ClassNK

GOOD MAINTENANCE ON BOARD SHIPS

-Maintenance Checklist for the Master-

February 2009

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FOREWORD

Since the first edition of “Good Maintenance On Board Ships” was published in June 1994 and revised subsequent dates, in order to upgrade the maintenance standards of your ships, many ideas and comments from ship owners and parties concerned have been received.

Based on these ideas, comments and our database of detained ships, the Society has prepared this revised edition.

Shipmasters are expected to make proper arrangements for maintenance and always keep their ships in a safe and seaworthy condition.

We hope that this booklet will be helpful and useful for the shipmaster, as well as for ship owners. Any comments, questions and/or advice regarding further improvements to this publication would be very much appreciated.

1. “ Checklist I ” : For routine maintenance
2. “ Checklist II ” : For PSC inspection (the most common deficiencies)
3. “ Checklist III ” : For Safety Management System
4. “ Checklist IV ” : For International Ship and Port Facility Security
5. “ Appendix ” : Photos of the most common deficiencies

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ADVICE TO MASTERS

The master of cargo ship is advised to use the checklist effectively, taking notice of the following matters:

1. The master should check the condition of his ship in accordance with “Checklist I” regularly, e.g. once every month or every few months depending upon the ship‘s operating conditions, but at least once every three months.

2. In addition to 1. above, the master should check the condition of his ship in accordance with “Checklist II”(Check list for the most common deficiencies) at periodically.

3. In case where the ship complies with the requirements of International Safety Management Code (ISM Code) and International Ship and Port Facility Security Code (ISPS Code), the master should check the safety management system in accordance with “Checklist III and IV” at the same interval as mentioned 1 above.

4. The master and crew shall fully understand the operating procedures for launching lifeboats including engine starting, emergency fire pumps, and other emergency equipment for safety, health and protection of the environment, through regular training of the crew and drills conducted on board the ship. The master and those in charge should also be thoroughly familiar with the operation of the main engine, steering gear and other essential machinery, in addition to the operating procedures for equipment relating to MARPOL convention, such as the oily water separator, 15 ppm alarm, oil discharge monitoring system and inert gas system.

5. In the case of a crew consisting of different nationalities, a smooth communication system should be established for use with and among the crew.

6. When deficiencies are observed during a voyage, the master should remedy them or take proper action without delay.

7. When deficiencies on board the ship are pointed out by Port State Control, the master must obtain a copy of the written report of such deficiencies from the Port Authority. Our branch offices are always ready to attend ships in order to facilitate the resolution of deficiencies arising as a result of detention, therefore if necessary, please contact the nearest our branch office.

Abbreviations in the checklist

SS	Special Survey
IS	Intermediate Survey
AS	Annual Survey
MAS	Mandatory Annual Survey
ATS	Annual Thorough Survey
COW	Crude Oil Washing System
ODM	Oil Discharge Monitoring and Control System
GMDSS	Global Maritime Distress and Safety System
DSC	Digital Selective Calling
EGC	(INMARSAT) Enhanced Group Calling
GOC	General Operator‘s Certificate for GMDSS
COLREG	International Convention for Preventing Collisions at Sea 1972 (COLREG 72)
ILO	International Labour Organization
PLI	Periodical Load Line Inspection
ITU	International Telecommunications Union – Radio Regulations
ISM	International Safety Management (SOLAS Chapter IX, Regulation 1)
ISPS	International Ship and Port Facility Security (SOLAS Chapter XI-2)
MARPOL	International Convention for the Prevention of Pollution from Ship‘s 1973, as modified by the Protocol of 1978 (MARPOL 73/87)
MSB	Main Switch Board
N.A.	Not Applicable
P & A	Procedure and Arrangement Manual
REC	Radio Electronic Certificate
NS	New Ship
ES	Existing Ship
	81 ES : Existing ships constructed before 1 September 1984 (81 Amend.)
	81 NS : New ships constructed on or after 1 September 1984 (81 Amend.)
	83 ES : Existing ships constructed before 1 July 1986 (83 Amend.)
	83 NS : New ships constructed on or after 1 July 1986 (83 Amend.)
	88 ES : Existing ships constructed before 1 February 1992 (88 Amend.)
	88 NS : New ships constructed on or after 1 February 1992 (88 Amend.)
	00 ES : Existing ships constructed before 1 July 2002 (00 Amend.)
	00 NS : New ships constructed on or after 1 July 2002 (00 Amend.)
	02 ES : Existing ships constructed before 1 July 2004 (02 Amend.)
	02 NS : New ships constructed on or after 1 July 2004 (02 Amend.)
	04 ES : Existing ships constructed before 1 July 2006 (04 Amend.)
	04 NS : New ships constructed on or after 1 July 2006 (04 Amend.)

Checklist I

(For Routine Maintenance)

Table 1. Certificate & Documents

1. General

Item	Issued date	Expiry date	Last endorsement	Remarks
Registry Certificate				
Radio Station License				
Class Certificate			AS	
			IS	

2. Statutory Certificates

Item	Issued date	Expiry date		Last endorsement	Remarks
		Conditional	Final		
Load Line Certificate					
Safety Construction Certificate					IS for tankers of more than 10 years of age only.
Safety Equipment Certificate					
Safety Radio Certificate					
International Oil Pollution Prevention Certificate					
International Sewage Pollution Prevention Certificate				N.A	MARPOL Annex IV
International Air Pollution Prevention Certificate					MARPOL Annex VI
Engine International Air Pollution Prevention Certificate					for each diesel engine with a power output of more than 130kW which is installed on a ship constructed on or after 1 January 2000
Bulk Chemical Fitness Certificate					for chemical tankers
Gas Fitness Certificate					for liquid gas carries
Noxious Liquid Substances Certificate					for carriage of Noxious Liquid Substance
Exemption Certificate				N.A.	if any.

Item	Issued date	Expiry date		Last endorsement	Remarks
		Conditional	Final		
Tonnage Certificate		N.A.	N.A.	N.A.	
Safety Management Certificate				Intermediate Audit	
Copy of Document of Compliance				Annual Audit	
International Ship Security Certificate					
Certificate of Fitness for Ship Carrying Dangerous Goods				N.A.	for 81NS~00ES to be complied with SOLAS 74/88 Reg.II-2/54 for 00NS to be complied with SOLAS 74/00 Reg. II -2/19
International Anti-Fouling System Certificate		N.A.	N.A.		

3. Miscellaneous Certificates

Item	Issued date	Expiry date	Remarks
Minimum Manning Certificate			SOLAS74 / 00 V/14
Officers Appropriate Certificate			
Master & C/M			STCW95 II/2 & IV/2 (for GOC)
Chief Engineer & 2/E			STCW95 III/2
Officer			STCW95 II/1 & IV/2 (for GOC)
Engineer			STCW95 III/1
Radio personnel			STCW95 IV/2
Officer Certificate or Endorsement			
Tanker Familiarization			STCW95 V/1-1+4
Tanker Special Training			STCW95 V/1-2+4
Rating Certificate			
Watch-keeping			STCW95 II/4 for Deck
Tanker Familiarization			STCW95 V/1-1+4
Tanker Special Training			STCW95 V/1-2+4
All crew			
Medical fitness Certificate			ILO convention

4. Documents and Manuals

for All ships

Item	Approved by	Language	Understood by crew	Remarks
Stability Information				
Loading unloading (for Bulk Cargoes)				SOLAS 74 / 00 VI/7-2
Shipboard Oil Pollution Emergency Plan (SOPEP)				
Technical File for Verification for Control of NOx Emission				

Item	Properly recorded	Remarks
Oil Record Book, parts I and II		
Log Book		SOLAS 74 II, III, V
Garbage Record Book		
Garbage Control Plan		
Continuous Synopsis Record		
Record Book of Engine Parameters		

Item	Issued by	Surveyed by	Last endorsement	Remarks
Cargo Gear Booklet		ATS		

for oil tankers and chemical tankers

Item	Approved by	Language	Understood by crew	Remarks
Damage Stability Plan				
Operation Manual				
ODM Manual				
COW Manual				if any

for chemical tankers

Item	Approved by	Language	Understood by crew	Remarks
P & A Manual				

Item	Properly recorded	Remarks
Cargo Record Book		

for ships carrying Noxious Liquid Substances

Item	Approved by	Language	Understood by crew	Remarks
Shipboard Marine Pollution Emergency Plan (SMPEP)				

for liquid gas carriers

Item	Approved by	Language	Understood by crew	Remarks
Operation Manual				

for grain loading vessels

Item	Issued by	Expiry date	Remarks
Document of Authorization			

Item	Approved by	Language	Understood by crew	Remarks
Grain Loading Manual				

Other necessary documents

Item	Check	Remarks
Survey Report Files		for bulk carriers and oil tankers
Record of ODM		for oil tankers
Damage Control Plan (including Damage Control booklet)		for dry cargo ships constructed on or after 1 Feb. 1992 SOLAS 74 / 88 Reg. II -1/23-1
Cargo Securing Manual		SOLAS 74 / 88 Reg.VI/5 and VII/5
Garbage Management Plan		
Bulk Carrier Booklet		SOLAS 74 / 88 Reg.VI/7
Reports of previous PSC inspection		
Loading Instrument (Computer)		for bulk carriers with length above 150m : to be capable of information on hull girder shear forces and bending moments. SOLAS 74 / 00 Reg.XII/11.1 & 2 for bulk carrier of 04NS with length less than 150m : to be capable of information on the ship's stability in the intact condition. SOLAS 74 / 00 Reg.XII/11.3
Maintenance record of Liferafts		
Maintenance record of EPIRB		
Service record of Fire Extinguisher (CO2 Gas Cylinder, Air foam, etc)		

Item	Check	Remarks
15ppm Bilge Alarm recorded data		at least 18 months apply to Res. MEPC.107(49) equipment
Calibration certificate for the 15ppm Bilge Alarm		apply to Res. MEPC.107(49) equipment

Table 2. Nautical Publications and International Conventions

Item	Check Points	Satisfied/Not	Remarks	Reg.
Charts	Up-to date (Properly corrected)			SOLAS 74 / 88 Reg.V/20, 21 SOLAS 74 / 00 Reg.V/21, 27
	Availability of operating areas			
Sailing Directions	Up-to date (the last editions)			
List of lights	Up-to date (the last editions)			
Notice to Mariners	Up-to date (the last editions)			
Tide Tables	Up-to date (the last editions)			
International Code of Signals	Up-to date (the last editions)			
International Aeronautical and Maritime Search and Rescue (IAMSAR Vol.III)	Up-to date (the last editions)			
International Conventions SOLAS COLREG MARPOL ILL STCW	Available on board			
Maritime Laws of Flag Administration	Available on board			

Other Necessary Publications

Item		Remarks

Table 3. Logbook Entries

Item	Check Points	Entry/Not	Remarks	Reg.
Steering gear testing and drills	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. Ⅴ/19-2 SOLAS 74 / 00 Reg.V/26
Abandon ship drills	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. III/ 19. 5
Fire drills	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. III/ 19. 5
Drills of other life-saving appliances and on board training	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. III/ 19. 5
On-board training and instructions	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. III/ 19. 5
Monthly inspection of life-saving appliances and lifeboat equipment	To be recorded the date and detail		To be referred Table 5	SOLAS74 / 88 Reg. III /20. 7
Working language	To ensure effective crew performance in safety matters			SOLAS74 / 00 Reg.V/14

Table 4. Safety in General

Item	Check Points	Satisfied/Not	Remarks	Reg.
Fire control plans	Permanently exhibited in accommodation spaces.			SOLAS74 / 00 Reg. II-2/15
	Permanently stored in watertight cases outside the accommodation main entrances.(Port & Starboard)			
	Language understood by crew.			
	Kept up-to-date.			
Muster List	Exhibited in W/H, E/R and crew accommodation spaces.			SOLAS74 / 88 Reg. III/8, 37
	To show duties according to Reg.III/37			
	Language understood by crew.			
Training Manual	Provided in each crew mess room and recreation room, or in each crew cabin, complying with requirements of SOLAS 74/00 Reg.III/35 and II-2/15.			SOLAS74 / 88 Reg. III /35 SOLAS74 / 00 Reg. II-2/15
	Language understood by crew.			
Instructions for on-board maintenance	Available on board and including all items showed by Reg.III/36.			SOLAS74 / 88 Reg. III /36
	Language understood by crew.			
Posters or signs	Provided on or in the vicinity of lifeboats, liferafts, rescue boats and their launching controls.			SOLAS74 / 88 Reg. III/9
	Use of symbols according to IMO Res.A760(18).			
Marking of stowage locations	Provided position of lifesaving appliances			SOLAS74 / 88 Reg.III/20.10
	Use of symbols according to IMO Res.A760(18)			
Pilot ladders	Condition in good order, side ropes, rubber steps, wooden steps			SOLAS74 / 88 Reg. V/17 SOLAS74 / 00 Reg. V/23
	Proper handholds available.			
Fire Safety Operational booklet	Provided in each crew mess room and recreation room, or in each crew cabin, complying with requirements of Reg. II-2/16.			SOLAS74 / 00 Reg.II-2/16
	Written in the working language			
Maintenance plan	Kept onboard, complying with requirements of Reg.II-2/14			SOLAS74 / 00 Reg.II-2/14

