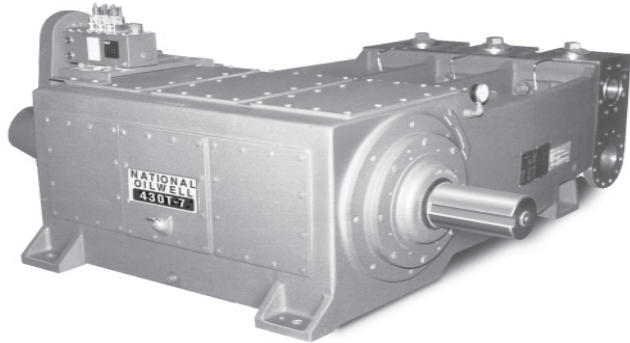


ROTATING RIGHT

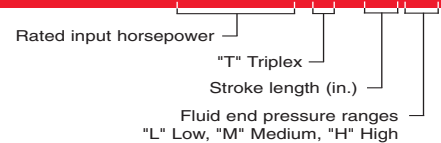
NATIONAL OILWELL 430T-7 TECHNICAL DATA SHEET



Triplex Plunger Pump 430T-7



This 7" stroke pump is designed for a variety of fluid transfer applications operating at low, medium or high pressures.



Field Connections in. (mm)

Pump Model	Discharge Connection Size	Suction Connection Size
430T-7L	6 (152.4) API-2000# RTJ	10 (254) ANSI-150 F.F.
430T-7M	4 (101.6) ANSI-1500 RTJ	6 (152.4) ANSI-300 F.F.
430T-7H	3 (76.2) ANSI-2500 RTJ	6 (152.4) ANSI-300 F.F.

Dimensions

Pump Type	Length	Width	Height
430T-7L	87-1/4"	79-11/16"	29"
430T-7M	88-1/2"	79-11/16"	29"
430T-7H	100"	79-11/16"	29"

Pump Specifications

Pump Size (Max. Plunger Diameter x Stroke) in. (mm).....5 x 7 (127 x 178)
 Rated BHP At 300 RPM (Kw).....430 (321)
 Rated Plunger Load (Kg).....24,500 (11,136)

Maximum Working Pressure: PSI (kPa)

"L" Model Discharge Pressure.....1,727 (11,910)
 "M" Model Discharge Pressure3,466 (23,903)
 "H" Model Discharge Pressure.....5,000 (34,473)

Crankshaft Extension: in. (mm)

Diameter6 (152.4)
 Length10-3/16 (258.9)
 Keyway (Width x Depth)1-1/2 x 3/4 (38.1 x 19.0)

Oil Capacity: Gallons: (L)

Crankcase22 (83.6)

Weight: Pump Only On Wood Shipping Skids - Lbs. (Kg)10,500 (4,763)

Standard Equipment

Aluminum Bronze Fluid End
 Aluminum Bronze Valve Covers
 Aluminum Bronze or Stainless Steel Stuffing Boxes
 Bronze Stuffing Box Internals
 Ceramic or Tungsten Carbide Plungers
 General Service or Kevlar Plunger Packing
 Stainless Steel Intermediate Rods
 Fluid King Spherical Valves
 Double Extended Crankshaft
 Oil Level Dipstick
 Crankcase Breather

Optional Equipment

Alternate Fluid End Materials
 Alternate Fluid End Valve Styles
 Custom Designs For Specialized Applications

Accessories

Packing Lubricator
 Pulsation Dampeners
 Relief Valves
 Valve Service Kit
 Complete Unitization Services

Quick Maintenance Features

- Horizontal Design
- Large Power End Covers
- Easy Bearing Access
- Separate Crosshead/Plunger Construction
- Open Frame Construction
- Removable Stuffing Boxes

Continuous Duty Performance Data (Volumes Indicated Are Displacement of Incompressible Fluid)

