Price $ 5.00

GARDNER-DENVER®

3-525
1st Edition

FXF__B

5" STROKE

DUPLEX POWER PUMP

N.D.S. Drilling Supply
26041 Newton Circle
Elko, MN 55020
Phone #952-461-3400
Fax # 952-461-3403

3-525

Parts List

COOPER INDUSTRIES

INDUSTRIAL MACHINERY

N.D.S. Drilling Supply
26041 Newton Circle
Elko, MN 55020
Phone #952-461-3400
Fax # 952-461-3403

MINI-MATRIX FOR
MODEL "FXF" 5" STROKE DUPLEX POWER PUMP
ELEVEN (11) CHARACTER MODEL DESIGNATIONS

NOTICE TO CUSTOMER - To find the construction options for your pump unit, FILL IN THE BALANCE OF LETTERS OR NUMBERS FROM YOUR UNIT NAMEPLATE . . . . . .

COLUMN NUMBER:	1	2	3	4	5	6	7	8	9	10	11
	F	X	F			B					

FOLLOW THE LINE DOWN AND OVER FROM EACH SPACE THUS FILLED IN TO FIND THE APPROPRIATE CONSTRUCTION OPTION WITH WHICH YOUR MACHINE IS EQUIPPED. THE NUMBER "9" IN ANY COLUMN SPACE INDICATES "NOT APPLICABLE". THE NUMBER "8" IN ANY COLUMN SPACE INDICATES SPECIAL DESIGN -- REFER TO FACTORY ORDER TICKET.

COLUMNS 1, 2 & 3 - BASIC FAMILY

COLUMN 4 - TYPE SERVICE - MASTER CYL SIZE - CONSTRUCTION
- A. Slush Service - 4-1/2" Master - 1 Piece Cast Iron
- B. Slush Service - 4" Master - 1 Piece Cast Iron
- C. Grout & Cement Service - 4-1/2" Master - 1 Piece Cast Iron
- D. Grout & Cement Service - 4" Master - 1 Piece Cast Iron
- E. Oil Service - 4" Master - 1 Piece Cast Iron
- F. Water Service - 4" Master - 1 Piece Cast Iron
- G. General Service - 4" Master - 1 Piece Cast Iron

COLUMN 5 - SIZE SELECTIVE

	Master Size		Master Size
A. 4-1/2"	(4-1/2")	C. 3-1/2"	(4")
B. 4"	(4-1/2" & 4")	D. 3"	(4")
		E. 2-1/2"	(4")

COLUMN 6 - DESIGN VERSION

COLUMN 7 - LINER MATERIAL SELECTIVE
- A. Bronze - Standard for Water Service
- B. Hardened Steel - Standard for Slush, Grout & Cement, Oil and General Service
- C. Stainless Steel

COLUMN 8 - PISTON TYPE SELECTIVE
- A. Bronze - Follower Type w/Regular Cure Packing (Std. for Water Service)
- B. Bronze - Follower Type w/Rock Hard Packing (Optional for Water Service)
- C. Iron - Follower Type w/Regular Cure Packing (Std. for General Service)
- D. Iron - Follower Type w/Rock Hard Packing (Optional for General Service)
- E. Iron - Solid Type w/Cast Iron Rings (Std. for Oil Service)
- F. Steel - Insert Type (Std. for Grout & Cement & Slush Service)
- G. Bronze - Cup Type (Optional)
- H. Iron - Cup Type (Optional)
- J. Steel - Cup Type (Optional)

COLUMN 9 - PISTON ROD MATERIAL & PACKING SELECTIVE
- A. Bronze Rod & Braided Asbestos Packing (Std. for Water Service)
- B. Hardened Steel Rod & Braided Asbestos Packing (Std. for Oil and General Service)
- C. Hardened Steel Rod & Molded Convex Packing (Std. for Slush or Grout & Cement Service)
- D. Hardened Steel Rod & Molded Rubber & Duck Packing (Optional)
- E. Chrome Plated Rod & Braided Asbestos Packing (Optional)
- F. Chrome Plated Rod & Molded Convex Packing (Optional)
- G. Chrome Plated Rod & Molded Rubber & Duck Packing (Optional)
- H. Stainless Steel Rod & Braided Asbestos Packing (Optional)
- J. Stainless Steel Rod & Molded Convex Packing (Optional)
- K. Stainless Steel Rod & Molded Rubber & Duck Packing (Optional)

COLUMN 10 - FLUID VALVE SELECTIVE
- A. Bronze - Wing Guided Type without Insert - for Water Service
- B. Bronze - Wing Guided Type with Rubber Insert - for Water Service
- C. Iron - Wing Guided Type without Insert - for Oil, Water or General Service
- D. Steel - Wing Guided Type without Insert - for Oil or General Service
- E. Steel - Wing Guided Type with Rubber Insert for Slush or Grout & Cement Service
- F. Steel (Gravel Type) - Wing Guided with Insert - for Grout & Cement, Slush Service
- G. Steel - Center Guided Type without Insert - for Oil or General Service
- H. Steel - Center Guided Type with Rubber Insert - for Slush Service
- J. Steel Seat & Delrin Ball - Optional
- K. Stainless Steel Seat & Delrin Ball - Optional
- L. Stainless Steel (Durabla) - Optional
- M. Bronze - Ball Guided Spherical - Optional
- N. Steel - Ball Guided Spherical - Optional
- P. Stainless Steel - Ball Guided Spherical - Optional

COLUMN 11 - OPTIONAL EQUIPMENT SELECTIVE

INSTRUCTIONS FOR ORDERING REPAIR PARTS

When ordering parts, specify complete eleven (11) character Pump Model, Size and Serial Number (see name plate on pump). Serial Number is also stamped on cylinder end of frame.

All orders for Parts should be placed with the nearest Sales and Service Office.

Reference numbers shown in the left hand column of the Parts Lists are used to help locate the parts shown on the Drawings and Sectional Views. DO NOT ORDER BY REFERENCE NUMBERS.

After locating the reference number, the part number may be found for your particular pump unit under the correct Model Number column.

Specify exactly the number of parts required (see column "Qty. Req. Per Pump"). DO NOT ORDER BY SETS.

