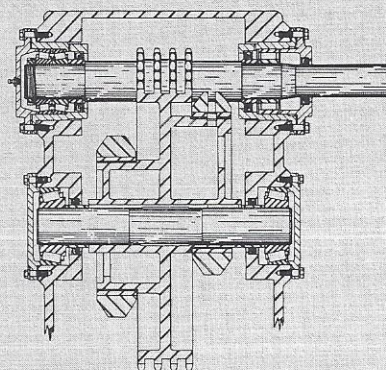




GEORGE E. FAILING CO.

MODEL FM-45

Mudmaster® 5" x 6-1/4" Slush Pump



The **Failing** Model FM-45 is a duplex reciprocating type power slush pump designed for maximum volume without sacrifice of working pressure and compactness.

Its power end is a rugged, one-piece unit with integral supports for jackshaft and eccentric shaft bearings. The cover is removable for easy access to the power end mechanism. Main sprocket and eccentrics are cast in one piece and keyed to a straight alloy steel shaft. These shafts are roller bearing mounted and power is transmitted by a high speed quadruple roller chain.

Connecting rods are one-piece steel with renewable eccentric bushings and bronze crosshead bushings. The one-piece skirt type cast alloy crosshead is reinforced at all

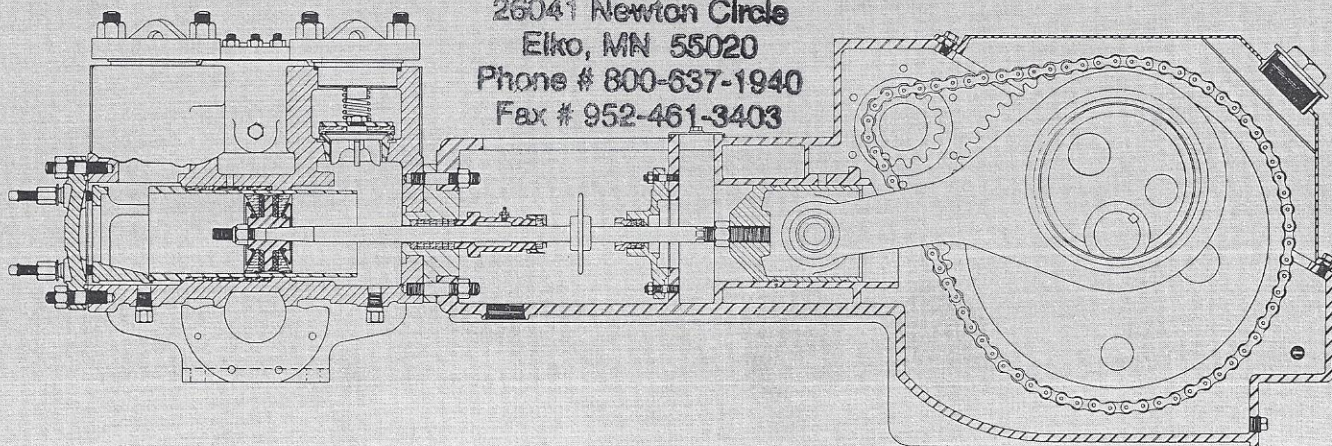
load areas.

Fluid end of the FM-45 is a one-piece casting with conventional pot type valves. Steel studs secure valve covers, flanges and plates to the fluid end, and fluid end to power end.

All bearings are sealed in individual pressure gun lubricated housings. Eccentrics, chain, crossheads and pins are lubricated from the power end reservoir through normal movement of parts.

Failing lubricator type packing glands provide positive lubrication to piston rods. This pump is equipped with **Failing** Mudmaster® pistons, hardened liners, rods and valves.