Table 5. Testing and drills

Item	Check Points	Satisfied/Not	Remarks	Reg.
Communication system between W/H and E/R, W/H and steering gear room,	Testing between each compartment.			SOLAS74 / 88 Reg. II -1/ 29.10, 37, V/12(f), SOLAS74 / 00 Reg. V/19.2.1.9
Emergency generator	Operational test.			SOLAS74 / 88 Reg. II -1/43 44
	Confirmation of F.O. tank level.			
	Condition of starting devices.			
	Ease of operation by crew.			
Discharge test of fire fighting system by operation of main fire pumps / emergency fire pump separately	Operational test of main fire pump / emergency fire pump separately.			SOLAS74 / 88 Reg. II -2/4 SOLAS74 / 00 Reg. II -2/10
	Sufficient delivery pressure. 6000 GT and over : 0.27 N/mm² under 6000 GT : 0.25 N/mm²	Pressure:	reaching distance 12m or over	
	Isolation valves operable.			
	No leakage of fire lines.			
	Confirmation of F.O. tank level for emergency fire pump engine.			
	Ease of operation by crew.			
Steering gear (S/G) system (Within 12 hours before departure)	Operation of main and Aux. S/G (full movement of the rudder).			SOLAS74 / 88 Reg. V /19-2 SOLAS74 / 00 Reg. V/26
	Remote control system.			
	Emergency power supply.			
	Rudder angle indicators in relation to actual position.			
	Testing of alarms.			
	Automatic isolating arrangement. (if any)			
	Visual inspection of S/G and connecting linkage.			
	Operating instructions with block diagram in W/H, S/G room. No oil leakage from ram cylinder.			
Emergency steering gear drill (every 3 months)	Practice of emergency steering procedure (including direct control, communication, alternative power)			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Abandon ship drills (every month and within 24 hours of departure if 25% of the crew have not participated on board the ship in the previous month)	Summoning of the crew to muster stations with emergency alarm according to the muster list.			SOLAS74 / 88 Reg.III/19
	Confirmation of the duties stated in the muster list.			
	Lifejackets worn correctly by crew.			
	Lowering of at least one boat (Different boats shall be lowered in turn at successive drills).			
	Starting & operating the engine(s)			
	Emergency lighting test.			
	Each boat to be launched and manoeuvred in the water by its assigned operating crew, at least once every 3 months.		for free-fall launching, to be carried out drill in accordance with Reg. III / 19.3.3.4 of SOLAS 74 / 00	
Fire drills (every month and within 24 hours of departure if 25% of the crew have not participated on board the ship)	Summoning of the crew to stations according to the muster list.			
	Starting a main and emergency fire pump in turn, and discharging test using the two jets of water.			
	Checking fireman‘s outfits and other personal equipment, including fitting on crew member in turn.			
	Checking the communication equipment.			
	Checking the operation of fire door, watertight door, fire dampers and main inlets/outlets of ventilation system.			
	Operating shut-off valves of F.O. tanks and emergency stop of fans.			
Weekly inspections	Visual inspection of all survival craft, rescue boats and launching Appliances. All engines in lifeboats and rescue boats to be run ahead and astern for 3 min. Testing of the general emergency alarm.			SOLAS74 / 88 Reg. III /20. 6
Monthly inspection	Inspection of life-saving appliances and lifeboat equipment to be carried out using the check list required by Reg. III /20.7.			SOLAS74 / 88 Reg. III /20. 7
SOPEP/SMPEP drill	Ship-related persons should be involved in the drill covering all parts of SOPEP/SMPEP which should be carried out at regular intervals.			SOPEP SMPEP

Table 6. Navigational Equipment / Safety Navigation

Item	Check Points	Satisfied/Not	Remarks	Reg.
Magnetic compass	Clearly readable by the helmsman at the main steering position.			SOLAS74 / 88 Reg. V/12 (b) SOLAS74 / 00 Reg. V/19.2.1
	Communication between the standard compass position and the main steering position.			
	Bubbles are not in the compass.			
	Table/curve of residual deviation (every 1 year) is available.			
	Bearing device is provided.			
	Spare Magnetic Compass (or Heading Gyro Repeater) is provided.			
Gyro compass	Clearly readable by the helmsman at the main steering position.			SOLAS74 / 88 Reg. V/12 (d) SOLAS74 / 00 Reg. V/19.2.1 and.2.5.1
	Condition of the master gyro, and gyro repeaters for bearing with bearing device.			
Heading information to emergency steering position	Gyro compass repeater at emergency steering position is available for 00NS. Arrangement of portable repeater is available.			SOLAS74 / 88 Reg. V/12 (f) SOLAS74 / 00 Reg.V/19.2.1.9, 19.2.3
	Communication system between the main steering position and emergency steering position.			
Heading Control System (HCS) (Auto Pilot)	Working satisfactorily			SOLAS74 / 00 Reg. V/19.2.8
	Versatile change-over between manual and automatic			
Track Control System (TCS, instead of HCS)	Working satisfactorily			SOLAS74 / 00 Reg.V/19.2.8
	Versatile change-over between manual and automatic			
Radar	Working satisfactorily.			SOLAS74 / 88 Reg. V/12 (g), (I) SOLAS74 / 00 Reg.V/19.2.3, 19.2.7
	Plotting facilities are available. (00ES)			
ARPA	Working satisfactorily.			SOLAS74 / 88 Reg. V/12 (j) SOLAS74 / 00 Reg.V/19.2.8
ATA (Automatic Tracking Aid)	Working satisfactorily			SOLAS 74 / 00 Reg.V/19.2.5, 19.2.7
EPA (Electronic Plotting Aid)	Working satisfactorily			SOLAS74 / 00 Reg.V/19.2.3

Item	Check Points	Satisfied/Not	Remarks	Reg.
Echo sounder	Working satisfactorily.			SOLAS74 / 88 Reg. V/12 (k) SOLAS74 / 00 Reg.V/19.2.3
Speed and distance log through the water	Working satisfactorily.			SOLAS74 / 88 Reg. V/12 (l) SOLAS74 / 00 Reg.V/19.2.3
Speed and distance log over the ground	Working satisfactorily			SOLAS74 / 00 Reg.V/19.2.9
Indicators for rudder angle, Propeller RPM (Pitch & operational mode for CPP & side thrusters)	Working satisfactorily.			SOLAS74 / 88 Reg. V/12 (m) SOLAS74 / 00 Reg.V/19.2.5
Rate-of-turn indicator	Working satisfactorily.			SOLAS74 / 88 Reg. V/12(n) SOLAS74 / 00 Reg. V/19.2.9
ECDIS	Electronic Navigation Charts are available and up-dated.			SOLAS74 / 00 Reg.V/19.2.1.4
	Back-up System (If provided instead of nautical charts)			
	Electronic Nautical publications			
GPS receiver	Working satisfactorily			SOLAS74 / 00 Reg. V/19/2.1.6
AIS (Automatic Identification System)	Working satisfactorily			SOLAS74 / 00 Reg. V/19/2.4
VDR (Voyage Data Recorder)	Working satisfactorily			SOLAS74 / 00 Reg.V/19.20
	Annual test to be carried out by approved service station	When tested		
S-VDR (Simplified Voyage Data Recorder)	Working satisfactorily		For 00ES(≧ 3000G/T)	SOLAS74 / 00 Reg.V/20.2
	Annual test to be carried out by approved service station	When tested		
LRIT (Long Range Identification & Tracking)	Working satisfactorily			SOLAS74/06 Reg.V/19-1
Sound Reception System (when the bridge is totally enclosed)	Working satisfactorily			SOLAS74 / 00 Reg. V/19.2.1.8
Transmitting Heading Device (THD) (ships of 300 GT to 500 GT)	Working satisfactorily			SOLAS74 / 00 Reg. V/19.2.3.5
Maintenance Records	Available on board. (including VDR/S annual test and compliance statement for 00NS)			SOLAS74 / 00 Reg. V/ 16 &18.8
Pilot Card (All ship)	Available on board			Resolution A.601(15)
Wheelhouse Poster (L≧100 m)	Available on board			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Manoeuvring Booklet (Administration's requirements)	Available on board			
Daylight signal Lamp	Working satisfactorily.			SOLAS74 / 88 Reg. V/11 SOLAS74 / 00 Reg.V/19.2.2
	Supplied from emergency power. Battery & charger for 00NS			
Voyage Plan	For next Voyage		To be planed the whole of voyage, from berth to berth	SOLAS74 / 00 Reg.V/34 IMO Res.A.893(21)
Record of navigation activities	In case where ship's engaged on international voyage exceeding 48 hours, to be submitted a daily report to company, and to be kept on board			SOLAS74 / 00 Reg. **V** /28
Navigation lights	Fore & aft masthead lights			COLREG
	Side lights			
	Stern light			
	Anchor light			
	Not under command light			
	Distribution panel			
Forecastle bell	Available on board.			
Gong (Ships of 100m and upwards in length)	Available on board.			
Whistle	Working satisfactorily.			
Black ball shapes	At least 3 sets available.			
Black diamond shape	for tug boat.			