To determine the Right Hand and Left Hand side of the pump, stand at the power end and face the fluid end of the pump.

PARTS RETURNED

All claims must be made within five days after receipt of goods. If order has been filled correctly, we cannot allow the return of the goods without our consent and then only on a basis of a charge for service and rehandling plus transportation charges.

Transportation charges must be prepaid. If it is necessary to return a part to the factory for duplication or inspection, do not fail to do the following:

1. Write the nearest Sales and Service Office a letter advising what material you wish to return and why.
2. After receiving permission to return the item or items, obtain from the Sales and Service Office the correct forms filled out by that office for the proper return of material.
3. Place a tag in the package showing your name and address.
4. Tag each article in the box or package stating what and how many are returned.
5. Always give the serial number of the machine from which the parts were removed or the invoice number on which the parts were originally shipped.

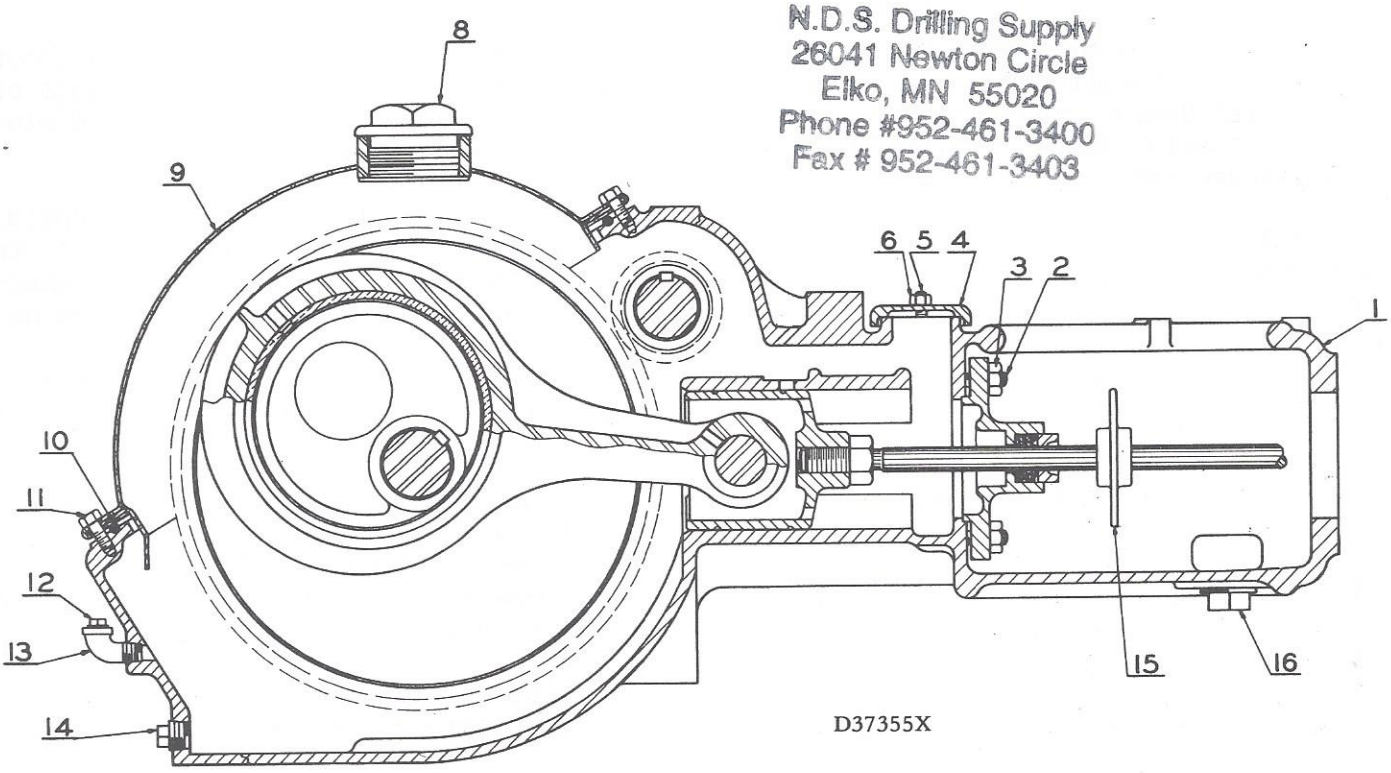
All parts returned for credit should be handled in the same manner as that for duplication or inspection.

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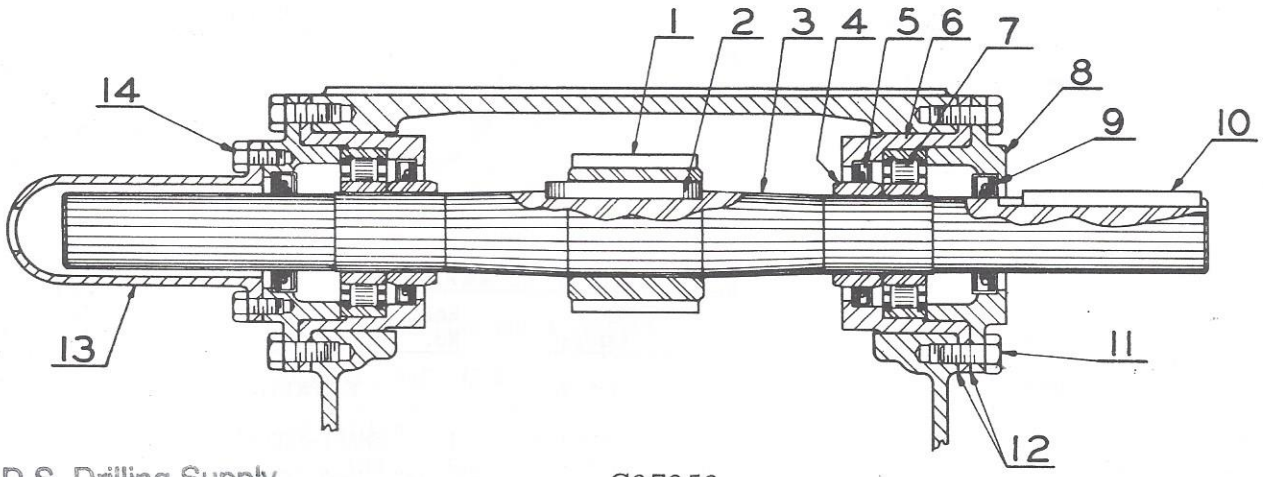
Order by Part Number and Description. Reference Numbers for your convenience only.

