

Hutchison-Hayes Separators, Inc.

Model SAMR 15036 Parts List With Diagrams

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SLUDGE COLLECTOR, HOOD, AND CENTRIFUGAL PUMP

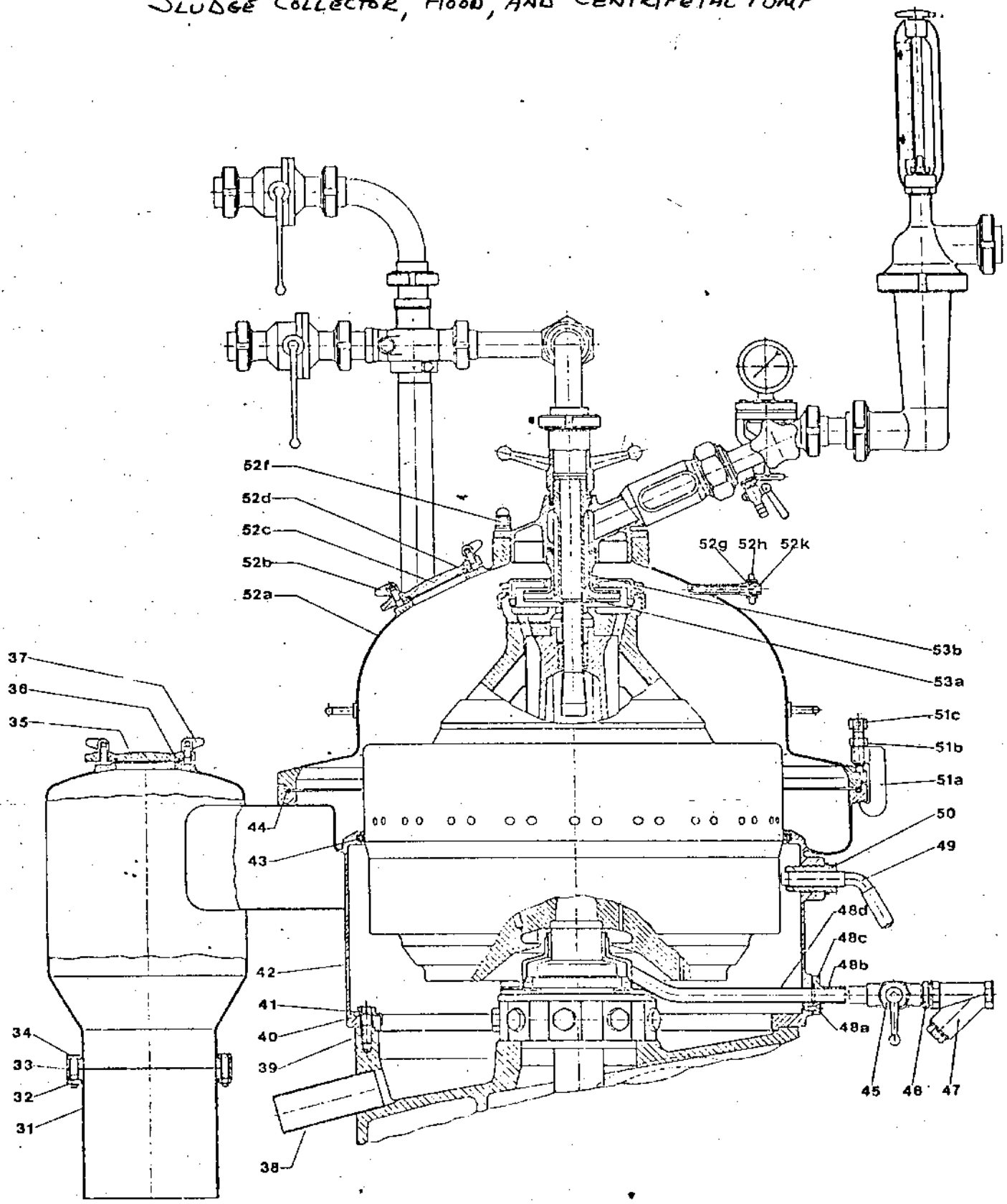


Fig. 14

Sludge Collector, Hood, and Centripetal Pump

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List of Parts shown in Fig. 14

Item No.	Part-No.	Qty.	Part Description	
31	3145-2208-010	1	Pipe	
32	0013-0279-400	6	Hex nut M 10 DIN 934	
33	0004-2755-750	1	Gasket 200/250 x 2	
34	0019-6513-300	6	Hex head screw M 10x45 DIN 931	
35	3145-1061-030	1	Inspection cover	
36	0007-2150-750	1	Gasket 94/110 x 8	
37	0013-2852-640	2	Cap nut M 10	
38	0018-1910-300	1	Pipe (operating-water discharge)	
39	0019-7038-400	8	Hex head screw M 16x45 DIN 931	
40	0026-1353-400	8	Washer 17/35 x 3	
41	0026-5894-400	8	Tab washer 17 DIN 93	
42	3183-1018-000	1	Sludge collector	
43	0007-2565-840	1	Gasket 645/665 x 9.8	
44	0004-2364-758	1	Packing cord 8x8x2800	
45	0018-1711-640	1	Operating-water valve	
46	0018-0937-260	1	Double nipple 1" x 3/4"	
47	0018-2525-630	1	Strainer	
-	3170-1297-000	1	Operating-water feed assembly (48a-d)	
48a	0019-2265-300	3	[Cylindrical screw AM 8x20 DIN 84	
48b	3145-1233-010	1		Flange
48c	0007-2292-750	1		Gasket 20/28 x 4
48d	3170-1219-000	1		Operating-water feed
49	0019-0895-160	2	Lock screw	
50	0019-1089-300	2	Threaded bush	
-	3159-1150-010	6	Clamp assembly (51a-c)	
51a	3159-1153-010	6	[Clamp	
51b	0013-0282-400	6		Hex nut M 16 DIN 934
51c	0019-0165-400	6		Hex head screw M 16 DIN 934
-	3145-7759-100	1	Hood assembly (52a-k)	
52a	3145-7765-100	1	[Hood	
52b	0013-2646-300	2		Cap nut M 10
52c	3145-1061-030	1		Inspection cover
52d	0007-2150-750	1		Gasket 94/110 x 8
52f	0013-2626-400	4		Cap nut M 12
52g	0007-2068-850	1		Gasket 10/16 x 3
52h	0013-2591-690	1		Coupling nut R 1/2"
52k	0018-4597-400	1		Connection piece 10
-	3183-2213-L	1		* Centripetal pump assembly (53a-b)
53a	3183-2259-L	1		[Lower section of centripetal pump
53b	3145-2253-L	1		

* When ordering this part, be sure to state the diameter of the pump.

