



Internal top-hinged doors

On many RoRo vessels there is a requirement to provide internal access between different levels and compartments within the hull to permit easy and efficient cargo handling. This involves horizontal transfer of cargo below the main deck, from one watertight compartment to another via doors in watertight bulkheads. These doors must also be watertight, and this requirement is safely and efficiently met by the TTS internal top-hinged door. This door can also be employed above the main deck as a gastight door.

INTERNAL TOP-HINGED DOORS

Operation of an internal top-hinged door is through the use of two direct-acting hydraulic cylinders, arranged on each side, which raise the door by rotating it upwards, clear of its opening.

Where smaller doors are employed and space is available, only one cylinder, located at the centre, is sufficient to raise the door to its open position. The door is locked shut by hydraulically operated wedges incorporated in the ship's structure.

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.

The door is made water- or gastight by means of a steel flat bar which compresses a rubber gasket to provide the necessary integrity. Fireproofing and insulation materials can also be incorporated into the door if required. Normally, the TTS top-hinged door is fabricated as a single unit of open construction. However, to avoid the need for opening such a large door for movement of personnel between compartments, a small access door can be incorporated.



As with other TTS access doors, safe operation of the internal top-hinged door is paramount and for this reason 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. If required, remote indication of the door being fully secured and

cleated can be provided on the bridge.

A further application for which TTS top-hinged doors are ideally suited is as inner bow doors. Further details of both inner bow doors and internal side-hinged doors are given in separate Product Documentation Sheets.

Internal top-hinged door with operating cylinders arranged on each side of the door; cleating is by means of automatic engaged cleats

