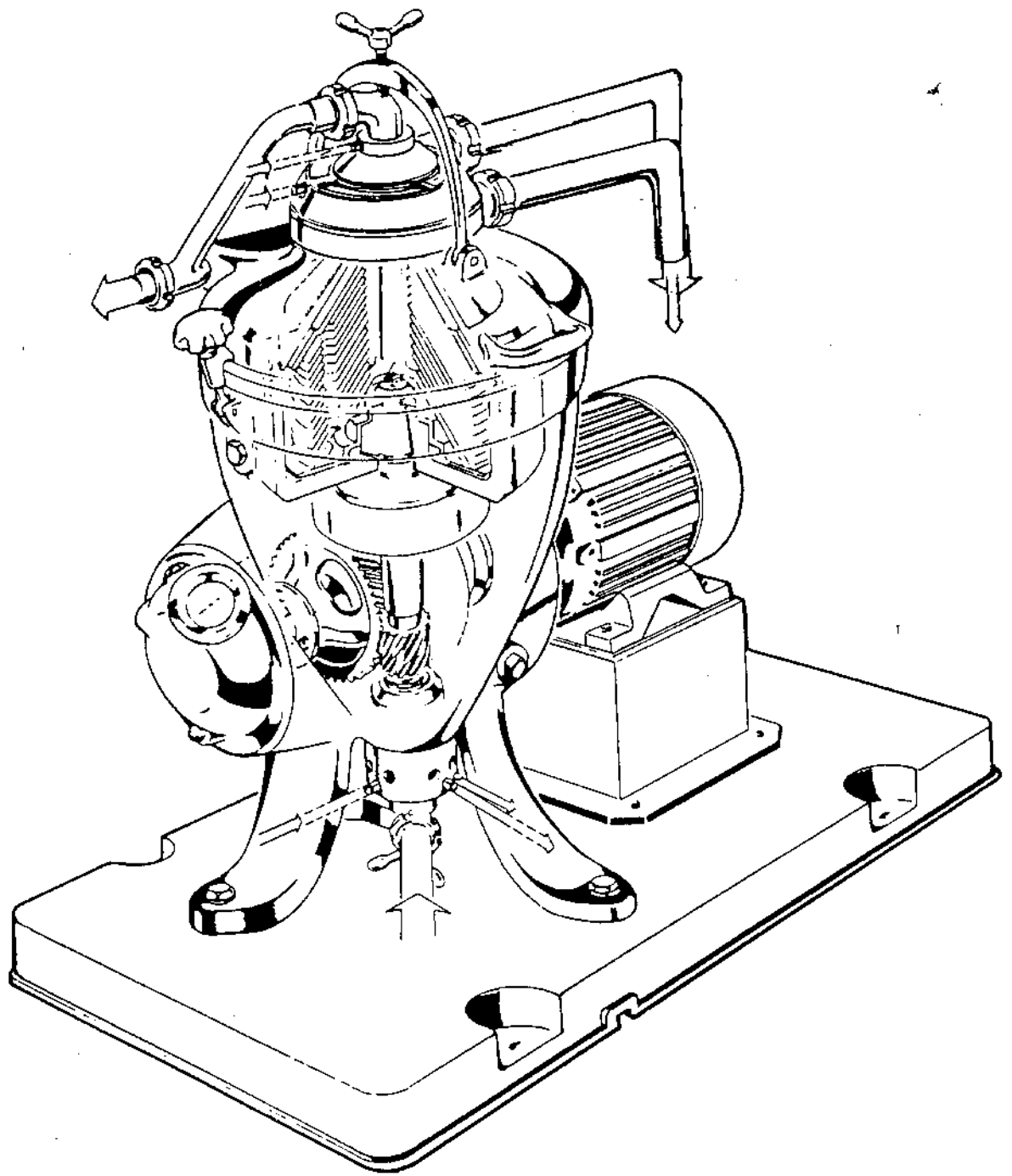
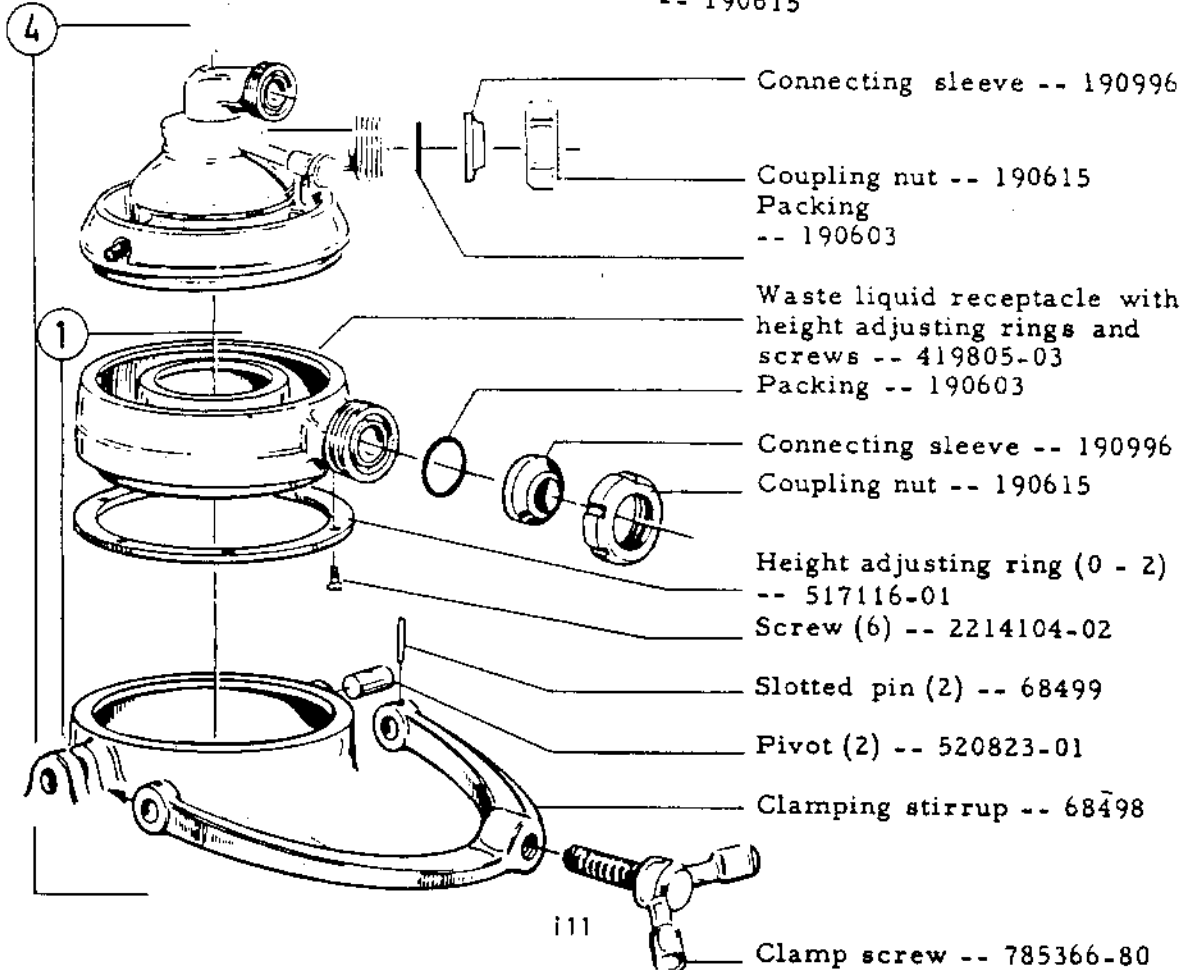
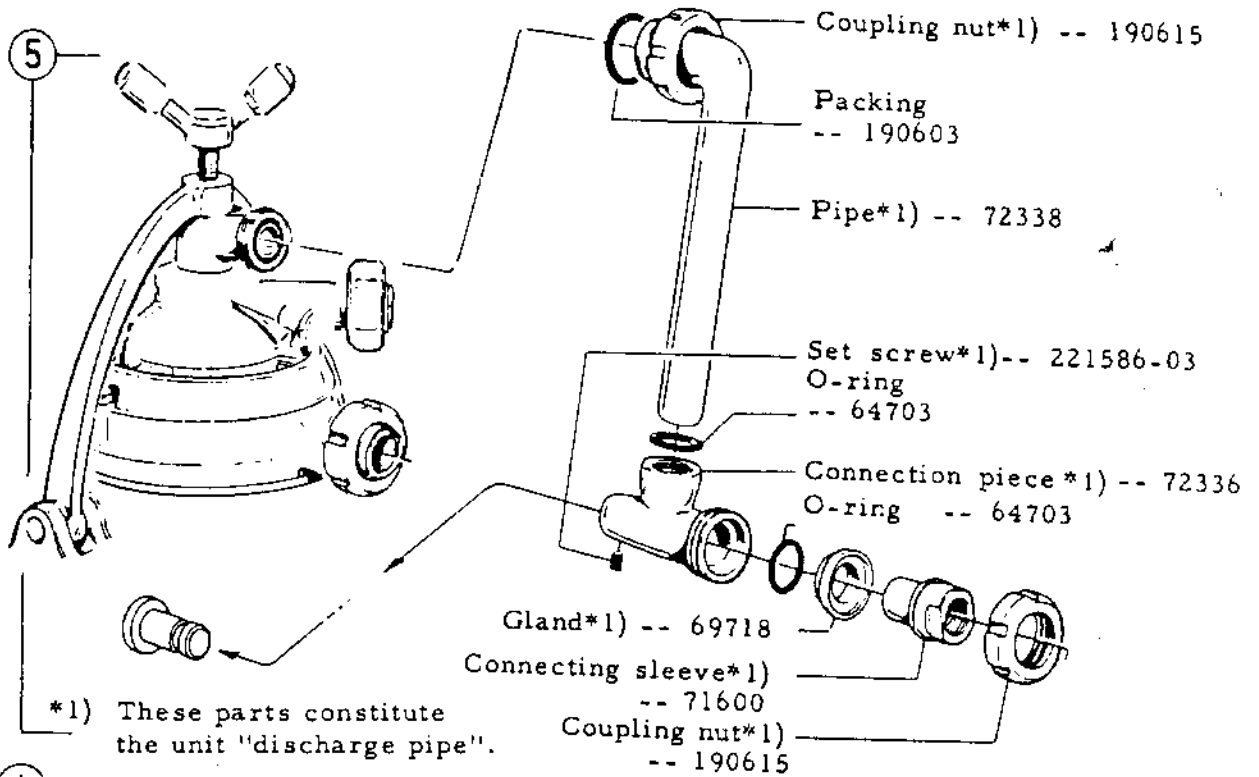


