舟山市拍船网船舶
评估咨询有限公司

TECHNICAL REPORT

技术状况报告

编号：CJPG-JS-23-KY-236

Place of Inspection: Tianjin, China

Date of Inspection: May 5th, 2023

Date of Issue: May 8th, 2023

Technical Report of MV "HAI XING CHUANG XIN"

1. Statement

Entrusted by the customer, we organized the surveyors to have conducted a technical condition inspection of "HAI XIN CHUANG XIN", and issue the technical report based on the onboard condition and the ship information provided by the transferor (ship owner). This report is intended for the sole use of a better knowledge of any potential clients. The report is subject to any access restrictions as described herein, and always subject to the level of cooperation and completion of all technical files afforded to the surveyors during the inspection itself. All details in this report are given in good faith, and without any guarantee.

2. Particulars

Name of Ship	HAI XING CHUANG XIN	POR	Zhoushan, China
Type of Ship	General Dry Cargo Ship	IMO	9620358
LOA	115.83m	Class	CCS
LBP	106.90m	Trading Area	A1+A2+A3
MLB	17.60m	Shipbuilder	Ningbo Dongfang Shipyard Co., Ltd
MLD	8.80m	Date of Keel laying	December 3rd, 2010
Mean Draft	6.60m	Date of Delivery	December 12th, 2011
GRT	5217	Model of M/E	8320ZCd-8
NRT	2943	Rated Power	2206kW×525r/min×1set

DWT	7636t	LDT	2521.75t
C/Hold No.s	2H/2H	Grain Capacity	9816.30m³

3. Brief Description

● Overview

The ship was built as a general dry cargo ship with single deck, and driven by single engine with single propeller, and the cargo hold is double bottom and double hull. It has been owned by a state-owned enterprise and performing direct shipments between China mainland and Taiwan currently.

The ship has 5 watertight transverse bulkheads and 2 cargo holds without cargo cranes.

CCS Class Notation: ★CSA, Ice Class B ; Loading Computer (S, I, G, D); ★CSM

● Major Equipment

Engine Machinery

Machinery	NO.	Model	Parameter	Manufacturer
Main Engine	1	8320ZCd-8	2206kW×525r/min	Guangzhou Diesel Engine
Gearbox	1	GWC60.66	Reduction ratio: 4.0513：1	Hangzhou Advance Gearbox Group Co., Ltd.
Coupling	1	HGT6320IIID	Rated torque: 63KN-M	Hangzhou Advance Coupling Co., Ltd.
Main Generators	3	MP-H-160-6	160kW×400v	WEICHAI
Diesel Engines of Main Generator	3	6160A	184kW×1000r/min	
Emergency Generator	1	MP-H-75-4	75kW×400v	WEICHAI
	1	TD226B-6CD	99kW×1500r/min	
FO Purifier	1	P-605	Capacity：1000L/H	Alfa Laval

LO Purifier	1	P-605	Capacity：1000L/H	Alfa Laval
Oil Water Separator	1	YNB-IV	Capacity：1.0m³/H	Shanghai Shijiu Marine Equipment Co., Ltd.
Boiler	1	LFL67-0.7	Working pressure: 0.7MPa	Qingdao Marine Boilers Co., Ltd.
Sewage Treatment Plant	1	CSWE-20	Processing load: 1600L/d	Shanghai Ship and Shipping Research Institute Co., Ltd.
BWTS	1	BSKY300(121)	TRC: 200m3/h	Wuxi BSKY

● Cargo Hold Capacity

According to the capacity plan of this ship, the cargo hold capacity is distributed as follows:

No.	Dimensions of Hatchways(m)	Capacity (m³)
NO.1	30.77×12.57	5058.76
NO.2	30.77×12.57	4757.54
Total		9816.30

4. Class Status and Surveys

● Statutory Certificates or Documents of Compliance

No.	Certificates Description	Issue Date	Expiry Date
1	Certificate of Registry	December 7th, 2020	December 6th, 2025
2	MOC	September 23rd, 2022	August 19th, 2023
3	Classification Certificate	October 11th, 2021	December 11th, 2026
4	Cargo Ship Safety Construction Certificate	October 11th, 2021	December 11th, 2026
5	Cargo Ship Safety Equipment	October 11th, 2021	December 11th, 2026

	Certificate		
6	Cargo Ship Safety Radio Certificate	October 11th, 2021	December 11th, 2026
7	International Air Pollution Prevention Certificate	October 11th, 2021	December 11th, 2026
8	International Ballast Water Management Certificate	October 11th, 2021	December 11th, 2026
9	International Load Line Certificate	October 11th, 2021	December 11th, 2026
10	International Oil Pollution Prevention Certificate	October 11th, 2021	December 11th, 2026
11	International Sewage Pollution Prevention Certificate	October 11th, 2021	December 11th, 2026

NOTE: All the certificates listed above are validity.
The EIAPP certificate level is Tier II.
The ship has been fitted with BWTS.
The EEXI technical files of this ship was approved in September 2022, with CII being A.

