



A tool developed by RINA to assist owners
prepare their ships for port State control inspections

MAINTENANCE CHECKLIST FOR CARGO SHIPS

AND ASSOCIATED GUIDELINES

APRIL 2001
SECOND EDITION

SHIP'S NAME:

APPLIED ON:

BY:

SIGNATURE:

The Maintenance Checklist does not in any way replace or cover the scope of class and/or statutory surveys carried out by RINA, the flag state or by RINA on behalf of the flag State. It is not exhaustive and contains those items which according to the information in RINA possession are more frequently inspected, and/or found defective during port State control inspections. It is given for guidance only. Its completion is not a requirement of RINA nor it is required by the Flag State or any port State. Its use does not exempt the owner from the application of routine on-board maintenance procedures and operations. It does not exempt RINA from checking the same items during class and statutory surveys. RINA declines all responsibility for any damage derived from the use of the Maintenance Checklist and the associated Guidelines.



RINA

MAINTENANCE CHECKLIST FOR CARGO SHIPS

SECTION A - SHIP PARTICULARS ALL

RINA no.		SHIP Name		IMO no.	
FLAG				Call sign	
Ship type			Service (tick as appropriate)	Unrestricted	Restricted
Date keel laid		Gross tonnage	GT	Deadweight	t
Survey date		Survey Port		File no.	

SECTION B - SHIP'S DOCUMENTS ALL

Document	issued by	no.	Port issued	date issued	date expiry	last survey
Certificate of Class						
Safety construction						
Safety equipment						
Safety radio						
SOLAS exemption						
Load Line						
Load Line exemption						
IOPP						
NLS/IPPC						
ISPP						
ICOF / COF chem						
ICOF / COF gas						
Safety Management						
Document of Compliance						
Dangerous goods						
Carriage of grain						
BC Code						
Cargo gear booklet						
Crew accommodation						
Tonnage						

Column "Ship" symbols	
A	All types of ships
B	Bulk carriers
C	Chemical tankers
G	Gas carriers
T	Oil tankers

SECTION C - MANNING SMC

No.	Ship	Item	Y	N	NA	Comments
1	A	Ship manned in accordance with the Safe Manning Document				
2	A	Certificates of the officers				
3	A	Certificates of the officers in charge of a navigational / engine watch				
4	A	Certificated lifeboatmen				
5	A	Crew minimum age 15				
6	A	Medical examination for each crew member issued by Flag State (not older than 2 years)				

SECTION D - DOCUMENTATION AND CREW FAMILIARISATION

No.	Ship	Item	Y	N	NA	Comments
1	A	Stability booklet, associated stability plans and information				
2	B	Grain loading manual				
3	A	Loading manual/electronic loading instrument operation manual				
4	A	Damage control plans				
5	A	Manoeuvring information				
6	A	Instructions for maintenance and operation of all installations/equipment for fighting and containment of fire: readily available, language understood by crew				
7	A	Training manual for lifesaving appliances: provided in each crew messroom and recreation room or in each crew cabin.				
8	A	Instructions for on-board maintenance of lifesaving appliances				
9	A	Operating instructions for steering gear posted: navigating bridge and steering gear compartment				
10	A	Oil Record Book				
11	A	S.O.P.E. plan				
12	A	Charts and publications for intended voyage (charts, coast pilot, sailing directions, light list, tide tables, tidal current tables): available and updated				
13	A	Fire plans: permanently exhibited, permanently stored in weathertight containers outside deckhouse, updated, language understood by crew				
14	A	Posters or signs provided on or in the vicinity of survival craft and their launching control				
15	A	International code of signals				
16	A	Muster list: crew members duties shown, posted in conspicuous places, language understood by crew				
17	A	Radio license				
18	A	Radio operator's certificate of competence				
19	A	Radio record log				
20	A	Up-to-date ITU publications				
21	A	Operating manuals for radio equipment				
22	A	Cargo securing manual				
23	C	Procedures and arrangements manual				
24	C	Cargo Record Book				
25	C-G	Information for safe carriage of the products				
26	B-T	Enhanced survey programme report file				
27	B	Instructions for stowage of bulk cargoes(Reg.VI/7 Solas)				
28	B	Loading and unloading sequences				
29	T	Inert gas system instruction manual				
30	T	Dedicated CBT operation manual				
31	T	COW operations and equipment manual				
32	T	Operational procedures for special ballast arrangements				
33	T	Operations manual for the oil discharge monitoring and control system				
34	A	Service manuals for all equipment where at-sea maintenance is adopted (GMDSS)				
35	A	Witness an abandon ship drill. Verify that no language problems exist and the crew is properly mustered and familiar with their duties.				

