

Service guide

## PAHT / PAHT G pumps

PAHT 20-32 / PAHT G 20-32 Product type -  
Disassembling and assembling



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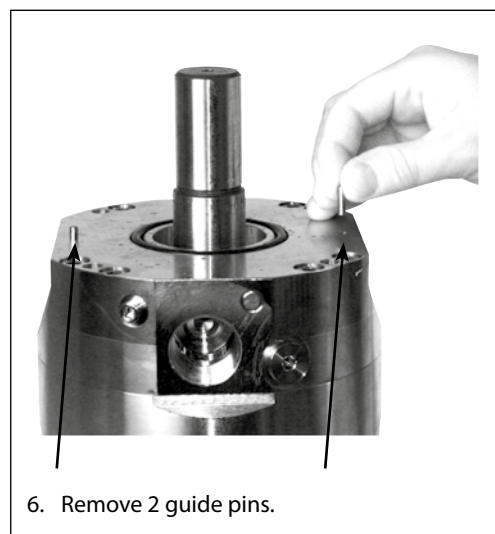
Introduction

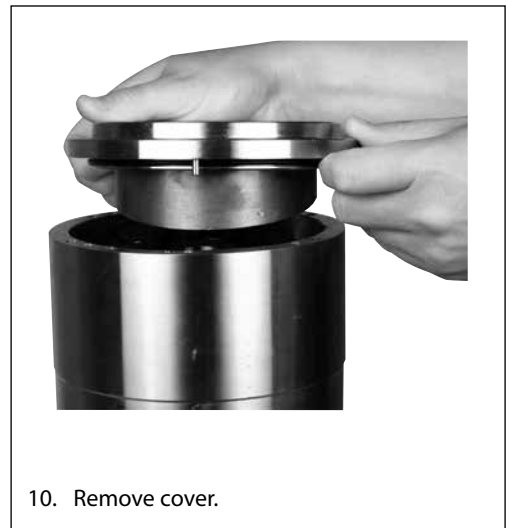
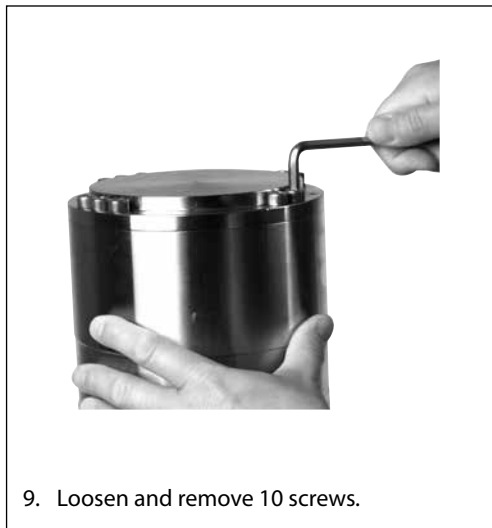
**NOTE: If the pump is disassembled within the warranty period, the pump is no longer covered by the warranty.**

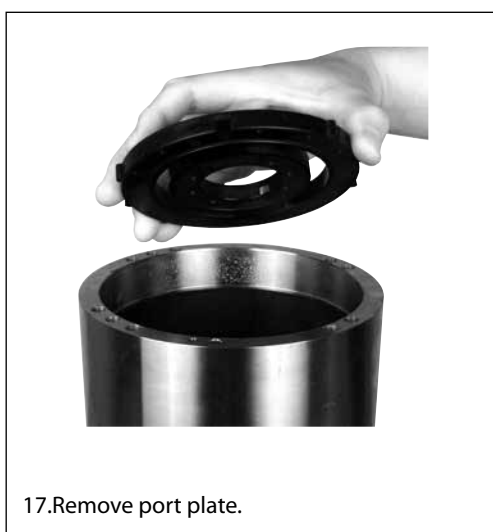
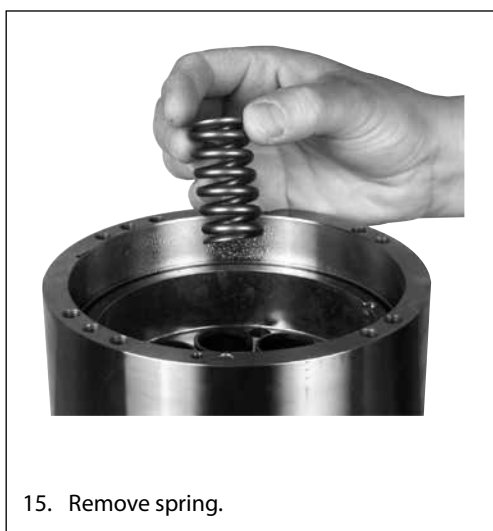
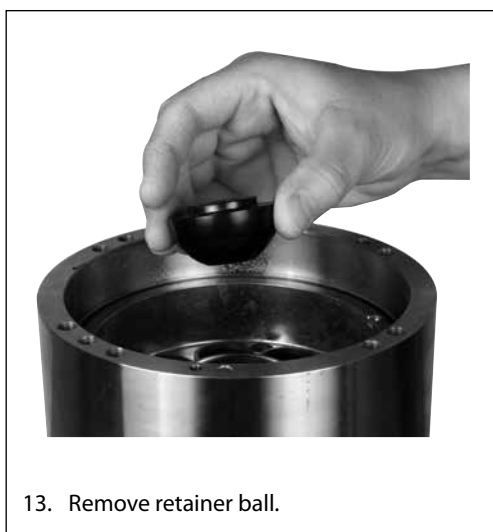
This document covers the instructions for disassembling and assembling the axial piston pumps PAHT / PAHT G 20-32.



