

General description.

The hatch sluice and hatch cover is used together with the portable pump, and shall reduce the leakage of inert gas / degassing from the cargo tank during the discharge operation.

The hatch cover includes a packing box with a seal arrangement for the hydraulic hose, cargo hose and wire. The seal arrangement consists of rubber elements, which seal against the hoses and wire when the rubber elements are compressed.

The hatch sluice is equipped with an inert gas /N2 connection. This connection is for purpose of purging the hatch during the operation, i.e. maintaining a positive pressure with regards to tank pressure. It is also for checking the integrity of the sluice valve prior to installation of the portable pump.

Installation of portable pump with hatch sluice and hatch cover.

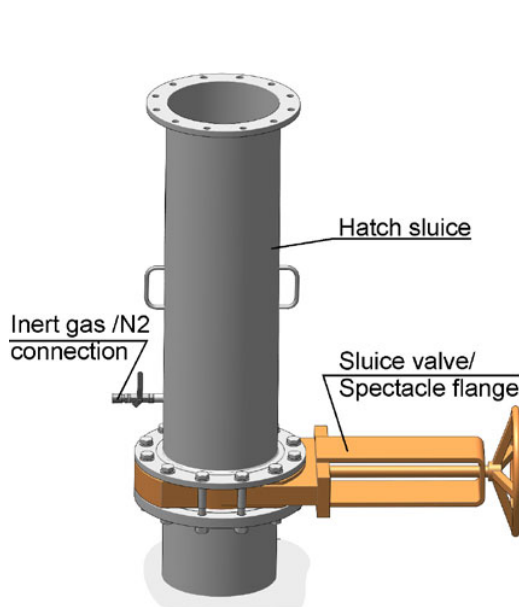


Fig. 1

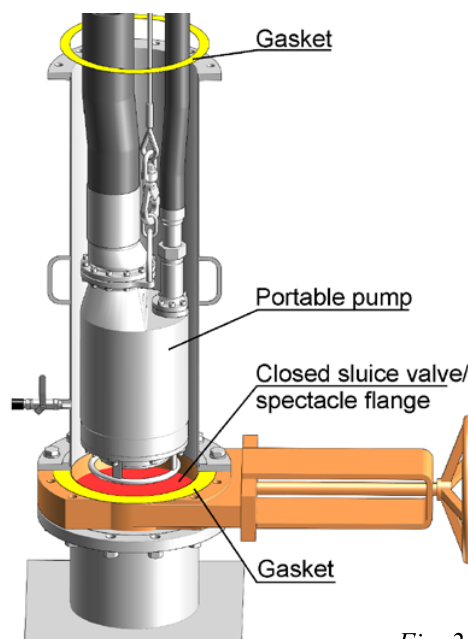


Fig. 2

- 1) Prior to installation, make sure cargo hose is connected to piping system on deck.
- 2) Remove blind flange from the hatch and install the hatch sluice. If a sluice valve or a spectacle flange is installed on the hatch, keep it closed until pump and hatch cover are installed in sluice.

- 3) Install gasket on top of hatch sluice.

- 4) Hoist the pump with hoses into the hatch sluice.

- 5) Split the hatch cover in two halves by unscrewing the 5 nuts on cover (.fig.3)
Install the cover onto the hatch sluice, around hoses and wire.
Install and tighten the five nuts holding the cover halves together.
Assemble the cover with bolts to the hatch sluice

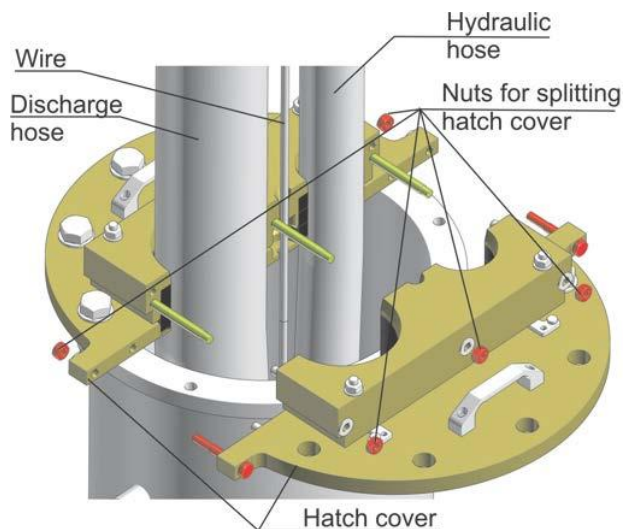


Fig. 3

- 6) When opening barrier to tank (valve/ flange) make sure inert pressure is maintained.
- 7) Open sluice valve and lower the pump into the tank. The hoses and wire will slide through the packing box and cover due to a small clearance to the rubber seal elements in the packing box.