SECTION D - DOCUMENTATION AND CREW FAMILIARISATION

36	A	Witness a fire drill. Verify that no language problems exist, the crew is familiar with the information given in the fire control plan/booklet and with their duties, fire teams are properly dressed and equipped, communication and co-ordination exist between bridge and fire team.			
37	A	Determine if the appropriate crew members are: - able to understand the information given in the manuals, instructions, etc., relevant to the safe condition of the ship and its equipment - aware of the requirements for maintenance, periodical testing, training, drills and recording of logbook entries			
38	A	Determine if deck officers are familiar with: - operation of bridge control and navigational equipment - use of nautical publications and charts - vessel manoeuvring characteristics - life saving signals - bridge procedures, instructions, manuals - changing steering from automatic to manual and viceversa - preparation for arrival and departure - communications with engine room - use of VHF			
39	A	Determine if engine officers are familiar with: - different methods of starting the emergency generator - auto/manual starting of generators, blackout procedures, load sharing system - starting the main and emergency bilge pumps, opening the valves, remedies to failures - bringing main and auxiliary steering gear into operation			

SECTION E - LOGBOOK ENTRIES

SC-SE-SMC

No.	Ship	Item	Y	N	NA	Comments
1	A	Steering gear test/drills (12 hours before departure)				
2	A	Three-monthly emergency steering drills				
3	A	Monthly abandon ship drills				
4	A	Monthly fire drills				
5	A	On-board training in use of lifesaving equipment				
6	A	Weekly visual inspection of survival craft/rescue boat and launching appliances (entry recommended)				
7	A	Weekly operation of lifeboat/rescue boat engines (entry recommended)				
8	A	Weekly testing of the general emergency alarm (entry recommended)				
9	A	Monthly inspection of lifesaving appliances and lifeboat equipment using the relevant checklist				
10	C	Monthly checking of breathing apparatus				

SECTION F - CREW SAFETY AND HEALTH

ILO-SMC

No.	Ship	Item	Y	N	NA	Comments
1	A	Rails, guards, protective clothing and equipment, warning signs posted in crew work areas				
2	A	Habitable conditions of crew accommodations				
3	A	Adequate lighting and ventilation of crew accommodations				

SECTION F - CREW SAFETY AND HEALTH

4	A	Crew bathrooms, water closets and sinks operating properly				
5	A	Electric outlets and fixtures in crew cabins satisfactory				
6	A	Crew accommodations free of cargo and stores				
7	A	Hospital space in good condition (no crew member living inside)				
8	A	Food refrigerated storerooms in good condition, temperature well maintained				
9	A	Adequate supplies of food and catering for voyage				
10	A	Food preparation areas clean and sanitary				
11	A	Food storage free of insects				

SECTION G - SAFETY OF NAVIGATION

SE-SMC

No.	Ship	Item	Y	N	NA	Comments
1	A	Check daylight signalling lamp with emergency and batteries				
2	A	Check magnetic compasses: liquid level satisfactory, deviation table provided				
3	A	Check speaking tube between magnetic compass and bridge				
4	A	Check gyrocompass				
5	A	Check emergency steering information				
6	A	Check radar(s)				
7	A	Check radar(s) plotting facilities				
8	A	Check Automatic Radar Plotting Aid (ARPA)				
9	A	Check echo-sounding device: paper and ink provided				
10	A	Check speed and distance indicator				
11	A	Check rudder angle indicators				
12	A	Check propellers rate of revolution indicator				
13	A	Check variable pitch propeller/lateral thrust propellers pitch and operational mode indicator				
14	A	Check rate of turn indicator				
15	A	Check radio direction finding apparatus				
16	A	Check radio homing device				
17	A	Check records of periodical tests performed on board for items not tested				
18	A	Check pilot ladders and hoists/pilot transfer arrangements, lighting, heaving line and lifebuoy with self-igniting light				
19	A	Test navigation lights: - fore and aft masthead lights - side lights - stern light - anchor lights - not under command lights and the relevant distribution panel. Check main and emergency sources, alarms, glasses, mounting.				
20	A	Check availability of shapes				
21	A	Test ship whistle, bell and gong				

SECTION H - HULL: STRUCTURAL INTEGRITY AND ARRANGEMENTS

SC-LL-SMC

H-1 - STRUCTURAL INTEGRITY

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination of the hull: fractures, wastage, pitting or damage to the extent that may impair ship's seaworthiness, doublers fitted without being recorded				
2	A	No leakage visible on ballast tanks' bulkheads (from holds, from deck through open hatchcovers)				

SECTION H - HULL STRUCTURAL INTEGRITY AND ARRANGEMENTS

3	A	General examination of side shell from the pier: corrosion, wastage, fractures, leakage			
4	A	Freeboard marks properly marked and painted. Check positions of deck line and load line.			
5	A	No alterations affecting the load line calculations			
6	A	Check superstructure end bulkheads, deck inside masts and forecastle			
7	A	Check weathertight doors: - permanently and strongly attached to the bulkhead - gaskets and clamping devices provided and efficient - operated from both sides of the bulkhead.			
8	A	Check cargo and other hatchways and coamings: - tightness devices of longitudinal, transversal and intermediate cross junctions - clamping devices - retaining bars - cleats - chain or rope pulleys - guides - track wheels and stoppers - wires - chains - gypsies and tensioning devices - hydraulic systems essential to closing and securing - safety locks and retaining devices			
9	A	Check machinery space openings: weathertightness, covers, casings and coamings			
10	A	Check manholes and flush scuttles: watertightness, covers and bolts			
11	A	Check other openings in freeboard decks and associated deckhouse or companionway: weathertightness, bulkhead plating, doorways, gaskets and clamping devices			
12	A	Check ventilators: coamings, closing covers, gaskets, clamping devices			
13	A	Check air pipes: heads, means for closing the openings			
14	A	Check watertight and structural integrity of openings below the freeboard deck			
15	A	Check scuppers, inlets and discharges: non-return valves, positive means of closing (when fitted)			
16	A	Check sidescuttles			
17	B	Check compliance of vertically corrugated bulkhead between cargo holds no. 1 and 2 with Solas Reg.XII/4,6 and 9			
18	B	Check efficiency of means of detection of water ingress into cargo holds			

