

CJV#1909

300HP Sour National 300Q Pump Package



Despite being NEW in 1999, this package has less than 6 years run time on it! *How?* This Renaissance/BDR Engineering standard package was installed and ran until 2004. In early 2007 it was sold to another small oil company who installed new plungers, boxes, and packing along with an auxiliary oil lube pump and ran it for only 1 year! Look at the clamps on page #10 – hardly used! This site was included in a company sale and the current owner has not re-activated the site since they took over. Perhaps an unneeded deep-dive into its history, but just to stress that the star of the show, the National 300Q, is nowhere near reflective of its vintage and the price will make this be a simple decision for you. As always, any modifications or custom requirements can be handled by us or can be done by your own crew. We're here to help where you need us.

CJV#1909

300HP Sour National 300Q Pump Package



Condition	Field Ready &/or Minor Repair. The pump itself has run for less than 6 years in total since new. Crusader can perform an internal inspection for interested parties
Manufactured	Westfab 1999
Pump	National Oilwell 300Q-5M
Location	West Central, AB
Availability	2-3 weeks
Service	Sour – water Injection, 2 1/4" plungers
Piping	Carbon Steel 1500 ANSI
Electrical	Building fully wired to JB's skid edge
Dimensions	22'9" L x 19'9" W x 13'10"H



Take a 3D walkthrough at <https://bit.ly/3mLKUhf>

Pump & Accessories

MAIN PUMP, MOTOR AND EQUIPMENT

Quintuplex Pump:

- One (1) NOV 300Q-5M Quintuplex Pump
- Aluminum Bronze (M) Fluid Ends
- Maximum Continuous RPM Rating: 450RPM
- 6" NSD Suction, 3" NSD Discharge Connections
- Rated for 300HP Continuous Duty
- Sheave Kit and V-Belt Drive
- Carbon Steel Belt Guard
- 5 Feed Lubricator w/ 55 Gal Oil Reservoir
- HYDRIL Discharge Stabilizers
- Motor/pump/drive mounted on subbase and bolted to main skid

Model	Plunger	Gal/Rev	Max PSI	Max kPa	100 RPM		200 RPM		250 RPM		300 RPM		350 RPM		400 RPM	
					m ³ /d	GPM	m ³ /d	GPM	m ³ /d	GPM	m ³ /d	GPM	m ³ /d	GPM	m ³ /d	GPM
National 300Q-5L	4.0"	136	851	5867	741	136	1483	272	1853	340	2224	408	2595	476	2965	544
	3.75"	11953	969	6681	651	120	1303	239	1629	299	1955	359	2281	418	2606	478
	3.5"	10412	1112	7667	567	104	1135	208	1419	260	1703	312	1986	364	2270	417
	3.25"	0.8978	1290	8894	489	89.8	979	180	1224	225	1468	269	1713	314	1957	359
	3.0"	0.765	1514	10439	417	76.5	834	153	1042	191	1251	230	1459	268	1668	306
	2.75"	0.6428	1650	11376	350	64.3	701	129	876	161	1051	193	1226	225	1401	257
National 300Q-5M	2.75"	0.6428	1801	12417	350	64.3	701	129	876	161	1051	193	1226	225	1401	257
	2.5"	0.5312	2180	15031	289	53.1	579	106	724	133	869	159	1013	186	1158	213
	2.25"	0.4303	2691	18554	234	43	469	86.1	587	108	704	129	821	151	938	172
	2.0"	0.34	3000	20684	185	34	371	68	463	85	556	102	649	119	741	136
National 300Q-5H	2.0"	0.34	3406	23484	185	34	371	68	463	85	556	102	649	119	741	136
	1.75"	0.2603	4449	30675	142	26	284	52.1	355	65.1	426	78.1	497	91.1	567	104
	1.5"	0.1912	5000	34474	104	19.1	208	38.2	261	47.8	313	57.4	365	66.9	417	76.5
<i>Brake HP Required</i>					76		151		188		225		263		300	

Quintuplex Pump Drive Motor:

- One (1) TECO Westinghouse 300 HP Electric Motor
- TEFC; 1200RPM
- VFD Rated, Constant torque
- 480/3/60VAC

