

Annual Report 2023 Port State Inspections

IRCLASS

INDIAN REGISTER OF SHIPPING

FOREWORD:

This report provides statistics and analysis on results of PSC inspections & detentions for the year 2023 under various MOUs including USCG.

While the PSC inspections focused on verifying mandatory requirements applicable to marine safety, security and maritime labor convention etc. to discourage sub-standard vessels; concentrated inspection campaign (CIC) specific on Fire Safety was also conducted jointly by the member authorities of the Tokyo and Paris MOU from 1st September to 30th November 2023. Detentions statistics for year 2023 indicated high number of deficiencies pertaining to fire safety including issues to demonstrate readiness of vessel to handle emergencies.

While detentions under USCG & Abuja MoU continues to remain zero for last three years, detentions under Paris MOU reduced almost by 50 percent as compared to year 2022.

Slight increase in number of detentions was noted for Mediterranean & Indian Ocean and Black Sea MOUs in year 2023 as compared to previous two years. Tokyo MoU had maximum number of detentions for year 2023.

Detailed information related to performance under port state control follows in the subsequent pages.

Performance of IRS under Tokyo, Paris MOUs and under USCG is provided below:

BLOCK YEARS	PERFORMANCE CATEGORY UNDER TOKYO MOU	THREE YEAR'S AVERAGE DETENTION RATIO UNDER USCG	PERFORMANCE CATEGORY UNDER PARIS MOU
2019-2021	"Zero RO related detentions" with overall Satisfactory results	0.00%	MEDIUM
2020-2022	"Zero RO related detentions" with overall Satisfactory results	0.00%	MEDIUM
2021-2023	High	0.00%	MEDIUM

DETENTIONS IN YEAR 2023 BASED ON CERTIFICATES ISSUED BY IRS:

CERTIFICATION STATUS OF DETAINED SHIPS					
Class & Statutory Certificates by IRS	Only Class or Class & specific Statutory Certificates by IRS	Only DOC issued to the company	ISM BY IRS		Total no. of Detentions
			Detentions of Classed Vessel	Detentions of non-classed vessels	
30	7	18	32	2	55

Out of 55 detentions, 37 detentions are for Classed vessels and 18 detentions are for non-classed vessels. Out of these for 34 vessels, safety management audits were undertaken by IRS.

DETENTIONS IN YEAR 2023:

A total of 37 detentions of classed vessels under various PSC MOUs were recorded as detailed below:

PSC MOUs/ Authorities	Number of Inspections	Total Number of Detentions	Ratio of Total No. of Detentions/ No. of inspection	Attributed to RO Responsibility
TOKYO	230	17	0.07	0
PARIS	79	7	0.09	2
BLACK SEA	147	5	0.03	0
MEDITERRANEAN	94	3	0.03	1
RIYADH	47	2	0.04	0
INDIAN OCEAN	48	3	0.06	0
USCG	12	0	0.00	0
ABUJA	11	0	0.00	0
TOTAL	668	37	0.06	3

(# one detention under Indian Ocean MoU & Riyadh MoU is common and recorded only under Riyadh MoU in above table)

Two of the detentions under Paris MoU and one under Mediterranean MOU have been attributed to RO responsibility.

DETENTION FLAG WISE								
PANAMA	INDIAN	LIBERIA	BARBADOS	GABON	PALAU	UAE	VANUATU	TOTAL
11	8	7	4	2	3	1	1	37

DETENTION TYPE WISE				
OIL TANKER	BULK CARRIER	GENERAL CARGO	OTHER CARGO	TOTAL
19	9	7	2	37

DETENTIONS AGE WISE						
>25yrs	20 to 25yrs	15 to 20yrs	10 to 15yrs	5 to 10yrs	0 to 5yrs	TOTAL
5	10	11	11	0	0	37

DETAILS OF PSC DETAINABLE DEFICIENCIES:

Total 192 detainable deficiencies were recorded in year 2023 on Classed vessels.

Category	Deficiency
Fire Safety	Foam tank room insulation material damaged at many areas and unable to maintain fire division standard.
	During the inspection some self-closing fire doors of the staircase were found not properly closing and some others were found fixed in open position by ropes or other devices.
	Galley fire doors are hooked back and the sliding hatches for food servery failed to close.
	Ship emergency fire pump was unable to pressurise the fire main during operational test.
	Fire alarm and detection system faulty (4 detectors failure).
	Fire detection & alarm system sighted with alarm. Crew unable to reset.
	HC detection system not in use during cargo operation. The flow alarm showing after the system switched on. The automatic sequence sampling function failure and engine room showing HC high content alarm.
	ER bilges (Aux. engine separators room) accumulated MDO with dirt. Fire hazard
	CO2 system for ER has been found not ready to be used. Near CO2 cabinet there was a dedicated place to put the key to open the cabinet but, at the time of the inspection, it was empty and the key not readily available.
	Fire line to deck store port side sprinkler system found ruptured during operational test.
	Ship paint locker fixed water spraying system all nozzles were unable to provide water spray at the time of operational test.
	The CO2 pipe for No. 3 hold - broken at the No. 3 cargo hold STBD side.
	The fix water mist at purifiers room found in operational during PSC inspection.
	Annual Servicing of mobile and portable extinguishers found expired.
	Fire Blanket found damaged and holed at various locations.
	Fireman outfit face shield found broken and shoes damaged.
	Switch valve for foam pipe on the bow found seized.
	Water leakage observed on the fire hoses and some fire hydrants.
	One SCBA set annual servicing found expired.
	Dirty oil and dirty rags around engine room.
	Several supports, brackets, nuts on brackets of fire line outside of superstructure totally rusted away. e.g. Nav. Deck, C-Deck, B-deck.
	Fire isolation valve defective. The water pumped out during the closure of mentioned valve.
	Isolation valves in fire control station unable to isolate water to main deck during operational test.
	One isolating valve on middle deck fire main found seized and another two isolating valves on deck bow fire main found non-functional.
	Priming system (auto air/ejector type), of main fire pump No. 2 not working. Excessive long time to demonstrate function. Same defect observed at main fire pump No. 1 and Main Central SW cooling pump is considered. Suction valves of fire pump no 2 not holding.
	After the ESD1 (Emergency stop of ventilation) was initiated the mechanical ventilation could not be restarted within reasonable time.
	During the inspection, after several attempts, no evidence that the quick closing valve for main engine fuel inlet is properly working.
The F.O inlet valve of No.3 G/E cannot be closed remotely.	
2 fire dampers control unit for 4 vent. of E/R out of order.	

	Funnel flaps were found locked in open position and not ready for operation in case of emergency.
	The FO leakage alarm of No. 2 G/E and No. 3 G/E malfunction.
	The visual fire alarm in the vessel's engine room did not operate
	Engine room incinerator local water mist system sighted with ineffective spray pattern at time of operational test.
	Fire main isolation valve at fire control station was found leaking and unable to isolate the water flow in term of emergency.
	Large amounts of oil accumulated on surface of main engines and underneath of No. 2 & No. 3 generators.
	Oil accumulation in the E/R resulted from various leakage.
	Oil soaked pipe lagging and oil found in the engine room floors at various places. This is posing fire hazard in engine room.
	Cargo pump room bilge high level alarm P&S out of work.
	Fire safety /maintenance of fire protection systems/main fire line was found wasted and holed with heavy leakage and covered with rags near cargo manifolds.
	F.O. Leakage alarm of No.3 G/E defective.
	ressure fuel oil pipe leaking alarm of No.2 G/E defective.
	The visual fire alarm in the vessels engine room did not operate.
MLC	Galley sighted with live cockroaches crawling on freshly made dough at time of inspection.
	Medical chest found expired.
	Many crew member wages found not at time of inspection. (Cases 7)
	Expired medicines found in the first aid box on Bridge Deck.
	Very poor hygiene & housekeeping in all the ship's part. (unhealthy).
	The living accommodation installation in a very poor condition, a warm air is flowing from an unauthorized opening affecting the temperature inside the accommodation.
	Many unauthorized openings in the ceilings passing wires unsafely.(2)
	The floor paintings in the E/R are not secured & unsafe.
	The engine compartment in general is in very poor condition.(2)
	Non-approved lighting covers all inside the accommodation.(3)
	Corrosion noticed on the flooring, fire flaps & W.T doors/openings.
	Dirty oil and dirty rags around engine room.
Life Saving Appliances	Lifeboats launching appliances lost power.
	Air supply system of STBD side L/B out of order. The air cannot be supplied under control.
	PS lifeboat sprinkler system not working.
	Free -Fall L/B annual certificate expired.
	Lifeboat engine start failure during inspection.
	L/B Engine working condition defective. Propeller slow moving -Full ahead revolving speed about 20 RPM
	The emergency light for life raft in the Bow bracket seized result in not being rotated.
	Rescue boat annual certificate expired.
	The abandon ship drill failed; it takes up to 1h to take the rescue boat (PS lifeboat) back in. Now the boat is provisionally secured into the lines. Forward hook is not resetting. Lifeboat could not be hoisted. Parts of the hooks deformed. Shackle for fall preventing device heavily corroded. Safe position of locking mechanism could not be verified without boarding the boats. E.g. SB boat forward hook. Instruction plate on hook for safe locking unreadable. Additionally electric cables for disembarkation lights are not fixed to their cable rail.
	The hydraulic oil tank of rescue boat's launching broken & leaking seriously.
	One of the two life rafts during the inspection was found to be improperly stowed.

