

IMCI - Cover Sheet for Checklist ISO All In One en210301

Manufacturer:	
Signatory, Name:	
Signatory, Title:	
Phone:	
Fax:	
Email:	
Boat model name:	
Boat model year:	

Following checklists have been used for the assessment.

Checklist for Standard	Standard Titel	Indicate
EN ISO 8099-1:2018	Waste Systems - Part 1: Waste water retention	
EN ISO 8847:2017	Steering gear - Cable and pulley systems	
EN ISO 8848:2017	Remote steering systems	
EN ISO 9093-2:2018	Seacocks and through-hull fittings - non metallic	
EN ISO 9094:2017	Fire protection	
EN ISO 10087:2019	Craft identification - Coding system	
EN ISO 10088:2017	Permanently installed fuel systems	
EN ISO 10133:2017	Electrical systems - Extra-low-voltage d.c. installations	
EN ISO 10239:2017	Liquefied petroleum gas (LPG) systems	
ISO 10240:2005/A1:2015	Owner's manual	
EN ISO 10592:2017	Hydraulic steering systems	
EN ISO 11105:2017	Ventilation of petrol engine and/or petrol tank compartments	
EN ISO 11591:2011	Field of vision from helm position	
ISO 11591:2019	Field of vision from steering position	
EN ISO 11592-1:2016	Determination of maximum propulsion power rating using manoeuvring speed - Part 1: Craft with a length of hull less than 8m	
ISO/FDIS 11592-2:2018	Determination of maximum propulsion power rating using manoeuvring speed - Part 2: Craft with a length of hull between 8 m and 24 m	
EN ISO 11812:2018	Watertight cockpits and quick-draining cockpits	
EN ISO 12215	Hull construction and scantlings	
EN ISO 13297:2018	Electrical systems - Alternating current installations	
EN ISO 13929:2017	Steering gear - Geared link systems	
EN ISO 14895:2016	Liquid-fuelled galley stoves and heating appliances	
ISO 14945:2004/A1:2005	Builder's Plate	
EN ISO 15083:2018	Bilge-pumping systems	
EN ISO 15084:2018	Anchoring, mooring and towing - Strong points	
EN ISO 15085:2003/A2:2018	Man-overboard prevention and recovery	
EN ISO 16180:2018	Navigation lights - Installation, placement and visibility	
EN ISO 21487:2018	Permanently installed petrol and diesel fuel tanks	
EN ISO 25197:2018	Electrical/electronic control systems for steering, shift and throttle	

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Manufacturer: Date and Signature _____

Inspector: Date, Signature and Stamp _____

CHECKLIST

SMALL CRAFT - WASTE SYSTEMS - PART 1: WASTE WATER RETENTION

Ref.: EN ISO 8099-1:2018 (ISO 8099-1:2018)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Any toilet in a retention system connected solely to a holding tank.	4.1	[Yes ?]	
2 A Y-valve is placed between the toilet and the holding tank.	4.1	[No ?]	
3 Craft with permanently installed holding tanks are fitted with a discharge connection as specified in Annex A to enable pipes of reception facilities to be connected with the craft discharge pipeline.	4.2	[Yes / NA ?]	
4 Any through-hull fittings for sewage are fitted with valves which are capable of being secured in the closed position.	4.2	[Yes / NA ?]	
5 Connecting hoses and piping are securely fastened in position to prevent damage by abrasion or vibration.	6.1	[Yes ?]	
6 Piping or hose between the toilet and holding tank, and between the tank and the pump-out fitting, are as short as practicable.	6.1	[Yes ?]	
7 Retention systems with the possibility of overboard discharge of sewage from the tank overboard are fitted with a seacock at the through-hull fitting.	6.2	[Yes / NA ?]	
8 Any seacock used for overboard discharge in accordance with ISO 9093-1 and ISO 9093-2 are capable of being secured in the closed position.	6.2	[Yes / NA ?]	
9 Vent pipe complies with standard and documentation is available by the manufacturer.	7.2	[Yes ?]	
10 The holding tank are securely fastened and located independently of any connecting piping.	8.1.1	[Yes ?]	
11 The minimum level of holding-tank content is observable when the holding tank is 3/4 full by volume, when the tank is viewed in a readily accessible location, or indicated by another means.	8.1.2	[Yes ?]	
12 Holding-tank fittings and connections are accessible for inspection and maintenance.	8.1.3	[Yes ?]	
13 Holding tanks of capacity greater than 40 l have an accessible sealable (i.e. gastight and watertight).	8.1.4	[Yes / NA ?]	
14 Holding tanks of capacity greater than 40 l have a minimum opening of 75 mm diameter for flushing, cleaning and maintenance.	8.1.4	[Yes / NA ?]	
15 Holding tanks does not have common walls, tops or bottoms with fuel or potable-water tanks.	8.1.5	[Yes ?]	
16 If portable holding tank(s) on the craft, it is not connected to any through-hull fitting.	8.3.1	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

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Boat Model Name:	



17	If portable toilets on the craft, it is equipped with a discharge fitting and considered as a permanently installed holding tank.	8.3.1	[Yes / NA ?]
18	Dimension of pump-out fitting as shown in figure A.1.	9.1	[Yes ?]
19	Pump-out fitting identified by marking, on the fitting or in its vicinity, with at least the symbol according figure A.2.	9.3	[Yes ?]
20	The fitting have a sealing cap.	9.4	[Yes ?]
21	If a cap retention system is used, it not impede the proper function of the pump-out.	9.4	[Yes / NA ?]
22	Pump-out fittings are readily accessible with access for pump-out connections.	9.5	[Yes ?]
23	Pump-out fittings are located as far as practicable from the fuel tank fill and potable water fittings.	9.5	[Yes ?]
24	Prefabricated holding tanks legibly marked on the holding tank with necessary information according Clause 10.	10	[Yes ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

	Subject to check	Clause	Requirements	Checked ?
25	The system prevent the emission of vapour and liquids within the craft.	4.3	[Yes ?]	
26	The system is capable of operation throughout an ambient temperature range of +1 °C to +60 °C and withstand, when empty, an ambient temperature range of -40 °C to +60 °C.	4.4	[Yes ?]	
27	The system is capable of operation, i.e. discharge of sewage from the toilet to the retention system, when the boat is heeled at all angles up to 20 ° for monohull sailing craft and 7 ° for other craft.	4.5	[Yes ?]	
28	Back siphoning is prevented from raw water intakes and discharge outlets up to a heel angle to either side of at least 30° for monohull sailing craft, 20° for other craft and a trimmed condition at the bow or stern of at least 10°.	4.6	[Yes ?]	
29	Back siphoning of the contents and escape of gas from the holding tank back through the toilet fixture shall be prevented when the boat is heeled at all angles up to 30° for monohull sailing craft, 20° for other craft and a trimmed condition at the bow or stern of at least 10°.	4.7	[Yes ?]	
30	Escape of sewage from the holding tank to the exterior of the craft shall be prevented when the boat is heeled at all angles up to 30° for monohull sailing craft, 20° for other craft, at 90 % of tank capacity and to the interior of the craft under maximum anticipated conditions of heel or trim, i.e. 45° for monohull sailing craft, 30° for other craft.	4.8	[Yes ?]	
31	The permanently installed retention system including all tanks, connecting piping, hoses, and fittings, are tested to withstand a pressure of 20 kPa for a period of 5 min without leaking.	4.10	[Yes / NA ?]	
32	The tank withstand a negative pressure of 20 kPa for a period of 5 min without permanent deformation.	4.10	[Yes ?]	
33	Materials are resistant to the effects, listed in Clause 5.	5	[Yes ?]	
34	Hoses and piping suitable for use in sewage systems.	6.1	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



35	Piping or hose between the toilet and holding tank, and between the tank and the pump-out fitting inner surface be smooth and without convolutions to permit free flow of sewage.	6.1	[Yes ?]
36	Piping or hose between the toilet and holding tank, and between the tank and the pump-out fitting inner surface have an inside diameter in conformity with the toilet manufacturer's recommendations, or have a minimum inside diameter of 38 mm, if no recommendations are provided.	6.1	[Yes ?]
37	The system provide for venting of gases within the system to the exterior of the craft at heel angles up to 20° at 90 % of tank capacity.	7.1.1	[Yes ?]
38	The inside diameter of fittings to which vent piping is connected is not be less than 75 % of the inside diameter of the piping.	7.1.2	[Yes ?]
39	The design and construction of the vent system minimize clogging due to the contents of the tank or as a result of weather conditions.	7.1.3	[Yes ?]
40	The vent is capable of resisting, without damage, a negative pressure of 20 kPa.	7.1.3	[Yes ?]
41	The minimum flow area through vent screens and equivalent flow resistance of any filters installed in the vent system are not be less than the smallest flow area in either the vent pipe or its fittings.	7.1.4	[Yes ?]
42	If rigid tanks with capacity of less than 400 l are used, the minimum inside diameter of the vent pipe amount 19 mm.	7.2.1	[Yes / NA ?]
43	If rigid tanks with capacity of less than 400 l and the vent pipe inside diameter of not less than 16 mm are used, the tank is fitted with an automatic (vacuum operated) or manual relief valve with a minimum combined area of 1 100 mm ² .	7.2.1	[Yes / NA ?]
44	If rigid tanks with capacity of 400 l and greater are used, the minimum inside diameter of the vent pipe amount 38 mm.	7.2.2	[Yes / NA ?]
45	If rigid tanks with capacity of 400 l and greater and multiple vent pipes are used the combined cross sectional flow area is at least equivalent to that of a single vent pipe with an area of 1100mm ² .	7.2.2	[Yes / NA ?]
46	If rigid tanks with capacity of 400 l and greater and multiple vent pipes are used, their inside diameter is at least 19 mm.	7.2.2	[Yes / NA ?]
47	If rigid tanks with capacity of more than 400 l and vent pipe inside diameter of not less than 16 mm are used, the tank is fitted with an automatic (vacuum operated) or manual relief valve with a minimum combined area of 1100 mm ² .	7.2.2	[Yes / NA ?]
48	If rigid tanks with capacity of 400 l and greater are used, a manual relief valve is fitted, a sign installed, in symbols or language acceptable in the country of use, located in the vicinity of the pump-out fitting, indicating that the relief valve must be opened prior to pump out.	7.2.2	[Yes / NA ?]
49	Flexible (collapsible) tanks have at least one vent of inside diameter minimum 16 mm.	7.2.3	[Yes / NA ?]
50	The permanently installed holding tank provide removal of at least 90 % of its contents through the pump out fitting.	8.2.1	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



