

Hutchison-Hayes Separators, Inc.

Model OTA 7-00-066 Parts List With Diagrams

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SEPARATOR ASSEMBLY

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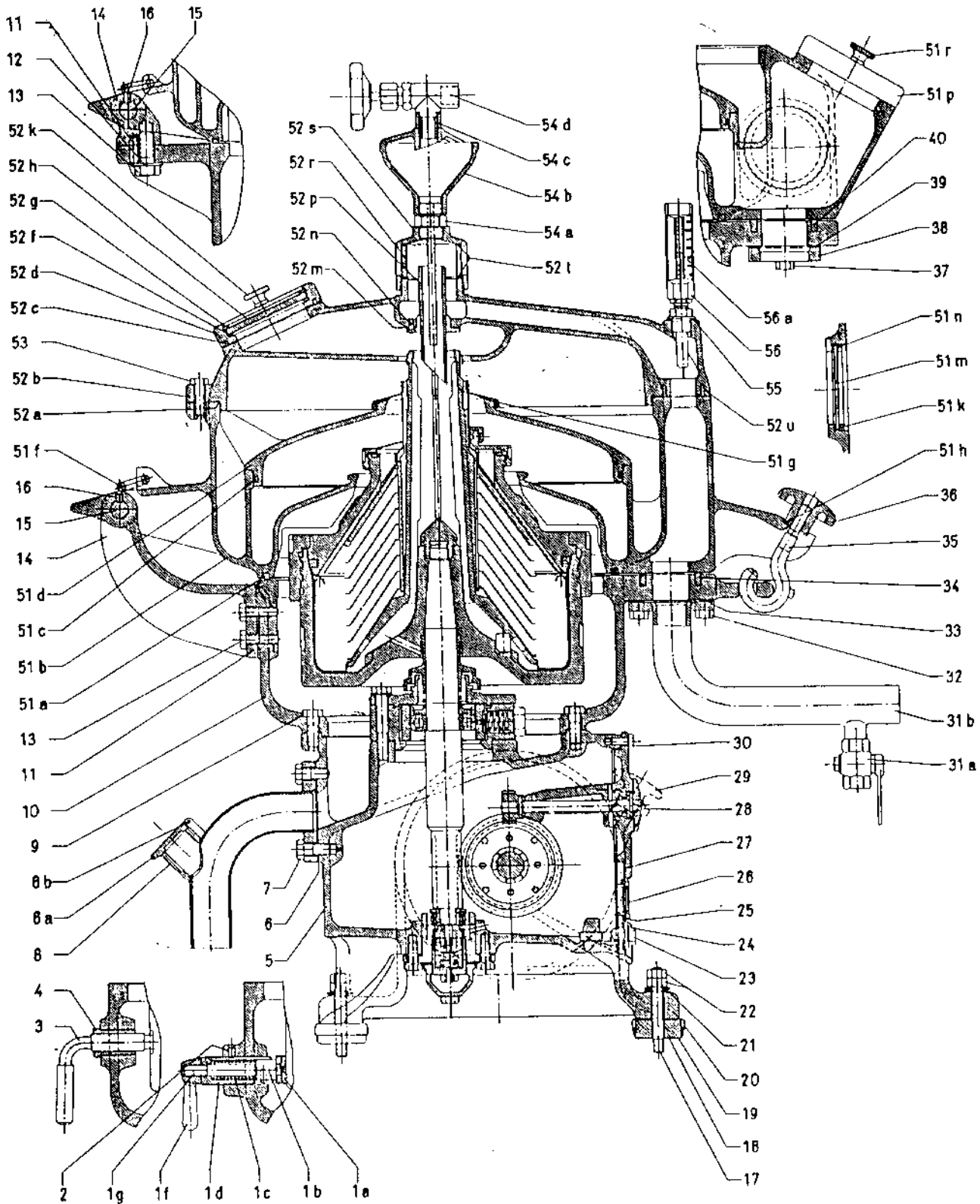


Fig. 22

FRAME AND HOOD

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List of Parts shown in Figure 22

Item No.	Part Description	Qty.	Part-No.	
			OTA 7	OTA 14
-	Frame assembly (1a-40)	1	2161-1100-060	2162-1100-000
-	Brake assembly (1a-g)	2	2160-1043-000	-
-	Brake assembly (1a-g)	1	-	3036-1043-010
1a *	Brake lining	2	0021-4088-850	-
1a *	Brake lining	1	-	0021-4094-860
1b *	Countersunk rivet 4 x 12 DIN 661	4	0026-1262-550	-
1b *	Countersunk rivet 4 x 12 DIN 661	2	-	0026-1262-550
1c	Cylindrical pressure spring	2	0006-4130-160	-
1c	Cylindrical pressure spring	1	-	0006-4195-160
1d	Brake housing	2	0021-3531-640	-
1d	Brake housing	1	-	0021-3534-640
1f	Handle	2	0021-3513-690	-
1f	Handle	1	-	0021-3515-690
1g	Brake bolt	2	2160-1031-000	-
1g	Brake bolt	1	-	3036-1031-010
2	Threaded pin M 8x10 DIN 438	2	0019-3973-060	-
2	Threaded pin M 8x10 DIN 438	1	-	0019-3973-060
3	Lock screw	2	0019-0529-160	0019-0524-160
4	Threaded bush	2	0019-0781-640	0019-0781-640
5	Frame (one piece)	1	2161-1001-000	-
5	Lower section of frame	1	-	3033-1001-020
6	Gasket 44 ϕ / 70x112x1	1	0004-5453-740	0004-5453-740
7	Hex head screw M 12 x 35 DIN 931	2	0019-6533-090	0019-6533-090
8	Inspection nipple (frame drain)	1	2159-1045-000	2159-1045-000
8a**	Cover	1	2193-1160-000	2193-1160-000
8b**	Split pin 3x30 DIN 94	1	0026-1006-000	0026-1006-000
9	Hex head screw M 12x35 DIN 931	4	-	0019-6533-090
10	Upper section of frame	1	-	2162-1002-000
11	Cylindrical pin 10 h8 x 28 DIN 7	2	0026-1114-030	-
	Cylindrical pin 8 h 8 x 24 DIN 7	2	-	0026-1102-030
12	Washer	1	0026-1353-000	-
13	Hex head screw			
	M 16 x 40 DIN 933	1	0019-7037-090	-
	M 10 x 25 DIN 931	2	-	0019-6935-090

* This part is included in brake bolt, item 1g, but it is also available as separate item.

** This part is included in inspection nipple, item 8, but it is also available as separate item.

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List of Parts shown in Figure 22

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
14	Support	1	2161-1126-000	0822-1243-000
15	Cylindrical pin 20 h8 x 120	1	0026-0982-030	0026-0982-030
16	Threaded pin M 8 x 10 DIN 553	1	0019-5050-000	0019-5050-000
17	Stud (for operation aboard ships) M 12 x 80 DIN 939	4	0019-7677-090	0019-7677-090
17	Stone bolt (for operation in land installations) M 12 x 200 DIN 529	4	0019-4864-000	0019-4864-000
18	Rubber cushion	4	0021-3014-750	0021-3014-750
19	Lower cap	4	0026-2024-030	0026-2024-030
20	Upper cap	4	0026-2025-030	0026-2025-030
21	Cup spring	12	0006-4329-010	0006-4329-010
22	Hex nut M 12 DIN 934 <i>Maybe same as -150</i>	8	0013-0280-030	0013-0280-030
23	Oil drain screw	1	0019-0840-640	0019-0291-640
24	Gasket 27/50 x 2	1	0004-5294-740	0004-1874-710
25	Gasket 35/ 44 Ø x 1,5	1	0004-5034-760	0004-5034-760
26	Sight glass	1	0001-0006-640	0001-0006-640
27	Gasket 125/ 158 Ø x 1 (for item 234)	1	0004-5228-700	0004-5228-700
28	Gasket 27/ 38Ø x 2	1	0004-5036-740	0004-5036-740
29	Oil fill plug	1	0019-1741-800	0019-1741-800
30	Hex head screw (for 234) M 8x20 DIN 933	3	0019-6903-090	0019-6903-090
-	Dirty-oil feed pipe assembly (31a-b)	1	2159-2170-010	2162-2170-030
31a	Oil drain cock	1	0018-1332-600	0018-1332-600
31b	Pipe	1	2159-1448-030	2162-1448-030
32	Hex head screw M 12x30 DIN 933	2	0019-6972-150	-
	M 12x30 DIN 931	4	-	0019-6532-090
33	Gasket 28Ø /52x96x1	1	0004-5447-740	-
33	Gasket 64Ø /95x95x2	1	-	0004-5464-900
34	Gasket 38/ 46 Ø x 15	1	0007-2181-750	-
34	Gasket 54/ 68 Ø x 15	1	-	0007-2388-750
35	Hook screw	3	0019-1080-090	0019-1081-090
36	Handle	3	0021-3101-230	0021-3101-230
-	* Welded flange	1	0001-0152-000	0001-0143-000
-	Gasket 44 Ø/ 70x112x1	1	0004-5453-740	-
-	Gasket 52Ø/ 80x122x1	1	-	0004-5457-740
-	Hex head screw M12x35 DIN 931	2	0019-6533-090	0019-6533-090
-	Gasket 54/ 68 Ø x 15	1	0007-2388-750	-
-	Gasket 60/ 75 Ø x 15	1	-	0007-2334-750

* Not used on separator with attached pump.

