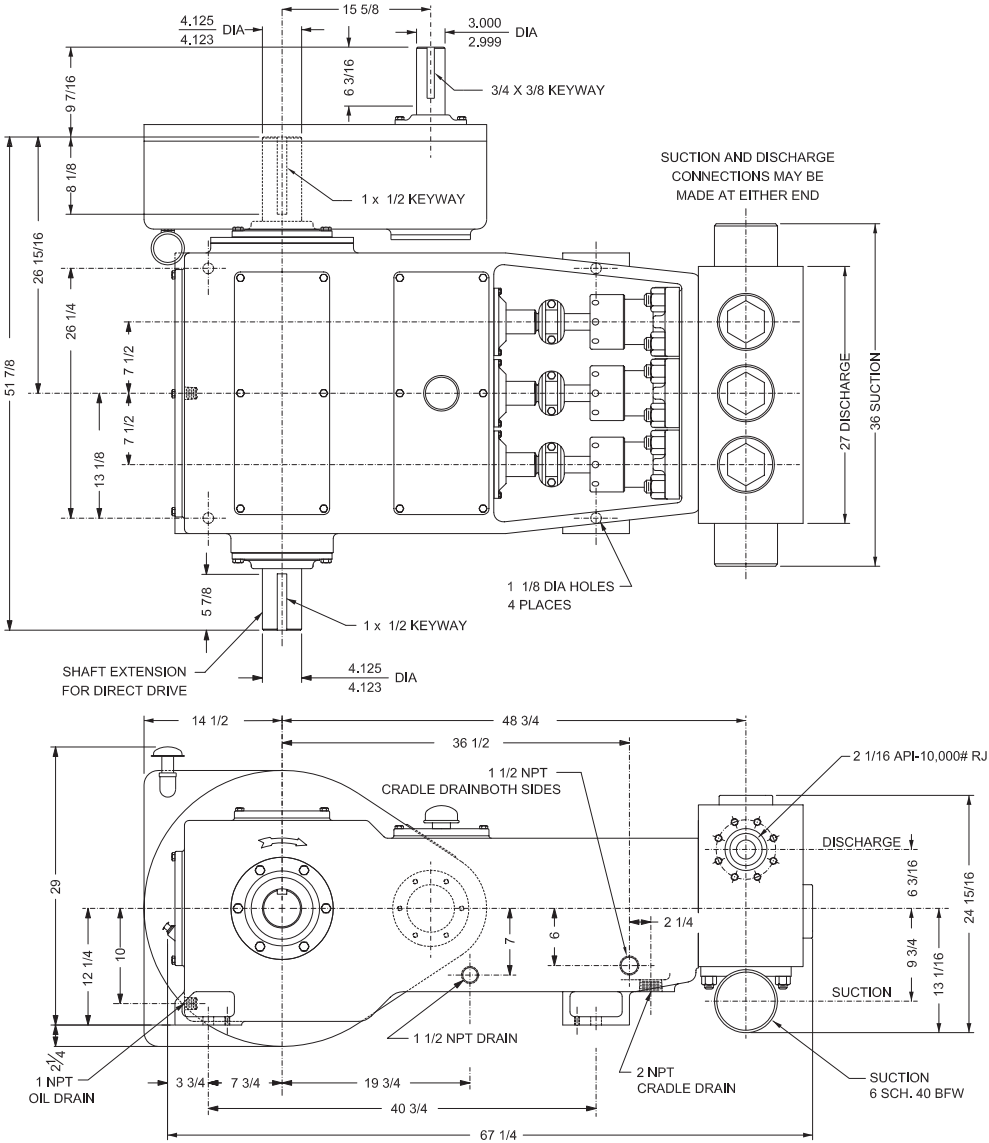


JWS-185 Triplex Well Service Pump



Pump Model	Flange Connections	
	Discharge Connection Sizes	Suction Connection Sizes
JWS-185	2 1/16 API 10,000# RJ	6 STD Pipe

Specifications

- Pump Size:**
max. dia. x stroke, in.(mm):
4 1/2 x 5 (114.3 x 127)
- Rated bhp at 450 rpm (kw):** 185 (137.9)
- Maximum pressure:** psi(kPa):
10,000 (68,950)
- Stroke Length** in.(mm): 5 (127)
- Max. Speed** rpm: 450
- Max. plunger** in.(mm): 4 (101.6)
- Max. piston** in.(mm): 4 1/2 (114.3)
- Crankshaft extension:** in.(mm)
Diameter: 4 1/8 (104.78)
Length: 8 1/8 (206.38)
Keyway (width x depth):
1 x 1/2 (25.4 x 12.7)
- Pinion shaft extension,**
if gear unit supplied in.(mm)
For Belt or chain drive:
Diameter: 3 (76.2)
Length: 6 3/16 (157.2)
Keyway (width x depth):
3/4 x 3/8 (19.1 x 9.5)
For direct drive:
Diameter: 3 (76.2)
Length: 6 3/16 (157.2)
Keyway (width x depth):
3/4 x 3/8 (19.1 x 9.5)

Accessory Gear Units:
See accessories for reduction ratios.

