

Hutchison-Hayes Separators, Inc.

Model MRPX 214 Parts List With Diagrams

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GENERAL DESCRIPTION

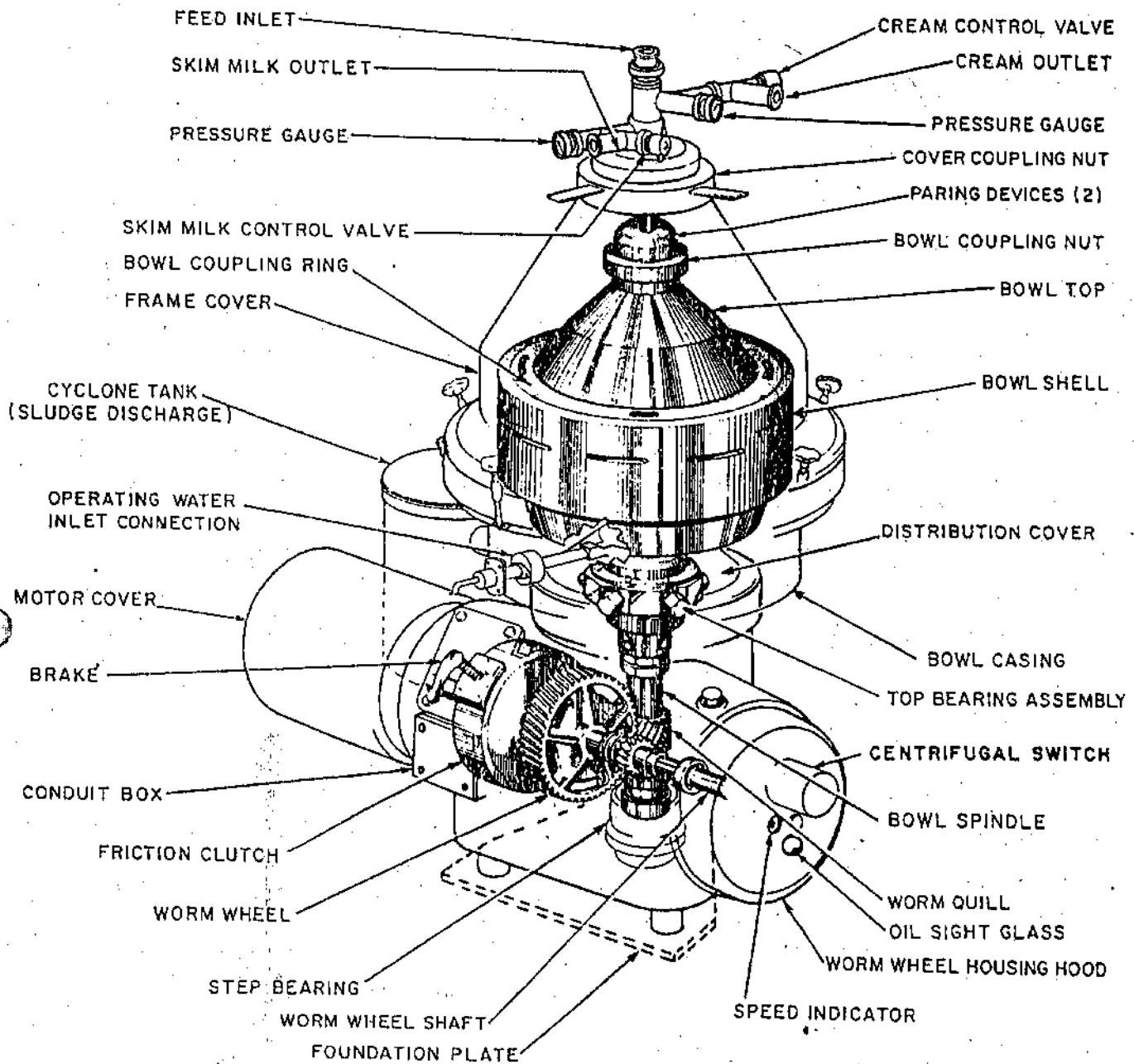


FIGURE 1

INSTALLATION

FOUNDATION

Description

The foundation should be as substantial as possible in order to absorb and withstand vibration, and to form a permanent, rigid support for the foundation plate. Proper anchoring lessens the chance of wear on gears and bearings.

Procedure

Remove tile if present and cut away concrete flooring to a depth of approximately 4 inches by an area about 2 inches greater than the perimeter of the plate. The more irregular and undercut the excavation, the better the bond between the grout and the concrete floor. Clean and wet down the excavation.

Lay the plate; however, do not contact plate directly to I beams, which transmit noise and vibration. Slide the foot sleeves onto the foundation plate feet. Place an adjustable wooden split wedge (Fig. 4) under each corner of the plate to level the feet.

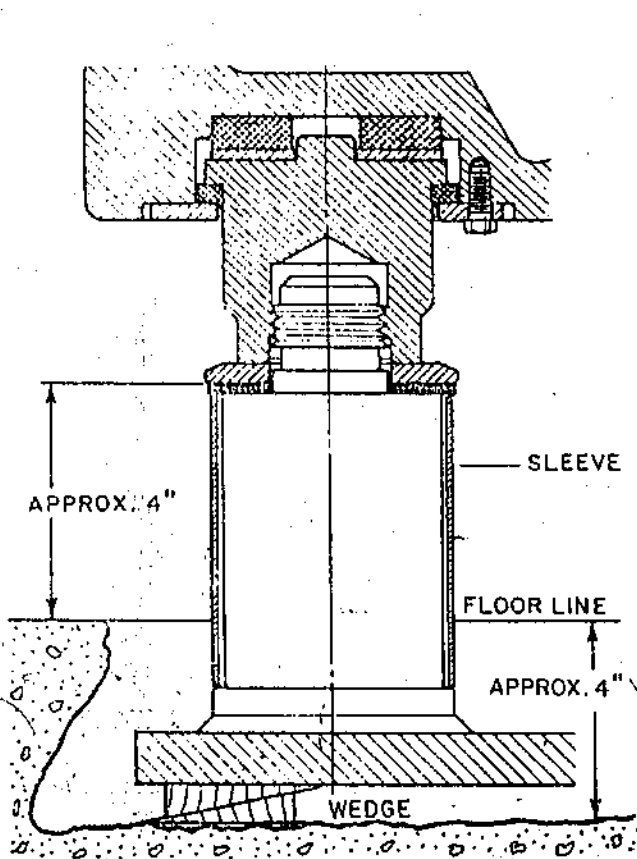


FIGURE 4

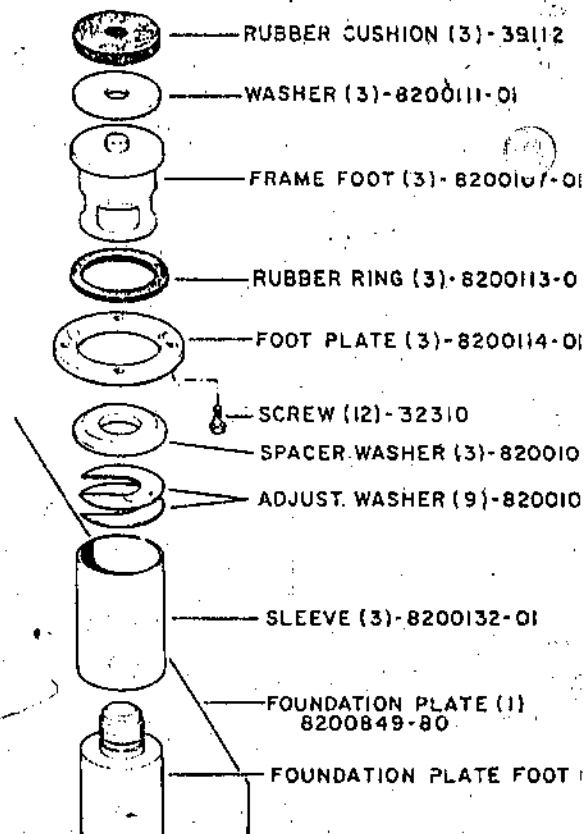


FIGURE 5

INLET AND OUTLET DEVICE

DISASSEMBLY

Remove gauge, piping and control valves from outlet connections, and unhook inlet connection and piping from feed tube nut.

Unscrew feed tube nut from the inlet tube using the adjustable hook spanner.

Raise cream outlet connection by pulling straight up. Locating pin prevents turning on inlet tube. See Figure 28.

Using tin mallet, loosen and unscrew the outlet connection coupling nut counter clockwise and remove skim milk outlet connection.

Disconnect flush coupling hose.

Loosen and unhook hand clamps.

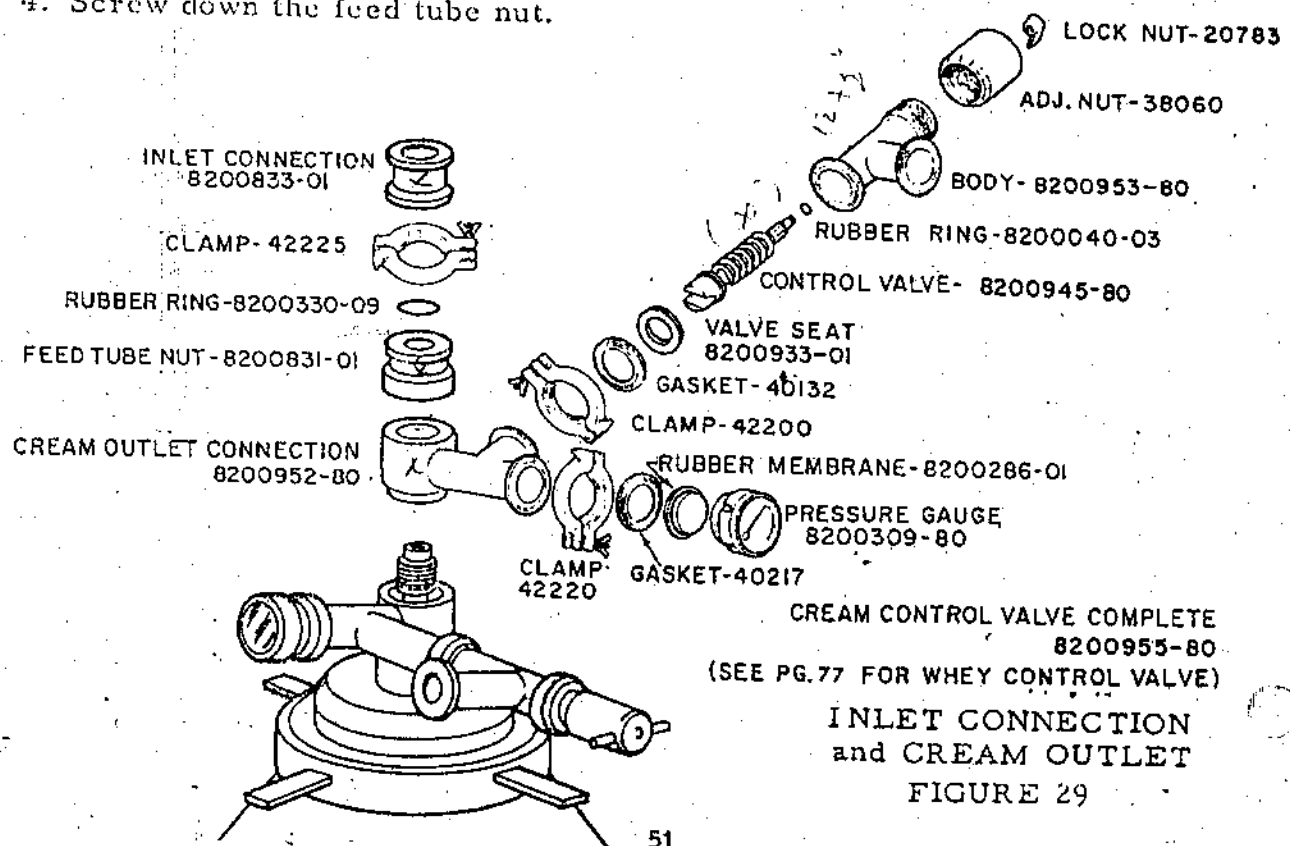
Remove frame cover, being careful not to strike inlet tube.