H-2 - HULL ARRANGEMENTS

No.	Ship	Item	Y	N	NA	Comments
1	A	Check bulwarks, freeing ports, shutters				
2	A	Check guard-rails, gangways, walkways, means of gaining access to and from crew's quarters and working spaces				
3	CGT	Check arrangements for safe access to bow				
4	A	Check fittings and appliances for timber deck cargoes				
5	A	Check collision and other bulkheads as far as possible				
6	A	Check local and remote control of watertight doors and relevant indicators				

SECTION H-2 - HULL ARRANGEMENTS

7	A	Drainage of spaces above freeboard deck			
8	A	Test electronic loading instrument			
9	A	Check condition of anchor and chain cables and their stowage			
10	A	Check anchor windlass: - foundation - winches - brakes - hydraulic piping - covers for moving parts - grating plates			
11	A	Check mooring system: - foundations - winches - brakes - hydraulic piping - covers for moving parts - grating plates			
12	CGT	Check the efficiency of the emergency towing arrangements at both ends of the ship			
13	A	Check no alteration to navigation bridge visibility			

SECTION I - MACHINERY AND ELECTRICAL ARRANGEMENTS

SC-SMC

No	Ship	Item	Y	N	NA	Comments
1	A	Main engines: test operation (as far as possible), safety devices and remote control				
2	A	Main generators: test operation (as far as possible), safety devices and remote and automatic control				
3	A	Emergency generator: test operation (as far as possible) and automatic starting arrangements and check fuel oil tank level and condition of starting devices.				
4	A	Essential machinery: test operation (as far as possible), safety devices, remote and automatic control, meters and gauges.				
5	A	Check condition of non-metallic expansion joints below deepest load waterline				
6	A	Check condition of machinery piping and valves (leakage, corrosion, etc.)				
7	A	Test bilge pump satisfactory pumping and check bilge lines as far as possible				
8	A	Machinery, boilers, pressure vessels arranged in way to minimise danger to crew for hot surfaces, moving parts, etc.				
9	A	Check good maintenance of machinery and relevant compartments				
10	A	Check absence of fire risks in machinery spaces (no leakage, bilge/floors free of oil)				
11	A	Check boilers: - operation - safety valves - water level gauges - pressure gauges - automatic and remote control - alarms				
12	A	Check that oxyacetylene bottles are properly stored (outside crew quarters, engine room)				
13	A	Test main and emergency steering gear system: - full movement of the rudder - inspection of connecting linkage - remote control system - emergency power supply - alarms (see also item I-17)				
14	A	Test means of communication between bridge and steering gear compartment				

SECTION I - MACHINERY AND ELECTRICAL ARRANGEMENTS

15	A	Steering gear room provided with handrails and gratings or other non-slip surfaces				
16	A	Check correspondence of bridge and local rudder angle indicators				
17	A	Heading information/compass readings in steering gear room				
18	A	Check steering gear alarms and indicators: - power failure ^(*) - low level for hydraulic fluid reservoir ^(*) - electric overload ^(*) also existing tankers/gas carriers				
19	A	Verify that operating instructions (block diagram) are permanently displayed on the navigation bridge and steering gear compartment				
20	T	Regaining of steering capability after failure				
21	A	Test ventilation for machinery spaces				
22	A	Protection of crew from noise				
23	A	Test engine room telegraph, secondary means of communication, communication with any other control position				
24	A	Test engineers' alarm clearly audible in accommodation				
25	A	Test under load of main source of electrical power and main lighting				
26	A	Location and test under load of emergency source of electrical power (main supplies to be checked) ^(*) ^(*) Supplies from emergency source: see Annex 1 to the Guidelines				
27	A	Check electrical cables: no exposed wires, no corrosion (especially on weather deck)				
28	A	Check lighting in: - engine room - accommodation spaces - CO ₂ room, control station, working room, steering room and other spaces and verify that: - no bulbs are missing - protection covers are fitted				
29	A	Check emergency lighting: - no bulbs are missing - protection covers are fitted				
30	A	Check explosion proof lights in accumulator batteries stores, paint lockers, acetylene stores or similar spaces				
31	A	Precautions against shock and fire hazards are effective				
32	A	Insulation mats around main and emergency switchboards				
33	A	Paint locker: all electrical equipment fitted inside is not-igniting and certified for safe usage in flammable gas mixtures				
34	A	Paint locker: independent ventilation, at least one inlet and one outlet, explosion proof motor				
35	A	Random test of systems and alarms for unattended machinery spaces				

SECTION J - FIRE FIGHTING

SC-SE-SMC

J-1 - FIRE FIGHTING (MISCELLANEOUS)

No.	Ship	Item	Y	N	NA	Comments
1	A	All equipment described on fire plans provided, positioned in the right place, available and ready for immediate use				
2	A	Verify (as far as practicable) that bulkheads and decks are in accordance with fire integrity requirements in the fire plan				