1. Disassembling the pump









19. Turn pump upside down. Loosen and remove 4 screws.



20. Remove port flange.



21. Remove 1 guide pin.



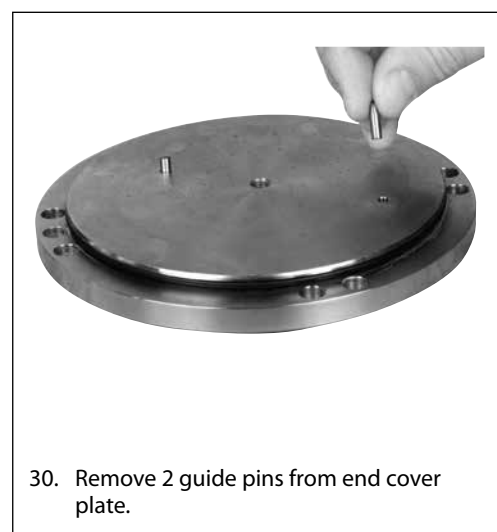
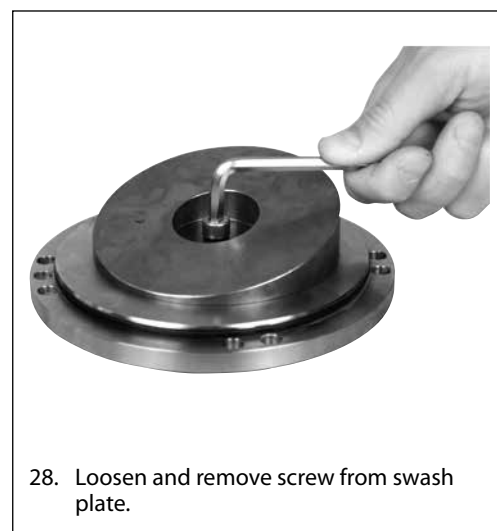
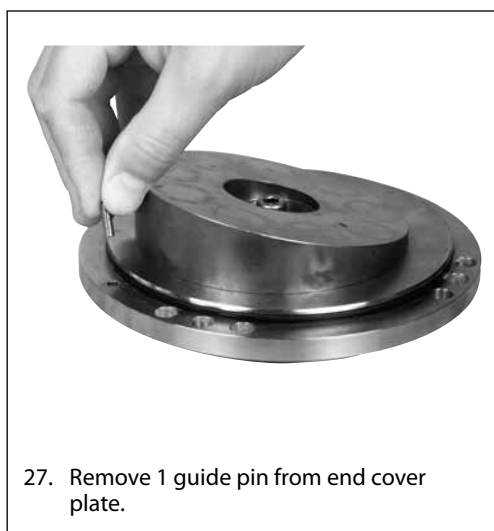
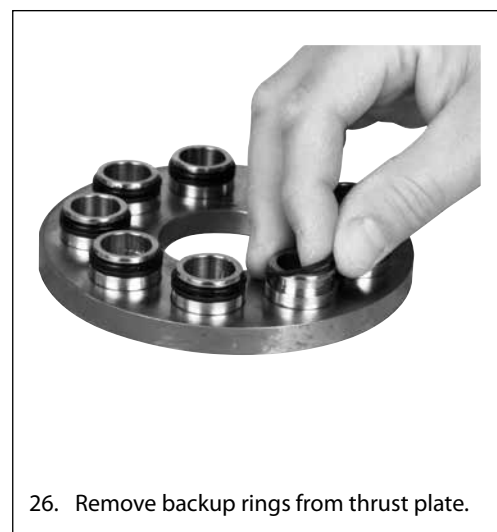
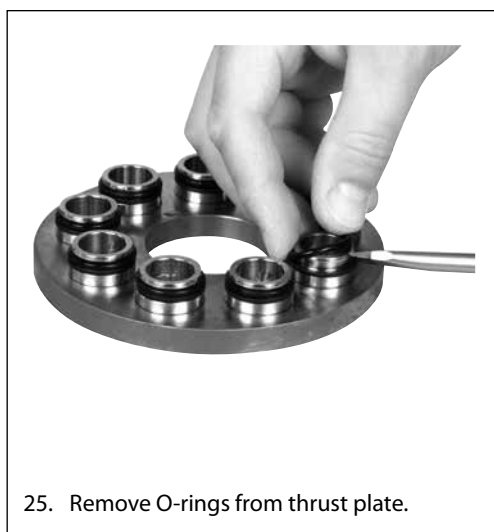
22. Remove O-ring from port flange.