51	Baffles in permanently installed holding tanks have openings to allow sewage and vapour to flow freely across the top and bottom.	8.2.2	[Yes / NA ?]
52	Fittings of permanently installed holding tanks, including the covers of clean-out openings, are designed and constructed to ensure a gastight and watertight closure.	8.2.3	[Yes / NA ?]
53	The internal diameter of the vent line for portable holding tanks is not less than 16mm.	8.3.2	[Yes / NA ?]
54	Portable holding tank installed with quick disconnect at the tank opening with a closing device permanently attached to the tank, to ensures a watertight seal during transport of the tank.	8.3.2	[Yes / NA ?]
55	All portable holding-tank openings are sealed with watertight and gastight closing devices.	8.3.3	[Yes / NA ?]
56	Threads are in accordance with ISO 228-1.	9.2	[Yes ?]

Comments:

CHECKLIST
SMALL CRAFT - STEERING GEAR - CABLE AND PULLY SYSTEMS

Ref.: EN ISO 8847:2017 (ISO 8847:2004)
IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 All components are fastened securely to the structure of the boat, reinforced where necessary, especially at the bulkhead mounting, pedestal and at pulleys. The steering arm connection to the rudder shaft is capable of transmitting the steering torque to the rudder.	4	[Yes ?]	
2 No component except rudder stop limits rotation.	7.2	[Yes ?]	
3 Stops suitable fixed to the structure of the craft to limit over-rotation of steering arm.	7.2	[Yes ?]	
4 Materials used does not effect accuracy and reliability of compasses or navigational instruments, whatever the steering angle may be.	7.3	[Yes ?]	
5 Components are accessible.	7.4	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

6 The whole system withstands, without loss of steering, a 670 N single push-pull load which was applied for 10 cycles of 5 s each at any single location on the outer wheel rim or the centre of the handgrip of an external spoke in a direction parallel to the centreline of the wheel shaft.	7.1.1	[Yes ?]	
7 The whole system withstands, without loss of steering, with the rudder shaft locked and not against a stop, a 450 N single push-pull load which was applied for 10 cycles of 5 s each to the external rim or the centre of the handgrip of an external spoke of the steering wheel.	7.1.2	[Yes ?]	

Comments:

CHECKLIST
SMALL CRAFT - REMOTE STEERING SYSTEMS
Ref.: EN ISO 8848:2017 (ISO 8848:1990)
IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Boat suitable and designated for twin outboard motors.	3.3	[Yes / No ?]	
2 Threaded fastener with locking means.	3.4	[Yes ?]	
3 Adjustment fastener with locking means.	3.5	[Yes ?]	
4 No loose lock-washers, distorting threads or adhesive.	3.5.1	[Yes ?]	
5 No jam nuts, except if no failure occurs if loose.	3.5.2	[Yes ?]	
6 Locking devices visible or can be felt.	3.5.3	[Yes ?]	
7 No connections relying on spring.	3.6	[Yes ?]	
8 Cable correctly attached to boat.	6.3	[Yes ?]	
9 No interference between boat and jet or inboard-outboard drive.	6.4	[Yes ?]	
10 No tight bends in steering cables.	6.5	[Yes ?]	
11 Steering wheel and helm shaft fit.	6.6	[Yes ?]	
12 Cable openings sealed if below static float plane.	6.8	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

13 Outboard motor and inboard-outboard requirements tested.	4	[Yes ?]	
14 Steering system requirements tested.	5	[Yes ?]	
15 Steering ram at least 270 mm beyond motor centreline.	6.2	[Yes ?]	
16 Steering system to withstand 3300 N axial test.	7.1.1	[Yes ?]	
17 Steering system to withstand 450 N tangential test.	7.1.2	[Yes ?]	

Comments:

CHECKLIST

SMALL CRAFT - SEACOCKS AND THROUGH-HULL FITTINGS - PART 2: NON-METALLIC

Ref.: EN ISO 9093-2:2018 (ISO 9093:2002)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Where the fitting of a seacock, through-hull fitting or drain plug impairs the required strength of the hull, a local reinforcement compensates for the loss of strength.	10.1.1	[Yes ?]	
2 Attachment of through-hull fittings, seacocks and drain plugs to the hull are watertight and so installed as to prevent loosening under normal operating conditions.	10.1.2	[Yes ?]	
3 Metallic components and fastening elements such as screws are corrosion resistant and do not act galvanically with each other, with the boat or any other fitting with which they are in contact.	10.1.3	[Yes ?]	
4 Seacocks are directly fitted to the hull or a through-hull fitting.	10.2.1	[Yes ?]	
5 Seacocks are readily accessible.	10.2.1	[Yes ?]	
6 The seacock assembly ensures that no part will come loose under any operating conditions.	10.2.2	[Yes ?]	
7 Seacocks and through-hull fittings are located so as to minimise the likelihood of damage to them or inadvertent operation.	10.2.3	[Yes ?]	
8 Sizes of hoses is compatible with the hose fitting and allows for a tight fit.	10.3	[Yes ?]	
9 Metallic hose clamps are made entirely of stainless steel, type Cr18 Ni8 or other material with equal or higher strength and corrosion resistance, and they are reusable.	10.4	[Yes ?]	
10 Clamps depending on spring tension are not used.	10.4	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

11 Seacocks, through-hull fittings and hose fittings installed below the heeled waterline fulfil the requirements of the strength test.	10.2.4	[Yes ?]	

