舟山市拍船网船舶
评估咨询有限公司

TECHNICAL REPORT

Number：CJPG-JS-23-K Y-285

Inspection Place： Zhoushan Jinzhou Shipyard

Inspection Date： May 26th, 2023

Technical Report

1. Summary

Entrusted by the customer, our company organizes the surveyor to inspect the technical condition of "XING XIANG 7" and issue the technical report according to the ship data provided by the customer. The report reflects the ship's technical status at the time of inspection and is for reference only. In case of any discrepancy, the current situation of the ship shall prevail, and our company shall not assume legal liability. The specific report is as follows:

2. Principal Particulars

Ship Name	XING XIANG 7	**Flag**	SIERRA LEONE
Type of Ship	Bulk Carrier	**IMO**	9647174
LOA	97.28m	**Class**	ASCS
LBP	89.80m	**Trading Area**	A1+A2+A3
MLB	15.80m	**Shipbuilder**	Ningbo Daxie Development Zone Shipyard
MLD	7.70m	**Date of Keel laying**	October 18th, 2010
Summer draft	6.20m	**Date of Delivery**	November 4th, 2011
Gross tonnage	3518	**Model of M/E**	Guangzhou Diesel Engine 8320ZCd-6
Net tonnage	1970	**Rated Power/Rated Speed/No.**	2060kW×525r/min×1set
DWCC	5290t	**Light Weight**	1537.7t
Cargo Hold	2H/2H	**Cargo Hold Capacity**	6823.74m³

Note: The above data comes from the ship certificates provided by the owner and is for reference only.

3. Ship Description

● Overview

The ship was built as a bulk carrier with single deck, and driven by single engine with single propeller. The ship has 2 cargo holds with double bottom and single hull, and equipped with hydraulic folding hatch cover. The ship has no cranes on the deck, and surveyed by ASCS Class, has been under Bareboat C/P under Sierra Leone Flag.

● Major Equipment

1) Engine Machinery

Machinery	NO.	Model	Parameter	Manufacturer
Main Engine	1	8320ZCd-6	2060kW×525r/min	Guangzhou Diesel Engine
Gearbox	1	GWC52.59A	Reduction ratio: 3.243	Hangzhou Advance Gearbox Group Co., Ltd
Propeller	1	Fixed five blade propeller	Cu4，Dia. 3600mm	--
Main Generator	2	TFXW-250L4-H	120kW×400v×217A	Lanzhou Electric Corporation Co., Ltd.
Diesel Engines of Main Generator	2	6135JZLCaf	180kW×1500r/min	Shanghai Diesel Engine Co., Ltd.
Harbour Generator	1	TFXW-225L4-H	75kW×400v×135A	Lanzhou Electric Corporation Co., Ltd.
Diesel Engines of Harbour	1	6135ACaf	108kW×1500r/min	Shanghai Diesel Engine Co., Ltd.

Generator				
Emergency Generator	1	TFXW-225L4-H	75kW×400v×135A	Lanzhou Electric Corporation Co., Ltd.
Diesel Engines of Emergency Generator	1	6135AD-3	96.5kW×1500r/min	Shanghai Diesel Engine Co., Ltd.
Steering Gear	1	-	160kN·m	Taizhou Huada
Windlass	2	HDMJ-44	30kW	Taizhou Huada
Boiler	1	LYF0.5/70-0.7	0.7MPa	Wuxi Weilit Boiler
Sewage Treatment Plant	1	WCBX-15B	1.05m³/d	Wuhan Zhongzhou Env .Protection Equipment Co.,Ltd.
Bilge Water Separator	1	YSZ-1	1m³/h ≤15ppm	Wuhan Zhongzhou Env .Protection Equipment Co.,Ltd.

2) Communication and navigation equipment

Equipment	NO.	Model
AIS	1	FA-150
GPS	1	GP-150
Magnetic Compass	1	CPL-190
Steering Magnetic Compass	1	CPT-165A
Gyro Compass	1	DH-IIG
Electronic Chart	1	AWENA
Echo Sounder	1	EDS-800
Radar	2	FAR-2117
Ship-borne Weather	1	CZ-5

Instruments		
MHF	1	FS-1570
VHF	2	FM-8800S
TWO-WAY VHF	3	FT-2800
C Station	1	FELCOM
NAVTEX	1	NX-700B
SART	2	ESR-06
EPIRB	1	E5

- **Cargo Hold Capacity**

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

Cargo Hold	Dimensions of Hatchways(m)	Capacity (m^3)
NO.1	25.60×10.00	3351.71
NO.2	25.60×10.00	3472.03
Total		6823.74

4. Class Status and Surveys

- **Statutory Certificates or Documents of Compliance**

No.	Certificates Description	Issue Date	Expiry Date
1	Certificate of Registry	2022.10.27	2024.11.15
2	Minimum Safe Manning Certificate	2022.10.27	2024.11.15
3	ASCS Classification	2022.01.17	2023.12.27

	Certificate		
4	International Oil Pollution Prevention Certificate	2021.03.26	2023.12.27
5	International Air Pollution Prevention Certificate	2022.01.17	2023.12.27
6	International Ballast Water Management Certificate	2022.01.17	2023.12.27
7	International Energy Efficiency Certificate	2023.01.10	--

The expiration date of the ASCS classification certificate for this ship is December 27th, 2023. The last annual survey conducted in Zhoushan on January 10th, 2023.

This ship does not have ballast water treatment device, and the IBWM certificate is D-1. The expiration date of the certificate is December 27th, 2023. According to the Amendment to Article B-3 of the 2017 Ballast Water Convention, the ship should install BWMS no later than September 8th, 2024, to meet the D-2.

The IAPP certificate of this ship shows that the NOx emissions of the main and auxiliary engines meet Tier II standards.

The EEXI technical file number of this ship is ASCS SH-22112, approved on December 26th, 2022, and stored on board as required.

