# **Pipe-Layer Barge**

## **PRE-PURCHASE REPORT**

REF: TBD

IMO: N/A

**INSPECTION DATE: 21 July 2024** 

**LOCATION: TBD** 

REPORT DATE: 25 July 2024



# **DASHBOARD**

# **Operational Compliance**

**Verified Operational CII Grade: N/A** 



ENVIRONMENTAL	SOCIAL	GOVERNANCE
GHG Reduction Strategies Yes (Y) / No (N) / Unknown (U)	Onboard Improvement Highligh Yes (Y) / No (N) / Unknown (U)	ts Interactive Responsiveness Yes (Y) / No (N) / Unknown (U)
• CII rating compliant to SEEMP.	N • Good crew recruitment system.	N • Clear company policy / procedures. U
• Alternative Fuel modifications.	N • Free WiFi facilities.	N • Cyber security policy / guidance. N
<ul> <li>Garbage reduction policies.</li> </ul>	U • Shoreside communication access.	Y • Whistleblowing policy / guidance. N
<ul> <li>Propeller modifications.</li> </ul>	N/A • Crew training facilities.	N • Clear code of conduct policies. U
• BWTS fitted.	N • Career development program.	N • Employee legal support. U
<ul> <li>IHM database onboard.</li> </ul>	N • Enhanced dietary selections.	N • Ethical business practices. U
• Sewage treatment plant fitted.	Y • Modern fitness facilities.	Y • Marine protection policy / procedures. N

# **The Barge**

IMO N/A : Age 12 years

## **Vessel Condition Survey**

1. ESG	Poor
2. Hull Structure	Fair
3. Decks/Superstructure	Fair
4. Deck Equipment	Fair
E Causa	Fair
5. Cargo	rair
6. Ballast Tanks	Fair
7. Accommodation Areas	Fair
8. Bridge/Communication	Fair
9. Engine Room	Fair
10. Management System	Poor

Rating: 7.1

## **VESSEL 10 POINT RATING SYSTEM**

This vessel survey report offers a structured overall condition rating. This score is based on the reported condition of 10 principal areas across the vessel. The condition of each area can range between the below defined grade of **Very Good** to **Unsatisfactory.** 

# Terms and Definitions of Condition Very Good Unimpaired condition without significant wear, or deviation from original strength and operating efficiency. No maintenance or repair required. Good Unimpaired condition but may require some minor maintenance to bring to a good standard. Condition where wear and tear or other deficiencies of a minor nature, do not require correction or repair. Poor Adequacy of strength and/or operational efficiency is marginally below acceptable limits or is in doubt. Remedial action required. Unsatisfactory Condition of inadequate strength or operational deficiency. Immediate extensive repair/renewal required, reinstating serviceability

# SURVEYOR'S SUMMARY

#### PRESENT AT SURVEY

Captain: TBD

**Chief Officer: TBD** 

### SUMMARY AND CONCLUSION

The Barge was a non-propelled, non-conventional special service accommodation and pipelay barge. The survey was conducted at anchorage in Malaysia region where she was moored with 4 buoy and chain. The barge had been in this position since Sep 2019 in idle condition after her last contract ended. She was employed as Accommodation + Crane work barge and assigned to Charter of AWB for Accommodation and Construction Support Campaign 2019 as Pipe-Lay Barge/ AWB The Barge.

Since September 2019 (as per interview with the on-board crew) she was reduced to minimum manning of 6 persons, however 7 crew were onboard namely the Barge Leader + Mechanic, Sr Electrician + Barge Admin, Electrician + Watchkeeper, AB + Rigger, Rigger + Cook, Bosun + Security and 1 Oiler + Watchkeeper. Due to the reduced manning the maintenance of the barge was kept to very minimum.

Ship's hull was found to have hard rust and corrosion. Markings were faded. Paint damaged. Marine growth observed. Wooden fenders on port side were washed away.

She is designed with 8 x Hydraulic Mooring Winches with a capacity of 125 MT@13 m/min at 1<sup>st</sup> speed @ 1<sup>st</sup> layer, maker MacGregor, model P4435-HMW/SD-125/200-(P1\*). The wire size is 52 mm dia and length 1500 m, and the 8 anchors of 10 MT/each (Delta Flipper Anchors). The storm anchor wire size is 62 mm dia with a length of 500 m and brake holding capacity of 200 MT @ 2<sup>nd</sup> layer. The anchor type was Delta Flipper Anchors (5MT) with a pulling capacity of 300kN x 9m/min. Maker: Billboard, Model: DE-30T-64X500M-FC-S-L. Mooring stations were found to be in fair condition.

The positioning system was deployed by means of 4 buoys and anchors at 4 corners of the barge. Winches were visually found to be in good condition. The barge crew tested the mooring winches and storm anchor in May 2024 and video clips were shared with the surveyor.

This barge has a clear deck area of 1500 m2 and deck loading capacity was 12.5 MT/m2. Barge main deck was loaded with several storage containers, deck generator, compressor, forklift, Yokohama fender, stinger frame etc. In general, the condition of pain was fair. Due to lack of manpower and no employment of the barge the cosmetic condition was fair.

Crew maintains the superstructure well. Ongoing painting and maintenance were found to be in place. Current crew normally do not use the crew cabins as accommodation barge. Few deficiencies are recorded in the deficiency section.

WBT 4C, 3C, No. 3 Portable water tank and Fuel oil 6P were inspected from the manhole top without entering the space. The company had restricted the access to the internal tank entry. For the limited access, the tank coating was found to be in fair condition. Ladders in good condition and no significant mud/ sediment were noticed.

The 9-deck The Barge (a non-propelled, non-conventional special service accommodation barge) has the capacity to accommodate **296** pax including the barge crew. The accommodation facility as per below.

Single Cabin with Toilet x 10 : 10 Men (Deck 3)

Twin Sharing Cabin Single Toilet x 31 : 62 Men (Deck 3 & 2)

Twin Sharing Cabin Share Toilet X 104 : 208 Men (Deck 1, Tween deck & Tank top)

Quadruplet Sharing Cabin Share Toilet x 4 : 16 Men (Tank top)

She is also able to provide 12 offices, namely, Barge Master office (One), Client Office (Three), Contractor's Office (Eight). The conference room is located at deck 3 which can accommodate 20 pax. The conference has the facility to project. There is a small cabinet to serve snacks at the conference room attendees. The Const. Superintendent (OCS) office is located next to the conference room and was fitted with monitors, sofa, TV and computer. The Client site reps (CSR) offices were designed with monitors, computers and full office facilities. The television was missing from this office. The arrival/departure briefing room was also on deck 3 which was designed with 15 pax sitting arrangements. Chief engineer office was well designed and maintained as expected. The barge master office and radio room at deck 3 were well designed and maintained. The radio equipment was switched off and they were beyond their service period validity, hence unable to ascertain the conditions. The control room was designed with a clear and broad view on the main deck area facing aft. The console panel was found open with busbars exposed; the monitors were

out of order. Other than the GPS, rest of the equipment were switched off. Navigation/signal light panel was in operation. The Furuno radar was fitted and switched off. Fire and gas detection system, local & total firefighting main control panel was also located here. Pipe lay control panel is also located in this space. The winch power was available during the inspection and the control panel was in this room. The Consilium water mist control panel in the space was switched off. Gyro repeater appeared in good condition and the power was off.

The only one large galley with modern cooking appliances can cook dishes for 300 pax. Galley spaces are well spread out with different areas for washing, thawing, cutting, cooking, preparation, and service. Proper Bain Maries have been provided for serving hot food. Galley walls and ceilings are lined with stainless for easy cleaning and avoid bacterial growth. The spaces are fitted with proper non-slip tiles and good drainage channels covered with slotted stainless-steel covers. The galley is fitted with 3 ice cube maker, 4 oven, hot plates, food warmer, storage racks, 3 beverage dispensers, 2 water dispenser, glass door chiller, and mess room can accommodate 108 pax at one time. The TV & Recreation room is located next to the mess room. The furniture and facilities were adequate. These are located at the service deck.

The TV & Cinema room is located at Deck 1 which was next to the internet room. Currently the internet services and stations were out of service. However, the infrastructure was satisfactory.

The gymnasium is fitted with modern multi gym equipment and was found to be well maintained. The barge document and HSSE Office was the place where surveyor carried out opening/closing meetings and verified drawings, documents etc. All manuals, records, are kept in this office.

The large change room, Hospital, Para medic room, laundry room, 3 offices, coffee shop, Emergency generator room, rigging store, workshop, welding consumable store, warehouse, paint store are located at main deck. She is also provided with three prayer rooms which was located at tween deck, tank top and deck 1. The hospital facility with the sick bay found to be in good condition. The phone booth (3) was found to be clean and well maintained. The laundry is quite large and includes several types and sizes of washing machines and driers.

Air Conditioning in accommodation areas were turned on for the purpose of this survey and the aircon performance was satisfactory and towards the end the cooling sea water pump was reported to be damaged. The air conditioning of the vessel was in good condition.

Reefer Chambers and Dry Stores are walk-in cold rooms and under-counter cold spaces have been provided on board; and it is understood from the 2nd engineer that the refrigeration system is working in good order on board but currently switched off due to lay up condition.

The helipad was approved by ABS for UK CAA CAP 437 standard for "Sikorsky S92". Helideck certificate expired since 2018. To comply with the latest CAP 437, some upgrading works need to be done e.g. TDPM Lightings. As per the crew this helipad was last used in 2013. Currently the helicopter equipment was not on board.

The KD-Oceanclean-330 sewage treatment plant maker Ocean Clean GmbH, Germany is designed for 289 pax. The holding tank capacity is 32.50 m3 and located at Frame 49-52 at double bottom port side. The system was shut during the inspection and the certificate (ISPP) was overdue since 20 Jan 2024. The two RO water maker, Aquamariner SV-70, maker Seawaterworld (UK) with a capacity of 35 ton each appeared to be in good condition. However, was switched off and as per the crew, these have not been used due to proximity to the shore. A regular water testing regime was maintained when the barge was operational.

Lifesaving Equipment, Rescue Boats 2 of 6 Persons each (SOLAS/ USCG Approved), Life raft 26 x 25 men (SOLAS/ USCG Approved), Life jacket 650 units (SOLAS Approved), life buoy 12 units (SOLAS/ USCG Approved). However, they all were overdue for servicing since Jan 2024. Firefighting System, Wet chemical for galley hood, FM-200 switch board room, automatic sprinkler system for accommodation, public area, working area and storage spaces, Water mist for machinery room, automatic fire and smoke detection system, Fire monitor system, CO2 system. Like lifesaving equipment, firefighting systems were also overdue for servicing and certification. All LSA & FFA were out of service date. Life jacket battery expired. Rescue boat (forward and aft) battery and provisions expired. Extinguishers servicing. EPIRB, SART, MOB, Flares are expired. Life buoys found damaged. EEBD, SCBA were out of service date. The barge crew shared a video clip for lowering of one the rescue boats in Apr 2024. According to the lay-up maintenance program "lay-up condition surveys" are to be performed in lieu of the normal surveys which are no longer required to be carried out as long as the ship remains layup.

Bridge: This is a non-propelled barge. The barge was in its warm layup mode. There was no barge master on board. The equipment was switched off and hence unable to ascertain the condition of the bridge and communication equipment. Following were the Communication & Navigation Equipment provided on board.

