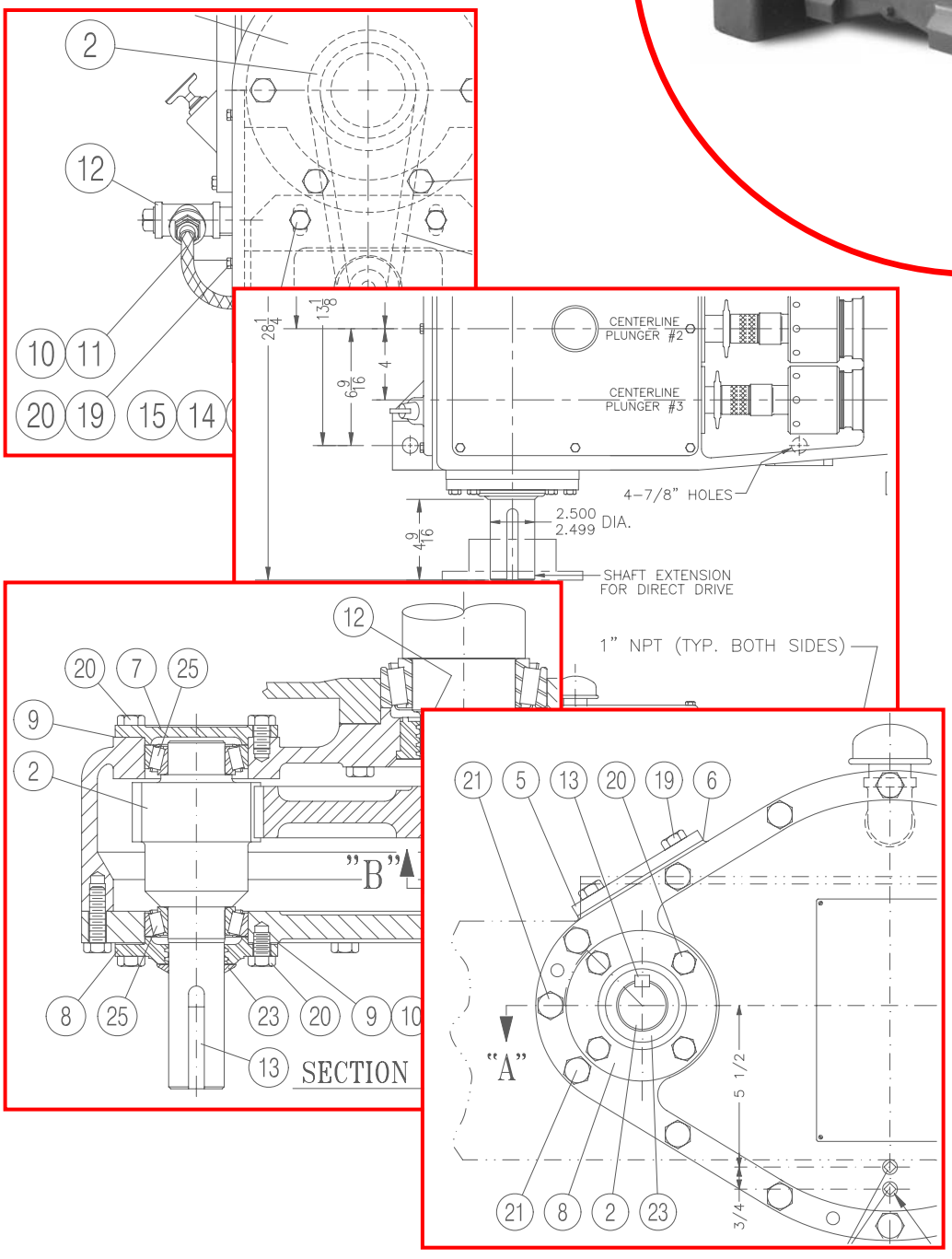
NATIONAL OILWELL VARCO

JWS-165 Well Service Pump

Parts List



JWS-165



Types:
JWS-165

Print

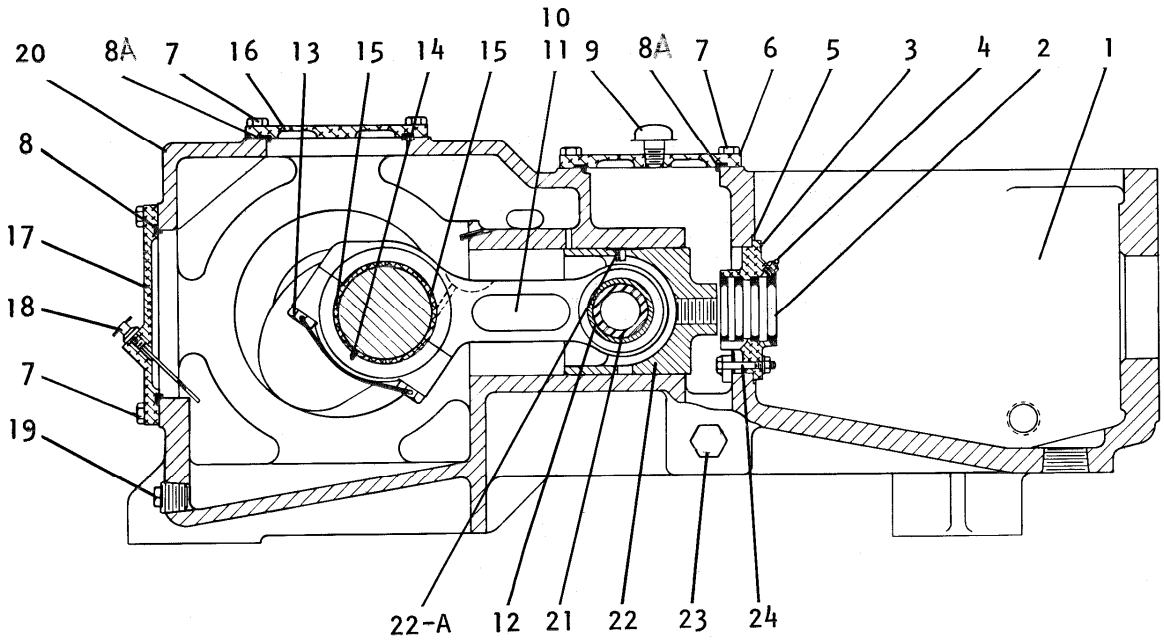
Next

Sales / Technical Information

