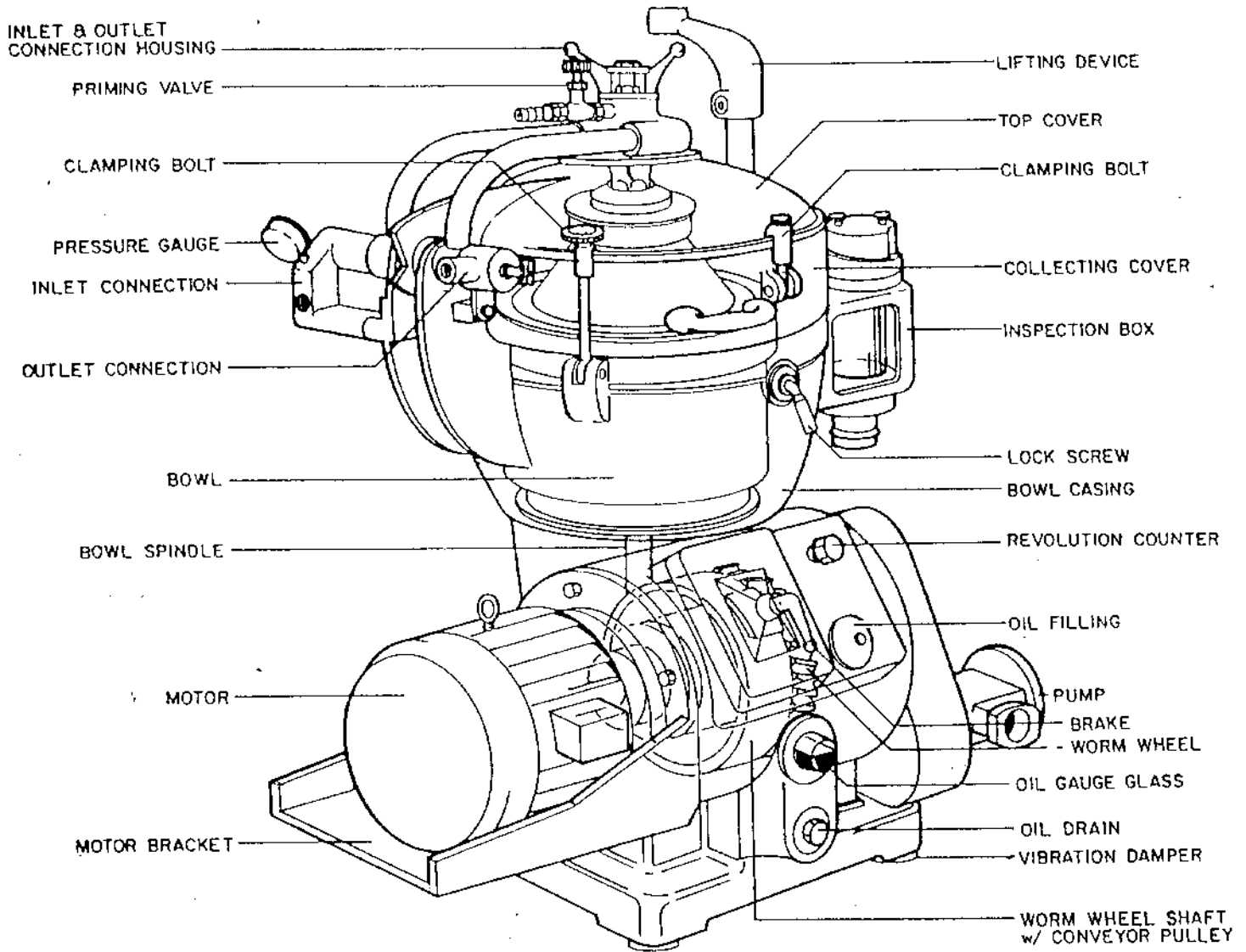


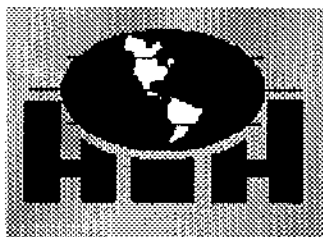
## **Hutchison-Hayes Separators, Inc.**

### **Model MAB 207 Oil Purifier Parts List With Diagrams**

**P.O. Box 2965 ♦ Houston, Texas 77252**  
**3520 East Belt ♦ Houston, Texas 77015**  
**(713) 455-9600 ♦ Fax (713) 455-7753**

# GENERAL DESCRIPTION





## **Hutchison-Hayes Separators, Inc.**

**This is a Spacer Page**

**P.O. Box 2965 ♦ Houston, Texas 77252**  
**3520 East Belt ♦ Houston, Texas 77015**  
**(713) 455-9600 ♦ Fax (713) 455-7753**



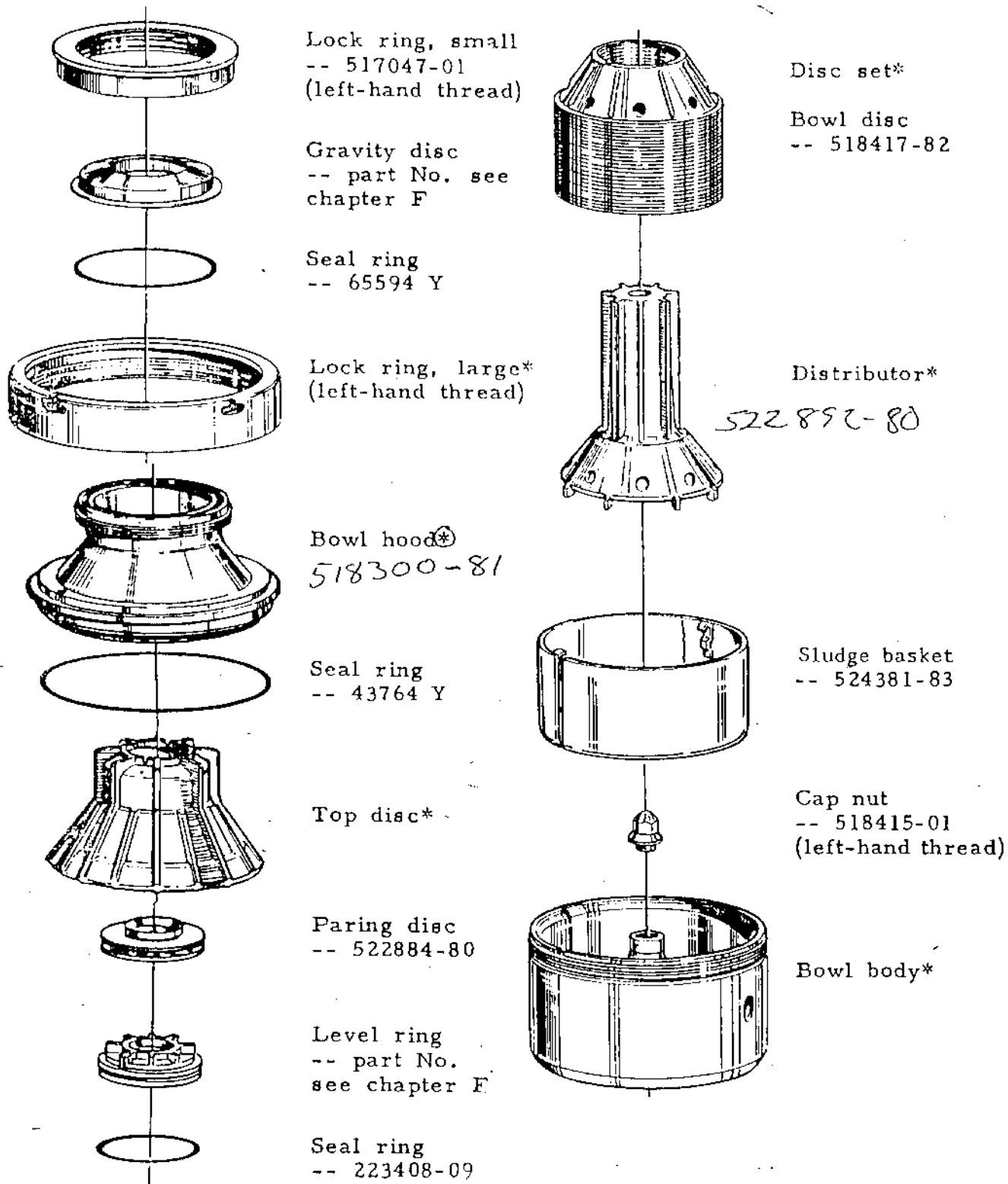
Qty.	Qty.	Qty.	Pos.	Part No.	Name	Material
1			30	8705055-03	Retaining Ring	Steel
	1		30	8705055-02	Retaining Ring	Steel
		1	30	8705055-01	Retaining Ring	Steel
1			29	8705062-03	Bushing	Oilite Bronze
	1		29	8705062-02	Bushing	Oilite Bronze
		1	29	8705062-01	Bushing	Oilite Bronze
	1		28	8701444-02	Bearing	Steel
4	4	4	27	7460	Washer	Steel
7	7	7	26	6478	Washer	Steel
7	7	7	25	21894	Screw	Steel
1			24	8702794-01	Oil Seal	Steel & Rubber
1	1	1	23	8702781-01	Cover	Steel
8	8	8	22	15454	Screw	Steel
1	1	1	21	8702780-01	Cover	Steel
1	1	1	20	8702586-01	Belt	Rubber
1	1	1	19	8500062-07	Screw	Steel
1			18	8702476-01	Pump Mounting Plate	Cast Iron
	1		18	8702480-01	Pump Mounting Plate	Cast Iron
		1	18	8702478-01	Pump Mounting Plate	Cast Iron
1	1	1	17	8702776-01	Idler Arm Shaft	Stainless Steel
1	1	1	16	M110-10	Key	3/16 Sq. St. Keystock, 35mm lg
4	4	4	15	3241	Screw	Steel
1	1	1	14	8702585-80	Flanged Bearing	Steel
1	1	1	13	33111	Retaining Ring	Steel
1	1	1	12	8701580-05	Retaining Ring	Steel
1	1	1	11	8702779-01	Idler Pulley Shaft	Stainless Steel
1	1	1	10	8702784-01	Idler Pulley	Steel
2	2	2	9	See Below*	Pulley	Steel
2	2	2	8	8701444-03	Idler Bearing	Steel
1	1	1	7	35317	Ring	Rubber
	1	1	6	04447	Retaining Ring	Steel
		1	5	8701444-09	Bearing	Steel
1			4	8705054-03 ▲	Pump Drive Shaft (Sep)	Stainless Steel
	1		4	8705054-02 ▲	Pump Drive Shaft (Sep)	Stainless Steel
		1	4	8705054-01 ▲	Pump Drive Shaft (Sep)	Stainless Steel
1			3	8705053-02	Shear Coupling	Steel
	1	1	3	8705053-01	Shear Coupling	Steel
1	1	1	2	8702777-01	Lock Plate	Stainless Steel
1	1	1	1	8702778-01	Idler Arm	Stainless Steel

