	6159921220	Operator's Manual
	CA155779	Warning Label
	6159921190	Safety Instructions

Tool Number	Model	Tool Number	Model	Tool Number	Model	Tool Number	Model	Tool Number	Model	Part #	Assembly instructions
2LP03-XXX	A	4LP03-XXX	A	8LP03-XXX	A	16LP02-XXX	A	32LP04	A	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Use Grease Molykote GN or GN plus
2LP04-XXX	A	4LP04-XXX	A	8LP04-XXX	A	16LP05-XXX	A	32LP07	A	13, 16, 17, 18,	Use Loctite 242
2LP05-XXX	A	4LP05-XXX	A	8LP05-XXX	A	16LP06-XXX	A	32LP10	A	16 Top Spacer Screw	LP2 : 6 Nm (4 ft.lb) LP4/LP8/LP16/LP32 : 11 Nm (8 ft.lb)
2LP06-XXX	A	4LP06-XXX	A	8LP06-XXX	A	16LP07-XXX	A	32LP12	A	18 Small Shroud Screw	LP2 : 2 Nm (1,25 ft.lb) LP4 : 3 Nm (2 ft.lb) LP8/LP16/LP32 : 5 Nm (3,3 ft.lb)
2LP07-XXX	A	4LP07-XXX	A	8LP07-XXX	A	16LP08-XXX	A			13 Link Locator Screw	LP2 : 11 Nm (8 ft.lb) LP4 : 21 Nm (15 ft.lb) LP8/LP16 : 51 N.m (38 ft.lb) LP32 : 181 Nm (133 ft.lb)
2LP08-XXX	A	4LP08-XXX	A	8LP08-XXX	A	16LP09-XXX	A				
2LP09-XXX	A	4LP09-XXX	A	8LP09-XXX	A	16LP10-XXX	A				
2LP10-XXX	A	4LP10-XXX	A	8LP10-XXX	A	16LP11-XXX	A				
		4LP11-XXX	A	8LP11-XXX	A	16LP12-XXX	A				
				8LP12-XXX	A						
				8LP13-XXX	A						
				8LP14-XXX	A						
				8LP15-XXX	B						

Imperial size ratchets TL\*L-01\*\*-XYZ :  
 \*: Cylinder size  
 \*\*: Link plate size  
 Ratchet size " = X x 1" + YZ x 1/16 "

Metric size ratchets TL\*L-01\*\*-XYZMM :  
 \*: Cylinder size  
 \*\*: Link plate size  
 Ratchet size mm = XYZ mm

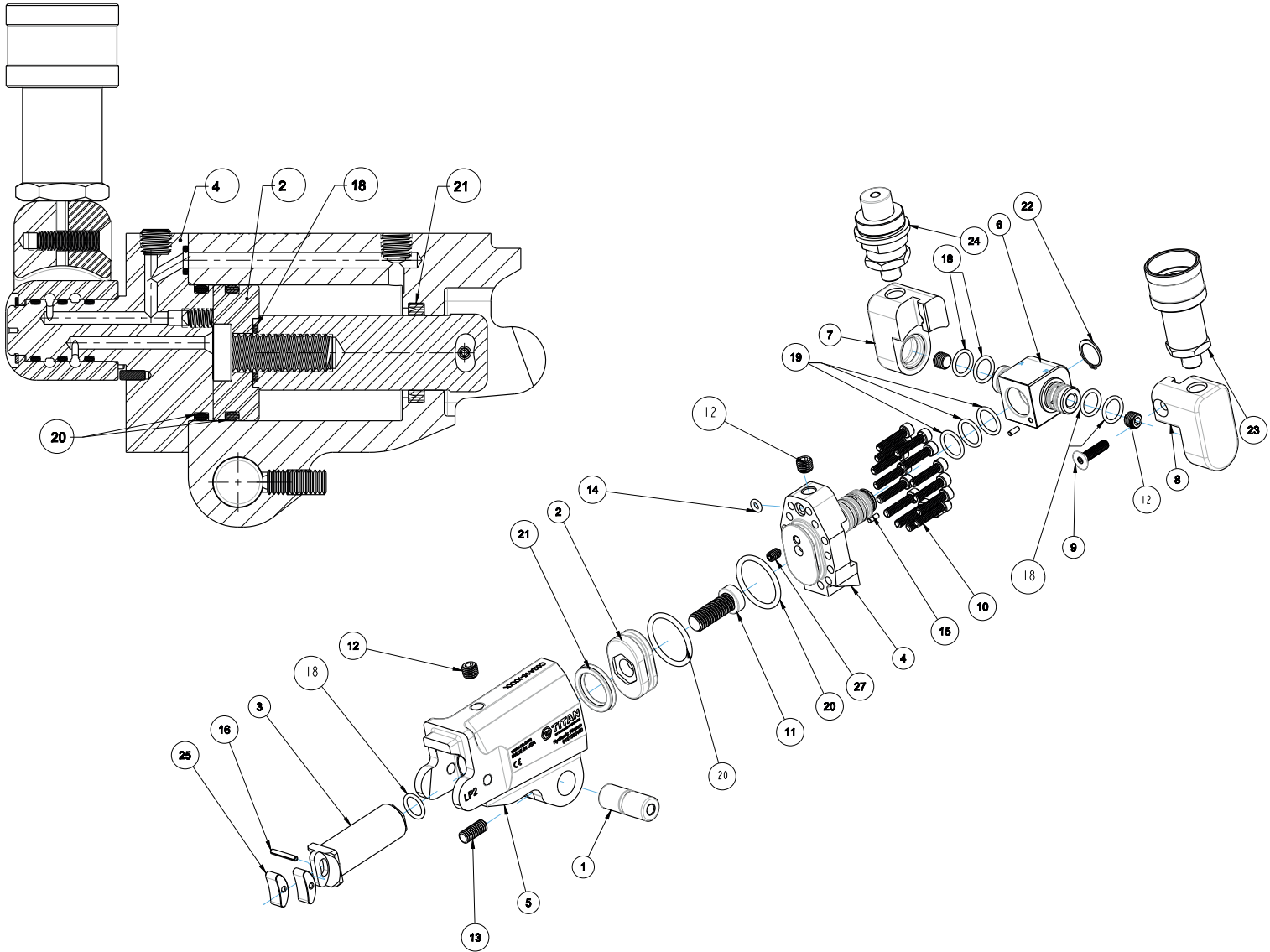
ITEM	Component	LP 2		LP 4		LP 8		LP 16		LP 32	
		Description	PART N°	Description	PART N°	Description	PART N°	Description	PART N°	Description	PART N°
1	Ratchet										
		TL2L-01-03-012	6152310925	TL4L-01-03-100	6152310515	TL8L-01-03-113	6152310075	TL16L-01-02-206	6152312215	TL32L-01-04-115MM	6152310435
		TL2L-01-03-013	6152310935	TL4L-01-03-101	6152311155	TL8L-01-03-200	6152310105	TL16L-01-02-208	6152312225	TL32L-01-04-314	6152311765
		TL2L-01-03-014	6152310335	TL4L-01-03-102	6152311165	TL8L-01-03-48MM	6152311405	TL16L-01-02-209	6152312235	TL32L-01-04-315	6152311775
		TL2L-01-03-015	6152310345	TL4L-01-03-103	6152311175	TL8L-01-03-50MM	6152310695	TL16L-01-02-210	6152312245	TL32L-01-04-400	6152311785
		TL2L-01-03-100	6152310355	TL4L-01-03-104	6152310525	TL8L-01-03-51MM	6152312665	TL16L-01-02-211	6152312255	TL32L-01-04-402	6152311795
		TL2L-01-03-101	6152313365	TL4L-01-03-104-12PT	6152313475	TL8L-01-04-201	6152311415	TL16L-01-02-67MM	6152312705	TL32L-01-04-404	6152310195
		TL2L-01-03-102	6152313375	TL4L-01-03-105	6152311185	TL8L-01-04-202	6152311435	TL16L-01-05-212	6152312265	TL32L-01-04-406-111MM	6152313405
		TL2L-01-04-103	6152310945	TL4L-01-03-106	6152311205	TL8L-01-04-53MM	6152311425	TL16L-01-05-213	6152312275	TL32L-01-04-408	6152311805
		TL2L-01-04-104	6152310955	TL4L-01-03-107	6152310535	TL8L-01-04-55MM	6152310605	TL16L-01-05-214	6152312285	TL32L-01-04-409	6152311815
		TL2L-01-04-32MM	6152312745	TL4L-01-03-34MM	6152311195	TL8L-01-05-203	6152311445	TL16L-01-05-215	6152310235	TL32L-01-04-410	6152310085
		TL2L-01-05-105	6152310365	TL4L-01-03-36MM	6152310545	TL8L-01-05-204	6152311455	TL16L-01-05-300	6152312295	TL32L-01-07-120MM	6152312545
		TL2L-01-05-106	6152310725	TL4L-01-03-37MM	6152312605	TL8L-01-05-205	6152311465	TL16L-01-05-301	6152312305	TL32L-01-07-411	6152311825
		TL2L-01-05-107	6152310975	TL4L-01-04-108	6152310405	TL8L-01-05-56MM	6152312675	TL16L-01-05-302	6152312315	TL32L-01-07-412	6152311855
		TL2L-01-05-36MM	6152310965	TL4L-01-04-109	6152310735	TL8L-01-05-59MM	6152312685	TL16L-01-05-303	6152312325	TL32L-01-07-413	6152311865
		TL2L-01-05-37MM	6152312555	TL4L-01-04-110	6152311215	TL8L-01-06-206	6152310445	TL16L-01-05-304	6152312335	TL32L-01-07-414	6152311875
		TL2L-01-06-108	6152310055	TL4L-01-04-40MM	6152312615	TL8L-01-06-207	6152311485	TL16L-01-05-80MM	6152310785	TL32L-01-07-415	6152311885
		TL2L-01-06-109	6152310985	TL4L-01-05-111	6152310415	TL8L-01-06-208	6152311495	TL16L-01-06-305	6152312345	TL32L-01-07-500	6152310015
		TL2L-01-06-110	6152310995	TL4L-01-05-112	6152310555	TL8L-01-07-209	6152311505	TL16L-01-06-306	6152312355	TL32L-01-07-501	6152311895
