



# TX 2500

## TIE ROD CYLINDER SERIES

2500 PSI WORKING PRESSURE &  
5000 PSI PROOF PRESSURE

FULLY CUSTOMIZABLE DESIGNS &  
STOCKED CONFIGURABLE STANDARD OPTIONS

AVAILABLE WITH INLINE &  
90 DEGREE ORB OR NPT PORTS

30 MONTH LIMITED WARRANTY

**TOLL-FREE:** 1-800-665-0247

**EMAIL:** [ORDERS@MONARCHINDUSTRIES.COM](mailto:ORDERS@MONARCHINDUSTRIES.COM)

[WWW.LIONHYDRAULICS.COM](http://WWW.LIONHYDRAULICS.COM)

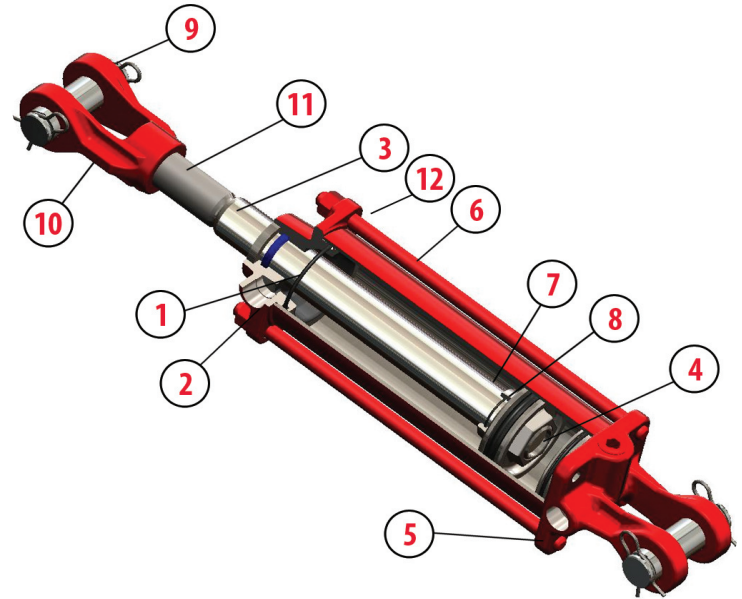


**VALUE ENGINEERED HYDRAULIC SOLUTIONS**

# TX 2500

AVAILABLE IN A WIDE RANGE OF SIZES AND CONFIGURATIONS, THE TX OFFERS DISTINCT WEIGHT ADVANTAGES AND VALUE OVER CONVENTIONAL TIE ROD CYLINDERS. OVER 50 YEARS OF NORTH AMERICAN HYDRAULIC CYLINDER DESIGN EXPERIENCE HAS BEEN INCORPORATED IN THE DEVELOPMENT OF THE TX SERIES AND WITH IT, THE QUALITY AND DURABILITY OUR CUSTOMERS EXPECT FROM LION HYDRAULICS. PINS AND COTTERS ARE INCLUDED FOR EASY INSTALLATION

- 1** 2500 PSI sealing kits for leak free performance under the most demanding applications
- 2** Customizable port options: available with Inline and 90 Degree ORB or NPT Ports for greater assembly flexibility.
- 3** High strength, hard chrome-plated shaft provides extended cylinder life in harsh applications and promotes dry sealing
- 4** Precision-finished skived and burnished heavy wall steel tubing for extended seal and cylinder life
- 5** High Grade Ductile iron caps come with drilled oil passages and increased bearing surface for high shock and side load applications
- 6** High-tensile steel tie rods prevent failure at high pressure and provide a long service life
- 7** Precision-machined, ductile iron piston provides a forging bearing surface for extended life
- 8** Heavy-duty steel, torqued, self-locking piston nut holds piston firm under high-cycle loading
- 9** High-tensile steel, zinc plated pins & cotter pin retainers provide long lasting protection against corrosion wear
- 10** Heavy Duty Ductile Iron Rod Clevis with 360° thread contact area and positive set screw locking device, able to withstand continuous high loads



