

## Recharge the Accumulators or replace the Accumulators

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**  
**IN THE NACELLE:**

Check pre-charge of accumulator.



Reference Document: 941918 Charging of Nitrogen Accumulators for instructions. Reference the following service instructions depending on which type the turbine is equipped with:

Relevant documentation	
Description	DMS No.
Combi Hydraulics	<a href="#">1001076</a>
HSS Brake Hydraulics	<a href="#">1001384</a>
Charging of Nitrogen Accumulators	<a href="#">941918</a>

Relevant spare parts - Parker	
Description	Item No.
ACCUMULATOR ADE050-21R9A002 (32bar)	<a href="#">60108210</a>
ACCUMULATOR ADE100-21R9A003 (60bar)	<a href="#">60108204</a>

Relevant spare parts - Combi Unit	
Description	Item No.
ACCUMULATOR INTE. D1.0-200 (45 bar)	<a href="#">60097871</a>
ACCUMULATOR INTE. D1.0-200 (90 bar)	<a href="#">60097868</a>

**Check and realign the motor- Pump side flange**

**Does this solve the problem?**

1] Yes

2] No

3] I don't know

- **Explanation**

Check the motor-pump coupling for proper functioning, if the pressure is not developing while the pump is running. Then dismantle and check for proper engagement of Pump-Motor coupling assembly. In few instances, 2mm Allen screw which holding the flange with the motor shaft key way has loosen and leading to run the pump freely. If pump runs freely, then align the flange by tighten Allen screw as shown below pictures







**Replace the defect solenoid valves**

**Does this solve the problem?**

- 1] Yes
- 2] No
- 3] I don't know

- **Explanation**  
**IN THE NACELLE:**

**Parker system:**

Check the solenoid valve **POS 0.20(NO), 0.21(NC)**

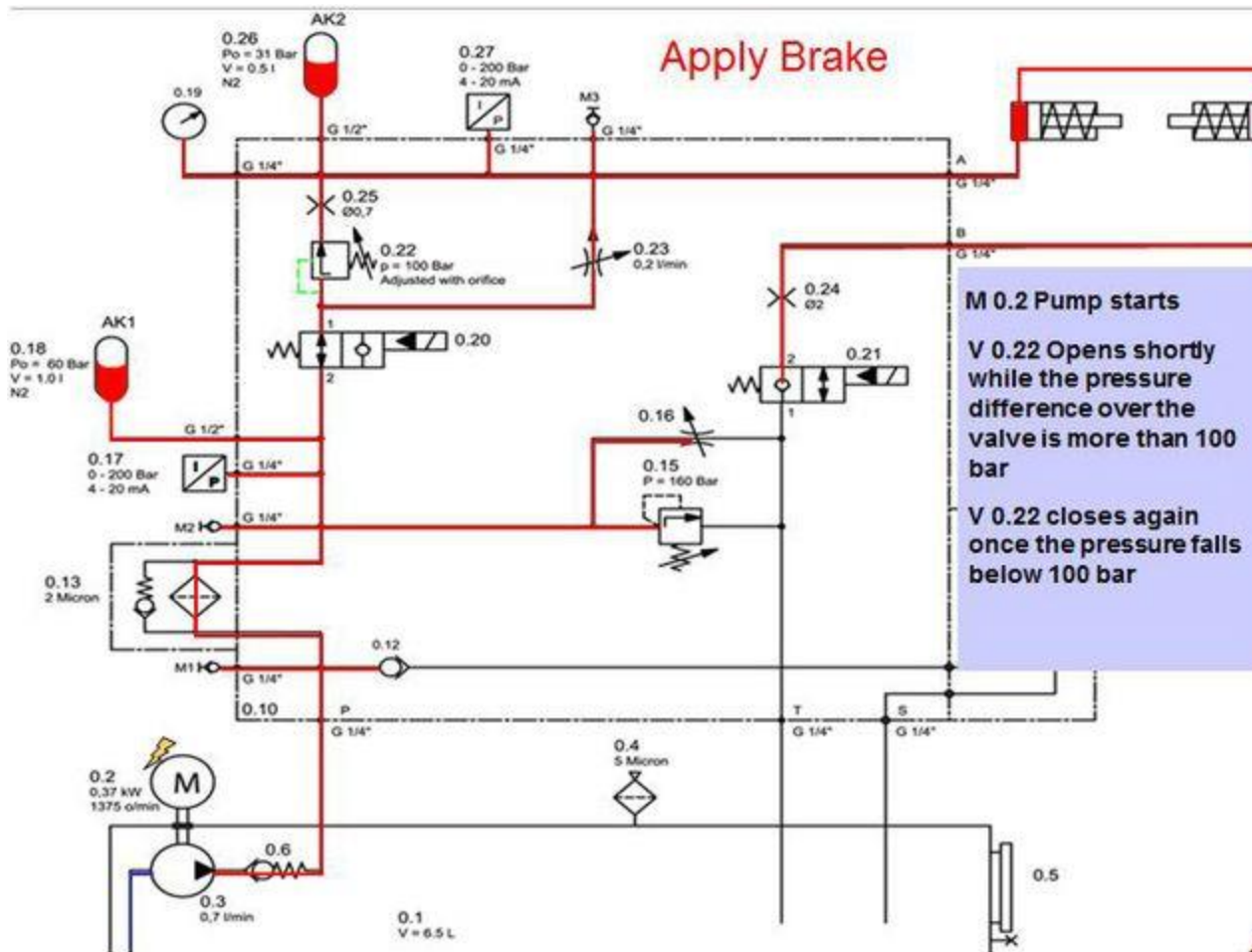
Replace the valve if found to be defective.