List of Parts shown in Fig. 22

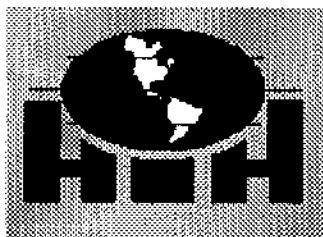
Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
37	Hex head screw M 12x35 DIN 931	2	0019-6533-090	0019-6533-090
38	Welded flange	1	0001-0152-000	0001-0143-000
39	Gasket 44Ø/ 70x112x1	1	0004-5453-740	0004-5457-740
39	Gasket 52Ø/ 80x122x1			
40	Gasket 54/68 Ø x 15	1	0007-2388-750	-
40	Gasket 60/75 Ø x 15	1	-	0007-2334-750
-	Hood assembly (51a-54d)	NO	2161-8800-020	2162-8800-000
-	Lower section of hood, complete, (51a-r)	NO	2161-8815-010	2162-8815-000
51a	Packing cord 6 x 6 x 970	1	0004-2361-758	-
51a	Packing cord 8 x 8 x 1250	1	-	0004-2364-758
51b	Lower section of hood with inserted bushes	1	2161-8801-010	2162-8801-000
51c	Gasket 297/ 4 Ø	1	0007-2571-750	-
51c	Gasket 376/ 6 Ø	1	-	0007-2620-750
51d	Oil chamber bottom	1	0821-8811-000	2162-8811-000
51f	Holding ring	1	0026-2051-030	0026-2051-030
51g	Seal 70/ 118 x 16	1	0004-5812-750	-
51g	Seal 78/ 132 x 15	1	-	0004-5816-750
51h	Washer	3	0409-8788-000	0409-8788-000
-	Cylindrical pin (for item 51h) 2,5 h 8 x 16 DIN 7	6	0026-1038-030	0026-1038-030
-	Handle	2	-	0003-0375-030
51k	Threaded ring	2	0019-1626-030	0019-1631-030
51m	Sight glass	2	0001-0043-820	0001-0054-820
51n	Gasket 45/ 55 Ø x 2	2	0004-5040-740	-
51n	Gasket 78/ 92 Ø x 2	2	-	0004-5314-740
51p	Inspection cover (for water chamber)	1	2160-8851-010	2163-8851-010
51r	Knurled screw M 8x30 DIN 464	1	0019-4547-090	-
.	M 8x40 DIN 464	2	-	0019-4548-090
-	Lens head screw M 8x16 DIN 923	1	0019-8891-090	-
-	Cylindrical pressure spring	1	0006-4112-160	-
-	Inspection cover (for oil chamber)	1	2160-8851-000	2163-8851-000
-	Knurled screw M 8x30 DIN 464	1	0019-4547-090	-
.	M 8x40 DIN 464	2	-	0019-4548-090
-	Lens head screw M 8x16 DIN 923	1	0019-8891-090	-
-	Cylindrical pressure spring	1	0006-4112-160	-

List of Parts shown in Fig. 22

Item No.	Part Description	Qty.	Part-No.	
			OTA 7	OTA 14
-	Upper section of hood, complete (52a-u)	1	2161-8802-010	2162-8802-000
52a	Gasket 297/ 4 ϕ	1	0007-2571-750	-
52a	Gasket 440/ 4 ϕ	1	-	0007-2631-750
52b	Upper section of hood with threaded sleeves	1	2161-8809-010	2162-8809-000
-	Inspection cover assembly (52c-h)	1	2160-8850-010	2163-8850-000
52c	Gasket 53/61 ϕ x 5	1	0007-2124-750	-
52c	Gasket 106/114 ϕ x 6	1	-	0007-2114-750
52d	Inspection cover	1	2160-8851-030	2163-8851-020
52f	Gasket 36/44 ϕ x 4	1	0007-2234-750	-
52g	V-securing ring	1	0026-5919-170	-
52h	Inspection glass	1	0001-0040-820	0001-0057-820
52k	Knurled screw M 8x30 DIN 464	2	0019-4547-090	-
	M 8x40 DIN 464	2	-	0019-4548-090
52m	Gasket 25/ 52 ϕ x 0,3	1	0004-5339-770	-
52m	Gasket 38/ 60 ϕ x 0,5	1	-	0004-5232-700
52n	Countersunk screw AM 6x15 DIN 63	3	0019-2098-030	-
52n	Lens head screw AM 5x15 DIN 88	3	-	0019-3235-030
52p	Inlet socket	1	0821-7705-000	2193-7705-010
52r	Cylindrical sight glass	1	0001-0104-820	0001-0104-820
52s	Cover	1	2160-8817-000	2160-8817-000
52t	Gasket 55/ 66 ϕ x 2	2	0004-1917-740	0004-1917-740
52u	Gasket 30/ 38 ϕ x 15	1	0007-2072-750	-
52u	Gasket 38/ 46 ϕ x 15	1	-	0007-2181-750
53	Hex head screw M 8x30 DIN 931	6	0019-6492-090	-
	M 10x35 DIN 931	6	-	0019-6511-090
-	Make-up water regulating device (54a-d)	1	2160-8816-000	2160-8816-000
54a	Feed pipe	1	2160-8768-000	2160-8768-000
54b	Funnel	1	0018-1701-280	0018-1701-280
54c	Nipple	1	0018-0971-000	0018-0971-000
54d	Needle valve	1	0018-1676-600	0018-1676-600
55	Gasket 21/ 32 ϕ x 2	1	0004-5030-590	0004-5030-590
56	Thermometer	1	0001-0326-280	0001-0326-280
56a	Capillary tube	1	0001-0324-820	0001-0324-820

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Hutchison-Hayes Separators, Inc.

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VERTICAL GEAR PARTS

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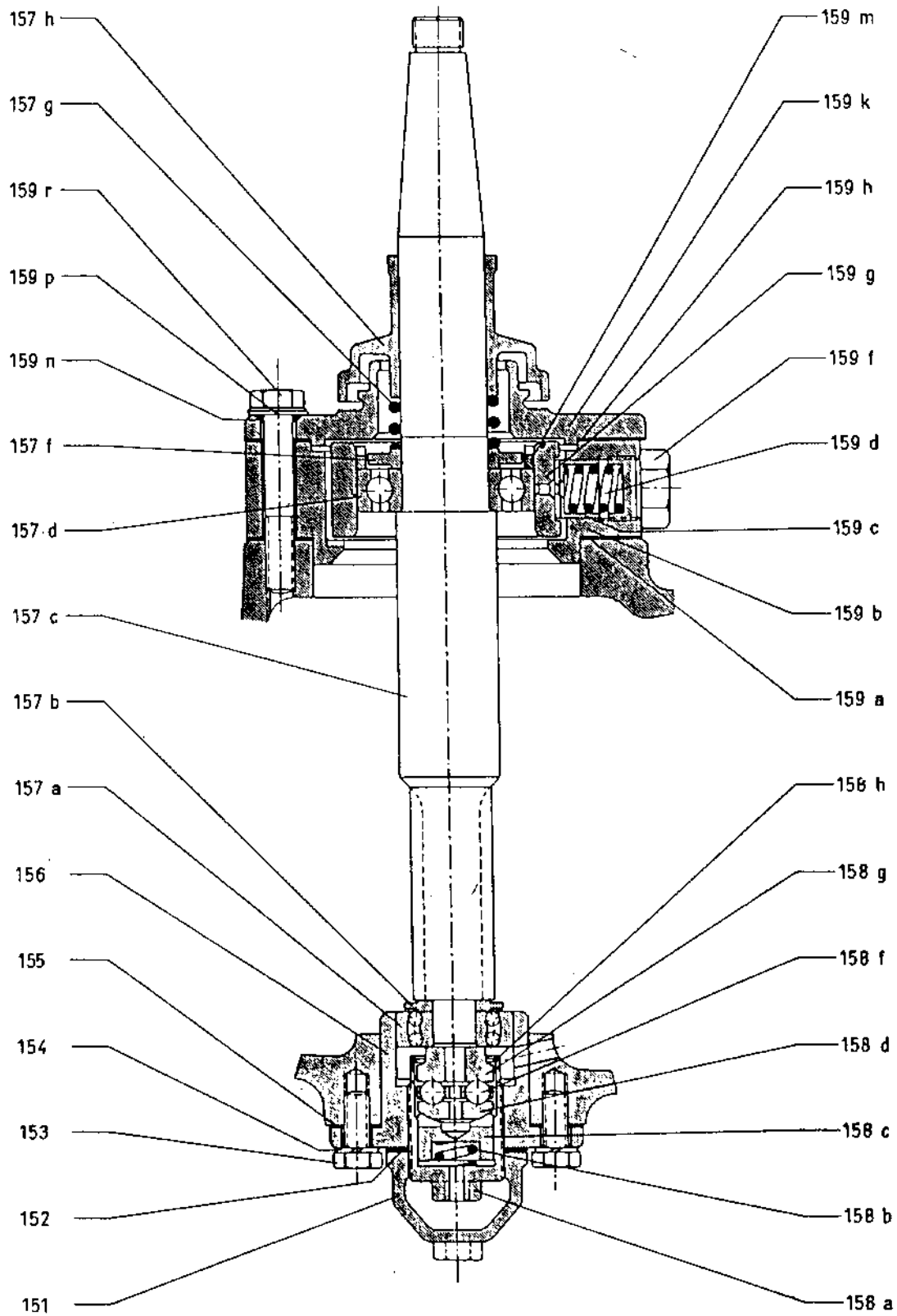