● Class Surveys

Survey Description	Last Survey Date	Next Survey Date
Class Annual Survey	October 3rd, 2022	December 11th, 2023
Class Intermediate Survey	August 19th, 2019	December 11th, 2023
Class Special Survey	October 11th, 2021	December 11th, 2026
Docking Survey	October 3rd, 2021	October 2nd, 2024

NOTE: The next Annual Survey and Intermediate Survey shall be carried on December 11th, 2023.

● PSC Inspection Records

Date of Inspection	Place of Inspection	Deficiencies Code	Action Code	Detained
2023.01.02	Kashima, Japan	10109(2) 13102 03105 03106 03110	17/10 17/10 17/10 17/99 17/10	0

NOTE: According to the PSC inspection report provided by the ship owner, there were 6 general deficiencies in the latest inspection of the ship without detention, and all of the deficiencies have been corrected.

● FSC Inspection Records

Date of Inspection	Place of Inspection	Deficiencies Code	Action Code	Detained
2023.04.10	Qiaogang, Beihai	1550 0745 0601 1423	17/10 17/10 17/10 17/10	0

NOTE: According to the FSC inspection report provided by the ship owner, there were 4 general deficiencies in the latest inspection of the ship without detention, and all of the deficiencies have been corrected.

5. Performance Records

● Speed and Consumption

The fuel oil consumed by the main engine is LSFO-180CST.

Condition	Eco Speed kn	RPM	Fuel Consumption （t/d）	Design Speed kn
Ballast Navigation	10.5	460	4.9	12
Laden Navigation	9.5	450	4.8	

The fuel oil consumed by the auxiliary generator is MGO.

Condition	Working set	Fuel Consumption（t/d）
Navigation	1 set	0.3
Berth and unberth	2 sets	0.6

- **Last 10 Ports and Cargos**

No.	Berth Time	Port	Cargo
1	2023.04.24-05.05	2308/Mailiao-Tianjing	Petroleum Coke
2	2023.04.15-04.22	2307/Beihai-Taizhong	Clay
3	2023.04.08-04.09	2306/Mailiao-Qinzhou	Petroleum Coke
4	2023.03.18-03.25	2305/Mailiao-Fangcheng	Petroleum Coke
5	2023.02.28-03.03	2304/Kwangyang-Pohang-Xiamen-Taichung	Steel
6	2023.02.08-02.13	2303/Kashima-Dangjin	Steel Coil
7	2023.01.18-01.24	2302/Xiamen-Chiba	Steel
8	2023.01.05-01.06	2301/Mailiao-Quanzhou	Petroleum Coke
9	2022.12.24-12.25	2226/Fuzhou-Taipei	Feldspar&diopside
10	2022.12.16-12.21	2225/Busan-Keelung-Kaohsiung	Steel

- **Hull Thickness Measurement Report**

During the special survey in September, 2021, the ship was carried out hull thickness measurement.

The details in the 0.4L area of the midship was as follows:

No.	Location	Initial（mm）	Actual Corrosion（%）	Extreme corrosion（%）
1	**Main deck area**			
1.1	Main deck	16.0	1.9	20.0
1.2	Deck Longitudinal	18.0	1.7	25.0
2	**Hatch coaming area**			
2.1	Hatch coaming	14.0	2.1	20.0
2.2	Top plate	22.0	0.5	20.0
3	**Bottom area**			
3.1	K plate	14.0	2.9	20.0
3.2	A-C plate	12.0	4.2	20.0
3.3	Bilge longitudinal	12.0	5.0	20.0
3.4	Bottom longitudinal	10.0	4.0	25.0
4	**Inner bottom area**			
4.1	Inner bottom plate of NO.1 C/H	14.0	14.3	20.0
4.2	Inner bottom longitudinal of NO.1 C/H	11.5	3.5	25.0
4.3	Inner bottom plate of NO.2 C/H	14.0	0.0	20.0
5	**Side area**			
5.1	E-F plate	12.0	4.2	20.0

5.2	S plate	14.0	1.4	25.0
5.3	Side longitudinal	11.5	3.5	25.0

NOTE: The corrosion rate of the structure in the 0.4L area of the midship is within the extreme range. According to the information provided by the ship owner, the inner bottom plate of the NO.2 cargo hold was replaced in 2021.

