

ANNUAL SURVEY CHECKLIST FOR OIL TANKER

Ship Name:

Report No.:

I.R. No.:

DOCUMENTATION
<p>STATUTORY CERTIFICATES Valid Statutory certificates available on board.</p>
<p>APPROVED TRIM & STABILITY INFORMATION Confirmation of availability of trim and stability booklet approved by administration.</p>
<p>MANOEUVRING BOOKLET Confirmation that the manoeuvring booklet is on board and that the manoeuvring information is displayed on the navigating bridge.</p>
<p>FIRE CONTROL PLANS Verification of proper posting of fire control plans (including duplicate sets permanently stored in a prominently marked weathertight enclosures outside deckhouse.</p>
<p>STEERING GEAR ENTRIES REQUIRED BY SOLAS/FLAG Verification of entries made in the ship's log for departure.</p>
<p>DAMAGE STABILITY Availability of damage stability information (Cargo vessel > 80 m length after 10/07/08 and length > 100 m from 01/02/1992).</p>
<p>LOADING MANUAL Verification that vessel has an approved Loading Manual.</p>
<p>I.G. SYSTEM OPERATIONAL MANUAL Verification for availability of I.G. Instruction manual. (operation, maintenance, safety, health hazard etc.)</p>
<p>ESP DOCUMENT Availability of ESP documents on board.</p>
<p>THE SHIP STRUCTURE ACCESS MANUAL Checking the Ship Structure Access Manual of oil tankers of 500 G/T and over. (500 GT and over, constructed on or after 1st Jan. 2006)</p>
<p>CONSTRUCTION DRAWINGS MAINTAINED ON BOARD Confirmation that structural alterations performed, if any, have been approved by the classification society and reported on the as-built drawings kept on board. (constructed on or after 1st Jan. 2007)</p>
<p>EMERGENCY TOWING PROCEDURES Confirmation that ship specific emergency towing procedures available on board.</p>

Condition to be reported using number code as follows:

1. When examined found to be satisfactory and/or examined/tested satisfactory and/or confirmed arrangements exist in satisfactory condition. No repairs considered necessary this time.
 2. Repairs now recommended and were carried out satisfactorily. After repairs found to be satisfactory and/or examined / tested satisfactorily and/or confirmed arrangements exist in satisfactory condition.
 3. Repairs now recommended and remain outstanding.
 4. Opportunity to examine/test was not provided this time. Remains outstanding.
- NA – Not Applicable

CORROSION PROTECTION OF CARGO OIL TANKS OF CRUDE OIL TANKER IN ACCORDANCE WITH IMO PSPC

Confirmation that the maintenance, repair and partial recoating of cargo oil tanks of crude oil tankers are recorded in the coating technical file.

(Note- Applicable to crude oil tankers of 5000DWT and above for which building contract placed on or after 01/01/2013 or in absence of building contract, keel laid or at a similar stage of construction on or after 01/07/2013 or delivery is on or after 01/01/2016).

CLASS CERTIFICATE

Confirmation that the Class annual/Intermediate/renewal* survey completed satisfactorily and Class Certificate endorsed/interim certificate issued* on

DAMAGE CONTROL PLAN & BOOKLET:

Verification that damage control plan and booklet are available.

(Note- Applicable for above 500 GT regardless of length keel laid on or after 01/01/2009. However not required for tanker keel laid before 01/01/2009)

DOCUMENT OF APPROVAL FOR STABILITY INFORMATION:

Confirm vessel is provided with DOA for leading instrument.

(Note- Applicable for new vessel keel laid after 01/01/2016 and existing vessel first renewal after 01/01/2016) .

COATING FILE:

Confirm that Coating file available on board.

Note- Applicable for cargo Ship>500GT contracted date After 01/07/2008 or keel laid After 01/01/2009 or Delivery After 01/07/2012 and also tanker keel laid prior 1st July 1998 as per MSC47(66)]

SHIP CONSTRUCTION FILE:

Confirm that Ship Construction File is onboard. [for Tanker of 150meter and above SOLAS Chapter II-1, Part A-1, Regulation 3.10]

HARMONIC DISTORTION RECORD FOR VESSEL FITTED WITH HARMONIC FILTER.

Verification of annual measurement record of harmonic distortion level at bus bar (Applicable for vessel keel laid before 1 July 2017 and for any modification on electrical distribution system on existing vessel, total distortion measured along with equipment running at the time of measurement to be recorded)

OPERATIONAL MANUAL FOR EFFECT OF HARMONIC FILTER

Verification that following document are available on board.