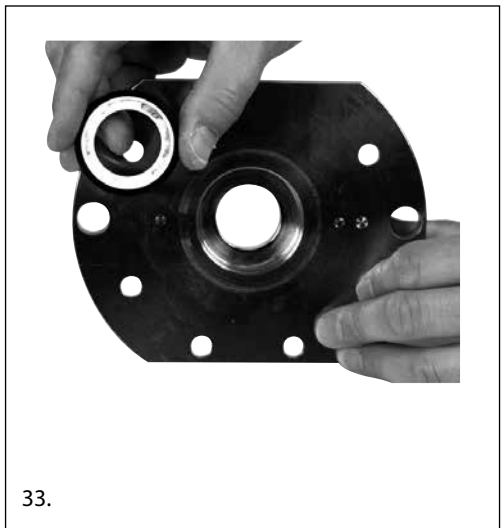


23. Loosen thrust plate from cylinder barrel.



24. Remove thrust plate.

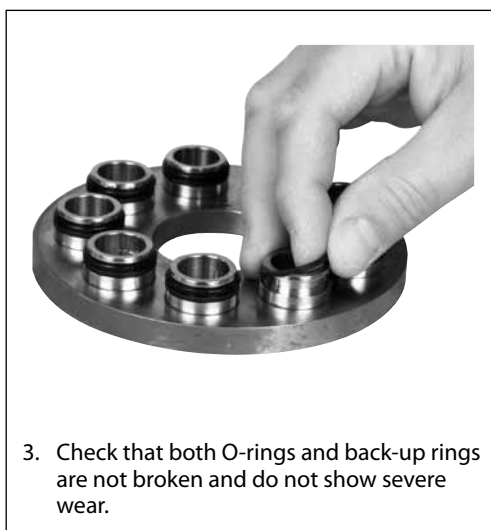
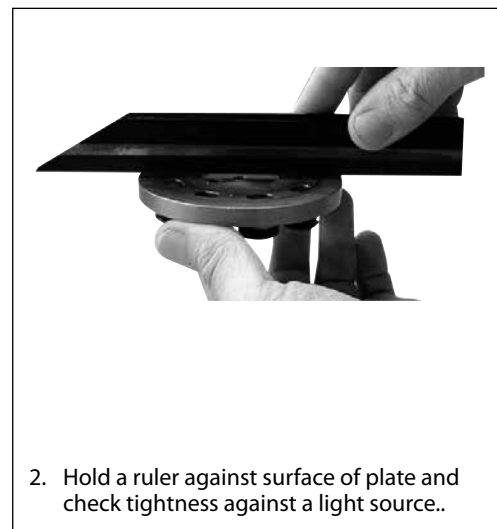
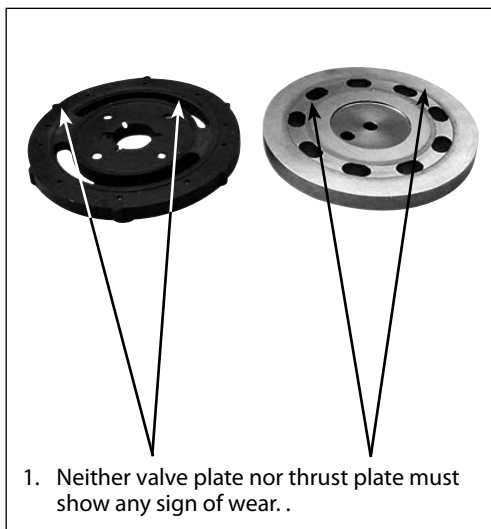






2. Inspection


2.1. Valve and thrust plate:



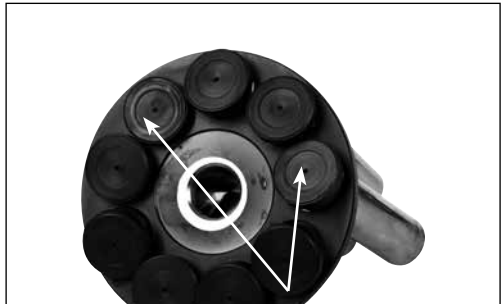
2.2. Swash plate:



2.3. Pistons:



1. Play in ball and socket joint must not exceed 0.1 mm.
2. Thickness of piston shoes must be at least 4.1 mm.



3. Hold a ruler against surfaces of piston shoes to check that the surfaces are even and smooth and without any scratches. It is acceptable that the (black) treated surfaces of the pistons are partly worn..



4. Check bushes in cylinderbarrel for wear and scratches.



5. Check main bearing for wear and scratches.

3. Assembling

**WARNING:**  
Do not use silicone when assembling the pump. Do not reuse disassembled O-rings; they might be damaged. Always use new O-rings.

**Important:**  
It is essential that the pump is serviced in conditions of absolute cleanliness. All parts must be absolute clean before mounting.



Lubrication:

- To prevent seizing-up, lubricate all threads with PTFE lubrication type.
- O-rings inside pump may be lubricated only with clean filtered water.
- O-rings for port flange, mounting flange and flushing valve must be lubricated.
- It is important to lubricate ALL parts to be assembled with clean filtered water (Especially all PEEK parts).



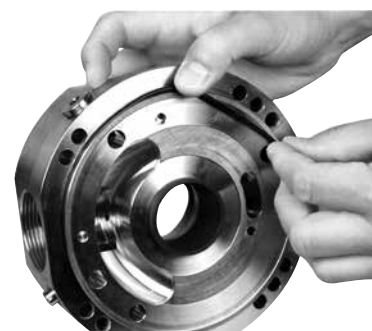
1. Tools required for assembly of the pump.