	The swivel of both floating blocks on PS life boat are still frozen. In order to properly examine the PS lifeboat has been suspended in 2 chain blocs.
	The limit switch for starboard side lifeboat out of order.
	The stop rotated switch (covered the patch hole of hand gear handles) for launching appliances of starboard side lifeboat out of order.
	Rescue boat davit found inoperative due to a failure of the pump. Flag and class conditions received during the inspection pursuant to the request of the company stating that the ship is allowed to sail if the davit can be manually operated. Though many attempts have been performed, the effectiveness of the manual operation could not be demonstrated.
	Few life jacket batteries expired. Many life jackets found painted.
	The life jacket of an A/B was found to have a light that was not solidly attached to it.
	Embarkation ladders used for life boat broken.
	The side rope of embarkation ladder STBD side deteriorated and broken.
	The port side lifeboat falls not maintained and inspected according to lifesaving appliance onboard maintenance plan. The boat fall remain in tension during sea going and the load may cause damage to the boat falls in the situation
	Lifeboat should be manoeuvred in water as required by the regulation. It was found from the ship staff that vessel had not manoeuvred lifeboat in water since October 2022.
	MOB markers self-ignition light battery found expired in Feb 2023.
Pollution prevention	Dirty oil mixture from machinery's contaminated with bilge water in bilge wells in engine room.
	HFO extremely spread to BWT and during De-Ballasting the mixture were pumped overboard.
	Oily mixture in the bilges, the bilges are in poor condition & dirty.
	No return fluid seen in return pipe, no chemical tablets in pocket of chloritization tank. Sewage treatment plant defective.
	Oily water separator - cannot stop automatically upon 15ppm alarm.
	Sewage treatment plant chlorination not carried out because the chlorine tablet stuck. Contact with water streaming not proper.
	No water could be detected on the sample valve for the overboard line. Proper function of the 3-vay valve could not be verified.
	The chamber of the sewage treatment plant rusted and holed.
	The sewage treatment plant found on auto & open overboard to sea.
	Sewage treatment plant was not in use in port. Untreated sewage transferred to APT, and the mentioned tank not approved by class as sewage holding tank.
	The ship discharged un-comminated food waste into the sea from shore in August 2023.
	Garbage was discharged to another boat on two dates. The waste delivery receipt not provided & key person not familiar with the garbage management plan.
	A full record of adjustments or modification to the engine after its pre-certification not recorded completely on record book of engine parameters. All EIAPPS on board issued by Class not confirmed by new RO after the flag have been changed.
	One air conditioner with refrigerant R407C/R410A (non- ODS) in the wheelhouse malfunctioned in October 2023. After repairing work, the air conditioner was modified to use refrigerant R22 (ODS) and kept in operation afterwards. Moreover, other three air conditioners with R22 as refrigerant listed in supplement to IAPP certificate are in operation on board, but there is no ODS record book on board.
	The Sulphur content of F.O. being used on board exceeds the applicable limit required by MARPOL ANNEX VI R. 14, as a result of the sample analysis by accredited laboratory on 09/10/2023.
	Ballast water management system not installed on board as per BWM convention.
	Ballast water treatment system inoperative.
	MOB markers self-ignition light battery found expired in Feb 2023.

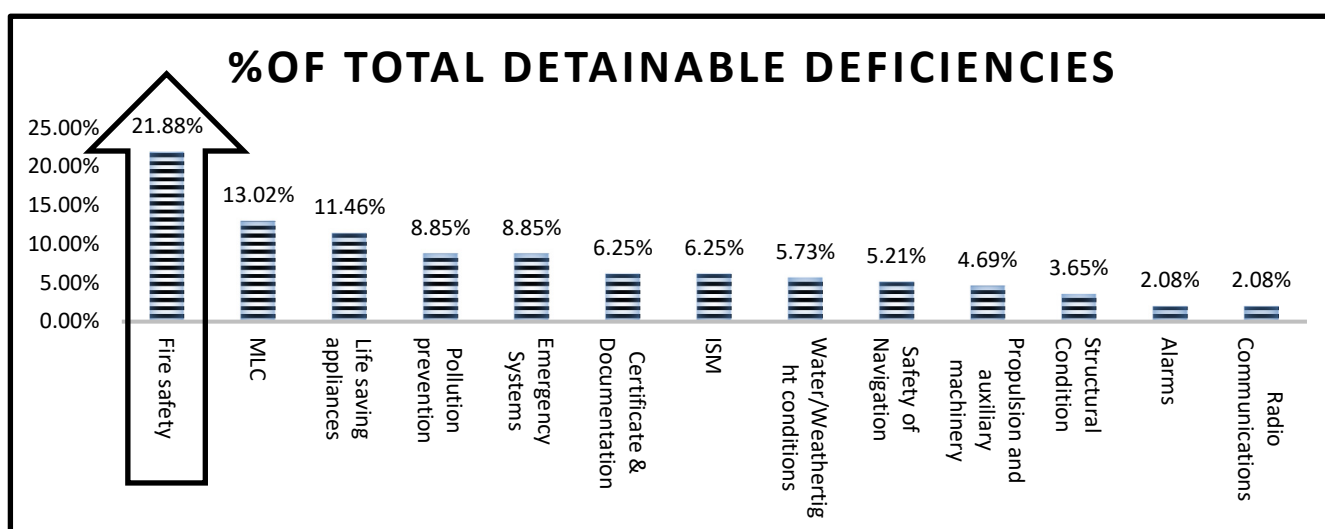
Emergency Systems	Emergency fire pump unable to pressurise the fire main during operational test.
	Priming pump of emergency fire pump not working. The pump is frozen. The rubber clutch wheel already locally worn out by the driving shaft wheel. During emergency fire pump test, burning rubber smell and smoke observed.
	ALDIS lamp found not operational with main and emergency source of power.
	At least 10 pieces Emergency light not working.
	After the simulated black out, initiated in ECR, the normal power could not be re-connected to the Emergency circuit. It took up to 1h to restore the power supply.
	At demonstration of simulated black out test the EMDG did not start. Later during the inspection round an unexpected black out occurred & EMDG did not take over.
	Emergency generator found unable to start manually and automatically during operation test despite multiple attempts.
	Emergency communication between steering gear and bridge doesn't work.
	Emergency telephone from E/R to wheel house found not working on emergency power.
	All safety equipment should be operational at all times. It was found during inspection that quick closing valves not operating from remote. (not as required).
	220 Volt and 440 Volt has been detected low insulation in ECR.
	The electrical wiring underneath the GMDSS station is exposed and unsafe.
	Several brake plates for several winches in poor condition. Metal plates corroded. PS forward winch brake path shifted.
	Non-approved lighting covers all inside the accommodation.
	During abandon ship drill chief officer and one engineer approached to prepare the life rafts but accordingly to muster list it was a duty of the able seafarers.
	Cook was not familiar with CO2 smothering system for galley vents, nor location of key for operating & crew were not familiar with the operation of the emerg. steering on the lifeboat.
	The engine compartment in general is in very poor condition.
Certificate & Documentation	Able Seamen does not have the COP as required by Minimum Safe Manning Document requirement.
	Some Engineers found in possession of one of the flag's COC with Reg III/2 and found not complying to the Minimum Safe Manning Document requirement.
	Engine room rating does not have the COP as required by Minimum Safe Manning Document requirement.
	Minimum safe manning document - original is missing on board.
	LSA training manual is not providing proper information about safe handling onload release hooks of both lifeboats. Drawings are not reflecting the actual hooks. Confirmation of safe securing position could not be found.
	Official log book of Palau Flag not found onboard.
	Some Engineers & Officers do not have current Flag states Equivalent Certificate of Competency.
	Tonnage certificate - original is missing on board.
	Tonnage certificate and Cargo Ship Safety Certificate found issued by RO on behalf of previous flag and same found expired.
	Crew on board not in accordance with Minimum Safe Manning issued by flag state. Same deficiencies were noted during the previous PSC inspection.
	SEA (Seafarer's employment agreement) for chief engineer found expired.
	Ship safety management certificate- original is missing on board (only copy).
International ship security cert. expired.	
ISM	As evidenced with ISM related deficiencies reveal that shipboard safety management system was not effectively implemented onboard as per ISM code element 10. (cases 4)
	Safety management cert. expired.
	Dirty oil mixture from machinery's contaminated with bilge water in bilge wells in engine room.