Relevant spare parts - Parker		
Description	Item No.	Position
DIRECT VALVE N.C. 2/2 DSL-08-1	<a href="#">60104031</a>	0.21(NC)
VLV DIRECT NO 2/2 DSL-08-1-CR	<a href="#">60104034</a>	POS 0.20(NO)



Parker system pressurized status:



### Combi (AVN) System:

Check the solenoid valve **POS 16, 07(NO), 08,14,02(NC)**

Replace the valve if found to be defective.

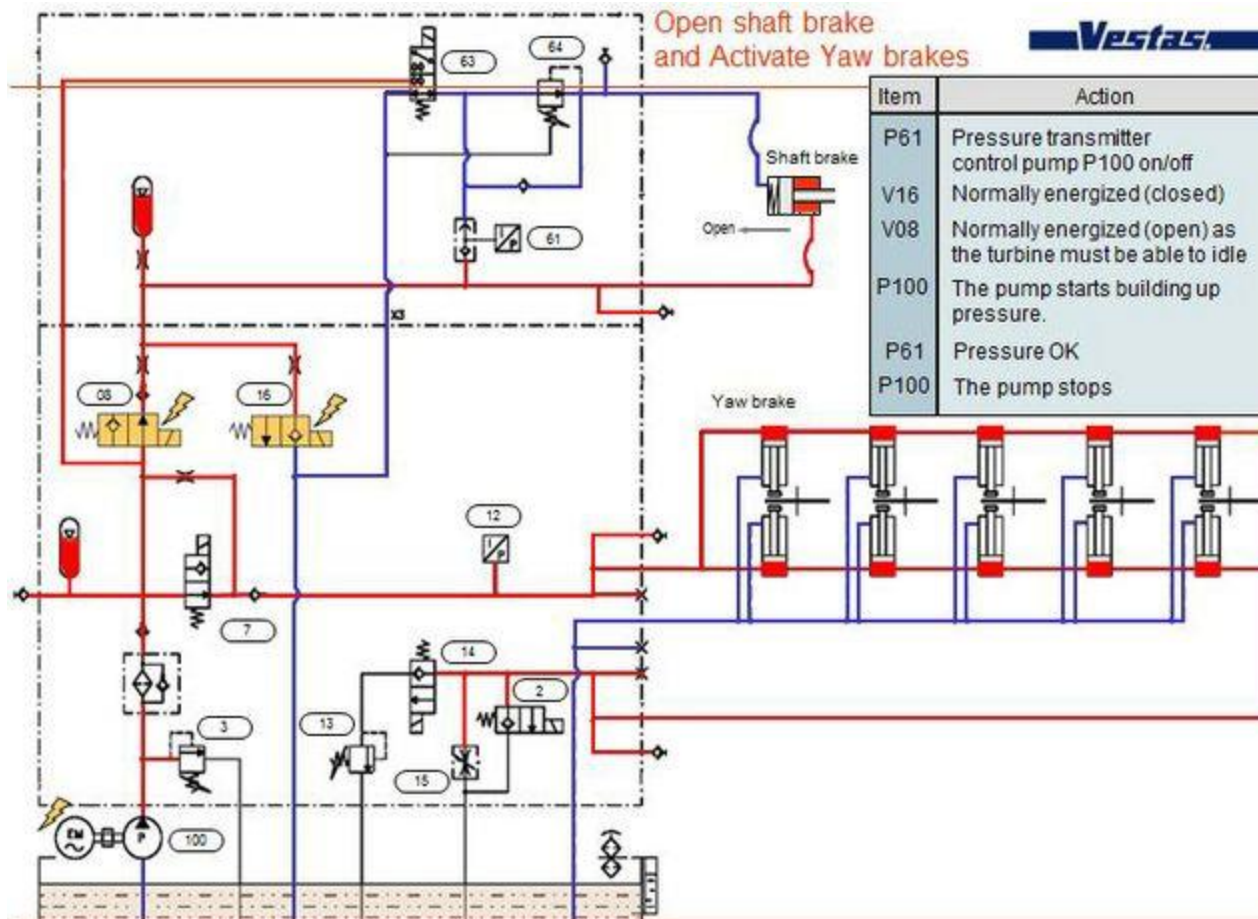
**Relevant spare parts - Combi (AVN)**

Description	Item No.	Position
SOLENOID VAL NC OD150118310005	<a href="#">60095079</a>	08,14,02(NC)
VALVE SOLENOID NO OD1502181ISO	<a href="#">60095081</a>	16, 07(NO)



AVN system pressurized status:





**Repair the oil leak and top-up the oil level**

**Does this solve the problem?**

- 1] Yes
- 2] No
- 3] I don't know

- **Explanation**  
