

Perform the blade position calibration as per the WKI

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
IN THE Nacelle:

Do the blade calibration. Original calibration may be altered during any component replacement. Like position sensors (Balluf), cables, proportional valves and hub computer.

DMS: [0000-9925](#) section 5.10.9 Blade Position Calibration during manual pitching in the Nacelle Mode.

Also refer to Blade Pitch System Test **DMS:** [0002-0467](#)

Replace the defective pitch position sensor

Does this solve the problem?

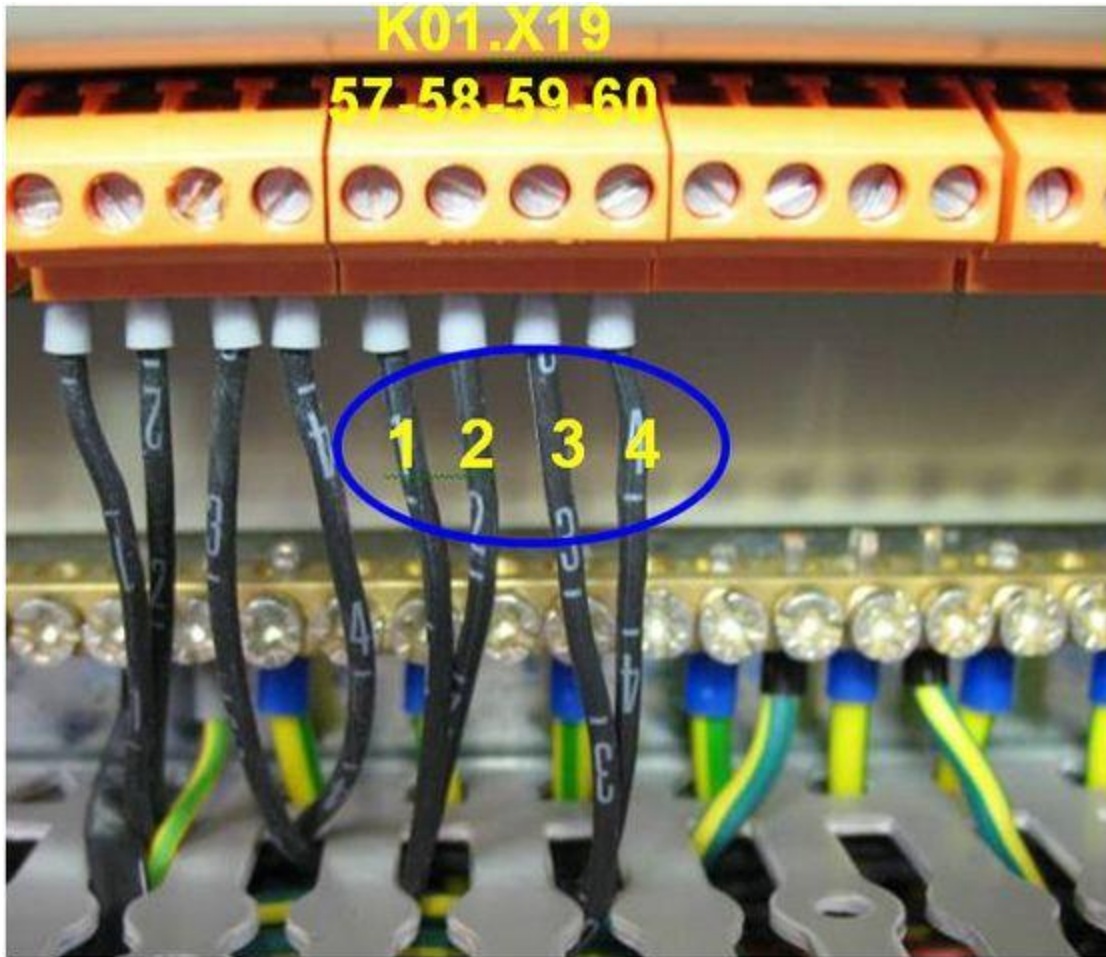
1] Yes

2] No

3] I don't know

- **Explanation**
IN THE HUB PANEL +AK4

Check for loose connections in the hub computer terminal X19



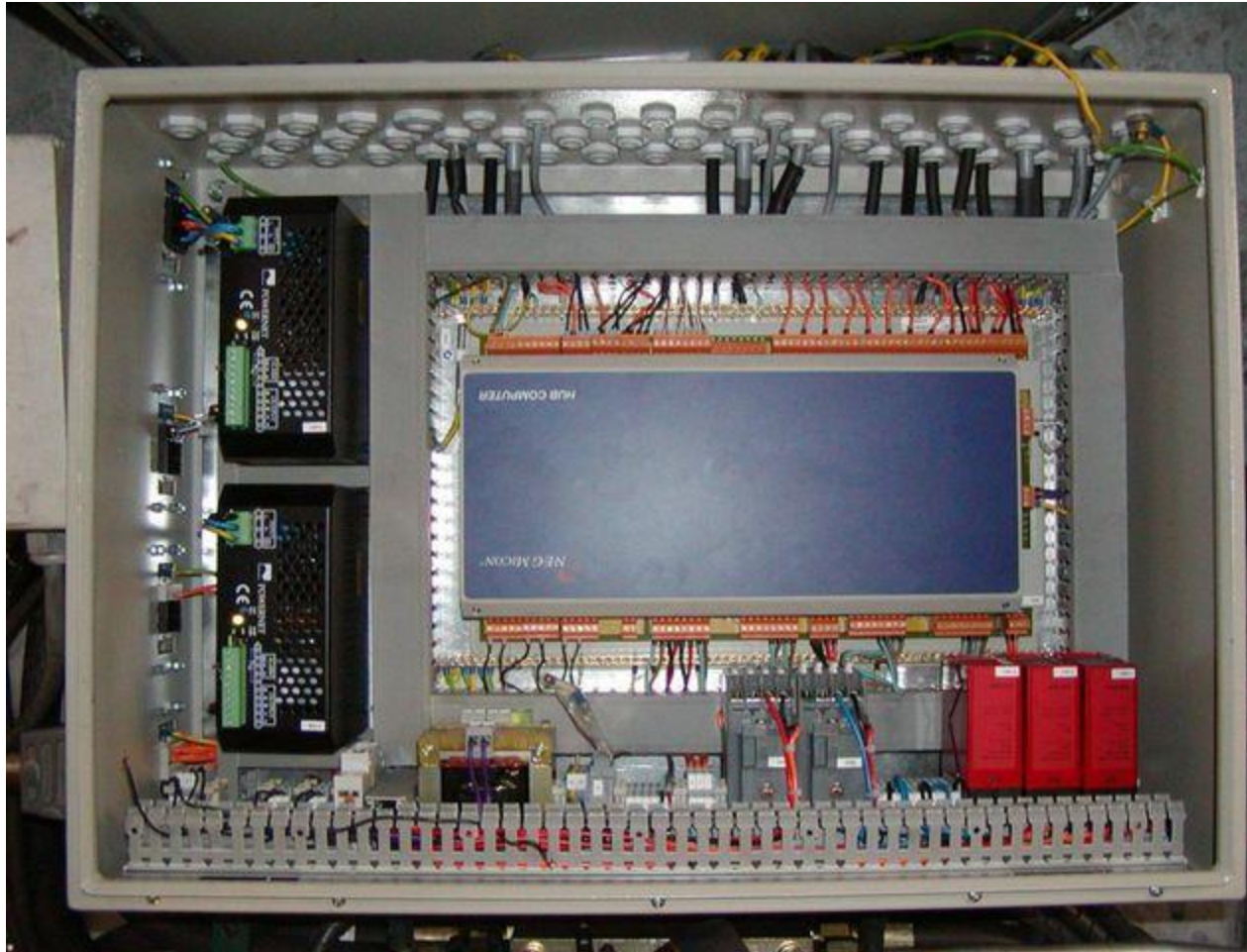
IN THE HUB :

Check for any loose connections for the Blade 2 position sensor.