		TL2L-01-06-40MM	6152312565	TL4L-01-05-113	6152311235	TL8L-01-07-210	6152310825	TL16L-01-06-307	6152312365	TL32L-01-10-140MM	6152311945
		TL2L-01-06-42MM	6152311005	TL4L-01-05-42MM	6152310565	TL8L-01-07-211	6152311515	TL16L-01-06-308	6152312375	TL32L-01-10-502	6152311905
		TL2L-01-07-111	6152311015	TL4L-01-05-45MM	6152311225	TL8L-01-07-67MM	6152312695	TL16L-01-06-85MM	6152310495	TL32L-01-10-503	6152311915
		TL2L-01-07-112	6152310145	TL4L-01-06-114	6152310425	TL8L-01-08-212	6152310115	TL16L-01-07-309	6152310505	TL32L-01-10-504	6152310285
		TL2L-01-07-113	6152311035	TL4L-01-06-115	6152311255	TL8L-01-08-213	6152311535	TL16L-01-07-310	6152312385	TL32L-01-10-505	6152311925
		TL2L-01-07-45MM	6152311025	TL4L-01-06-200	6152311265	TL8L-01-08-214	6152311545	TL16L-01-07-311	6152312395	TL32L-01-10-506	6152310095
		TL2L-01-07-113-46MM-12PT	6152313345	TL4L-01-06-48MM	6152311245	TL8L-01-08-215	6152311555	TL16L-01-07-312	6152312405	TL32L-01-10-508	6152311935
		TL2L-01-08-114	6152311045	TL4L-01-06-50MM	6152310575	TL8L-01-09-215	6152310185	TL16L-01-08-312	6152312715	TL32L-01-12-145MM	6152311955
		TL2L-01-08-115	6152310375	TL4L-01-06-51MM	6152312625	TL8L-01-09-300	6152310265	TL16L-01-08-313	6152312415	TL32L-01-12-155MM	6152312015
		TL2L-01-08-200	6152311075	TL4L-01-07-201	6152310585	TL8L-01-09-301	6152310275	TL16L-01-08-314	6152312425	TL32L-01-12-160MM	6152312035
		TL2L-01-08-200-12PT	6152313235	TL4L-01-07-202	6152311285	TL8L-01-09-302	6152311575	TL16L-01-09-102MM	6152312445	TL32L-01-12-512	6152311965
		TL2L-01-08-48MM	6152311055	TL4L-01-07-203	6152311305	TL8L-01-09-77MM	6152311565	TL16L-01-09-315	6152310245	TL32L-01-12-513	6152311975
		TL2L-01-08-50MM	6152311065	TL4L-01-07-53MM	6152311275	TL8L-01-10-303	6152310835	TL16L-01-09-400	6152312435	TL32L-01-12-514	6152311985
		TL2L-01-08-51MM	6152312575	TL4L-01-07-55MM	6152311295	TL8L-01-10-304	6152310795	TL16L-01-09-402	6152312455	TL32L-01-12-515	6152311995
		TL2L-01-09-201	6152310385	TL4L-01-07-55MM-12PT	6152313355	TL8L-01-10-305	6152310705	TL16L-01-10-404	6152312465	TL32L-01-12-600	6152310295
		TL2L-01-09-202	6152311085	TL4L-01-07-56MM	6152312635	TL8L-01-10-306	6152310455	TL16L-01-11-110MM	6152312725	TL32L-01-12-601	6152312005
		TL2L-01-09-203	6152311105	TL4L-01-08-204	6152311315	TL8L-01-10-80MM	6152310475	TL16L-01-11-115MM	6152312495	TL32L-01-12-602	6152312025
		TL2L-01-09-55MM	6152311095	TL4L-01-08-205	6152310625	TL8L-01-10-85MM	6152311585	TL16L-01-11-404	6152312475		
		TL2L-01-09-56MM	6152312585	TL4L-01-08-206	6152311335	TL8L-01-11-307	6152311595	TL16L-01-11-405	6152310065		
		TL2L-01-10-204	6152311115	TL4L-01-08-210	6152312755	TL8L-01-11-308	6152311605	TL16L-01-11-408	6152310395		
		TL2L-01-10-205	6152311135	TL4L-01-08-58MM	6152311325	TL8L-01-12-309	6152311615	TL16L-01-12-118MM	6152312515		
		TL2L-01-10-206	6152311145	TL4L-01-08-59MM	6152312645	TL8L-01-12-310	6152310615	TL16L-01-12-408	6152312485		
		TL2L-01-10-58MM	6152311125	TL4L-01-08-60MM-12PT	6152313325	TL8L-01-12-311	6152311625	TL16L-01-12-410	6152312505		
		TL2L-01-10-59MM	6152312595	TL4L-01-09-207	6152310635	TL8L-01-13-312	6152311635	TL16L-01-12-411	6152312525		
				TL4L-01-09-208	6152310595	TL8L-01-13-313	6152311645				
				TL4L-01-09-209	6152311355	TL8L-01-13-314	6152311655				
				TL4L-01-09-64MM	6152311345	TL8L-01-14-102MM	6152311685				
				TL4L-01-10-210	6152310165	TL8L-01-14-315	6152311665				
				TL4L-01-10-211	6152311365	TL8L-01-14-400	6152311675				
				TL4L-01-10-212	6152311375	TL8L-01-14-401	6152311695				
				TL4L-01-10-67MM	6152312655	TL8L-01-14-402	6152310855				
				TL4L-01-11-213	6152310645	TL8L-01-15-115MM	6152310865				
				TL4L-01-11-214	6152311385	TL8L-01-15-403	6152311705				
				TL4L-01-11-215	6152311395	TL8L-01-15-404	6152311715				
				TL4L-01-11-75MM-12PT	6152313335	TL8L-01-15-405	6152311725				
				TL4L-01-12-300	6152310655	TL8L-01-15-406	6152311735				
				TL4L-01-12-301	6152310665	TL8L-01-15-407	6152311745				
				TL4L-01-12-302	6152310675	TL8L-01-15-408	6152311755				
				TL4L-01-12-80MM	6152310155						


