




SUGGESTED TIGHTENING TORQUES FOR HEX HEAD CAP SCREWS

SIZE	BASIC MAJOR DIA.	STRESS AREA H-28 1957	Tensile Strength (T) Min. PROOF LOAD (P) P.S.I SAE GRADE (1957)				 SAE GRADE 2			 SAE GRADE 5			 SAE GRADE 8		
			2 T/P	5 T/P	7 T/P	8 T/P	CLAMP LOAD (LBS.)	ASSEMBLY TORQUE		CLAMP LOAD (LBS.)	ASSEMBLY TORQUE		CLAMP LOAD (LBS.)	ASSEMBLY TORQUE	
								DRY R= .200	LUB. R= .150		DRY R= .200	LUB. R= .150		DRY R= .200	LUB. R= .150
4-40	.1120	.00604	74M/55M	120M/85M	133/108M	150/120M	250	5 in./Lbs	4 in./Lb	380	8 in./Lbs.	6 in./Lbs.	54012	in./Lbs	9 in./Lbs.
4-48	.1120	.00661	"	"	"	"	275	6"	5"	420	9"	7"	60013	"	10"
6-32	.1380	.00909	"	"	"	"	375	10"	8"	580	16"	12"	820	23"	17"
6-40	.1380	.01015	"	"	"	"	420	12"	9"	640	18"	13"	920	25"	19"
8-32	.1640	.01400	"	"	"	"	580	19"	14"	900	30"	22"	1260	41"	31"
8-36	.1640	.01474	"	"	"	"	610	20"	15"	940	31"	23"	1320	43"	32"
10-24	.1900	.01750	"	"	"	"	725	27"	21"	1120	43"	32"	1580	60"	45"
10-32	.1900	.02000	"	"	"	"	825	31"	23"	1285	49"	36"	1800	68"	51"
1/4-20	.2500	.0318	"	"	"	"	1320	66"	50"	2000	8 Ft./Lbs.	75"	2850	12 Ft./Lb:	9 Ft./Lbs.
1/4-28	.2500	.0364	"	"	"	"	1500	76"	58"	2300	10	86"	3250	14'	10"
5/16-18	.3125	.0524	"	"	"	"	2160	11 Ft./Lbs.	8 Ft./Lbs.	3350	17	13 Ft./Lbs	4700	25	18
5/16-24	.3125	.0580	"	"	"	"	2400	12	9	3700	19	14	5200	25	20
3/8-16	.3750	.0775	"	"	"	"	3200	20	15	4950	30	23	7000	45	35
3/8-24	.3750	.0878	"	"	"	"	3620	23	17	5600	35	25	7900	50	35
7/16-14	.4375	.1083	"	"	"	"	4390	32	24	6800	50	35	9550	70	55
7/16-20	.4375	.1187	"	"	"	"	4900	36	27	7600	55	40	10650	80	60
1/2-13	.5000	.1219	"	"	"	"	5850	50	35	9000	75	55	12750	110	80
1/2-20	.5000	.1599	"	"	"	"	6600	55	40	10250	90	65	14375	120	90
9/16-12	.5625	.1820	"	"	"	"	7500	70	55	11600	110	80	16375	150	110
9/16-18	.5625	.2030	"	"	"	"	8400	80	60	13000	120	90	18250	170	130
5/8-11	.6250	.2260	"	"	"	"	9350	100	75	14400	150	110	20350	220	170
5/8-18	.6250	.2560	"	"	"	"	10550	110	85	16375	180	130	23000	240	180
3/4-10	.7500	.3340	"	"	"	"	13800	175	130	21300	260	200	30100	380	280
3/4-16	.7500	.3730	"	"	"	"	15400	200	150	23800	300	220	33500	420	320
7/8-9	.8750	.4620	80M/33M	"	"	"	11450	170	125	29450	430	320	41800	600	460
7/8-14	.8750	.5090	"	"	"	"	12600	180	140	32450	470	360	45900	660	500
1-8	1.0000	.6060	"	"	"	"	15000	250	190	38600	640	480	54500	900	680
1-12	1.0000	.6630	"	"	"	"	16400	270	210	42300	710	530	59700	1000	740
1-14	1.0000	.6800	"	"	"	"	16800	280	210	43400	730	540	61200	1020	760
1 1/8-7	1.1250	.7630	"	05M/74M	"	"	18900	350	270	42300	800	600	68900	1280	960
1 1/8-12	1.1250	.8560	"	"	"	"	21200	400	300	47500	880	680	77000	1440	1080
1 1/4-7	1.2500	.9690	"	"	"	"	24000	500	380	53800	1120	840	87200	1820	1360
1 1/4-12	1.2500	1.0730	"	"	"	"	26600	550	420	59600	1240	920	96800	2000	1500
1 3/8-6	1.3750	1.1550	"	"	"	"	28600	670	490	64100	1460	1100	104000	2380	1780
1 3/8-12	1.3750	1.3150	"	"	"	"	32500	750	560	73000	1680	1260	118400	2720	2040
1 1/2-6	1.5000	1.4050	"	"	"	"	34800	870	650	78000	1940	1460	126500	3160	2360
1 1/2-12	1.5000	1.5800	"	"	"	"	39100	980	730	87700	2200	1640	142200	3560	2660

CAUTION: LUBRICATED FASTENERS (PLATED OR OTHERWISE) ARE TO BE TORQUED AT A LOWER VALUE (LUB. COLUMN), OTHERWISE EXCESSIVE CLAMPLOADS AND FAILURE DURING INSTALLATION WILL RESULT. USERS OF THIS CHART ASSUME FULL RESPONSIBILITY OF APPLICATION.