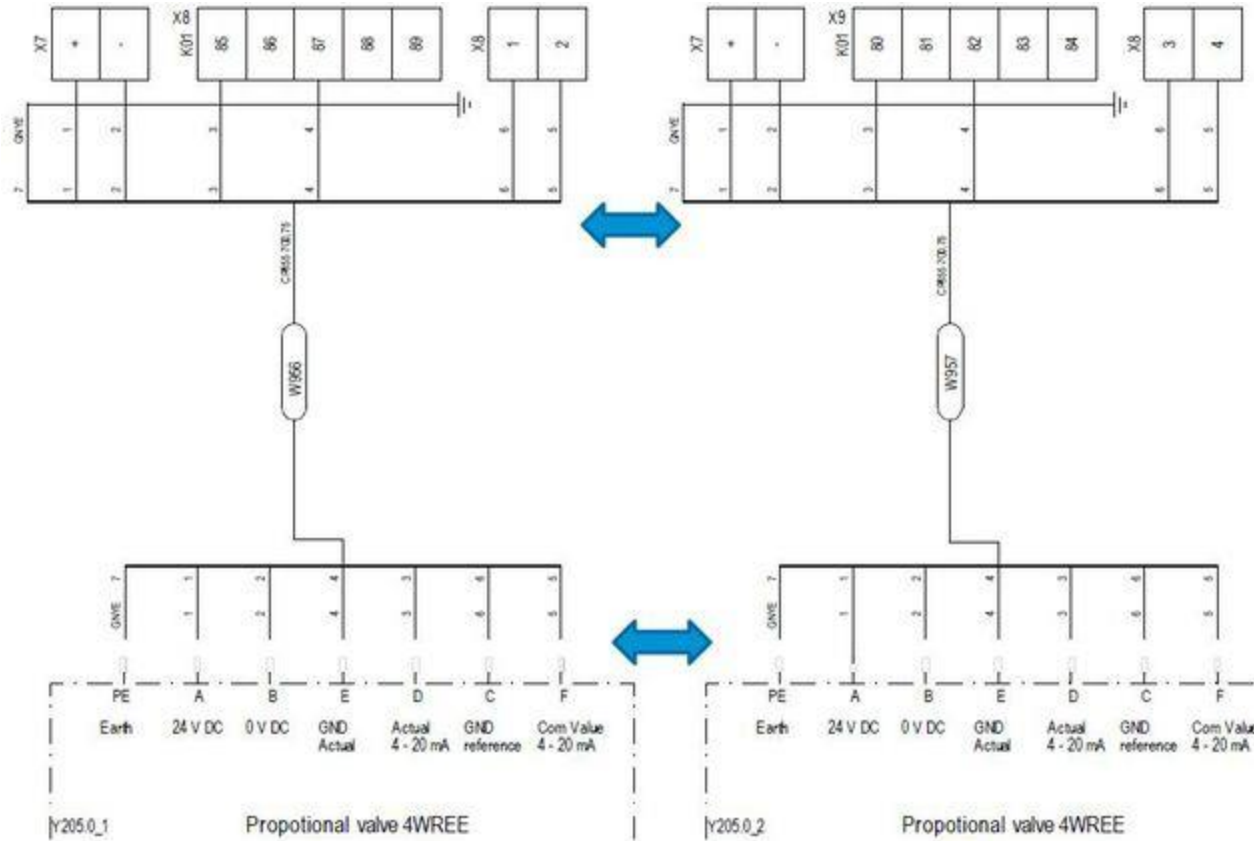




Swap the signal wire to the position transducer (Balluff) on the hub computer. If the fault follows to the new blade then the fault is either in the position transducer or one of the cables.



In the example below, we are swapping the plugs between blades B and A.



Place the cables back to their original position and then swap pitch position sensor from affected blade to another working blade.

If the alarm follows the valve to the other blade, the pitch position sensor is defective.

If it does not, the pitch position sensor is likely not the cause.

