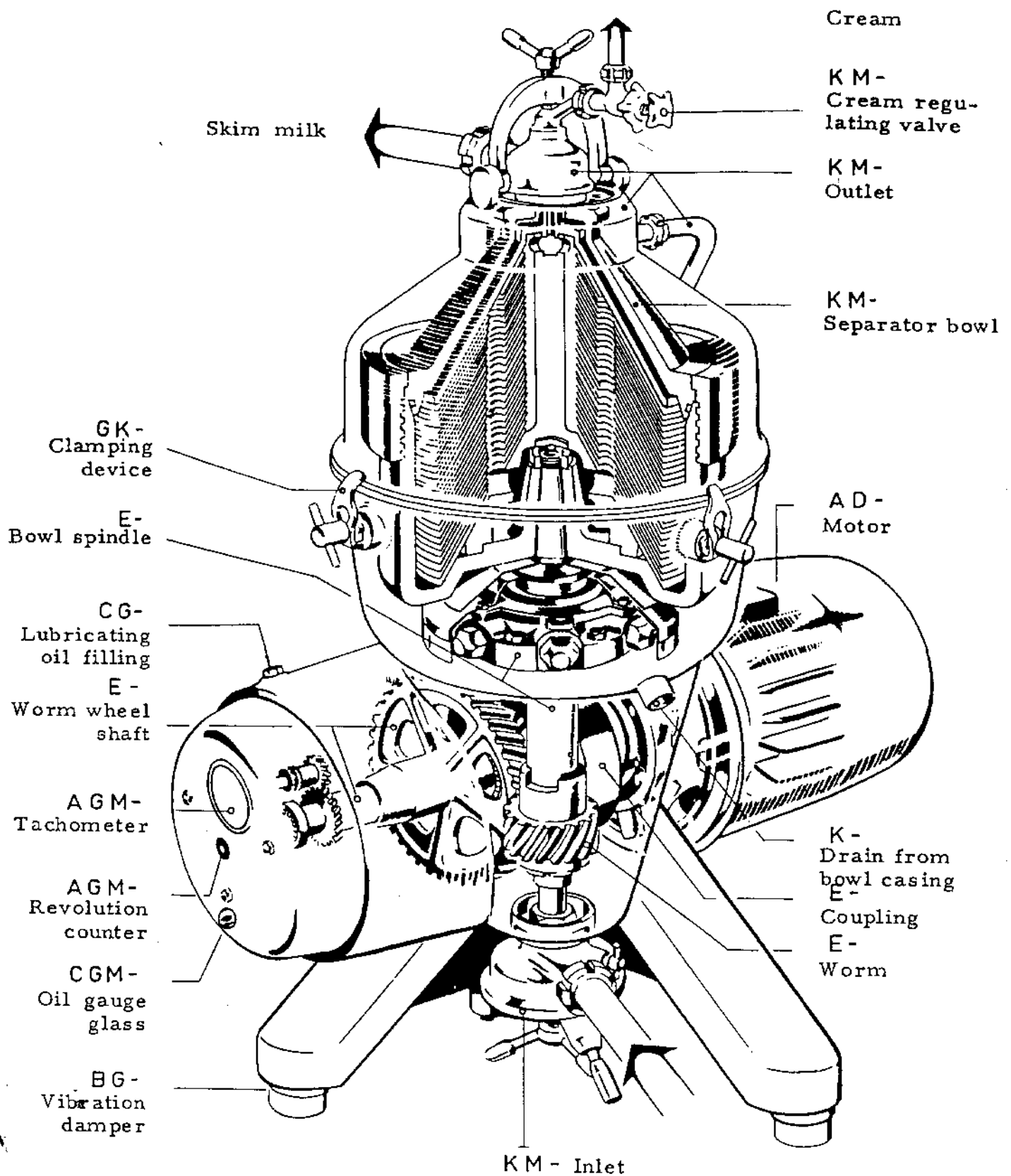


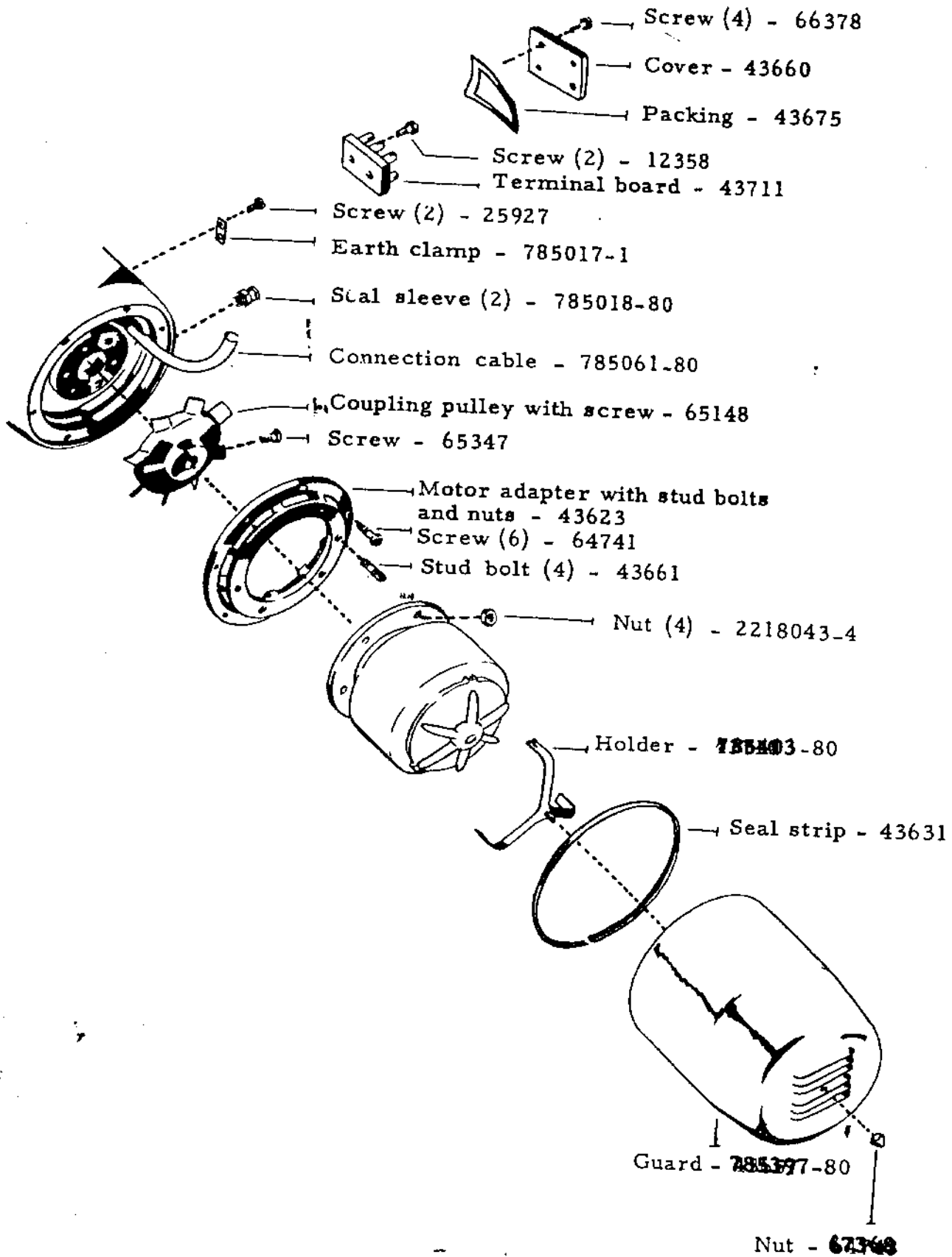
Hutchison-Hayes Separators, Inc.