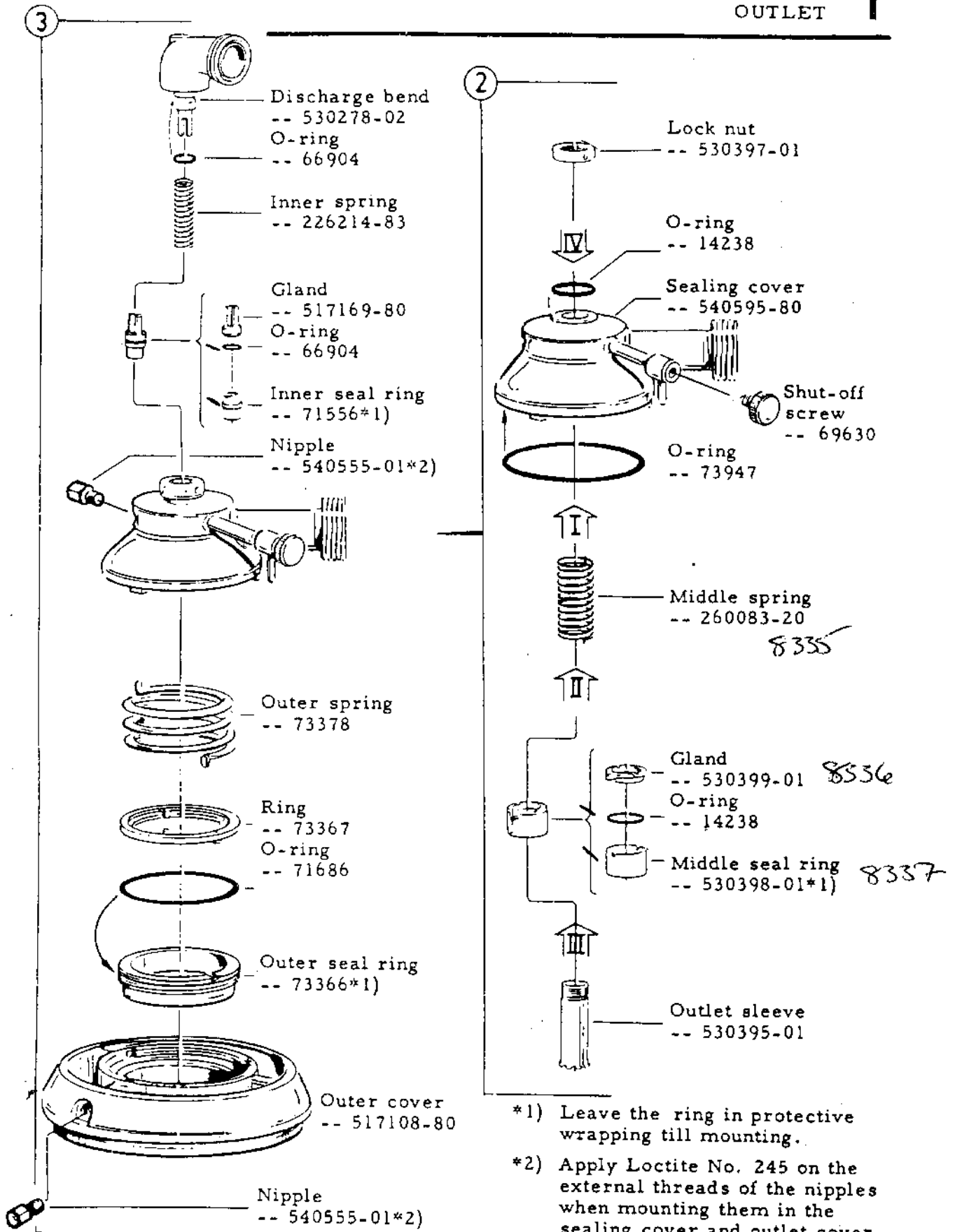
Hutchison-Hayes Separators, Inc.