Table 7. Lifesaving Appliances

Item	Check Points	Satisfied/Not	Remarks	Reg.
Lifeboat and/or rescue boat	Condition of hull inside & outside (no rust, no doublers).			SOLAS74 / 88 Reg. III/20,34 to 36
	Grab lines on both side in order.			
	Bilge keel rails on both side.			
	Rudder stock, rudder and tiller and stern frame in order.			
	Thwarts, side benches, clutch holes, gunwales in good condition.			
	Engine, foundation, exhaust pipe.			
	Propeller and shafting with clutch.			
	Reflective tape on hull.			
	Marking (Ship‘s name, No of persons, Registry of port etc.), retro-reflective tapes.			
	Plug with packing and a chain with indication of position.			
	Bilge pump with hose (testing).			
Lifeboat inventory	Verification according to inventory list.			
	Validity of provisions, pyrotechnics, portable fire extinguisher.			
	Watertight container.			
	Cover and stanchions (if any)			
Stowage of lifeboat and/or rescue boat	Visual condition of stowage.			
	Operation of limit switch or air cut-off valves.			
	Condition of lifting arrangement.			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Launching arrangement of life boat, rescue boat and liferaft	Condition of davits			SOLAS74 / 88 Reg. III/20
	Condition of blocks, falls, padeyes, links, fastening and all other fittings.			
	Fall to be renewed at intervals not exceeding 5 years.	When renewed: _____		
	Condition of brake (Winch)			
	Annual through examination for Launching appliance and on-load release gear shall be conducted by approved service firms.	When examined _____		
	Brake (Winch) to be thorough examined at intervals not exceeding 5 years by approved service station.	When examined: _____		
	On-load release gear to be overhauled and tested under a load at intervals not exceeding 5 years by approved service station.	When overhauled & tested: _____		
	Condition of release gear			
	Condition of skates and fenders			
	Condition of embarkation ladders, handholds, side ropes, steps and fitting shackles/padeyes			
	Condition of boat lights by emergency power			
	To be serviced at intervals not exceeding 12 months with release gear except when extension is authorized by the flag state.	When serviced: _____		
Inflatable liferafts	Container to be marked with ; maker‘s name, serial No., last service date, No. of persons, etc.			SOLAS74 / 88 Reg. III/20,34
	Fitting retro-reflective tapes			
	Condition of stowage			
Stowage of liferafts	Proper fitting of weak link (in case of a type without weak link, notice to be posted)			
	Condition of embarkation ladder			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Distress Flares	At least 12 parachute rocket signals available on board.			SOLAS74 / 88 Reg. III/6.3
	Validity			
Lifebuoys for ships of 83 ES	At least 8 lifebuoys with marking and retro-reflective tapes available.			SOLAS74 / 88 Reg. III/21
	Two buoys on bridge wings with quick release gear provided for self-igniting lights(SIL) & smoke signals. Illumination of SILs. Validity of smoke signals. Operation of release gear.			
	A buoys with SILs on each side. Illumination of SILs.			
	A buoy with buoyant line of 27.5 meters in length on each side.			
	A buoy without attachment on each side.			
Lifebuoys for ships of 83 NS L(m) No. of buoys less than 100m 8 less than 150m 10 less than 200m 12 200m and over 14	Proper No. of lifebuoys with marking and retro-reflective tapes.			SOLAS74 / 88 Reg. III/7.1, 32
	Two buoys with self-igniting lights (SIL) and smoke signals being capable of released by release gear, having a mass of at least 4kg on bridge wings. Illumination of SILs. Validity of smoke signals. Operation of release gear.			
	At least half of the total number of buoys to be provided with SILs. Illumination of SILs.			
	At least one buoy with a buoyant line on each side.(30m or twice the height at stowage position above water level, whichever is the greater.)			
	The remaining buoys without attachment on both sides.			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Lifejackets	A lifejacket for every person on board with retro-reflective tapes.			SOLAS74 / 88 Reg. III/7.2, 32
	Additional lifejackets for persons on watch and for use at survival craft stations.		For 83 NS	
	Each lifejacket with a whistle & light.			
Immersion suits	Condition of Immersion suits Provided for every person and as additional.		For 04ES: to be supplied by first SE Survey after 1 July 2006	SOLAS74 / 88 Reg. III/ 32
Thermal protective aids	For persons on board not provided with immersion suits, and ready for immediate use.			SOLAS74 / 88 Reg.III/32, 34
Two-way VHF radio-telephone apparatus	At least three sets complying with the standards			SOLAS74 / 88 Reg. III/6.2.1
	Operation of the apparatus.			
Radar transponders	At least one radar transponder on each side of wheelhouse.			SOLAS74 / 88 Reg. III/6.2.2
	In case of free-fall lifeboat, one is stowed in a free-fall lifeboat and the other one is fitted in the wheelhouse.			
	Validity of battery			
On-board communications	Operation of two-way communications between emergency control station, muster and embarkation stations and strategic positions			SOLAS74 / 88 Reg. III/6.2.4
General emergency alarm	Operation of alarm for summoning the crew to muster stations.			
Public address system	Operation of the system			
Line-throwing appliances	Four rockets capable of carrying line at least 230m.			SOLAS74 / 88 Reg. III/18
	Proper instruction available.			
	Validity of rockets			

Table 8. Fire Fighting Appliances

Item	Check Points	Satisfied/Not	Remarks	Reg.
Fire integrity	Insulation on “A” class bulkheads and decks in good condition.			SOLAS74 / 88 Reg. II-2/42 SOLAS74 / 00 Reg.II-2/9
	Penetrations of ventilation ducts cable penetration and pipes through “A” class bulk heads and decks in good order.			
Fire doors	Operate satisfactorily.			SOLAS74 / 88 Reg. II-2/47 SOLAS74 / 00 Reg.II-2/9
	Self-closing doors not to be fitted with hold-back hooks.		For 81 NS	
Skylights	Closing arrangements in good order			SOLAS74 / 88 Reg. II-2/ 11.2.2, SOLAS74 / 00 Reg. II-2/ 9.5.2.2
	Skylights to be of steel and not contain glass panels.		For 81 NS	
Fire dampers	Operate satisfactorily.			SOLAS74 / 88 Reg. II-2/ 5.1.4 SOLAS74 / 00 Reg. II-2/ 5.2
	Cargo holds			
	Engine room			
	Accommodation spaces			
	Control stations			
	Other spaces			
	Clear marking of “Close-Open”. No hole / defection of dampers			
Main fire pumps	Operate satisfactorily.			SOLAS74 / 88 Reg. II-2/4 SOLAS74 / 00 Reg.II-2/10.2
	Proper pressure maintained.			
	Pressure gauges in good order			
Emergency fire pump	Operates satisfactorily.			
	Proper pressure maintained.			
	Pressure gauges in good order			
	Prime mover in good condition.			
	Exhaust gas piping in good order.			
Fire main piping	No leakage, heavy wastage in lines			
	No doublers, clamps, soft patches in lines			
Isolation valves	Operate satisfactorily.			
Hydrants	Fire hoses easily coupled to hydrants			
	Satisfactory operation of valves.			
	Valve handles not broken			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Fire hoses	All hoses in good condition, without leakage.			SOLAS74 / 88 Reg. II-2/4 SOLA74 / 00 Reg.II-2/10.2
	Checking the number of hoses acc. to the fire control plan			
	Complete with nozzle and couplings			
Nozzles	All nozzles in good condition, without leakage.			
	Jet type nozzles, and jet/spray dual type in engine room. Operation of easy change mode.		For 81 ES	
	Jet/spray dual type with shut-off device for all nozzles. Operation of easy change mode and shut-off devices.		For 81 NS	
Stowage boxes of fire hoses and nozzles	Stowed in good condition and easily usable.			
	Clearly painted (red color) boxes.			
Portable fire extinguishers (foam, dry power, CO_2)	Checking the number of portable fire extinguishers of each type according to the fire control plan.			SOLAS74 / 88 Reg. II-2/6 SOLAS74 / 00 Reg.II-2/10
	Cylinders in good condition, without serious corrosion/damage.			
	Validity of the medium foam : one year dry powder : five year CO_2 : measure at Class SS and IS			
Portable foam applicator unit	Checking the air-foam nozzle, portable tank of foam making liquid, and one spare tank.		For 81 NS	
	Testing the connection to fire main by a fire hose.			
	Condition of stowage container in good order.			
	Validity of foam making liquid: four years (impossible to extend by sampling)			
Foam type fire extinguisher of 135 litters capacity or equivalent in firing space of boiler and in spaces of fuel oil system	Visual condition in good order, without wastage.		For 81NS	SOLAS74 / 88 Reg. II-2/7.1.3 SOLAS74 / 00 Reg.II-2/10.5
	Easily usable condition.			
	Validity of the medium Foam : one year dry powder : five years CO2 : measure at Class SS and IS			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Foam type fire extinguisher of 135 litters capacity or equivalent in firing space of boiler and in spaces of fuel oil system	Visual condition in good order, without wastage.		For 81NS	SOLAS74 / 88 Reg. II-2/7.1.3 SOLAS74 / 00 Reg.II-2/10.5
	Easily usable condition.			
	Validity of the medium Foam : one year dry powder : five years CO2 : measure at Class SS and IS			
Foam type fire extinguishers of 45 litters capacity or equivalent in engine room	Visual condition in good order.			SOLAS74 / 88 Reg. II-2/7.2 SOLAS74 / 00 Reg.II-2/10.5
	Easily usable condition.			
	Validity of the medium Foam : one year dry powder : five years CO2 : measure at Class SS and IS			
Fixed fire extinguishing arrangement in E/R, cargo spaces and cargo pump room* (CO_2 or Halon, foam, water spray)	Piping in lines in good order, without leakage or no heavy corrosion.			SOLAS74 / 88 Reg. II-2/7.1.1, 53 SOLAS74 / 00 Reg.II-2/10.5.1.1, 10.7 *Cargo pump R/M:(For 00NS) SOLAS74 / 00 Reg.II-2/10.9
	Regular checking of lines by air blow or water flow test at Class SS and IS.			
	CO_2 or Halon cylinders to be level/weight measured at Class SS and IS. Proper test certificate on board.			
	Validity of foam liquid (5 years). After 5 years, effectiveness of foam liquid to be checked, and a sample test certificate available on board. (Flag special requirements to be referred.)			
	Testing the audible alarm for the release of gas (CO_2 or Halon)			
Fire detection	Regular checking of the detection system and fire alarm.			SOLAS74 / 88 Reg. II-2/13 SOLAS74 / 00 Reg.II-2/7
Fuel oil tank shut-off valves; Over 500L: ships built on and after 1 July 1995 Over 1000L: ships built before 1 July 1995	All valves to be closed by remote control from outside of E/R. Satisfactory operation of valves.			SOLAS74 / 88 Reg. II-2/15.2 SOLAS74 / 00 Reg.II-2/4.2.2
	In case that shut-off valves are operated by air, the air cylinder is always charged with correct pressure. Pressure gauge in good condition.			
Emergency stop of fans and fuel oil pumps in Engine room	Satisfactory operation of emergency stop.			SOLAS74 / 88 Reg. II-2/11.4 SOLAS74 / 00 Reg.II-2/5.2

Item	Check Points	Satisfied/Not	Remarks	Reg.
Means of isolating the fuel supply to individual engines	Satisfactory operation of means to isolate the fuel supply		For 00NS	SOLAS74 / 00 Reg.II-2/4.2.2
Fireman's outfit	Two(2) sets for cargo ships Four(4) sets for tankers			SOLAS74 / 88 Reg. II-2/17 SOLAS74 / 00 Reg. II-2/10.10
	Stowage condition in good order according to the fire control plan.			
	Protective clothing, boots and gloves, helmet, electric safety lamp, axe. Easily usable condition.			
	Breathing apparatus with a smoke helmet or smoke mask and air pump, with proper length of air hose, or a self-contained breathing apparatus.			
	200 % spare air cylinders available on board or 100 % + Air compressor.			
	A fireproof lifeline of sufficient length for each breathing apparatus with a snaphook. Storage position is clearly marked. (00NS)			
Fire extinguishing arrangement in paint lockers	Fire fighting system in good order. (Type of arrangement is in accordance with the requirements of the flag state. e.g. portable fire extinguisher is acceptable for ships flying flag of Panama, Japan, etc. (00ES))			SOLAS74 / 88 Reg. II-2/18.7 SOLAS74 / 00 Reg. II-2/10.6.3
International shore connection	At least one (1) shore connection with standard flange dimensions available on board.			SOLAS74 / 88 Reg. II-2/19 SOLAS74 / 00 Reg. II-2/10.2
	Four sets of bolts and nuts, each of 16 ㎜ in diameter, 50 ㎜ in length available on board.			
	One gasket packing available on board.			
Inert gas system	Operates satisfactorily.			SOLAS74 / 88 Reg. II-2/62 SOLAS74 / 00 Reg. II-2/4.5.5
	Alarms in the control panel function properly.			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Emergency lights	Satisfactory lighting condition in engine room, accommodation spaces, wheel house, control stations, outside passage.			SOLAS74 / 88 Reg. II-1/43
	Bulbs and glasses without damage.			
Means of escapes	Ready for immediate use.			SOLAS74 / 88 Reg. II-2/45 SOLAS74 / 00 Reg. II-2/13
	Steps and handrails without damage.			
	Lighting operates satisfactorily.			
Emergency Escape Breathing Devices (EEBD)	Stowage condition in good order according to the fire control plan. Easily usable condition.			SOLAS74 / 00 Reg.II-2/13
	Suitable maintenance according to the Manufacturer's instruction.			
	Confirmation of Air-pressure			
Fixed Local Application Fire-fighting System	Piping, pump, valves and nozzles in good order, without leakage, heavy corrosion or damage		For 00NS	SOLAS74 / 00 Reg.II-2/10.5.6
	Regular checking of lines by air blow or water flow test at class SS and IS.		For 00NS	
	Operate satisfactorily at class SS and IS.		For 00NS	
Fire-fighting devices for Deep Fat Cooking Equipment	Visual condition in good order.		For new installation on or after 1 July 2002	SOLAS74 / 00 Reg.II-2/10.6.4
	Operate satisfactorily at class SS and IS.			
Protection of Cargo Pump Room	Operate satisfactorily			SOLAS74 / 00 Reg.II-2/4.5.10
Helicopter Facilities	Arranged in accordance with the plan for Helicopter Facilities.			SOLAS74 / 88 Reg. II-2/18.8 SOLAS74 / 00 Reg. II-2/18
	Fire-fighting appliances in good order			SOLAS74 / 00 Reg.II-2/18
Fixed fire extinguishing system for exhaust ducts from galley ranges	Visual condition in good order.			SOLAS74 / 88 Reg.II-2/16.7 SOLAS74 / 00 Reg.II-2/ 9.7.5
	Operate satisfactorily at class SS and IS.			

