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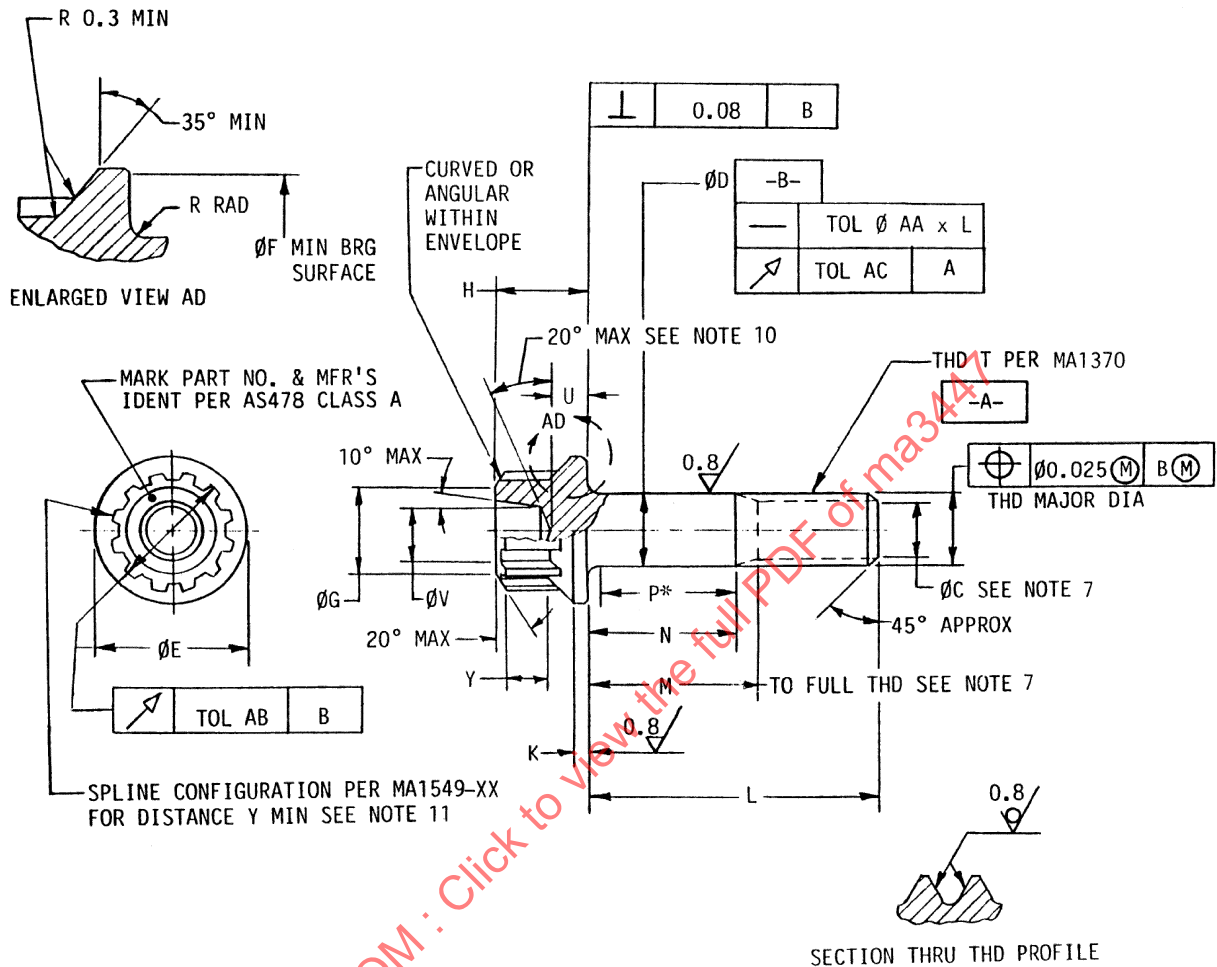
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MA3447

FEDERAL SUPPLY CLASS
5306

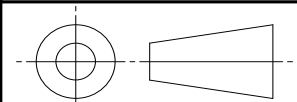
RATIONALE

MA3447 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.