English Units

Plunger Dia. In.	Plunger Area Sq. In.	BPD Per RPM	GPM Per RPM	Max. Press. PSI	100 RPM*		150 RPM		200 RPM		225 RPM		250 RPM		275 RPM		300 RPM		
					BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
430T-7L																			
4 1/4	14.1863	44.2354	1.2897	1727	4424	128.97	6635	193.45	8847	257.93	9953	290.17	11059	322.42	12165	354.66	13271	386.90	
4 1/2	15.9044	49.5927	1.4459	1540	4959	144.59	7439	216.88	9919	289.17	11158	325.32	12398	361.46	13638	397.61	14878	433.76	
4 3/4	17.7206	55.2560	1.6110	1383	5526	161.10	8288	241.64	11051	322.19	12433	362.47	13814	402.74	15195	443.01	16577	483.29	
5	19.6350	61.2255	1.7850	1247	6123	178.50	9184	267.75	12245	357.00	13776	401.63	15306	446.25	16837	490.88	18368	535.50	
430T-7M																			
3	7.0686	22.0412	0.6426	3466	2204	64.26	3306	96.39	4408	128.52	4959	144.59	5510	160.65	6061	176.72	6612	192.78	
3 1/4	8.2958	25.8678	0.7542	2953	2587	75.42	3880	113.12	5174	150.83	5820	169.69	6467	188.54	7114	207.39	7760	226.25	
3 1/2	9.6212	30.0005	0.8747	2546	3000	87.47	4500	131.20	6000	174.93	6750	196.80	7500	218.66	8250	240.53	9000	262.40	
3 3/4	11.0447	34.4393	1.0041	2218	3444	100.41	5166	150.61	6888	200.81	7749	225.91	8610	251.02	9471	276.12	10332	301.22	
4	12.5664	39.1843	1.1424	1950	3918	114.24	5878	171.36	7837	228.48	8816	257.04	9796	285.60	10776	314.16	11755	342.72	
430T-7H																			
2 1/2	4.9088	15.3064	0.4463	4990	1531	44.63	2296	66.94	3061	89.25	3444	100.41	3827	111.56	4209	122.72	4592	133.88	
2 3/4	5.9396	18.5207	0.5400	4125	1852	54.00	2778	80.99	3704	107.99	4167	121.49	4630	134.99	5093	148.49	5556	161.99	
3	7.0686	22.0412	0.6426	3466	2204	64.26	3306	96.39	4408	128.52	4959	144.59	5510	160.65	6061	176.72	6612	192.78	
Brake Horsepower Required:					144		217		289		325		361		397		430		

Metric Units

Plunger Dia. mm	Plunger Area Sq. cm.	M ³ /D Per RPM	L/Min Per RPM	Max. Press. kPa	100 RPM*		150 RPM		200 RPM		225 RPM		250 RPM		275 RPM		300 RPM		
					M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D	L/Min.	M ³ /D
430T-7L																			
108	91.5246	7.0330	4.8814	11910	703	488.14	1055	732.21	1407	976.27	1582	1098.31	1758	1220.34	1934	1342.38	2110	1464.41	
114	102.6089	7.8847	5.4725	10620	788	547.25	1183	820.88	1577	1094.51	1774	1231.32	1971	1368.14	2168	1504.95	2365	1641.76	
121	114.3266	8.7852	6.0975	9538	879	609.75	1318	914.62	1757	1219.50	1977	1371.94	2196	1524.37	2416	1676.81	2636	1829.25	
127	126.6777	9.7342	6.7562	8600	973	675.62	1460	1013.43	1947	1351.25	2190	1520.15	2434	1689.06	2677	1857.96	2920	2026.87	
430T-7M																			
76	45.6040	3.5043	2.4322	23903	350	243.22	526	364.84	701	486.45	788	547.25	876	608.06	964	668.87	1051	729.67	
83	53.5213	4.1127	2.8545	20366	411	285.45	617	428.18	823	570.90	925	642.26	1028	713.63	1131	784.99	1234	856.35	
89	62.0721	4.7698	3.3106	17559	477	331.06	715	496.58	954	662.11	1073	744.87	1192	827.64	1312	910.40	1431	993.17	
95	71.2562	5.4755	3.8004	15297	548	380.04	821	570.06	1095	760.08	1232	855.08	1369	950.09	1506	1045.10	1643	1140.11	
102	81.0737	6.2299	4.3240	13448	623	432.40	934	648.60	1246	864.80	1402	972.90	1557	1081.00	1713	1189.10	1869	1297.20	
430T-7H																			
64	31.6694	2.4336	1.6891	34414	243	168.91	365	253.36	487	337.81	548	380.04	608	422.26	669	464.49	730	506.72	
70	38.3200	2.9446	2.0438	28448	294	204.38	442	306.56	589	408.75	663	459.85	736	510.94	810	562.03	883	613.13	
76	45.6040	3.5043	2.4322	23903	350	243.22	526	364.84	701	486.45	788	547.25	876	608.06	964	668.87	1051	729.67	
Kilowatts Required:					107		162		216		242		269		296		321		

Volume is based on 100% volumetric efficiency. Brake horsepower is based on 90% mechanical efficiency.



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