Model SMG 509 H-75C Parts List With Diagrams

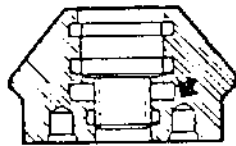
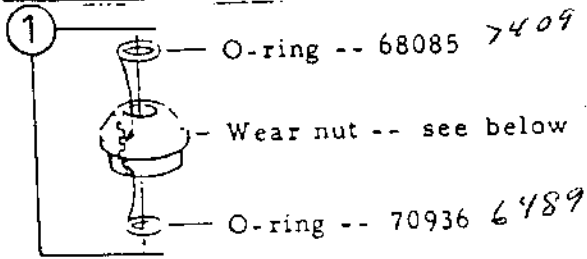
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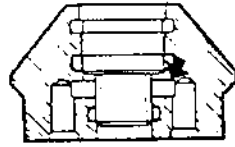




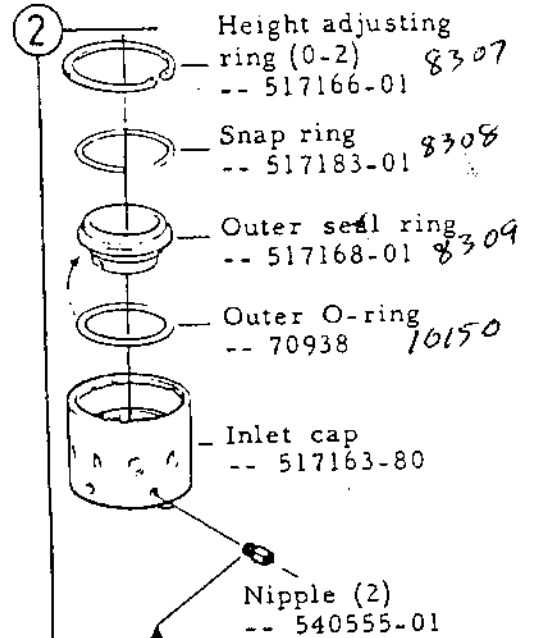
- *1) Leave the ring in protective wrapping till mounting.
- *2) Apply Loctite No. 245 on the external threads of the nipples when mounting them in the sealing cover and outlet cover respectively.



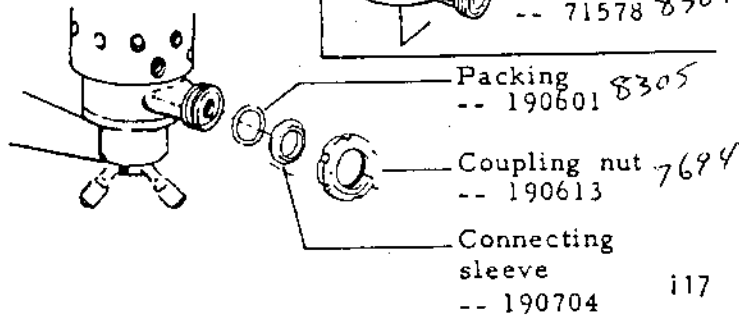
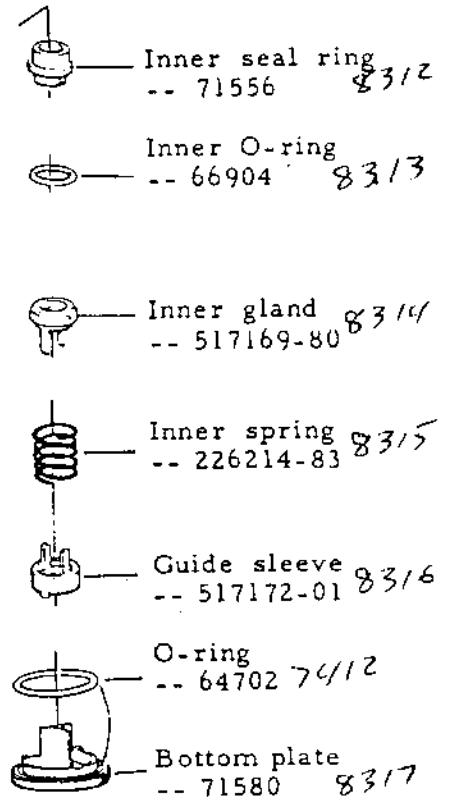
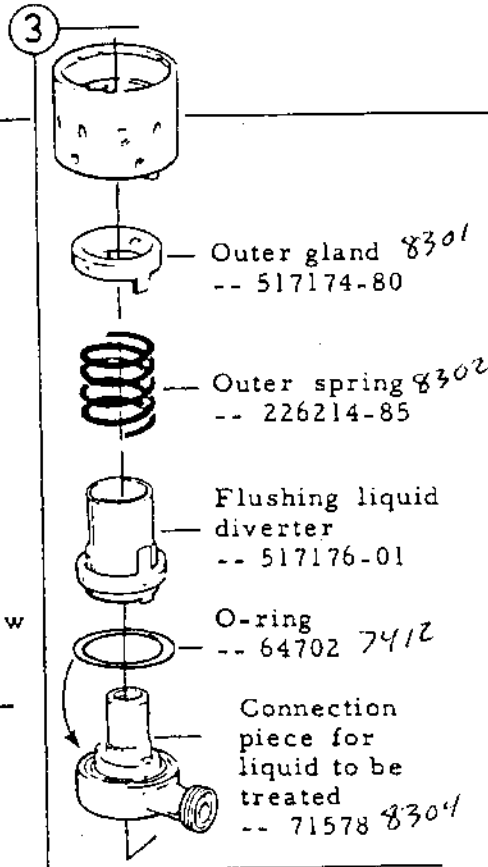
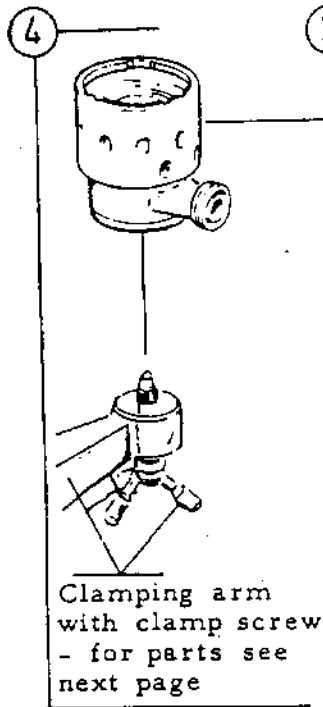
Wear nut without
channels
-- 517157-82