*WHEN SHANK LENGTH P ($P = N - R$) IS LESS THAN THD NOM DIA, THE RUNOUT OF SHANK ϕD RELATIVE TO DATUM A SHALL BE MEASURED AT A DISTANCE OF HALF OF THE ACTUAL FULL SHANK LENGTH FROM END OF INCOMPLETE THREAD.

THIRD ANGLE PROJECTION



CUSTODIAN: E-25



METRIC AEROSPACE STANDARD

BOLT, MACHINE - SPLINE DRIVE HD,
CLOSE TOL FULL SHANK, AMS-5662, METRIC

MA3447
SHEET 1 OF 5

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I ISSUED 1990-02 REAFFIRMED 2015-05

TABLE 1 – DIMENSIONS

PART NUMBER SEE NOTE 9	NOM DIA REF	THREAD T		D f7 1/	WRENCHING CONFIGURATION DASH NO.	C
		DESIGNATION	MAJOR DIA MOD			
MA3447-050XXX	5	MJ5 x 0.8-4h6h MOD	4.850 - 4.953	4.978 - 4.990	07	3.0 - 4.0
MA3447-060XXX	6	MJ6 x 1-4h6h MOD	5.820 - 5.953	5.978 - 5.990	08	3.7 - 4.7
MA3447-070XXX	7	MJ7 x 1-4h6h MOD	6.820 - 6.947	6.972 - 6.987	09	4.7 - 5.7
MA3447-080XXX	8	MJ8 x 1-4h6h MOD	7.820 - 7.947	7.972 - 7.987	10	5.7 - 6.7
MA3447-100XXX	10	MJ10 x 1.25-4h6h MOD	9.788 - 9.947	9.972 - 9.987	12	7.4 - 8.4

NOM DIA REF	E MAX	F MIN	G MIN	H h15 1/	K MIN	R	U	V	Y MIN	AA	AB	AC
5	9.1	8.3	7	5.92 - 6.50	1.0	0.3 - 0.5	2.5 - 2.9	3.2 - 3.7	2.8	0.002	0.13	0.12
6	10.6	9.8	8	6.92 - 7.50	1.2	0.5 - 0.7	2.8 - 3.2	4.1 - 4.6	3.5	0.002	0.15	0.12
7	12.1	11.3	9	7.62 - 8.20	1.4	0.5 - 0.7	3.3 - 3.7	4.9 - 5.4	3.8	0.002	0.18	0.15
8	13.6	12.8	10	8.02 - 8.60	1.6	0.5 - 0.7	3.7 - 4.1	5.2 - 5.7	3.9	0.002	0.20	0.15
10	16.7	15.7	12	9.40 - 10.10	2.0	0.6 - 0.8	4.7 - 5.1	6.7 - 7.2	4.2	0.0015	0.25	0.15

1/ TOLERANCE GRADES TO ANSI B4.2-1978.

NOTES:

- FOR PART NUMBERS WHERE SHANK LENGTH N IS EQUAL TO OR LESS THAN SHANK DIA D, THE THREAD DATUM A SHALL REPLACE DATUM B.
- MATERIAL: CORROSION AND HEAT RESISTANT NICKEL ALLOY, AMS-5662.
- HEAT TREATMENT: SOLUTION AND PRECIPITATION HEAT TREATED. SEE PROCUREMENT SPECIFICATION.
- HARDNESS: 40-46 HRC, 371-432 HB, OR 392-458 HV.
- FINISH: CLEANED (PASSIVATED) PER MA3377.
- FLUORESCENT PENETRANT INSPECTION: AMS-2645. ACCEPTANCE CRITERIA PER MA3377.
- PROCUREMENT SPECIFICATION: MA3377.
- SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36-1978; REQUIREMENTS PER ANSI/ASME B46.1-1985. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 3.2 MICROMETERS Ra.
- PART NUMBER SHALL INCLUDE THE STANDARD NUMBER AND THE DASH NUMBER TO INDICATE DIAMETER AND LENGTH OF UNTHREADED SHANK. EXAMPLE OF PART NUMBER:
MA3447-060012 = BOLT, MJ6 x 1 THREAD, 12 LONG UNTHREADED SHANK
MA3447-100025 = BOLT, MJ10 x 1.25 THREAD, 25 LONG UNTHREADED SHANK
- SHAPE OF LIGHTENING HOLE AT BOTTOM MAY BE FLAT OR CURVED WITHIN DIMENSIONS SHOWN.
- WRENCHING CONFIGURATION SHALL BE IN ACCORDANCE WITH MA1549 PER THE SPECIFIED DASH NUMBER IN TABLE 1.
- BREKA EDGES 0.1-0.4, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING: ANSI Y14.5M-1982.
- DIMENSIONS IN MILLIMETERS.
- DO NOT USE UNASSIGNED PART NUMBERS.