- **Minimum safe manning requirement**

Grade / Capacity	STCW	People
Master	II/2	1
Chief Mate	II/2	1
Officer in charge of a navigational watch	II/1	0
Able Seafarer (Deck)	II/5	0
Navigational Watch Rating	II/4	3
Deck Rating	VI/1	0
Cook	VI/1	0

Grade / Capacity	STCW	People
Chief Engineer	III/3	1
Second Engineer	III/3	0
Officer in charge of an engineering watch	III/1	1
Able Seafarer (Engineering)	III/5	0
Engine Room Watch Rating	III/4	1
Engine Room Rating	VI/1	0
Electro-technical Officer	III/6	0

Total: 8

- **PSC Inspection Records**

Date	Place of Inspection	Deficiencies	Action Code	Note
2023.05.04	TAI CHANG	10101 03108 06199 07107 10138 10111 10105 09203（2） 01309	17/10 17/10 17/10 17/10 17/10 17/10 17/10 17/10（2） 17/10	No Detention Closed,
2023.04.11-04.12	MIZUSHIMA	01138 01314 01333 11113 10123 11117 07116 10138 11105 04103 11112 03103 07199 07110 10111 01308 01330 01336 07106 15105	99/（10） 17/10 16 99 16 15 17/10 17/10 17/10 17/10 17/10 16/（10） 17/10 15 17/10 17/10 16 17/10 17/10 18	No Detention

The above defect information comes from the two recent PSCO inspection reports provided by the owner, no detention defect. During the PSCO inspection from April 11 to April 12, 2023, the report showed that there were 7 defects that were not closed (defect codes: 01333, 11113, 10123, 11117, 07110, 01330, 15105). The owner informed that the above unclosed defects had been corrected on board and could be closed when re-inspection.

5. Performance Records

● Speed and Fuel Consumption

The fuel oil consumed by the main engine is 180CST and 120CST.

Condition	Economic Speed kn	Rotary Speed rpm	Fuel Consumption（t/d）	Design Speed kn
Ballast	10.5	420	4.8	11.7
Laden	10.0	420	5.2	

The fuel oil consumed by the auxiliary engine is MGO.

Condition	Working unit	Fuel Consumption（t/d）
Navigation	1 set	0.3
Berthing and Departure	2 sets	0.6

● Last 10 Ports and Cargos

Berth Time	Port	Cargo	Loading capacity（t）
2023.01.04	ZHOUSHAN- CHINA	voyage repair	--
2023.01.18	TAICANG- CHINA	unload	--
2023.01.21	TONGLING- CHINA	dolomite	5000

2023.01.28	OITA- JAPAN	unload	--
2023.02.01	MIZUSHIMA- JAPAN	steel	5100
2023.02.05	DANGJIN- KOREA	unload	--
2023.02.08	SHANGHAI- CHINA	steel coil	5081
2023.02.14	BUSAN- KOREA	unload	--
2023.02.20	TOYOHASHI- JAPAN	scrap steel	4188
2023.03.02	HAIPHONG- VIETNAM	unload	--

- **Hull thickness measurement**

The ship was underwent hull thickness measurement during the intermediate inspection on January 2022. The structural thickness measurement in the 0.4L area of the midship is as follows:

NO.	Location	Original thickness（mm）	Corrosion rate（%）	Ultimate corrosion rate（%）
1	**Main deck**			
1.1	Main deck	14	3.6	25
1.2	Deck longitudinal	14	2.9	30
2	**Hatch coaming**			
2.1	Hatch coaming	12	3.3	30
2.2	Top plate	25	1.6	30
3	**Hull bottom**			
3.1	K strake	12	3.3	25
3.2	A-C bottom Plate	10	5.0	25
3.3	D bilge	11	4.5	25

3.4	Bottom longitudinal	10	4.0	30
4	**Inner bottom**			
4.1	NO.1 inner bottom	16	9.4	25
4.2	NO.1 inner bottom longitudinal	12	3.3	30
4.3	NO.1 slop plate	14	11.4	25
4.4	NO.1 slop plate longitudinal	12	3.3	25
4.5	NO.2 inner plate	16	8.8	25
4.6	NO.2 inner bottom longitudinal	12	3.3	30
4.7	NO.2 slop plate	14	11.4	25
4.8	NO.2 slop plate longitudinal	12	3.3	25
5	**Ship side**			
5.1	E-G strake	11	5.5	25
5.2	S strake	14	3.6	25
5.3	Side Longitudinal	10/14	4.0	30

The corrosion rate of the structure in the 0.4L area of the midship is basically within the limited range.

The corrosion rate in the 0.4L area of the midship is 11.4% at the bottom slop plate in the cargo hold.

The original thickness of the inner bottom plate in the cargo hold is 16mm, with a corrosion rate of 9.4%.

According to the "Main Section", the structure longitudinal is basically of the bulb bar.

6. Technical Status

1) Hull Structure Condition

The painting condition of shell plate was found basically general, without obvious corrosion. The draft marks, ship's name, IMO number above the waterline were found clearly and full painted. The bow and stern bulwark was found general condition, with deformation on the side railing.

2) Cargo Holds

The ship has 2 cargo holds with double bottom and single hull, the hatch cover is hydraulic folding type. The flatness of the top plate of hatch cover was found general good, with spot repaint mark. The reinforcement structure and rubber strip groove of the hatch cover were found to be free of significantly corroded, and without significantly aged on the rubber strip.

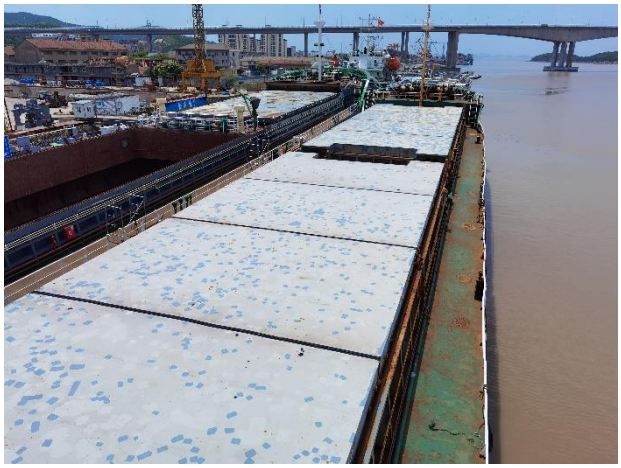
The fastening wedge and wedge ear of the hatch cover were found deformed and significantly corroded. No rust was found on the hydraulic cylinder support and no significant leakage in the hydraulic pipeline.

