

Original instructions

ENG 3/15

PARTS MANUAL

PM4510CTENG.315

Rammer[®]

HYDRAULIC HAMMER

RAMMER 4510

CITY

TUNNEL

Serial No.

10ADB0234-UP

10TEB0100-UP

R A M M E R H I T S H A R D E R

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GENUINE RAMMER SPARE PARTS

Rammer genuine spare parts are designed and manufactured by using the latest technological knowledge and engineering skills. Rammer spare parts are made of the best available materials with the most advanced manufacturing techniques.

It is important that you use only genuine Rammer spare parts, to ensure an easy operation, maintenance and repair of the product. Please note that eventual warranty claims will be handled only if you have used genuine Rammer parts.

LOCATION OF THE SERIAL NUMBER

It is important to refer to the serial number of the product when ordering spare parts. The identification of serial number is the only proper means of maintaining and identifying parts for a specific product. The location of the equipment serial number is pointed in “Operation and maintenance” manual.

SPARE PART ORDERS

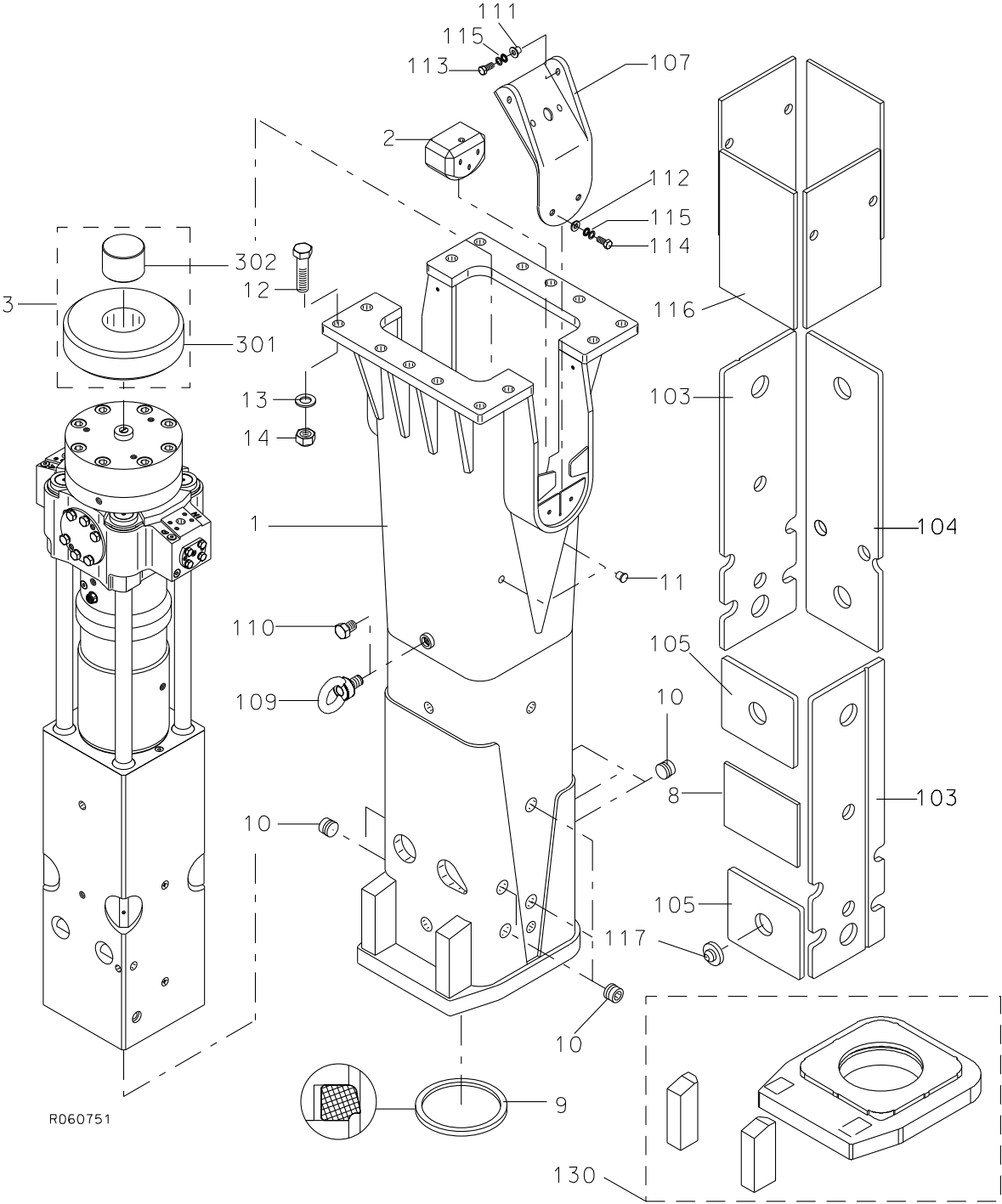
Quick spare part deliveries are ensured by exact orders.

Required information:

- Name of customer and contact person
 - Order number (when available)
 - Delivery address
 - Mode of delivery (air mail, etc.)
 - Required delivery date
 - Invoicing address
 - Model and serial number of the product
 - Name, number and required amount of spare parts
-

