



SPITZNAS
CUSTOMIZED POWER SOLUTIONS

Hydraulic Hacksaw

Type 5 1230 0050

ATEX and Underwater Tool



II 2G Ex h IIB T5 Gb



Illustration can differ from the original

Repair Manual and Spare Parts List

Techn. Doc. No. 562

Repair

Disassembly

Disassembly and re-assembly should be done according to the sectional drawing, respectively the exploded view, only.

Observe the safety instructions of the operation and maintenance manual.

Do not disassemble the machine – unless you know that the problem is in the hydraulic power supply, the gearbox module, or the power and control (rear) module. Then only disassemble the machine 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-assembly. Further wear and machine failure can result, if the original cause is not corrected.

Machine assembly groups

The reciprocating saw consists of three modules:

Module 1 – Gear module,

Module 2 – Motor module

Module 3 – Valve and handle module with flow control valve.

Before separating the modules, exactly identify, if the problem is in the circuit or in one of the modules. The paragraph „Troubleshooting“ in the operation manual contains helpful information for the exact identification of the problem.

Prior to disassembly

Clean the exterior of the machine.

Make sure to have all new seals so they can be replaced during the re-assembly. Note the orientation of the seals before the removal. Install the new sealings in the same position as the original sealings.

Note: For the orientation of the parts given in the following process instruction refer to the sectional drawing, respectively the exploded view and the parts list located at the end of this manual.

Disassembly

After having disassembled the gear (see page 2 and 3, fig. 1 to 5), continue disassembling the machine in the main components valve with hydraulic motor and gearbox.

Hydraulic motor

remains complete (no disassembly)

Lever valve

remains complete (no disassembly)

Hydraulic Hacksaw
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Gear

Screw each of the 2x socket head screw item 439 and 440 out of the gear housing, assy. item 401 (see fig. 1). Untighten the bearing housing item 411 together with the items 406-410, 412, 413, 415, 416, 433, 434, 436, 439, 441-443, 451, 456, 458, 460, 462 and 464 from the gearbox housing, assy. item 401 (see fig. 2).

Remove the 4x socket head screw item 438 with 4x locking washer item 462 (see fig. 3) and pull the crankshaft item 402 with the items 404, 405, 414, 418, 420, 421, 432, 438, 448, 453, 454, 462, 465 and 466 out of the gearbox housing, assy. item 401 (see fig. 4).

Remove the 2x hexagonal nut item 446, 2x socket head screw item 437 together with item 462 and pull the hydraulic motor, assy. with the gear parts item 414, 417, 419, 431, 445, 447, 452, 452 and 461 together with the lever valve out of the gearbox housing, assy. item 401 (see fig. 5 and 6).