Imperial size ratchets TL\*L-01\*\*-XYZ :  
 \* : Cylinder size  
 \*\*: Link plate size  
 Ratchet size " = X x 1" + YZ x 1/16 "

Metric size ratchets TL\*L-01\*\*-XYZMM :  
 \* : Cylinder size  
 \*\*: Link plate size  
 Ratchet size mm = XYZ mm

ITEM	Component	LP 2			LP 4			LP 8			LP 16			LP 32		
		Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY
2	Drive Pawl	TL2L-02-03	6158126025	1	TL4L-02-03	6158126265	1	TL8L-02-03	6158126565	1	TL16L-02-02	6158126955	1	TL32L-02-04	6158127225	1
		TL2L-02-04	6158126035	1	TL4L-02-04	6158126275	1	TL8L-02-04	6158126575	1	TL16L-02-05	6158126965	1	TL32L-02-07	6158127235	1
		TL2L-02-05	6158126045	1	TL4L-02-05	6158126285	1	TL8L-02-05	6158126585	1	TL16L-02-06	6158126975	1	TL32L-02-10	6158127245	1
		TL2L-02-06	6158126055	1	TL4L-02-06	6158126295	1	TL8L-02-06	6158126595	1	TL16L-02-07	6158126985	1	TL32L-02-12	6158127255	1
		TL2L-02-07	6158126065	1	TL4L-02-07	6158126305	1	TL8L-02-07	6158126605	1	TL16L-02-08	6158126995	1			
		TL2L-02-08	6158126075	1	TL4L-02-08	6158126315	1	TL8L-02-08	6158126615	1	TL16L-02-09	6158127005	1			
		TL2L-02-09	6158126085	1	TL4L-02-09	6158126325	1	TL8L-02-09	6158126625	1	TL16L-02-10	6158127015	1			
		TL2L-02-10	6158126095	1	TL4L-02-10	6158126335	1	TL8L-02-10	6158126635	1	TL16L-02-11	6158127025	1			
					TL4L-02-11	6158126345	1	TL8L-02-11	6158126645	1	TL16L-02-12	6158127035	1			
					TL4L-02-12	6158126355	1	TL8L-02-12	6158126655	1						
								TL8L-02-13	6158126665	1						
								TL8L-02-14	6158126675	1						
								TL8L-02-15	6158126685	1						
3	Drive Block	TL2L-03-XX			TL4L-03-XX			TL8L-03-XX			TL16L-03-XX			TL32L-03-XX		
		TL2L-03-03	6158126105	1	TL4L-03-03	6158126365	1	TL8L-03-03	6158126695	1	TL16L-03-02	6158127045	1	TL32L-03-04	6158127265	1
		TL2L-03-04	6158126115	1	TL4L-03-04	6158126375	1	TL8L-03-04	6158126705	1	TL16L-03-05	6158127055	1	TL32L-03-07	6158127275	1
		TL2L-03-05	6158126125	1	TL4L-03-05	6158126385	1	TL8L-03-05	6158126715	1	TL16L-03-06	6158127065	1	TL32L-03-10	6158127285	1
		TL2L-03-06	6158126135	1	TL4L-03-06	6158126395	1	TL8L-03-06	6158126725	1	TL16L-03-07	6158127075	1	TL32L-03-12	6158127295	1
		TL2L-03-07	6158126145	1	TL4L-03-07	6158126405	1	TL8L-03-07	6158126735	1	TL16L-03-08	6158127085	1			
		TL2L-03-08	6158126155	1	TL4L-03-08	6158126415	1	TL8L-03-08	6158126745	1	TL16L-03-09	6158127095	1			
		TL2L-03-09	6158126165	1	TL4L-03-09	6158126425	1	TL8L-03-09	6158126755	1	TL16L-03-10	6158127105	1			
		TL2L-03-10	6158126175	1	TL4L-03-10	6158126435	1	TL8L-03-10	6158126765	1	TL16L-03-11	6158127115	1			
					TL4L-03-11	6158126445	1	TL8L-03-11	6158126775	1	TL16L-03-12	6158127125	1			
					TL4L-03-12	6158126455	1	TL8L-03-12	6158126785	1						
								TL8L-03-13	6158126795	1						
								TL8L-03-14	6158126805	1						
								TL8L-03-15	6158126815	1						
4	Right Link Plate Assembly (Incl. Part #8)	TL2L-04-XX-1X			TL4L-04-XX-1X			TL8L-04-XX-1X			TL16L-04-XX-1X			TL32L-04-XX-1X		
		TL2L-04-04-1X	6155655815	1	TL4L-04-03-1X	6155655975	1	TL8L-04-03-1X	6155656175	1	TL16L-04-02-1X	6155656435	1	TL32L-04-04-1X	6155656615	1
		TL2L-04-04-1X	6155655825	1	TL4L-04-04-1X	6155655985	1	TL8L-04-04-1X	6155656185	1	TL16L-04-05-1X	6155656445	1	TL32L-04-07-1X	6155656625	1
		TL2L-04-05-1X	6155655835	1	TL4L-04-05-1X	6155655995	1	TL8L-04-05-1X	6155656195	1	TL16L-04-06-1X	6155656455	1	TL32L-04-10-1X	6155656635	1
		TL2L-04-06-1X	6155655845	1	TL4L-04-06-1X	6155656005	1	TL8L-04-06-1X	6155656205	1	TL16L-04-07-1X	6155656465	1	TL32L-04-12-1X	6155656645	1
		TL2L-04-07-1X	6155655855	1	TL4L-04-07-1X	6155656015	1	TL8L-04-07-1X	6155656215	1	TL16L-04-08-1X	6155656475	1			
		TL2L-04-08-1X	6155655865	1	TL4L-04-08-1X	6155656025	1	TL8L-04-08-1X	6155656225	1	TL16L-04-09-1X	6155656485	1			
		TL2L-04-09-1X	6155655875	1	TL4L-04-09-1X	6155656035	1	TL8L-04-09-1X	6155656235	1	TL16L-04-10-1X	6155656495	1			
		TL2L-04-10-1X	6155655885	1	TL4L-04-10-1X	6155656045	1	TL8L-04-10-1X	6155656245	1	TL16L-04-11-1X	6155656505	1			
					TL4L-04-11-1X	6155656055	1	TL8L-04-11-1X	6155656255	1	TL16L-04-12-1X	6155656515	1			
					TL4L-04-12-1X	6155656065	1	TL8L-04-12-1X	6155656265	1						
								TL8L-04-13-1X	6155656275	1						
								TL8L-04-14-1X	6155656285	1						
								TL8L-04-15-1X	6155656295	1						
5	Left Link Plate Assembly (Incl. Part #8)	TL2L-04-XX-2X		1	TL4L-04-XX-2X		1	TL8L-04-XX-2X		1	TL16L-04-XX-2X		1	TL32L-04-XX-2X		1
		TL2L-04-03-2X	6155655895		TL4L-04-03-2X	6155656075		TL8L-04-03-2X	6155656305		TL16L-04-02-2X	6155656520		TL32L-04-04-2X	6155656650	
		TL2L-04-04-2X	6155655905		TL4L-04-04-2X	6155656085		TL8L-04-04-2X	6155656315		TL16L-04-05-2X	6155656530		TL32L-04-07-2X	6155656660	
		TL2L-04-05-2X	6155655915		TL4L-04-05-2X	6155656095		TL8L-04-05-2X	6155656325		TL16L-04-06-2X	6155656540		TL32L-04-10-2X	6155656670	
		TL2L-04-06-2X	6155655925		TL4L-04-06-2X	6155656105		TL8L-04-06-2X	6155656335		TL16L-04-07-2X	6155656550		TL32L-04-12-2X	6155656680	
		TL2L-04-07-2X	6155655935		TL4L-04-07-2X	6155656115		TL8L-04-07-2X	6155656345		TL16L-04-08-2X	6155656560				
		TL2L-04-08-2X	6155655945		TL4L-04-08-2X	6155656125		TL8L-04-08-2X	6155656355		TL16L-04-09-2X	6155656570				
		TL2L-04-09-2X	6155655955		TL4L-04-09-2X	6155656135		TL8L-04-09-2X	6155656365		TL16L-04-10-2X	6155656580				
		TL2L-04-10-2X	6155655965		TL4L-04-10-2X	6155656145		TL8L-04-10-2X	6155656375		TL16L-04-11-2X	6155656590				
					TL4L-04-11-2X	6155656155		TL8L-04-11-2X	6155656385		TL16L-04-12-2X	6155656600				
					TL4L-04-12-2X	6155656165		TL8L-04-12-2X	6155656395							
								TL8L-04-13-2X	6155656405							
								TL8L-04-14-2X	6155656415							
								TL8L-04-15-2X	6155656425							

