

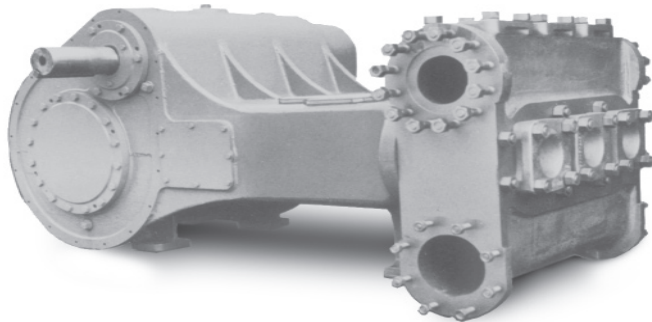
ROTATING RIGHT

NATIONAL OILWELL 300TP-8 TECHNICAL DATA SHEET

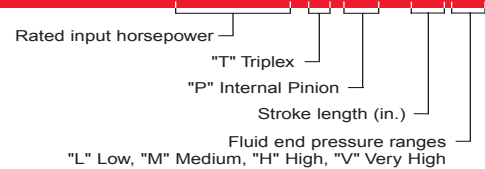
Formerly B-358-D & B-368-D



Triplex Plunger Pump 300TP-8



This 8" 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
300TP-8L	6 (152.4) ANSI-600 L.R.	8 (203.2) ANSI-150 F.F.
300TP-8M	4 (101.6) ANSI-900 L.R.	6 (152.4) ANSI-150 F.F.
300TP-8H	4 (101.6) ANSI-1500 L.R.	6 (152.4) ANSI-150 F.F.
300TP-8V	3 (76.2) ANSI-2500 RTJ	6 (152.4) ANSI-150 F.F.

Dimensions

Pump Type	Length	Width	Height
300TP-8L	87-3/8"	58-3/8"	49-1/4"
300TP-8M	85-7/8"	58-3/8"	49-1/4"
300TP-8H	85-7/8"	58-3/8"	49-1/4"
300TP-8V	85-7/8"	58-3/8"	49-1/4"

Pump Specifications

Pump Size (Max. Plunger Diameter x Stroke) in. (mm) ...6-1/2 x 8 (165.1 x 203.2)
 Rated BHP At 225 RPM (Kw)300 (223.88)
 Rated Plunger Load (Kg)20,000 (9,072)

Maximum Working Pressure: PSI (kPa)

"L" Model Discharge Pressure925 (6,378)
 "M" Model Discharge Pressure.....1,590 (10,963)
 "H" Model Discharge Pressure..... 2,410 (16,616)
 "V" Model Discharge Pressure 3,690 (25,441)

Pinion Shaft Extension, if gear unit supplied (mm)

Diameter4.495 (114.17)
 Length9-7/8 (250.83)
 Keyway (Width x Depth).....1 x 1/2 (25.4 x 12.7)

Oil Capacity: Gallons (L)

Crankcase22 (83.28)

Weight: Pump Only On Wood Shipping Skids - Lbs. (Kg)8,725 (3,966)

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 Plunger Packing
 Stainless Steel Intermediate Rods
 Fluid King Spherical Valves
 Oil Level Dipstick
 Crankcase Breather

Optional Equipment

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

Accessories

Internal Pinion Gear:
 4.07:1 Ratio (Standard) 2.02:1 Ratio (Optional)
 3.28:1 Ratio (Optional) 5.23:1 Ratio (Optional)

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

Quick Maintenance Features

- Horizontal Design
- Large Power End Access Covers And Doors
- Outside Access For Bearing Adjustment
- Separate Crosshead/Plunger Construction
- Open Cradle Frame
- Removable Stuffing Boxes
- Interchangeable Valves

