



Side rolling hatch covers for bulk vessels

TTS side rolling hatch covers are of a simple, cost-effective construction and are designed to ensure that the requirements of owners and regulatory authorities – for instance IACS UR S21A – in respect of the manoeuvring, cleating and tightening of the hatch cover panels are met in full.



Our product development continually reduces manufacturing time while ensuring a low weight of cover and maintaining strength requirements.

One operation method for side rolling hatch covers is by rack and pinion where a rack is located transversely in the centre of the underside of each panel. A hydraulically operated pinion drive is positioned on the outside of the side coaming where it engages in the rack. When two panels are fitted each has its own rack and pinion drive system allowing independent operation.

Other operating drive systems are available including a hydraulic motor-driven chain drive arrangement that opens both hatch cover panels simultaneously. If required, manual quick-acting couplings can be provided making it possible for only one of the panels to be opened.

Both rack and pinion and chain drive systems can be configured as an Auto Roll operation. This version features a pair of pushing and securing units on either side of the hatch which lifts and secures the patented Auto Roll hatch cover in

its closed position. At the same time the cover is cleared by self-engaging auto cleats.

Two alternative cleating systems are:

- The Snap Lock cleat for manual operation from deck when high coamings are required
- Customised hydraulic cleatings available on request

Complementing the side rolling hatch covers are two types of seal. These are the square seal type for dry bulk carriers and the double lip seal for use on OBO and Ore/Oil ships carrying liquid cargoes. All types have been designed by TTS to suit the specific requirements of these different ship types.

To prevent access weight being carried by the seals, the hatch cover panels are supported on adjustable and replaceable pads all around the periphery of the coaming. All side rolling hatch covers, except Auto Roll covers, have hydraulically operated wheel lifters, and flangeless wheels are used on one side of the panels to ensure that the cover functions correctly in the event of distortion of the coaming.

Below: The lifting/securing device of the patented Auto Roll mechanism, with its hydraulic cylinder, wheels and wheel recess, and the auto-cleat device at the ship's centre line.