ITEM	Component	LP 2			LP 4			LP 8			LP 16			LP 32			
		Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY	Description	PART N°	QTY	
6	Reaction Pawl	TL2L-05-XX		1	TL4L-05-XX		1	TL8L-05-XX		1	TL16L-05-XX		1	TL32L-05-XX			
		TL2L-05-03	6158126185		TL4L-05-03	6158126465		TL8L-05-03	6158126825		TL16L-05-02	6158127135		TL32L-05-04	6158127305		
		TL2L-05-04	6158126195		TL4L-05-04	6158126475		TL8L-05-04	6158126835		TL16L-05-05	6158127145		TL32L-05-07	6158127315		
		TL2L-05-05	6158126205		TL4L-05-05	6158126485		TL8L-05-05	6158126845		TL16L-05-06	6158127155		TL32L-05-10	6158127325		
		TL2L-05-06	6158126215		TL4L-05-06	6158126495		TL8L-05-06	6158126855		TL16L-05-07	6158127165		TL32L-05-12	6158127335		
		TL2L-05-07	6158126225		TL4L-05-07	6158126505		TL8L-05-07	6158126865		TL16L-05-08	6158127175					
		TL2L-05-08	6158126235		TL4L-05-08	6158126515		TL8L-05-08	6158126875		TL16L-05-09	6158127185					
		TL2L-05-09	6158126245		TL4L-05-09	6158126525		TL8L-05-09	6158126885		TL16L-05-10	6158127195					
		TL2L-05-10	6158126255		TL4L-05-10	6158126535		TL8L-05-10	6158126895		TL16L-05-11	6158127205					
					TL4L-05-11	6158126545		TL8L-05-11	6158126905		TL16L-05-12	6158127215					
			TL4L-05-12	6158126555		TL8L-05-12	6158126915										
						TL8L-05-13	6158126925										
						TL8L-05-14	6158126935										
						TL8L-05-15	6158130665										
7	Top Spacer	TL2L-06	6158125025	1	TL4L-06	6158125035	1	TL8L-06	6158125045	1	TL16L-06	6158125055	1	TL32L-06	6158125065	1	
8	Drive Bushing	TL2L-07-XX		2	TL4L-07-XX		2	TL8L-07-XX		2	TL16L-07-XX		2	TL32L-07-XX		2	
		TL2L-07-03	6155771025		TL4L-07-03	6155771125			6155771235		TL16L-07-02	6155771365		TL32L-07-04	6155771465	2	
		TL2L-07-04	6155771035		TL4L-07-04	6155771135		TL8L-05-15	6155771245	6158130665		TL16L-07-05	6155771375		TL32L-07-07	6155771485	2
		TL2L-07-05	6155771045		TL4L-07-05	6155771145		TL8L-07-05	6155771255		TL16L-07-06	6155771385		TL32L-07-10	6155771495	2	
		TL2L-07-06	6155771055		TL4L-07-06	6155771155		TL8L-07-06	6155771265		TL16L-07-07	6155771395		TL32L-07-12	6155771505	2	
		TL2L-07-07	6155771065		TL4L-07-07	6155771165		TL8L-07-07	6155771275		TL16L-07-08	6155771405					
		TL2L-07-08	6155771075		TL4L-07-08	6155771175		TL8L-07-08	6155771285		TL16L-07-09	6155771415					
		TL2L-07-09	6155771085		TL4L-07-09	6155771185		TL8L-07-09	6155771295		TL16L-07-10	6155771425					
		TL2L-07-10	6155771095		TL4L-07-10	6155771195		TL8L-07-10	6155771305		TL16L-07-11	6155771435					
					TL4L-07-11	6155771205		TL8L-07-11	6155771315		TL16L-07-12	6155771445					
			TL4L-07-12	6155771215		TL8L-07-12	6155771325										
						TL8L-07-13	6155771335										
						TL8L-07-14	6155771345										
						TL8L-07-15	6155771515										
9	Link Locator Pin	TL2L-08	6153111145	3	TL4L-08	6153111155	3	TL8L-08	6153111165	3	TL16L-08	6153111175	3	TL32L-08	6153111185	3	
10	Reaction Spacer	TL2L-10	6158124975	1	TL4L-10	6158124985	1	TL8L-10	6158124995	1	TL16L-10	6158125005	1	TL32L-10	6158125015	1	
11	Shroud	TL2L-11-XX			TL4L-11-XX			TL8L-11-XX			TL16L-11-XX			TL32L-11-XX			
		TL2L-11-03	6155733095	1	TL4L-11-03	6155732975	1	TL8L-11-03	6155733295	1	TL16L-11-02	6155733205	1	TL32L-11-04	6155733420	1	
		TL2L-11-04	6155733105	1	TL4L-11-04	6155732985	1	TL8L-11-04	6155733305	1	TL16L-11-05	6155733215	1	TL32L-11-07	6155733430	1	
		TL2L-11-05	6155733115	1	TL4L-11-05	6155732995	1	TL8L-11-05	6155733315	1	TL16L-11-06	6155733225	1	TL32L-11-10	6155733440	1	
		TL2L-11-06	6155733125	1	TL4L-11-06	6155733005	1	TL8L-11-06	6155733325	1	TL16L-11-07	6155733235	1	TL32L-11-12	6155733450	1	
		TL2L-11-07	6155733135	1	TL4L-11-07	6155733015	1	TL8L-11-07	6155733335	1	TL16L-11-08	6155733245	1				
		TL2L-11-08	6155733145	1	TL4L-11-08	6155733025	1	TL8L-11-08	6155733345	1	TL16L-11-09	6155733255	1				
		TL2L-11-09	6155733155	1	TL4L-11-09	6155733035	1	TL8L-11-09	6155733355	1	TL16L-11-10	6155733265	1				
		TL2L-11-10	6155733165	1	TL4L-11-10	6155733045	1	TL8L-11-10	6155733365	1	TL16L-11-11	6155733275	1				
					TL4L-11-11	6155733055	1	TL8L-11-11	6155733375	1	TL16L-11-12	6155733285	1				
			TL4L-11-12	6155733065	1	TL8L-11-12	6155733385	1									
						TL8L-11-13	6155733395	1									
						TL8L-11-14	6155733405	1									
						TL8L-11-15	6155733415	1									
12	Retract Spring	TL2L-12	6156901385	1	TL4L-12	6156901455	1	TL8L-12	6156901485	1	TL16L-12	6156901355	1	TL32L-12	6156901415	1	
13	Link Locator Screw	TL2L-20	6156102245	6	TL4L-20	6156102305	6	TL8L-20	6156102345	6	TL16L-20	6156102235	6	TL32L-20	6156102275	6	
14	Top Spacer Roll Pin	TL2L-21	6156350945	1	TL4L-21	6156350975	1	TL8L-21	6156350985	1	TL16L-21	6156350885	1	TL32L-21	6156350955	1	
15	Retract Spring Roll Pin	TL2C-21	6156350935	2	TL4C-21	6156350965	2	T10-40	6156351005	2	TL16C-21	6156350875	2	TL32C-21	6156350895	2	
16	Top Spacer Screw	TL2L-22	6156102255	2	TL4/8L-22	6156102145	2	TL4/8L-22	6156102145	2	TL16C-22	6156102095	2	TL32L-22	6156102135	2	
17	Large Shroud Screw	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	
18	Small Shroud Screw	TL2L-24	6156102265	2	TL4L-24	6156102315	2	TL8/32L-24	6156102155	2	TL8/32L-24	6156102155	2	TL8/32L-24	6156102155	2	
19	Drive Pawl Spring	TL2L-25	6156901395	1	TL4/8L-25	6156901445	2	TL4/8L-25	6156901445	2	TL16L-25	6156901365	2				
20	Reaction Pawl Spring	TL2L-26	6156901405	1	TL8L-26	6156901475	1	TL8L-26	6156901495	1	TL16L-26	6156901375	1	TL32L-26	6156901435	1	
	MK-LPXL Kit	MK-LP2L	6153992395		MK-LP4L	6153992405		MK-LP8L	6153992415		MK-LP16L	6153992425		MK-LP32L	6153992435		
12	Retract Spring	TL2L-12	6156901385	1	TL4L-12	6156901455	1	TL8L-12	6156901485	1	TL16L-12	6156901355	1	TL32L-12	6156901415	1	
13	Link Locator Screw	TL2L-20	6156102245	6	TL4L-20	6156102285	6	TL8L-20	6156102345	6	TL16L-20	6156102235	6	TL32L-20	6156102275	6	
14	Top Spacer Roll Pin	TL2L-21	6156350945	1	TL4L-21	6156350975	1	TL8L-21	6156350985	1	TL16L-21	6156350885	1	TL32L-21	6156350955	1	
15	Retract Spring Roll Pin	TL2C-21	6156350935	2	TL4C-21	6156350965	2	T10-40	6156351005	2	TL16C-21	6156350875	2	TL32C-21	6156350895	2	
16	Top Spacer Screw	TL2L-22	6156102255	2	TL4/8L-22	6156102145	2	TL4/8L-22	6156102145	2	TL16L-22	6156102095	2	TL32L-22	6156102135	2	
17	Large Shroud Screw	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	TL2/32L-23	6156102105	1	
18	Small Shroud Screw	TL2L-24	6156102265	2	TL4L-24	6156102315	2	TL8/32L-24	6156102155	2	TL8/32L-24	6156102155	2	TL8/32L-24	6156102155	2	
19	Drive Pawl Spring	TL2L-25*	6156901395	1	TL4/8L-25	6156901445	2	TL4/8L-25	6156901445	2	TL16L-25	6156901365	2	TL32L-25	6156901425	2	
20	Reaction Pawl Spring	TL2L-26	6156901405	1	TL4L-26	6156901475	1	TL8L-26	6156901495	1	TL16L-26	6156901375	1	TL32L-26	6156901435	1	



	6159921220	Operator's Manual
	6158728550	Warning Label
	6159921190	Safety Instructions

Assembly instructions		
25	Moon Bushing	Use Molykote GN or GN Plus
	All o-rings & seals	Use Lithium grease Thermo Gel TG40750
11	Piston screw	LP2 : Tighten at 35 Nm (26 lb.ft) + use Loctite 242
10	End Cap	LP2 : Tighten at 6 Nm ( 4.5 lb.ft) + use Loctite 242
9	Swivel screw	Tighten at 2 Nm (1.5 lb.ft) + use Loctite 242
23, 24	Retract & Actuate Manifold	Use Teflon tape or paste Tighten at 20-25 Nm (15-18 lb.ft)

Assembly tooling		PART N°
3RD Groove Swivel post o-ring assembly LP2, T1	TOOL-T1-70-3	6158125125
2ND groove assembly T3/T25 swivel body o-ring assy	TOOL-T3-71-2	6158125145