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	METRIC AEROSPACE STANDARD	MA3447 SHEET 2 OF 5
	BOLT, MACHINE - SPLINE DRIVE HD, CLOSE TOL FULL SHANK, AMS-5662, METRIC	

TABLE 2 - SHANK LENGTH DIMENSIONS

MJ5 x 0.8					MJ6 x 1				
DASH NO. SEE NOTE 9	N MIN	M MAX	L LENGTH	APPROX MASS kg/100	DASH NO. SEE NOTE 9	N MIN	M MAX	L LENGTH	APPROX MASS kg/100
050003	3	4.85	14.2 - 14.8	0.502	060003	3	5.25	16.2 - 16.8	0.776
050004	4	5.85	15.2 - 15.8	0.519	060004	4	6.25	17.2 - 17.8	0.799
050005	5	6.85	16.2 - 16.8	0.535	060005	5	7.25	18.2 - 18.8	0.822
050006	6	7.85	17.2 - 17.8	0.551	060006	6	8.25	19.2 - 19.8	0.846
050007	7	8.85	18.2 - 18.8	0.567	060007	7	9.25	20.2 - 20.8	0.869
050008	8	9.85	19.2 - 19.8	0.583	060008	8	10.25	21.2 - 21.8	0.892
050009	9	10.85	20.2 - 20.8	0.599	060009	9	11.25	22.2 - 22.8	0.916
050010	10	11.85	21.2 - 21.8	0.616	060010	10	12.25	23.2 - 23.8	0.939
050011	11	12.85	22.2 - 22.8	0.632	060011	11	13.25	24.2 - 24.8	0.962
050012	12	13.85	23.2 - 23.8	0.648	060012	12	14.25	25.2 - 25.8	0.985
050013	13	14.85	24.2 - 24.8	0.664	060013	13	15.25	26.2 - 26.8	1.008
050014	14	15.85	25.2 - 25.8	0.680	060014	14	16.25	27.2 - 27.8	1.032
050015	15	16.85	26.2 - 26.8	0.696	060015	15	17.25	28.2 - 28.8	1.055
050016	16	17.85	27.2 - 27.8	0.712	060016	16	18.25	29.2 - 29.8	1.078
050017	17	18.85	28.2 - 28.8	0.728	060017	17	19.25	30.2 - 30.8	1.102
050018	18	19.85	29.2 - 29.8	0.745	060018	18	20.25	31.2 - 31.8	1.125
050019	19	20.85	30.2 - 30.8	0.761	060019	19	21.25	32.2 - 32.8	1.148
050020	20	21.85	31.2 - 31.8	0.777	060020	20	22.25	33.2 - 33.8	1.171
050021	21	22.85	32.2 - 32.8	0.793	060021	21	23.25	34.2 - 34.8	1.194
050022	22	23.85	33.2 - 33.8	0.809	060022	22	24.25	35.2 - 35.8	1.218
050023	23	24.85	34.2 - 34.8	0.825	060023	23	25.25	36.2 - 36.8	1.241
050024	24	25.85	35.2 - 35.8	0.842	060024	24	26.25	37.2 - 37.8	1.264
050025	25	26.85	36.2 - 36.8	0.858	060025	25	27.25	38.2 - 38.8	1.287
050026	26	27.85	37.2 - 37.8	0.874	060026	26	28.25	39.2 - 39.8	1.311
050027	27	28.85	38.2 - 38.8	0.890	060027	27	29.25	40.2 - 40.8	1.334
050028	28	29.85	39.2 - 39.8	0.906	060028	28	30.25	41.2 - 41.8	1.357
050029	29	30.85	40.2 - 40.8	0.922	060029	29	31.25	42.2 - 42.8	1.380
050030	30	31.85	41.2 - 41.8	0.938	060030	30	32.25	43.2 - 43.8	1.404
050032	32	33.85	43.2 - 43.8	0.983	060032	32	34.25	45.2 - 45.8	1.468
050034	34	35.85	45.2 - 45.8	1.016	060034	34	36.25	47.2 - 47.8	1.515
050036	36	37.85	47.2 - 47.8	1.048	060036	36	38.25	49.2 - 49.8	1.561
050038	38	39.85	49.2 - 49.8	1.080	060038	38	40.25	51.2 - 51.8	1.608
050040	40	41.85	51.2 - 51.8	1.112	060040	40	42.25	53.2 - 53.8	1.654
050042	42	43.85	53.2 - 53.8	1.145	060042	42	44.25	55.2 - 55.8	1.701
050044	44	45.85	55.2 - 55.8	1.177	060044	44	46.25	57.2 - 57.8	1.747
050046	46	47.85	57.2 - 57.8	1.209	060046	46	48.25	59.2 - 59.8	1.794
050048	48	49.85	59.2 - 59.8	1.242	060048	48	50.25	61.2 - 61.8	1.840
050050	50	51.85	61.2 - 61.8	1.274	060050	50	52.25	63.2 - 63.8	1.887
					060052	52	54.25	65.2 - 65.8	1.933
					060054	54	56.25	67.2 - 67.8	1.980
					060056	56	58.25	69.2 - 69.8	2.026
					060058	58	60.25	71.2 - 71.8	2.073
					060060	60	62.25	73.2 - 73.8	2.119