SECTION J1 - FIRE FIGHTING

3	A	General examination of means of escape: no obstructions, acceptable dead-end corridors, lighting, steps, handrails in good conditions			
4	A	Test fire detection and alarm system			
5	A	Fire dampers in cargo holds, engine room, accommodation spaces, control stations and other spaces: - check maintenance of operating devices - operate the manoeuvring device and move the damper to the "closed" position - check, as far as practicable, the integrity of the system and verify that it is able to provide the required seal			
6	A	Test means of closing funnel and ventilation inlets and outlets			
7	A	Check as far as practicable, that openings (doors, ductwork, electrical wires, piping, etc.) do not impair the fire resistance of the bulkhead			
8	A	Test automatic and manual fire doors			
9	A	Check opening and closing arrangements of skylights			
10	A	Test means of stopping power ventilation from outside ventilated spaces			
11	A	Stopping of boiler forced and induced fans			
12	A	Stopping of fuel and other similar pumps			
13	A	Check remote means of closing fuel oil valves. In case shut-off valves are operated by air, check air cylinder pressure and pressure gauge			
14	A	Check fire extinguishers (foam, CO ₂ , dry powder): - for each type, number indicated in the fire control plan available (see also item J-1.1) - condition of cylinders - validity of the extinguishing medium ^(*) ^(*) see Annex 2 to the Guidelines			
15	A	Portable foam applicator unit in boiler room and spaces containing internal combustion machinery: - check air-foam nozzle, portable tank of foam making liquid, spare tank, stowage container - test connection to fire main			
16	A	Check foam type fire extinguisher of at least 135 l capacity in boiler room			
17	A	Check foam type fire extinguishers of at least 45 l capacity in spaces containing internal combustion machinery			
18	A	Fireman's outfit: two (2) sets available			
19	T	Fireman's outfit: two (2) additional sets available ^(*) ^(*) tankers built on or after 1.9.84			
20	A	Fireman's outfits stored in widely separated positions			
21	A	Fireman's outfit: check availability of personal equipment ^(*) ^(*) see the relevant item in the Guidelines			
22	A	Fireman's outfit: check breathing apparatus ^(*) ^(*) see the relevant item in the Guidelines			
23	A	Fireman's outfit: fireproof lifeline available			
24	A	Paint locker: appropriate fire extinguishing arrangement provided			
25	A	Adequate structural fire protection provided			
26	A	Arrangements for dangerous goods: electrical equipment and wiring, boundary insulation, protective clothing, portable appliances, testing of water supply, bilge system, water spray system			

SECTION J1 - FIRE FIGHTING

27	A	Arrangements for ro-ro cargo spaces. Relevant survey form to be filled in			
28	A	Check arrangements for gaseous domestic fuel			
29	A	Galley exhaust ducts			
30	T	Check cargo tanks openings, gaskets, covers, coamings and screens			
31	T	Check P/V valves			
32	T	Check secondary means of venting arrangements			
33	T	Check flame screens for oily tanks			
34	T	Check venting, purging, gas-freeing system			
35	T	Check cargo, COW, ballast, stripping systems on deck, in cargo pump room			
36	T	Check electrical equipment in dangerous zones			
37	T	Check sources of ignition in or near cargo pump room			
38	T	Check leakage and good condition of ladders in cargo pump room			
39	T	Check sealing of penetrations of cargo pump room bulkheads			
40	T	Check undue gland seal leakage of pumps			
41	T	Test shutdown and remote control devices			
42	T	Check bilge system of cargo pump room			
43	T	Check integrity of pump foundations			
44	T	Check operation of cargo pump room ventilation, ducting intact, dampers operational and clean			
45	T	Check pressure gauges and level indicators			

J-2 - FIRE MAIN SYSTEM

No.	Ship	Item	Y	N	NA	Comments
1	A	All hydrants closed, one main fire pump started, proper pressure maintained				
2	A	Same main fire pump working, open the most forward hydrant and the highest hydrant and connect them with fire hoses and nozzles, satisfactory simultaneous jets of water				
3	A	Procedure in items 2 and 3 repeated for each main fire pump				
4	A	Stop main fire pump, start emergency fire pump, most forward hydrant and highest hydrant opened and connected with fire hoses and nozzles, satisfactory simultaneous jets of water				
5	A	Emergency fire pump in function for at least 30 minutes				
6	A	Inspect main fire pumps and pressure gauges				
7	A	Inspect emergency fire pump: - pressure gauges - prime mover - exhaust gas piping				
8	A	Check fire main piping under pressure: - no leakage - no heavy wastage - no doublers - no clamps - no soft patches				
9	A	Check hydrants under pressure: - no leakage - fire hoses easily coupled - condition of valves				
10	A	Check fire hoses: - number indicated in the fire plan available - no leakages (for fire hoses under pressure) - provided with nozzle and couplings				

SECTION J-2 - FIRE MAIN SYSTEM

11	A	Check nozzles: - no leakage (for nozzles under pressure) - dual type where required ^(*) ^(*) see the relevant item in the Guidelines			
12	A	Check stowage boxes of fire hoses and nozzles: - easily usable - easily identifiable			
13	A	International shore connection: - available on board - one gasket packing available - four (4) bolt 16 mm diameter, 50 mm in length and eight (8) washers			