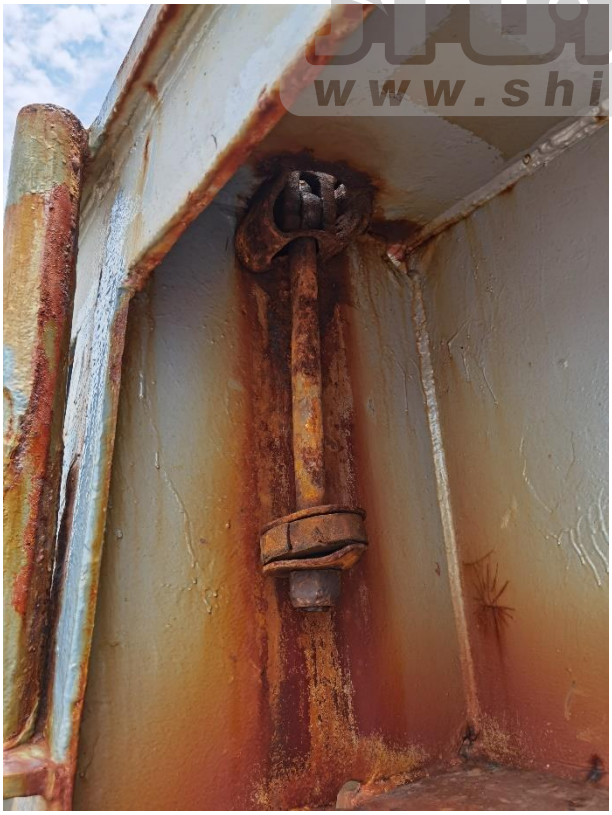
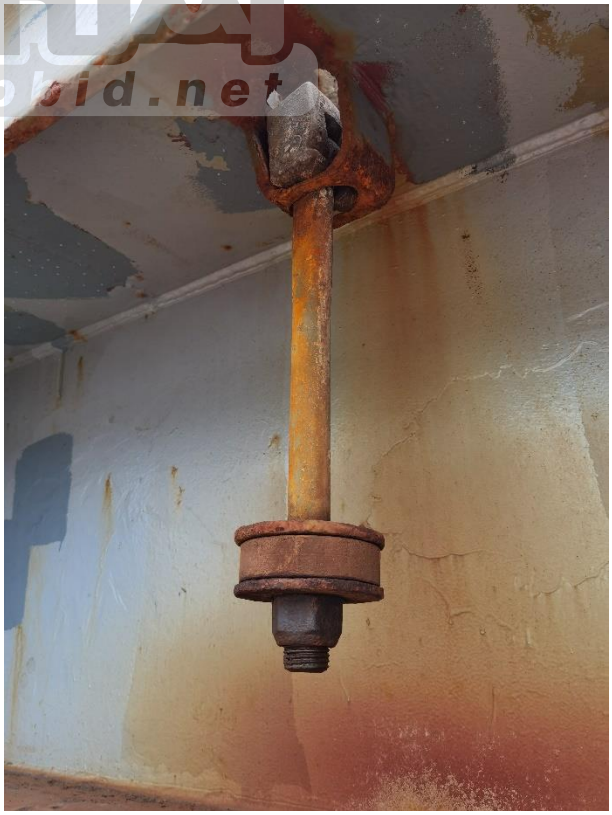
The corner structure of the hatch was found significant corrosion, and the hatch cover strip and guide channel on the top plate of hatch coaming was found corrosion, with no significant deformation of the structure.

The side of the hatch wall facing the cargo hold was found extensive rust, and the edge of the bracket was found corroded. No significant corrosion or crack was found on the welding seam between the bracket toe and the main deck.

The painting condition of the fire pipeline around the hatch coaming was found in good condition, the fire hydrant layout was found basically complete, and the lock catch of the hose box was found missed. The ventilation pipe and hood of the cargo hold was found significantly corroded.

During the inspection, the NO.1 cargo hold was opened for inspection. The flatness of the inner bottom plate and the slop plate of the bottom side tank was found good; No significant deformation was found on the watertight bulkheads, and the entry ladder at the bulkheads was found deformed and broken on the lower part. The longitudinal on both sides is bulb bar, and no significant deformation on the toe end of bracket.