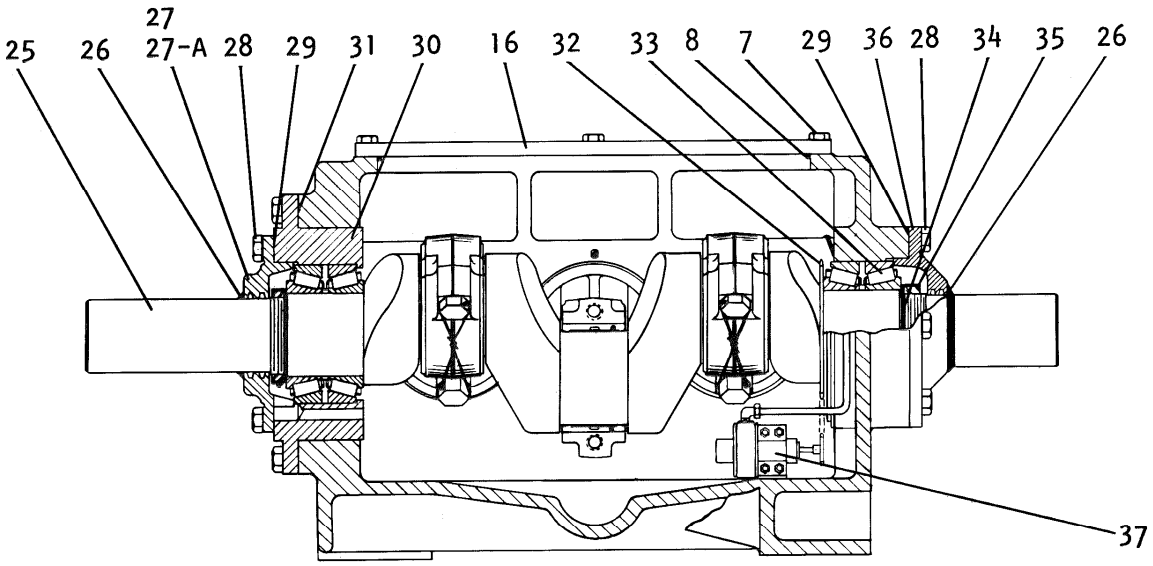
USA Tollfree: 1-800-324-4706
Phone: 1 (918) 447-4600
Fax: 1 (918) 447-4677
Internet: http://www.nov.com

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P.O. Box 4638 Houston, Texas 77210-4638