VSAT: 1 x Seatel 9797-32C-Band, GMDSS: KU-Band TX/RX Antennas, GMDSS VHF: 1 x Furuno RC-1800F, VHF/FM: 3 x Mcmurdo R2, VHF/AM: 2 X Furuno FM-88005, VHF AM Portable: 1 x ICOM 1C-A110, UHF VHF Portable: 1 x ICOM 1C-A6, NAVTEX Receiver: 2 X Furuno GM-300, SART: 1 X Furuno NX-700A, EPRIB: 2 x Mcmurdo S4, UAIS: 1 x Mcmurdo ES SMARTFIND, SSAS: 1 x Furuno fa-150, Marine Radar: 1 x Furuno felcom-15, X-Band: 1 x Furuno far-2827, Echo Sounder: 1 x Skipper GDS 102, GPS: 1 x Furuno GP 150, Gyro Compass: 1 x Raytheon Anschutz 110-233, Magnetic Compass: 1 x Cassens & Plaith Reflecta 17.

Ship was designed with four Mitsubishi (S16R-MPTK) main generator with a capacity of 1500kW each. Currently No 3 generator was

decommissioned. No 4 alternator was removed. No 1 & 2 used to be run during operation in Sep 2019 as seen from old engine logbook and engine logbook was discontinued from Sep 2019. The other record shows these generators were maintained & inspected since Nov 2022 to Apr 2024. As per the shore service report (by UMW) dated 19 Oct 2023, following action and recommendation was made.

#### Quote:

Based on our observation, there is no major issues on both engines. However, the unit are recommended to do periodical service. Engine no 1 to carry out valve's clearance and engine no 2 to carry out alternator alignment.

#### Unquote:

A list of parts replacement was recommended prior to major operation and no further service report suggesting the action taken was sighted.

She is also provided with one deck generator Maker caterpillar, model 3512B with a capacity of 1200kW. The emergency generator with a capacity of 500kW, maker Caterpillar, model 3412C was the only generator being used often by the layup crew and found to be operating in normal parameter.

The two main air compressors with a capacity of 875Cfm @ 10 bar, maker Sullair, model TS20-200HH AC SULL appeared to be in good condition. The air receiver 2x3000 litres @ 10 bar were in sound condition. However, they have not been used for several years.

The oily water separator with a capacity of 1m3/hour @ 15 ppm, maker Ocean Clean Water Treatment, model Ocean Clean 1.0 EB appeared to be in good condition. However, was unable to test during the inspection.

There was no operation crew on board except for minimum layup crew. All the machineries and equipment were switched off and hence unable to ascertain the condition of the engine room machineries. None of the auxiliary engines were in operational mode. Bilges were partially flooded by sea water due to leak form air con cooling sea water pump.

The barge was in operation up until Sep 2019. The old records of maintenance were reviewed, and evidence showed that he computer-based PMS in conjunction with the paper files were well maintained. Currently only one computer in the ECR was operational. As per the interview with the onboard crew, it was revealed that the CMMS (computer-based PMS) was shut-down, maintenance (by the minimum crew) was recorded manually, quarterly summary was sent to office.

#### CONCLUSIONS

After viewing all areas available of the vessel, giving reservation to any hidden defects not generally available in a superficial inspection, also considering the barge age (12 years) construction the barge appears in a **FAIR** condition.

## **DEFECTS AND OBSERVATIONS LISTS**

		DEFECTS LIST	
#	Item	Comment	Est Cost (USD)
01	Certification	Class and all statutory certificates had expired on 20 Jan 2024. The hull renewal is overdue since 20 Jan 2024. Last Bottom survey in dry condition was done on 21 Jan 2019 followed by in water survey on 12 Jan 2022 & 19 Jan 2024.	5,000
02	Auxiliary Engine # 3	Since 18 Nov 2020, Decommissioning of Auxiliary Diesel Engine No.3 had been declared by owner.  Manufacturer: Mitsubishi, Model Number: S16R-MPTK, Serial Number: 15188, MCR: 1690 kW  Revolution: 1800 RPM  Recommissioning of the engine shall be witnessed and verified by attending surveyor.	300,000
03	BWTS	She is currently solely engaged within Malaysian water and as per local regulation, she doesn't need to comply with BWMC (MSN 08/2017). BWM convention is to comply with if vessel is plying on international voyage.	200,000
04	Pedestal Crane	The SWL of the crane was reduced to 138.90 tons on 18 Nov 2020.	20,000
05	Vessel Lay Up Commissioning	Vessel was put in Warm layup condition at Kemaman Anchorage, North 4.41.678 East 103.29.018 on 19 Jan 2024.	50,000
06	Commencement renewal survey (ballast tank inspection a UWS)	On 19 Jan 2024, commencement of renewal survey.  1. All ballast tank internal inspection with UTG have been carried out.  2. Bottom survey by diving have been carried by RINA approved diving company.  To complete the renewal survey	10,000
07	Hull	Both side, front and back hull was in poor condition. Thich rust scale and substantial corrosion found all around the ship including severe marine growth.	100,000
08	Thickness report	The thickness measurement report dated 14-16 Jun 2023 was reviewed. The number spots measured was only 46 and the max diminution recorded to be max 2.61% and did not seemed representative.	5,000
09	Auxiliary Engine # 4	Observed that Auxiliary Engine # 4 alternator was removed.	100,000
10	Auxiliary Engine # 1 & # 2	The Auxiliary engines were not ready to operate.	100,000

11	LSA / FFA	All LSA & FFA were out of service date. Life jacket battery expired. Rescue boat (fwd and aft) battery and provisions expired. Extinguishers servicing. EPIRB, SART, MOB, Flares are expired. Life buoys found damaged. Life rafts (26 pcs) were out of service. CO2 system out of service period. Fire detection system not in operation. EEBD, SCBA were out of service date.	50,000
12	Hospital & Medicine	Medicine replenishment and issuance of medical chest cert.	5,000
13	Cabins	Cabins TV were missing. Several neds were found damaged (side protection wood was missing). Toilet basin dirty, basin taps damaged, shower hose damages.	5,000
14	Recreation room and common spaces	TV were missing, cosmetic condition deteriorated.	3,000
15	Refrigeration plant	The plant is not operational since 2019. The equipment looked intact. However, need complete overhauling and charging before starting the plant.	2,000
16	Deck Generator	Deck generator was not in use and needing overhauling prior to put into operation.	12,000
17	Barge control station	1 set x-band radar, Gyro, SSAS, UAIS, NAVTEX, were not operational and require complete servicing and renewal of magnetron.	20,000
18	Radio equipment	VHF (AM, FM), GMDSS VHF, VSAT communication, were out of service and require complete servicing.	5,000
19	PA system	PA system mics were found damaged and hanging.	5,000
20	SW pumps	SW pumps (2 set) was leaking and out of order.	4,000
21	Other pumps	Ballast, Chilled water, general service SW, Fresh water hydrophore, Main fire pumps were out of service and might have been seized and require complete overhauling and servicing.	10,000
22	RO Water maker	RO water maker is out of service and not been operating due to the close proximity to the shore.	10,000
23	OWS	OWS was not able to power up and test.	5,000
24	Sewage treatment	Sewage treatment plant is not in operation. Current crew on board has set up a temporary toilet and shower area at the fwd part which discharges directly to the sea.	5,000
25	Anchors	The storm anchor, delta flipper anchor, chain etc are at the seabed for several years and uncertain of the condition.	10,000
26	Wooden fender	Wooden fenders (10 set) on port side were completely washed away. Few were damaged on stbd side at bottom part.	30,000
27	Fire monitor	Fire monitors were found disconnected from the mains on helipad area and other spaces.	5,000
28	Helicopter equipment	Helipad is reported to never be used and no helicopter operation equipment on board.	5,000

29	Rust and	Due to lack of maintenance and being exposed to weather condition, rust and corrosion has developed	50,000
29	corrosion	all over the barge. Maintenance including plate, brackets, supports renewal is expected.	

		OBSERVATIONS LIST	
#	Item	Comment	Est Cost (USD)
01	Pipe-lay equipment	Pipe-lay equipment is not in operation for a long period of time and the barge side plate where the pipe is supposed to be laid down was found blocked. As per the interview, understood that the exhaust gas from the platform for the last job was entering the barge via that opening and burned the electric junction box of the pipelaying equipment.	60,000
02	Pipe-Lay Equipment Double Joint	Pipe-Lay Equipment Double Joint equipment is not in use and not been operating for several years.  Needing complete overhauling servicing prior to putting into operation as pipelay barge.	50,000
03	Pipe Tensioner Machine	Pipe Tensioner Machine is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation as pipelay barge.	20,000
04	AR Winche	AR Winche is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation as pipelay barge.	4,000
05	Stinger A frame	Stinger A frame is not in use and not been operating for several years. Part of the frame was found secured on deck by means of welding. Stringer second section is on shore at Teluk Kalung Yard. Winch for stringer A frame is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation.	10,000
06	Pedestal Crane (Engine)	Pedestal crane engine was not in use and needing overhauling prior to put into operation. The hydraulic high-pressure hoses might need renewal. Pedestal crane docking pins (4 pcs) were unable to be used to prevent any movement of the crane.	5,000
07	Side Davits	4 sets of side davits are not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation.	8,000
08	Mooring Winch + HPU unit	Mooring Winch + HPU unit is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation.	4,000
09	Towing equipment	Delta plate, bridle chain, pennants, messenger wire, safety shackle, etc were found rusty and uncertain of their reusability.	10,000
10	Engine room bilge	Part of engine room bilge was found flooded with sea water.	Barge staff
11	Shackles	Several shackles of more that 1 ton found on deck and there were no record of thorough inspection and maintenance.	Barge staff

12	Yokohama fender	There was one Yokohama fender on deck without any maintenance record.	3,000
13	Vent heads	Several vent heads on deck found with wasted cover, nut-bolts.	4,000
14	Forklift	One forklift on deck and was not operational.	Barge staff
15	Storage containers	4 storage containers found on deck and most of them were found damaged on top part.	10,000
16	Eye wash	Eye wash on deck were not operational.	Barge staff
17	Bunker manifold	Bunker manifold flanges were found to be in open position.	Barge staff

Kindly be aware, the above quoted costs are estimates only. They may potentially assist with outline CAPEX considerations but should not be used for precise budget purposes. Amounts may vary, depending on various geographical maritime and commercial considerations.

