



Repair and Tuning up kit

Type 6 1057 001R_001T

for Pneumatic Drive Unit Type 6 1057 0010

ATEX Tool



Illustration can differ from the original

Repair Manual and Spare Parts List

Repair

Disassembly

Disassembly and re-assembly should be done according to the sectional drawing only.
Observe the safety instructions of the operation and maintenance manual.

Disassembly of lever control valve with oiler:

Detach lever control valve with oiler item 4 from motor housing item 1. Screw out connection pieces item 22. Screw out nipple with screen item 217, and take out pressure spring item 215 and ball item 209. Remove rivet pin item 212, take off valve latch item 211 and pull valve pin item 210 out of the sealing seat. Loosen locking screws item 204 and 205. Screw out adjusting screw item 202 only if necessary.

Disassembly of output/ worm gear:

Screw off worm gear completely from planetary gear.

Loosen locking ring item 49, pull out ball bearing item 48 and worm item 47. Screw off bearing cover item 50 with needle sleeve item 44. Remove worm gear item 46 with needle sleeve.

Press ball bearing item 43 and thrust ball bearing item 41 out of gear housing II item 40.

Disassembly of single-level planetary gear:



Detach the complete planetary gear from the motor. Pull off coupling item 39.

Pull bearing disc item 31 with shaft sealing ring item 32 out of centring seat. Press complete planetary step out of gear housing item 30 and knock out ball bearing item 38. If necessary, continue disassembling planetary wheel step.

Disassembly of the motor 6 1057 1000

Screw gear connection item 16 from motor housing item 1. Pull off exhaust ring item 19 and take out silencer mat item 20. Pull out complete inner parts like rotor item 8, vanes item 9, end plates items 3 and 10 with ball bearings item 4 and 11, spacer rings item 21 and 13 and cylinder bushing item 6. Take the vanes out of the rotor slots. Pull the end plates and the spacer rings from the rotor pivot. If necessary, press the grooved ball bearings out of the end plates.

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Begin with the re-assembly after checking, cleaning and replacing of worn or defective parts.

Re-assembly

The re-assembly is performed basically in the opposite order as the disassembly. Ensure that the motor is precisely aligned. The clearance between the rotor and the end plates should be 0.04 mm in the front and in the back (see figure 2). The chamfers in the spacer rings must point to the middle of the rotor. The cylinder bushing has to be correctly oriented before being inserted. The position of the lever valve can be determined with the help of the adjusting washers.

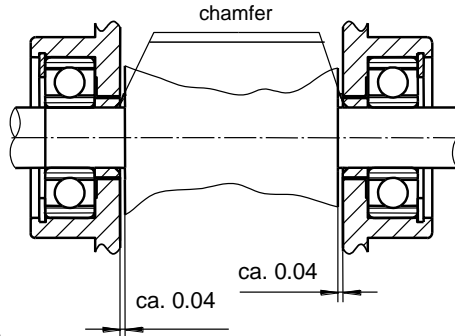
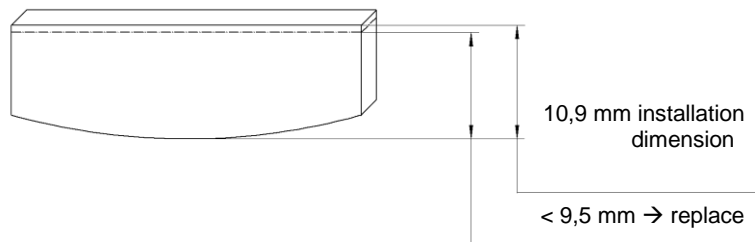


Fig. 2

Parts exposed to wear -especially the vanes- should be regularly changed. They are considered to be worn when the **width is less than 9.5 mm**.

Vane 1 1430 1050



We recommend refilling the grease in the planetary gear and in the worm gear after 300 hours of operation. Use only special gear grease. The roller bearings must be thoroughly cleaned and filled with new bearing grease after approximately 900 hours of operation. In order to avoid excessive heating of the bearing, the space between the inner and outer rings should only be filled with grease until about 1/3 full. The correct amount of grease is very important with respect to achieving good lubrication and minimal heating.