- 1) Effect of failure on harmonic filter on electrical distribution system.
- 2) Permitted modes of operation for maintaining harmonic distortion level within acceptable limit during normal operation and during failure of filter.
- 3) Approved copy of relaxation on allowable distortion limit, if any
- 4) Record of harmonic distortion level measured.

(Note -Applicable for vessel keel laid on or after 01 July 2017 and on exiting ship retrofitted with harmonic filter on or after 01 July 2017.)

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NA – Not Applicable

<p>ALTERNATIVE DESIGN & ARRANGEMENTS: Confirm that, where applicable, the approved documentation for the alternative design and arrangement is on board.</p>
<p style="text-align: center;">WEATHER DECK</p>
<p>SUPERSTRUCTURES, DECKHOUSES & WHEELHOUSES Verification gas tight condition of wheelhouse doors and windows, fixed type side scuttles and windows in superstructure and deckhouse ends facing the cargo area and gas tight bulkhead penetrations.</p>
<p>CARGO, OILY SLOP & BALLAST TANK OPENINGS Openings including gaskets, covers, coamings, flame screens and fasteners examined for condition and signs of leakages.</p>
<p>CARGO TANK VENTING ARRANGEMENTS Pressure / Vacuum valves and mast risers including secondary means of venting (could be cargo tank pressure monitoring system, P/V valves or IG system P/V breaker) examined for proper operation, absence of oil carry over, flame screens, condition and maintenance records. Examining the cargo tank pressure/vacuum valves and devices to prevent the passage of flame.</p>
<p>CARGO, COW, OILY SLOP & BALLAST TANK PIPING SYSTEMS Cargo, crude oil washing, bunker, ballast and vent piping systems including COW deck machines, valves, vent masts and headers visually examined and records of testing verified (no soft patches allowed).</p>
<p>EMERGENCY TOWING ARRANGEMENT Verification of ETA for condition and operational readiness (vessel more than 20,000 DWT.)</p>
<p>WATER TIGHT DOORS AND CONTROLS Watertight doors in Water Tight bulkheads surveyed and local/remote controls including indicating lights and alarms.</p>
<p>FIRE DOORS AND CONTROLS Operation of manual/automatic fire doors, no holding back arrangements exist.</p>
<p>ANCHORING & MOORING EQUIPMENT Anchoring equipment & mooring equipment.</p>
<p>SOUNDING PIPES Sounding pipes, including self-closing devices on short sounding pipes.</p>
<p>HATCHWAYS, COAMING AND COVERS Examination and testing of hatchways on freeboard and superstructure decks including efficient condition of closing appliances.</p>
<p>WEATHER DECKS Examination of weather decks.</p>

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<p>FREEBOARD MARKS</p> <p>Verification of freeboard marks.</p>
<p>VENTILATORS</p> <p>Examination and or testing of ventilators including efficiency of their closing appliances.</p>
<p>WINDOWS, SIDE SCUTTLES AND DEAD LIGHTS</p> <p>Examination and or testing of windows, side scuttles and dead lights.</p>
<p>SCUPPERS, SANITARY DISCHARGES, VALVES AND CONTROLS</p> <p>Examination scuppers and sanitary discharges and valves together with valves and their control gear.</p>
<p>SKYLIGHTS AND FIDDLEY OPENINGS</p> <p>Examination and or testing of skylights and fiddley openings including their closing appliances.</p>
<p>EXPOSED CASINGS,DECK HOUSES, COMPANION WAYS AND SUPERSTRUCTURES</p> <p>Examination and / testing of exposed casings, deck houses, companionways and superstructure bulkheads including closing appliances.</p>
<p>REFUSE CHUTES etc., AND OTHER OPENINGS</p> <p>Examination and / or testing including their closing appliances.</p>
<p>GUARD RAILS AND/OR BULWARKS</p> <p>Examination of the condition and arrangement.</p>
<p>FITTINGS FOR TIMBER DECK CARGOES</p> <p>Examination of the condition and arrangement.</p>
<p>WT BULKHEAD OPENINGS</p> <p>Watertight bulkheads penetrations examination as far as practicable for satisfactory condition.</p>
<p>TUNNEL</p> <p>Tunnel closing arrangements, lighting and notices.</p>
<p>MASTS AND STANDING RIGGING</p> <p>Masts, Derricks & Crane columns including their standing rigging.</p>
<p>FLUSH DECK SCUTTLES</p> <p>Flush Deck scuttles including their closing appliances.</p>
<p>SAFE ACCESS TO BOW</p> <p>Verification of arrangements of safe access to bow including the paint applied should be of anti-slip type, trends, side stringer cross member, decking, deck plate, stanchion, right hand rails, hand ropes and all support points.</p>
<p>BOW AND STERN LOADING</p> <p>Confirmation, when applicable Bow or Stern loading and unloading arrangement in order and testing of means of communication and remote shut down for cargo pump in satisfactory condition.</p>

