Replace the defective wind vane and defect wind sensor

Does this solve the problem?

1] Yes

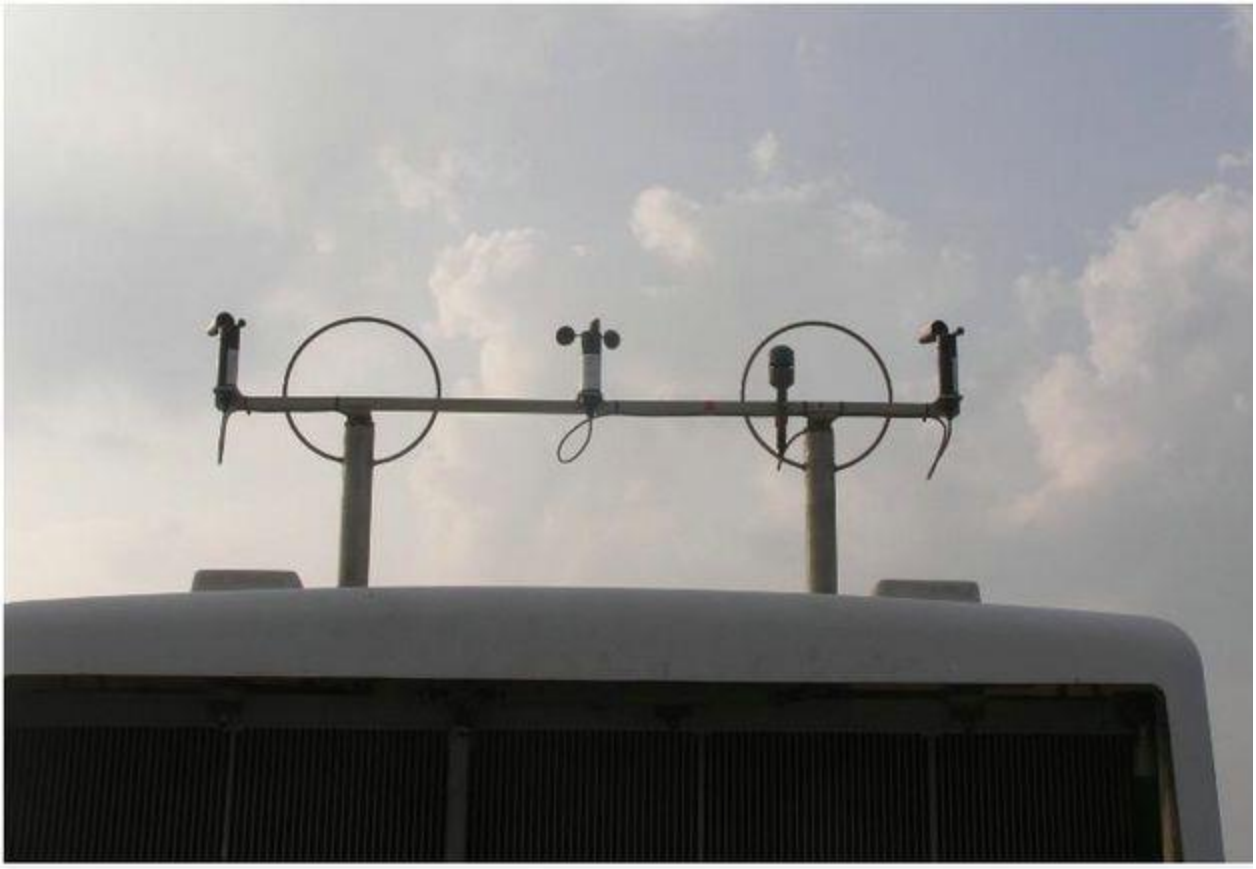
2] No

3] I don't know

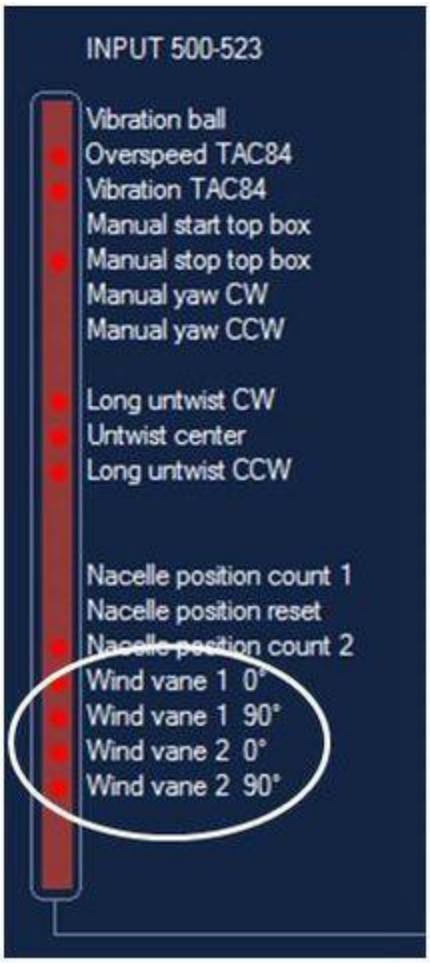
- **Explanation**
  IN THE NACELLE:

  Check that the wind vane is properly fixed to the met frame on top of the cooler.

Relevant documentation	
Description	**DMS No.**
Wind vane alignment	1001337



Check the wind vane signal in the top TOI Unit,



If the wind vane is defective replace with new wind vane.

Relevant spare parts	
Description	**Item No.**
WVA HEATED DWS-D-DAC-13 (CG)	60092777
WINDVANE NRG 2 ICEFREE, ARCTIC (NRG)	60009349

Check the FT sensor alignment and working condition.

If found to be defective, replace with new one.

Relevant CIM case		
CIM case	**Task list**	**SWI**
2675		

Relevant spare parts	
Description	**Item No.**
WIND SENSOR US FT702LT V7-10	60111943
WIND SENSOR US FT702LT V22	106510

Relevant documentation	
Description	**DMS No.**
FT sensor Fault finding Procedure	0010-1892

If replacing the FT sensor, ensure that it meets the firmware requirements mandated in DMS 0028-9335 and 0029-1332

Relevant documentation	
Description	**DMS No.**

CIM 2675 FT Sensor New Software	0028-9335
Upgrading FT22 Sensor Firmware	0029-1332

NOTE: To upgrade the sensor firmware, the sensor will be connected directly to a PC with firmware installed from the Vestas Software Portal.

If the FT sensor does not appear to be shorted, check the F46 varistor box for a failed varistor. Remove the wires from the varistor box and remove it from the housing.