MAB-209  
MAB-206 & 207  
MAB-205

▲ 8705057-82 - Pump Shaft Complete (MAB-209)  
8705057-81 - Pump Shaft Complete (MAB-207 & 206)  
8705057-80 - Pump Shaft Complete (MAB-205)

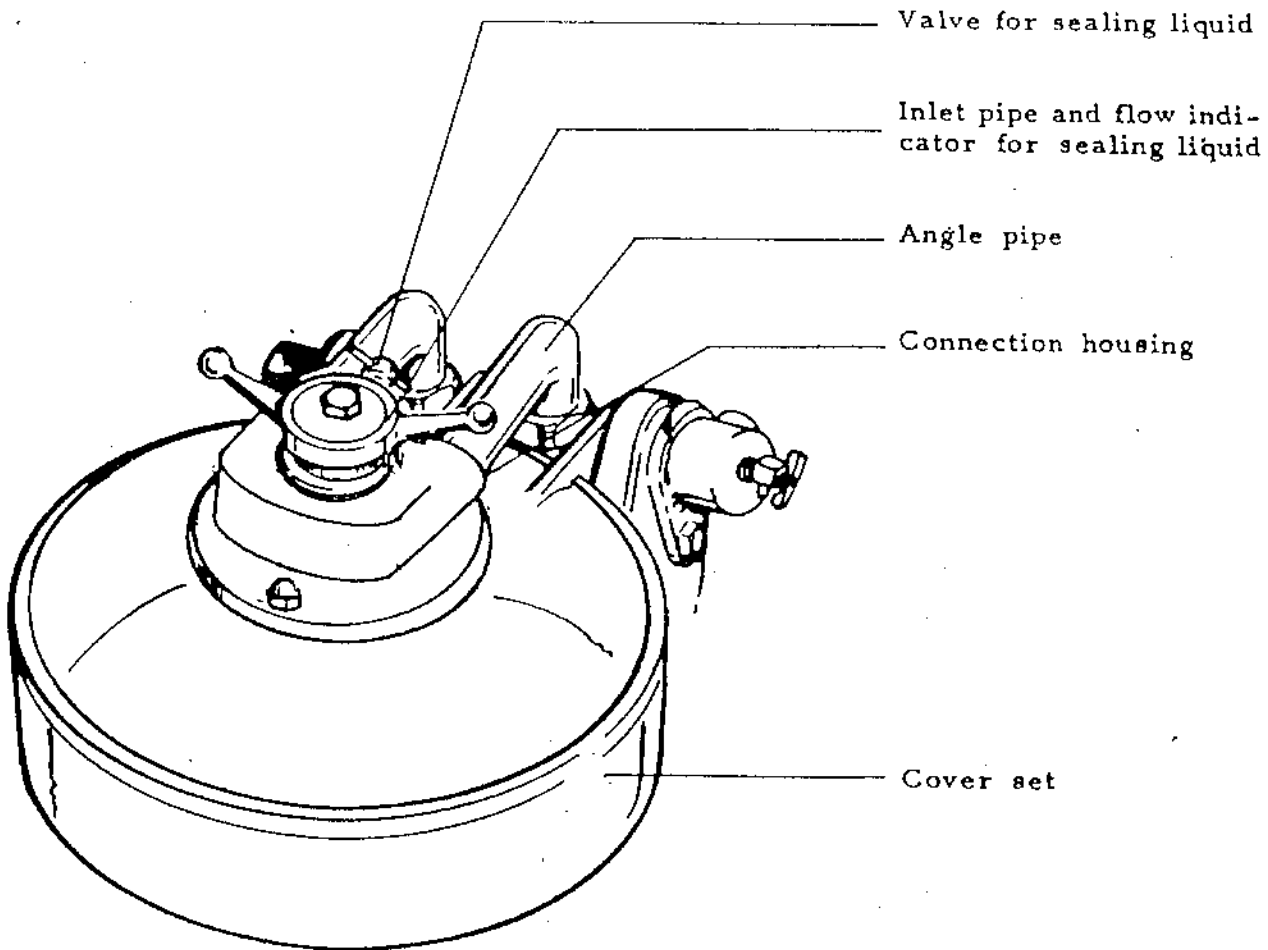
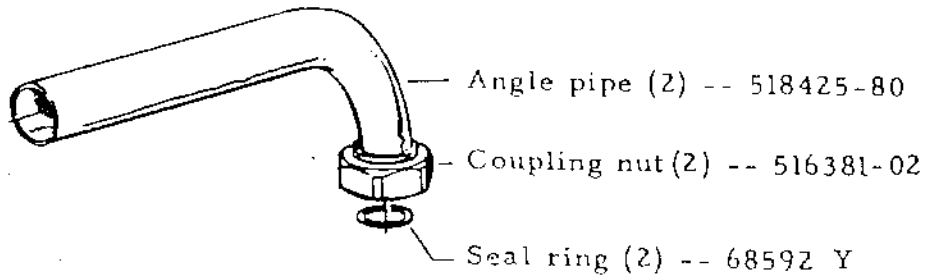
BOWL

Part No. of complete unit: 523101-83 (without paring disc.)



\*) Exchange necessitates rebalancing - send the COMPLETE bowl to an authorized ALFA-LAVAL/DE LAVAL representative.

INLET. OUTLET

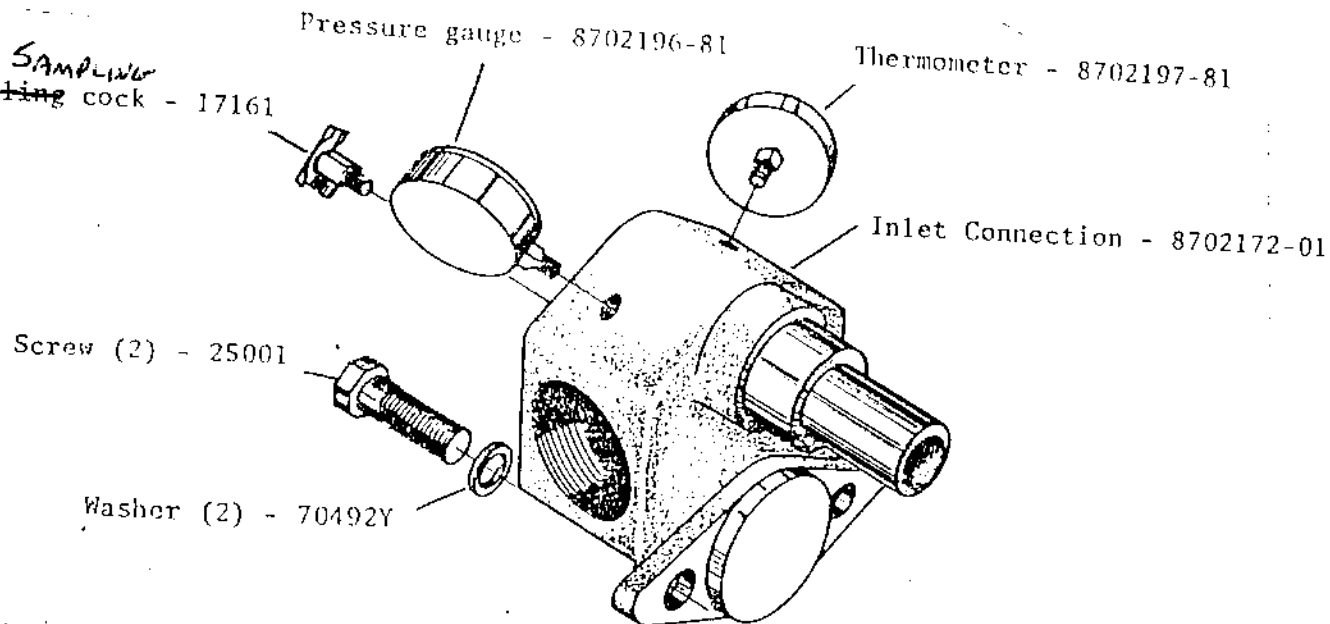


Normally, the above parts need not be dismantled in connection with the daily maintenance.