Model 3196 M Parts List With Diagrams

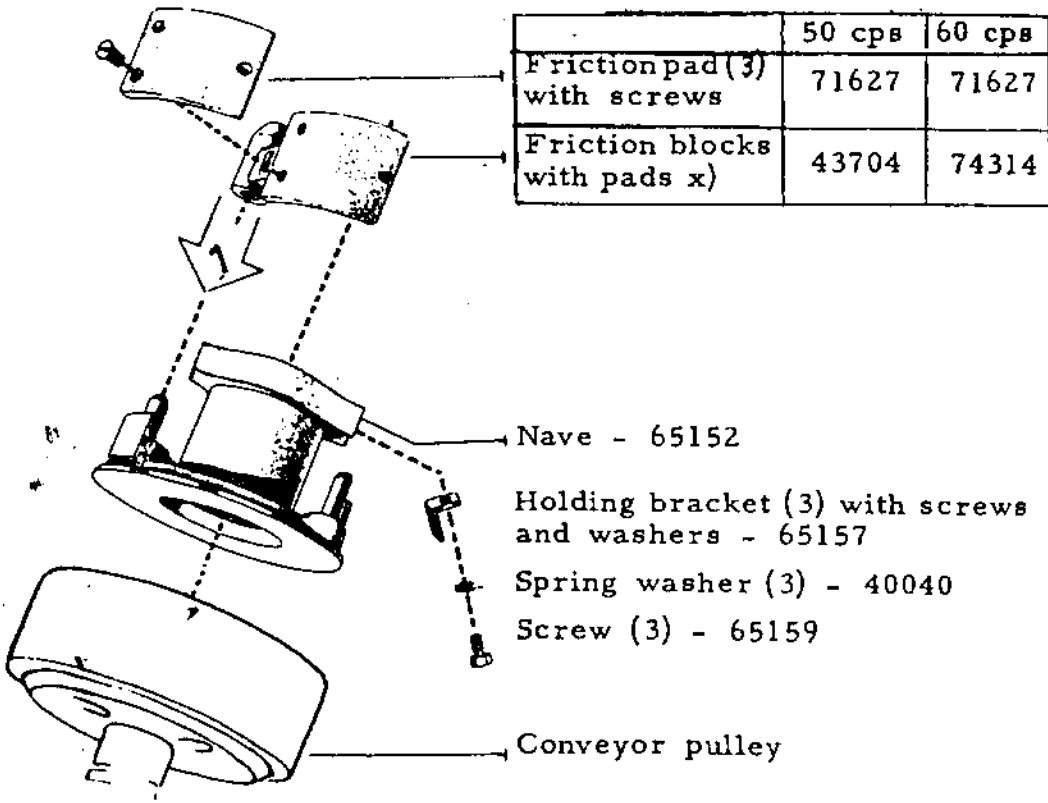
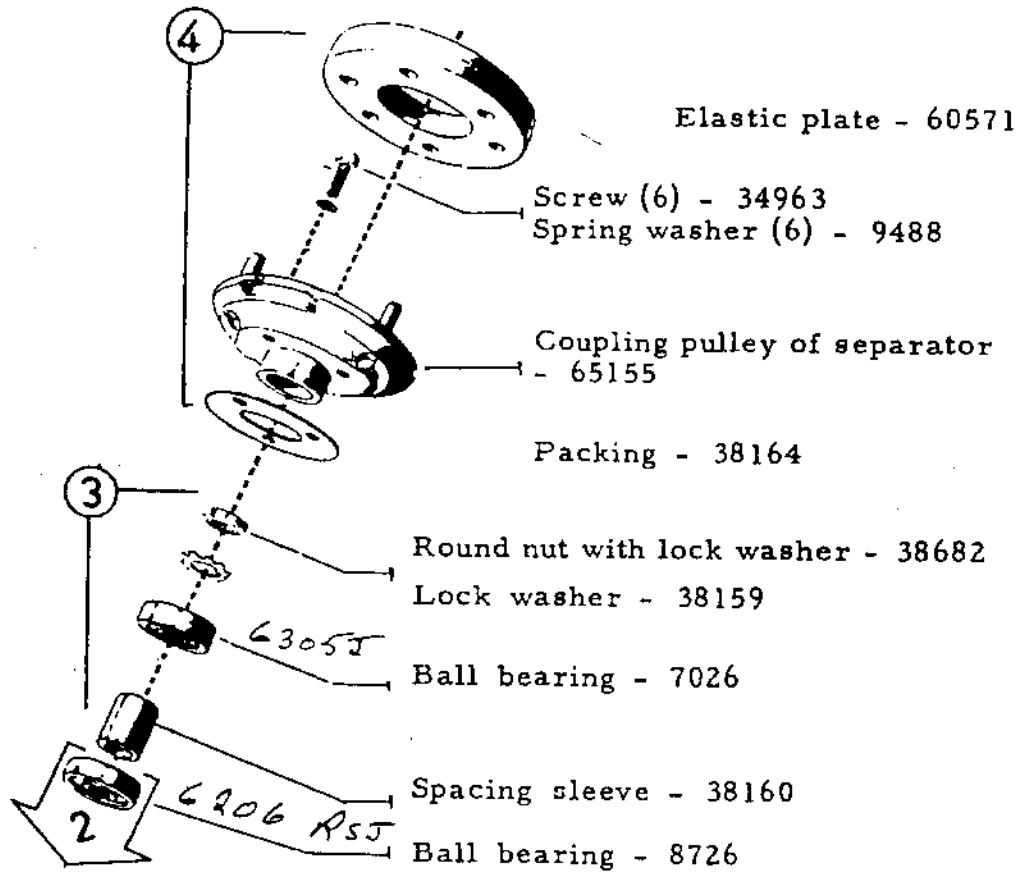
P.O. Box 2965 ♦ Houston, Texas 77252
3520 East Belt ♦ Houston, Texas 77015
(713) 455-9600 ♦ Fax (713) 455-7753



FLANGE MOTOR DRIVE (M drive)