6. Technical Status

6.1 Hull Structure Condition

The condition of exposed shell plate was found in generally good condition. The draft marks, ship's name and IMO number was found clear and complete. The condition of underwater shell was unknown.


海 星 创 新
HAI XING CHUANG XIN
舟 山
ZHOU SHAN
IMO 9620358

6.2 Cargo Holds

The ship has 2 cargo holds with double bottom and double hull, and equipped with folding hatch cover. No significant corrosion was found on the top plate of hatch cover, but the edges of the reinforcement stiffeners were found corroded. The watertight adhesive strip groove was found rust and thinning. The fastening wedge and wedge ear of the hatch cover were found slightly rusted. The hydraulic cylinder is equipped with a protective cloth cover, and the hydraulic cylinder support was found free of rust and no significant leakage in the hydraulic pipeline.

The hatch corner structure was found intact, and the rust mark was found on the pressure strips and water guide channel on the top plate of the hatch coaming.

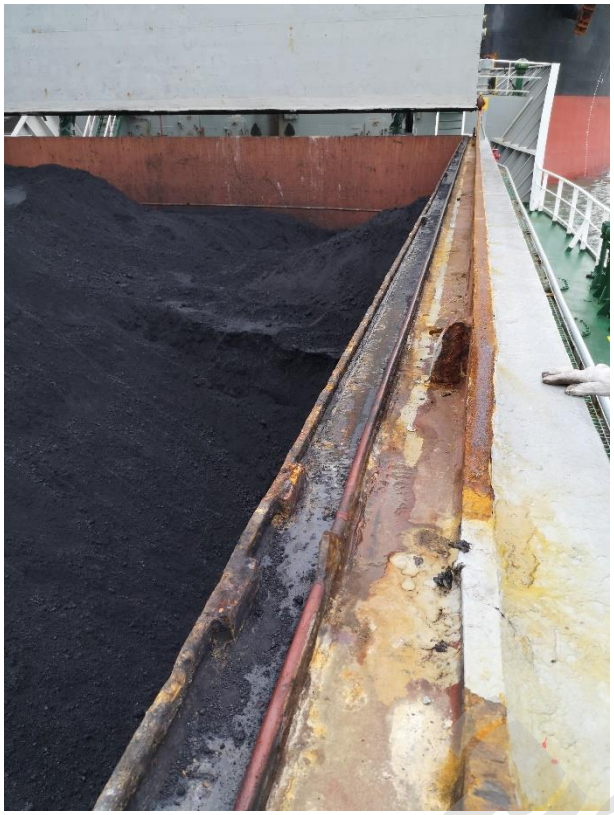
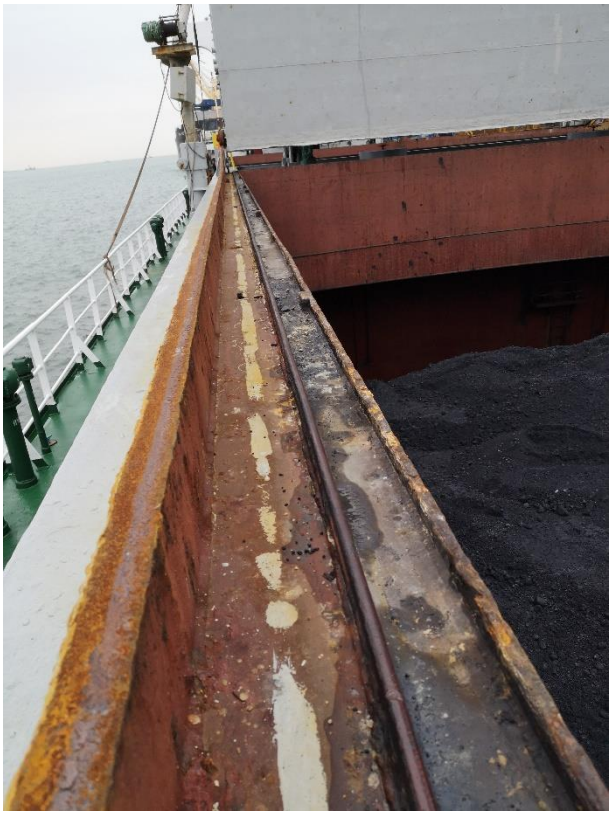
The welding condition of the hatch coaming was found in generally good condition, and the rust was found on the local welding seam of the reinforced bracket. The faceplate of the reinforced bracket was welded to the deck with a chamfer, without significant rust

At the time of the inspection, the ship was unloading, and the visible coating on the bulkhead of the cargo hold was found basically intact, and no deformation on the access ladder.

