Hydraulic Failure Self Audit & Troubleshooting Guide

Improve plant availability – Reduce failures

– Build competent technicians

MGR Fluid Engineering

Part 1 – Why most hydraulic system failures are preventable

Hydraulic system rarely fail due to component defects. They fail due to:

- Incorrect valve and control settings
- Poor contamination control
- Wrongful diagnosis of the problem
- Lack of maintenance
- Lack of technician and service engineer competency

Part 2 - Hydraulic Failure Self Audit Checklist

Tick each item honestly.

Contamination Control

- Oil samples taken at least quarterly
- ISO cleanliness targets defined
- Filters changed based on condition, not guesswork
- Breathers changed regularly
- New components installed with contamination control processes

System Settings

- Relief valves set and locked
- Flow controls correctly adjusted
- Pressure readings logged
- Temperature monitored and recorded

Maintenance Practices

- Hoses inspected monthly
- Fittings torqued correctly
- Accumulators checked for pre-charge
- Pumps checked for noise, heat, cavitation

Technician Competency

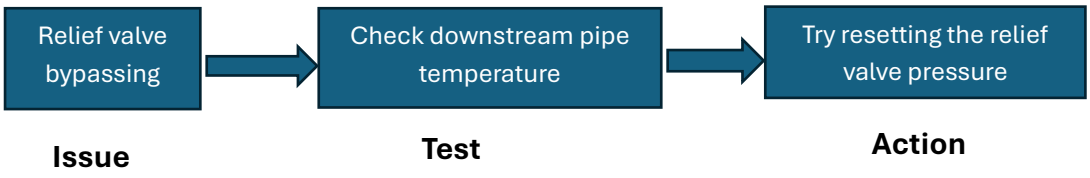
- Staff trained in fault-finding
- Staff understand contamination control
- Staff can read hydraulic schematics
- Staff can diagnose overheating

Score yourself:

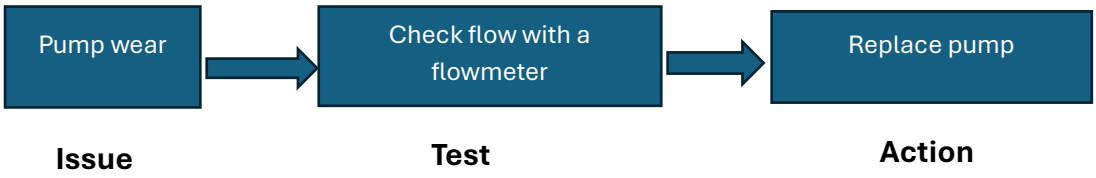
- **0–10:** High risk
- **11–20:** Medium risk
- **21–30:** Low risk

Part 3 — Troubleshooting Flowchart

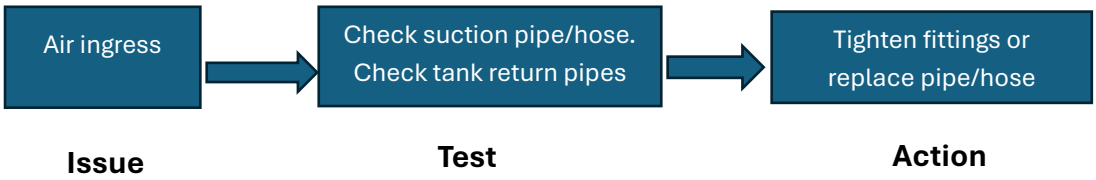
Overheating



Slow Operation



Erratic Movement



Part 4 — Technician Competency Requirements

Technicians should be able to:

- Diagnose faults using pressure/flow/temperature
- Understand contamination control
- Read hydraulic schematics
- Perform safe maintenance
- Document findings

Part 5 — Next Step

Train your team to reduce downtime and prevent failures.

Hydraulic Technicians Course — **Dates & Booking email:** mike@mgrfluideng.co.uk **Phone:** 07931904499