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<p>COMPANIONWAYS</p> <p>Verification of Companionways and posting of appropriate notices.</p>
<p>AIR PIPES</p> <p>Examination and or testing of air pipes including efficiency of their closing appliances, weld connection between Air pipes and deck plating.</p> <p>Confirmation that vents from bunker tanks, oily ballast, oily slop tanks, void spaces and ballast tanks (with cathodic protection) are equipped with flame screens.</p>
<p>FREEING PORTS</p> <p>Examination of the condition and arrangement including shutters and crew protection bars.</p>
<p>GANGWAYS, LIFELINES AND ACCOMODATION LADDER</p> <p>Satisfactory examination of various items pertaining to lifelines, accommodation ladder, gangways, Davits, Winches. Verification of inspection and maintenance records.</p>
<p>UPGRADATION / REPAIR TO COATING</p> <p>Confirmation that maintenance, repair and partial recoating had been done as per manufacturer’s specification using acceptable coating system, suitable surface preparation and adequate film thickness under the supervision of coating manufacturer’s representative/coating inspector. These had been verified through stage/patrol inspection during survey and considered acceptable.</p> <p>Confirmation that in-service maintenance and repair activities of coating systems in cargo oil tanks are recorded in the coating technical file.</p> <p>Note: Ballast tank/Cargo oil tank for which coating condition was upgraded to “GOOD” this time during survey are to be listed in the “Remark” section.</p>
<p>ACCESS TO AND WITHIN SPACES IN, AND FORWARD OF, THE CARGO AREA OF OIL TANKERS AND BULK CARRIERS</p> <p>Confirming, when appropriate and as far as is practicable when examining internal spaces on oil tankers of 500G/T and over that the means of access to cargo and other spaces remain in good condition.</p> <p>Checking, when appropriate, the provision of means of access to cargo and other spaces in accordance with the arrangements in the Ship Structures Access Manual of oil tankers of 500 G/T and over.</p>
<p>NEW INSTALLATION OF MATERIALS CONTAINING ASBESTOS</p> <p>Confirming that new equipment containing asbestos was not fitted on board since last survey.</p>
<p>TOWING AND MOORING EQUIPMENT</p> <p>Confirming that the towing and mooring equipment is properly marked with any restriction associated with its safe operation for ships constructed after 01/01/2007.</p>
<p>INTERNAL SPACES</p> <p>Verification of the permanent means of access where appropriate of the internal spaces as far as practicable.</p>

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COATING TECHNICAL FILE:

Examine the maintenance, repair and partial recoating of dedicated ballast tanks and double side skin space as appropriate as recorded in the coating technical file and the maintenance of the protective coating is included in the overall ship’s maintenance scheme.

SHIP CONSTRUCTION FILE:

Examine where appropriate the ship’s structure in accordance with the ship construction file, taking into identified areas that need special attention.

LOADING INSTRUMENT:

Availability of an approved loading instrument together with its operational manual and verification of test cases also

(Note- capable of verifying compliance with intact and damage stability requirement as per MSC .370(93) for new vessel keel laid after 01/01/2016 and existing vessel first renewal survey after 01/01/2016).

MACHINERY SPACES

MACHINERY AND BOILER SPACES

Machinery, boilers and other pressure vessels, associated piping systems and fittings are so installed and protected as to reduce to a minimum any danger to persons on board, due regard being given to moving parts, hot surfaces and other hazards.

FIRE/EXPLOSION HAZARDS

i) Propulsion system and auxiliary machinery, boilers, all pressurized systems (steam, pneumatic, hydraulic) and their associated fittings were examined to see whether they are being properly maintained and with particular attention to the fire and explosion hazards.

ii) Verification that oil / water leakages, accumulation of oil, with potential source of ignition does not exist in the machinery spaces. Leakages if any have been dealt and source of leakages rectified.

iii) Confirmation that floor plates & gratings are secured and found to be in order.