N.D.S. Drilling Supply
26041 Newton Circle
Elko, MN 55020
Phone # 800-637-1940
Fax # 952-461-3403



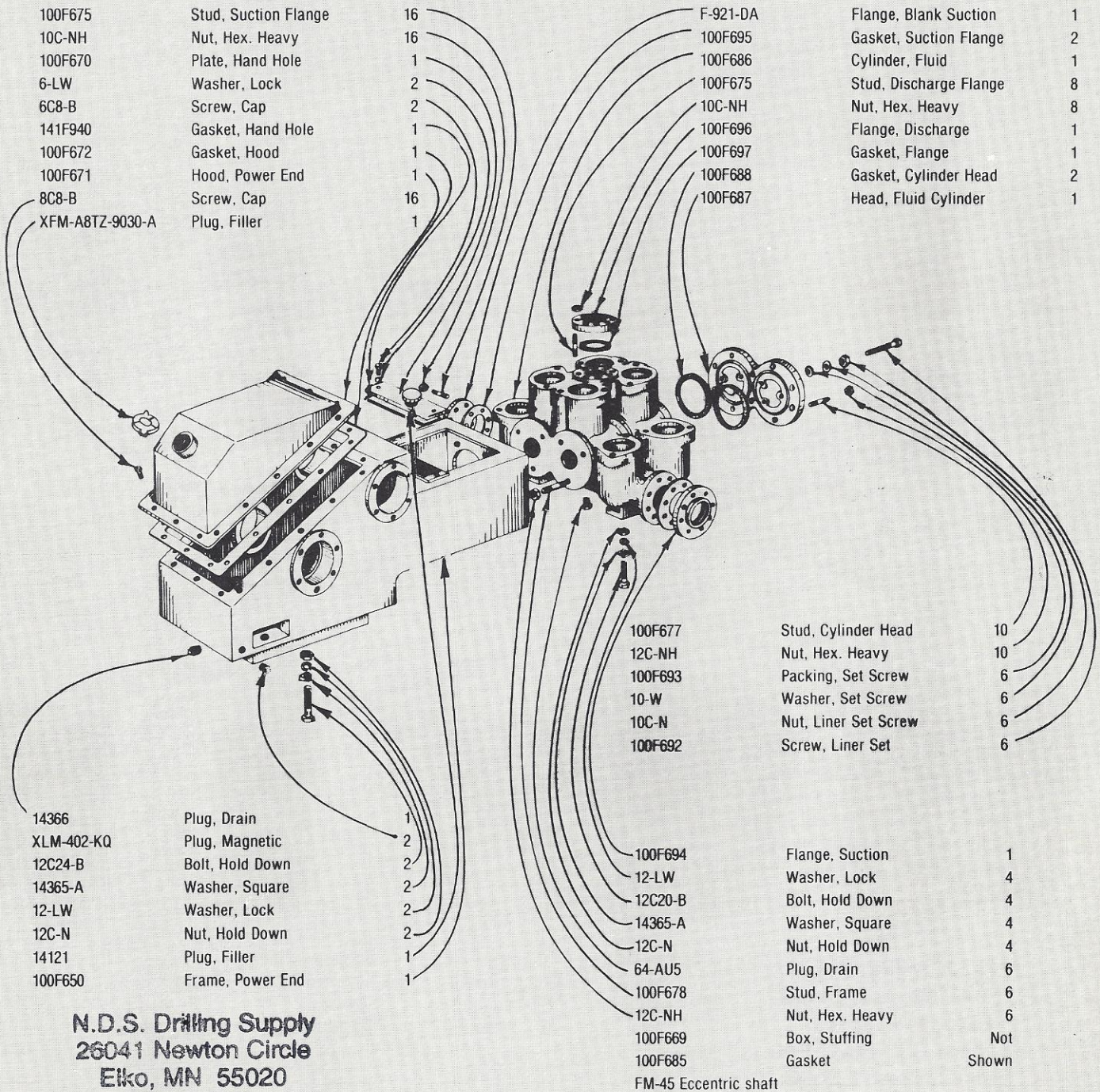
Specifications

Size, Ins.		Max. Pressure (Lbs. Per Sq. In.)	Displacement		Brake H.P. at Max. Pressure	R.P.M.		Pipe Size		Approx. Wt. of Pump (Lbs.)	Approx. O.A. Dim. Ins.			
Dia. of Fluid Cylinder	Length of Stroke		Displacement U.S. Gals. per Min. (Rods Deducted)	Approx. Barrels Per Hr. (42 U.S. Gal.)		Crank-shaft	Jack-shaft	Max. Plunger Load (Lbs.)	Suction		Dischg.	Height	Width of Mud End	Length
Model FM-45 — 900 Pounds Working Pressure — 1800 Pounds Test Pressure														
5		310	104-208	149-297	23-46									
4½		385	84-168	120-240	23-46									
4	6¼	492	66-132	94-188	23-46	50 -100	236-473	6320	4	2	2630	26-9/16	32¼	80-13/16
3½		646	50-100	71-143	23-46									
3		895	36-72	52-103	22.5-45									

Slush Pump Parts

MODEL FM-45 PARTS DRAWINGS