	The Principal Ballast Water Management method employed on this ship is in accordance with regulation D-2, No evidence available that ballast water was treated before discharged to the sea many times, key person not familiar with the ballast water management plan.
	The abandon ship drill failed; it takes up to 1h to take the rescue boat (PS lifeboat) back in. Now the boat is provisionally secured into the lines. Forward hook is not resetting. Lifeboat could not be hoisted. Parts of the hooks deformed. Shackle for fall preventing device heavily corroded. Safe position of locking mechanism could not be verified without boarding the boats. E.g. SB boat forward hook. Instruction plate on hook for safe locking unreadable. Additionally electric cables for disembarkation lights are not fixed to their cable rail.
	Main fire line was found wasted and holed with heavy leakage and covered with rags near cargo manifolds.
	Bilge water found above tank top in eng. room & STBD bilge well alarm found not working.
	The Principal Ballast Water Management method employed on this ship is in accordance with regulation D-2. No evidence available that ballast water was treated before discharged to the sea many times, key person not familiar with the ballast water management plan.
	Dirty oil and dirty rags around engine room.
Water/Weathertight conditions	At the time of the inspection, the ship is overloaded, freeboard marks are drowned. Pilots reported that plimsoll disk submerged at departure, then vessel performed de-ballasting operation but plimsoll disk still submerged.
	Many cargo hatch coamings except one cargo hold were wasted and holed at both side for many locations.
	Engine Room skylight cover in poor condition. Some holes for bolts corroded away. Gasket in poor condition. Cover for deck crane in poor condition.
	The cover of access to pump room on main deck can't keep weathertight.
	The port hole dead lights on the weathertight main deck doors at the forward end of the accommodation can't be closed and secured (port and starboard) and the port hole in the officer's mess room securing device found seized.
	The watertight door between the steering gear room and the engine room is not operable locally from either side.
	Piping for air vent head for MGO service tank on main deck found severely rusted and holed and air vent pipe fitting for waste oil tank AFT found detached at time of inspection.
	Few closing devices of the ballast water air pipes defective.
	All three air ventilator heads self-closing devices defective at the fore peak tank (i.e. float found either out of position or stuck in the middle or impacted by damage flame arrestor screen).
	Some cable penetrations in poor condition (metal corroded and/or open). e.g : monkey-island, aft navigation lights.
Safety Of Navigation	The gyro compass repeater is loose/ not properly secured.
	ALDIS lamp not working with battery.
	Navigation lights are in very poor condition.
	Navigation lights panel, indication lights and buzzer alarms not working during test
	At the time of inspection Aldis lamp is inoperative if connected to its emergency battery.
	The reserve power supply for ECDIS - out of order.
	The docking manoeuvre was carried out without the presence of the 2nd officer (disappeared) in breach of safety regulations (Minimum safe manning). In addition, the pertinent authorities were not properly informed of the absence of said officer.
	On board the ship there are two working languages recorded in the logbook instead of one (English and Turkish) and not all crew (except deck officers) know English. Same deficiency was noted previously.

	BNWAS found non-operational.
	NAVTEX not working.
Propulsion & Auxilliary Machinery	Water cut off valve on A/E #2+1 broken A/E # 2 MDO cut off valve broken. M/E charge, Air cooler check valve broken.
	Purifier's room dirty by excessive dirty oil quantity.
	Main engine Lube. oil pumps automatic change over devices are inoperative.
	Vessel was loading cargo and empty ballast condition. Crew needs lots of efforts and time to prime and to have the pump delivering pressure.
	The No. 3 main G/E L.O. low pressure protection device (automatic shutdown) inoperative.
	Several brake plates for several winches in poor condition. Metal plates corroded. PS forward winch brake path shifted.
	Several gauges for auxiliary engines inoperative such as RPM gauges and pressure gauges.
	Air supply valves to all 3 pumps ejector priming system found closed. A) Priming system on Fire & General Service pump is not working. When air supply is opened the ejector leaks water and air, drainpipe obstructed. B) Priming system on Fire & Bilge pump is not working. When testing the pump this system did not react. C) Priming system on No.1 CSW Cooling also not ready for use.
Structural Condition	Ballast water tank at aft port side extremely corroded and its coating in bad condition. This lead to a crack between port side heavy fuel oil tank bulkhead plate and BWT.
	Sounding pipe for few tanks found holed at time of inspection.
	Vessel was banged at one jetty during the mooring operations, resulted in a crack at hull.
	Electric cables and hydraulic control pipes insufficiently fixed to their supporting rails. The cable supports (railings) fixations at several places are also completely corroded away.
	Corrosion noticed on the flooring, fire flaps & W.T doors/openings.
	One cargo hold cover gas leaking during inspection.
	Several bolts, nuts, piping U-brackets, piping support beams, on deck in completely corroded/broken condition. Some steps from stairs corroded. Some flanges corroded.
Alarms	Severe corrosion, even up to cracks observed at toe of brackets of on outer deck transverse beams.
	At the time of the inspection, low level audible and visual alarm for each hydraulic fluid reservoir is not given on the navigation bridge.
	Machinery control alarms such as bilge H.L, F.O leakage M/E, 15 PPM alarm inoperative.
	Some alarms in E/R are not working (safety and reverse power trip etc).
Radio Communications	Water ingress repeater (Master) and alarm system in bridge - out of order.
	MF Radio not working.
	AIS found switched off and last feed found to be dated 23.04.2023
	STBD side SART not tested.
	SBM is expired.

DETAINABLE DEFICIENCIES IN YEAR 2023

Categories	No of detainable deficiencies	%of total detainable deficiencies
Fire safety	42	21.88%
MLC	25	13.02%
Life saving appliances	22	11.46%
Pollution prevention	17	8.85%
Emergency Systems	17	8.85%
Certificate & Documentation	12	6.25%
ISM	12	6.25%
Water/Weathertight conditions	11	5.73%
Safety of Navigation	10	5.21%
Propulsion and auxiliary machinery	9	4.69%
Structural Condition	7	3.65%
Alarms	4	2.08%
Radio Communications	4	2.08%
Grand Total	192	100%



Maximum number of detainable deficiencies are related to fire safety followed by MLC, life-saving appliances, pollution prevention, emergency system, certificate & documentation, ISM implementation and Water/Weathertight conditions in year 2023.

COMPARISON OF DETENTIONS & DETAINABLE DEFICIENCIES OVER LAST 3 YEARS

Year	2023	2022	2021
No. of detentions	37 ↑	22	15
No. of detentions attributed to "RO Responsibility"	3 ↑	2	1
No. of detainable deficiencies	192	118	96
Ratio of No. of detainable deficiencies over No. of detentions	5.18	5.36	6.40

No. of PSC inspections found increased under various MOUs. Total number of detentions including RO responsible detentions and total detainable deficiencies found increased as compared to previous years. However, Ratio of no. of detainable deficiencies over no. of detentions found reduced compared to previous years.

RATIO OF "RO RELATED DETENTIONS OVER TOTAL NUMBER OF INSPECTIONS":

Year	2023	2022	2021
RO related detention/Total No. of Inspection	0.004 ↑ (3/668)	0.003 ↓ (2/502)	0.004 (1/280)

Efforts are made so that RO related detentions are controlled.

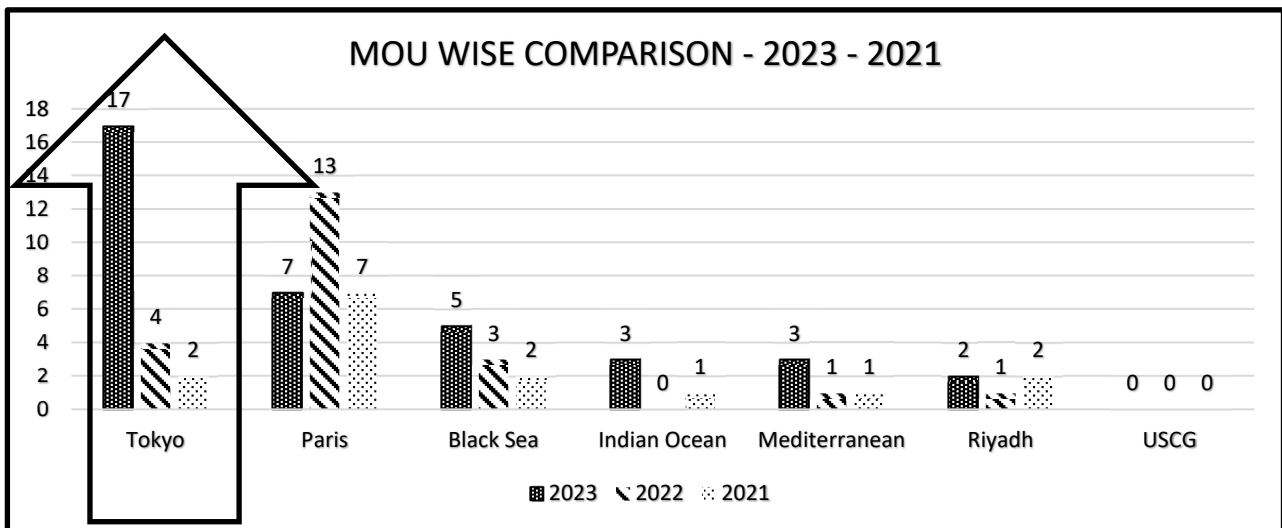
RATIO OF "RO RELATED DETENTIONS OVER TOTAL NUMBER OF DETENTIONS":

Year	2023	2022	2021
RO related detention/Total No. of Detentions	0.081 ↓ (3/37)	0.090 ↑ (2/22)	0.066 (1/15)

Ratio of "RO RELATED DETENTIONS OVER TOTAL NUMBER OF DETENTIONS" is reduced in year 2023 as compared to 2022.