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Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	FRAME GROUP		Part No.
1	ASM FRAME, Incl. Ref. #2, 3, 5, 6, 12, 13 & 14. . . .	1	1FXF172A
2	STUD, Oil Stop Head	4	79A238
3	NUT, Oil Stop Head	4	50B5
4	PLATE-INSPECTION	1	3AXG237
5	STUD, Inspection Plate	1	79A30
6	NUT, Inspection Plate Stud	1	50B3
8	COVER-FILLER	1	FXX880
9	HOOD	1	FXF246
10	GASKET, Hood	68"	2009457
11	SCREW, Hood	8	75A130
12	PLUG - Sq Hd PIPE, Oil Level	1	64AA4
13	ELBOW-PIPE STREET, Oil Level	1	64D4
14	PLUG - Sq Hd PIPE, Oil Drain	1	64A5
15	BAFFLE, Piston Rod	2	2FXF840
16	PLUG - Sq Hd PIPE, Frame Drain	1	64A9

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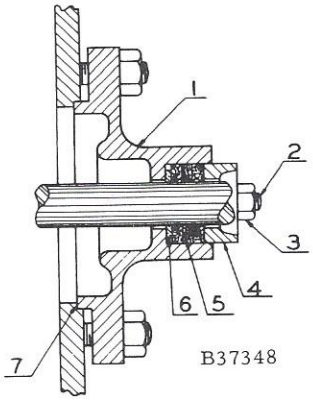
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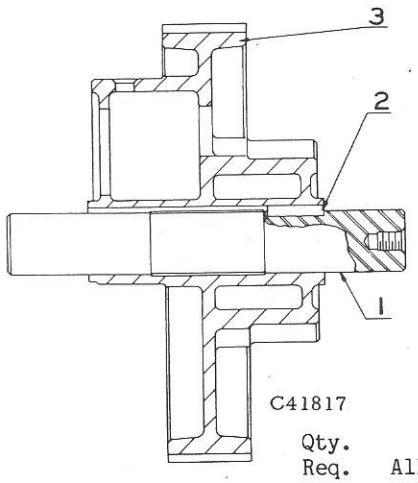
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Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	JACKSHAFT (Standard Double Extension)		Part No.
	ASM JACKSHAFT, Incl. Ref. #1, 2, & 3	1	FXF374
1	GEAR-DRIVER	1	FXF181
2	KEY, Jackshaft to Gear	1	35C46
3	JACKSHAFT	1	FXF371
4	SLEEVE-SHAFT	2	FXF289
5	SEAL-OIL, Bearing Housing	2	60G3
6	HOUSING-BEARING	2	FXF368
7	BEARING, Jackshaft	2	12W1
8	PLATE-BEARING RETAINING	2	FXF370
9	SEAL-OIL, Bearing Retaining Plate	2	60G38
10	KEY-Jackshaft	1	35B101
11	SCREW, Housing & Retaining Plate	12	75A12
12	GASKET, Housing & Retaining Plate	4	25C653
13	COVER-SHAFT EXTENSION	1	200FXF490
14	SCREW, Shaft Extension Cover	3	75A5
Ø	FITTING-LUB	2	40E5

Ø Not shown on illustration.

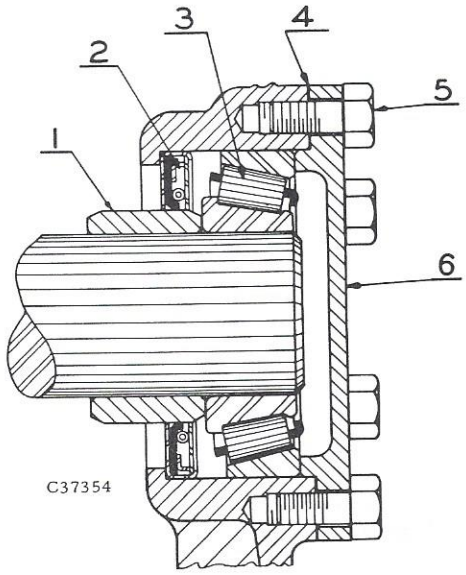
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Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	OIL STOP HEAD		Part No.
1	ASM OIL STOP HEAD, Incl. Ref. #2 & 3 . .	2	2FXF495
2	STUD, Oil Stop Head	4	79A133
3	NUT, Oil Stop Head Stud	4	50B3
4	GLAND, Oil Stop Head	2	AXF238
5	PACKING, Oil Stop Head	2	60BG23
6	WASHER, Oil Stop Head	2	AF318
7	GASKET, Oil Stop Head	2	25C651

Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	ECCENTRIC & SHAFT		Part No.
1	SHAFT-ECCENTRIC . . .	1	1FXF367
2	KEY	1	35C70
3	ECCENTRIC	1	1FXF255



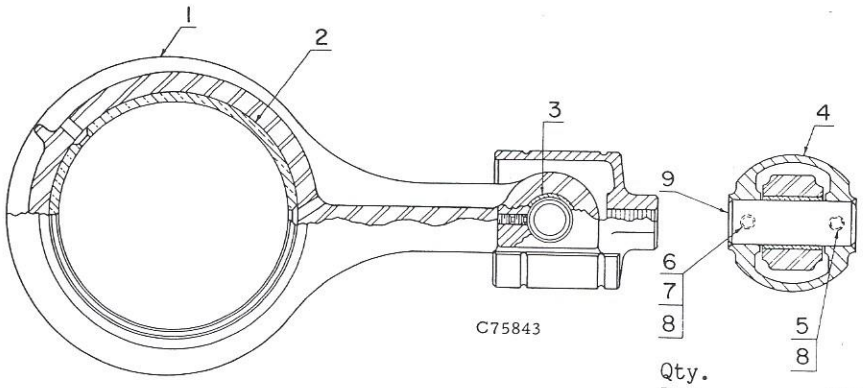
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Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	ECCENTRIC SHAFT BEARING		Part No.
1	SLEEVE-SHAFT	2	15AUX18
2	SEAL-OIL	2	60G220
3	BEARING, Eccentric Shaft	2	12C28
4	SHIM, Bearing Cover Plate	3	77G14
5	SCREW, Bearing Cover Plate	12	75AA1
6	PLATE-BEARING COVER	2	FXF366
Ø	FITTING-LUB	2	40E5

Ø Not shown on illustration.

