The shaft sealing arrangement is based on the principle of communicating vessels. By adding the force of a spring into the equation we ensure that the pressure in the sealing system is always higher than the tank pressure, thereby preventing cargo leakages.

1. PRESSURE GAUGES
   The system is equipped with 2 pressure gauges.
   a) Indicates the pressure in the cargo tank.
   b) Indicates the pressure in the sealing oil chamber, this pressure will always be higher than the cargo tank pressure.

2. LEVEL INDICATOR
   The piston inside the sight glass follows the movement of the spring and thereby indicates the oil level in the sealing system. Can be delivered with low oil level switch for remote alarm.

3. PRESSURE BOOSTER
   Fully automatic system where the sealing oil is put under pressure from both the cargo tank and the spring. This ensures that the pressure within the sealing chamber is always higher than in the cargo tank.

4. OIL INLET
   Filling of sealing oil will load the spring and thereby increase pressure. The inlet is equipped with quick coupling for easy filling and refilling of sealing oil by a special Svanehøj manually operated pump. One pump per ship set is included.

5. SEALING OIL CHAMBER
   The chamber is air cooled, which needs a large surface, an aluminum block has been fitted into the chamber to reduce the inside volume so it does not exceed the volume in the collection chamber. The sealing oil is constantly circulated during pump operation by a helical ridge on the shaft.

6. CARGO TANK PRESSURE
   Through this pipe the cargo tank pressure (vapour pressure) is added directly to the spring house.

7. DOUBLE MECHANICAL SEALS
   Back to back mechanical seals lubricated by pressurised sealing oil.

8. STATIC SEAL
   Used only for maintenance purposes. The shaft can be lowered to a point where the static seal completely seals of the cargo hence making it possible to do maintenance, such as changing the mechanical seals, even with a full cargo tank.

9. LEAK OIL COLLECTION CHAMBER
   In the event of a damaged lower mechanical seal the collection chamber will be able to obtain all the sealing oil in the system so that none of it contaminates the cargo. The leaked oil can be drained from the chamber through the lower valve.

10. LEAK OIL OUTLET
    Sealing oil “bleeding” from this pipe indicates that the upper sealing may be damaged and needs to be changed.