RATIO OF “TOTAL NO. OF DETENTIONS OVER NO. OF INSPECTIONS” MOU WISE OVER LAST 3 YEARS:

MoU/ Years	2023	2022	2021
	(Detention/Inspection)	(Detention/Inspection)	(Detention/Inspection)
Tokyo	0.07	0.04	0.04
	(17/230)	(4/89)	(2/44)
Paris	0.09	0.13	0.12
	(7/79)	(13/102)	(7/58)
Black Sea	0.03	0.02	0.03
	(5/147)	(3/128)	(2/66)
Indian Ocean	0.06	0	0.03
	(3/48)	(0/28)	(1/23)
Mediterranean	0.03	0.01	0.03
	(3/94)	(1/69)	(1/28)
Riyadh	0.04	0.02	0.06
	(2/47)	(1/58)	(2/34)
USCG	0	0	0
	(0/12)	(0/14)	(0/10)



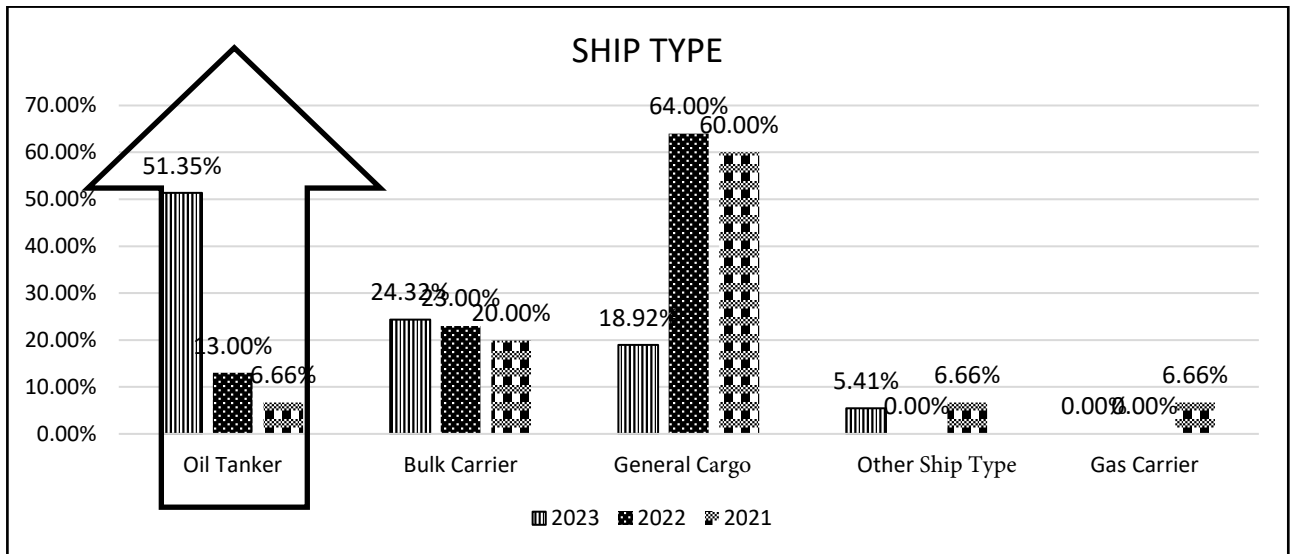
Number of detentions under Paris MoU is found considerably reduced in year 2023 as compared to year 2022, while USCG continues to show zero detention for three continuous years.

There is increase in number of detentions under Tokyo MoU in year 2023 as compared to previous two years. Slight rise is observed in number of detentions under Black Sea, Indian Ocean, Mediterranean & Riyadh MOUs in comparison to Year 2022.

COMPARISON OF SHIP TYPE WISE DETENTION PERCENTAGE OVER LAST 3 YEARS:

Ship Type/ Years	2023	2022	2021
Oil Tanker	51.35%	13.00%	6.66%
Bulk Carrier	24.32%	23.00%	20.00%
General Cargo	18.92%	64.00%	60.00%
Other Ship Type	5.41%	0.00%	6.66%
Gas Carrier	0.00%	0.00%	6.66%

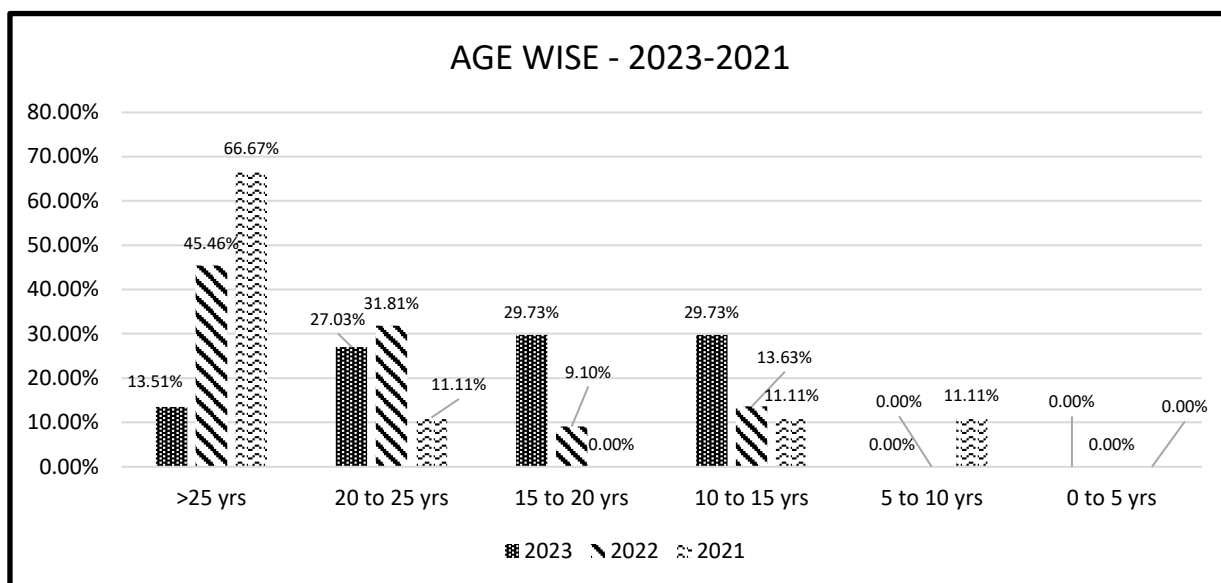
Detention Percentage Ship Type Wise:



Detention percentage for Oil Tankers remained maximum. Detention of these ships were mostly under Tokyo MoU.

COMPARISON OF AGE WISE DETENTION PERCENTAGE OVER LAST 3 YEARS:

Age/Years	2023	2022	2021
>25 yrs	13.51%	45.46%	66.67%
20 to 25 yrs	27.03%	31.81%	11.11%
15 to 20 yrs	29.73%	9.10%	0.00%
10 to 15 yrs	29.73%	13.63%	11.11%
5 to 10 yrs	0.00%	0.00%	11.11%
0 to 5 yrs	0.00%	0.00%	0.00%



Detention percentage for ships of age groups 10 to 15 years & 15 to 20 years was maximum in year 2023.

OVERVIEW OF ALL DEFICIENCY CATEGORIES:

Based on deficiencies recorded during all PSC inspections in 2023 a list is provided in Annexure to this report. These deficiencies have been categorized under various headings for ease of reference.

Following table compares six categories under which maximum number of PSC deficiencies were recorded over last 3 Years.

Year	Categories under which maximum number of PSC deficiencies were recorded (Listed in descending order from left to right based on number of deficiencies)					
2023	Fire Safety & Detection System	Lifesaving appliances	Safety of navigation	Propulsion & Auxiliary machinery	Certificates and Documentation	MLC - Working and Living Conditions
2022	Fire Safety & Detection System	Safety of navigation	Propulsion and Auxiliary machinery	Lifesaving appliances	MLC - Working and Living Conditions	Pollution Prevention
2021	Fire Safety & Detection System	Safety of navigation	Life Saving appliances and associated equipment	Operational defects and general maintenance	Certificates and Documentation	Emergency systems

SUMMARY OF OBSERVATIONS:

1. PSC inspections under Tokyo MOU were high in number for year 2023 and mostly include Oil tankers.
2. Fifteen out of thirty-seven detentions of Classed vessels in year 2023 were over 20 years of age. Main reasons for detentions for these vessels were maintenance issues, poor upkeep of documents, poor housekeeping, lack of emergency preparedness, crew awareness including ineffective ISM implementation onboard. Four of the vessels have MMSA (ISM/ISPS/MLC) undertaken by other RO and one of the vessels has only class certificates issued by IRS (Statutory and MMSA undertaken by other RO); limiting the scope of verifying the compliances with statutory requirements along with implementation of safety management system on board the vessels for which deficiencies were noted by PSC.
3. Total four ships had repeated detentions in the year 2023. Lack of supervision & monitoring along with inadequate preventive measures were the prominent reasons for repeated detentions. Three of these detentions were under Tokyo MoU and one under Paris MoU. Deficiencies on these ships were mostly related to fire safety equipment, lifesaving appliances, oil leakages in machinery spaces, safety & personnel protection equipment, poor housekeeping, emergency preparedness. Nature of deficiencies on these vessels implied shortfalls in vessel's general upkeep including lack of effective SMS implementation & statutory compliance on board.
4. One of the vessels was identified with only two deficiencies. During port arrival maneuver vessel was not having 2nd officer onboard and no other deck officer was having required qualifications to attend the maneuvering duties. Non-compliance with safety regulation pertaining to "Minimum safe manning" & "Safety management system" led to detention of the vessel.
5. In seventeen cases deficiency related to ineffective safety management system onboard were reported by the PSC with the prominent reasons being poorly conducted shipboard emergency drills, crew familiarization issues with regards to operation of lifesaving appliances/fire-fighting/MARPOL equipment, non-compliance with safe manning requirements etc.