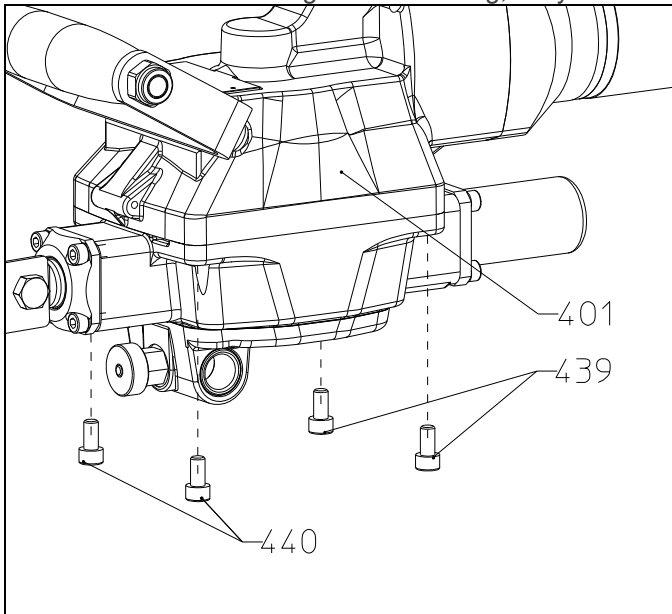


Fig. 1

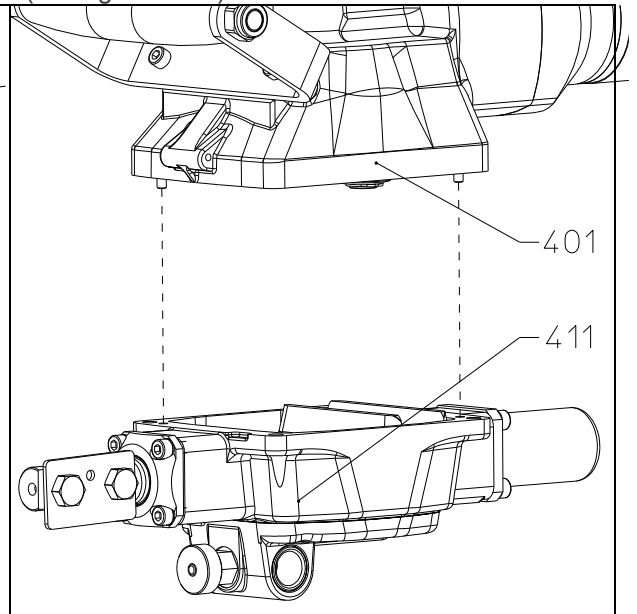


Fig. 2

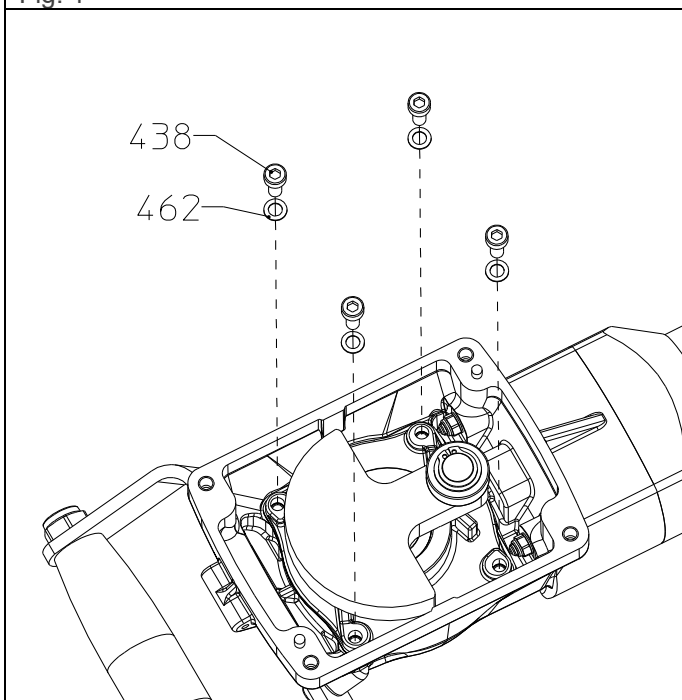


Fig. 3

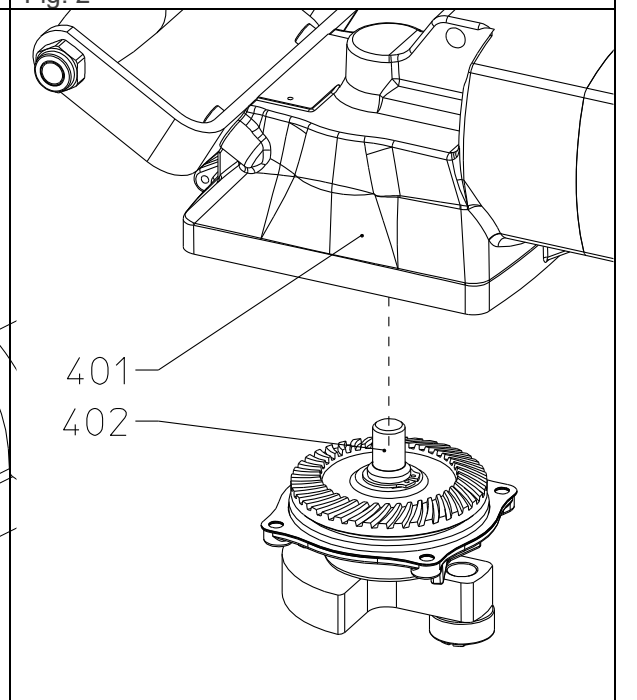
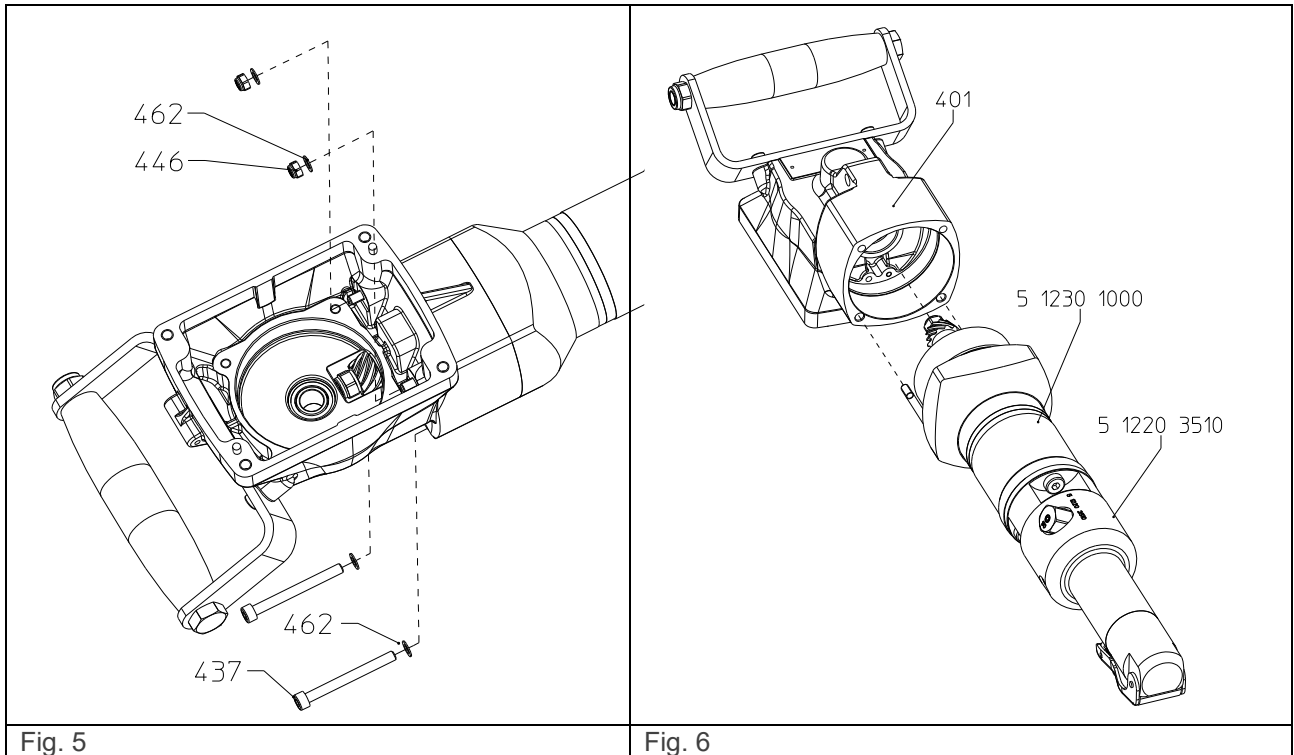


Fig. 4



Re-assembly

Before starting the re-assembly check all parts for wear and damage and replace them if necessary. Wear parts are o-rings, radial shaft sealings and bearings.

Lever valve

Basically the re-assembly is done like the disassembly, but in reverse order. Grease all o-rings before mounting them. Ensure that they are not damaged during the installation of the valve parts.

Motor and gear

Basically the re-assembly is done like the disassembly, but in reverse order. Grease all sealings before mounting them.

We recommend changing the grease in the gearhousing after 300 hours of operation. Use a special-purpose gear grease only:

Tab. 1

Consistency class (DIN 51818)	2
Saponification type	Lithium
Worked penetration	265 to 295
Temperature range	-25°C to +125°C

Tab. 2

Grease	Quantity in grams
In the angular gear	50
In the crankcase	150
At the bevel wheels	40
At the spur wheels	30

The correct quantity of grease is very important with regard to good lubrication and low warming. The quantity of grease given in the following table 2 must be kept.