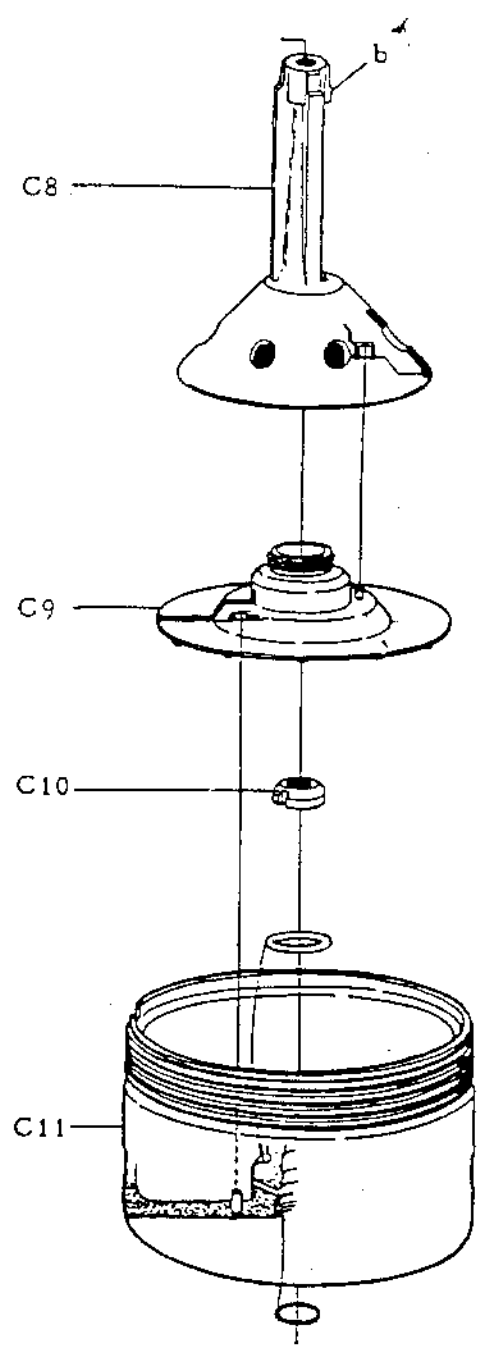
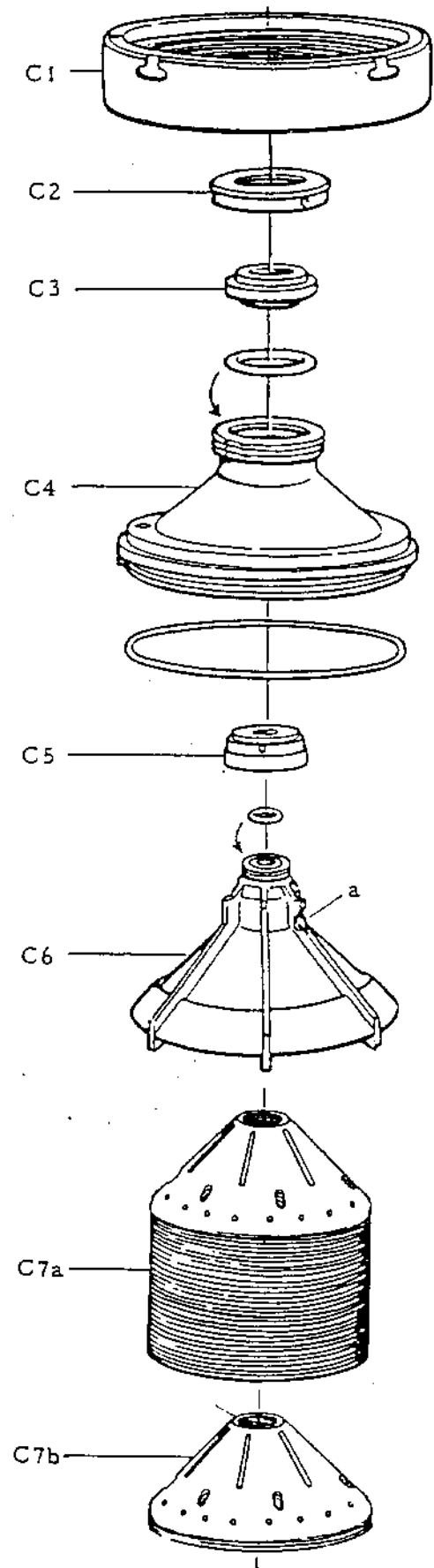
Wear nut with
channels
-- 544235-02