Frame

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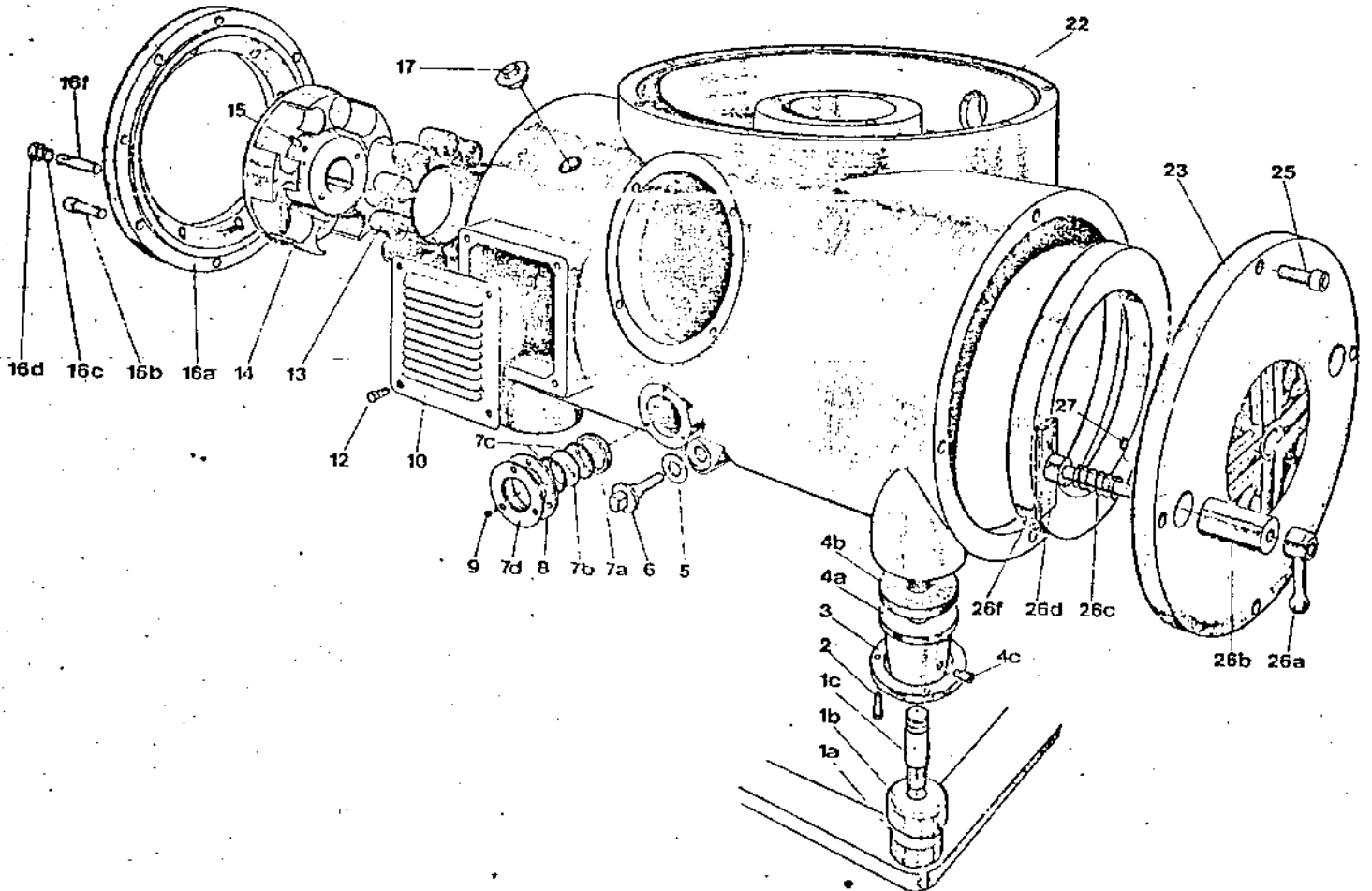
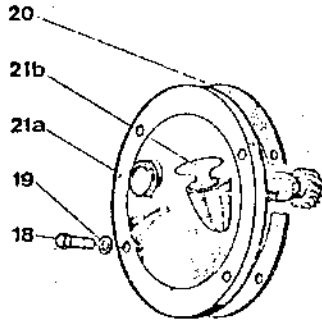
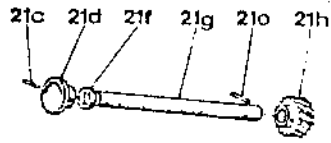