Spare Parts

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

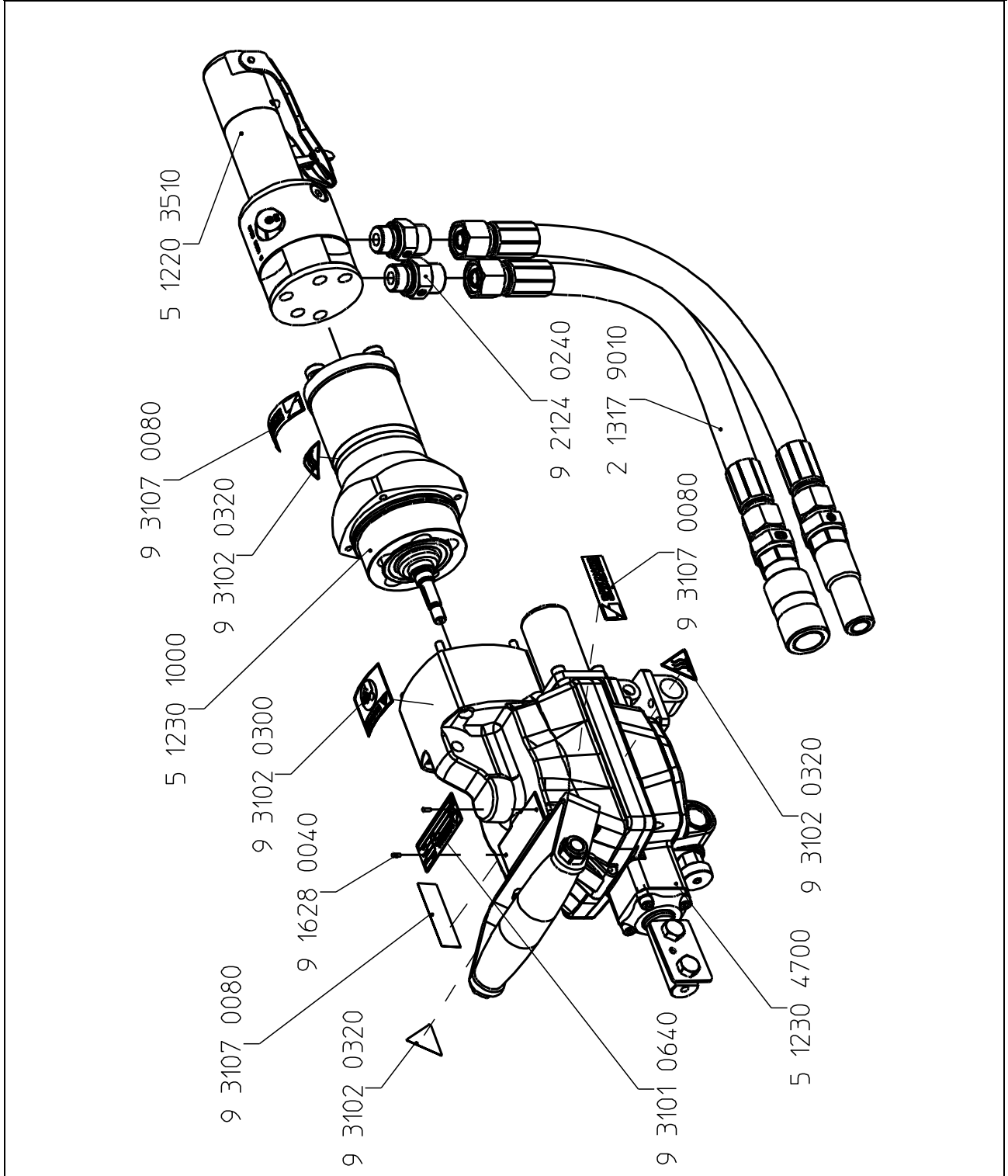
Spare Part List

Description:

Hydraulic Reciprocating Saw

Part and drawing number:

5 1230 0050



Spare Part List					
Description:				Part and drawing number:	
Gearbox, assy.				5 1230 4700	
Item	Qty.	Description	Part and drawing no.		Remarks
401	1	Gearbox housing	5 1230 4710		
402	1	Crankshaft	5 1230 4160		
404	1	Bolt	5 1202 4170		
405	1	Washer	5 1202 4490		
406	1	Connecting rod	5 1230 4269	*	
	1	Cover, assy.	5 1230 4730		with Item 407-410,439 451, 462-464
407	1	Cover	5 1230 4735		
408	1	Lock pin	5 1201 7920		
409	1	Bearing bushing	5 1206 4098		
410	2	Strip	5 1230 4270		
439	8	Socket head screw	9 1110 4010		
451	4	Grooved pin	9 1626 0180		
462	20	Locking washer	9 3329 0010		
463	4	Socket head screw	9 1112 3030		
464	4	Cylinder pin	9 1631 0190		
411	1	Bearing housing	5 1230 4090		
412	1	Sealing cover	5 1230 4050		
413	1	Cover	5 1230 4040		
414	1	Bevel gear, assy.	5 1202 4920		
415	1	Pressure plate	5 1201 7060		
416	1	Connecting link	5 1202 4270		
417	1	Compensating ring	5 1202 4140		
418	1	Compensating ring	5 1202 4150		
419	1	Compensating ring	5 1202 4340		
420	1	Compensating ring	5 1202 4350		
421	1	Bearing plate	5 1213 4220		
422	1	Handle, assy.	5 1202 6000		with Item 961-965
961	1	Crank handle	5 1202 6010		
962	1	Handle bow	5 1202 6020		
964	1	Hexagonal screw	9 1106 6090		
965	1	Hexagonal nut	9 1210 0020		
431	1	Grooved ball bearing	9 1003 0690	*	
432	1	Grooved ball bearing	9 1004 0620	*	
433	2	Sliding bushing	5 1230 4060	*	
434	1	Cam roller	9 1011 1250	*	
435	1	Needle bearing	9 1013 0530	*	
436	8	Socket head screw	9 1110 3080		
437	2	Socket head screw	9 1110 3110		