Table 9. Radio Installation

Item	Check Points	Satisfied/Not	Remarks	Reg.
VHF installation	Function satisfactorily. DSC to be checked.			SOLAS74 / 88 Reg.IV/7
MF installation	Function satisfactorily. DSC to be checked.			SOLAS74 / 88 Reg.IV/8,9,10 , 11
MF/HF installation	Function satisfactorily. DSC to be checked.			
INMARSAT-C	Function satisfactorily. Include EGC receiver			
NAVTEX receiver	Function satisfactorily.			SOLAS74 / 88 Reg.IV/7.1.4
Satellite EPIRB	Function satisfactorily.			SOLAS74 / 00 Reg.IV/15.9
	Validity of battery			
	Expiry date of free float sensor.			
	Annual onboard test	Last date _____	shall be conducted by approved service firms.	
	Shore based maintenance	Last date _____	shall be conducted by approved service station, at intervals not exceeding 5 years.	
Sources of energy	Main source in good order.			SOLAS74 / 88 Reg.IV/13
	Emergency source in good order.			
	Reserve source in good order. Batteries in good condition as a result of measuring specific gravity of acid, liquid level and terminal voltage.			
Antenna	Satisfactory condition, without damage or missing components.			SOLAS74 / 88 Reg. IV /6
	Antenna masts and brackets in good condition, without heavy corrosion or wastage.			
Tools and spares	Available on board.			SOLAS74 / 88 Reg.IV/15
Maintenance records	Available on board. (including EPIRB on-board annual maintenance and shore based maintenance)			
Radio log book	Proper records in the log books. Daily / Weekly / Monthly check			SOLAS74 / 88 Reg.IV/17
List of Call Signs	Up-to date (the last editions)			ITU RR S20

Item	Check Points	Satisfied/Not	Remarks	Reg.
List of Coast Stations	Up-to date (the last editions)			
List of Radio Determination and Special Service Station	Up-to date (the last editions)			
Manual for use by the Maritime Mobile and Maritime Satellite Station	Up-to date (the last editions)			
Clock	Operates satisfactorily			
Lighting in radio space	Normal and emergency lights in good condition			SOLAS74/88 Reg.IV/6

Table 10. Load Line

Item	Check Points	Satisfied/Not	Remarks	Reg.
Freeboard marks	Clearly marked on shell plating each side.			ILL AX I Reg.5, 6
Triangular mark (For Bulk carrier of alternate loading)	Condition of Triangular mark			SOLAS74 / 00 Reg. XII / 8
Superstructure end bulkhead	No heavy wastage exceeding permissible limit.			ILL AX I Reg.11
Doors of all access openings in bulkhead at ends of enclosed superstructures.	Effective weathertightness.			ILL AX I Reg.12
	No heavy corrosion, holes.			
	Condition of gaskets and clamping devices in good order.			
Access hatches	Effective weathertightness.			ILL AX I Reg.13,14
	Hatch coamings in good condition without heavy wastage or holes.			
	Condition of gaskets and clamping devices in good order.			
Cargo hatches	Effective weathertightness.			ILL AX I Reg.13 to 16
	Hatch coamings and stays in good condition without heavy wastage or holes.			
	Hatch covers in good condition without heavy wastage or holes.			
	Condition of gaskets and clamping devices in good order.			
	Battens and wedges available on board in good order.			
	Tarpaulins in good condition without holes.			
Owner’s inspection and maintenance of Bulk Carrier Hatch Covers	The Hatch Cover shall be inspected in accordance with requirement of IMO Res. MSC.169(79)			SOLAS74/ 00 Reg.X/7.2
Machinery space openings	Effective weathertightness.			ILL AX I Reg.17
	Covers, casings and coamings in good condition without heavy wastage or holes			
Manholes, flush scuttles	Effective weathertightness.			ILL AX I Reg.18
	Covers and bolts in good condition without heavy wastage.			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Deckhouses, companionways with openings in freeboard deck	Effective weathertightness.			ILL AX I Reg.18
	Bulkhead plating in good condition without heavy corrosion or holes.			
	Doors in good condition without heavy corrosion or holes. Gaskets and clamping devices in good order.			
Ventilators	Coamings in good condition without heavy corrosion, holes.			ILL AX I Reg.19
	Closing covers in good condition, efficient weathertightness.			
	Gaskets, clamping devices in order.			
Air pipes	Coamings in good condition without heavy corrosion or holes.			ILL AX I Reg.20
	Air pipe heads in good condition without heavy corrosion or holes.			
	Floats in pipe heads in good order.			
	Wire gauzes in good condition.		For oil tanks only	
Cargo ports and similar openings	Effective weathertightness.			ILL AX I Reg.21
	Steel plating and attachments in good condition without heavy wastage.			
Scuppers, inlets, discharges	Distance pieces in good condition without heavy corrosion or holes.			ILL AX I Reg.22
	Non-return valves in good order without heavy corrosion or holes.			
Side scuttles	Effective watertightness.			ILL AX I Reg.23
	Deadlights in good order.			
Freeing ports	Draining arrangements in good order.			ILL AX I Reg.24
Bulwarks and stays, guard rails	Condition in good order without heavy corrosion, holes or cracks.			ILL AX I Reg.25
Life lines, gangways, passages	Condition in good order without heavy corrosion, missing components or holes.			
Uprights, lashings	Sockets, eye plates, stanchions in good condition without heavy corrosion, holes or cracks.		For timber carriers only	ILL AX I Reg.44

Table 11. Hull Construction and piping on deck

Item	Check Points	Satisfied/Not	Remarks	Reg.
Main deck plating Cross deck plating	Condition in good order. No heavy wastage, corrosion, cracks.			SOLAS74 / 88 Ch.II-1 Part B
F'cle deck plating, Poop deck plating	Condition in good order. No heavy wastage, corrosion, cracks.			
All piping on deck with valves	Condition in good order. No heavy wastage, corrosion, cracks.			
Electric cable conduit	Condition in good order. No heavy wastage, corrosion, cracks.			
Cargo holds	Bulkheads, frames, tanktop plating in good condition. No heavy corrosion, wastage, holes or cracks.			
	Access ladders, piping in good condition. No heavy wastage, holes.			
Ballast tanks	No leakage, damage.			SOLAS74 / 88 Ch. II-1 Part B
	Bulkheads (trans/longl.), longitudinals, transverse rings, horizontal girders, other members in good condition. No heavy corrosion, wastage, holes or cracks.			
	Access ladders, piping in good condition. No heavy wastage, holes			
	Permanent means of access (PMA) in line with ship structure access manual (*if applicable)			
Cargo tanks	No leakage, damage.			
	Bulkheads (trans/longl.), longitudinals, transverse rings, horizontal girders, other members in good condition. No heavy corrosion, wastage, holes or cracks.			
	Access ladders, piping in good condition. No heavy wastage, holes			
	Permanent means of access (PMA) in line with ship structure access manual (*if applicable)			
Fuel oil tanks	No leakage, damage.			
	Bulkheads (trans/longl.), longitudinals, transverse rings, horizontal girders, other members in good condition. No heavy corrosion, wastage, holes or cracks.			
	Access ladders, piping in good condition. No heavy wastage, holes			

Remarks*: To be applied for oil tanker of 500 G/T and over and bulk carriers of 20,000 G/T and over, which are constructed on or after 1 January 2006.

Item	Check Points	Satisfied/Not	Remarks	Reg.
Other compartments (Bos'n store, deck stores, etc.)	Bulkheads (trans/longl.), longitudinals, transverse rings, horizontal girders, other members in good condition. No heavy corrosion, wastage, holes or cracks.			SOLAS74 / 88 Ch.II-1 Part B
Pump room	Bulkheads, longitudinals, web frames, other members in good condition. No heavy corrosion, wastage, holes or cracks.			
	Access ladders, piping in good condition. No heavy wastage, holes.			
	Particular care to be taken to ensure electrical equipment in good order, lights (explosion proof).			
	Protection of cargo pump room (bilge alarm, gas monitoring system, temperature sensor, inter-lock system) working satisfactorily			SOLAS74/00 Ch.II-2 Reg.4.5.10
Water ingress alarm system	Working satisfactorily			for Bulk Carrier SOLAS74 / 02 Reg. XII-12
			For 04ES: To be applied first IS or SS on or after 1 July 2006	For Cargo Ship SOLAS74 / 00 Reg.II-1/23.3
Remote pump control system (F.P.T, Bos'n store) (for Bulk Carrier)	Working satisfactorily			
Ship identification number				SOLAS74 / 00 Reg. XI-3
High velocity P/V valve	Working satisfactorily No sticking/clogging by solidifying substances			

Table 12. Machinery in Engine room

Item	Check Points	Satisfied/Not	Remarks	Reg.
Main engines	Operate satisfactorily.			SOLAS74 / 88 Ch.II-1 Part C
	Safety devices function properly.			
	Remote control functions properly.			
	No leakage of oil / water			
	Jacketed High Press. FO pipes in good order			SOLAS74 / 88 Ch. II-2/15.2 SOLAS74 / 00 Ch. II-2/4
	FO leak alarm in good order			
Generator engines	Operate satisfactorily.			SOLAS74 / 88 Ch.II-1 Part C
	Safety devices function properly.			
	Remote and automatic control functions properly.			
	No leakage of oil / water			
	Jacketed High Press. FO pipes in good order			SOLAS74 / 88 Ch. II-2/15.2 SOLAS74 / 00 Ch. II-2/4
	FO leak alarm in good order			
Boilers	Operate satisfactorily.			SOLAS74 / 88 Ch.II-1 Part C
	Safety devices function properly.			
	Remote and automatic control function properly.			
	Pressure gauges in good order, and calibration is made every year.			
	No leakage of steam / water / oil			
	Water level gauges in good order.			
Stern Tube Seal	No leakage of oil / Sea water			
Essential machinery	Operate satisfactorily.			
	Safety devices function properly.			
	Remote and automatic control function properly.			
	No leakage from pump grand			
	Meters and gauges in good order.			
Piping	No heavy corrosion or leakage.			
	No soft patches / doublers / cement box			
	All valves operate satisfactorily.			
Bilge lines	Bilge pumps, pipings in good order.			
	Emerg. Bilge suction Valve operate satisfactorily			

Item	Check Points	Satisfied/Not	Remarks	Reg.
Overall of E/R	Cleanliness of E/R Must be clean without rubbish or waste oil.			SOLAS74 / 88 Ch.II-1 Part C
	Guards and fencing Protection covers and/or guards			
	All Meters and Gauges			
	Self-closing device for sounding pipe of FO tank			SOLAS74 / 00 Ch. II-2/4
	Means to prevent oil spay provided on flange / joint in oil piping			SOLAS74 / 88 Ch. II-2/15.2 SOLAS74 / 00 Ch. II-2/4
	Insulation for all surfaces of machinery with high temp. above 220℃			
Automatic Control System	Engine Telegraph			SOLAS74 / 88 Ch.II-1 Part C
	Alarm printer		(UMS)	
	Engine Console			
	Extension alarm		(UMS)	
	M/E operation from Bridge		(UMS)	

Table 13. Electrical Equipment

Item	Check Points	Satisfied/Not	Remarks	Reg.
Lighting in E/R	All lights in good order.			SOLAS74 / 88 Ch.II-1 Part D
	Protection covers or guards in good order.			
Lighting in accommodation spaces	All lights in good order.			
	Protection covers or guards in good order.			
Lighting in control station, working room, steering room and other spaces	All lights in good order.			
	Protection covers or guards in good order.			
Emergency cables	Condition in good order. No exposed wire, heavy corrosion, especially on weather deck.			
Emergency lights	All lights in good order without damage.			
Anti-explosion lights in dangerous spaces, pump room, battery room, paint locker etc.	All lights in good order. No broken covers and guards. Tightening handles available on board.			
Insulating mats around MSB	Insulating mats available on board or insulation cement permanently laid up on the floor.			
Insulation resistance	No alarm of low insulation			
Penetration in fire –resisting divisions	Filling material in good order (no clearance)			SOLAS74 / 88 Ch.II-2 Part C
Emergency or common batteries	All batteries in good order. Specific gravity of acid, liquid level and terminal voltage Maintenance records to be updated.			SOLAS74/88 Ch.II-1 Part D
Emergency generator	Operate satisfactorily. 1st, 2nd starting arrangement in good order.			SOLAS74/88 Ch.II-1 Part D