Frame



100F675	Stud, Suction Flange	16
10C-NH	Nut, Hex. Heavy	16
100F670	Plate, Hand Hole	1
6-LW	Washer, Lock	2
6C8-B	Screw, Cap	2
141F940	Gasket, Hand Hole	1
100F672	Gasket, Hood	1
100F671	Hood, Power End	1
8C8-B	Screw, Cap	16
XFM-ABTZ-9030-A	Plug, Filler	1

F-921-DA	Flange, Blank Suction	1
100F695	Gasket, Suction Flange	2
100F686	Cylinder, Fluid	1
100F675	Stud, Discharge Flange	8
10C-NH	Nut, Hex. Heavy	8
100F696	Flange, Discharge	1
100F697	Gasket, Flange	1
100F688	Gasket, Cylinder Head	2
100F687	Head, Fluid Cylinder	1

100F677	Stud, Cylinder Head	10
12C-NH	Nut, Hex. Heavy	10
100F693	Packing, Set Screw	6
10-W	Washer, Set Screw	6
10C-N	Nut, Liner Set Screw	6
100F692	Screw, Liner Set	6

14366	Plug, Drain	1
XLM-402-KQ	Plug, Magnetic	2
12C24-B	Bolt, Hold Down	2
14365-A	Washer, Square	2
12-LW	Washer, Lock	2
12C-N	Nut, Hold Down	2
14121	Plug, Filler	1
100F650	Frame, Power End	1