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*		125 RPM		150 RPM		175 RPM		200 RPM		225 RPM	
					BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
300TP-8L																
5 1/4	21.6476	77.1441	2.2491	925	7714	224.91	9643	281.14	11572	337.37	13500	393.59	15429	449.82	17357	506.05
5 1/2	23.7584	84.6661	2.4684	840	8467	246.84	10583	308.55	12700	370.26	14817	431.97	16933	493.68	19050	555.39
5 3/4	25.9673	92.5380	2.6979	770	9254	269.79	11567	337.24	13881	404.69	16194	472.13	18508	539.58	20821	607.03
6	28.2744	100.7597	2.9376	710	10076	293.76	12595	367.20	15114	440.64	17633	514.08	20152	587.52	22671	660.96
6 1/4	30.6797	109.3313	3.1875	650	10933	318.75	13666	398.44	16400	478.13	19133	557.81	21866	637.50	24600	717.19
6 1/2	33.1832	118.2527	3.4476	600	11825	344.76	14782	430.95	17738	517.14	20694	603.33	23651	689.52	26607	775.71
300TP-8M																
4	12.5664	44.7821	1.3056	1590	4478	130.56	5598	163.20	6717	195.84	7837	228.48	8956	261.12	10076	293.76
4 1/4	14.1863	50.5548	1.4739	1410	5055	147.39	6319	184.24	7583	221.09	8847	257.93	10111	294.78	11375	331.63
4 1/2	15.9044	56.6773	1.6524	1260	5668	165.24	7085	206.55	8502	247.86	9919	289.17	11335	330.48	12752	371.79
4 3/4	17.7206	63.1497	1.8411	1130	6315	184.11	7894	230.14	9472	276.17	11051	322.19	12630	368.22	14209	414.25
5	19.6350	69.9720	2.0400	1020	6997	204.00	8747	255.00	10496	306.00	12245	357.00	13994	408.00	15744	459.00
300TP-8H																
3 1/4	8.2958	29.5632	0.8619	2410	2956	86.19	3695	107.74	4434	129.29	5174	150.83	5913	172.38	6652	193.93
3 1/2	9.6212	34.2863	0.9996	2080	3429	99.96	4286	124.95	5143	149.94	6000	174.93	6857	199.92	7714	224.91
3 3/4	11.0447	39.3593	1.1475	1810	3936	114.75	4920	143.44	5904	172.13	6888	200.81	7872	229.50	8856	258.19
4	12.5664	44.7821	1.3056	1590	4478	130.56	5598	163.20	6717	195.84	7837	228.48	8956	261.12	10076	293.76
4 1/4	14.1863	50.5548	1.4739	1410	5055	147.39	6319	184.24	7583	221.09	8847	257.93	10111	294.78	11375	331.63
300TP-8V																
2 3/4	5.9396	21.1665	0.6171	3370	2117	61.71	2646	77.14	3175	92.57	3704	107.99	4233	123.42	4762	138.85
3	7.0686	25.1899	0.7344	2830	2519	73.44	3149	91.80	3778	110.16	4408	128.52	5038	146.88	5668	165.24
Brake Horsepower Required:					133		166		200		233		266		300	

Metric Units

Plunger Dia. mm	Plunger Area Sq. cm.	M ³ /D Per RPM	L/Min Per RPM	Max. Press. kPa	100 RPM*		125 RPM		150 RPM		175 RPM		200 RPM		225 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.
300TP-8L																
133	139.6621	12.2651	8.5128	6378	1227	851.28	1533	1064.11	1840	1276.93	2146	1489.75	2453	1702.57	2760	1915.39
140	153.2800	13.4611	9.3429	5791	1346	934.29	1683	1167.86	2019	1401.43	2356	1635.01	2692	1868.58	3029	2102.15
146	167.5312	14.7126	10.2116	5309	1471	1021.16	1839	1276.44	2207	1531.73	2575	1787.02	2943	2042.31	3310	2297.60
152	182.4159	16.0198	11.1188	4895	1602	1111.88	2002	1389.85	2403	1667.82	2803	1945.79	3204	2223.76	3604	2501.73
159	197.9339	17.3826	12.0647	4481	1738	1206.47	2173	1508.09	2607	1809.70	3042	2111.32	3477	2412.94	3911	2714.55
165	214.0853	18.8010	13.0492	4137	1880	1304.92	2350	1631.15	2820	1957.37	3290	2283.60	3760	2609.83	4230	2936.06
300TP-8M																
102	81.0737	7.1199	4.9417	10963	712	494.17	890	617.71	1068	741.25	1246	864.80	1424	988.34	1602	1111.88
108	91.5246	8.0377	5.5787	9722	804	557.87	1005	697.34	1206	836.81	1407	976.27	1608	1115.74	1808	1255.21
114	102.6089	9.0111	6.2543	8687	901	625.43	1126	781.79	1352	938.15	1577	1094.51	1802	1250.87	2028	1407.23
121	114.3266	10.0402	6.9686	7791	1004	696.86	1255	871.07	1506	1045.28	1757	1219.50	2008	1393.71	2259	1567.93
127	126.6777	11.1248	7.7214	7033	1112	772.14	1391	965.18	1669	1158.21	1947	1351.25	2225	1544.28	2503	1737.32
300TP-8H																
83	53.5213	4.7002	3.2623	16616	470	326.23	588	407.79	705	489.34	823	570.90	940	652.46	1058	734.02
89	62.0721	5.4512	3.7835	14341	545	378.35	681	472.94	818	567.52	954	662.11	1090	756.70	1227	851.28
95	71.2562	6.2577	4.3433	12480	626	434.33	782	542.91	939	651.49	1095	760.08	1252	868.66	1408	977.24
102	81.0737	7.1199	4.9417	10963	712	494.17	890	617.71	1068	741.25	1246	864.80	1424	988.34	1602	1111.88
108	91.5246	8.0377	5.5787	9722	804	557.87	1005	697.34	1206	836.81	1407	976.27	1608	1115.74	1808	1255.21
300TP-8V																
70	38.3200	3.3653	2.3357	23235	337	233.57	421	291.97	505	350.36	589	408.75	673	467.14	757	525.54
76	45.6040	4.0049	2.7797	19512	400	277.97	501	347.46	601	416.96	701	486.45	801	555.94	901	625.43
Kilowatts Required:					100		126		151		176		201		226	

* For operations below 50 RPM an auxiliary lubrication system is required. Volume is based on 100% volumetric efficiency. Brake horsepower is based on 90% mechanical efficiency.



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