Apply Loctite No. 245 on the external threads when mounting the nipples



3

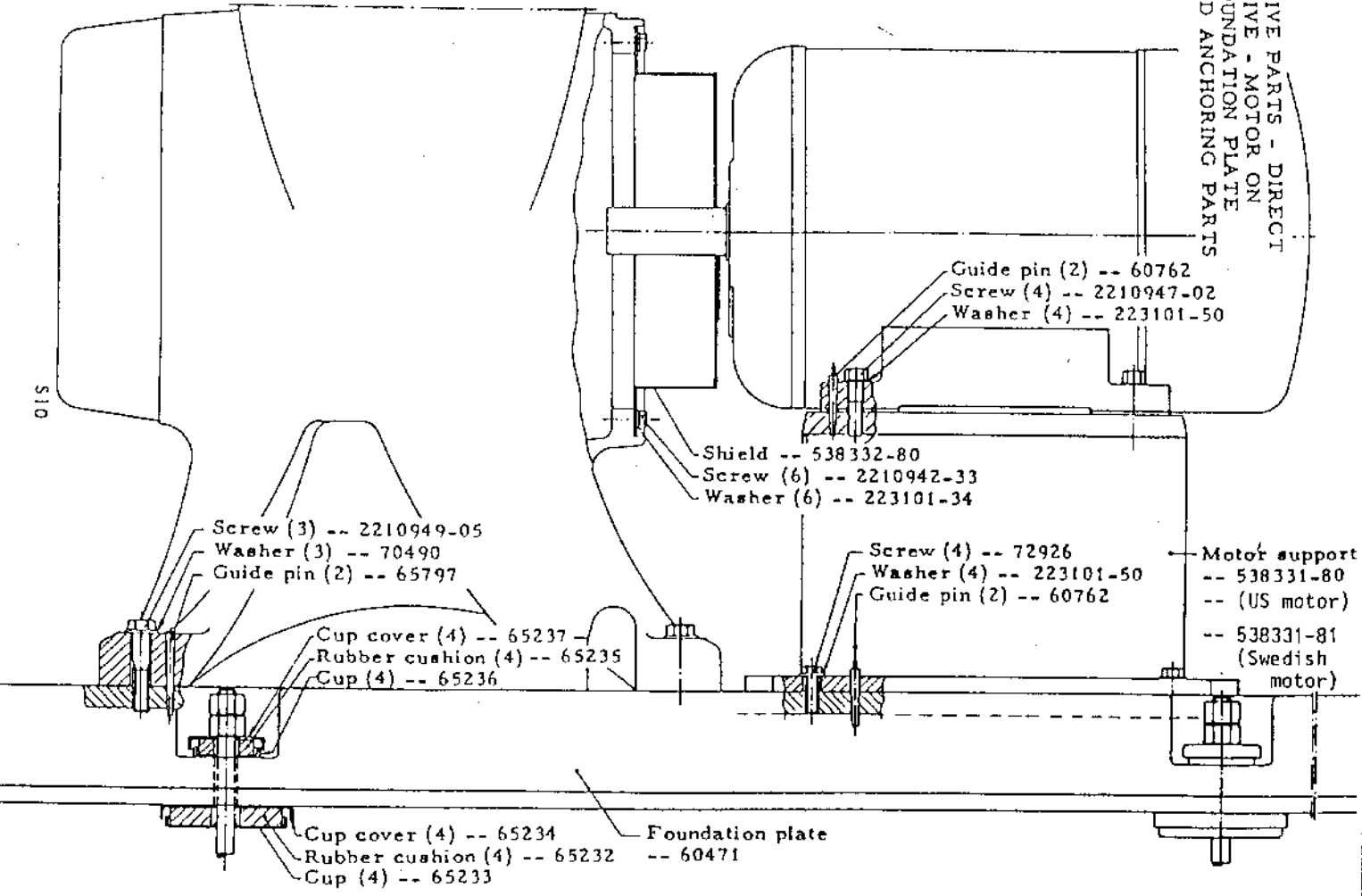


Letter- ing	Part number	Quan- tity	
C1	540556-80	1	Complete bowl (without round nut)
C2	11806*	1	Lock ring for bowl hood
C2	73181	1	Lock ring for wear ring
C3	541518-02	1	Wear ring (internal diam. 110 mm)
C4	73947	1	O-ring (wear ring - bowl hood)
	517114-80*	1	Bowl hood
	36589	1	O-ring (bowl hood - bowl body)
C5	530390-03	1	Wear washer
	64708	1	O-ring (wear washer - top disc)
C6	540590-80**	1	Top disc
C7a	540588-80	101	Bowl disc - D = 300 mm (spare disc)
C7b	540588-82	3	Bowl disc - D = 290 mm
C8	71537*	1	Upper distributor
C9	71534*	1	Lower distributor
C10	71541	1	Round nut
C11	70939	1	O-ring (lower distributor - bowl body)
	71527**	1	Bowl body
	70938	1	O-ring (bowl body - bowl spindle)
<u>Equipment parts</u>			
C3	540593-05	1	Wear ring (internal diam. 76 mm)
<u>Parts delivered on special demand</u>			
			O-rings of fluorocarbon rubber (Viton)
	521127-01	1	O-ring (wear ring - bowl hood)
	522613-01	1	O-ring (bowl hood - bowl body)
	422957-07	1	O-ring (wear washer - top disc)
	223414-06	1	O-ring (lower distributor - bowl body)
	521121-01	1	O-ring (bowl body - bowl spindle)



* Exchange of this part necessitates rebalancing of the bowl - send the COMPLETE bowl to an authorized ALFA-LAVAL-representative.

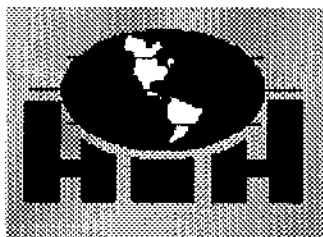
DRIVE PARTS - DIRECT
DRIVE - MOTOR ON
FOUNDATION PLATE
AND ANCHORING PARTS



S10

FRAME PARTS

S



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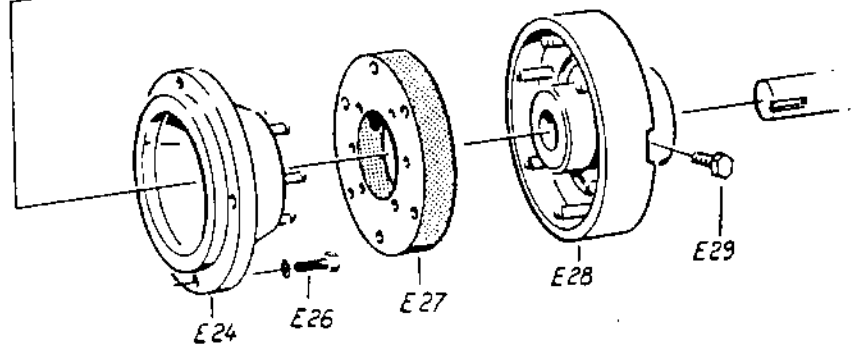
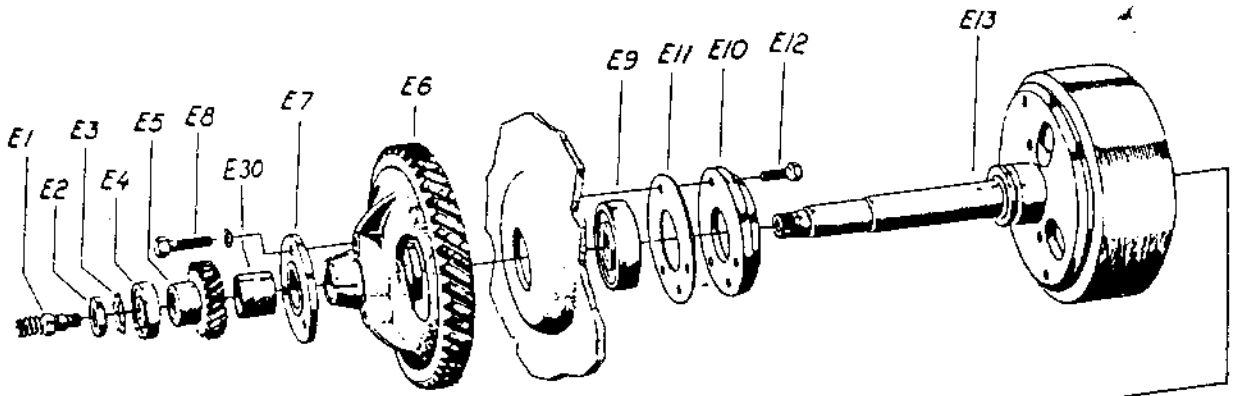
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REVOLUTION COUNTER - TACHOMETER

Letter- ing	Part number	Quan- tity	
B101	11549	1	Cover for gear housing
B102	2210942-38	8	Screw
	65451	8	Washer for B102
B103	11566	1	Packing
B104	65293	1	Screw plug for oil filling hole
B105	33787	1	Packing
B106	11493	1	Gauge glass for lubricating oil
B107	11563	1	Gear wheel
B108	12526	1	Pin
B109	11559	1	Bushing for B111
B110	60655	1	Stop screw
B111	11560	1	Tachometer shaft
B112	8866	1	Tachometer with glass
	9491	1	Glass
B113	11564	1	Packing for B112
B114	73204	1	Protecting glass
B115	8068	1	Packing
B116	8066	1	Lock ring
B117	11565	4	Screw for lock ring B116
B118-120	11551	1	Revolution counter shaft, complete
B118	11554	1	Gear wheel
B119	63796	1	Pin
B120	11552	1	Shaft
B121	11555	1	Bushing for revolution counter shaft
B122	11556	1	Packing
B123	11557	1	Push-button
B124	11558	1	Lock ring
B125	11550	1	Plug
B126	2218043-23	1	Nut

WORM WHEEL SHAFT



DRIVING DEVICE, HORIZONTAL
WORM WHEEL SHAFT

Letter- ing	Part number	Quan- tity
E1	11545	1
E2	67472 (SKF KM5)	1
E3	38159 (SKF MB5)	1
E4	11455 (SKF 6205*1)	1
E5	11548	1

Worm gear for revolution counter
Round nut
Lock washer for round nut E2
Ball bearing, "loose"
Gear wheel for tachometer