Pitch position sensor Item number :

60098816 - TRANSDUCER BTL5-E10-M0950-A-S



Service Module Item Number :

60102394 - SERVICEMODUL, BTL5 - E10



Replace the defect powernet

Does this solve the problem?

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

- **Explanation
IN THE HUB:**

Check for any loose connections at the power net (Pos: G401).

Check input and output voltage 230/115 VAC /24VDC.

If defect replace the power net.



Part number for power net:

188453 PS ADC 5483R-3 10A-27,4 NM PIN

CIM: [1390](#)

Replace the defective Hub Computer

Does this solve the problem?

1] Yes

2] No

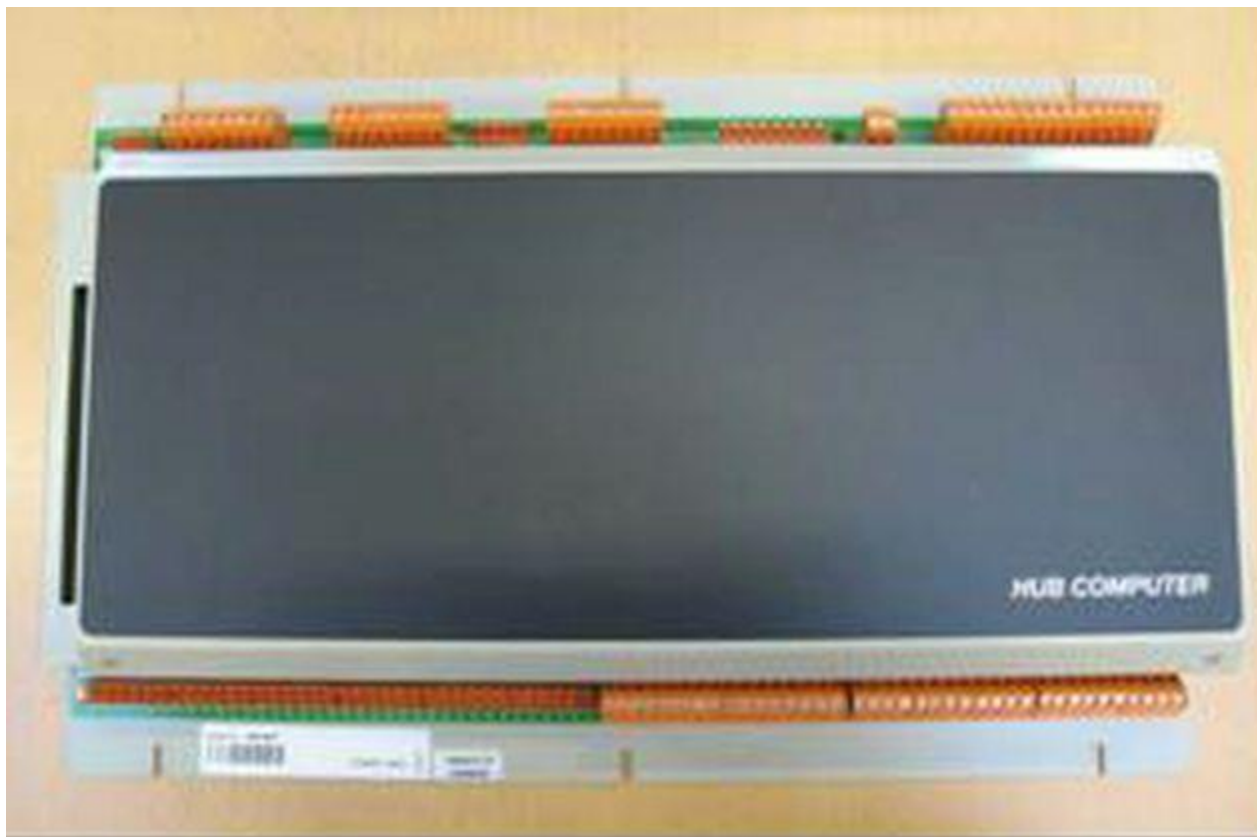
3] I don't know

- **Explanation**
IN THE HUB:

If after the blade calibration, pitch angles deviate, or angle values show constant when pitching the blades, the hub computer may be defective.