The guide ring and height adjusting ring need not be removed unless checking height position of paring discs (see Maintenance).

Now the bowl is ready for disassembly.

REASSEMBLY

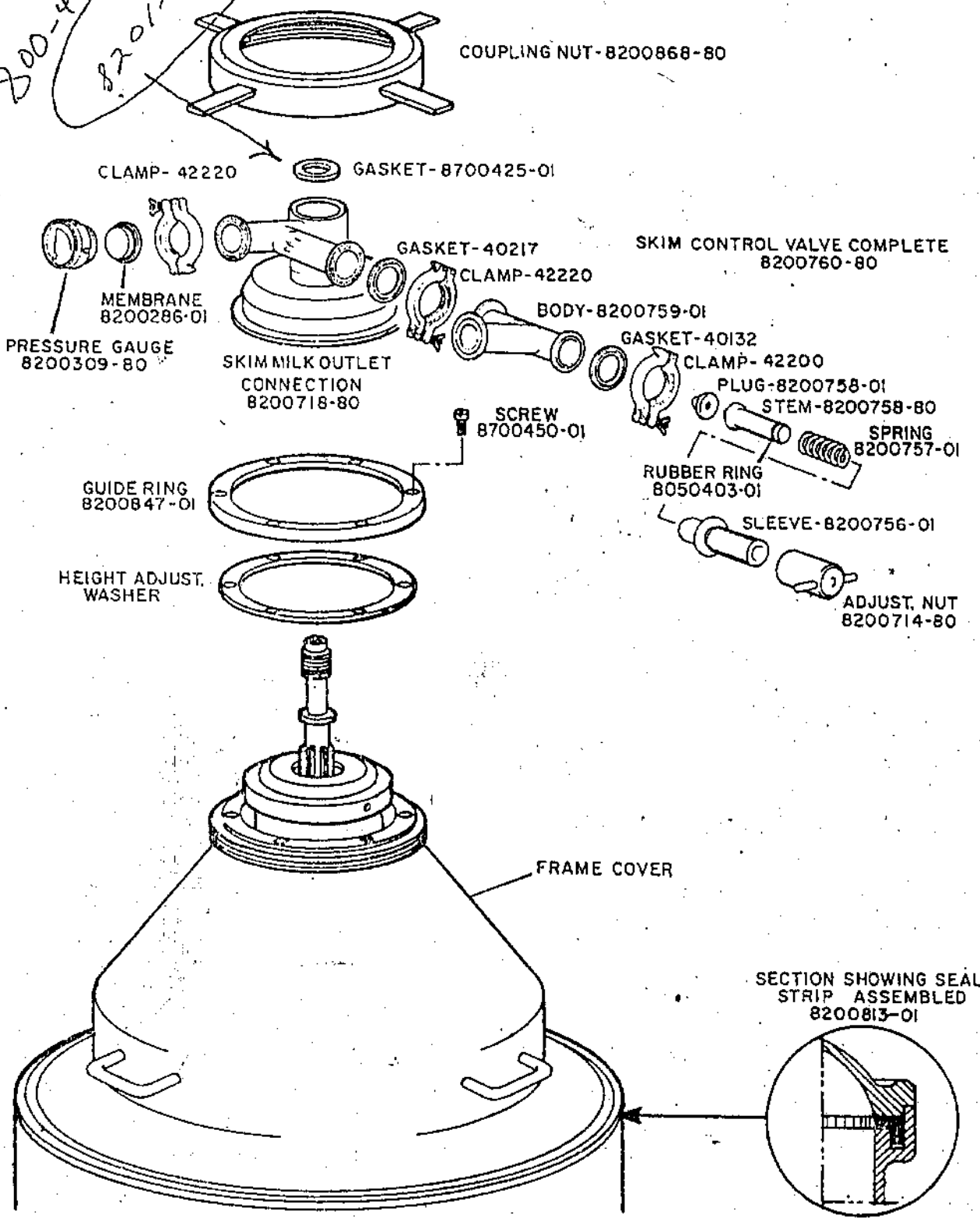
1. Lubricate all threads of inlet-outlet connections, inlet tube, and connection coupling nut.
2. Mount skim outlet connection and coupling nut. Tighten coupling nut securely with aid of tin mallet.
3. Set the cream outlet connection over the inlet feed tube locating the pin in the groove of the inlet tube.
4. Screw down the feed tube nut.