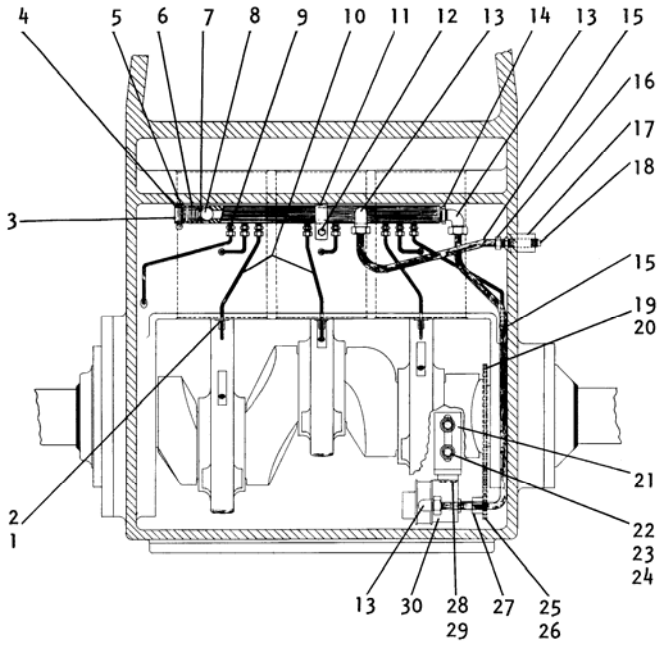
SECTION THRU POWER END



SECTION THRU CRANKSHAFT

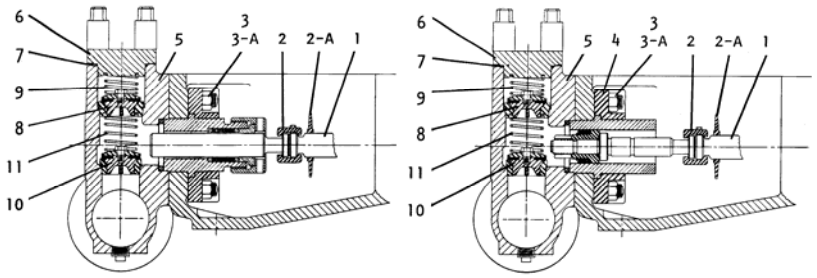
WELL SERVICE PUMP
JWS-165 PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	NO. REQ'D.
1	1717023	POWER END COMPLETE, Less Intermediate Rods composed of:	1
2	1713297	WIPER, Intermediate Rod (JM-16203-H)	12
3	1716009	RETAINER, Intermediate Rod Wiper	3
4	7805052	FITITNG, Alemite 1/8" No. 1610-B	3
5	1716017	GASKET, Intermediate Rod Wiper Retainer	3
6	1712014	PLATE, Crosshead Oil Reservoir Cover	1
7	7000305-11	SCREW, 1/2" x 1½" Hex Head Cap: For Crosshead Oil Reservoir Cover Plate For Power End Top Cover For Power End Rear Cover	 6 6 6
8	1717111	GASKET, Power End Top Cover	2
8A	1717110	GASKET, Power End Rear Cover	1
9	7802020	CAP, Breather – Donaldson No. S-183	1
10	G1716004	ROD, Complete Connecting composed of:	3
11	1716003	ROD, Only, Includes:	1
12	1716010	BUSHING, Bronze – Crosshead End (Service)	1
13	21032044	BOLT, Drilled Head Connecting Rod	2
14	6510604	PIN, 3/8" x 1/2" Dowel (For Crank End Bushing)	1
15	1716012	BUSHING, Aluminum – Crank End Connecting Rod	2
16	1712013	PLATE, Power End Top Cover	1
17	1712430	PLATE, Power End Rear Cover (JWS)	1
18	2400054	GAUGE, Dipstick Oil	1
19	6874008	PLUG, 1" Std. Pipe	1
20	1717001	FRAME ONLY	1
21	1716008	PIN, Crosshead – Includes:	3
	H7028104	SCREW, 1/4" x 1/2" Socket Head Cone Pt. Set	1
22	1716005	CROSSHEAD – Includes:	3
22-A	1716021	PIN, Spring Roll 7/16" x 5/8"	1
23	7806032	GAUGE, Gits Sight	1
24	1716031	BOLT, Intermediate Rod Hook – Includes:	6
	6308080	NUT, 1/2" Stainless Lock	1
	7618018	WASHER, 1/2" Stat-O-Seal	1
25	G1712002	CRANKSHAFT ONLY	1
26	2229659	EXCLUDER, Dirt (1 – Only with Gear Reducer)	2
27	1712618	RETAINER, Crankshaft Bearing (Cage Side) Belt or Direct Drive	1
27-A	1712639	RETAINER, Crankshaft Bearing (Cage Side) Gear Reducer Drive	1
28	2400930	SCREW, 5/8: x 1¾" Drilled Head Cap: For Main Bearing Cage For Crankshaft Bearing Retainers	 8 12
29	1701070	GASKET, Crankshaft Bearing Retainers	2
30	1712617	CAGE, Main Bearing	1
31	1712614	GASKET, Main Bearing Cage	1
32	1712016	SPROCKET, 62T – 3/8" Pitch Single	1
33	ZT-4506	BEARING, Crankshaft Roller	2
34	7610046	WASHER, Timken No. TW-122 Lock	2
35	6304044	NUT, Timken No. Tan-22 Lock	2
36	1701830	RETAINER, Crankshaft Bearing (Opposite Cage Side)	1
37	1717020	PIPING, Low Speed Lubrication (See Page 3)	1



ITEM NO.	PART NO.	LOW SPEED LUBRICATION DESCRIPTION	NO. REQ'D.
	1717020	PIPING, LOW SPEED LUBRICATION composed of:	1
1	G-1717033	BRACKET, Oil Line	3
2	7178088	SCREW, #10 x 3/8" Round Hd. Drive Type U	3
3	G-1717031	PIPE, Power End Lubrication	1
4	6501612	PIN, 1/4" x 1½" Cotter	1
5	7600026	WASHER, 3/8" W Type A-1.000" O.D.	1
6	1709103	SPRING, Ball Valve	1
7	1709105	RETAINER, Spring	1
8	1012093	BALL, Valve	1
9	G-7802484	CONNECTOR, #68 x 3 (1/8" Pipe x 3/16" Tube)	8
10	G-7400320	TUBING, 3/16" Copper (6'-0")	1
11	7802065	CLAMP, 1" Std. Pipe	1
12	7000104-11	SCREW, 1/4" x 1/2" Hex Head Cap	1
13	G-7804234	ELBOW, #1469 x 8K (3/8" Pipe x 1/2" Tube)	3
14	6800042	BUSHING, 1/2" x 3/8" Std. Pipe	1
15	G-7819150	TUBING, 1/2" Synflex (4'-0")	1
16	G-7802483	CONNECTOR, #1468 x 8K (3/8" Pipe x 1/2" Tube)	1
17	G-1717032	ADAPTER, Gauge Connection	1
18	6874003	PLUG, 3/8" Sq. Hd. Solid Pipe	1
19	5700011-091	CHAIN, 3/8" Single – 91 Pitches – RC-35	1
20	5801101	LINK, Connecting 3/8" Single RC-35	1
21	1717021	SUPPORT, Pump Mounting	1
22	7000304-11	SCREW, 1/2" x 1¼" Hex Hd. Cap	2
23	7619050	WASHER, 1/2" Spring Lock	2
24	7600034	WASHER, 1/2" W Type A-1.375" O.D.	2
25	G-7818136	SPROCKET, 14T – 3/8" Pitch – Single	1
26	7027088	SCREW, #10-24 x 3/8" Cup Point Set	1
25	2404083	KEY, 1/8" x 1/8" x 5/8" Rd. One End	1
26	7000208-11	SCREW, 3/8" x 1" Hex Hd. Cap	4
29	7619041	WASHER, 3/8" Spring Lock	4
30	7815073	PUMP, #1S-B&S #713-10-2	1