Attributing factors were lack of implementation of company's safety management procedures, ineffective implementation of preventive actions, inadequate supervision & monitoring from the company, internal audits not being as effective as required to ensure the system improvement.

6. In one of the cases, a non-conventional ship (Tug) which was under Class suspension was boarded by PSC authorities and was found with issues related to lapses in shipboard maintenance, housekeeping, poor upkeep of shipboard & crew documentation, unsatisfactory condition of fire-fighting equipment, unsafe working conditions & practices, non-compliance with MLC requirements and lack of emergency preparedness.
7. In many cases deficiencies noted by PSC implied that; required attention was not provided by the crew & company towards machinery maintenance (unattended leakages/defective equipment), poor upkeep of structural areas & water-weather tight conditions (temporary repairs or unattended damages), non-availability or delayed supply of required resources, lapses in defect identification along with lack of prompt & thorough repairs, unhygienic living conditions, obstructed access to safety equipment, slippery/oily walkways and non-compliance to reporting requirements, follow up actions and seeking guidance from flag administration/Class/RO etc.
8. In three of the detention cases detainable deficiencies were attributed to RO responsibilities considering the close proximity of surveys. These deficiencies were mostly related to safety and alarm systems on generator engines, leakages from machineries & missing safety guards, oil-soaked insulations, defective main & emergency fire pumps, fire doors & fire alarms, unsafe electrical wires etc. While some of the deficiencies could be related to operational issues; based on nature of deficiencies in proximity due care considered required during the surveys to verify general upkeep and maintenance management on board.
9. Total 18 detentions of non-classed ships were recorded where IRS is responsible only for issuance of DOC to the Company. Existence of deficiencies and detentions were mostly attributed to lack of routine shipboard maintenance, poor upkeep of documents & records, ineffective safety inspections & pre-arrival checks to ports, poor housekeeping and general upkeep including lack of control & monitoring from company.

IMPROVEMENT OF FLEET QUALITY:

A) Based on casual factors for existence of deficiencies, efforts considered required by the ship as well as the Company in following areas:

1. Vessels of higher age group considered requiring additional care in terms of ensuring all deficiencies are identified and repairs undertaken so that, condition of the vessel is improved. Following company procedures pertaining to preventive maintenance as recommended by manufacturer can ensure that; machineries and equipment are maintained in defect free condition, perform as required and do not fail unexpectedly.
2. Regular upkeep, periodic inspection & testing of fire safety equipment, lifesaving appliances, emergency systems, and pollution prevention equipment definitely require additional attention. Regular safety inspections will confirm the availability, accessibility and readiness of safety/emergency equipment on board all the time.
3. Ensuring availability and upkeep of original certificates, records and mandatory documents is important. Periodic review and monitoring of documents as per Company procedures is important.
4. Maintenance & regular upkeep of vessel between the surveys, Pre-arrival checks, compliance to flag requirements/guidelines require focus.
5. In respect of MLC requirements such as crew employment agreements, rest hours, wages, upkeep of accommodation & galley areas, availability of safety equipment/PPE, safe & hygienic working/living conditions etc.; it is essential to have regular upkeep & monitoring of these by the vessel and strict supervision from the company.
6. Increasing number of ISM related deficiencies on ships identified by PSC authorities warrant due attention. Effectively conducted shipboard safety inspections including internal safety audit by the company representative plays a vital role. The need of proper root cause analysis for the non-conformities and lapses; and ensuring effective corrections & corrective actions is re-emphasized in order to prevent reoccurrences.
7. Crew familiarization with Shipboard drills and in particular fire drill is very crucial. While mandatory drills are conducted, evaluation towards effective execution of "Command", "Control" and "Communication" is required to confirm that shortfalls are eliminated and emergency preparedness is ensured.
8. It is essential that crew is conversant with SMS procedures, statutory/regulatory requirements, shipboard operations and use of safety and pollution prevention equipment. Crew awareness and familiarity of their duties including duties related to shipboard emergencies can be improved by conducting mandatory drills and familiarization/training sessions more frequently.

B) Following improvement actions are implemented to maintain fleet quality:

1. With an aim to achieve improvement in fleet quality, procedures are laid down for classification of vessels, emphasizing on risk assessment and restriction of the age while taking the vessel into class.
2. Companies are provided with advisories based on detentions or inspections with significant number of deficiencies and repeated poor performance of vessel; in order to prevent reoccurrence of similar defects. Awareness sessions have been conducted with the focus on commonly noted PSC deficiencies and care required for ship's upkeep. Comprehensive checklist based on deficiency database is made available for use by Company /ship's staff for detailed & effective self-inspection of the ship.
3. Lessons learnt from each detention have been shared with surveyors/auditors and further training/monitoring as identified have been provided for improvement and to prevent RO related detentions. Emphasis has been given on detainable deficiencies and especially RO related deficiencies so that, due diligence is exercised in future during the conduct of surveys/audits with focus on bringing out lapses in implementation of safety management system.
4. More focus on vessels identified under Fleet Monitoring is provided to achieve improvement in fleet quality; by timely communication of expected actions to the companies and regular guidance on examination of vessels under the program to the surveyors.
5. While the deficiency database is regularly updated for reference of all stake holders; provision has been also made to collect the data from detention cases for non-classed vessels. Flag administration and ROs who have issued ISM including other Statutory certification to vessels are appraised about detention & recommendation is made to undertake additional examination/ISM audit of the vessel. Intent is to achieve improvement in vessel's condition including safety management system implementation on board and subsequently verify the effectiveness of corrections/corrective actions from the company during shore-based audits.

CONCLUSION:

Verifying the regulatory requirements including implementation of safety management system and continuous monitoring of fleet quality remain at the forefront of efforts for IRS.

Commitment to meeting compliance standards; relating to safety, security and environment protection including organized measures from owners & operators of shipping companies, will lead a way to reduce detentions in future under various PSC MOUs.

ANNEX 1

LIST OF PSC DEFICIENCIES IN YEAR 2023

Main Deficiency	Sub - Category	Deficiency Description
Fire Safety	Firefighting outfit & SCBA	Firemen outfit - Set not in good condition, face shield broken & shoes damaged
		BA Cylinder - Air pressure inside of cylinder less than required.
		SCBA set - Annual servicing found expired.
	Fire Pump, Fire line & valves	Priming system – of Fire pumps not working.
		Fire line - leaking.
		Fire isolation valve defective, Water pumped out during the closure of mentioned valve, Leaking, not closing completely or hard to close, seized. Valve spindle & wheel broken.
	IMO Symbols	IMO symbol - Sticker for fire control at gangway not available.
		Location symbol of fire control plan - in enclosure at main deck not complied with convention.
	Fire Drill	Fire drill unsatisfactory due to multiple factors observed by various PSC- No BA checks conducted, BA sets not properly rigged, Belt around waist not fixed, Mask not tight over face, Manometer unreadable, Firefighter assessed the doors temperature with gloves on, Portable radios not used properly, Team leader standing close to the firefighter during drill, Incorrect entry, Jet-nozzle unable to operate due to gloves not fitting, Fire hose leaking, No distress message prepared, Insufficient pressure at foam monitors, Fire fighters did not respond to whistle for empty bottle.
	Fire Hose, Nozzles & Hydrants	Condition: Hose not properly rigged, Leaking hose & hydrants (5 cases),
		Length of fire hoses in engine room exceed 15M.
		Operation: No spanners available for couplings of fire hose & nozzle, Locking mechanism for turning the hose stuck.
		Several fire hose boxes found with missing nozzles. In Eng. room found fire hose with length of 30m (2 times)
	Fire Extinguishers	Annual Servicing of mobile & portable extinguishers found expired.
	Fire Blanket	Fire Blanket found damaged and holed at various locations.
	Funnel Flaps, Dampers & Fire doors, Ventilation	Funnel flaps - Locked in open position & not ready for emergency operation (2 cases),
		Fire dampers - Vent. of E/R not in good condition & not working (2cases), Operating lever cracked/ missing, Due to corrosion difficult to remove locking pin, Natural vents covers of the EMDG room not closing, Air operating valves found to have air leakage.
		Fire doors - E/R, EMDG, Wheel house Fire door- Not able to self-close
		Fire doors - Galley, Accommodation spaces, Gyro-room - Kept open with hooks, ropes and unable to close (4 cases)
Ventilation for Bosun store cannot be operated from outside protective space.		