DISASSEMBLY-ASSEMBLY-PARTS LIST

Paul Morrison

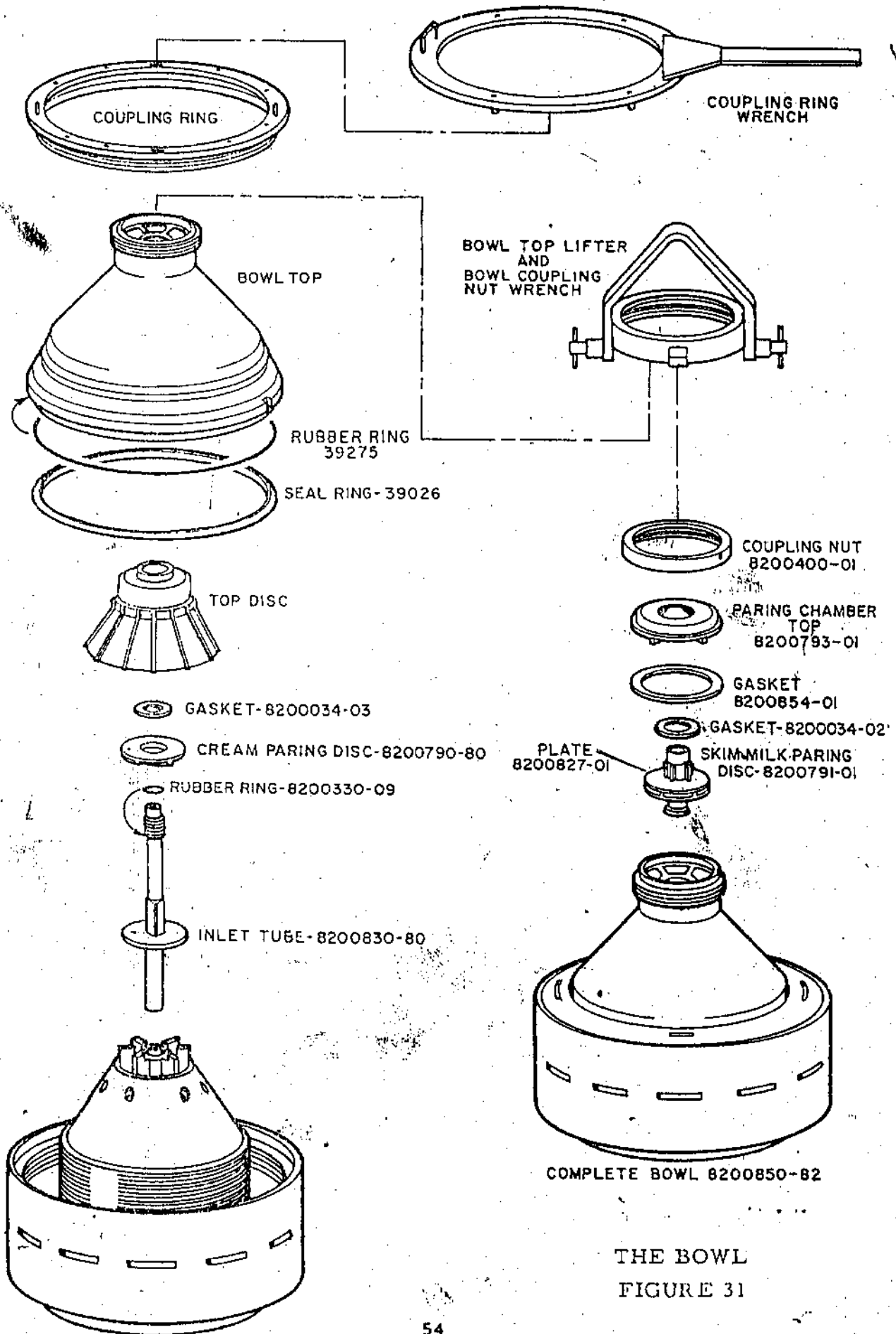
800-431-8130
8201275-01



SKIM MILK OUTLET CONNECTION and CONTROL VALVE

FIGURE 30

DISASSEMBLY-ASSEMBLY-PARTS LIST



THE BOWL
FIGURE 31

DISASSEMBLY-ASSEMBLY-PARTS LIST

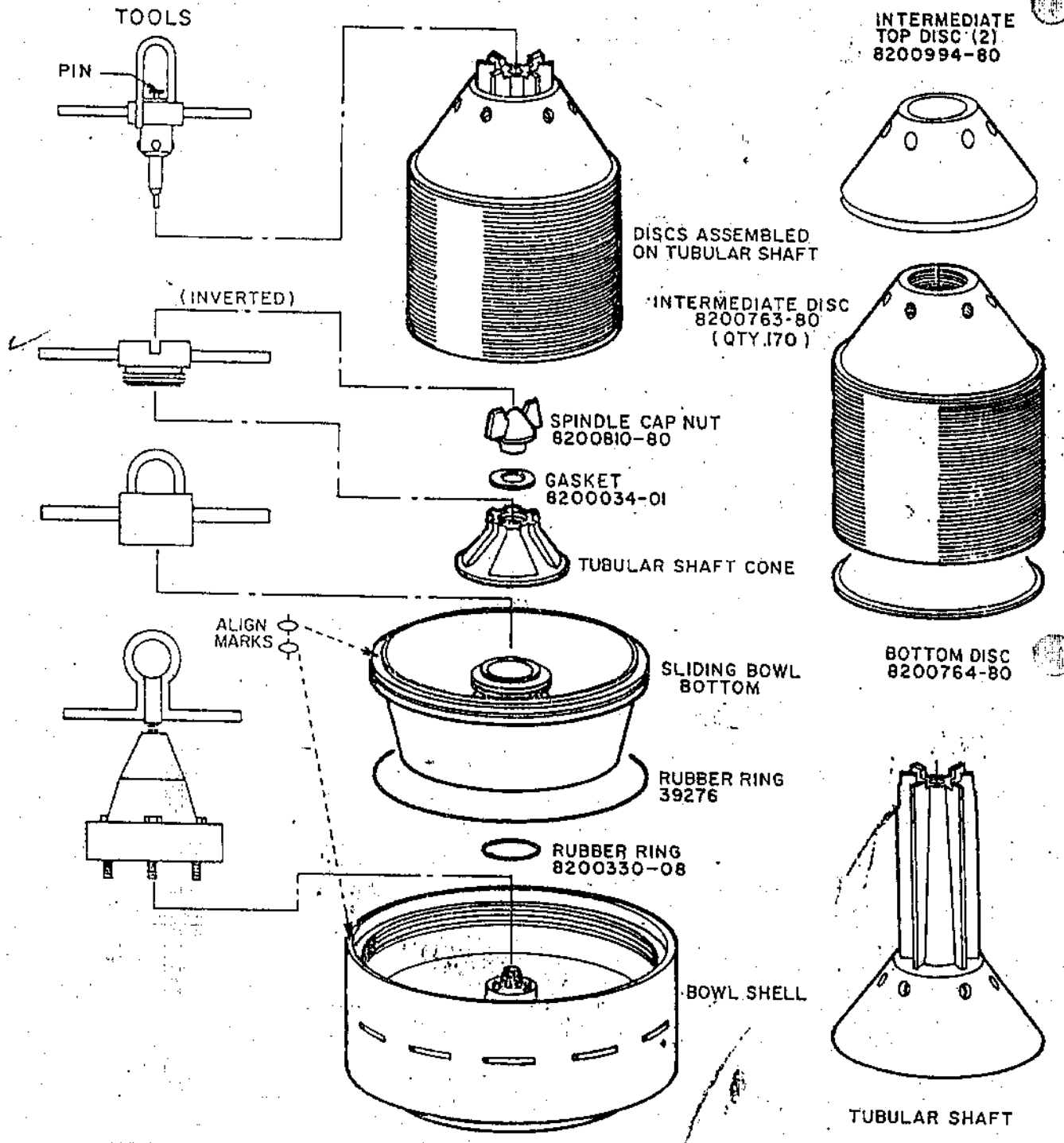
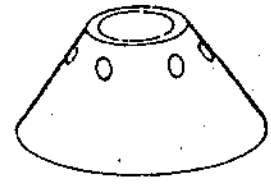
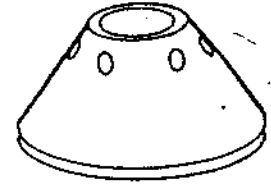


FIGURE 32

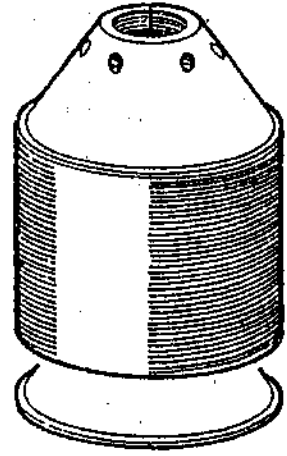
DISASSEMBLY-ASSEMBLY-PARTS LIST



TOP DISC
8200984-80



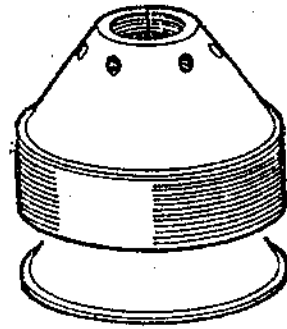
INTERMEDIATE
TOP DISC (2)
8201034-80



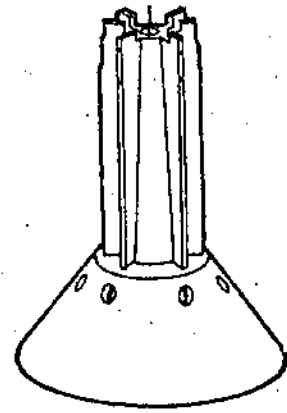
INTERMEDIATE DISC
(APPROX. 115)
8201032-80



SPACER DISC
8201009-01

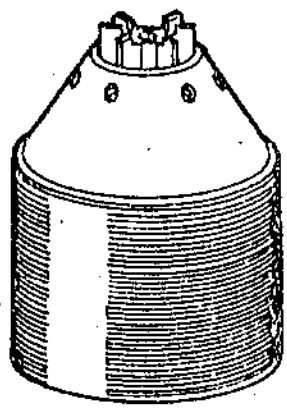


INTERMEDIATE
BOTTOM DISC (40)
8201010-80



BOTTOM DISC
8201011-80

TUBULAR SHAFT



DISCS ASSEMBLED
ON TUBULAR SHAFT



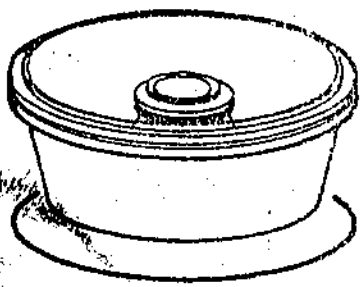
SPINDLE CAP NUT
8200810-80



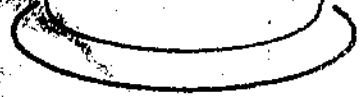
GASKET
8200034-01



TUBULAR SHAFT CONE



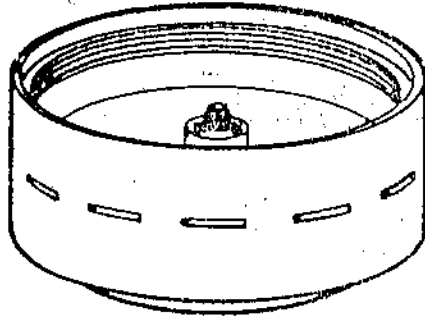
SLIDING BOWL
BOTTOM



RUBBER RING
39276



RUBBER RING
8200330-08



BOWL SHELL

WHEY SEPARATOR BOWL

FIGURE 32-A

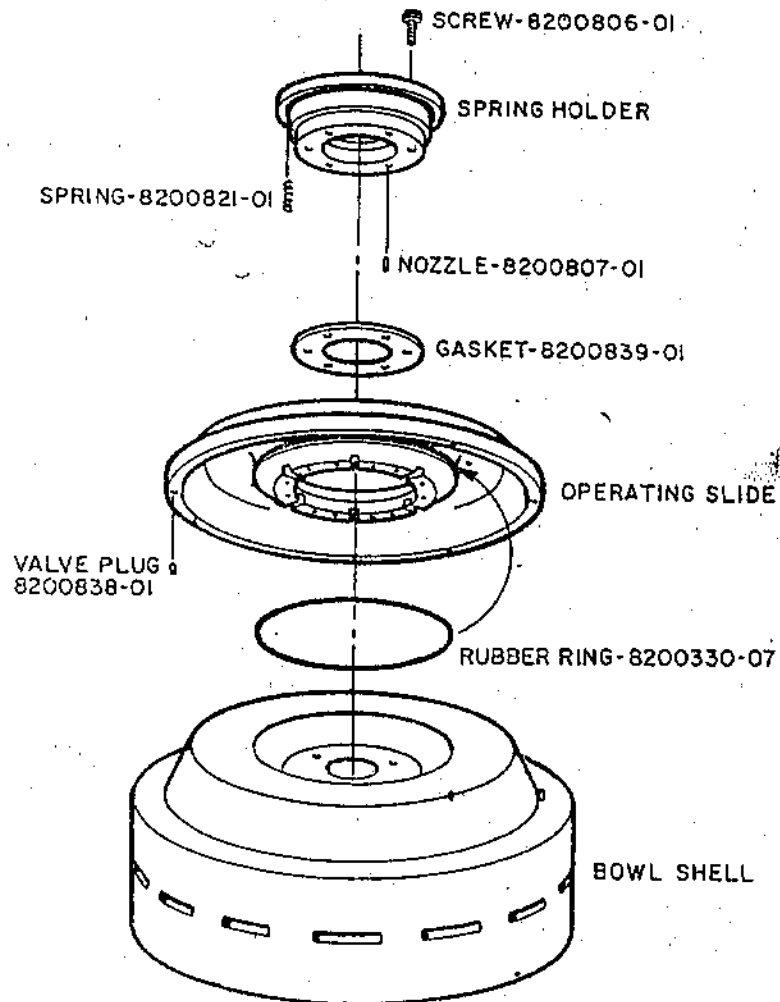
(continued from page 53)

screw jack handle in until bowl shell is jacked free from spindle; then hoist shell from frame and place inverted on work surface.

Bowl Control Parts

With bowl shell inverted, remove screws, spring holder, springs, and gasket (see Figure 33). Lift off the operating slide. Clean nozzle in bowl shell every time slide is removed.

See Maintenance section for seal ring replacement, and bowl lubrication.