FIXED FIRE FIGHTING SYSTEMS FITTED ON BOARD (shaded boxes: not admitted)

	CO2	HALON	HIGH FOAM	IGS	LOW FOAM	POWDER	SPRINK.	STEAM	WATER SPRAY
Accommodation (A)									
Boiler room (A)									
Oil fuel units room (A)									
Dry cargo spaces (A)									
Cargo tanks (T)									
Ro-ro spaces (A)									
Engine room (A)									
Dangerous goods spaces (A)									
Cargo pumps room (C-G-T)									
Cargo deck (C-G-T)						(G)			(G)
Boundaries of superstructures (G)									
Compressor room (G)									
Paint and flammable liquid lockers (A)									

J-3 - CO₂ SYSTEM(S)

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination: wastage, seizure of movable parts, piping and valves satisfactory				
2	A	Cylinder room suitably ventilated and boundaries gastight, clear of improperly stored items, sufficient lighting				
3	A	Automatic alarm working, delay device fitted, means of operation clearly marked, release system efficient, instruction panel posted				
4	A	Cylinders not corroded, means for checking content fitted				
5	A	Check last date of cylinders weight check ^(*) ^(*) see Annex 2 to the Guidelines				
6	A	Check last date of cylinders hydrostatic test ^(*) ^(*) see Annex 2 to the Guidelines				

J-4 - HALON SYSTEM(S)

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination: wastage, seizure of movable parts, piping and valves satisfactory				
2	A	Cylinder room suitably ventilated and boundaries gastight, clear of improperly stored items				
3	A	Automatic alarm working, delay device fitted, means of operation clearly marked, release system efficient, instruction panel posted				
4	A	Cylinders not corroded, means for checking content fitted				
5	A	Check last date of cylinders weight check ^(*) ^(*) see Annex 2 to the Guidelines				
6	A	Check last date of cylinders hydrostatic test ^(*) ^(*) see Annex 2 to the Guidelines				

J-5 - FOAM SYSTEM(S)						
No.	Ship	Item	Y	N	NA	Comments
1	A	General examination: wastage, seizure of movable parts, piping and valves satisfactory				
2	A	Foam room clear of improperly stored items				
3	A	Means of control grouped and readily accessible from outside the compartment served				
4	A	Foam liquid and water pumps working				
5	A	Froth generators and sources of power supply efficient				
6	A	Foam sample test certificate not out of date				

J-6 - SPRINKLER SYSTEM						
No.	Ship	Item	Y	N	NA	Comments
1	A	Each section of sprinklers gives a visual and audible alarms signal automatically at one indicating unit on the navigating bridge whenever any sprinkler comes into operation				
2	A	The unit indicates the section where fire has occurred				
3	A	Audible and visible alarms are repeated in another position to ensure immediate reception by crew				
4	A	A plan of the system and areas covered to be provided near the unit				
5	A	Each section capable of being isolated by one stop valve only, provided with pressure gauge, readily accessible by authorised persons and clearly indicated. Test valve provided. System connected via a non-return valve to the fire main				
6	A	Pressure tank, air system, fresh water system, in good condition				
7	A	Pump, alarms and detection powered by two supplies				

J-7 - WATER SPRAY SYSTEM(S)						
No.	Ship	Item	Y	N	NA	Comments
1	A	Pump starts automatically for pressure decrease. Pump driven by independent engine or supplied by emergency generator.				
2	A	Valves serving each compartment clearly identified				

J-8 - STEAM SYSTEM(S)						
No.	Ship	Item	Y	N	NA	Comments
1	A	Valves operable from the deck clearly marked with the name of the compartment served				

J-9 - DECK FROTH SYSTEM						
No.	Ship	Item	Y	N	NA	Comments
1	T	Control station readily accessible and operable				
2	T	A monitor and a hose connection for a froth applicator provided each side accommodation front facing cargo area, at least 4 applicators provided				
3	T	Valves provided in both the froth main and the fire main, fwd each monitor				
4	T	Operation of froth system at nominal output to allow contemporary use of fire main with two jets of water				
5	T	Foam sample test certificate not out of date				

J-10 - INERT GAS SYSTEM						
No.	Ship	Item	Y	N	NA	Comments
1	T	Check general condition of inert gas system: corrosion, leakage, seizure				
2	T	Test blowers				
3	T	Test scrubber room ventilation system				
4	T	Test deck water seal for automatic filling and draining				
5	T	Test all remotely operated or automatically controlled valves				
6	T	Test interlocking of soot blowers				
7	T	Check automatic closure of gas pressure regulating valve for blowers secured				
8	T	Test safety devices: high oxygen, low gas pressure, low supply pressure to DWS, high gas temperature, low water pressure to scrubber, high level in scrubber, failure of blowers, failure of power supply to gas regulating valve and to pressure and oxygen recorders, high gas pressure				
9	T	Test and calibrate portable and fixed oxygen measuring equipment				
10	T	Test the inert gas system working				

J-11 - DRY CHEMICAL POWDER SYSTEM						
No.	Ship	Item	Y	N	NA	Comments
1	G	Check general condition of dry chemical powder system: corrosion, seizure				
2	G	Check pressure of nitrogen bottles				
3	G	Check efficiency of a powder sample				