A.C.		D.C.
50 C/S	60 C/S	
11539	11736	11539

E6	see table	1
E7	11540	1
E8	2210941 36	3
	40040	3
E9	6611 (SKF 630)	1
E10	11546	1
E11	11547	1
E12	72933	3
E13	527583-1	1

Worm wheel
Lock ring for worm wheel
Screw for lock ring
Spring washer
Ball bearing, "fixed"
Protecting cover for ball bearing E9
Packing for protecting cover
Screw for protecting cover
Worm wheel shaft with conveyor pulley

E24	75043	1
E26	72933	4
	40040	4
E27	60571	1
E28	see table	1

Coupling pulley
Screw for coupling pulley
Spring washer
Elastic plate
Coupling pulley
for motor shaft

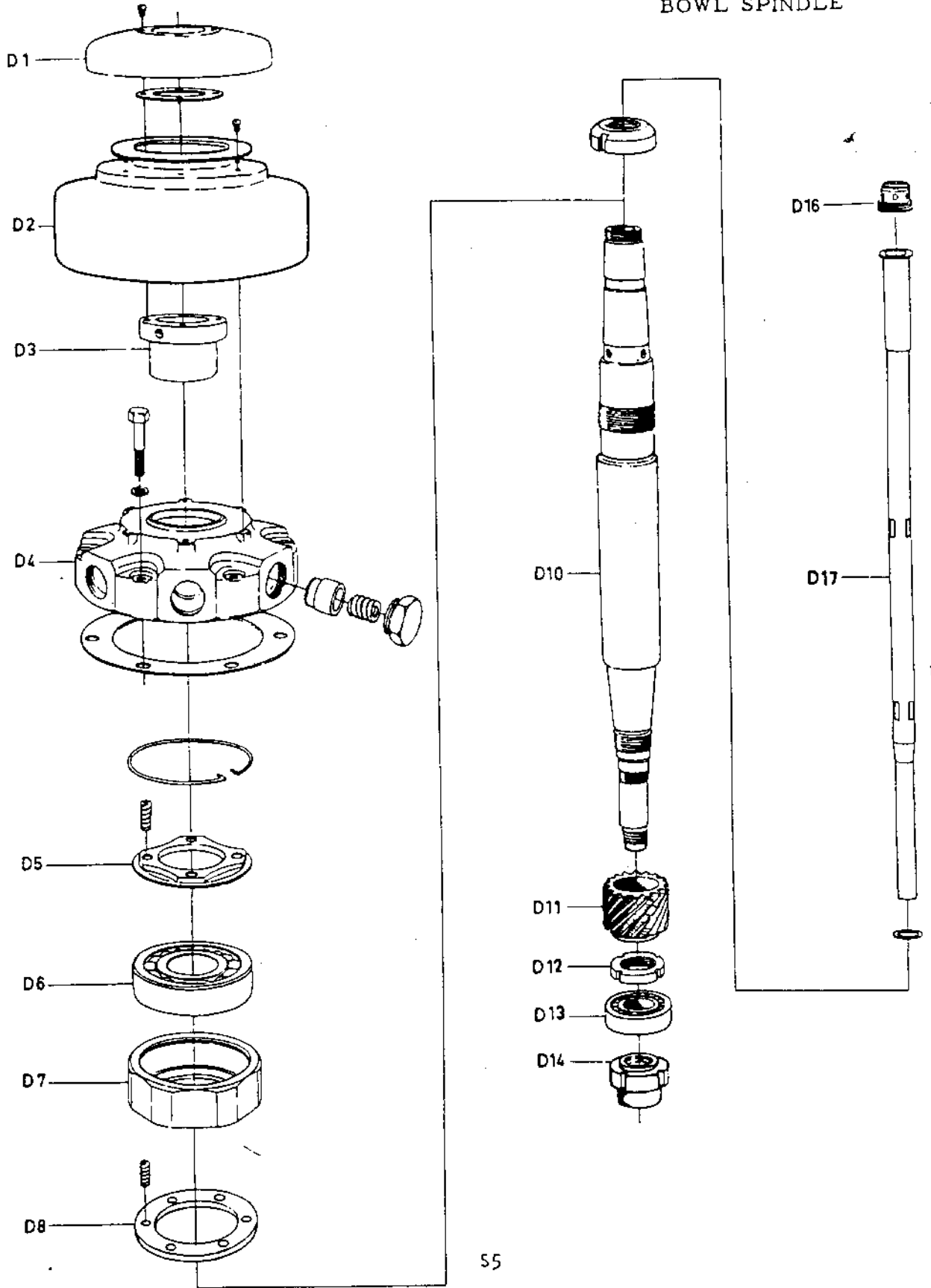
Adapted to motor	Part No.
AEG AM 160 L4	520577-08
Louis Allis CE4W	520577-17
Brooks E 180 L	520577-06

E29	2210941-18	1
E30	43583	1

Set screw
Spacing sleeve for worm wheel shaft

*1) or equivalent bearing of another make.

BOWL SPINDLE



Letter- ing	Part number	Quan- tity	DRIVING DEVICE, VERTICAL BOWL SPINDLE
D1	11482	1	Throw-off collar
	2211722-11	4	Screw
	11529	1	Packing (throw-off collar - top bearing cap)
D2	11485	1	Top bearing cap
	2211722-11	6	Screw (top bearing cap - spring casing)
D3	11526	1	Lock nut
D4	11524	1	Spring casing
	2210941-03	6	Screw (spring casing - frame)
	41381	6	Spring washer for screw
	11528	1	Packing (spring casing - frame)
	10593	6	Buffer
	31366	6	Spring
	11525	6	Screw plug
D5	10795	1	Protecting disc
	9878	1	Elastic steel ring
	9699	4	Stop spring
D6	9876	1	Ball bearing
	(SKF 6310M/C3*)		
D7	9880	1	Ball bearing sleeve
D8	11527	1	Ring
	9699	6	Supporting spring
D10	517151-02	1	Bowl spindle

D.C.	A.C.	
	50 C/S	60 C/S
11521	11521	11737

D11	see table	1	Worm
D12	11522	1	Round nut
D13	11464	1	Ball bearing
	(SKF 1206M*)		
D14	517155-01	1	Lock nut
D16	540594-01	1	Nipple
D17	71508	1	Tube
	70937	1	Rubber ring (tube D17 - bowl spindle)