BOWL CONTROL PARTS

FIGURE 33

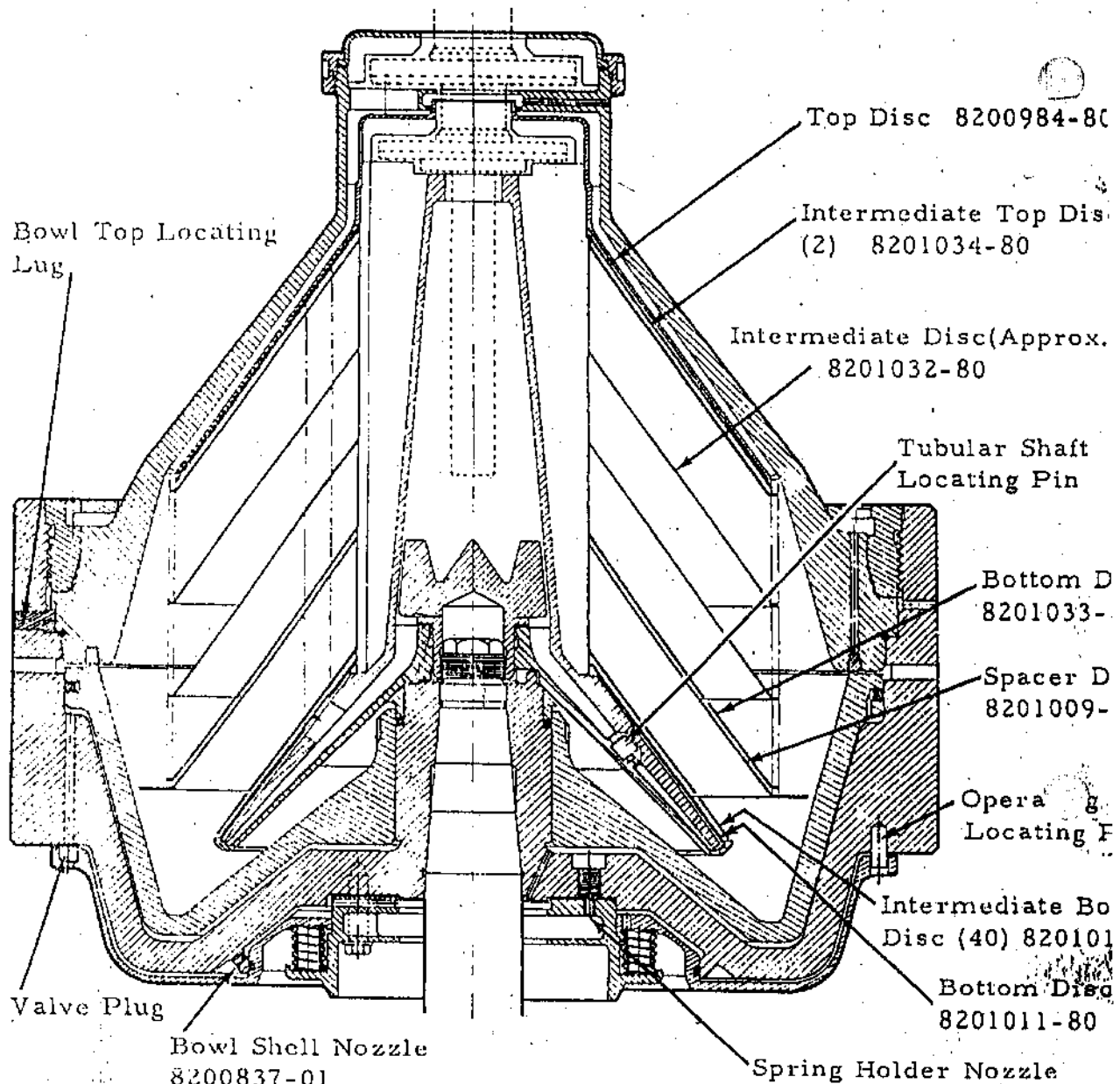
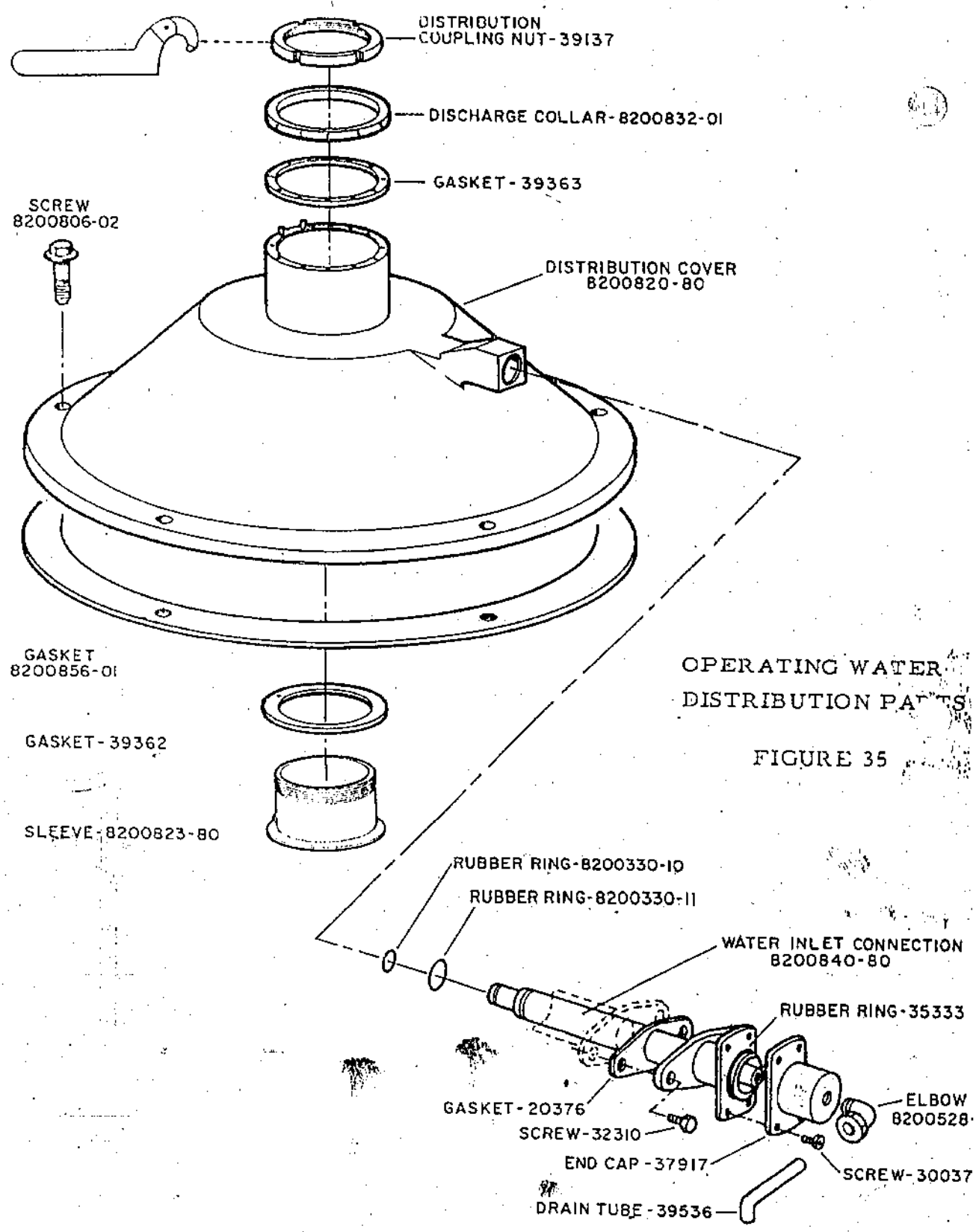


FIGURE 34

Lower the bowl top, seating bowl top locating lug of the bowl shell into recess on edge of bowl top.

Tighten down coupling ring counterclockwise until align marks meet each other on the last turn-down. If the coupling ring can not be tightened to this point, remove bowl top and check bowl assembly; also check the seating of the nylon seal ring and rubber ring in the bowl top. See Maintenance section for proper installation of nylon seal ring. A mallet will be necessary to tighten the ring.

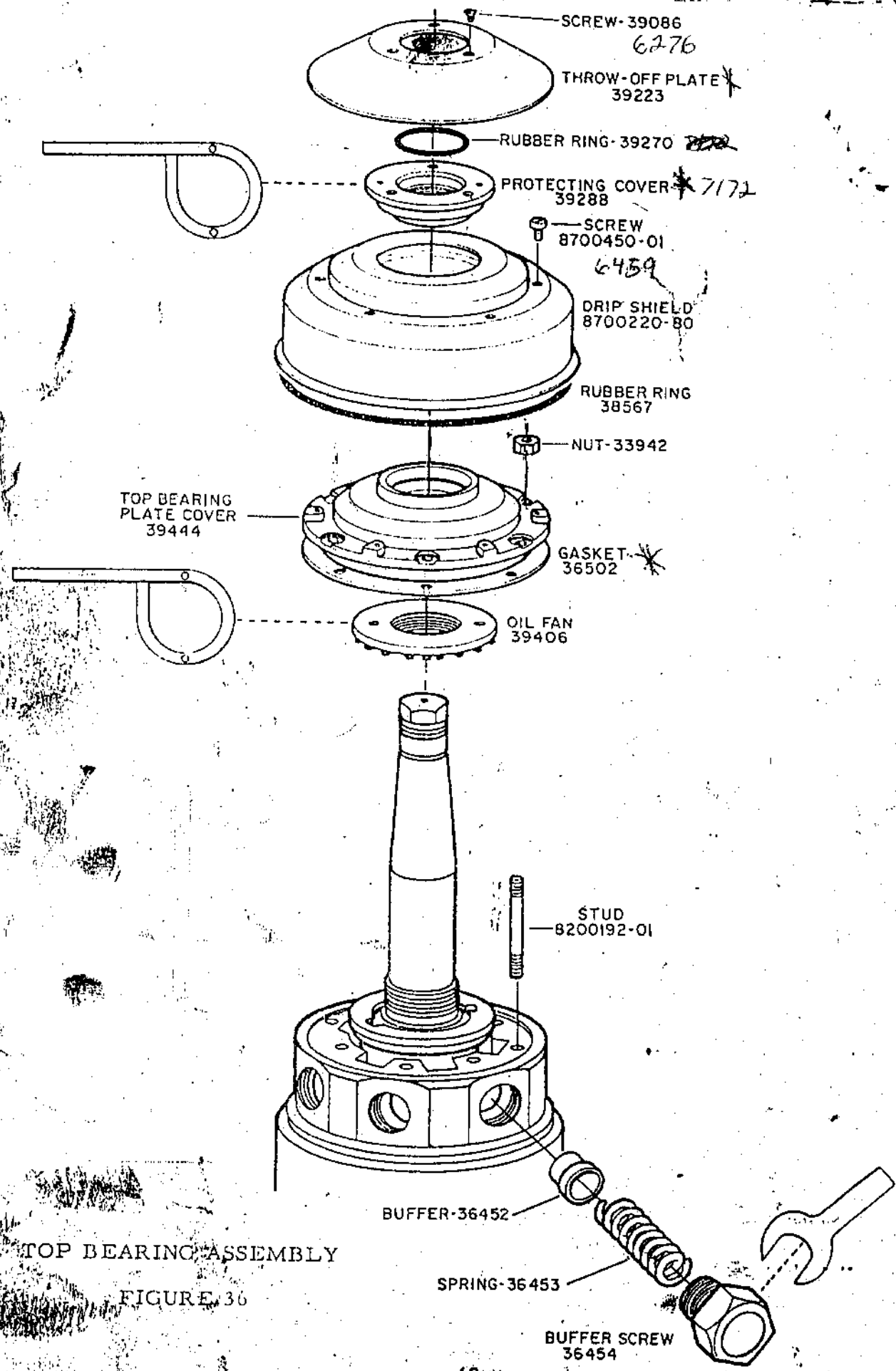
The coupling ring exerts a pressure which completes a seal between the bowl top and the bowl shell and also keeps pressure on all the bowl parts. See Maintenance section for disc stack pressure and checking of threads.



3. With spindle held firm, set pins of spanner wrench into top bearing protect ing cover, turn clockwise until free and lift from spindle, . . .
4. Remove the six drip shield mounting screws and lift out shield.