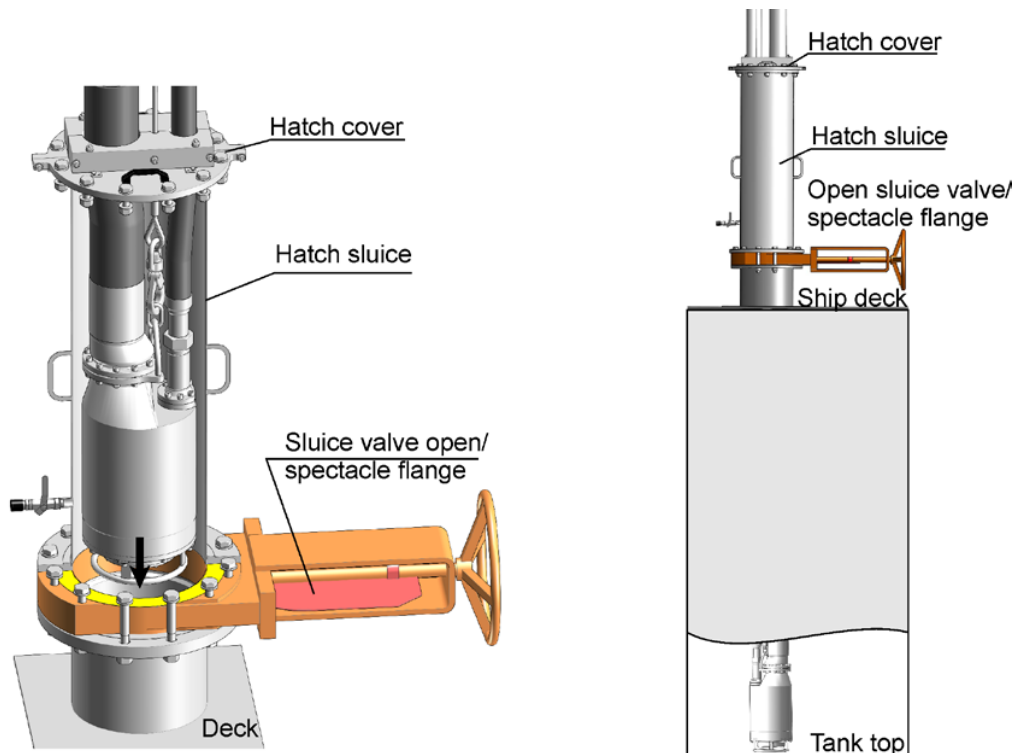


Fig. 4

- 8) Hoses must be handled so they go vertically through the hatch cover.
- 9) Weight of cargo and concentric hose must be held and supported by a suitable hose saddle to avoid hose slide into the tank.
- 10) When pump is lowered to the discharge position, tighten the seal arrangement as follows:
Loosen the four nuts on top of packing box.
Swing away the four shims from underneath the packing box.

Tighten the four nuts on top of the packing box until the packing box is in contact with the cover.
When tightening the four nuts, the rubber elements will be pressed inwards into contact with hoses and wire.

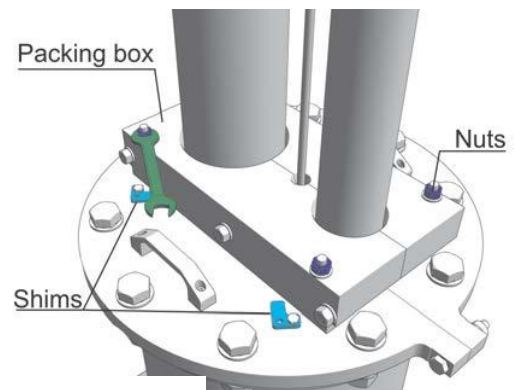


Fig. 5

The pump is now installed, the seal arrangement is tightened and the discharging can start.

Dismantling and splitting of the hatch cover to be done in reversed order according to the installation.