Alfa Laval

MIB 303 Separation System, Module

Operating Instructions

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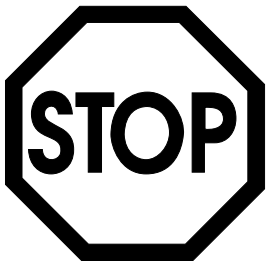

Study instruction manuals and observe the warnings before installation, operation, service and maintenance.

Not following the instructions can result in serious accidents with fatal injuries.

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In order to make the information clear only foreseeable conditions have been considered. No warnings are given, therefore, for situations arising from unintended usage of the machine and its tools.

A summary of the safety information is found in the Safety chapter under divider 1.

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1 Scope

These operating instructions are valid for the MIB 303 separation system.

The MIB separation system is designed for cleaning of gas oil, marine diesel oil, and lube oil.

2 Operating

2.1 Check List before Start up

WARNING

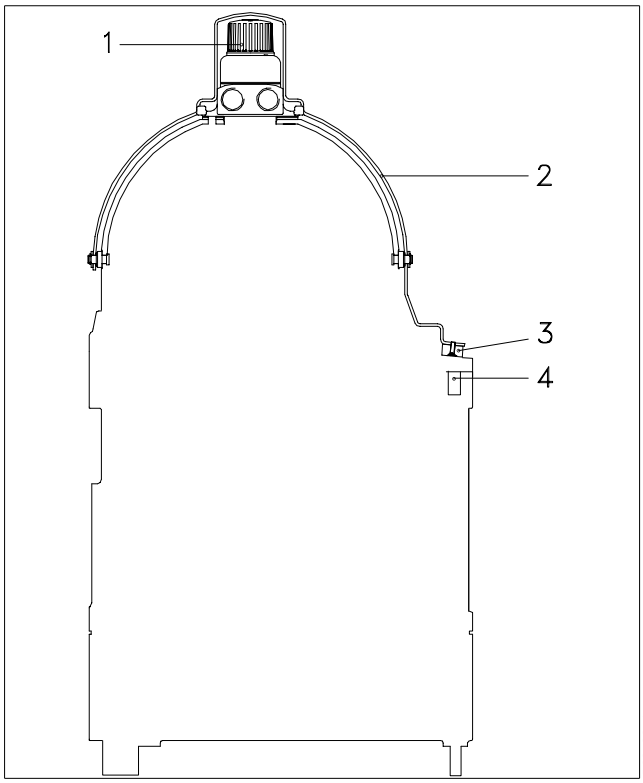
The separator is fitted with a safety yoke and a magnetic safety switch. Modifications to the machine which put the safety device out of operation can lead to serious injury or damage.

Before start up:

Separator

1. Ensure that the separator is reassembled and reconnected correctly.
2. Make sure that the correct level ring is installed.
   - For cleaning **gas oil** only, install the **white level ring** which has a 43 mm diameter hole.
   - For cleaning **marine diesel oil** and **lube oil**, install the **black level ring** which has a 50 mm diameter hole.
   - For alternating between marine diesel oil and gas oil, install the **black level ring** with hole diameter 50 mm.

Cont.



1. Paring disc knob
2. Safety yoke
3. Magnet
4. Magnetic safety switch

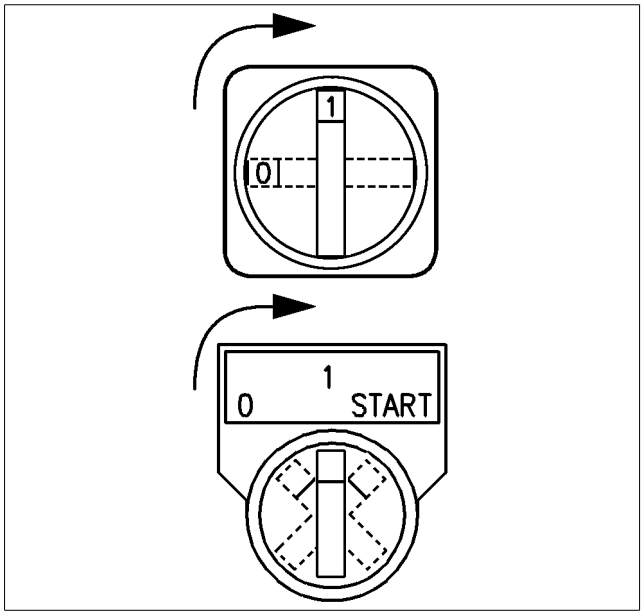
3. Make sure that the hood screws and the paring disc knob are firmly tightened and that the safety yoke is in its closed (vertical) position.
4. Make sure that the valves on the suction and delivery sides are open.
5. After installation and after each dismantling and assembly operation, the pump must be filled with oil before starting. Since the pump is of self-priming type, a change of sound can be heard when the suction line has been primed.

2.2 Start up

Starter

1. Turn the red main switch on the separator starter/control unit to the ‘1’ position.
2. Turn the separator switch clockwise from the ‘0’ position to the ‘start’ position. When the switch is released, it will spring back to the ‘1’ position. The separator starts and the lamp lights.