Round nut - see SEPARATOR BOWL

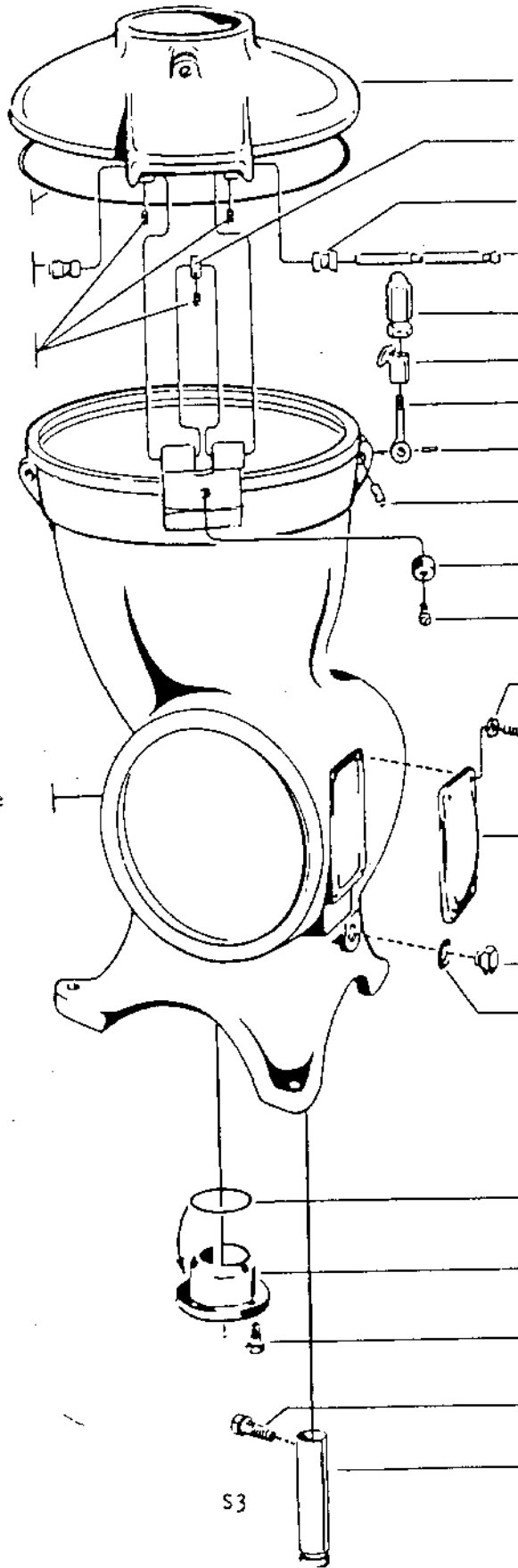
*) or equivalent bearing of another make.

FRAME HOOD

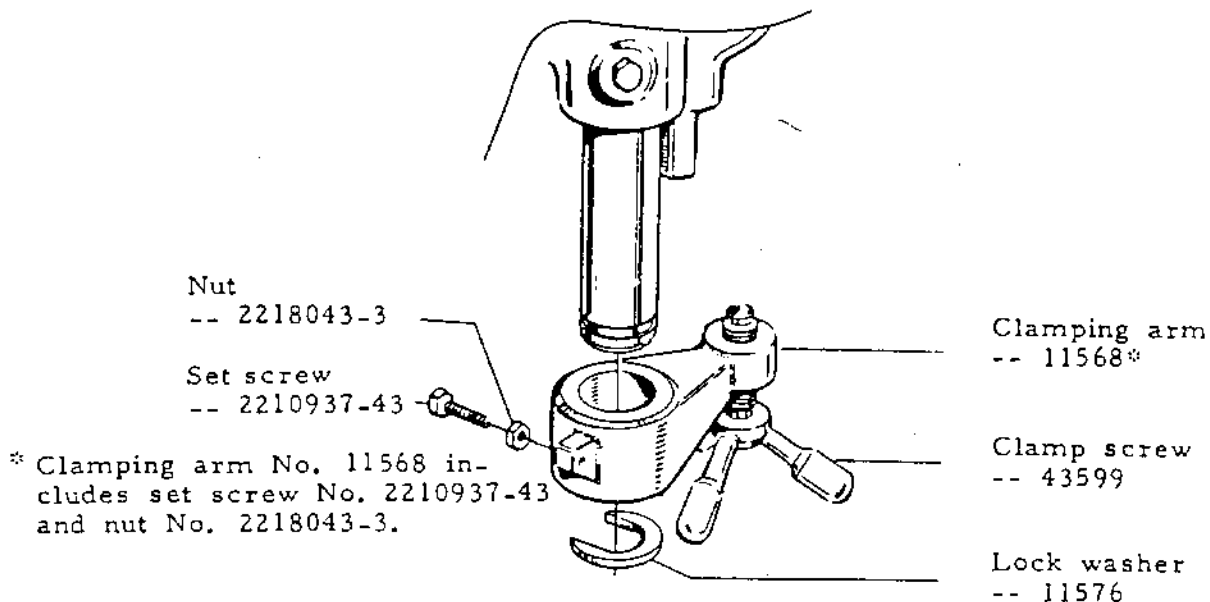
FRAME.

Separator frame

- O-ring - 38343
- Long sleeve - 68126
- Set screw (3) - 72876



- Frame hood - 68101
- Stop ring - 68128
- Short sleeve - 68127
- Hinge pin - 64832
- Cap nut (2) -- 536704-02
- Clamping shoe (2) - 67382
- Hinged pin (2) - 225415-17
- Slotted pin (2) - 67783
- Hinge pin (2) - 67789
- Buffer - 71617
- Screw - 2211722-18
- Washer (4) - 65451
- Screw (4) - 2210942-38
- Frame cover - 11531
- Drain screw - 11494
- Packing - 35002
- O-ring - 74356
- Bushing for bottom of bowl spindle - 517150-80
- Screw (6) - 2217759-22
- Screw - 8949
- Pivot for inlet clamping arm - 67653



GENERAL HINTS

Assembling and dismantling are carried out partly with the parts held upside down — see below. When the machine is provided with feed tube (inlet pipe) the working place must be arranged so that space is left for the projecting feed tube. A suitable working place is a table in which a hole with 1" - 1 1/2" (20-40 mm) diameter has been drilled.

Special demands are made on the attendance and checking of seal rings and wear nut, which constitute the axial seals of the inlet — see directions in AXIAL SEALS.

As long as the seals give satisfactory service the wear nut should be left screwed on and not be removed every time the other inlet parts are dismantled. When the wear nut must be screwed off or on, the bowl spindle is retained either by screwing in the bowl lock screws or by applying the brake if any of these parts are provided.

INSTALLATION

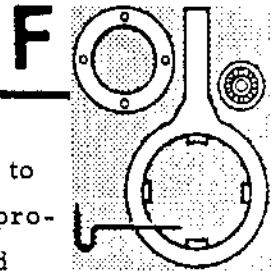
The non-rotary inlet parts are not fitted in their places when delivered. Before running the machine the first time, these parts must be dismantled and cleaned. However, leave the wear nut in its place.

ASSEMBLING

A prerequisite for satisfactory service is that the parts are PERFECTLY cleaned when assembled. This refers particularly to rubber rings, wearing surfaces and other sliding surfaces, guide and contact surfaces, and threads. These surfaces must be free from solid impurities. Also make sure that no burrs are knocked up on metal parts.

After fitting a rubber ring check that it lies properly in its groove. Make sure

- o that it fills the groove evenly all around
- o that it is not twisted.



SET OF TOOLS

The special tools for the bowl are preferably hung up as close to the machine (or the cleaning place) as possible. If a tool is provided with left-hand thread or intended for a left-hand screwed joint, this has been specially pointed out in the dismantling and assembling instructions. Notification in this respect is not made where right-hand thread is concerned.