PARTS

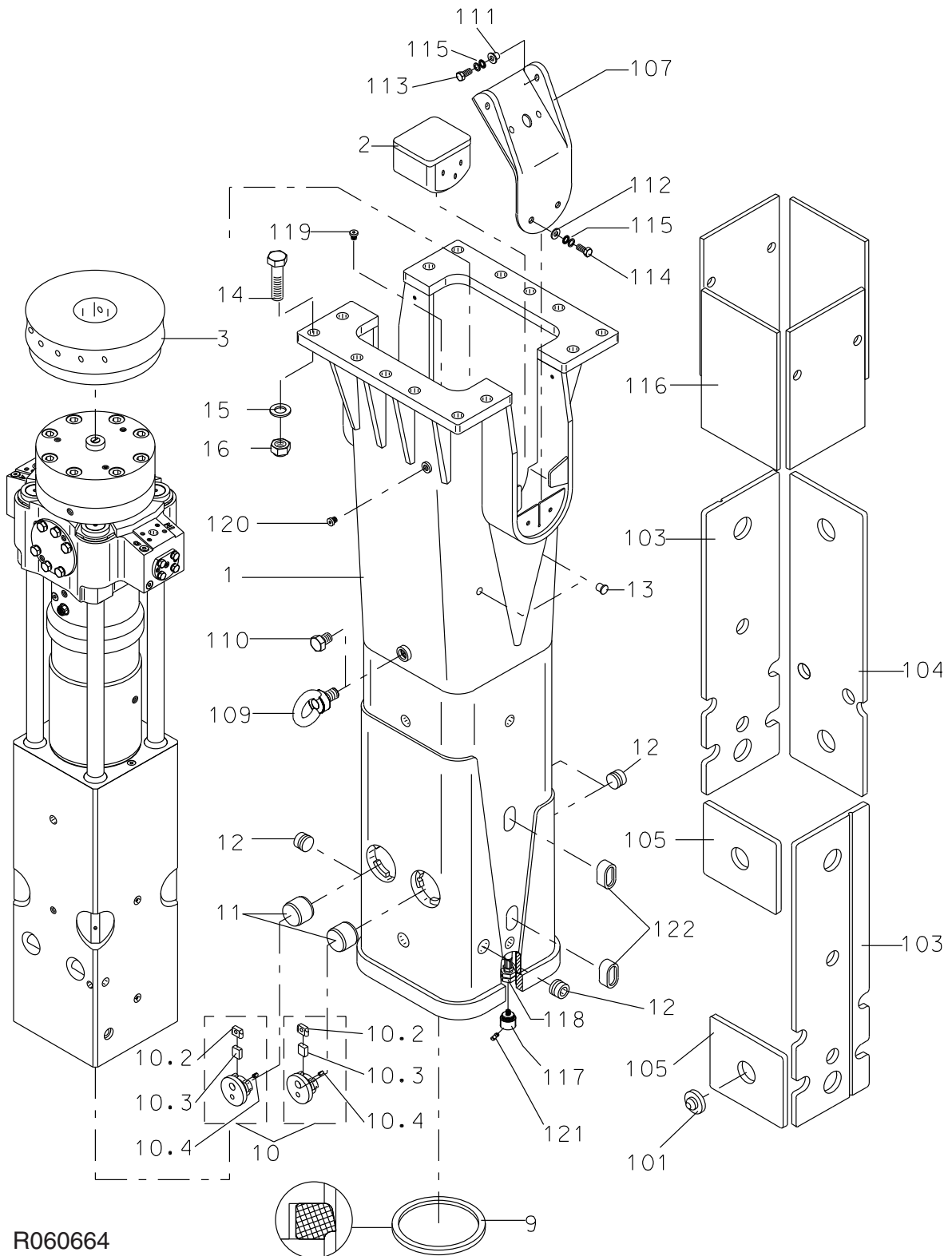
1. HOUSING UNIT CITY



R060751

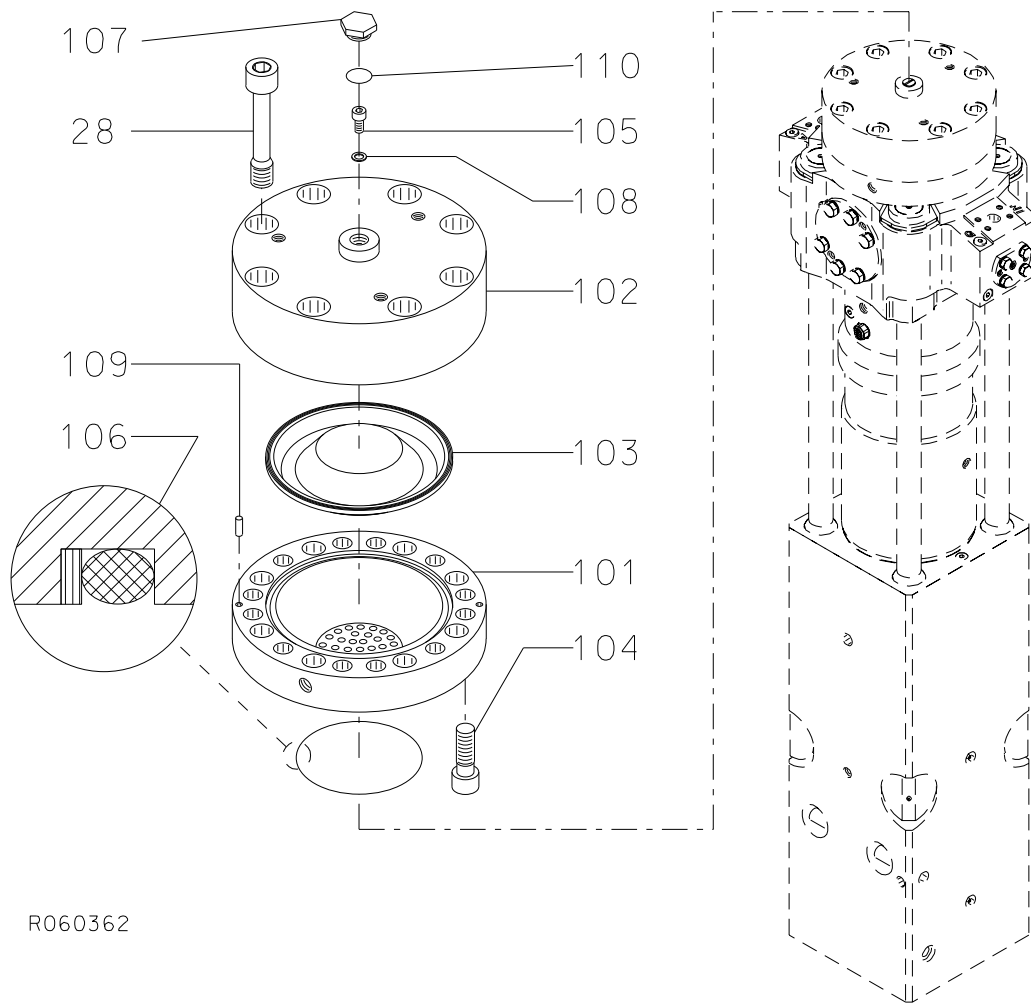
Item	Description	Part no.	Specification	Note	Qty
1	Housing (incl. parts 103-117)	104067			1
2	Pad	300641			2
3	Buffer (incl. parts 301 and 302)	300642			1
8	Shield plate	103117			1
9	Seal	102144			1
10	Rubber plug	400676	D50		9
11	Rubber plug	400566	D25		4
12	Hex. screw	90520	M36x140-8.8 DIN 931		14
13	Washer	90521	39 DIN 126		14
14	Lock nut	90519	M36-8 DIN 985		14
103	Wear plate	104126			2
104	Wear plate	104125			1
105	Wear plate	104124			2
107	Shield plate	102945			2
109	Lifting eye	901464	M36 DIN 580		1
110	Hex. screw	901465	M36x40-8.8 DIN 933		1
111	Middle bushing	102944			4
112	Middle bushing	102939			4
113	Hex. screw	91050	M12x40-8.8 DIN 933		4
114	Hex. screw	90513	M12x30-8.8 DIN 933		4
115	Lock washer	91012	M12 NORD-LOCK		8
116	Damper plate	102564			4
117	Pin	102389			2
130	Wear parts	160429			1
301	Buffer	101689			1
302	Pin	101342			1
200	Label set (incl. part 201.1)	170457			1
201.1	Safety label set	161564			1

2. HOUSING UNIT TUNNEL



Item	Description	Part no.	Specification	Note	Qty
1	Housing (incl. parts 101-122)	104187			1
2	Pad	103409			2
3	Buffer	104137			1
9	Seal	102144			1
10	Cover (incl. parts 10.2-10.4)	106081			2
10.2	Bar	106083			1
10.3	Buffer	106082			1
10.4	Split pin	90327			1
11	Tool retaining pin	103394			2
12	Rubber plug	400676	D50		4
13	Rubber plug	400566	D25		4
14	Hex. screw	90520	M36x140-8.8 DIN 931		14
15	Washer	903003	37 DIN 6916		14
16	Lock nut	90519	M36-8 DIN 985		14
101	Pin	102389			8
103	Wear plate	104126			2
104	Wear plate	104125			1
105	Wear plate	104124			2
107	Shield plate	102945			2
109	Lifting eye bolt	901464	M36 DIN 580		1
110	Hex. screw	901465	M36x40-8.8 DIN933		1
111	Middle bushing	102944			4
112	Washer	902815	D13		4
113	Hex. screw	91050	M12x40-8.8 DIN 933		4
114	Hex. screw	91088	M12x20-8.8 DIN 933		4
115	Lock washer	91012	M12 NORD-LOCK		8
116	Damper plate	102564			4
117	Guide	103047			2
118	Hose assembly	104122			1
119	Flange plug	90403	BSP 1/4		1
120	Flange plug	90424	BSP 1/2		1
121	Nozzle	102783	SSCO B1/8-GG-SS5		2
122	Rubber plug	300950			2
200	Label set (incl.part 201.1)	170457			1
201.1	Safety label set	161564			1

