

Re-charge accumulators as needed.**Does this solve the problem?**

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

- **Explanation**

Test accumulators in accordance with 941918 Recharging of Nitrogen Accumulators.

Relevant spare parts

Description	Item No.
V82 accumulator charge kit	222826

Relevant documentation

Description	DMS No.
Recharging of Nitrogen Accumulators	941918



Check/replace needle valve 222

Does this solve the problem?

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

• **Explanation**

Loosen the plastic jam nut on valve 222. Tighten the valve handle to determine if the valve was left partially open.

If the valve was closed, but you suspect the valve is leaking- charge the accumulators.

When the accumulators are charged, secure the system.

Listen for a whistling sound coming from the valve.

If possible, have someone monitor the blade pressure at the controller or remotely to monitor for a drop in pressure. Replace the valve if found to be faulty.



Relevant spare parts

Brand	Description	Item No.

Bosch Rexroth:	Throttle Valve NFCC-LCN AA40122JG01	60112481
Bosch Rexroth:	Handle for Throttle Valve NFCC-LCN	60112482
Parker (Includes knob):	Needle valve NVH-2201	60104032

Test/replace pressure transducer

Does this solve the problem?

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

- **Explanation**

Check the turbine alarm log for fault [469](#) - Pitch ac. press. Sensor fault.

If the turbine has faulted on 469 recently, the pressure transducer is likely bad.

Relevant spare parts	
Description	Item No.
Pressure-transducer:MBS3000-3611-1 GB04	60096497

Check, Test and replace the respective defective valve

Does this solve the problem?

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

- **Explanation**

Test relief valve 220 and replace as needed.

Relevant spare parts	
Description	Item No.
Pressure Controlvalve:RDDT-QWN51004JG	<u>60096477</u>

Check the below valve positions.

Swap the valves one by one in to other manifolds and check valve operation.

If the fault shifts to other blades the valve is likely defective. If not continue to check the other valves.

PARKER SYSTEM -PITCH MANIFOLD:

Relevant spare parts		
Description	Item No.	Pos.
LOGIC ELEMENT PIL. OPERATED	<u>60111630</u>	240, 245

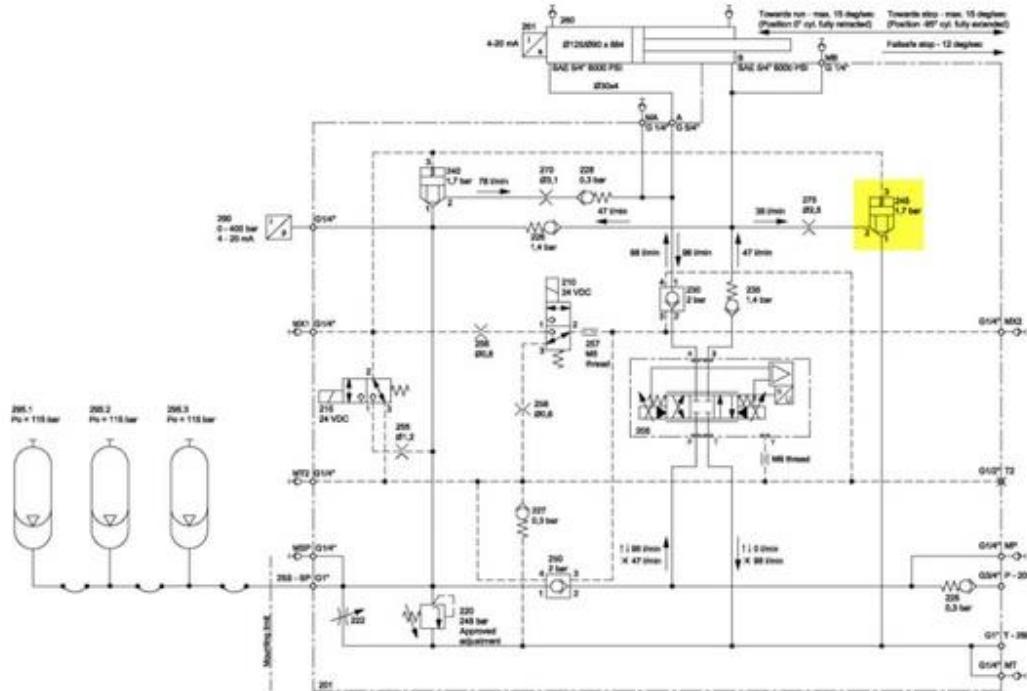


Figure 13-4: Fast Active Stall system (Parker).