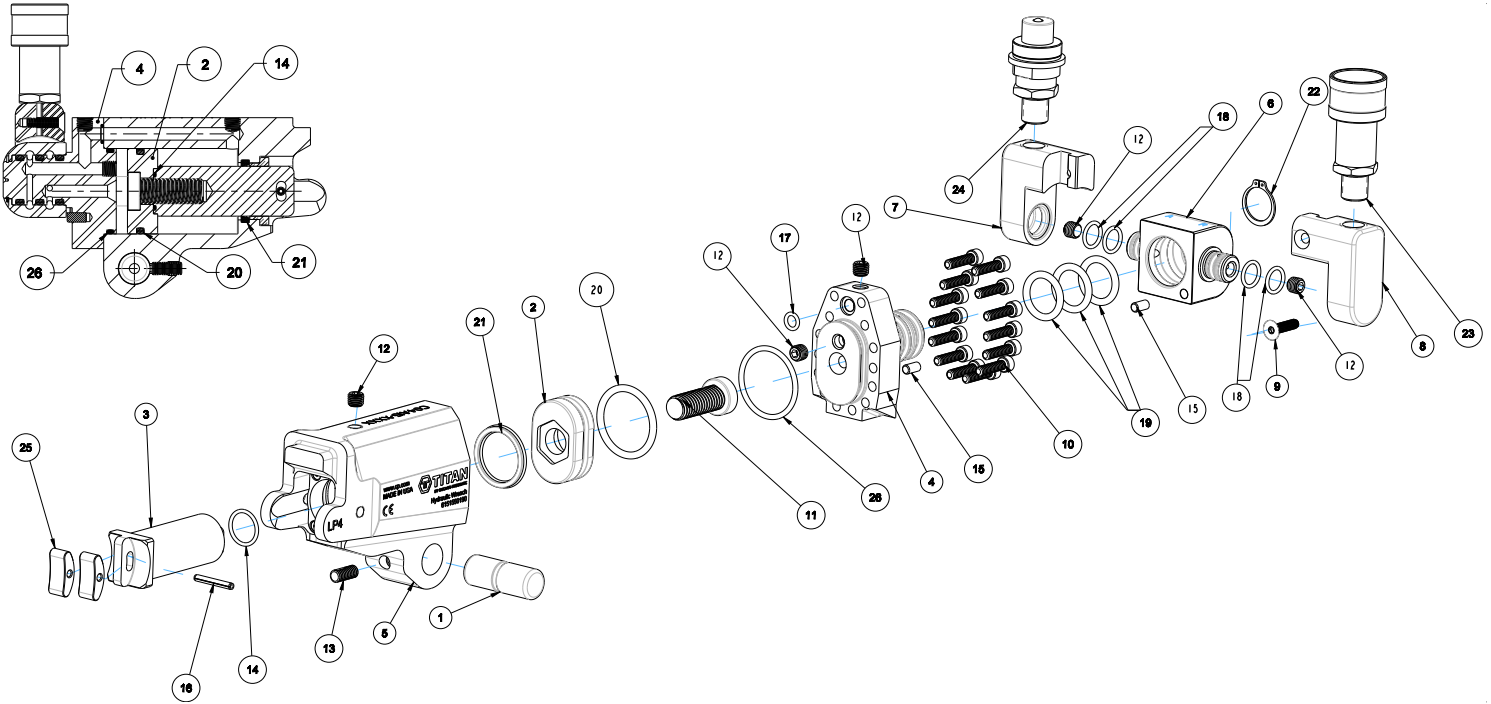



**TITAN**  
BY CHICAGO PNEUMATIC

**HYDRAULIC WRENCH CYLINDERS  
LP2**

		<b>LP2 CYLINDER</b>		
<i>ITEM</i>	<i>COMPONENT</i>	<i>DESCRIPTION</i>	<i>PART N°</i>	<i>QTY</i>
1	Mating Pin	TL2C-05	6153111195	1
2	Piston	TL2C-06	6153111245	1
3	Piston Rod	TL2C-07	6153111285	1
11	Piston To Rod Connector Screw	TL2C-25	6156102125	1
Not shown	Case		6159958025	
<b>A</b>	<b>Housing Assembly Kit</b>	<b>TL2C-01K</b>	<b>6155655325</b>	<b>1</b>
5	Housing Assembly	TL2C-01		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
21	Rod Lip Seal	TL2C-01-N1		1
<b>B</b>	<b>Moon Bushing Kit</b>	<b>TL2C-04A</b>	<b>6153990295</b>	
16	Moon Bushing Roll Pin	TL2C-21		1
25	Moon Bushing	TL2C-04		2
<b>C</b>	<b>Swivel Kit</b>	<b>TL2C-03AA</b>	<b>6153990345</b>	
<b>C1</b>	<b>Top Swivel Kit</b>	<b>T1-71A</b>	<b>6153990175</b>	
6	Swivel Body	T1-71		1
7	Actuate Manifold	T1-72	6155655420	1
8	Retract Manifold	T1-73	6155655430	1
9	Swivel Manifold Screw	T1/50-76		1
15	Swivel Dowel Pin	T1-81		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		2
18	Swivel Body O-Ring	T1/25-71-013		4
22	Swivel Snap Ring	T1-74	6156870945	1
23	Retract Manifold Qd	090156-1	6157040325	1
24	Actuate Manifold Qd	090155-1	6157040365	1
<b>C2</b>	<b>Bottom Swivel Kit</b>	<b>TL2C-03A</b>	<b>6153990405</b>	
4	End Cap/Swivel Post	TL2C-03		1
10	End Cap Screw	TL2C-20		14
12	Hex Plug (Teflon Coated)	T1/25-80TC		1
15	Swivel Dowel Pin	T1-81		1
14	Return Port O-Ring	TL2C-03-007		1
19	Swivel Post O-Ring	T1-70-014		3
20	Piston/ End Cap O-Ring	T3/25-70-120		1
27	Pressure Plug	TL2C-23		1
<b>D</b>	<b>Swivel Seal Kit</b>	<b>LP2-00</b>	<b>6153990435</b>	
14	Return Port O-Ring	TL2C-03-007		1
18	Swivel Body O-Ring	T1/25-71-013		4
19	Swivel Post O-Ring	T1-70-014		3
20	Piston/ End Cap O-Ring	T3/25-70-120		1
22	Swivel Snap Ring	T1-74	6156870945	1
<b>E</b>	<b>Lp Housing Seal Kit</b>	<b>LP2-62A</b>	<b>6153990465</b>	
14	Return Port O-Ring	TL2C-03-007		1
18	Rod To Piston O-Ring	T1/25-71-013		1
20	Piston O-Ring	T3/25-70-120		2
21	Rod Lip Seal	TL2C-01-N1		1
<b>F</b>	<b>Small Part Kit</b>	<b>TL2C-21A</b>	<b>6153608095</b>	
10	End Cap Screw	TL2C-20		14
12	Hex Plug (Teflon Coated)	T1/25-80TC		5
15	Swivel Dowel Pin	T1-81		1
16	Moon Bushing Roll Pin	TL2C-21		1
22	Swivel Snap Ring	T1-74	6156870945	1
27	Pressure Plug	TL2C-23		1
<b>G</b>	<b>Mk-Lp2 Cylinder Kit</b>	<b>MK-LP2C</b>	<b>6153992345</b>	
1	Mating Pin	TL2C-05	6153111195	1
10	End Cap Screw	TL2C-20		14
11	Piston To Rod Connector Screw	TL2C-25	6156102125	1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
16	Moon Bushing Roll Pin	TL2C-21		1
14	Return Port O-Ring	TL2C-03-007		1
18	Swivel Body O-Ring	T1/25-71-013		5
19	Swivel Post O-Ring	T1-70-014		3
20	Piston/ End Cap O-Ring	T3/25-70-120		2
21	Rod Lip Seal	TL2C-01-N1		1
22	Swivel Snap Ring	T1-74	6156870945	1
23	Retract Manifold Qd	090156-1	6157040325	1
24	Actuate Manifold Qd	090155-1	6157040365	1
25	Moon Bushing	TL2C-04		2

Spare parts without part number are not sold separately  
Contact us at [www.cp.com](http://www.cp.com)



	6159921220	Operator's Manual
	6158728550	Warning Label
	6159921190	Safety Instructions

Assembly instructions		
25	Moon Bushing	Use Molykote GN or GN Plus
	All o-rings & seals	Use Lithium grease Thermo Gel TG40750
11	Piston screw	LP4 : Tighten at 70 Nm (51 lb.ft) + use Loctite 242
10	End Cap	LP4 : Tighten at 9 Nm (6.5 lb.ft) + use Loctite 242
9	Swivel screw	Tighten at 2 Nm (1.5 lb.ft) + use Loctite 242
23, 24	Retract & Actuate Manifold	Use Teflon tape or paste Tighten at 35 Nm (25,8 lb.ft)

Assembly tooling		PART N°
3RD Groove Swivel post o-ring assy LP4 to LP32, T3 to T25	TOOL-T3-70-3	6158125135
2ND groove assembly T3/T25 swivel body o-ring assy	TOOL-T3-71-2	6158125145