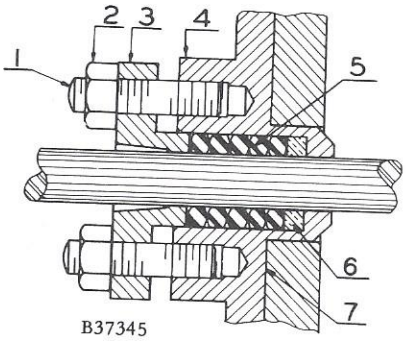
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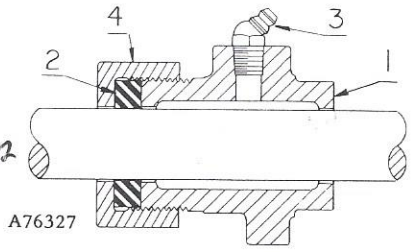
Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	CONNECTING ROD & CROSSHEAD		Part No.
1	CONNECTING ROD, Inc. Ref. #2 & 3	2	1FXF417
2	BUSHING	2	3FXF421
3	BUSHING, Crosshead Pin	2	AXF229
4	ASM CROSSHEAD, Incl. Ref. #5 thru 8	2	1FXF175X
5	SET SCREW-SOCKET HEAD	4	76J8
6	SET SCREW-SQUARE HEAD	2	76U32
7	PIN, Set Screw	4	62A153
8	NUT, Set Screw	2	50F3
9	PIN-CROSSHEAD	2	FXF189

Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	STUFFING BOX		Part No.
1	STUD, Stuffing Box	4	79A101C
2	NUT, Stuffing Box Stud	4	50B7C
3	GLAND	2	FF21**
4	ASM STUFFING BOX, Incl. Ref. No. 1 & 2	2	1FF14X
5	PACKING, Braided Asbestos (Oil & Water Serv)	2	60BG7*
5	PACKING, Oil Resistant Molded Convex (Standard Slush Service)	2	60BH14*
5	PACKING, Molded Rubber & Duck (Opt. Slush Serv).	2	60DA609*
6	RING-JUNK	2	FF317
7	GASKET, Stuffing Box	2	25C650



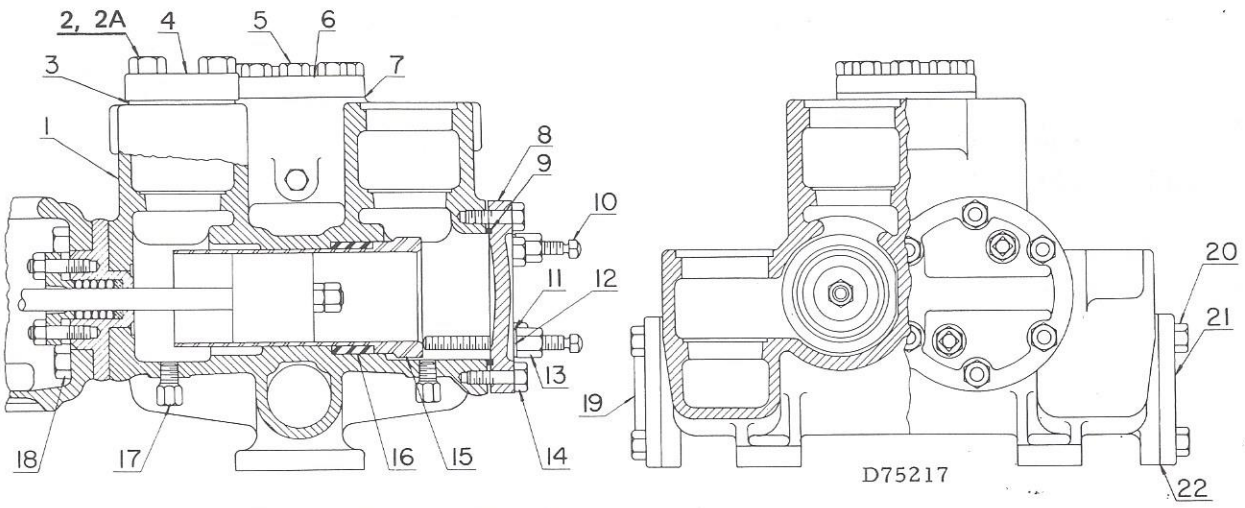
* Selective for Column 9.
** Not used on Models FXFA or FXFC_B.

Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF*** Models
	STUFFING BOX GLAND		Part No. (Opt. Eqpt.)
	ASM GLAND, Incl. Ref. No. 1 thru 4	2	200FXF008A
1	GLAND	2	200FXF008
2	PACKING-RING	2	60DD74 - 60A222
3	FITTING-LUBE	2	40E10
4	NUT	2	200FXG086



*** Standard for Models FXFA and FXFC_B.

Order by Part Number and Description. Reference Numbers for your convenience only.



