

# BOLT LOAD STAINLESS STEEL (MATERIAL B8M CLASS 1A)

## 40% - 99% YIELD



<b>Southwest Texas</b>	<b>West Texas</b>	<b>Main Office</b>	<b>Southeast Texas</b>	<b>Central &amp; East Texas</b>
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## BOLT LOADS

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		40		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE (.001")	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
															0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	1,702	8	7	9	10	11	11	14	31	21
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	2,711	15	14	18	20	21	22	28	62	42
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	4,011	27	25	31	35	38	39	50	110	75
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	5,538	44	40	50	57	61	63	81	178	121
1x 8	1	8	1-5/8"	0.605	30,000	7,265	66	61	76	85	91	95	121	266	182
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	9,481	97	89	111	124	133	140	178	391	267
1-1/4 x 8	1.25	8	2"	0.999	30,000	11,990	136	125	156	175	187	196	250	550	375
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	14,795	185	170	212	237	254	266	339	746	509
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	17,893	244	224	280	313	335	351	447	984	671

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		50		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE (.001")	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
															0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	2,127	10	9	11	12	13	14	18	39	27
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	3,388	19	18	22	25	26	28	35	78	53
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	5,014	34	31	39	44	47	49	63	138	94
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	6,922	55	50	63	71	76	79	101	222	151
1x 8	1	8	1-5/8"	0.605	30,000	9,082	82	76	95	106	114	119	151	333	227
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	11,851	121	111	139	156	167	174	222	489	333
1-1/4 x 8	1.25	8	2"	0.999	30,000	14,988	170	156	195	219	234	245	312	687	468
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	18,493	231	212	265	297	318	333	424	932	636
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	22,366	305	280	349	391	419	439	559	1,230	839

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		60		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE (.001")	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
															0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	2,553	12	11	13	15	16	17	21	47	32
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	4,066	23	21	26	30	32	33	42	93	64
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	6,017	41	38	47	53	56	59	75	165	113
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	8,307	66	61	76	85	91	95	121	267	182
1x 8	1	8	1-5/8"	0.605	30,000	10,898	99	91	114	127	136	143	182	400	272
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	14,221	145	133	167	187	200	209	267	587	400
1-1/4 x 8	1.25	8	2"	0.999	30,000	17,986	204	187	234	262	281	294	375	824	562
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	22,192	277	254	318	356	381	399	509	1,119	763
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	26,840	366	335	419	470	503	527	671	1,476	1,006

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		70		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
	(.001")														0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	2,978	14	12	16	17	19	19	25	55	37
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	4,744	27	25	31	35	37	39	49	109	74
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	7,020	48	44	55	61	66	69	88	193	132
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	9,691	77	71	88	99	106	111	141	311	212
1x 8	1	8	1-5/8"	0.605	30,000	12,714	115	106	132	148	159	166	212	466	318
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	16,591	170	156	194	218	233	244	311	684	467
1-1/4 x 8	1.25	8	2"	0.999	30,000	20,983	238	219	273	306	328	343	437	962	656
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	25,890	323	297	371	415	445	466	593	1,305	890
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	31,313	427	391	489	548	587	615	783	1,722	1,174

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		80		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
	(.001")														0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	3,404	15	14	18	20	21	22	28	62	43
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	5,421	31	28	35	40	42	44	56	124	85
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	8,023	55	50	63	70	75	79	100	221	150
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	11,076	88	81	101	113	121	127	162	355	242
1x 8	1	8	1-5/8"	0.605	30,000	14,530	132	121	151	170	182	190	242	533	363
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	18,961	194	178	222	249	267	279	356	782	533
1-1/4 x 8	1.25	8	2"	0.999	30,000	23,981	272	250	312	350	375	392	500	1,099	749
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	29,589	370	339	424	475	509	532	678	1,492	1,017
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	35,786	488	447	559	626	671	702	895	1,968	1,342

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		90		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
	(.001")														0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	3,829	17	16	20	22	24	25	32	70	48
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	6,099	35	32	40	44	48	50	64	140	95
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	9,026	61	56	71	79	85	89	113	248	169
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	12,460	99	91	114	127	136	143	182	400	273
1x 8	1	8	1-5/8"	0.605	30,000	16,347	148	136	170	191	204	214	272	599	409
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	21,331	218	200	250	280	300	314	400	880	600
1-1/4 x 8	1.25	8	2"	0.999	30,000	26,978	306	281	351	393	422	441	562	1,237	843
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	33,288	416	381	477	534	572	599	763	1,678	1,144
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	40,259	549	503	629	705	755	790	1,006	2,214	1,510

TORQUE GUIDE FOR ASTM A193 GRADE <b>B8M Class 1A</b> STUD															
BOLT TENSION BASED ON		99		PERCENT YIELD		REQUIRED TORQUE (FtLbs)									
BOLT SIZE DIA. x TPI	BOLT SIZE	THREAD PER INCH	HEX NUT ACROSS FLAT	STRESS AREA (IN <sup>2</sup> )	MIN YIELD STRENGTH (PSI)	BOLT TENSION (LBS)	TS-801 MOLY DRY FILM SPRAY	MOLY DISULFIDE K=.100	MOLY/ LEAD OXIDE/ GRAPHITE K=.125	COPPER & GRAPHITE K=.140	NICKEL & GRAPHITE K=.150	API SA2 K=.157	MACHINE OIL K=.200	DRY STEEL K=.440 K=.300	CUSTOM (INSERT K) K=.300
	(.001")														0.3
1/2 x 13	0.5	13	7/8"	0.142	30,000	4,212	19	18	22	25	26	28	35	77	53
5/8 x 11	0.625	11	1-1/16"	0.226	30,000	6,709	38	35	44	49	52	55	70	154	105
3/4 x 10	0.75	10	1-1/4"	0.334	30,000	9,928	68	62	78	87	93	97	124	273	186
7/8 x 9	0.875	9	1-7/16"	0.461	30,000	13,707	109	100	125	140	150	157	200	440	300
1x 8	1	8	1-5/8"	0.605	30,000	17,981	163	150	187	210	225	235	300	659	450
1-1/8 x 8	1.125	8	1-13/16"	0.790	30,000	23,465	240	220	275	308	330	345	440	968	660
1-1/4 x 8	1.25	8	2"	0.999	30,000	29,676	337	309	386	433	464	485	618	1,360	927
1-3/8 x 8	1.375	8	2-3/16"	1.233	30,000	36,616	457	420	524	587	629	659	839	1,846	1,259
1-1/2 x 8	1.5	8	2-3/8"	1.491	30,000	44,285	603	554	692	775	830	869	1,107	2,436	1,661