REXROTH SYSTEM - PITCH MANIFOLD:

Relevant spare parts

Description	Item No.	Pos.
VALVE CHECK PILOT COFA-XAN A30	60096493	240, 245

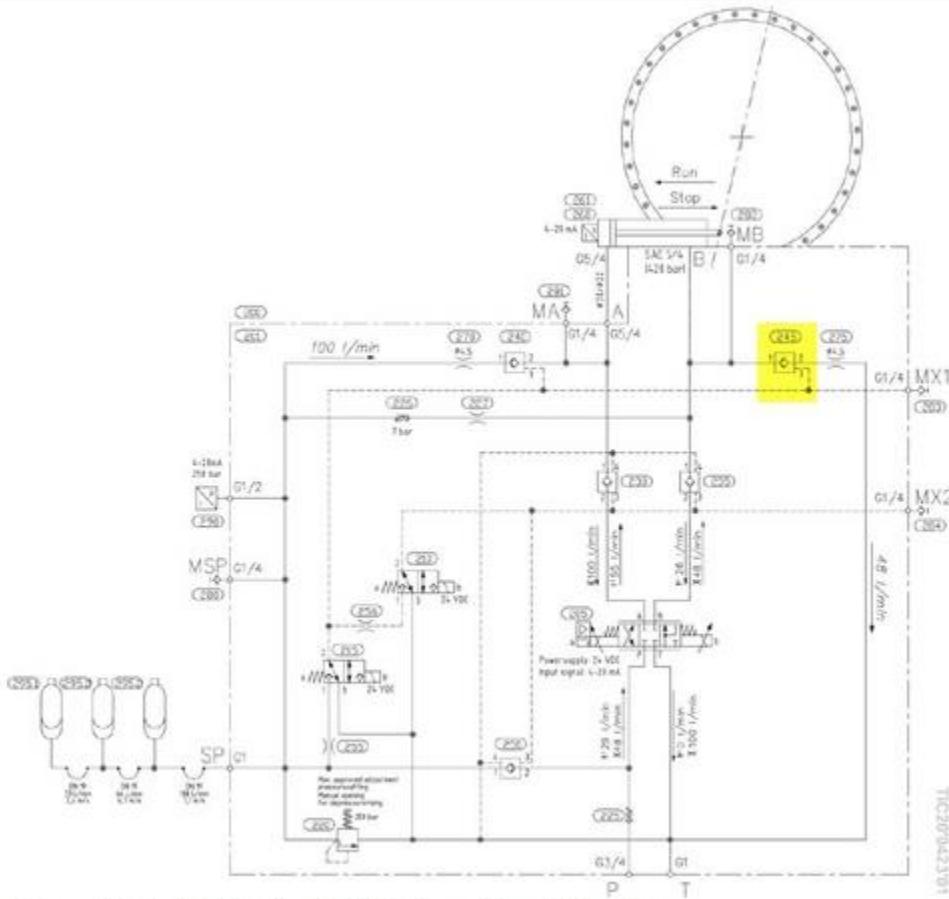


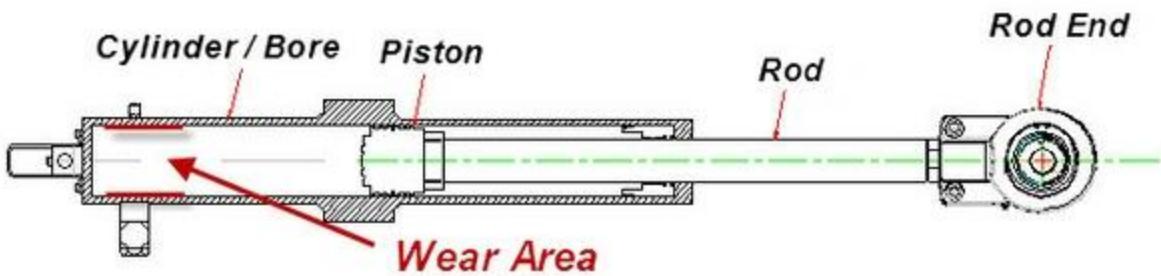
Figure 13-3: Fast Active Stall System (Bosch-Rexroth).

Perform a visual inspection of the back of the cylinder bore

Does this solve the problem?

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

- **Explanation**



The back 250 mm of the pitch cylinder bore may be susceptible to excessive wear. This area of the cylinder is where the piston operates during production. When excessive wear occurs in the cylinder barrel, the piston seals are also subjected to accelerated wear, and internal leakage will occur in both run and stop positions. The effect of this leakage is excessive pump run time during operation as well as during stop. In the event of a pump failure, grid outage or certain turbine faults, pressure within the accumulators will bleed off, and blades may be at risk of being pushed into the run position under high wind conditions. Check the back of the bore for abnormal wear.

Actions:

Refer to DMS doc 0059-1574 for inspection instructions and criteria for running the turbine if wear is found.

Relevant documentation	
Description	DMS No.
V-82 Pitch Ram Bore inspections	0059-1574
V82 Rexroth pitch ram installation on a Parker pitch system	0059-7339

Relevant CIM case		
CIM case	Task list	Service Message

3699	23210	0059-3323 Evo2 Pitch Cylinder Wear
----------------------	-------	--

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, any pitch angles deviate, or angle values show constant when pitching the blades, the hub computer may defective.

Relevant spare parts	
Description	Item No.
SIF HUB COMPUTER CABINET EVOII	51701801

Relevant SIM Case		
CIM Case	Task List	SWI
1594	12511	

Relevant documentation	
Description	DMS No.

Add_Elec_Protec_V82	0033-3872
Test Proj_Adnl Elec Prot_V82	0013-3681



Replace failed accumulators

Does this solve the problem?

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

- **Explanation**

Replace or repair (if approved) any failed accumulators.

Relevant documentation	
Description	DMS No.
Accumulator Retrofit Installation	<u>0000-9402</u>