The fire pipelines around the hatch coaming were found well painted, and the fire hydrants were arranged intact and undamaged. The paint of the cargo hold ventilation pipe was found intact, the fireproof net was complete, and the fire damper handwheel was found no significantly blocked.







6.3 Main Deck and Deck Machinery

The condition of the main deck was found generally good, and the paint was basically intact. No rust was found on the manhole covers on both sides of the deck.

The condition of the forecastle deck was found to be general, without significant damaged on paint and deformation on the bulwark bracket. The body structure of the two windlasses were found basically intact, with paint damaged on the local of base. The structure of mooring equipment such as bollard was found complete, with basically intact coating.

There is 1 set winch installed on the main deck aft, and the paint was found basically intact. The bracket of the base was found significant rust. No significant corrosion or thinning was found on the guide pulley, without significant breakage on the rope.






6.4 Bridge Equipment

The fire insulation material and PVC floor in the wheel house were found intact and undamaged. The water tightness of the front window was intact, with the good appearance.

The door frame of the wheel house was found no deformed, with slightly rusted on the bottom sliding groove, and there was jamming when moving the door.

The appearance of the signal light control panel, alarm, fire monitoring screen, and other equipment on the bridge console was found intact, and the communication and navigation equipment were configured according to the certificate requirement.

The compass repeaters on both sides of the bridge deck was found no bubbles, and the heading angle was consistent with the steering compass.

The AIS data was found displayed normally, and the IMO number, MMSI number and other identity information are correct.

The radar transponders were found to be installed on the both sides of the bridge console as required, and operating instruction was posted nearby.

The emergency radio position indicator was located on the compass deck, with intact water tightness of the shell and operating instructions. The hydrostatic release device was found within the validity period.

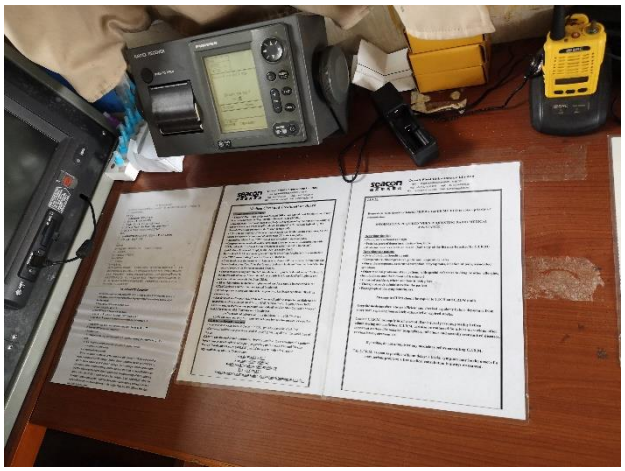
The navigation files on the ship were found basically the latest version, including chart and contingency deployment table




FURUNO



BKWM5




FURUNO UNIVERSAL AIS
[VIEW MMSI]
MMSI :413443420
NAME :HAI XING C
HUANG XIN
MENU
ENT
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NAV STATUS
FA-150
PWR
航行状态变更后请及时更改AIS航行状态