		Cost estimation to restore the barge as accommodation barge	
#	Item	Comment	Est Cost (USD)
01	Survey and certification	Class and all statutory certificates had expired on 20 Jan 2024. The hull renewal is overdue since 20 Jan 2024. Last Bottom survey in dry condition was done on 21 Jan 2019 followed by in water survey on 12 Jan 2022 & 19 Jan 2024.  On 19 Jan 2024, commencement of renewal survey.  1. All ballast tank internal inspection with UTG have been carried out.  2. Bottom survey by diving have been carried by RINA approved diving company.  To complete the renewal survey	50,000
02	Radio	Radio Survey	5,000
03	Radio equipment	Radio Equipment repair and servicing (GMDSS battery, charger, VHF Battery, SART, etc)	25,000
	PA system	PA system mics were found damaged and hanging.	5,000
04	Mooring	Anchor Chain Layup, Marking and Gauging and transportations	10,000
05	LSA	LSA Inspection -life rafts (expired medicine and equipment)	30,000
06	FFA	Fire Fighting Equipment Inspection and renew defective extinguisher	30,000
07	Heli deck	Heli deck firefighting (Monitors)	5,000
08	FFA	Fire detection system	4,000
09	Docking & UTG	Docking general service and hull maintenance, paint.  The thickness measurement report dated 14-16 Jun 2023 was reviewed. The number spots measured was only 46 and the max diminution recorded to be max 2.61% and did not seem representative.	150,000
10	Hull & Fender	Hull repair, plate renewal, wooden fender repair	80,000
11	Ballast tanks	Ballast tank repair, plate renew	20,000
12	Others	Unforeseen defects, tank manhole door, ladder, internal bracket, girder, stiffener	50,000
13	Vent heads	Several vent heads on deck found with wasted cover, nut-bolts.	4,000
14	Sea chest	Sea gratings remove, clean and refit,	15,000
15	Lube oil	Lube oil renewal, analysis for all machineries	60,000

16	Crane	Crane Inspection, service and load test	10,000
17	Winches	Winches, Sheave & Fairlead repairs	10,000
18	A/E # 3	Since 18 Nov 2020, Decommissioning of Auxiliary Diesel Engine No.3 had been declared by owner. Manufacturer: Mitsubishi, Model Number: S16R-MPTK, Serial Number: 15188, MCR: 1690 kW Revolution: 1800 RPM Recommissioning of the engine shall be witnessed and verified by attending surveyor.	300,000
19	A/E # 4	Observed that Auxiliary Engine # 4 alternator was removed. To install back the alternator and overhauling of A/E # 4	100,000
20	Auxiliary Engine # 1 & # 2	The Auxiliary engines were not ready to operate.	100,000
21	Deck Generator	Deck generator was not in use and needing overhauling prior to put into operation.	12,000
22			
23	Hospital & Medicine	Medicine replenishment and issuance of medical chest cert.	5,000
24	Cabins	Cabins TV were missing. Several neds were found damaged (side protection wood was missing). Toilet basin dirty, basin taps damaged, shower hose damages.	5,000
25	Recreation room and common spaces	TV were missing, cosmetic condition deteriorated.	3,000
26	Refrigeration plant	The plant is not operational since 2019. The equipment looked intact. However, need complete overhauling and charging before starting the plant.	2,000
27	Barge control station	1 set x-band radar, Gyro, SSAS, UAIS, NAVTEX, were not operational and require complete servicing and renewal of magnetron.	20,000
28	SW pumps	SW pumps (2 set) was leaking and out of order.	4,000
29	Other pumps	Ballast, Chilled water, general service SW, Fresh water hydrophore, Main fire pumps were out of service and might have been seized and require complete overhauling and servicing.	10,000
30	RO Water maker	RO water maker is out of service and not been operating due to the close proximity to the shore.	10,000
31	OWS	OWS was not able to power up and test.	5,000
32	Sewage treatment	Sewage treatment plant is not in operation. Current crew on board has set up a temporary toilet and shower area at the fwd part which discharges directly to the sea.	5,000

33	Helicopter equipment	Helipad is reported to never be used and no helicopter operation equipment on board.	5,000
34	Rust and corrosion	Due to lack of maintenance and being exposed to weather condition, rust and corrosion has developed all over the barge. Maintenance including plate, brackets, supports renewal is expected.	50,000
35	Vessel Lay Up Commissioning	Vessel was put in Warm layup condition at Kemaman Anchorage, North 4.41.678 East 103.29.018 on 19 Jan 2024.	50,000
36	Engineering	Planning and execution manpower	10,000
37	Inspection	OVID Inspection	10,000
38	MLC Items	Laundry equipment, Galley equipment, Provision etc	15,000
39	Miscellaneous	Stores, spares,	50,000
		Total	1,329,000

	Additional for activation as pipe laying		
#	Item	Comment	Est Cost (USD)
01	Pipe-lay equipment	Pipe-lay equipment is not in operation for a long period of time and the barge side plate where the pipe is supposed to be laid down was found blocked. As per the interview, understood that the exhaust gas from the platform for the last job was entering the barge via that opening and burned the electric junction box of the pipelaying equipment.	60,000
02	Pipe-Lay Equipment Double Joint	Pipe-Lay Equipment Double Joint equipment is not in use and not been operating for several years.  Needing complete overhauling servicing prior to putting into operation as pipelay barge.	50,000
03	Pipe Tensioner Machine	Pipe Tensioner Machine is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation as pipelay barge.	20,000
04	AR Winche	AR Winche is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation as pipelay barge.	4,000
05	Stinger A frame	Stinger A frame is not in use and not been operating for several years. Part of the frame was found secured on deck by means of welding. Stringer second section is on shore at Teluk Kalung Yard. Winch for stringer A frame is not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation.	10,000

06	Pedestal Crane (Engine)	Pedestal crane engine was not in use and needing overhauling prior to put into operation. The hydraulic high-pressure hoses might need renewal. Pedestal crane docking pins (4 pcs) were unable to be used to prevent any movement of the crane.	5,000
07	Side Davits	4 sets of side davits are not in use and not been operating for several years. Needing complete overhauling servicing prior to putting into operation.	8,000
		Total	157,000

Kindly be aware, the above quoted costs are estimates only. They may potentially assist with outline considerations but should not be used for precise budget purposes. Amounts may vary, depending on various geographical maritime and commercial considerations.

## PORT STATE CONTROL INSPECTIONS

LAST 3 PORT STATE CONTROL INSPECTIONS			
Date of Inspection	-	-	-
Place of Inspections	-	-	-
Number of Deficiencies	-	-	-
Number of Outstanding Deficiencies	-	-	-
Deficiencies Details: 1. 2.	-	-	-
Comments / Notes:		-	

## **CONSUMPTION SUMMARY**

SHIP'S OPERATION	SPEED (Knots)	MACHINERY	L/D	TOTAL L/D
Laden Sea Voyage	N/A	Main Engine Auxiliary Engines Boiler	-	-
Ballast Sea Voyage	-	Main Engine Auxiliary Engines Boiler	-	-
Standby/Operations Sea Voyage	-	Main Engine Auxiliary Engines Boiler	-	-
In Port at Idle	-	Auxiliary Engines Boiler	291 -	291 -
In Port Cargo Operations	-	Auxiliary Engines Boiler	-	-
Jack-up Operations	-	Auxiliary Engines Boiler	-	-

NOTE: Non-propelled barge and not been deployed for operations for more than 5 years. The consumption above is computed basis 18 months total consumption in litres for deck, emergency generator and no 1 main generator's test run.

# **VESSELS PARTICULARS**

DETAILS		
Name	The Barge	
Previous Name	-	
Owner	The Barge LTD	
Managers		
IMO Number	-	
Flag	MALAYSIA	
Port of Registry	PORT KLANG	
Date of Build	2012	
Ship Builder	GRADE ONE MARINE SHIPYARD MALAYSIA	
Hull Number	-	
Type of Vessel	ACCOMMODATION AND PIPELAY BARGE	
Classification Society	RINA	
Classification Notation	SPECIAL SERVICE PIPELAY/ACCOMMODATION	
Call Sign		
MMSI Number	-	

DIMENSIONS			
Summer Deadweight	10367 MT	Т	
Gross	19760 TONNE	Т	
Net	5928 TONNE	Т	
Lightship	11580 MT	Т	
LOA	137.25 m	М	
LBP	135.00 m	М	
Breadth	37.82 m	М	
Depth	9.00 m	М	
Loaded Draught	4.5 m	М	

SUEZ CANAL TONNAGE			
<b>Gross</b> - t			
Net	-	t	

PANAMA CANAL TONNAGE			
Net	-	t	

## STATUTORY CERTIFICATES

	ISSUED	EXPIRY DATE
International Tonnage	18 FEB 2019	-
International Antifouling	18 NOV 2020	-
International Load Line	03 MARCH 2021	20 JAN 2024
Safety Construction	-	-
Safety Equipment	-	-
Safety Radio	-	-
MARPOL Oil (IOPP)	03 MARCH 2021	20 JAN 2024
MARPOL Air (IAPP)	03 MARCH 2021	20 JAN 2024
MARPOL Sewage (ISPP)	03 MARCH 2021	20 JAN 2024
Maritime Labour Certificate (MLC)	-	-
Energy Efficiency Certificate (EEC)	-	-
Green Passport / IHM Certificate	-	-
EEXI Certificate	-	-

	ISSUED	EXPIRY DATE
US Financial Responsibility	-	-
Certificate Number		-
International Ship Security Certificate (ISPS)	-	-
ISM Document of Compliance (DoC)	25 NOV 2019	24 NOV 2024
BWM Certificate	-	-
Certificate of Fitness	-	-

CARGO GEAR CERTIFICATES			
Annual	10 JAN 2023	10 JAN 2024	
5 Yearly	-	20 JAN 2024	

## **PREVIOUS INSPECTIONS**

LAST FLAG INSPECTION		
	ISSUED	
Date of Inspection	-	
Place of Inspection	-	
Number of Deficiencies	-	
<b>Deficiencies Rectified</b>	-	

CONDITIONS OF CLASS (CoC)				
СоС	ISSUED	EXPIRY DATE		
CoC Number:	-			
<b>Description:</b> As per the class survey status report dated 10 Jul 2024, barge was put on warm lay up on 19 Jan 2024.				
CoC Number:	-	-		
Description:				
CoC Number:	-	-		
Description:				

MEMORANDA RELATING TO HULL STRUCTURAL CONDITION			
	ISSUED EXPIRY DATE		
Memoranda Number:	-	-	
Description:			
Memoranda Number:	-	-	
Description:			
Memoranda Number:	-	-	
Description:			

## **CLASSIFICATION SURVEYS**

	ISSUED	DUE DATE AND RANGE
Hull Renewal	-	21 Oct 2022 – 30 Jan 2024
Hull Annual	19 Apr 2024	21 Oct 2024 – 20 Apr 2025
Machinery Renewal	20 Jan 2024	21 Oct 2023 – 20 Jan 2024
Intermediate Survey	12 Jan 2022	-
Machinery Annual	10 Jan 2023	-
Machinery Continuous Survey	-	-
Bottom Survey (Last IN Water)	19 Jan 2024	-
Tailshaft Complete	N/A	-
Tailshaft Annual	N/A	-
Auxiliary Boiler 1	N/A	-
Auxiliary Boiler 2	N/A	-
Exhaust Gas Economiser	N/A	-
Automation/UMS Complete	N/A	-
Automation/UMS Annual	N/A	-

Vessel is non-propelled barge.

Paper charts used to be used while in operation.

The vessel is not compliant with USCG Vessel General Permit (VGP) for discharges incidental to the normal operation of the vessel.

The vessel does not comply with the BWMC at this current mode of operation as per local regulation.

Complies with 2020 Low Sulphur Reg. by: MGO

Vessel has not been assigned multiple Load lines.

