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## **WATERTIGHT SLIDING DOOR**

**THE OPERATION MANUAL WHICH IT SEES IS  
THE WATERTIGHT SLIDING DOOR TYPE  
OF THE SUNGMI CO.,LTD.**

**1. THE WATERTIGHT SLIDING DOOR IS? (PAGE 2)**

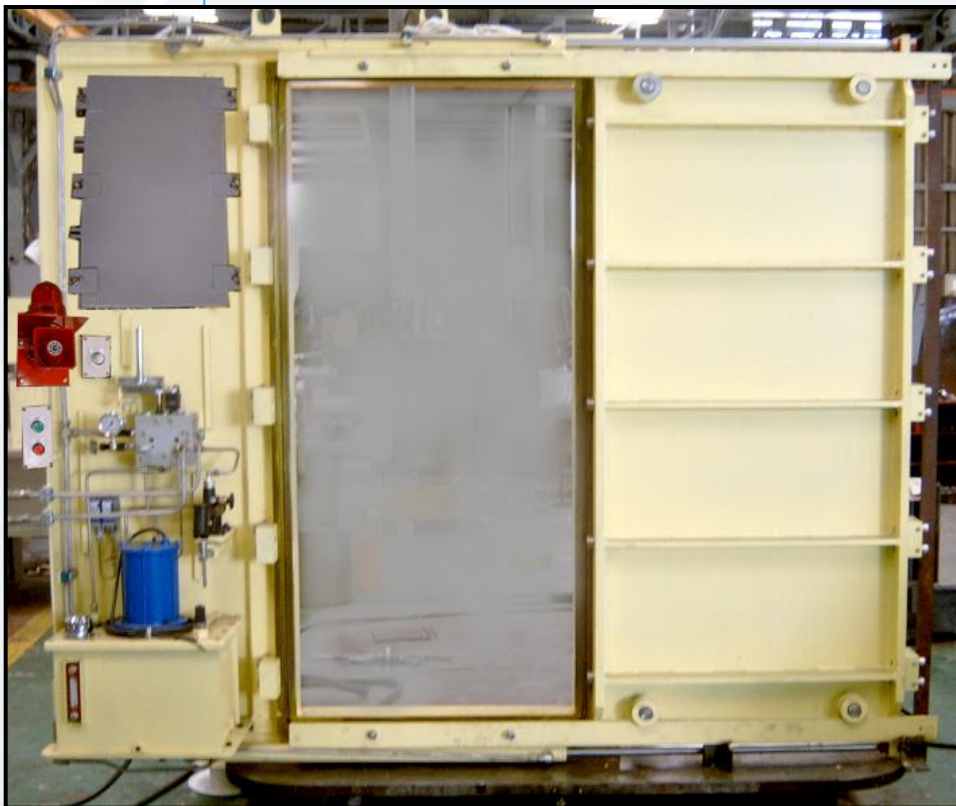
**2. WATERTIGHT SLIDING DOOR TYPE(PAGE 3,4)**

