

ROTATING RIGHT

## MODEL 22T-2 SINGLE ACTING DUPLEX PUMP



### 22T-2

A 22 horsepower 2 1/4" stroke horizontal duplex single acting plunger pump. Available in four different fluid end materials at pump speeds up to 465 RPM.

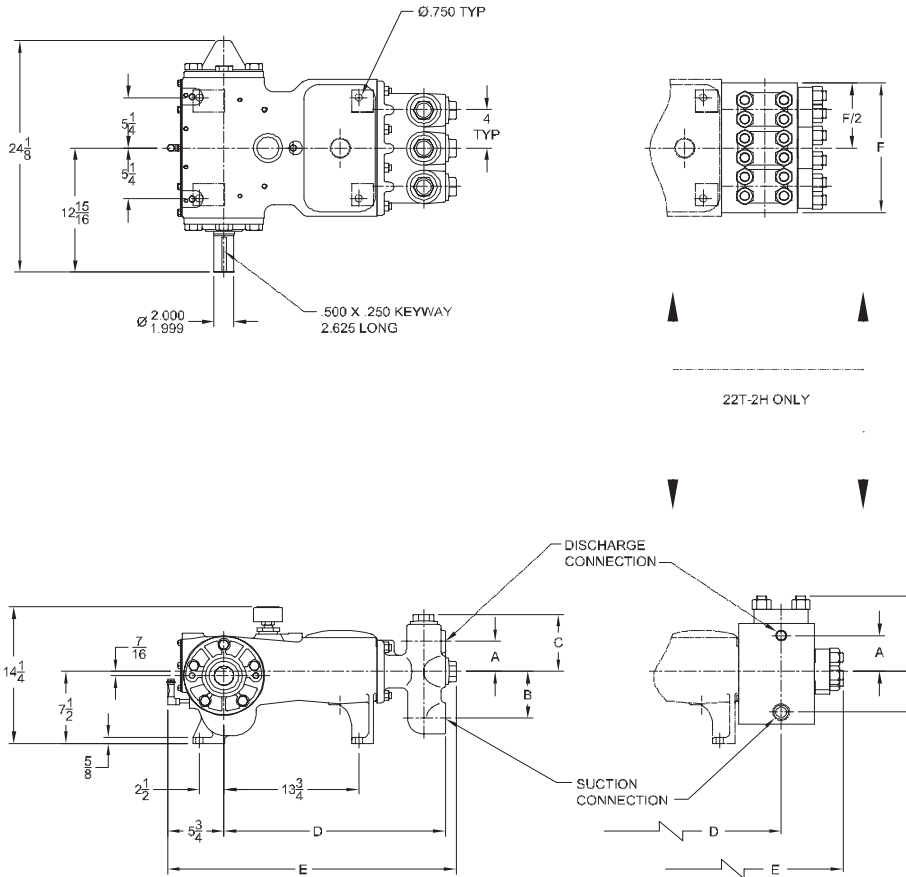
#### Power End Features

- Cast iron power frame
- Flooded sump, splash distribution lubrication
- One piece plungers
- Flooded sump, splash distribution lubrication
- Cast iron connecting rods
- Alloy steel crosshead pins
- Bronze bearing crosshead pin bushings
- Rated rod load is 2550 lbs.

#### Fluid End Features

- Threaded type glands and integral stuffing boxes
- Plungers - Solid Ceramic, or Tungsten Coated
- Threaded suction and discharge connections

# 22T-2 Triplex Plunger Pump



## Specifications

### Pump Size:

maximum plunger size x stroke length, in.(mm)  
2.000 x 2.250 (50.8 x 57.15)

**Rated BHP (kW) at 465 RPM:** 22 (17)

**Rated plunger load, pounds (kg):** 2550 (1157)

**Maximum discharge pressure:** psi (kPa)

"L" model: 1443 (9949)

"M" model: 2565 (17688)

"H" model: 4600 (31716)

### Crankshaft extension:

Diameter, in.(mm): 2.000 (50.8)

Length, in.(mm) : 3.875 (98.43)

Keyway width x depth, in.(mm):

1/2 x 1/4 (12.7 x 6.35)

Maximum recommended sheave diameter,  
in.(mm): 33.5 (850.9)

For larger sizes: **Contact Factory**

### Oil Capacity, gallons (L)

Crankcase: 1-1/4 (4.73)