Fig. 23

VERTICAL GEAR PARTS (for 1430 rpm Motors)

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(For gear parts for 1720 rpm motors refer to page 46)

List of Parts shown in Fig. 23

Item No.	Part Description	Qty.	Part - No.	
			OTA 7.	OTA 14
-	***Gear assembly (151-237)	1	2159-3300-000	2162-3300-000
151	Bottom bearing cap	1	0010-3003-200	0010-3003-200
152	Gasket 38/57 ϕ x 2	1	0004-1891-740	0004-1891-740
153	Hex head screw M 10x25 DIN 933	4	0019-6935-090	0019-6935-090
154	Lock washer	4	0026-1337-170	0026-1337-170
155	Gasket 61/102 ϕ x 0,3	1	0004-5254-770	0004-5254-770
156	Bottom bearing housing	1	3033-1112-010	3033-1112-010
-	*** Worm spindle assembly (157a-h)	1	2159-3429-000	2162-3429-000
157a	Pendulum ball bearing 1303 M/P 62 DIN 630	1	0011-1303-030	0011-1303-030
157b	Ball bearing protection ring	1	0008-1708-000	0008-1708-000
157c***	Worm spindle	1	2159-3420-000	3033-3420-010
157d	Grooved ball bearing 6206 /P 62 DIN 625	1	0011-6206-010	-
157d	Grooved ball bearing 6207 /P 62 DIN 625	1	-	0011-6207-010
157f	Ball bearing protection ring	1	0008-3008-000	0008-3508-000
157g	Spindle spring	1	0006-4192-160	0006-4226-160
157h	Spindle cap	1	0008-3001-650	0008-3501-580
-	Bottom bearing assembly (158a-h)	1	0010-3000-000	0010-3000-000
158a	Bottom bearing threaded piece	1	0010-3002-000	0010-3002-000
158b	Cylindrical pressure spring	1	0006-4209-160	0006-4209-160
158c	Bottom bearing pressure piece	1	0010-3001-200	0010-3001-200
-	Set of bottom bearing running parts (158d-g)	1	0010-3010-000	0010-3010-000
158d	* Bottom bearing pressure disc	1	-	-
158f	* Ball cage	1	-	-
158g	* Bottom bearing running disc	1	-	-
158h	Snap ring	1	0026-1473-170	0026-1473-170
-	Neck bearing bridge with covering (159a-r)	1	0008-3000-210	0008-3500-230
159a	Gasket 100/150 ϕ x 0,3	1	0004-5160-770	-
159a	Gasket 110/162 ϕ x 0,3	1	-	0004-5002-770
-	Neck bearing bridge assembly (159b-g)	1	0008-3010-210	0008-3510-220
159b	Neck bearing bridge	1	0008-3006-230	0008-3506-230
159c	Spring piston	6	0026-1286-110	0026-1286-110
159d	Set of neck bearing springs	1	0006-4203-060	0006-4375-060
159f	Threaded plug	6	0019-1420-030	0019-1420-030
159g	Neck bearing pressure ring	1	0008-3007-000	0008-3507-090
159h	Gasket 100/ 150 ϕ x 0,3	1	0004-2742-770	-
159h	Gasket 110/ 162 ϕ x 0,3	1	-	0004-5002-770
159k	Neck bearing protection cap	1	0008-3002-000	0008-3502-070
159m	Distance ring	1	0008-3009-000	0008-3509-020
159n	Gasket 12/ 3 ϕ	3	0007-2502-750	0007-2502-750
159p	Washer	3	0026-1371-030	0026-1371-030
159r	Hex head screw M 12x55 DIN 931	3	0019-6539-090	-
159r	Hex head screw M 12x75 DIN 931	3	-	0019-6541-090

*** For 1430 rpm of motor only, and bowl speed of 9200 rpm (for OTA 7), or bowl speed of 8400 rpm (for OTA 14). In case of reduced bowl speed, be sure to refer to Sect. 3.6!

IMPORTANT: Worm spindle 157c is not available as separate item, but only together with worm wheel assembly with clamp plates, 215a-h.

* This part is not available as separate item, but only assembled with parts 158d-g.

HORIZONTAL GEAR PARTS (for 1430 rpm Motors)

(For gear parts for 1720 rpm motors refer to page 46)

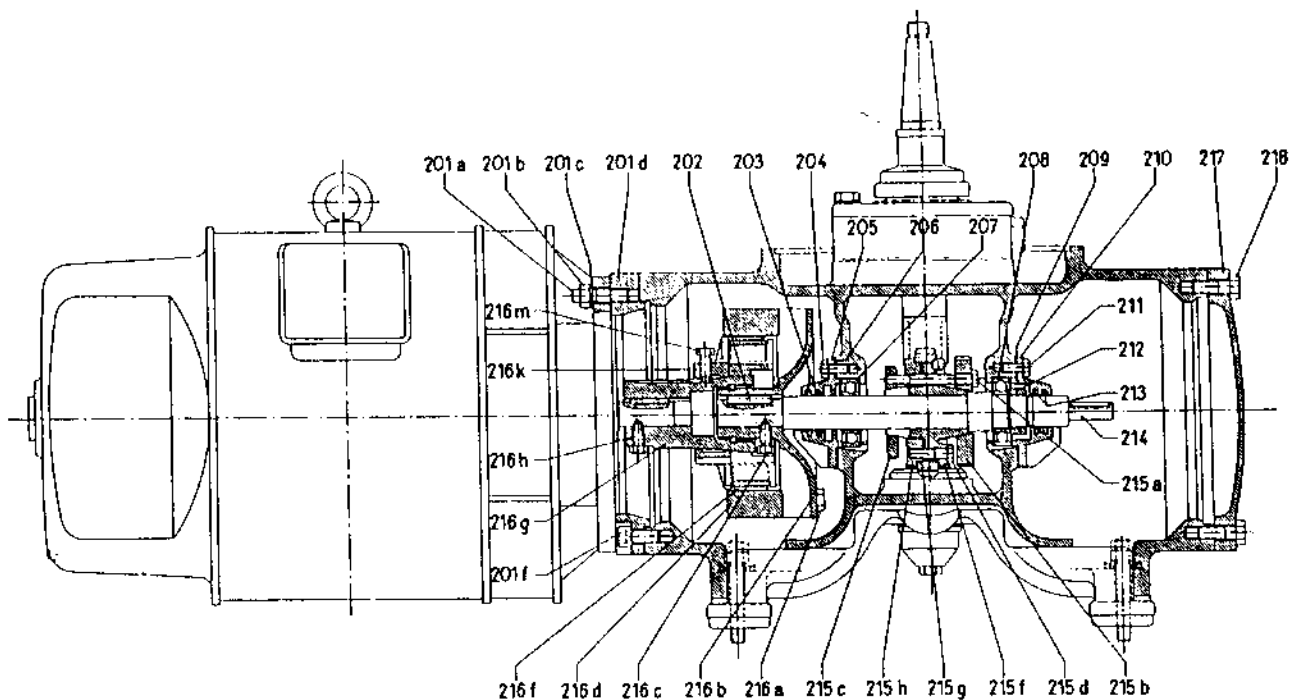


Fig. 24

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
-	Flange assembly (201a-f) (depending on motor size)	1	2162-1021-L or 3033-1021-L	2162-1021-L or 3033-1021-L
201a	Stud	4	} depending on motor size	} depending on motor size
201b	Hex nut	4		
201c	Lock washer	4		
201d *	Flange	1	3033-1028-L	3033-1028-L
201f	Allen head screw or hex head screw	4	depending on motor size	depending on motor size
-	Lock washer (for hex head screw)	4	0026-1328-170	0026-1328-170
202	Key	1	0026-1743-160	0026-1743-160
203	Felt ring 30/42 ϕ x 5,5	2	0004-1945-830	0004-1945-830
204	Hex head screw M 8x20 DIN 933 M 8x22 Sz DIN 933	3	0019-6903-090	-
		3	-	0019-0717-030
205	Bearing cover	1	3033-3376-000	3033-3376-000
206	Gasket 62/100 ϕ x 1	1	0004-5353-700	0004-5353-700
207	Ball bearing 6206	1	0011-6206-000	0011-6206-000

* When ordering this part, please state diameter of motor centering rim.