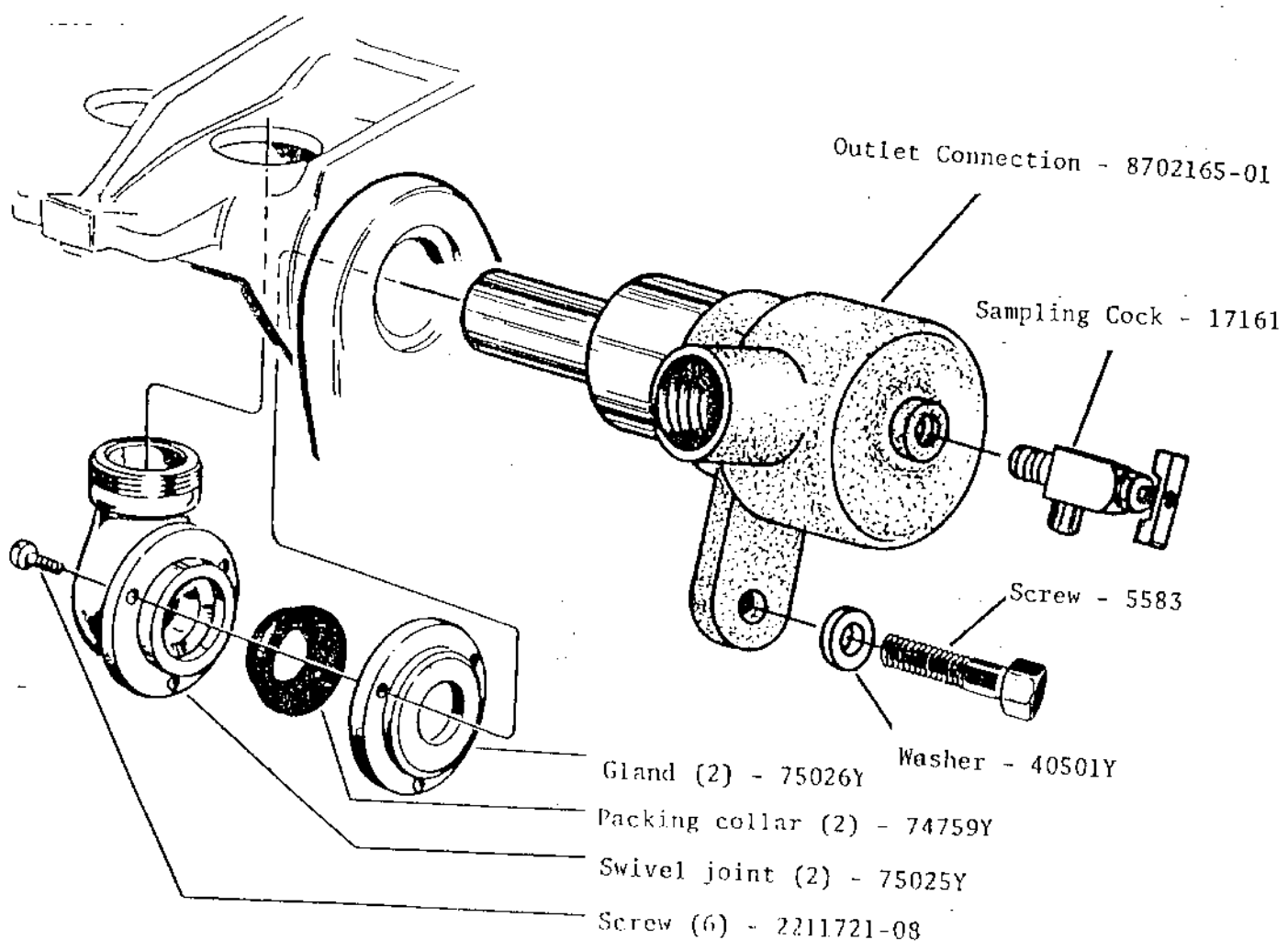
How to dismantle and assemble these inlet and outlet parts will appear from the following illustrations and text. Use the special tools - see chapter F.

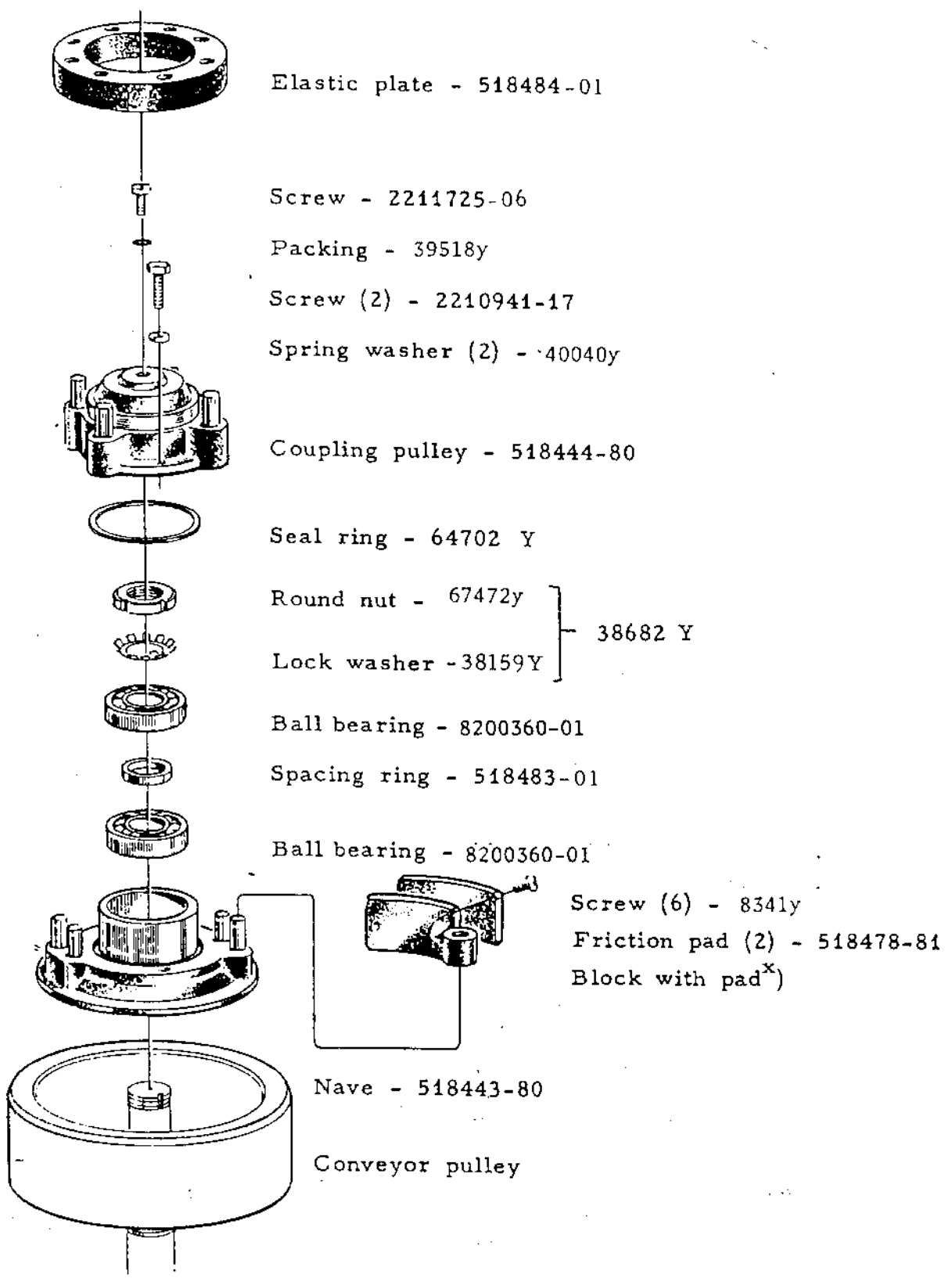
INLET OUTLET

INLET

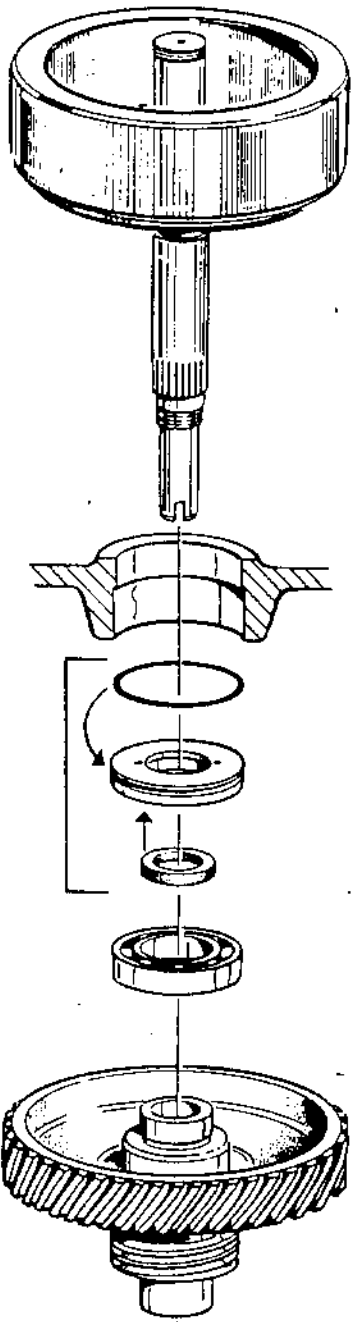


OUTLET





x) For part No. see chapter F.