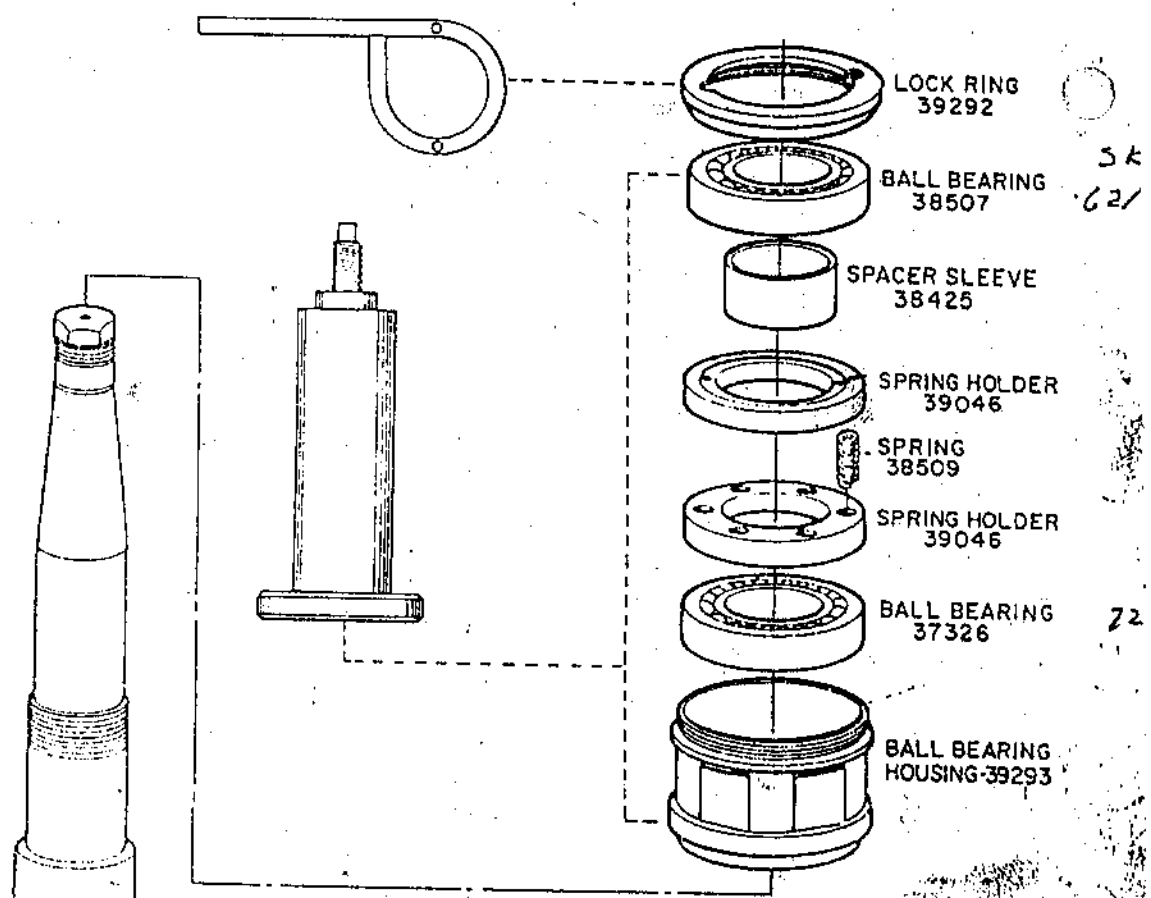
(continued on page 64)

DISASSEMBLY-ASSEMBLY-PARTS LIST

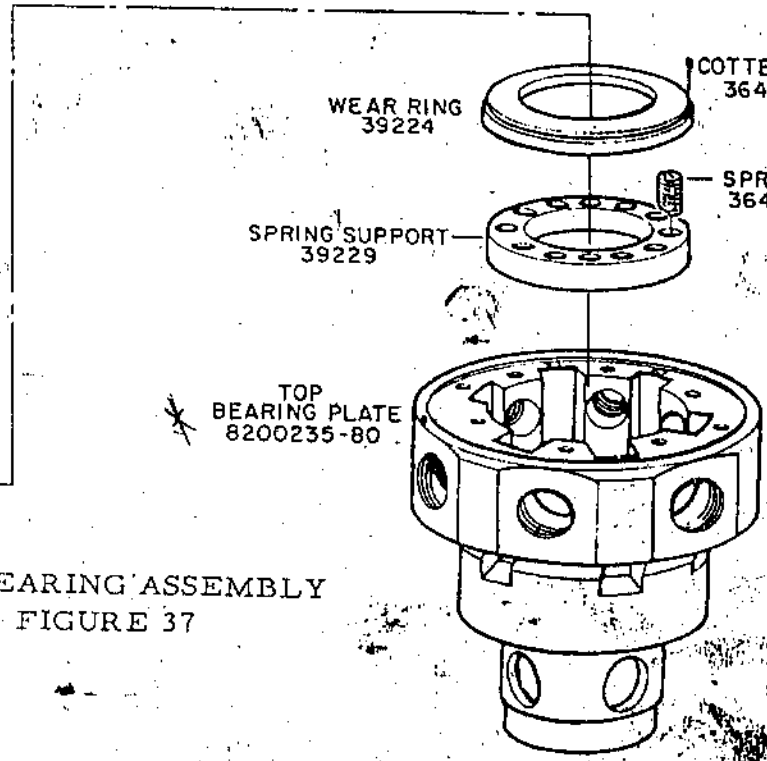


TOP BEARING ASSEMBLY

FIGURE 36

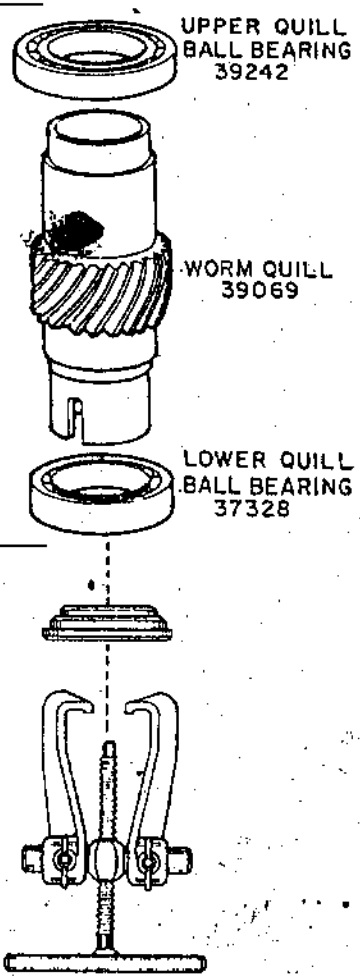
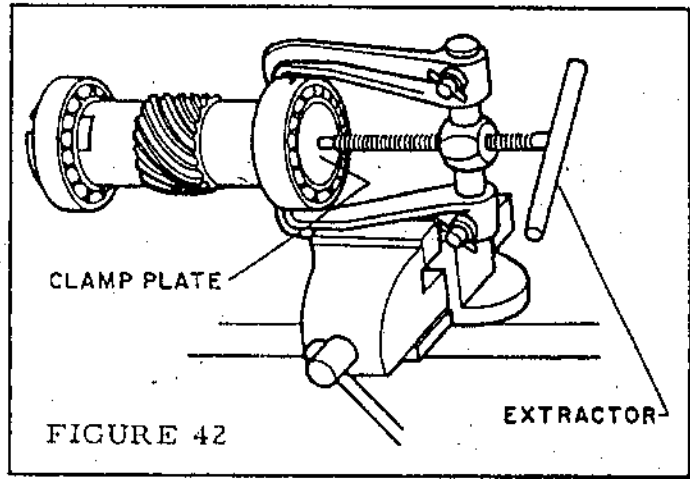
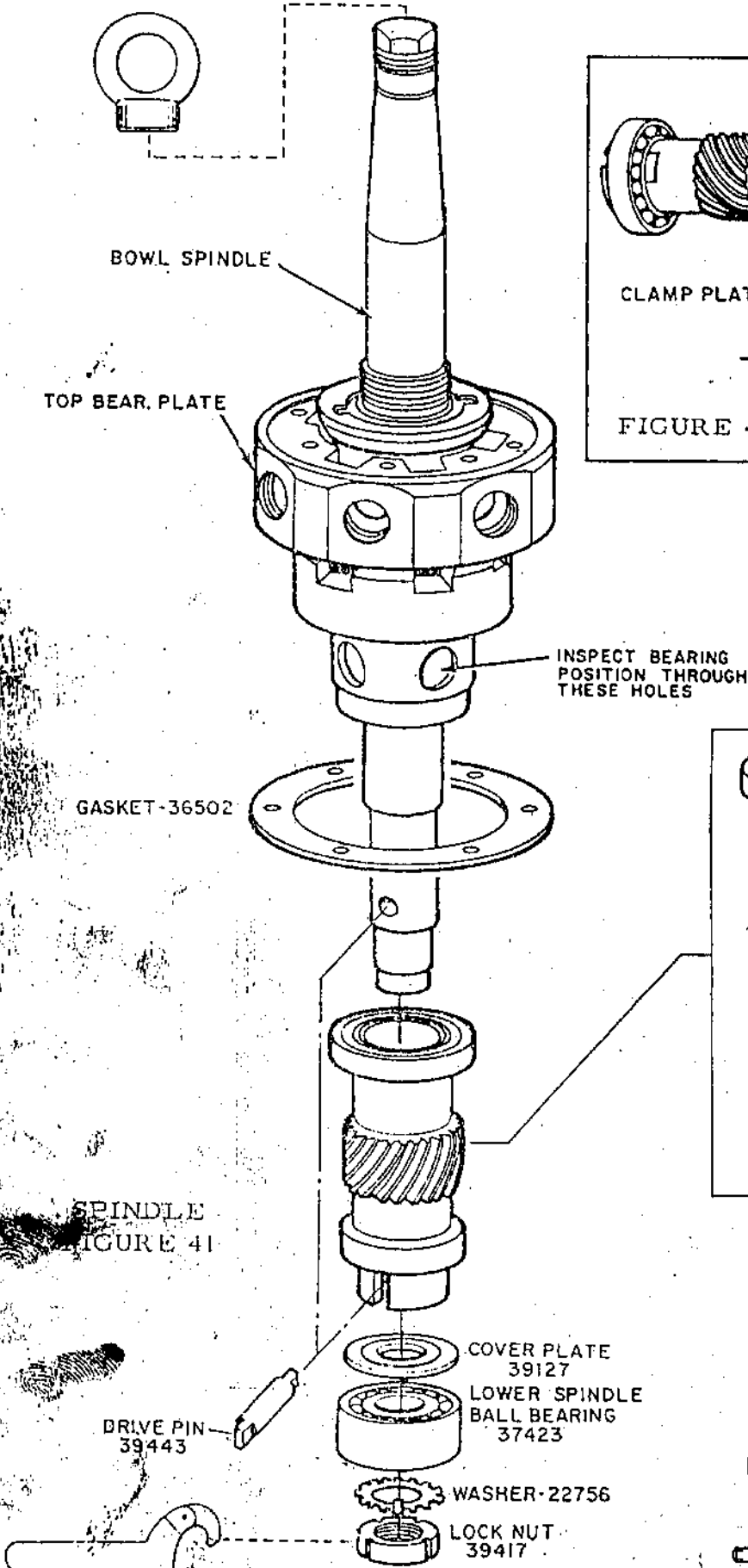