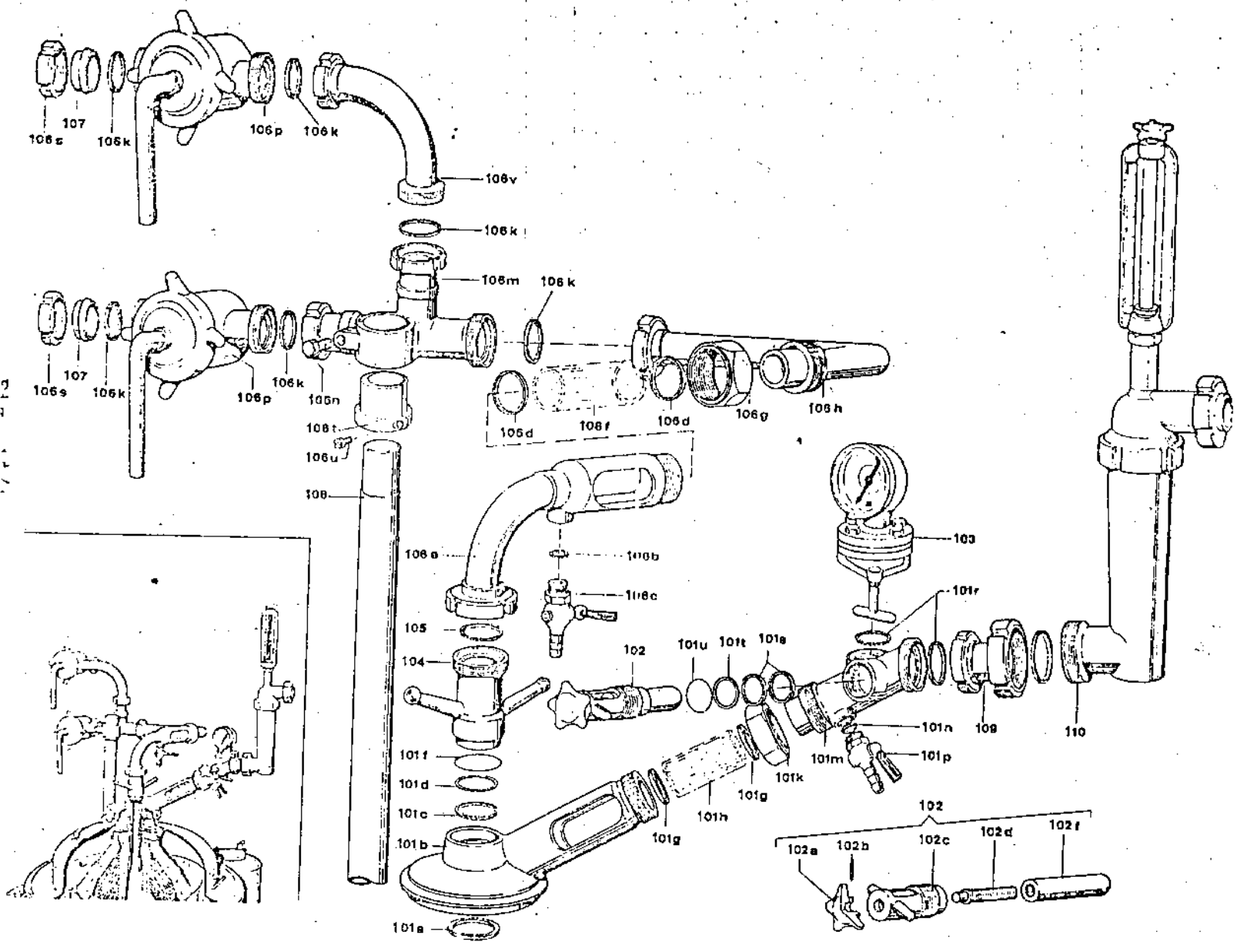
Fig. 13

List of Parts shown in Fig. 13

Item No.	Part-No.	Qty.	Part Description
-	3170-1020-010	1	Foundation frame assembly (1a-c)
1a	3170-1003-010	1	[Foundation frame
1b	0026-2031-300	4	[Cap
1c	3157-1033-000	4	[Bolt
2	0019-6937-150	12	Hex head screw M 10x30 DIN 933
3	0001-0516-040	4	Flange
-	2315-1015-010	4	Foot assembly (4a-c)
4a	2315-1011-000	4	[Foot
4b	0021-3018-750	4	[Rubber cushion
4c	0019-6387-400	4	[Threaded pin AM 12x28 DIN 915
5	0004-5037-710	1	Gasket 38/50x1,5
6	0019-0840-640	1	Oil drain screw
-	0001-0007-640	1	Sight glass assembly (7a-d)
7a	0019-1620-600	1	[Threaded ring
7b	0001-0046-820	1	[Sight glass
7c	0004-5041-740	2	[Gasket 48/57x1
7d	0001-0021-690	1	[Sight glass frame
8	0004-5346-770	1	Gasket 70/110 x 0.3
9	0019-3250-300	3	Lens-head screw M 6x15 DIN 88
10	3050-1085-010	1	Ventilation grid
12	0019-6968-300	4	Hex head screw M 12x25 DIN 933
13	3170-3282-000	1	Cam ring
14	3170-3389-L	1	Cam hub assembly
15	0019-5065-060	1	* Threaded pin M 10x18 DIN 553
-	3158-1021-L	1	Flange assembly (16a-f)
16a	3158-1028-L	1	[Flange
16b	0019-6202-150	8	[Allen screw M 16x45 DIN 912
16c		8	[Lock washer
16d	depending on motor	8	[Hex nut
16f		8	[Stud
17	0019-1548-200	1	Threaded plug
18	0019-6970-400	4	Hex head screw M 12x30 DIN 933
19	0026-1371-400	4	Washer 13 DIN 125
20	0004-5762-700	1	Gasket 273/322 x 2
-	3170-3495-000	1	Revolution indicator assembly (21a-h)
21a	3170-3493-000	1	[Housing
21b	0019-1741-800	1	[Oil fill plug
21c	0026-1049-030	2	[Cylindrical pin
21d	3117-3497-010	1	[Revolution indicator disc
21f	0004-5523-750	1	[Sealing ring A 12x22x7 DIN 3760
21g	0026-5694-030	1	[Cylindrical pin
21h	3117-3487-010	1	[Worm wheel
22	3158-1001-000	1	Lower section of frame
23	3170-1065-020	1	Fan cover
25	0019-6200-150	4	Allen screw M 16x35 DIN 912
-	3170-1043-000	2	Brake assembly (26a-f)
26a	0021-3514-300	2	[Handle
26b	0021-3537-300	2	[Brake housing
26c	0006-4208-160	2	[Cylindrical pressure spring
26d	3170-1031-000	2	[Brake bolt assembly
26f	0021-4096-850	2	* [Brake lining
-	0026-1263-550	8	* [Countersunk rivet (for 26f)
27	0019-5053-400	2	Threaded pin M 8x15 DIN 553

* This part is contained in the preceding part (cam hub 14 or brake bolt 26d), but it is also available as separate item

FEED AND DISCHARGE CONNECTIONS



Feed and Discharge Connections

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List of Parts shown in Fig. 15/1

Item No.	Part-No.	Qty.	Part Description
-	3145-2296-150	1	Feed and discharge connections, complete (101-108)
-	3145-2295-060	1	Discharge assembly (101a-102f)
101a	0007-2380-850	1	Gasket 60/75x7
101b	3145-2285-060	1	Discharge
101c	0007-2304-750	1	Gasket 53/65x6
101d	0026-5524-400	1	Washer
101f	0026-5560-400	1	Snap ring
101g	0007-2289-750	2	Gasket 40/52x6
101h	0001-0097-820	1	Cylindrical sight glass
101k	0013-3058-690	1	Hex nut
101m	3037-2288-010	1	Valve connection
101n	0007-2102-750	1	Gasket 10.5/18 x 5
101p	0018-1526-400	1	Hose cock
101r	0007-2210-750	2	Gasket G40 DIN 11851
101s	0007-2277-750	2	Gasket 32/42 x 5
101t	0026-5750-400	1	Washer
101u	0026-5548-300	1	Snap ring
102	3037-2273-020	1	Stuffing box assembly (102a-f)
102a	0021-3103-640	1	Handle
102b	0026-1062-400	1	Cylindrical pin
102c	3037-2284-020	1	Stuffing box
102d	0019-1004-610	1	Threaded spindle
102f	3037-2279-010	1	Round-slide valve
103	8918-2000-230	1	Pressure gauge
104	3037-2191-030	1	Handle connection piece
105	0007-2211-750	1	Gasket G50 DIN 11851
-	3145-2220-040	1	Feed line assembly (106a-v)
106a	3145-2175-000	1	Bend
106b	0007-2102-750	1	Gasket 10.5/18 x 5
106c	0018-1526-400	1	Hose cock
106d	0007-2289-750	2	Gasket 40/52 x 6
106f	0001-0097-820	1	Cylindrical sight glass
106g	0013-3058-690	1	Nut M6x2 (left-hand and right-hand thread)
106h	3145-2196-020	1	Bend
106k	0007-2210-750	6	Gasket G40 DIN 11851
106m	3145-2131-000	1	Connection piece
106n	0019-6536-400	1	Hex head screw M12x50 DIN 931
106p	0018-3982-400	2	Ball valve 40
106s	0013-2844-300	2	Grooved coupling nut
106t	0018-2803-800	1	Adjusting sleeve
106v	3145-2196-040	1	Bend
107	0018-3949-400	2	* Cone connection D40 DIN 11851
107	0018-4184-400	2	* Cone connection R 1/2"
107	0018-1814-400	2	* Hose connection 40
107	0018-1820-400	2	* Reducing hose connection 40/25
108	0018-4007-300	1	Support
109	see page 15/3	1	Connecting piece
110		1	Flowmeter assembly

* Depending on local conditions.