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Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFB_B FXFD_B FXFE_B FXFF_B FXFG_B Part No.	Models FXFA_B FXFC_B Part No.
	FLUID CYLINDER			
1	ASM FLUID CYLINDER, Incl. Ref. #2, 2A, 5, 14, 17, 18 & 20	1	1FF388	6FF29B
2	STUD, Valve Cover	16	79L11C	79L11C
2A	NUT HEX, Valve Cover Stud	16	50B9C	50B9C
3	GASKET, Valve Cover	8	25G27	25G27
4	COVER-VALVE	8	3FF147	3FF147
5	SCREW, Discharge Flange	8	75A17C	75A17C
6	FLANGE, Discharge	1	64CC4	64CC4
7	GASKET, Discharge Flange	1	25C502	25C502
8	HEAD-CYLINDER	1	3FF41	3FF41
9	GASKET, Cylinder Head	2	25G29	25G29
10	SET SCREW, Liner	4	~~76N8~~ use 76NH	~~76N8~~ - long ones same dia 5/16 76N14
11	PACKING, Liner Set Screw	4	60BQ1	60BQ1
12	WASHER, Liner Set Screw	4	95F7	95F7
13	NUT, Liner Set Screw	4	50B7C	50B7C
14	SCREW, Cylinder Head	10	75A17C	75A17C
15	LINER		See Page 7	See Page 7
16	SLEEVE, Liner	2	2FF519	200FFF519
17	PLUG, Drain	5	64AU5	64AU5
18	SCREW, Frame to Cylinder	6	75A101C	75A101C
19	FLANGE, Suction Blank	1	AXF92	AXF92
20	SCREW, Suction & Blank Flange	8	75A18C	75A18C
21	FLANGE, Suction	1	64DC5	64DC5
22	GASKET, Suction & Blank Flange	2	25C501	25C501

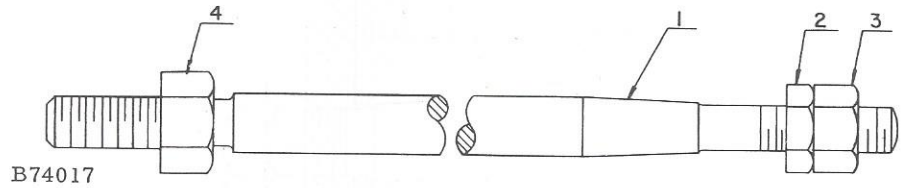
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CYLINDER LINERS*
TWO (2) REQUIRED PER PUMP

Size	Models FXFA_B, FXFC_B Hardened Steel	Size	Models FXFB_B, FXFD_B, FXFE_B Bronze	Hardened Steel	Stainless Steel
	Part No.		Part No.	Part No.	Part No.
4-1/2" . . .	200FFF456	4" . . .	6FF64	FF45640	20FF64
4"	2014416	3-1/2" . . .	11FF64	FF45635	22FF64
		3"	13FF64	FF45630	24FF64
		2-1/2" . . .	15FF64	FF45625	26FF64

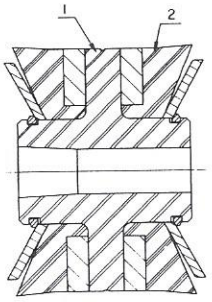
* Selective for Column 7.



Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models Hardened Steel	Models FXFB_B, FXFD_B, FXFE_B Bronze	Chrome Plated	FXFF_B, FXFG_B Stainless Steel
	PISTON RODS & NUTS** (GARDNER-DENVER NO. 1 TAPER)		Part No.	Part No.	Part No.	Part No.
1	PISTON ROD, Incl. Ref. No. 2 & 3 .	2	21FXF183	8FXF183	25FXF183	7FXF183
2	NUT (Thin)	2	None	50Y8	None	50T57
3	NUT (Full)	2	50AW9	50X10	50AW9	50U8
4	NUT, Crosshead	2	50B9	50B9	50B9	50B9

** Selective for Column 9.

Order by Part Number and Description. Reference Numbers for your Convenience Only.

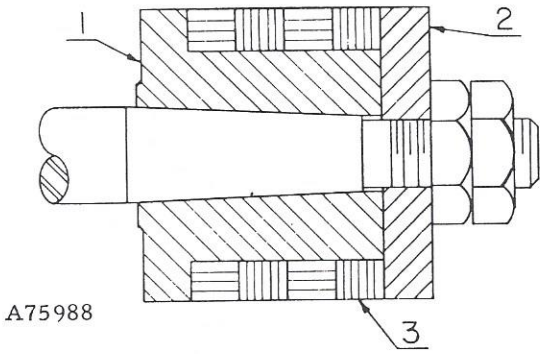


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STEEL INSERT - TYPE PISTON*
STANDARD FOR
SLUSH, GROUT & CEMENT SERVICE
(GARDNER-DENVER NO. 1 TAPER)

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFA_B FXFC_B 4-1/2"	Models FXFA_B FXFB_B FXFC_B FXFD_B 4"	Models FXFB_B & FXFD_B 3-1/2"	3"	2-1/2"
			Part No.	Part No.	Part No.	Part No.	Part No.
1	ASM PISTON, Incl. Ref. No. 2 . . .	2	207TBA045A	205TBA045A	203TBA045A	201TBA045A	45D278
2	INSERT GROUP, Incl. Retaining Plates & Rings . .	2	TBA76000	TBA75998	TBA75996	TBA75994	45E41



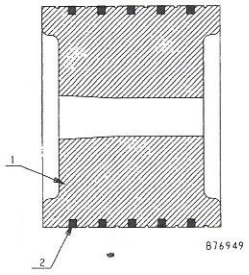
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FOLLOWER TYPE FLUID PISTONS*
FOR WATER AND GENERAL SERVICE
(GARDNER-DENVER NO. 1 TAPER)

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFF_B & FXFG_B 4"	3-1/2"	3"	2-1/2"
			Part No.	Part No.	Part No.	Part No.
1	BODY-PISTON (Iron)	2	AXG45	1AXG45	4AXG45	FF45
2	FOLLOWER-PISTON (Iron)	2	AXG46	1AXG46	3AXG46	FF46
1	BODY-PISTON (Bronze)	2	6AXG45	7AXG45	5AXG45	1FF45
2	FOLLOWER-PISTON (Bronze)	2	5AXG46	6AXG46	4AXG46	1FF46
3	PACKING, Regular Cure	See ( )	60D18(8)	60D25(12)	60D11(10)	60D26(10)
3	PACKING, Rock Hard	See ( )	60Y18(8)	60Y25(12)	60Y11(10)	60Y26(10)