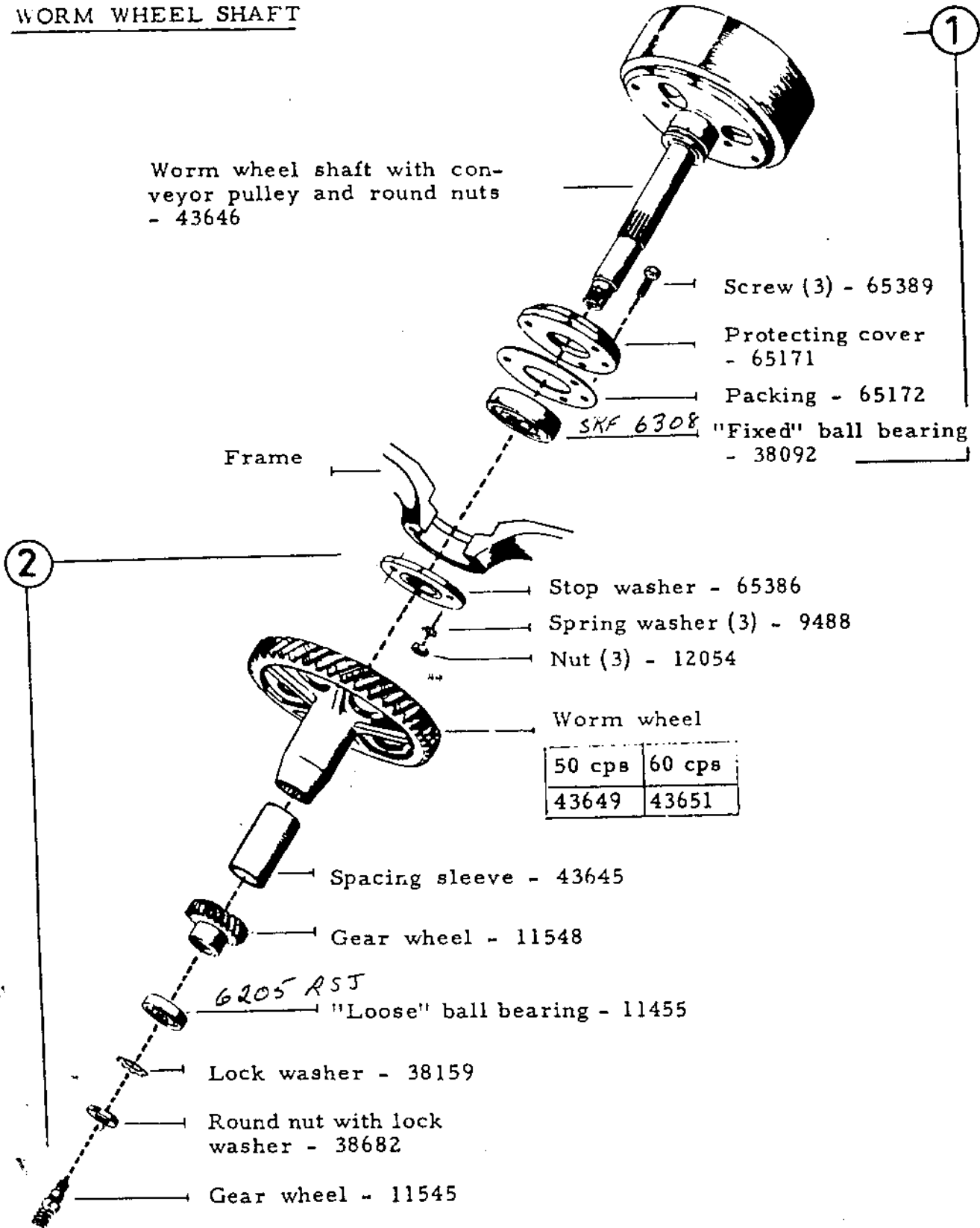
COUPLING



x) Complete set of 3 pieces

WORM WHEEL SHAFT

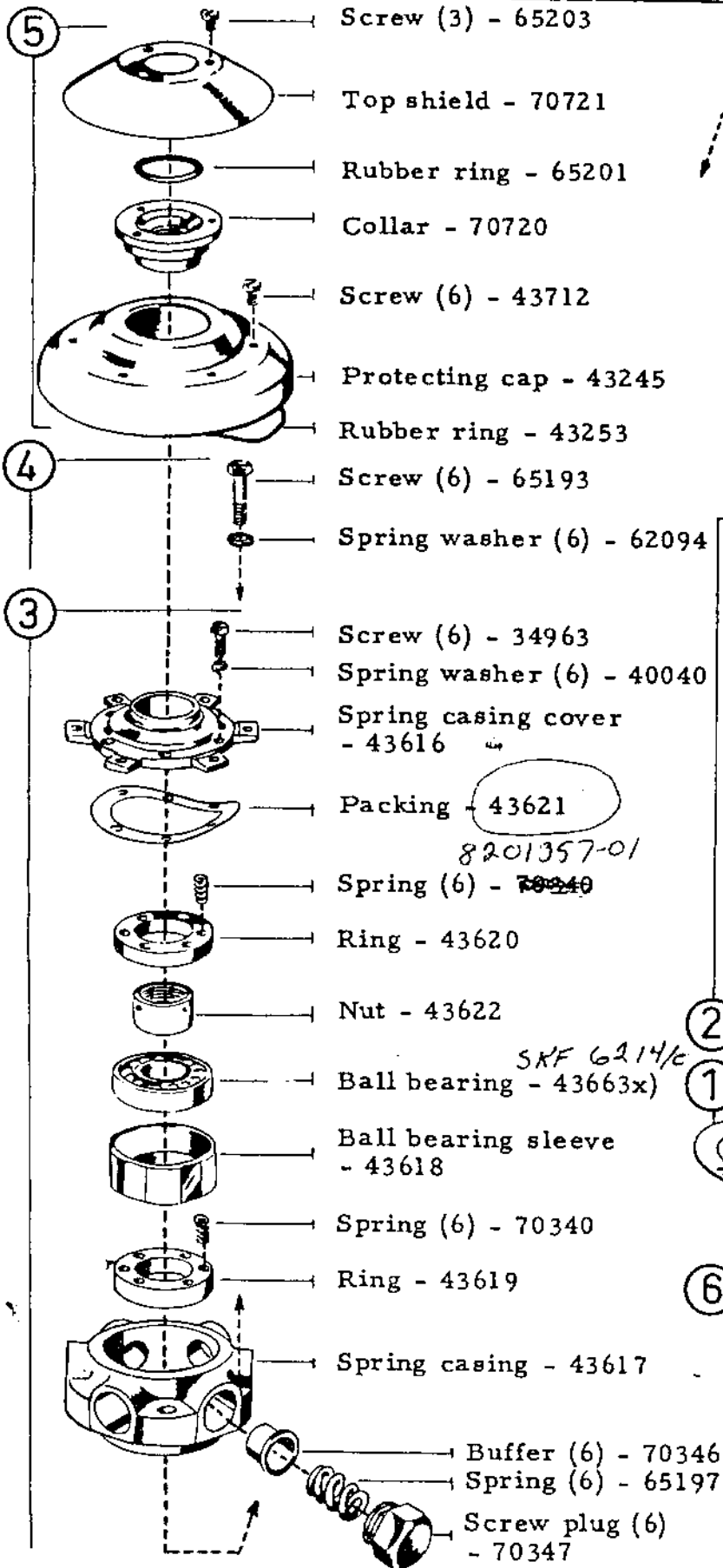
Worm wheel shaft with conveyor pulley and round nuts - 43646



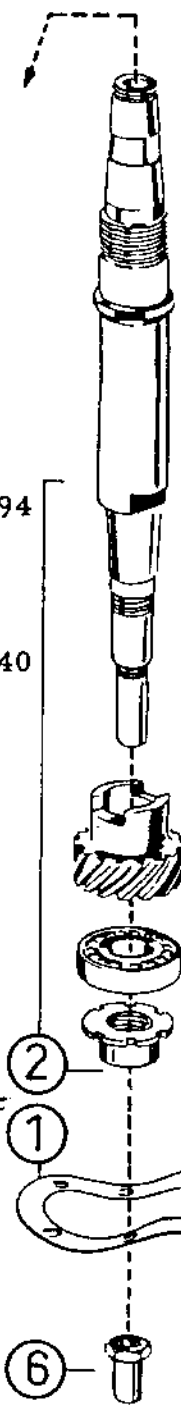
BOWL SPINDLE

The parts appearing in mounting stages (2), (3) and (6) form together the COMPLETE BOWL SPINDLE with part number

50 C/S	60 C/S
43678	43734



- Screw (3) - 65203
- Top shield - 70721
- Rubber ring - 65201
- Collar - 70720
- Screw (6) - 43712
- Protecting cap - 43245
- Rubber ring - 43253
- Screw (6) - 65193
- Spring washer (6) - 62094
- Screw (6) - 34963
- Spring washer (6) - 40040
- Spring casing cover - 43616
- Packing - 43621
8201357-01
- Spring (6) - ~~70340~~
- Ring - 43620
- Nut - 43622
- Ball bearing - *SKF 6214/c* - 43663x)
- Ball bearing sleeve - 43618
- Spring (6) - 70340
- Ring - 43619
- Spring casing - 43617
- Buffer (6) - 70346
- Spring (6) - 65197
- Screw plug (6) - 70347



Bowl spindle - 43670

Worm

50 C/S	60 C/S
43650	43652

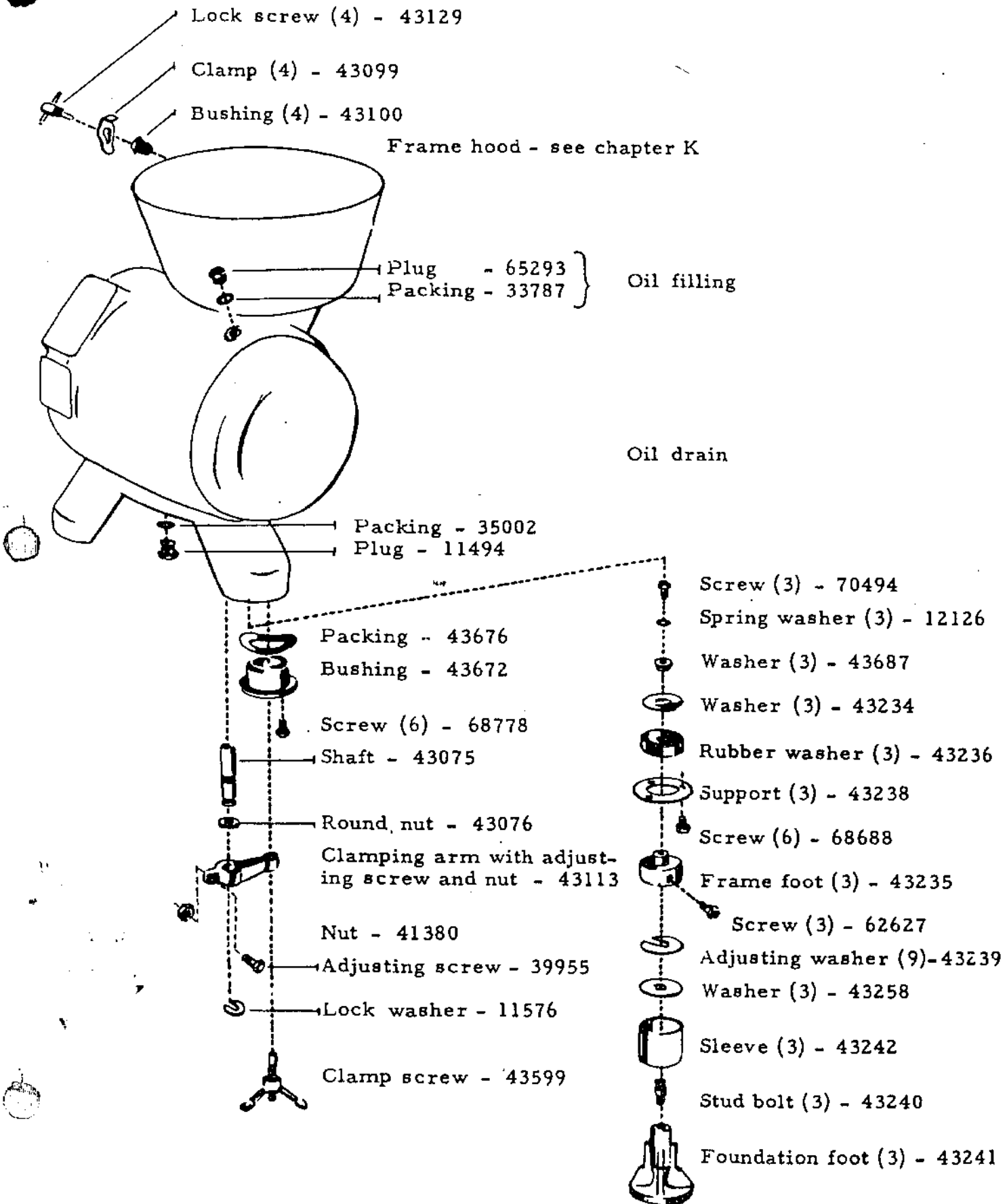
SKF 1308/c3
Ball bearing - 43664 x)

