

Pneumatic Metal Circular Saw

Type 5 1117 0020



Illustration can differ from the original

Repair Instruction and Spare Parts List

Repair

Disassembly

Disassembly and re-assembly should only be performed with assistance of the sectional drawing and/or the exploded view. Observe the safety instructions of the operation and maintenance manual.

Do not disassemble the tool until you know whether the problem is in one of the modules. Then only disassemble the tool as necessary to repair as required.

Keep contaminants such as dirt and grit away from the internal parts at all times.

Always identify and correct the cause of the problem prior to re-assembling. Further wear and tool failure can result, if the original cause is not corrected.

Prior to separating the modules, determine exactly, if the problem is in the compressed air supply in one of the modules. The paragraph "Troubleshooting" of the operation manual contains helpful information for exact identification of the problem.

Prior to disassembly

Clean outer surface of the machine.

Make sure that all new sealings are available for replacing the old ones during re-assembly.

Consider the installation direction of the sealings, before removing them. Install the new sealings at the same position as the old ones.

Notice: The installation direction of the parts mentioned in the following process instructions is indicated in the sectional drawings and parts list at the end of this instruction.

Spare Parts

Only genuine spare parts may be used. There is no warranty for damages and liability is disclaimed, if non-original spare parts and accessories are used.

Disassembly

Preparation of the metal saw for disassembly

- Disconnect energy supply and secure against restart.
- Disconnect pneumatic hoses.
- Take cutting tool out of the tool holder and store it at a safe place.

Disassembling of the modules for the attachment

- Loosen 7 x M5 item 29 (page 15) and remove motor housing cover item 28 from motor item 1 (page 13).
- Pull connecting pipe item 3 (page 13) out of the sealing sleeve item 4 (page 13)
- Loosen item 8 and 10 (page 13) and then remove valve handle, assy., item 2

Disassembling of the motor item 1

- Loosen 7 x M5 item 29 and dismantle motor housing cover item 28
 - Pull item 2 – 20 out of the motor housing item 1 (page 15).
 - If necessary, continue disassembling the motor according to the component drawing.
- **Disassemble valve handle, assy., item 2**
- Loosen 1 x M5 item 304 (page 17) and remove the handle, assy. item 306 with item 301 - 303 from the control, assy. item 305.
 - If necessary, continue disassembling the valve handle, assy., according to the component drawing.

Disassembling of control, assy. Item 305

- Loosen the hollow screw item 315 and remove the pivoting connection item 314 with item 312-313 from the valve housing, assy. Item 301.
- Pull item 302 – 307 out of the valve housing, assy., item 301.
- If necessary, continue disassembling the control, assy., according to the component drawing.

Disassembling of handle item 306

- Beat the double notched tape pin item 603 (page 21).
- Loosen the pressure sleeve item 606.
- If necessary, continue disassembling the handle, assy., according to the component drawing.

Re-assembly

The re-assembly is done in the reverse order.

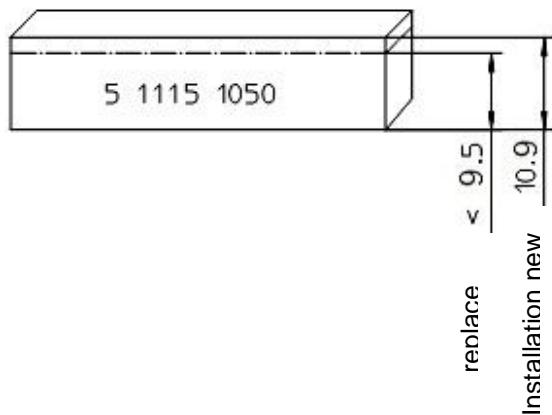
Observe the following:

- Check o-rings, bearings and radial shaft sealings with regard to damages and replace, if necessary.

When using assembly aids:

- Assembly aids must not cause damages.

Wear parts –especially the vanes – have to be replaced in time. Vanes are considered worn, when their width is less than 9.5 mm.



After use, flush the motor with thin fluid oil or provide a comparable corrosion protection.

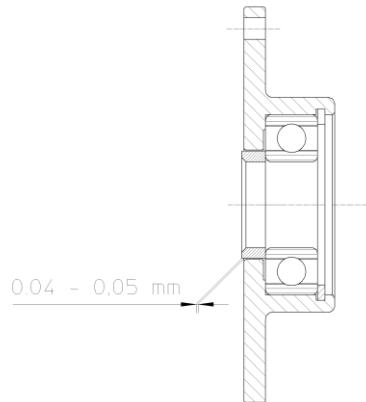
The rotor slots have to be cleaned from oil and resin residues, before installing the vanes item 15. The new vanes have to fall easily into the slots. Position the cylinder bushing item 7 correctly.

Further, the following items have to be observed!

If the bearings item 3 and item 17 in the end plates item 2 and 16 have been replaced, the spacing has to be checked in any case. If necessary, the spacing has to be corrected by installing new spacer rings item 6 and 19 (see fig. "end plate with spacer ring").

The spacer ring should be placed 0.04 / 0.05 mm in front of the end plate. For this, the inner ball bearing ring has to be pressed into the direction of the snap ring.

End plate with spacer ring



After finishing the assembly, a functional check must be done.

In most of the cases a check of the specified free speed and the air consumption is sufficient. (see technical specification of the operation manual).

Tighten all screws and nuts according to the instructions, when re-assembling.

