Sealing arrangement

Cargo in holds must be kept dry and protected from external factors and sea conditions. A hatch cover sealing is a complex system based on the interaction between several components with each single part placed at its optimised position in order to fulfil the sealing function. As a leading manufacturer of hatch cover systems, TTS offers optimised, tailor-made sealing arrangements based on the demands for your specific cargo, vessel design and hatch covers.
SEALING ARRANGEMENT

All ships with open cargo holds need sealing systems to act between the hatch cover and the coaming. Requirements vary between weather-tightness, as on typical containerships, and completely sealed systems for bulkers carrying sensitive cargo.

Sealings on ships are complex systems designed to deal with the interaction between coaming deformation, hatch cover stopper positions and pad arrangements.

TTS offers tailor-made sealing arrangements in accordance with the hatch cover design and specified requirements. The product range covers standard rubber seals as well as a cross-joint sealing design with a rubber fabric seal arrangement.

Product requirements
- Keeping the cargo in holds dry and protected
- Acting as a fully functioning seal under all sea and weather conditions, as well as hull deformations
- Water-tightness between hatch cover joints, ship’s hull and hatch covers

For special purpose:
- Gas-tightness to keep gases inside the holds
- Resistance to gas and oil

Types of sealing systems
- Fig. 1: Double lip seal for OBO vessels
- Fig. 2: Single lip seal – standard for small containerships and for folding hatch covers
- Fig. 3: Square seal – standard for bulker
- Fig. 4: Sliding seal for MPV
- Fig. 5 and 6: Vacu-seal for lift-on/lift-off hatch covers
- Fig. 7: Cross joint design, rubber fabric seal arrangement for lift-on/lift-off hatch covers – standard for container vessels with lift-on/lift-off panels

Special tailor-made sealing systems and profile types are available on request.

CHARACTERISTICS
- Available in various materials such as nitrile rubber, EPDM, Polynorbon, according to requirements
- Temperature and UV resistant
- Sliding characteristics by low friction
- Improved wear characteristics
- Various specific profile forms