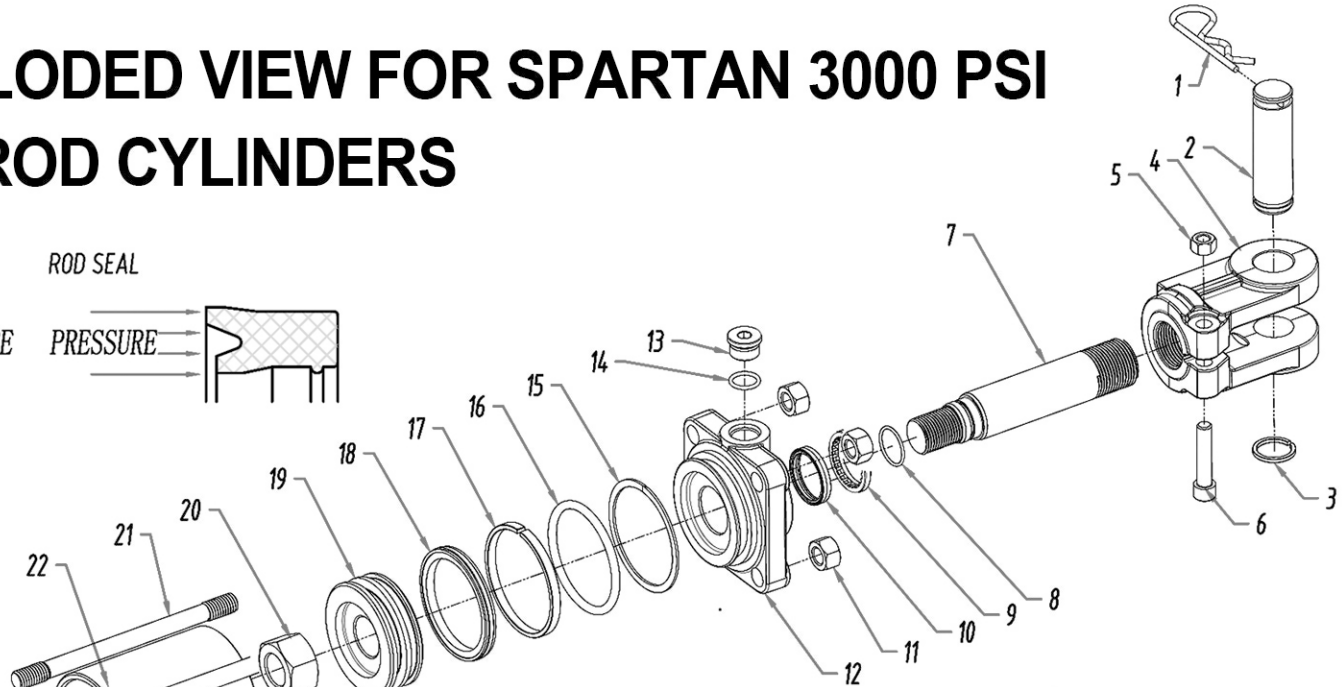
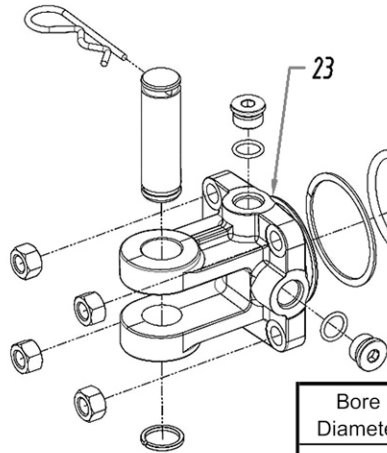
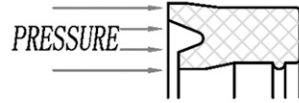
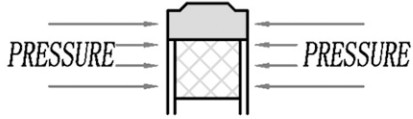




EXPLODED VIEW FOR SPARTAN 3000 PSI TIE-ROD CYLINDERS

PISTON SEAL

ROD SEAL



Bore Diameter	Recommended Piston Nut Torque		Recommended Tie-Bolt Nut Torque		
	Piston Rod Thread Size	Ft. Lbs. (Nm)	Tie-Bolt Thread Size	Ft. Lbs. (Nm)	Stroke Range
2"	M18 x 1.5	67 (92)	3/8"-16UNC	29 (40)	4" - 48"
2-1/2"	M20 x 1.5	138 (187)	3/8"-16UNC	29 (40)	4" - 48"
3"	M24 x 2.0	247 (335)	1/2"-13UNC	61 (83)	4" - 48"
3-1/2"	M27 x 2.0	374 (507)	9/16-18UNF	81 (110)	4" - 48"
4"	M30 x 2.0	539 (730)	5/8-18UNF	103 (140)	4" - 48"
5"	M39 x 3.0	1136 (1539)	M20 x 2.5	258 (350)	4" - 48"

NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY
1	R-CLIP	2	12	GLAND	1
2	CLEVIS PIN	2	13	STEEL PIPE PLUG	3
3	C-RING	2	14	O-RING	1
4	ROD CLEVIS	1	15	BACKUP RING	2
5	HEXAGON NUT	1	16	O-RING	2
6	BOLT	1	17	WEAR RING	1
7	PISTON ROD	1	18	PISTON SEAL	1
8	O-RING	1	19	PISTON	1
9	ROD WIPER	1	20	PISTON NUT	1
10	ROD SEAL	1	21	TIE ROD	4
11	TIE-ROD NUT	8	22	TUBE	1
			23	BASE CLEVIS	1