Nut - 43671

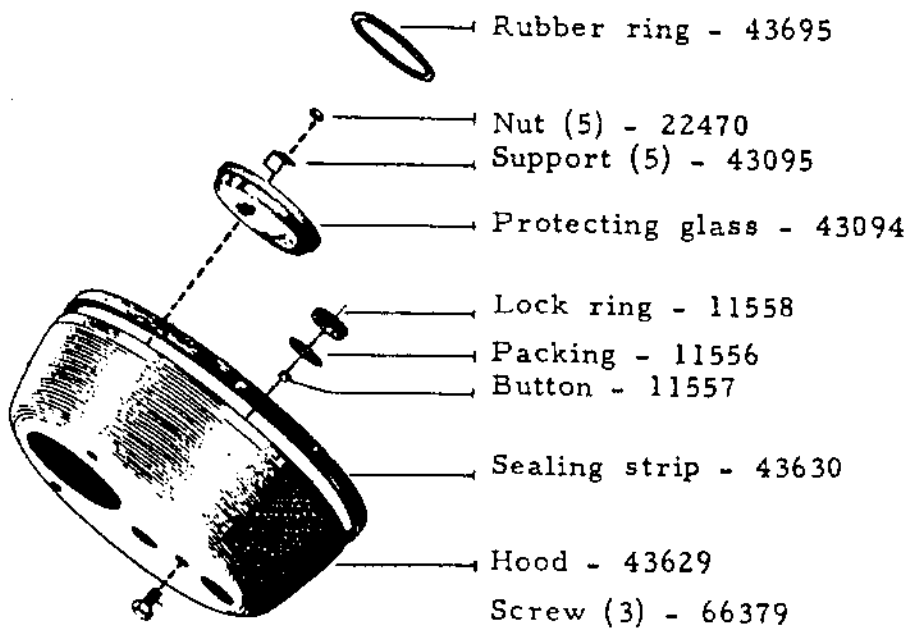
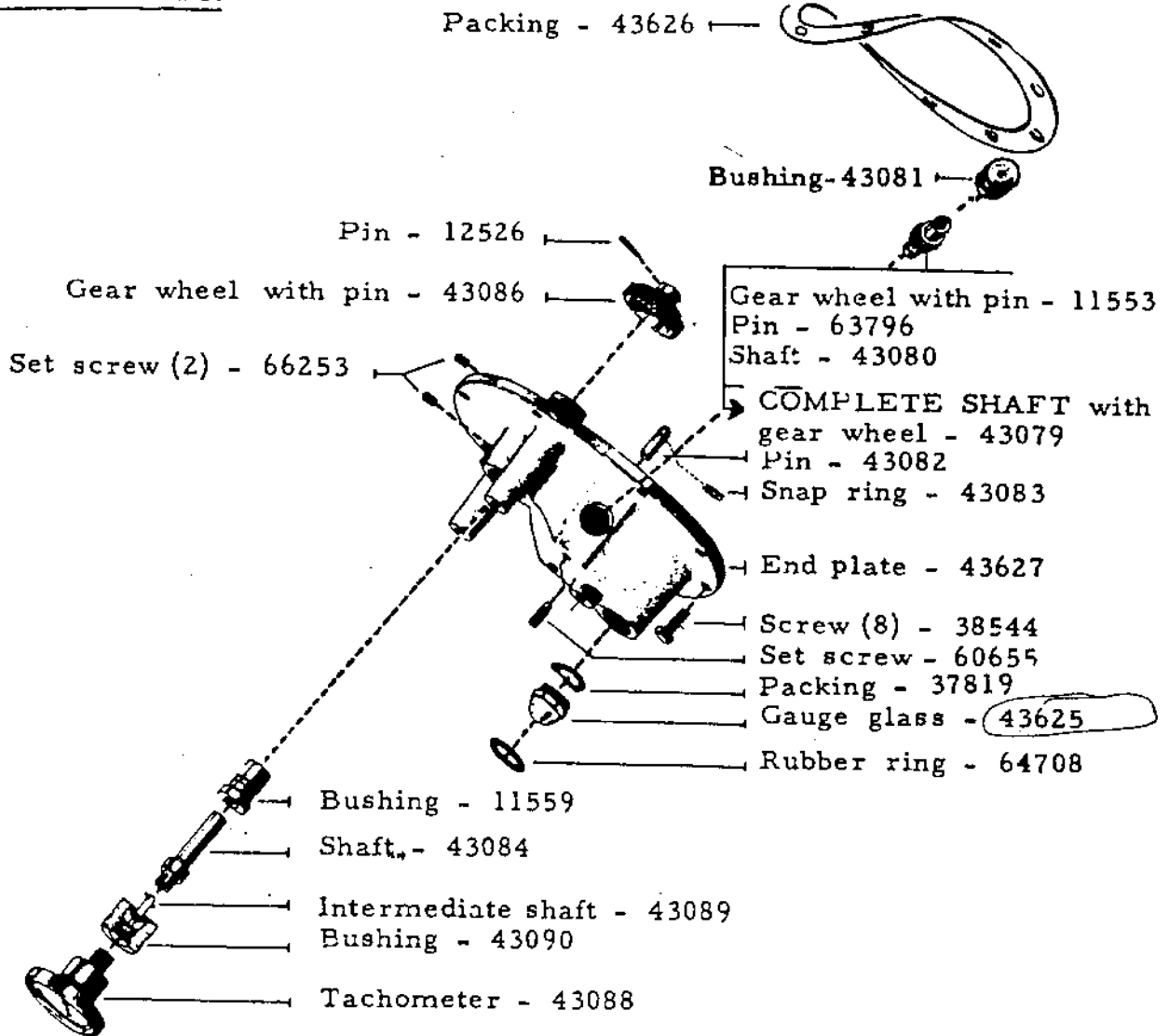
Packing - 65192

Wear sleeve - 43684

FRAME PARTS



FRAME END COVER



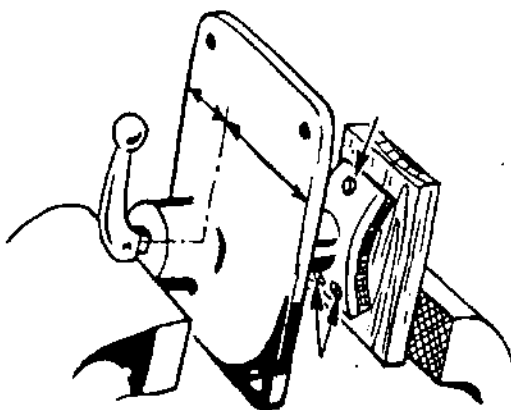
EXCHANGE OF LINING

- o See that brake is released.
- o Remove brake cover.
- o Exchange the lining. Note that both ends of the lining screws are slotted (use angle screw driver).
- o Mount brake cover in such a manner that the handle points downwards.