LAST DRYDOCK INFORMATION		
Date	21 Jan 2019	
Location	-	

WORK PERFORMED OUTSIDE NORMAL SCOPE	
-	

WAS LAST ULTRASONIC THICKNESS REPORT AVAILA	ABLE
Yes	

LAST RUDDER BEARING CLEARANCE						
	F-A P-S					
Upper	-	-				
Lower	-	-				

RANGE OF DIMINUTION		
	Percentage (%)	
Hull	0.56 ~ 2.22	
Deck	0.95 ~ 1.87	
Cargo Tanks	-	
SWB Tanks	1.80 ~ 2.61	

TAILSHAFT WEARDOWN			
	Previous	Before	After
Date	-	-	-
Тор	-	-	-
Bottom	-	-	-

DATE OF LAST ANCHOR CHAIN CALIBRATION
-

## **VESSEL CONDITION REPORT**

# 1.0 ESG (Environmental – Social – Governance)

# 1.1 ENVIRONMENTAL: Greenhouse Gas (GHG) Emission Reduction Strategies

OPERATIONAL CARBON INTENSITY INDICATOR (CII) RATING	FINDING	COMMENTS
Onboard approved and compliant SEEMP Part III Decarbonisation Plan (re-verification of Plan required every 3 years - after 01 <sup>st</sup> January 2023).	No	
Onboard Data Collection System (DCS) reporting system and valid Statement of Compliance (SoC).	No	
Verified Operational CII Grade	No	
Who is responsible for maintaining Operational CII Grade (Vessel Owner or Charterer)	No	

ENERGY EFFICIENCY for EXISTING SHIP INDEX (EEXI)	FINDING	COMMENTS
Required EEXI Rate (applies to vessels >400GRT)	No	
Attained EEXI Range	No	

ENERGY EFFICIENCY DEVICES / TECHNOLOGY FITTED: HULL / EXTERNAL	FINDING	COMMENTS
Hull Coating (Low-Coefficient)	No	
Air Lubrication System (ALS)	No	
Hull Shape Modification (eg Rudder Bulb, X-Bow)	No	
Pre-Swirl Device – Mewis Duct or Wake Equalising Duct	No	
Hi-Fin or Boss Cap Fin Propeller Fixing	No	
Stabiliser Fins	No	

Wind Assistance Device	No	
Other Devices – Description	No	
ENERGY EFFICIENCY DEVICES / TECHNOLOGY FITTED: ENGINES	FINDING	COMMENTS
Engine Power Limiter (EPL) Fitted Revised Output if Fitted: XXX kW/RPM Date of Implementation: XX.XX.XXXX Certificate Issuance Date: XX.XX.XXXX	N/A	
Optimised Fuel Economy Device (e.g. Leanmarine)	No	
Main Engine Carbon Emission Reduction Fittings - Exhaust Gas Recirculation (EGR) - Cylinder Oil Optimisation (ie Alfa Lubricators) - Fuel Injection Optimisation (ie Injectors, Fuel Pump)	N/A	
Other Devices – Description	No	

ENERGY EFFICIENCY SOLUTIONS: FUEL / BATTERY / TECHNOLOGY MODIFICATIONS	FINDING	COMMENTS
Methanol	No	
Other Biofuel Types	No	
Gas: LNG / LPG / Ammonia / Hydrogen	No	
Battery System	No	
Shore-side Connection	No	
Improved Route Planning Software installed (if YES – give details)	No	
Carbon Capture and Storage (CCS) considerations	No	
Other Devices – Description	No	

# 1.2 ENVIRONMENTAL: Other Applicable Environmental Observations

	FINDING	COMMENTS
Has the vessel a <b>Ballast Water Treatment Plan (BWTP)</b> - BWT System Description	N/A	
Has the vessel an <b>Inventory of Hazardous Material (IHM)</b> Certificate - Details of any other IHM related compliance documentation	No	
Has the vessel a <b>Sewage Treatment Plant</b> - Sewage Holding Tank Fitted - Sewage Treatment System Description eg Biological and / or Chemical (NaCl or NaCl and NaHS04)	YES	
Has the vessel an <b>Oil Water Separator(s) OWS</b> Fitted / Approved - OWS Description - OWS Description eg. compliance with MEPC.60(33) – In force up to 2005 (Alarm and Stop) or MEPC.107(49) – In Force for Vessels after 2005 (Alarm / Threeway valve / Recirculation).	YES	
Has the vessel an <b>Incinerator</b> (in compliance with MARPOL Annex VI, Regulation 16)	NO	
Stern Tube (and Bow Thruster) Environmentally Acceptable Lubricants (EAL)  - Meets EALs Standard Oil in Use (Type)  - Water Based Stern Tube Lubrication  - Air Seal Arrangement (Air Seals working with non-EAL are considered as alternative to EAL use by EPA, in principle)	N/A	
US EPA <b>Vessel General Permit (VGP)</b> Compliant - Certificate (not) provided. The vessel is (not) compliant with USCG Vessel General Permit (VGP) for discharges incidental to the normal operation of the vessel.	No	
Has the vessel an <b>Oil Discharge Monitoring Equipment (ODME)</b> Fitted - Approved Type – Annex I - Approved Type – Annex II	N/A	
Has the vessel a <b>Garbage Management Plan Fitted</b> - Is Garbage Segregation Implemented Onboard - Last Garbage Shore Discharge Date (taken from Garbage Record Book) - Are all entries signed by Officer in Charge - Are Receipts for Discharging Garbage Ashore Retained	No	
Has the vessel a Marine Casualties Record	No	

# 1.3 SOCIAL: Health, Safety and Security Observations

	FINDING	COMMENTS
IMO ISM Code Safety Management System (SMS) being implemented effectively onboard	No	
ISO 45001 (Occupational Health and Safety Management System) being effectively implemented onboard	No	
Good / hygienic catering and enhanced dietary selection available to all crew	No	
Modern and reliable Wi-Fi facilities available to all crew	No	
Good access to Bonded Store to all crew	N/A	
Adequate onboard crew training available	No	
Structured periods of rest being implemented and adhered to	No	
Level of crew wellbeing and morale	GOOD	
Sufficient levels of safety and medical PPE available for crew? e.g. FFP2 masks, gloves etc.	YES	
Level of available onboard medical treatment and mental health support	No	
Condition of the onboard Hospital and medical equipment / supplies	Poor	
Has the vessel a crew <b>Incidents / Accidents Record</b> - Reported Lost Time Incidents (LTI's) / Casualties over last 12 months - If Yes – Details of reported Lost Time Incidents (LTI's) / Casualties	No	
Structured Crew Recruiting Policy and Procedures being adhered to onboard. Structured crew career development Policy / Procedures	N/A	
Crew shoreside communication access facilities	Yes	
Onboard fitness facilities	YES	

## 1.4 GOVERNANCE: Onboard observations

	FINDING	COMMENTS
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Labour Rights and Diversity of the Workforce Policy and Procedures are visible and being correctly implemented onboard.	No	
Business Ethics Policy and Procedures being adhered to onboard. i.e. code of conduct, anti- corruption, bribery, whistleblowing etc.	No	
Cyber Security Policy and Procedures being adhered to onboard.	No	
Onshore independent employment and legal support services available to all crew.	No	
Marine Sustainability / Protection Policy and Procedures being adhered to onboard	No	

# **2.0 HULL**

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Number of Frames			74		
	Number of Watertight Bulkheads			5		
Docies	Quality of Fabrication			✓		
Design	Visible Strength of Original Scantlings			✓		
	Current Hull Coating Condition			✓		
	Visible Premature Corrosion			Yes		
Tomoldo	Topside Condition Port			✓		
Topside	Topside Condition Starboard			✓		
Dank Tan	Boot-Top Condition Port			✓		
Boot-Top	Boot-Top Condition Starboard			✓		
Bottom	Bottom Condition			✓		
Marking	Name, IMO, Draughts and Port of Registry			✓		

OVERALL RATING FAIR
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#### **HULL DESCRIPTION AND CONDITION:**

Ship's hull was found to have hard rust and corrosion. Markings were faded. Paint damaged. Marine growth observed. Wooden fenders on port side were washed away.

## 3.0 DECKS

## 3.1 DECKS - FORECASTLE

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Design	Quality of Fabrication			✓		
	Quality of Machinery and Fittings			✓		
	Does Deck have Original Coatings			Yes		
	Visible Premature Corrosion			No		
	Condition of Coatings			✓		
	Condition of Steel Deck Plating			✓		
Deck and Fitting	Condition of Vents and Fittings				✓	
	Condition of Bulwarks/Handrails			✓		
	Condition of Windless/Mooring Winches			✓		
Mooring	Condition of Fairleads			✓		
Machinery	Condition of Rollers	-	-	-	-	-
	Condition of Mooring Ropes	-	-	-	-	-

	Condition of Mast and Mast House	-	-	-	-	-
Favoratio	Condition of Bosun Store			✓		
Forecastle	Condition of Other Forecastle Spaces			✓		
	Condition of Bow Thruster Room	-	-	-	-	-
OVERALL RATING				FAIR		

#### **FORECASTLE DESCRIPTION AND CONDITION:**

Mooring stations were found to be in fair condition. The positioning system was deployed by means of 4 buoys and anchors at 4 corners of the barge. Winches were visually found to be in good condition. Winches were maintained, tested and used, especially during rough weather to pay in/out the wires keep low wires tension and safe position and to adjust the tension and keep the barge in safe position.

## 3.2 DECKS - MAIN/UPPER DECK

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Quality of Fabrication			✓		
Docian	Quality of Machinery and Fittings			✓		
Design	Does Deck have Original Coatings			Yes		
	Premature/Stress Corrosion or Pitting					
	Condition of Coatings to Deck Plating		✓			
Dools	Condition of Steel Deck Plating/Frames		✓			
Deck	Condition of Vents and Fittings	Fittings ✓	✓			
	Condition of Bulwarks/Handrails		✓			
Fittings	Condition of Mooring Winches/Equipment			✓		

Condition of Manholes	<b>√</b>		
Condition of Pipeline and Supports  Condition of Manholes	<b>√</b>	<b>V</b>	

## **DECKS - MAIN/UPPER DECK DESCRIPTION AND CONDITION:**

Barge main deck was loaded with several storage containers, deck generator, compressor, forklift, Yokohama fender, stinger frame etc. In general, the condition of pain was fair. Due to lack of manpower and no employment of the barge the cosmetic condition was fair.

## 3.3 DECKS - POOP DECK

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Docima	Quality of Fabrication			✓		
	Quality of Machinery and Fittings			✓		
Design	Does Deck have Original Coatings	Yes				
	Premature Corrosion or Pitting			No		
	Condition of Coatings			✓		
D. d.	Condition of Steel Deck Plating			✓		
Deck	Condition of Vents and Fittings			✓		
	Condition of Bulwarks/Handrails			✓		
	Condition of Windlass/Mooring Winches	-	-	-	-	-
Fittings	Condition of Fairleads	-	-	-	-	-

Condition of Rollers	-	-	-	-	-
OVERALL RATING			FAIR		

#### **DECKS - POOP DECK DESCRIPTION AND CONDITION:**

Mooring stations were found to be in fair condition. The positioning system was deployed by means of 4 buoys and anchors at 4 corners of the barge. Winches were visually found to be in good condition. Winches were maintained, tested and used, especially during rough weather to pay in/out the wires keep low wires tension and safe position and to adjust the tension and keep the barge in safe position.