STEERING GEAR

All main and auxiliary steering arrangements and their associated equipment and control systems were examined and tested. Steering chains are verified for wear and tear and it was ensured wear is within 12% of the original rule diameter. Confirmation that various alarms required for hydraulic power operated, electric and electro-hydraulic steering gears are, operating satisfactorily and that the recharging arrangements for hydraulic power operated steering gears are being maintained. Log entries made in accordance with statutory requirements were verified where applicable. Floor to be anti skid and guard rails.

Confirming, when appropriate, that the requisite arrangements to regain steering capability in the event of the prescribed single failure are being maintained.

MEANS OF COMMUNICATION

All means of communication between the navigating bridge and the machinery control positions including engine room telegraph, as well as the bridge and the main / alternative steering position, if fitted, are tested.

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NA – Not Applicable

Where ships having emergency steering positions there are means of relaying heading information and, when appropriate, supplying visual compass readings to the emergency steering positions. Confirmation that means of indicating the angular position of the rudder are operational.

BOILERS AND PRESSURE VESSELS

Periodical Surveys of boilers and other pressure vessels have been carried out as required by the Rules and the safety devices have been tested. External visual examination. External examination of boilers including test of safety & protective devices and test of safety valve using it's relieving gear. For exhaust gas economisers, review of engine log book to verify that Chief Engineer has tested the safety valves at sea within the window period of Annual Survey.

REMOTE CONTROLS

Means for the operation of the main and auxiliary machinery essential for propulsion and the safety of the ship, including when applicable, the means of remotely controlling the propulsion machinery from the navigating bridge and the arrangements to operate the main and other machinery from a machinery control room.

BILGE PUMPING ARRANGEMENT

Examination of the bilge pumping systems and bilge wells including operation of each bilge pump (including hand pumps and eductors), extended spindles and level alarms, where fitted. Operational confirmation of emergency bilge suction and bilge-pumping system for each watertight compartment and drainage from enclosed cargo spaces situated on freeboard deck.

FIRST START ARRANGEMENT

Operational confirmation of the means provided to bring the machinery into operation from the dead ship condition without external aid.

SEA WATER PIPE EXPANSION JOINTS

Examining visually the condition of any expansion joints in sea water system.

AUTOMATION

General Examination of automation equipment. Operation of safety devices, bilge level detection and alarm systems and control systems. Examination and testing of the general emergency alarm system. Operational confirmation of the engineer's alarm that it is clearly audible in the engineer's accommodation.

SCHEDULE OF BATTERIES

Schedule of batteries for essential and emergency services available on board and maintenance being done as per this schedule.

PROPULSION MACHINERY

Confirmation that normal operation of the propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative.

MACHINERY SPACE VENTILATION

Confirmation that machinery space ventilation is in good working condition.

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<p>MACHINERY VERIFICATION RUNS</p> <p>Towards completion of Special/Continuous Survey of Machinery, trial of main & auxiliary machinery including the steering gear & controls carried out to confirm satisfactory operation (In afloat condition).</p>
<p>SEA TRIAL</p> <p>In case of major repairs to main propulsion machinery or steering gear, confirmation that a sea trial has been carried out satisfactorily to confirm proper operation of the relevant machinery in all respects.</p>
<p style="text-align: center;">ELECTRICAL INSTALLATION</p>
<p>ELECTRICAL EQUIPMENT IN DANGEROUS ZONES</p> <p>Electrical equipment and cables in dangerous zones examined visually for condition and maintenance records verified for last insulation readings.</p>
<p>EARTHING AND BONDING OF CARGO TANKS AND PIPING SYSTEM</p> <p>Confirmation that independent cargo tanks and cargo piping systems intended for cargo with flash point not exceeding 60°C and not permanently connected to the hull of the ship are provided with bonding straps and these are maintained in good condition and not affected by high resistivity contamination e.g. corrosive products or paint.</p>
<p>ELECTRICAL SYSTEM</p> <p>General examination visually and in operation, as feasible, of the main electrical machinery, the emergency sources of electrical power, the switch gear, other electrical equipment including the lighting system. The precautions provided against shock, fire and other hazards of electrical origin for proper maintenance.</p>
<p>EMERGENCY SOURCE OF POWER</p> <p>The operation of the emergency source(s) of electrical power, including their starting arrangement, the systems supplied, and when appropriate, their automatic operation as far as practicable. Examining the emergency lighting in all cargo pump rooms of tankers constructed after 1 July 2002.</p>
<p>MONITORING OF HARMONIC DISTORTION</p> <p>Confirmation that equipment for continuous monitoring of harmonic distortion level is in good order, alarm tested, logging of measured value verified in engine log book or electronically in case where automation system fitted and found to be satisfactory.</p> <p>(Note -Applicable for vessel keel laid on or after 01 July 2017 and on exiting ship retrofitted with harmonic filter on or after 01 July 2017.)</p>
<p>PROTECTION ARRANGEMENT FOR HARMONIC FILTER</p> <p>Confirmation that protection for harmonic filter, including alarm tested and found satisfactory.</p> <p>(Note- Applicable for vessel keel laid on or after 01 July 2017 and on exiting ship retrofitted with harmonic filter on or after 01 July 2017.)</p>
<p style="text-align: center;">ALTERNATIVE DESIGN AND ARRANGEMENT</p>
<p>Where applicable, examination of alternative design and arrangement for machinery or electrical installations or fire safety, in accordance with the test inspection and maintenance requirements if any specified in the</p>

