Internal doors

Internal doors may be required for various reasons such as the water- and gastight division of a newbuilding or as flood prevention due to compulsory requirements imposed on an existing vessel. TTS can supply several door types designed for minimum interference with cargo deck spaces, that meet every requirement for survivability from regulatory bodies.

Top- and side-hinged doors

The horizontal transfer of cargo from one watertight compartment to another via openings in watertight bulkheads requires the installation of watertight doors. This requirement is met safely and efficiently by TTS internal top- or side-hinged doors. These doors can also be employed as gastight doors.

Operation of a top-hinged door is either by direct-acting hydraulic cylinders on each side of the door or by an electric arrangement, which raises the door by rotating it upwards, clear of its opening. The door is locked either hydraulically or electrically.

Also available is a version incorporating specially designed hinges which lift the door vertically before it opens, enabling automatic cleats to be used. When a top-hinged door is fully open the full free height under the door is always available.

Side-hinged doors are normally manoeuvred and cleated by hydraulic cylinders. In large openings where there is no sill, doors are equipped with a support wheel and lifting cylinder. This cylinder lifts the door to create a clearance between door and deck prior to opening.

The doors are made water- or gastight by means of a flat steel bar which compresses a rubber gasket to provide the necessary integrity. Fireproofing and insulation materials can also be incorporated into the doors if required.

As with other TTS access doors, safe operation of the internal top-hinged door is paramount and so the operative's control stand is located close to the door. The control panel features an LED display to indicate whether the door is locked or unlocked. Indication of the door's status can also be provided on the bridge if required.

Side-hinged and sliding doors

A number of solutions for flood prevention are available including the side-hinged and sliding door, which is fitted with a sliding end section. With this solution, the door is stowed at the side of the opening and can swing through either 90 or 180 degrees depending on ship design and operator needs.

Another solution is the sliding-link door, where the door is built in three or more sections, is stowed at the side of the opening and deployed through 90 degrees on a radiused track until it reaches its active position.

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