Worm wheel shaft with conveyor pulley  
-- 526752-08

Frame

Seal ring  
-- 70940 Y

Seal washer  
-- 526764-01

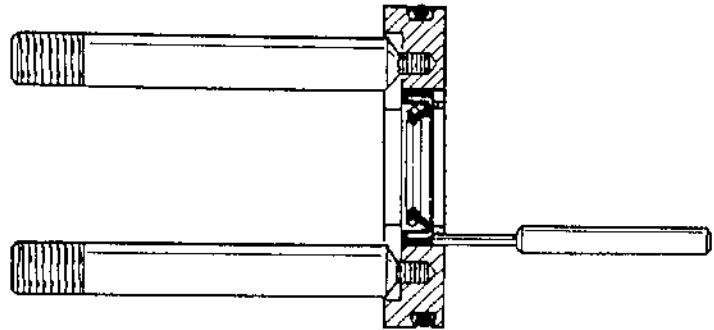
Lip seal ring  
-- 223521-15

Ball bearing  
-- 8132 Y  
(SKF 6208\*)

Worm wheel  
-- see chapter F

The worm wheel shaft can be pulled out towards the motor side after the clutch and worm wheel have been removed - see below.

Before dismounting the worm wheel drain the lubricating oil and take off the frame end piece.

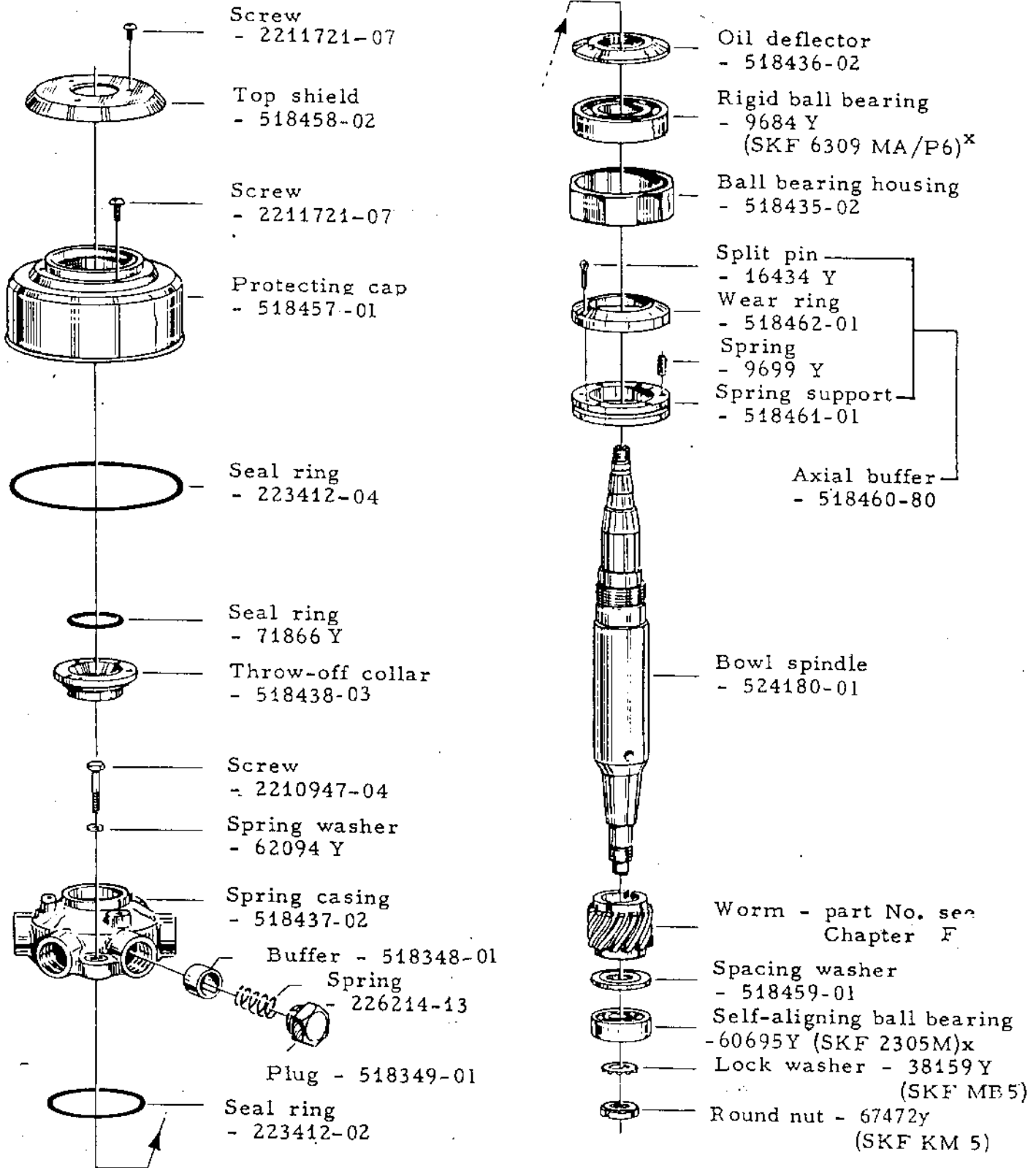


The seal washer is removed by means of the guide pins and the lip seal ring by means of a drift. When mounting make certain that the lip seal ring is directed as shown in the illustration.

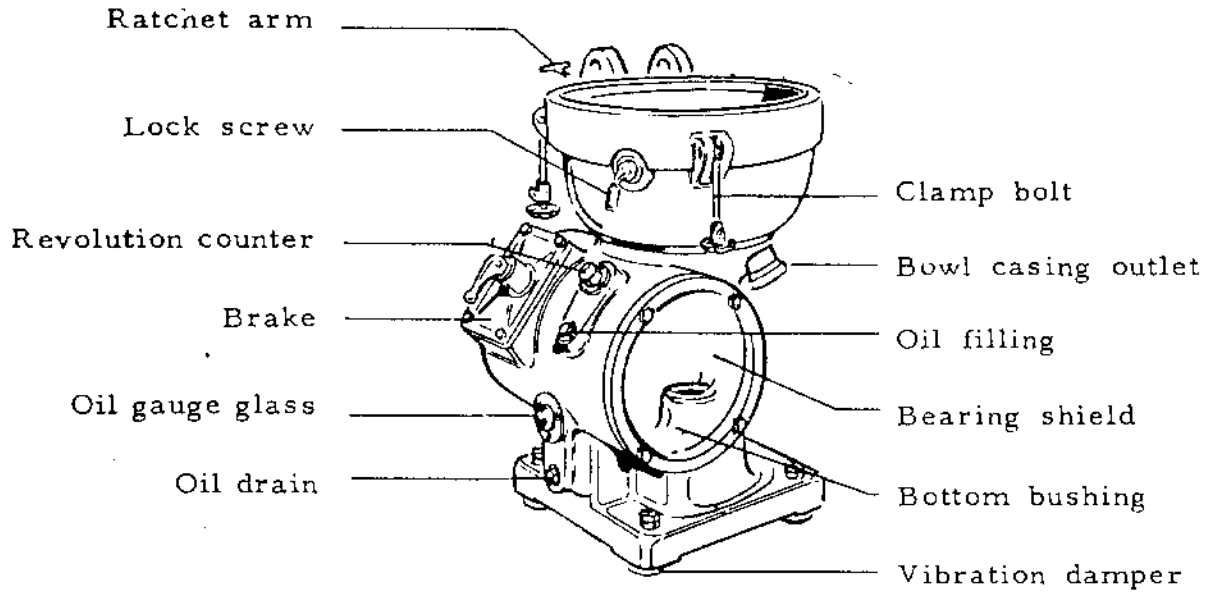
Before starting the machine fill fresh oil in the worm wheel housing.

\* or an equivalent bearing of another make.

# BOWL SPINDLE P



x) or equivalent bearing of another make.