2. Parts needed for assembly of the pump.



3. Mount 1 guide pin in housing.



4. Mount O-ring in port plate.



5. Mount port flange on housing. Use pin as guide.



6. Mount 4 screws (M8x50).



7. Tighten screws to 30Nm.



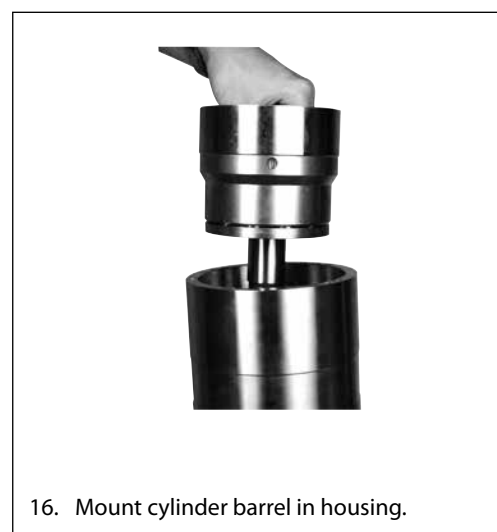
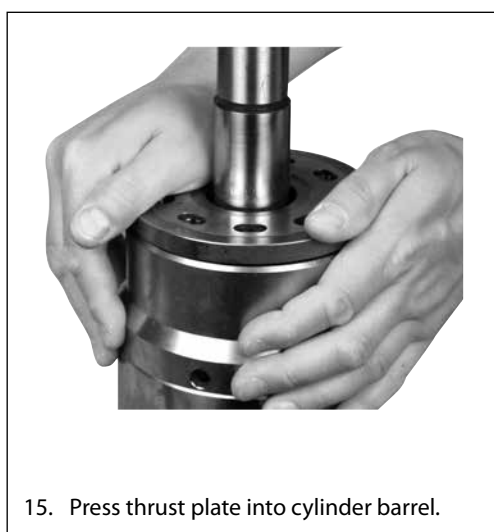
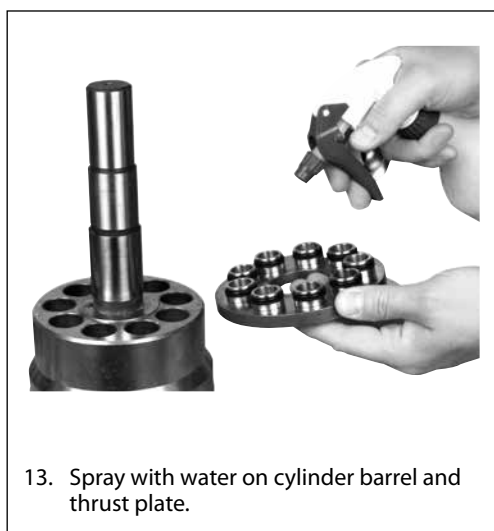
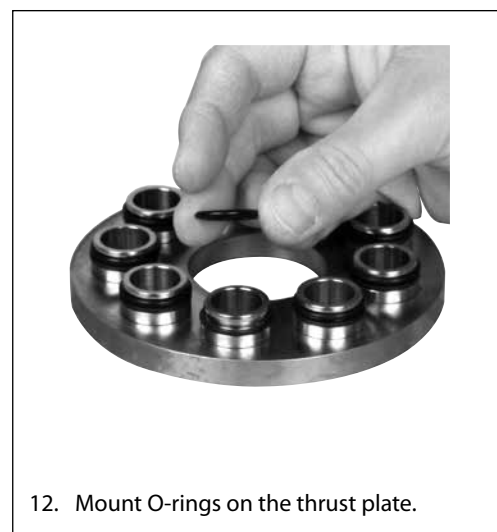
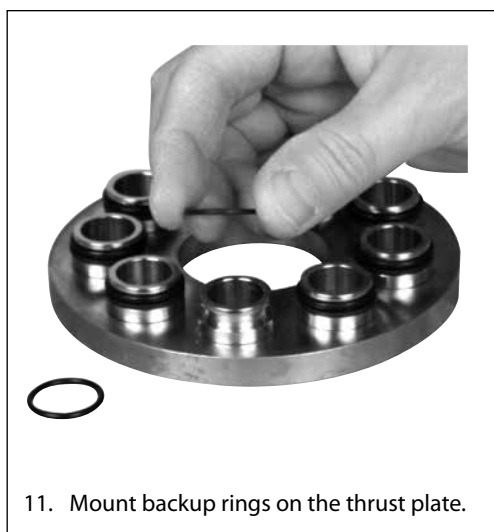
8. Turn pump upside down.