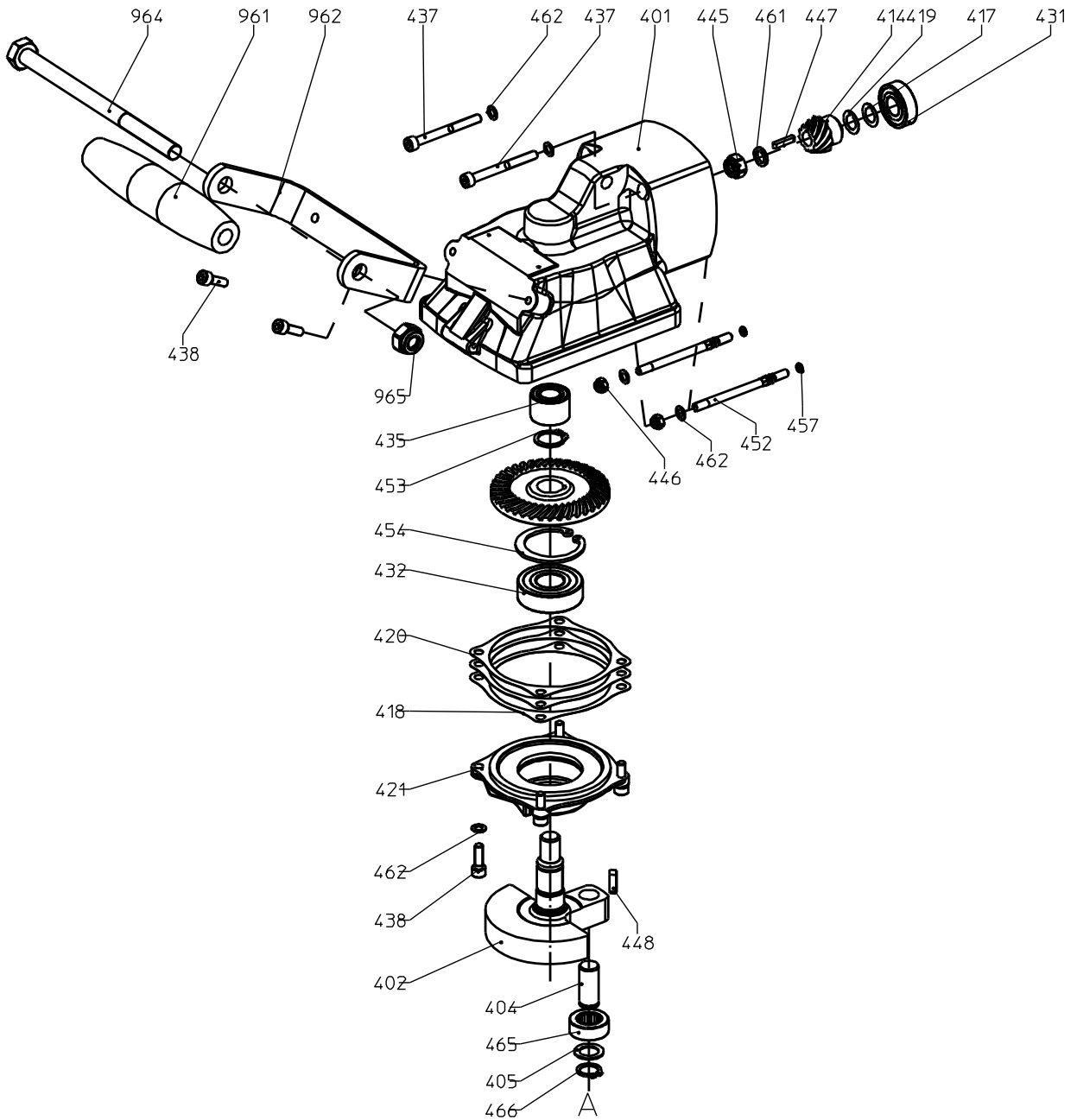
Spare Part List

Description:

Gearbox, assy.