Tightening torques			
Item	Description	Torque	Remark
8	Socket head screw M5	6,5 Nm	Page 13
10	Counter sunk screw M5	6,5 Nm	Page 13
23	Socket head screw M6	11,5 Nm	Page 15
26	Socket head screw M5	6,5 Nm	Page 15
29	Socket head screw M5	6,5 Nm	Page 15
303	Counter sunk screw M5	6,5 Nm	Page 17
304	Socket head screw M5	6,5 Nm	Page 17

Lubricant

The proper quantity of grease is very important from the point of good lubrication and low heat generation.

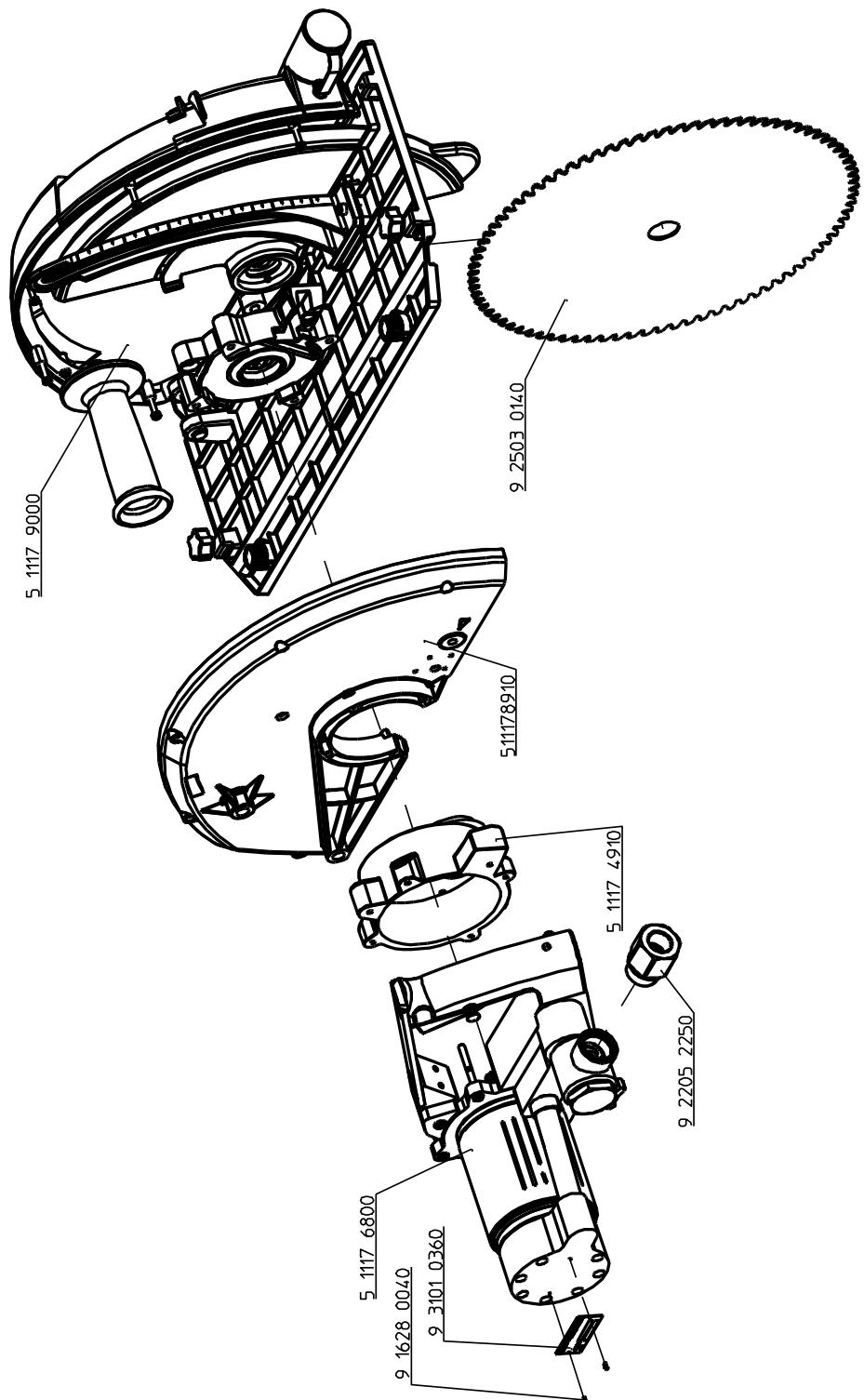
It is important that the individual gear stages can be turned easily. Pay attention to the centred running of the pinion and the planet wheel carrier. The gear has to be filled with grease (see following table).

Grease	
Quantity of grease	Order number
10 g	9 9902 0110

Spare Parts List

Spare Parts List

Description:	Part and drawing number:
Pneumatic Metal Circular Saw	5 1117 0020



The diagram illustrates the exploded view of the Pneumatic Metal Circular Saw. It shows the main body assembly with various components labeled with their part numbers:

- Top Left: A cylindrical component labeled 5 1117 9000.
- Top Right: A circular component labeled 9 2503 0140.
- Middle Left: A curved component labeled 511178910.
- Middle Right: A cylindrical component labeled 5 1117 4910.
- Bottom Left: A rectangular component labeled 9 1628 0040 and 9 3101 0360.
- Bottom Right: A small circular component labeled 9 2205 2250.