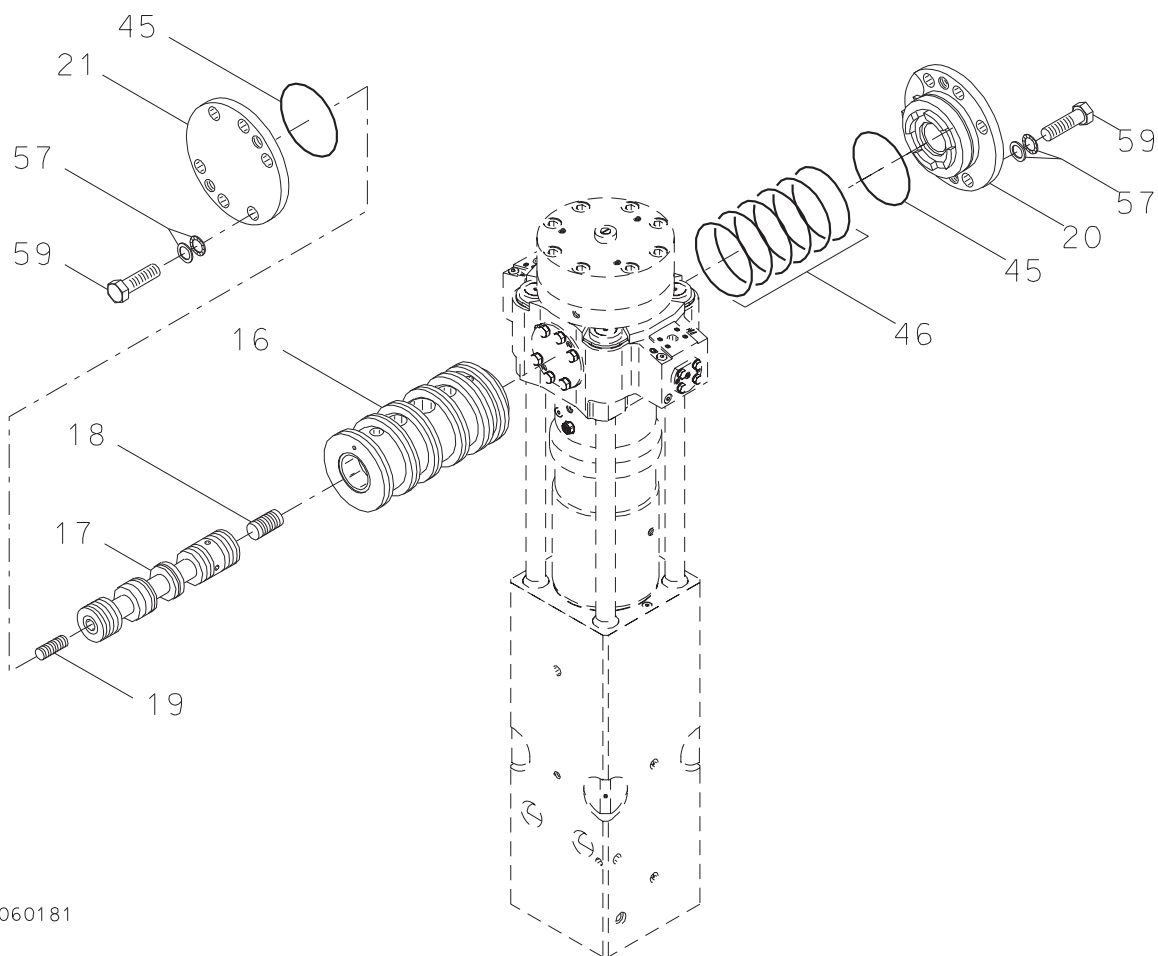
3. ACCUMULATOR



R060362

Item	Description	Part no.	Specification	Note	Qty
1	Accumulator (incl. parts 101-110)	110561			1
101	Accumulator bottom	110560			1
102	Accumulator cover	100491			1
103	Membrane	172307			1
104	Accumulator screw	40528			12
105	Filling plug	40368			1
106	Seal	40536	D144	*	1
107	Shield plug	154015			1
108	Usit-ring	90056	8-13.9-1	*	1
109	Parallel pin	90304	10m6x24 DIN 6325		2
110	O-ring	910006	D23	*	1
28	Accumulator screw	300711			8
	*) Are included in seal set				

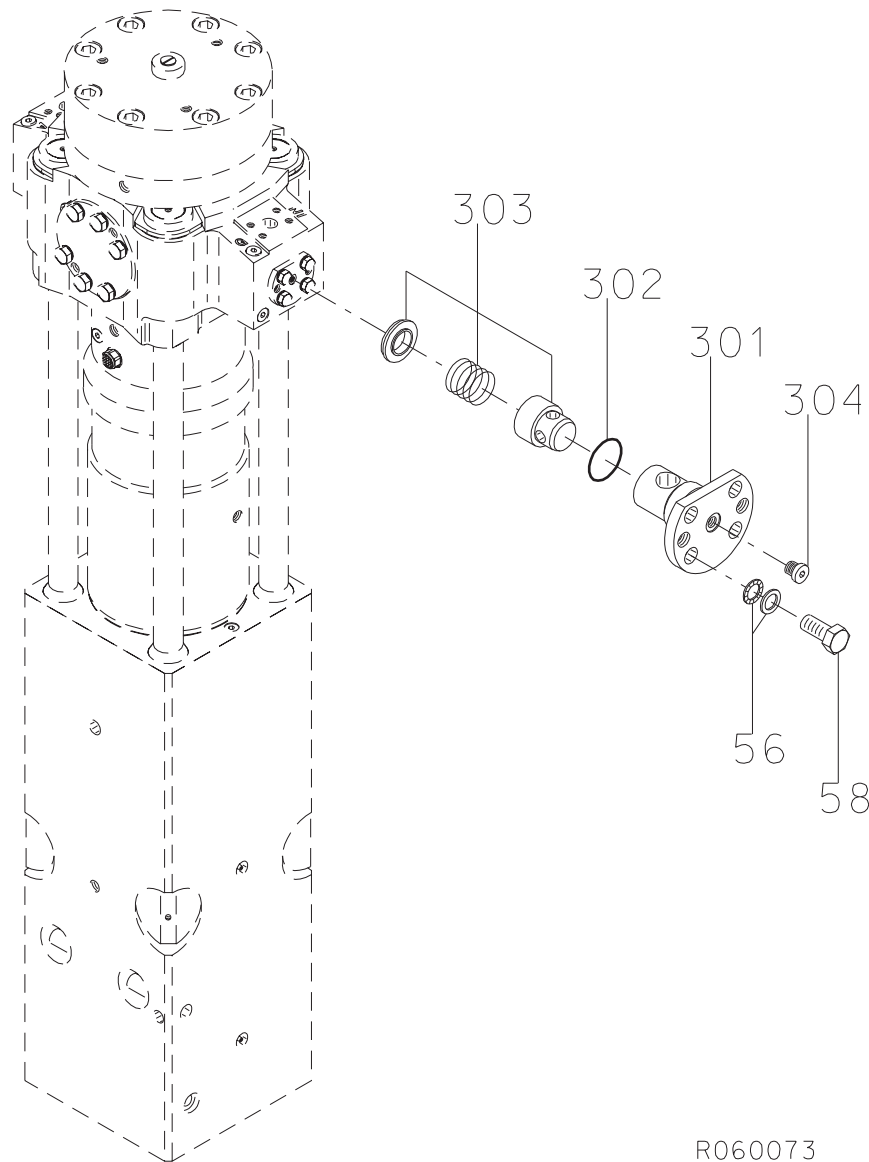
4. MAIN VALVE



R060181

Item	Description	Part no.	Specification	Note	Qty
16	Main valve bushing	104186			1
17	Main spool	300921			1
18	Spool	400649			1
19	Spool	40523			1
20	Cover	30260			1
21	Cover	30295			1
45	O-ring	90032	D120	*	2
46	Seal	902644		*	6
57	Lock washer	91010	M20 NORD-LOCK		12
59	Hex. screw	900036	M20x70-10.9 DIN 931		12
	*) Are included in seal set				

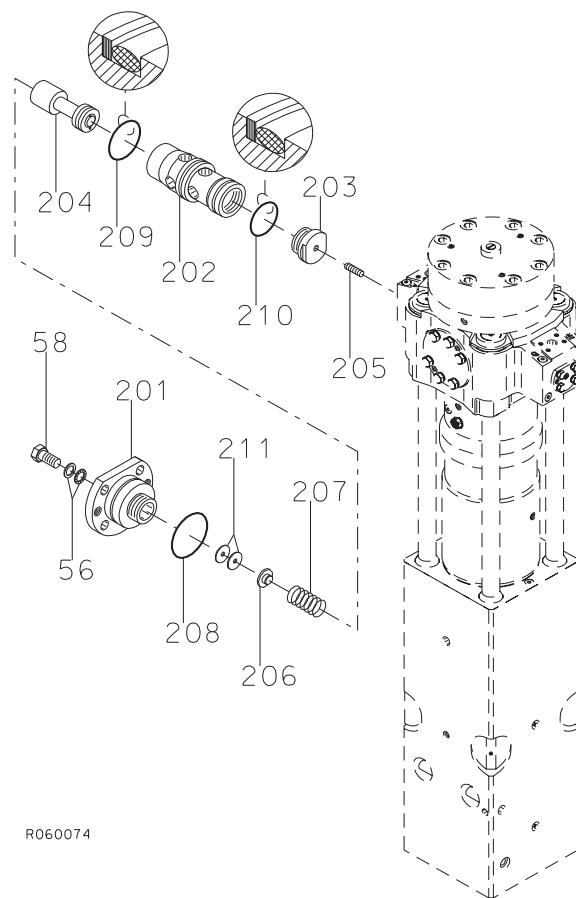
5. CHECK VALVE



R060073

Item	Description	Part no.	Specification	Note	Qty
3	Check valve (incl. parts 301-304)	300725			1
301	Cover	300696			1
302	O-ring	90007	D44	*	1
303	Check valve	915077			1
304	Flange plug	90403	BSP 1/4		1
56	Lock washer	90597	M16 NORD-LOCK		4
58	Hex. screw	90517	M16x35-8.8 DIN 933		4
	*) Are included in seal set				