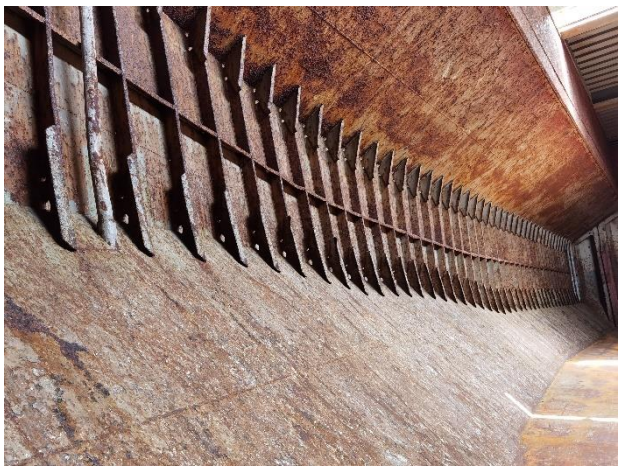
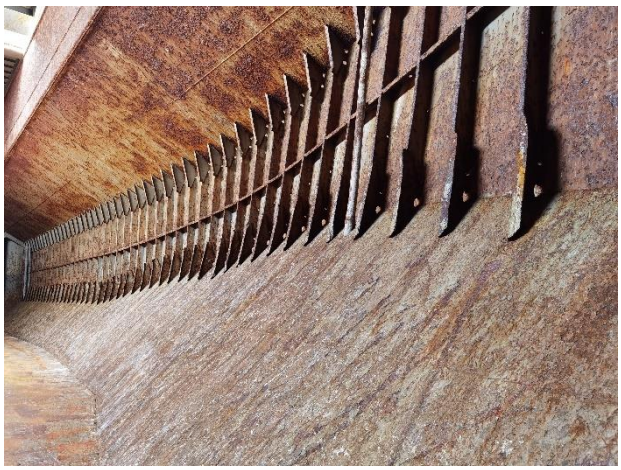
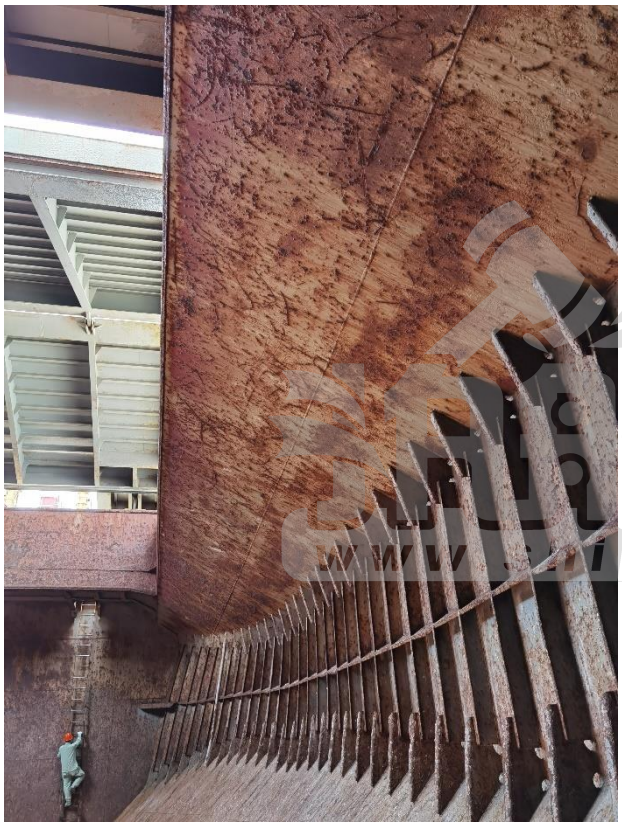





FIRE HOSE BOX
F


FIRE HOSE BOX
F





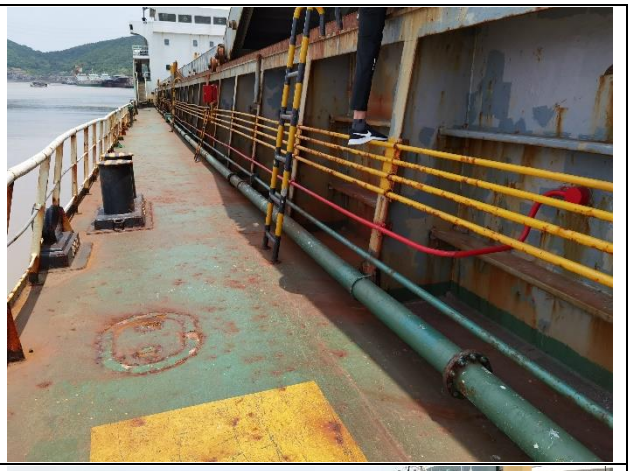

3) Main Deck and Deck Machinery

The overall condition of the main deck was found general good, and the watertight manhole covers on the left and right sides of the main deck were found severely corroded.

The overall condition of the forecastle deck was found general good, without significant paint damaged. The structure of the two windlass were found complete, with significant rust on the windlass base, but no structural thinning. The brake wheels were found significant rust. The surface of mooring components such as chain stoppers, bollard,

and guide rollers was found slightly worn.

One set winch was installed on the main deck aft, and the body paint was found basically intact, and without obvious structural thinning on the base bracket. No significant corrosion or thinning on the guide pulley, and no significant breakage of the mooring rope.

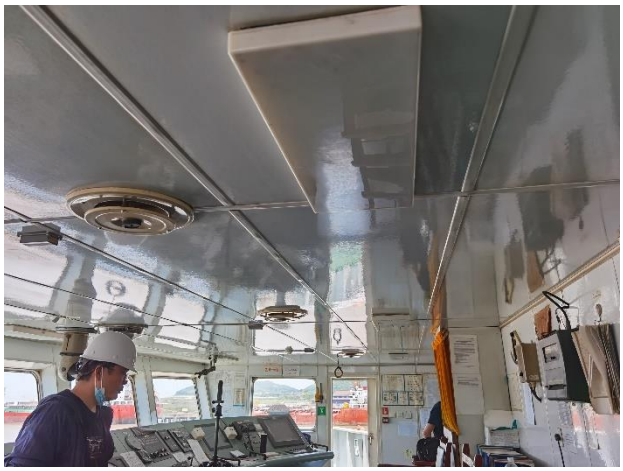


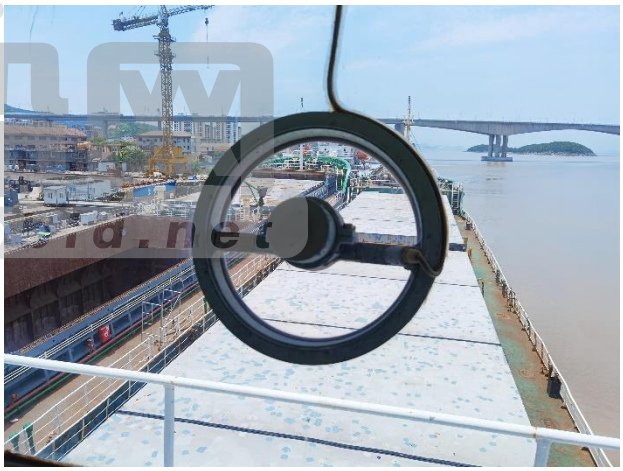
4) Bridge Equipment

The insulation ceiling of the wheelhouse was found in good condition. The water tightness of the front window was intact, and the appearance of the rotating window was found intact. The radar's brand is FURUNO, and the gyro compass and autopilot is Shanghai Marine Instruments. This ship's is equipped with a communication station C. According to the owner's info, GMDSS and medium/high frequency equipment were all available.