Spare Parts List

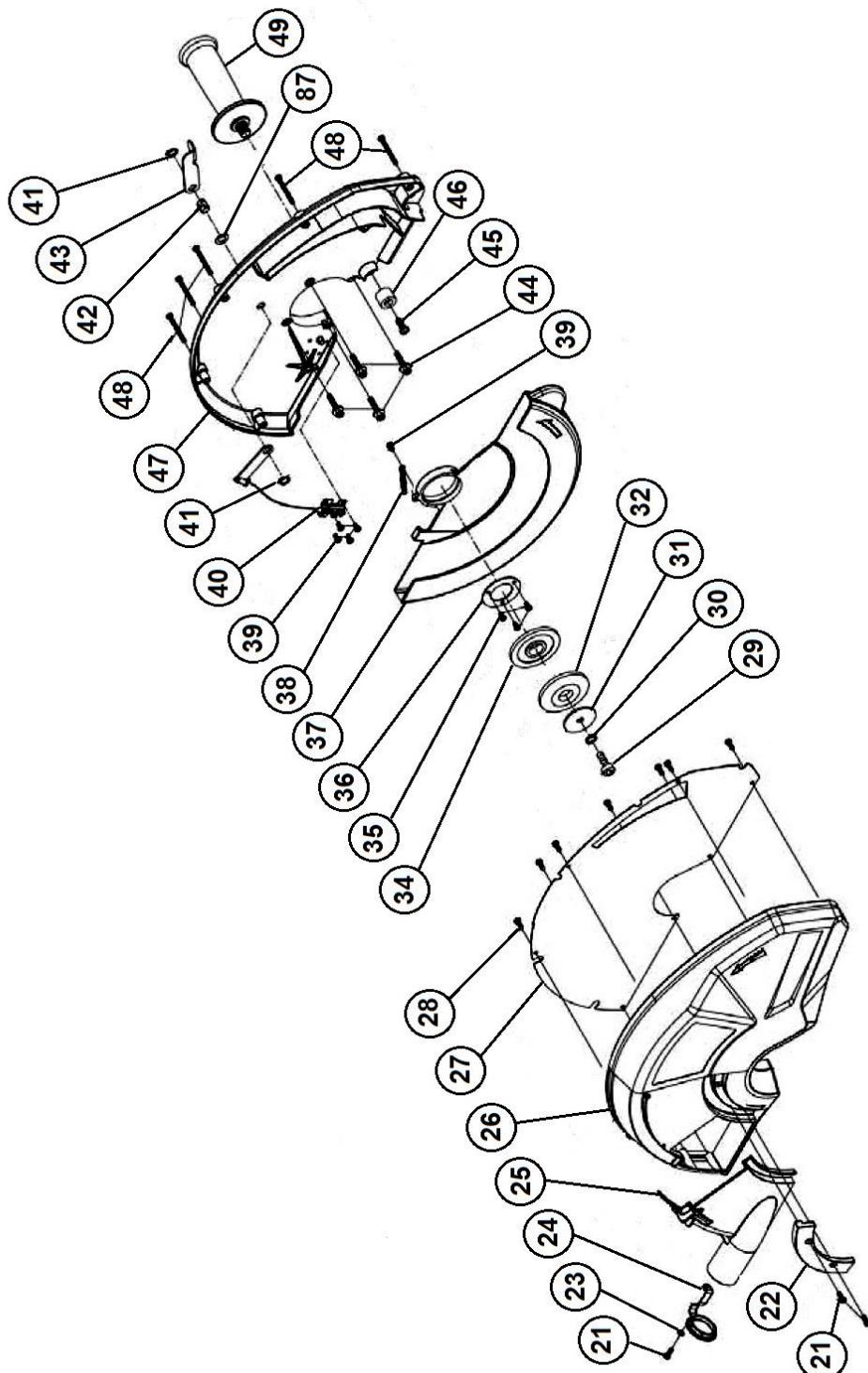
Description:			Part and drawing number:	
Metal Circular Saw Head			5 1117 9000	
Item	Qty.	Description	Part and drawing no.	Remarks
12	2	Washer	9 3325 1670	
21	3	Crosshead screw	9 1149 0070	
22	1	Holder	5 1117 8950	
23	1	Washer	9 3302 0150	
24	1	Dust port plug	5 1117 8930	
25	1	Dust chamber cover	5 1117 8940	
26	1	Front guard	5 1117 8920	
27	1	Cover plate	5 1117 8070	
28	7	Crosshead screw	9 1149 0060	
29	1	Socket head screw	9 1110 5040	
30	1	Spring washer	9 3322 0030	
31	1	Disc	5 1117 8040	
32	1	Wheel flange	5 1117 8050	
34	1	Centring flange	5 1117 8030	
35	3	Counter sunk screw	9 1113 2070	
36	1	Disc	5 1117 8320	
37	1	Bottom guard	5 1117 8310	
38	1	Tension spring	9 1804 0240	
39	5	Socket head screw	9 1110 2090	
40	1	Adjusting mechanism	5 1117 8240	
41	2	Snap ring	9 1702 0040	
42	1	Bolt	5 1117 8250	
43	1	Adjusting lever	5 1117 8220	
44	4	Socket head screw	9 1110 3170	
45	1	Socket head screw	9 1110 4010	
46	1	Rubber buffer	9 5201 0080	
47	1	Rear guard	5 1117 8910	
48	5	Crosshead screw	9 1149 0080	
49	1	Handle	5 1117 6210	

Spare Parts List

Description:			Part and drawing number:	
Metal Circular Saw Head			5 1117 9000	
Item	Qty.	Description	Part and drawing no.	Remarks
50	1	Connecting gear housing	5 1117 4910	
51	1	Spindle	5 1117 7020	
52	3	Feather key	9 1501 3030	
53	2	Grooved ball bearing	9 1004 0290	
54	1	Snap ring	9 1702 0170	
55	1	Spacer sleeve	5 1117 4220	
56	1	Spur wheel	5 1117 4200	
57	1	Nut	5 1117 4210	
58	2	Grooved ball bearing	9 1001 0120	*
59	1	Gear pinion	5 1117 4170	
60	1	Gear wheel	5 1117 4270	
61	1	Grooved ball bearing	9 1004 0300	*
62	1	Gear cover	5 1117 4090	
63	1	Grooved ball bearing	9 1003 0390	*
64	1	Locking lever	5 1117 8100	
72	2	Adjusting washer	9 3331 2500	
79	2	Socket head screw	9 1110 3120	
80	1	Guide bar	5 1117 8260	
81	2	Crosshead screw	9 1149 0090	
82	2	Spring washer	9 3312 0010	
83	2	Lock	9 1149 0100	
84	1	Threaded pin	9 1140 3040	
85	1	Bolt	5 1117 8230	
86	1	Base plate	5 1117 8210	
87	1	Rubber disc	5 1117 8270	
		* Wear parts to be stored in case of continuous operation.		