Table 14. Mooring Arrangements

Item	Check Points	Satisfied/Not	Remarks	Reg.
Anchor & chain cables	Condition in good order, no heavy wastage, missing components or damage.			
	Stowage condition in good order.			
Windlass	Winches in good condition.			
	Brake bands in good condition, no abnormal wear.			
	Foundations, grating plates in good condition, no wastage, missing or broken sections.			
Mooring system	Winches in good condition.			
	Brake bands in good condition, no abnormal wear.			
	Foundations, grating plates in good condition, no wastage, missing or broken sections.			
	Sufficient ropes available on board and in good condition.			
	Capstans operate satisfactorily.			
Emergency Towing Arrangements (ETA)	Arrangements in good condition.		For tankers of not less than 20,000 DWT	SOLAS74 / 88 Reg. II-1/3-4

Table 15. Marine Pollution

Item	Check Points	Satisfied/Not	Remarks	Reg.
Oily water separator with pump	Operates satisfactorily. No visible oil in discharged water			MARPOL I Reg.16, 17, 19
	No heavy corrosion, holes on the outer casing.			
	Operation of valves in good order.			
	Pressure gauges in good order.			
	Sampling test for filtered water from test cock			
Discharge piping	No heavy corrosion, holes in lines.			
	All valves operate satisfactorily.			
	No discharge pipes installed without approval of ClassNK.			
	No oil trace in piping			
Sludge pump	Operates satisfactorily.			
Standard discharge connection	Fitted in good condition			
15 PPM alarm	Operates satisfactorily.		For ships of 10,000G/T and above	
	Alarm functions properly.			
	Automatic stopping device functions properly.			
ODM	Operates satisfactorily.		For tankers only	MARPOL I Reg. 15(3) (b)
	Regularly check by the service engineers.			
Oil/water interface detector	Available on board.			MARPOL I Reg. 15(3)(b)
COW	Operation effective.			MARPOL I Reg.13
	COW machine and piping lines in good order.			
Garbage management	Pollution placard			MARPOL V
	Garbage management plan on board.			
	Maintain a garbage log.		Garbage Record Book shall be complied with IMO Res.MEPC.116 (51)	
Sewage treatment Plant/Sewage Holding Tank with pump	Operates satisfactory		400G/T and above or carry more than 15 persons	MARPOL IV
Standard discharge connection	Fitted in good condition			
Ozone-depleting substance	There is no substance on board except for listing on IAPP Cert.			MARPOL VI
NOx	Engine parameters shall be corresponded to NOx Technical Files.		for more than 130kW of diesel engine installed on ship constructed on or after 1 Jan. 2000	MARPOL VI
	Other			

Item	Check Points	Satisfied/Not	Remarks	Reg.
SOx	Bunker receipts and the sample has been kept on board properly		Sulphur＜4.5% (Cont. Area＜1.5%) For ships 400GT and above	MARPOL Vl
	Record of the changeover to and from low sulphur content fuel during transit through a SOx emission control area		if applicable	
	Exhaust gas cleaning system operates satisfactory		if applicable	
Incinerator	Satisfactory installation and operation		for installed on or after 1 Jan. 2000	MARPOL VI
	Alarm / Interlock			
	Warning and instruction plate are placed			
	Insulation			

Table 16. Cargo Handling Gear

Item	Check Points	Satisfied/Not	Remarks	Reg.
Masts, posts, booms, jibs including attachments (eye plates, heel pieces, gooseneck)	Condition in good order. No serious wear, heavy corrosion or damage.			ILO 152
Loose gear (blocks, sheaves, hooks, shackles, wire ropes, etc.)	Condition in good order. No heavy wear, corrosion or damage.			
	Distinguishing numbers stamped on loose gear.			
	Test certificates available.			
Periodical inspection by a competent person (NK surveyors)	The annual thorough survey (every year) is not over due.	Last survey date: _____		
	The 5 yearly load test is not over due.	Last survey date: _____		
	Correct endorsement of cargo gear booklet.			

Table 17. Accommodation

Item	Check Points	Satisfied/Not	Remarks	Reg.
Toilets	Flushing of toilets in good condition. Toilets to be clean.			ILO STCW
	Floor tiles in good condition without broken tiles. Floor to be clean.			
	Floor drainage in good condition.			
Shower rooms, washbasins, laundry room	Spaces in good condition. Rooms to be clean.			
	Hot water available for use.			
Air ventilating in accommodation spaces	Ventilation heating/cooling spaces in good condition.			
Medical equipment	Proper medical equipment available on board.			
	Proper medicines available and within validity dates.			
Sick bay	Clean and ready for emergency use.			
Galley	Clean and with no rubbish.			
	Floor tiles clean and not broken.			
	Range hoods, ventilating opening with wire net to be clean of oil.			
Mess rooms and crew cabins	Clean and with no rubbish.			
Provisions	Quantity and quality in good condition			
	Cold room temperature & cleanliness in good condition			

Checklist II

(For PSC inspection ---Checklist for the most common deficiencies---)

Checklist for Port State Control

Common deficiencies which were pointed out during Port State Control inspection have been identified and listed in the attached checklist.

The contents of the checklist are very simple and can be easily checked by crew during the voyage or before entering ports.

We hope this checklist will contribute to decreasing the number of detentions.

Remarks)
1)‘Activity of the recent Port State Control’ or the detail of ‘Statistical analysis of detained ships registered to ClassNK’ are introduced in the Annual Report on Port State Control published by ClassNK.
2) Items on the checklist do not cover the whole scope of a Port State Control inspection. Therefore, you are recommended to also use other checklists such as Checklist I, III and IV on ‘GOOD MAINTENANCE ON BOARD SHIPS’ during the shipboard maintenance.

Check list for most common deficiencies

Fire Safety Measures (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Fire-Dampers, Valves, Quick Closing Devices, Remote Control, etc.	Inoperable closing devices, wasted fire damper,	No corrosion or wastage on the casing of ventilator for engine room?		
		Is the internal damper operating normally?		
	Seized Emergency shut-off valves on FO tanks	Are Emergency shut-off valves on FO tanks operating normally?		
Fire Pumps	Inoperable or low pressure emergency fire pumps	Are Emergency fire pumps operating normally?		
		Is delivery pressure normal?		
		Is priming pump operating normally?		
	Wastage or leaking of Fire main	No corrosion or wastage of the Fire main?		
		No leakage from Fire main in running condition?		
	Inoperable isolating valve	Is isolating valve operating normally?		
Prevention (Fire protection)	Damage to fire proof door	No damaged Fire door?		
	Damage to self-closing proof door	Is self-closing device of Fire doors operating normally?		
	Damage to fire protection on Escape trunk	No damaged fire protection for Escape trunk or door?		
	Damage/ missing to fire protection material	No damaged / missing parts of fire protection material in Engine room?		
	Defective explosive proof lamp	No damaged explosive proof lamp?		
Fixed fire extinguishing system	Wastage of CO2 bottles	No wasted CO2 bottles?		
	Missing service reports	Is there an effective service report kept onboard?		
	Wasted/holed CO2/Foam fixed fire extinguishing system	Is CO2/Foam tested by air blow or water spray?		
Fire Fighting Equipment	Missing service report of Fire Extinguishers	Is there an effective service report kept onboard?		
	Defective hose/nozzle	No wasted Fire hose/nozzle?		
Jacketed piping system for high pressure fuel lines	Improper modification of drain line, leakage alarm system	Are the prevention measures correctly constructed? Are leakage alarm systems operating normally?		
Ready availability of Fire Fighting Equipment	Improper arrangement of portable fire extinguishers	Is a portable fire extinguisher arranged as shown in the drawing?		
	Seized valve of fire main hydrant	Are all hydrants operating normally?		
Personal equipment	defective Fireman's outfit	No wasted Fireman's outfit?		
	Unserviceable Breathing Apparatus	Is the cylinder for Breathing Apparatus serviced properly?		
Fire detection	Inoperative Fire Detection System	Is fire detection system operating normally?		

Life Saving Appliances (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Lifeboats	Inoperable lifeboat engine	Is Lifeboat engine operating normally?		
	Wasted/holed shell	No damage / wastage of shell or equipment?		
	Inoperable / inadequate resetting 'on-load' release gear	Is on-load release gear operating normally? Is on-load release gear properly resetted?		
Lifeboat Inventory	Equipment missing / expired	No expired Lifeboat inventory or missing equipment?		
Embarkation Arrangements for Survival Craft	Wastage of Embarkation ladder	No wastage of Embarkation ladder?		
	Damaged light	No damaged lights or cables?		
Launching Arrangements for Survival Craft	Wasted/holed davit	No corrosion or wastage of Lifeboat davit?		
	Wasted sheaves	No corrosion or wastage of sheaves or hooks?		
Inflatable Liferafts	Service certificate expired	Is there an effective service report kept onboard?		
	Unsatisfactory storage	Are Liferafts properly stored?		
Lifebuoys	Defective attachment	No wasted Lifebuoys?		
	Smoke signal / light unit expired	No expired smoke signal or light unit?		

MARPOL-ANNEX I (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Oil filtering equipment (Oily-Water Separating Equipment)	Inoperable separator	Is Oil filtering equipment operating normally?		
	Wasted and holed separator casing	No corrosion or wastage of the casing of Oil filtering equipment?		
	Wasted discharge line	No corrosion or wastage of the discharge line from Oil filtering equipment?		
	Oily and dirty inside discharge pipe	Is maintenance works for piping and Oil filtering equipment properly recorded in oil record book?		
	Fitting of by-pass line	No by-pass line fitted to oil filtering equipment?		
15ppm alarm arrangement	Failure of alarm	Is the 15ppm-alarm arrangement operated normally?		
	Inoperable automatic stopping device	Is the automatic stopping device for 15ppm-alarm arrangement operating normally?		

Propulsion & Auxiliary Machinery (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Cleanliness of Engine Room	Excessive oil in Engine Room	Is the engine room dirty?		
Propulsion main engine	Leakage of fuel oil	No leakage of fuel oil or lubricating oil from main engine or other pipings?		

Stability and Structure and Related Equipment (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Emergency Lighting, Batteries & Switches	Deficient battery/emergency generator	Is emergency generator/ battery operating normally?		
	Inoperable emergency lighting	Are all emergency lights operating normally?		
Beam, Frames, Floors-Corrosion	Wasted frames in cargo holds	No wastage of hold frames, beams, etc.?		
	Wasted longitudinals and transverse webs in WBTs	No wastage of longitudinals, transverse webs in WBT?		
Bulkheads - Corrosion	Wasted/holed bulkheads	No wastage/holes of bulkheads in each compartment?		

Load Lines (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Ventilators, Air Pipes, Casings	Wasted/holed ventilator, air pipes	No wastage/holes in air pipes or ventilators?		
	Damaged float of air pipe head and closing device	No damage/stuck floats of air pipe head and closing device?		
Hatch cover, Tarpaulins, Hatch coaming	Wasted/holed hatch cover, hatch coaming	No corrosion or wastage of hatch covers/coamings?		
	Securing device defective / missing	No damaged or missing cargo securing device?		
Weather tight doors	Defective weather tightness	Does the weather tight doors maintain weather tightness?		
	Wastage / defective doors & packings	No corrosion or wastage of doors or packings?		

Safety of Navigation (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Charts	Navigation charts not updated/correct	Are the latest navigation charts provided onboard?		
	Navigation charts for intended voyage not available	Are navigation charts for the intended voyage provided onboard?		
Nautical Publications	Nautical publications (tide table, list of lights, list of radio signals, etc.) not updated/correct	Are latest nautical publications (tide table, list of lights, list of radio signals, etc) provided onboard?		
	Nautical publications incomplete / missing	Are latest corrected supplements of nautical publications provided onboard?		
Lights, shape, sound-signals	Mis-fitting of navigation lights	Are navigation lights properly fitted as shown in the drawings?		
	Failure of daylight signaling light	Is daylight signaling light operating normally?		

Radio Communications (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
MF/HF Radio Installation	Not operable	Is MF/HF Radio operating normally?		
	Poor knowledge of GMDSS officer	Is GMDSS officer familiar with operation (including function test) of GMDSS equipment?		
Reserve source of energy	Low voltage of batteries	Is DC power operating normally?		

Certification and Watchkeeping (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Endorsement by flag states	Missing of endorsement on STCW certificates by flag states	Are STCW certificates endorsed properly by the flag states?		
Certification of Master & Officers	Invalid certificates onboard	Do all crew have valid certificates?		
	Validity of certificates expired	No expired officers certificates?		

