

11 TROUBLESHOOTING

Reported Issue	Common Causes	Corrective Action
Pump does not rotate	Driver fault/failure	Check driver and connections for faults or other signs of failures.
	Coupling/belt/transmission failure	Inspect the coupling or belt assembly for signs of failure.
	Incompressible/large solid locking lobes	Drain pump casing and connections. Check lobes for damage or signs of debris locking the lobes.
Pump/drive shuts down immediately after start-up	Shutdown controls	Check shutdown parameters/controls, adjust as necessary.
	Motor undersized – insufficient for pressure, speed, viscosity, etc.	Reduce operating speed or pressure, or replace motor.
	Excessive pressure generated	Check line for closed valve/blockage. Check operating speeds.
	Tight clearances	New pumps or those with newly installed wear parts (lobes) may see very tight clearances until the lobes wear in. As a first step, loosen the pump cover nuts in quarter-turn increments until the pump can start without leakage.
Pump casing (rapidly) overheating	Pump is running dry (without fluid)	Check line for closed valve/blockage. Ensure pump is primed with fluid.
	Excessive fluid temperature	Check process temperature; adjust controls/system as necessary.
Excessive noise	Excessive vibration	Reduce pump speed/pressure. Tighten frame and mounting bolts. Check alignment. Check lobe clearances. Check solids size and percentage.
	Cavitation	Adjust pump speed and vacuum pressure in suction side of pump. Check pipe size and connections for unnecessary restrictions.
	Strain bolt/lobe failure	Check torque on strain bolt and ensure lobes are free from damage/delamination. If loose, replace per Section 10.
	Excessive pressure	Rapid increases in pressure or pressures well above the pump rating may generate excessive noise.
Leak at housing segment/transition fitting	Loose bolt due to vibration, assembly error, etc.	Tighten all bolts in accordance with the patterns in Section 10.6 and 10.7. Check gasket(s) and O-ring(s) for signs of damage. Contact LobePro if leak persists.
Quench chamber losing oil	Drain hose assembly defective	Check or replace drain hoses. Tighten all plugs.
	Mechanical seal failure	Pressure test seal assembly per Section 10.5 and replace seal/seal components accordingly.
	Lip seal / secondary O-ring failure	Pressure test seal assembly per Section 10.5 and replace seal/seal components accordingly.
	Pump periphery leak	Inspect/tighten all casing connections and plugs.
Quench chamber temperature high	Oil level is too low	Fill oil to level of sight glass.
	Incorrect oil used	Use recommended oil per Section 8.
	Pump is run dry	Check line for closed valve/blockage. Ensure pump is primed with fluid.
	Quench chamber oil contaminated	Drain/flush/refill quench chamber and gear housing oil.

Reported Issue	Common Causes	Corrective Action
Pump is not generating correct flow/pressure	Pump is not operating	Ensure driver and transmission/coupling are operational and pump is not locked up.
	Pump speed is too low	Check operating speed/controls
	Leak in piping	Check suction and discharge piping for leaks
	Pressure gauge/instrumentation defective	Inspect/replace instrumentation
	Loss of suction/vacuum pressure	Check suction piping for leaks
	Pump is run dry	Check line for closed valve/blockage. Ensure pump is primed with fluid.
	Lobe damaged/delaminated	Inspect lobes for signs of damage; replace accordingly.
	Lobe/wear plates/housing worn	Excessive clearances have reduced flow/pressure generation; adjust or replace parts per Section 10.
	Defective pressure relief valve/setting	Inspect/adjust/replace pressure relief valve
Excessive pressure	Pump efficiency reduces with pressure. Ensure that the pump is operating at the rated pressure.	
Gear housing oil contaminated	Shaft O-ring failure	Replace shaft O-rings per Section 10. Pressure test seal assembly.
	Mechanical seal failure (quench contaminated)	Pressure test seal assembly per Section 10.5 and replace seal/seal components accordingly.
	Moisture ingress	Check tightness of drain plugs, vents, hoses, and sight glasses. Drain and refill gear housing.
Gear housing losing oil	Drain hose assembly defective	Check or replace drain hoses. Tighten all plugs.
	Oil level decreases during operation	Splash lubrication causes the oil level to decrease during operation. Add additional oil to compensate.
Gear housing oil foaming	Gear housing oil level too high	Drain excess oil until at level of sight glass.
	Incorrect oil used	Use recommended oil per Section 8.
	Expected due to splash lubrication	Some foaming/bubbling is expected due to splash lubrication.
	Possible contamination	Drain/flush/refill gear housing oil.
Gear housing temperature high	Standard operation	Gear housing will commonly run 20-30 °F above the application temperature.
	Oil level is too low	Fill oil to level of sight glass.
	Incorrect oil used	Use recommended oil per Section 8.
	Pump is run dry	Check line for closed valve/blockage. Ensure pump is primed with fluid.
	Gear housing oil contaminated	Drain/flush/refill gear housing oil.