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NA – Not Applicable

approved documentation is to be carried out.
FIREFIGHTING ARRANGEMENTS
<p>MAIN AND EMERGENCY FIRE PUMP</p> <p>Verification that each Fire pump (including starting and priming arrangements) is capable of producing the required two jets of water (whilst also permitting the simultaneous operation of foam system on tankers) whilst the required pressure is maintained in the fire main;</p>
<p>FIREMAINS, HYDRANTS, HOSES, NOZZLES AND APPLICATORS</p> <p>Condition of fire main (no soft patches or doublers) together with flanges and valves, hydrants, hoses, nozzles, applicators, spanners, relief valves and international shore connection.</p>
<p>READINESS OF FIRE HYDRANTS, HOSES</p> <p>Each hose complete with couplings, nozzle (dual-purpose nozzles where applicable) and tools kept ready for use.</p>
<p>PORTABLE EXTINGUISHERS AND FOAM APPLICATORS</p> <p>Confirmation that portable fire extinguishers correspond to the fire control plan w.r.t. number, type and location and that when examined were in good condition, fully charged and ready for use.</p>
<p>SPARE CHARGES</p> <p>Availability of spare charge/s for each portable extinguisher or additional portable extinguishers of the same type.</p>
<p>FIRE AND/OR SMOKE DETECTION SYSTEM</p> <p>Examine for proper functioning and possible testing.</p>
<p>FIXED FIRE FIGHTING SYSTEM</p> <p>i) Examination of fixed fire fighting system controls, piping, instructions and marking. Checking for evidence of proper maintenance and servicing including date of last systems tests.</p> <p>ii) Verification with regard to correct positioning(for in service condition) of safety pins where used on cylinder head discharge valves for fixed fire fighting CO2 system are in accordance with manufacture's instruction manual.</p> <p>iii) Examination of fixed carbon dioxide fire-extinguishing systems for the protection of machinery spaces & cargo pump room where applicable are provided with two separate controls, one for discharging the gas from the storage container, each of them located in a release box clearly identified for the particular space.</p> <p>iv) Examining the fire-extinguishing systems for spaces containing paint and/or flammable liquids and deep-fat cooking equipment in accomadation and service spaces.</p>
<p>REMOTE STOPPING OF FANS, OIL PUMPS, ETC</p> <p>Verify that the remote controls for stopping fans and machinery and shutting off fuel supplies in machinery spaces are in working order.</p> <p>The stopping of ventilation and boiler forced and induced draft fans and the stopping of oil fuel and other pumps that discharge flammable liquids.</p>