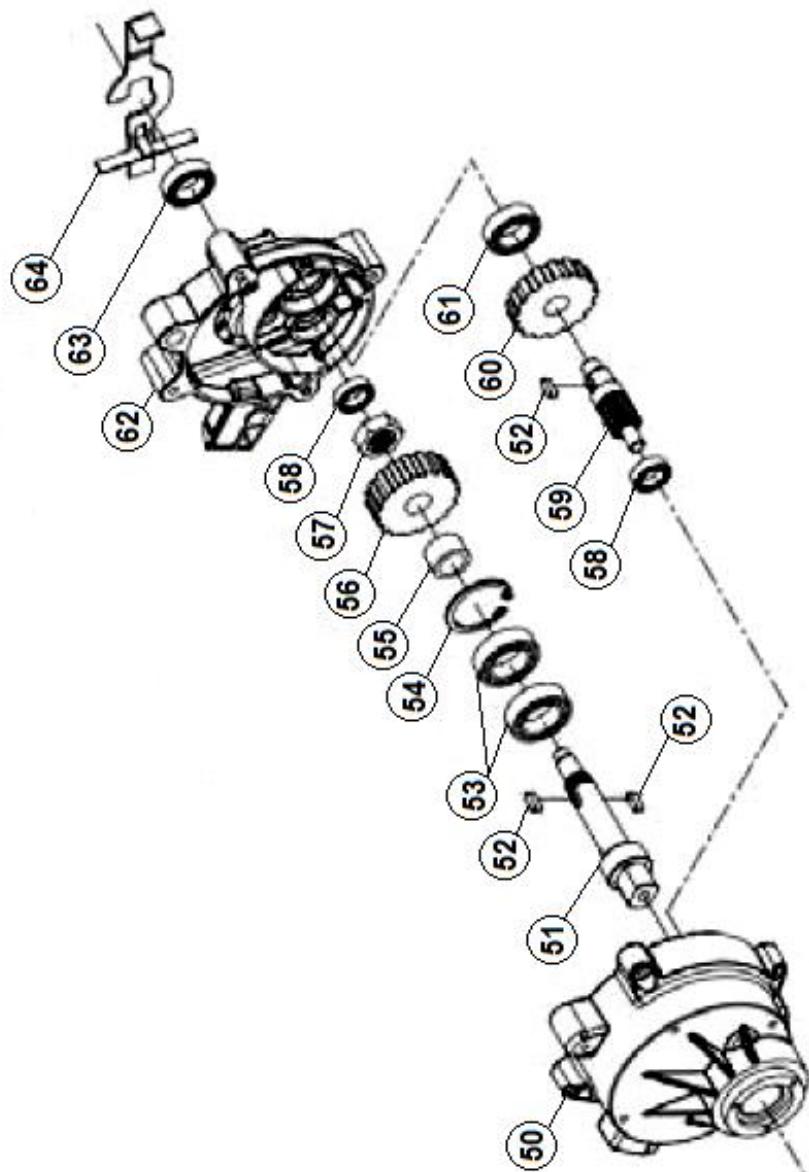
Spare Parts List

Description:	Part and drawing number:
Metal Circular Saw Head	5 1117 9000



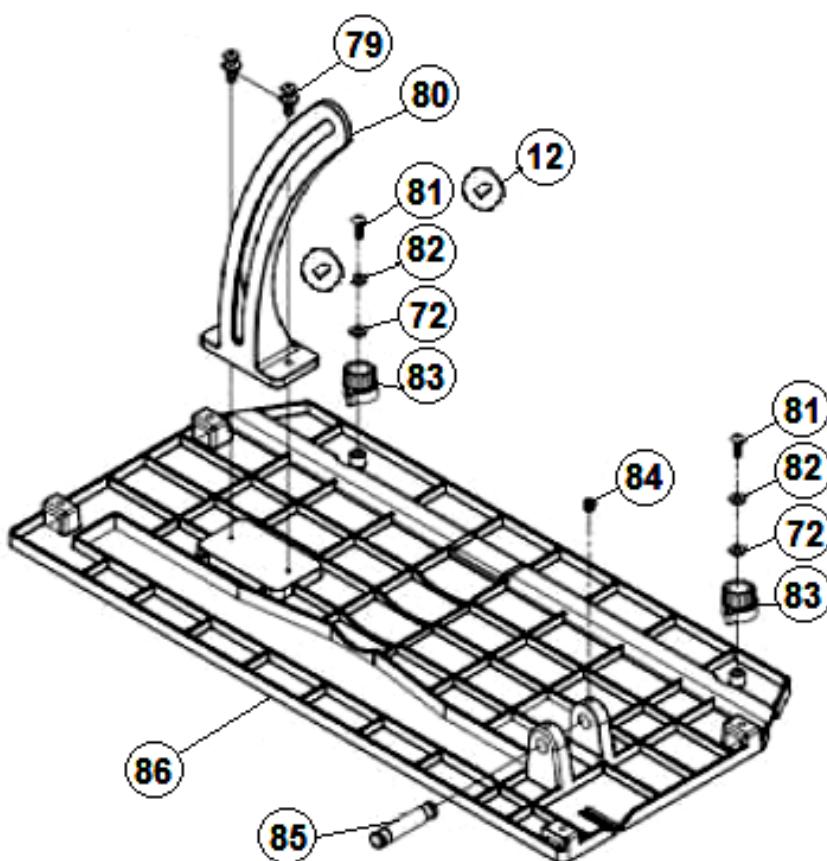
Spare Parts List

Description:	Part and drawing number:
Metal Circular Saw Head	5 1117 9000