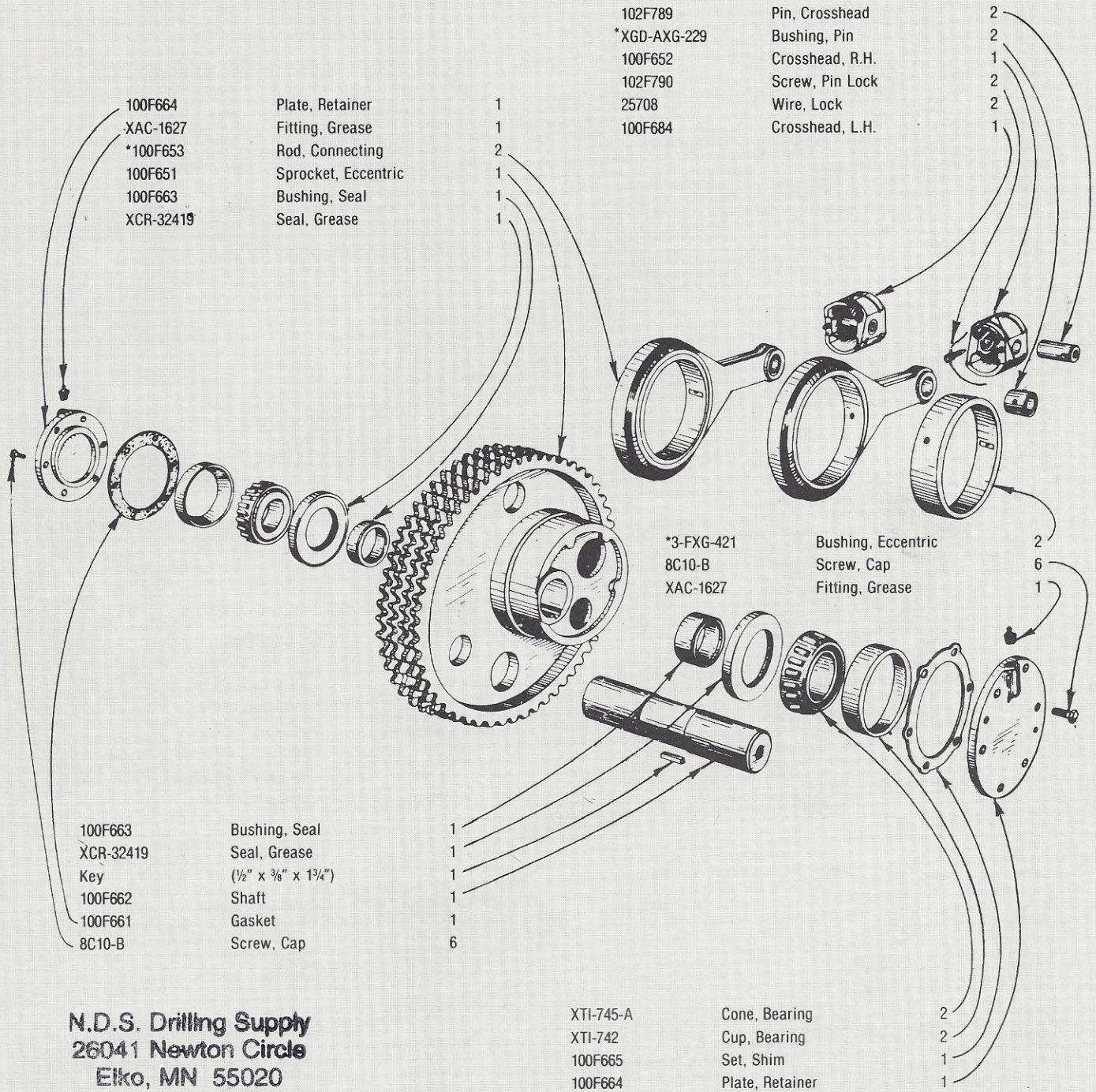
100F694	Flange, Suction	1
12-LW	Washer, Lock	4
12C20-B	Bolt, Hold Down	4
14365-A	Washer, Square	4
12C-N	Nut, Hold Down	4
64-AU5	Plug, Drain	6
100F678	Stud, Frame	6
12C-NH	Nut, Hex. Heavy	6
100F669	Box, Stuffing	Not
100F685	Gasket	Shown