Hub Computer Part Number: 51701801

CIM [1594](#)



Check for surge protector upgrade in power net per Doc [0013-3681](#) or [0033-3872](#)

Replace the defective pitch position sensor cable

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
IN THE HUB:

Check the cable for any shorts due to the cable rubbing near the hub casting or friction between the cable and hydraulic hose may lead to this error.

If a defective cable is found, replace the cable with a new one.

Pitch position sensor cable Item Number:

60101018 Cable W 923 Pos.transducer1 Std

60101148 Cable W 924 Pos.transducer 2 Std

60101149 Cable W 925 Pos.transducer 3 Std



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Replace the defective proportional valve and cables

Does this solve the problem?

1] Yes

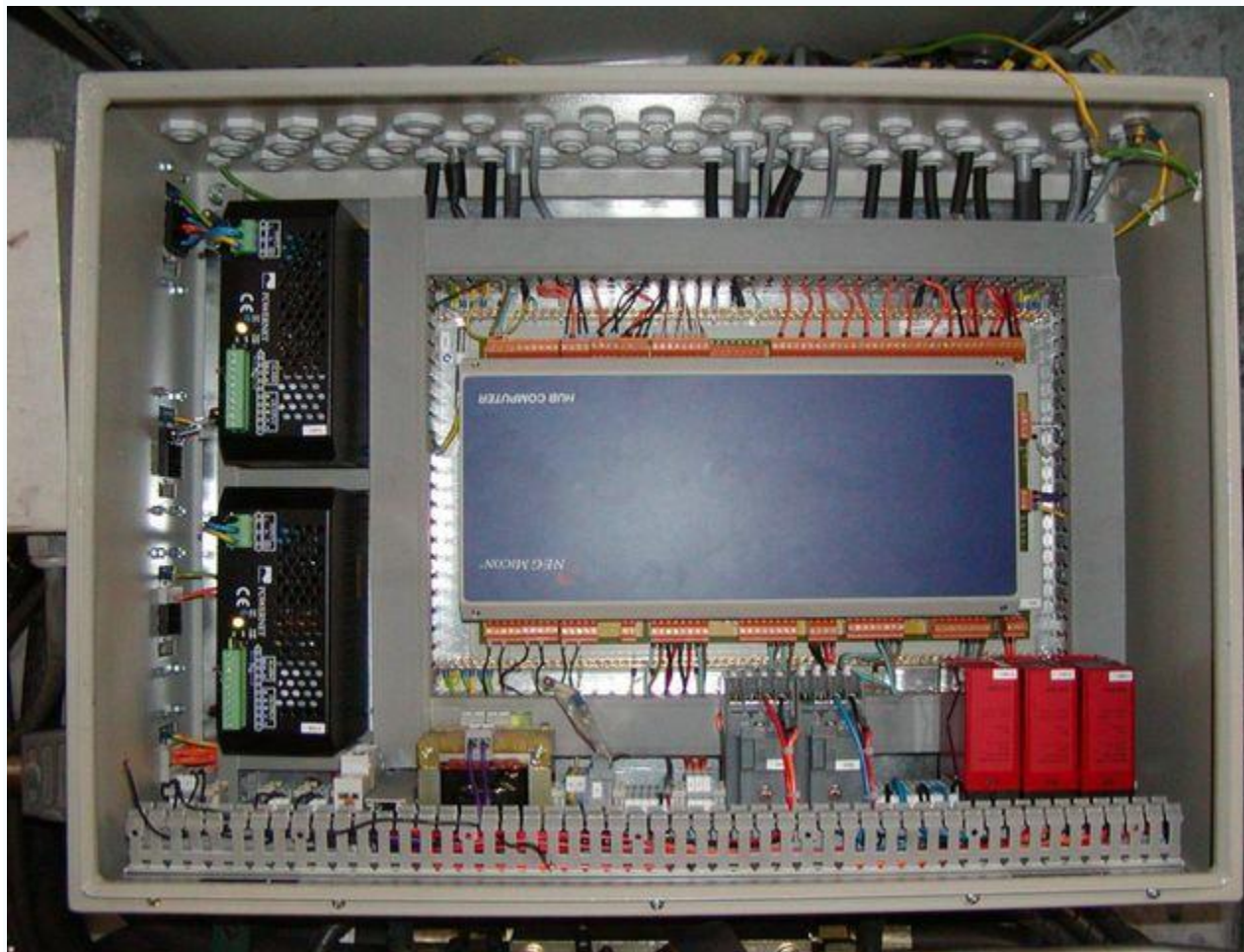
2] No

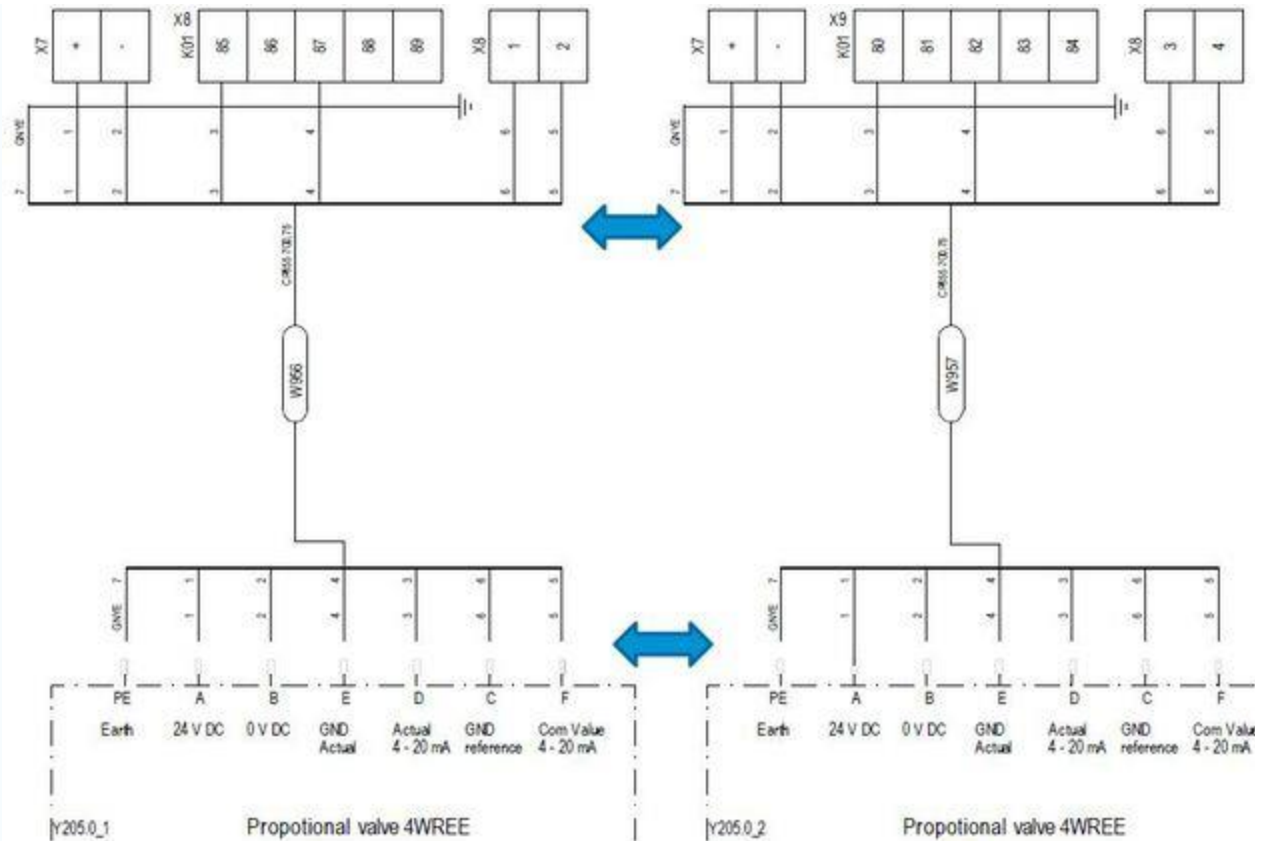
3] I don't know

- **Explanation**
IN THE HUB:

First swap the signal wire to the proportional valve on the hub computer.