DISASSEMBLING

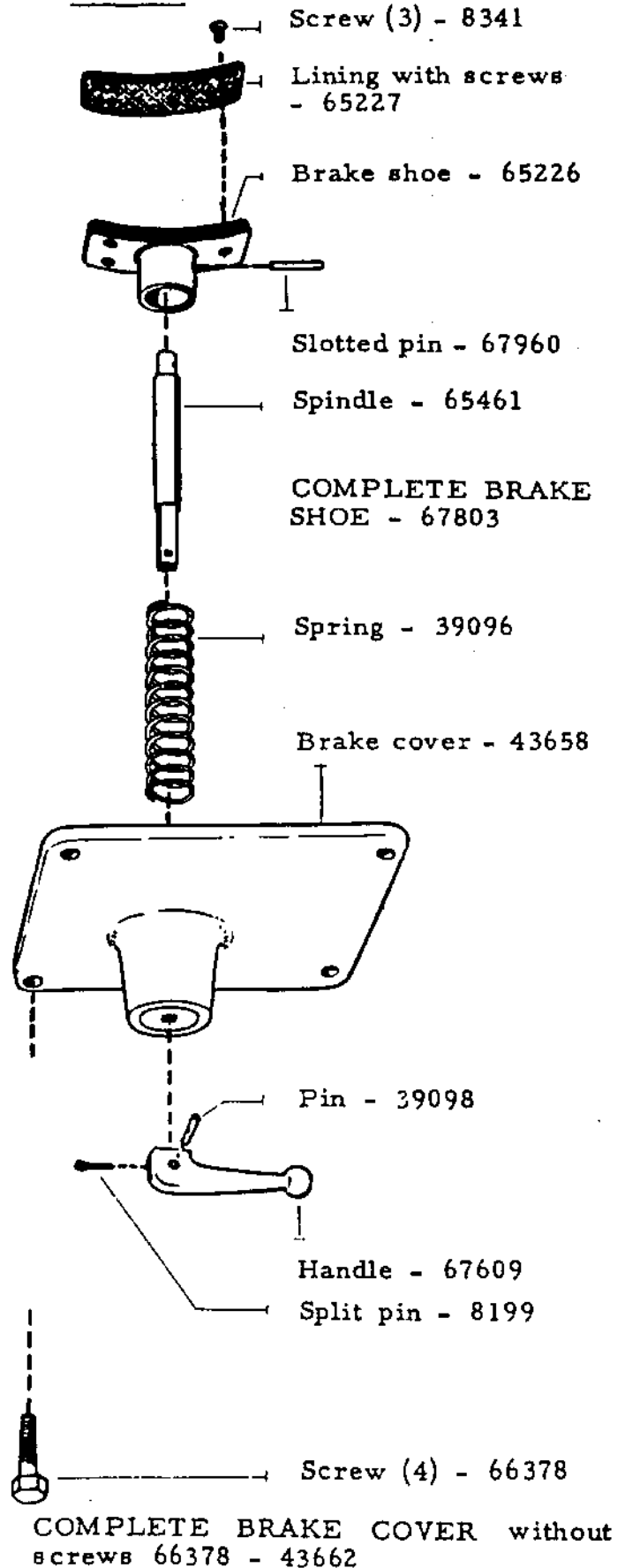
- o Clamp brake cover into a vise.
- o Apply brake.
- o Remove handle.

CLEANING - see chapter A.



ASSEMBLING. Make sure that cover, handle and brake shoe are turned in the way indicated by the arrows in the above illustration. Fasten the cover to the separator in such a way that the handle points downwards.

BRAKE

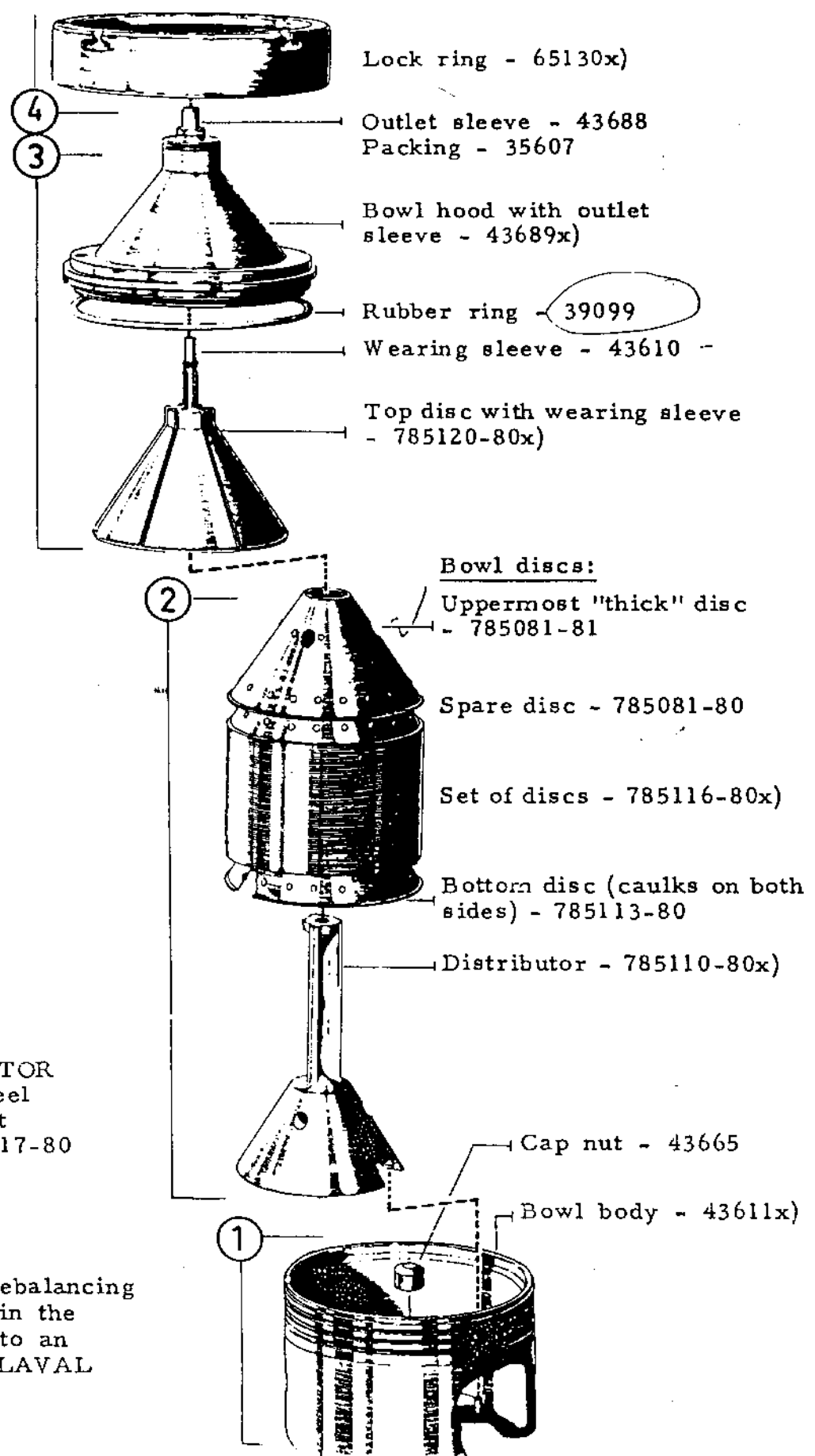


ALFA-LAVAL

SPARE PARTS

<u>Part No.</u>	<u>Quantity</u>	
39099	1	Rubber ring (separator bowl)
785591-1	2	Height adjusting ring (outlet)
785081-80	1	Bowl disc
71627	3	Complete friction pad (friction block)
43708	1	Cup (for packing collar)
11426	8	Packing collar (cream outlet)
43709	8	Packing collar (inlet and milk outlet)

