



JN - 4 TORQUE CHART

10,000 P.S.I. & 700 BAR +/- 3%

BAR	P.S.I	FT./LBS	nM	KGF*M
14	200	67	91	10
28	400	134	182	19
41	600	202	273	28
55	800	269	364	38
69	1,000	336	456	47
83	1,200	408	554	57
97	1,400	481	652	67
110	1,600	553	750	77
124	1,800	626	848	87
138	2,000	698	946	97
152	2,200	772	1,047	107
165	2,400	847	1,148	118
179	2,600	921	1,249	128
193	2,800	996	1,350	138
207	3,000	1,070	1,451	148
221	3,200	1,145	1,552	159
234	3,400	1,220	1,654	169
248	3,600	1,295	1,756	180
262	3,800	1,370	1,857	190
276	4,000	1,445	1,959	200
490	4,200	1,520	2,061	211
303	4,400	1,596	2,164	221
317	4,600	1,671	2,266	232
331	4,800	1,747	2,368	242
345	5,000	1,822	2,470	252

BAR	P.S.I	FT./LBS	nM	KGF*M
359	5,200	1,900	2,576	263
372	5,400	1,978	2,682	274
386	5,600	2,056	2,788	285
400	5,800	2,134	2,893	296
414	6,000	2,212	2,999	306
427	6,200	2,287	3,100	317
441	6,400	2,362	3,202	327
455	6,600	2,436	3,303	337
469	6,800	2,511	3,405	348
483	7,000	2,586	3,506	358
496	7,200	2,663	3,610	369
510	7,400	2,740	3,714	379
524	7,600	2,816	3,819	390
538	7,800	2,893	3,923	400
552	8,000	2,970	4,027	411
565	8,200	3,046	4,130	422
579	8,400	3,122	4,232	432
593	8,600	3,197	4,335	443
607	8,800	3,273	4,438	453
621	9,000	3,349	4,541	464
634	9,200	3,422	4,640	474
648	9,400	3,495	4,739	484
662	9,600	3,568	4,838	494
676	9,800	3,641	4,937	504
700	10,000	3,714	5,036	514

Hydraulic Torque wrench was calibrated on TSD 20011-HT Hydraulic Torque Wrench Calibration System having a range of 0 to 20,000 X 2 Lb.Ft. S/N 4041 with an Accuracy 0.1% IV, Uncertainty +/- 2 Lb.Ft. and TSD 10K PSI, 0 to 10,000 X 1 PSI, 0.1% Pressure Standard, Uncertainty +/- 1 PSI. S/N 44818 Systems are traceable to National Institute for Standards and Technology (NIST) through Reference # 822/266926-02.





JN - 10 TORQUE CHART

10,000 P.S.I. & 700 BAR +/- 3%

BAR	P.S.I	FT./LBS	nM	KGF*M	BAR	P.S.I	FT./LBS	nM	KGF*M
14	200	174	236	25	359	5,200	4,378	5,935	606
28	400	348	472	49	372	5,400	4,547	6,165	629
41	600	522	708	73	386	5,600	4,717	6,395	653
55	800	696	944	97	400	5,800	4,886	6,625	676
69	1,000	870	1,180	121	414	6,000	5,056	6,855	700
83	1,200	1,041	1,411	144	427	6,200	5,231	7,093	724
97	1,400	1,212	1,643	168	441	6,400	5,406	7,330	748
110	1,600	1,382	1,874	192	455	6,600	5,582	7,568	772
124	1,800	1,553	2,106	215	469	6,800	5,757	7,805	796
138	2,000	1,724	2,337	239	483	7,000	5,932	8,043	821
152	2,200	1,894	2,568	262	496	7,200	6,096	8,265	843
165	2,400	2,065	2,799	286	510	7,400	6,260	8,487	866
179	2,600	2,235	3,031	310	524	7,600	6,424	8,710	889
193	2,800	2,406	3,262	333	538	7,800	6,588	8,932	911
207	3,000	2,576	3,493	357	552	8,000	6,752	9,154	934
221	3,200	2,739	3,714	379	565	8,200	6,908	9,367	956
234	3,400	2,902	3,935	402	579	8,400	7,065	9,579	977
248	3,600	3,066	4,156	424	593	8,600	7,221	9,791	999
262	3,800	3,229	4,378	447	607	8,800	7,378	10,003	1,020
276	4,000	3,392	4,599	469	621	9,000	7,534	10,215	1,042
490	4,200	3,555	4,820	492	634	9,200	7,699	10,438	1,065
303	4,400	3,718	5,041	515	648	9,400	7,864	10,662	1,088
317	4,600	3,882	5,263	537	662	9,600	8,028	10,885	1,110
331	4,800	4,045	5,484	560	676	9,800	8,193	11,109	1,133
345	5,000	4,208	5,705	582	700	10,000	8,358	11,332	1,156

Hydraulic Torque wrench was calibrated on TSD 20011-HT Hydraulic Torque Wrench Calibration System having a range of 0 to 20,000 X 2 Lb.Ft. S/N 4041 with an Accuracy 0.1% IV, Uncertainty +/- 2 Lb.Ft. and TSD 10K PSI, 0 to 10,000 X 1 PSI, 0.1% Pressure Standard, Uncertainty +/- 1 PSI. S/N 44818 Systems are traceable to National Institute for Standards and Technology (NIST) through Reference # 822/266926-02.