SECTION K - LIFESAVING APPLIANCES	SE-SMC
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K-1 - LIFEBOATS (*) (**)						
(*) Lifeboats fittings: see Annex 3 to the Guidelines						
(**) Lifeboats inventory: see Annex 4 to the Guidelines						
No.	Ship	Item	Y	N	NA	Comments
1	A	Hull: no damages, holes, corrosion, doublers				
2	A	Buoyancy compartments: undamaged				
3	A	Benches, thwarts, crutch holes gunwales: no rot or wastage				
4	A	Drain plug with packing and chain with indication of position available				
5	A	Engine foundation, engine cover, fuel tank in good condition; exhaust pipe undamaged and insulated				
6	A	Check condition of grab lines				
7	A	Check condition of bilge keel rails				
8	A	Stern frame, rudder stock and blade, gudgeons, pins, tiller and associated fittings in satisfactory conditions				
9	A	Lifting hooks and hull connection: no rot or wastage				
10	A	Bilge pump satisfactorily working, hoses not damaged, clean bilges				
11	A	Lifeboats properly marked				
12	A	Retro reflective tapes: properly fitted (on top of the gunwale, on the outside of the boat, on the bottom) and in satisfactory conditions				

SECTION K1 - LIFEBOATS

13	A	Lifeboat inventory: complete, serviced and in good order				
14	A	Check condition of release mechanism				
15	A	Embarkation arrangements: ladders (handholds, side ropes, steps, fitting shackles/padeyes) satisfactory, lighting system working with main and emergency sources				
16	A	Lifeboats properly stowed in davits				
17	A	Check condition of launching arrangements: - davits - sheaves (free to rotate) - lifting gears - blocks, falls (greased), links, fastenings - brakes - release gear - skates and fenders - davit spans - two lifelines				
18	A	Launch tracks for free-fall lifeboats, release and recovery arrangements				
19	A	Operating instructions for launching posted and vital parts identified using IMO blue symbols				
20	A	Test means to prevent any discharge of water on to lifeboats during abandonment				
21	A	Each lifeboat lowered to the embarkation position				
22	A	At least one lifeboat lowered to the water				
23	A	Check limit switches when recovering lifeboats				
24	A	Test of the engines and propellers ahead and astern				
25	A	Test lifeboats electric system				
26	A	Test lifeboats hand propelling equipment				
27	A	Launch appliances subjected to thorough examination and dynamic test within 5 years				
28	A	Lifeboat on load-release gear subjected to a thorough examination and operationally tested under overload, whenever overhauled and anyway within 5 years				
29	A	Falls end for ended within 30 months and renewed within 5 years, or periodically inspected and renewed within 4 years				
30	C-G	Test self-contained air support system				
31	CGT	Test water spray system				

K-2 - RESCUE BOATS ^(*)

(*) Rescue boats fittings and inventory: see Annex 5 to the Guidelines

No.	Ship	Item	Y	N	NA	Comments
1	A	Lifeboat used as a rescue boat: apply items from K-1-1 to K-1-31 relevant to lifeboats				
2	A	Rescue boat (other than a lifeboat): apply the following items relevant to lifeboats: - from K-1-1 to K-1-12 - from K-1-14 to K-1-17 - K-1-19 - K-1-22 - K-1-24 - K-1-27 to K-1-29				
3	A	Rescue boat inventory: complete, serviced and in good order ^(*) ^(*) see Annex 5 to the Guidelines				
4	A	Rescue boat lowered to the water				

K-3 - LIFERAFTS ^(*)

(*) Rigid liferafts fittings and inventory: see Annex 6 to the Guidelines

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination: condition of containers, proper fitting onto the cradle				
2	A	Check hydrostatic release units and float-free arrangement, weak link, liferafts not tied up/lashed down with rope, last servicing not out of date				
3	A	Containers properly marked				
4	A	Check embarkation arrangements				
5	A	Fwd liferaft available for immediate use (secure fastening accepted if permits manual release)				
6	A	Liferafts for which approved launching appliances are required: - condition and operation of launching appliances ^(*) - falls ^(**) - operating instructions <small>^(*) see item K-1-17 (as applicable), k-1-27, k-1-28 ^(**) see item K-1-29</small>				
7	A	Rigid liferafts: - absence of cracks, defects and wear, particularly in the proximity of cradles - proper stowage - hydrostatic release - retro-reflective tapes - inventory ^(*)				

K-4 - LIFEBOUYS

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination and stowage				
2	A	Test self-igniting lights				
3	A	Self-activating smoke signals not out of date				
4	A	Check buoyant lines				
5	A	Manoverboards fitted with quick release device				
6	A	Retro-reflective material				
7	A	Lifebuoy properly marked				

K-5 - LIFEJACKETS

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination and stowage				
2	A	Date of servicing of inflatable lifejackets				
3	A	Check availability of whistles				
4	A	Check the lights and batteries expiry date				
5	A	Retro-reflective material				

K-6 - IMMERSION SUITS AND THERMAL PROTECTIVE AIDS

No.	Ship	Item	Y	N	NA	Comments
1	A	General examination				
2	A	Retro-reflective material				

K-7 - LIVESAVING AND SAFETY EQUIPMENT (MISCELLANEOUS)