CHECKLIST
SMALL CRAFT - FIRE PROTECTION
Ref.: EN ISO 9094:2017 (ISO 9094:2015)
IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Any cooking and/or heating appliance is secured against accidental or unintended movement.	4.1.1	[Yes / NA ?]	
2 Gimballed appliances include a retaining mechanism.	4.1.1	[Yes / NA ?]	
3 If appliances with flues are installed they shall be:			
4 - routed directly to the open air so that no exhaust gases can enter the interior of the craft;	4.1.2	[Yes / NA ?]	
5 Permanently installed fuel systems:		[Yes / NA ?]	
6 - fuel tanks shall be installed outside Zone II according to Figure 1;	4.1.3	[Yes / NA ?]	
7 - filler openings for tanks shall be prominently identified to indicate the type of fuel to be used with the system;	4.1.3	[Yes / NA ?]	
8 - have a readily accessible shut-off valve as defined per 4.1.3, unless covered by ISO 14895.	4.1.3	[Yes / NA ?]	
9 In the vicinity of open flame device within the ranges as defined in Figure 1 (Zone I & Zone II), materials and finishes comply with 4.2.2. taking into account the movement of the burner up to a heel angle of 20° for monohull sailing boats and 10° for monohull motorboats & multihull, where gimballed stoves are fitted.	4.2.1	[Yes / NA ?]	
10 Free hanging curtains or other fabrics adjacent to open flame devices shall not be fitted in Zone I and Zone II according to Figure 1.	4.2.2	[Yes / NA ?]	
11 Radiated heat devices meet the requirements of 4.2.3, see documentation.	4.2.3	[Yes / NA ?]	
12 If solid fuel appliance, following requirements under clause 4.2.4 are fulfilled:			
13 - Appliance stands on and is secured to a hearth, designed and constructed of suitable robust non-combustion material, supporting the weight of the appliance and preventing ignition of the floor coverings.	4.2.4.1	[Yes / NA ?]	
14 - The distance of combustible fixtures, fittings or furniture other than flooring and its covering shall not be less from solid fuel appliance then specified by the manufacturer <u>or</u> , if no distance is specified, within 600 mm of the closest point to the appliance.	4.2.4.2	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
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15	- Free-hanging combustible material, such as curtains or blinds adjacent to solid fuel appliance shall be fitted not less than the minimum distance specified by the manufacturer or, if no distance is specified, not within 600 mm of the closest point to the appliance and any uninsulated flue pipe.	4.2.4.3	[Yes / NA ?]
16	If electrical appliance, following requirements under clause 4.2.5 are fulfilled:		
17	- Free hanging curtains or other fabrics adjacent to electrical cooking hobs shall not be fitted in Zone I according to Figure 1.	4.2.5.1	[Yes / NA ?]
18	- Electrical heating appliances shall not be fitted with an element so exposed that clothing, curtains, or other similar materials can be scorched or set on fire by heat from the element.	4.2.5.2	[Yes / NA ?]
19	Engine compartment insulation materials shall present a non-fuel absorbent surface towards the engine.	4.3.1.1	[Yes ?]
20	Bilge and other spaces that can contain petrol and diesel shall be accessible for cleaning and must have a non-fuel absorbent floor surface.	4.3.1.3	[Yes / NA ?]
21	If a non-metallic component or flexible hose is part of a water-cooled exhaust system, a means to indicate a loss of cooling water obvious from steering position to prevent a failure shall be provided. A temperature or flow alarm may suffice.	4.3.1.4	[Yes / NA ?]
22	Petrol engine and/or permanently installed petrol fuel tank compartments are separated from habitable spaces by fulfilling following requirements: - boundaries are continuously sealed; - penetrations for cables, piping etc. are closed by fittings, seals and/or sealants; - access openings (doors, hatches etc.) can be secured to minimize the flow of vapours in the closed position. Proof by documentation or visual inspection.	4.3.2.1	[Yes / NA ?]
23	Petrol tanks shall be insulated from the engine or other heat source by either:		
24	a) a physical barrier between tank and engine, engine-mounted components including fuel and water supply lines and any source of heat.	4.3.2.4	[Yes / NA ?]
25	b) an air gap to prevent contact between the tank and engine, engine-mounted components and any source of heat. The gap must be wide enough to allow for servicing the engine and related components. The air gap is at least: - 100 mm between petrol engine and fuel tank; - 250 mm between dry exhaust and fuel tank.	4.3.2.4	[Yes / NA ?]
26	Compartments containing portable petrol engine equipment and portable petrol tanks or container shall meet: 4.3.1.3 for bilge cleaning, 4.3.2.1 for separation of habitable space, 4.3.2.2 for ignition protection and clause 5 of ISO 11105:1997. This requirements includes spaces used for storage of OB-motors, portable generators with integral petrol tanks and garage spaces for PWC's.	4.3.3	[Yes / NA ?]
27	Liquefied petroleum gas (LPG) systems.		
28	LPG system is not installed in engine compartments unless the location is in accordance to manufacturer recommendations.	4.5.1	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

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29	The clearance of LPG cylinders, pressure regulator device and safety device is at least 250 mm to any dry exhaust and/or other heat source unless a thermal barrier is provided.	4.5.1	[Yes / NA ?]
30	Deck lights that may provide a focal point: exposed materials within 300 below such a deck light shall be fireproof like ceramics, metal etc.	4.7	[Yes / NA ?]
31	Fire detection.		
32	Craft with more than one habitable space have a means to alert occupants to the outbreak of fire. Shower and toilet compartments are not included as an additional habitable space.	5	[Yes / NA ?]
33	The fire detection device (e.g. smoke or heat detector) shall fulfil following: - constructed according to international standards; - suitable for the space it is monitoring; - provide an audible alarm; - be connected to on-board electric or be independently powered.	5	[Yes / NA ?]
34	Fire escape routes and fire exits.		
35	Habitable spaces are fitted at least with one fire escape route leading to the open air or to the next habitable space, or the bottom step of a staircase leading to the next habitable space or open air.	6.1.1	[Yes / NA ?]
36	The fire escape route shall have a passage through doorway or hatches complying with 6.2 and shall have a passage way minimum width and height of 500 mm and shall not be obstructed by fixtures, fittings or furniture.	6.1.1	[Yes / NA ?]
37	The distance to the nearest fire exit does not exceed the greater of: 6 m, or $L_H/2.5$ (L_H = length of hull).	6.1.1	[Yes / NA ?]
38	The distance is measured in a horizontal plane, following along the escape route between the nearest part of the exit and the farthest: - point where a person can stand (minimum height 1.6 m), or - the midpoint of a bunk, whichever is greater.	6.1.1	[Yes / NA ?]
39	In addition the fire escape route for enclosed habitable space for sleeping shall have: - its middle line passing not less than 500 mm from the centre of the closest burner/open flame device, or a distance measured along the middle line from cabin threshold to bottom of stair leading to the outside not less than 2 m. - a fire detection device (acc. clause 5) installed between any open flame device and cabin exit along the distance of the escape route; - a portable fire extinguisher located in the escape route prior reaching the appliance. Alternatively or where these conditions do not met, a second fire escape route shall be provided.	6.1.1	[Yes / NA ?]
40	Where there are two escape routes required only one can pass through, over or beside an engine compartment.	6.1.2	[Yes / NA ?]
41	No escape route shall pass directly over an open flame appliance or a radiated heat device.	6.1.3	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

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42	If the requirements in 6.2.2 to 6.2.6 are fulfilled, an exit may be considered as a fire exit.	6.2.1	[Yes / NA ?]
43	Any fire exit from a habitable space complies with following minimum clear opening:		
44	- 450 mm diameter for circular shape.	6.2.2	[Yes / NA ?]
45	- 380 mm and 0,18 m ² area for non-circular shapes. The dimension is large enough to allow for a circle with 380 mm can be inscribed to the opening, taking any restriction into account.	6.2.2	[Yes / NA ?]
46	Fire exits are positioned in an unobstructed and readily accessible location.	6.2.3	[Yes / NA ?]
47	Fire exits are capable of being opened without the use of tool from the inside and outside when unlocked. Port lights of sufficient size are exempted. Note: winch handles and similar equipment are considered as tools.	6.2.4	[Yes / NA ?]
48	Deck hatches designated as fire exits shall have means to reach the upper foothold whose vertical distance shall not exceed 1,2 m (mattress being compressed). If footholds, ladders, steps etc. are provided to meet this requirement, they shall be permanently installed, only removable with tools.	6.2.5	[Yes / NA ?]
49	If folding or deploying devices are installed, their stowage location shall be clearly indicated affixed by a label. Information for folding devices do comply with Annex B.	6.2.5	[Yes / NA ?]
50	Fire fighting equipment as per clause 7 provided, see documentation.	7	[Yes / NA ?]
51	Fire ports shall be: sized to accept the nozzle, openable for ready access for a complete discharge, sealed to the habitable space when closed and not in use and located that the required size of extinguisher can be operated.;	7.4.2.2	[Yes / NA ?]
52	Fire port is identified with "Fire port" or an appropriate pictogram which is noted in the OM.	7.4.2.2.	[Yes / NA ?]
53	Portable fire extinguisher(s) are readily accessible in their designated positions (quickly and safety use under emergency conditions).	7.5.2.2	[Yes / NA ?]
54	If portable extinguisher(s) is stored in a locker or other protected or enclosed space, the locker or the enclosed space door shall carry the appropriate symbol (clause 8.6).	7.5.2.4	[Yes / NA ?]
55	Carbon dioxide extinguisher [CO ₂] is only located in habitable spaces where energized equipment is located (battery space, electric motor, etc) or flammable liquids are present (e.g. galley).	7.5.3	[Yes / NA ?]
56	Any CO ₂ extinguisher has a maximum capacity of 2 kg.	7.5.3	[Yes / NA ?]
57	Not more than one CO ₂ in each habitable space.	7.5.3	[Yes / NA ?]
58	If a CO ₂ is provided a warning note is provided near the location of the extinguisher and a warning included in the OM. Craft without habitable space are exempted.	7.5.3	[Yes / NA ?]
59	Location and capacity of portable fire extinguishers: a portable fire extinguisher is located:		
60	- within 2 m unobstructed distance from the main helm position;	7.5.4.1	[Yes / NA ?]
61	- within 2 m from any permanently installed cooking and heating appliance or open-flame device, accessible in a event of fire of such a device/appliance.	7.5.4.1	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



62	- within 5 m unobstructed distance from the centre of a bunk, measured in horizontal plane.	7.5.4.1	[Yes / NA ?]
63	- within 3 m from outboard engines or fire ports where required.	7.5.4.1	[Yes / NA ?]
64	The capacity of portable fire extinguisher shall meet following, taken into account that one extinguisher may meet more than one requirement:		
65	- at least one 5A/34B located within each 20 m ² of habitable spaces.	7.5.4.2	[Yes / NA ?]
66	- where habitable spaces are protected by a fixed system only one portable need to be provided.	7.5.4.2	[Yes / NA ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