Part and drawing number:

5 1230 4700



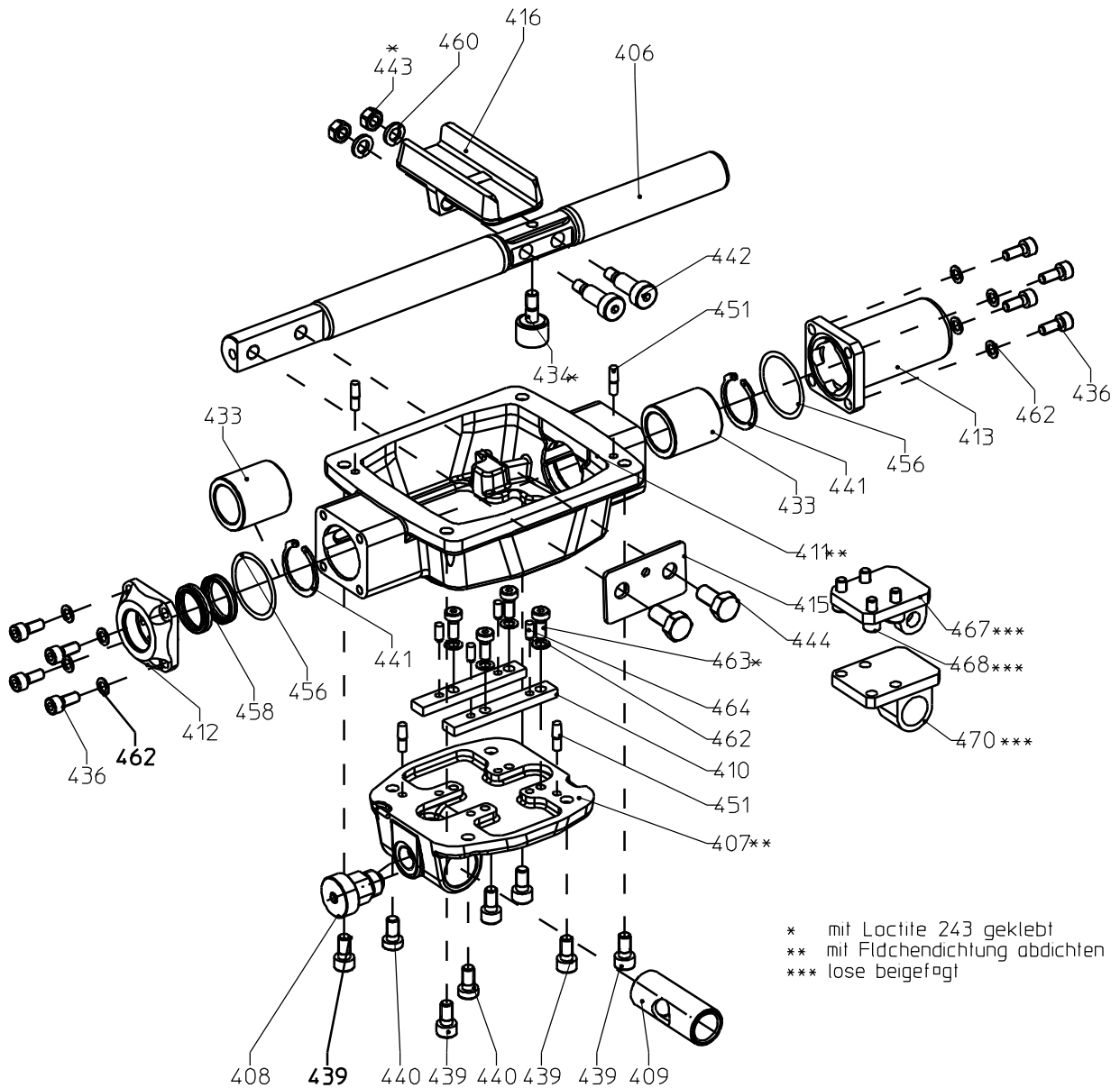
Spare Part List

Description:

Gearbox, assy.

Part and drawing number:

5 1230 4700



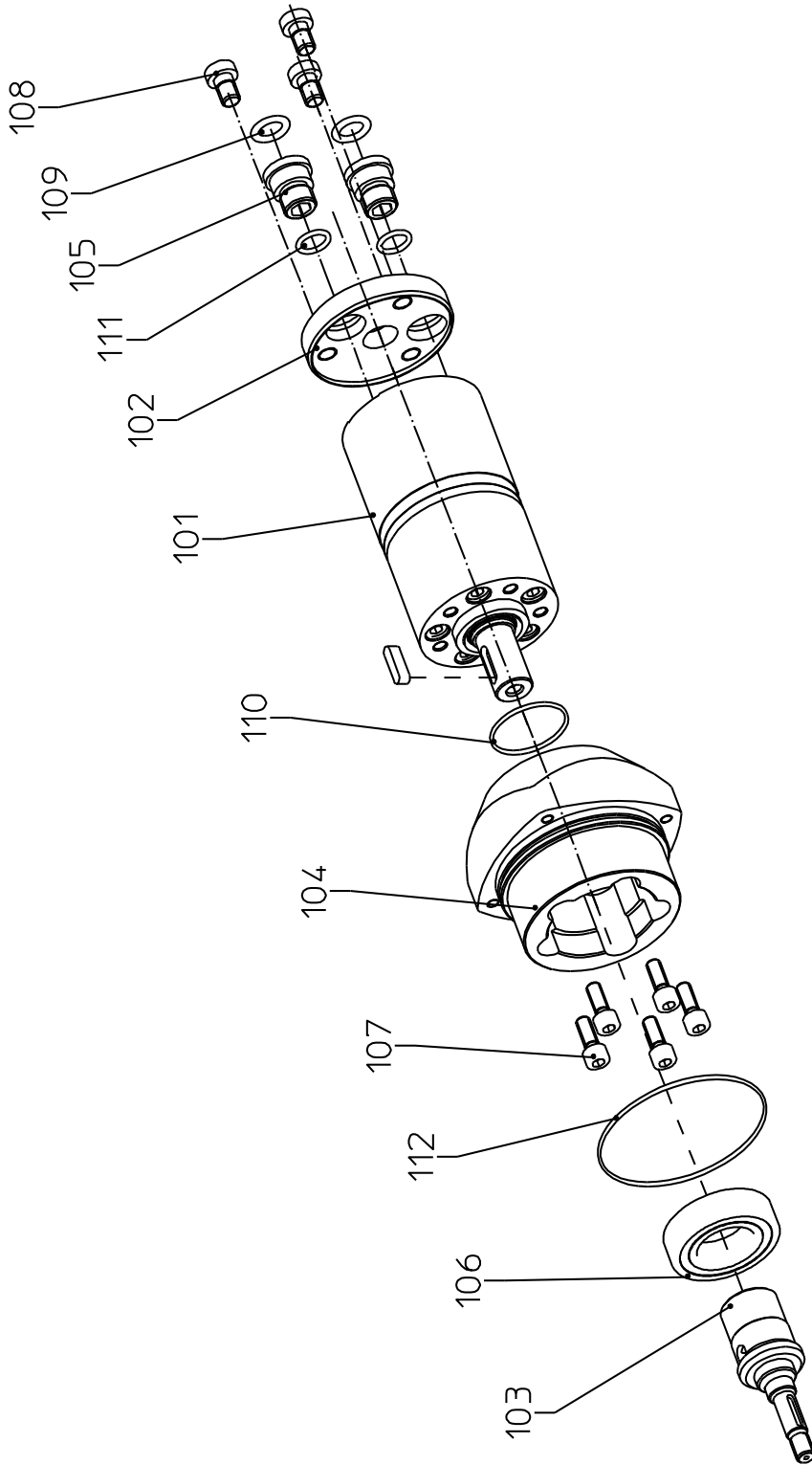
Spare Part List

Description:

Hydraulic Motor, assy.

