

**Troubleshooting****ZF 2500 Series**

<b>Fault</b>	<b>Possible causes</b>	<b>Corrective measures</b>
Transmission oil temperature too high (Measuring points 11*, 12* and 41*)	<ul style="list-style-type: none"> <li>• Insufficient water flow through cooler</li> <li>• Sludge in oil cooler</li> <li>• Clutch disc damage</li> <li>• Gear ratio not properly engaged, clutch slipping</li> </ul>	<ul style="list-style-type: none"> <li>→ Increase water flow</li> <li>→ Clean oil cooler, see Maintenance Work 169</li> <li>→ Check clutch</li> <li>→ Adjust shift mechanism</li> </ul>
Transmission oil temperature too low	<ul style="list-style-type: none"> <li>• Excessive water flow through cooler</li> </ul>	<ul style="list-style-type: none"> <li>→ Reduce water flow</li> </ul>
Oil pressure upstream of filter too high (Measuring point 5*)	<ul style="list-style-type: none"> <li>• Clogged filter</li> </ul>	<ul style="list-style-type: none"> <li>→ Clean filter and drain off oil sludge</li> </ul>
No operating oil pressure (Measuring points 2*, 21* and 27*)	<ul style="list-style-type: none"> <li>• No oil in transmission</li> <li>• Wrong direction of rotation at transmission input</li> <li>• Defective display unit</li> </ul>	<ul style="list-style-type: none"> <li>→ Add oil</li> <li>→ Use special transmission version</li> <li>→ Rectify fault</li> </ul>
Operating oil pressure too low (Measuring points 2*, 21* and 27*)	<ul style="list-style-type: none"> <li>• Low pressure slide jamming</li> <li>• Oil viscosity too low</li> <li>• Spring from shift pressure valve contracted</li> <li>• Incorrect shift pressure valve setting</li> <li>• Defective oil pump</li> <li>• Filter safety valve leaking</li> <li>• Time switch for pressure modulation defective</li> <li>• (Trolling) flow. limiting valve jamming</li> </ul>	<ul style="list-style-type: none"> <li>→ Loosen piston</li> <li>→ Use a recommended oil grade (see List of Lubricants)</li> <li>→ Replace</li> <li>→ Reset using shim</li> <li>→ Replace oil pump</li> <li>→ Check for clogging/wear</li> <li>→ Replace piston and sealing element</li> <li>→ Loosen piston</li> </ul>
<p>If the fault cannot be rectified, the lube oil supply to the transmission is also at risk. Proceed at reduced engine speed until repairs can be carried out.</p>		
Operating oil pressure too high (Measuring points 2*, 21* and 27*)	<ul style="list-style-type: none"> <li>• Oil viscosity too high</li> </ul>	<ul style="list-style-type: none"> <li>→ Use a recommended oil grade (see List of Lubricants)</li> </ul>
Drive interrupted between transmission input and output; clutch not transmitting torque	<ul style="list-style-type: none"> <li>• Incorrect shift angle for mechanical transmission actuation</li> <li>• No operating oil pressure</li> </ul>	<ul style="list-style-type: none"> <li>→ Adjust setting</li> <li>→ See remedy for no or insufficient operating oil pressure</li> </ul>

\* see Monitoring Diagram, Section 3.1 and 3.2 and Transmission Views Section 2