- 11** Threaded Shaft (on ASAE Cylinders) to accept optional mechanical stroke control on 8in. stroke ASAE cylinders only
- 12** Available in either high gloss red or black paint finish

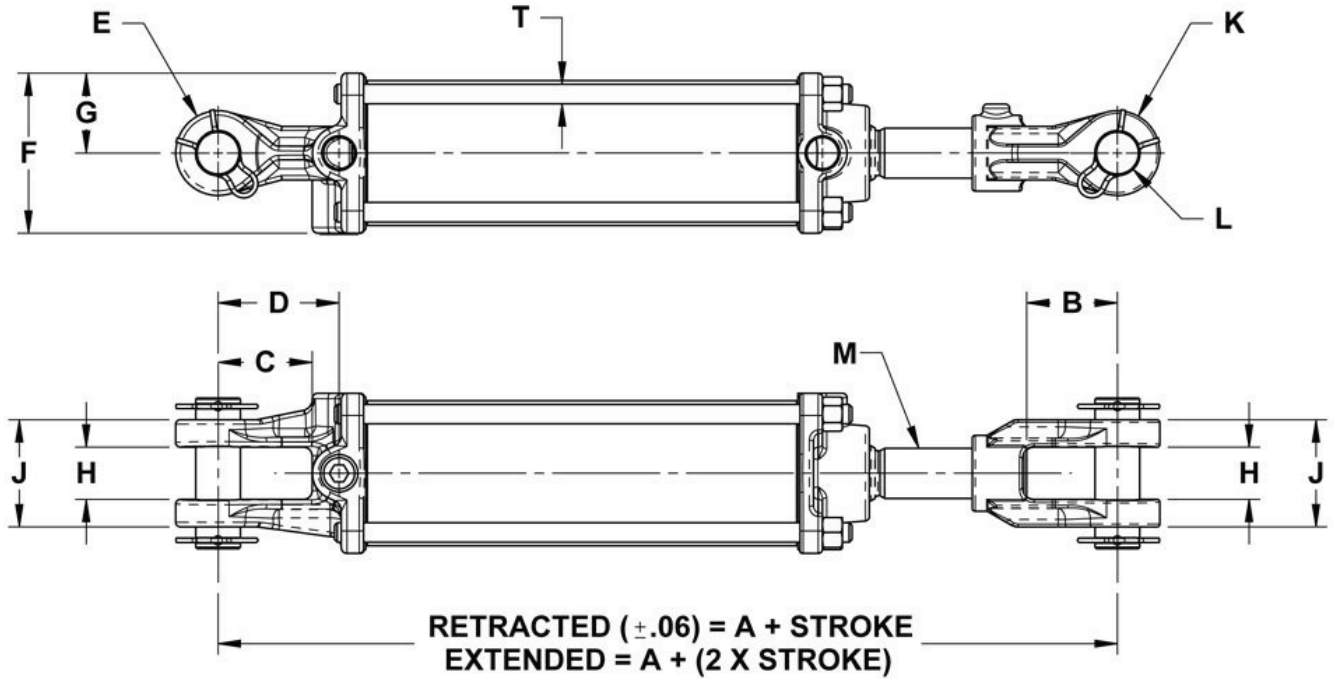
## AVAILABLE STANDARD CONFIGURATIONS

MODEL	BORE	STROKE	ROD DIA	SHIP WT.	ALLOWABLE PRESSURE (PSI) (*Maximum column load pressure at full extension)	NPT IN LINE		NPT 90 DEG		ORB IN LINE		ORB 90 DEG	
						RED ORDER NO.	BLACK ORDER NO.	RED ORDER NO.	BLACK ORDER NO.	RED ORDER NO.	BLACK ORDER NO.	RED ORDER NO.	BLACK ORDER NO.
<b>ASAE - 2500 psi 8" Stroke cylinders</b>													
20TX08-112 ASAE	2.0	8.0	1.125	13.7	2,500	648518	648633	648566	648654	648589	648675	648610	648696
25TX08-112 ASAE	2.5	8.0	1.125	15.2	2,500	648519	648634	648567	648655	648590	648676	648611	648697
30TX08-125 ASAE	3.0	8.0	1.250	19.9	2,500	648520	648635	648568	648656	648591	648677	648613	648698
35TX08-125 ASAE	3.5	8.0	1.250	24.9	2,500	661009	661049	661019	661059	661029	661069	661039	661079
40TX08-125 ASAE	4.0	8.0	1.250	30.0	2,500	661089	661139	661099	661149	661119	661159	661129	661169
30TX16-150 ASAE	3.0	16.0	1.500	42.5	2,500	661280	661281	661282	661283	661284	661285	661286	661287
35TX16-150 ASAE	3.5	16.0	1.500	52.5	2,500	661288	661289	661290	661291	661292	661293	661294	661295
40TX16-175 ASAE	4.0	16.0	1.750	63.0	2,500	661296	661297	661298	661299	661300	661301	661302	661303
<b>2in Bore 2500 psi cylinders</b>													
20TX06-112	2.0	6.0	1.125	12.1	2,500	648500	648615	648548	648636	648569	648657	648592	648678
20TX08-112	2.0	8.0	1.125	13.3	2,500	648501	648616	648549	648637	648570	648658	648593	648679
20TX10-112	2.0	10.0	1.125	14.5	2,500	648502	648617	648550	648638	648571	648659	648594	648680
20TX12-112	2.0	12.0	1.125	15.7	2,500	648503	648618	648551	648639	648572	648660	648595	648681
20TX14-112	2.0	14.0	1.125	16.9	2,500	648504	648619	648552	648640	648573	648661	648596	648682
20TX16-112	2.0	16.0	1.125	18.0	2,500	648505	648620	648553	648641	648574	648662	648597	648683
20TX18-112	2.0	18.0	1.125	19.5	2,500	648761	648821	648776	648836	648791	648851	648806	648866
20TX20-112	2.0	20.0	1.125	20.6	2,500	648762	648822	648777	648837	648792	648852	648807	648867
20TX24-112	2.0	24.0	1.125	23.0	2,180*	648763	648823	648778	648838	648793	648853	648808	648868