## 3.4 EXTERNAL SUPERSTRUCTURE - SUPERSTRUCTURE AND DECKS

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Quality of Design and Fabrication		✓			
Do alimu	Number of Decks			4		
Design	Anti-Piracy Fittings					✓
	Premature Corrosion/Deformation			No		
	Superstructure		✓			
	Decks/Stairs		✓			
Condition	Watertight Flaps and Doors		✓			
	Mast		✓			
	Funnel		✓			
OVERALL RATING				GOOD		

#### **EXTERNAL SUPERSTRUCTURE - SUPERSTRUCTURE AND DECKS DESCRIPTION AND CONDITION:**

Crew maintains the superstructure well. Ongoing painting and maintenance were found to be in place. Current crew normally do not use the crew

## 3.5 DECKS - HELICOPTER PAD

Helipad/ Winching Area	Helicopter Facilities Fitted  Location of safety equipment	Yes N/A
OVERALL RATING		POOR

#### **DECKS - HELICOPTER PAD DESCRIPTION AND CONDITION:**

Helipad was found to be well maintained and was approved by ABS for UK CAA CAP 437 standard for "Sikorsky S92". Helideck certificate expired since 2018. To comply with the latest CAP 437, some upgrading works need to be done e.g. TDPM Lightings. As per the crew this helipad was last used in 2013. Currently the helicopter equipment was not on board.

## 4.0 DECK EQUIPMENT

## 4.1 DECK EQUIPMENT - DECK CRANES

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS FACTORY
	Manufacturer	FAVELLE FAVCO				
Cargo Crane	Туре	PC300				
	Capacity	280T RAD 8m AT 77DEG				
	Position	AFT STBD SHIP				
	Maximum Outreach	18 m				
Cargo Handling Equipment	No. of Grabs	Nil				
	Size	N/A				

	No of Spreaders	N/A				
	SWL	N/A				
Dooise	Quality of Design and Fabrication			✓		
Design	Premature Corrosion/Deformation	No				
	Cargo Crane	-	-	-	-	-
	Hydraulic Systems	-	-	-	-	-
Condition	Controls	-	-	-	-	-
Condition	Limit Switches	-	-	-	-	-
	Wires/Sheaves	-	-	-	-	-
	Last Rocking Test Date			-		
Provisions and	Number and Capacity of Provisions Cranes			-		
Other Cranes	Location of Provisions Cranes	-				
	Provisions Cranes	-	-	-	-	-
	Other Cranes	-	-	-	-	-
Condition	Hydraulic/Electrical Systems	-	-	-	-	-
	Controls/Limit Switches	-	-	-	-	-
	Wires and Sheaves	-	-	-	-	-
OVERALL RATING				POOR		

## **DECK EQUIPMENT – DECK CRANES AND DERRICKS DESCRIPTION AND CONDITION:**

The SWL of the crane was reduced to 138.90 tons on 18 Nov 2020. Pedestal crane engine was not in use and needing overhauling prior to put into operation. The hydraulic high-pressure hoses might need renewal. Pedestal crane docking pins (4 pcs) were unable to be used to prevent any movement of the crane.

# 4.2 DECK EQUIPMENT - MOORING MACHINERY AND EQUIPMENT

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Manufacturer	N/A				
Windlasses	Туре	-				
	Capacity	-				
	Manufacturer	MAC GREGOR				
Winches	Туре		Н	YDRAULIC TYPE		
	Capacity	50 T				
	Quality of Design and Fabrication			✓		
	Premature Corrosion/Deformation	No				
	Winch Housings			✓		
Condition	Foundations			<b>√</b>		
Condition	Brake Bands/Liners			✓		
	Linkages	-	-	-	-	-
	Cable Lifter/Rope Drums	-	-	-	-	-
	Warping Head	-	-	-	-	-
	Number Fitted	1				
Hydraulic Power	Туре	P4435-HMW/SD-125/200-(P1*)				
Pack	Capacity	50 T				
	Leaks			No		
	Condition of Power Pack	-	-	-	-	-

	Туре	FLIPPER DELTA					
Anchor	Number and Weight	6 X 10MT					
	Condition of Flukes and Housing						
	Grade	-					
Cables	Design Diameter	52mm					
	Length	1500m					
Regulatory	Warnings to Seafarers; Mooring Areas	N/A					
OVERALL RATING		FAIR					

### **DECK EQUIPMENT - MOORING MACHINERY AND EQUIPMENT DESCRIPTION AND CONDITION:**

Winches were maintained, tested and used, especially during rough weather to pay in/out the wires keep low wires tension and safe position and to adjust the tension and keep the barge in safe position. Preventative maintenance has routinely been conducted to the mooring system, buoys wires etc with last report received as per documentation Feb-Apr 2024.

## 5.0 JACK UP SYSTEM & TANK STORAGE CAPACITIES

	Maker	N/A
	Туре	-
	No of Jacking units	-
Jacking System	No. of jacking motors	-
	Static pull/rack	-
	Maximum hull elevation	-
	Leg	-

## **5.1 TANK STORAGE CAPACITIES**

	ТҮРЕ	NUMBER	m³
	Ballast Water / Brine		7284.4 MT
	Cement/Barites		N/A
	Mud		N/A
	Fresh Water		4744.1 MT
Cargo Tanks	Lube Oil		57.43 MT
Capacities	FO / DO Day tanks		4797.57 MT
	Seawater Holding		N/A
	Void Tanks		N/A
	Dirty Oil		31.512 MT
	Sewage		32.50 m3
		TOTAL	16,944.512 MT

## 6.0 BALLAST TANKS

	NUMBER	FRAMES	m³		NUMBER	FRAMES	m³
	FP SWB (S)		920.900		N0 6 SWB (P)		262.520
	NO 2 SWB DB (S)		170.620		NO 6 SWB DB (C)		377.970
	FP SWB (S)		920.900		N0 7 SWB DB (C)		472.550
	NO 2 SWB DB (P)		170.620		N0 7 SWB DB (S)		136.500
				Ballast Tank Capacities	N0 8 SWB DB (S)		187.690
Ballast Tank	NO 3 SWB DB (C)		252.060		N0 8 SWB DB (CS)		425.080
Capacities	N0 4 SWB DB (C)		354.330		NO 7 SWB DB (P)		136.500
	N0 5 SWB (S)		731.390		NO 8 SWB DB (P)		187.680
	N0 5 SWB DB (CS)		141.750		NO 8 SWB DB (CP)		425.080
	N0 6 SWB (S)		252.200		AFT DB CW (P)		321.450
	N0 5 SWB (P)		767.990				
	N0 5 SWB DB (CP)		141.750		TOTAL	7757.	53m³

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Tanks Inspected		FO 6P, No 3 P	ortable water, \	WBT 4C & 3C	
	Condition of Manhole/Access			✓		
	Condition of Stringer Deck Plating			✓		
	Condition of Web Frames			<b>√</b>		
Ballast Tank	Condition of Inner Shell Plating			✓		
Inspections	Condition of Double Bottom			✓		
	Condition of Pipelines and Bell Mouth	-	-	-	-	-
	Is There Mud or Other Contaminants?			No		
	Percentage Intact of Anodes	-				
	Deformations to Scantlings	No				
	Number Fitted	2 NOS				
	Manufacturer	ALLWEILER				
Ballast Pumps	Туре	CENTRIFUGAL				
	Capacity		300	m³/h @ 30m W	/G	
	Condition of Ballast Pumps	-	-	-	-	-
	Manufacturer			N/A		
	Туре			-		
Ballast Water	Capacity			-		
Treatment Plant (BWTP)	USCG Approval?			-		
(BWIF)	Condition of BWTP	-	-	-	-	-
	If Not Fitted – Is There Sufficient Space for a BWTP			N/A		

#### **BALLAST DESCRIPTION AND CONDITION:**

WBT 4C, 3C, No 3 Portable water tank and Fuel oil 6P were inspected from the manhole top without entering the space. The company had restricted the access to the internal tank entry. For the limited access, the tank coating was found to be in fair condition. Ladders in good condition and no significant mud/sediment were noticed.

### 6.1 TANKS - OTHER TANK CAPACITIES

	NUMBER	m³
	MGO DAY TK 1	32.825
	MGO DAY TK 2	32.825
	MGO SETT TK	57.435
	MGO STOR (6P)	505.436
Heavy Diesel Oil (MDO) Tanks	MGO STOR (6S)	442.628
Idliks	MGO STOR (7C)	1345.176
	MGO STOR (8FC)	1345.261
	MGO STOR (8AC)	1069.815
	TOTAL	4831.401 m³

	NUMBER	m³
Tanks Converted	HFO to MGO Capacity	-
	MGO STOR (P)	-
	MGO STOR (S)	-
Marine Diesel Oil	MGO TK 1 (S)	-
(MDO) Tanks	MGO SETT TK	-
	MGO SERV TK	-
	MGO SERV TK FOR HPP	-
TOTAL		m <sup>3</sup>
Endurance	(Nautical Miles)	-
	Total Potable Fresh Water Capacity	1965.43 MT
Other Tanks	Total Technical Fresh Water Capacity	-
	Lube Oil Capacity	57.43 MT
	Miscellaneous Tanks	-

## 7.0 ACCOMMODATION

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	10 X 1 MEN CABIN			10 MEN		
	135 X 2 MEN CABIN			270 MEN		
	4 X 4 MEN CABIN			16 MEN		
Design	Number of Accommodation Decks			9 DECKS		
	Complement (maximum)			<b>296</b> MEN		
	Number of Crew Currently on Board			6 PAX		
	Shower & Toilet Facilities	SINGLE AND SHARING TYPE				
	Quality of Fabrication and Furnishings	-	✓	-	✓	✓
	Premature Damages to Furnishings			No		
	Condition/Cleanliness of Common Areas		✓			
	Condition/Cleanliness of Crew Cabins		✓			
Condition and	Condition/Cleanliness of Officer Cabins		✓			
Cleanliness	Condition/Cleanliness of Wet Areas		✓			
	Condition/Cleanliness of Flooring		✓			
	Condition/Cleanliness of Furnishings		✓			
Haanital	Condition		✓			
Hospital	Medicine Stock Levels	-	-	-	-	-
Intounct	Availability for Officers			No		
Internet	Availability for Crew			No		

OVERALL RATING	GOOD

#### **ACCOMMODATION DESCRIPTION AND CONDITION:**

The accommodation area was well maintained. The current crew doesn't use the main accommodation space. A makeshift arrangement of cooking and dining and rest area is made on deck next the emergency generator room.

## 7.1 ACCOMMODATION - GALLEY, PROVISION AND REFRIGERATED ROOMS

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Equipment		✓			
	Flooring		✓			
	Galley		✓			
Condition and	Provisions	-	-	-	-	-
Cleanliness	Pantry		✓			
	Mess Rooms		✓			
	Ventilation		✓			
	Build-Up of Ice in Chambers			-		
	Fish Room Temperature			-		
	Meat Room Temperature			-		
Temperatures	Vegetable Room Temperature			-		
	Dairy Room Temperature			-		
	Handling Room Temperature			-		
	OVERALL RATING			FAIR		

#### ACCOMMODATION - GALLEY, PROVISION AND REFRIGERATED ROOMS DESCRIPTION AND CONDITION: .

The 9-deck The Barge (a non-propelled, non-conventional special service accommodation barge) has the capacity to accommodate 296 pax including the barge crew. The accommodation facility as per below.