	Emergency stop of ventilation initiated & mechanical ventilation could not be restarted within reasonable time.
Quick Closing Valves	Operation of F.O remote valve for G/E - Not able to closed smoothly (3 cases), Valve spindle damaged, Found with air leakage (2 cases)
	Self-closing valve found gaged – At level gauge of various oil tanks.
	Disconnected means of isolation- For fuel supply & spill piping to G/E.
	Remote valve LSHFO Settling tank suction did not work at first attempt.
	Air bottle for QCV operation found not charged for emergency readiness.
	Remote quick closing valve (for fuel inlet to Aux. Eng. 2) unable to close after several attempts
Fire detection, alarm system	Visual & Audible fire alarm- Not working in E/R and Navigation bridge
	Fire alarm panel & detection system fault - Showing system fault & display screen illegible. Crew unable to reset (7 cases)
	Fixed fire detection devices not installed in steering gear room.
	Fixed gas detector system for pump room - Not working during functional test.
	Fixed gas sampling system of P/P room not in use during inspection.
	Smoke detector for IG system gas detection found out of order.
	Fire line to deck store sprinkler system found ruptured during operational test.
Fire isolation & Fire insulation onboard	Foam tank room insulation - Damaged at many areas.
	SOPEP store insulation - Damaged.
	Generator - Insufficient heat insulations of exhaust manifolds. (2 cases)
	Converter room - Cable hole penetration in elec. equip. room not insulated
Oil leakages in E/R spaces	Oil accumulated underneath machineries not attended- Main engine, Aux. Engs, Fuel oil circulation pumps and emergency generator.
	Oil leakages not attended- From E/R machineries. (2 cases)
	Dirty oil and dirty rags around engine room.
	Oil-soaked pipe lagging & oily floors- Posing fire hazard. (2 cases)
	Engine room various locations (M/E tank top, Auxiliary Eng. room, Purifier room) sighted with oil accumulation.
IG System	Corroded & broken drainage pipe for mast. raiser.
	Valve of inert gas pipe for one Cargo hold inoperable.
Fixed water mist	Incinerator local water mist system - Ineffective spray pattern
	Fix water mist at purifiers room – In-operational during PSC inspection.
	Paint locker fixed water spray- All nozzles unable to provide water spray
	Visual indicator symbol on activation of sprinkler system not working properly
	Sprinkler system control panel shows permanent warning system released.
	Local water mist panel on bridge showing incorrect time.

	CO2 firefighting system	Control box damaged & dislocated from its position at fire station.
		The gauge for CO2 leak from pipe in CO2 room not proper- Only 1.0 MPA
		Key for CO2 room near cabinet not readily available. (2 cases)
		Safety pins for bottles valve actuators are not installed properly.
		Manual release handle for booster cylinder missing.
		CO2 pipe for one cargo hold broken at STBD side.
		CO2 Flexible hose - Date of replacement is overdue.
	FO leak alarm	FO leakage alarm of two G/E malfunctioning. (2 cases)
	Means of escape	Missing handrails for corridors as means of escape on upper-deck & C-deck in accommodation space.
	Electrical system	Non-approved lighting covers all inside the accommodation. Partly disconnect grounding of electric equipment. Exposed and unsafe electrical wiring - Underneath the GMDSS station
Shore Connection	International shore connection not sighted in fire control station as per fire plan.	
Fire Safety	Isolation valves in fire control station unable to isolate water to main deck during operational test.	
Lifesaving appliances	Lifeboat & equipment (Magnetic compass, emergency steering), Launching appliances	Lifeboat engine- Start failure. (3 cases), Full ahead revolving speed about 20 RPM (defective working condition)
		Lifeboat one battery found flat.
		Freefall lifeboat lashing – Boat found seized by lashings to the ship.
		Magnetic compass bowl sighted with air bubbles & illumination light defective.
		Lifeboats launching appliances- Launching system inside boat defective, Lost power, Stop rotation switch out of order, Swivel of both floating blocks are frozen, Air supply to control system out of order, Greasing pipelines for upper davit sheaves disconnected, Parts of the hooks deformed & not resetting, Shackle for fall preventing device heavily corroded, Instruction plate on hook for safe locking unreadable.
		Limit switch lifeboat out of order. (2 cases)
		Emergency steering in lifeboat - Crew not familiar with the operation.
		Cooling water pipe- Engine cooling water pipe sighted with paint coating.
		Overdue waterborne drill for lifeboat (2 cases)
		Housekeeping- Some water accumulated in STBD side L/B.
		Lifeboat sprinkler system not working.
		Delay in functional verification- Only hydrostatic cable was connected & hydrostatic unit not installed. Service remains pending.
		Lifeboat Falls – Inadequate maintenance and upkeep of Lifeboat Falls.
		Securing arrangement – Port side lifeboat suspension block not lowered on davit horn, Lifeboat suspension blocks rusted seriously and plate thinned (2 cases)
		Doors to both lifeboats cannot be opened completely; affecting the entry & exit
		Mechanical noise from gear when tried out by running engine with reverse astern.

		Reflective material not fixed properly.
		Lifeboat launching area lighting not working.
		Floating blocks for both port and starboard lifeboats found not resting on davit horn.
	Rescue boat	Free-fall Lifeboat annual certificate expired.
		Rescue boat launching- Hydraulic oil tank leaking.
		Rescue boat davit - Inoperative due to pump failure, Manual operation could not be demonstrated even after many attempts.
		Rescue boat equipment- fuel tanks are not filled fully.
		Rescue boat annual certificate expired.
		Rescue boat hooks corroded seriously
	Life raft	Transportation bands for the casing not removed, securing lashing slack.
		Davit launching life raft opening rubber unglued.
		Improperly securing- In case of sinking, life raft would be lost.
		Outboard railing for both side life rafts seized and wasted.
	Lifebuoy	Buoyant lifelines - Not the type of non-kinking,
		Lighting- AFT main deck port side lifebuoy self-igniting light found not working.
		Grabline of lifebuoy near gangway aged and broken.
		Weight of MOB lifebuoy on bridge wing STBD side not as required.
		Poor MOB arrangement- Connecting links between lifebuoys & ship structure frayed, not provided with means of quick releasing arrangement
		Starboard MOB lifebuoy found with several huge cracks split open.
	Drills	Abandon ship drill fail- Several crews didn't wear the life-jacket as per makers instruction, Straps/belt not correctly rigged, Lowering of lifeboat not as per SOLAS, Crew as per muster list did not prepare the life rafts, Long time to recover lifeboat.
Safety checks/Familiarization- Cook failed to put on the immersion suit due to size.		
Others	Not sighted at forward main deck as per LSA plan	
	Embarkation platform- Corroded, wasted and holed.	
	Embarkation ladder- STBD side deteriorated and broken.	
	LSA training manual- Not provided in crew mess, Not providing information about onload release hooks safe operation, Drawings are not reflecting the actual hooks.	
	Escape routes inside of accommodation- Not indicated by muster station symbols.	
Safety of Navigation	Magnetic Compass	Spare magnetic compass & lamp not working. (3 cases)
		Magnetic compass gimbal is obstructed by the cover securing bolt. (2 cases)
		Standard magnetic compass on the upper bridge deck not readable.
	VDR/SVDR	Alarm on S-VDR panel.
		Data acquisition unit of VDR on bridge found out of order.
		Alarm code list not posted near panel.
		VDR monitor malfunction
	Radar	Both X-band radars found exceeded their magnetron working life as per marker's instruction.
		GPS Display defective (lines unreadable)

	Pilot ladders	Weight of the pilot ladder is not taken by the side ropes
		Sleeves brackets of pilot ladder wasted and many steps wasted/thinned down. One
		rubber step of pilot ladder cracked at bottom section.
		Pilot ladder steps- Wasted/thinned down, Loss of steps, Frayed side ropes.
	Passage planning	Pilot ladder was not horizontal & retrieving line was attached to the lowest bottom rubber step during PSCO boarding.
		No evidence that 2nd means of position fixing done to verify ship position
		Arrival voyage plan - Not planned berth to berth.
		The destination berth of inbound passage plan not the actual alongside berth.
	ALDIS	Signaling lamp having dirty mirror glass.
		Not operational with main and emergency source of power (3 cases)
	BNWAS	Found non-operational.
		The key of BNWAS not only under master control.
	Lights	Fore mast light, anchorage light & port side light not lit. (3 cases)
		Day Light shade missing.
		Stern navigation & anchor light lens not clear.
		Navigation lights poor condition.
		Navigation lights panel- Indication lights & buzzer alarms not working
	ECDIS	ECDIS not updated. (6 cases)
		Cross track distance (XTD) setting insufficient for safe navigation
		Key officer unfamiliar with operation of ECDIS
Reserve power supply out of order.		
Echo sounder	Echo sounder record for 24 hours not available.	
Rudder	Rudder angle indicator in the bridge is out of order.	
Gyro	Gyro compass repeater loose/ not properly secured.	
VHF	Two-way VHF missing one battery.	
Other	All crew (except deck officers) not familiar with working language (English) as recorded in the logbook	
	ITU publication List not updated - Ship Stations & Maritime Mobile Service.	
	Damaged bridge window glass not replaced and reported	
	Bridge wings projectors not rotating properly due to insufficient maintenance.	
	Both port and starboard clear view on navigational bridge found unclear.	
Propulsion & Auxiliary machinery	Machinery Defects	M/E issues - Control air Leaking, RPM meter not showing zero, F.O p/p having oil
		leakage, Telegraph in E.C.R out of order, Missing hand wheels on indicating valves
		Charge air cooler check valve broken.
		The ship was unable to be maneuvered freely at channel area of high density & narrow water, due to the broken cooling water jacket of M/E No. 2.
		NOX Technical File – Records of Maintenance on ME not maintained.
		Cargo pump turbine- Steam leaking seriously.