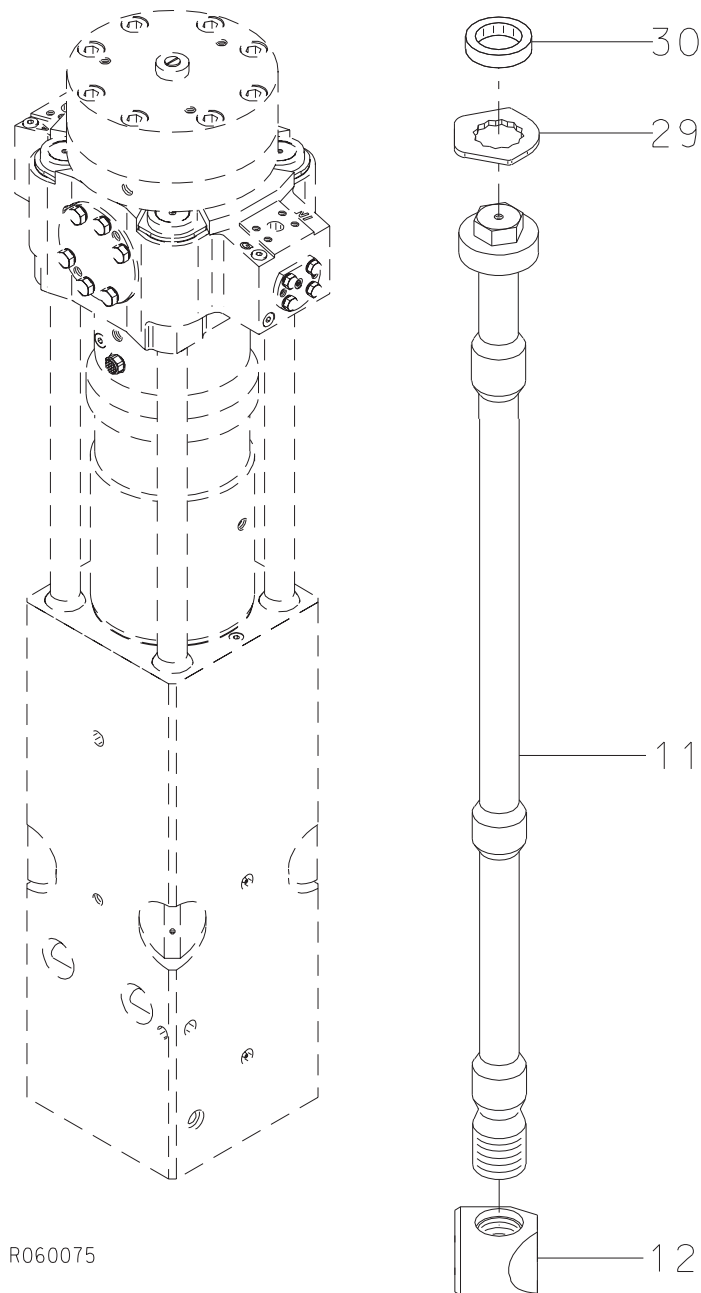
6. PRESSURE CONTROL VALVE



R060074

Item	Description	Part no.	Specification	Note	Qty
2	Pressure control valve (incl. parts 201-211)	300723			1
201	Cover	300871			1
202	Valve housing	300814			1
203	Guide	400581			1
204	Spool	300866			1
205	Spool	400582			1
206	Spring guide	42174			1
207	Spring	90118			1
208	O-ring	90030	D75	*	1
209	Seal	40533	D65	*	1
210	Seal	41374	D55	*	1
211	Shim plate	42363	S=1		X
211	Shim plate	42362	S=0.5		X
211	Shim plate	42361	S=1.5		X
56	Lock washer	90597	M16 NORD-LOCK		4
58	Hex. screw	90517	M16x35-8.8 DIN 933		4
	*) Are included in seal set				