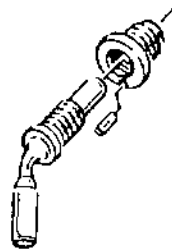


OIL GAUGE GLASS



- Packing (3) - 1104 Y
- Oil gauge glass - 8859 Y
- Washer - 9175 Y
- Screw (3) - 2211721-08

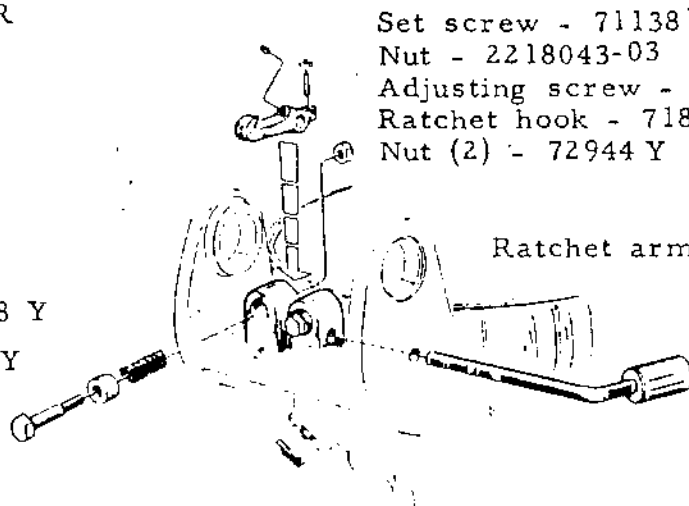
LOCK SCREW (2)



- Bushing - 518408-01
- Pin - 222116-05
- Lock screw - 518409-01

RATCHET and BUFFER

- Spring (2) - 67348 Y
- Sleeve (2) - 71136 Y
- Buffer screw (2) - 2210947-04



- Set screw - 71138 Y
- Nut - 2218043-03
- Adjusting screw - 67428 Y
- Ratchet hook - 71865 Y
- Nut (2) - 72944 Y

Ratchet arm - 518411-80

OIL DRAIN, OIL



Packing - 518470-01



Screw - 520529-02

OIL FILLING



Screw - 526686-02

BOWL CASING OUTLET



Packing - 518479-01

Flange - 518412-02



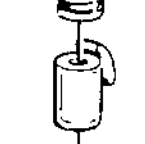
Washer (2) - 20758 Y

Screw (2) - 2210941-17

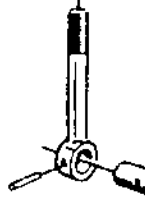
CLAMP BOLT (3)



Handwheel - 524392-80



Clamping shoe - 71391 Y



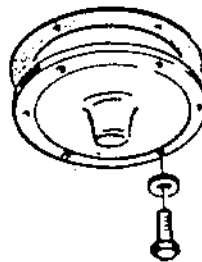
Hinged bolt - 225444-11

Hinge pin - 222137-01

Pin - 72474 Y

BOWL CASING OUTLET

BEARING SHIELD



Packing - 518488-01

Bearing shield  
- 526754-02Y x

Washer (7) - 20758 Y

Screw (7) x x  
- 2210941-17

x) Is removed if the machine is equipped with pump.

xx) For pump adapter - 72933.y

BOTTOM BUSHING



Bushing - 518431-02



Seal ring - 66554y

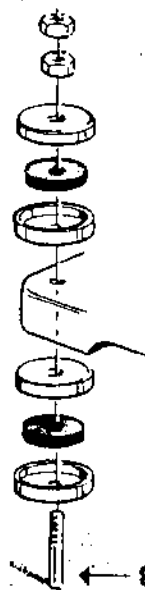


Lock washer - 38723 Y



Round nut - 67477 Y

VIBRATION DAMPER (4)



Nut (8)\*

Cup cover  
- 71126 Y

Rubber washer  
- 65235y

Cup  
- 71125 Y

Frame or  
base plate

Cup cover  
- 71124 Y

Rubber washer  
- 65232y

Cup  
- 71123 Y

Stud bolt\*

Adjusting washer\*

REVOLUTION COUNTER - 526712-81



Collar  
-- 526694-02



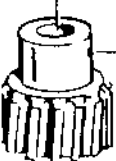
Shaft  
-- 526693-01



Snap ring  
-- 67542 Y

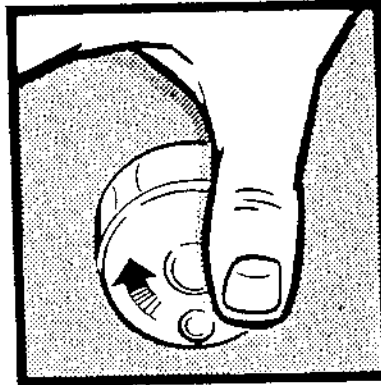


Bushing  
-- 526692-02



Pin -- 69226y  
Pinion -- 69214y

The number of revolutions of the worm wheel shaft is transferred via a reduction gear to the revolution counter.

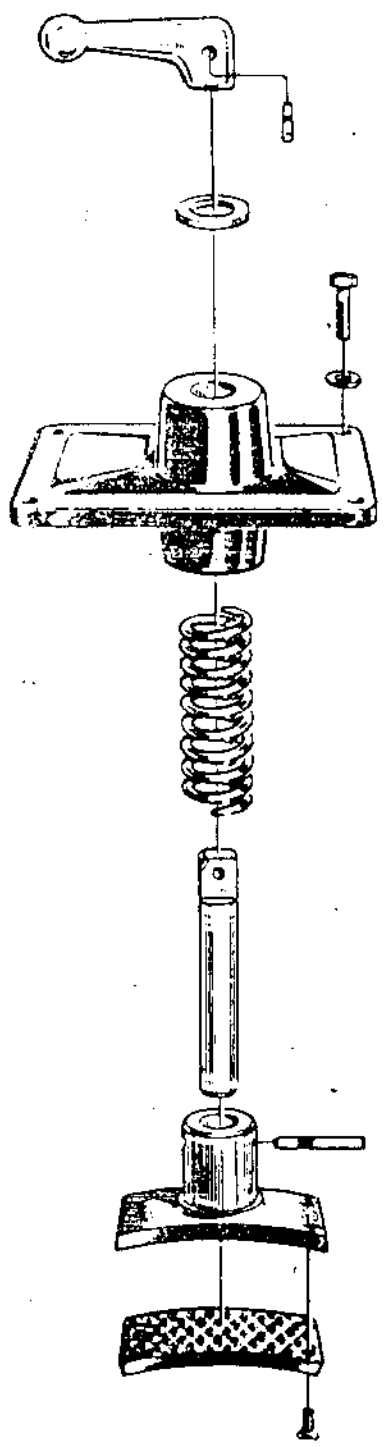


By holding a finger against the rotating protecting cap and counting the number of revolutions for a minute, the number of revolutions of the worm wheel shaft can be checked. Speed data are given in chapter C.

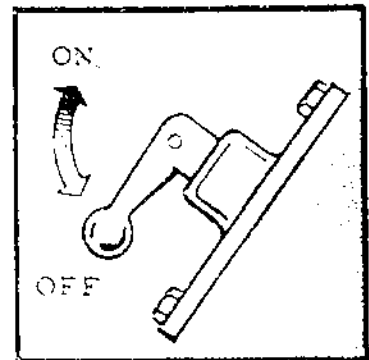
Mounting

Lubricate the shaft and pinion with gear housing oil. See that the bushing is screwed home entirely.

BRAKE - 518475-81 (\*-marked parts are not included in the complete number)

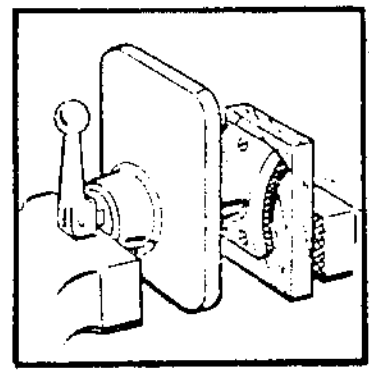


- Handle  
- 522749-02
- Slotted pin  
- 68794 y
- Washer  
- 8115 y
- Screw (4)  
- 72933y\*)
- Washer (4)  
- 20758\*) y
- Protecting cap  
- 526761-01
- Spring  
- 39919 y
- Spindle  
- 519563.-01
- Slotted pin  
- 222116.-06
- Brake shoe  
- 518434-02
- Lining  
- 518478 -02
- Screw (3)  
- 834ly