RADAR
TRANSPONDER


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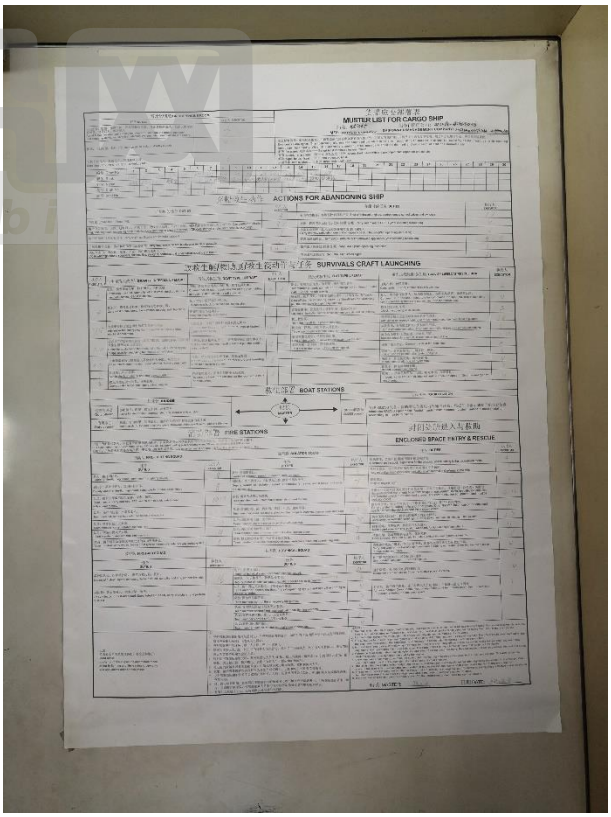
23113


MUSTER LIST FOR CARGO SHIP
ACTIONS FOR ABANDONING SHIP
SURVIVALS CRAFT LAUNCHING
BOAT STATIONS
FIRE STATIONS
ENGINEE SPACE PATRY & RESCUE

6.5 Engine Room and Equipment Condition

6.5.1 Main Engine

The appearance of the M/E was found to be generally good, without significant loosening of the oil and water pipeline joints. The binding material for the exhaust pipe was found basically complete.

The nameplate of the M/E was found complete, and the control instrument was basically intact and no obvious damaged on the dial plate.

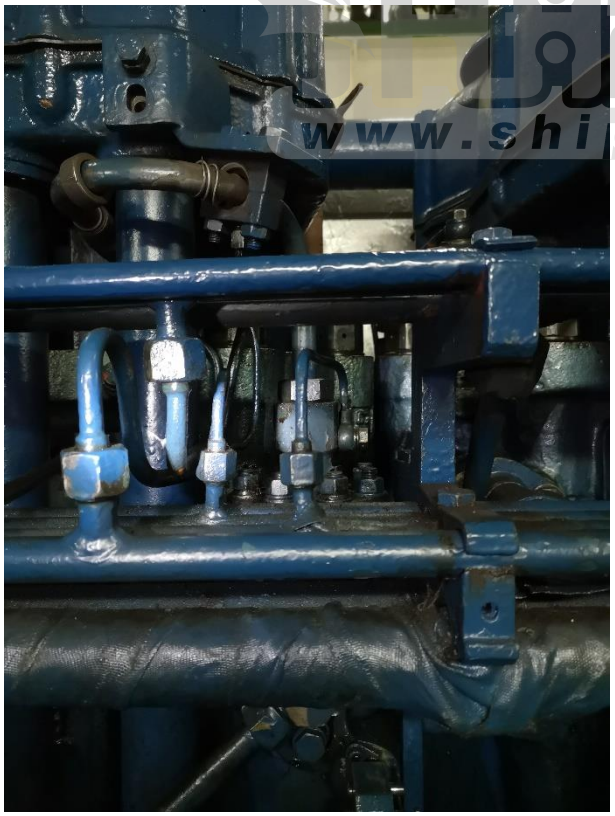
The manual transmission device, fuel leakage alarm, low oil pressure alarm, etc. were found installed next to the M/E.

A small amount of oil stains was found on the chassis of the M/E, and the residual oil channel pipe was found to be connected to an external oil drum, not reached the residual oil tank.

According to the report provided by the ship owner, the 1 #, 4 #, and 5 # cylinders of the M/E have been recently maintained.

No.	Liner	Piston head	High pressure oil pump	Main bearing	Rod bearings	Running time after maintenance
1	5692.5	5692.5	5692.5	22608.5	5692.5	2658.5
2	5692.5	5692.5	5692.5	22608.5	5692.5	5692.5
3	5692.5	5692.5	5692.5	22608.5	5692.5	5692.5
4	5692.5	5692.5	5692.5	22608.5	5692.5	3436.5
5	5692.5	5692.5	5692.5	22608.5	5692.5	1984.5
6	5692.5	5692.5	5692.5	22608.5	5692.5	5692.5
7	5692.5	5692.5	5692.5	22608.5	5692.5	5692.5
8	5692.5	5692.5	5692.5	22608.5	5692.5	5692.5
Note	Running time of turbocharger after maintenance：7040.5					


GDF广柴
MODEL
RATED POWER
RATED SPEED
STROKE
EX-FACTORY DATE
APPLICATION



6.5 Main Generator

The ship is equipped with 3 sets main generators, and the appearance of the generator sets was found to be generally good, with no significant oil stains on the chassis. The coating was found intact, with no rust on the pipelines and components.