		Aux boiler – Water gauge glass leaking, F.O viscosity controller out of order, Steam lines not insulated
		Cascading tank for boiler water feeding have sludge.
		Smoke found coming out of boiler while soot blowing
		Air compressor - Sight glass having water leakage, Gauges not working
		Auxiliary engines - Leaking fuel, Oil filters were covered with black oil
		Gen. Eng. L.O. low pressure protection device (automatic shutdown) inoperative.
		Water cut off valve & MDO cut off valve for another Gen. Eng. found broken
		High pressure fuel oil pipe leak alarm of No.2 G/E defective.
		Many thermometers for cooling water, exhaust gauges out of order
		Water cooler- Leaking water seriously,
		Automatic start failure - Steering gear pump
		Defective Gauges & Manometer- C.F.W pump, sludge pump, Generator- RPM meter,
		Tachometer, F.O. pressure & Fresh water-cooling system,
		Non-operational machinery not reported- Generator, Boiler
		Emergency shut-off arrangement for M/E at Emerg. Platform- Out of order.
		Faulty alarms- G/E jet system alarm
		Priming system defective (Air leaking)- Fire & General Service pump, Fire & Bilge pump, Cooling SW pump.
		SW Piping issues- Corroded, Temporary repaired with soft patch
		Lub. oil pumps - Automatic change over devices inoperative.
		Temperature controller for G/E F.O. heater malfunctioning.
		Excessive Oil leakage in machinery spaces- Purifier room.
	Rudder indicator on steering gear - Out of order (2 cases)	
	Unauthorized alteration	Unauthorized flexible hose - Fitted on lube oil drain tank suction pipe & to the discharge pipe of lube oil transfer pump.
		Alternator for one of the auxiliary engines not in place.
		Sounding cocks found in open condition or with the wrong means of closing.
Ship/Crew Certificates and Shipboard Documentation	Ship Certificates	Expired Certificates- Tonnage & Cargo Ship Safety Certificate.
		Original Certificates not available- Registration cert, SMC, ISSC, Certificate of insurance or other financial security in respect of liability for removal of the wrecks.
		QR Code not readable on electronic Certificates- Interim International Ballast Water Management Certificate
		Damage control plan not available on bridge.
		Short term IAPP certificate found invalid at time of inspection.
		In-complete details on certificate- The capacity of 15 PPM equipment system not indicated in IOPP Form B.
		Details on certificate - Type approval for sewage treatment plant inconsistent with the actual.
	Crew Certificates	COP not as required by MSMD for engine room rating (2 cases)
	COC not as required by MSMD – C/E Honduras COC, Sec. Eng. Indonesian COC	

		Equivalent COC of Flag state not available- Master, C/O, C/Eng, Sec. Officer
		Original endorsement by flag state of all officers not on board.
		Receipt of application for flag endorsement not available – Sec. officer, Sec. Eng
		Wrong number of the COC on GMDSS certificate of Chief Officer
		STCW rating certificates were in different versions and flag confirm required.
	Documentation/ Records	Fire safety operational booklet is not provided in crew mess room.
		IAMSAR manual VOL. III 2022 edition hard copy not available
		Records not matching - Quantity of ashes delivered ashore & operational waste burned by incinerator
		Wrong number in CSR
		Present Port of registry not updated on the vessel's aft.
		Official log book of Palau Flag not found onboard.
		Seafarers' employment agreement - Incorrect details of Flag of the vessel, Missing employer signature and stamp, Expired
		Insufficient crew information- Country of residence & crew nationalities missing
		Work & Rest time- Not in line with shipboard working arrangements (2 times).
		Deck & Engine Cadets– No proper training records (Signatures, dates, Information of vessel or cadet missing), No evidence of follow up by senior officers.
		SOC of Fuel Oil Consumption- Reporting in 2023 cannot presented by the Master.
MLC	Safe manning requirements	No. of crew exceeded - Capacity of certified crew in SPPC, not as per MSMD
		Missing crew- Docking maneuver done without 2nd officer (disappeared) in breach of
		safety regulations (MSM). Authorities not informed.
		Training- No electrical officer on board for supervising/training this trainee crew.
		Max contract days exceeded- Trainee Engineer & AB on board with 9+/-1 month contract (9 leave days / month).
	Working & Living cond.	Poor Provision- Rotten vegetables & unhygienic condition.
		Galley and Provision Store Room found with cockroaches and insects, Not clean, Scupper strainer plates missing.
		Expired medicines found in the first aid box. (2 cases)
		Poor hygiene & housekeeping in all the ship's part- unhealthy.
		Loose electrical wiring at various places (Emer. lighting, Batteries for M/E starting)
		Unsafe conditions - Floor paintings in E/R not secured, Accommodation ladder touching/resting on a quay bolder, Net under ladder not wide enough provide safety
		Bridge wings - Anti-slip mats are damaged.
		Accommodation spaces- A warm air flowing from an unauthorized opening.
	Labour Conditions	Record of wages paid not available on board. (5 cases)
		Some seafarer's employment agreement not signed properly.
		Unapproved working- One riding fitter (employed on 3rd party contract) indicates

		participating in maneuvering/mooring operations as per work & resting time sheet.
	Working Safety	Lighting- Light bulbs for SOPEP room out of work. Walkways- Main deck walkway grating plates not fixed properly, Movable stanchions of walkway to ship bow corroded & part of chains missing.
	Work/Rest Hour	No evidence of adequate compensatory rest granted Personal copies of work & rest time sheets for previous month not signed by Master.
	Wages	Wages found not paid on monthly basis for 4 months for two crew.
	Documents & Records	Seafarer's employment agreement for Chief Engineer found expired. Records of rest hours for several crews did not tally with drill records
Pollution prevention	MARPOL Annex I	Demonstration of OWS- Now able to demonstrate operation within reasonable time.
		Operation of OWS- OWS can't automatically stop upon 15ppm alarm (2 cases), Function of the 3-way valve could not be verified. (2 cases), No water detected on the sample valve for the overboard line, Inlet pipe of 15 RPM (OFE) having leakage & temporarily repaired, Suction pump pressure gauge broken (2 cases),
		Oil spill- HFO spread to BWT & during de-ballasting mixture was pumped overboard.
		Unsafe Bunkering- Bunker station sighted with no personnel, No oil spill kit.
		Bilge discharge- Hand wheel of bilge discharge std. connection V/V broken.
		High quantity of bilge water on board.
		Installation issue- OFE piping not installed in compliance with MEPC 107. On recirculation facilities no funnel/sight glass provided to observe full opening or closure of the automatic 3-way valve. The installed sample valve/line is not correct as the interruption of the flow is to be verified.
		Contaminated bilges- Dirty oil mixture from machinery space mixed bilge water
		International shore connection not as required.
		Some entries found missing and did not tally for retention of bilge holding tank at time of inspection
	MARPOL Annex V	Documentation- Waste delivery receipts not available.
		Familiarization- Key person not familiar with the GMP.
		Storm valve (sewage overboard) cover corroded.
	MARPOL Annex IV	Sewage Treatment Plant- Chlorine Tablet not sighted, Chlorination not carried out because the chlorine tablet stuck.
		STP operation- STP not in use at port, Untreated sewage transferred to APT (not approved by Class), Air pump faulty & overload alarm displayed, STP on auto & open overboard to sea.
		The chamber of the STP rusted and holed.
		Ship discharged un-comminuted food waste into the sea.
MARPOL Annex VI	Documentation- Date & time of fuel changeover on entering the ECA not recorded	