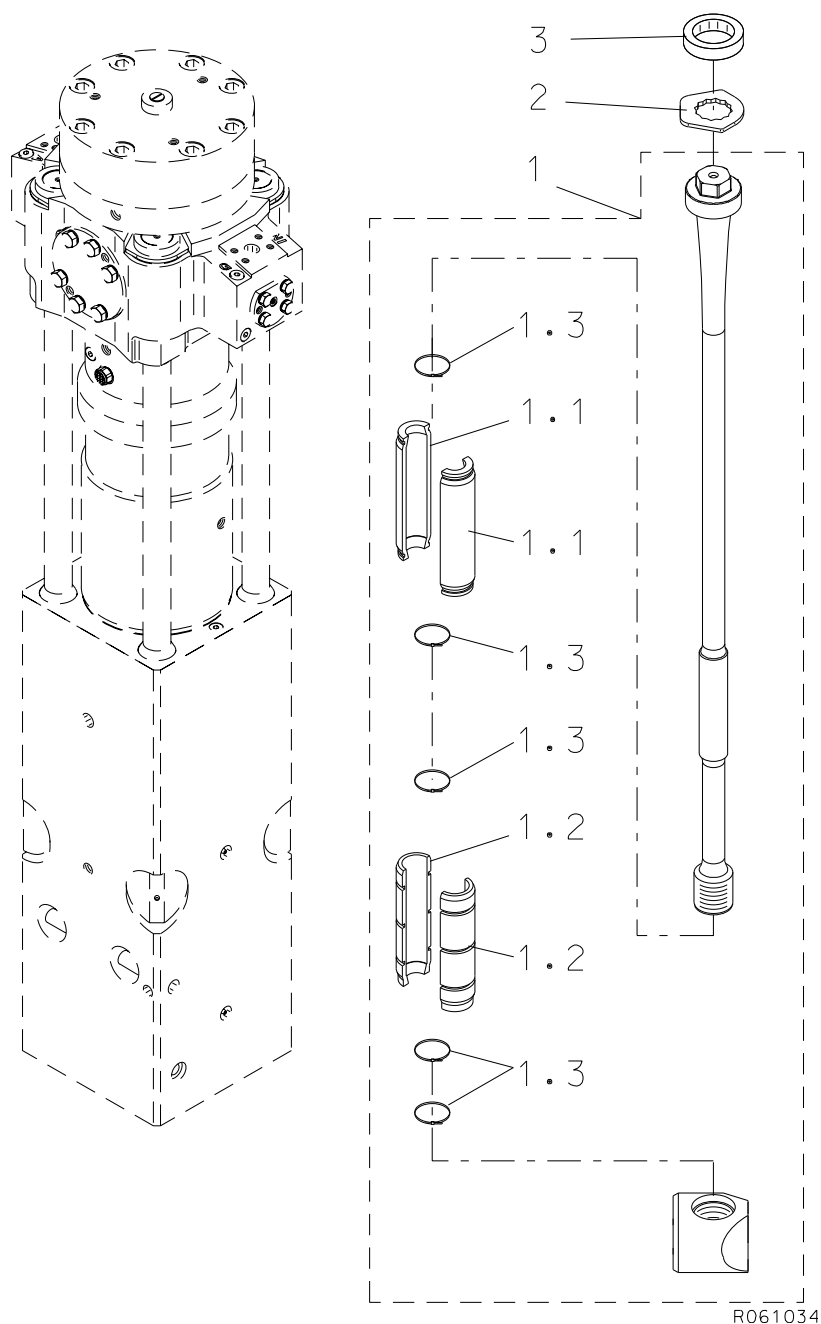
7. TIE RODS CLASSIC



R060075

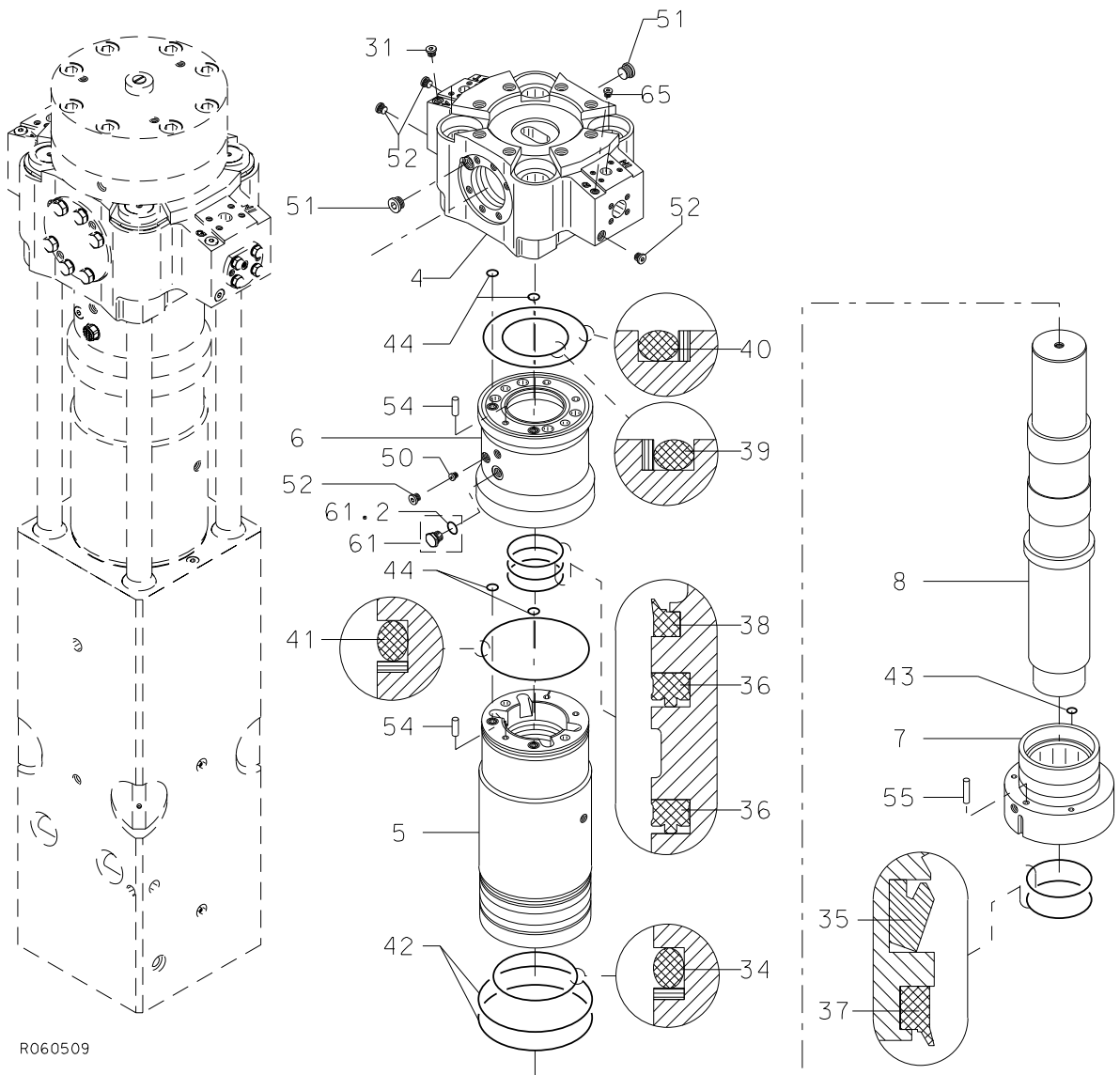
Item	Description	Part no.	Specification	Note	Qty
11	Tie rod	103777			4
12	Tie rod nut	112491			4
29	Lock plate	400478			4
30	Rubber ring	40586			4

8. TIE RODS VIDAT



Item	Description	Part no.	Specification	Note	Qty
1	Tie rod (incl. 1.1-1.3)	165699			4
1.1	Bushing	159596			2
1.2	Bushing	159607			2
1.3	Cable tie	952009			5
2	Lock plate	400478			4
3	Rubber ring	40586			4
Kit	Tie rod set	K40010	incl. 4 pcs 165699		1

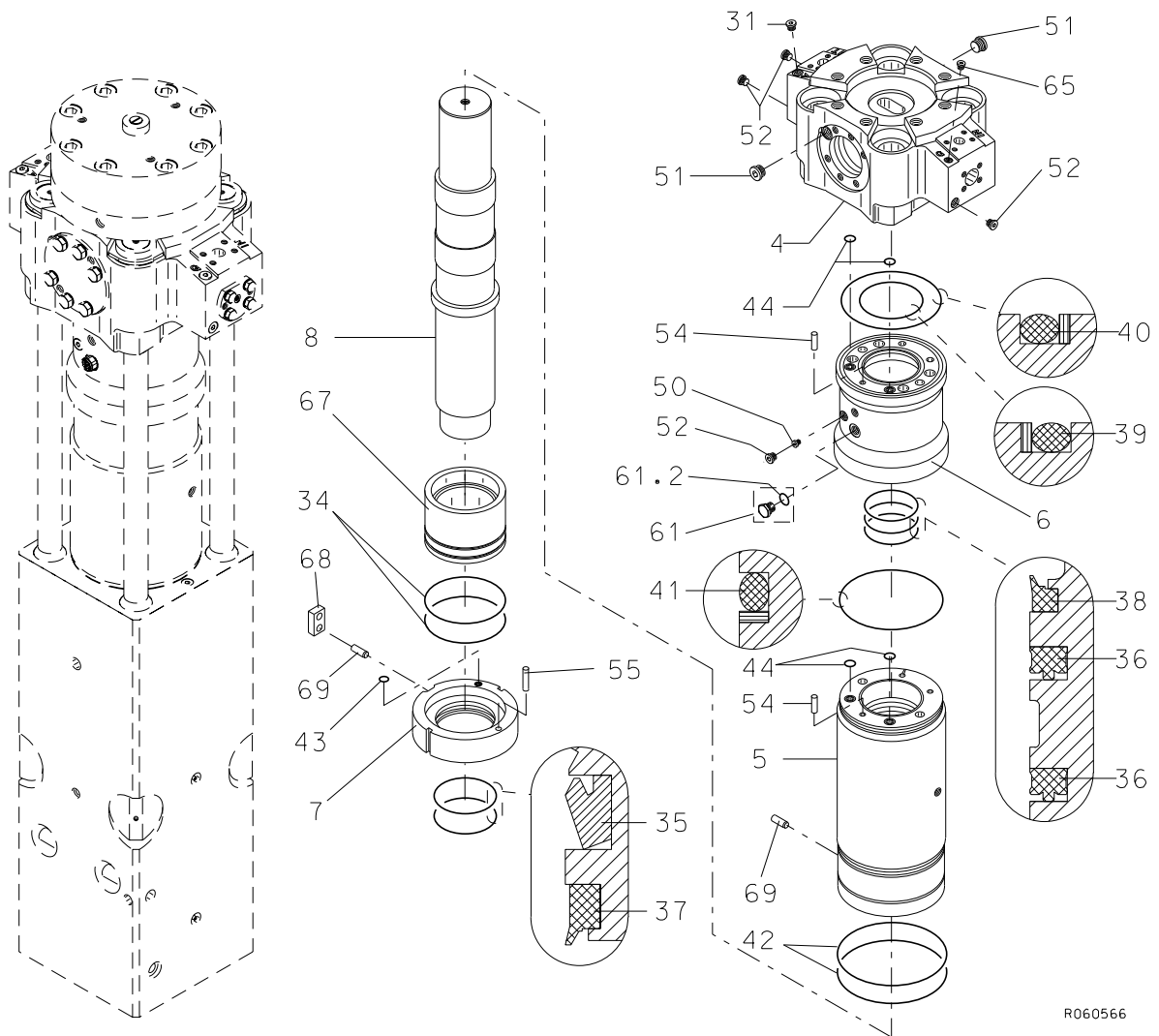
9. BODY PARTS CITY



R060509

Item	Description	Part no.	Specification	Note	Qty
4	Valve body	100394			1
5	Cylinder	100418			1
6	Seal carrier	100415			1
7	Lower seal carrier	100416			1
8	Piston	100417			1
31	Breather	400562			1
34	Seal	40588	D210	*	1
35	Seal	903066	D160	*	1
36	Seal	911023	D142	*	2
37	Wiper	90065	D160	*	1
38	Wiper	90064	D142	*	1
39	Seal	400474	D160	*	1
40	Seal	400476	D260	*	1
41	Seal	400481	D280	*	1
42	O-ring	910015	D269	*	2
43	O-ring	90012	D19	*	1
44	O-ring	910018	D21	*	4
50	Flange plug	90403	BSP 1/4		1
51	Flange plug	90410	BSP 1		2
52	Flange plug	90424	BSP 1/2		4
54	Parallel pin	90317	16m6x50 DIN 6325		2
55	Parallel pin	904017	16m6x70 DIN 6325		1
61	Breather (incl. part 61.2)	101700			1
61.2	O-ring	901173	D27	*	1
65	Flange plug	90444	BSP 3/8		1
	*) Are included in seal set				

