		2
-4C12	F4-12	M4-12	C4-12	3/4	-10C40	F10-40	M10-40		2-1/2
-4C14	F4-14	M4-14	C4-14	7/8	-10C48	F10-48	M10-48		3
-4C16	F4-16	M4-16	C4-16	1	5/16 NOM. DIA				
-4C18	F4-18	M4-18		1-1/8	-12C12	F12-12	M12-12		3/4
-4C20	F4-20	M4-20		1-1/4	-12C14	F12-14	M12-14		7/8
-4C22	F4-22	M4-22		1-3/8	-12C16	F12-16	M12-16		1
-4C24	F4-24	M4-24		1-1/2	-12C18	F12-18	M12-18		1-1/8
-4C28	F4-28	M4-28		1-3/4	-12C20	F12-20	M12-20		1-1/4
5/32 NOM. DIA					3/8 NOM. DIA				
-5C5	F5-5	M5-5		5/16	-12C22	F12-22	M12-22		1-3/8
-5C6	F5-6	M5-6	C5-6	3/8	-12C24	F12-24	M12-24		1-1/2
-5C7	F5-7	M5-7	C5-7	7/16	-12C28	F12-28	M12-28		1-3/4
-5C8	F5-8	M5-8	C5-8	1/2	-12C32	F12-32	M12-32		2
-5C9	F5-9	M5-9		9/16	-12C40	F12-40	M12-40		2-1/2
-5C10	F5-10	M5-10	C5-10	5/8	-12C48	F12-48	M12-48		3
		M5-11		11/16	3/8 NOM. DIA				
-5C12	F5-12	M5-12	C5-12	3/4	-12C12	F12-12	M12-12		3/4
-5C14	F5-14	M5-14	C5-14	7/8	-12C14	F12-14	M12-14		7/8
-5C16	F5-16	M5-16	C5-16	1	-12C16	F12-16	M12-16		1
-5C18	F5-18	M5-18		1-1/8	-12C18	F12-18	M12-18		1-1/8
-5C20	F5-20	M5-20		1-1/4	-12C20	F12-20	M12-20		1-1/4
-5C22	F5-22	M5-22		1-3/8	-12C22	F12-22	M12-22		1-3/8
-5C24	F5-24	M5-24		1-1/2	-12C24	F12-24	M12-24		1-1/2
-5C28	F5-28	M5-28		1-3/4	-12C28	F12-28	M12-28		1-3/4
-5C32	F5-32	M5-32		2	-12C32	F12-32	M12-32		2

PREPARING ACTIVITY: DLA-IS CUSTODIANS: ARMY- AR NAVY- AS AIR FORCE- 99 DLA- REVIEW: AV, GL, ME USER: CE, MC PROJECT NUMBER: 5320-0814	MILITARY SPECIFICATION SHEET TITLE RIVET, SOLID-100' COUNTERSUNK HEAD, CARBON STEEL, CORROSION-RESISTANT STEEL, MONEL AND COPPER	SPECIFICATION SHEET NUMBER MS20427 8 FEB 84 REV H SUPERSEDING MS20427 G 17 JUN 83 (SEE NOTE 3.) AMSC- N/A FSC 5320
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.		Page 2 of 2

DD Form 672, MAY 88