List of Parts shown in Fig. 24

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
208	Ball bearing 6206	}	1	0011-6206-000 ~ 0011-6206-000
209	Gasket 62/100 ϕ x 1		1	0004-5353-700 ~ 0004-5353-700
210	Bearing cover		1	3033-3375-000 ~ 3033-3375-000
211	Hex head screw			
	M 8 x 20 DIN 933	3	0019-6903-090	-
	M 8 x 22 Sz DIN 933	3	-	0019-0717-030
212	Nut M 35 x 1,5	1	0013-3011-060	0013-3011-060
213	Felt ring 28/40 ϕ x 5	2	0004-1943-830	0004-1943-830
214	Worm wheel shaft	1	3033-3400-010	3033-3400-010
-	*** Worm wheel assembly with clamp plates (215a-h)	1	2159-3449-000	2162-3449-000
215a	Hex head screw M 8x80 DIN 931	4	0019-6502-090	0019-6502-090
215b	** Clamp plate with tothing (without thread)	1	} Not available as separate items.	
215c	** Clamp plate (with thread)	1	}	
215d	Hex head screw M 8x35 DIN 931	4	0019-6493-090	0019-6493-090
215f	** Wheel body	1	}	
215g	** Toothed rim 2159-3443-009 (for ON 1516)	1	} Not available as separate items.	
215g	** Toothed rim 3033-3443-019 (for ON 2016)	1	}	
215h	** Pressure ring	1	}	
-	Centrifugal clutch assembly (216a-m)			
216a	Hex head screw M 10x50 DIN 931	4	3033-3385-020	3033-3385-020
216b	Clutch drum	1	0019-6514-150	0019-6514-150
216c	Hex head screw AM 10x20 DIN 561	1	3033-3365-000	3033-3365-000
216d	Ring	1	0019-5194-030	0019-5194-030
216e	* Clutch shoe	1	3033-3366-000	3033-3366-000
216f	* Clutch shoe	1	3033-3397-000	3033-3397-000
216g	+) Clutch driver (depending on motor size)	1	3033-3468-L	3033-3468-L
216h	Hex head screw AM 10x20 DIN 561	1	0019-5194-030	0019-5194-030
216k	Clutch cover	1	3033-3479-000	3033-3479-000
216m	Hex head screw AM 10x25 DIN 561	1	0019-5195-030	0019-5195-030
217	++) Protection cover	1	3033-1066-000	3033-1066-000
218	++) Hex head screw M 12x35 DIN 931	2	0019-6533-090	0019-6533-090

*** For 1430 rpm of motor only, and 9200 rpm of bowl (for OTA 7.), or 8400 rpm of bowl (for OTA 14).
 In case of reduced bowl speed, be sure to refer to Sect. 3.6!
IMPORTANT: This part is not available as separate item, but only together with worm spindle 157c.

** This part is not available as separate item, but only assembled with parts 215a-h.

* The number of clutch shoes (2 or 3 or 4) depends on the driving force necessary for the separator (see Sect. 14), and on the motor speed.

+) When ordering this part, please state diameter of motor shaft end as well as width of key.

++) Not used on separator with attached pump.

(For 1430 rpm and 1720 rpm motors)

REVOLUTION INDICATOR

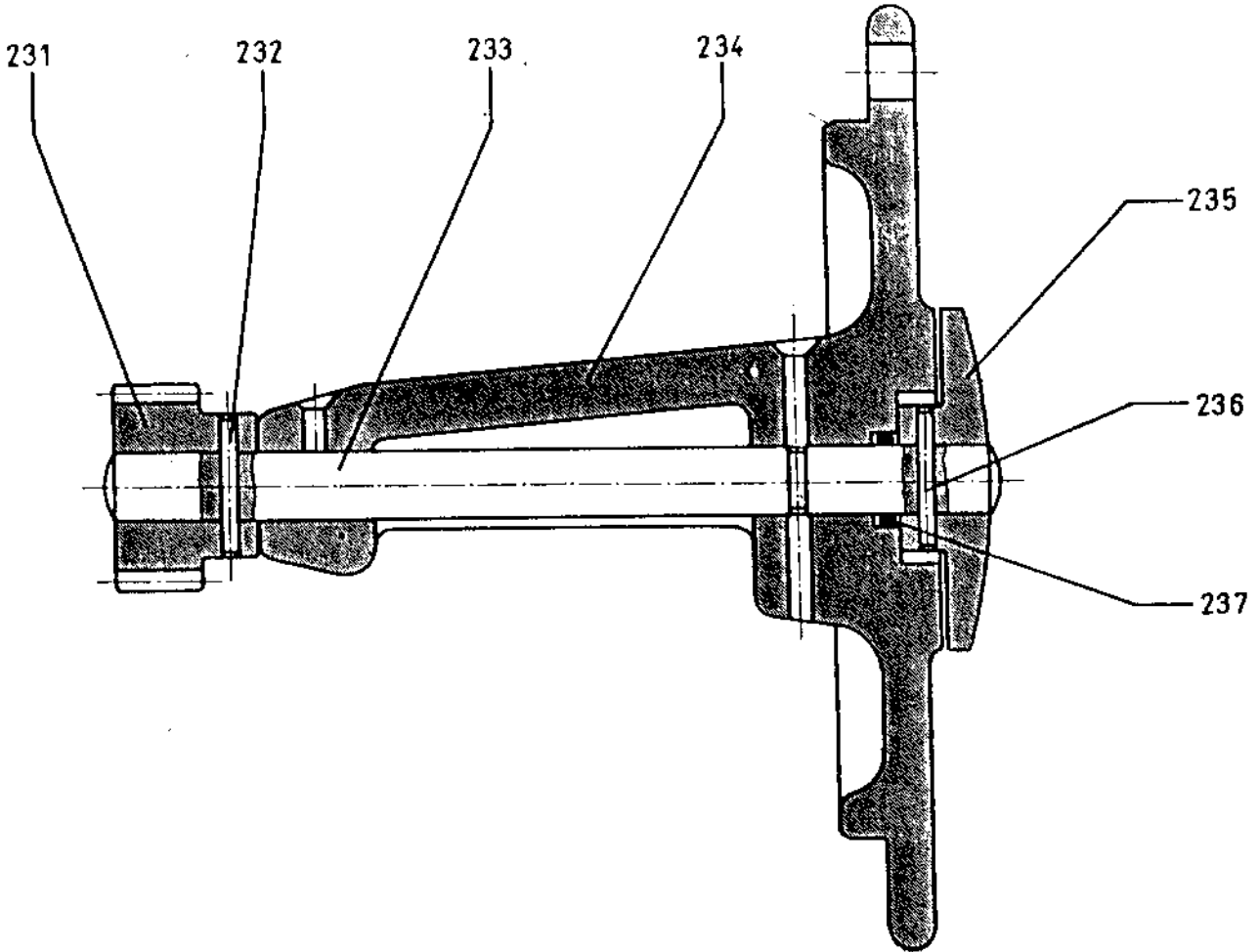


Fig. 25

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
-	Revolution indicator assembly (231-237)	1	2161-3495-000	2162-3495-000
231	Worm wheel	1	2161-3487-000	2162-3487-000
232	Cylindrical pin 3h8 x 24 DIN 7	1	0026-1049-030	0026-1049-030
233	Shaft	1	2162-3488-010	2162-3488-010
234	Housing	1	2162-3493-000	2162-3493-000
235	Revolution indicator disc	1	3117-3497-010	3117-3497-010
236	Cylindrical pin 3h8 x 24 DIN 7	1	0026-1049-030	0026-1049-030
237	Gasket 12/3 Ø	1	0007-2502-750	0007-2502-750

VERTICAL AND HORIZONTAL GEAR PARTS
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(For 1720 rpm motors)

All gear parts are identical with those of the gear for 1430 rpm motors, except the parts as listed below.