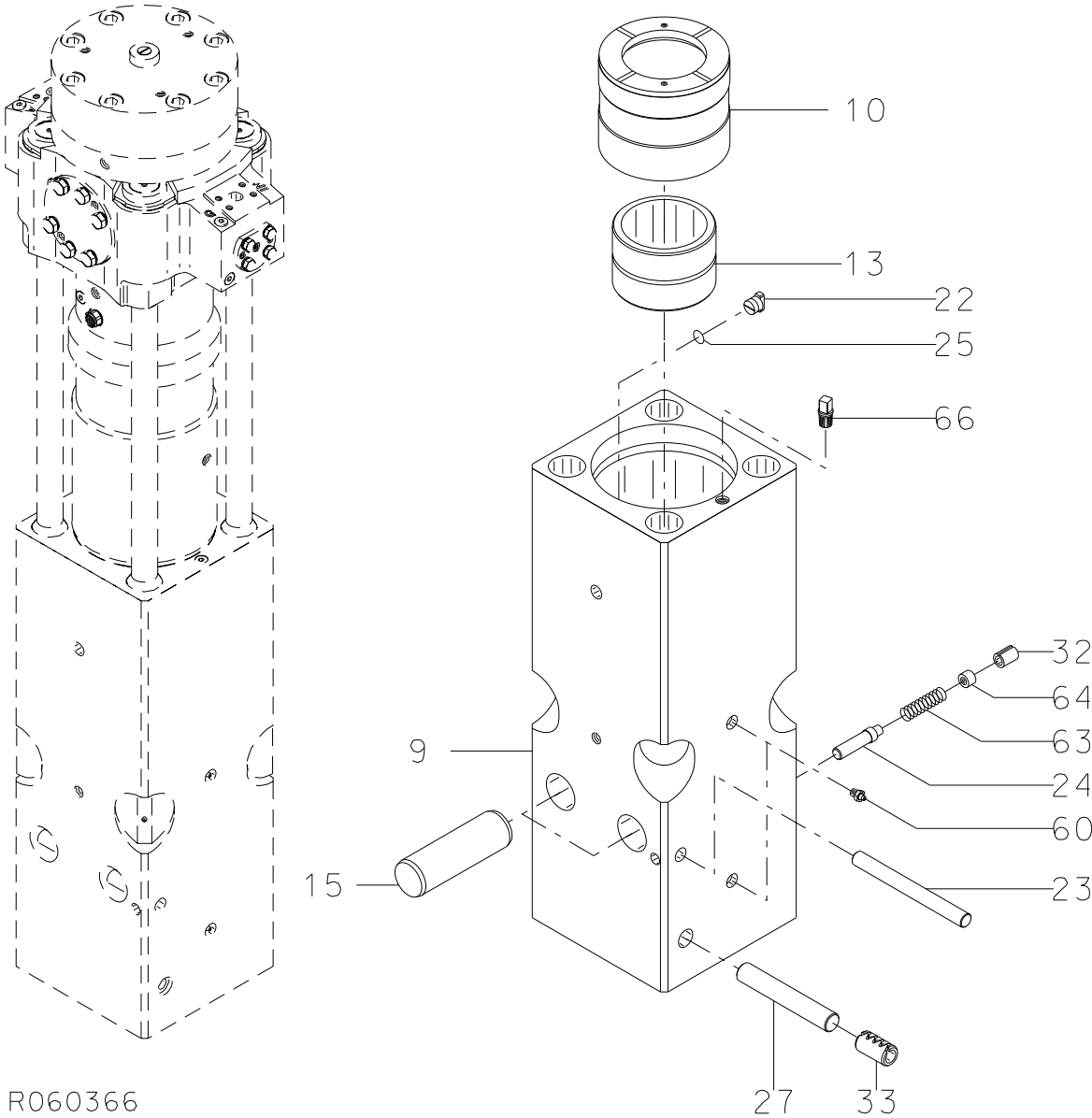
10. BODY PARTS TUNNEL



R060566

Item	Description	Part no.	Specification	Note	Qty
4	Valve body	100394			1
5	Cylinder	102999			1
6	Seal carrier	100415			1
7	Seal carrier	103000			1
8	Piston	100417			1
31	Breather	400562			1
34	O-ring	90036	D209	*	2
35	Seal	903066	D160	*	1
36	Seal	911023	D142	*	2
37	Wiper	90065	D160	*	1
38	Wiper	90064	D142	*	1
39	Seal	400474	D160	*	1
40	Seal	400476	D260	*	1
41	Seal	400481	D280	*	1
42	O-ring	910015	D269	*	2
43	O-ring	90011	D14	*	1
44	O-ring	910018	D21	*	4
50	Flange plug	90403	BSP 1/4		1
51	Flange plug	90410	BSP 1		2
52	Flange plug	90424	BSP 1/2		4
54	Parallel pin	90317	16m6x50 DIN 6325		2
55	Parallel pin	904017	16m6x70 DIN 6325		1
61	Breather (incl. part 61.2)	915050			1
61.2	O-ring	901173		*	1
65	Flange plug	90444	BSP 3/8		1
67	Bearing bushing	103003			1
68	Stopper	156223			1
69	Pin	156257			2
	*) Are included in seal set				

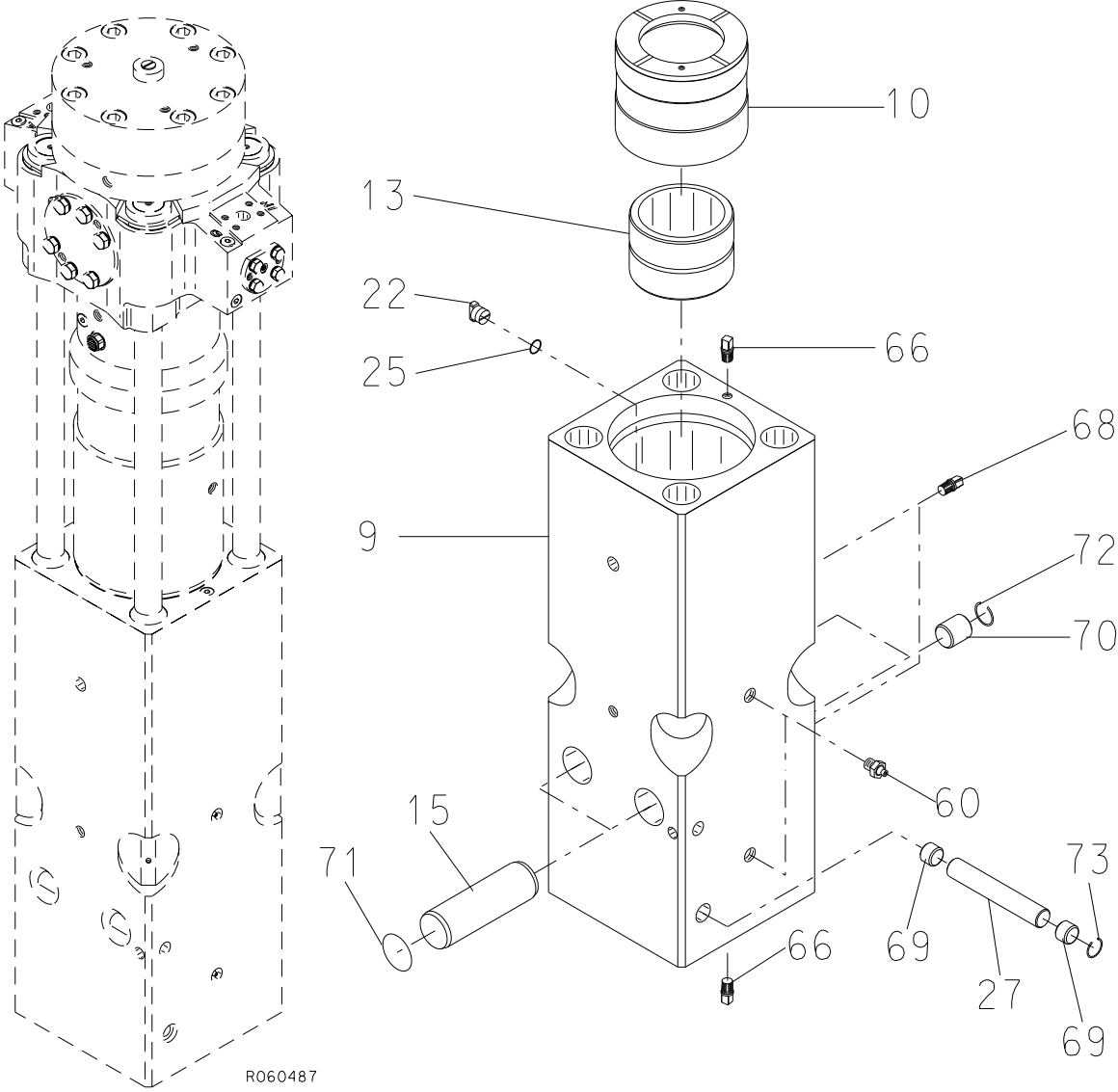
11. FRONT HEAD CITY



R060366

Item	Description	Part no.	Specification	Note	Qty
9	Front head (incl. parts 60, 66 and 68)	100395			1
10	Thrust ring	200359			1
13	Upper tool bushing	300619			1
15	Tool retaining pin	400470	D80		2
22	Wedge	40110			1
23	Retaining pin	400468	D30		1
24	Retaining pin	400415	D28		1
25	O-ring	90000	D24	*	1
27	Retaining pin	400469	D40		1
32	Split pin	904006	30x40 DIN 1481		1
33	Split pin	901134	D40x70		1
60	Grease nipple	90200	BSP 1/4		2
63	Spring	42428			1
64	Spring guide	400419			1
66	Plug	111404			1
	*) Are included in seal set				