**3. REFERENCE LIST(PAGE 5)**



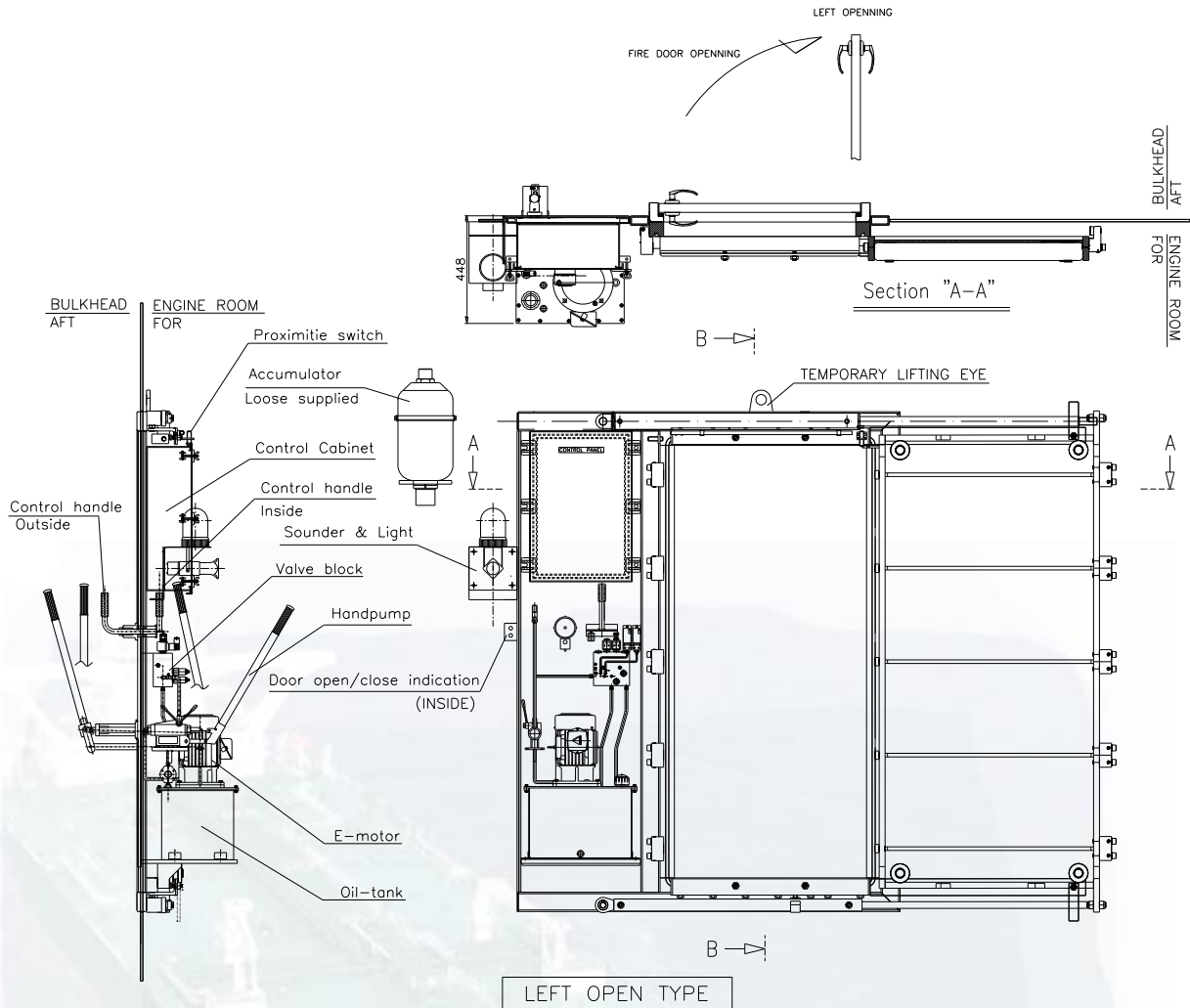
## Features

The Watertight Sliding door is placed in plant of vessel or drill-ship for safety. Normally it is kept open for passage of crew, passenger and carrying materials. But in case of emergency such as a fire or a burst of the outer wall of a vessel, the door is to be closed to protect the critical equipment, machine and/or personnel from being flooded or caught in the fire.



WATERTIGHT SLIDING DOOR OPEN POSITION

**WATERTIGHT SLIDING DOOR**



**SUNGMI Electro-Hydraulic operated Watertight Sliding Door  
-With an Accumulator and A-Class Fire door**

**SPECIFICATION**

**Operation/control:**

The door is to be capable of being opened and closed by hand ( and by power) locally, from both sides of the door, with the ship listed to either side.

For passenger ships, the angle of list at which operation by hand is to be possible is 15 degrees or 20 degrees if ship is allowed to heel up to 20 degrees during intermediate stages of flooding.

For cargo ships, the angle of list at which operation by hand is to be possible is 30 degrees.

Each door has an independent electric -hydraulic system with one power source consisting of an electric motor and hydraulic pump capable of closing or opening the door with in the required time in accordance with rule requirement.

## **Local power operation :**

by control handle at each side of the bulkhead.

The direction of movement of the control handle in opening and closing the door shall be in the direction of door movement.

The closure time, from the time the door begins to move to the time it reaches the completely closed position, shall in no case be less than 20s or more than 40s with the ship in the upright position.

