

ROTATING RIGHT

## MODEL JWS-340 SINGLE ACTING WELL SERVICE PUMP



### JWS-340

A 340 horsepower 5" stroke intermittent duty single acting well service piston/plunger pump. Equipped with forged alloy steel mono-block fluid end and rated at pump speeds up to 450 RPM and maximum discharge pressures up to 10,000 psi. Can be equipped with multiple external gear reduction units.

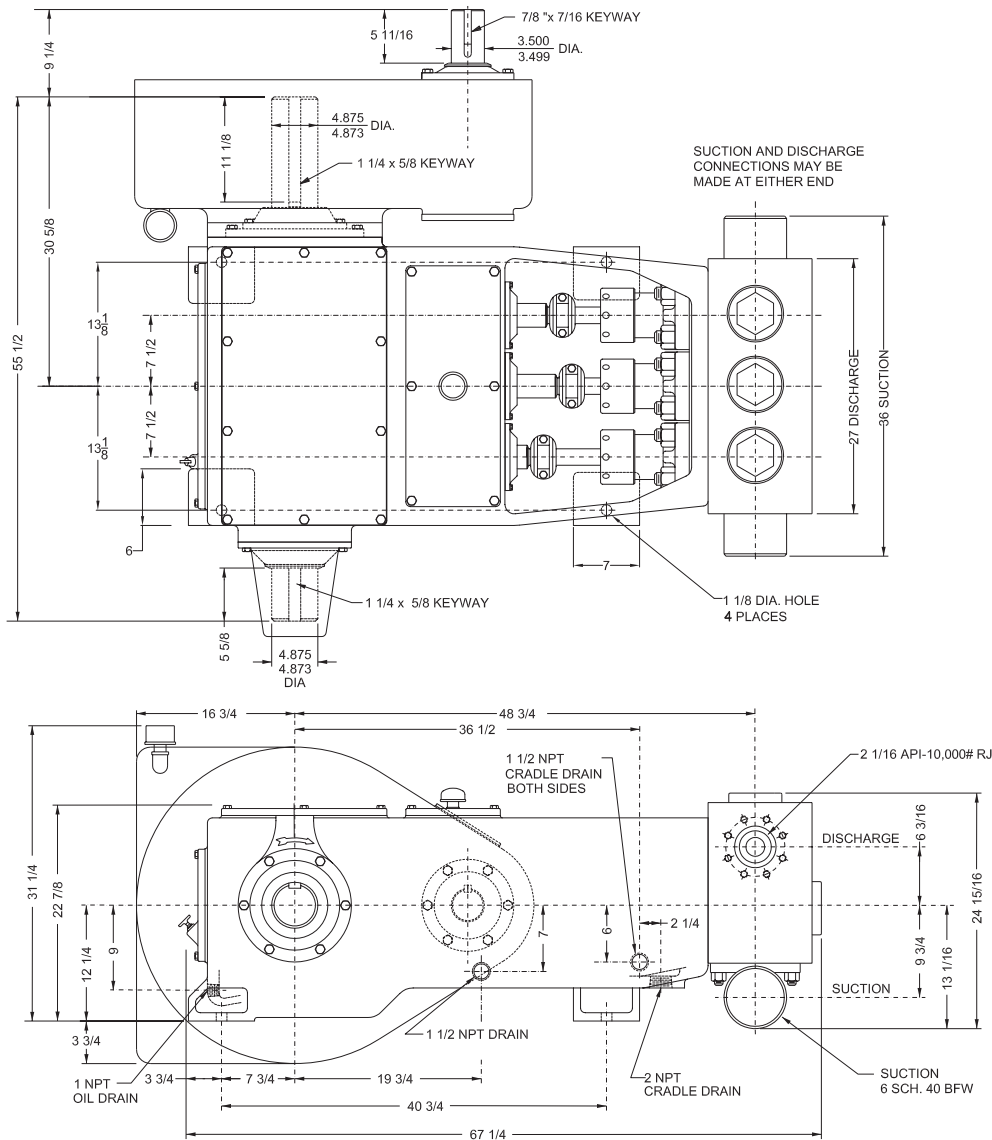
#### Power End Features

- One piece, High strength steel power frame
- Heavy-duty, tapered roller crankshaft bearings
- Precision type, aluminum alloy crankpin bearings
- Stainless steel connecting rods, removable from crossheads
- Cast iron crossheads with upper/lower oil grooves
- Forged Alloy steel crankshaft w/ ground journals and polished throws
- Replaceable Stainless Steel intermediate rods
- Internal Pressurized Lubrication System
- Alloy steel crosshead pins, case hardened and finish ground

#### Fluid End Features

- Pumps equipped with Liners
- Forged Alloy Steel Fluid Ends
- Forged Steel buttress threaded valve covers
- Two Piece Piston Rods
- Individually removable Liners
- Pumps equipped with Plungers
- Plungers and packing, general service lip type
- Forged Alloy Steel Fluid Ends
- Ductile iron stuffing boxes with screw type glands
- Full Open Valves and Seats
- Forged Steel buttress threaded valve covers

# JWS-340 Triplex Well Service Pump



## Specifications

### Pump size:

max. dia. X stroke, in.(mm):  
4 1/2 x 5 (114.3 x 127)

**Rated bhp at 450 rpm (kw):** 340 (253.5)

**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 7/8 (123.8)

Length: 11 3/4 (298.0)

Keyway (width x depth):

1 1/4 x 5/8 (32.0 x 16.0)

**Pinion shaft extension,**

if gear unit supplied in.(mm)

For belt or chain drive:

Diameter: 3 1/2 (88.9)