67	Cooking and heating appliances suitable for use in marine environment.	4.1.1	[Yes / NA ?]
68	Appliance is installed according to manufacturer instructions.	4.1.1	[Yes ?]
69	Appliances with flues shall be installed in according to manufacturer's instructions.	4.1.2	[Yes / NA ?]
70	Appliances with flue shall be insulated or shielded in accordance with 4.2.3.1 where necessary to avoid overheating or damage to adjacent material or to the structure of the craft.	4.1.2	[Yes / NA ?]
71	Exposed materials adjacent to open flame devices installed in Zone I and Zone II shall not support combustion and accordingly shall have an oxygen index (OI) of at least 21 according to ISO 4589-3 at an ambient temperature of 60 °C, or be tested as meeting an equivalent standard.	4.2.2	[Yes / NA ?]
72	Exposed materials adjacent to open flame devices installed in Zone I and Zone II shall be thermally insulated from the supporting structure to prevent combustion of the supporting structure, if the surface temperature exceeds 80 °C during the fire test described in Annex A. Thermal insulation may be achieved by an air gap or the use of a suitable material.	4.2.2	[Yes / NA ?]
73	If the surface of a radiated heat device can exceed 85 °C, combustible materials adjacent to radiated heat devices and other appliances shall be thermally insulated to ensure that the surface temperature of the combustible material does not exceed 85 °C with the appliance operating at its maximum nominal output.	4.2.3.1	[Yes / NA ?]
74	The thermal insulation may be achieved by an air gap a radiation shielding surface or suitable material. Shielded surfaces shall use non-combustible materials or similar.	4.2.3.2	[Yes / NA ?]
75	If the appliance has been temperature tested as per EN 12815, EN 13240 or UL 1100, the appliance instructions may be followed to meet protection from the radiated heat device.	4.2.3.2	[Yes / NA ?]
76	Solid appliance: if it has been temperature tested as per EN 12815, EN 13240 or UL 1100, the appliance instructions may be followed to meet protection from the radiated heat device.	4.2.4.1	[Yes / NA ?]
77	Engine compartment insulation materials do not support combustion (OI at least 21 or test to equivalent standard).	4.3.1.1	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



78	The engine manufacturer's specific system recommendations have been followed when specific system recommendations are existing.	4.3.1.4	[Yes / NA ?]
79	Petrol engine and/or permanently installed petrol fuel tank compartments: all electrical equipment shall be ignition protected as specified in 4.6.	4.3.2.2	[Yes / NA ?]
80	LPG system complies with: EN 15609 if used for propulsion systems.	4.5.3	[Yes / NA ?]
81	Escape routes and exits must be described in the owner's manual, see Annex B.	6.1.1	[Yes ?]
82	Craft with habitable spaces containing sleeping bunks shall be equipped with at least one portable fire extinguisher 5A/34B.	7.2	[Yes / NA ?]
83	Habitable spaces containing cooking or heating appliance are equipped with following depending on the type of device according to Table 1: - without open flame device: portable fire extinguisher 5A/34B <u>or</u> a fixed system; - with open flame device: portable fire extinguisher 8A/68B <u>or</u> a fire blanket plus one portable fire extinguisher 5A/68B <u>or</u> a fixed system.	7.3	[Yes / NA ?]
84	The engine compartment is protected according to Table 2 of the standard (P is the power rating of engine or engines combined in kW) as following:.		
85	Outboard engines: P up to 25 kW: no extinguisher P > 25 and < 220 kW: 1 portable extinguisher 34B P > 220 kW: total B capacity of 0,3 x P.	7.4.1	[Yes / NA ?]
86	Petrol inboard engine: - located in engine box above the deck: portable with fire port <u>or</u> fixed fire extinguishing system; - located below deck: fixed fire extinguishing system.	7.4.1	[Yes / NA ?]
87	Diesel engine compartment: - net volume < 3,5 m ³ or P < 120 kW: portable with fire port <u>or</u> fixed system; - net volume > 3,5 m ³ or P > 120 kW: fixed fire extinguishing system.	7.4.1	[Yes / NA ?]
88	Fire ports are positioned for properly discharge without opening the primary access and be marked; the OM shall comply with Annex B.	7.4.2	[Yes / NA ?]
89	Portable fire extinguisher is marked in accordance to EN 3-7 and ISO 7156 or equivalent.	7.5.2.1	[Yes / NA ?]
90	If the portable fire extinguisher is located in exposed position to splashed or sprayed water, the nozzle and triggering device is shielded or the extinguisher is certified for marine use.	7.5.2.3	[Yes / NA ?]
91	In the space where it is discharged the extinguishing media shall not result in toxic concentrations. Media containing Halon 1211, 1301, 2402 and per-fluorocarbons shall not be used.	7.5.2.5	[Yes / NA ?]
92	The fixed system is an "approved system", see also Annex D.	7.6.2.1	[Yes / NA ?]
93	Fixed system is suitable sized and installed according to manufacturer's instructions, including any requirement for dampers.	7.6.2.2	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



94	Fixed system uses a total flooding medium which is not used so that it results in toxic concentrations. Media containing Halon 1211, 1301, 2402 and per-fluorocarbons is not used. CO ₂ is not used for fixed fire systems on recreational craft.	7.6.2.3	[Yes / NA ?]
95	Fixed system operation temperature is higher than 0 °C.	7.6.2.4	[Yes / NA ?]
96	If multiple fixed systems shall discharge simultaneously or each individual system shall be capable to protect the space.	7.6.2.5	[Yes / NA ?]
97	Cylinders, distribution lines and controls are located to comply with designated so that they will not be subject to temperatures outside the system's designated operation range, while the craft is in service.	7.6.4.2	[Yes / NA ?]
98	Solder or brazing material used for metallic lines or fittings shall have a melting temperature of not less than 600 °C.	7.6.4.6	[Yes / NA ?]
99	For fixed systems with manual release device, the release device is readily accessible and operable with maximum force of 100 N.	7.6.5.2	[Yes / NA ?]
100	Fixed systems using gas: means is provided to ensure the minimum design concentration to extinguish the fire.	7.6.5.4	[Yes / NA ?]
101	Fixed systems using gas: prior to or during system discharge, the manual and/or automatic shutdown of engines, generators, forced ventilation, or other permanent installed equipment shall be provided if those could comprise the level of extinguishing medium. If equipment shutdown cannot be guaranteed to maintain the design concentration, shut-off dampers closing the ventilation ducts shall be installed.	7.6.5.4	[Yes / NA ?]
102	Shut-off dampers, where required in 7.6.5.4 are capable of being closed before or during the discharge to maintain the minimum media concentration.	7.6.5.5	[Yes / NA ?]
103	Shut-off dampers of automatic fixed systems, where required in 7.6.5.4, shall be automatic. Manual fixed systems may use manual or automatic damper.	7.6.5.5	[Yes / NA ?]
104	Fire blanket: if required acc. to Table 1, it shall be accordance with EN 1869.	7.7	[Yes / NA ?]
105	Fire blanket: information shall comply with Annex B.	7.7	[Yes / NA ?]
106	Displayed information: the displayed information complies with clause 8.	8	[Yes / NA ?]
107	The owner's manual contained the information and instruction according to Annex B.	9	[Yes ?]

Comments:

CHECKLIST
SMALL CRAFT - CRAFT IDENTIFICATION - CODING SYSTEMS

Ref.: EN ISO 10087:2019 (ISO 10087:2019)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 The craft identification consists of 14 consecutive characters plus a hyphen as specified without intervening spaces, slashes or dashes.	4.1	[Yes ?]	
2 The first two characters, followed by a hyphen, designate the code of the country of the manufacturer as specified in the Alpha-2 code in ISO 3166-1.	4.2	[Yes ?]	
3 The next three characters are the unique manufacturer's identification code.	4.3	[Yes ?]	
4 The following five characters indicate the unique serial number for each individual craft.	4.4	[Yes ?]	
5 The serial number shall consist of numerals and/or letters, except for the letters I, O and Q.	4.4	[Yes ?]	
6 The last four characters designate the month and year of manufacture, and the model year.	4.5	[Yes ?]	
7 The month and year of manufacture date shall be no earlier than the date of construction or when assembly began and no later than the date the craft leaves the place of manufacture or assembly or is placed on the market.	4.5	[Yes ?]	
8 The model year indicates the year when the specific craft is intended to be placed on the market.	4.5	[Yes ?]	
9 The characters shall be at least 6 mm high.	5.1	[Yes ?]	
10 Each craft identification number shall be carved, burned, stamped, embossed, moulded, or otherwise permanently affixed, so that alteration, removal, or replacement will be obvious.	5.2	[Yes ?]	
11 If the number is on a separate plate, the plate shall be fastened in such a manner that its removal would normally cause some scarring of or damage to the surrounding hull area.	5.2	[Yes / NA ?]	
12 The identification number shall be visible on the starboard outboard side of the transom, or near the stern within 50 mm of the transom top, gunwale, hull/deck joint or its capping, whichever is lowest.	5.3.1	[Yes ?]	
13 On craft with a transom, the identification number shall be located on the starboard side of the transom.	5.3.2	[Yes / NA ?]	
14 On craft without a transom or with a transom on which it is impractical to locate the identification number, it shall be affixed within 300 mm of the stern.	5.3.3	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