Single Cabin with Toilet x 10 : 10 Men (Deck 3)

Twin Sharing Cabin Single Toilet x 31 : 62 Men (Deck 3 & 2)

Twin Sharing Cabin Share Toilet X 104 : 208 Men (Deck 1, Tween deck & Tank top)

Quadruplet Sharing Cabin Share Toilet x 4: 16 Men (Tank top)

She is also able to provide 12 offices, namely, Barge Master office (One), Client Office (Three), Contractor's Office (Eight). The conference room is located at deck 3 which can accommodate 20 pax. The conference has the facility to project. There is a small cabinet to serve snacks at the conference room attendees. The Const. Superintendent (OCS) office is located next to the conference room and was fitted with monitors, sofa, TV and computer. The Client site reps (CSR) offices were designed with monitors, computers and full office facilities. The television was missing from this office. The arrival/departure briefing room was also on deck 3 which was designed with 15 pax sitting arrangements. Chief engineer office was well designed and maintained as expected. The barge master office and radio room at deck 3 were well designed and maintained. The radio equipment was switched off and they were beyond their service period validity, hence unable to ascertain the conditions. The control room was designed with a clear and broad view on the main deck area facing aft. The console panel was found open with busbars exposed; the monitors were out of order. Other than the GPS, rest of the equipment were switched off. Navigation/signal light panel was in operation. The Furuno radar was fitted and switched off. Fire and gas detection system, local & total firefighting main control panel was also located here. Pipe lay control panel is also located in this space. The winch power was available during the inspection and the control panel was in this room. The Consilium water mist control panel in the space was switched off. Gyro repeater appeared in good condition and the power was off.

The only one large galley with modern cooking appliances can cook dishes for 300 pax. Galley spaces are well spread out with different areas for washing, thawing, cutting, cooking, preparation, and service. Proper Bain Maries have been provided for serving hot food. Galley walls and ceilings are lined with stainless for easy cleaning and avoid bacterial growth. The spaces are fitted with proper non-slip tiles and good drainage channels covered with slotted stainless-steel covers. The galley is fitted with 3 ice cube maker, 4 oven, hot plates, food warmer, storage racks, 3 beverage dispensers, 2 water dispenser, glass door chiller, and mess room can accommodate 108 pax at one time. The TV & Recreation room is located next to the mess room. The furniture and facilities were adequate. These are located at the service deck.

The TV & Cinema room is located at Deck 1 which was next to the internet room. Currently the internet services and stations were out of service. However, the infrastructure was satisfactory.

The gymnasium is fitted with modern multi gym equipment and was found to be well maintained. The barge document and HSSE Office was the place where surveyor carried out opening/closing meetings and verified drawings, documents etc. All manuals, records, are kept in this office.

The large change room, Hospital, Para medic room, laundry room, 3 offices, coffee shop, Emergency generator room, rigging store, workshop, welding consumable store, warehouse, paint store are located at main deck. She is also provided with three prayer rooms which was located at tween deck, tank top and deck 1. The hospital facility with the sick bay found to be in good condition. The phone booth (3) was found to be clean and well maintained. The laundry is quite large and includes several types and sizes of washing machines and driers.

Air Conditioning in accommodation areas were turned on for the purpose of this survey and the aircon performance was satisfactory and towards the end the cooling sea water pump was reported to be damaged. The air conditioning of the vessel was in good condition.

Reefer Chambers and Dry Stores are walk-in cold rooms and under-counter cold spaces have been provided on board; and it is understood from the Barge Leader/Mechanic that the refrigeration system is working in good order on board but currently switched off due to warm layup condition.

The accommodation area was well maintained. The current crew doesn't use the main accommodation space. A makeshift arrangement of cooking and dining and rest area is made on deck next the emergency generator room. Layup crew using small chiller/freezer which is fit for 7pax on board.

8.0 DP EQUIPMENT

010 27 2 201		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	FMEA Thrust Arrangement			N/A		
Thrust	FMEA Redundancy Groups Assignment			-		
	Thrust Capacity			-		
	DP Rating			-		
	Position Reference 1			-		
DP Equipment	Position Reference 2			-		
	Position Reference 3			-		
	Position Reference 4			-		

Position Reference 5	<del>-</del>
How many wind sensors input into the DP System	-
How many gyros input into the DP System	-
How many Motion Reference Units (MRUs) input into the DP System	-
Is the DP System reported to be working well and or evidence of last functional operation.  (Enquire of the last project, review deck logbooks and completed DP / 500m Zone checklists).	-
DP2/DP3 Joystick	-
Bus tie in DP Operations*	-
OVERALL RATING	-

**DP EQUIPMENT DESCRIPTION AND CONDITION:** 

N/A

# 8.1 BRIDGE AND COMMUNICATION EQUIPMENT

	EQUIPMENT	MANUFACTURER	ТҮРЕ
	Magnetic Compass	CASSENS & PLAITH	-
	Gyro Compass	SIMRAD	SIMRAD GC80
	Auto Pilot	-	-
Navigation Equipment	Course Recorder	-	-
_4	Off Course Alarm	-	-
	Radar No. 1	Furuno	far-2827
	Radar No. 2	-	-

	A.R.P.A.	-	-
	ECDIS 1	-	-
	ECDIS 2	-	-
	GPS 1/2	FURUNO	FURUNO GP 150
	AIS	FURUNO	FURUNO FA-150
	Voyage Date Recorder	-	-
	Echo Sounder	SKIPPER	SKIPPER GDS102
	Speed Log	-	-
	Charts and Pilot Books	Paper	-
	Flags and Shapes	-	-
	Weather Facsimile	-	-
	Anemometer/Scope	-	-
	Internal Communication	Yes	-
	Fire Detection System	Eltek Fire & Safety	-
	BNWAS	-	-
	Fleet Broadband	-	-
	VHF Radiotelephone	McMURDO	McMURDO R2
	DSC on Channel 70	-	-
Communication Equipment for	Ships Radar Transponder	McMURDO	McMURDO S4
All Sea Area	NAVTEX on 518kHz	FURUNO	FURUNO NX-700A
	INMARSAT EGC Receiver	-	-
	Satellite EPIRB	McMURDO	McMURDO ES SMARTFIND

	MF/HF Radio Installation		-			-
	2182kHz Watch Keeping Receiver		-		-	
Communication Equipment for	DSC Watch Keeping		-			-
Sea Area A1, A2, and A3	VHF Handheld		ICC	М	ICON	1 1C-A6
71 <b>2</b> , and 71 <b>3</b>	INMARSAT Ship Earth Station		-			-
	LRIT		-			-
		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Quality of Fittings/Furnishings	-	+	+	-	-
	Quality of Equipment	-	-	-	-	-
Design	Visibility	-	-	-	-	-
	Temperature in Bridge	-	-	-	-	-
	Contract for NTM and Publications			-		
Charts and Publications	ECDIS in Use and Approved			-		
	Last NTM Update			-		
	Condition/Cleanliness of Bridge	-	-	-	-	-
Condition,	Logbook Information	-	-	-	-	-
Cleanliness and Organisation	Masters Standing Order Visible			No		
Organisation	Condition of Batteries' Room	-	-	+	-	-
	Condition of Antennae/Transponders			✓		
	OVERALL RATING			-		

#### **BRIDGE AND COMMUNICATION EQUIPMENT DESCRIPTION AND CONDITION:**

This is a non-propelled barge. The barge was in its warm layup mode. There was no barge master on board. The equipment was switched off and hence unable to ascertain the condition of the bridge and communication equipment. Following were the Communication & Navigation Equipment provided on board.

VSAT: 1 x Seatel 9797-32C-Band, GMDSS: KU-Band TX/RX Antennas, GMDSS VHF: 1 x Furuno RC-1800F, VHF/FM: 3 x Mcmurdo R2, VHF/AM: 2 X Furuno FM-88005, VHF AM Portable: 1 x ICOM 1C-A110, UHF VHF Portable: 1 x ICOM 1C-A6, NAVTEX Receiver: 2 X Furuno GM-300, SART: 1 X Furuno NX-700A, EPRIB: 2 x Mcmurdo S4, UAIS: 1 x Mcmurdo ES SMARTFIND, SSAS: 1 x Furuno fa-150, Marine Radar: 1 x Furuno felcom-15, X-Band: 1 x Furuno far-2827, Echo Sounder: 1 x Skipper GDS 102, GPS: 1 x Furuno GP 150, Gyro Compass: 1 x Raytheon Anschutz 110-233, Magnetic Compass: 1 x Cassens & Plaith Reflecta 17.

#### 9.0 ENGINE ROOM

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Layout		✓			
Design	Quality of Structure/Build		✓			
	Areas for Servicing/Repairs		✓			
	General		✓			
	Walkways/Stairs		✓			
Condition	Emergency Escapes		✓			
	Pipelines		✓			
	Bilges		✓			
Degulatem	Stern Tube Seal EAL Compliant			N/A		
Regulatory	VGP			-		

OVERALL RATING	FAIR
Available Space for Fitting EGS	-
EGS Type	<del>-</del>
Exhaust Gas Scrubber (EGS) Fitted	-

#### **ENGINE ROOM DESCRIPTION AND CONDITION:**

Ship was designed with four Mitsubishi (S16R-MPTK) main generator with a capacity of 1500kW each. Currently No 3 generator was decommissioned. No 4 alternator was removed. No 1 & 2 used to be run during operation in Sep 2019 as seen from old engine logbook. The record shows these generators were maintained & inspected since Nov 2022 to Apr 2024. She is also provided with one deck generator Maker caterpillar, model 3512B with a capacity of 1200kW. The emergency generator with a capacity of 500kW, maker Caterpillar, model 3412C was the only generator being used often by the layup crew and found to be operating in normal parameter.

The two main air compressors with a capacity of 875Cfm @ 10 bar, maker Sullair, model TS20-200HH AC SULL appeared to be in good condition. The air receiver 2x3000 litres @ 10 bar were in sound condition. However, they have not been used for several years.

The oily water separator with a capacity of 1m3/hour @ 15 ppm, maker Ocean Clean Water Treatment, model Ocean Clean 1.0 EB appeared to be in good condition. However, was unable to test during the inspection.

The barge was in its warm layup mode. There was no operation crew on board except for minimum layup crew. All the machineries and equipment were switched off and hence unable to ascertain the condition of the engine room machineries. None of the auxiliary engines were in operational mode. Bilges were partially flooded by sea water due to leak form air con cooling sea water pump which could be rectified by overhauling and servicing of the pumps.