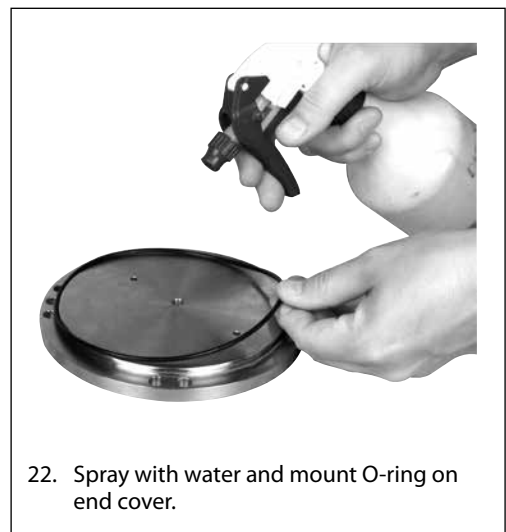
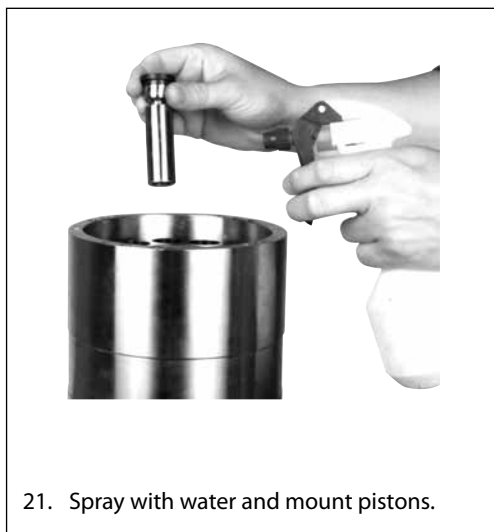
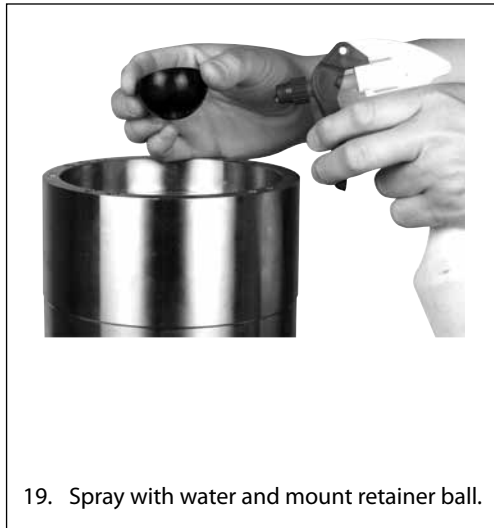
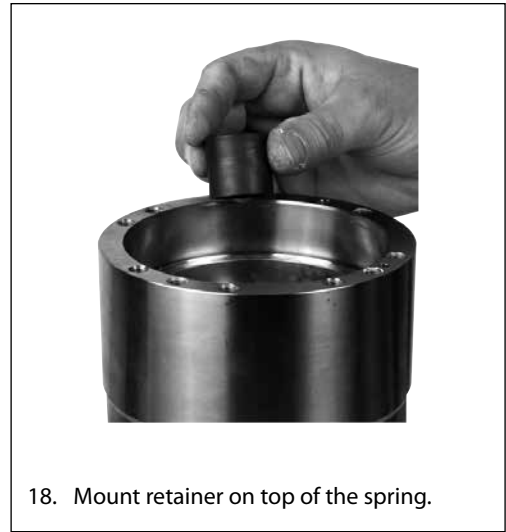
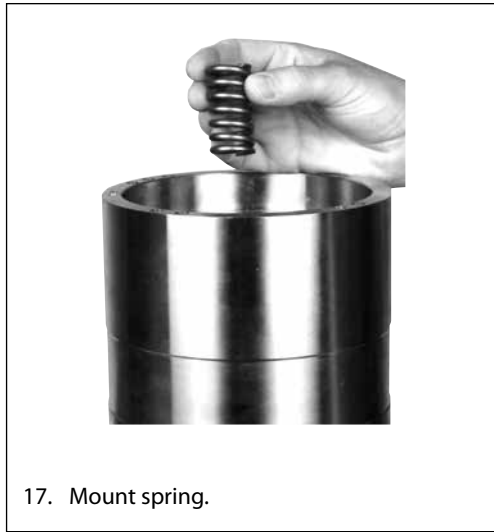