The battery of the starboard radar responder on the bridge is valid until March 2025, and the port radar responder was found missed.

An emergency radio position indicator is located on the compass deck, and the water tightness of the outer shell was found intact. The inspection of the hydrostatic release device is valid until January 2024.








5) Accommodation area

This ship has a crew cafeteria and a senior crew cafeteria. The indoor lighting was found intact, the decoration materials were found to be free of deformed or damaged, the side window was found no cracked, the storm cover was found watertight with intact bolts.

This ship has a kitchen located adjacent to the cafeteria, with good indoor cleanliness and complete kitchen facilities. The stove, pantry, and sink are all made of stainless steel, and the range hood is a mechanical exhaust type.


6) Engine Room and Machinery

6.1 Main Engine

The appearance of the main engine was found clean and tidy, and no significant loosening of the oil and water pipeline joints.

The appearance of the main engine turbocharger was found intact, and the binding laying for the exhaust pipe was basically complete.

The nameplate of the main engine was found complete, the control instruments beside the machine were basically complete, without significantly damaged on the dial.

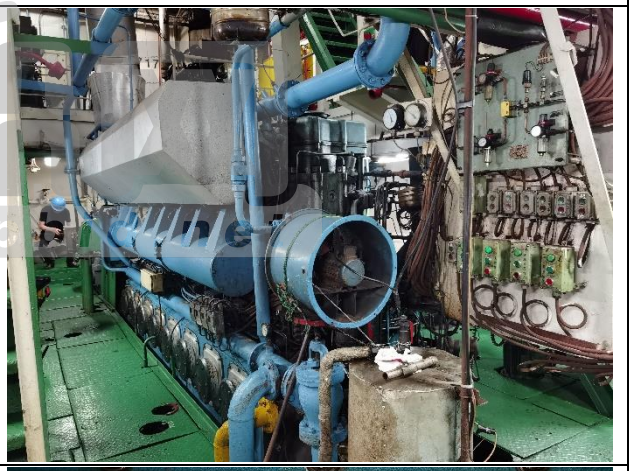
The main engine is equipped with a manual transmission device, fuel leakage alarm, lubricating oil low pressure alarm, etc.

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

The model of the gearbox is GWC52.59A, and the tail shaft seal is lubricated with water.

According to the data provided by the owner, the main engine has been in operation for 4530 hours since the cylinder lifting maintenance on January 18th, 2022, and the turbocharger has been in operation for 1500 hours since the maintenance on August 3rd, 2022.