JN - 20 TORQUE CHART

10,000 P.S.I. & 700 BAR +/- 3%

BAR	P.S.I	FT./LBS	nM	KGF*M
14	200	318	327	337
28	400	635	655	675
41	600	953	982	1,012
55	800	1,271	1,310	1,349
69	1,000	1,637	1,688	1,739
83	1,200	1,923	1,982	2,042
97	1,400	2,257	2,327	2,397
110	1,600	2,591	2,672	2,752
124	1,800	2,926	3,016	3,107
138	2,000	3,361	3,465	3,569
152	2,200	3,640	3,753	3,865
165	2,400	4,020	4,144	4,268
179	2,600	4,399	4,536	4,672
193	2,800	4,779	4,927	5,075
207	3,000	5,319	5,483	5,647
221	3,200	5,521	5,692	5,862
234	3,400	5,883	6,065	6,247
248	3,600	6,245	6,438	6,631
262	3,800	6,606	6,811	7,015
276	4,000	7,184	7,406	7,628
490	4,200	7,330	7,557	7,784
303	4,400	7,692	7,930	8,168
317	4,600	8,054	8,303	8,552
331	4,800	8,416	8,676	8,936
345	5,000	9,049	9,329	9,609

BAR	P.S.I	FT./LBS	nM	KGF*M
359	5,200	9,142	9,425	9,707
372	5,400	9,506	9,800	10,094
386	5,600	9,871	10,176	10,481
400	5,800	10,235	10,551	10,868
414	6,000	10,927	11,265	11,603
427	6,200	10,972	11,311	11,651
441	6,400	11,344	11,695	12,046
455	6,600	11,717	12,079	12,442
469	6,800	12,090	12,464	12,837
483	7,000	12,848	13,245	13,642
496	7,200	12,825	13,222	13,618
510	7,400	13,188	13,596	14,004
524	7,600	13,551	13,970	14,389
538	7,800	13,913	14,344	14,774
552	8,000	14,718	15,173	15,628
565	8,200	14,645	15,098	15,551
579	8,400	15,014	15,479	15,943
593	8,600	15,383	15,859	16,335
607	8,800	15,752	16,240	16,727
621	9,000	16,620	17,134	17,648
634	9,200	16,495	17,006	17,516
648	9,400	16,870	17,391	17,913
662	9,600	17,244	17,777	18,310
676	9,800	17,618	18,163	18,708
700	10,000	18,548	19,122	19,696

Hydraulic Torque wrench was calibrated on TSD 20011-HT Hydraulic Torque Wrench Calibration System having a range of 0 to 20,000 X 2 Lb.Ft. S/N 4041 with an Accuracy 0.1% IV, Uncertainty +/- 2 Lb.Ft. and TSD 10K PSI, 0 to 10,000 X 1 PSI, 0.1% Pressure Standard, Uncertainty +/- 1 PSI. S/N 44818 Systems are traceable to National Institute for Standards and Technology (NIST) through Reference # 822/266926-02.