15	On catamarans, the identification number shall be located as follows. a) Hulls structurally permanently connected: on the starboard hull. b) Hulls detachable but regarded as the primary structure: on both hulls. c) Hulls readily removable and/or replaceable: on the aft cross-beam within 300 mm of the starboard hull; this also applies to catamaran-type pontoon boats.	5.3.4	[Yes / NA ?]
16	On trimarans, the identification number shall be located on the centre hull.	5.3.5	[Yes / NA ?]
17	On inflatable boats, the identification number shall be affixed on the rigid aft cross-beam or motor bracket within 300 mm of the starboard hull attachment. If the identification number is not readily visible due to the construction of the boat, it may be applied additionally to some other suitable structure of the boat, such as the console assembly.	5.3.6	[Yes / NA ?]
18	Rails, fittings or other accessories shall not obscure the identification number located as specified above. If the design of the craft would result in this, the identification number shall be located as near as possible to the required location to be visible.	5.3.7	[Yes ?]
19	The identification number shall be displayed in alphanumerical characters (Arabic numerals and uppercase letters) and shall read from left to right.	5.6	[Yes ?]
20	If additional information is displayed on the craft within 50 mm of the identification number, it shall be separated by means of borders or it shall be on a separate label so that it will not be interpreted as part of the identification number.	6	[Yes ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

21	A duplicate identification number shall be affixed to a non-removable part of the craft in a location only known by the manufacturer. The duplicate identification number shall be located in the interior or beneath a fitting or item of hardware. Catamarans shall have this identification number in or on both hulls. The identification number should be located so that it is extremely difficult to reach and modify.	5.4	[Yes ?]
22	The identification number shall be affixed to the craft during the construction or assembly of the craft. In no case shall the craft be put on the market without it being affixed.	5.5	[Yes ?]

Comments:

CHECKLIST
SMALL CRAFT - PERMANENTLY INSTALLED FUEL SYSTEMS

Ref.: EN ISO 10088:2017 (ISO 10088:2013)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Fuel type.		[Petrol / Diesel]	
2 Petrol engine compartments and petrol tank compartments shall have ventilation and ignition protection in accordance with ISO 11105 and ISO 8846.	4.1.4	[Yes / NA ?]	
3 If petrol, the only outlets for drawing fuel from the fuel system are plugs in petrol filter bowls for the purpose of servicing filter.	4.1.5	[Yes / NA ?]	
4 If diesel, the only outlets for drawing fuel from the fuel system are plugs or valves in diesel filter bowls for the purpose of servicing filter.	4.1.5	[Yes / NA ?]	
5 If petrol, each metal or metallic plated component of fill system and tank is grounded. Resistance measured, see testing checklist.	4.1.6	[Yes / NA ?]	
6 Grounding wires are not clamped between a hose and its pipe or spud.	4.1.6	[Yes ?]	
7 If copper-base alloy fittings are used for aluminium tanks: Protection by a galvanic barrier ?	4.1.10	[Yes / NA ?]	
8 Means to determine fuel quantity is provided.	4.1.11	[Yes ?]	
9 Fuel system is permanently installed.	4.3.1	[Yes ?]	
10 All parts, except small connectors, fittings and short sections of flexible hoses, are independently supported.	4.3.1	[Yes ?]	
11 All components intended to be operated or observed during normal operation of the craft, or for emergency purposes, are readily accessible.	4.3.2	[Yes ?]	
12 All fittings and connections are at least accessible.	4.3.2	[Yes ?]	
13 Clearance between petrol fuel tank and combustion engine > 100 mm.	4.3.3	[Yes / NA ?]	
14 Clearance between petrol tank and dry exhaust component(s) > 250 mm if no thermal barrier is provided.	4.3.4	[Yes / NA ?]	
15 Fuel tank(s) and components of petrol fuel systems are not installed directly above batteries unless the batteries are protected against fuel leakage.	4.3.6	[Yes / NA ?]	
16 Minimum inside diameter of the fill pipe system is 28,5 mm.	5.1.1	[Yes ?]	
17 Minimum inside diameter of fuel filling hoses is 38 mm.	5.1.1	[Yes ?]	
18 Fuel filling hoses in the engine compartment are of fire resistant type A1 or A2 as per ISO 7840.	5.1.2	[Yes ?]	
19 Fuel fill hoses outside the engine compartment are of type A1 or A2 as per ISO 7840, or of type B1 or B2 as per ISO 8469.	5.1.2	[Yes ?]	
20 Fuel filling lines are self-draining to the tank, craft being in static floating position.	5.1.3	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



21	Distance between compartment ventilation openings and fuel fill openings are at least 380 mm. Acceptance if craft's coaming, superstructure or hull creates a barrier to prevent fuel vapour entering the craft through ventilation opening.	5.1.5	[Yes ?]
22	Fuel filling point is marked "petrol" or "diesel" and/or with a symbol as per ISO 11192.	5.1.6	[Yes ?]
23	Each fuel tank has separate vent line.	5.2.1	[Yes ?]
24	Vent hoses in the engine compartment are of fire resistant type A1 or A2 in accordance with ISO 7840.	5.2.2	[Yes ?]
25	Vent hoses outside engine compartment are of type A1 or A2 as per ISO 7840, or type B1 or B2 as per ISO 8469.	5.2.2	[Yes / NA ?]
26	Vent lines are self-draining when the craft in static floating position.	5.2.5	[Yes ?]
27	Distance between compartment ventilation openings and fuel vent openings is at least 400 mm. Acceptance if craft's coaming, superstructure or hull creates a barrier to prevent fuel vapour entering the craft through ventilation opening.	5.2.6	[Yes ?]
28	Vent line minimizes intake of water without restricting the release of vapour or intake of air.	5.2.7	[Yes ?]
29	Vent line arrangement minimizes the intake of water without restricting the release of vapour or intake of air and does not allow the vapour overflow to enter the craft.	5.2.7	[Yes ?]
30	Vent-line termination or gooseneck in the vent-line routing is at sufficient height to prevent spillage of fuel through the vent line during filling and entry of water under normal operating conditions.	5.2.8	[Yes ?]
31	If mono-hull sailing craft: Vent line minimizes the risk of fuel spillage or entry of water through the vent when sailing at heel angle of up to 30°.	5.2.8	[Yes / NA ?]
32	Vent lines on all fuel installations incorporate a flame arrester.	5.2.9	[Yes ?]
33	Metal fuel distribution and return lines are of seamless annealed copper or copper-nickel or equivalent metal with nominal wall thickness of at least 0,8 mm. Aluminium lines may be used for diesel fuel.	5.3.1	[Yes / NA ?]
34	Rigid fuel distribution and return lines are connected to the engine by a flexible hose section.	5.3.2	[Yes ?]
35	Support of rigid fuel distribution and return lines are provided within 100 mm of the connection to the metal supply line on the rigid side of the connection.	5.3.2	[Yes ?]
36	Connections in rigid fuel distribution or return lines are made with efficient screwed, compression, cone, brazed or flanged joints.	5.3.3	[Yes ?]
37	Flexible fuel hoses are used where relative movement of the craft structures supporting the fuel lines would be anticipated during normal operating conditions.	5.3.4	[Yes / NA ?]
38	Flexible fuel hoses are accessible for inspection and maintenance.	5.3.5	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



39	Petrol distribution and return hoses are of fire-resistant type A1 as per ISO 7840, except hoses entirely within splash well at stern of craft connected directly to outboard engine by type B1 or B2 hoses as per ISO 8469 or A1 or A2 hoses as per ISO 7840. Hoses to SAE J1527 satisfy the requirements of ISO 7840.	5.3.6	[Yes / NA ?]
40	Diesel-fuel distribution and return hoses are of fire-resistant type A1 or A2 as per ISO 7840.	5.3.7	[Yes / NA ?]
41	Fuel lines are properly supported and secured to craft structure above bilge water level, unless specifically designed for immersion or protected from the effects of immersion.	5.3.8	[Yes ?]
42	There are no joints in fuel distribution and return pipes or hoses other than those required to connect required fuel-line components, e.g. filters and bulkhead connections.	5.3.9	[Yes ?]
43	Fuel distribution lines to petrol engine(s) prevent fuel siphoning out of the tank following a failure in the system.	5.3.10	[Yes / NA ?]
44	Fuel distribution lines to diesel engine(s) prevent fuel siphoning out of the tank following a failure in the system or are fitted with a manual shut-off valve.	5.3.11	[Yes / NA ?]
45	Diverting valves in diesel return lines ensure that the return line flow is not restricted.	5.3.12	[Yes / NA ?]
46	Fuel hoses are secured to the pipe, spud or fitting by metal hose clamps or are equipped with permanently attached end fittings.	5.4.1	[Yes ?]
47	Pipes, spuds (except fuel-tank spud) or other fittings for hose connection with hose clamps have a bead, flare, series of annular grooves or serrations.	5.4.2	[Yes ?]
48	Spuds or other fittings for hose connection with hose clamps have a nominal outer diameter being the same as the nominal inner diameter of the hose.	5.4.3	[Yes ?]
49	Hose connections designed for a clamp connection have a spud at least 25 mm long.	5.4.4	[Yes / NA ?]
50	Hose connections having a nominal diameter of more than 25 mm shall have two hose clamps. The spud is at least 35 mm long.	5.4.5	[Yes / NA ?]
51	Spuds for hose connection are free from sharp edges.	5.4.6	[Yes / NA ?]
52	Hose clamps are of CrNi 18-8 stainless steel, or equivalent, and reusable.	5.4.7	[Yes / NA ?]
53	Clamps depending solely on spring tension are not used.	5.4.7	[Yes / NA ?]
54	Nominal clamp band width is at least 8 mm for nominal outside hose diameters up to and including 25 mm and at least 10 mm for bigger hoses.	5.4.7	[Yes / NA ?]
55	Clamps are installed to fit directly on the hose and do not overlap each other.	5.4.8	[Yes / NA ?]
56	Clamps are installed behind the bead, if any, or fully on the serrations on spuds with at least one clamp width from the end of the hose.	5.4.8	[Yes / NA ?]
57	Manually operated valves have positive stops in the open and closed positions or clearly indicate their open and closed positions.	5.5.1	[Yes / NA ?]
58	The integrity and tightness of a valve does not depend solely on spring tension.	5.5.2	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