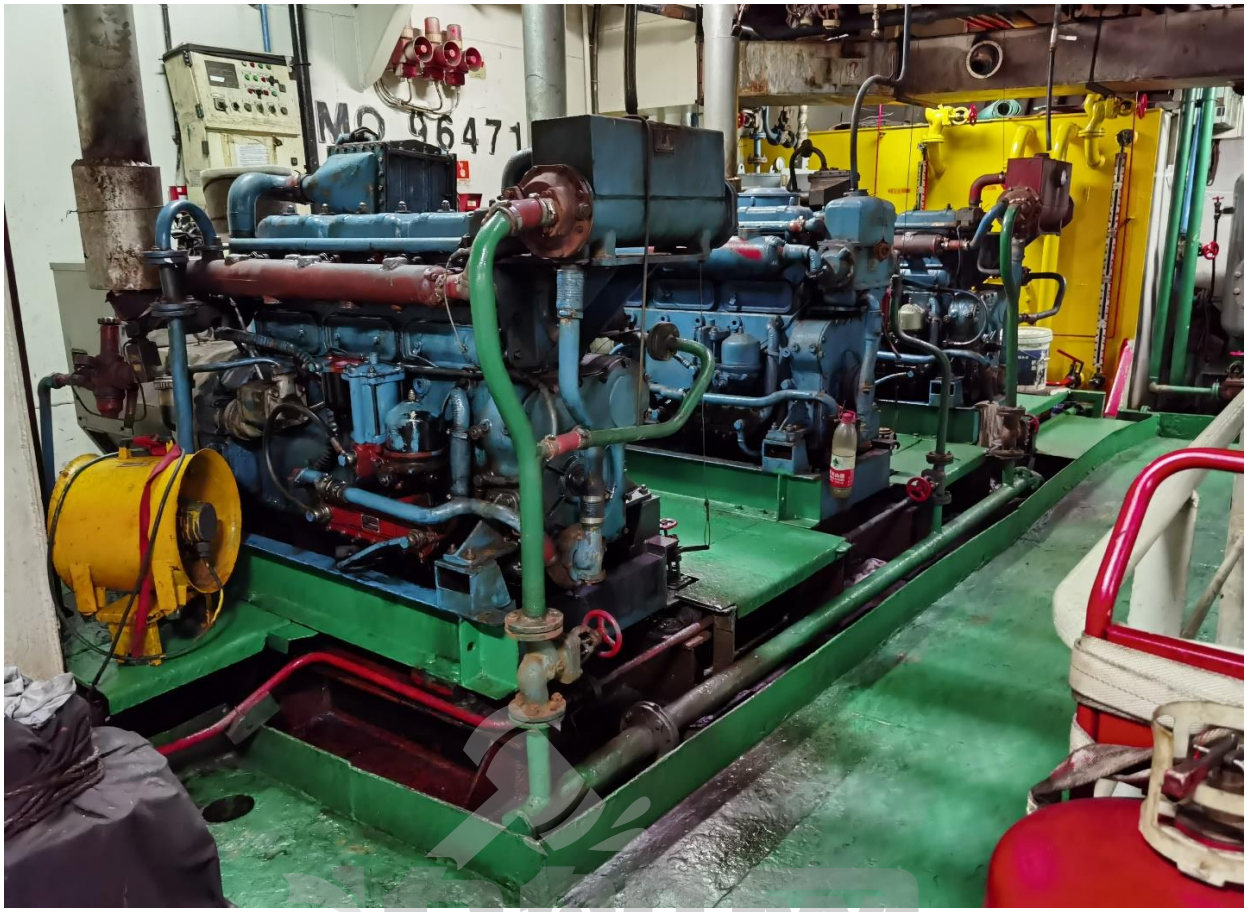



6.2 Main Generator

This ship is equipped with 2 sets main generators and 1 set harbor generator in the engine room, and the overall appearance of the generator sets were found general, with no significant oil stains on the chassis. The body paint was found intact, and rust on the pipelines and components.

Two main generators can achieve parallel operation simultaneously, and one generator for sailing condition, two generators for berthing and departure.

According to the data provided by the owner, the main and auxiliary generators have been operating for 5434h and 5301h respectively since maintenance on January 18th, 2022.


MQ 96471

6.3 Emergency Generator

The emergency generator room's weathertight door and door frame were found to be free of rust, and without deformed on the waterproof adhesive strip. The weather cover of the ventilation grille was found complete.

The indoor lighting of the emergency generator was found intact, the fire protection laying was complete, and the cable penetrations were sealed with fillers.

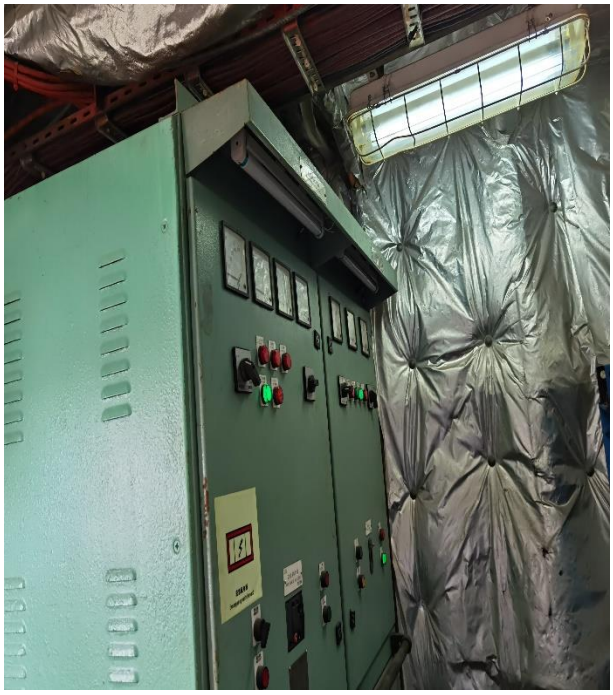
The appearance of the emergency generator was found clean, the liquid level in the fuel tank was normal, and the steel wire of the quick closing valve has no significantly rusted.

The auxiliary engine of the emergency generator could be started using two modes, that is air bottle and battery as required.

The emergency distribution board was found under normally working state, and without abnormalities in the appearance of the switches, indicator lights, and instruments.





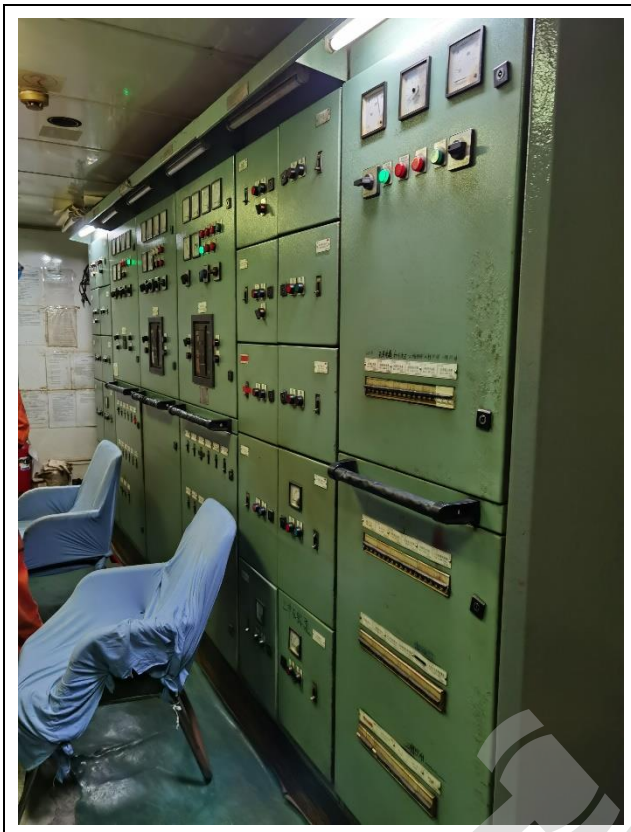



6.4 Engine Control Room

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

There are 6 main distribution panels in total, which are produced by Anyang Shipfriends Electric Appliance Co., Ltd, and the brand of the main switch is Schneider.