(For gear parts for 1430 rpm motors refer to pages 41-45).

List of Parts shown in Figs. 23-25

Item No.	Fig.	Part Description	Qty.	Part - No.	
				OTA 7	OTA 14
-	23 24 25	*** Gear assembly (151-237)	1	2159-3300-010	2162-3300-010
-	23	*** Worm spindle assembly (157a-h)	1	2159-3429-010	2162-3429-010
157c	23	*** Worm spindle	1	2159-3420-010	3033-3420-000
-	24	*** Worm wheel assembly with clamp plates (215a-h)	1	2159-3449-010	2162-3449-010
215g	24	*** Toothed rim for DN 1516: 2159-3443-019	1	} Not available as separate items.	
215g	24	*** Toothed rim for DN 2016: 3033-3443-009	1		

*** For 1720 rpm of motor only and for 9450 rpm of bowl (for OTA 7), or for 8400 rpm of bowl (for OTA 14). In case of reduced bowl speed be sure to refer to Sect. 3.6!

IMPORTANT: Worm spindle 157c and worm wheel assembly with clamp plates 215a-h are not available as separate items (see Sect. 16, items 1 and 4).

BOWL

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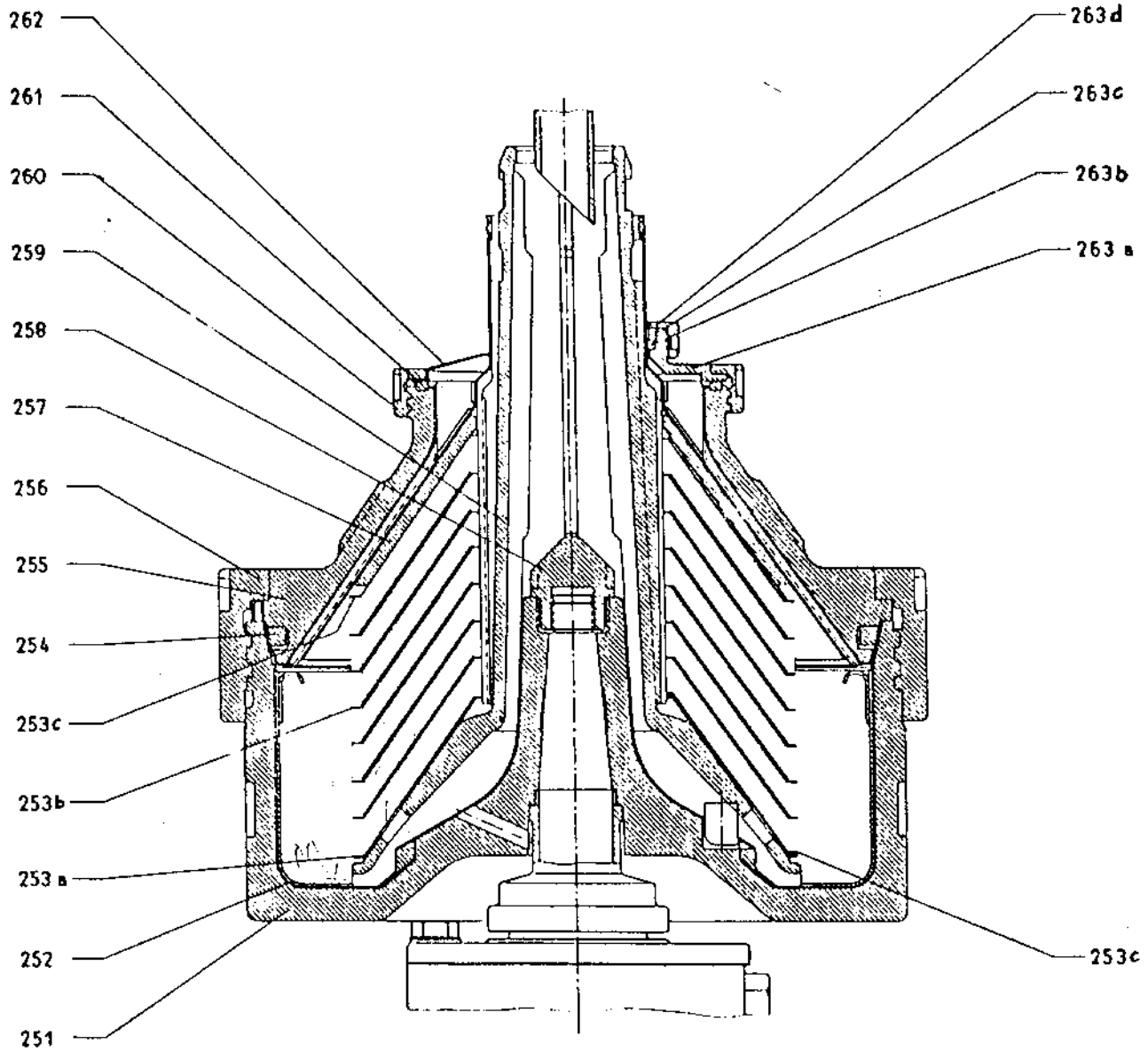


Fig. 26

Purification	Clarification
No. 251-262	No. 251-261, 263a-d
253c Blind disc (<u>on top</u>)	253c Blind disc (<u>on bottom</u>)
262 Regulating ring dam	263a-d Sealing assembly

For possible use of a second blind disc 253c refer to Sect. 4.2.2, item 7d.

List of Parts shown in Fig. 26

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
-	Bowl, complete (251-263d)	1	2159-6600-000	2193-6600-110
251	* Bowl bottom	1	2161-6604-000	2193-6604-050
252	Sludge liner	1	2159-6695-000	2193-6695-010
-	* Set of discs (253a-c)	1	2159-6660-000	2193-6660-060
253a	Corrosion disc	1	2159-6669-000	2193-6669-000
253b	Disc	about 51	2159-6663-000	-
253b	Dics	about 59	-	2193-6663-060
253c	** Blind disc	2	2171-6666-000	2193-6666-020
254	Gasket 199/6 ϕ	1	0007-2082-750	-
254	Gasket 266/282 ϕ x 8			
255	* Bowl top	1	0821-6610-000	2193-6610-020
256	* Bowl lock ring	1	0821-6631-000	3034-6631-040
257	* Separating disc	1	0821-6650-119	2193-6650-119
258	Spindle nut	1	0013-3148-400	0013-3109-300
259	* Distributor	1	2159-6620-000	2193-6620-110
260	Lock ring	1	0821-6631-030	3034-6631-060
261	Gasket 103/115 ϕ x 4	1	0007-2145-750	-
261	Gasket 132/144 ϕ x 4			
262	Set of regulating ring dams	1	0821-6691-060	2193-6691-040
-	Sealing assembly (263a-d)	1	0821-6690-090	2193-6690-020
263a	Sealing disc	1	0821-6692-090	2193-6692-020
263b	Gasket 68/76 ϕ x 5	1	0007-2141-750	-
263b	Gasket 75/83 ϕ x 5	1	-	0007-2242-750
263c	Pressure ring	1	0821-6694-000	0822-6694-010
263d	Threaded ring	1	0821-6693-000	2193-6693-010

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

** For possible use of the second blind disc refer to Sect. 4.2.2, item 7d.

SINGLE GEAR PUMP AND DOUBLE GEAR PUMP WITH PUMP CONNECTION

Rated Capacity per Stage: 1500 l/h, 3000 l/h, 5000 l/h

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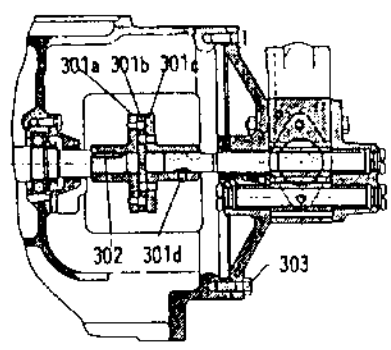


Fig. 27
Single gear pump
with pump clutch

Pump spill valve adjustable to 14-45 psig by turning this bolt. Prior to adjusting remove cover.

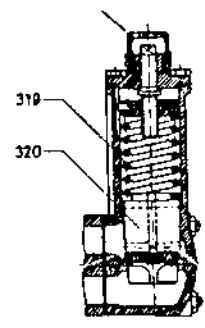


Fig. 29
Spill valve for single and double
gear pump.