Spare Parts List

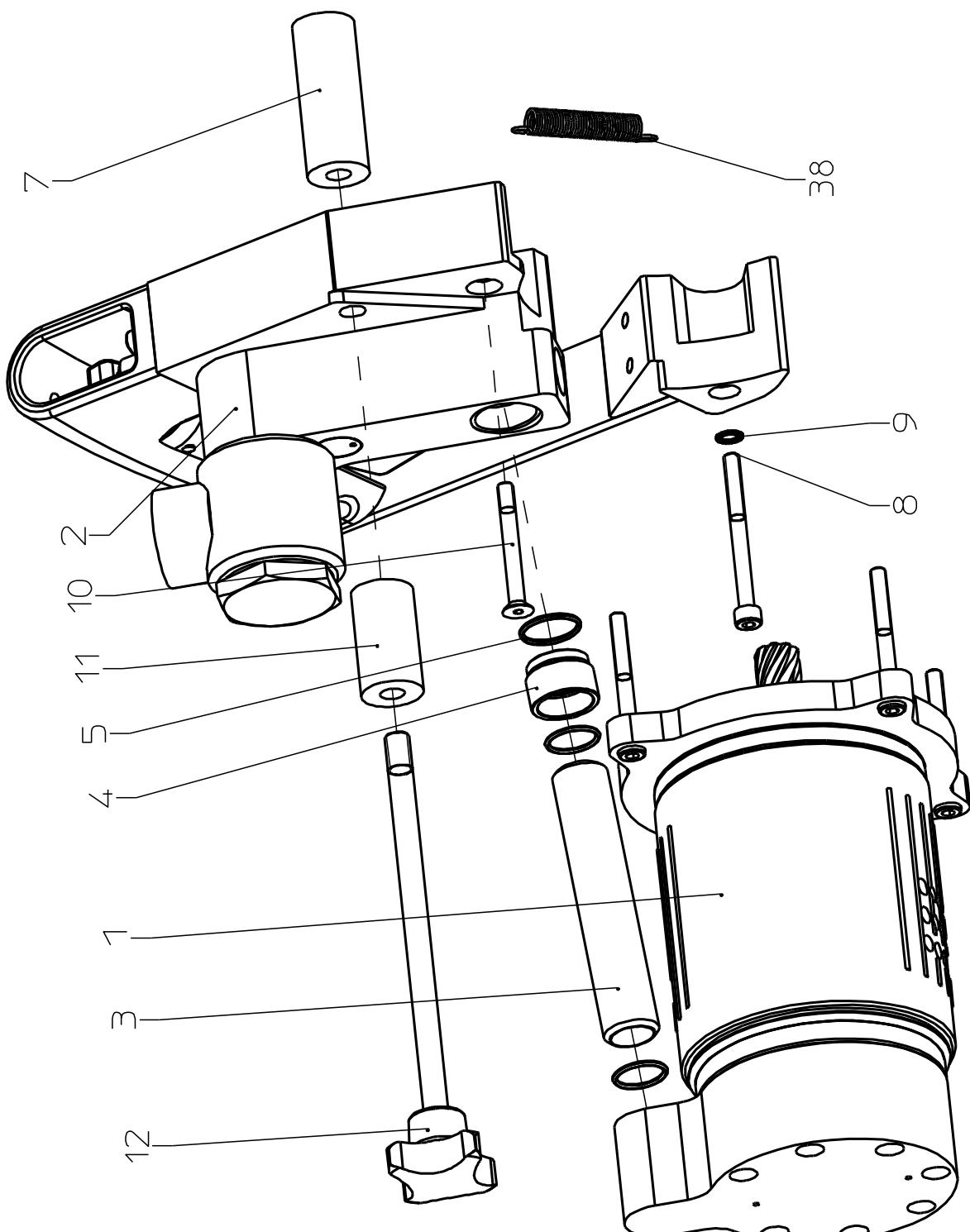
Description:	Part and drawing number:
Metal Circular Saw Head	5 1117 9000



Spare Parts List

Spare Parts List

Description:	Part and drawing number:
Modification Kit for Metal Circular Saw	5 1117 6800