Exchange of Lining

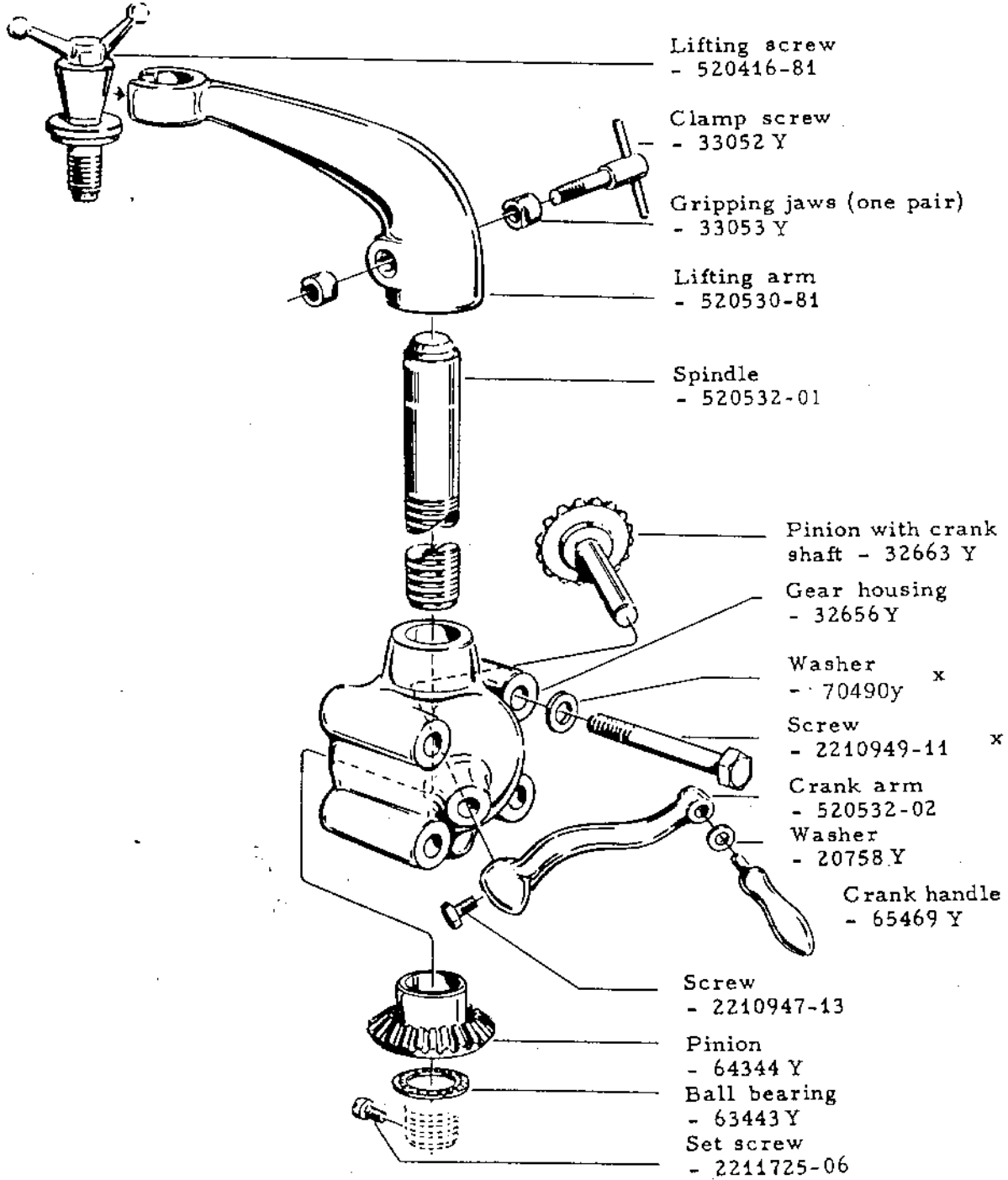
Check that brake is released and remove the cap. Exchange the lining. Note that the screws are slotted at both ends (use an angle driver). Fasten the cap with the handle pointing downwards.



To disassemble the brake, remove 4 screws from the protecting cap and lift brake assembly out of frame. Place brake assembly in a vise and compress the brake as shown in illustration above. Drive out slotted pin and remove brake handle. Loosen vise and brake parts can be disassembled by hand. When assembling, reverse above procedure.

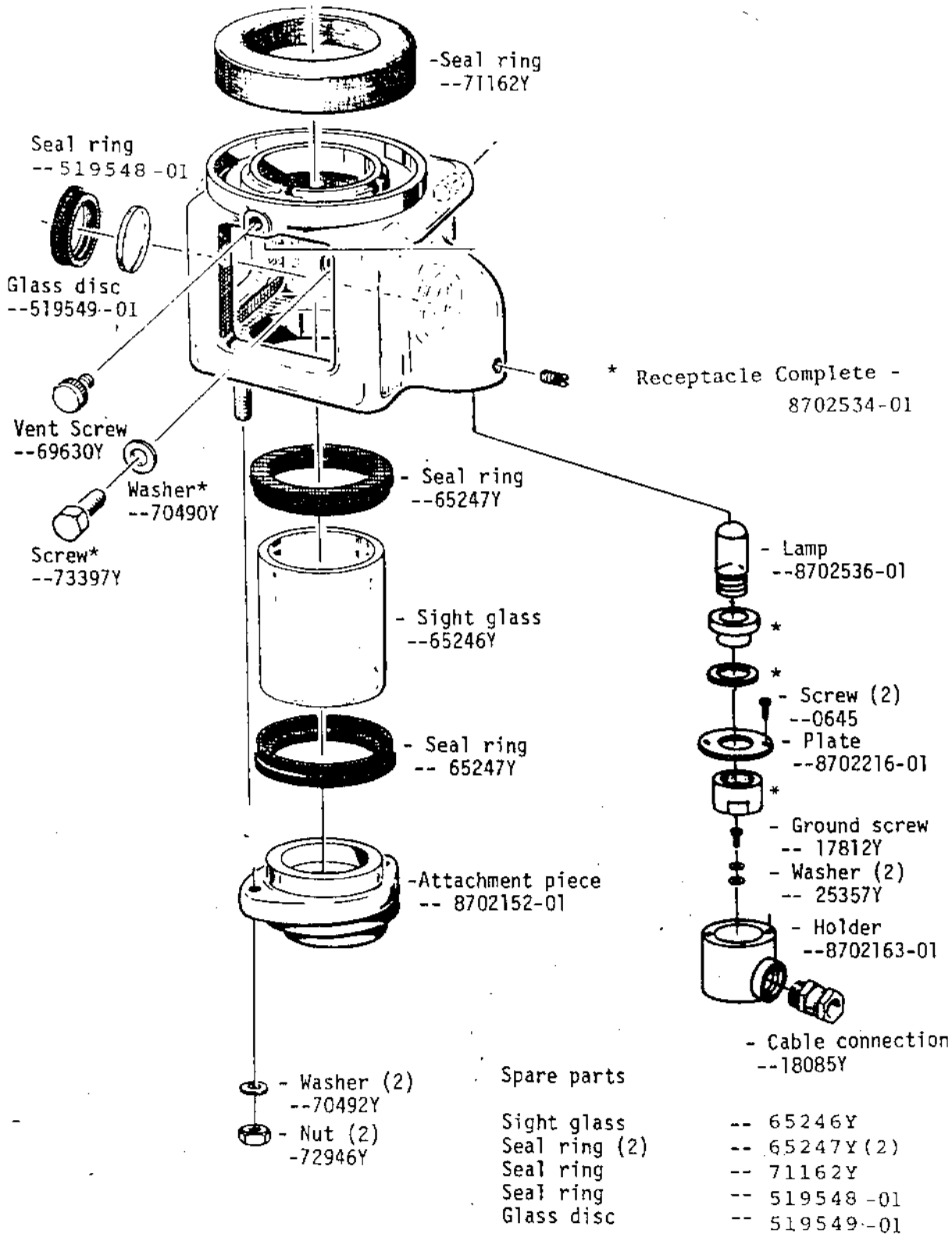
Lifting device - 520530-82

(\* marked parts are not included in complete No.)

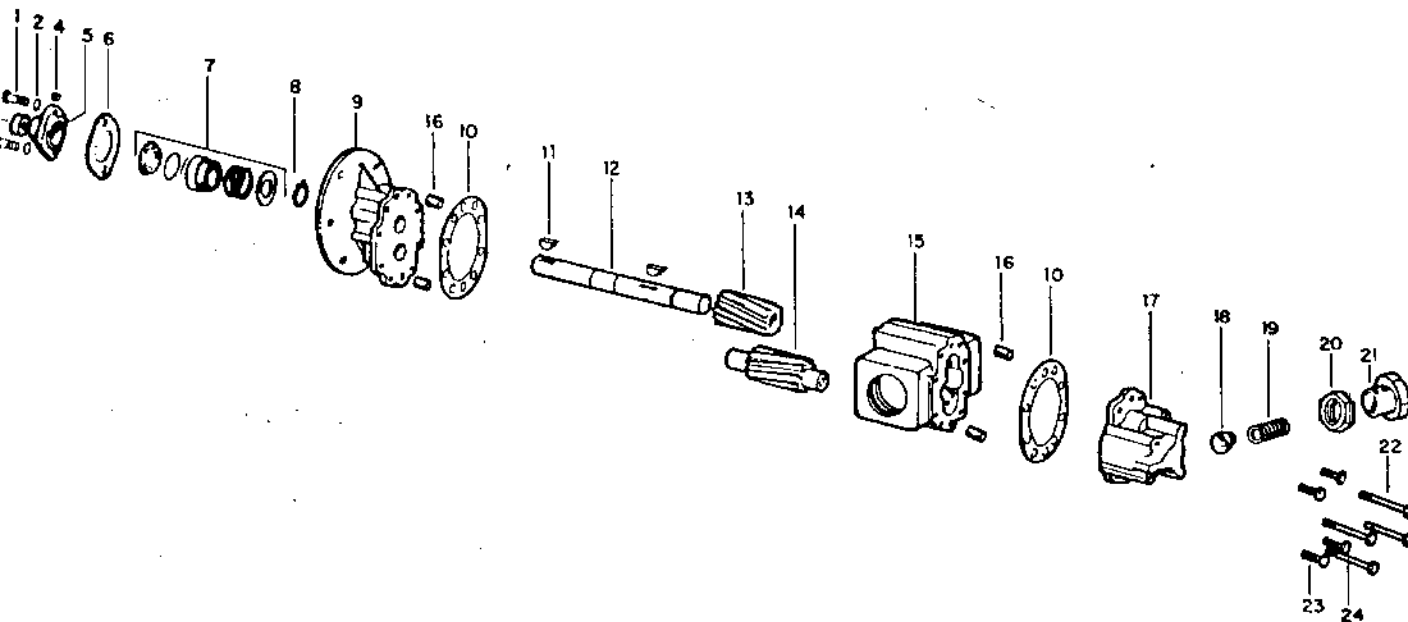


Lubricate according to instructions in Chapter H.