### Weight, pump only on

wood shipping skids, pounds (kg)

"L" model: 395 (179)

"M" model: 395 (179)

"H" model: 395 (179)

### Standard Materials for Fluid Ends:

"L" model

Cast Ductile Iron

Cast Nickel-Aluminum-Bronze

Cast 316 Stainless Steel

Forged/Plate Carbon Steel

"M" model

Cast Ductile Iron

Cast Nickel-Aluminum-Bronze

Cast 316 Stainless Steel

Forged/Plate Carbon Steel

"H" model

Forged 15-5 Stainless Steel

Pump Model	Flange Connections		Dimensions (Inches)					
	Discharge Connection Sizes	Suction Connection Sizes	A	B	C	D	E	F
22T-2L	1 (25.4)-11 1/2 NPT	2 (50.8)-11 1/2 NPT	3 1/8	4 7/8	5 15/16	22 5/8	29 1/2	11 1/2
22T-2M	1 (25.4)-11 1/2 NPT	2 (50.8)-11 1/2 NPT	3 1/8	4 7/8	5 15/16	22 5/8	29 1/2	11 1/2
22T-2H	3/4 (19.1)-14 NPT	1 1/4 (31.8)-11 1/2 NPT	3 3/4	4 1/4	7 7/8	20	32 1/8	13 1/2

# 22T-2 Triplex Plunger Pump

## Performance Data

PUMP	English Units					50 RPM		150 RPM		200 RPM		250 RPM		350 RPM		465 RPM	
	Plunger Dia. In.	Plunger Area Sq. In.	BPD per RPM	GPM per RPM	Max. Press. PSI	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM
22T-2L (T225LS)	2.000	3.1416	3.1474	0.0918	812	158	4.6	473	13.8	630	18.4	787	22.9	1102	32.1	1464	42.7
	1.875	2.7612	2.7663	0.0807	924	139	4.0	415	12.1	554	16.1	692	20.2	969	28.2	1287	37.5
	1.750	2.4053	2.4097	0.0703	1060	121	3.5	362	10.5	482	14.1	603	17.6	844	24.6	1121	32.7
	1.625	2.0739	2.0778	0.0606	1230	104	3.0	312	9.1	416	12.1	520	15.2	728	21.2	967	28.2
	1.500	1.7671	1.7704	0.0516	1443	89	2.6	266	7.7	355	10.3	443	12.9	620	18.1	824	24.0
22T-2M (T225M)	1.750	2.4053	2.4097	0.0703	1060	121	3.5	362	10.5	482	14.1	603	17.6	844	24.6	1121	32.7
	1.625	2.0739	2.0778	0.0606	1230	104	3.0	312	9.1	416	12.1	520	15.2	728	21.2	967	28.2
	1.500	1.7671	1.7704	0.0516	1443	89	2.6	266	7.7	355	10.3	443	12.9	620	18.1	824	24.0
	1.375	1.4849	1.4876	0.0434	1717	75	2.2	224	6.5	298	8.7	372	10.8	521	15.2	692	20.2
	1.250	1.2272	1.2295	0.0359	2078	62	1.8	185	5.4	246	7.2	308	9.0	431	12.6	572	16.7
	1.125	0.9940	0.9959	0.0290	2565	50	1.5	150	4.4	200	5.8	249	7.3	349	10.2	464	13.5
22T-2H (T225H)	1.000	0.7854	0.7869	0.0229	3247	40	1.1	119	3.4	158	4.6	197	5.7	276	8.0	366	10.7
	0.875	0.6013	0.6024	0.0176	4241	31	0.9	91	2.6	121	3.5	151	4.4	211	6.1	281	8.2
	0.750	0.4418	0.4426	0.0129	4600	23	0.6	67	1.9	89	2.6	111	3.2	155	4.5	206	6.0
Brake Horsepower Required						2.4		7.2		9.7		12		17		22	