Call for Availability

MODEL	BORE	STROKE	ROD DIA	SHIP WT.	ALLOWABLE PRESSURE (PSI) (*Maximum column load pressure at full extension)	NPT	NPT	NPT	NPT	ORB	ORB	ORB	ORB
						IN LINE 90 DEG RED ORDER NO.	IN LINE BLACK ORDER NO.	90 DEG RED ORDER NO.	90 DEG BLACK ORDER NO.	IN LINE RED ORDER NO.	IN LINE BLACK ORDER NO.	90 DEG RED ORDER NO.	90 DEG BLACK ORDER NO.
<b>2in Bore 2500 psi cylinders</b>													
20TX30-112	2.0	30.0	1.125	26.6	1,499*	648764	648824	648779	648839	648794	648854	648809	648869
20TX36-112	2.0	36.0	1.125	30.2	1,093*	648765	648825	648780	648840	648795	648855	648810	648870
20TX48-112	2.0	48.0	1.125	30.2	655*	661209	661210	661211	661212	661213	661214	661215	661216
<b>2.5in Bore 2500 psi cylinders</b>													
25TX06-112	2.5	6.0	1.125	13.8	2,500	648506	648621	648554	648642	648575	648663	648598	648684
25TX08-112	2.5	8.0	1.125	14.8	2,500	648507	648622	648555	648643	648576	648664	648599	648685
25TX10-112	2.5	10.0	1.125	16.6	2,500	648508	648623	648556	648644	648577	648665	648600	648686
25TX12-112	2.5	12.0	1.125	17.9	2,500	648509	648624	648557	648645	648578	648666	648601	648687
25TX14-112	2.5	14.0	1.125	18.7	2,500	648510	648625	648558	648646	648579	648667	648602	648688
25TX16-112	2.5	16.0	1.125	20.7	2,500	648511	648626	648559	648647	648580	648668	648603	648689
25TX18-125	2.5	18.0	1.250	23.6	2,500	648766	648826	648781	648841	648796	648856	648811	648871
25TX20-125	2.5	20.0	1.250	25.1	2,500	648767	648827	648782	648842	648797	648857	648812	648872
25TX24-125	2.5	24.0	1.250	28.2	2,125*	648768	648828	648783	648843	648798	648858	648813	648873
25TX30-125	2.5	30.0	1.250	32.7	1,462*	648769	648829	648784	648844	648799	648859	648814	648874
25TX36-125	2.5	36.0	1.250	37.2	1,067*	648770	648830	648785	648845	648800	648860	648815	648875
25TX48-125	2.5	48.0	1.250	44.3	639*	661217	661218	661219	661220	661221	661222	661223	661224
<b>3in Bore 2500 psi cylinders</b>													
30TX06-125	3.0	6.0	1.250	17.6	2,500	648512	648627	648560	648648	648583	648669	648604	648690
30TX08-125	3.0	8.0	1.250	19.3	2,500	648513	648628	648561	648649	648584	648670	648605	648691
30TX10-125	3.0	10.0	1.250	21.1	2,500	648514	648629	648562	648650	648585	648671	648606	648692
30TX12-125	3.0	12.0	1.250	22.8	2,500	648515	648630	648563	648651	648586	648672	648607	648693
30TX14-125	3.0	14.0	1.250	24.5	2,500	648516	648631	648564	648652	648587	648673	648608	648694
30TX16-125	3.0	16.0	1.250	26.1	2,500	648517	648632	648565	648653	648588	648674	648609	648695
30TX18-125	3.0	18.0	1.250	28.1	2,340*	648771	648831	648786	648846	648801	648861	648816	648876
30TX20-125	3.0	20.0	1.250	29.8	1,985*	648772	648832	648787	648847	648802	648862	648817	648877