- Oil Capacity:** gallons (L)
Crankcase: 8 (30)
Gear unit - Varies with gear ratio:
2.25 to 3.5 (8.52 to 13.25)
- Weight,** Pump only on
wood shipping skids, pounds(Kg):
4000 (1814)
Gear unit, approximate, pounds(Kg):
800 (363)

- Standard Equipment:**
Forged steel fluid end
Forged steel valve covers
Piston & liners or plungers & packing
Slush type valves
Oil level dipstick
Crankcase breather
Stainless steel extension rods
Double extended crankshaft

- Accessories:**
Gear reduction units:
3.22:1, 3.46:1, 4.38:1, 4.96:1
Suction stabilizer
Discharge dampener
Liner flush system
Plunger lubricator
Valve seat puller assembly
Complete unitization with
electric motor or engine drive

JWS-185 Triplex Well Service Pump

Performance Data

English Units

Diameter, in.		Plungers Only 2"			Plungers only 2 1/2"			2 3/4"			3"			3 1/2"			4"			Pistons Only 4 1/2"		
gal/min. per RPM		.2040			.3187			.3857			.4590			.6247			.8160			1.0327		
bbl/min. per RPM		.0049			.0076			.0092			.0109			.0149			.0194			.0246		
RPM	Req'd. hp	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.	PSI	gal/ min.	bbl/ min.
450	185	3110	92	2.19	1995	143	3.42	1644	174	4.13	1382	206.6	4.894	1020	281	6.69	780	367	8.74	-	-	-
400	185	3500	82	1.94	2247	127	3.04	1850	154	3.67	1544	183.6	4.371	1140	250	5.95	870	326	7.77	-	-	-
350	185	4000	71	1.70	2548	112	2.66	2110	135	3.21	1776	160.7	3.825	1310	219	5.21	1000	286	6.80	-	-	-
300	185	4660	61	1.46	2973	96	2.28	2470	116	2.75	2072	137.7	3.279	1520	187	4.46	1170	245	5.83	-	-	-
250	185	5600	51	1.21	3567	80	1.90	2960	96	2.30	2487	114.8	2.732	1830	156	3.72	1400	204	4.86	-	-	-
225	185	6220	46	1.09	3964	72	1.71	3290	87	2.07	2763	103.3	2.459	2030	141	3.35	1550	184	4.37	1230	232	5.53
200	185	7000	41	0.97	4459	64	1.52	3700	77	1.84	3109	91.8	2.186	2280	125	2.97	1750	163	3.89	1380	207	4.92
100	132	10000	20	0.49	6350	32	0.76	5250	39	0.92	4444	45.9	1.093	3240	62	1.49	2480	82	1.94	1960	103	2.46
50	66	10000	10	0.24	6350	16	0.38	5250	19	0.46	4444	23.0	0.546	3240	31	0.74	2480	41	0.97	1960	52	1.23
25	33	10000	5	0.12	6350	8	0.19	5250	10	0.23	4444	11.5	0.273	3240	16	0.37	2480	20	0.49	1960	26	0.61

Metric Units

Diameter, mm		Plungers only 50.8			Plungers only 63.5			69.9			76.2			88.9			101.6			Pistons only 114.3		
Liter/min per RPM		.7722			1.2065			1.4600			1.7375			2.3649			3.0889			3.9094		
M3/min per RPM		.00077			.001207			.00146			.00174			.00236			.00308			.0039		
RPM	Req'd. hp	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.	kg/ cm2	L/ min.	M3/ min.
450	185	220	347	.347	140	543	0.543	116	657	.657	97	782	0.782	72	1064	1.06	55	1390	1.39	-	-	-
400	185	247	309	.309	158	483	0.483	131	584	.584	109	695	0.695	81	946	.946	62	1236	1.23	-	-	-
350	185	283	270	.270	179	422	0.422	150	511	.511	125	608	0.608	92	828	.828	71	1081	1.08	-	-	-
300	185	330	232	.232	209	362	0.362	174	438	.438	146	521	0.521	108	709	.709	82	927	.927	-	-	-
250	185	396	193	.193	251	302	0.302	209	365	.365	175	435	0.435	129	591	.591	99	772	.772	-	-	-
225	185	440	174	.174	279	271	0.271	233	328	.328	194	391	0.391	144	532	.532	110	695	.695	87	880	.880
200	185	495	154	.154	314	241	0.241	262	292	.292	219	348	0.348	162	473	.473	124	618	.618	98	782	.782
100	132	703	77	.077	447	121	0.121	369	146	.146	312	174	0.174	228	236	.236	174	309	.309	138	391	.391
50	66	703	39	.039	447	60	0.060	369	73	.073	312	87	0.087	228	118	.118	174	154	.154	138	195	.195
25	33	703	19	.019	447	30	0.030	369	36	.036	312	44	0.044	228	59	.059	174	77	.077	138	98	.098

(Volumes indicated are displacement of incompressible fluid) Volumetric rate is based on 100% Volumetric Efficiency. Brake Horsepower/Kilowatts Required is based on 90% Mechanical Efficiency. These ratings are for intermittent service. Pressure up to those shown may be utilized for a period not to exceed a total of 4 hours in 240 hours. Caution: When pump is equipped with pistons and liners, pressures in excess of 5000 psi(352 kg/cm2) should not be exceeded except for emergencies or intermittent duty of short duration. Speed in excess of 225 rpm is recommended for plunger only and not recommended for pump equipped with pistons for maximum liner and piston life.

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.

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