WELL SERVICE PUMP
JWS-165 PARTS LIST



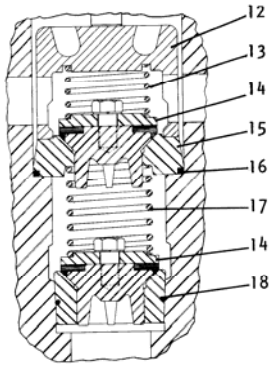
JWS-165-L PUMP AND FLUID END PARTS

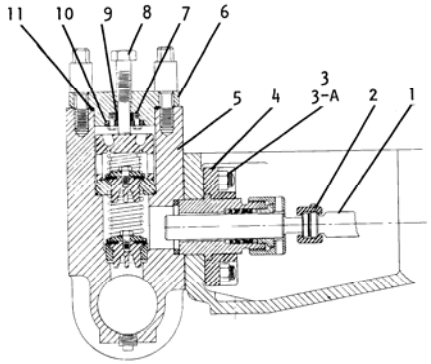
ITEM NO.	PART NUMBER	DESCRIPTION	NO. REQ'D.
		PUMP PARTS:	
1	340-019	ROD, Clamp Type Intermediate	3
*1-A	340-023	ROD, Threaded Intermediate	3
2	1716037	CLAMP CPT., - Plunger Intermediate Rod (340-019)	3
		Composed of:	
	1716035	CLAMP, Plunger – Bolt Half	1
	1716036	CLAMP, Plunger – Threaded Half	1
	7000312-11	SCREW, 1/2" x 3" Cap	2
	7616050	WASHER, 1/2" Spring Lock – Type 304 S.S.	2
2-A	1717016	PLATE, Rubber Baffle (Intermediate Rod)	3
3	6300220	NUT, 1-3/8" Heavy Hex-Fluid Cylinder to Frame	12
3-A	1712024	NUT, 1-3/8" Special Aluminum Bronze Acorn (Opt.)	12
4	1716034	RETAINER, Stuffing Box	3
		FLUID END PARTS:	
5	1717282-1	CYLINDER COMPLETE, Fluid – Ductile Iron	1
		Composed of:	
	1717281-1	CYLINDER STUDDED – Includes:	1
	10032367	STUD, 1-3/8" x 7½" Fluid Cyl. to frame	12
	16492747	STUD, 1-3/8" x 5¾" Top Cover Plate	12
	1717284-12	NUT, Top Cover Plate	12
	6877012	PLUG, 1½" Brass Square Head	3
	7006309	SCREW, 1/2" x 2¼" Socket Head Cap	4
6	1717283-1	PLATE, Top Cover, Ductile Iron	3
7	2410031-429	SEAL, Top Cover Plate	3
8		DISCHARGE VALVE ASSEMBLY (Wing Guided Valve)	3
		Composed of:	
	1561572	SEAT ONLY, Discharge – Includes:	1
	2410022-244	O-RING, Discharge Seat	1
	1561575	VALVE COMPLETE, Suction or Discharge – Includes:	1
	1561570	BODY, Valve	1
	1561577	DISC, Valve – Polyurethane	1
	1560715	RETAINER, Valve Disc	1
	7000438-11	SCREW, 3/4" x 1½" Cap	1
	G-7605013	WASHER, 3/4" Heavy Internal Tooth	1
9	1712206	SPRING, Discharge Valve	1
10		SUCTION VALVE ASSEMBLY (Wing Guided Valve)	3
		Composed of:	
	1561571	SEAT ONLY, Suction – Includes:	1
	2410022-240	O-RING, Suction Seat	1
	1561575	VALVE COMPLETE, Suction & Discharge – Includes:	1
	1561570	BODY, Valve	1
	1561577	DISC, Valve – Polyurethane	1
	1560715	RETAINER, Valve Disc	1
	7000438-11	SCREW, 3/4" x 1½" Cap	1
	G-7605013	WASHER, 3/4" Heavy Internal Tooth	1
11	1712211	SPRING, Suction Valve	1
*	6908015	RING, No. R-24 Oval Type 304 – Discharge	2
*	6010007	GASKET, 6" – 150 lb. Flat Ring – Suction 6-5/8" I.D. x 8¾" O.D.	2
*	7000440-11	SCREW, 3/4" x 2" Cap – Grade 5 – Suction Flange	16
*	7000485-10	SCREW, 7/8" x 3" Cap – Grade 5 – Discharge Flange	16
		OPTIONAL FLANGES:	
		FLANGE, 2" - API – 5,000 lb. Ring Joint Flange – Discharge	2
		FLANGE, 6" ASA – 150 lb. Flat Face Flange – Suction	2