If the fault follows to the new blade then the fault is either in the proportional valve or one of the cables.





Place the cables back to their original position and then swap proportional valve from affected blade to another working blade.

If the alarm follows the valve to the other blade, the proportional valve is defective.

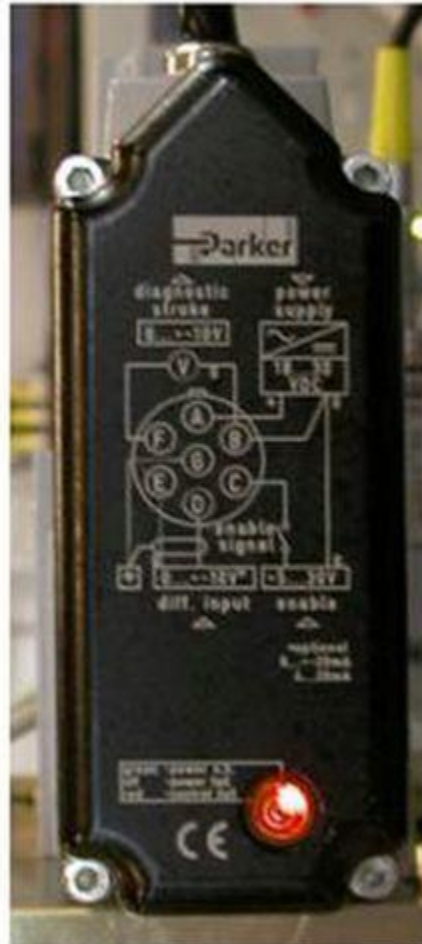
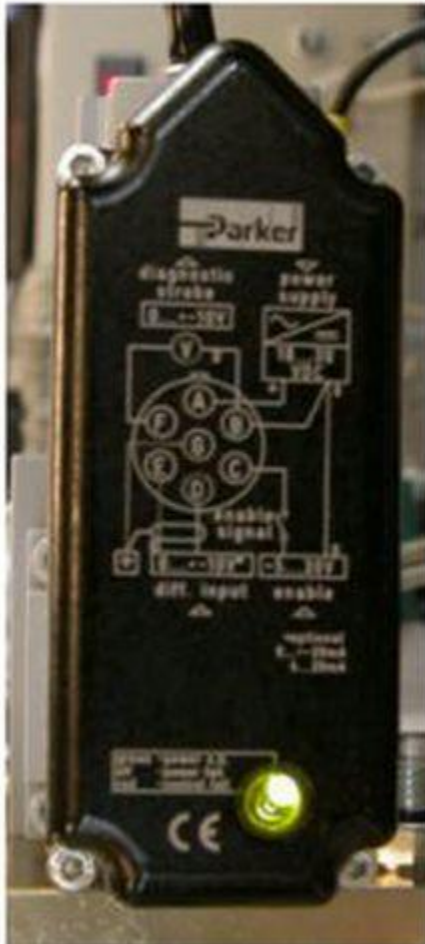
If it does not, the proportional valve is likely not the cause.

For Parker proportional valves check to see the color of the LED on the valve circuit board.

Parker hydraulics SWI: [0001-3199](#) 'V82 Hydraulic pitch control system'