SPINDLE
8200135-01

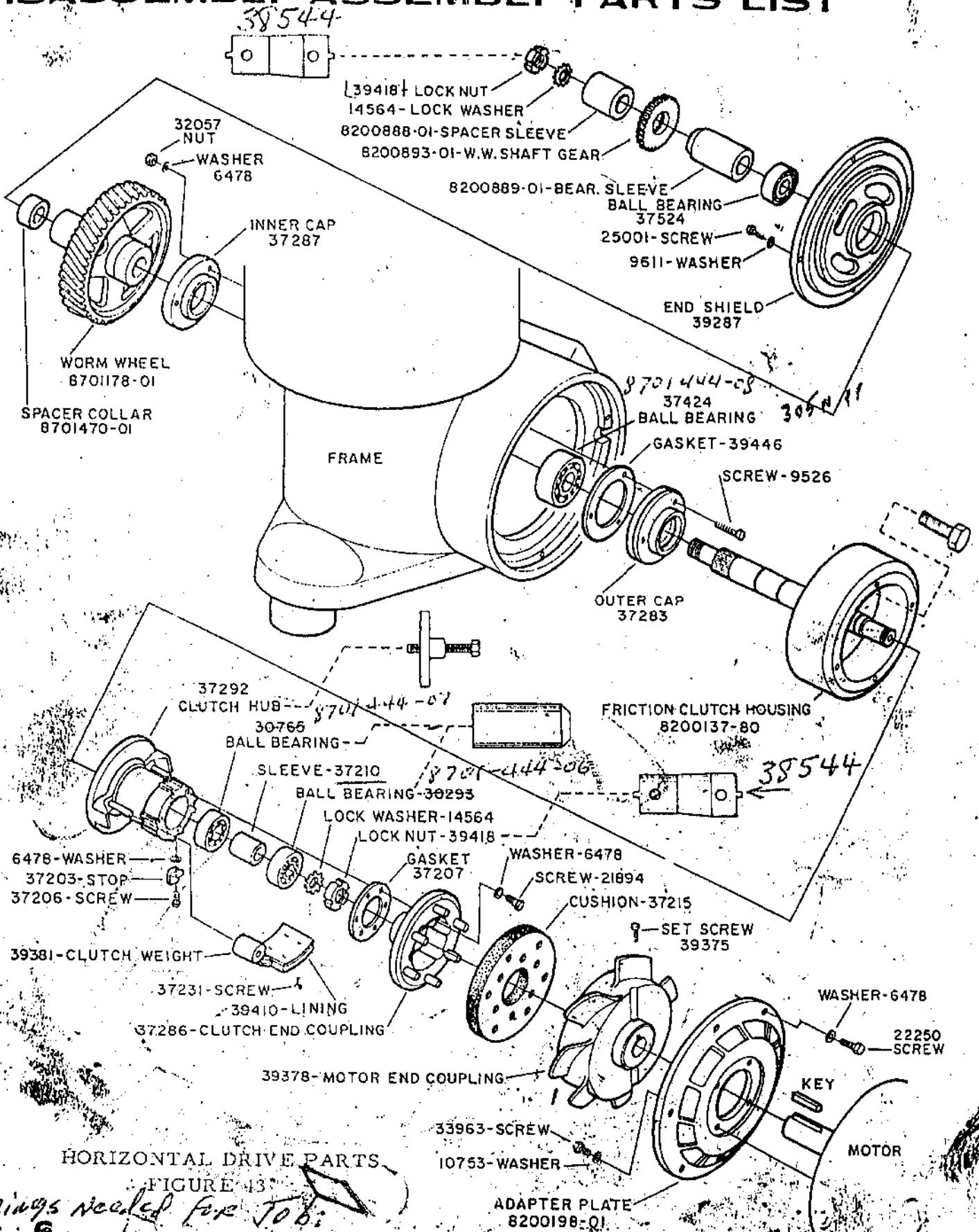


TOP BEARING ASSEMBLY
FIGURE 37

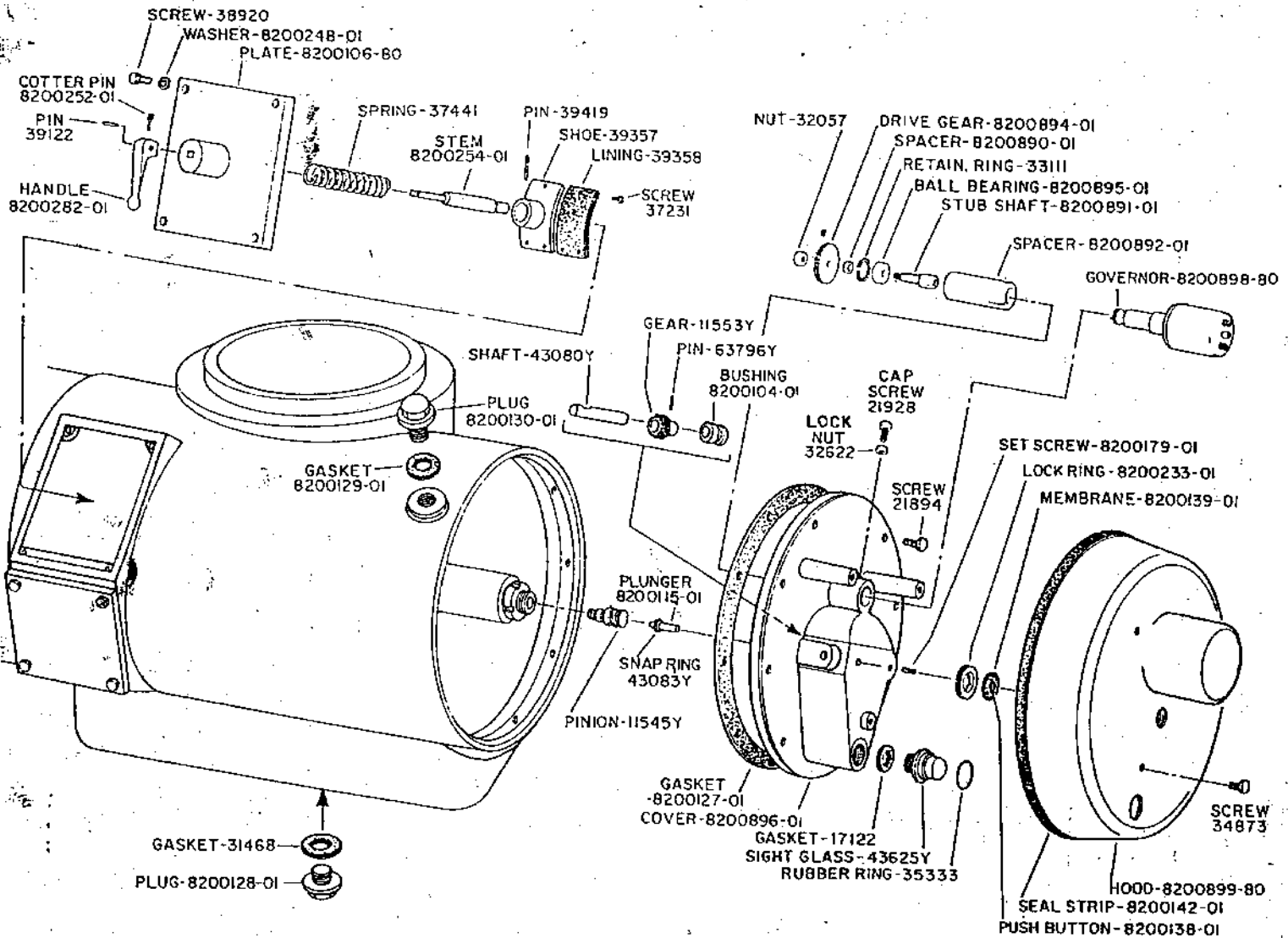
DISASSEMBLY-ASSEMBLY-PARTS LIST



DISASSEMBLY-ASSEMBLY-PARTS LIST



HORIZONTAL DRIVE PARTS
FIGURE 43



DIVISION 17

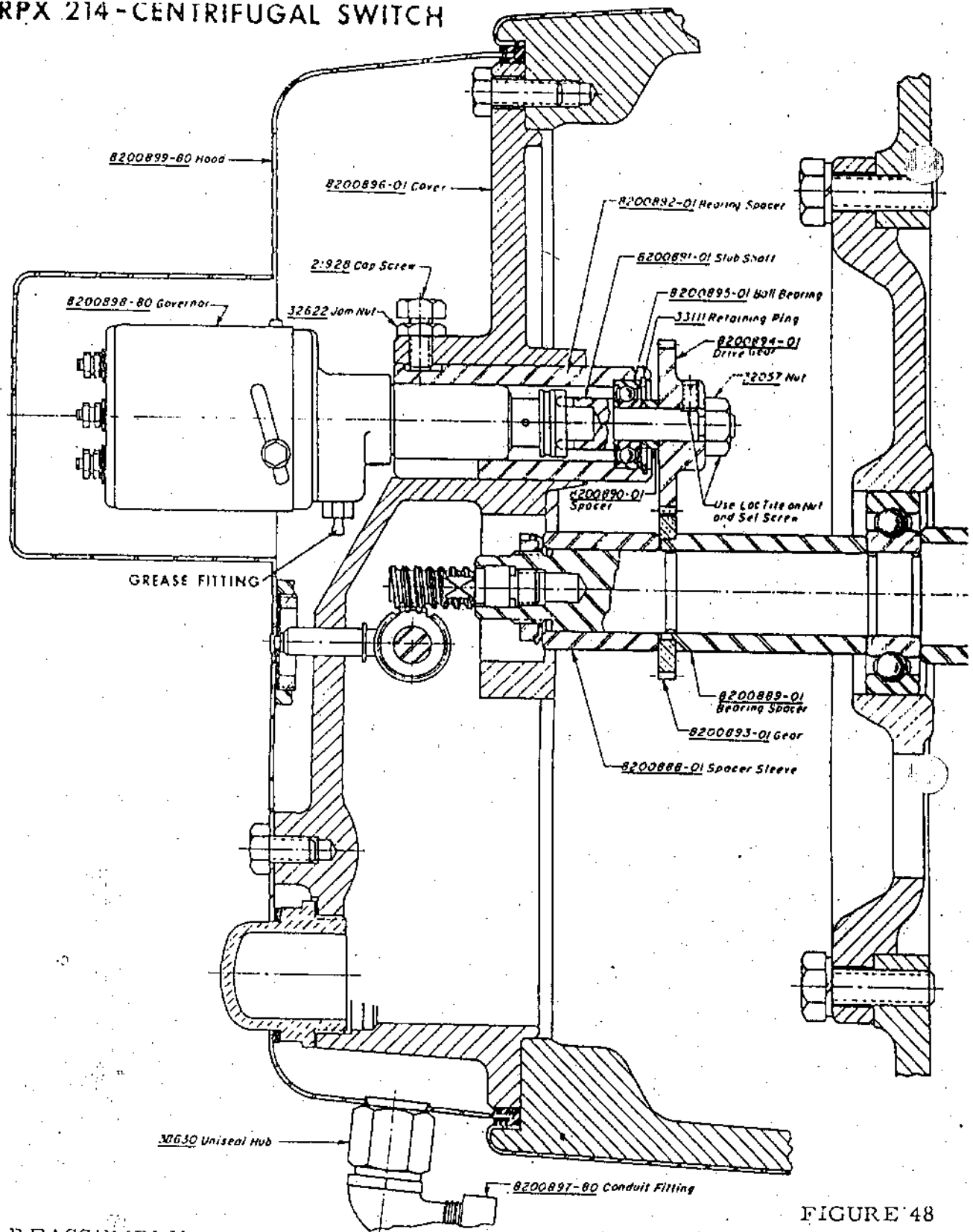


FIGURE 48

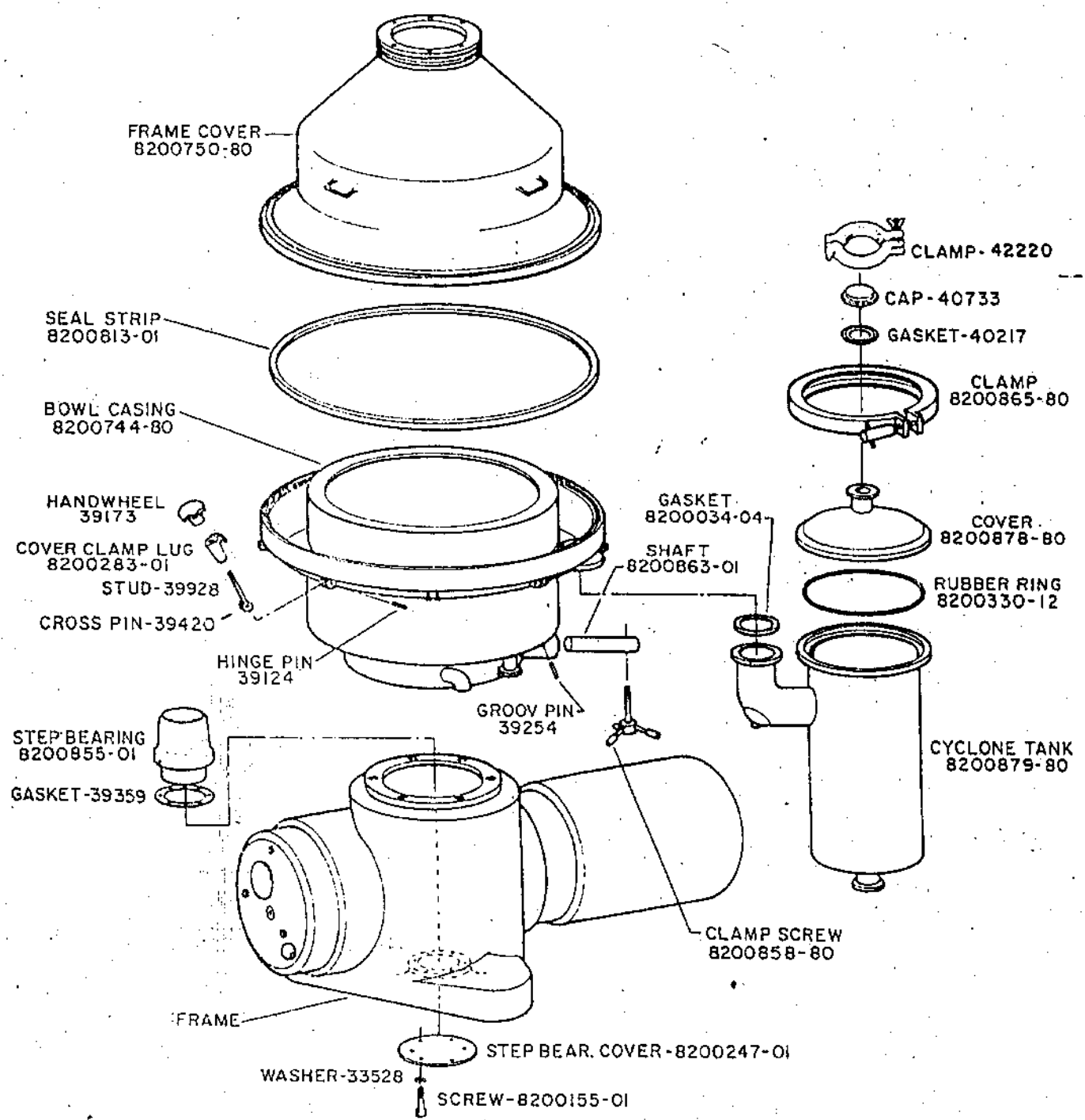
REASSEMBLY

Reverse disassembly procedure.