SOLAS Related Operational Defects (Checked by :)

Item	Common deficiencies	Check items	Condition	Action
Abandon ship drills	Not familiar with the drill	Is the abandon ship drill and education, etc. executed?		
Fire drills	Not familiar with the drill	Is the fire drill and education, etc. executed?		

Checklist III

(for Safety Management System)

Item	Check points	Satisfied		ISM Code
		Yes	No	
A copy of DOC	DOC is effective for ship. - Type of ship - Flag state - Company name - Annual Verification within 3 months before and after the anniversary date	☐	☐	13
Policy	Ship's personnel are familiar with a Company safety and environmental protection policy.	☐	☐	2.2
Company responsibilities	Senior ship officers can identify the Managers responsible for the operation of the ship (Is this the company stated on a copy of DOC /SMC?)	☐	☐	3.1
	The crew is familiar with its responsibilities provided for the SMS Manuals.	☐	☐	3.2
Designated Person	The crew know who the DPA (Designated Person Ashore) is: Name Title Phone No Senior officers can identify the DPA.	☐	☐	4
Master	Master is the aware of his responsibilities and he is able to locate them in the SMS.	☐	☐	5
	He can point out the statement of his overriding authority as per ISM Code?	☐	☐	5.2
	The master has reviewed the SMS and reported to the company. Last Report date :_____	☐	☐	5.1.5
Resources & Training	Master is fully conversant with the Company SMS.	☐	☐	6.1.1
	The ship is manned as per the minimum safe manning certificate.	☐	☐	6.2
	The ship is manned with qualified, certified and medically fit seafarers in accordance with STCW 95 & Flag requirements. (Refer to CHECKLIST I – TABLE 1(Certificates & Documents).	☐	☐	6.2
	All crewmembers have the documentary evidence for Familiarization training in accordance with STCW A-VI/1-1.	☐	☐	6.3
	All crewmembers with designated safety or pollution prevention duties have the documentary evidence for basic training in accordance with STCW A-VI/1-2.	☐	☐	6.5
	Master ensures that all new personal are properly familiarized with the vessel and its equipment on joining. - in accordance with Essential Instruction - in accordance with STCW A-I/14. Such training records are kept on board.?	☐	☐	6.3
	Pre-Join training has been followed in Company Office or Manning Agency according to Procedures. Such training records are kept on board?	☐	☐	6.5
	On board training in support of the SMS have been followed according to Procedures. Such training records are kept on board?	☐	☐	6.5

Onboard Communication	Where the multi-national crew members are onboard: 1. Working language onboard is established. 2. Master's order or job instructions in working language are clearly understood by crew. 3. All members of crew can communicate effectively in the execution of their duties. 4. Poster / Placard / Relevant documentation on the SMS in a working language or language understood by the ship's personnel.	☐	☐	6.6 / 6/7
Key Shipboard Operation [Common]	Watch schedules are posted where they are easily accessible in accordance with STCW 95 A-VIII.	☐	☐	7
	The watch-keeping and rest hours has been kept as required.	☐	☐	7
	All officers are conversant with the documented procedures on their assigned duties.	☐	☐	7
	All officers know the key shipboard Operation shall be followed in accordance with plan.	☐	☐	7
	The crew is familiar with the garbage collection and disposal procedure.	☐	☐	7
	Personnel are familiar with procedure requirements for ENCLOSED SPACE ENTRY.	☐	☐	7
	The safe meetings are carried out at the required intervals. The safe meeting's minute form properly is completed and filed.	☐	☐	7
[Deck]	All officers are familiar with the navigation equipment available onboard.	☐	☐	7
	Corrections of charts and Nautical Publications are up to date to the latest Notice to Mariners.	☐	☐	7
	The Master's Standing Orders are posted on bridge and singed by all officers ?	☐	☐	7
[Engine]	The engineers are familiar with the engine maintenance routines.	☐	☐	7
	The engineers are familiar with the safe working practice.	☐	☐	7
	The engineers are familiar with the critical equipment.	☐	☐	7
	The engineers are familiar with Bunkering procedures.	☐	☐	7
Emergency Preparedness	All crewmembers were familiar with their designated muster stations.	☐	☐	8.2
	The Emergency Contact Numbers are updated.	☐	☐	8.3
	Muster lists are updated. Fire Control Plans are updated.	☐	☐	8.2
	The crews know its position in the muster list & the duties in case of emergency.	☐	☐	8.2
	Programs for emergency drills and exercises are available on board?	☐	☐	8.2
	The Safety Drills reports are completed properly and forwarded to Head Office at the required intervals.	☐	☐	8.2

Non-conformity, Accident	Any non-conformities have been reported to the Company	☐	☐	9.1
	Company has investigated and analyzed the root cause of NC.	☐	☐	
	The Company has taken corrective action for the reported non-conformities	☐	☐	9.2
	Last Port State Control report dated._____ All Non-conformities and findings in order	☐	☐	9.1 / 9.2
Maintenance	All vessels' certificates are valid and without any outstanding recommendations.	☐	☐	10.1
	The vessel Inspection Reports are completed at the required intervals ?	☐	☐	10.2.1
	Any problems have been reported to the Company in the past. If yes, they have been followed up properly and closed in time.	☐	☐	10.2.1
	Maintenance plans are available on board and have been practiced.	☐	☐	10.2.4
	Maintenance records are available on board.	☐	☐	
	Maintenance/testing for Identified critical equipment and systems have been made properly.	☐	☐	10.3
	Any dangerous accident has not occurred on board at present. If not so, it has been reported to company and followed up properly.	☐	☐	10.2.1
Document Control	Controlled documents are identified.	☐	☐	11.3
	Effective Safety Management Manuals readily are available at right place, at the right time on board? Latest revision dated : _____	☐	☐	11.2
	Obsolete documents have been removed from areas of work.	☐	☐	11.2
Review, verification	Office personnel carry out internal audit the vessel at the required intervals.	☐	☐	12.1
	The results of Internal audit are available on board. Last internal audit report dated. :_____	☐	☐	12.3/ 12.5
	There is not any pending Non conformities/observation from the previous audit.	☐	☐	12.6
	The results of Management Review are available on board.	☐	☐	12.5
External audit / PSC/ FSC	Records of external audit are available on board. Corrective actions have been taken timely, if any.	☐	☐	-

Checklist IV

(For International Ship and Port Facility Security)

	Information to be provided by ships prior to entry into port (PSC–ISPS–CHK–1)	Requirements	Check
.1	Confirmation that the ship possesses a valid ISSC or a valid Interim ISSC and the name of its issuing authority	XI-2/9.2.1.1	☐
.2	The security level at which the ship is currently operating	XI 2/9.2.1.2	☐
.3	The security level at which the ship operated in the previous ten calls at port facilities	XI-2/9.2.1.3	☐
	Any special or additional security measures that were taken by the ship in any previous port where it has conducted a ship/port interface within the timeframe specified 3 above. For example, a ship may provide, or be requested to provide, information, that might be recorded in the ship's log book or in another document such as the ship's security log book, related to:	XI-2/9.2.1.4	☐
	.1 Measures taken while visiting a port facility located in the territory of a State which is not a Contracting Government, especially those measures that would normally have been provided by port facilities located in the territories of Contracting Governments	B/4.37.1	☐
	.2 Any Declarations of Security that were entered into with port facilities or other ships	B/4.37.2	☐
.5	Confirmation that appropriate ship security procedures were maintained during any ship-to-ship activity during the period covered by its previous ten calls at port facilities. For example, a ship may provide, or be requested to provide, information related to:	XI-2/9.2.1.5	☐
	.1 Measures taken while engaged in a ship-to-ship activity with a ship flying the flag of a State which is not a Contracting Government, especially those measures that would normally have been provided by ships flying the flag of Contracting Governments	B/4.38.1	☐
	.2 Measures taken while engaged in a ship-to-ship activity with a ship flying the flag of a Contracting Government but not required to comply with the provisions of chapter XI-2 and part A of the ISPS Code, such as a copy of any security certificate issued to that ship under other provisions	B/4.38.2	☐
	.3 In the event that persons or goods rescued at sea are on board, all known information about such persons or goods, including their identities when known and the results of any checks run on behalf of the ship to establish the security status of those rescued. It is not the intention of chapter XI-2 or part A of the ISPS Code to delay or prevent the delivery of those in distress at sea to a place of safety. It is the sole intention of chapter XI-2 and part A of the ISPS Code to provide States with enough appropriate information to maintain their security integrity	B/4.38.3	☐
.6	Other practical security related information (but not details of the ship security plan). For example, a ship may provide, or be requested to provide, information related to:	XI-2/9.2.1.6	
	.1 Information contained in the Continuous Synopsis Record (CSR);	B/4.39.1	☐
	.2 Location of the ship at the time the report is made;	B/4.39.2	☐
	.3 Expected time of arrival of the ship in port;	B/4.39.3	☐
	.4 Crew list;	B/4.39.4	☐
	.5 General description of cargo aboard the ship;	B/4.39.5	☐
	.6 Passenger list;	B/4.39.6	☐
	.7 Information regarding who is responsible for appointing the members of the crew or other persons currently employed or engaged on board the ship in any capacity on the business of that ship;	B/4.39.7 & XI-2/5	☐
	.8 Information regarding who is responsible for deciding the employment of the ship;	B/4.39.7 & XI-2/5	☐
	.9 In cases where the ship is employed under the terms of charter party(ies), who are the parties to such charter party(ies).	B/4.39.7 & XI-2/5	☐

	General Security Aspects (PSC–ISPS–CHK–2)	Requirements	Check
.1	Specific Security Aspects (See PSC-ISPS-CHK-3)		☐
.2	Check that the ISSC or the Interim ISSC is on board, valid and has been issued by the Administration, a recognized security organization authorized by it or by another Contracting Government at the request of the Administration		☐
.3	Check that the security level at which the ship is operating is at least that set by the Contracting Government for the port facility	XI-2/4.3	☐
.4	Identifying the ship security officer		☐
.5	When checking other documentation, ask for evidence that security drills have been carried out at appropriate intervals and seek information on any exercise involving the ship		☐
.6	Check the records of the last ten calls at port facilities, including the records of any ship-to-ship activities that took place during this period, which should include for each case	XI-2/9.2.1	☐
	.1 The security level at which the ship operated	XI-2/9.2.1.3	☐
	.2 Any special or additional security measures that were taken	XI-2/9.2.1.4	☐
	.3 That appropriate ship security measures were maintained, including the Declaration of Security, where issued	XI-2/9.2.1.5	☐
.7	Assess whether key members of the ship's security personnel are able to communicate effectively with each other on security-related matters.		☐

	Specific Security Aspects (PSC–ISPS–CHK–3)	Requirements	Check
Access to the ship when in port			
1.1	For ships at security level 1, considerations may include		
	.1 Is there some form of control exercised by the ship on its access points?	A/7.2.2	☐
	.2 Is it noticeable that the identity of all persons seeking to board the ship is checked?	B/9.14.1	☐
1.2	Additionally for passenger ships at security level 1, if these aspects are observable when boarding the ship, considerations may include		
	.1 In liaison with the port facility, have designated secure areas been established for searching?	B/9.14.2	☐
	.2 Are checked persons and their personal effects segregated from unchecked persons and their effects?	B/9.14.4	☐
	.3 Are embarking passengers segregated from disembarking passengers?	B/9.14.5	☐
	.4 Has access been secured to unattended spaces adjoining areas to which passengers and visitors have access?	B/9.14.7	☐
1.3	For ships at security level 2, if the following aspects are observable while on board, considerations may include		
	.1 Has the number of access points been limited?	B/9.16.2	☐
	.2 Have steps been taken to deter waterside access to the ship, which may be implemented in conjunction with the port facility?	B/9.16.3	☐
	.3 Has a restricted area on the shore-side of the ship been established, which may be implemented in conjunction with the port facility?	B/9.16.4	☐
	.4 Are visitors escorted on the ship?	B/9.16.6	☐
	.5 Have full or partial searches of the ship been carried out?	B/9.16.8	☐
	.6 Have any additional security briefings been carried out?	B/9.16.7	☐
Access to restricted areas			
2.1	For ships at security level 1, if the following aspects are observable while on board, considerations may include		
	.1 Are restricted areas marked?	B/9.20	☐
	.2 Are the bridge and engine room capable of being locked or secured?	B/9.21.1	☐
	.3 Are the bridge and engine room locked or is access otherwise controlled (e.g. by being manned or using surveillance equipment to monitor the areas)?	B/9.22.2	☐
	.4 Are doors to restricted areas locked (e.g. steering gear, machinery spaces, air conditioning plants, etc.)?	B/9.21.1to 9.21.9	☐
2.2	Additionally for passenger ships at security level 2, have restricted areas been established adjacent to access points in order to avoid a large number of persons congregating in those areas?	B/9.23.1	☐
Monitoring the security of the ship			
3.1	For ships at security level 1, if the following aspects are observable while on board, considerations may include		
	.1 Are deck watches in place during your visit or is surveillance equipment being used to monitor the ship?	B/9.42.2	☐
	.2 Can the ship monitor both landward and seaward approaches?	B/9.42.2, 9.46.1 & 9.46.2	☐
3.2	For ships at security level 2, if the following aspects are observable while on board, considerations may include		
	.1 If surveillance equipment is being used is it being monitored at frequent intervals?	B/9.47.2	☐
	.2 Have additional personnel been dedicated to guard and patrol restricted areas in place?	B/9.47.3	☐