Instrumentation & Piping

INSTRUMENTATION

- Pressure Indicators: Suction (0-300 PSI) and Discharge (0-3000 PSI)
- Pressure Transmitters: Rosemount 3051 Suction and Discharge Transmitters
- Pressure Differential Transmitter: Rosemount 3051 Filter Differential Transmitter
- Vibration Switch: Murphy VS2-EX mounted on main pump
- Low Oil Level: Murphy EL150-EX mounted on main pump
- Startup Bypass Valve and controller: Main pump discharge piping
- LEL Gas Detection: Net Safety
- 2" 1500# RF x 2" 300# RF Farris PSV on discharge piped to the skid edge

PIPING

Suction Piping:

- 4" 300# Suction Inlet at skid edge
- 4" 300# inlet/outlet of filter vessel
- Remainder for Suction Piping 4" & 6" to Pump

The current unit's suction piping has been reconfigured to fully bypass fluid around the main pump (possibly the disposal well was on vacuum). The pipe spools and process valves are all inside the building and can be reassembled with new gaskets/studs/nuts.

The filter vessel is a 3 bag, P2 basket size rated at 673 PSI@ 200F/-20F, includes AB CRN and is equipped with 4" 300# RF Inlet/Discharge Nozzles. There is room enough to add a second vessel as well.

The unit was originally designed without a charge pump but there is plenty of space to add in either a vertical or horizontal pump/motor assembly and tie it in with the overall system.

Drain Piping

- All process piping drains go to sealed sump via threaded drain piping
- Filter drain piping currently in place (absent of filters)
- Pump stuffing boxes drain into open sump

Piping, Building & Electrical

Discharge Piping:

- Discharge line exits the plunger pump into a 2" 1500 ANSI rated line. The discharge stabilizer is located directly after the plunger pump discharge.
- The PSV and automated startup bypass valve are located on a 2" pipe teed off of the main discharge line before the flow meter. There is a block and check valve prior to connecting to the discharge header
- After the meter run a 3" check and a ball valve are included before leaving to skid edge.
- Drain valves to drain sump
- All supports are mounted on structural skid members
- All supports are secured by clamp style tie-downs

The discharge piping is missing the turbine flow meter and totalizer, but the flanges and reduced piping size spools are all there for assembly. The main discharge ball valve and check valves are inside the building.

SKID

- 19' 9" W x 22' 9" L Skid and Building
- ¼" Checker Plate Flooring
- W12 WF Main Structural & Crossmembers
- 4 lifting lugs
- 3" Spray Foam Under skid Insulation
- Drain sump in floor piped to skid edge w/2" MNPT

BUILDING

- Gable Style Building
- 19' 9" W x 22' 9" L x 9' EH
- Two (2) 12" x 12" Louvers w/ closers
- Three (3) 36" x 36" Windows w/ sliders/screens
- Two (2) Single Man Door
- 7' x 7' Rollup door

ELECTRICAL

- Two (2) Interior Lights w/ Switches
- Two (2) Exterior Lights w/ Switches
- Two (2) Exhaust Fans w/ switches/thermostats
- Two HOA switches
- One (1) 120V Electrical Receptacle
- Two (2) ESD Buttons Exterior/Interior
- LEL Gas Detection
- One (1) 25 kw Ruffneck XP heaters w/ wall thermostat
- 1 HP motor and PC pump for Sump Draining

Electrical

END DEVICES CONNECTED TO JB'S

Discretes/Analog Junction box

- Two (2) pressure transmitters Suction/Discharge
- One (1) differential pressure transmitter
- One (1) vibration switch
- One (1) low oil level switch
- One (1) sump level switch
- Included: Rigid aluminum conduit and steel unistrut used throughout
- Lamicoids for all switches, junction box's, and ESD's
- Startup Bypass choke/control
- LEL Gas Detection

120 VAC Junction Box

- Two (2) Interior Lights w/ Switch es
- Two (2) Exterior Lights w/ Switches
- Two (2) Exhaust Fans w/ switches
- One (1) 120V Electrical Receptacle
- Two (2) HOA Switches
- Two (2) ESD Buttons External/Internal