3 sets main generators can achieve parallel operation simultaneously. 1 set for sailing, and 2 sets for entering and exiting the port.

According to the report provided by the ship owner, the 3 # auxiliary generator has undergone maintenance recently. During the inspection, the 1 # and 2 # generator units were in operation and no abnormalities were found.

Main Generator	1#	2#	3#
Total running time	6308	6162	2837
Running time after repair	6308	6162	2837
Running time after turbocharger repair	6308	6162	2837

● Emergency Generator

The emergency generator room's weathertight door and frame were found no significantly rusted, with no aged or deformed on the adhesive strip. The ventilation grille and bolts were found intact.

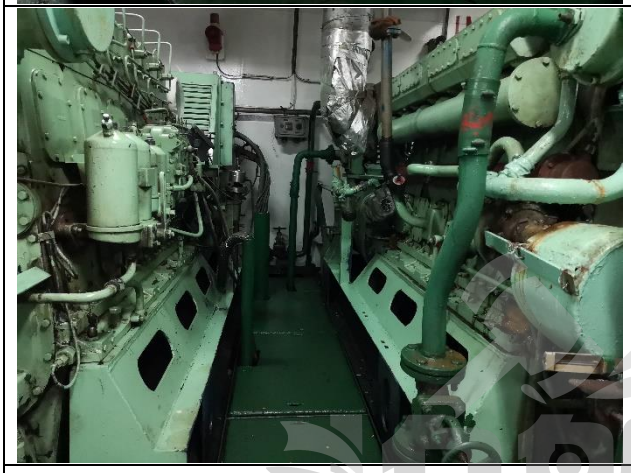
The indoor lighting of the emergency generator was found intact, the fireproof laying material was found complete, without fixing nails missing.

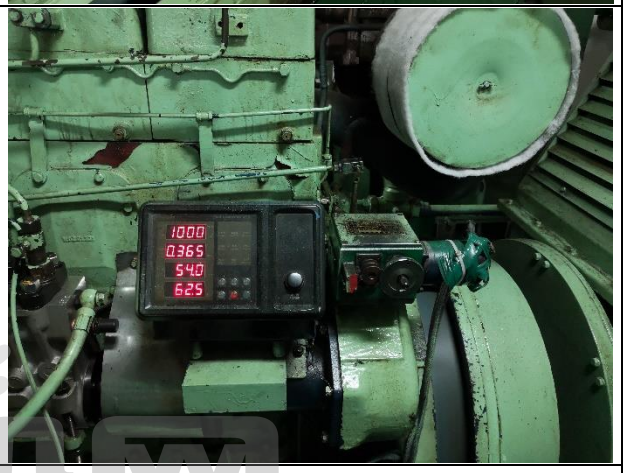
The appearance of the emergency generator was found clean, the liquid level in the fuel tank was found normal, and the quick closing valve was found no significantly rusted.

The auxiliary engine of the emergency generator adopts two starting modes as required, namely air bottle and storage battery, with the storage battery being replaced on November 3rd, 2021.

The emergency switchboard was found to be in a normally open state, with no abnormalities in the appearance of the switch, indicator light, and instrument.


IMO




1000
0365
540
625


VENT


46M3


0.46M3

● Engine Control Room

The self-closing door, indoor lighting fixtures, and fire insulation laying of the engine control room were found in good condition.