TABLE 2 - SHANK LENGTH DIMENSIONS (CONTINUED)

MJ7 x 1					MJ8 x 1				
DASH NO. SEE NOTE 9	N MIN	M MAX	L LENGTH	APPROX MASS kg/100	DASH NO. SEE NOTE 9	N MIN	M MAX	L LENGTH	APPROX MASS kg/100
070004	4	6.25	18.2 - 18.8	1.139	080004	4	6.25	19.7 - 20.3	1.571
070005	5	7.25	19.2 - 19.8	1.171	080005	5	7.25	20.7 - 21.3	1.612
070006	6	8.25	20.2 - 20.8	1.202	080006	6	8.25	21.7 - 22.3	1.653
070007	7	9.25	21.2 - 21.8	1.234	080007	7	9.25	22.7 - 23.3	1.695
070008	8	10.25	22.2 - 22.8	1.266	080008	8	10.25	23.7 - 24.3	1.736
070009	9	11.25	23.2 - 23.8	1.297	080009	9	11.25	24.7 - 25.3	1.777
070010	10	12.25	24.2 - 24.8	1.329	080010	10	12.25	25.7 - 26.3	1.819
070011	11	13.25	25.2 - 25.8	1.360	080011	11	13.25	26.7 - 27.3	1.860
070012	12	14.25	26.2 - 26.8	1.392	080012	12	14.25	27.7 - 28.3	1.901
070013	13	15.25	27.2 - 27.8	1.424	080013	13	15.25	28.7 - 29.3	1.942
070014	14	16.25	28.2 - 28.8	1.455	080014	14	16.25	29.7 - 30.3	1.984
070015	15	17.25	29.2 - 29.8	1.487	080015	15	17.25	30.7 - 31.3	2.025
070016	16	18.25	30.2 - 30.8	1.519	080016	16	18.25	31.7 - 32.3	2.066
070017	17	19.25	31.2 - 31.8	1.550	080017	17	19.25	32.7 - 33.3	2.108
070018	18	20.25	32.2 - 32.8	1.582	080018	18	20.25	33.7 - 34.3	2.149
070019	19	21.25	33.2 - 33.8	1.614	080019	19	21.25	34.7 - 35.3	2.190
070020	20	22.25	34.2 - 34.8	1.645	080020	20	22.25	35.7 - 36.3	2.232
070021	21	23.25	35.2 - 35.8	1.677	080021	21	23.25	36.7 - 37.3	2.273
070022	22	24.25	36.2 - 36.8	1.709	080022	22	24.25	37.7 - 38.3	2.314
070023	23	25.25	37.2 - 37.8	1.740	080023	23	25.25	38.7 - 39.3	2.356
070024	24	26.25	38.2 - 38.8	1.772	080024	24	26.25	39.7 - 40.3	2.397
070025	25	27.25	39.2 - 39.8	1.804	080025	25	27.25	40.7 - 41.3	2.438
070026	26	28.25	40.2 - 40.8	1.835	080026	26	28.25	41.7 - 42.3	2.480
070027	27	29.25	41.2 - 41.8	1.867	080027	27	29.25	42.7 - 43.3	2.521