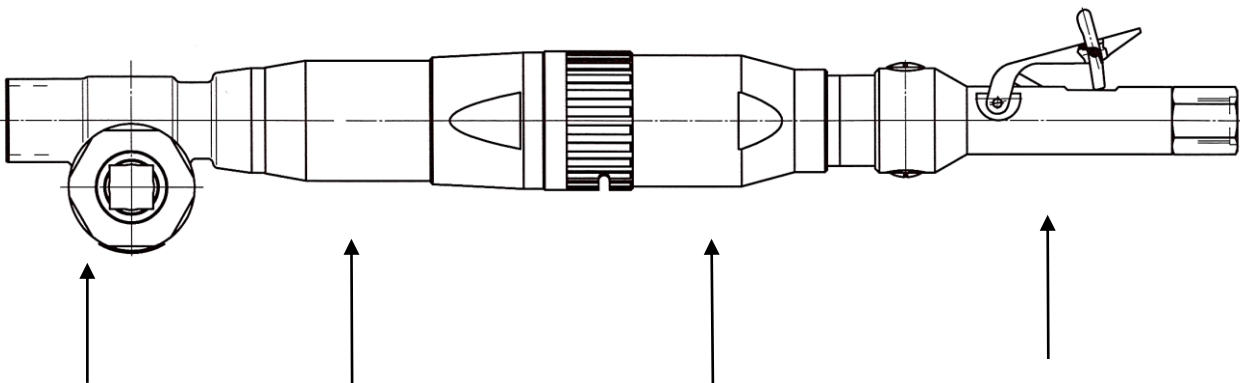
Grease (resin- and acid-free)	Multipurpose grease for roller and slide bearings and for gears	Special grease for worm gears
Designation according to DIN 51502	KL 2k	G 00 h
Consistency class DIN 51818	2	00
Saponification additive	lithium	sodium
Drop point	185° C	145° C
Worked penetration	265 – 295	400 – 410
Temperature range	-25° C to +125° C	-25° C to +100° C

Spare Parts

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



Spare Part List					
Description:			Part and drawing number:		
Pneumatic Drive Unit			6 1057 0010		
Item	Qty.	Description	Part and drawing no.		Remarks
1	1	Motor	6 1057 1000		
2	1	Gearbox	6 1017 4000		
3	1	Output unit, assy.	6 1017 7000		
4	1	Lever throttle with oiler	9 2007 0110		
	1	Square sleeve	6 1017 4250		
	2	Circlip	9 1705 0120		

Spare Part List	
Description:	Part and drawing number:
Pneumatic Drive Unit	6 1057 0010
<p>Drive unit : ASSEMBLY / ASSEMBLY GROUPS</p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>↑</p> <p>Worm gear</p> </div> <div style="text-align: center;"> <p>↑</p> <p>Gear box single-level / two-step / with double planetary wheel</p> </div> <div style="text-align: center;"> <p>↑</p> <p>Pneumatic vane motor</p> </div> <div style="text-align: center;"> <p>↑</p> <p>Lever control valve with oiler and safety latch</p> </div> </div> <p>Assembly groups :</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>3</p> <p>OUTPUT UNIT</p> </div> <div style="text-align: center;"> <p>2</p> <p>GEARBOX</p> </div> <div style="text-align: center;"> <p>1</p> <p>MOTOR</p> </div> <div style="text-align: center;"> <p>4</p> <p>LEVER CONTROL VALVE WITH OILER</p> </div> </div>	



Spare Part List				
Description:			Part and drawing number:	
Pneumatic Motor			6 1057 1000	