SEPARATOR BOWL



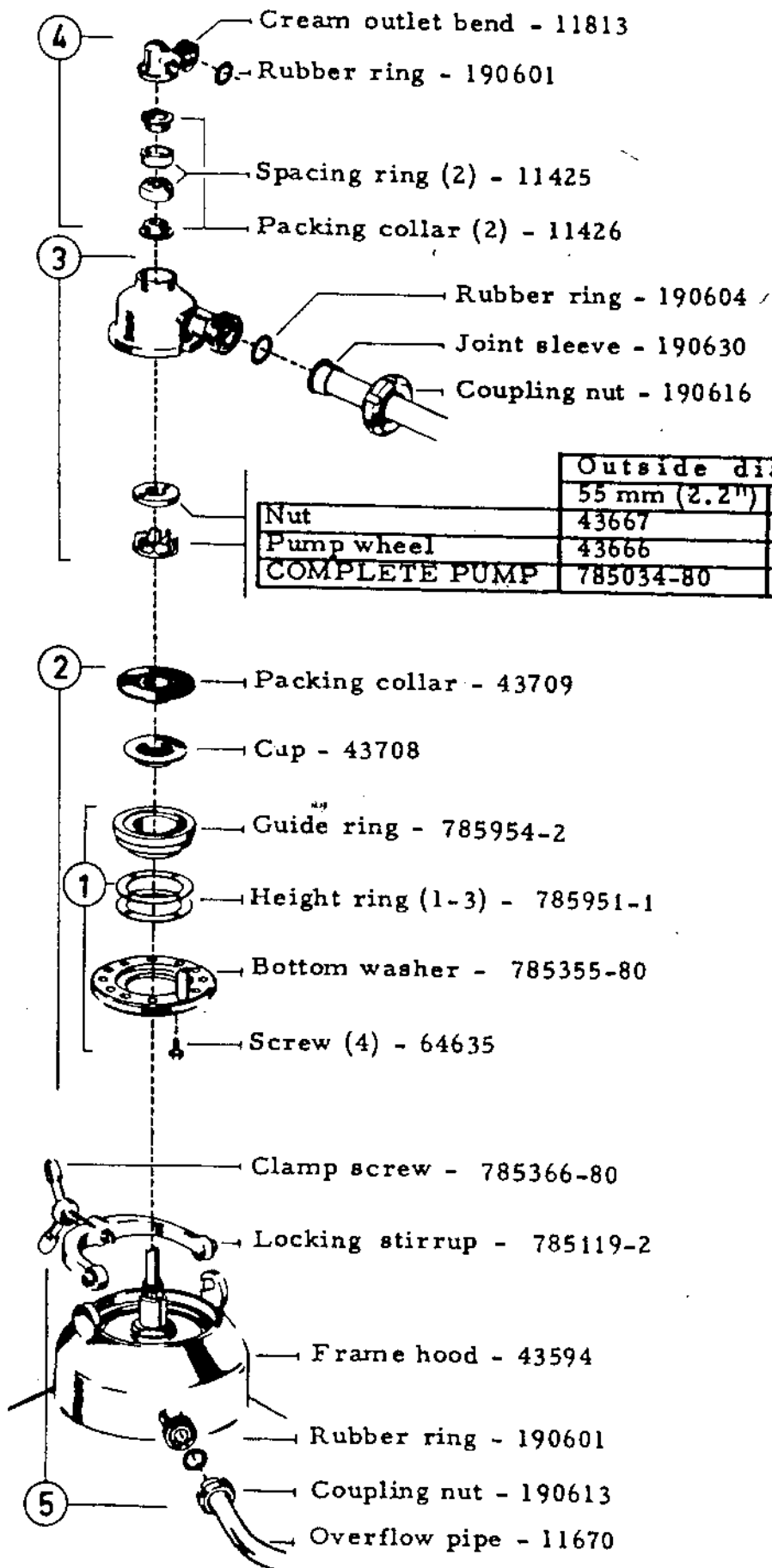
COMPLETE SEPARATOR BOWL with pump wheel ϕ 55 mm (2.17"), but without cap nut - 785117-80

x) Exchange makes rebalancing necessary - send in the COMPLETE bowl to an authorized ALFA-LAVAL representative.

OUTLET

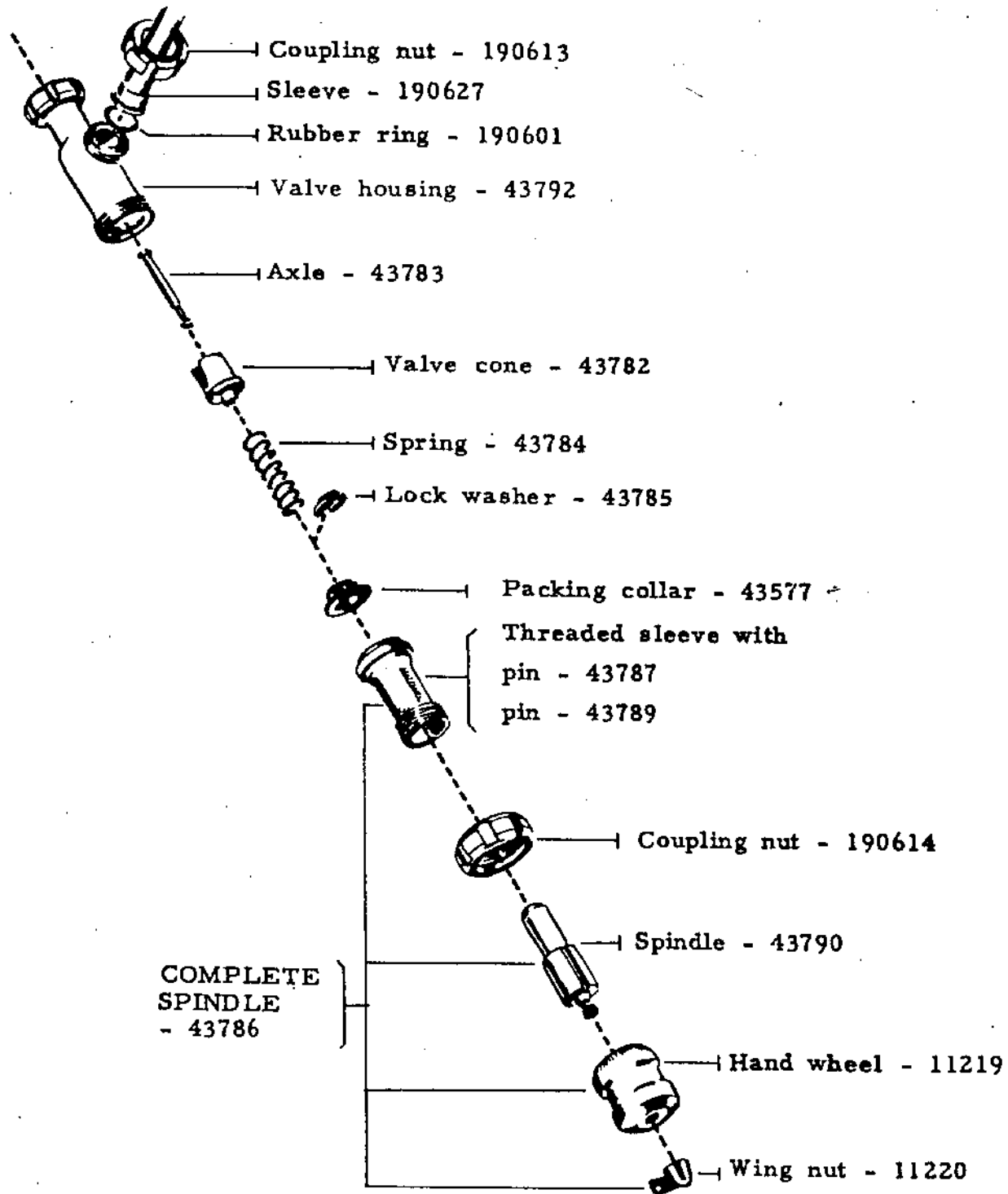
Milk outlet bend - 785033-80

MED HAT
PUMP WHEEL
N 820034.02
2 15/16" O.D.
1 1/16" I.D.



	Outside diameter	
	55 mm (2.2")	75 mm (2.9")
Nut	43667	785026-1x)
Pump wheel	43666	785027-1x)
COMPLETE PUMP	785034-80	785034-81x)

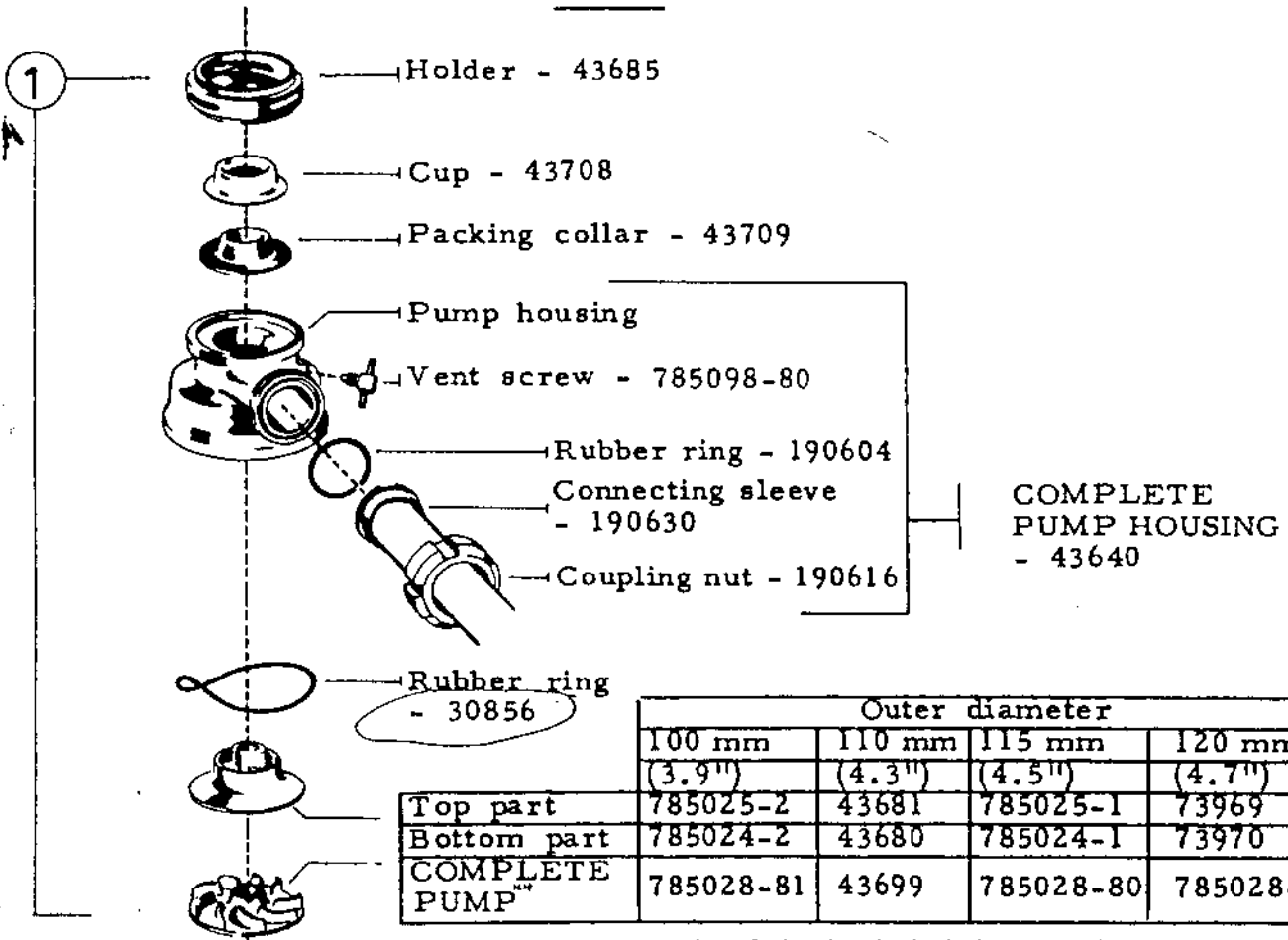
x) Not included in standard equipment.