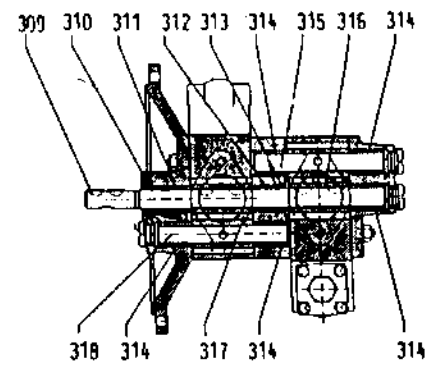


Fig. 28
Double gear pump.

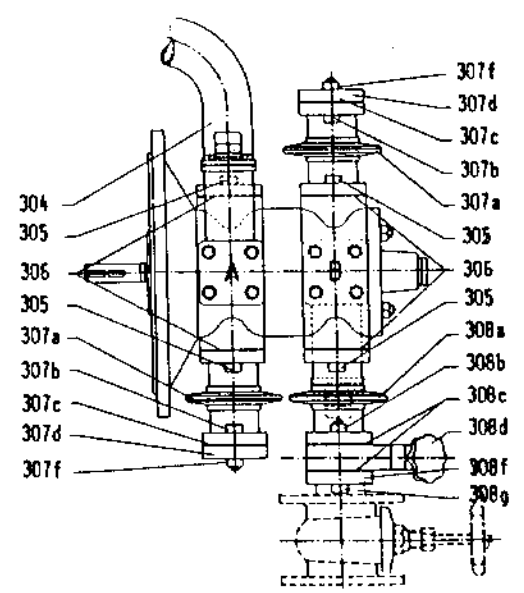


Fig. 30
Pipe lines for pumps with a capacity
of 1500 l/h, 3000 l/h or 5000 l/h.

Fig. 27:

The clutch of the double gear pump is identical with that of the single gear pump.

Figs. 28, 29:

The numbers for parts 309 to 320 are also valid for the single gear pump (see page 51).

Fig. 30:

- Part A: Pipe lines of single gear pump for clean-oil discharge.
- Part B: Pipe lines of single gear pump for dirty-oil feed.
- Part A+B: Pipe lines of double gear pump for clean-oil discharge and dirty-oil feed.

PUMP CONNECTION OTA 7

for pumps with 1500 and 3000 litres/h rated capacity per stage
 =====

List of Parts shown in Figs. 27, 30

Item No.	Part Description	Single Pump		Double Pump	Part - No.	
		Clean oil Qty	Dirty Oil Qty	OTA 7 with pump 1500 l/h Qty	OTA 7 with pump 3000 l/h	
-	* Pump connection assembly (301a-308g) (depending on pump)	1	1	1	2161-1159-L	2161-1159-L or 2162-1159-010
-	Pump clutch assembly (301a-d)					
301a	Clutch pulley (separator side)	1	1	1	2161-3320-000	0822-3425-000
301b	Flexible coupling	1	1	1	0822-3325-000	0822-3325-000
301c	Clutch pulley (pump side)	1	1	1	0021-4793-710	0021-4793-710
301d	Threaded pin			ND	2161-3322-000	0822-3322-020
**	M 10 x 12 DIN 438 3/8" x 14	1	1	1	0019-3982-060	-
302	Key	1	1	1	-	0019-0421-000
303	Hex head screw M 12x25 DIN 933	4	4	4	0026-1744-160	0026-1744-160
304	Clean oil pipe	1	-	1	0019-6968-150	0019-6968-150
305	Hex head screw M 12x35 DIN 931	4	4	8	2161-2262-000	2161-2262-020
306	Gasket 28 Ø/ 52x96x1	2	2	4	0019-6971-150	0019-6971-150
306	Gasket 44 Ø/ 70x112x1	2	2	4	0004-5447-740	-
-	Junction assembly (307a-f)					0004-5454-740
307a	Expansion joint	1	1	2	0821-2805-000	0822-2805-000
307b	Hex head screw M 12x35 DIN 933	1	1	2	0821-2832-000	0822-2832-000
307b	Hex head screw M 12x45 DIN 933	2	2	4	0019-6971-090	-
307c	Gasket 28 Ø/ 52x96x1	2	2	4	-	0019-6973-150
307c	Gasket 44 Ø/ 70x112x1	1	1	2	0004-5447-740	-
307d	Flange	1	1	2	-	0004-5454-740
307f	Hex nut M 12 DIN 934	1	1	2	0001-0135-000	0001-0146-000
-	Junction assembly with pre-set valve (308a-g)					0013-0280-030
308a	Expansion joint	-	1	1	0821-2804-000	2162-2804-000
308b	Hex nut M 12 DIN 934	-	1	1	0821-2832-000	0822-2832-000
308c	Gasket 28 Ø/ 52x96x1	-	2	2	0013-0280-030	0013-0280-030
308c	Gasket 44 Ø/ 70x112x1	-	2	2	0004-5447-740	-
308d	Pre-set valve	-	2	2	-	0004-5454-740
308f	Flange	-	1	1	0018-1684-000	0018-1685-000
308g	Hex head screw M 12x75 DIN 931	-	1	1	0001-0135-000	0001-0146-000
			2	2	0019-6541-150	0019-6541-150

* When ordering spare parts, be sure to state Model and Serial-No of pump (see page 35).

** This part is included in clutch pulley, item 301c, but it is also available as separate item.

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PUMP CONNECTION OTA 14

for pumps with 3000 and 5000 litres/h rated capacity per stage

List of Parts shown in Figs. 27, 30

Item No.	Part Description	Single Pump		Double Pump	Part - No.	
		for Clean oil	for Dirty Oil	Qty	OTA 14 with pump 3000 l/h	OTA 14 with pump 5000 l/h
-	*Pump connection assembly (301a-308g) (depending on pump)	1	1	1	2162-1159-L	2162-1150-1
-	Pump clutch assembly (301a-d)	1	1	1	0822-3425-000	2162-3320-000
301a	Clutch pulley (separator side)	1	1	1	0822-3325-000	2162-3325-000
301b	Flexible coupling	1	1	1	0021-4793-710	0021-4794-710
301c	Clutch pulley (pump side)	1	1	1	0822-3322-020	2195-3322-000
301d	Threaded pin 3/8" x 14	1	1	1	0019-0421-000	-
**	3/8" x 14	1	1	1	-	0019-0421-000
302	Key	1	1	1	0026-1744-160	0026-1744-160
303	Hex head screw M 12x35 DIN 933	4	4	4	0019-6971-150	0019-6933-150
304	Clean oil pipe	1	-	1	2162-2262-000	2162-2262-010
305	Hex head screw M 12x35 DIN 931	4	4	8	0019-6533-150	0019-6533-150
306	Gasket 44 Ø/ 70x112x1	2	2	4	0004-5454-740	-
306	Gasket 52 Ø/ 80x122x1	2	2	4	-	0004-5457-740
-	Junction assembly (307a-f)	1	1	2	0822-2805-000	0823-2805-000
307a	Expansion joint	1	1	2	0822-2832-000	0823-2832-000
307b	Hex head screw M 12x45 DIN 931	2	2	4	0019-6973-150	0019-6973-150
307c	Gasket 44 Ø/ 70x112x1	1	1	2	0004-5454-740	use 760
307c	Gasket 52 Ø/ 80x122x1	1	1	2	-	0004-5457-740
307d	Flange	1	1	2	0001-0146-000	0001-0145-000
307f	Hex nut M 12 DIN 934	2	2	4	0013-0280-030	0013-0280-030
-	Junction assembly with pre-set valve (308a-g)	-	1	1	2162-2804-000	2163-2804-000
308a	Expansion joint	-	1	1	0822-2832-000	0823-2832-000
308b	Hex nut M 12 DIN 934	-	2	2	0013-0280-030	0013-0280-030
308c	Gasket 44 Ø/ 70 x 112 x 1	-	2	2	0004-5454-740	0004-5454-740
308c	Gasket 52 Ø/ 80 x 122 x 1	-	2	2	-	0004-5457-740
308d	Pre-set valve	-	1	1	0018-1685-000	0018-1686-000
308f	Flange	-	1	1	0001-0146-000	0001-0145-000
308g	Hex head screw M 12x75 DIN 931	-	2	2	0019-6541-150	0019-6541-150

* When ordering spare parts, be sure to state Model and Serial-No. of pump (see page 35).