Flowmeter
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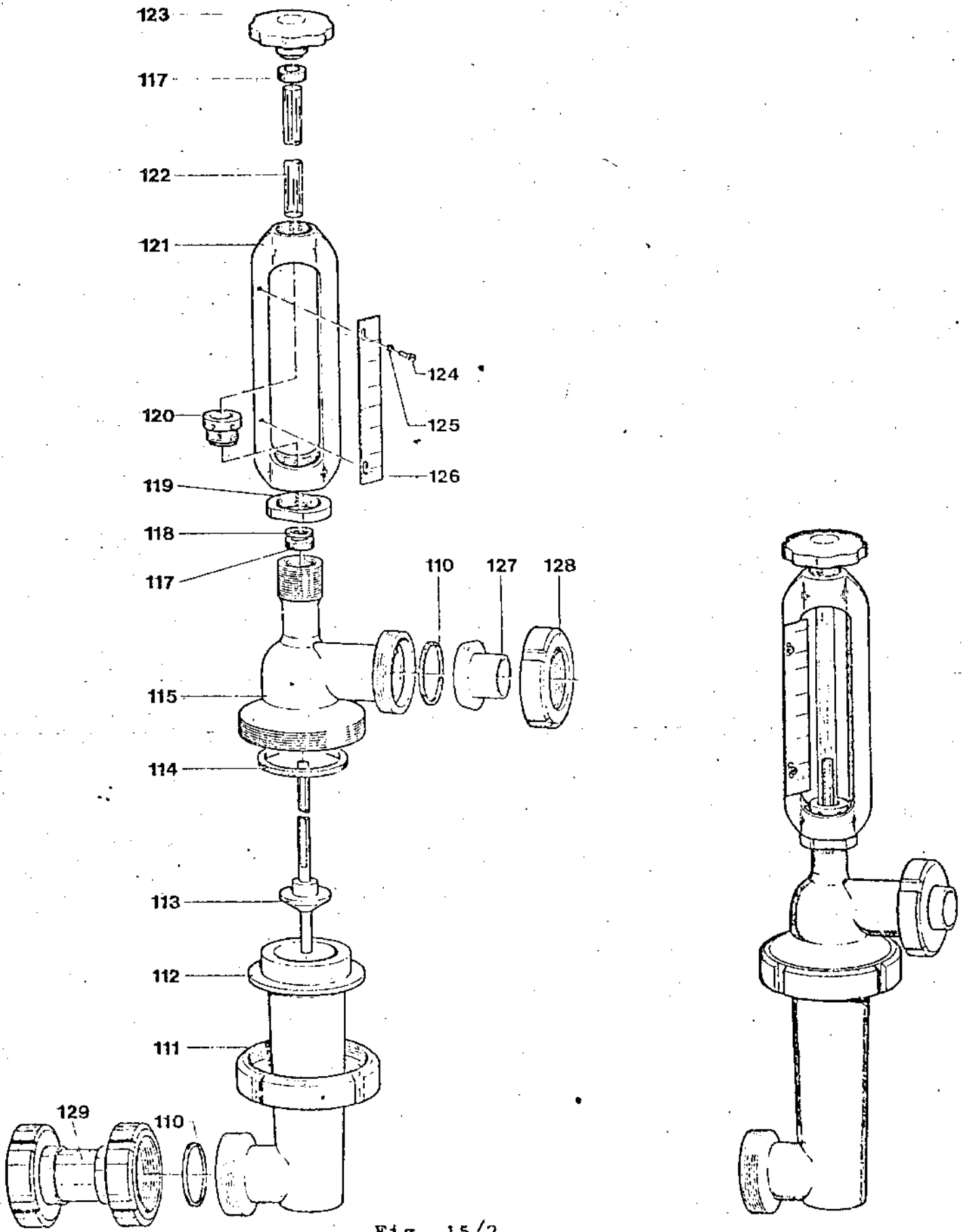


Fig. 15/2

Flowmeter

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List of Parts shown in Fig. 15/2

Item No.	Part-No.	Qty.	Part Description
	Measuring Range		
	2000-10000 1/h	6000-30000 1/h	
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-	8021-2100-090	8022-2100-080	1 Flowmeter assembly (110-126)
110	0007-2210-750	-	2 Gasket G40 DIN 11851
110	-	0007-2211-750	2 Gasket G50 DIN 11851
111	0013-2846-300	0013-2847-300	1 Grooved nut
112	8021-2001-150	8022-2001-110	1 Inlet cup
113	8021-2112-010	8022-2112-000	1 Float cone
114	0007-2279-750	-	1 Gasket 56/68 x 6
114	-	0007-2341-750	1 Gasket 85/95 x 6
115	8021-2003-120	8022-2003-080	1 Outlet pipe
117	0007-2298-750	0007-2298-750	2 Gasket 13.5/22 x 10
118	0026-1375-300	0026-1375-300	1 Washer
119	0013-3010-300	0013-3010-300	1 Nut M 35 x 1.5
120	0019-1380-300	0019-1380-300	1 Threaded bush
121	8020-2002-000	8022-2002-000	1 Intermediate piece
122	0001-0083-820	0001-0082-820	1 Cylindrical sight glass
123	0019-1731-300	0019-1731-300	1 Handle screw
124	0019-2478-300	0019-2478-300	2 Lens-head screw AM 4x8 DIN 85
125	0004-5261-720	0004-5261-720	2 Gasket 4.5 x 8.5 x 1
126	8021-2117-000	-	1 Scale 2000-10000 1/h
126	-	8022-2117-000	1 Scale 6000-30000 1/h
127	0018-3949-400	0018-3956-400	1 Cone connection
128	0013-2844-400	0013-2845-400	1 Grooved coupling nut
129	1033-2166-030	3145-2166-010	1 Connecting piece