*NOT ILLUSTRATED

WELL SERVICE PUMP
JWS-165 PARTS LIST

NATIONAL OILWELL VARCO



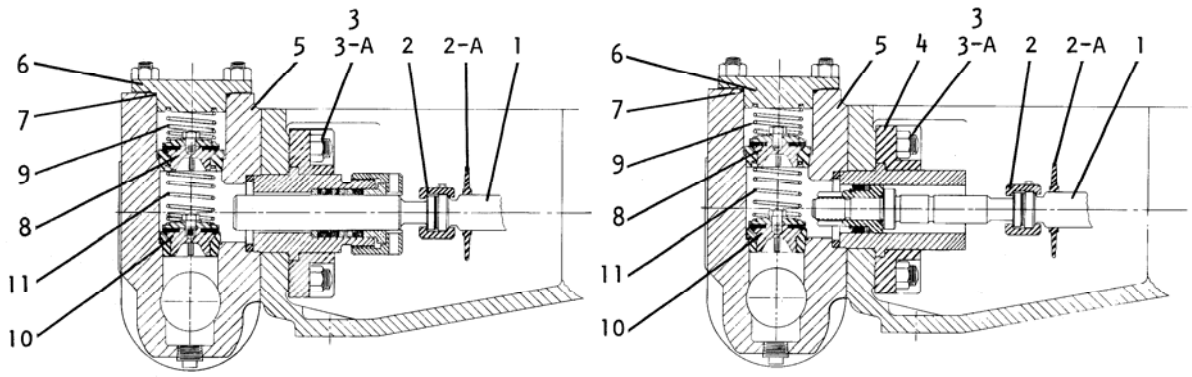


JWS-165-LX PUMP AND FLUID END PARTS

ITEM NO.	PART NUMBER	DESCRIPTION	NO. REQ'D.
		PUMP PARTS:	
1	340-019	ROD, Clamp Type Intermediate	3
*1-A	340-023	ROD, Threaded Intermediate	3
2	1716037	CLAMP CPT., - Plunger Intermediate Rod (340-019)	3
		Composed of:	
	1716035	CLAMP, Plunger – Bolt Half	1
	1716036	CLAMP, Plunger – Threaded Half	1
	7000312-11	SCREW, 1/2" x 3" Cap	2
	7616050	WASHER, 1/2" Spring Lock – Type 304 S.S.	2
2-A	1717016	PLATE, Rubber Baffle (Intermediate Rod)	3
3	6300220	NUT, 1-3/8" Heavy Hex-Fluid Cylinder to Frame	12
3-A	1712024	NUT, 1-3/8" Special Aluminum Bronze Acorn (Opt.)	12
4	1716034	RETAINER, Stuffing Box	3
		FLUID END PARTS:	
5	1717292-1	CYLINDER COMPLETE, Fluid – Ductile Iron	1
		Composed of:	
	1717291-1	CYLINDER STUDDED – Includes:	1
	10032367	STUD, 1-3/8" x 7½" Fluid Cylinder to frame	12
	16492747	STUD, 1-3/8" x 5¾" Top Cover	18
	1717284-12	NUT, 1-3/8" Top Cover Plate	18
	6874016	PLUG, 2" Solid Square Head	3
6	1717293-1	PLATE, Top Cover, Ductile Iron	3
7	7000303-11	SCREW, 1/2" x 1" Cap (Pkg. Ret. Plate)	6
8	1714287	SCREW, Cage Loading	3
9	1714288	PACKING, Top Cover Loading Screw – Set	3
10	1714284	PLATE, Screw Packing Retainer	3
11	1715146	SEAL, Top Valve Cover Plate	3
12	1714285	CAGE, Discharge Valve Retainer	3
13	171226	SPRING, Discharge Valve	3
14	1561575	VALVE ASSEMBLY, Suction and Discharge	6
		Composed of:	
	7000438-11	SCREW, 3/4" x 1½" Cap	1
	G-7605013	WASHER, 3/4" Heavy External Tooth	1
	1560715	RETAINER, Valve Disc	1
	1561577	DISC, Valve – Polyurethane	1
	1561570	BODY, Valve	1
15	G-1560697	SEAT, Discharge Valve	3
16	2410031-434	SEAL, Discharge Valve Seat	3
17	1717296	SPRING, Suction Valve	3
18	1561561	SEAT, Suction Valve with 2410022-156 O-Ring	3
*	6908051	RING, No. R-35 Oval Type 304 – Discharge	2
*	6010007	GASKET, 6" – 150-Lb. Flat Ring – Suction	2
*	7000440-11	SCREW, 3/4" x 2" Cap – Grade 5 – Suction Flanges	16
*	7000568-10	SCREW, 1-1/8" x 4" Cap – Grade 5 – Discharge Flanges	16
		OPTIONAL FLANGES:	
		FLANGE, 3" API – 5000-Lb. Ring Joint – Discharge	2
		FLANGE, 6" ASA – 150-Lb. Flat Face - Suction	2

*NOT ILLUSTRATED

WELL SERVICE PUMP
JWS-165 PARTS LIST

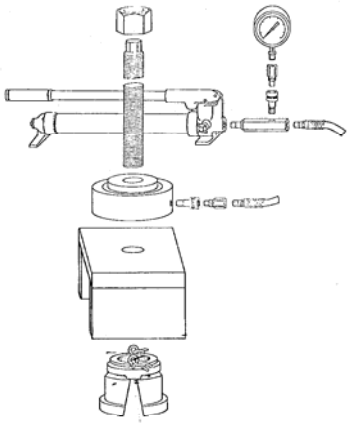


JWS-165-H PUMP AND FLUID END PARTS

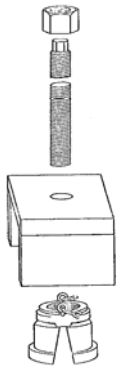
ITEM NO.	PART NUMBER	DESCRIPTION	NO. REQ'D.
		PUMP PARTS:	
1	340-019	ROD, Clamp Type Intermediate	3
*1-A	340-023	ROD, Threaded Intermediate	3
2	1716037	CLAMP CPT., - Plunger Intermediate Rod (340-019)	3
		Composed of:	
	1716035	CLAMP, Plunger – Bolt Half	1
	1716036	CLAMP, Plunger – Threaded Half	1
	7000312-11	SCREW, 1/2" x 3" Cap	2
	7616050	WASHER, 1/2" Spring Lock – Type 304 S.S.	2
2-A	1717016	PLATE, Rubber Baffle (Intermediate Rod)	3
3	6300220	NUT, 1-3/8" Heavy Hex-Fluid Cylinder to Frame	12
3-A	1712024	NUT, 1-3/8" Special Aluminum Bronze Acorn (Opt.)	12
4	1716034	RETAINER, Stuffing Box	3
		FLUID END PARTS:	
5	1712420	CYLINDER COMPLETE, Fluid – Ductile Iron	1
		Composed of:	
	1712419	CYLINDER STUDDED – Includes:	1
	49010359	STUD, 1½" x 5-5/8" Top Cover Plate	12
	6300240	NUT, 1½" Heavy Hex, Top Cover Plate	12
	10032367	STUD, 1-3/8" x 7½" Fluid Cylinder to Frame	12
	7006309	SCREW, 1/2" x 2¼" Socket Head Cap	4
	6877012	PLUG, 1½" Brass Square Head	3
6	1712421	PLATE, Top Cover, Ductile Iron	3
7	2410031-345	SEAL, Top Cover Plate	3
8		DISCHARGE VALVE ASSEMBLY (PIONEER)	3
		Composed of:	
	**	DISCHARGE VALVE SEAT	1
	**	VALVE COMPLETE (Polyurethane)	1
9	1712432	SPRING, Discharge Valve	3
10		SUCTION VALVE ASSEMBLY (PIONEER)	3
		Composed of:	
	**	DISCHARGE VALVE SEAT	1
	**	VALVE COMPLETE (Polyurethane)	1
11	1712428	SPRING, Suction Valve	3
*	6906001	RING, No. R-85 Octagonal Type 304 – Discharge	2
*	6010006	GASKET, 4" – 150 lb. Flat Ring – Suction 4½" I.D. x 6-7/8" O.D.	2
*	7000397-11	SCREW, 5/8" x 2" Cap – Grade 5 – Suction Flange	16
*	7000490-10	SCREW, 7/8" x 4¼" Cap – Grade 5 – Discharge Flange	16
		OPTIONAL FLANGES:	
		FLANGE, 2" - API – 2900 lb. Ring Joint Flange – Discharge	2
		FLANGE, 4" ASA – 150 lb. Flat Faced Flange – Suction	2