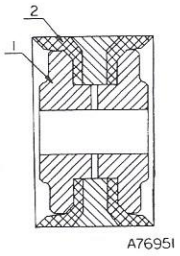
* Selective for Column 8

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IRON SOLID-TYPE PISTON W/CAST IRON RINGS*
STANDARD FOR OIL SERVICE
(GARDNER-DENVER NO. 1 TAPER)

Ref. No.	Name of Part	Qty. Req. Per Pump	Model FXFE_B 4"	3-1/2"	3"	2-1/2"
			Part No.	Part No.	Part No.	Part No.
1	PISTON	2	AXG350	1AXG350	2AXG350	1FG350
2	RING-PISTON	8	65A33	65A9	65A14	65A44

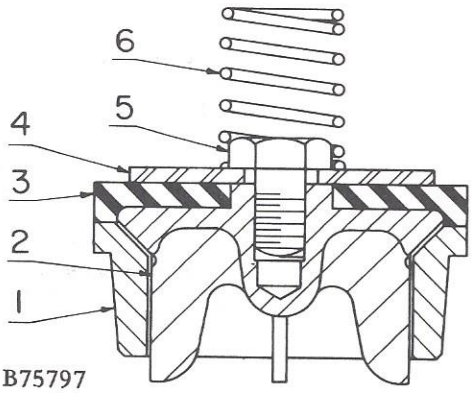


CUP-TYPE PISTONS*
IRON & STEEL FOR
OIL AND GENERAL SERVICE
BRONZE FOR WATER SERVICE
GARDNER-DENVER NO. 1 TAPER (OPTIONAL)

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFE_B, FXFG_B & FXFF_B 4"	3-1/2"	3"	2-1/2"
			Part No.	Part No.	Part No.	Part No.
1	PISTON (Iron) Incl. Ref. No. 2	2	P1GDL400	P1GDL350	P1GDL300	P1GDL250
1	PISTON (Steel) Incl. Ref. No. 2	2	P1GDL400S	P1GDL350S	P1GDL300S	P1GDL250S
1	PISTON (Bronze) Incl. Ref. No. 2	2	P1GDL400B	P1GDL350B	P1GDL300B	P1GDL250B
2	CUP	4	60BB11	60BB9	60BB7	60BB33

* Selective for Column 8

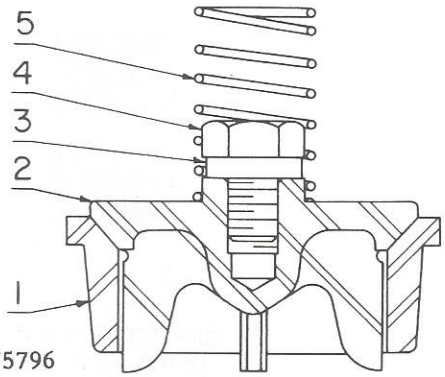
Order by Part Number and Description. Reference Numbers for your convenience only.



B75797

N.D.S. Drilling Supply
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Phone #952-461-3400
Fax # 952-461-3403

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFA_B FXFB_B	Model FXFF_B
	WING GUIDED VALVE* WITH RUBBER INSERT (SLUSH, GROUT & CEMENT, WATER SERVICE)		Part No. (Hardened Steel)	Part No. (Bronze)
1	SEAT-VALVE	8	11FF39	6FF39
	ASM FLUID VALVE, Incl. Ref. #2 thru 5	8	FF928	8FF206A
2	VALVE-FLUID	8	18FF206	8FF206
3	INSERT	8	1FF452	1FF452
4	WASHER	8	95D51	95G11
5	SCREW	8	5FF156	7FF156
6	SPRING	8	78A171	78D72



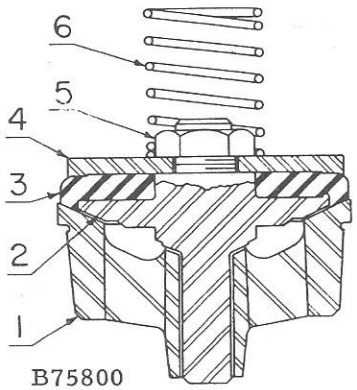
B75796

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFE_B FXFG_B
	HARDENED STEEL WING GUIDED VALVE* WITHOUT INSERT (OIL OR GENERAL SERVICE)		Part No.
1	SEAT-VALVE	8	11FF39
2	ASM FLUID VALVE, Incl. Ref. #3 & #4	8	18FF206C
3	WASHER	8	95D136
4	SCREW	8	5FF156
5	SPRING	8	78A134

For the above valves use one (1) 201FFF219A Valve Puller Assembly as shown on Page 15.

*Selective for Column 10.

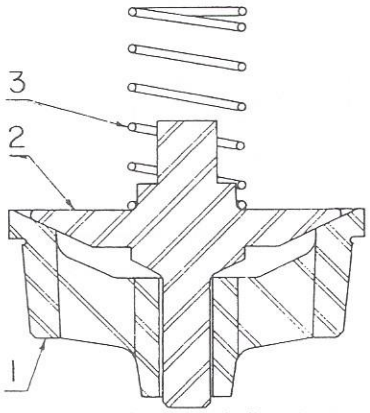
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B75800

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Phone #952-461-3400
Fax # 952-461-3403

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFA_B FXFB_B
	HARDENED STEEL CENTER GUIDED VALVE* WITH RUBBER INSERT (SLUSH SERVICE)		Part No.
1	SEAT-VALVE	8	1FF451
	ASM FLUID VALVE, Incl. Ref. #2 thru 5	8	1FF908
2	VALVE-FLUID	8	2FF482
3	INSERT	8	5FF452
4	WASHER	8	1FF279
5	NUT	8	50G8
6	SPRING	8	78A171



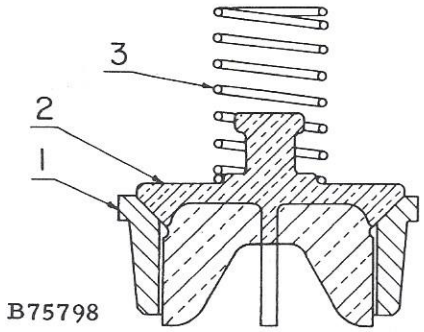
B75799

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFE_B FXFG_B
	HARDENED STEEL CENTER GUIDED VALVE* WITHOUT INSERT (OIL OR GENERAL SERVICE)		Part No.
1	SEAT-VALVE	8	1FF451
2	VALVE-FLUID	8	2FF482
3	SPRING	8	78A134

For the above valves use one (1) 3AUX545 Valve Puller Assembly as shown on Page 15.