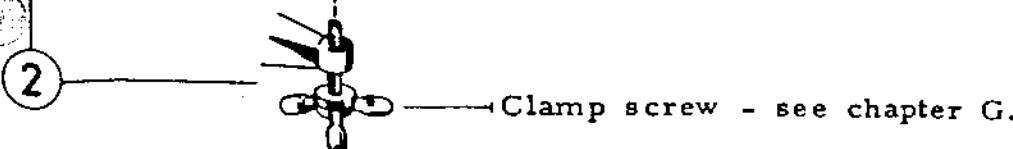
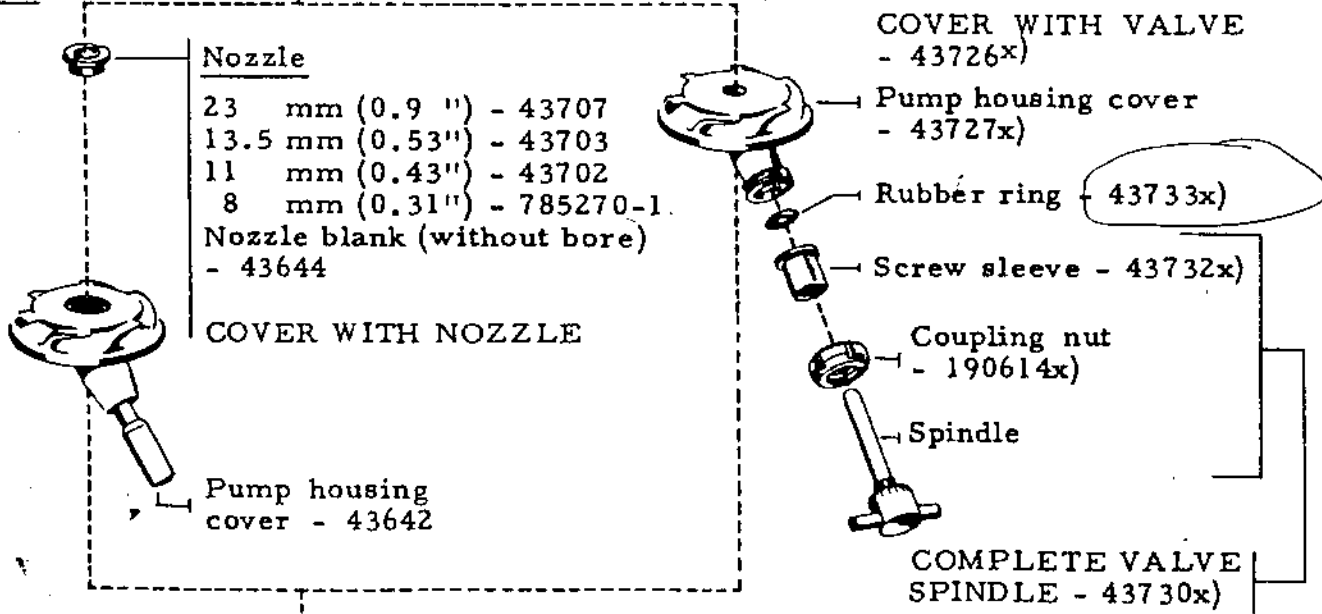
COMPLETE CREAM REGULATING VALVE - 43781

Handle the valve carefully - a damaged valve could stick and cause cream stockage

INLET



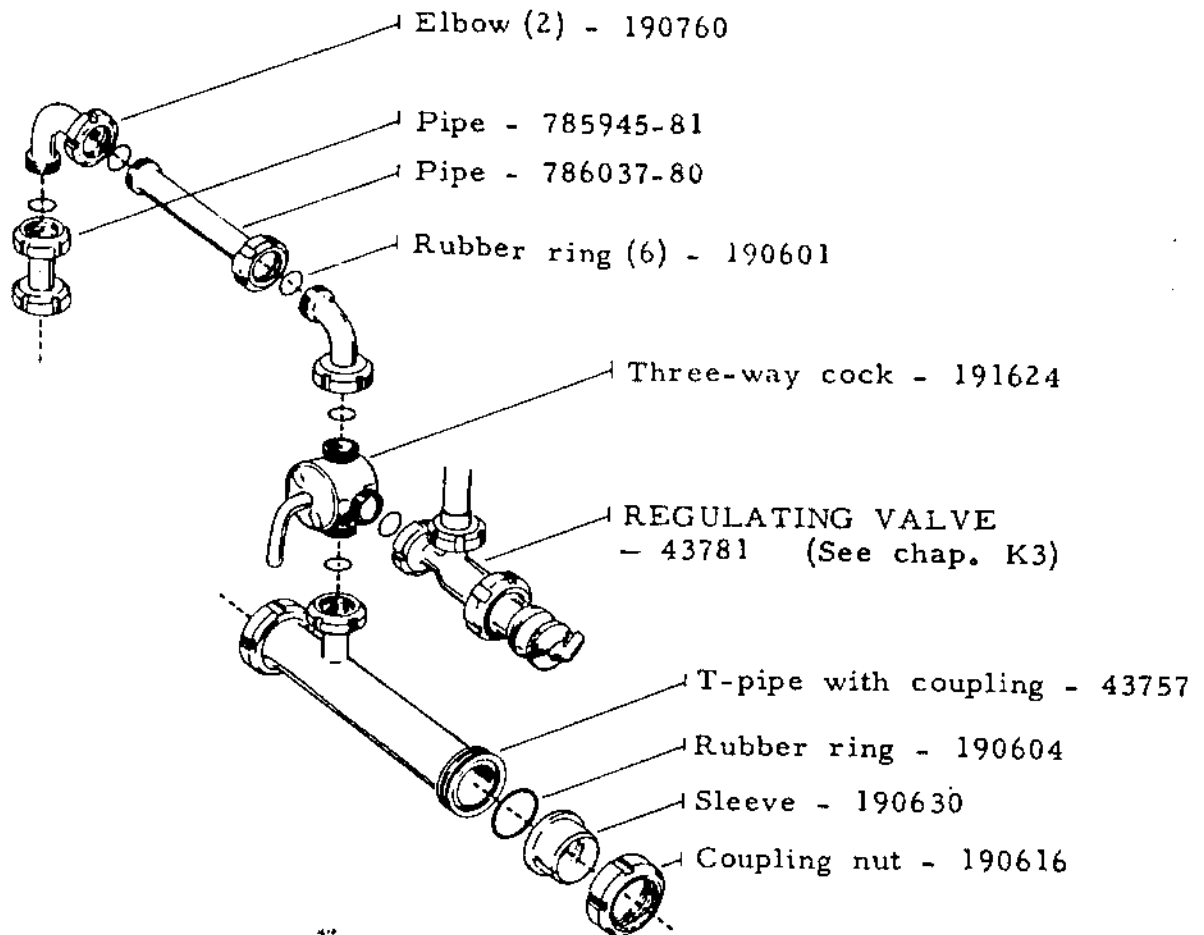
Only one pump wheel is included in standard equipment



(cont.)