*NOT ILLUSTRATED
**AVAILABLE THRU HOUSTON

PART NO.	OPTIONAL EQUIPMENT – NOT ILLUSTRATED DESCRIPTION	NO. REQ'D.
1790045	LOW OIL LEVEL SHUTDOWN ASSEMBLY – Includes:	1
64661271	L-129 MURPHY SWITCH	1
6800083	BUSHING, 1" x 1/2" Standard Pipe	1
6800062	BUSHING, 3/4" x 1/2" Standard Pipe	1
1717344	PLUNGER CHAMBER COVER	1
	LUBRICATORS AND ACCESSORIES:	
7811071	LUBRICATORS, 3-Feed McCord "55" – Right Hand	1
7811072	LUBRICATORS, 3-Feed McCord "55" – Left Hand	1
1710125	GUARD, Belt – Right or Left Hand	1
1712201	SHEAVE, Crankshaft 6.0" P.D. – Includes:	1
7027208	SCREW, 3/8" x 1" Cup Point Set	1
1712202	COVER, Crankshaft Extension – with Cutout for Belt – R.H. or L.H.	1
1712315	BRACKET, Mounting – Right or Left Hand	1
1712335	VALVE, Stuffing Box Ball Check – 1/8" IPT For Pressure Lubrication	3
4712510	BELT, #2510 Vee Belt – 4L Section 51" O.D.	1
7200020	SHEAVE, 6.2" P.D. A Section Vee Belt with 5/8" Bore	1
X17-2555	DRIP LUBRICATION PIPING KIT – Includes:	3
X17-2569	PLUG, 1/8" x 1-1/8" Stainless Steel Solid	1
X17-2714	PLUG, 1/8" x 3/4" Stainless Steel Solid	1
6888001	TEE, 1/8" Standard Black	1
7400420	TUBING, 1/4" x 6" Long Copper	1
7802242	CONNECTOR, No. 68-F ¼" Tube x 1/8" IPT Copper Tubing	2
7804080	ELBOW, No. 69-F Tube x 1/8" IPT 90° Copper Tubing	1
2400024	KEY, Crankshaft 1" x 4" (Direct Drive)	1
2401630	KEY, Crankshaft 1" x 6½" (Belt Drive)	1
1717498	LINER SPRAY SYSTEM	1



*HYDRAULIC SEAT PULLER
(M-1100)



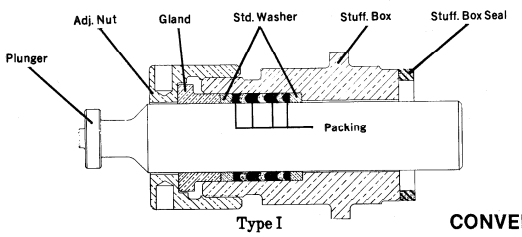
*MANUAL SEAT PULLER
(5738-765)

VALVE SERVICING TOOLS

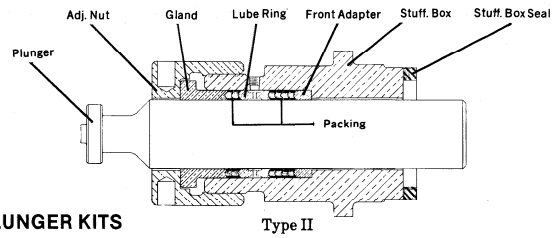
PUMP	DISCHARGE VALVE SEAT	SUCTION VALVE SEAT
JWS-165-L	Use Puller for 4" Valve	Use Puller for 4" Valve
JWS-165-LX	Use 1714291 Seat Remover Tool	Use Puller for 4" Valve
JWS-165-H	Use Puller for 3" Valve	Use Puller for 3" Valve

*Available through Houston – Specify valve size to be pulled.

WELL SERVICE PUMP
JWS-165 PARTS LIST



Type I
(Non-Adjustable 850-N Packing)



Type II
(Adjustable "V"-Ring Packing)

CONVERSION AND PLUNGER KITS

‡ TYPE 1

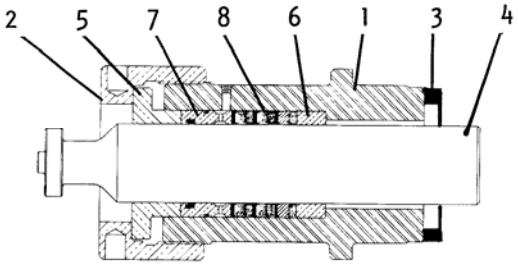
Pump Type	Plunger		*Stuffing Box					Plunger Packing 850-N	
	Size	Tungsten Carbide	Ductile Iron	Adj. Nut	S.B. Gland	Std. Washer	S.B. Seal	Number	I.D. x O.D.
JWS-165-L	4	1716166	1712852-1	1712065	1712094	1712100	1712064	6422346	4" x 4¾"
	3½	1716164	1712851-1	1712065	1712092	1712098	1712064	6422343	3½" x 4¼"
	3	1716162	1712850-1	1712065	1712090	1712096	1712064	6422340	3" x 3¾"
	2¾	1716160	1712850-1	1712065	1712089	1712095	1712064	6422338	2¾" x 3¾"
JWS-165-H	2¾	1716160	1712855-1	1712025	1712054	1712060	1712431	6422337	2¾" x 3½"
	2½	1716158	1712855-1	1712025	1712053	1712059	1712431	6422334	2½" x 3½"
	2¼	1716156	1712854-1	1712025	1712052	1712058	1712431	6422329	2¼" x 3"
	2	1716154	1712854-1	1712025	1712051	1712057	1712431	6422324	2" x 3"