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<p>PORTABLE INSTRUMENTS</p> <p>Checking the provision of at least one portable instrument for measuring oxygen and one for measuring flammable vapour concentrations, together with a sufficient set of spares and suitable means for the calibration of these instruments.</p>
<p>CLOSING ARRANGEMENTS FOR SKYLIGHTS, FLAPS ETC</p> <p>Examination of closing arrangements of ventilators, funnel annular spaces, skylights, doorways and tunnel where applicable, including condition of operating mechanism e.g.: wire ropes, hydraulic piping etc.</p>
<p>FIREMAN'S OUTFITS & EEBDS</p> <p>confirmation that the fire fighters' outfits including its self-contained compressed air breathing apparatus and emergency escape breathing devices (EEBDS) are complete and in good condition and that the cylinders, including the spare cylinders, of any required selfcontained breathing apparatus are suitably charged and that on board means of recharging breathing apparatus cylinders used during drills or a suitable number of spare cylinders to replace those used are provided, and provision of two-way portable radiotelephone apparatus of an explosion-proof type or intrinsically safe;</p>
<p>FIRE DOORS</p> <p>Examination of any manual and automatic fire doors and proving their operations.</p>
<p>MEANS OF ESCAPE</p> <p>Confirmation that the means of escape from accommodation, machinery and other spaces are free from any obstruction.</p>
<p>GASEOUS FUEL FOR DOMESTIC PURPOSE</p> <p>Arrangements found in satisfactory condition.</p>
<p>PUMP ROOM VENTILATION</p> <p>Verification that the pump room ventilation system is operational, ducting intact, dampers operational and screens clear.</p>
<p>EXTERNAL EXAMINATION OF PIPING AND CUT-OUTS</p> <p>Examine for satisfactory condition of piping and cut out valves of cargo tank and cargo pump room fixed fire fighting systems.</p>
<p>DECK FOAM SYSTEM</p> <p>Verify that the deck foam system and deck sprinkler system was in good operating condition, check for adequate supply of Foam concentrate and periodic lab analysis of the sample.</p>
<p style="text-align: center;">INERT GAS (NV) SYSTEM</p>
<p>IG SYSTEM COMPONENTS AND PIPING</p> <p>External examination of the condition of all components and piping for signs of corrosion and gas / effluent leakage including inert gas plant overboard discharges.</p>

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<p>SCRUBBER ROOM VENTILATION SYSTEM</p> <p>Verification of the operation of scrubber room ventilation arrangement.</p>
<p>DECK WATER SEAL</p> <p>Verification of deck water seal for automatic filling/drainage and absence of water carry over and condition of non-return valve.</p>
<p>INERT GAS BLOWERS</p> <p>Verification of the proper operation of both inert gas blowers including test of interlocking feature of the soot blowers and automatic closure of gas pressure regulating valve when the IG blowers are stopped.</p>
<p>IG SYSTEM VALVES</p> <p>Verification of the operation of all remotely or automatically controlled valves, (in particular the flue gas isolating valve/s).</p>
<p>IG SYSTEM INSTRUMENTATION, AUTOMATION & ALARMS</p> <p>Verification of the function of alarms and safety devices of the inert gas system (using simulated conditions, where necessary): Low water pressure to the scrubber, High gas temperature in inert gas main, High water level in the scrubber, Failure of inert gas blower, High oxygen content of gas in inert gas main, Low water level in deck water seal, Failure of power supply to gas regulating valve/IG main pressure and oxygen content indicators, Low gas pressure in inert gas main, High gas pressure in inert gas main. check for the operational test of the inert gas system after performing the above checks satisfactorily.</p>
<p>CARGO SPACE</p> <p>Confirming, as far as practicable and when appropriate, the operation of the remote means for closing the various openings;</p>
<p>CARGO PUMP / CONTROL ROOM</p>
<p>CARGO PUMP ROOM VENTILATION, CLEANLINESS Etc</p> <p>Examination of cargo pump room(s) spaces for freeness from potential sources of ignition, access ladders and cargo pump room drainage arrangements; operation of the ventilation system (damper operation and flame screens) including interlocking arrangement to lighting .</p> <p>Verification that no oil leakages and no accumulation of oil in the cargo pump room. Leakages if any have been dealt and source of leakages rectified.</p> <p>Examining the cargo tank venting, cargo tank purging and gas-freeing and other ventilation systems.</p> <p>Confirmation that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, combustible materials, etc., that there are no signs of undue leakage of cargo and that access ladders are in good condition</p>
<p>CARGO PUMP ROOM BULKHEADS</p> <p>Examinations of all pump room bulkheads for signs of leakages and fractures and sealing arrangements of bulkhead penetrations, Temp. sensing devices for bulkhead glands and alarm.</p>