*Selective for Column 10.

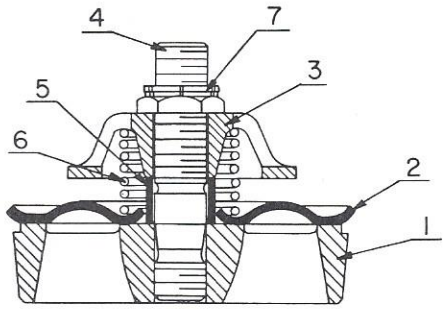
Order by Part Number and Description. Reference Numbers for your convenience only.



B75798

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFE_B FXFF_B FXFG_B	Model FXFF_B
	WING GUIDED VALVE+ WITHOUT INSERT BEVELLED SEAT (OIL, WATER OR GENERAL SERVICE)		Part No. (Iron Fitted)	Part No. (Brass Fitted)
1	SEAT-VALVE	8	FF39	6FF39
2	VALVE-FLUID	8	FF69	1FF69
3	SPRING	8	78A172	78D72

For the above valve use one (1) 201FFF219A Valve Puller Assembly as shown on Page 15.



A76954

Ref. No.	Name of Part	Qty. Req. Per Pump	Model FXFG_B
	DURABLA VALVE+ STAINLESS STEEL GENERAL SERVICE (OPTIONAL)		Part No.
	ASM FLUID VALVE, Incl. Ref. No. 1 thru 7	8	2FF1602
1	ASM VALVE SEAT, Incl. Ref. #4**	8	17FF39A
2	DISC	8	90AN22
3	GUARD	8	50AK10
4	STUD**	8	79AG13
5	SLEEVE	8	80K13
6	SPRING	8	78R10
7	NUT	8	50AK14
Ø	COVER-VALVE*	8	7FF147

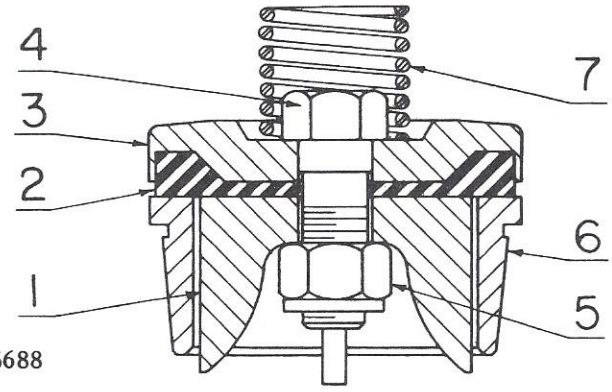
* Durabla valves require the above listed 7FF147 cover in place of valve covers shown on cylinder list.

** Stud furnished with Seat but may be purchased separately.

Ø Not shown on illustration.

\+ Selective for Column 10.

Order by Part Number and Description. Reference Numbers for your convenience only.

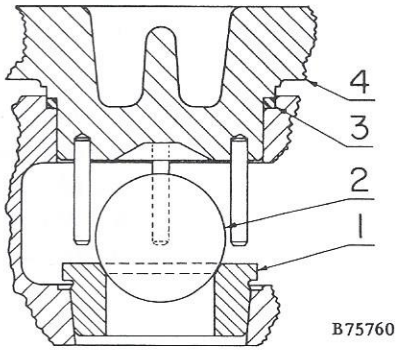


B75688

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Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFA_B FXFB_B FXFC_B FXFD_B
	HARDENED STEEL WING GUIDED GRAVEL VALVE ** WITH RUBBER INSERT (SLUSH, GROUT & CEMENT SERVICE)		
	ASM FLUID VALVE, Incl. Ref. No. 1 thru 5	8	200FFF482A
1	VALVE-FLUID	8	200FFF482
2	INSERT	8	200FFF106
3	WASHER-VALVE	8	200FFF279
4	SCREW	8	200FFF655
5	LOCKNUT	8	50AF7
6	SEAT	8	202FFF039
7	SPRING (Steel)	8	78A171

For the above valve use one (1) 201FFF219A Valve Puller Assembly as shown on page 15.



B75760

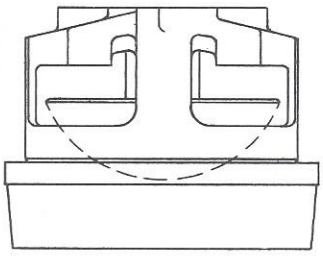
Ref. No.	Name of Part	Qty. Req. Per Pump	Model FXFG_B Part No. (Steel)	Part No. (Stainless Steel)
	DELRIN BALL VALVE ** GENERAL SERVICE (OPTIONAL)			
1	SEAT-VALVE	8	200FFF039	201FFF039
2	VALVE-BALL, Delrin	8	200FFF481	200FFF481
3	GASKET, Valve Cover	8	25G27	25G27
4	COVER-VALVE*	8	200FFF147A	200FFF147A

For the above valve use one (1) 200FFF219A Valve Puller Assembly as shown on page 15.

* Ball valves require the above listed 200FFF147A Covers in place of valve covers shown on cylinder list.

** Selective for Column 10.

Order by Part Number and Description. Reference Numbers for your convenience only.