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MODEL FM-45 PARTS DRAWINGS

Eccentric Shaft



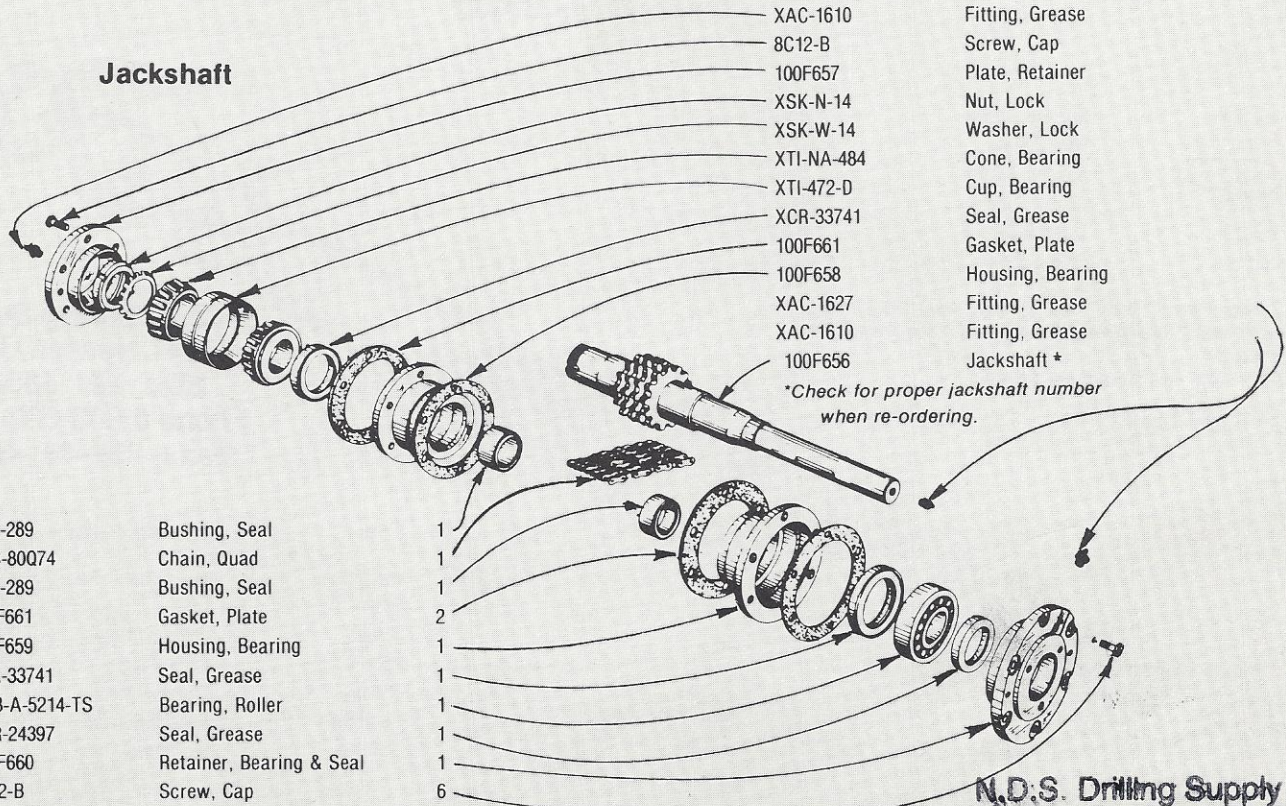
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*Part of 146F830 Connecting Rod Assembly

Slush Pump Parts

MODEL FM-45 PARTS DRAWINGS

Jackshaft



- XAC-1610 Fitting, Grease
- 8C12-B Screw, Cap
- 100F657 Plate, Retainer
- XSK-N-14 Nut, Lock
- XSK-W-14 Washer, Lock
- XTI-NA-484 Cone, Bearing
- XTI-472-D Cup, Bearing
- XCR-33741 Seal, Grease
- 100F661 Gasket, Plate
- 100F658 Housing, Bearing
- XAC-1627 Fitting, Grease
- XAC-1610 Fitting, Grease
- 100F656 Jackshaft *

*Check for proper jackshaft number when re-ordering.

- FXG-289 Bushing, Seal
- XDC-80Q74 Chain, Quad
- FXG-289 Bushing, Seal
- 100F661 Gasket, Plate
- 100F659 Housing, Bearing
- XCR-33741 Seal, Grease
- XHB-A-5214-TS Bearing, Roller
- XCR-24397 Seal, Grease
- 100F660 Retainer, Bearing & Seal
- 8C12-B Screw, Cap

- 1
- 1
- 1
- 2
- 1
- 1
- 1
- 1
- 1
- 6

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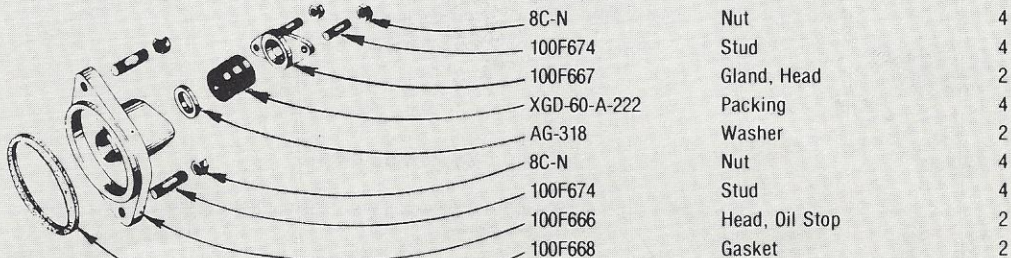
Stuffing Box