VERTICAL GEAR PARTS

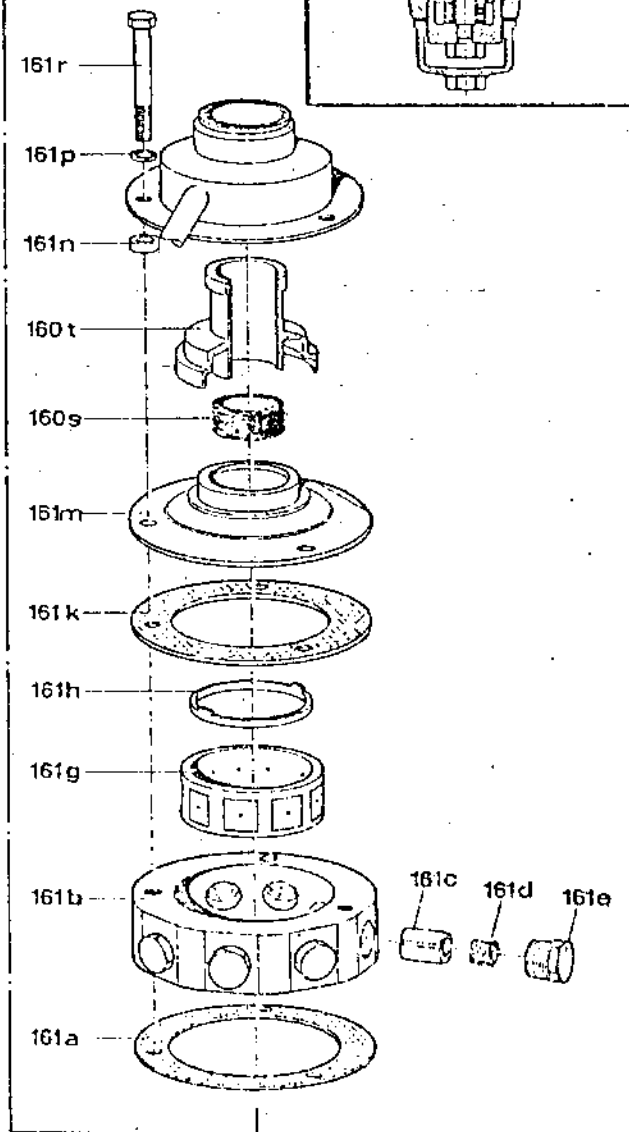
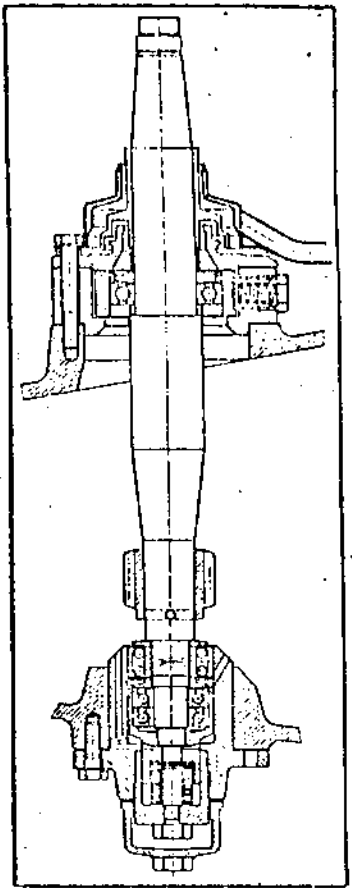
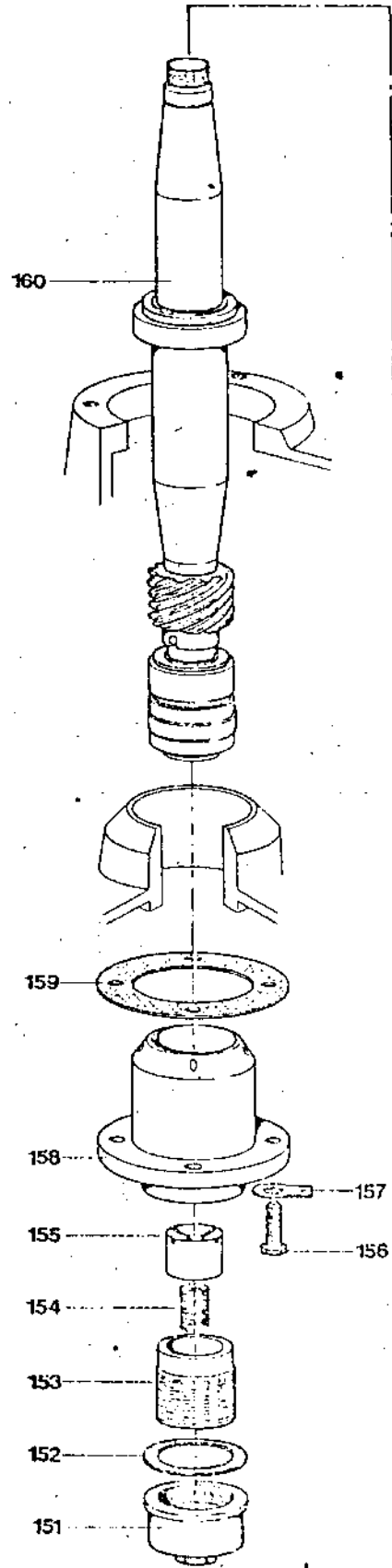
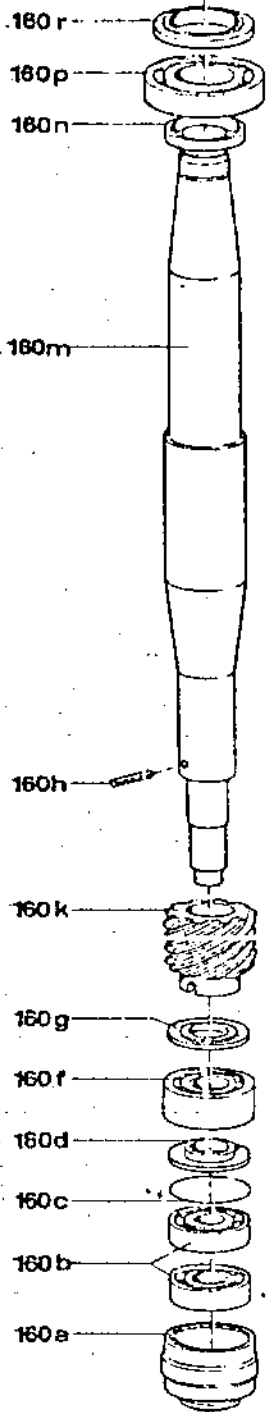