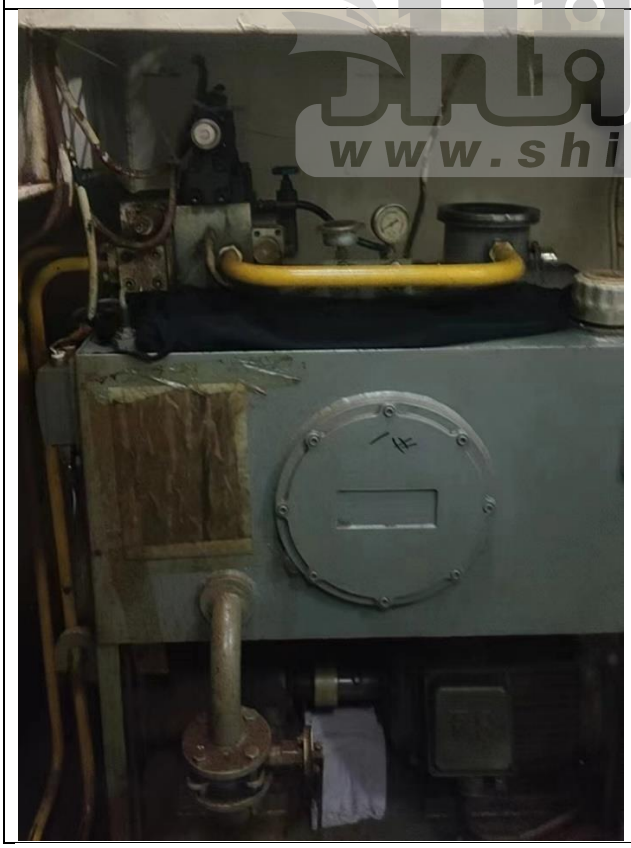
The appearance of each switch, indicator light, and instrument on the main distribution board was found normal, and as well as the appearance of each alarm light and monitoring instrument panel on the console.



6.5 Steering Gear Room

A small amount of oil stains was found in the steering gear room, the floor was complete with anti slip wooden grilles, and the protective railings was installed nearby the machine.Two sets of manual emergency steering devices and electrical emergency steering devices were installed next to the machine, and the liquid level of the two sets of hydraulic oil tanks was found at normal level.

No significant oil leakage was found on the upper rudder bearing seat, without corrosion on the base bolts. The reading shown on the rudder angle indicator and the compass reading on the bridge was found basically same.



6.6 Oil-burning Boiler

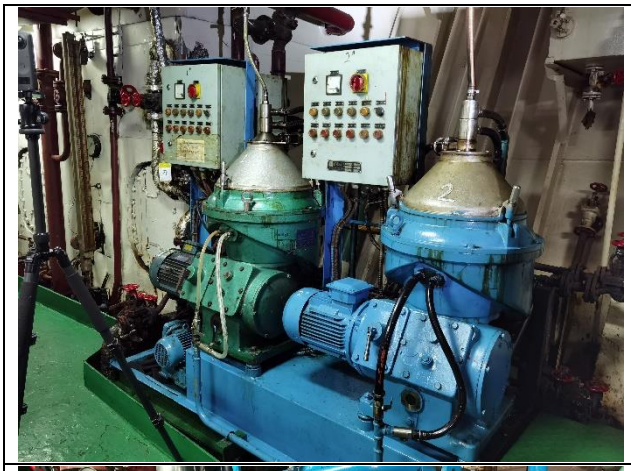
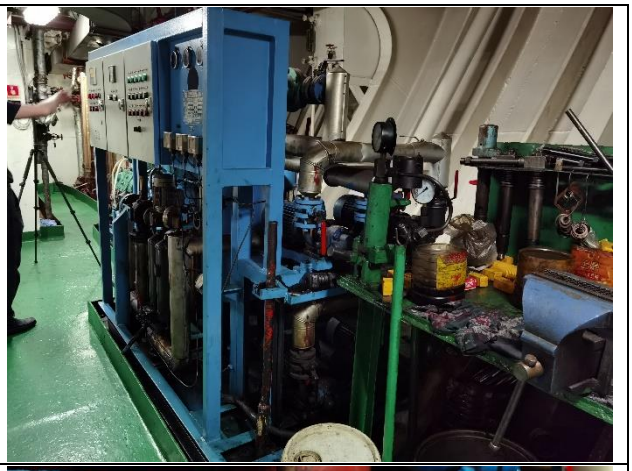
The exterior of the boiler body, exhaust pipe, and steam pipe were insulated and wrapped without obvious damage.

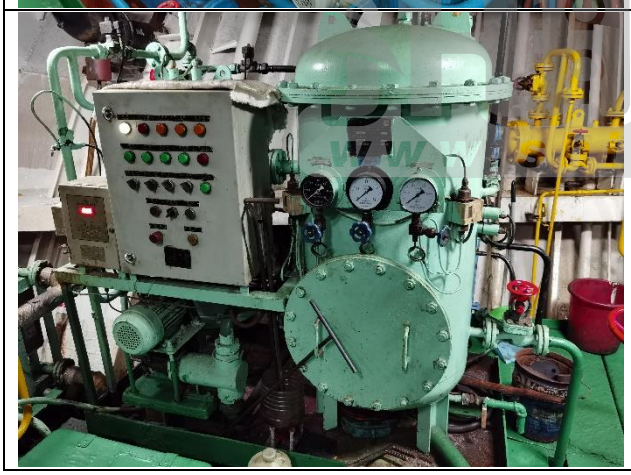
The boiler valve components was found to be free of significant signs of water leakage, and the water supply pipeline has no significant leakage.

6.7 Anti-pollution Equipment

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

This ship is equipped with a domestic sewage treatment device and a bilge water separator. The pipelines and valves were found to be free of rust, and the appearance of the control box and emission monitoring alarm was normal.




7) Firefighting and lifesaving equipment

7.1 Lifesaving equipment

This ship is equipped with one 15-person freefall lifeboat, and one 6-person rescue boat. The hull appearance was found to be free of crack, the thruster facilities were found intact, and the keel plate has not damaged.

The roller groove of the lifeboat frame was found to be free of significant rust or thinning, without damage on the steel wire, and no rust on the lifting roller and release hook.

This ship is equipped with one davit-launched liferaft with 15-person and one throw-overboard life raft with 15-person. The release device of the life raft was found complete, the inspection marks were found clear and complete.