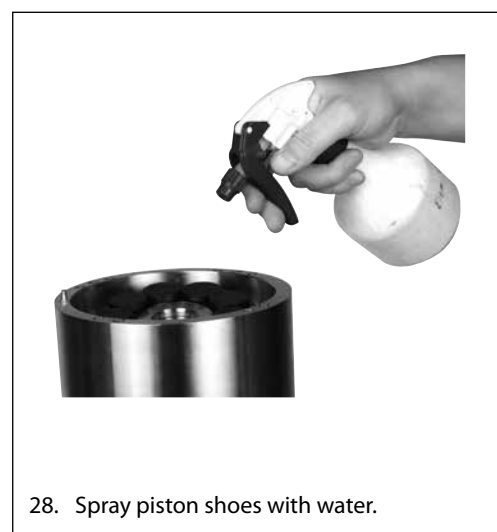
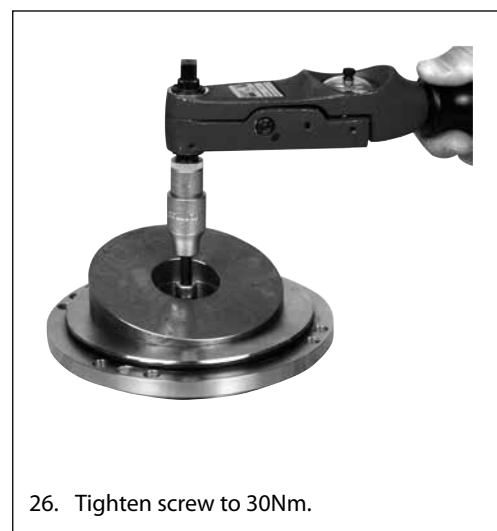
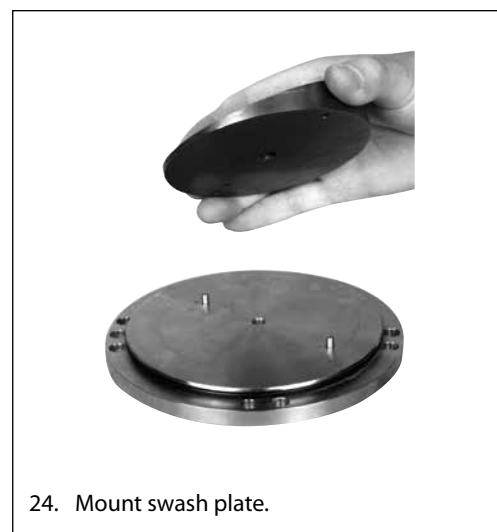
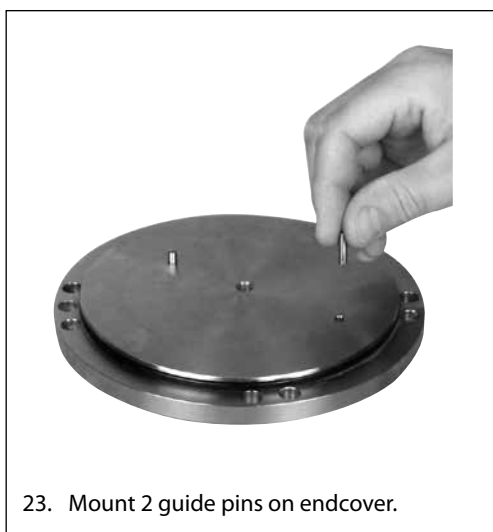
9. Mount 1 guide pin inside the housing on the back side of the port plate.

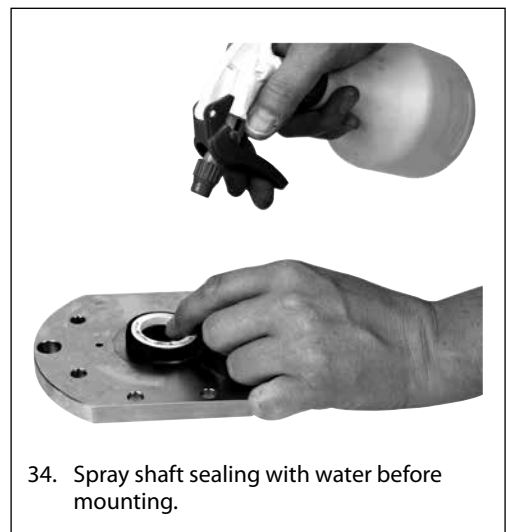
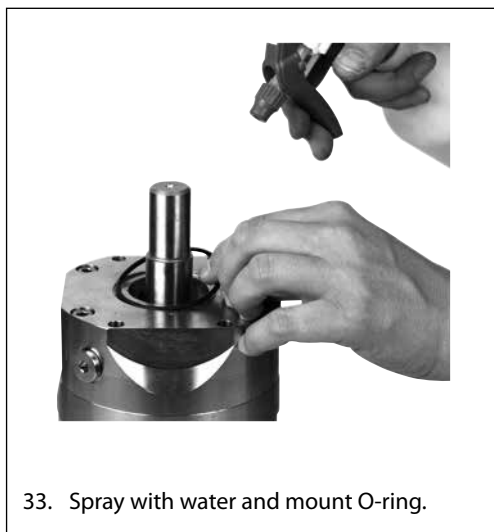
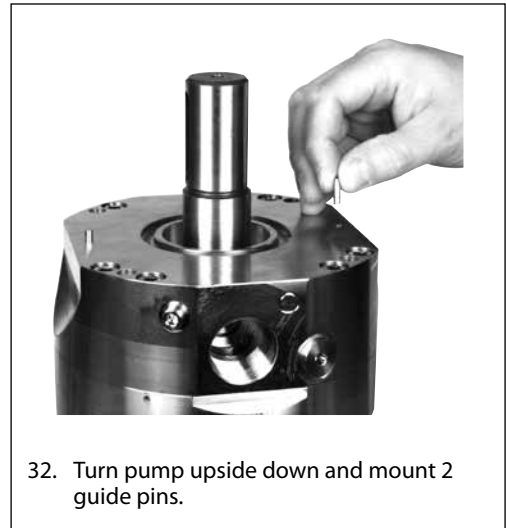
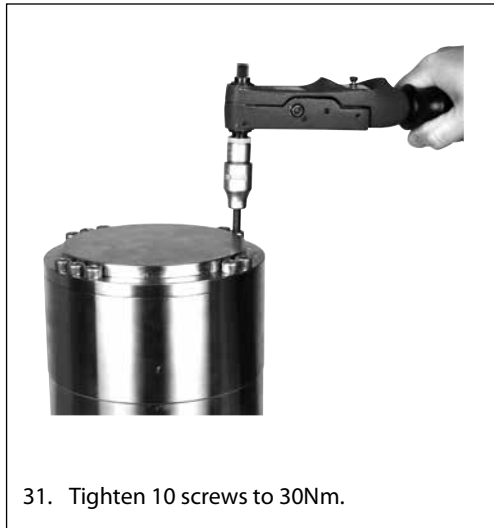
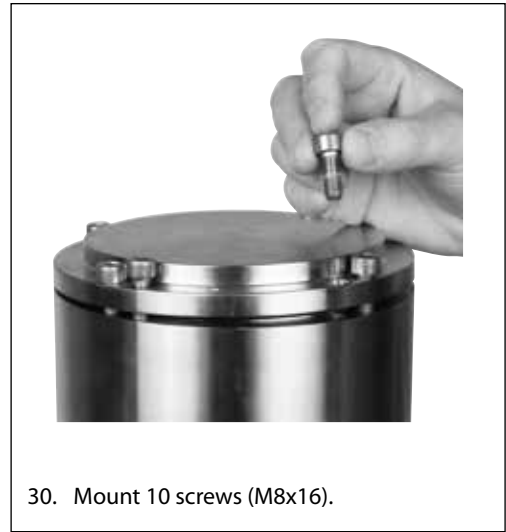