Piston Rod Stuffing Box

- 100F685 Gasket
- 100F669 Box, Stuffing
- FG-317 Ring, Junk
- XGD-60-A-222 Ring, Packing
- FG-21-A Gland, Packing
- XAC-1610 Fitting, Grease
- XGD-60-A-222 Ring, Packing
- 870-F Nut, Gland
- 100F676 Stud
- 10C-NH Nut, Stud

- 2
- 2
- 2
- 12
- 2
- 2
- 2
- 2
- 4
- 4

Oil Stop Head



- 8C-N Nut 4
- 100F674 Stud 4
- 100F667 Gland, Head 2
- XGD-60-A-222 Packing 4
- AG-318 Washer 2
- 8C-N Nut 4
- 100F674 Stud 4
- 100F666 Head, Oil Stop 2
- 100F668 Gasket 2



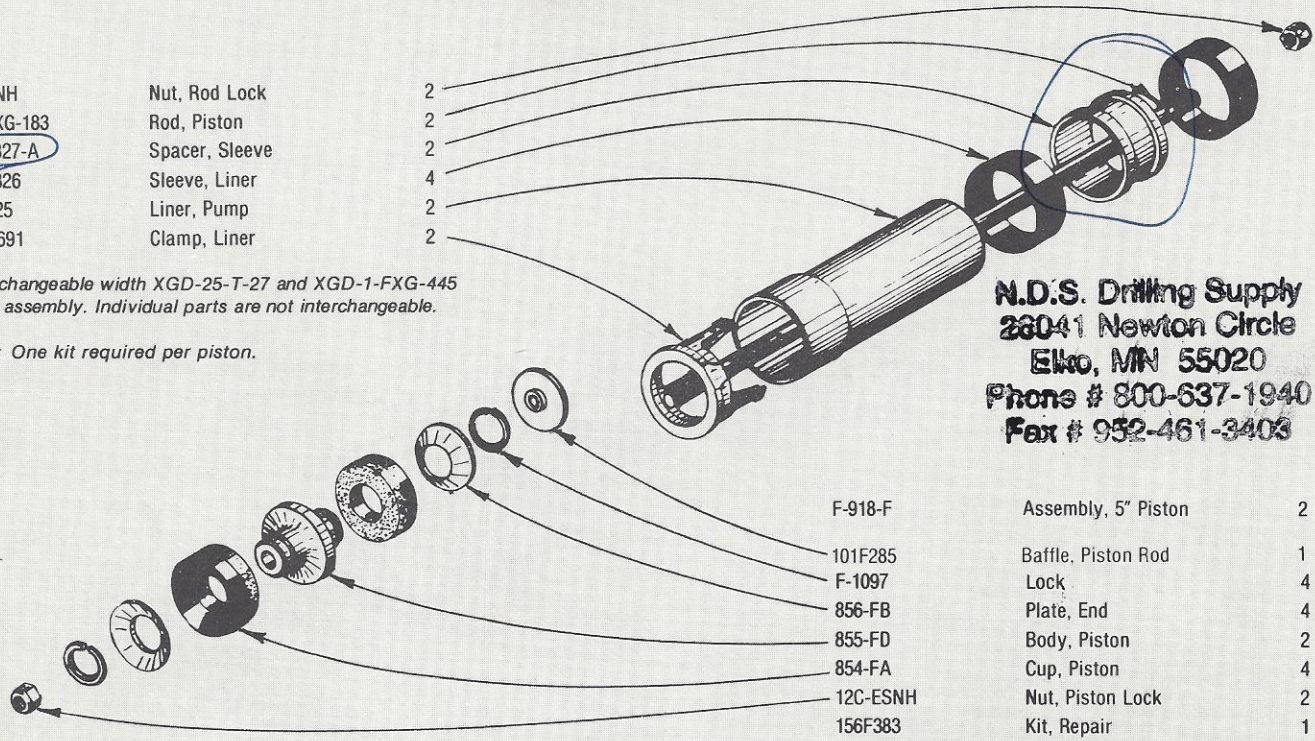
MODEL FM-45 PARTS DRAWINGS

Liner, Piston & Rod

- 16C-NH Nut, Rod Lock
- 21-FXG-183 Rod, Piston
- D-1827-A Spacer, Sleeve
- *D-1826 Sleeve, Liner
- D-1825 Liner, Pump
- 100F691 Clamp, Liner