Fig. 16

Vertical Gear Parts
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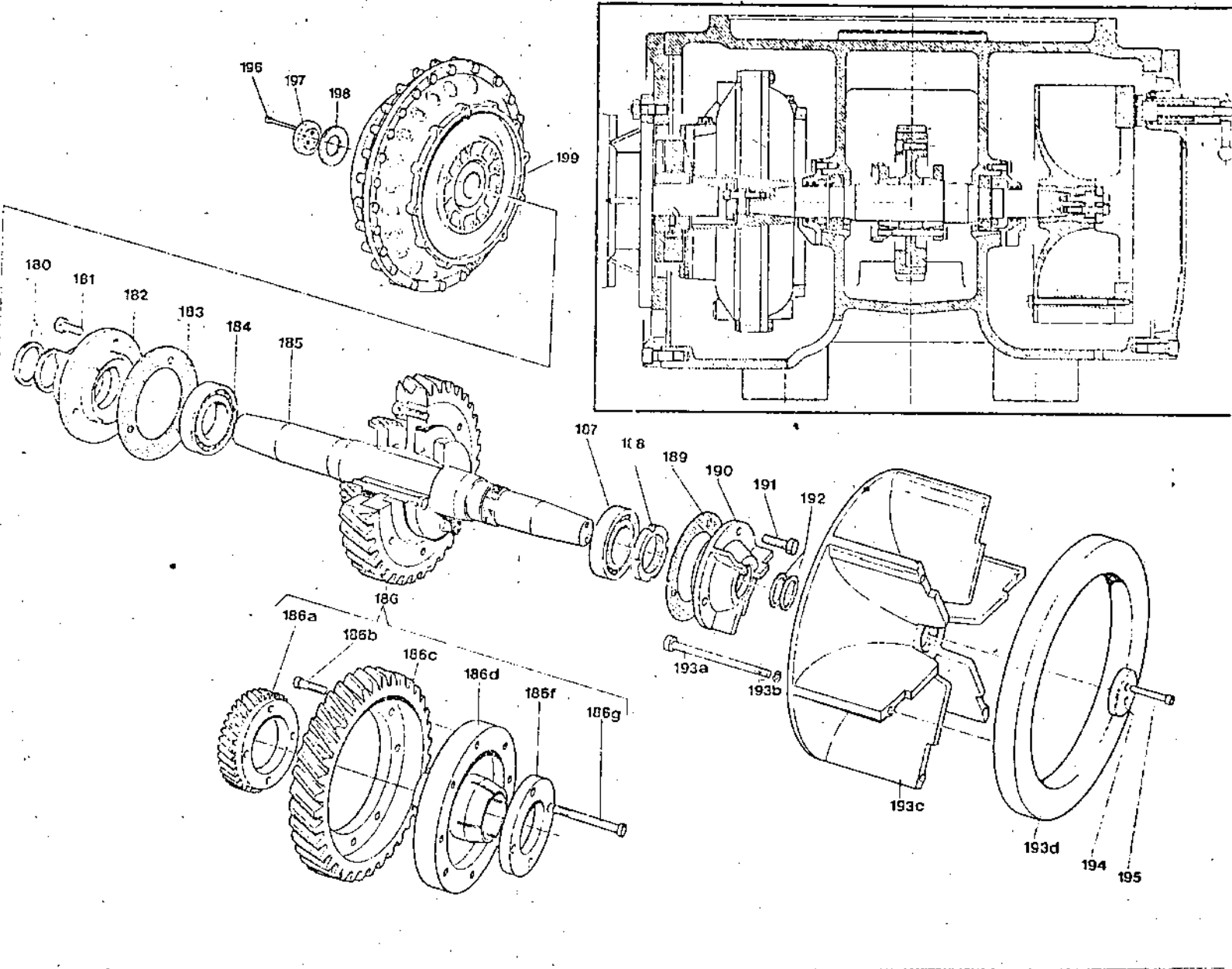
List of Parts shown in Fig. 16

Item No.	Part-No.	Qty.	Part Description
-	see page 18/3		*** Gear assembly
151	0010-8003-210	1	Bottom bearing cap
152	0004-2221-740	1	Gasket 80/108x2
153	0010-8002-040	1	Bottom bearing threaded piece
154	0006-4440-160	1	Spring column.
155	0010-8001-200	1	Bottom bearing pressure piece
156	0019-7039-150	4	Hex head screw M16x50 DIN 933
157	0026-5894-600	4	Tab washer 17 DIN 93
158	3050-1112-020	1	Bottom bearing housing
159	0004-5793-770	1	Gasket 130/204 x 0.3
160	see page 18/3	1	*** Worm spindle assembly (160a-t)
160a	0010-8012-020	1	Bottom bearing pressure housing
160b	0011-7307-100	2	Angular contact ball bearing 7307 BM/P6 DIN 628
160c	0026-2109-170	1	Snap ring
160d	0008-4008-030	1	Ball bearing protection ring
160f	0011-2308-120	1	Pendulum ball bearing 2308 M/P6 DIN 630
160g	0008-4008-020	1	Ball bearing protection ring
160h	0026-1563-120	1	Cylindrical pin 10x70 DIN 1473
160k	see page 18/3	1	*** Worm
160m	3170-3410-000	1	Spindle
160n	0008-6512-050	1	Ring
160p	0011-6213-110	1	Grooved ball bearing 6213 P6 DIN 625
160r	0008-6508-050	1	Ball bearing protection ring
160s	0006-4383-160	1	Cylindrical pressure spring
160t	0008-6501-640	1	Spindle cap
-	0008-6500-010	1	Neck bearing bridge assembly with covering (161a-r)
161a	0004-5851-770	1	Gasket 176/235ø x 0.3
-	0008-6510-070	1	Neck bearing bridge assy. (161b-g)
161b	0008-6506-000	1	Neck bearing bridge
161c	0026-2220-110	9	Spring piston
161d	0006-4380-090	1	Set of neck bearing springs
161e	0019-1423-030	9	Threaded plug
161g	0008-6507-000	1	Pressure ring
161h	0008-6509-050	1	Distance ring
161k	0004-5852-770	1	Gasket 156/235ø x 0.3
161m	0008-6502-200	1	Protection cap
161n	0026-5731-030	3	Washer
161p	0026-1330-170	3	Lock washer
161r	0019-6617-150	3	Hex head screw M16x110 DIN 931
162	see page 14/1, item no. 48d	1	Operating-water feed assembly

*** The part-no. of this item depends on the motor speed as well as on the bowl speed as stated on the name-plate of the separator (see table, page 18/3). In case of reduced bowl speed be sure to refer to sect. 3.3.

IMPORTANT: When worm 160k needs replacement, the worm wheel assembly with clamp plates, item no. 186a-g, should be replaced at the same time.

HORIZONTAL GEAR PARTS



Horizontal Gear Parts
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List of Parts shown in Fig. 17

Item No.	Part-No.	Qty.	Part Description
180	0004-1955-830	2	Felt ring 50/66x7
181	0019-6935-150	3	Hex head screw M 10x25 DIN 933
182	3050-3375-010	1	Bearing cover
183	0004-1822-740	1	Gasket 90/140x1
184	0011-6210-000	1	Grooved ball bearing 6210 DIN 625
185	1166-3400-000	1	Worm wheel shaft
186	see page 13/3	1	*** Worm wheel assembly with clamp plates (186a-g)
186a	-	1	** Clamp plate (toothed)
186b	0019-6167-150	8	Allen screw M 12x40 DIN 912
186c	-	1	** Toothed rim
186d	-	1	*** Wheel body
186f	-	1	** Clamp plate
186g	0019-6525-150	4	Hex head screw M 10x110 DIN 931
187	0011-6210-000	1	Grooved ball bearing 6210 DIN 625
188	0013-0448-090	1	Grooved nut M50x1.5
189	0004-1822-740	1	Gasket 90/140x1
190	3170-3375-000	1	Bearing cover
191	0019-6935-150	3	Hex head screw M 10x25 DIN 933
192	0004-1954-830	2	Felt ring 45/58x5.5
-	3170-3372-020	1	Fan with brake ring (193a-d)
193a	0019-6529-150	6	Hex head screw M 10x150 DIN 931
193b	0026-1337-170	6	Lock washer
193c	3170-3310-010	1	Fan
193d	3170-3371-000	1	Brake ring
194	0026-0405-030	1	Disk
195	0019-6151-150	2	Allen screw M 10x60 DIN 912
196	0019-6149-150	3	Allen screw M 10x50 DIN 912
197	0026-1640-030	1	Disk
198	0006-4404-010	1	Cup spring
199	see page 18/1	1	Fluid clutch (see fig. 18)

** This part is not available as separate item, but only assembled with parts 186a-g.

*** The part-no. of this item depends on the motor speed as well as on the bowl speed as stated on the name-plate of the separator (see table, page 16/3). In case of reduced bowl speed be sure to refer to sect. 3.3.