**IN THE NACELLE:**

Visually inspect the nacelle for external oil leaks around the hydraulic system and brake unit.

Check hose connections and hoses. Repair any defective hoses or connections found.

Relevant documentation	
Description	DMS No.
Service Instruction: Brembo Active Disc Brake	<a href="#">1001363</a>

Check oil level (with system pressurized and brake applied oil should be visible in oil window)



Check the oil leak in manual pump piston area and repair or replace, if oil leakage found.

Relevant spare parts (Parker)	
Description	Item No.
HAND PUMP 0012001777	<a href="#">60108203</a>
GAUGE, PRESS 1/4BSP BOT CONN 0-250 BAR	<a href="#">60108205</a>



**Replace the defect Needle Valve**

**Does this solve the problem?**

1] Yes

2] No

3] I don't know

- **Explanation**  
**IN THE NACELLE:**

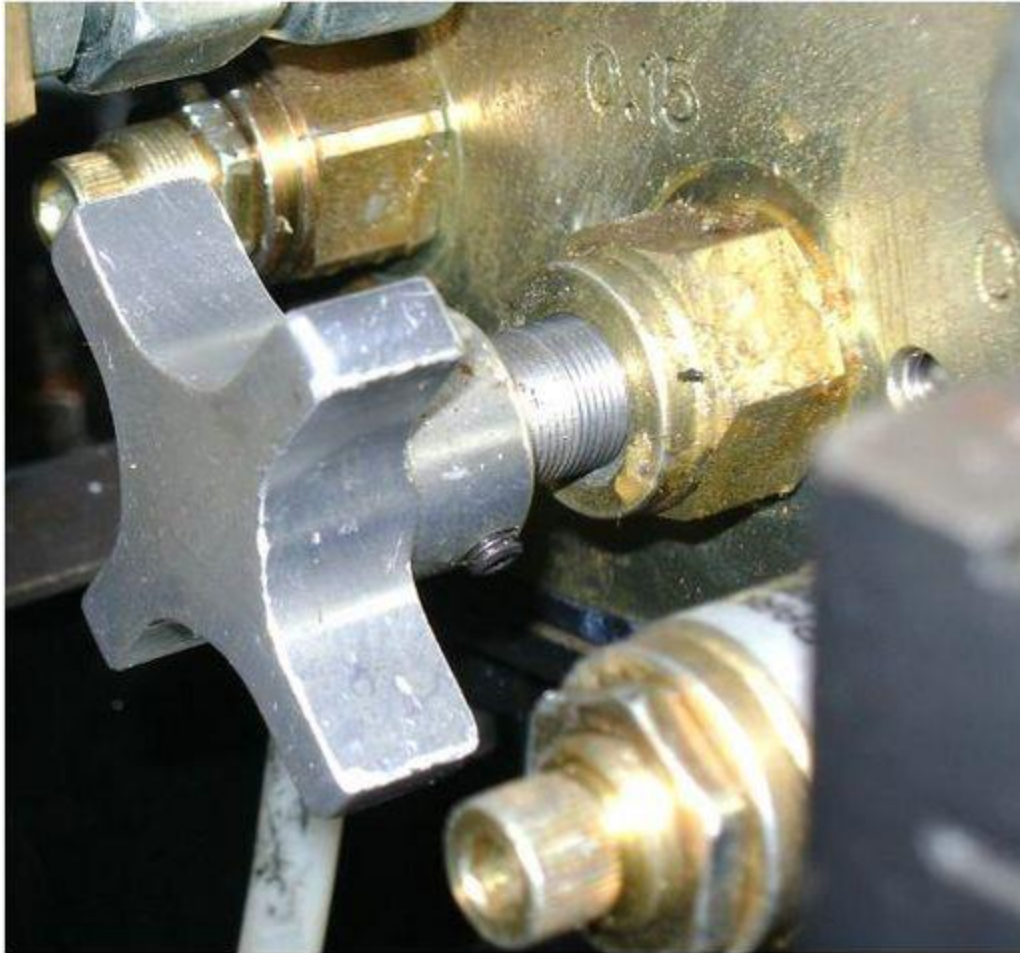
Checks and ensure that needle valve is closed