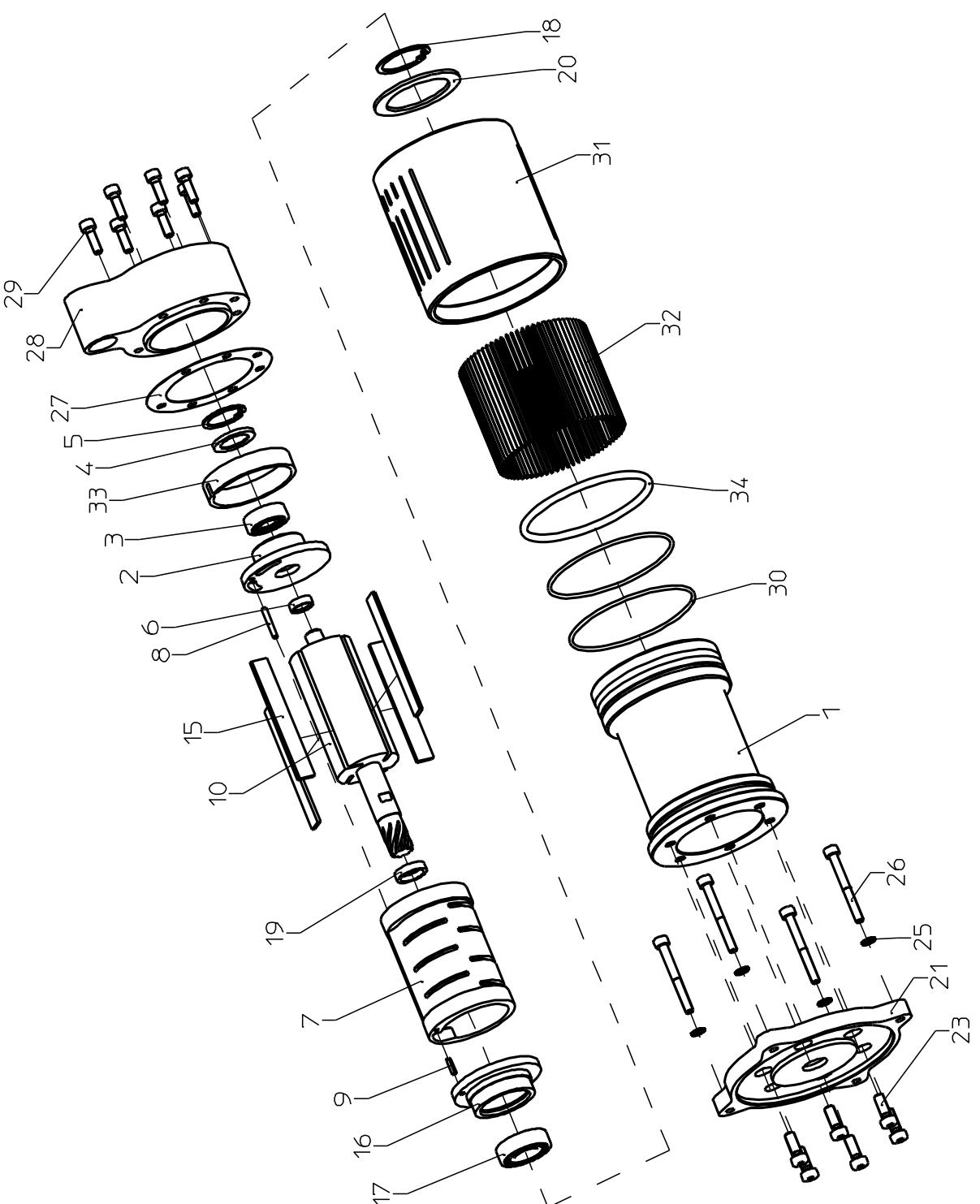


Spare Parts List

Description:			Part and drawing number:	
Pneumatic Motor			5 1117 1000	
Item	Qty.	Description	Part and drawing no.	Remarks
1	1	Motor housing, assy.	5 1115 1960	
2	1	End plate	5 1115 1100	*
3	1	Grooved ball bearing	9 1003 0010	*
4	1	Cover disc	5 1115 1120	
5	1	Snap ring	9 1703 0050	
6	1	Spacer ring	3 7519 1080	*
7	1	Cylinder bushing	5 1115 1020	
8	1	Tension sleeve	9 1630 0030	
9	1	Tension sleeve	9 1630 0240	
10	1	Rotor	5 1115 1930	
15	4	Vane	5 1115 1050	*
16	1	End plate	5 1115 1110	*
17	1	Grooved ball bearing	9 1003 0030	*
18	1	Snap ring	9 1703 0100	
19	1	Spacer ring	3 7594 1080	*
20	1	Cup spring	9 1802 0750	
21	1	Motor cover	5 1115 1130	
23	6	Socket head screw	9 1112 4180	
25	4	Locking washer	9 3329 0010	
26	4	Socket head screw	9 1110 3090	
27	1	Sealing	5 1115 1260	*
28	1	Motor housing cover	5 1117 1120	
29	7	Socket head screw	9 1110 3310	
30	2	O-ring	9 1901 3100	*
31	1	Rotary sleeve	5 6005 1120	
32	2	Silencer mat	9 3801 0980	*
33	1	Pressure ring	5 1115 1180	
34	1	O-ring	9 1901 6210	*
		* Wear parts to be stored in case of continuous operation.		