*Interchangeable width XGD-25-T-27 and XGD-1-FXG-445 as an assembly. Individual parts are not interchangeable.

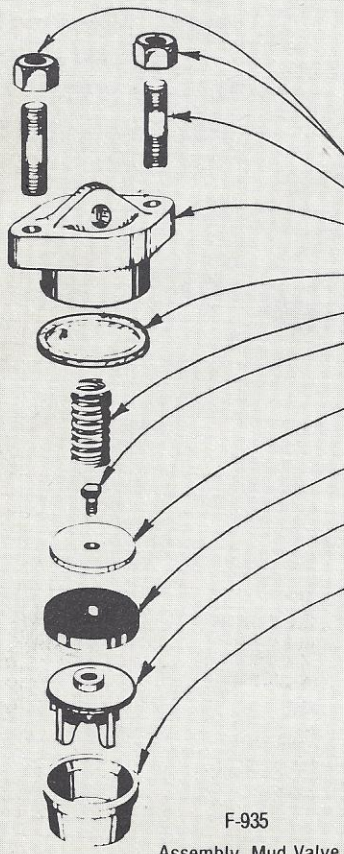
Note: One kit required per piston.



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- F-918-F Assembly, 5" Piston 2
- 101F285 Baffle, Piston Rod 1
- F-1097 Lock 4
- 856-FB Plate, End 4
- 855-FD Body, Piston 2
- 854-FA Cup, Piston 4
- 12C-ESNH Nut, Piston Lock 2
- 156F383 Kit, Repair 1

Valve Assemblies



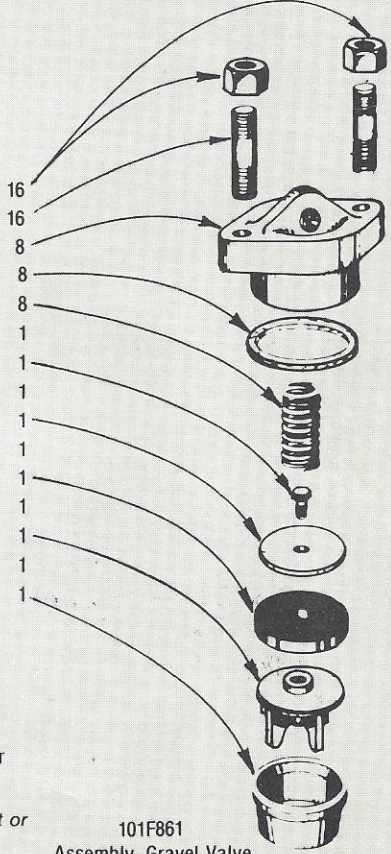
F-935
 Assembly, Mud Valve

- 16C-NH Nut, Stud
- 100F679 Stud, Cover
- 100F689 Plate, Cover
- 100F690 Gasket
- XGD-78-A-171 Spring, Valve
- 10C8-ESB Bolt
- 101F865 Bolt
- F-929 Washer, Valve
- 101F863 Washer, Valve
- 1-FG-452* Insert, Valve
- 101F864** Insert, Valve
- FG-206-H Valve
- 101F862 Valve
- FG-39-H Seat, Valve
- F-993 Seat, Valve

Note: 8 Valves Req'd. Per Pump

*For polyurethane inserts, order 140F838 insert or 141F706 assembly.

**For polyurethane inserts, order 140F839 insert or 141F743 assembly.



101F861
 Assembly, Gravel Valve