INSPECTION BOX - 526770-80 (\*-marked parts are not included in the complete number)

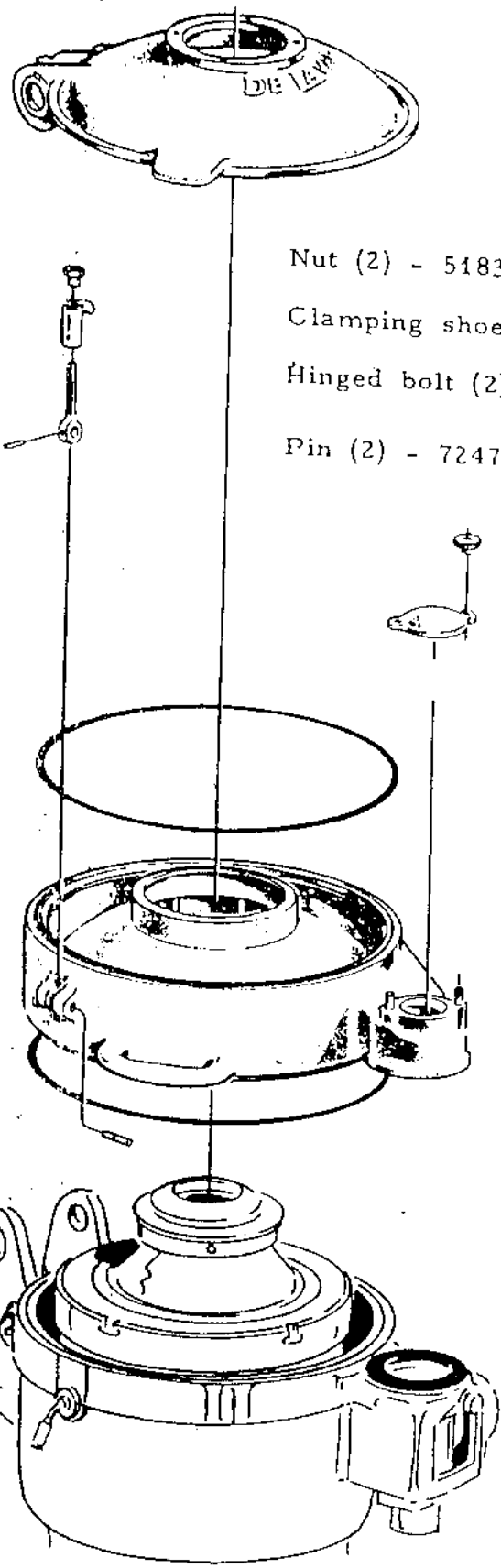


MAB-207 INLET PUMP COMPLETE  
 8706596-81  
 MODEL 18AM21



No.	Name	Qty.	Roper Part No.	No.	Name	Qty.	Roper Part No.
1	Cap Screw	2	G49-037175	13	Drive Gear	1	D6-648
2	Washer	2	G8-52	14	Idler Gear & Shaft	1	D2-1399
3	Ball Bearing	1	G40-41	15	Case	1	P1-557
4	Lube Fitting	1	G63-10	16	Dowel Pin	4	D48-21
5	Bearing Cage	1	P4-377	17	Face Plate Assembly*	1	N3-340
6	Gasket	1	D11-59	18	Poppet	1	D16-114
7	Mech. Seal Complete	1	G14-338	19	Spring	1	G10-399
8	Retaining Ring	1	G41-43	20	Lock Nut & Seal	1	G33-32
9	Back Plate Assembly*	1	N2-813	21	Adj. Screw	1	D15-44
10	Gasket	3	D11-257	22	Cap Screw	2	G49-037350
11	Key	2	D30-32	23	Cap Screw	4	G49-037100
12	Drive Shaft	1	D1-1761	24	Cap Screw	2	G49-037225

\*Includes 2 Bushings GS-139



Top cover - 518518-02

Nut (2) - 518376-01  
Clamping shoe (2) - 71391 Y  
Hinged bolt (2) - 225444-31  
Pin (2) - 72474 Y

Knob (2) - 71439 Y

Cover - 518386-02

Seal ring - 71402 Y

Stud bolt (2) - 37547 Y

Collecting cover - 518410-02

Seal ring - 71402 Y

Hinge pin (2) - 72680 Y<sup>x</sup>

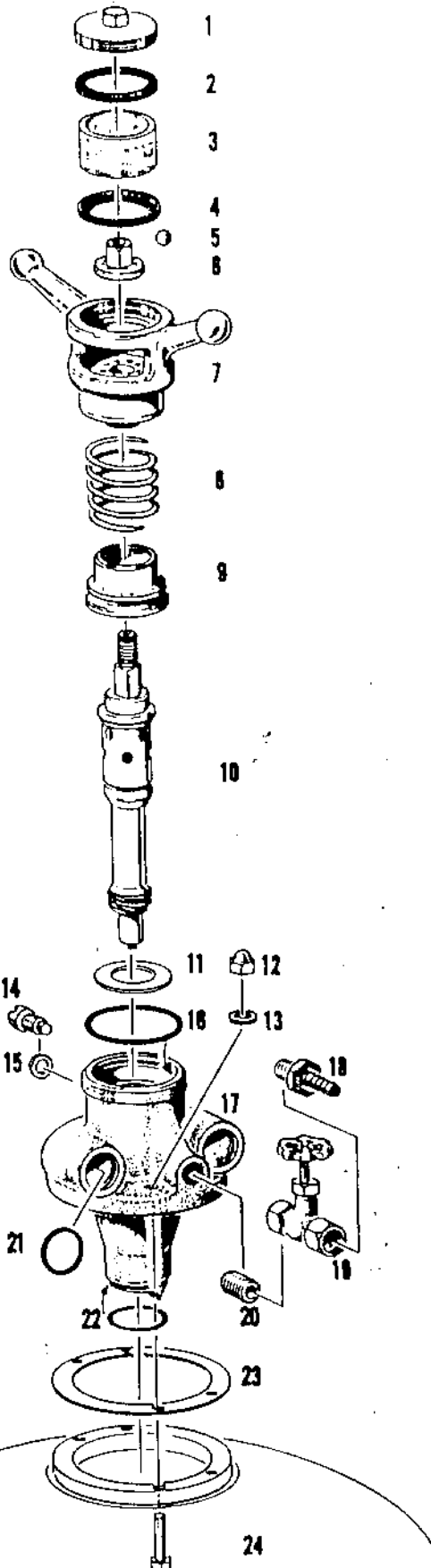
Inspection box - see chapter X

Pawl and buffer - see chapter S.

Hinged bolt

CONNECTION HOUSING with INLET PIPE -- 526544-80

(x-marked parts are not included in the complete unit No.)

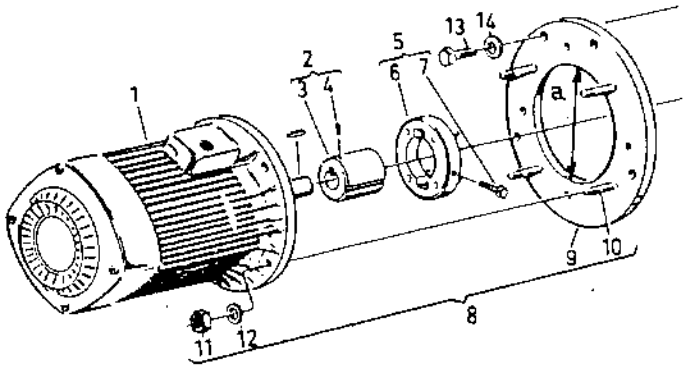


Never begin the dismantling until the bowl has stopped running. First remove the connection housing and back off the set screw. The knob is loosened clockwise.

The inlet pipe must be mounted in the housing before the latter is fastened to the machine. Check the height of the paring disc before mounting the connection housing — see chapter L.

- |    |                             |                 |
|----|-----------------------------|-----------------|
| 1  | Cover                       | -- 519606-01    |
| 2  | Seal ring                   | -- 73920 Y      |
| 3  | Glass tube                  | -- 73921 Y      |
| 4  | Seal ring                   | -- 73920 Y      |
| 5  | Ball                        | -- 233289-03    |
| 6  | Nut                         | -- 526467-01    |
| 7  | Knob                        | -- 518341-03    |
| 8  | Spring                      | -- 226214-63    |
| 9  | Guide sleeve                | -- 526546-02    |
| 10 | Inlet pipe                  | -- 518350-81    |
| 11 | Washer                      | -- 223146-03    |
| 12 | Nut (4)                     | -- 221854-03 x  |
| 13 | Washer (4)                  | -- 20758 Y      |
| 14 | Screw                       | -- 38320 Y      |
| 15 | Packing                     | -- 518362-01    |
| 16 | Seal ring                   | -- 64810y       |
| 17 | Housing                     | -- 526530-80    |
| 18 | Hose nipple                 | -- 252612-02    |
| 19 | Needle valve                | -- 526334-02    |
| 20 | Nipple                      | -- 27515 Y      |
| 21 | Seal ring (2)               | -- 64706 Y      |
| 22 | Seal ring                   | -- 71866 Y      |
| 23 | Height adjusting ring (1-6) | -- 516842-01    |
| 24 | Base                        | -- 2210041 10 x |