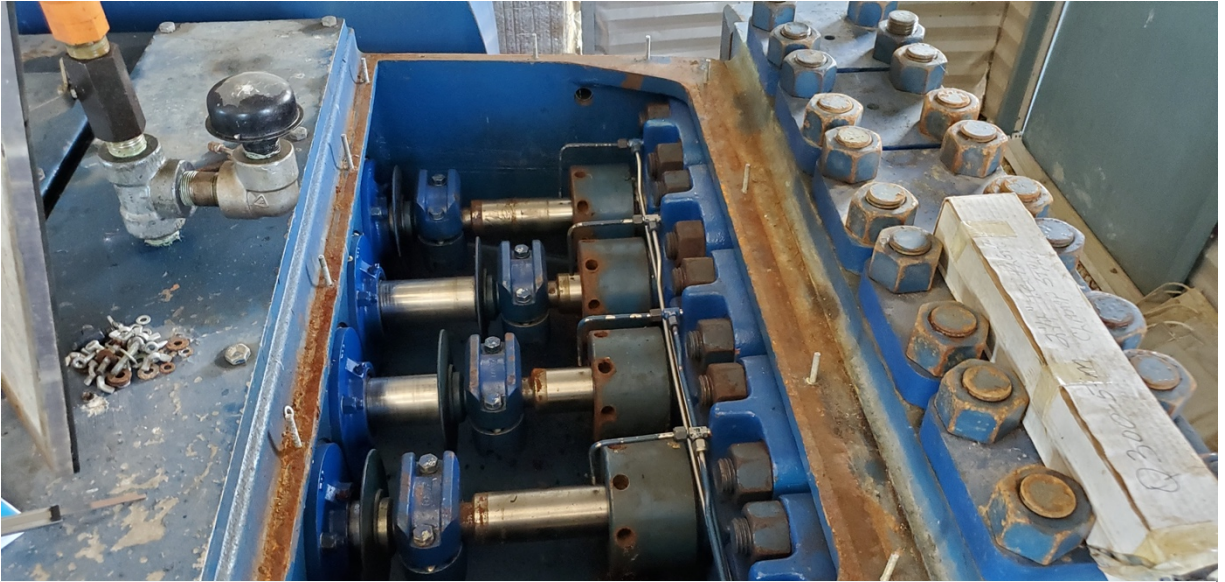
480 VAC Junction Box

- Main drive motor
- Ruffneck Heater
- Sump pump





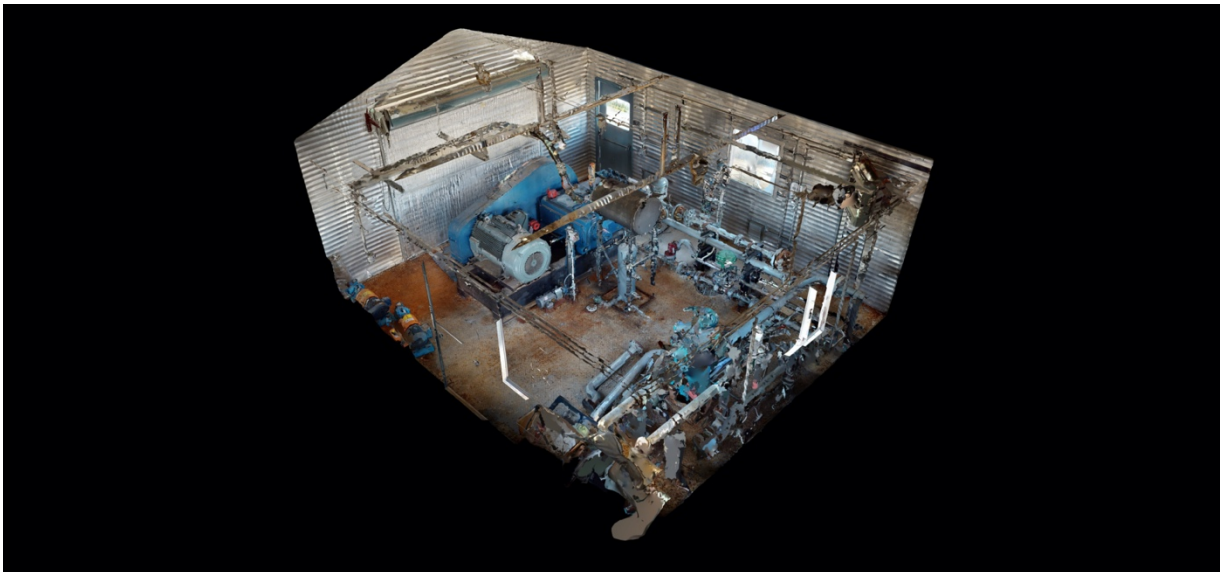




Does this look like a highly used pump!?! Paint is still on the clamps.







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