T50 / T100

Practical guidance for turbine lubrication with MOTTA T50 and T100. Use the turbine's operating sequence, alarm limits and lubrication specification for the installed machine.

Product	Grades	Principal duty
T50	ISO VG 32 / 46 / 68 / 100	Turbine and specified R&O circulation duties
T100	ISO VG 32 / 46 / 68	Zinc-free turbine lubrication and control circuits

1. Select for the installed turbine

Confirm the turbine, bearing and governor requirements, viscosity grade and existing oil. T50 and T100 are not interchangeable solely because their viscosity grades match. Before mixing or conversion, assess compatibility; preserve a specified zinc-free circuit by using the correct top-up oil.

2. Prepare and fill safely

For system access, stop, isolate and verify hazardous energy, pressure and temperature under the site procedure. Clean the reservoir and fill points; use dedicated dry transfer equipment and the specified filtration. Flush after construction or overhaul as instructed. Set the correct level and retain a representative initial-fill sample with its batch details.

3. Establish lubrication before loading

Check pumps, filters, coolers, alarms and interlocks. Verify oil pressure, flow and temperature by the turbine's pre-lubrication sequence before rotation or loading. Test auxiliary/emergency lubrication as instructed; do not bypass protection or load the machine with inadequate oil supply.

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4. Monitor the circuit in operation

Record bearing/return-oil temperature, pressure, level, filter differential pressure, vibration, leaks and appearance. Investigate persistent foam, cloudiness or free water; inspect steam seals, coolers and air-entry points. Drain separated water only through the approved safe procedure. A top-up does not remove water or varnish.

5. Assess condition by trends

Use consistent sampling points and methods. Trend viscosity, water, acidity, cleanliness and oxidation condition against the initial-fill reference and equipment/laboratory limits. Add demulsibility, air release, foam or varnish tests when indicated. Set sampling and replacement plans by duty and results, not a universal calendar or single discard number.

6. Shutdown, storage and return to service

Maintain coast-down and post-lubrication for the duration required by the turbine; isolate only after the prescribed sequence. Store sealed labelled containers dry and prevent contamination. Record top-ups, batches, analyses and corrective work. Investigate recurring faults with MOTTA or the equipment service team before return to sustained service.

Observations and actions

Observation	Action
Loss of oil pressure or flow	Follow the turbine's protection/shutdown sequence; establish the cause before restart.
Free water or persistent emulsification	Find water entry, assess the oil and use the specified removal or replacement procedure.
Rising temperature, vibration or deposits	Check cooling, supply, bearings and oil trends; arrange technical assessment.