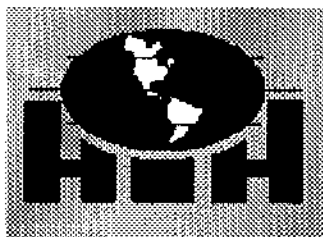
IMPORTANT: When this part needs replacement, the worm 160k should be replaced at the same time.

Gear Parts available for SAMR 15036
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Item No.	Fig.	Part Description	Motor speed: 1455 rpm (50 Cycles)		Motor speed: 1745 rpm (60 Cycles)	
			Part - No.		Part - No.	
			Bowl Speed		Bowl Speed	
			4500 rpm		4500 rpm	
-	16 17	*** Gear assembly		3170-3300-210		3170-3300-220
160	16	*** Worm spindle assembly		3170-3429-010		3170-3429-040
160x	16	*** Worm		3170-3423-010		3170-3423-040
186	17	*** worm wheel assembly with clamp plates		1167-3449-000		1167-3449-010

*** The Part-No. of this item depends on the motor speed as well as on the bowl speed as seen on the name-plate of the separator. In case of reduced bowl speed, be sure to refer to sect. 3.3.

IMPORTANT: When worm 160x needs to be replaced, worm wheel assembly 186a-g should be replaced at the same time, and vice versa. See sect. 8.2, para. 6 and sect. 8.5, para. 4.



Hutchison-Hayes Separators, Inc.

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FLUID CLUTCH

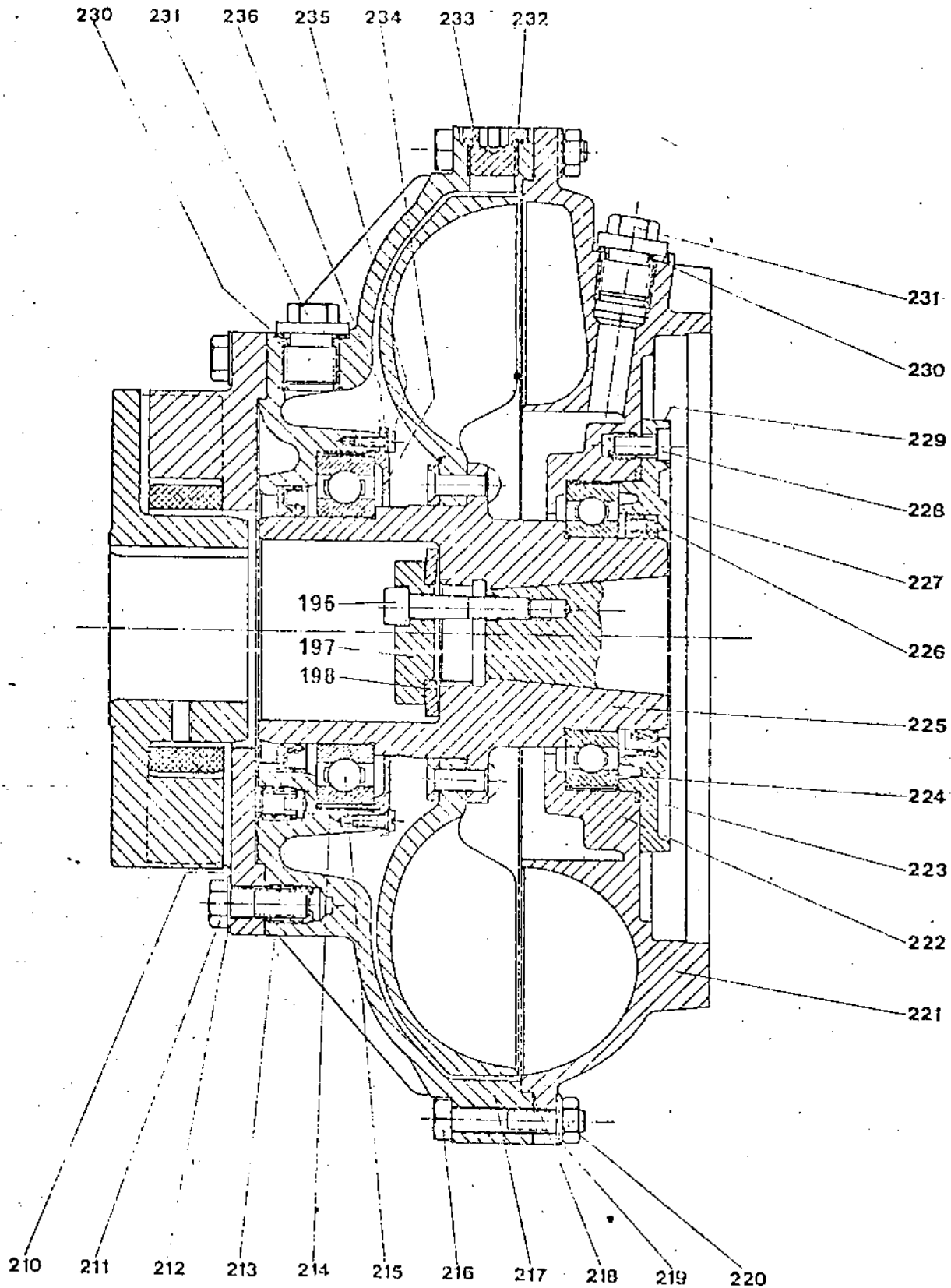


Fig. 18

Fluid Clutch
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List of Parts shown in Fig. 18

Item No.	Part-No.	Qty.	Part Description
196	} see fig. 17	3	Allen screw
197		1	Disk
198		1	Cup spring
-	2231-3280-000	1	Fluid clutch assembly (210-236)
210	-	1	* Cam flange
211	-	8	** Hex head screw M 12x35 DIN 931
212	-	8	** Spring washer B 12 DIN 137
213	0004-5951-830	1	Sealing ring 95x120
214	3170-3281-010	1	Spacer ring AN 145x24
215	0011-6019-390	1	Grooved ball bearing 6019 M/P64 DIN 625
216	-	36	** Hex head screw M 10x55 DIN 931
217	-	1	* Clutch casing 424 ϕ
218	0004-2385-858	1	Packing cord 1mm ϕ , 1260 long
219	0026-0771-170	36	Spring washer B 10 DIN 137
220	-	36	** Hex nut M 10 DIN 934
221	-	1	* Primary wheel 424 ϕ
222	3170-3281-000	1	Spacer ring AN 125x22
223	0007-2168-830	1	Gasket 124/3 ϕ
224	0011-6016-390	1	Grooved ball bearing 6016 M/P64 DIN 625
225	-	1	* Secondary hub with secondary wheel 370 ϕ
226	0004-5950-830	1	Sealing ring 80x100
227	-	1	** Cover
228	-	8	** Allen screw M8x20 DIN 7984
229	0026-0770-170	8	Spring washer A 8 DIN 137
230	0004-2144-280	2	Gasket 22/29 ϕ x 1.5
231	-	2	** Plug M 22x1.5 x 20
232	0004-2131-280	1	Gasket 18/24 ϕ x 1.5
233	0019-1490-000	1	Threaded plug M 18x1.5 x 15
234	-	1	** Oil control ring 119/192 ϕ x 4.5
235	-	8	** Cylindrical screw AM 5x15 DIN 84
236	-	8	** Lock washer 5 DIN 7980

* If this part needs to be replaced, the complete clutch must be returned to the factory for repair. Instead of Part-No. state Item-No. (see first column).