STANDARDIZING DEVICE

- 786038-80

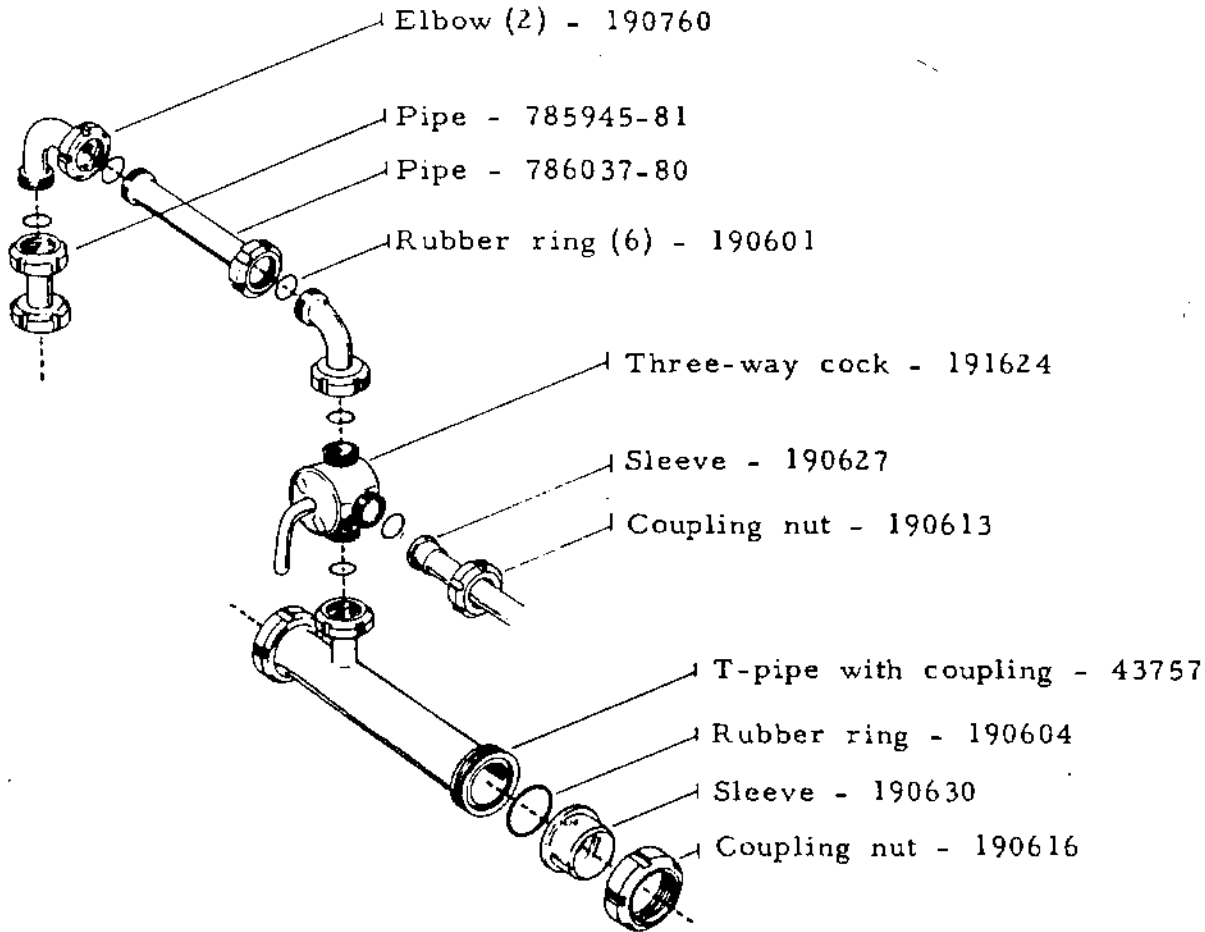
STANDARDIZATION
to lower fat content

For standardization to a lower fat content the following is required:

- o Cream regulating valve of standard equipment.
- o Standardizing device (not included in standard equipment) - 786038-80

The standardization is effected in such a way that such a large part of the separated cream is separately drawn off that the standardized milk obtains the desired fat content. The regulation is effected by means of the regulating valves. The throughput should be kept constant - for checking install a flow meter in the inlet pipe. Always check the fat content of the standardized milk.

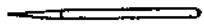
REMIXING DEVICE
- 785301-80



REMIXING

This procedure is used when cheese- or consumption milk is to be clarified in the standard bowl of the separator. The device can also be used for circulating a liquid through the separator when starting, in case of any possible interruption in the whole milk feed as well as during the braking-down period, whereby only a return conduit to the milk tank before the feed pump is required.

TOOLS



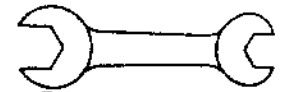
Drift - 2279



Screw driver
- 8594

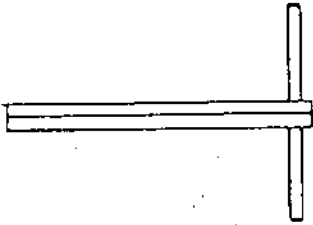


Screw driver .
- 14486



Screw spanner
(23/31 mm)
- 8432

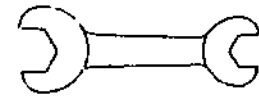
TOOLS for BOWL SPINDLE



Socket wrench
(15 mm) - 11647
Socket wrench
(21 mm) - 63208



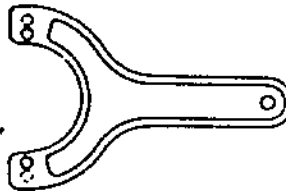
Protecting sleeve
for bowl spindle
- 43750



Screw spanner for screw
plugs of top bearing
(16/55 mm) - 65454



Hook spanner for
stop nut of top
bearing - 66988

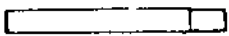


Pin spanner for
protecting collar
- 65380

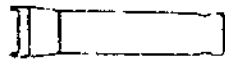


Brush for
bowl spindle - 70832

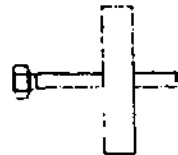
TOOLS for WORM WHEEL SHAFT and DRIVING DEVICE



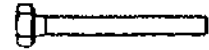
Guide bolt for
motor (2)
- 11649



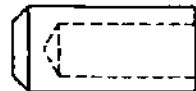
Pin spanner
for round nuts
- 62522



Pulling-off
tool for cou-
pling nave
- 38156

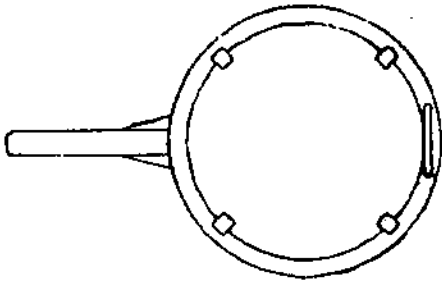


Jack screw
for fixed ball
bearing (2)
- 37909

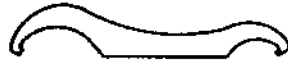


Driving-on sleeve
for ball bearing of
coupling - 65374

TOOLS for SEPARATOR BOWL with INLET and OUTLET



Spanners: for lock ring
- 65372



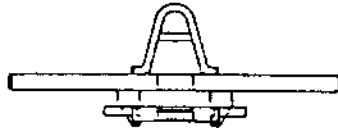
for pipe cou-
plings - 73800



Brush: for top disc
- 32



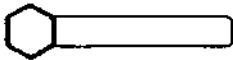
Lifting tool for
distributor - 43746



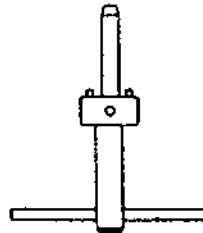
Lifting tool for bowl
hood - 43747



Lifting tool for bowl
body - 43721



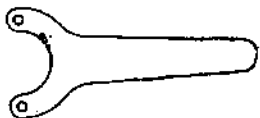
Socket wrench (47 mm)
for wearing sleeve of
bowl spindle and outlet
sleeve - 43744



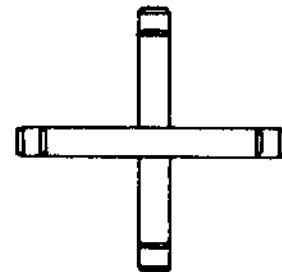
Pin spanner (40 mm)
for feed pump
- 43752



Protecting sleeve
for outlet pipe
- 43749



Pin spanner for
outlet pump
- 3574



Stand for
distributor
- 43751