*Requires 1716034 Stuffing Box Retainer
‡Composed of One of Each Item

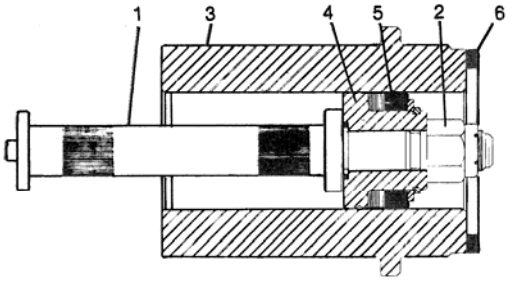
****TYPE II**

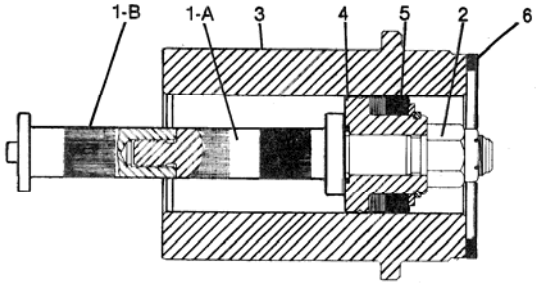
Pump Type	Plunger		*Stuffing Box						Plunger Packing "V" Ring	
	Size	Tungsten Carbide	Ductile Iron	Adj. Nut	S.B. Gland	Lube Ring	Front Adapter	S.B. Seal	Part Number	I.D. x O.D.
JWS-165-L	4	1716166	G-1717646-1	1712065	G-1717656-2	G-1717666-2	G-1717676-2	1712064	G-6400028	4" x 4¾"
	3½	1716164	G-1717645-1	1712065	G-1717655-2	G-1717665-2	G-1717675-2	1712064	G-6400022	3½" x 4¼"
	3	1716162	G-1717644-1	1712065	G-1717654-2	G-1717664-2	G-1717674-2	1712064	G-6400029	3" x 3¾"
	2¾	1716160	G-1717644-1	1712065	G-1717653-2	G-1717663-2	G-1717673-2	1712064	G-6400025	2¾" x 3¾"
JWS-165-H	2¾	1716160	G-1717643-1	1712025	G-1717652-2	G-1717662-2	G-1717672-2	1712431	G-6400030	2¾" x 3½"
	2½	1716158	G-1717643-1	1712025	G-1717651-2	G-1717661-2	G-1717671-2	1712431	G-6400024	2½" x 3½"
	2¼	1716156	G-1717642-1	1712025	G-1717650-2	G-1717660-2	G-1717670-2	1712431	G-6400031	2¼" x 3"
	2	1716154	G-1717642-1	1712025	G-1717659-2	G-1717669-2	G-1717679-2	1712431	G-6400032	2" x 3"

*Requires 1716034 Stuffing Box Retainer
**Composed of One of Each Item



JWS-165-LX SPECIAL PLUNGER KITS				
Item No.	Part Number 3"	Part Number 2¾"	Description	Number Req'd.
1	1717300-12	1717300-12	BOX, Plunger Stuffing	3
2	1712065	1712065	NUT, Stuffing Box	3
3	1712064	1712064	SEAL, Stuffing Box	3
4	1716162	1716160	PLUNGER, Hard-Coated	3
5	1712090	1712089	GLAND, Stuffing Box	3
6	G-1717321-2	1717320-2	WASHER, Stuffing Box	3
7	G-1717331-2	1717330-2	RING, Stuffing Box Lube	3
8	G-6423002 (3" x 3¾" x 2¼")	6423001 (3" x 3¾" x 2¼")	PACKING, No. 838-842 Plunger	3

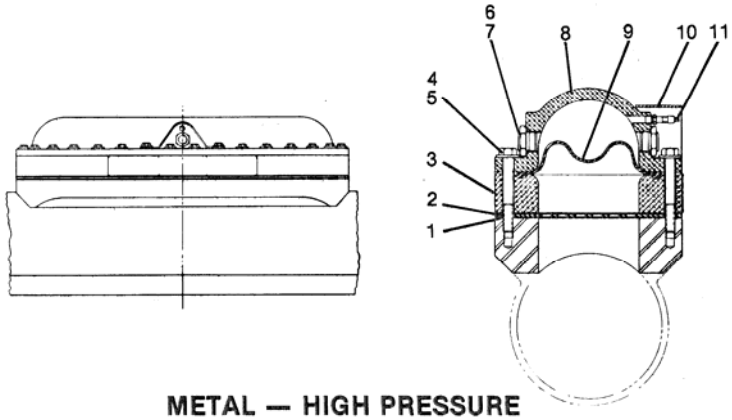




JWS-165-L LINER AND PISTON KITS							
Item No.	Description	4½"	4"	3½"	3"	2¾"	Number Req'd.
1	**ROD**, 1-pc. Piston – Includes Item 2	1713877	1713877	1713877	1713877	1713877	3
1-A	**ROD**, 2-pc. Piston – Includes Item 2	G-1717294	G-1717294	G-1717294	G-1717294	G-1717294	3
1-B	**SUB-ROD**, 2-pc. Piston	G-1717295	G-1717295	G-1717295	G-1717295	G-1717295	3
2	**NUT,** ESNA 1" – 8 UNC – 3B	6308160	6308160	6308160	6308160	6308160	3
3	**LINER**, Piston – Premium	05531450	05531400	05531350	05531300	05531300	3
4	**PISTON ASSEMBLY**	012180154	012180113	012180063	012180022	012180022	3
5	**CUP ASSEMBLY**	015180144	015180102	015180060	015180029	015180029	3
6	**SEAL**, S.B. to Cylinder	1712064	1712064	1712064	1712064	1712064	3

*Available thru Houston

IN-LINE SUCTION DAMPENERS



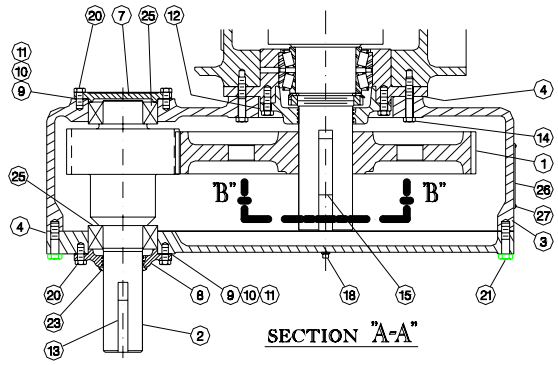
METAL — HIGH PRESSURE

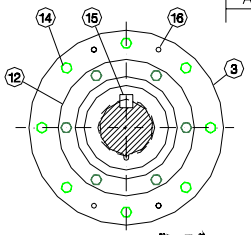
Item No.	Part No.	Description	No. Req'd.
1	1290198	RETAINER, Dampener	1
2	1290199	GASKET, Spacer	2
3	1290196	SPACER, Dampener	1
4	7000361-11	SCREW, 9-16" x 4" Hex Head Cap	32
5	7600036	WASHER, 9-16" N Type A 1.159" O.D.	32
6	7815106	PLUG, Tedeco-Sight No. W-54	2
7	2410031-024	SEAL, Sight Plug	2
8	1290197	COVER, Dampener	1
9	1290195	DIAPHRAGM	1
10	1290228	GUARD, Check Valve	1
11	7500021	VALVE, Check-Dill No. 02500-100AA-643VC	1