FLANGE MOTOR ("4" drive)

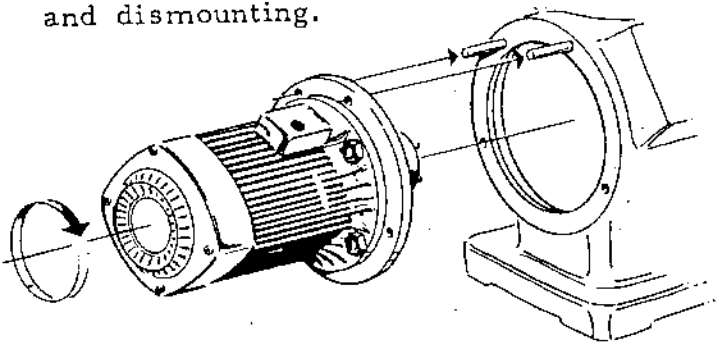


1. Motor - 0
2. Nave, complete - 518487-80 <sup>x</sup>
3. Nave - 518446-02 <sup>x</sup>
4. Set screw - 221585-05
5. Coupling pulley, complete -  
- 518447-81
6. Coupling pulley - 518447-80
7. Set screw (2) - 520244-02
8. Motor adapter complete - part  
No. as per table depending up-  
on the guide diameter "a".
13. 14. - see table

	a = 130 mm	a = 180 mm	a = 230 mm
8. Motor adapter, complete -	518448-80	518449-80	520432-80
9. Motor adapter -	518448-02	518449-02	520432-02
10. Stud bolt (4) -	70485 Y	2216261-01	2216261-01
11. Nut (4) -	73200y	72946Y	72946 Y
12. Washer (4) -	20758 Y	70492 Y	70492 Y
13. Screw (4) -	2210947-16	2210947-16	72926y
14. Washer (4) -	70492 Y	70492 Y	70492 Y

Mounting the motor

Note that, as a rule, it is not necessary to loosen the motor and motor adapter from each other when mounting and dismantling.



Push the elastic plate on to the pins in the coupling pulley of the separator.

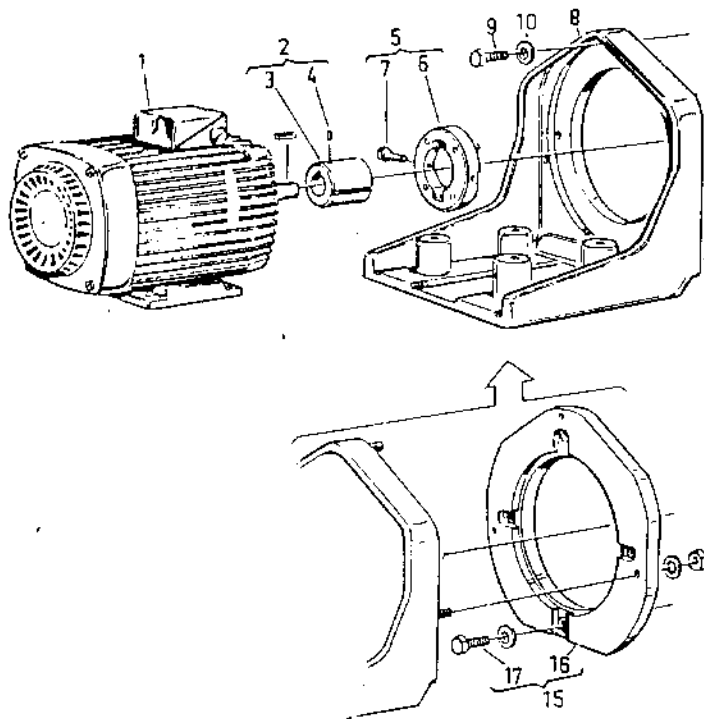
Screw the two guide bolts (see Chapter F) into the two upper, opposed screw holes in the frame flange.

Hang the motor (with the adapter fixed) on the guide bolts and push it into correct position, fitting the pins of the coupling pulley into the holes in the elastic plate. Fasten the motor and replace the guide bolts by screws. Tighten the screws alternately and check that the motor adapter enters the frame.

When dismantling see that the electric cable must not be loosened in the terminal block.

x) When ordering - follow the instructions given in Chapter A.

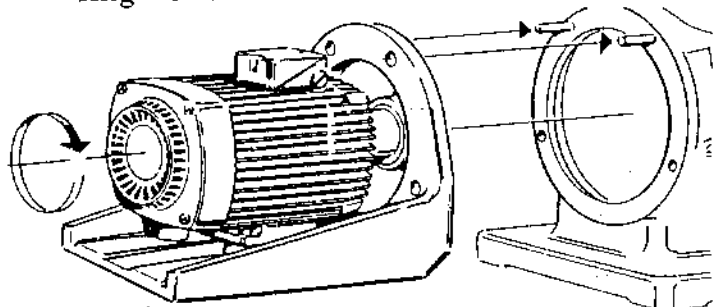
MOTOR on BRACKET ("9" drive)



1. Motor - o
2. Nave, complete - 518487-80 x
3. Nave - 518446-02 x
4. Set screw - 221585-05
5. Coupling pulley, complete - 518447-81
6. Coupling pulley - 518447-80
7. Set screw (2) - 520244-02
8. Motor bracket (shaft height 6 1/2" 165 mm) - 519291-80
16. Intermediate flange - 519292-02

Mounting the motor

Motor and motor bracket are marked with the manufacturing number of the separator to which they belong. Note that they are mounted together when installing several machines at the same time.



Note that, as a rule, it is not necessary to loosen the motor and motor bracket from each other when mounting and dismantling.

If the motor is not fastened to the bracket when delivered, put it on the base blocks, fix its position with the guide pins and fasten it with the screws.

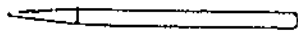
Push the elastic plate on to the pins of the separator coupling pulley and screw the two guide bolts (see Chapter F) into the two upper, opposed screw holes in the frame flange.

Hang the bracket with motor attached on the guide bolts and push it into correct position, fitting the pins of the motor coupling pulley into the holes in the elastic plate. Fasten the bracket and replace the guide bolts by screws. Tighten the screws alternately and check that the bracket enters the frame.

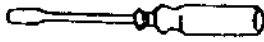
x) When ordering - follow the instructions given in Chapter A.

SET of TOOLS

F



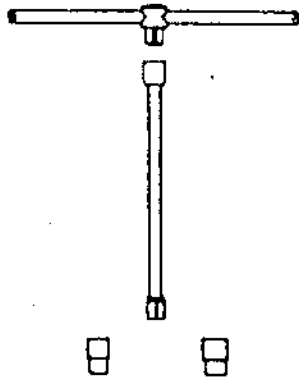
Drift, small - 2279 Y  
Drift, large - 37666y



Screw driver - 42365 Y



Pin spanner - 72719y

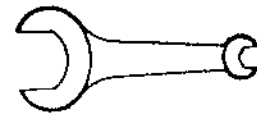


Socket wrench parts:

T-handle - 72243y

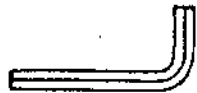
Extension rod  
- 72244y

Sockets:  
9/16" - 73376 Y  
3/4" - 73377 Y

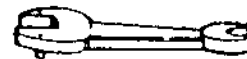


Screw spanner (24/41 mm)  
- 521643-02

Screw spanner (14/47 mm)  
- 520551-02



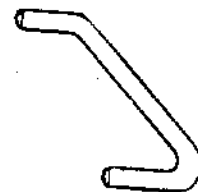
Spanner for set screw of  
coupling pulley = 42347 Y



Spanner for screw plugs, deflector,  
and throw-off collar of top bearing,  
- 520549-80



Guide pin for mounting motor and  
tool for demounting seal washer  
of worm wheel shaft (2)  
- 526718 -01

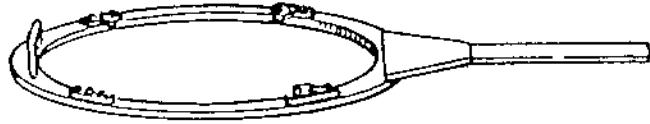


Lining-up tool for  
motor - 525339-01  
Tool not included,  
if motor is deli-  
vered together with  
the machine

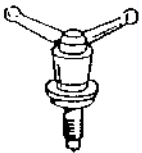
BOWL (Chapter I)



Small bowl spanner - 69006 Y



Large bowl spanner - 519352-81



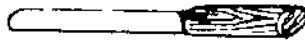
Lifting screw for distributor included in lifting device - see Chapter X



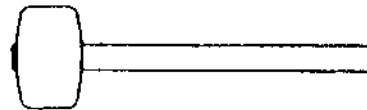
Lifting tool for bowl body - 519227-80



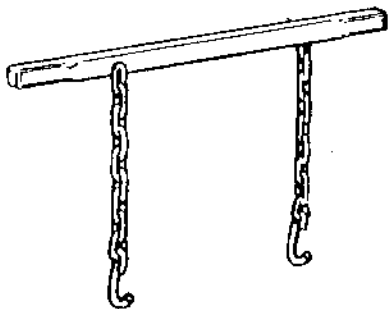
Sludge scoop - 33152 Y



Sludge knife - 32818 Y



Tin hammer - 64324 Y



Lifting tool for sludge basket - 522900-80