30TX24-150	3.0	24.0	1.500	37.2	2,500	648773	648833	648788	648848	648803	648863	648818	648878
30TX30-150	3.0	30.0	1.500	43.3	2,106*	648774	648834	648789	648849	648804	648864	648819	648879
30TX36-150	3.0	36.0	1.500	49.5	1,536*	648775	648835	648790	648850	648805	648865	648820	648880
30TX48-150	3.0	48.0	1.500	61.7	920*	661225	661226	661227	661228	661229	661230	661231	661232
<b>3.5in Bore 2500 psi cylinders</b>													
35TX06-125	3.5	6.0	1.250	22.4	2,500	661000	661040	661010	661050	661020	661060	661030	661070
35TX08-125	3.5	8.0	1.250	24.4	2,500	661001	661041	661011	661051	661021	661061	661031	661071
35TX10-125	3.5	10.0	1.250	26.3	2,500	661002	661042	661012	661052	661022	661062	661032	661072
35TX12-125	3.5	12.0	1.250	28.3	2,500	661003	661043	661013	661053	661023	661063	661033	661073
35TX14-125	3.5	14.0	1.250	30.2	2,500	661004	661044	661014	661054	661024	661064	661034	661074
35TX16-125	3.5	16.0	1.250	32.2	2,060*	661005	661045	661015	661055	661025	661065	661035	661075
35TX18-150	3.5	18.0	1.500	37.1	2,500	661006	661046	661016	661056	661026	661066	661036	661076
35TX20-150	3.5	20.0	1.500	39.4	2,500	661007	661047	661017	661057	661027	661067	661037	661077
35TX24-150	3.5	24.0	1.500	43.9	2,250*	661008	661048	661018	661058	661028	661068	661038	661078
35TX30-150	3.5	30.0	1.500	49.8	1,547*	661233	661234	661235	661236	661237	661238	661239	661240
35TX36-150	3.5	36.0	1.500	56.6	1,128*	661175	661241	661242	661243	661244	661245	661246	661247
35TX48-150	3.5	48.0	1.500	58.3	676*	661248	661249	661250	661251	661252	661253	661254	661255
<b>4in Bore 2500 psi cylinders</b>													
40TX06-125	4.0	6.0	1.250	27.0	2,500	661080	661130	661090	661140	661110	661150	661120	661160
40TX08-125	4.0	8.0	1.250	29.4	2,500	661081	661131	661091	661141	661111	661151	661121	661161
40TX10-125	4.0	10.0	1.250	31.8	2,500	661082	661132	661092	661142	661112	661152	661122	661162
40TX12-125	4.0	12.0	1.250	34.2	2,400*	661083	661133	661093	661143	661113	661153	661123	661163
40TX14-125	4.0	14.0	1.250	36.6	1,925*	661084	661134	661094	661144	661114	661154	661124	661164
40TX16-125	4.0	16.0	1.250	39.0	1,580*	661085	661135	661095	661145	661115	661155	661125	661165
40TX18-150	4.0	18.0	1.500	44.4	2,500	661086	661136	661096	661146	661116	661156	661126	661166
40TX20-150	4.0	20.0	1.500	47.1	2,315*	661087	661137	661097	661147	661117	661157	661127	661167
40TX24-150	4.0	24.0	1.500	52.6	1,720*	661088	661138	661098	661148	661118	661158	661128	661168
40TX30-200	4.0	30.0	2.000	75.2	2,500	661256	661257	661258	661259	661260	661261	661262	661263
40TX36-200	4.0	36.0	2.000	86.2	2,500	661264	661265	661266	661267	661268	661269	661270	661271
40TX48-200	4.0	48.0	2.000	108.2	1,636*	661272	661273	661274	661275	661276	661277	661278	661279