Length: 5 11/16 (144)

Keyway (width x depth):

7/8 x 7/16 (22.2 x 11.1)

For direct drive:

Diameter: 3 1/2 (88.9)

Length: 5 11/16 (144)

Keyway (width x depth):

7/8 x 7/16 (22.2 x 11.1)

**Accessory gear units:**

**See accessories for reduction ratios**

**Oil capacity:** gallons(L)

Crankcase: 8 (30.3)

Gear Unit – Varies with gear ratio:

3.5 to 6.5 (13.2 to 24.6)

**Weight,** pump only on

wood shipping skids pounds (Kg):

5200 (2359)

Gear unit, approximate pounds (Kg):

1100 (499)

**Standard Equipment**

Forged steel fluid end

Forged steel valve covers

Piston and liners or plungers & packing

Slush type valves

Oil level dipstick

Crankcase breather

Stainless steel extension rods

Double extended crankshaft

**Accessories**

Gear Reducers

2.27:1, 2.89:1, 3.25:1, 4.38:1, 4.84:1, 5.63:1

Suction stabilizer

Discharge dampener

Liner flush system

Plunger lubricator

Valve seat puller assembly

Complete unitization with

electric motor or engine drive

**Rod Load**

Rod Load = 59,820 pounds (27,134 kg)

Pump Model	Flange Connections	
	Discharge Connection Sizes	Suction Connection Sizes
JWS-340	2 1/16 API 10,000# RJ	6 STD Pipe

# JWS-340 Triplex Well Service Pump

## Performance Data

### English Units

Diameter, in.		Plungers Only 2 3/4"			Plungers Only 3"			3 1/2"			4"			Pistons Only 4 1/2"		
gal/min. per RPM		.3857			.4590			.6247			.8160			1.0327		
bbl/min. per RPM		.0092			0.0109			.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.
450	340	3020	174	4.13	2539	206.6	4.894	1870	281	6.69	1430	367	8.74	-	-	-
400	340	3400	154	3.67	2857	183.6	4.371	2100	250	5.95	1610	326	7.77	-	-	-
350	340	3890	135	3.21	3265	160.7	3.825	2400	219	5.21	1840	286	6.80	-	-	-
300	340	4530	116	2.75	3809	137.7	3.279	2800	187	4.46	2140	245	5.83	-	-	-
250	340	5440	96	2.30	4571	114.8	2.732	3360	156	3.72	2570	204	4.86	-	-	-
225	340	6040	87	2.07	5078	103.3	2.459	3730	141	3.35	2860	184	4.37	2260	232	5.53
200	340	6800	77	1.84	5713	91.8	2.186	4200	125	2.97	3210	163	3.89	2540	207	4.92
100	252	10000	39	.92	8403	45.9	1.093	6220	62	1.49	4760	82	1.94	3760	103	2.46
50	126	10000	19	.46	8403	23.0	0.546	6220	31	.74	4760	41	.97	3760	52	1.23
25	63	10000	10	.23	8403	11.5	0.273	6220	16	.37	4760	20	.49	3760	26	.61

### Metric Units

Diameter, mm		Plungers Only 69.9			Plungers Only 76.2			88.9			101.6			Pistons only 114.3		
Liter/min. per RPM		1.4600			1.7375			2.3649			3.0889			3.9094		
M <sup>3</sup> /min per RPM		.00146			.00174			.00236			.00308			.00391		
RPM	Req'd. hp	kg/ cm <sup>2</sup>	L/ min.	M <sup>3</sup> / min.	kg/ cm <sup>2</sup>	L/ min.	M <sup>3</sup> / min.	kg/ cm <sup>2</sup>	L/ min.	M <sup>3</sup> / min.	kg/ cm <sup>2</sup>	L/ min.	M <sup>3</sup> / min.	kg/ cm <sup>2</sup>	L/ min.	M <sup>3</sup> / min.
450	340	214	657	.657	178.5	782	0.782	132	1064	1.06	101	1390	1.39	-	-	-
400	340	240	584	.584	200.9	695	0.695	148	946	.946	114	1236	1.23	-	-	-
350	340	275	511	.511	229.6	608	0.608	170	828	.828	130	1081	1.08	-	-	-
300	340	321	438	.438	267.8	521	0.521	198	709	.709	152	927	.927	-	-	-
250	340	385	365	.365	321.4	435	0.435	237	591	.591	182	772	.772	-	-	-
225	340	427	328	.328	357.0	391	0.391	263	532	.532	202	695	.695	160	880	.880
200	340	481	292	.292	401.7	348	0.348	297	473	.473	227	618	.618	180	782	.782
100	252	703	146	.146	590.8	174	0.174	437	236	.236	335	309	.309	264	391	.391
50	126	703	73	.073	590.8	87	0.087	437	118	.118	335	154	.154	264	195	.195
25	63	703	36	.036	590.8	44	0.044	437	59	.059	335	77	.077	264	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/cm<sup>2</sup>) 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 Varco makes no warranty either express or implied beyond that stipulated in National Oilwell Varco 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



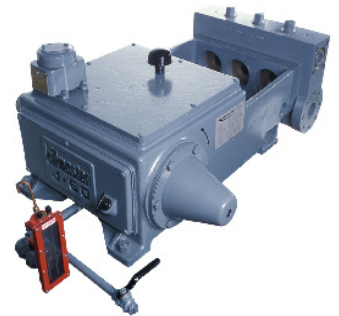
With our worldwide buying power Rotating Right is well equipped to provide a wide range of replacement parts & expendables for virtually all multiplex plunger pumps regardless of make or model.

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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