



MIB 303 Separation System

Alarms and Fault Finding

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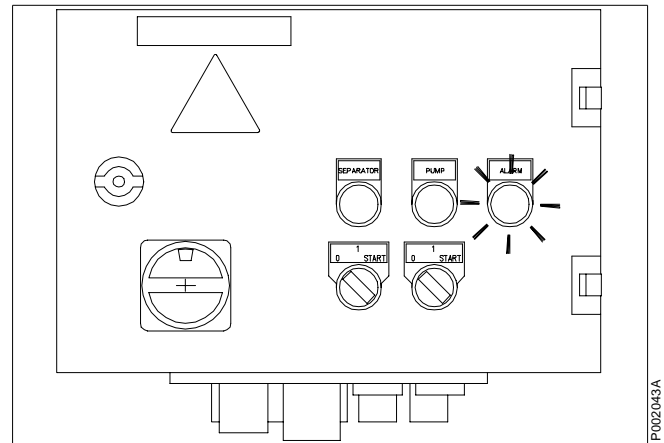
1 Scope

These alarm and fault finding instructions are valid for the MIB 303 separation system. For instructions for the separator itself, see the MIB 303 Separator Manual, “Trouble shooting” chapter.

2 Alarms

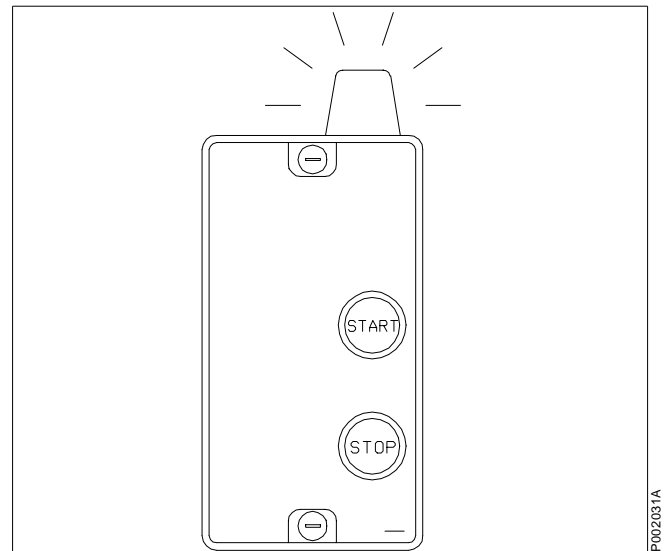
2.1 Collecting Tank Level

On MIB 303 separation system modules, the alarm is indicated by the red alarm lamp on the starter/control unit, which lights up.



Alarm lamp on module starter/control unit

On MIB 303 separation systems with separate starters for pump and separator, the alarm is indicated by the white lamp on the pump starter, which goes out



Alarm lamp on separate starter for pump

2.2 Low Oil Pressure

On MIB 303 separation system modules, the alarm is activated and the alarm lamp lights if the oil pressure in the oil outlet is less than 0.3 bar (30 kPa).

2.3 Automatic Stop

If the feed pump stops and the red alarm lamp on the starter/control unit lights, the most probable reason is that the level in the water collecting tank is too high. Open the bottom valve to drain the tank. Close the valve when draining is complete.

Restart the separation process according to section 2.2. in “Operating Instructions”.

2.4 Fault Finding

Symptom	Cause	Corrective action
High level alarm	Collecting tank full.	Drain collecting tank. Make sure that the oil feed does not contain excessive water (settling tank well drained).
Low pressure alarm	Feed supply line not open.	Check supply line.
	Strainer clogged.	Clean strainer.
	Feed pump defective. Defective level switch.	Use an ohmmeter to measure between the terminals under the level switch cover while moving the float up and down. Open circuit in upper position, closed in lower.
Low pressure or irregular flow	Suction valves closed. Strainer clogged.	Open closed valves. Clean strainer.
	Feed pump safety valve opens at too low pressure, flutters or does not close properly.	Dismantle and check safety valve.
	Air in oil.	Check if suction pipe is airtight. Reduce suction head.
	Oil feed rate too high.	Reduce feed rate to improve separation result.
Pump does not prime	Pump is dry.	Prime with oil.
	Air leak on suction side of feed pump.	Make sure that suction pipe is airtight.
	Feed pump rotates in wrong direction.	Compare electrical connections with electrical diagram in System Reference booklet.
	Suction head too high.	Clean suction strainer. Increase suction pipe diameter. Reduce static suction head.
Pump motor tends to stop by tripping the overload relay.	Oil too cold (viscosity too high).	Increase oil temperature.
	Motor overload relay cut-out setting too low.	Adjust setting according to motor power rating in Amps.

Symptom	Cause	Corrective action
Pump noisy when running	Heavy wear in pump.	Dismantle pump and replace worn parts.
	Suction valves closed. Clogged oil strainer.	Open valves. Clean oil strainer.
	Shaft coupling worn.	Check shaft coupling and replace worn parts.
	Vapour in pump when pumping oils at high temperature (>40 °C).	Adjust to correct oil temperature.
	Air leak on suction side of pump.	Check if suction pipe is airtight.
	Shaft seal damaged.	Replace shaft seal with a new.
	Safety valve flutters.	Dismantle and check safety valve.
	Pump inlet pressure too high.	Reduce to correct inlet pressure.
	Oil too cold (viscosity too high).	Increase oil temperature.
Pump leaks at shaft	Shaft seal damaged.	Replace shaft seal with a new.