070028	28	30.25	42.2 - 42.8	1.898	080028	28	30.25	43.7 - 44.3	2.562
070029	29	31.25	43.2 - 43.8	1.930	080029	29	31.25	44.7 - 45.3	2.604
070030	30	32.25	44.2 - 44.8	1.962	080030	30	32.25	45.7 - 46.3	2.645
070032	32	34.25	46.2 - 46.8	2.051	080032	32	34.25	47.7 - 48.3	2.729
070034	34	36.25	48.2 - 48.8	2.114	080034	34	36.25	49.7 - 50.3	2.813
070036	36	38.25	50.2 - 50.8	2.177	080036	36	38.25	51.7 - 52.3	2.897
070038	38	40.25	52.2 - 52.8	2.240	080038	38	40.25	53.7 - 54.3	2.981
070040	40	42.25	54.2 - 54.8	2.304	080040	40	42.25	55.7 - 56.3	3.065
070042	42	44.25	56.2 - 56.8	2.367	080042	42	44.25	57.7 - 58.3	3.149
070044	44	46.25	58.2 - 58.8	2.430	080044	44	46.25	59.7 - 60.3	3.233
070046	46	48.25	60.2 - 60.8	2.494	080046	46	48.25	61.7 - 62.3	3.317
070048	48	50.25	62.2 - 62.8	2.557	080048	48	50.25	63.7 - 64.3	3.401
070050	50	52.25	64.2 - 64.8	2.620	080050	50	52.25	65.7 - 66.3	3.485
070052	52	54.25	66.2 - 66.8	2.684	080052	52	54.25	67.7 - 68.3	3.569
070054	54	56.25	68.2 - 68.8	2.748	080054	54	56.25	69.7 - 70.3	3.653
070056	56	58.25	70.2 - 70.8	2.810	080056	56	58.25	71.7 - 72.3	3.737
070058	58	60.25	72.2 - 72.8	2.873	080058	58	60.25	73.7 - 74.3	3.821
070060	60	62.25	74.2 - 74.8	2.937	080060	60	62.25	75.7 - 76.3	3.905
070062	62	64.25	76.2 - 76.8	3.000	080062	62	64.25	77.7 - 78.3	3.989
070064	64	66.25	78.2 - 78.8	3.063	080064	64	66.25	79.7 - 80.3	4.073
070066	66	68.25	80.2 - 80.8	3.126	080066	66	68.25	81.7 - 82.3	4.157
070068	68	70.25	82.2 - 82.8	3.190	080068	68	70.25	83.7 - 84.3	4.241
070070	70	72.25	84.2 - 84.8	3.253	080070	70	72.25	85.7 - 86.3	4.325
					080072	72	74.25	87.7 - 88.3	4.409
					080074	74	76.25	89.7 - 90.3	4.493
					080076	76	78.25	91.7 - 92.3	4.577
					080078	78	80.25	93.7 - 94.3	4.661
					080080	80	82.25	95.7 - 96.3	4.745