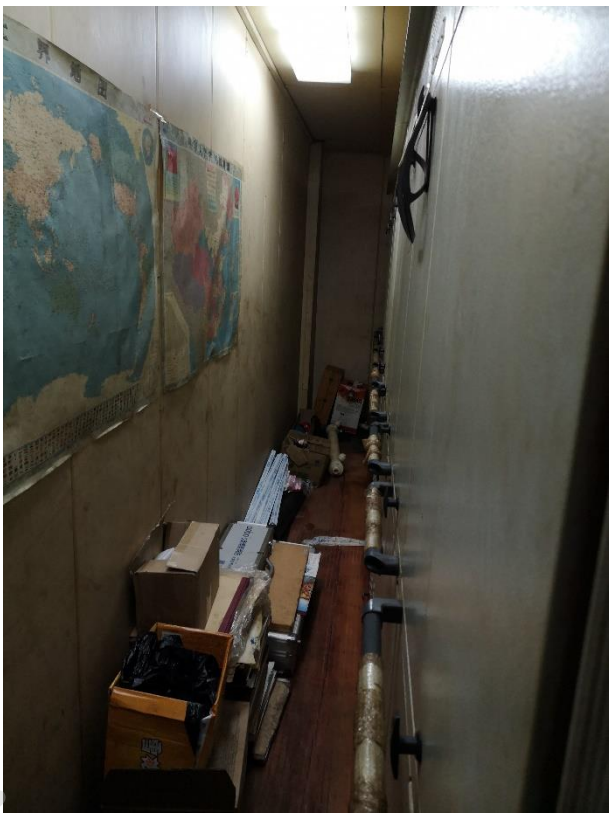
The ship was equipped with 8 main distribution screens which produced by Zhejiang Xinya Electric Development Co., Ltd, and the brand of main switch is TERASAKI.

The appearance of each switch, indicator light, and instrument on the main distribution board was found normal.

The alarm lights and monitoring instrument panel on the engine control console were found in real-time monitoring status, and the rudder angle indicator was consistent with the bridge console.

The remote control device of the ballast water management system was set in the engine control room, and the appearance was found normal.


CAUTION
TERASAKI
TemPower
AR208S
TERASAKI ELECTRIC CO., LTD.
CAUTION




EMERGENCY

● Steering Gear Room

A small amount of oil stains was found in the steering gear room, the floor was equipped with anti slip wooden grilles, and protective railings were installed nearby.

One set of manual emergency steering devices and one set of electrical emergency steering devices were installed next to the steer gear, and the liquid level of the two sets of hydraulic oil tanks was at a high level.

The rudder carrier seat was found no significant oil leakage, with no rust on base bolts. There are relief valves and pressure gauges installed at both ends of the oil cylinder, and the pressure gauge is in a zero state.

The reading of the rudder angle indicator was consistent with that of the bridge console, and the reading of the digital compass was also consistent with that of the bridge console.

The cables inside the room were found to be neatly arranged and all were sealed with fillers.

● Exhaust gas boiler

The exterior of the boiler body, exhaust pipes, and steam pipes were found all insulated and wrapped without obvious damage.

The boiler valve components were found no significant signs of water leakage, and the water supply pipeline has no significant leakage.

● Anti-pollution equipment

The engine room is equipped with a fuel oil purifier and fuel oil supply unit, with a small amount of oil stains on the equipment chassis, and no significant corrosion or leakage in the pipelines.

The engine room is equipped with a domestic sewage tank and treatment device, and the pipelines and valves were found to be free of rust. The appearance of the control box and emission monitoring alarm was found normal.

The engine room is equipped with electrical control unit of ballast water management device, which is a brand of Wuxi BSKY.

6.6 Fire and life-saving equipment

6.6.1 Life-saving equipment

The ship is equipped with one fully enclosed lifeboat with a capacity of 20 people. The appearance of the lifeboat was found no cracked, with complete the thruster facilities, and the keel plate at the bottom of the lifeboat was found no damaged.

The roller groove of the lifeboat frame was found no significant rust or thinning, and the lifting roller and

release hook was found no rust.

The ship is equipped with one inflatable life raft with a capacity of 20 people on the port and starboard sides. The release device of the life raft was found complete and in overall good condition.

6.6.2 Fire-fighting equipment

A small amount of rust was found on the sealing strip groove and door frame weld of the CO2 room of this ship. The indoor fire protection laying was found complete, with no rust on the release valve and bottom of the cylinder. The inspection mark shows the last inspection was in March 2023, and the next inspection will be in March 2025.