59	Threaded valve housing covers that can be exposed to an opening torque when the valve is operated are secured against unintentional opening by a device that can be reused.	5.5.3	[Yes / NA ?]
60	If transparent sight gauge is installed on diesel tank, it is mounted as close as practical to the tank, minimizing the risk of physical damage. It has a self-closing device on the bottom and a valve at the top.	5.5.4	[Yes / NA ?]
61	Petrol fuel systems is equipped with a fuel filter.	5.6.1	[Yes / NA ?]
62	Diesel fuel systems is equipped with at least one fuel filter and one water separator or being combined into one device.	5.6.2	[Yes / NA ?]
63	Each filter is independently supported on the engine or craft structure.	5.6.3	[Yes ?]
64	All system components that fulfil ISO 10088 shall be marked or labelled: - manufacturer's name or trademark; - ISO 10088 - fire resistant; - type of fuel or fuels for which the component is suitable.	5.6.4	[Yes ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

65	Individual components of the fuel system, and the fuel system as a whole, shall be designed to withstand the combined conditions of pressure, vibration, shocks, corrosion and movement encountered under normal operating conditions and storage.	4.1.1	[Yes ?]
66	Each component and system as whole operates throughout ambient temperature range of -10 °C and +80 °C.	4.1.2	[Yes ?]
67	Each component and system as whole withstands throughout storage temperature range of -30 °C and +80 °C.	4.1.2	[Yes ?]
68	Each component and system as whole is resistant to deterioration to all liquids or compounds with which it may come into contact.	4.1.3	[Yes ?]
69	If petrol, each metal or metallic plated component of fill system and tank is grounded with less resistance than 1 ohm.	4.1.6	[Yes / NA ?]
72	Provision is made to prevent fuel overflow from the vent opening from entering the craft or the environment.	4.1.8	[Yes ?]
73	All fuel system components in the engine compartment, except permanently installed fuel tanks and fasteners supporting metal fuel lines, withstanding a 2,5 min fire test as specified in ISO 7840 (individually or as installed).	4.1.9	[Yes ?]
74	The whole fuel system passes after installation the pressure test as specified.	4.2.1	[Yes ?]
76	Blow back test conducted.	4.1.7 /	[Yes ?]
77	Fuel filling system prevents accidental fuel spillage from entering the craft when in static floating position.	5.1.4	[Yes ?]
78	Cross-sectional area of any vent component > 95 mm ² or ventilation opening designed to prevent tank pressure from exceeding 80% of max. test pressure as marked on the tank label.	5.2.3	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



79	Vent lines do not have valves other than those that permit free flow of air and prevent flow of liquid (fluid) both in and out of the tank.	5.2.4	[Yes ?]
80	Vent-line components in engine compartments, able to capture fuel, fulfil test requirements of 4.1.9.	5.2.10	[Yes ?]

Comments:

CHECKLIST
SMALL CRAFT - ELECTRICAL SYSTEMS - EXTRA-LOW-VOLTAGE D.C. INSTALLATIONS

Ref.: EN ISO 10133:2017 (ISO 10133:2012)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked?
1 The system is fully insulated two-wire or two-wire with negative ground.	4.1	[Yes ?]	
2 If d.c. system with negative ground, main ground/earthing is the negative terminal or main ground bus.	4.1	[Yes / NA ?]	
3 The hull is not used as a current-carrying conductor.	4.1	[Yes ?]	
4 Multiple battery banks have a common negative connection, if not excepted as dedicated isolated system, e.g. electric propulsion system.	4.1	[Yes / NA ?]	
5 If fitted, the equipotential bonding conductor is connected to the craft's grounding/earthing point.	4.2	[Yes / NA ?]	
6 Switches and controls are marked to indicate their use, unless purpose is obvious and mistaken operation will not cause a hazardous condition.	4.3	[Yes ?]	
7 Protective devices are provided at the source of power.	4.4	[Yes ?]	
8 Batteries are installed in dry and vented location above bilge water level.	5.1	[Yes ?]	
9 Metal objects can not come into contact with battery terminal.	5.4	[Yes ?]	
10 Batteries are protected against mechanical damage by location or enclosure.	5.5	[Yes ?]	
11 Batteries are not installed directly above or below a fuel tank or fuel filter.	5.6	[Yes ?]	
12 Metallic components of the fuel system within 300 mm above battery top are electrically insulated.	5.7	[Yes / NA ?]	
13 Connected battery cable terminals do not depend on spring tension.	5.8	[Yes ?]	
14 Battery disconnect switch in the positive conductor if earthed negative system.	6.1	[Yes / NA ?]	
15 Battery disconnect switch in the positive and negative conductor if fully insulated two-wire d.c. system.	6.1	[Yes / NA ?]	
16 Battery disconnect switch can be reached quickly and safely without use of tools, positioned as close as practical to the battery / group of batteries. See exceptions.	6.1	[Yes ?]	
17 Remote controlled battery disconnect switch permits safe manual operation.	6.3	[Yes / NA ?]	
18 Electrical distribution uses correct stranded-copper conductors.	7.1	[Yes ?]	
19 Conductors and cables are supported, in conduits, trunking, trays or individual support every 450 mm.	7.3	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



20	Sheathed and battery conductors to the disconnect switch are supported every 300 mm. First support less than 1 m from terminal. (see exception for OB).	7.4	[Yes ?]
21	Conductors exposed to physical damage are protected.	7.5	[Yes / NA ?]
22	Conductors through bulkhead and structural members are protected against chafing.	7.5	[Yes / NA ?]
23	The d.c. circuit is separated from the a.c. circuit if contained in the same wiring system by: - an earthed metal screen for multicore cables; or - insulation for their voltage and installed in separate conduit/trunking; or - installing with physical separation on tray or ladder; or - separated conduits, sheatings or trunking systems are used; or - a.c. & d.c. fixed directly to a surface with 100 mm separation.	7.8	[Yes / NA ?]
24	Insulated equipotential bonding conductors are green or green/yellow striped or uninsulated.	7.9	[Yes / NA ?]
25	Conductors with green (or green with a yellow stripe) insulation are not used for current carrying conductors.	7.9	[Yes ?]
26	Means of identification other than colour for d.c. positive conductors is used and properly identified on the craft wiring diagrams of the electrical system(s).	7.10	[Yes / NA ?]
27	Colour identification of d.c. negative conductors is yellow or black.	7.11	[Yes / NA ?]
28	If an a.c. circuit is installed, yellow is used for the negative d.c. conductor if black is used for a.c. live conductor.	7.11	[Yes / NA ?]
29	Black or yellow is not used for d.c. positive conductors.	7.11	[Yes / NA ?]
30	Conductors are routed above bilge water level or at least 25 mm above automatic bilge pump switch or as exception conductors routed in the bilge area are in an IP 67 enclosure, in accordance with IEC 60529.	7.12	[Yes ?]
31	If not protected by thermal barrier, conductors are routed away from exhaust pipes and other heat sources: - 50 mm from water-cooled exhaust components; - 250 mm from dry exhaust components.	7.13	[Yes / NA ?]
32	A manual reset trip-free circuit breaker or fuse is installed within 200 mm of the power source, for each conductor (see exception).	8.1	[Yes / NA ?]
33	If the battery conductor is contained in a sheath or enclosure, the overcurrent protection may be placed up to 1,8 m from the battery.	8.1	[Yes / NA ?]
34	If the conductor is connected to a source of power other than a battery terminal, and contained in a sheath or enclosure, the overcurrent protection may be placed up to 1 m from the power source. See exemption for self-limited devices.	8.1	[Yes / NA ?]
35	Control elements, indicating instruments, circuit breakers and fuses on panel boards can be reached quickly and safely without the use of tools.	9.1	[Yes ?]
36	Terminals of panel boards are accessible.	9.1	[Yes ?]
37	Panel-boards are permanently marked with the nominal system voltage.	9.3	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



38	Separation or partition of a.c. & d.c. distribution at panel board if craft is equipped with both systems.	9.4	[Yes / NA ?]
39	All conductors have suitable terminals, i.e. no bare wires to stud or screw connections.	10.3	[Yes ?]
40	No twist-on connectors (wire nuts) are used.	10.6	[Yes ?]
41	Exposed shanks of terminals are protected against accidental shorting except those for the grounding systems.	10.7	[Yes ?]
42	No more than four conductors are secured to one terminal stud.	10.9	[Yes ?]
43	Receptacles/sockets and plugs for the d.c. system are not interchangeable with a.c. system.	11.1	[Yes / NA ?]
44	Electrical components in compartment with LPG systems are ignition protected according to ISO 8846 as required in ISO 10239, see testing checklist.	12.2	[Yes / NA ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