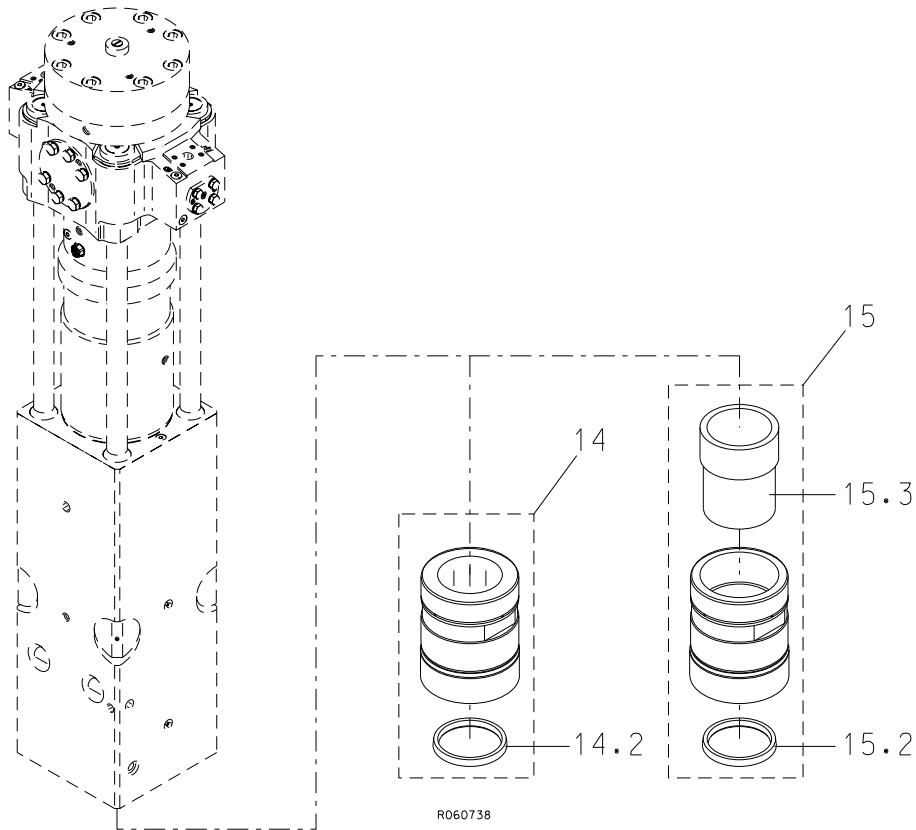
12. FRONT HEAD TUNNEL



R060487

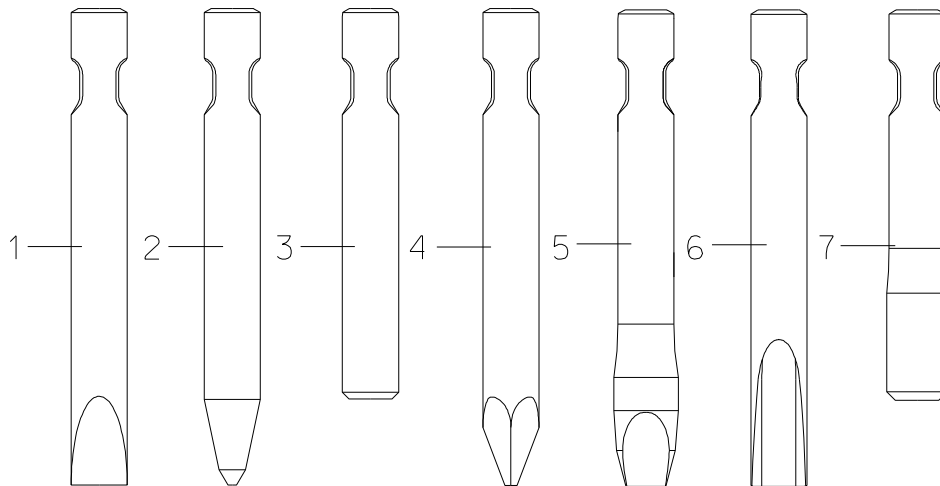
Item	Description	Part no.	Specification	Note	Qty
9	Front head (incl. parts 66 and 68)	104178			1
10	Thrust ring	200359			1
13	Upper tool bushing	300619			1
15	Tool retaining pin	400470	D80		2
22	Wedge	40110			1
25	O-ring	90000	D24	*	1
27	Retaining pin	400469	D40		1
60	Grease nipple	90200	BSP 1/4		2
66	Plug	111404			2
68	Plug	111399			2
69	Plug	104235			2
70	Plug	104236			2
71	O-ring	902808	D79		2
72	Spring ring	902807	B50 DIN 7993		2
73	Spring ring	902262	B40 DIN 7993		1
	*) Are included in seal set				

13. LOWER TOOL BUSHING



Item	Description	Part no.	Specification	Note	Qty
14	Lower tool bushing, standard (incl. part 14.2)	102159			1
14.2	Seal	102149			1
15	Lower tool bushing, extreme duty (incl. parts 15.2-15.3)	154516			1
15.2	Seal	102149			1
15.3	Insert	154515			1