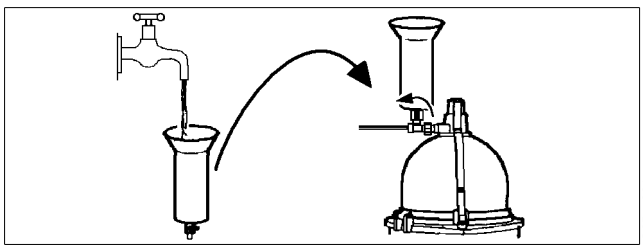
   It will take 20 seconds for the separator to reach full speed.



For purifying only

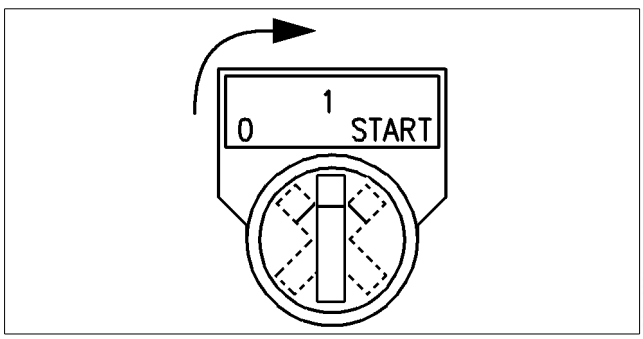
A. Close the bottom valve on the funnel, if open, and fill the funnel with water.

B. When the separator has reached full speed, connect the funnel to the quick-coupling on the separator oil inlet. Open the bottom valve on the funnel and allow water to flow into the separator. The water seal is now established.



C. Close the funnel valve and remove the funnel.

3. Turn the pump switch clockwise from the ‘0’ position to the start position and hold it for approx. 15 seconds until the counter pressure in the oil outlet line has reached approx. 50 kPa (0.5 bar) and the alarm lamp is off. Then release the switch. It will spring back to the ‘1’ position. The pump starts and the lamp lights. The feed pump cannot be started until the separator is running.



4. Set the counter pressure in the oil outlet line to 50-100 kPa (0.5-1.0 bar). After 60 seconds, check that oil is not leaving the separator through the water outlet down to the connecting tank. If oil is escaping in this way, follow the instructions given in the “Trouble Shooting” chapter in the separator manual.

   For the correct separation temperature see “Technical Data” in the “System Reference”.

2.3 Checks During Operation

Check the separator for correct operation. This is especially important the first few times the separator is run after installation or after any dismantling and assembly has been carried out.

Check all connections for leakage.

CAUTION

Slip hazard

Oil spills may make floors slippery.

Check the level in the collecting tank at regular intervals.

2.4 Stop

To stop the system:

1. Stop the feed pump by turning the pump switch to the ‘0’ position.
2. Stop the separator by turning the separator switch to the ‘0’ position. The separator stops within two minutes.

Approximately 1 litre oil and water will drain off into the collecting tank as the bowl stops.

3. Turn the main switch to the ‘0’ position.
4. Make sure that the valves on both the feed and the outlet sides of the separator are closed. Oil can otherwise leak through the separator and the collecting tank can overflow.

2.5 Sludge Removal

Separated sludge is collected inside the bowl. The bowl should be cleaned at regular intervals, depending on the quantity of solid particles in the oil.

For more details, see the cleaning instructions in the “Maintenance” and “Dismantling and assembly” chapters in the “Separator Manual”.

2.6 Emergency Stop

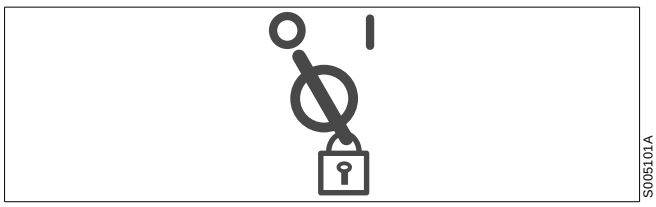
If an emergency situation occurs stop the separator and the oil feed pump immediately.

2.7 After Emergency Stop

The cause of the emergency must be remedied before attempting to restart the separator.

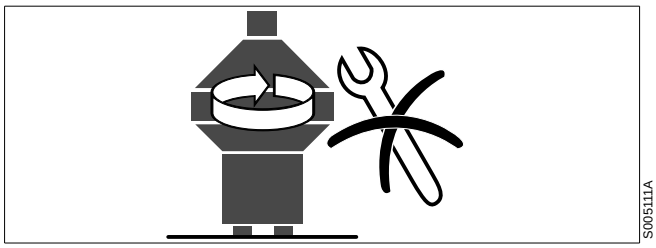
If the cause is not found a major service must be performed and all moving parts thoroughly checked.

To avoid accidental start, switch off and lock the power supply before dismantling.



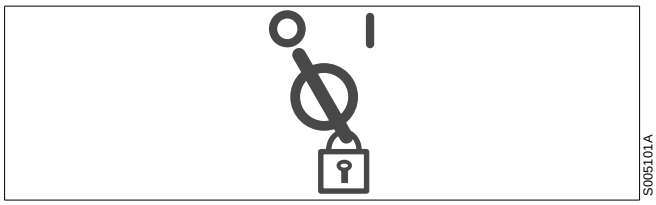
Consult the “Separator Manual” and the “Alarm List” about emergency procedures.

Dismantling work must not be started before all rotating parts have come to a complete standstill



CAUTION

Entrapment hazard

Do not begin maintenance work while the machine is still rotating.

The separator must be reassembled and all covers and guards in place before unlocking the power supply and starting the system.