No.	Ship	Item	Y	N	NA	Comments
1	A	Stowage locations for lifesaving equipment marked with IMO symbols				
2	A	Distress signals not out of date				
3	A	Test of two-way VHF apparatus: operation on channel 16, battery charging arrangements, expiry date of primary batteries				
4	A	Radar transponders: position and mounting, battery expiry date, test according to manual				
5	A	Check line throwing appliances				
6	A	Test on-board communication equipment				
7	A	Test general alarm system				

8	A	Test main and emergency lighting of muster and embarkation stations				
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SECTION L - POLLUTION PREVENTION

IOPP-NLS-SMC

L-1 - ANNEX I: OIL

No.	Ship	Item	Y	N	NA	Comments
1	A	Running test of the oily-water separator. Condition of the outer casing and of discharge piping, operation of valves and pressure gauges.				
2	A	Working test of the alarm / automatic stopping device (where fitted) through simulation of oil content in excess of 15 ppm (e.g.: covering the photocell removed from the pipe).				
3	A	Check segregation of oil fuel and water ballast systems				
4	A	Check sludge pump operation				
5	A	Check sludge tank arrangement, discharge allowed only through standard connection, no connections with other pumps fitted with overboard discharge				
6	A	Check homogenisers, incinerators, etc.				
7	A	Standard discharge connection available on board				
8	T	Check the oil discharge monitoring and control system (ODMS): satisfactory operation, oil content meter, automatic and manual stop of discharge, starting interlock, indicators and recording devices, supply of consumables for recorders, audible and visual alarms				
9	T	Oil/water interface detectors available on board				
10	T	Confirm no cross connections between cargo and SBT systems				
11	T	Emergency connection of SBT to cargo system: portable spool piece provided and wall mounted with notice on it, non return valves on SBT fitted				
12	T	No contamination of SBT/dedicated CBT				
13	T	Dedicated CBT system satisfactory				
14	T	Check Crude Oil Washing (COW) system: piping, pumps, valves, washing machines, sufficient operational drive units provided, double shut-off valves/blanks for steam heaters during COW operations, means of communication between deck officer and cargo control room, overpressure relief valve, flexible hoses for combination carriers				
15	T	Special ballast arrangement satisfactory				
16	T	Check discharge piping for dirty or oil-contaminated water and part flow system				
17	T	Test communication between observation and discharge control position				
18	T	Check draining of cargo pumps and lines				

L-2 - ANNEX II: CHEMICAL

1	CGT	Check pumping and piping systems				
2	CGT	Check tank washing piping and machines				
3	CGT	Check the wash water heating system				
4	CGT	Check underwater discharge arrangement				
5	CGT	Check means of controlling the rate of discharge				
6	CGT	Check operation of the flow rate indicating device				
7	CGT	Test ventilation equipment for residues removal				

8	CGT	Check heating system required for solidifying and high viscosity substances			
9	CGT	Test cargo tanks high level alarms			

SECTION M - RADIO EQUIPMENT

SR-SMC

M-1 - GMDSS SHIPS						
No.	Ship	Item	Y	N	NA	Comments
1	A	Radio station: check lighting, call sign, ship station identity and other required codes clearly marked, controls of the VHF on the bridge adequate tools and spares.				
2	A	Check radio personnel documents				
3	A	Check radio logs.				
4	A	Check sources of energy: charge of batteries , supply to VHF, MF radio installation, MF/HF radio installation, INMARSAT ship earth station, all radio installations capable of being connected to the reserve source, electrical lighting.				
5	A	Check availability of the functional requirements (duplication of equipment, shore-based maintenance, at-sea electronic maintenance.				
6	A	Check VHF T+R (channels 6, 13, 16, 70) and VHF DSC watch receiver on channel 70 (may be separated).				
7	A	Check 9 Ghz radar transponder stowed for easy utilisation.				
8	A	Check NAVTEX receiver.				
9	A	Check INMARSAT EGC radio facility.				
10	A	Check HF maritime system information receiver.				
11	A	Check 406 MHz satellite EPIRB: installed in easily accessible position, ready to be manually released and activated, capable of floating free and being automatically activated when afloat. Check separate secondary means of ship-to-shore alert (if provided separately).				
12	A	Check 1.6 Ghz satellite EPIRB: installed in easily accessible position, ready to be manually released and activated, capable of floating free and being automatically activated when afloat. Check separate secondary means of ship-to-shore alert (if provided separately).				
13	A	Check RTP distress frequency watch receiver on 2182 kHz.				
14	A	Check device for generating the radiotelephone alarm signal on 2182 kHz.				
15	A	Check HF DSC (or MF DSC or HF INMARSAT) secondary means of ship-to-shore alert.				
16	A	Check VHF EPIRB: installed in easily accessible position, ready to be manually released and activated, capable of floating free and being automatically activated when afloat. Check separate secondary means of ship-to-shore alert (if provided separately).				
17	A	Check MF radio installation.				
18	A	Check INMARSAT ship earth station.				
19	A	Check MF/HF DSC radio installation.				