** This part is included in clutch pulley, item 301c, but it is also available as separate item.

SINGLE GEAR PUMP AND DOUBLE GEAR PUMP for OTA 7, OTA 14

Rated Capacity per Stage: 1500 l/h, 3000 l/h, 5000 l/h

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List of Parts shown in Figs. 28,29

Item No.	Part Description	Single Pump		Double Pump	Part - No.	
		Clean oil Qty	for Dirty oil Qty	Qty		
309	Drive shaft	1	1	1	* Instead of Part - No. state Item - No. (see first column).	
310	Sealing ring	1	1	1		
311	Drive bush	1	1	1		
312	Central bearing bush	-	-	1		
313	Sealing ring	-	-	2		
314	Bearing bush	3	3	5		
315	Shaft	} Dirty-Oil Side	-	1		1
316	Couple of wheels		-	1		1
317	Couple of wheels	} Clean-Oil Side	1	-		1
318	Shaft		1	-		1
319	Valve spring	1	1	2		
320	Valve piston	1	1	2		

Pumps available for OTA 7 and OTA 14

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Separator Model	Rated Pump Capacity per stage	Single Pump		Double Pump	
		Type	Part - No.	Type	Part - No.
OTA 7	1500 l/h 3000 l/h	HDFCW 3/30	8056-9100-020	2HDFCW 3/30	8057-9200-070
		HDFCW 3,5/50	8059-9110-080	2HDFCW 3,5/3/50	8060-9210-080
OTA 14	3000 l/h 5000 l/h	HDFCW 3,5/50	8059-9100-080	2HDFCW 3,5/3/50	8060-9200-080
		HDFCW 3,5/80	8062-9100-070	2HDFCW 3,5/3/80	8063-9200-100

* When ordering spare parts, be sure to state type and Serial-No. of the pump (see page 35).

PRE-STRAINER OTA 7, OTA 14

The pre-strainer protects the dirty-oil gear pump from coarse impurities
(On special order only)

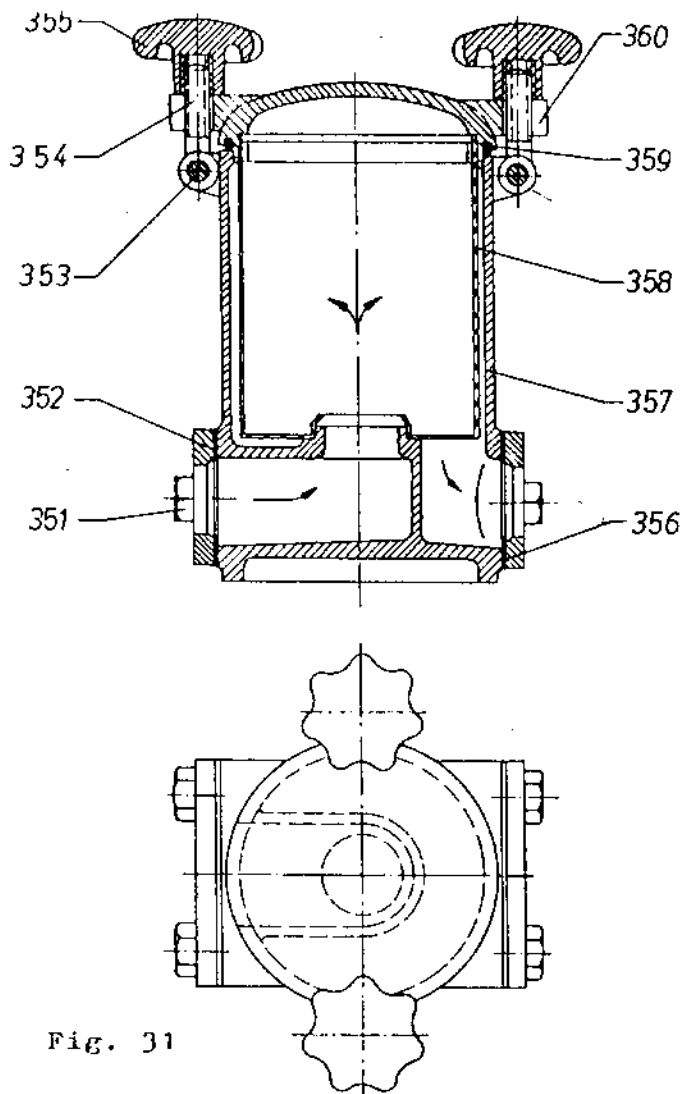


Fig. 31

Item No.	Part Description	Qty.	Part - No.		
			for Pump - 1500 l/h	for Pump 3000 l/h	for Pump 5000 l/h
-	Pre-strainer assembly (351-360)	1	8821-2110-090	8822-2110-030	8823-2110-100
351	Hex head screw M 12x30 DIN 931	4	0019-6532-090	0019-6532-090	-
351	Hex head screw M 12x30 DIN 931	12	-	-	0019-6532-090
352	Flange	2	0001-0140-000	0001-0146-000	0001-0201-000
353	Cylindrical pin 10 h8x40 DIN 7	2	0026-1117-030	0026-1117-030	-
353	Cylindrical pin 10 h8x45 DIN 7	2	-	-	0026-1115-030
354	Hinge screw	2	0019-4325-090	0019-4325-090	0019-4329-090
355	Handle	2	0021-3100-700	0021-3100-700	0021-3100-700
356	Gasket 28 Ø/ 52x96x1	2	0004-5447-740	-	-
356	Gasket 44 Ø/ 70x112x1	2	-	0004-5454-740	-
356	Gasket 60/130 Ø x 2	2	-	-	0004-5003-740
357	Housing	1	8462-2114-060	8462-2114-070	8823-2114-020
358	Screen insert	1	8462-2119-000	8462-2119-000	8823-2119-000
359	Gasket 119/5,2	1	0007-2062-750	0007-2062-750	-
359	Gasket 172/8	1	-	-	0007-2561-750
360	Cover	1	8821-2115-000	8821-2115-000	8823-2115-020

MECHANICAL BOWL LIFTER FOR OTA 14

(On special order only)