# TITAN<sup>®</sup>

BY CHICAGO PNEUMATIC

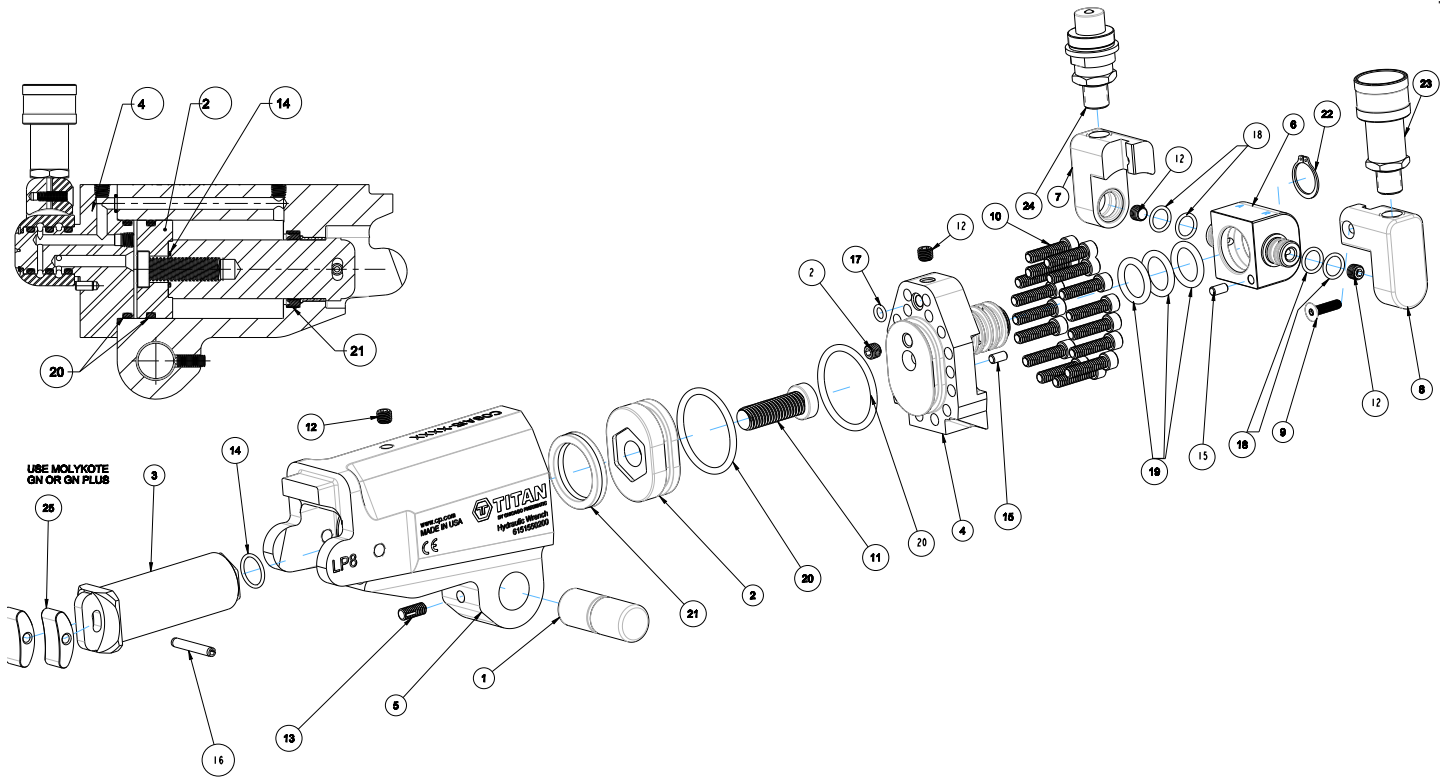
## HYDRAULIC WRENCH CYLINDERS LP4


		LP4 CYLINDER		
ITEM	COMPONENT	DESCRIPTION	PART N°	QTY
1	Mating Pin	TL4C-05	6153111205	1
2	Piston	TL4C-06	6153111255	1
3	Piston Rod	TL4C-07	6153111295	1
11	Piston To Rod Connector Screw	TL4C-25	6156102295	1
Not shown	Case		6159958035	
<b>A</b>	<b>Housing Assembly Kit</b>	<b>TL4C-01XK</b>	<b>6155656955</b>	<b>1</b>
5	Housing Assembly	TL4C-01X		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
21	Rod Lip Seal	TL4C-01-N1SPR		1
<b>B</b>	<b>Moon Bushing Kit</b>	<b>TL4C-04A</b>	<b>6153990305</b>	
16	Moon Bushing Roll Pin	TL4C-21		1
25	Moon Bushing	TL4C-04		2
<b>C</b>	<b>Swivel Kit</b>	<b>TL4C-03AA</b>	<b>6153990355</b>	
<b>C1</b>	<b>Top Swivel Kit</b>	<b>T3/25-71A</b>	<b>6153990185</b>	
6	Swivel Body	T3/25-71		1
7	Actuate Manifold	T3/25-72	6155655360	1
8	Retract Manifold	T3/25-73	6155655370	1
9	Swivel Manifold Screw	T1/50-76		1
15	Swivel Dowel Pin	T3/25-81		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		2
18	Swivel Body O-Ring	T1/25-71-013		4
22	Swivel Snap Ring	T3/25-74	6156870955	1
23	Retract Manifold Qd	090156	6157040375	1
24	Actuate Manifold Qd	090155N	6157040355	1
<b>C2</b>	<b>Bottom Swivel Kit</b>	<b>TL4C-03A</b>	<b>6153990415</b>	
4	End Cap/Swivel Post	TL4C-03		1
10	End Cap Screw	TL4C-20		14
12	Hex Plug (Teflon Coated)	T1/25-80TC		2
15	Swivel Dowel Pin	T3/25-81		1
17	Return Port O-Ring	T3/25-70-010		1
19	Swivel Post O-Ring	T3/25-70-210		3
26	End Cap O-Ring	TL4C-03-125		1
<b>D</b>	<b>Swivel Seal Kit</b>	<b>LP4-00</b>	<b>6153990445</b>	
17	Return Port O-Ring	T3/25-70-010		1
18	Swivel Body O-Ring	T1/25-71-013		4
19	Swivel Post O-Ring	T3/25-70-210		3
22	Swivel Snap Ring	T3/25-74	6156870955	1
26	End Cap O-Ring	TL4C-03-125		1
<b>E</b>	<b>Lp Housing Seal Kit</b>	<b>LP4-62A</b>	<b>6153990475</b>	
14	Rod To Piston O-Ring	TL4/8C-07-016		1
17	Return Port O-Ring	T3/25-70-010		1
20	Piston O-Ring	TL4C-02-218		1
21	Rod Lip Seal	TL4C-01-N1SPR		1
26	End Cap O-Ring	TL4C-03-125		1
<b>F</b>	<b>Small Part Kit</b>	<b>TL4C-21A</b>	<b>6153608105</b>	
10	End Cap Screw	TL4C-20		14
12	Hex Plug (Teflon Coated)	T1/25-80TC		5
15	Swivel Dowel Pin	T3/25-81		1
16	Moon Bushing Roll Pin	TL4C-21		1
22	Swivel Snap Ring	T3/25-74	6156870955	1
<b>D</b>	<b>Mk-Lp4 Cylinder Kit</b>	<b>MK-LP4C</b>	<b>6153992355</b>	
1	Mating Pin	TL4C-05	6153111205	1
10	End Cap Screw	TL4C-20		14
11	Piston To Rod Connector Screw	TL4C-25	6156102295	1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
16	Moon Bushing Roll Pin	TL4C-21		1
17	Return Port O-Ring	T3/25-70-010		1
14	Rod To Piston O-Ring	TL4/8C-07-016		1
18	Swivel Body O-Ring	T1/25-71-013		4
19	Swivel Post O-Ring	T3/25-70-210		3
20	Piston O-Ring	TL4C-02-218		1
26	End Cap O-Ring	TL4C-03-125		1
21	Rod Lip Seal	TL4C-01-N1SPR		1
22	Swivel Snap Ring	T3/25-74	6156870955	1
23	Retract Manifold Qd	090156	6157040375	1
24	Actuate Manifold Qd	090155N	6157040355	1
25	Moon Bushing	TL4C-04		2

Spare parts without part number are not sold separately

Contact us at [www.cp.com](http://www.cp.com)





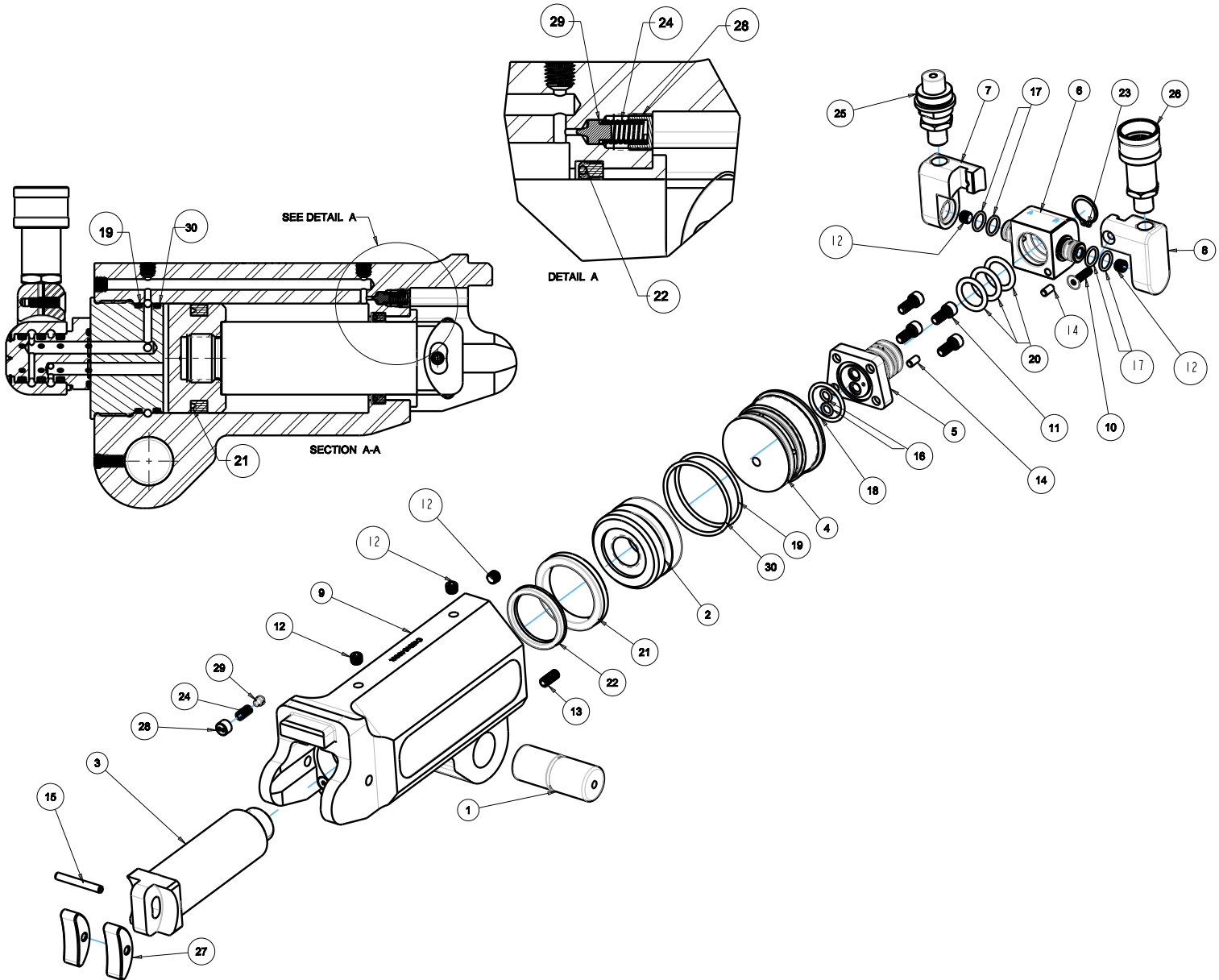
	6159921220	Operator's Manual
	6158728550	Warning Label
	6159921190	Safety Instructions


Assembly instructions		
25	Moon Bushing	Use Molykote GN or GN Plus
	All o-rings & seals	Use Lithium grease Thermo Gel TG40750
11	Piston screw	LP8 : Tighten at 70 Nm (51 lb.ft) + use Loctite 242
10	End Cap	LP8 : Tighten at 14 Nm ( 10 lb.ft) + use Loctite 242
9	Swivel screw	Tighten at 2 Nm (1.5 lb.ft) + use Loctite 242
23, 24	Retract & Actuate Manifold	Use Teflon Tape or Paste

Assembly tooling		PART N°
3RD Groove Swivel post o-ring assy LP4 to LP32, T3 to T25	TOOL-T3-70-3	6158125135
2ND groove assembly T3/T25 swivel body o-ring assy	TOOL-T3-71-2	6158125145