SECTION N - CHEMICAL TANKERS

SE-CHEM-SMC

No.	Ship	Item	Y	N	NA	Comments
1	C	Wheelhouse doors, windows, sidescuttles and windows in superstructure and deck-house ends facing the cargo area satisfactory				
2	C	Access ladders to cargo pump room (cpr) satisfactory				
3	C	Removable pipe lengths and equipment for cargo separation available in cpr				
4	C	Sealing arrangements of all penetrations of cpr bulkheads satisfactory				
5	C	Test remote operation of cpr bilge system				
6	C	Check bilge and ballast arrangements and piping				
7	C	Check bow/stern loading/unloading arrangements, test means of communication and remote shutdown for cargo pumps				
8	C	Check cargo transfer arrangements and suitability of hoses				
9	C	Check cargo heating/cooling system, sampling arrangements, means for measuring temperature and alarms				
10	C	Check cargo tank vent system, P/V valves, devices for preventing passage of flame, drain lines				
11	C	Check gauging devices, high-level alarms, overflow control valves				
12	C	Check arrangements for sufficient gas carried/generated for normal losses compensation				
13	C	Check means for monitoring ullage spaces				
14	C	Check arrangements for sufficient medium carried where drying agents are used on air inlets of cargo tanks				
15	C	Check electrical equipment in dangerous zones for maintenance and suitability, pipelines and independent cargo tanks electrically bonded				
16	C	Check fixed fire-fighting system for cpr				
17	C	Check deck foam system for cargo area				
18	C	Check arrangements for ventilation of spaces normally entered during cargo-handling operations and other spaces in the cargo area, spares for mechanical ventilation fans				
19	C	Check instrumentation				
20	C	Check equipment for personnel protection: protective clothing, safety equipment and associated breathing apparatus, emergency-escape respiratory and eye protection, medical first-aid equipment, stretchers, oxygen resuscitation equipment, antidotes for cargoes, decontamination arrangement and eyewashes, gas-detection instruments, stowage of cargo samples				

SECTION O - GAS CARRIERS

SE-GAS-SMC

No.	Ship	Item	Y	N	NA	Comments
1	G	Wheelhouse doors, windows, sidescuttles and windows in superstructure and deck-house ends facing the cargo area satisfactory				
2	G	Check cargo pump rooms and cargo compressor rooms				
3	G	Check manually operated and automatic emergency shutdown of cargo pumps and compressors				

SECTION O - GAS CARRIERS

4	G	Check cargo control room (ccr)			
5	G	Check gas detection system for ccr			
6	G	Check arrangements for air-locks			
7	G	Check bilge, ballast oil fuel arrangements			
8	G	Check bow/stern loading/unloading arrangements, test means of communication between ccr and shore			
9	G	Check sealing arrangements at the gas domes			
10	G	Check portable/fixed drip tray or deck insulation for cargo leakage			
11	G	Check cargo and process piping, expansion arrangements, insulation from the hull structure, pressure-relief and drainage arrangements			
12	G	Check cargo tank/interbarrier space pressure and relief valves, safety systems and alarms			
13	G	Check liquid/vapour hoses for suitability			
14	G	Check cargo pressure/temperature control			
15	G	Check cargo, bunker, ballast and vent piping, vent masts and protective screens			
16	G	Check arrangements for sufficient inert gas carried/generated for normal losses compensation, spaces monitoring			
17	G	Check air drying system, interbarrier and hold space purging IGS			
18	G	Check electrical equipment in dangerous zones for maintenance and suitability, pipelines and independent cargo tanks electrically bonded			
19	G	Test the remote means of starting of one fire pump			
20	G	Check fixed fire-fighting system for cpr and means of operation clearly marked			
21	G	Test water-spray system for cooling, fire protection, crew protection, means of operation clearly marked			
22	G	Check deck dry chemical powder system, means of operation clearly marked			
23	G	Check fixed fire-fighting system for gas-dangerous spaces, means of operation clearly marked			
24	G	Check additional fireman's outfits			
25	G	Check arrangements for ventilation of spaces normally entered during cargo-handling operations and other spaces in the cargo area, spares for mechanical ventilation fans			
26	G	Check liquid level indicators, pressure gauges, high/low pressure alarms, overflow control valves, temperature indicators			
27	G	Check gas-detection equipment			
28	G	Check two sets of portable gas-detection equipment, one suitable instrument for measuring oxygen level			
29	G	Check equipment for personnel protection: two complete sets of safety equipment for entering gas-filled spaces, supply of compressed air and special air compressor (if provided), emergency-escape respiratory and eye protection, medical first-aid equipment, stretchers, oxygen resuscitation equipment, decontamination arrangement and eyewashes, arrangements to protect personnel against cargo release			
30	G	Check arrangements for use of cargo as fuel (if provided): gas supply cut-off for exhaust ventilation failure, master gas fuel valve remote closure from machinery space			

SECTION P - NATIONAL REQUIREMENTS

OWNER'S
REQUEST

P-1 - USA						
No.	Ship	Item	Y	N	NA	Comments
1	A	Radiotelephone (Ch. 13, 16, 22A) VHF-FM				
2	A	Cargo oil containment				
3	A	Fuel oil and bulk lubricating oil discharge containment				
4	A	Shipboard garbage properly disposed				
5	A	Crew familiar with garbage procedures				
6	A	Placard				
7	A	Oil transfer procedures				
8	A	Emergency shutdown				
9	A	Deck lighting				
10	A	Oil transfer hose				
11	A	Transfer records				
12	A	Marine sanitation device (Type I-II-III, nameplate, placard)				
13	A	Electronic position fixing devices				