JN - 30 TORQUE CHART

10,000 P.S.I. & 700 BAR +/- 3%

BAR	P.S.I	FT./LBS	nM	KGF*M	BAR	P.S.I	FT./LBS	nM	KGF*M
14	200	618	838	85	359	5,200	16,280	22,072	2,251
28	400	1,300	1,763	180	372	5,400	16,800	22,778	2,323
41	600	1,880	2,549	260	386	5,600	17,400	23,591	2,406
55	800	2,530	3,430	350	400	5,800	18,100	24,540	2,502
69	1000	3,100	4,203	429	414	6,000	18,755	25,428	2,593
83	1,200	3,750	5,084	519	427	6,200	19,320	26,194	2,671
97	1,400	4,300	5,830	595	441	6,400	19,980	27,089	2,762
110	1,600	4,845	6,569	670	455	6,600	20,600	27,930	2,848
124	1,800	5,490	7,444	759	469	6,800	21,210	28,757	2,932
138	2,000	6,170	8,365	853	483	7,000	21,850	29,625	3,021
152	2,200	6,860	9,301	948	496	7,200	22,500	30,506	3,111
165	2,400	7,510	10,182	1,038	510	7,400	23,116	31,341	3,196
179	2,600	8,250	11,186	1,141	524	7,600	23,730	32,174	3,281
193	2,800	8,890	12,053	1,229	538	7,800	24,350	33,014	3,367
207	3,000	9,500	12,880	1,313	552	8,000	24,981	33,870	3,454
221	3,200	10,115	13,714	1,399	565	8,200	25,670	34,804	3,549
234	3,400	10,730	14,548	1,484	579	8,400	26,390	35,780	3,649
248	3,600	11,370	15,416	1,572	593	8,600	26,960	36,553	3,727
262	3,800	11,960	16,216	1,654	607	8,800	27,610	37,434	3,817
276	4,000	12,576	17,051	1,739	621	9,000	28,230	38,275	3,903
490	4,200	13,090	17,748	1,810	634	9,200	28,840	39,102	3,987
303	4,400	13,635	18,487	1,885	648	9,400	29,550	40,065	4,085
317	4,600	14,410	19,537	1,992	662	9,600	30,160	40,892	4,170
331	4,800	15,050	20,405	2,081	676	9,800	30,868	41,852	4,268
345	5,000	15,700	21,286	2,171	700	10,000	31,700	42,980	4,383

Hydraulic Torque wrench was calibrated on TSD 20011-HT Hydraulic Torque Wrench Calibration System having a range of 0 to 20,000 X 2 Lb.Ft. S/N 4041 with an Accuracy 0.1% IV, Uncertainty +/- 2 Lb.Ft. and TSD 10K PSI, 0 to 10,000 X 1 PSI, 0.1% Pressure Standard, Uncertainty +/- 1 PSI. S/N 44818 Systems are traceable to National Institute for Standards and Technology (NIST) through Reference # 822/266926-02.





JN - 40 TORQUE CHART

10,000 P.S.I. & 700 BAR +/- 3%

BAR	P.S.I	FT./LBS	nM	KGF*M
14	200	278	377	39
28	400	556	754	77
41	600	835	1,132	116
55	800	1,113	1,509	154
69	1,000	1,391	1,886	193
83	1,200	1,745	2,366	242
97	1,400	2,100	2,847	291
110	1,600	2,454	3,327	340
124	1,800	2,809	3,808	389
138	2,000	3,163	4,288	438
152	2,200	3,498	4,742	484
165	2,400	3,832	5,196	530
179	2,600	4,167	5,649	577
193	2,800	4,501	6,103	623
207	3,000	4,836	6,557	669
221	3,200	5,164	7,002	715
234	3,400	5,493	7,447	760
248	3,600	5,821	7,892	805
262	3,800	6,150	8,338	851
276	4,000	6,478	8,783	896
490	4,200	6,807	9,230	942
303	4,400	7,137	9,676	987
317	4,600	7,466	10,123	1,033
331	4,800	7,796	10,569	1,078
345	5,000	8,125	11,016	1,124

BAR	P.S.I	FT./LBS	nM	KGF*M
359	5,200	8,454	11,462	1,169
372	5,400	8,783	11,909	1,215
386	5,600	9,113	12,355	1,260
400	5,800	9,442	12,801	1,306
414	6,000	9,771	13,248	1,351
427	6,200	10,093	13,684	1,396
441	6,400	10,415	14,120	1,440
455	6,600	10,736	14,557	1,485
469	6,800	11,058	14,993	1,529
483	7,000	11,380	15,429	1,574
496	7,200	11,712	15,879	1,620
510	7,400	12,044	16,329	1,666
524	7,600	12,376	16,780	1,712
538	7,800	12,708	17,230	1,757
552	8,000	13,040	17,680	1,803
565	8,200	13,369	18,126	1,849
579	8,400	13,699	18,573	1,894
593	8,600	14,028	19,020	1,940
607	8,800	14,358	19,466	1,986
621	9,000	14,687	19,913	2,031
634	9,200	15,012	20,354	2,076
648	9,400	15,337	20,794	2,121
662	9,600	15,662	21,235	2,166
676	9,800	15,987	21,675	2,211
700	10,000	16,312	22,116	2,256

Hydraulic Torque wrench was calibrated on TSD 20011-HT Hydraulic Torque Wrench Calibration System having a range of 0 to 20,000 X 2 Lb.Ft. S/N 4041 with an Accuracy 0.1% IV, Uncertainty +/- 2 Lb.Ft. and TSD 10K PSI, 0 to 10,000 X 1 PSI, 0.1% Pressure Standard, Uncertainty +/- 1 PSI. S/N 44818 Systems are traceable to National Institute for Standards and Technology (NIST) through Reference # 822/266926-02.