## **Local hand- operation :**

by hand pump operable at each side of the bulkhead.

One individual hand-operated mechanism shall be provided.

To be possible to open and close the door by hand ( by hand pump ) at door itself from each side at local position.

The time necessary for the complete closure of door, when operating by hand pump, shall not exceed 90s with the ship in the upright position.

## **Remote emergency operation :**

by handpump above bulkhead deck, closing only.

The time necessary for the complete closure of door, when operating by hand pump, shall not exceed 90s with the ship in the upright position.

The by-pass valve fitted in pump unit to be closed, when closing of door.

For refilling hydraulic oil to the independent oil tank, the by- pass valve shall be opened.

And normally the by-pass valve shall be in closed position, except the oil filling period.

## **Remote power operation from bridge :**

by master mode switch, closing only.

The central operating panel in the bridge shall have a “master mode” switch with two modes of control;

- a “ local control” mode which shall allow the door to be locally opened and locally closed after use without automatic closure.
- a “door closed” mode which shall automatically close the door that is open.

The “master mode” switch shall normally be in the “local control” mode. The “ door closed” mode shall only be used in emergency or for testing purposes.

The door shall be power-operated capable of being closed from the central operating panel in the bridge in not more than 60s with the ship in the upright position.

## **Emergency operation :**

with a hydraulic accumulator, when failing of main electrical power

When the failure of main or emergency source of electrical power, there shall be a hydraulic accumulator of sufficient capacity to operate the door at least three times, i.e. closed-open-closed, against list of 15 degree.

## **Start / stop function :**

The hydraulic power pack shall be automatically started/ stopped by pressure switch.

The setting of automatic start range will be 80 to 150 bar.

No	Yard	Hull No	Owner	Type	Delivery	Class	Remark
1	Hyundai	1630	A.P.MOLLER	LEFT TYPE	2005.06.28	LR	4,150TEU
2	Hyundai	1631	A.P.MOLLER	LEFT TYPE	2005.09.16	LR	4,150TEU
3	Hyundai	1671	A.P.MOLLER	LEFT TYPE	2005.12.05	LR	4,150TEU
4	Hyundai	1672	A.P.MOLLER	LEFT TYPE	2006.02.27	LR	4,150TEU
5	Hyundai	1699	A.P.MOLLER	LEFT TYPE	2006.05.15	LR	4,150TEU
6	Hyundai	1700	A.P.MOLLER	LEFT TYPE	2006.08.08	LR	4,150TEU
7	Hyundai	1701	A.P.MOLLER	LEFT TYPE	2006.10.24	LR	4,150TEU
8	Hyundai	1733	A.P.MOLLER	LEFT TYPE	2007.03.30	LR	4,150TEU
9	Hyundai	1721	A.P.MOLLER	LEFT TYPE	2006.10.24	LR	6,070TEU
10	Hyundai	1722	A.P.MOLLER	LEFT TYPE	2007.01.08	LR	6,070TEU
11	Hyundai	1723	A.P.MOLLER	LEFT TYPE	2007.01.15	LR	6,070TEU
12	Hyundai	1724	A.P.MOLLER	LEFT TYPE	2007.01.30	LR	6,070TEU
13	Hyundai	1725	A.P.MOLLER	LEFT TYPE	2007.02.22	LR	6,070TEU
14	Hyundai	1726	A.P.MOLLER	LEFT TYPE	2007.02.27	LR	6,070TEU
15	Hyundai	1727	A.P.MOLLER	LEFT TYPE	2007.03.21	LR	6,070TEU
16	STX	S8001		LEFT TYPE		KR	
17	STX	S3011		LEFT TYPE	2009.07.31	GL	12,400TEU
18	STX	S3012		LEFT TYPE		GL	12,400TEU
19	STX	S3015		LEFT TYPE		GL	12,400TEU
20	STX	S3016		LEFT TYPE		GL	12,400TEU
21	STX	S3018		LEFT TYPE		GL	12,400TEU
22	STX	S3021		LEFT TYPE		GL	12,400TEU
23	STX	S3022		LEFT TYPE		GL	12,400TEU
24	STX	S3023		LEFT TYPE		GL	12,400TEU
25	STX	S3024		LEFT TYPE		GL	12,400TEU
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