Item	Qty.	Description	Part and drawing no.	Remarks
1	1	Motor housing	3 6359 1010	
3	1	End plate	3 6341 1110	
4	1	Grooved ball bearing	9 1001 0090	
5	1	Snap ring	9 1703 0050	
6	1	Cylinder bushing	1 1430 1020	
7	2	Spiral pin	9 1642 0080	
8	1	Rotor	3 6349 1030	
9	4	Vane	1 1430 1050	
10	1	End plate	5 1202 1100	
11	1	Grooved ball bearing	9 1003 0020	
12	1	Snap ring	9 1703 0070	
13	1	Spacer ring	5 1202 1080	
14	1	O-ring	9 1901 2070	
15	1	O-ring	9 1901 2430	
16	1	Gearbox connection	3 6339 1190	
19	1	Exhaust ring	3 6339 1180	
20	1	Silencer mat	3 6339 1770	
21	1	Spacer ring	3 6341 1080	
22	1	Connection	3 6359 1230	
23	2	Adjusting washer (if needed)	9 3331 0170	
	2	Adjusting washer (if needed)	9 3331 0180	
	2	Adjusting washer (if needed)	9 3331 0190	

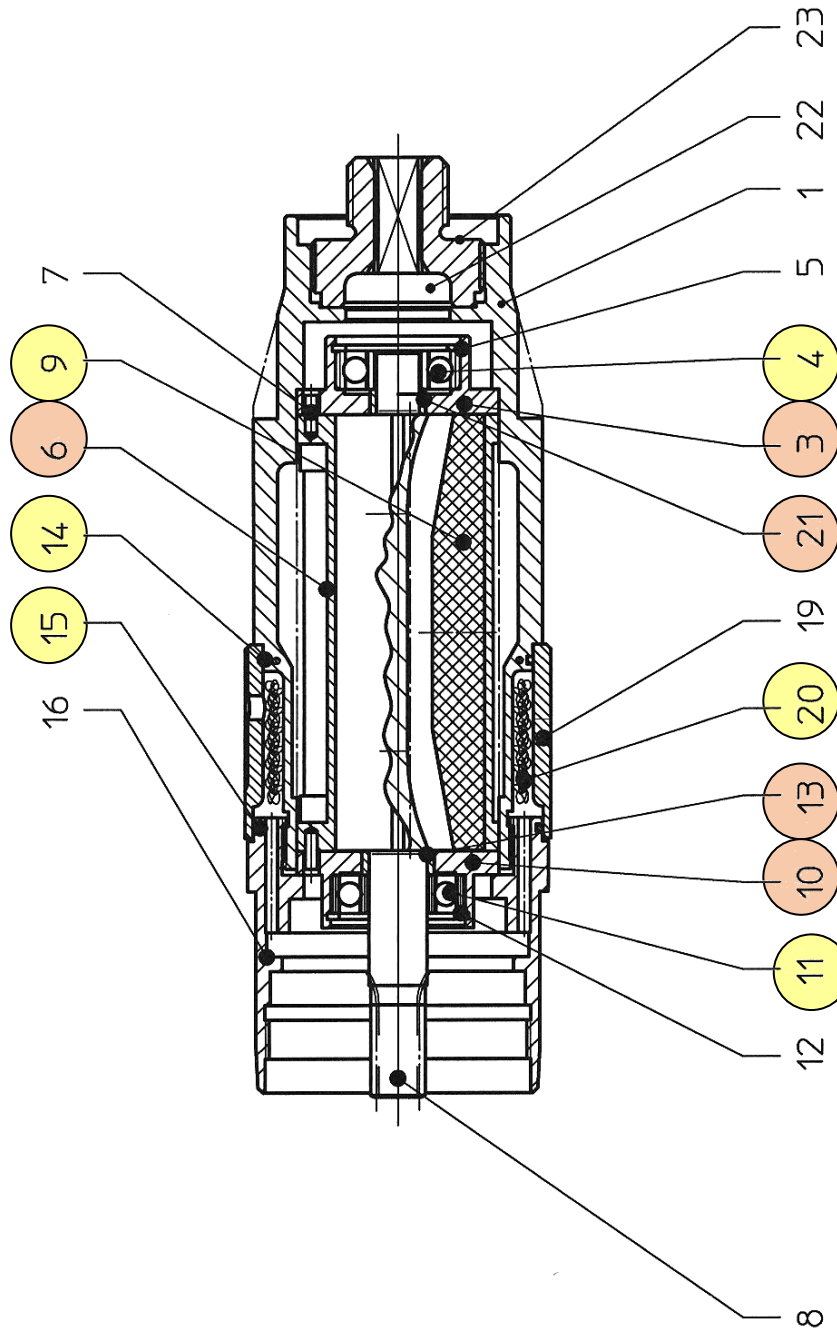
Spare Part List

Description:

Pneumatic Motor

Part and drawing number:

6 1057 1000



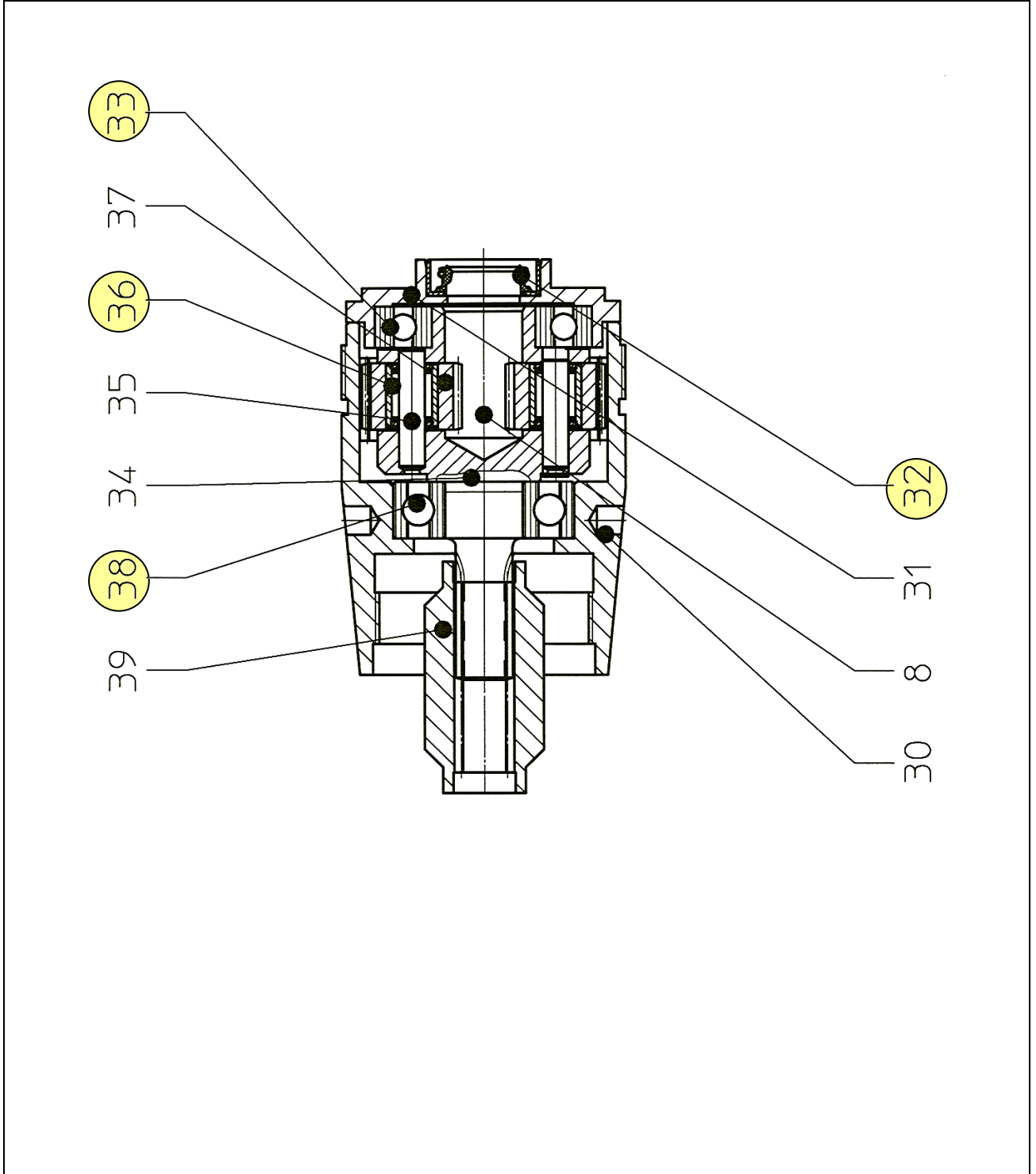
Repair and Tuning up kit
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 for Pneumatic Drive Unit Type 6 1057 0010