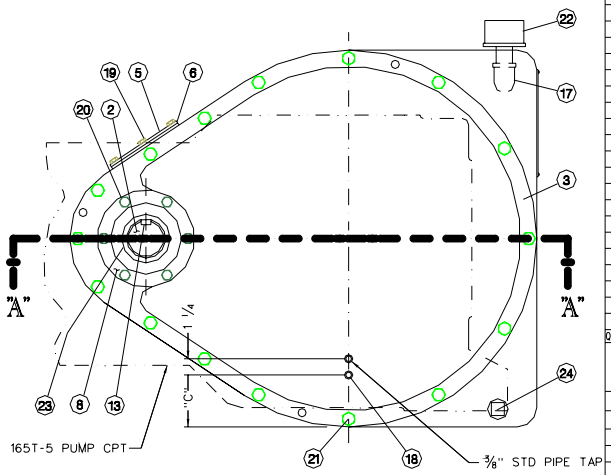
WELL SERVICE PUMP
JWS-165 PARTS LIST

NATIONAL OILWELL VARCO

LTR	DESCRIPTION OF CHANGE	MADE	CHKD	DATE	APPROVED	M NO
A	ADDED 3.73 RATIO	WFL	RPQ	10-9-01	RPQ	







QTY REQ'D	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	DESCRIPTION /MAT'L. /SPEC.	ITEM NO.
	1712635 5.74 RATIO	1712634 4.96 RATIO	1712633 4.78 RATIO	1712632 4.38 RATIO	1712636 4.00 RATIO	1712695 3.73 RATIO	1712631 3.46 RATIO	1712657 3.22 RATIO	1712630 2.80 RATIO		
	GEAR REDUCER ASSY. COMPLETE BILL OF MATERIAL No.'s										
	LIST OF MATERIAL										
1				7178025						SCREW, RD HD DRIVE •2 x 1/4"	27
1				1711606						PLATE, NAME & INSTRUCTION	26
2				ZT-3060						BEARING, PINION SHAFT	25
1				7815059						PLUG, MAGNETIC DRAIN 1 1/4	24
1				7804040						EXCLUDER, BRG	23
1				7802020						CAP, BREATHER •S-183	22
16				7000400-11						SCREW, HEX HD CAP 5/8" x 2 3/4"	21
12				7000304-11						SCREW, HEX HD CAP 1/2" x 1 1/4"	20
4				7000206-11						SCREW, HEX HD CAP 3/8" x 3/4"	19
2				6874003						PLUG, STD PIPE 3/8"	18
1				6829008						ELBOW, STD 1" x 90° STREET	17
2				6581060						PIN, TAPER •10 x 3 3/4"	16
1				2404047						KEY, GEAR 1" x 1" x 3 1/4"	15
8				2403190						SCREW, HEX HD DRLD 5/8" x 3 1/2"	14
1				2401710						KEY, PINION 3/4" x 3/4" x 4"	13
1				1712639						RETAINER, CRANKSHAFT BRG	12
6				1712627						SHIM, BEARING RETAINER .007	11
6				1712625						SHIM, BEARING RETAINER .005	10
2				1712620						SHIM, BEARING RETAINER .020	9
1				1712605						CAP, H.S. PINION BRG OPEN	8
1				1712604						CAP, H.S. PINION BRG BLIND	7
1				1711619						GASKET, INSPECTION COVER	6
1				1105609						COVER, INSPECTION	5
1				7817200-68						GASKET, LOCTITE PLASTIC	4
1	1712628	1712607	1712602	1712602	1712607	1712602	1712602	1712602	1712602	HOUSING CPT, GEAR REDUCER	3
1	1712626	1712619	1712616	1712615	1712638	1712697	1712613	1712659	1712612	PINION	2
1	1712621	1712608	1712608	1712609	1712637	1712696	1712610	1712658	1712611	GEAR	1

OIL LEVEL LOCATION	
GEAR RED. CPT. / RATIO	"C"
1712630 / 2.80	4"
1712657 / 3.22	4"
1712631 / 3.46	3 1/4
1712695 / 3.73	2 1/2
1712636 / 4.00	3"
1712632 / 4.38	2 1/2
1712633 / 4.78	2 1/2
1712634 / 4.96	2 1/2
1712635 / 5.74	2 1/2

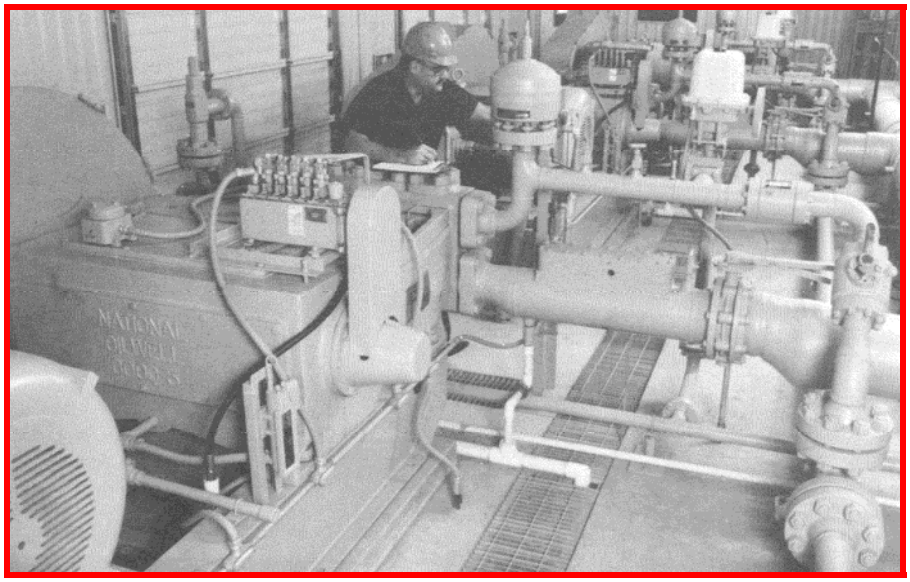
NATIONAL OILWELL VARCO

TITLE: GEAR REDUCER ASSEMBLY 165-T, JWS-165 & JWS-185 PUMPS

SIZE	REFERENCE No.	DRAWING No.	REV
B		1717141	A

SCALE 1 /8 | EST WT | SHEET 1 OF 1

NATIONAL OILWELL VARCO



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