Spare Parts List

Description:	Part and drawing number:
Pneumatic Motor	5 1117 1000

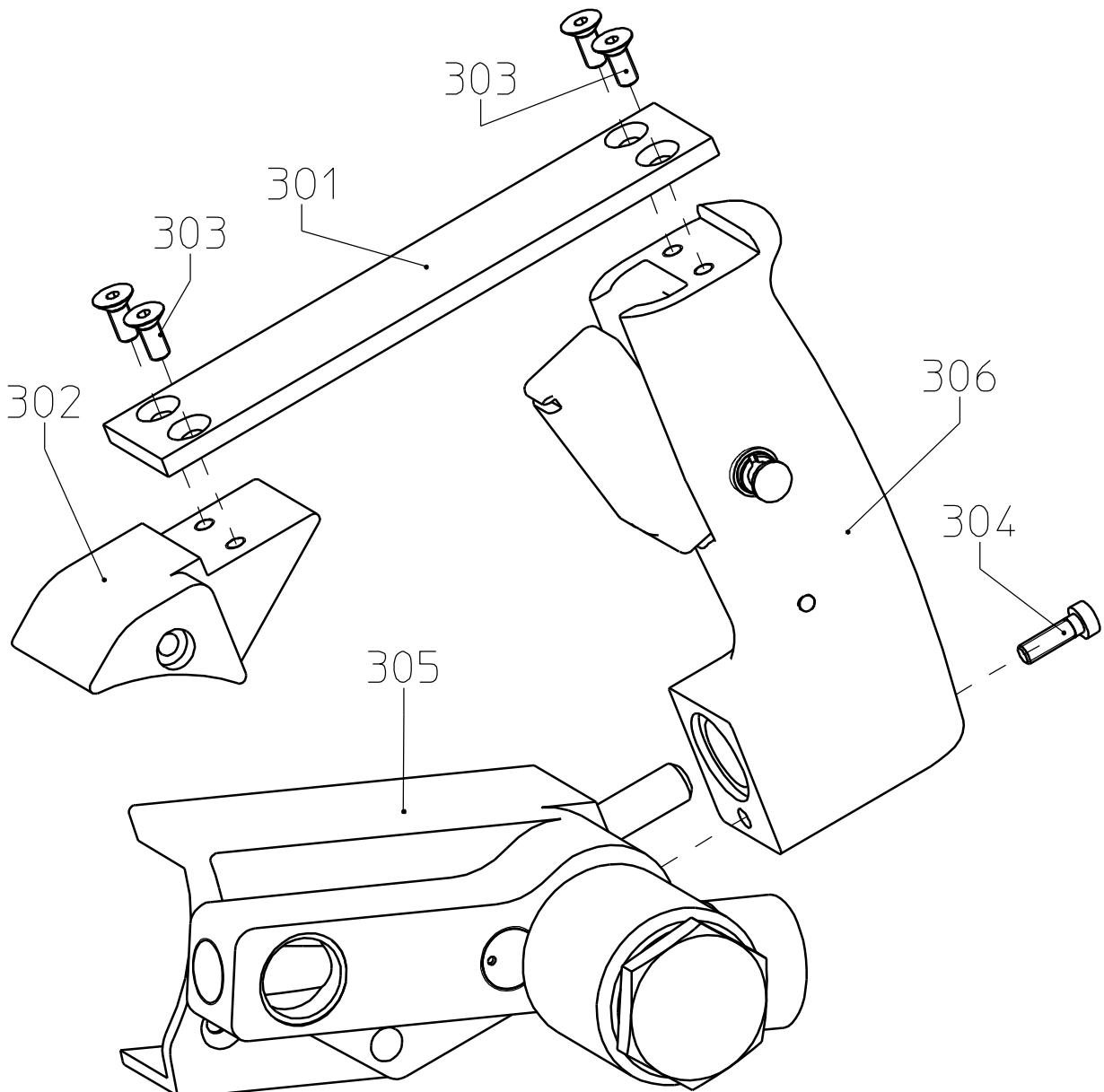


The diagram illustrates the exploded view of a Pneumatic Motor. It consists of several main components: a cylindrical body (31) with a ribbed base (32), a piston assembly (1, 19, 7) at the bottom, a valve assembly (10, 15) in the middle, and a top cap assembly (29, 28). Numerous small parts are numbered from 1 to 34, representing various washers, seals, and fasteners. Dashed lines indicate the assembly path between these components.

Spare Parts List

Spare Parts List

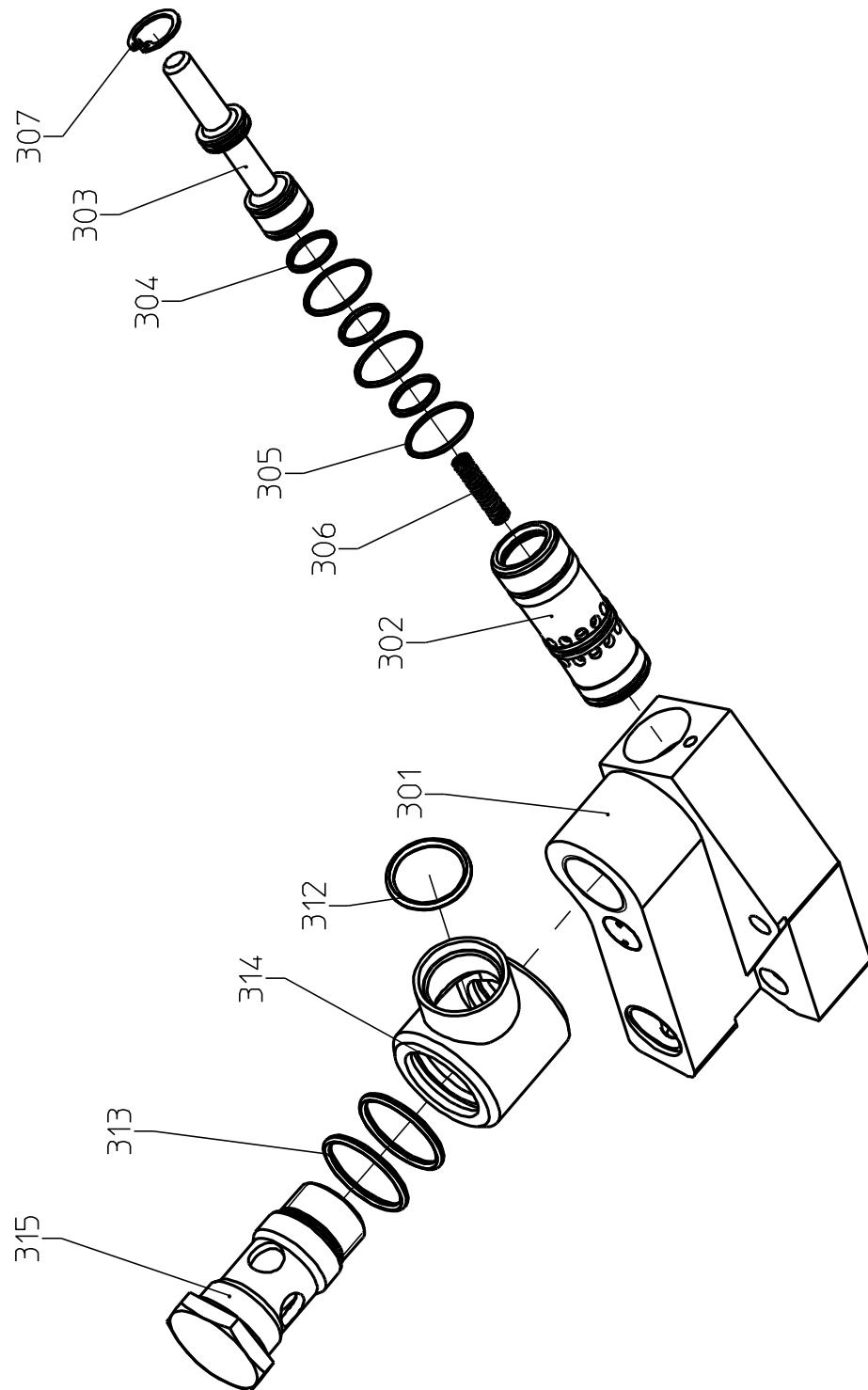
Description:	Part and drawing number:
Valve Handle, Assy.	5 1117 3900