Spare Part List					
Description:			Part and drawing number:		
Gearbox			6 1017 4000		

Item	Qty.	Description	Part and drawing no.		Remarks
30	1	Gearbox housing	6 1017 4010		
31	1	Bearing disc	6 1016 4060		
32	1	Shaft seal	9 1905 0030		
33	1	Grooved ball bearing	9 1002 0030		
34	1	Planet carrier	6 1017 4030		
35	2	Planet wheel bolt	3 8632 4150		
36	2	Needle bearing	9 1013 0480		
37	2	Planet wheel	6 1017 4040		
38	1	Grooved ball bearing	9 1004 0030		
39	1	Coupling	3 6339 4110		

Spare Part List	
Description:	Part and drawing number::
Gearbox	6 1017 4000



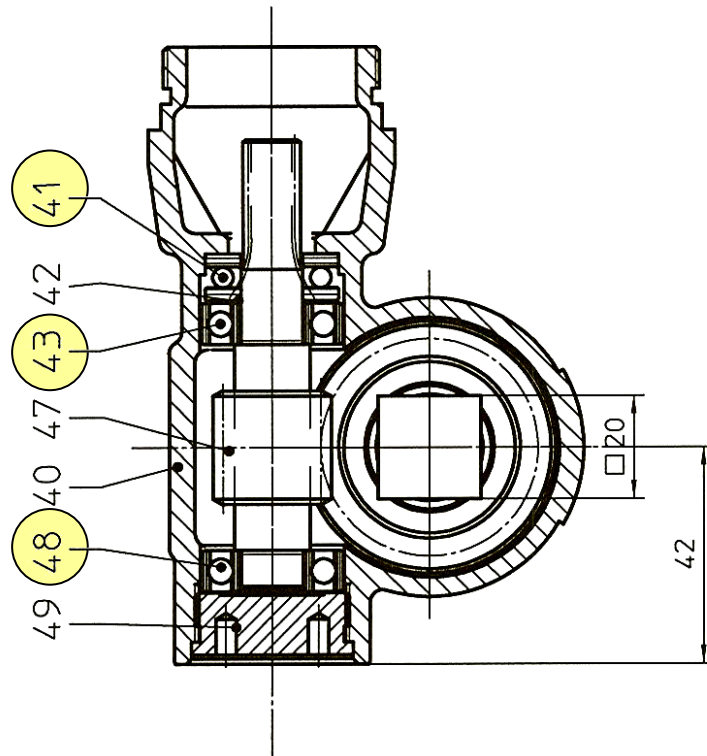
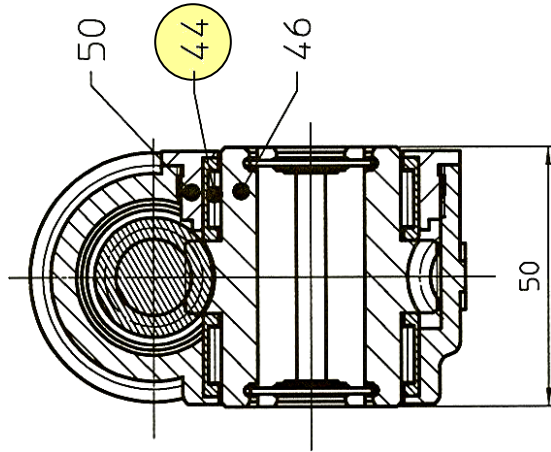
Spare Part List

Description:

Output Unit, assy.

Part and drawing number.