Valve Position Number: Combi **POS 15**: Parker **POS 0.16**

Replace the needle valve if found to be defective.

Relevant spare parts	
Description	Item No.
Combi. Hydraulics Needle Valve TOGNELLA FT 267/1	<a href="#">60065410</a>
Parker Shaft Hydraulics Needle valve NVH-2201	<a href="#">60104032</a>





**Replace the defect relief valve**

**Does this solve the problem?**

1] Yes

2] No

3] I don't know

- **Explanation**  
**IN THE NACELLE:**

Check that relief valve settings are correct in accordance with I&S Data.

Replace the relief valve if found to be defective.

Relevant spare parts (Parker)		
Description	Item No.	Position
VALVE RELIEF RDH-08-2-S-30 69-207 BAR	<a href="#">60104030</a>	POS 0.15, POS 0.22

### Replace the defective pump and/or valve coils

#### Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Check that the system pressure builds-up within the time limit specified in the stop and reset functions. If not, check the pump operation. If the pump is found to be defective, replace it.

Relevant spare parts	
Description	Item No.
PUMP 1 SPA 0.9 D 10 GG (COMBI - AVN)	<a href="#">60097654</a>
GEAR PUMP P1 AAn 0050 FL 20-B0 (PARKER)	<a href="#">60103470</a>



Check the operation of the solenoid valves.

If the valves or coils are found to be defective, replace them.

Relevant spare parts	
Description	Item No.
COIL F/GS02 CCP024 D 24VDC W/C	<a href="#">60065454</a>

Check if the hydraulic unit needs CIM1106 upgrade (Replacement of coils and pump)

Relevant CIM case		
CIM case	Task list	SWI
<a href="#">1106</a>	10953 - Upgrade of Pump + Filter & Coil,  10956 - Upgrade of coils 14W to 19W,  10957 - Upgrade of Pump and Coils	<a href="#">0002-2344</a>

### Replace the defective cable

Does this solve the problem?

1] Yes

2] No

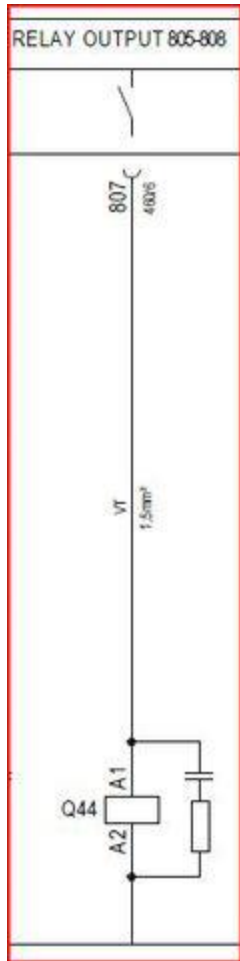
3] I don't know

- **Explanation**

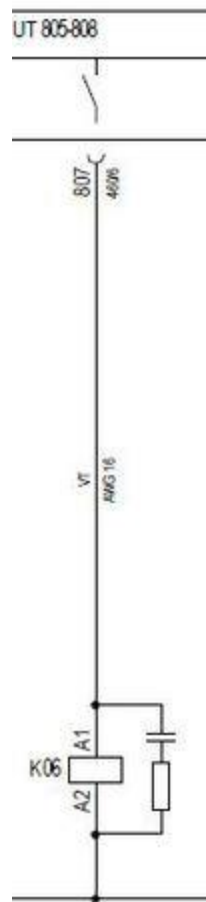
Check the Output from tower TOI 807:

50Hz





60Hz



Check F44/F15 MCB and Q44/K06 Contactor loose connection.

Check the incoming cable from Control panel (+AT2) to motor box (+AN4) Connection Terminal 25,26,27

**+AN4**



Check the cable connection from motor box(+AN4) to Shaft brake terminal box (+AN12 Connection terminal X01 - 07, 08, 09

**+AN12**



Check the motor terminal box connections