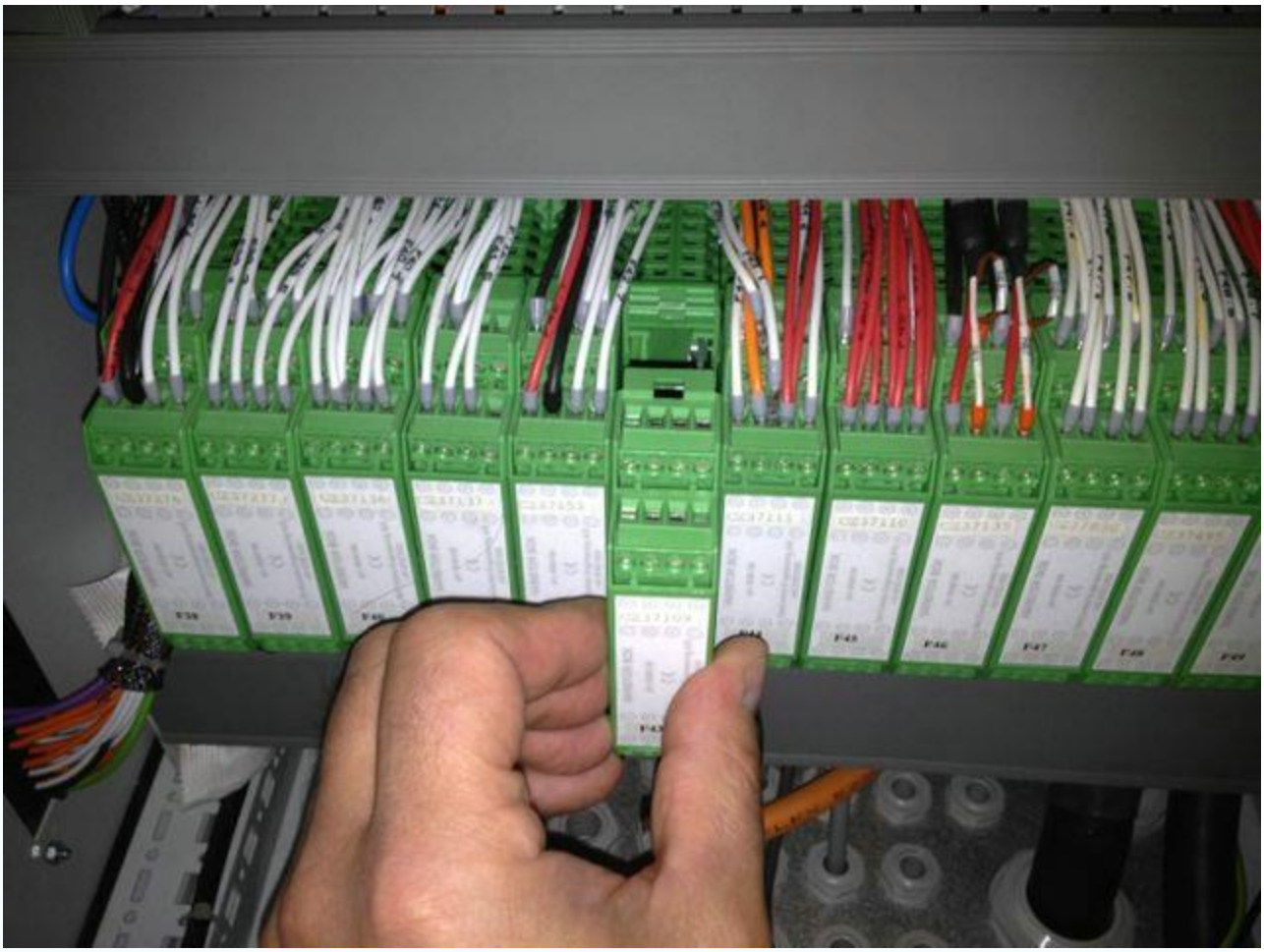
Varistor box F46:

Both wind sensor 1 (left) and wind sensor 2 (right) use varistor box F46. Terminals 1-4 (top and bottom) are for wind sensor 1 and 5-8 (top and bottom) are for wind sensor 2.

If the cable is mounted tight and it pulls in the sensor connector, it must be connected so that it is not pulling the plug.

Relevant spare parts	
Description	**Item No.**
VARISTOR BOX X8	51706201

Press clip on top and bottom of varistor box and remove varistor assembly from housing:



The varistor box is made up of eight varistors and has provisions for 16 wire connections (protection for 8 signals)

Cable plug and protective boot:

Proper instillation of protective boot:

Check the connections at the ICP RS485 repeaters (K21 & K22) in the AN1.

Check for loose wires and plugs or corrosion at the repeater.

If there is no communication on one sensor, switch the ICP RS485 repeaters to see if the communication returns. If communication returns when the repeaters are switched, replace the faulty repeater. Item number:

Relevant spare parts	
Description	**Item No.**
RS485/RS485 REPEATER I-75	60004933

Replace the defect Nacelle TOI Unit

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  IN THE AN1 CABINET:

Check the indication of nacelle TOI unit during yawing, the LED should be blink and TAC yaw counter value will change.

If the value does not change in the TAC, then the cause is likely a faulty Nacelle TOI.

Nacelle TOI part Number:

Relevant spare parts	
Description	**Item No.**
TOI-II INTERF EXT POC	51701601

Replace the new Yaw gear unit

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  IN THE NACELLE:

  Check the turbine alarm log for recent yaw errors such as yaw motor “X" overload. If the turbine has a history of yaw related errors, there may be an issue with one or more of the yaw gears that is causing this alarm.

  Check the yaw gear which is connected in the yaw system.

  Check the teeth in the remaining yaw gear pinion wheels if any damage.

  If abnormal sound can be heard in the yaw gear unit it is likely defective.

Relevant documentation	
Description	**DMS No.**
Replacement of Yaw Gear Unit	0010-5073

Relevant spare parts	
Description	**Item No.**
Yaw gear Bonfiglioli 709T4F	60103371