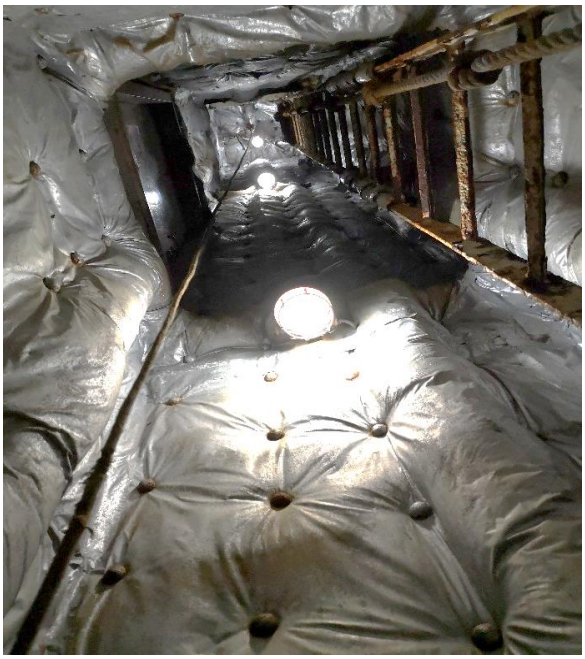
The self-closing door of the emergency passage in the engine room was found in a normally closed state, the self-closing device could work normally, the fire separation outside the passage was found complete, and the life ropes and ladders inside the passage were fully equipped, and the overall condition was found good.

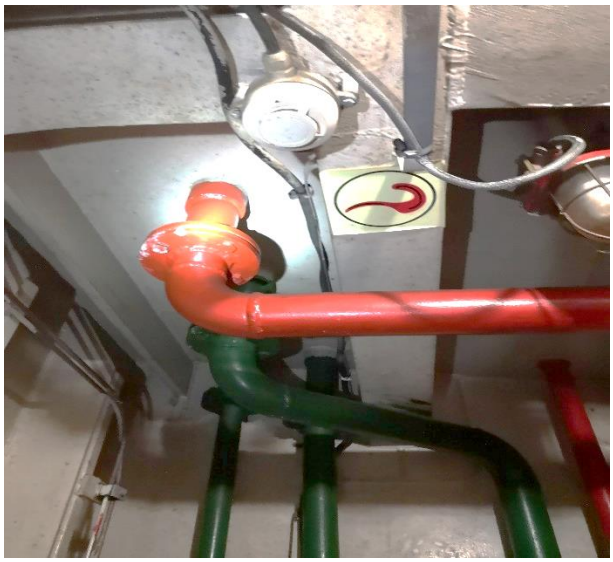
The emergency fire pump is located in the bow fire pump room, the paint of pump body was found

basically intact, the starter motor shell was found no significantly rusted, and the pipeline and valve parts were completely painted. The operating procedures was found posted indoor, and the smoke detectors and explosion-proof lights were in good condition and appearance.








7. Conclusion

The ship was built as a general dry cargo ship with single deck, and driven by single engine with single propeller, and the cargo hold is double bottom and double hull. It was delivered on December 12th, 2011, and was built under CCS classification by Ningbo Dongfang Shipyard Co., Ltd. The deadweight is 7636t, the light weight is 2521.75t. The following conclusions were given against the ship certificates, technical drawings and inspection.

7.1 Class Survey and Performance

The last annual survey has been completed on October 13th, 2022, and the next annual survey will be carried on three months before and after December 11th, 2023. All deficiencies found during the last PSC and FSC inspection have been corrected.

The design speed of this ship is 12 kn. Under laden condition, when the main engine speed reaches 450RPM, the speed is about 9.5kn and the economic fuel consumption is about 4.8t/d. At present, it is mainly engaged in Southeast Asian routes, and can operate direct routs between Mainland and Taiwan. The ship's recent voyages are mainly loaded with steel and petroleum coke.

7.2 Hull Structure Condition

During the special survey in September, 2021, the ship was carried out hull thickness measurement. The local corrosion rate of the bottom plate in NO.1 cargo hold was 14.3%, and according to the information provided by the ship owner, the inner bottom plate of the NO.2 cargo hold was replaced in 2021.

The condition of the shell plate and main deck was found generally good condition, with no deformation and intact paint. The adhesive strip of the hatch cover was found significant aging, with significant corrosion on the adhesive strip groove. The visible coating on the bulkhead of the cargo hold was found basically intact, with no deformation on the access ladder. The appearance of the deck machinery was found intact, and no significant oil leakage in the chassis hydraulic pipelines, and the bracket of the winch base was found significantly corroded.

7.3 Status of Electrical & Machinery Equipment

The navigation equipment on the bridge console and the main equipment in the engine room of this ship were found in good condition, and the navigation files were basically the latest version. The EIAPP

certificate level is Tier II, and the ship has installed ballast water treatment device. The EEXI technical files of this ship was approved in September 2022, with CII being A. The configuration of life-saving and firefighting equipment was found basically consistent with the certificate requirement, and the appearance was in good condition.