PUMP	Metric Units					50 RPM		150 RPM		200 RPM		250 RPM		350 RPM		465 RPM	
	Plunger Dia. cm	Plunger Area cm <sup>2</sup>	M <sup>3</sup> /Hr per RPM	L/Sec. per RPM	Max. Press. kPa	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.	M <sup>3</sup> /Hr	L/Sec.
22T-2L (T225LS)	51	20.268	0.0208	0.0058	5596	1.04	0.29	3.13	0.87	4.17	1.16	5.21	1.45	7.30	2.03	9.69	2.69
	48	17.814	0.0183	0.0051	6368	0.92	0.25	2.75	0.76	3.66	1.02	4.58	1.27	6.41	1.78	8.52	2.37
	44	15.518	0.0160	0.0044	7310	0.80	0.22	2.39	0.67	3.19	0.89	3.99	1.11	5.59	1.55	7.42	2.06
	41	13.380	0.0138	0.0038	8477	0.69	0.19	2.06	0.57	2.75	0.76	3.44	0.96	4.82	1.34	6.40	1.78
	38	11.401	0.0117	0.0033	9949	0.59	0.16	1.76	0.49	2.35	0.65	2.93	0.81	4.10	1.14	5.45	1.51
22T-2M (T225M)	44	15.518	0.0160	0.0044	7310	0.80	0.22	2.39	0.67	3.19	0.89	3.99	1.11	5.59	1.55	7.42	2.06
	41	13.380	0.0138	0.0038	8477	0.69	0.19	2.06	0.57	2.75	0.76	3.44	0.96	4.82	1.34	6.40	1.78
	38	11.401	0.0117	0.0033	9949	0.59	0.16	1.76	0.49	2.35	0.65	2.93	0.81	4.10	1.14	5.45	1.51
	35	9.580	0.0099	0.0027	11840	0.49	0.14	1.48	0.41	1.97	0.55	2.46	0.68	3.45	0.96	4.58	1.27
	32	7.917	0.0081	0.0023	14327	0.41	0.11	1.22	0.34	1.63	0.45	2.04	0.57	2.85	0.79	3.79	1.05
	29	6.413	0.0066	0.0018	17688	0.33	0.09	0.99	0.27	1.32	0.37	1.65	0.46	2.31	0.64	3.07	0.85
22T-2H (T225H)	25	5.067	0.0052	0.0014	22386	0.26	0.07	0.78	0.22	1.04	0.29	1.30	0.36	1.82	0.51	2.42	0.67
	22	3.879	0.0040	0.0011	29239	0.20	0.06	0.60	0.17	0.80	0.22	1.00	0.28	1.40	0.39	1.86	0.52
	19	2.850	0.0029	0.0008	31716	0.15	0.04	0.44	0.12	0.59	0.16	0.73	0.20	1.03	0.29	1.36	0.38
Kilowatts Required						1.8		5.4		7.2		9.0		13		17	

For operation below 75 RPM, an auxiliary lubrication system is required.

Volumetric Rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency.

The information and data on this sheet is accurate to the best of our knowledge and belief, but are intended for general information only. Applications suggested for the materials are described only to help readers make their own evaluations and decisions, and are neither guarantees nor to be construed as express or implied warranties of suitability for these or other applications. National Oilwell makes no warranty either express or implied beyond that stipulated in National Oilwell Standard Terms and Conditions of Sale.

## Accessories

Rotating Right offers a full line of accessories to ensure long trouble free and safe operation of your multiplex pumps.

### Accessories Include:

- Pulsation Dampeners - Suction & Discharge
- Vibration Shock Switches
- Liquid Level Gauges & Switches
- Pressure Safety Valves
- Plunger Lubricators
- Fire Safety Valves
- High Discharge Pressure Switch
- Condensate Drain
- N.A.C.E. Valving
- Lubricator Level Controller
- API Valves
- Drive Options



## Expendables



With our worldwide buying power Rotating Right is well equipped to provide a wide range of replacement parts & expendables for virtually all multiplex plunger pumps regardless of make or model.

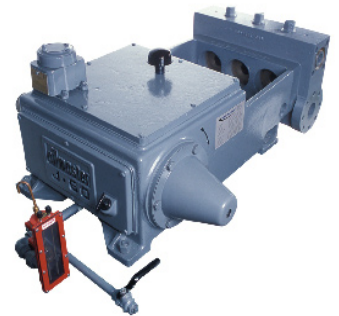


Our expendables inventory includes plungers, packing, brass, valves, bearings, crankshafts, connecting rods and seals.



## Repair & Overhauls

Rotating Right service technicians follow strict quality control procedures for every pump repair and overhaul. The use of consistent and reliable re-manufacturing techniques ensure your equipment is returned to you in "Like New" condition.



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