Use shellac or Loctite to secure set screw in drive gear, and also coat the nut on the stub shaft.

Position spacer sleeve so that cap screw fits to flat side of spacer sleeve.

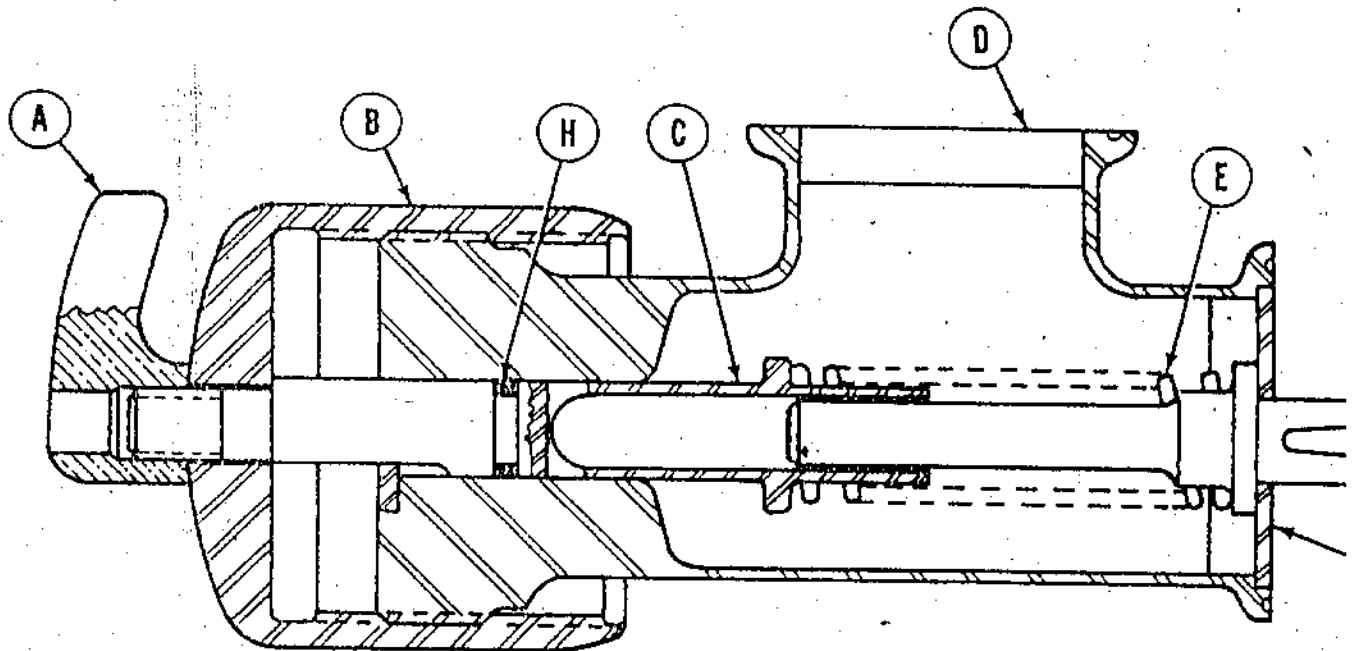
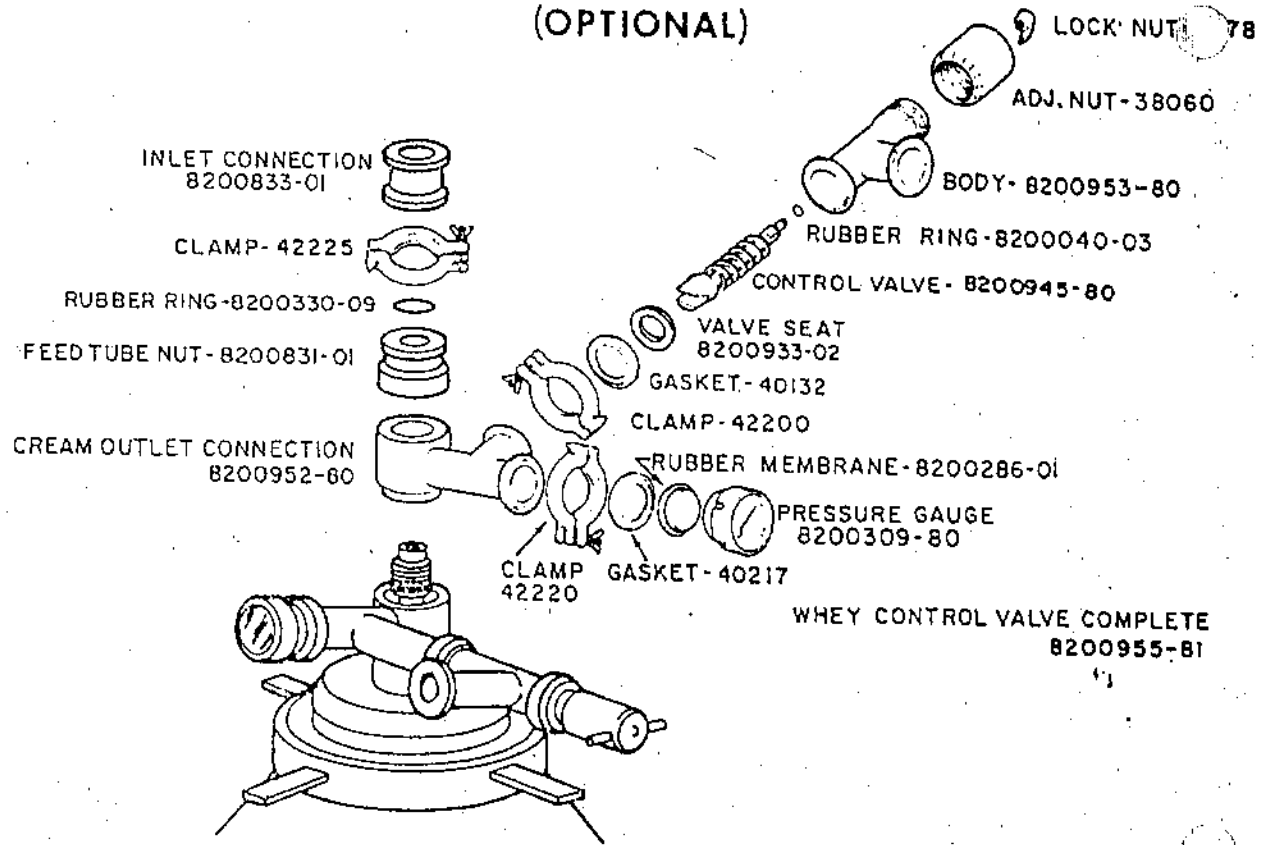
DISASSEMBLY-ASSEMBLY-PARTS LIST



MAIN ASSEMBLY

FIGURE 49

WHEY CONTROL VALVE (OPTIONAL)



For call-outs, see page 78.