10. Mount port plate. Be aware of orientation/ guide pin.

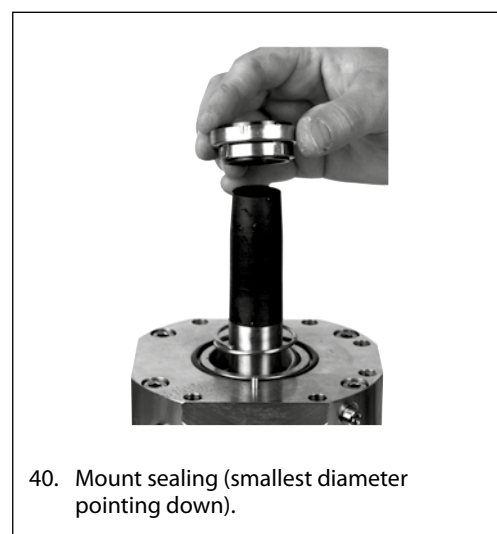
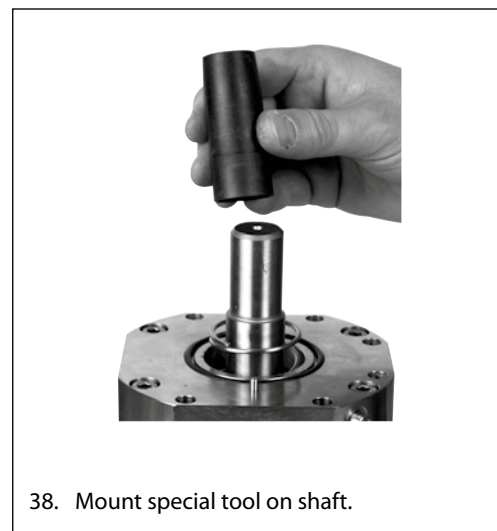
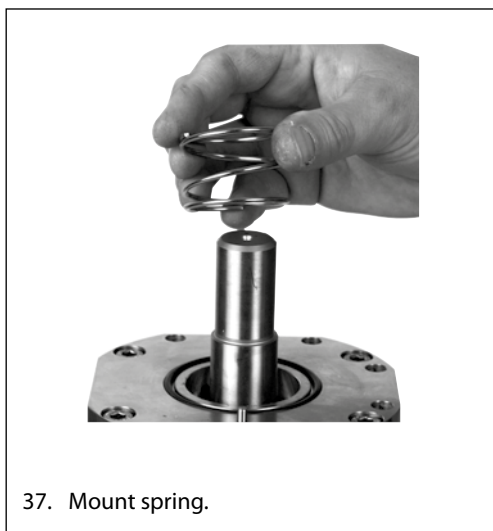
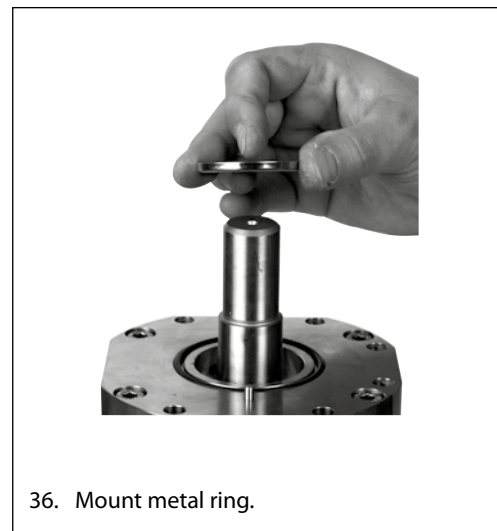
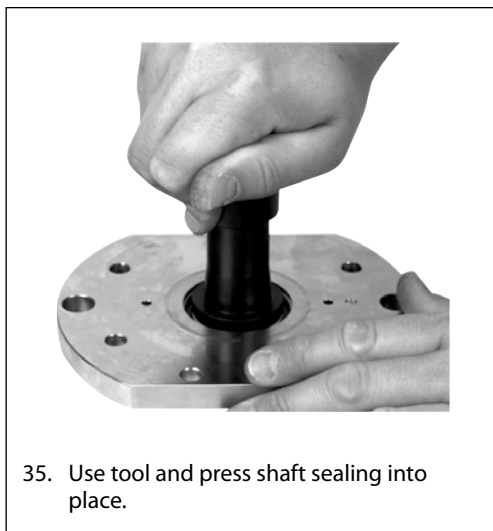