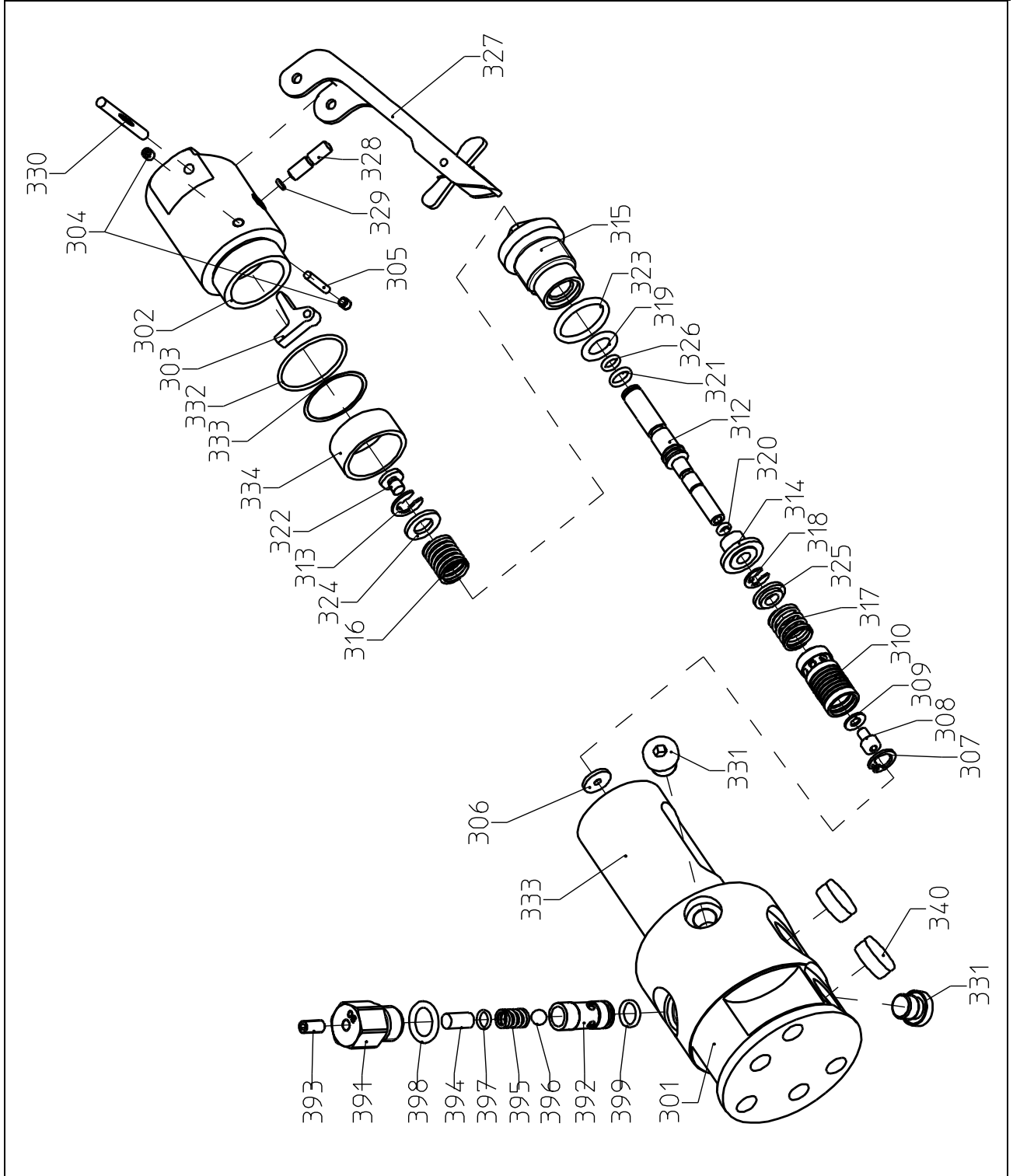
Part and drawing number:

5 1230 1000



Spare Part List					
Description:				Part and drawing number:	
Lever Valve				5 1220 3510	
Item	Qty.	Description	Part and drawing no.		Remarks
301	1	Valve housing, assy.	5 1220 3520		
302	1	End piece, assy.	5 1220 3530		
303	1	Lever	5 1220 3560		
304	2	Threaded pin with inner hexagon	9 1140 2030		
305	1	Cylinder pin	9 1619 0150		
306	1	Gate d=3.1 mm 10 l/min	5 1220 3040		
307	1	Snap ring	9 1703 0260		
308	1	Socket head screw	9 1110 2090		
309	1	Washer	9 3302 0150		
310	1	Governor piston valve	2 1317 3320		
311	1	Spring washer	2 1317 3070		
312	1	Slide	5 1220 3110		
313	1	Snap ring	9 1706 0140		
314	1	Sleeve	5 1220 3540		
315	1	Guide	5 1220 3610		
317	1	Pressure spring	9 1803 1700		
318	1	Locking washer	9 1706 0180		
319	1	O-Ring	9 1901 3290	*	
320	1	O-Ring	9 1901 9800	*	
321	1	O-Ring	9 1901 2550	*	
322	1	Threaded pin	9 1148 3030		
323	1	O-Ring	9 1901 6020	*	
326	1	O-Ring	9 1901 2080	*	
327	1	Valve lever, assy.	5 5010 3940		
328	1	Pusher pin	5 1220 3550		
329	1	O-Ring	9 1901 2020	*	
330	1	Grooved pin	9 1627 0170		
331	2	Locking screw	9 1174 0010		
332	1	O-Ring	9 1901 2380	*	
333	2	Adjusting washer	9 3331 1740		
333	2	Adusting washer	9 3325 1130		
333	1	Adjusting washer	9 3331 1730		
334	1	Spacer bushing	5 1220 3580		

Spare Parts List	
Description:	Part and drawing no.
Lever Valve	5 1220 3510





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SPITZNAS
CUSTOMIZED POWER SOLUTIONS

P: 203-853-9522
TF: 800-700-5919
F: 203-853-9921
W: www.csunitec.com
E: info@csunitec.com
22 Harbor Ave., Norwalk, CT 06850, USA
4330 Center St., Deer Park, TX 77536, USA