		<p>Operation of EGCS & Documentation- Settings of the scrubber changed to comply for emissions in ECA but no records maintained, No written procedure scenario available, Turbidity/Ratio/PH could be verified from downloaded data of EGCS data logger provided by crew, Turbidity sensors not providing correct values, EGCS Record book not available for verification, No evidences available about cleaning, maintenance, calibration of the EGCS analyze devices. No daily records available to verify the proper functioning of the EGCS.</p> <p>Smoke from funnel- Continuous black smoke emitted from ship's funnel.</p>
	Ballast Water Convention	<p>BWM method in use & records- No evidence of discharge of treated ballast water to the sea available, Ballast water reporting form filled incorrectly, Depth not recorded, Not installed in accordance with Regulation D-2 (2 cases)</p> <p>Plant operation- BWTS inoperative (failure of electric valve actuator).</p> <p>Familiarization- person not familiar with the ballast water management plan</p>
Emergency System	Emergency generator	<p>Operation- Unable to start manually & automatically (3 cases)</p>
		<p>Maintenance- Found with leakage.</p>
		<p>Escape- Emergency generator room emergency escape locked with ratchet strap.</p>
		<p>Emergency fuel oil tank gauge glass is missing the shut off valve</p>
		<p>Low cool water pressure due to short of coolant in cooling water tank.</p>
		<p>Emergency generator unable to automatically put on-load.</p>
		<p>Fuel tank for emergency generator engine found insufficient to run for 18 hours.</p>
	Emergency Response	<p>Crew unable to restore normal power for long time after the simulated black out (2 cases)</p>
		<p>Cook not familiar with CO2 smothering system for galley vents nor location of key.</p>
		<p>Position of Muster Stations in the LSA plan & in Muster list not matching.</p>
	Emergency lights	<p>Emergency Embarkation lights at life raft deck not rotating- Needs maintenance (4 cases)</p>
		<p>Emergency lightings fused- On deck, Embarkation deck, Engine room, Aux. Boiler & Emergency generator room (3 cases)</p>
		<p>E/M DG room lights cases cracked & fixed by plastic ties.</p>
	Emergency fire pump	<p>Priming pump not working.</p>
		<p>During emergency fire pump test- Burning rubber smell & smoke observed.</p>
		<p>Unable to pressurize the fire main during operational test.</p>
	Emergency communication	<p>Emergency telephone from E/R to wheel house found not working</p>
<p>Public address system speakers partly not working. (2 cases),</p>		
<p>Emergency communication between steering gear and bridge doesn't work.</p>		
Emergency bilge suction	<p>Emergency bilge suction connected to main sea water pump found secured with chain and padlock and not readily operational in case of emergency.</p>	
Others	<p>Entry permit not made when enclosed space entry and rescue drill carried out.</p>	
	<p>Search and Rescue poster missing on bridge deck.</p>	

	Emerg, Escape	Emergency escape door from steering gear room found not closing fully.
Shipboard Maintenance	General Upkeep of vessel including machinery & deck equipment maintenance	Forward windlass operating stand- Corroded, wasted and holed.
		Mooring winches Brake linings thinned down (2 cases), Safety pins on clutch not used
		Engine compartment poor condition.
		Electrical safety- Solenoid valve on bottom plates found disconnected
		Closing device for hawse pipe missing.
		Leaking steam lines- COP tank heating valves & aux. boiler steam valve
		Safety guards missing for fixed grinding machine in engine workshop.
		Mooring rope on main deck AFT/ STBD not in good condition.
		Forward hoisting drums for anchors inoperative.
		Cargo piping - Steam tracing damaged. Insulation on these pipes also missing.
		Cargo manifolds manometer covers (P/S) are not removed during cargo operation.
		The sea water inlet pipe for the boiler atmospheric condenser rusted.
		Steering gear oil level cable not fixed properly.
		Discharge gauge of sludge pump defective.
		One roller on poop deck seized.
		Blige/Ballast water pump shaft seal leaking
Minor DO leakages on Aux. Gen., MDO separator feed pump and some pipe line.		
Two lights in bosun store unlit.		
Water/Weather tight conditions	Doors & Covers, Skylights	Weathertight doors- On Main deck can't be closed & secured. S/B side bridge door corroded & hard to close. Port hole in the officer's mess room securing device found seized.
		Weathertight door dog - both side of wheelhouse are missing.
		Watertight door- Door between St. gear room & Eng. room not operable locally, Cover of access to pump room can't close.
		Skylight to engine room- Heavily corroded, Gasket in poor condition,
		Gasket of weather-tight door to steering gear room on poop deck aged
	Cargo-hold hatch covers & Coamings	Cargo hold hatch covers- For bosun store & steering flat wasted at edges, Rubber seals out of position, Hatch locking cleats wasted & seized.
		Cargo hatch coamings- Wasted and holed at both side for many locations.
	Ventilators, Sounding & vent pipes	Cover of natural vent- To bosun store missing one nut & bolt.
		Air ventilator heads- self-closing devices defective at the fore peak tank
		TK sounding pipes- Check valve (of F.O overflow TK) Blanking device defective, Having unapproved tapping with a cock.
		Air vent pipe- Missing bolts & nuts (F.W. TK), Closing devices for ballast TK defective, APT in S/G room rusted, Piping for air vent head for MGO service tank on main deck found severely rusted and holed.
		Ventilation devices (Accommodation) corroded thoroughly.
		Air vent pipe fitting for waste oil tank AFT found detached at time of inspection.

		Ballast, fuel and other tanks- Sounding pipe found holed. (2 cases)
	Unauthorized Penetrations & Openings	Alterations- Redundant cable pipes between forecastle head & CO2 room capped off with painted canvas, Wires passing through unauthorized openings in the ceilings Cable penetrations- Poor condition (metal corroded and/or open). Structural defect- Hole in engine room casing on funnel deck.
	LL Marks	Freeboard marks/Port side load line PLIMSOLL mark faded off. (2 cases)
Structural Condition	Means of access, Beams, Frames, Floors, Doors, Supports	Structural defects (corroded/broken/bent condition): Pipes, bolts, nuts, supports, crossbeam, brackets, U-brackets, gratings, beams, toe of brackets of transverse beams. (3 cases)
		Cargo tank corrosion: Cargo & slop tanks, collar of access covers for portable tank cleaning devices & supports to cargo tank, IG line, COW line, Cargo line with flanges & valve wasted substantially, Collar base for FRAMO pumps corroded
		Electric cables & hydraulic control pipes insufficiently fixed to their supporting rails.
		Deck corrosion - Main deck plating was with rusty spots & corrosion at many areas.
		Not reported accident: Vessel banged jetty- crack in the hull not reported
		Corrosion on fire flaps & W.T doors/openings.
		Clutch lever for portside windlass corroded seriously.
		Light frame at muster station damaged.
		Ladder in one W.B.T. corroded and broken.
		Hatch cover: Hatch cover hinge found damaged & missing rubber seal, Securing device for open hatch cover not found fitted
		Cargo pump room - Supply mechanical fans damper seized, High level alarm not work
		Wheelhouse door- Bridge wing door bottom section & ladder wasted & holed.
		Ballast water tank: Extremely corroded and its coating in bad condition
		Weathertight door at deck: Not sealing, not weathertight.
		Self-closing device of sounding pipe: LO tank pipe blocked by pipe insert.
Portable gangway: Clamps to secure at shipside found missing.		
S/B side staircase sighted with numerous wasted and holed steps from C to D deck.		
Safety & Alarm System	Fire detection and alarm system, Cargo alarm system, Machinery control & alarms system etc.	Oil mist detector for M/E & G/E indicating errors or high values. (3 cases)
		Cargo tank over-pressure or under-pressure protection not functioning.
		HC detection system: Not in use during cargo operation, Flow alarm when system switched on, Automatic sequence sampling failure, E/R HC high content alarm.
		Water ingress repeater alarm system in bridge - out of order (2 cases)
		Bridge fire alarm detection system- Showing system fault & display screen illegible.
		Bridge fire alarm detection system- Showing system fault & display screen illegible.

		<p>Cargo pump casing temperature sensor failure.</p> <p>Engineer alarm failure indication on.</p> <p>115V insulation earthing alarm test failed.</p> <p>Machinery control alarms such as bilge H.L, F.O leakage M/E, 15 PPM- Inoperative.</p> <p>Visual indicator for chief engineer's cabin UMS alarm control panel inoperative.</p> <p>Bridge low propulsion starting air pressure alarm inoperative.</p> <p>Steering gear alarms are activated at steering gear control panel for only one test.</p> <p>Alarms in E/R are not working (safety and reverse power trip etc).</p> <p>220 Volt and 440 Volt has been detected low insulation in ECR. (2 cases)</p> <p>Bilge well alarm found not working.</p>
Radio Communications	GMDSS,SART, AIS, MF/HF	Operation: Deck officers not able to demonstrate the switch from main to reserve source of energy for the GMDSS quotation.
	Radio, SART, NAVTEX -Operation & maintenance	Shore Based Maintenance plan is expired.
		Annual servicing of most of the bridge equipment found expired.
		AIS found switched off and last feed found in month of April 2023
		Current Flag Radio equipment list not found onboard.
		One SART not tested.
		NAVTEX not working.
		MF Radio not working
		MF/HF antenna central beam broken.
		The key officer not familiar with the operation of MF/HF
ISM	Poorly drills, maintenance issues, PMS lapses, lack of critical equipment	Ineffective implementation of company's safety management system (22 cases)
		Enclosed space permit for the jobs carried out not available
		Critical spares not available (steering gear, lifeboats, fire detector, OWS system).
		Total 445 jobs found overdue in vessel planned maintenance system.
		Vessel is sub-standard due to many detainable deficiencies; however, a full detailed inspection shall be done upon the vessel readiness.
		Deficiencies reveal that SMS not effectively implemented onboard as per the ISM code element 10.
ISPS	Access control & Ship Security	Fresh water filling port not under security control (5 cases)
		Doors in restricted area (steering gear room) not kept locked.
		ISPS control- Gangway log not maintained, Visitor tags not issued, Disembarkation time not recorded, No visitor pass issued to PSCO.
Other deficiencies	General safety	Helicopter equipment, fire hydrant & fire hose box found obstructed with pilot ladder.
		Several manholes on main deck left open without any safety cordoning & notices.