FIGURE 50

DISASSEMBLY-ASSEMBLY-PARTS LIST

WHEY CONTROL VALVE

QTY.	POS.	PART NO.	NAME
1	H	8200040-03	Rubber Ring
1	G	8200933-02	Valve Seat
1	F	8200945-80	Valve
1	E	8200926-03	Spring (10 lb.)
1	E	8200926-02	Spring (15 lb.)
1	E	8200926-01	Spring
1	D	8200953-80	Valve Body
1	C	8200969-01	Stem
1	B	38060	Adjusting Nut
1	A	20783	Lock Nut

STANDARDIZING DEVICE (OPTIONAL)

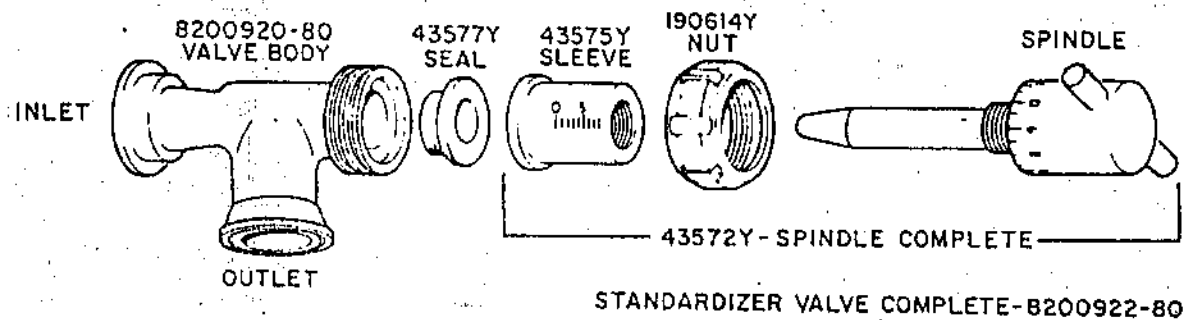
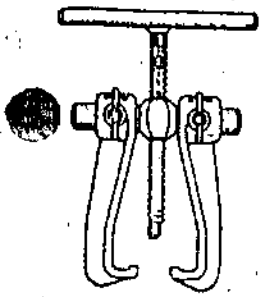
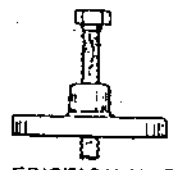


FIGURE 51

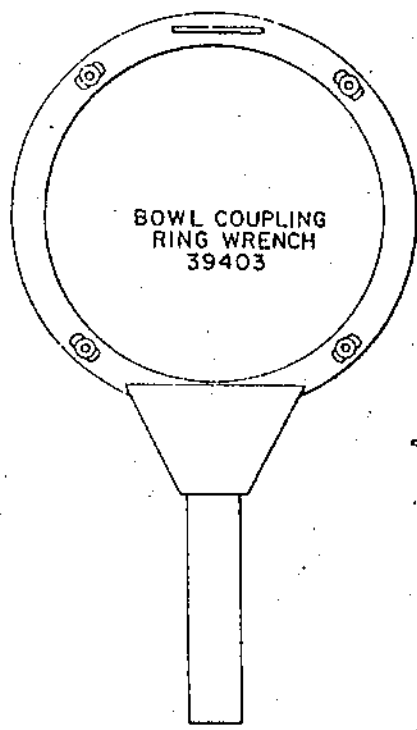
TOOLS



BOTTOM BEARING EXTRACTOR 8700477-80



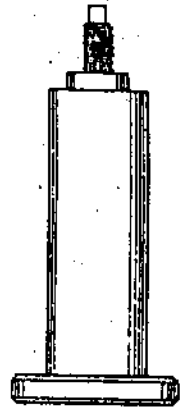
FRICTION HUB EXTRACTOR 39055



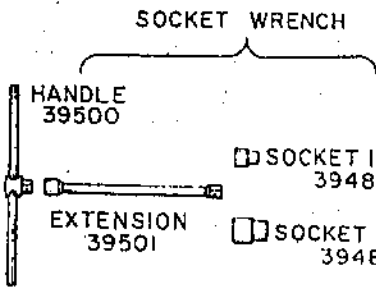
BOWL COUPLING RING WRENCH 39403



BOWL SPINDLE LIFTER-39515



TOP BEARING EXTRACTOR 39495



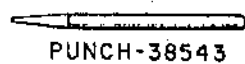
SOCKET WRENCH

HANDLE 39500

SOCKET 19/32" 39486

EXTENSION 39501

SOCKET 13/16" 39487



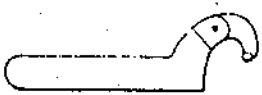
PUNCH-38543



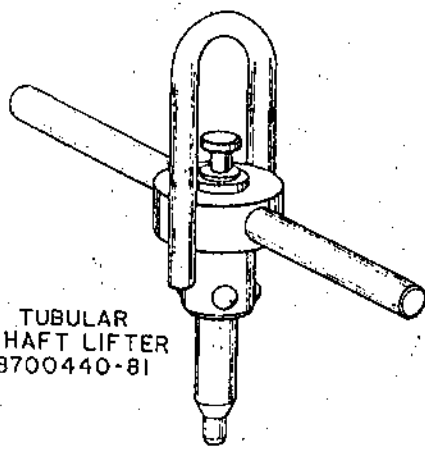
BALL BEAR'G LOCK RING-OIL FAN AND PROTECTING COVER WRENCH-38433



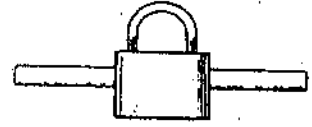
TUBULAR SHAFT CONE LIFTER AND SPINDLE CAP NUT WRENCH 8200871-80



DISTRIBUTION COUPLING NUT WRENCH-39541
BALL BEARING LOCK NUT WRENCH-39483



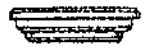
TUBULAR SHAFT LIFTER 8700440-81



SLIDING BOWL BOTTOM LIFTER-8200874-80



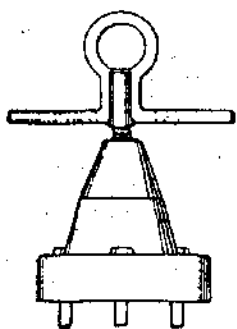
CLUTCH BALL BEAR. MOUNTING TOOL 37469



BALL BEAR. CLAMP PLATE 39532



BOWL TOP SEAL RING DRIVE OUT PIN-39537



BOWL SHELL LIFTER 8200845-80



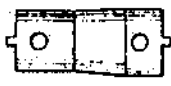
BOWL BRUSH 8300636-01



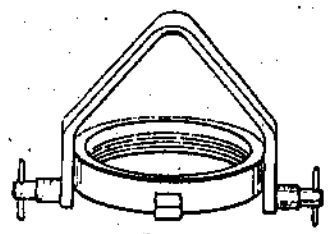
WORM WHEEL AND OPERATING SLIDE JACK SCREW-39533



TOP BEAR'G ADJUST. SCREW WRENCH 38548



BALL BEAR. LOCK NUT WRENCH 38544



BOWL TOP COUPLING NUT AND BOWL TOP LIFT. WRENCH-8200434-81

FIGURE 53

RECOMMENDED SPARE PARTS

<u>PART NAME</u>	<u>PART NUMBER</u>	<u>QTY</u>
INLET AND OUTLET		
Feed Tube Rubber Ring	8200330-09	4
Cream Control Valve Rubber Ring	8200040-03	4
Pressure Gage Membrane	8200286-01	2
Clamps (1-1/2")	42200	1
Clamps (2-1/2")	42225	1
Clamps (2")	42220	1
Cream Control Valve Gasket	40217	6
Outlet Connection Gasket	8700425-01	2
Skim Control Valve Plug	8200758-01	1
Skim Control Valve Rubber Ring	8050403-01	2
BOWL		
Bowl Body Nozzle	8200837-01	1
Bowl Top Rubber Ring	39275	6
Operating Slide Valve Plug	8200838-01	3
Bowl Bottom Outer Rubber Ring	39276	6
Bowl Bottom Inner Rubber Ring	8200330-08	2
Bowl Top Seal Ring	39026	2
Intermediate Disc	8200763-80	1
Operating Slide Inner Rubber Ring	8200330-07	1
Spring Holder Gasket	8200839-01	1
Cream Paring Disc Gasket	8200034-03	2
Skim Paring Disc Gasket	8200034-02	2
Paring Chamber Top Gasket	8200854-01	2
Spindle Cap Nut Gasket	8200034-01	2
FRAME		
Housing Cover Gasket	8200127-01	1
Sight Glass Gasket	17122	1
Sight Glass Rubber Ring	35333 (dupl.)	1
Hood Seal Strip	8200142-01	1
Bowl Casing Seal Strip	8200813-01	1
Cyclone to Bowl Casing Gasket	8200034-04	1
Cyclone Cover Rubber Ring	8200330-12	1
Rubber Base Cushion	39112	3
Frame Foot Rubber Ring	8200113-01	3
Drain Plug Gasket	31468	1
Filler Plug Gasket	8200129-01	1
Brake Lining	39358	2
Screw	37231	19

RECOMMENDED SPARE PARTS

<u>PART NAME</u>	<u>PART NUMBER</u>	<u>QTY.</u>
DRIVE		
Drip Shield to Frame Rubber Ring	38567	1
Top Bearing Spring	36453	6
Top Bearing Plate Cover Gasket	36502	1
Protecting Cover Rubber Ring	39270	3
Top Bearing Buffer	36452	6
Upper Worm Quill Ball Bearing	39242	1
Lower Worm Quill Ball Bearing	37328	1
Lower Spindle Ball Bearing	37423	1
Upper Ball Bearing (radial)	38507	1
Upper Ball Bearing (angular)	37326	1
Worm Wheel	8701178-01	1
Worm Quill	39069	1
Drive Pin	39443	2
Step Bearing Gasket	39359	1
End Shield Ball Bearing	37524	1
W. W. Shaft to Frame B. B.	37424	1
Outer Cap Gasket	39446	1
Clutch Hub Single B. B. (Inner)	30765	1
Clutch Hub Double B. B. (Outer)	30293	1
Clutch Hub Gasket	37207	1
Motor End Coupling Rubber Cushion	37215	1
Clutch Weight Lining	39410	8
Governor Ball Bearing	8200895-01	1
OPERATING WATER PARTS		
Distribution Cover Gasket	8200856-01	1
Distribution Cover to Sleeve Gasket	39362	1
Discharge Collar to Cover Gasket	39363	6
Water Inlet Connection Inner Rubber Ring	8200330-10	3
Water Inlet Connection Outer Rubber Ring	8200330-11	3
Operating Water Inlet Connection Rubber Ring	35333	1
Flexible Hose	8701401-01	1
Solenoid Valve (1/2")	37932	1
Solenoid Valve (3/4")	8700138-82	1