### 9.1 ENGINE ROOM - BOILER/ECONOMISER

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Auxiliam, Pailar	Number of Sets			N/A		
Auxiliary Boiler	Manufacturer and Type			-		

	Maximum Evaporation Rate			-		
	Working Pressure			-		
Economiser/	Manufacturer and Type			-		
<b>Exhaust Gas</b>	Maximum Evaporation Rate			-		
Boiler	Working Pressure			-		
	Boiler 1	-	-	-	-	-
	Boiler 2	-	-	-	-	-
	Economiser	-	-	-	-	-
Condition	Efficiency of Economiser at Eco. Speed			-		
Condition	Piping	-	-	-	-	-
	Uptakes	-	-	-	-	-
	Number of Tubes Plugged			-		
	Feedwater Treatment	-	-	-	-	-
	At Sea			t/d		
G	In Port			t/d		
Consumption	Tank Heating			t/d		
	Tank Cleaning			t/d		
	OVERALL RATING			-		

**ENGINE ROOM - BOILER/ECONOMISER DESCRIPTION AND CONDITION:** 

N/A

## 9.2 ENGINE ROOM – AUXILIARY MACHINERY

		VERY GOOD	GOOD	FAIR	POOR	UNSATISFACTORY		
	Pumps' Manufacturer(s)		ALLWE!	LER/DBR PUN	/IPEN/Denken			
	No. of SW Cooling Pumps			2				
	No. of Auxiliary SW Cooling Pumps			-				
	No. of Main FW Pumps			-				
	No. of LT FW Cooling Pumps			-				
	Hot water Calorifier			2				
	Fresh water hydrophore			1				
Pumps	General service pump			1				
	Chilled water pump			2				
	No. of HT FW Cooling Pumps			-				
	No. of Jacket FW Cooling Pumps			-				
	No. of Main LO Cooling Pumps			-				
	Ballast Water Pump			2				
	Heeling Pumps Automation Type			-				
	Condition of Pumps	✓						
	Compressor Manufacturer			SULLAIR	₹			
Compressors	No. of Main Starting Compressors			2				
	No. of Working/ Deck Compressors			2				

	Emergency Compressor	-
	Leaks	-
	Air Drier Fitted	-
	Condition of Compressors	
	Condition of Air Receivers	
	Air-Conditioning Manufacturer	DAIKIN AND CLIMAVENETA
	No. of AC Units	2 + 2
Air-Conditioning and Provisions	Provision Machinery Manufacturer	BITZER
Machinery	No. of Provisions Machinery Units	2 NOS
	Condition of AC Machinery	<b>√</b>
	Condition of Provisions Machinery	
	Manufacturer and Type	N/A
Incinerator	Capacity	
	Condition	
	Manufacturer and Type	SEAWATERWORLD
RO Water Generator	Output - Design/Actual	70 t/d -
	FW Generator Condition	
	Manufacturer and Type	OCEAN CLEAN / KD-OCEANCLEAN 300 VACUUM
Sewage Plant	Flushing Type	Vacuum
	Condition	
Dunisi aa	Manufacturer	N/A
Purifiers	No. and Type of HFO	-

	No. and Type of MDO			-				
	No. and Type of Auxiliary HFO	-						
	No. and Type of LO	-						
	Leaks			-				
	Condition of Purifiers	-	-	-	-	-		
Coolers	Condition of Coolers	-	-	-	-	-		
	Manufacturer and Type		DECKI	MA HAMBURG	, OMD-2005			
Oily Water Separator (OWS)	Capacity of OWS			1 m³/h @ 1!	5PPM			
. ,	Condition of OWS	-	-	-	-	-		
Cathodic	Fitted			Yes				
Protection System (CPS)	Manufacturer and Type			MGPS				
	Workshop Machinery			✓				
Waykahan	Cleanliness			✓				
Workshop	Availability of Tools			✓				
	Spare Parts Stowage			✓				
	OVERALL RATING			FAIR				

#### **ENGINE ROOM - AUXILIARY MACHINERY DESCRIPTION AND CONDITION:**

The two main air compressors with a capacity of 875Cfm @ 10 bar, maker Sullair, model TS20-200HH AC SULL appeared to be in good condition.

The air receiver 2x3000 litres @ 10 bar were in sound condition. However, they have not been used for several years.

The oily water separator with a capacity of 1m3/hour @ 15 ppm, maker Ocean Clean Water Treatment, model Ocean Clean 1.0 EB appeared to be in good condition. However, was unable to test during the inspection.

The barge was in its warm layup mode. There was no operation crew on board except for minimum layup crew. All the machineries and equipment were switched off and hence unable to ascertain the condition of the engine room machineries.

### 9.3 ENGINE ROOM - ENGINE CONTROL ROOM

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Layout		✓			
Dasima	Monitoring Equipment	-	-	-	-	-
Design	Automation Fitted			No		
	Is Automation in use? (UMS)			No		
	ECR (general)		✓			
	Switchboards/Gauges		✓			
Condition and	Rubber Matting		✓			
Performance	24V / 220V / 440V Earth Leaks			-		
	Generators Running in Parallel			-		
	Temperature in ECR		✓			
	OVERALL RATING			GOOD		

#### **ENGINE ROOM - ENGINE CONTROL ROOM DESCRIPTION AND CONDITION:**

The main generators were not running. MSB were not functional, and the monitoring system was switched off. Overall, the ECR found to be in good condition.

### 9.4 ENGINE ROOM - ENGINE ROOM CRANE

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Main Crane	Capacity of Crane			N/A		
Main Crane	Condition of Crane	-	-	-	-	-
Other	Condition of Other Rated Beams	-	-	-	-	-
	OVERALL RATING			-		

**ENGINE ROOM - ENGINE ROOM CRANE DESCRIPTION AND CONDITION:** 

N/A

## 9.5 ENGINE ROOM - STEERING GEAR / AZIMUTH SYSTEM

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Steering gear / Azimuth System	Manufacturer			N/A		
Rudder	Туре			N/A		
	Steering Gear	-	-	-	-	-
Condition	Hydraulics	-	-	-	-	-
	Steering Room	-	-	-	-	-
	OVERALL RATING			-		

**ENGINE ROOM - STEERING GEAR DESCRIPTION AND CONDITION:** 

N/A

# 9.6 ENGINE ROOM - BOW/STERN THRUSTER

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
Bow Thruster	Manufacturer			N/A		
	Туре			N/A		
	Condition	-	-	-	-	-
	Manufacturer			N/A		
Stern Thruster	Туре			N/A		
	Condition	-	-	-	-	-
	OVERALL RATING					

**ENGINE ROOM - BOW/STERN THRUSTER DESCRIPTION AND CONDITION:** 

N/A

## 9.7 MAIN ENGINE

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY
	Manufacturer			N/A		
	Туре			-		
	Turbo Charger(s)			-		
	M.C.R./RPM			-		
	C.S.R./RPM			-		
	Barred Speed Range			-		
	Condition of Head Area	-	-	-	-	-
Main Engine	Condition of Middle Area and Housing	-	-	-	-	-
	Condition of Lower Area and Housing	-	-	-	-	-
	Condition of Bilge Below Engine	-	-	-	-	-
	Consumption CSR () Kn () RPM	t	:/d laden		t/d ballas	t
	Consumption Eco. () Kn () RPM	t	:/d laden		t/d ballas	t
	Bunker Viscosity			cSt		
	Cylinder Oil Consumption			l/d		
	System Oil Consumption			l/d		
	Manufacturer			-		
Dadwatian Carn	Туре			-		
Reduction Gear	Leaks			-		
	Condition of Reduction Gears	-	-	-	-	-

	Manufacturer			-			
Propeller	Туре			-			
	Diameter	-					
	Material	-					
CDD	Manufacturer and Type			-			
СРР	Condition of Hydraulic System	-	-	-	-	-	
			-				

#### MAIN ENGINE DESCRIPTION AND CONDITION:

N/A

## 9.8 AUXILIARY GENERATORS DATA

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY			
	Number of Sets	3 SETS							
	Manufacturers	MITSUBISHI							
Auxiliary Generators	Туре	S16R-MPTK							
	Turbo Charger	-							
	Power Output		PM						
	Manufacturer and Type			N/A					
<b>Shaft Generator</b>	Output	<del>-</del>							
	Condition	-	-	-	-	-			
A/E No. 1	Engine	-	-	-	-	-			

	Alternator	-	-	-	-	-			
	Leaks			-					
	Engine	-	-	-	-	-			
A/E No. 2	Alternator	-	-	-	-	-			
	Leaks			-					
	Engine	-	-	-	-	-			
A/E No. 3	Alternator	-	-	-	-	-			
	Leaks			-					
	Engine	-	-	-	-	-			
A/E No. 4	Alternator	-	-	-	-	-			
	Leaks			-					
	Manufacturer and Type	CATERPILLAR							
	Output	500kW @ 1800 RPM							
Emergency Generator	Engine		✓						
	Alternator		✓						
	Leaks			No					
General	Condition of Switchboards		✓						
General	Condition of Uptakes		✓						
	Fuel/Diesel Oil			-					
Consumption	Lubricating Oil	-							
	Bunker Viscosity			-					
Megger Test	Frequency			-					

Last Test Results	-	-	-	-	-
OVERALL RATING			Good		

#### **AUXILIARY GENERATORS DATA DESCRIPTION AND CONDITION:**

Ship was designed with four Mitsubishi (S16R-MPTK) main generator with a capacity of 1500kW each. Currently No 3 generator was decommissioned. No 4 alternator was removed. No 1 & 2 used to be run during operation in Sep 2019 as seen from old engine logbook. The record shows these generators were maintained & inspected since Nov 2022 to Apr 2024. She is also provided with one deck generator Maker caterpillar, model 3512B with a capacity of 1200kW. The emergency generator with a capacity of 500kW, maker Caterpillar, model 3412C was the only generator being used often by the layup crew and found to be operating in normal parameter.

### 10.0 MANAGEMENT AND MAINTENANCE

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY	
1	Language of Documentation			ENGLISH			
Language	Language Onboard			MALAY			
Safety	Is a Safety Management System in Place?			YES			
Management System (SMS)  Is SMC Being Implemented		No					
Planned	PMS System Software Type	CMMS					
Maintenance	PMS Class Approved						
System (PMS)	Officers' Familiarity with Program			✓			
Cyber Security	Cyber Security Compliance with IMO Jan 2021 Regulations?			Nil			
	Cyber Systems Details			-			
General	Organisation of Records			✓			

#### MAINTENANCE RECORDS DESCRIPTION AND CONDITION:

The barge was in operation up until Sep 2019. The old records of maintenance were reviewed, and evidence showed that he computer-based PMS in conjunction with the paper files were well maintained. Currently only one computer in the ECR was operational. As per the interview with the onboard crew, it was revealed that the CMMS (computer-based PMS) was shut-down, maintenance (by the minimum crew) was recorded manually, quarterly summary was sent to office.

### 10.1 FIRE AND SAFETY EQUIPMENT

		VERY GOOD	GOOD	FAIR	POOR	UNSATIS- FACTORY	
	Manufacturer			N/A			
	Туре	-					
	Material						
	Capacity						
Port Lifeboat	Propulsion	-					
Lifeboat	Lifeboat Falls Renewed	-					
	Last Inspection	-					
	Condition	-	-	-	-	-	
	Lifeboat Falls	-	-	-	-	-	
High Speed	Manufacturer	JIANYING WOLONG					
Rescue Boat /	Туре	OPEN					
FRC	Material			FIBRE GLASS			

	Capacity			6 PERSON				
	Propulsion		OUTBOARD	ENGINE (60HP	MERCURY)			
	Lifeboat Falls Renewed			-				
	Last Inspection			-				
	Lifeboat Falls	-	-	-	-	-		
	Condition of Rescue Boat		✓					
	Condition of Rescue Boat Cradle		✓					
	Manufacturer			KEISHA				
	No. and Capacity Port Side	13 UNITS X 25 PERSON						
	No. and Capacity Starboard Side	13 UNITS X 25 PERSON						
Liferafts	No. and Capacity Forward	N/A						
	Condition of Liferafts				<b>√</b>			
	Last Liferafts Inspection Date	Jan 2023						
	Condition of Hydrostatic Releases				✓			
	Number Provided			-				
	Spare Bottles			-				
SCBA	Manufacturer and Type			_				
	Condition of SCBA Sets	-	-	-	-	-		
	Last Inspection of SCBA			-				
	Number Provided			-				
EEBD	Manufacturer and Type			HUAYAN				
	Condition of EEBD	-			✓			