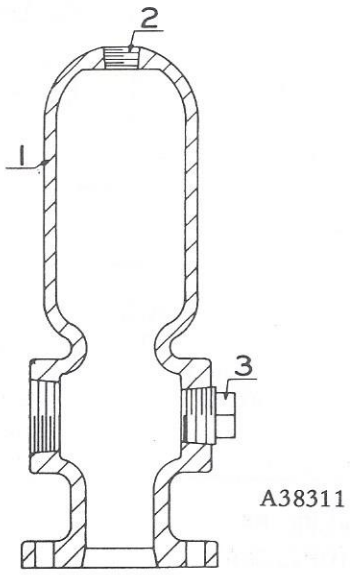
A76953

Ref. No.	Name of Part	Qty. Req. Per Pump	Models FXFE_B FXFG_B	Model FXFF_B	Model FXFG_B
	BALL GUIDED SPHERICAL VALVE* OIL, WATER OR GENERAL SERVICE (OPTIONAL)		Part No. (Steel)	Part No. (Bronze)	Part No. (Stainless Steel)
1	ASM FLUID VALVE	8	3FF1614	FF1614	6FF1614
Ø	COVER-VALVE, FLUID CYLINDER** . . .	8	7FF147	7FF147	7FF147

Ø Not shown on illustration.

* Selective for Column 10.

** Ball Guided Spherical valves require the above listed 7FF147 Cover in place of valve covers shown on cylinder list.

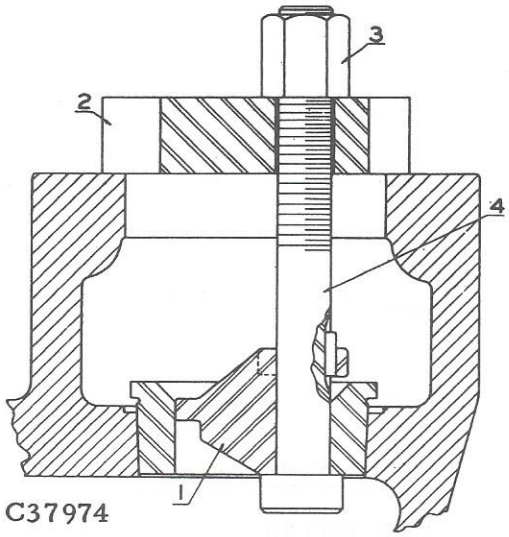


A38311

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Fax # 952-461-3403

Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	SURGE CHAMBER (OPTIONAL EQUIPMENT)		Part No.
1	ASM SURGE CHAMBER, Incl. Ref. #2 & 3	1	1FF44X
2	PLUG-CSK. PIPE, Top	1	64B6
3	PLUG - Sq Hd PIPE, Side	1	64A9

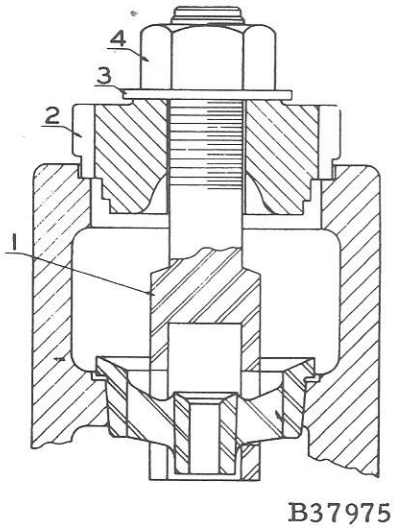
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C37974

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Fax # 952-461-3403

Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models	
	WING GUIDED & DELRIN BALL VALVE SEAT PULLER (OPTIONAL EQUIPMENT)		Part No. (Wing Guided) Valves)	Part No. (Ball Valve:
	ASM PULLER, Incl. Ref. No. 1 thru 4	1	201FFF219A	200FFF219A
1	PULLER	1	201FFF219	200FFF219
2	PLATE-PULLER	1	2AUX292	2AUX292
3	NUT	1	50C11	50C11
4	BOLT-PULLER	1	2AUX235	2AUX235

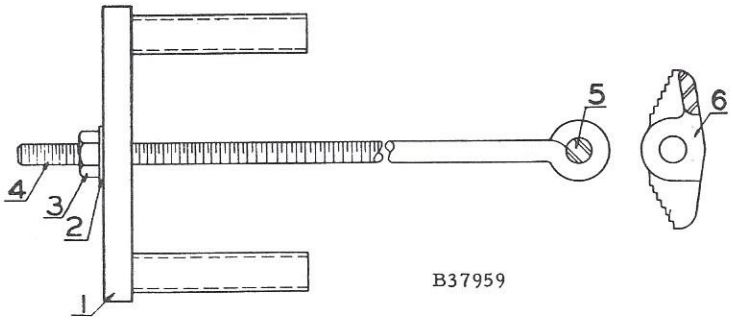


B37975

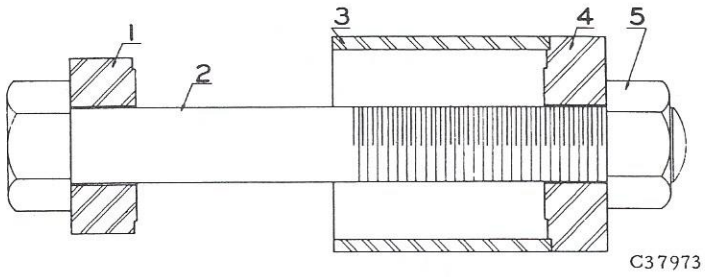
Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	CENTER GUIDED VALVE SEAT PULLER (OPTIONAL EQUIPMENT)		Part No.
	ASM PULLER, Incl. Ref. # 1 thru 4	1	3AUX545
1	PULLER	1	AUX549
2	PLATE-PULLER	1	4AUX292
3	WASHER-PLAIN	1	95A22
4	NUT	1	50T161

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Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	LINER PULLER (OPTIONAL EQUIPMENT)		Part No.
	ASM PULLER, Incl. Ref. #1 thru 6	1	FF284
1	TOOL, Liner Puller	1	1FG346
2	WASHER-PLAIN	1	95A8
3	NUT	1	50B8
4	BOLT-PULLER	1	FG344
5	PIN	1	62A93
6	PULLER	1	FF345



Ref. No.	Name of Part	Qty. Req. Per Pump	All FXF Models
	CROSSHEAD PIN BUSHING PULLER (OPTIONAL EQUIPMENT)		Part No.
	ASM PULLER, Incl. Ref. #1 thru 5	1	FXF1585
1	PLATE	1	FXF1277
2	BOLT-PULLER	1	FXG1279
3	BUSHING	1	FXG1278
4	PLATE-PULLER	1	FXG1276
5	NUT	1	50T67