Delivery of ship's stores			
4.1	For ships at security level 1, if the following aspects are observable while on board, considerations may include		
	.1 Are ship's stores being checked before being loaded for signs that they have been tampered or interfered with?	B/9.33.3	☐
	.2 Are checks made to ensure stores match the order prior to being loaded?	B/9.35.1	☐
	.3 Are stores securely stored once loaded?	B/9.35.2	☐
Handling of cargo			
5.1	Checking of cargo by the ship may be undertaken by (bearing in mind that arrangements may have been made for checking and sealing of cargo ashore)		
	.1 Visual and physical examination	B/9.28.1	☐
	.2 Using scanning/detection equipment, mechanical devices, or dogs	B/9.28.2	☐
5.2	For cargo ships, including car carriers, ro-ro and passenger ships at security level 1, if the following aspects are observable while on board, considerations may include		
	.1 Is cargo and are cargo transport units and cargo spaces being checked prior to, and during, cargo handling operations?	B/9.27.1	☐
	.2 Is cargo being checked against its documentation?	B/9.27.2	☐
	.3 Are vehicles subject to search prior to loading?	B/9.27.3	☐
	.4 Are seals, and other anti-tampering methods, being checked?	B/9.27.4	☐
5.3	For cargo ships, including car carriers, ro-ro and passenger ships at security level 2, if the following aspects are observable while on board, considerations may include		
	.1 Is detailed checking of cargo, cargo transport units and cargo spaces being undertaken?	B/9.30.1	☐
	.2 Are detailed checks taking place to ensure only intended cargo is being loaded?	B/9.30.2	☐
	.3 Are vehicles being searched more intensively prior to loading?	B/9.30.3	☐
	.4 Are there frequent and detailed checks of seals and other anti-tampering methods?	B/9.30.4	☐
Handling of unaccompanied baggage			
6.1	Unaccompanied baggage may be screened and/or searched by either the ship or the port facility. The following considerations apply if the screening/searching is being undertaken by the ship		☐
	.1 At security level 1, if observable while on board, is unaccompanied baggage being screened and/or searched?	B/9.39	☐
	.2 At security level 2, if observable while on board, is all unaccompanied baggage being screened and/or searched?	B/9.40	☐

Appendix

(Photos of the most common deficiencies)

1. Mechanical Ventilator

Mechanical ventilators are to be properly maintained in good working condition and checked internally and externally. Check points are as follows;

(1) Corrosion or Wastage of the Casing of Ventilator

How to check:	Visual inspection and hammering
Check items:	No corrosion or wastage of the casing of ventilator?
Action to be taken:	Corroded or wasted casing of ventilator is to be renewed. (Repair by doubling plate or tape is not acceptable.)

Holes of the casing of ventilator

Wastage of the casing of ventilator

Temporary repair by tape
→ *Not acceptable!*

(2) Wastage or Holes of Fire Damper

How to check:	Operation test of fire damper Open up inspection
Check item:	Are damper flaps structurally sound? No wastage or holes of fire damper?
Action to be taken:	Wasted fire damper is to be replaced with new one.

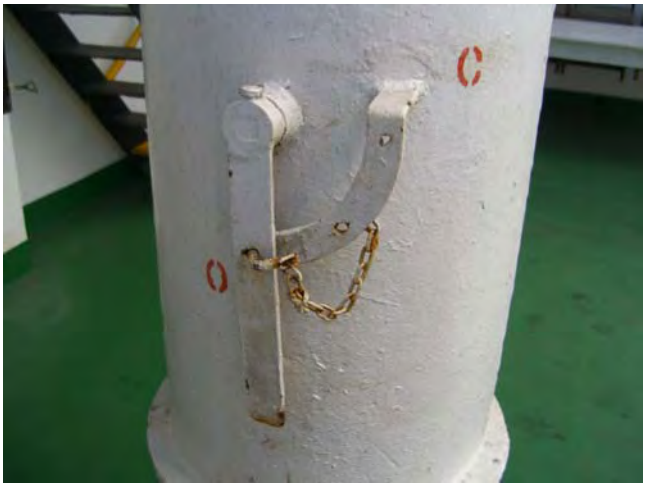
Wastage/holes of fire damper

After repair

(3) Marking of "Close-Open" and Operation of Fire Damper

How to check:	Visual inspection Operation test of fire damper
Check item:	Is "Close-Open" clearly marked? Is the internal damper operating normally?
Action to be taken:	"Close-Open" is to be clearly marked. Inoperable handle is to be greased up.

No marking of "Close-Open"



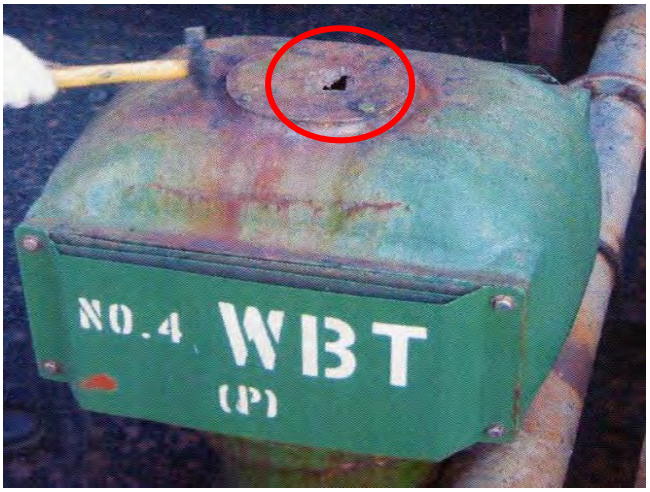
Clear marking of "Close-Open"

2. Air Pipe and Natural Ventilator

Air pipes and natural ventilators are to be properly maintained in good condition and checked internally and externally. Check points are as follows;

(1) Corrosion or Wastage of Air Pipe

How to check:	Visual inspection and hammering Open up inspection
Check item:	No corrosion or wastage of air pipes and their head?
Action to be taken:	Corroded or wasted air pipe is to be renewed. Corroded or wasted air pipe head is to be replaced with new one. (Repair by patty is not acceptable.)



Wastage and holes of air pipe head

Temporary repaired by patty
→ *Not acceptable!*

Wastage of inside of air pipe head

Corrosion of air pipe

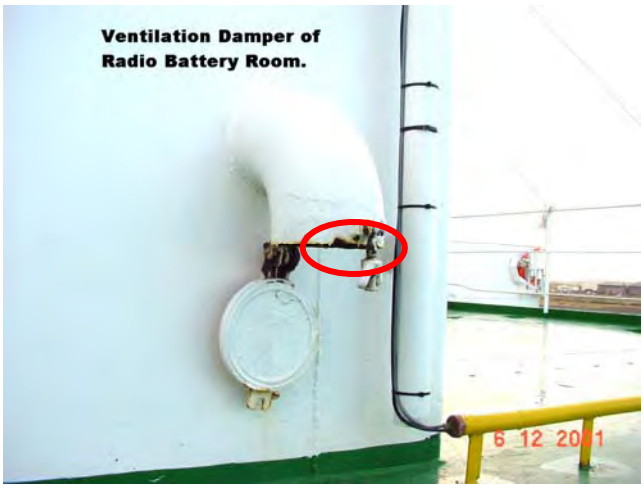
(2) Damage or Stuck Disc Float

How to check: Open up inspection
Check item: No damage or stuck of disc float?
Action to be taken: Damaged disk float is to be replaced with new one.
Stuck disk float is to be adjusted.

Damage of disk float

(3) Corrosion or Wastage of Natural Ventilator

How to check: Visual inspection and hammering
Check item: No corrosion or wastage of ventilator?
Action to be taken: Corroded or wasted ventilator is to be renewed.



Wasted wall ventilator

Wasted gooseneck ventilator

(4) Missing nut or bolt

How to check: Visual inspection
Check item: No missing nut or bolt?
Action to be taken: Missing nut or bolt is to be provided.

Missing butterfly nut of gooseneck ventilator

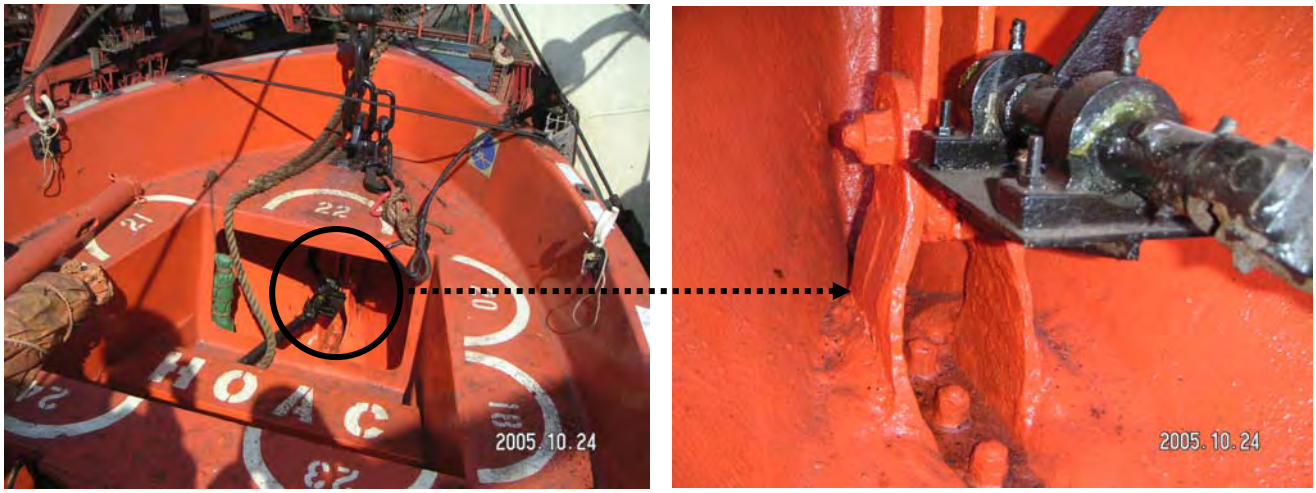
Missing bolt of air pipe head

3. Lifeboat and Lifeboat Davit

Lifeboats including their equipments and lifeboat davits are to be properly maintained in good condition. Check points are as follows;

(1) Damage or Wastage of lifeboat

How to check: Visual inspection
Check item: No damage or wastage of lifeboat?
Action to be taken: Wasted part of lifeboat is to be renewed.
Damaged lifeboat is to be repaired or replaced.



Wastage of support bracket

Wastage of keel nut

Damage of shell

(2) Corrosion of Lifeboat Davit

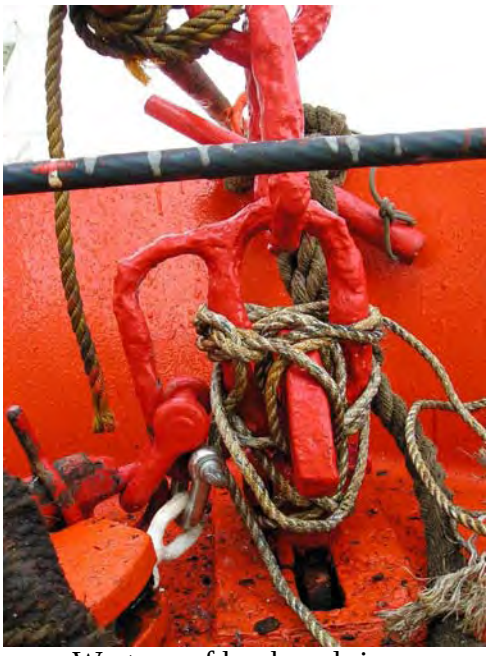
How to check: Visual inspection and hammering
Check item: No corrosion of lifeboat davit?
Action to be taken: Corroded lifeboat davit is to be renewed.