		<i>LP8 CYLINDER</i>		
<i>ITEM</i>	<i>COMPONENT</i>	<i>DESCRIPTION</i>	<i>PART N°</i>	<i>QTY</i>
1	Mating Pin	TL8C-05	6153111215	1
2	Piston	TL8C-06	6153111135	1
3	Piston Rod	TL8C-07	6153111305	1
11	Piston To Rod Connector Screw	TL8C-25	6156102335	1
Not shown	Case		6159958045	
<b>A</b>	<b>Housing Assembly Kit</b>	<b>TL8C-01XK</b>	<b>6155656965</b>	<b>1</b>
5	Housing Assembly	TL8C-01X		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
21	Rod Lip Seal	TL8C-01-N		1
<b>B</b>	<b>Moon Bushing Kit</b>	<b>TL8C-04A</b>	<b>6153990315</b>	
16	Moon Bushing Roll Pin	TL8C-21		1
25	Moon Bushing	TL8C-04		2
<b>C</b>	<b>Swivel Kit</b>	<b>TL8C-03AA</b>	<b>6153990365</b>	
<b>C1</b>	<b>Top Swivel Kit</b>	<b>T3/25-71A</b>	<b>6153990185</b>	
6	Swivel Body	T3/25-71		1
7	Actuate Manifold	T3/25-72	615655360	1
8	Retract Manifold	T3/25-73	615655370	1
9	Swivel Manifold Screw	T1/50-76		1
15	Swivel Dowel Pin	T3/25-81		1
12	Hex Plug (Teflon Coated)	T1/25-80TC		2
18	Swivel Body O-Ring	T1/25-71-013		4
22	Swivel Snap Ring	T3/25-74	6156870955	1
23	Retract Manifold Qd	090156	6157040375	1
24	Actuate Manifold Qd	090155N	6157040355	1
<b>C2</b>	<b>Bottom Swivel Kit</b>	<b>TL8C-03A</b>	<b>6153990425</b>	
4	End Cap/Swivel Post	TL8C-03		1
10	End Cap Screw	TL8C-20*		16
12	Hex Plug (Teflon Coated)	T1/25-80TC		2
15	Swivel Dowel Pin	T3/25-81		1
17	Return Port O-Ring	T3/25-70-010		1
19	Swivel Post O-Ring	T3/25-70-210		3
20	Piston/End Cap O-Ring	T5-25-223		1
<b>D</b>	<b>Swivel Seal Kit</b>	<b>LP8-00</b>	<b>6153990455</b>	
17	Return Port O-Ring	T3/25-70-010		1
18	Swivel Body O-Ring	T1/25-71-013		4
19	Swivel Post O-Ring	T3/25-70-210		3
20	Piston/End Cap O-Ring	T5-25-223		1
22	Swivel Snap Ring	T3/25-74	6156870955	1
<b>E</b>	<b>Lp Housing Seal Kit</b>	<b>LP8-62A</b>	<b>6153990485</b>	
17	Return Port O-Ring	T3/25-70-010		1
14	Rod To Piston O-Ring	TL4/8C-07-016		1
20	Piston/End Cap O-Ring	T5-25-223		2
21	Rod Lip Seal	TL8C-01-N		1
<b>F</b>	<b>Small Part Kit</b>	<b>TL8C-21A</b>	<b>6153608115</b>	
10	End Cap Screw	TL8C-20		16
12	Hex Plug (Teflon Coated)	T1/25-80TC		5
15	Swivel Dowel Pin	T3/25-81		1
16	Moon Bushing Roll Pin	TL8C-21		1
22	Swivel Snap Ring	T3/25-74	6156870955	1
<b>G</b>	<b>Mk-Lp8 Cylinder Kit</b>	<b>MK-LP8C</b>	<b>6153992365</b>	
1	Mating Pin	TL8C-05	6153111215	1
10	End Cap Screw	TL8C-20		16
11	Piston To Rod Connector Screw	TL8C-25	6156102335	1
13	Mating Pin Ball Plunger	TL4/32C-22	6156102365	1
16	Moon Bushing Roll Pin	TL8C-21		1
17	Return Port O-Ring	T3/25-70-010		1
14	Rod To Piston O-Ring	TL4/8C-07-016		1
18	Swivel Body O-Ring	T1/25-71-013		4
19	Swivel Post O-Ring	T3/25-70-210		3
20	Piston/End Cap O-Ring	T5-25-223		2
21	Rod Lip Seal	TL8C-01-N		1
22	Swivel Snap Ring	T3/25-74	6156870955	1
23	Retract Manifold Qd	090156	6157040375	1
24	Actuate Manifold Qd	090155N	6157040355	1
25	Moon Bushing	TL8C-04		2



	6159921210	Operator's Manual
	6158728550	Warning Label
	6159921190	Safety Instructions

<b>Assembly tooling</b>		<b>PART N°</b>
Swivel post o-ring assembly LP2	TOOL-T1-70-3	6158125125
Swivel post o-ring assy LP4 to LP32	TOOL-T3-70-3	6158125135
Swivel body o-ring assy	TOOL-T3-71-2	6158125145
LP16, LP32 End Cap tool	P-0044	6158127725

<b>Part #</b>	<b>Description</b>	<b>ASSEMBLY INSTRUCTION</b>
27	Moon Bushing	Use Molykote GN or GN Plus
	All O-rings	Use Lithium grease Thermo Gel TG40750
2	Piston	Tighten at 120 Nm ( 88 lb.ft) + use Loctite 242
4	End Cap	Tighten at 147 Nm (108 lb.ft) + use Loctite 242
10	Swivel Manifold Screw	Tighten at 2 Nm (1,5 lb.ft) + use Loctite 242
11	Swivel Post Screw	Tighten at 14 Nm (10 lb.ft) + use Loctite 242
25, 26	Actuate & Retract Manifold QD	Use Teflon tape or paste Tighten at 35 Nm (25,8 lb.ft)