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<p>PIPING IN CARGO PUMP ROOMS</p> <p>Examination of the condition of cargo, bilge, ballast and stripping systems.</p>
<p>CARGO PUMPS</p> <p>Examination of Cargo pump/s bulkhead / deck glands, remote operation/shut down devices, pressure relief devices, pump foundations and temperature monitoring of glands, bearings & casings and associated alarm systems including stand-by means of pumping.</p>
<p>CARGO HANDLING SYSTEM CONTROLS, INSTRUMENTATION & ALARMS</p> <p>General examination of pressure gauges and relief devices on cargo pumps and discharge lines, local / remote controls of valves on cargo piping and cargo tank level indicator / alarm systems.</p>
<p>CARGO PUMP ROOM GAS DETECTION/BILGE LEVEL MONITORING SYSTEM</p> <p>Examinations of the monitoring & alarm system for concentration of hydrocarbon gasses and bilge level in cargo pump rooms;</p>
<p>MONITORING OF GAS IN CARGO AREA</p> <p>Examining, as far as possible, and testing the fixed hydrocarbon gas detection system examining the arrangement for gas measurement in double hull spaces and double bottom spaces including fitting of permanent gas sampling line.</p>
<p style="text-align: center;">CRUDE OIL WASHING ARRANGEMENTS</p>
<p>TANK CLEANING MACHINES DRIVE UNITS</p> <p>Verification of number of operational drive units available is as specified in COW operational manual, where the drive units are not integral with the tank cleaning machines.</p>
<p>ISOLATION OF STEAM HEATERS FOR WATER WASHING</p> <p>Verification of isolation arrangements of steam heaters for water washing of tanks, either by means of double shut off valves or clearly identifiable blanks.</p>
<p>FLEXIBLE HOSES FOR SUPPLY OF OIL TO THE WASHING MACHINES</p> <p>Verification of condition and storage of flexible hoses for supply of oil to the washing machines including records of pressure testing..</p>
<p>CRUDE OIL WASHING MACHINES</p> <p>Confirmation that crude oil washing machines are operable by verification of the movement indicators and/or sound patterns or other approved means. In case the survey is held when crude oil washing is not being carried out this may be confirmed based on visual external examination of the machines and review of cargo operations log.</p>
<p>DEDICATED CLEAN BALLAST TANKS</p> <p>Examination of tanks containing arrival / departure ballast water for effectiveness of crude oil washing and stripping.</p>

Condition to be reported using number code as follows:

1. When examined found to be satisfactory and/or examined/tested satisfactory and/or confirmed arrangements exist in satisfactory condition. No repairs considered necessary this time.
2. Repairs now recommended and were carried out satisfactorily. After repairs found to be satisfactory and/or examined / tested satisfactorily and/or confirmed arrangements exist in satisfactory condition.
3. Repairs now recommended and remain outstanding.
4. Opportunity to examine/test was not provided this time. Remains outstanding.

NA – Not Applicable

<p>CARGO TANK STRIPPING SYSTEM</p> <p>Verification of the cargo tank stripping system by observing the tank level gauging system, hand dipping or other approved means.</p>
<p>CARGO, CRUDE OIL WASHING, BALLAST AND STRIPPING SYSTEMS</p> <p>Examining the cargo, crude oil washing, ballast and stripping systems both on deck and in the cargo pump rooms and the bunker system on deck;</p>
<p style="text-align: center;">COMBINATION CARRIERS</p>
<p>GAS DETECTION ARRANGEMENTS</p> <p>Verification of Gas detection arrangement in cofferdams.</p>
<p>ISOLATION ARRANGEMENTS</p> <p>Verification of blanking arrangement for IG main, oil cargo and slop tank pipes, when carrying cargo other than oil.</p>
<p>OPERATIONAL NOTICES</p> <p>Verification of posting of required signboards and instruction manuals.</p>
<p>ADDITIONAL CLASS NOTATION REQUIREMENT</p>
<p>ADDITIONAL CLASS NOTATIONS E.G. SPM, VCS etc. ‘SPM’ NOTATION</p> <p>Components of the single point mooring system (bow chain stoppers, bow fairleads, winches and capstans), to verify their satisfactory condition, Hull structures supporting and adjacent to the components to the single point mooring system, to verify that there is no deformation or fracture.</p>
<p style="text-align: center;">GENERAL</p>
<p>HOUSE KEEPING</p> <p>i)Verification that general housekeeping / cleanliness in engine room, pump room, on deck, accommodation, hospital, galley, wash basins and toilets are satisfactory.</p> <p>ii)Confirmation that no loose drums and no heavy items without securing/lashing on deck.</p> <p>iii)Confirmation that Spare anchor where provided, its lashing bracket in good condition.</p>
<p>FLAG SPECIFIC REQUIREMENTS</p> <p>Confirmation that flag specific requirements/instructions, if any are complied with.</p> <p>Please Provide details in Remark section.</p>
<p>H.O. INSTRUCTIONS</p> <p>Confirmation that H.O. Instructions pertaining to this survey if any communicated separately, have been compiled with.</p> <p>Please Provide details in Remark section.</p>

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3. Repairs now recommended and remain outstanding.
4. Opportunity to examine/test was not provided this time. Remains outstanding.