Corrosion of lifeboat davit

(3) Wastage of Sheave or Hook

How to check: Visual inspection and hammering
Check item: No wastage of sheave or hook?
Action to be taken: Wasted sheave or hook is to be replaced with new one.

Wastage of boat fall block



Wastage of hook and ring

(4) Inadequate Resetting of On-load Release Gear

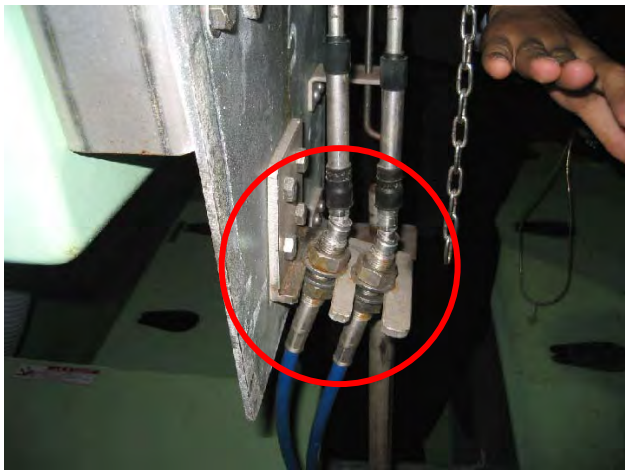
How to check:	Visual inspection
Check item:	Is on-load release gear properly resetted?
	Are turn buckles and releasing cables in a straight line?
	Are both ends of turn buckles alternate direction?
	No damage of release cable?
Action to be taken:	Inadequate resetting on-load release gear is to be rectified.
	To be operated and maintained in accordance with maker's Manual.

Inadequate resetting

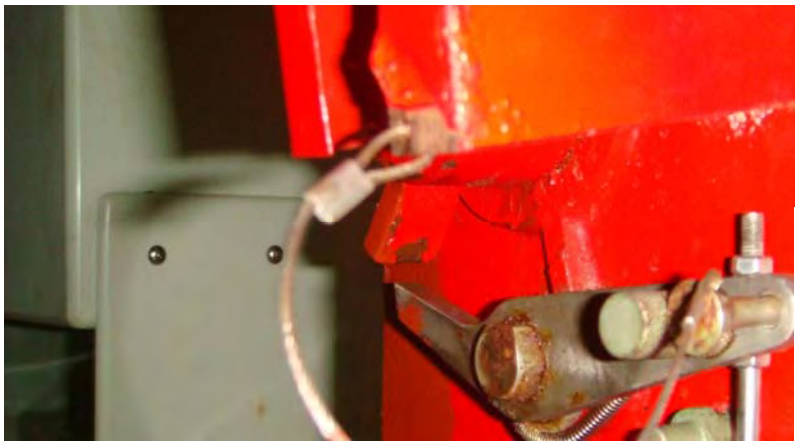
Adequate resetting

Incorrect condition of turn buckle

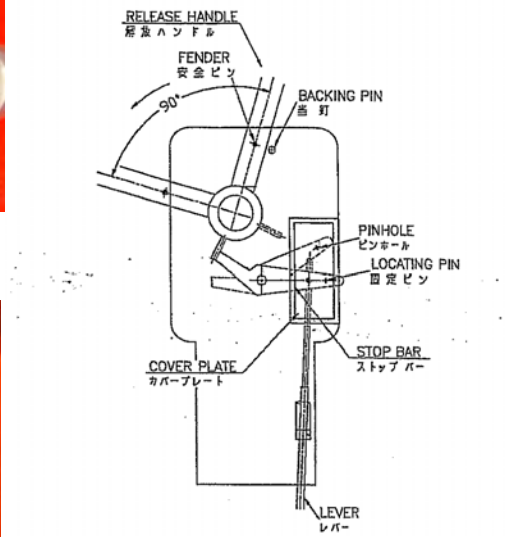
Correct condition of turn buckle

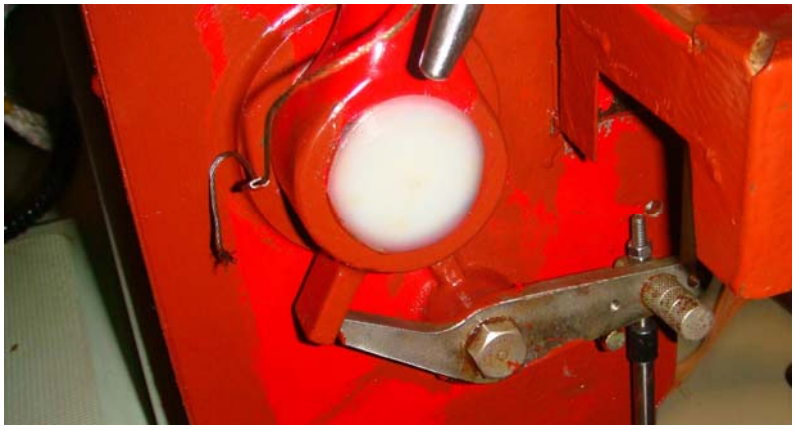


Bent release cable and bracket



Incorrect position of the lever





Correct position of the lever

Defective release cable

Defective release cable

(5) Damage or wastage of equipment

How to check: Visual inspection
Check item: No damage, wastage or missing of equipment?
Action to be taken: Damaged, wasted or missing equipment is to be replaced with new one.

Wasted and broken thwarts

Broken oars

Cracked hose of bilge pump

Worn canopy cover

4. Oil Filtering Equipment

Oil filtering equipment and 15ppm alarm are to be operationally tested in good working condition. Check points are as follows;

(1) Sampling test

How to check: Sampling test for the filtered water from the test cock of the oil filtering equipment or the outlet of the oil content meter in a cup are to be carried out periodically.

Check item: No visible traces of oil in sampling water?

Action to be taken: Oil water separator and discharge pipe are to be cleaned.

Oily sampling water

After flushing

Clean sampling water

Oily inside of oil water separator

After cleaning

Oily inside of discharge pipe

After cleaning

Oily coalescer

After cleaning

(2) Illegal Piping

How to check: Visual inspection
Check item: No by-pass line fitted to oil filtering equipment?
Action to be taken: By-pass line is to be removed.

Flange connection to by-pass line

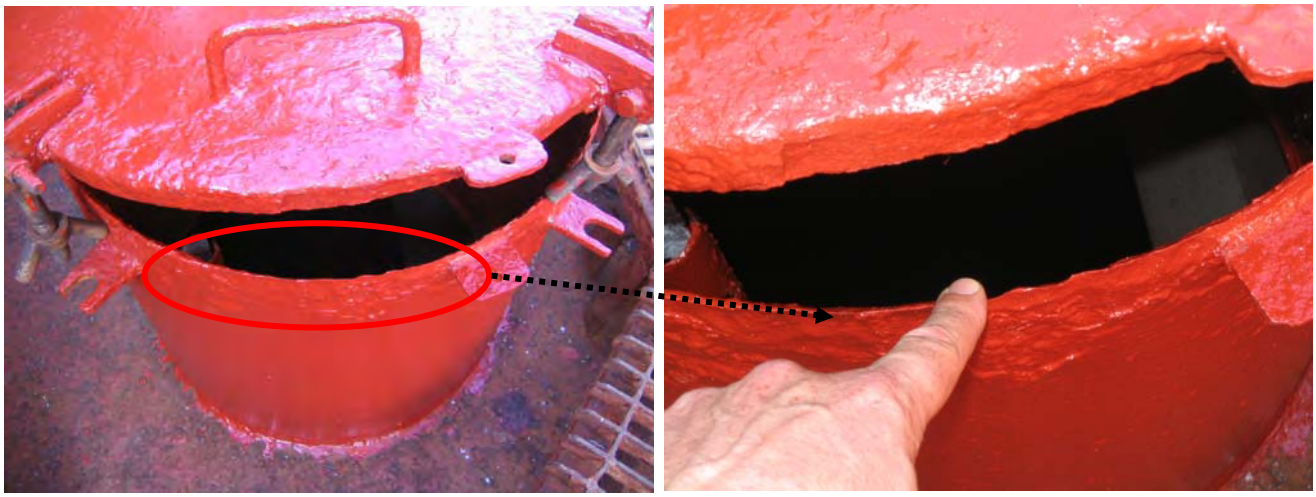
After rectification

5. Cargo Hatch Cover and Small Hatch

Hatch cover and small hatch are to keep satisfactory weather tightness. Check points are as follows;

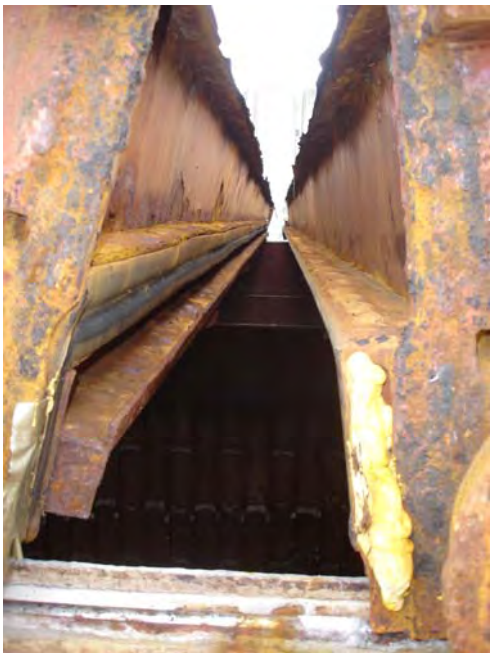
(1) Corrosion or wastage of cargo hatch cover and small hatch

How to check: Visual inspection and hammering
Check item: No corrosion or wastage of hatch cover and small hatch
Action to be taken: Corroded or wasted hatch cover and small hatch are to be renewed.



Wastage of small hatch

Holed small hatch



Corrosion of hatch cover

(2) Missing nut and bracket

How to check: Visual inspection
Check item: No missing nut and bracket?
Action to be taken: New nut and bracket are to be provided.

Missing nut of small hatch

Missing nut and bracket

(3) Deteriorated or Cracked Rubber Packing

How to check: Visual inspection
Check item: Is rubber packing deteriorated or cracked?
Action to be taken: Deteriorated or cracked rubber packing is to be replaced with new one.


Deteriorated rubber packing


Deteriorated and cracked rubber packing

(4) Damage or Wastage of Securing Device

How to check: Visual inspection
Check item: No damage or wastage of securing device?
No missing securing device?
Action to be taken: Damaged or wasted securing device is to be replaced with new one.

Wasted securing device

After repair

Bent securing device

6. Emergency Fire Pump

Emergency fire pump is to be tested periodically with adequate pressure and the ship's crews are to be familiar with operation of emergency fire pump. Check points are as follows;

(1) Inadequate Operation

How to check:	Performance test of emergency fire pump is to be carried out periodically
Check item:	Are emergency fire pumps operating normally? Is delivery pressure normal? Required pressure at hydrants: 6000 GT and over : 0.27 N/mm^2 under 6000 GT : 0.25 N/mm^2
Action to be taken:	Deficient emergency fire pump including vacuum pump is to be repaired.

Performance test of emergency fire pump

Adequate pressure

Emergency fire pump

Vaccum pump

7. MF/HF Radio Installation

MF/HF radio installation is to be operationally tested in good working condition by using both AC and DC power and the GMDSS officers are to be familiar with operation of MF/HF radio installation. Check points are as follows;

(1) Inoperable MF/HF Radio Installation

How to check:	Operation test using AC and DC power
Check item:	Is MF/HF radio operating normally? Is GMDSS officer able to switch the power from AC to DC? Are specific gravity of acid, liquid level and terminal voltage of batteries sufficient?
Action to be taken:	Inoperable MF/HF radio installation is to be repaired. Radio technician is to be arranged if necessary.

GMDSS communication console

Emergency battery

Switch Panel for MF/HF radio

Switch of AC and DC power

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