6 1017 7000



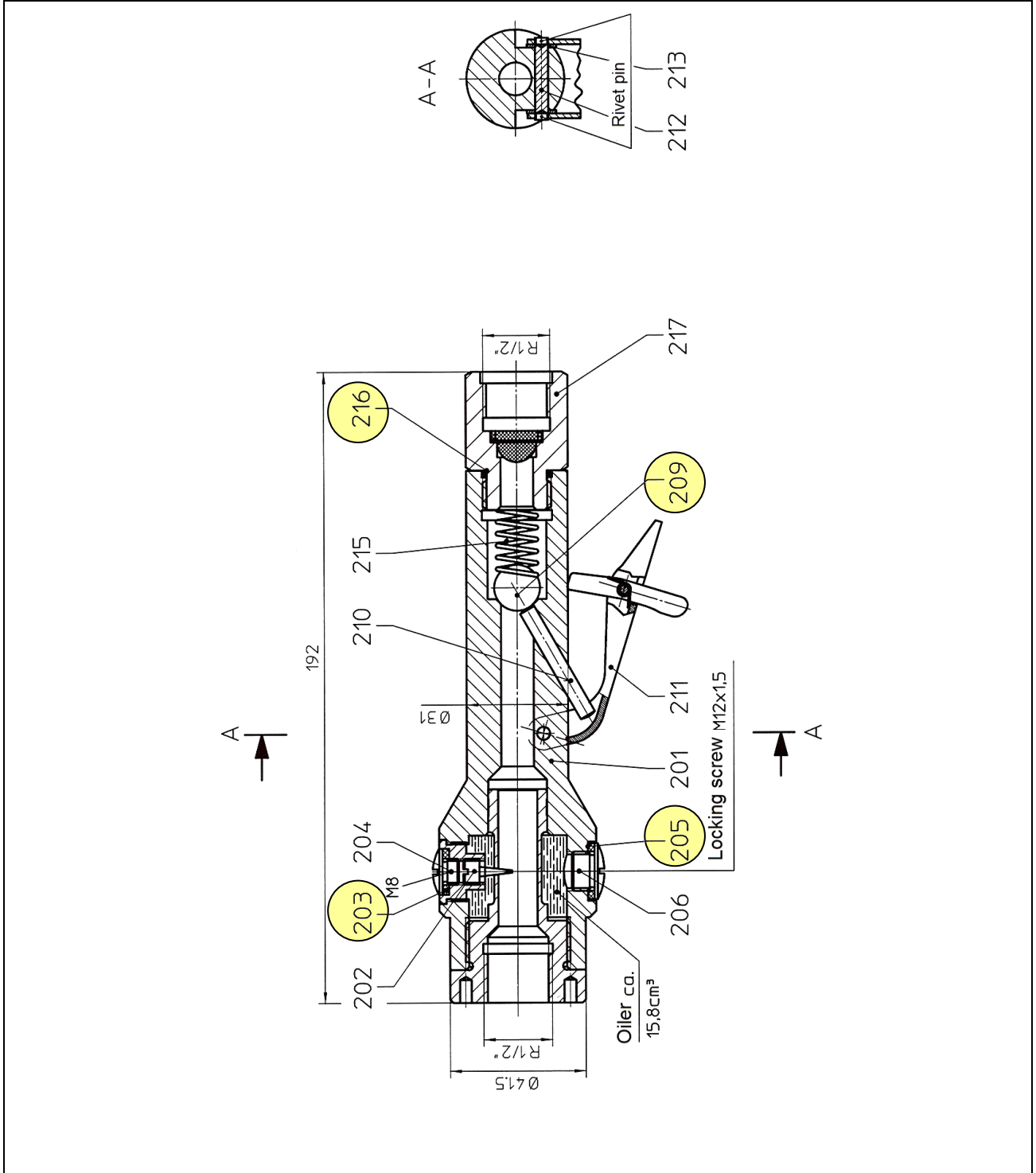
Spare Part List

Description:

Lever Throttle with oiler and latch

Part and drawing number:

9 2007 0110



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Note:

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Sketch:



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