NA – Not Applicable

ADDITIONAL REQUIREMENTS TOWARDS CLASS INTERMEDIATE SURVEY

CARGO, COW, BUNKER, BALLAST, STEAM AND VENT PIPING SYSTEMS

- i) Verification that the cargo, crude oil washing, bunker, ballast, steam and vent piping systems as well as vent masts and headers are maintained in satisfactory and efficient condition (Note: If upon examination there is any doubt as to the condition of the piping, the piping may be required to be pressure tested, thickness measured or both).
- ii) Where the scope of intermediate survey is to the same extent as the previous special survey, examination and operational testing to working pressure of cargo piping on deck including crude oil washing (COW) piping, and cargo and ballast piping systems within the tanks and spaces, bunker, steam and vent piping to ensure that tightness and condition are satisfactory (Note: Special attention is to be given to ballast piping in cargo tanks and cargo piping in ballast tanks and void spaces and when the piping, including valves and fittings are open during repair periods, same to be examined internally).

ELECTRICAL EQUIPMENT IN DANGEROUS ZONES

General Examination and testing of insulation resistance of electrical circuits in dangerous zones to confirm these are maintained in satisfactory condition (Note: i) In cases where a proper record of testing is maintained, consideration should be given for accepting recent readings. ii) These measurements are taken when the ship is in a gas free condition and to be carried out within an acceptable time period).

ADDITIONAL REQUIREMENTS TOWARDS SPECIAL SURVEYS

AIR PIPES

Internal Examination of Automatic air pipe heads at special survey as required by IRS Rules

MOORING ROPES AND TOW LINES

Confirmation that sufficient mooring ropes and tow lines as required by rules are provided onboard.

MEANS OF EMBARKATION AND DISEMBARKATION

Accommodation ladders, gangways and its winches incl. brake system are to be operationally tested with specified maximum operation load in accordance with IRS Rules

CARGO, COW, BUNKER, STEAM AND BALLAST PIPING SYSTEM

Examination of cargo piping on deck including crude oil washing (COW) piping, and cargo and ballast piping systems within the tanks and spaces, bunker, steam and vent piping and operational testing to working pressure, as applicable to ensure that tightness and condition remain satisfactory (Note: Special attention is to be given to ballast piping in cargo tanks and cargo piping in ballast tanks and void spaces and when the piping, including valves and fittings are open during repair periods, same to be examined internally).

LONGITUDINAL STRENGTH EVALUATION

Confirmation that for oil tankers of 130 [m] in length and upwards (as defined in ILLC), the ship's longitudinal strength has been evaluated and found to be satisfactory (applicable during the renewal survey after the ship reached 10 years of age).

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3. Repairs now recommended and remain outstanding.
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NA – Not Applicable

GUIDANCE NOTES

APPROVED TRIM & STABILITY INFORMATION: - SOLAS 88 Amend / II-1 / Reg. 22.

FIRE CONTROL PLANS: - SOLAS Ch. II-2, Reg. 15, part E, Cl. 2.4

STEERING GEAR ENTRIES REQUIRED BY SOLAS: - SOLAS 99/00 Amend / V / Reg. 26

DAMAGE STABILITY: - SOLAS Ch. II Part B-1 reg 25.1

MANOEUVRING BOOKLET: - SOLAS 81 Amend / II-1 / Reg. 28

THE SHIP STRUCTURE ACCESS MANUAL: - SOLAS 05 Amend / II-1 / Reg. 3-6

CONSTRUCTION DRAWINGS MAINTAINED ON BOARD: - SOLAS 05 Amend / II-1 / Reg. 3-7

LOADING/UNLOADING BOOKLET: - SOLAS 96-98 Amend / XII / Reg. 8

TOWING AND MOORING EQUIPMENT : - SOLAS 05 Amend / II-1 / Reg. 3-8

CORROSION PREVENTION OF SEAWATER BALLAST TANKS: - SOLAS 05 Amend / II-1 / Reg. 3-2

ACCESS TO AND WITHIN SPACES IN, AND FORWARD OF, THE CARGO AREA OF OIL

TANKERS AND BULK CARRIERS: - SOLAS 05 Amend / II-1 / Reg. 3-6

NEW INSTALLATION OF MATERIALS CONTAINING ASBESTOS:- SOLAS 05 Amend / II-1 / Reg. 3-5

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