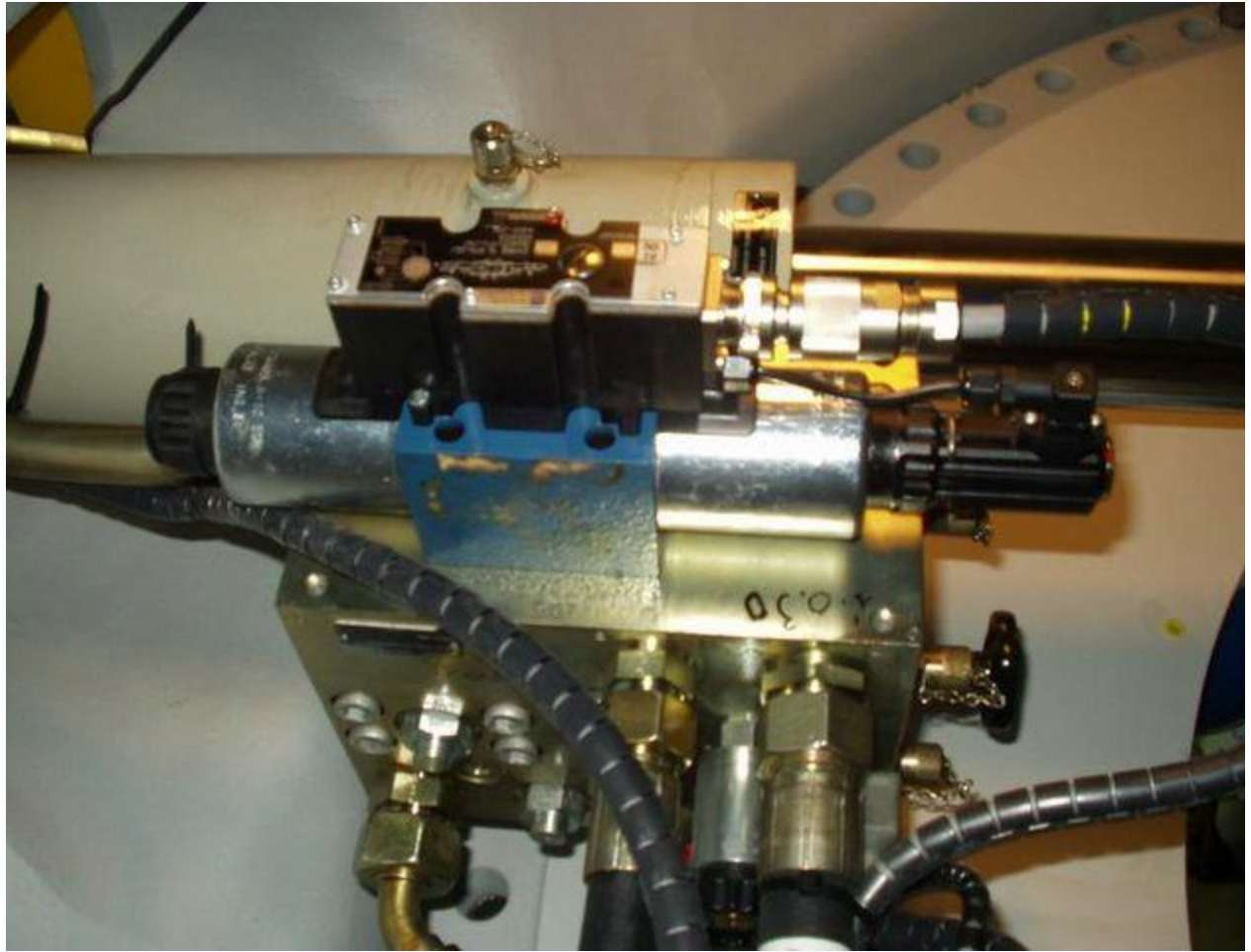
The LED should be green with the pitch system pressurized.

If it is red and there is pressure verified on test port MP, then the valve may also be defective.



Display Color	Indicates
Green	Normal operation
Off	Supply voltage outside permissible range of 18 to 30 VDC
Red	Spool position error / Low pilot pressure

Replace proportional valve using SWI [0016-1690](#).





Proportional Valve Item numbers:

60112621 - Parker

CIM: [2303](#)

60078979 -Bosch Rexroth

CIM: [1914](#)

Part number for Proportional valve Cable

60021545 Cable W 957 Proportional valve Y0205.0-2

Part number for Valve cables:

60021536 Cable W 944 Parking valve Y 210.0-2

60021537 Cable W 945 Shutdown valve Y215.O-2