14. TOOL

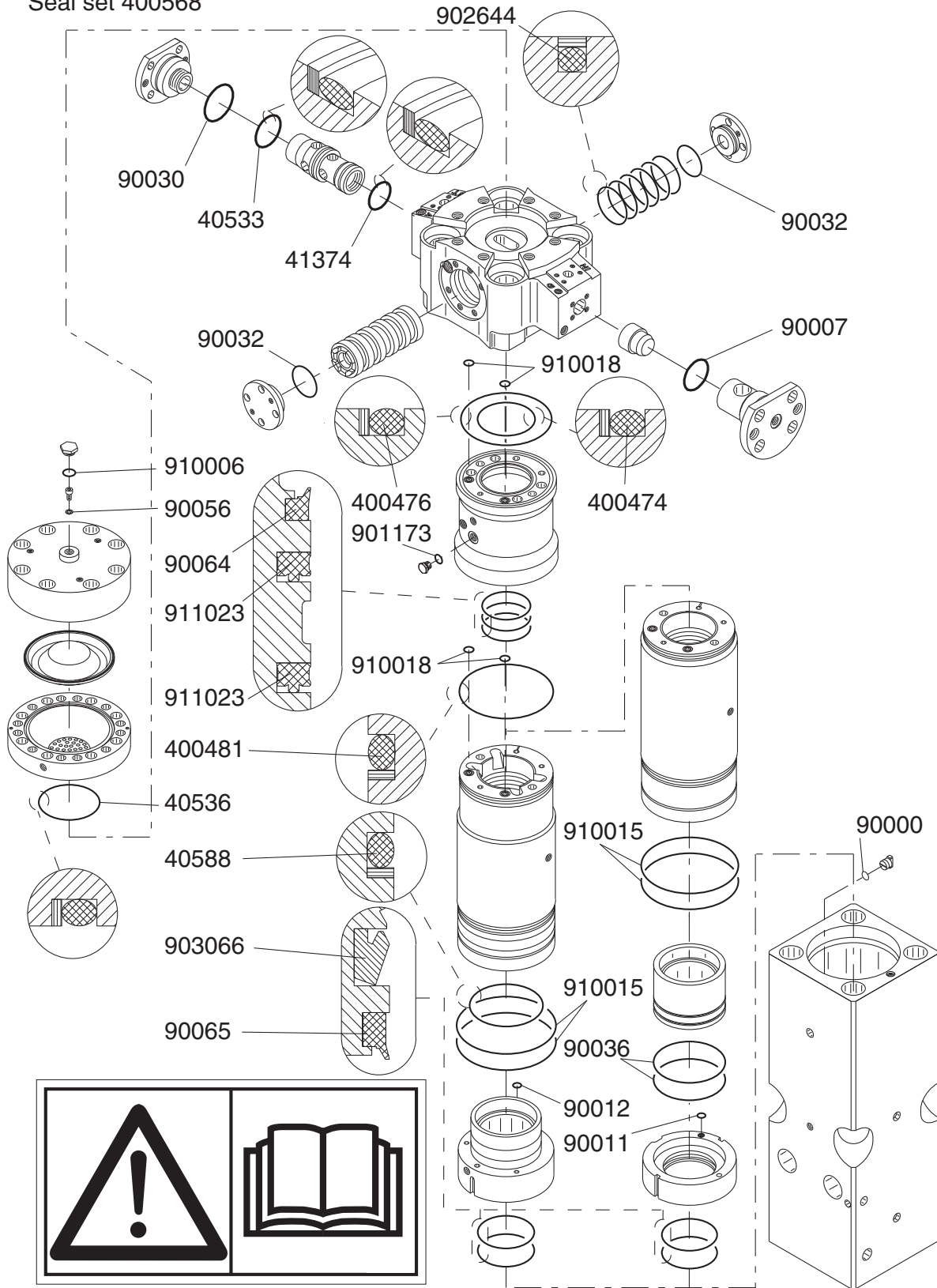


R060731

Item	Description	Part no.	Specification	Note	Qty
1	Chisel	101	L = 1450 mm, W = 230 kg, D = 170 mm		1
2	Moil point	103	L = 1450 mm, W = 225 kg, D = 170 mm		1
3	Blunt	104	L = 1300 mm, W = 225 kg, D = 170 mm		1
4	Pyramid	103K3	L = 1450 mm, W = 215 kg, D = 170 mm		1
5	Limestone Chisel	101F3	L = 1450 mm, W = 240 kg, D = 170 mm		1
6	Hard Rock Chisel	101A2	L = 1450 mm, W = 245 kg, D = 170 mm		1
7	Super Blunt	104T2	L = 1350 mm, W = 248 kg, D = 203 mm		1

15. SEAL SET

Seal set 400568

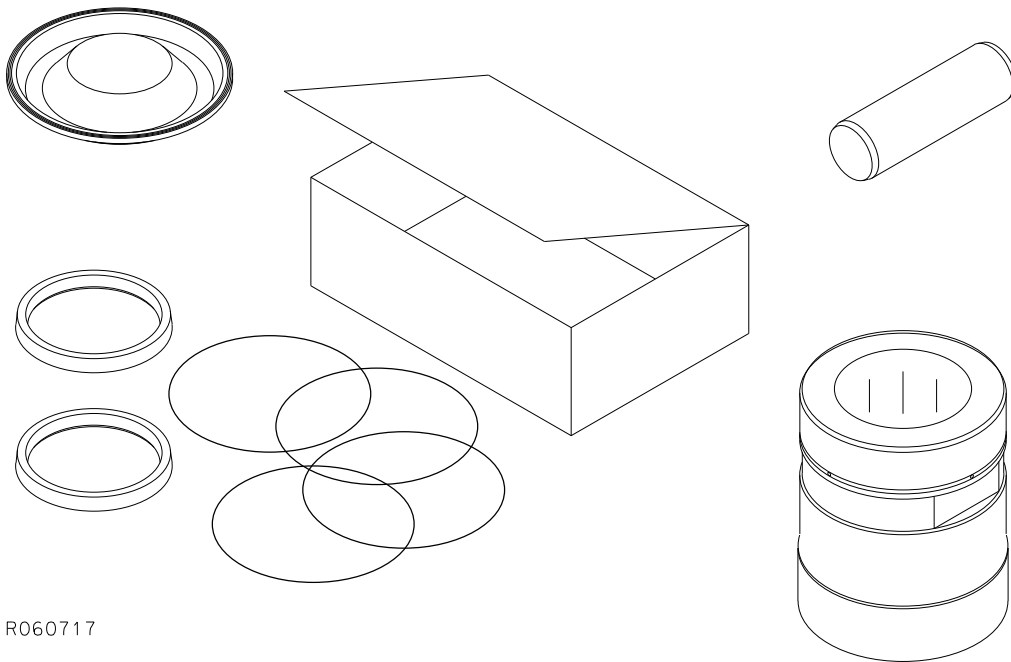


This summary only indicates the position of the seals. It must NOT be used as assembly instruction. Read the manual.

R061299

Item	Name	Part no.	Specification	Note	Qty
Kit	Seal set (incl. parts 1-28)	400568			1
1	O-ring	90000	D24		1
2	Seal	40588	D210		1
3	O-ring	90036	D209		2
4	Seal	903066	D160		1
5	Seal	911023	D142		2
6	Wiper	90065	D160		1
7	Wiper	90064	D142		1
8	Seal	400474	D160		1
9	Seal	400476	D260		1
10	Seal	400481	D280		1
11	O-ring	910015	D269		2
12	O-ring	90012	D19		1
13	O-ring	90011	D14		1
14	O-ring	910018	D21		4
15	O-ring	90032	D120		2
17	Seal	902644			6
18	O-ring	90017	D34		2
20	O-ring	910014	D64		4
21	O-ring	901173			1
22	Seal	40536	D144		1
23	Usit-ring	90056	8-13.9-1		1
24	O-ring	90030	D75		1
25	Seal	040533	D65		1
26	Seal	41374	D55		1
27	O-ring	90007	D44		1
28	O-ring	910006	D23		1
29	O-ring	910013	D117 Sold separately		6

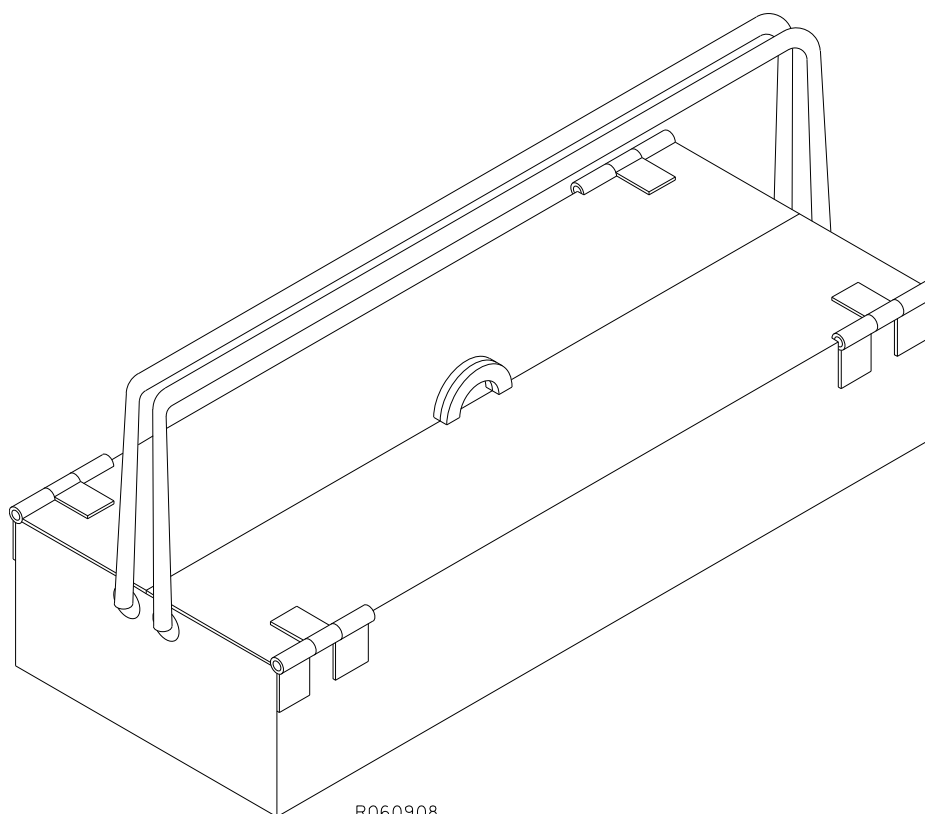
16. SERVICE KIT



R060717

Item	Description	Part no.	Specification	Note	Qty
Kit	Service kit (incl. parts 1 - 4)	K10010	Excluding TUNNEL, HARD		1
1	Membrane	172307			1
2	Tool retaining pin	400470	D80		2
3	Lower tool bushing, standard	102159			1
4	Seal set	400568			1

17. TOOL BOX



Item	Description	Part no.	Specification	Note	Qty
Kit3	Tool box kit 3 (incl. parts 1-22)	902044			1
6	Tool grease	902045			3
8	Screwdriver		6x150		1
9	Hammer		2 kg		1
17	Drift pin	400594	D22/D38/D40x200		1
19	Drift pin	400369	D15.5x360		1
21	Drift pin	400595	D20x400		1
22	Drift pin	400596	D16/D28/D30x250		1
41	Hook spanner	111275	Special tool for TUNNEL-housing, BR 4511 and BR 7013		1



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