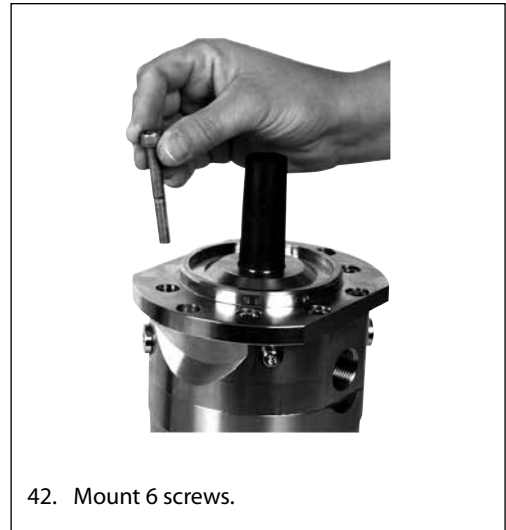












Finished.



**4. Spare parts list for PAHT 20-32**

Pos.	Qty.	Designation	Material	180B4055 - Seal set (PAHT 20-32)	180B4054 - Cylinder barrel set (PAHT 20-32)	180B4052 - Valve plate set (PAHT 20-32)	180B4053 - Piston set (PAHT 20-32)	180B4251 - Swash plate set (PAHT 20)	180B4254 - Swash plate set (PAHT 25)	180B4257 - Swash plate set (PAHT 32)
1	1	Housing	AISI 316							
2	2	Pin Ø4 x 14	AISI 304	x						
5	10	Screw M8 x 16	AISI 304	x						
9	1	O-ring Ø102 x 3	NBR	x						
11	1	End cover CW	AISI 316							
31	1	Swash plate	AISI 431					x	x	x
32	1	Screw Ø8 x 16	AISI 304					x	x	x
34	2	Pin Ø4 x 14	AISI 304					x	x	x
61	1	Cylinder barrel	AISI 431		x					
62	1	Spring	AISI 304				x			
63	1	Retainer	PEEK				x			
64	1	Retainer ball	AISI 304				x			
65	1	Retainer plate	1.4301				x			
66	9	Piston	AISI 431 / PEEK				x			
67	1	Key 8 x 7 x 32	AISI 316Ti	x						
91	1	Port plate	AISI 304 / PEEK			x				
92	1	Valve plate	AISI 431			x				
93	9	Back up ring	PTFE			x				
94	9	O-ring Ø13 x 2	NBR			x				
121	1	Port flange	AISI 316							
122	1	O-ring Ø102 x 3	NBR	x						
123	1	O-ring Ø59,5 x 3	NBR	x						
124	1	Shaft sealing	AISI 304 / NBR	x						
125	1	End cover	AISI 316							
126	1	Pin Ø5 x 10	AISI 304			x				
127	6	Screw M8 x 60	AISI 304	x						
128	4	Screw M8 x 50	AISI 304	x						
	1	Service instruction		x	x	x	x	x	x	x

**6. Spare parts list for PAHT G 20-32**

Pos.	Qty.	Designation	Material	180B4333 - Seal set (PAHT G 20-32)	180B4335 - Cylinder barrel set (PAHT G 20-32)	180B4337 - Valve plate set (PAHT G 20-32)	180B4336 - Piston set (PAHT G 20-32)	180B4323 - Swash plate set (PAHT G 20)	180B4324 - Swash plate set (PAHT G 25)	180B4325 - Swash plate set (PAHT G 32)
1	1	Housing	AISI 316							
2	2	Pin Ø4 x 14	AISI 304	x						
5	10	Screw M8 x 16	AISI 304	x						
9	1	O-ring Ø102 x 3	NBR	x						
11	1	End cover CW	AISI 316							
31	1	Swash plate	AISI 431					x	x	x
32	1	Screw Ø8 x 16	AISI 304					x	x	x
34	2	Pin Ø4 x 14	AISI 304					x	x	x
61	1	Cylinder barrel	AISI 431		x					
62	1	Spring	AISI 304				x			
63	1	Retainer	PEEK				x			
64	1	Retainer ball	AISI 304				x			
65	1	Retainer plate	1.4301				x			
66	9	Piston	AISI 431 / PEEK				x			
67	1	Key 8 x 7 x 32	AISI 316Ti	x						
91	1	Port plate	AISI 304 / PEEK			x				
92	1	Valve plate	AISI 431			x				
93	9	Back up ring	PTFE			x				
94	9	O-ring Ø13 x 2	NBR			x				
121	1	Port flange	AISI 316							
122	1	O-ring Ø102 x 3	NBR	x						
123	1	O-ring Ø59,5 x 3	NBR	x						
124	1	Shaft sealing	AISI 304 / NBR	x						
125	1	End cover	AISI 316							
126	1	Pin Ø5 x 10	AISI 304			x				
127	6	Screw M8 x 60	AISI 304	x						
128	4	Screw M8 x 50	AISI 304	x						
	1	Service instruction		x	x	x	x	x	x	x

**8. Tool sets**

Qty.	Designation	180Z0236 - Tool set (PAH / PAHT / PAHT G 20-32)
1	Shaft bush, toppedo	x
1	Press tool 1	x
1	Press tool 2	x

**Danfoss A/S**

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