** Instead of Part-No. state Item-No. (see first column).

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Bowl

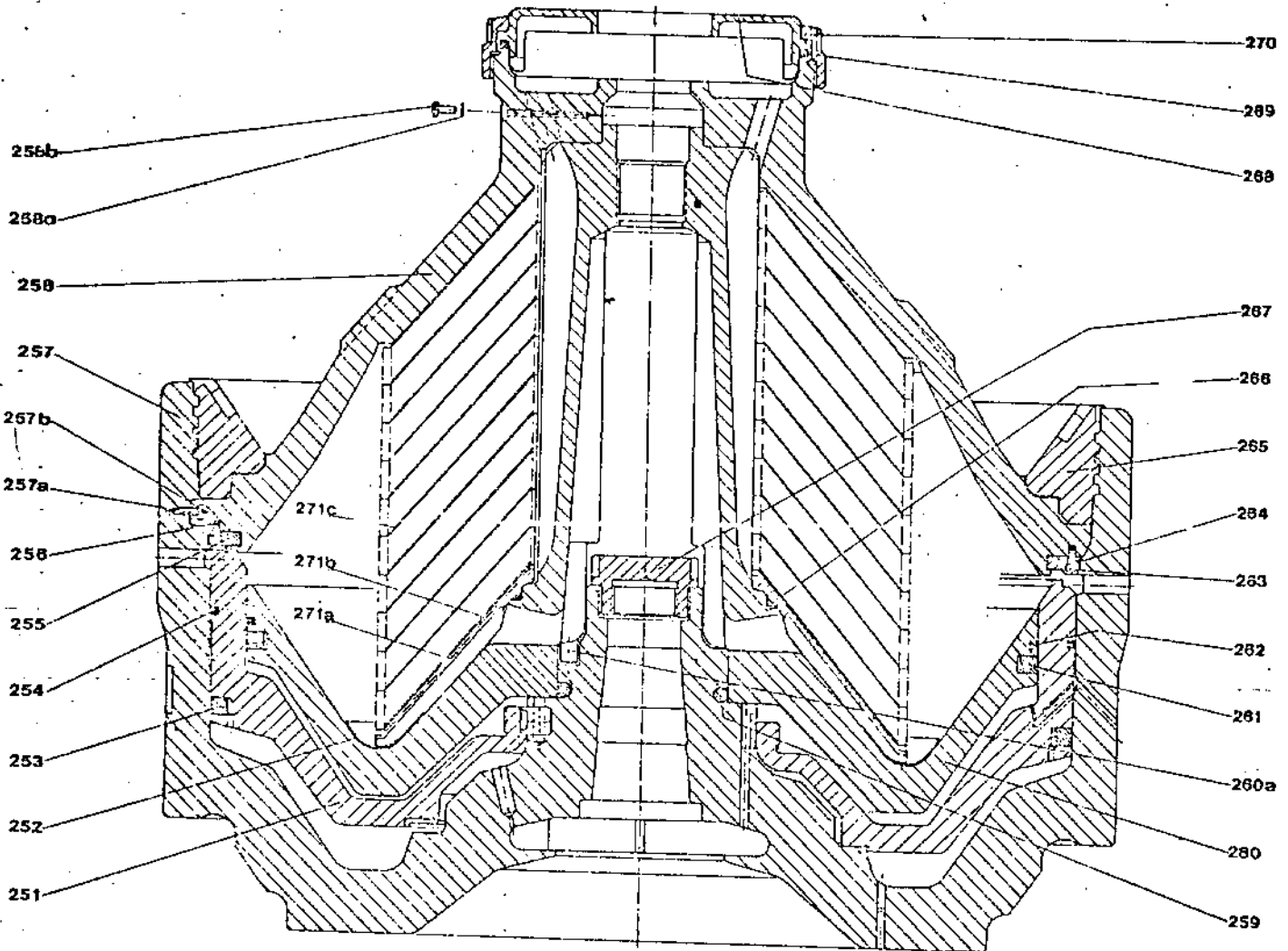


Fig. 19

Bowl

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List of Parts shown in Fig. 19

Item No.	Part-No.	Qty.	Part Description
-	3183-6600-L	1	Bowl, complete (251-271c)
251	3145-6501-L	1	Sliding piston
252	3183-6487-000	1	Wear liner
253	0007-2475-750	1	Gasket 536/560 x 12
254	0007-2468-760	1	Gasket 505/515 x 5
255	0007-2900-760	1	Rubber ring 525/554 x 10
255	0007-1950-840	1	Plastic gasket 530/558.5 x 13
256	0007-2547-750	1	Gasket 563/4
257	3137-6604-L	1	* Bowl bottom
257a	0019-2233-400	1	Cylindrical screw AM 5x12 DIN 84
257b	3117-6609-010	1	Arresting piece
258	3183-6611-L	1	* Bowl top
258a	0004-1921-720	2	Gasket 6.5/10 x 1
258b	0019-2493-400	2	Lens-head screw AM 5x12 DIN 85
259	0007-2600-750	1	Gasket 90/10
260	3183-6620-L	1	* Distributor
260a	0026-5703-400	1	Cylindrical pin
261	0007-2474-750	1	Gasket 491/515 x 12
262	0007-2468-760	1	Gasket 505/515 x 5
263	3137-6508-120	1	Retaining ring
264	0007-2547-750	1	Gasket 563/4
265	3183-6631-L	1	* Lock ring
266	0007-2064-750	1	Gasket 160/6.2
267	0013-2972-400	1	Spindle nut
268	3183-6645-000	1	Centripetal pump chamber cover
269	0007-2153-750	1	Gasket 183/195 x 6
270	3183-6631-030	1	Lock ring
-	3183-6660-L	1	Set of discs (271a-c)
271a	3183-6662-L	1	Bottom disc (with thick ribs)
271b	3183-6662-L	1	Bottom disc
271c	3183-6663-L	-	+) Disc

* This part can only be replaced by a WESTFALIA service engineer or by a special repair shop authorized by WESTFALIA, because of special re-fitting to machine and possible re-balancing of bowl.

+) The number of discs depends on the intended use of the separator and on the thickness of the spacers.