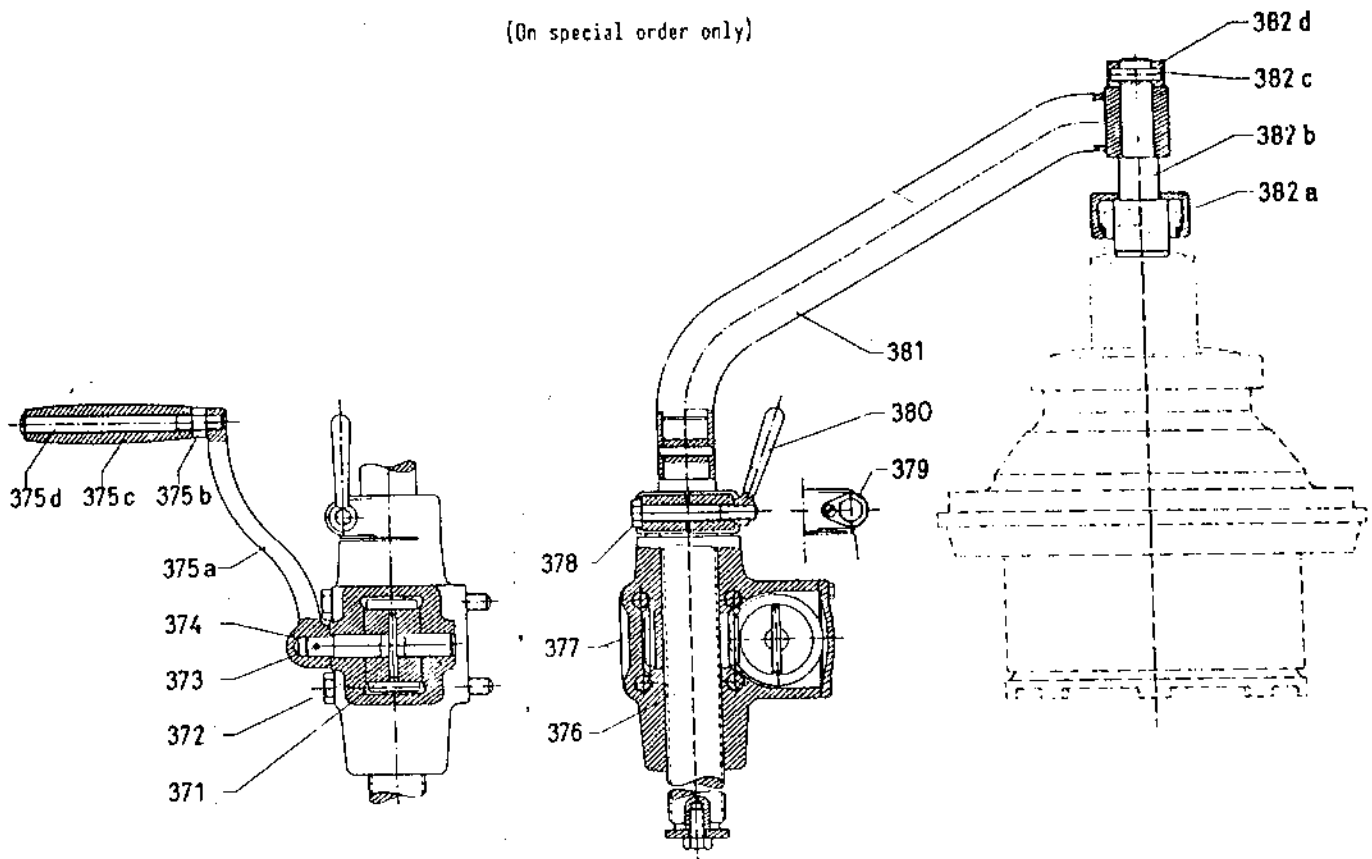


Fig. 32

Item No.	Part Description	Qty.	Part - No.
-	Mechanical bowl lifter assembly with suspension device (371-382d)	1	8150-9000-030
371	Taper pin 5x45 DIN 1	1	0026-1020-060
372	Worm (for drive)	1	8150-9443-000
373	Notched pin 5x32 DIN 1471	1	0026-1408-120
374	Shaft	1	8150-9400-000
-	Crank assembly (375a-d)	1	8150-9450-000
375a	Crank arm	1	6511-3451-000
375b	Hex nut 7/16" DIN 934	1	0013-2521-030
375c	Crank handle	1	0021-3233-950
375d	Bolt 7/16" x 141	1	0019-0818-000
376	Spindle	1	8150-9420-000
377	Worm (for lift)	1	8150-9423-000
378	Hex head screw M 10x80 DIN 931	1	0019-6520-090
379	Safety washer	1	0026-5817-000
380	Handle	1	0021-3525-040
381	Jib assembly	1	8150-9090-020
-	Suspension assembly (382a-d)	1	8150-9915-020
382a	Locking bush	1	8150-9866-020
382b	Eccentric bolt	1	8150-9877-010
382c	Cylindrical pin 8x8x36 DIN 7	1	0026-1103-030
382d	Adjusting ring	1	0026-1304-000

TOOLS AND ACCESSORIES

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All the parts mentioned in the packing list furnished with the separator should be found in the packing case.

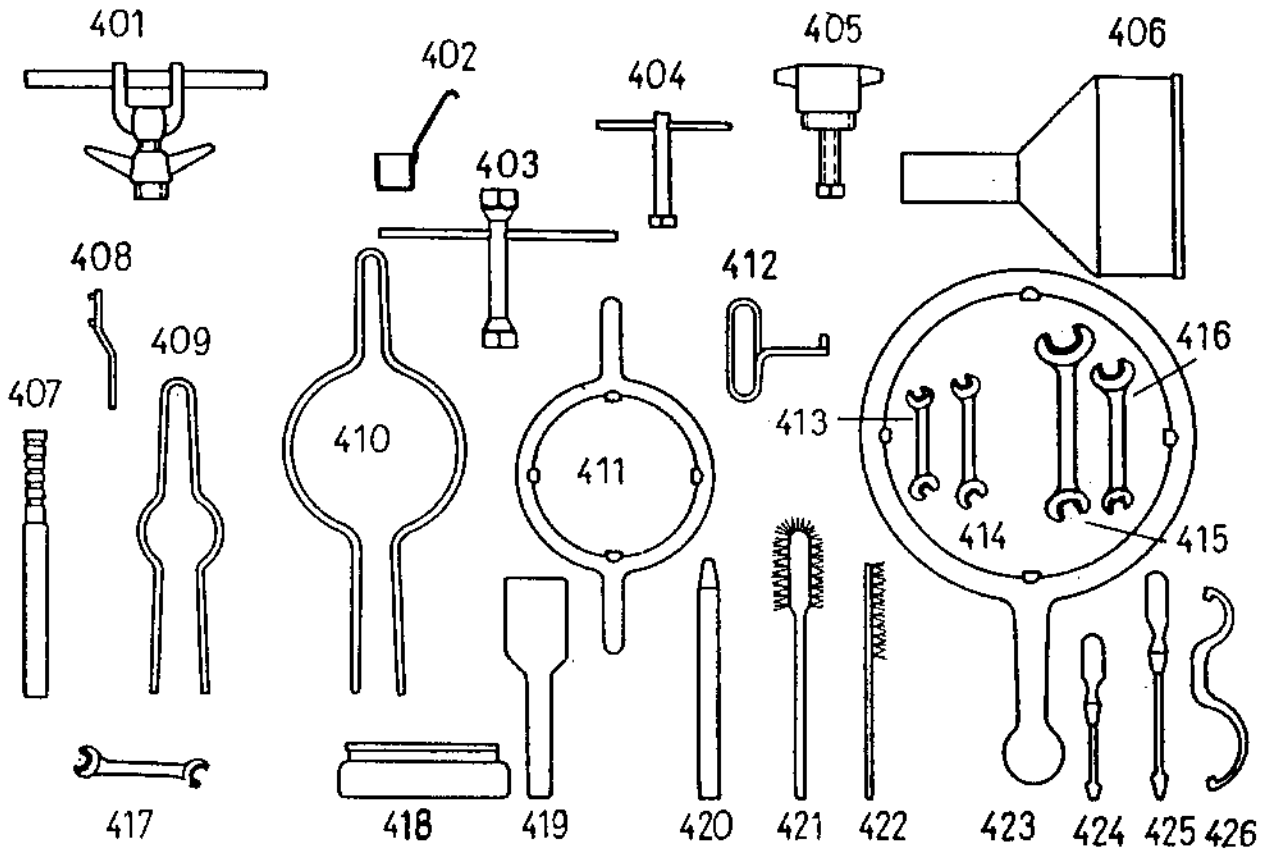


Fig. 33

TOOLS AND ACCESSORIES
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All the parts mentioned in the packing list furnished with the separator should be found in the packing case.

List of Parts shown in Fig. 33

Item No.	Part Description	Qty.	Part - No.	
			OTA 7	OTA 14
-	Set of tools for repair	1	2161-9900-000	2162-9900-000
-	Set of tools and accessories for attendance	1	2161-9901-000	2162-9901-000
401	Jack (for bowl bottom)	1	2161-9915-000	3034-9930-000
402	Sampler	1	-	0003-3811-000
403	Hexagon socket wrench 17x19 DIN 896	1	0003-4253-150	0003-4253-150
404	Hexagon socket wrench 13 DIN 659 (for clutch)	1	0003-4227-030	0003-4227-030
405	Clutch puller	1	3033-9910-000	3033-9910-000
406	Splash cover	1	0003-0304-000	0003-0304-000
407	Mallet	1	0003-0200-000	0003-0200-000
408	Wrench (for sight glass)	1	0003-4585-000	0003-4585-000
409	Lifting tongs (for distributor)	1	0003-3550-170	0003-3446-170
410	Lifting tongs (for bowl top)	1	0003-3403-170	0003-3465-170
411	Annular wrench (for lock ring, item 260)	1	-	0003-3990-000
412	Hook (for sludge liner)	2	0003-0152-000	0003-0152-000
413	Double-ended wrench 12x13 DIN 3110	1	0003-4202-320	0003-4202-320
414	Double-ended wrench 17x19 DIN 3110	1	0003-4205-320	0003-4205-320
415	Double-ended wrench 27x32 DIN 3110 (for	1	-	0003-4211-320
416	Double-ended wrench 24x30	} spindle nut)	0003-4209-320	-
417	Double-ended wrench 22x27		0003-4208-320	0003-4208-320
418	Oil cup	1	0003-0274-000	0003-0274-000
419	Big scraper	1	0003-0211-950	0003-0211-950
420	Small scraper	1	0003-0210-950	0003-0210-950
421	Brush 70x100x500 (for distributor)	1	0003-4695-960	0003-4695-960
422	Brush 50x125x285 (for discs)	1	0003-4690-960	0003-4690-960
423	Annular wrench (for bowl lock ring)	1	0003-4024-030	0003-4041-030
424	Screwdriver 5 x 125	1	0003-4636-050	0003-4636-050
425	Screwdriver 10 x 160	1	0003-4637-050	0003-4637-050
426	Double hook wrench 94 x 132 (for threaded ring 263d and lock ring 260)	1	0003-3685-000	-
-	Notched pin 5x12 DIN 1472	} (spares for 0003-3685-000)	2	0026-1558-130
-	Notched pin 5x16 DIN 1472		2	0026-1671-130
426	Double hook wrench 80 x 110 (for threaded ring 263d)	1	-	0003-3681-000
-	Notched pin 4x10 DIN 1472	} (spares for 0003-3681-000)	2	0026-1550-130
-	Notched pin 5x12 DIN 1472		2	0026-1558-130
-	50 gram tube of molybdenum disulphide paste	1	0015-0103-000	0015-0103-000
-	2.5-litre can of separator lubricating oil C-LP 68	1	0015-0003-080	0015-0003-080