7.2 Firefighting equipment

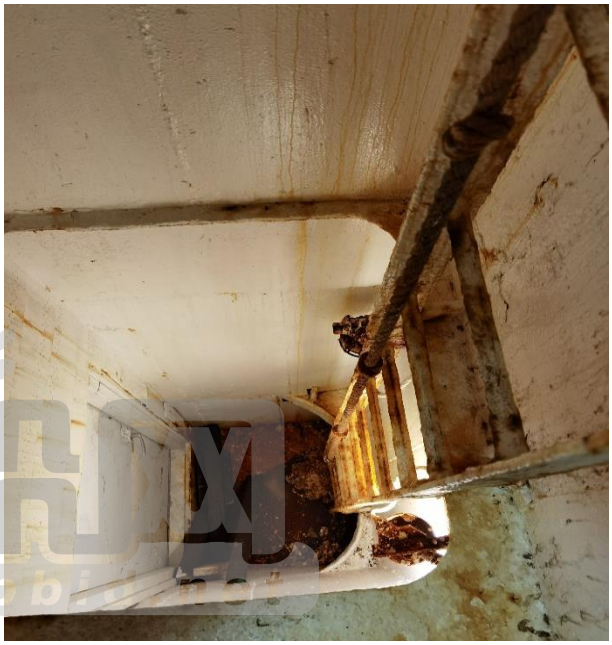
A small amount of rust was found on the sealing strip groove and door frame of the CO2 room, and the indoor fire protection was found complete. The CO2 cylinder release valve and the bottom of the cylinder were found to be free of corrosion, and the safety

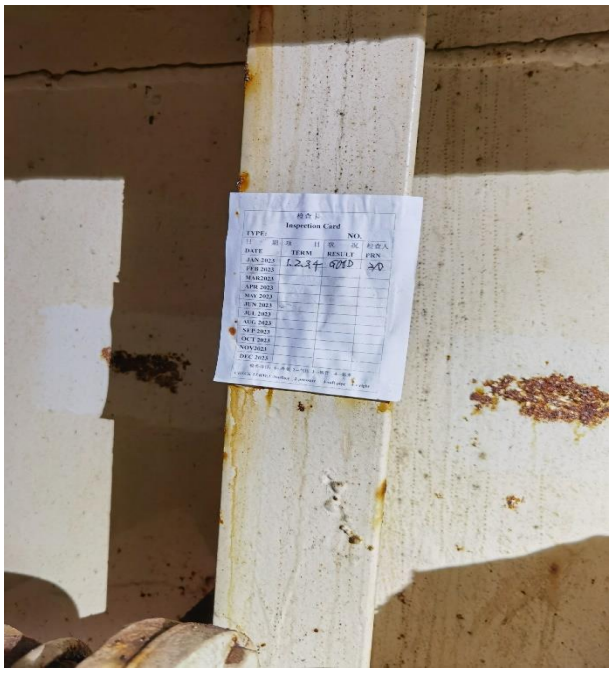
pin has been pulled out and is in an instant usable stat. The CO2 cylinder inspection marks were found complete, and the last maintenance was in October 2022.

The self-closing door of the emergency passage in the engine room was found in a normally closed state, and the opening and closing of the self-closing device were normal. Lifelines and ladders in the passage were found fully equipped.

The emergency fire pump is located in the bow fire pump compartment, with complete paint on the pump body, no significant rust on the starting motor casing, and complete paint on the pipelines and valves. The last inspection date was January 2023.


舟山市普陀舟陆海事救生设备检修厂
Zhoushan Zhoulu Marine Safety Equipment Service Factory
DATE OF SERVICE
SERVICE RECORD
CHECK √ RECHARGE
INSPECTOR




Inspection Card
TYPE
NO.
DATE
ITEM
RESULT
PRN

7. Conclusion

This ship was built as a bulk carrier with single deck, and driven by single engine with single propeller, and the cargo hold is double bottom and single hull. It was delivered on November 4th, 2011, and was built by Ningbo Daxie Develop Zone Shipyard. The deadweight cargo capacity is 5290t, the light weight is 1537.7t. The capacity of the No.1 and No.2 cargo hold are 3351.71m³, 3472.03m³. The ship has been under Bareboat C/P under Sierra Leone Flag.

1) Class Survey and Performance

This ship was surveyed by ASCS class. The last annual survey has been conducted on January 10th, 2023 in Zhoushan. The expiration date of the classification certificate is December 27th, 2023.

During the PSCO inspection from April 11 to April 12, 2023, the report shows no detention item and 7 defects not closed. The owner informed that the unclosed defects had been corrected on board and could be closed when re-inspection.

The design speed of this ship is 11.7 kn. Under laden condition, when the main engine speed reaches 420rpm, the speed is about 10kn, and the economic fuel consumption is about 5.2t/d.

This ship was mainly trading within Southeast Asia, China, Japan and South Korea..

2) Hull Structure Condition

The ship was underwent hull thickness measurement during the intermediate inspection on January 2022. The corrosion rate in the 0.4L area of the midship is 11.4% at the bottom slop plate in the cargo hold. The original thickness of the inner bottom plate in the cargo hold is 16mm, with a corrosion rate of 9.4%. The structure longitudinal of this ship is basically of the bulb bar.

No significant deformation was found on shell plate and main deck, and the watertight manhole cover on the main deck was found severely corroded.

No significant corrosion was found on the edge of the rubber strip groove of the hatch cover. The flatness of the inner bottom plate was found general good, and the extensive

corrosion was found on the side of the hatch coaming facing the cargo hold. The bottom of the entry ladder was found deformed, and the ventilation cap was severely corroded. The base of this ship's deck machinery was found corroded, without significant structural thinning, and no significant leakage in the hydraulic pipelines.

3) Status of Electrical & Machinery Equipment

The navigation and communication equipment on the bridge console and the main mechanical equipment in the engine room were found basically in good condition. During the inspection, the ship was connected to shore power.

The IAPP certificate of this ship shows that the NOx emissions of the main and auxiliary engines meet Tier II standards. This ship is not equipped with ballast water treatment equipment.

The EEXI technical file number of this ship is ASCS SH-22112, approved on December 26th, 2022, and stored on board as required.

This ship is equipped with a freefall lifeboat, and a rescue boat on the port side, with good appearance.