45	Selection, arrangement and performance of protective devices are as required for a maximum continuity and service to healthy circuits and protection from damage due to overcurrents.	4.5	[Yes / NA ?]
46	Voltage ranges of d.c. equipment functions within voltage range (75% - 133%) at battery terminals; exception for equipment requiring a higher minimum is fulfilled.	4.6	[Yes ?]
47	Calculated voltage drop does not exceed 10% of nominal voltage for conductors.	4.7	[Yes ?]
48	If required, voltage drop does not exceed 3%.	4.7	[Yes / NA ?]
49	Movement of batteries is less than 10 mm at force twice the battery weight.	5.2	[Yes ?]
50	Installed batteries are capable of inclinations of 30° without leakage.	5.3	[Yes ?]
51	Monohull sailing craft: spilled electrolyte is contained up to 45° without leakage.	5.3	[Yes / NA ?]
52	Minimum continuous rating of battery switch is equal to maximum current of main circuit breaker.	6.2	[Yes ?]
53	For engine-starting circuits, the battery switch is rated for the engine starter it serves.	6.2	[Yes / NA ?]
54	Insulation of conductors is from fire retardant material.	7.1	[Yes ?]
55	Conductor insulation in engine spaces is minimum 70 °C, oil resistant or protected with conduit or sleeving.	7.2	[Yes ?]
56	Minimum conductor dimensions comply with Table A.2.	7.6	[Yes ?]
57	Area of separately installed conductors longer than 200 mm is at least 1 mm ² .	7.7	[Yes / NA ?]
58	Area of the individual sheathed multi conductor is at least 0,75 mm ² . It extends out of the sheath less than 800 mm (see exception).	7.7	[Yes ?]
59	Voltage rating of fuses and circuit breakers are not less than the nominal circuit voltage.	8.2	[Yes ?]
60	Current rating of fuses and circuit breakers are not higher than the value for the conductor of smallest diameter.	8.2	[Yes ?]
61	Output circuits of self-limiting generators and battery chargers do not require a fuse or circuit breaker.	8.3	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



62	IP ratings of connections and components on panel boards are fulfilled.	9.2	[Yes ?]
63	Wiring diagrams identifying circuits, components and conductors are supplied.	9.4	[Yes ?]
64	Conductor connections are located protected from weather or minimum IP 55.	10.1	[Yes ?]
65	Connections above deck exposed to intermittent immersion are IP 67.	10.1	[Yes ?]
66	Studs, nuts and washers are corrosion resistant and galvanically compatible.	10.2	[Yes ?]
67	Aluminium and unplated steel are not used for studs, nuts or washers.	10.2	[Yes / NA ?]
68	Screw clamp and screwless terminal blocks ensure reliable mechanical linkage. Other terminals are ring or captive spade (self-locking) types.	10.4	[Yes / NA ?]
69	Friction type connectors used only in circuits not exceeding 20 A and with separation force > 20 N.	10.5	[Yes ?]
70	Crimp-on terminals and connectors were attached with a suitable crimping tool.	10.8	[Yes / NA ?]
71	The smallest conductor to connector and conductor to terminal withstands a tensile force equal to at least the value of Table 1.	10.8	[Yes ?]
72	Protection of receptacles/sockets with: - IP 55 when subjected to rain, splash, spray when not in use; - IP 67 when subjected to flooding, momentary submersion, even when not used.	11.2 11.3	[Yes ?]
73	Electrical components in compartments which may contain explosive vapour and gases are ignition protected according to ISO 8846 (see note).	12.1	[Yes / NA ?]
74	Requirements for allowable continuous current ratings [A], determined for an ambient temperature of 30 °C, and the minimum number of strands for conductors are according to the standard.	Annex A	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT - LIQUEFIED PETROLEUM GAS (LPG) SYSTEMS
Ref.: EN ISO 10239:2017 (ISO 10239:2014)
IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Note: The scope does not cover devices used for LPG-fuelled propulsion engines or LPG-driven generators.

Subject to check	Clause	Requirements	Checked ?
1 The system is of a vapour withdrawal type, i.e. LPG released only under gas phase conditions.	4.2	[Yes ?]	
2 All appliances installed on a single LPG system shall be designed for use at the same operating pressure and the same LPG type, e.g. propane, butane, or a mixture of the two.	4.3	[Yes ?]	
3 The operating pressure is clearly labelled in the vicinity of the cylinder shut-off valve.	4.3	[Yes ?]	
4 The cylinder(s) selected and other supply equipment has sufficient capacity to ensure safe and satisfactory operation of all appliances simultaneously. Cylinder locker or cylinder housing is capable of accommodating the capacity of cylinders needed.	4.3	[Yes ?]	
5 Where an additional LPG system is installed there is no connection between each of the LPG supplies. The cylinder(s) for each gas supply may be installed in the same cylinder locker or cylinder housing.	4.4	[Yes / NA ?]	
6 If an additional cylinder locker or cylinder housing is used, each cylinder locker or cylinder housing has a warning sign inside which indicates that there is an additional LPG supply.	4.4	[Yes / NA ?]	
7 In case of additional LPG Systems, inside the cylinder locker or cylinder housing is a clearly indication which appliances are supplied by each LPG supply. This shall also be stated in the owner's manual.	4.4	[Yes / NA ?]	
8 Each LPG system is fitted with simple means to test the LPG system for leakage before use of any appliances (e.g. a pressure gauge, bubble leak tester).	4.5	[Yes ?]	
9 Where a bubble leak detector is fitted in the LPG system, it shall be securely mounted in the low pressure side of the LPG system and in the cylinder housing or cylinder locker.	4.5	[Yes / NA ?]	
10 If pressure gauges are used, they shall read the cylinder pressure side of the pressure regulation device. The gauge scale shall have a pressure range from 0 kPa to a maximum of between 1000 kPa and 1600 kPa to be able to show pressure drops during the LPG system check.	4.5	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



11	System is equipped with, or have provision for the installation of a pressure regulation system.	5.1	[Yes ?]
12	Label indicating the working pressure of the LPG appliances installed is affixed in the vicinity of the LPG cylinder installation.	5.1	[Yes ?]
13	If installed, the LPG pressure reduction system has an overpressure device to prevent uncontrolled pressure increase in the low pressure side to a value above 5 kPa.	5.2	[Yes ?]
14	Any gas discharge of the LPG pressure reduction system is inside the cylinder locker or housing or separately vented outside the craft.	5.2	[Yes ?]
15	The pressure regulator indicates the nominal working pressure.	5.3	[Yes ?]
16	The pressure regulator is not of the external manual adjustment type.	5.4	[Yes ?]
17	The pressure regulator is located within the cylinder housing.	5.5	[Yes ?]
18	Pressure regulator, not supported by the cylinder connection, is separately secured within the cylinder locker or cylinder housing for protection, dirt and water. It is mounted above the cylinder valve for a continuous rise from the cylinder valve to the regulator.	5.6	[Yes / NA ?]
19	The LPG supply line system is either a solid piping system (except for short hose connection to gimbaled stoves) or continuous hose in accordance with 6.3.	6.1.1	[Yes ?]
20	Hoses are used to connect gimbaled stove(s) with their LPG supply.	6.1.2	[Yes / NA ?]
21	Hoses are used to connect supply piping to the pressure regulation device within the cylinder locker or cylinder housing.	6.1.2	[Yes ?]
22	Only solid drawn copper or drawn stainless steel piping is used. Materials are galvanically compatible when connected.	6.2.1	[Yes ?]
23	There shall be no joints or fittings in piping passing through engine compartments.	6.2.2	[Yes / NA ?]
24	LPG supply piping routed through engine compartments shall be protected by conduit or trunking, or supported by non-abrasive attachments which are no more than 300 mm apart.	6.2.3	[Yes / NA ?]
25	Piping is installed as high as practical above bilge water level.	6.2.5	[Yes / NA ?]
26	Piping has as few fittings as practical. Joints and fittings are readily accessible.	6.2.6	[Yes / NA ?]
27	Hoses are routed through the engine compartment.	6.3.2	[No ?]
28	Hoses have a minimum practical length.	6.3.2	[Yes ?]
29	Hoses shall have permanently attached end fittings.	6.3.3	[Yes / NA ?]
30	Hoses are capable of being reached for inspection, removal or maintenance without removal of a permanent craft structure.	6.3.3	[Yes / NA ?]
31	Hoses shall be installed so as to avoid stress or tight radius turns.	6.3.3	[Yes / NA ?]
32	Hose connections shall be readily accessible and stress free, i.e. not subjected to tension or kinking under any conditions of use.	6.3.4	[Yes / NA ?]
33	Hoses used for LPG supply line are continuous from within the cylinder locker or cylinder housing to the appliances, or the readily accessible shut off valve near the appliance (see 6.6.3), except where metallic supply piping is connected to flexible hose leading to a movable appliance, such as a gimbaled stove.	6.3.5	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