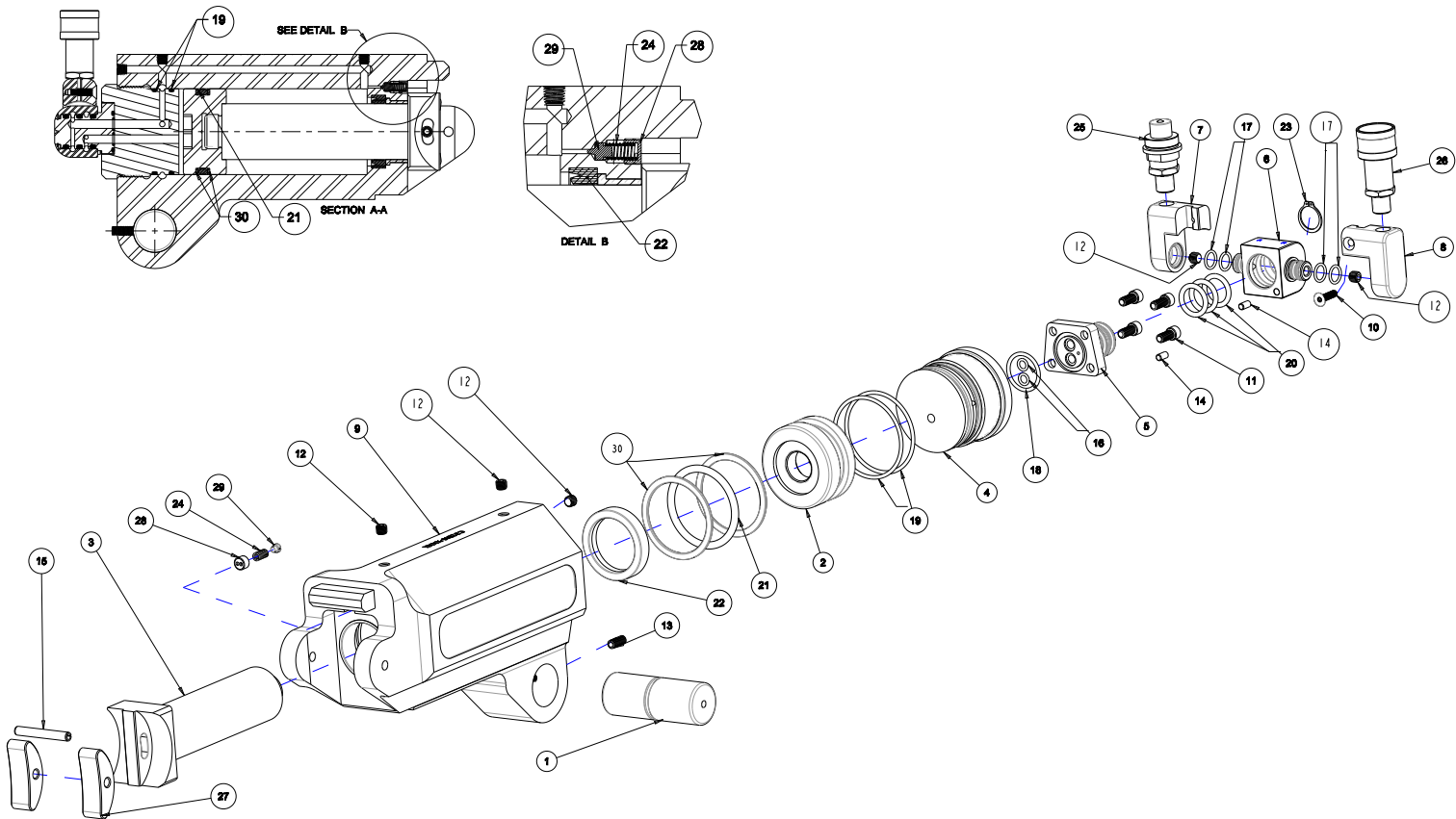



# TITAN<sup>®</sup>

BY CHICAGO PNEUMATIC

## HYDRAULIC WRENCH CYLINDER LP16

		LP16 Cylinder		
ITEM	COMPONENT	DESCRIPTION	PART N°	QTY
1	Mating Pin	TL16C-05	6153111225	1
3	Piston Rod	TL16C-07	6153111315	1
Not shown	Case		6159958055	
<b>A</b>	<b>End Cap Kit</b>	<b>TL16C-03A</b>	<b>6153993195</b>	
4	End Cap	TL16C-03		1
19	End Cap O-Ring	TL16C-03-137		1
30	1st Groove End Cap O-Ring	TL16C-03-137-C		1
<b>B</b>	<b>Piston Kit</b>	<b>TL16C-06A</b>	<b>6153993175</b>	
2	Piston	TL16C-06		1
21	Piston Seal	TL16C-06-N		1
<b>C</b>	<b>Cylinder Housing Assembly Kit</b>	<b>TL16C-01XK</b>	<b>6155656975</b>	
9	Cylinder Housing Assembly	TL16C-01X		1
12	Teflon Coated Hex Plug	T1/25-80TC		3
13	Ball Plunger	TL4/32C-22	6156102365	1
22	Piston Rod Lip Seal	TL16C-01-N1SPR		1
<b>C1</b>	<b>Relief Valve Kit</b>	<b>TL16/32C-26</b>	<b>6153991535</b>	
24	Valve Spring	P-0042		1
28	Compressor	TL16C-10		1
29	Valve Poppet	TL16C-09		1
<b>D</b>	<b>Moon Bushing Kit</b>	<b>TL16C-04A</b>	<b>6153990325</b>	
15	Moon Bushing Roll Pin	TL16C-21		1
27	Moon Bushing	TL16C-04		2
<b>E</b>	<b>Swivel Kit</b>	<b>T3/25-75A</b>	<b>6153990165</b>	
<b>E1</b>	<b>Top Swivel Kit</b>	<b>T3/25-71A</b>	<b>6153990185</b>	
6	Swivel Body	T3/25-71		1
7	Actuate Manifold	T3/25-72	6155655360	1
8	Retract Manifold	T3/25-73	6155655370	1
10	Swivel Manifold Screw	T1/50-76		1
12	Teflon Coated Hex Plug	T1/25-80TC		2
14	Swivel Dowel Pin	T3/25-81		1
17	Swivel Body O-Ring	T1/25-71-013		4
23	Swivel Snap Ring	T3/25-74	6156870955	1
25	Actuate Manifold Qd	090155N	6157040355	1
26	Retract Manifold Qd	090156	6157040375	1
<b>E2</b>	<b>Bottom Swivel Kit</b>	<b>T3/25-70A</b>	<b>6153990205</b>	
5	Swivel Post	T3/25-70		1
11	Swivel Post Screw	T3/25-75		4
14	Swivel Dowel Pin	T3/25-81		1
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
<b>F</b>	<b>Swivel Seal Kit</b>	<b>T3/25-00</b>	<b>6153990225</b>	
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
17	Swivel Body O-Ring	T1/25-71-013		4
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
23	Swivel Snap Ring	T3/25-74	6156870955	1
<b>G</b>	<b>Lp Housing Seal Kit</b>	<b>LP16-62A</b>	<b>6153990495</b>	
19	End Cap O-Ring	TL16C-03-137		2
21*	Piston Seal (Only Model B)	TL16C-06-N		1
21*	Piston O-Ring (Only Model A)	TL16C-06-328		1
22	Piston Rod Lip Seal	TL16C-01-N		1
30	1st Groove End Cap O-Ring (Only Model B)	TL16C-03-137-C		1
<b>H</b>	<b>Small Part Kit</b>	<b>TL16C-21A</b>	<b>6153990515</b>	
12	Teflon Coated Hex Plug	T1/25-80TC		5
14	Swivel Dowel Pin	T3/25-81		1
15	Moon Bushing Roll Pin	TL16C-21		1
23	Swivel Snap Ring	T3/25-74	6156870955	1
<b>J</b>	<b>Mk-Lp16 Cylinder Kit</b>	<b>MK-LP16C</b>	<b>6153992375</b>	
1	Mating Pin	TL16C-05	6153111225	1
11	Swivel Post Screw	T3/25-75		4
13	Ball Plunger	TL4/32C-22	6156102365	1
15	Moon Bushing Roll Pin	TL16C-21		1
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
17	Swivel Body O-Ring	T1/25-71-013		4
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
19	End Cap O-Ring	TL16C-03-137		2
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
21*	Piston Seal (Only Model B)	TL16C-06-N		1
21*	Piston O-Ring (Only Model A)	TL16C-06-328		1
22	Piston Rod Lip Seal	TL16C-01-N1SPR		1
23	Swivel Snap Ring	T3/25-74	6156870955	1
25	Actuate Manifold Qd	090155N	6157040355	1
26	Retract Manifold Qd	090156	6157040375	1
27	Moon Bushing	TL16C-04		2
30	1st Groove End Cap O-Ring (Only Model B)	TL16C-03-137-C		1



	6159921210	Operator's Manual
	6158728550	Warning Label
	6159921190	Safety Instructions

<i>Assembly tooling</i>		<i>PART N°</i>
Swivel post o-ring assembly LP2	TOOL-T1-70-3	6158125125
Swivel post o-ring assy LP4 to LP32	TOOL-T3-70-3	6158125135
Swivel body o-ring assy	TOOL-T3-71-2	6158125145
LP16, LP32 End Cap tool	P-0044	6158127725

<i>Part #</i>	<i>Description</i>	<i>ASSEMBLY INSTRUCTION</i>
27	Moon Bushing	Use Molykote GN or GN Plus
	All O-rings	Use Lithium grease Thermo Gel TG40750
2	Piston	Tighten at 136 Nm ( 100 lb.ft) + use Loctite 242
4	End Cap	Tighten at 169 Nm (125 lb.ft) + use Loctite 242
10	Swivel Manifold Screw	Tighten at 2 Nm (1,5 lb.ft) + use Loctite 242
11	Swivel Post Screw	Tighten at 14 Nm (10 lb.ft) + use Loctite 242
25, 26	Actuate & Retract Manifold QD	Use Teflon tape or paste Tighten at 35 Nm (25,8 lb.ft)



**TITAN**  
BY CHICAGO PNEUMATIC

HYDRAULIC WRENCH CYLINDER

LP32

		LP32 Cylinder		
ITEM	COMPONENT	DESCRIPTION	PART N°	QTY
1	Mating Pin	TL32C-05	6153111235	1
3	Piston Rod	TL32C-07	6153111325	1
Not shown	Case		6159958065	
<b>A</b>	<b>End Cap Kit</b>	<b>TL32C-03A</b>	<b>6153993205</b>	
2	End Cap	TL32C-03		1
19	End Cap O-Ring	TL32C-03-141		2
<b>B</b>	<b>Piston Kit</b>	<b>TL32C-06A</b>	<b>6153993185</b>	
2	Piston	TL32C-06		1
21	Piston O-Ring	TL32C-06-330		1
30	Piston Back Up Ring	TL32C-06-330-B		2
<b>C</b>	<b>Cylinder Housing Assembly Kit</b>	<b>TL32C-01XK</b>	<b>6155656985</b>	
9	Cylinder Housing Assembly	TL32C-01X		1
12	Teflon Coated Hex Plug	T1/25-80TC		3
13	Ball Plunger	TL4/32C-22	6156102365	1
22	Piston Rod Lip Seal	TL32C-01-N		1
<b>C1</b>	<b>Relief Valve Kit</b>	<b>TL16/32C-26</b>	<b>6153991535</b>	
24	Valve Spring	P-0042		1
28	Compressor	TL16C-10		1
29	Valve Poppet	TL16C-09		1
<b>D</b>	<b>Moon Bushing Kit</b>	<b>TL32C-04A</b>	<b>6153990335</b>	
15	Moon Bushing Roll Pin	TL32C-21		1
27	Moon Bushing	TL32C-04		2
<b>E</b>	<b>Swivel Kit</b>	<b>T3/25-75A</b>	<b>6153990165</b>	
<b>E1</b>	<b>Top Swivel Kit</b>	<b>T3/25-71A</b>	<b>6153990185</b>	
6	Swivel Body	T3/25-71		1
7	Actuate Manifold	T3/25-72	6155655360	1
8	Retract Manifold	T3/25-73	6155655370	1
10	Swivel Manifold Screw	T1/50-76		1
12	Teflon Coated Hex Plug	T1/25-80TC		2
14	Swivel Dowel Pin	T3/25-81		1
17	Swivel Body O-Ring	T1/25-71-013		4
23	Swivel Snap Ring	T3/25-74	6156870955	1
25	Actuate Manifold Qd	090155N	6157040355	1
26	Retract Manifold Qd	090156	6157040375	1
<b>E2</b>	<b>Bottom Swivel Kit</b>	<b>T3/25-70A</b>	<b>6153990205</b>	
5	Swivel Post	T3/25-70		1
11	Swivel Post Screw	T3/25-75		4
14	Swivel Dowel Pin	T3/25-81		1
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
<b>F</b>	<b>Swivel Seal Kit</b>	<b>T3/25-00</b>	<b>6153990225</b>	
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
17	Swivel Body O-Ring	T1/25-71-013		4
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
23	Swivel Snap Ring	T3/25-74	6156870955	1
<b>G</b>	<b>Lp Housing Seal Kit</b>	<b>LP32-62A</b>	<b>6153990505</b>	
19	End Cap O-Ring	TL32C-03-141		2
21	Piston O-Ring	TL32C-06-330		1
22	Piston Rod Lip Seal	TL32C-01-N		1
30	Piston Back Up Ring (Only Model B)	TL32C-06-330-B		2
<b>H</b>	<b>Small Part Kit</b>	<b>TL32C-21A</b>	<b>6153990525</b>	
12	Teflon Coated Hex Plug	T1/25-80TC		5
14	Swivel Dowel Pin	T3/25-81		1
15	Moon Bushing Roll Pin	TL32C-21		1
23	Swivel Snap Ring	T3/25-74	6156870955	1
<b>J</b>	<b>Mk-Lp32 Cylinder Kit</b>	<b>MK-LP32C</b>	<b>6153992385</b>	
1	Mating Pin	TL32C-05	6153111235	1
11	Swivel Post Screw	T3/25-75		4
13	Ball Plunger	TL4/32C-22	6156102365	1
15	Moon Bushing Roll Pin	TL32C-21		1
16	Swivel Post/Housing Small O-Ring	T3/25-70-010		2
17	Swivel Body O-Ring	T1/25-71-013		4
18	Swivel Post/Housing Large O-Ring	T3/25-70-120		1
19	End Cap O-Ring	TL32C-03-141		2
20	Swivel Housing/Post O-Ring	T3/25-70-210		3
21	Piston O-Ring	TL32C-06-330		1
22	Piston Rod Lip Seal	TL32C-01-N		1
23	Swivel Snap Ring	T3/25-74	6156870955	1
25	Actuate Manifold Qd	090155N	6157040355	1
26	Retract Manifold Qd	090156	6157040375	1
27	Moon Bushing	TL32C-04		2
30	Piston Back Up Ring (Only Model B)	TL32C-06-330-B		2