Spare Parts List

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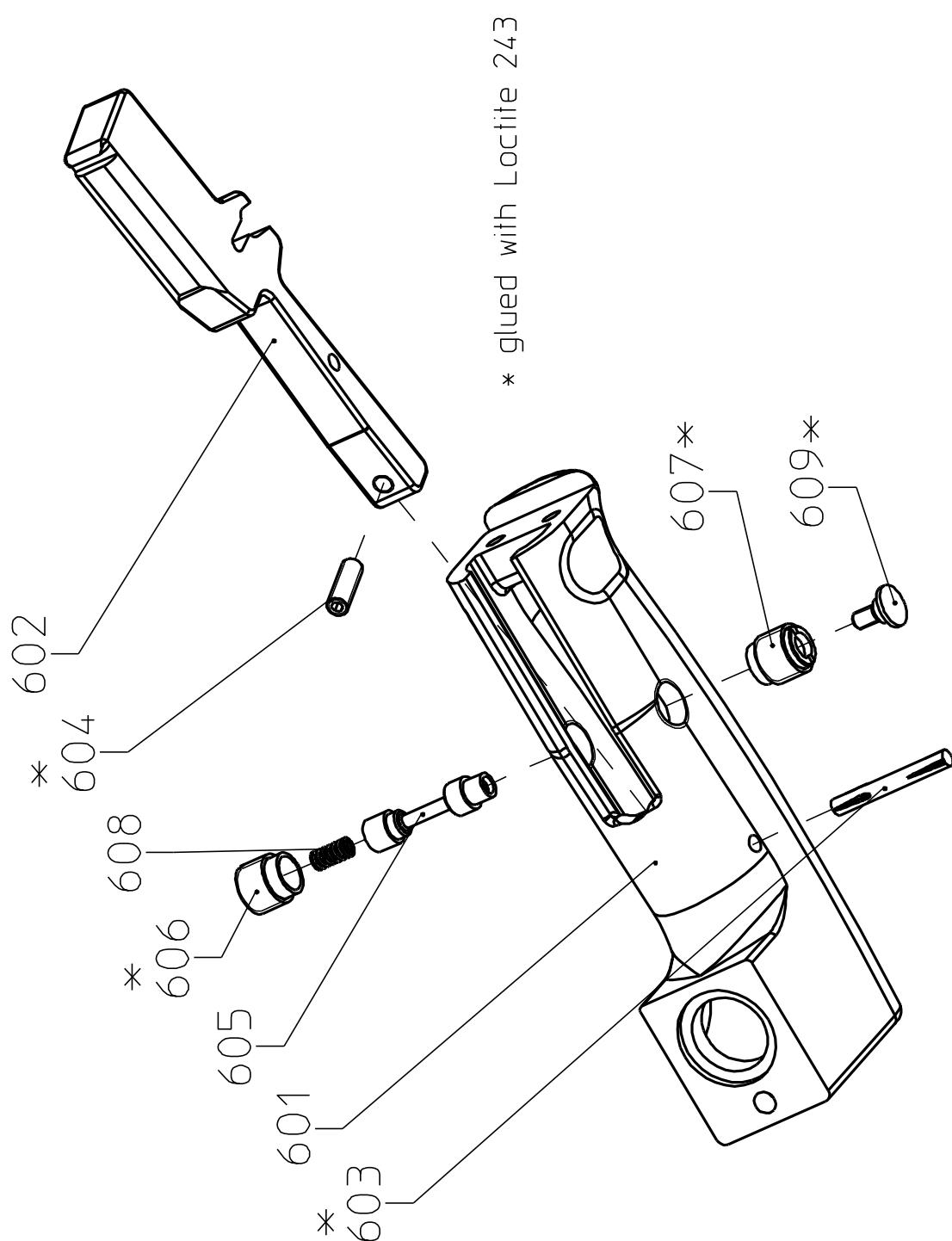
Description:	Part and drawing number:
Control, Assy.	5 1117 3000



Spare Parts List

Spare Parts List

Description:	Part and drawing number:
Handle, Assy.	2 1317 6920



Note:



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