# TX 2500



## DIMENSIONS IN INCHES

BORE	2"	2 1/2"	3"	3 1/2"	4"
<b>A</b>	10.25	10.25	10.25	10.25	10.25
<b>A - ASAE</b>	<b>12.25</b>	12.25	12.25	12.25	12.25
<b>B<sub>1</sub></b>	2.13	2.13	2.13	2.13	2.13
<b>C</b>	2.10	2.10	2.10	2.10	2.10
<b>D</b>	2.71	2.71	2.71	2.71	2.76
<b>E</b>	1.60	1.70	1.90	2.00	2.00
<b>F</b>	2.70	3.20	3.60	4.25	4.85
<b>G</b>	1.35	1.60	1.80	2.13	2.43
<b>H</b>	1.17	1.17	1.17	1.17	1.17
<b>J</b>	2.40	2.40	2.40	2.41	2.61
<b>K</b>	1.70	1.70	1.90	2.25	2.25
<b>L</b>	φ1.00	φ1.00	φ1.00	φ1.00	φ1.00
<b>M (Rod Thread)</b>	1-14UNS-3B	1-14UNS-3B	1 1/8 - 12UNS-3B	1 1/4 - 12UNS-3B	1 1/8 - 12UNS-3B
<b>P - NPT</b>	3/8NPT	3/8NPT	1/2NPT	1/2NPT	1/2NPT
<b>T</b>	φ5/16	φ3/8	φ7/16	φ1/2	φ9/16

\* Cylinder Column Load - Column strength loading normally affects all types of longer stroke cylinders. Affected cylinders should not be operated beyond these limits as the cylinder rod may buckle or bend causing failure. Stroke limitation applies to compressive loading only. Applications that fall outside the noted parameters, contact LION HYDRAULICS directly for further assistance.

## LION HYDRAULICS IS A DIVISION OF MONARCH INDUSTRIES INC

For placing orders or for further product information contact your local LION HYDRAULICS sales representative, or contact:

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