	Last Inspection Date	2018
SCBA	Manufacturer and Type	-
Compressor	Condition	
	CO <sub>2</sub> Areas Covered	Engine room
CO2	Number of Bottles	-
CO2	CO <sub>2</sub> Last Inspection Date	Jan 2023
	CO <sub>2</sub> Room Condition	✓
	Halon areas covered	<del>-</del>
Halon	Number of Bottles	<del>-</del>
паюн	Halon Last Inspection Date	<del>-</del>
	Halon Room Condition	
	Manufacturer	ALLWEILER
	Туре	CENTRIFUGAL
	Capacity	m³/h @ bar
Fire Pumps	Condition of Fire Pumps	
riie ruiiips	Emergency Manufacturer and Type	- -
	Emergency Capacity	-
	Location of Emergency Pump	-
	Condition of Emergency Fire Pump	
	Application/Areas Covered	- -
Foam System	Tank(s) Capacity	<del>-</del>
	Foam Sample Date	

	Condition of Equipment	-	-	-	-	-	
	Fitted	Yes					
Water Mist System	Areas Covered						
,	Condition	-	-	-	-	-	
	Fire Detection System Condition	-	-	-	-	-	
	Last Fire Extinguisher Inspection Date						
General LSA/FFE	Condition of Fire Extinguishers				✓		
·	No. of Immersion Suits			Nil			
	Condition of Immersion Suits	-	-	-	-	-	
			POOR				

#### **SAFETY AND LSA EQUIPMENT DESCRIPTION AND CONDITION:**

Lifesaving Equipment, Rescue Boats 2 of 6 Persons each (SOLAS/USCG Approved), Life raft 26 x 25 men (SOLAS/USCG Approved), Life jacket 650 units (SOLAS Approved), life buoy 12 units (SOLAS/USCG Approved). However, they all were overdue for servicing since Jan 2024.

Firefighting System, Wet chemical for galley hood, FM-200 switch board room, automatic sprinkler system for accommodation, public area, working area and storage spaces, Water mist for machinery room, automatic fire and smoke detection system, Fire monitor system, CO2 system. Like lifesaving equipment, firefighting systems were also overdue for servicing and certification. All LSA & FFA were out of service date. Life jacket battery expired. Rescue boat (fwd and aft) battery and provisions expired. Extinguishers servicing. EPIRB, SART, MOB, Flares are expired. Life buoys found damaged. EEBD, SCBA were out of service date. The barge crew shared a video clip for lowering of one the rescue boats in Apr 2024. According to the lay-up maintenance program "lay-up condition surveys" are to be performed in lieu of the normal surveys which are no longer required to be carried out as long as the ship remains layup.

## **OPERATIONAL DATA**

## 10.2 MANOEUVRING CHARACTERISTICS

		RPM / Pitch %	LOADED	BALLAST
	Full Sea	N/A	N/A	N/A
	Full	N/A	N/A	N/A
Manoeuvring Speed	Half	N/A	N/A	N/A
	Slow	N/A	N/A	N/A
	Dead Slow	N/A	N/A	N/A

### 10.3 MAIN ENGINE RUNNING HOURS

<b>TO</b> 1	ΓAL:	Running	g Hours							
						Н	OURS SINCE L	AST OVERHAL	JL	
СОМР	O/H INTERVAL	1	2	3	4	5	6	7	8	9
Piston	-	-	-	-	-	-	-	-	-	-
Cylinder Head	-	-	-	-	-	-	-	-	-	-
Cylinder Liner	-	-	-	-	-	-	-	-	-	-
Exhaust Valve	-	-	-	-	-	-	-	-	-	-
Fuel Injectors	-	-	-	-	-	-	-	-	-	-
Turbo Charger						-				

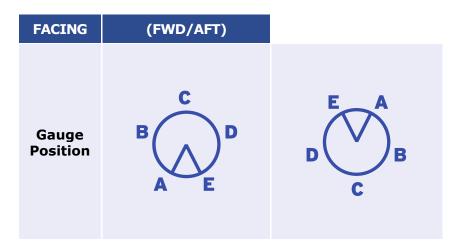
### 10.4 LAST MAIN ENGINE PERFORMANCE TEST

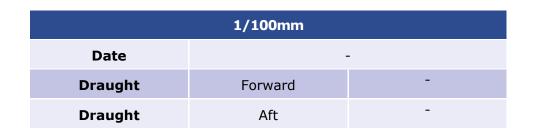
DATE	i:									
UNIT No:	1	2	3	4	5	6	7	8	9	
P Max	-	-	-	-	-	-	-	-	-	
P Comp	-	-	-	-	-	-	-	-	-	
Exhaust Temp	-	-	-	-	-	-	-	-	-	
	FUEL RACK SETTING					RPM		SCAV. PRESS.		
_						-		-		

## 10.5 PERFORMANCE

DATE	VOYAGE	LOADED/ BALLAST	RPM	SPEED (NM)	SLIP (%)	F.O. 24 h CONS	D.O. 24 h CONS	CYL. OIL CONS
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-

## 10.6 CRANKSHAFT DEFLECTIONS





UNIT No:	1	2	3	4	5	6	7	8	9
A	-	-	-	-	-	-	-	-	-
В	-	-	-	-	-	-	-	-	-
С	-	-	-	-	-	-	-	-	-
D	-	-	-	-	-	-	-	-	-
E	-	-	-	-	-	-	-	-	-

### 10.7 MAIN ENGINE CYLINDER LINER WEAR RECORD

CYLINER	TOTAL RUNNING HOURS @ DATE	MAX. RECORDED WEAR mm	MAX. RECORDED OVAILITY mm	REMARKS
1	Hrs / Date	+	-	-
2	-	-	-	-
3	-	F	-	-
4	-	-	-	-
5	-	+	-	-
6	-	-	-	-
7	-	F	-	-
8	-	-	-	-
9	-	-	-	-
	CYLINER DIAME	TER	-	

## 10.8 AUXILIARY ENGINE ON LOAD

No	LOAD (Iday)	CYLINDER OUTLET EXHAUST TEMPERATURE						
No. LOAD (kW)	1	2	3	4	5	6		
1	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	

### 10.9 RUNNING HOURS OF AUXILIARY ENGINE

No.	TOTAL HOURS	HOURS SINCE LAST O/H	HOURS SINCE LAST OIL CHANGE
1	-	-	-
2	-	-	-
3	-	-	-
<b>Emergency Generator</b>	1688	No record of O/H	200

### 10.10SPARE PARTS

	Tailshaft	N/A
Major Spare Parts	Propeller	N/A
	Anchor	No
	Cylinder Covers	N/A
	Cylinder Cover Inserts	N/A
	Main Engine Cylinder Liners	N/A
	Piston and Rod Assembly	N/A
	Piston Head	N/A
Main Engine Spare Parts	Exhaust Valves Complete	N/A
Spare Faits	Bottom End Bearing	N/A
	Set Thrust Pads	N/A
	Main Bearing	N/A
	Cross Head Pin	N/A
	Cross Head Bearings	N/A
CDADE DADTE DEC	CDIDTION AND CONDITION:	

**SPARE PARTS DESCRIPTION AND CONDITION:** 

### 10.11 LUBE OIL ANALYSIS SUMMARY

	Main Engine	N/A			
Propulsion	Reduction Gear	N/A			
	Stern Tube	N/A			
	No. 1	Not available on board			
	No. 2	Not available on board			
Auxiliary Engine Generators	No. 3	Not available on board			
	No. 4	Not available on board			
	Emergency	N/A			
a	Steering Gear No. 1	N/A			
Steering	Steering Gear No. 2	No analysis done			
Causa Cuana	Cargo Crane No. 1	N/A			
Cargo Cranes	Cargo Crane No. 2	N/A			
Hydraulic	Cargo	No analysis done			
Power Packs	Winches	N/A			
Thurstone	Bow Thruster	N/A			
Thrusters	Stern Thruster	N/A			
Report Date	N <sub>i</sub>	/A			
Samples Drawn					
LURE OIL ANALYSIS SUMMARY REPORTS ATTACHED IF ARNORMALITIES FOUND.					

#### **LUBE OIL ANALYSIS SUMMARY REPORTS ATTACHED IF ABNORMALITIES FOUND:**

No record available on board.

# 10.12 CRANE(S) WIRE RENEWAL DATES

CRANE	HOISTING	LUFFING	SPARES
1	No record of replacement		
2	N/A		
3	N/A		
4	N/A		

## 10.13 CARGO HISTORY

DATE	VOYAGE No.	LOADING PORT	DISCHARGE PORT	CARGO	QUANTITY
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

### 10.14 MINIMUM SAFE MANNING

Administration: N/A				
MINIMUM SAFE MANNING CERTIFICATES				
REQUIRED RANK	#			
Master	-			
Chief Officer	-			
2nd Officer	-			
3rd Officer	-			
	-			
Chief Engineer	-			
2nd Engineer	-			
Engine Officer	-			
Engine Officer	-			
АВ	-			
os	-			
Oiler/Fitter	-			
Cook	-			
TOTAL	-			

IMO CREW LIST (ACTUALLY ONBOARD)				
RANK ONBOARD	#	NATIONALITY		
Master	-			
Chief Officer	-			
2nd Officer	-			
3rd Officer	-			
Deck Cadet	-			
Chief Engineer	-			
Barge leader / Mechanic	1	Malaysian		
3rd Engineer	-			
4th Engineer	-			
Engine Cadet	-			
Bosun / Security	1	Malaysian		
AB / Rigger	1	Malaysian		
OS	-			
Oiler/Watchkeeper	1	Malaysian		
Electrician / Watchkeeper	1	Malaysian		
Snr Elec / Barge Admin	1	Malaysian		
Rigger / Cook	1	Malaysian		
Messman	-			
TOTAL	7			

## 10.15 ESSENTIAL DOCUMENTS ONBOARD

DOCUMENTS	SUPPLIED	APPROVED	DOCUMENTS	SUPPLIED	APPROVED
Bridge Logbook	No	-	International Energy Efficiency Manual	N/A	N/A
Engine Room Logbook	No	-	Ballast Water Management Plan IMO 868 (20)	N/A	N/A
Stability Book	Yes	Yes	Ballast Water Record Book (BWRB)	N/A	N/A
Garbage Record Book	No	No	Last Notice to Mariners	No	-
Oil Record Book	No	No	Light List and Radio Signals	No	-
GMDSS Logbook	No	No	Construction Drawings	Yes	Yes
Sounding Book	No	No	Damage Control Plans	No	-
Loading Computer	No	No	Fire Plan	Yes	Yes
Sea Trial Results	No	No	Enhanced Survey Plan (ESP)	No	-
Finished Plans and Instruction Books	Yes	Yes	Continuous Synopsis Record (CSR)	No	-
Safety Equipment Training Manual	Yes	No	Condition Assessment Program (CAP)	NA	NA
Shipboard Oil Pollution Emergency Plan	Yes	Yes	P&A Manual	NA	NA

## **BACKPIECE**

Clients are respectfully reminded that this report is the product of a Superficial Inspection conducted 'against the clock'. Whilst we are of the opinion that we have established the overall condition of the vessel, it should be borne in mind that much of the internal structure has not been entered and that the majority of equipment was not working during the inspection. Any estimated costs of repairs or opinions expressed in this report are subjective by the attending surveyor and without prejudice to the interests of any or all of the parties concerned.

REFERENCE:	ISSUE:	REVISION:	DATE:
TBD	1	09	24.01.2024