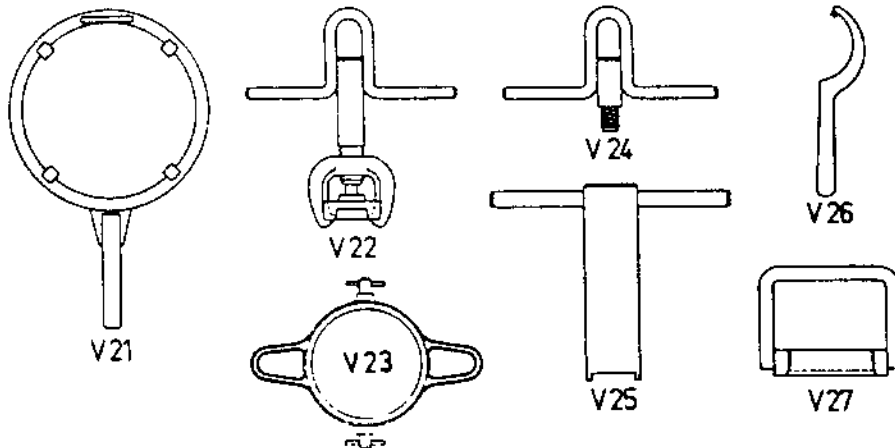
SETS OF TOOLS and SPARE PARTS

Some of the tools and spares listed in the Instruction Book/Spare Parts Catalogue as components of the sets delivered with the machine are no longer included in these sets.

The composition of the accompanying set of tools, and spares respectively, is specified in the packing list.

FOR SEPARATOR BOWL

V21	68500	1	Spanner for bowl lock ring
V22	71612	1	Lifting tool for bowl body
V23	73446	1	Spanner for bowl hood and lock ring of wear ring
V24	71608	1	Lifting tool for upper distributor
V25	68143	1	Pin spanner - nut diam. 2 3/8" (60 mm) - for round nut
V26	64574	1	Hook spanner for wear washer
V27	71605	1	Lifting tool for lower distributor



Letter- ing	Part number	Quan- tity	
V1	64324	1	Tin mallet
V2	517188-01	1	Tool for removal of rubber rings

FOR INLET AND OUTLET

V41	64511	1	Hook spanner - nut diam. 1 31/32" (50 mm) - for lock nut of outlet sleeve
V42	66445	1	Snap ring pliers for height adjusting ring
V43	517185-80	1	Pin spanner - pin spacing 1 17/32" (39 mm) - for wear nut

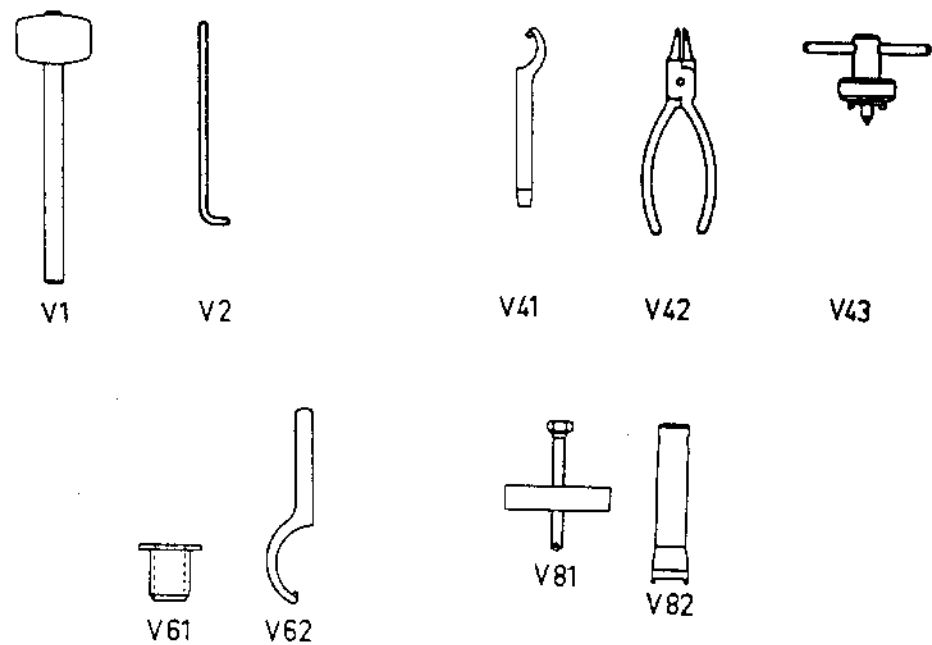
FOR VERTICAL DRIVING DEVICE

V61	11738	1	Protecting sleeve for bowl spindle
V62	66988	1	Hook spanner - nut diam. 3 5/32" (82 mm) for lock nut of ball bearing for top bearing

FOR HORIZONTAL DRIVING DEVICE AND MOTOR

V81	11645*	1	Puller tool for nave of clutch coupling
V82	62522	1	Pin spanner - nut diam. 1 1/2" (38 mm) - for round nut for ball bearings of worm wheel shaft

* For machine with clutch coupling only.



Letter- ing	Part number	Quan- tity	
			FOR INLET
	517157-82	1	Wear nut
	68085	2	O-ring (wear nut - bowl spindle)
	70936	2	O-ring (wear nut - tube)
	517168-01*	2	Outer seal ring
	70938	2	O-ring for outer seal ring
	71556*	2	Inner seal ring
	66904	2	O-ring for inner seal ring
	64702	4	O-ring (inlet cap - connection piece for liquid to be treated
			connection piece for liquid to be treated - bottom plate)
	190601	2	Packing for pipe couplings
			FOR SEPARATOR BOWL
C3	541518-02	1	Wear ring
	73947	2	O-ring (wear ring - bowl hood)
	36589	2	O-ring (bowl hood - bowl body)
C5	530390-03	1	Wear washer
	64708	2	O-ring (wear washer - top disc)
C7a	See chapter 680	1	Bowl disc
	70939	2	O-ring (lower distributor - bowl body)
	70938	2	O-ring (bowl body - bowl spindle)
			FOR VERTICAL DRIVING DEVICE
	70937	2	O-ring (tube - bowl spindle)
			FOR FRAME PARTS
	74356	2	O-ring for bottom bearing bushing

* Leave the ring in the protective wrapping till mounting
SEE CHAPTER S FOR OUTLET AND CONNECTING PARTS

Letter- ing	Part number	Quan- tity
----------------	----------------	---------------

FOR OUTLET

	14238	2	O-ring (sealing cover - discharge bend)
	73947	2	O-ring (sealing cover - outlet cover)
	530398-01*	2	Middle seal ring
	14238	2	O-ring for middle seal ring
	73366*	2	Outer seal ring
	71686	2	O-ring for outer seal ring
	66904	2	O-ring (discharge bend - outlet sleeve)
	71556*	2	Inner seal ring
	66904	2	O-ring for inner seal ring
	64703	4	O-ring for discharge pipe
	190603	6	Packing for pipe couplings

FOR CONNECTING PARTS

	43577	2	Packing collar for regulating valve
	190603	4	Packing for regulating valve
	190601	2	Packing for feed bend

SEE CHAPTER F FOR BOWL, INLET, VERTICAL DRIVE AND FRAME PARTS.

* Leave the ring in the protective wrapping till mounting.