

Replace thermal bypass valve

Does this solve the problem?

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

- **Explanation**

CIM2819 - Prior to replacing the thermal bypass valve, reference the Technical Information Sheet:

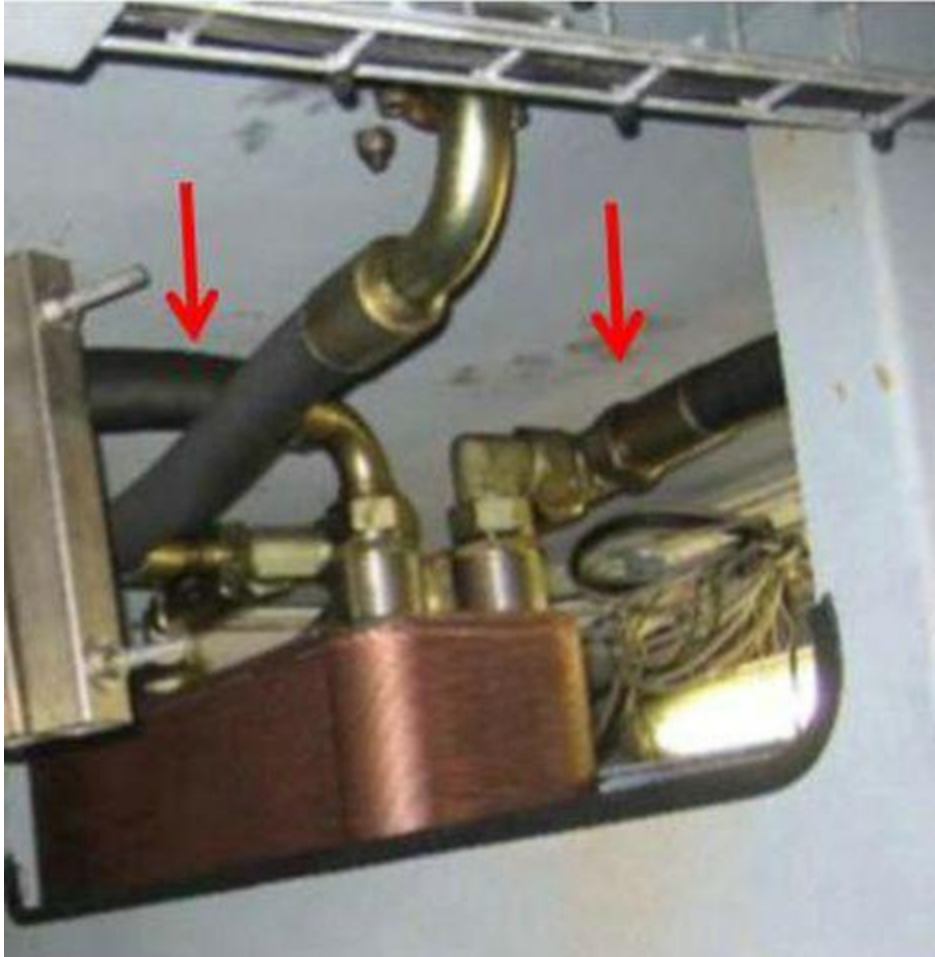
Relevant CIM case		
CIM case	Task list	SWI
2819	21781	

Relevant documentation	
Description	Doc No
TIS_V82_1.65MW_Thermal Bypass Valve	0043-3494

Hydac has replaced the original TB45 (60104320) with a new version that is a direct replacement:

Relevant Spare Parts	
Description	Item No
THERMO BY-PASS TB45	29046782

Measure the temperature on gear oil hoses with gear oil pump running, check if temperature increases near heat exchanger or is same temp as by-pass hose.



If temperature is low near heat exchanger then the by-pass valve is likely defective in the pump manifold. (VT 188978 "IR- Thermometer Fluke 62)



If replacing the 45 degree thermal bypass valve, the valve must have the center pin in valve body. Do not pull the center pin out of the temperature sensing bulb. If pin fell out during shipping, do not install valve in turbine. (Some valves have been received at sites with dented valve bodies, inspect the valve prior to instillation and do not install a damaged valve into the pump manifold).





Verify correct parameters/system operation

Does this solve the problem?

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

- **Explanation**

Check different from factory parameters, cooling system operation, high-speed/low speed wiring on gear-oil pump motor.

SWI for cooling system [DMS 1001107](#)

Replenish coolant liquid

Does this solve the problem?

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

- **Explanation**

Compare gear oil temperature to generator winding temperature, if generator is also near the alarm limit for 'Gen G temp high' then low water level in the coolant system is likely the cause.

SWI for cooling system [DMS 1001107](#)

Replace the defective PT100

Does this solve the problem?

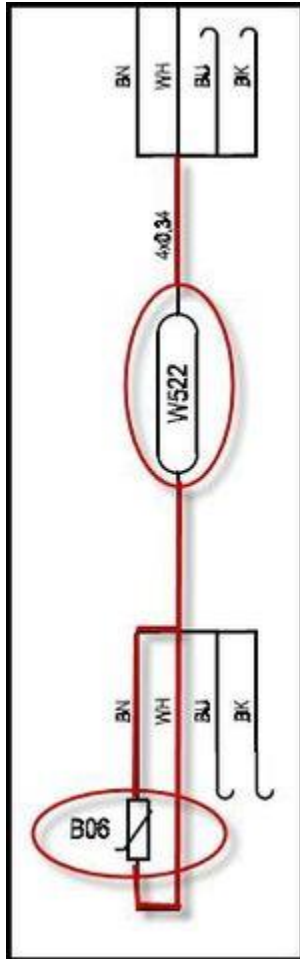
- 1] Yes
- 2] No

3] I don't know

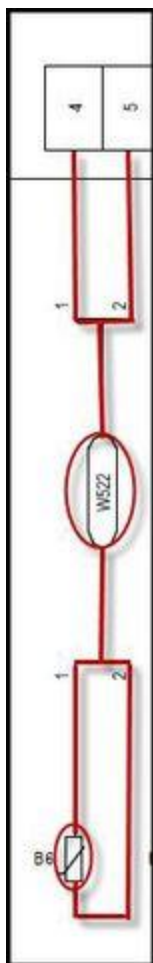
- **Explanation**

Check the connections at terminals 19 and 20 at AN12 (Mark2-5) Check the PT100 and cable for any damage and check resistance value

Mrk2-5 Circuit



Check the connections at terminals 4 and 5 at AN10 at Mark1(NM82) Check the PT100 and cable for any damage and check resistance value



Relevant spare parts	
Description	Item No.
POCKET FOR PT100 RFL-2-M 50MM	60068402

Check cable connector terminal for any loose connection /oil contamination as shown below. If so, clean the oil or replace the cable W522.

Relevant spare parts	
Description	Item No.
CABLE -W522 NM30t. MRK III 4x0	60110452





Check and Replace the defective TOI II (TOP)

Does this solve the problem?

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

- **Explanation**

This alarm will occur, if the Particular temperature channel circuit malfunction. Replace the defective TOI II (TOP)

Relevant spare parts	
Description	Item No.
TOI-II INTERF EXT V82 TOP	51713101



+ 12V
+ 5V
+ 5V GND
+ 5V GND
+ 5V GND
GND
GND

TOI-II
NACELLE V62