34	Piping does not have direct contact with metallic parts of craft structure of higher galvanic nobility than the piping.	6.5.1	[Yes / NA ?]
35	Supply lines and components are routed 30 mm away from electrical conductors unless the LPG line is run jointless through a conduit, or the conductors are sheathed in conduit or trunking according to ISO 10133 and ISO 13297.	6.5.2	[Yes ?]
36	LPG lines are at least 100 mm from exposed electrical terminals.	6.5.2	[Yes / NA ?]
37	Metallic supply lines are at least 100 mm from engine exhaust system.	6.5.3	[Yes ?]
38	Support of LPG supply lines in order to prevent damage from chafing or vibration: - copper or stainless steel piping, spaced at intervals not exceeding 0,5 m; - for hoses, the intervals shall not exceed 1 m.	6.5.4	[Yes ?]
39	LPG supply line fixing devices are corrosion-resistant, non-abrasive, designed to prevent cutting or other damage to the lines and galvanically compatible with the supply line material. In the case of conduit it shall be vented and non-metallic. All joints shall have at least one fixing device per line no more than 150 mm away from the joint.	6.5.4	[Yes ?]
40	No undue stress is created at the fittings at joints and connections.	6.5.5	[Yes ?]
41	Penetrations through watertight bulkheads maintain watertight integrity.	6.5.6	[Yes / NA ?]
42	Line is protected from abrasion at through-bulkhead or wall penetrations.	6.5.7	[Yes / NA ?]
43	A readily accessible manually operated main shut off valve is provided in the high pressure side. This may be the cylinder valve.	6.6.1	[Yes ?]
44	Dual cylinder system is provided with an automatic or manual change over device (selector valve), with non-return valves fitted, in addition to each cylinder shut-off valve, to prevent the escape of gas when either cylinder is disconnected.	6.6.2	[Yes / NA ?]
45	A shut-off valve is installed in the low pressure supply line to each appliance. This may be a solenoid valve located within the cylinder locker or cylinder housing on the high or low pressure side of the pressure regulation device, operable from the vicinity of the appliance. Solenoid valves shall be closed in cases of lack of tension, i.e. loss of electrical actuating energy.	6.6.3	[Yes ?]
46	Each shut-off valve is in vicinity of the appliance and operable without reaching over the top of open flames.	6.6.3	[Yes ?]
47	Identification of open/closed position of shut-off valves are clearly identified.	6.6.4	[Yes ?]
48	Identification of controlled appliance at shut-off valves placed away from the appliance is provided and if not visible the location of the valve is labelled.	6.6.5	[Yes / NA ?]
49	Taper plug valves are only used in low pressure side and are spring loaded.	6.6.6	[Yes / NA ?]
50	Shut off valves are located to avoid inadvertent or accidental operation.	6.6.7	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



51	All unattended appliances are of the room sealant type with air intake ducting and flues for outgoing combustion products to outside the craft.	7.4	[Yes / NA ?]
52	All unattended appliances shall have a combustion system in which either: - incoming combustion air passes through sealed ductwork connected to the enclosed combustion chamber and terminating outside the craft, including any areas that can be enclosed by canopies, or - mechanisms are incorporated in the appliance to prevent back drafting from the exhaust and oxygen depletion in interior spaces.	7.4	[Yes / NA ?]
53	Each appliance is labelled indicating the type of LPG to be used and this label is referred to in the owners manual.	7.5	[Yes ?]
54	Each cooking appliance has permanent warning label with a minimum character height of 4 mm.	7.6	[Yes / NA ?]
55	The exposed hot working surfaces of space heaters and water heaters are located to prevent risk of injury.	7.8	[Yes / NA ?]
56	Manufacturers instructions are provided preventing overheating of surfaces and allowing inspection/servicing.	7.9	[Yes ?]
57	For monohull sailing craft: Sliding of cooking utensils across the stove is prevented up to 15° pitch and 30° roll.	7.10	[Yes / NA ?]
58	For monohull engine driven and multihull sailing craft: Sliding of cooking utensils across the stove is prevented for 15° pitch and roll.	7.10	[Yes / NA ?]
59	Cylinders, regulators and safety devices are secured for marine environment.	8.1	[Yes ?]
60	Cylinders, regulators and safety devices are installed in lockers or housings.	8.1	[Yes ?]
61	Cylinders, pressure regulators, regulation devices and safety devices located below decks or in cockpits shall be mounted in cylinder lockers.	8.1	[Yes / NA ?]
62	Craft design and openings of cylinder lockers and cylinder housings shall be such that escaping vapours can only flow to the outside of the craft.	8.2	[Yes ?]
63	Cylinder lockers inside enclosed cockpits are only be accessible from the top; in case of a cockpit with open transoms it may also be accessible from the side.	8.3	[Yes ?]
64	A cylinder locker shall be vented at the bottom by a drain with not less than 19 mm internal diameter; flanges or welded joints 30 mm above the lowest point of the locker are accepted.	8.3	[Yes ?]
65	The locker drain runs outboard without sumps which can retain water.	8.3	[Yes ?]
66	The locker drain runs outboard with outlet lower than locker bottom, not less than 75 mm above waterline at fully loaded condition.	8.3	[Yes ?]
67	All hoses and metal piping penetrating the locker wall are sealed vapour tight.	8.4	[Yes / NA ?]
68	Locker drains and housing vents are located at least 500 mm away from any opening to the interior of the craft.	8.5	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



69	No store for loose storage or components is provided in the locker.	8.6	[Yes ?]
70	Cylinders, valves and pressure regulators are readily accessible and secured rigidly allowing only withdrawal of gas in vapour condition.	8.7	[Yes ?]
71	All electrical devices in cylinder lockers, housings or compartments comply with ISO 8846 for ignition protection.	11	[Yes ?]
72	Information and instructions are included in the Owner's Manual.	12	[Yes ?]
73	Flues are routed and sized to ensure complete discharge outside craft, including areas that maybe enclosed by canopies and as not to be obstructed by water.	13.2	[Yes / NA ?]
74	The flue and air-intake duct system is continuous and vapour tight from the appliance to its terminal outside the craft.	13.3	[Yes / NA ?]
75	Dampers (shut-off valves) are not used in the flue system.	13.4	[Yes / NA ?]
76	The entire flue system is accessible for inspection.	13.5	[Yes / NA ?]
77	Flue terminals for exhaust discharge are not within 500 mm of a ventilator, opening port, window, refuelling fitting or fuel tank vent.	13.6	[Yes / NA ?]
78	Flue terminals are constructed with guard to prevent damage and injury by accidental contact with hot surfaces.	13.7	[Yes / NA ?]
79	The instructions are included with the owner's manual.	Annex C	[Yes ?]
80	If cooking appliances with integral LPG cartridges, capacity of 225 g or less.	Annex D	[Yes / NA ?]
81	Cartridge has a self-closing device to enable its removal for storage when not in use.	D.2	[Yes ?]
82	The owner's manual instructs the operator to remove and to replace cartridges in the open air and away from sources of ignition.	D.2	[Yes ?]
83	Operating controls shall be readily accessible, and located to minimize possible injury from burners or elements when being used.	D.4	[Yes ?]
84	Burner controls shall be equipped or designed to require two-stage operation when going from the "off" to "on" position to prevent unintentional or accidental opening of valves during handling and storage.		[Yes ?]
85	Cooking appliances in use shall have a positive means of mechanical retention and be secured in a location designated by the boat manufacturer.	D.7	[Yes ?]
86	Means shall be provided on or adjacent to stove top cooking surfaces to prevent both deep and shallow cooking pans from sliding across or off the stove during craft motion; see also 7.9.	D.7	[Yes ?]
87	Alternatively, guidance shall be provided to use the cooking appliance only when safe to do so.	D.7	[Yes ?]
88	Reserve or empty cartridges are not stored inside the boat but only on the boat exterior, protected from the weather and mechanical damage, and where escaping vapours can only flow towards the outside.	D.8	[Yes ?]
89	Printed instructions are provided with each cooking appliance.	D.9	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

90	The system and all components withstand storage from -30 °C to +60 °C.	4.1	[Yes ?]
91	Regulating system is designed to provide a fixed nominal pressure suitable for the consuming appliances, but not more than 5 kPa.	5.1	[Yes ?]
92	LPG pressure reduction system is a pressure relief governor, a pressure relief valve or an automatic safety shut off valve.	5.2	[Yes ?]
93	The pressure regulator and its fastener are made of corrosion-resistant metallic material or have an effective coating against external corrosion.	5.7	[Yes ?]
94	The piping and hose are sized not to drop working pressure below required operating pressure at any appliance below that required by the appliance manufacturer when all appliances are operating simultaneously.	6.1.3	[Yes ?]
95	The minimum wall thickness for piping with outside diameter ≤ 12 mm is 0,6 mm, and 0,9 mm for diameters > 12 mm.	6.2.1	[Yes ?]
96	Semi-rigid, pliable corrugated stainless steel tubing (PCT) shall conform to EN 15266, or equivalent.	6.2.1	[Yes / NA ?]
97	Fittings for connections and joints in piping shall be metallic and of a proper type in accordance with the standard.	6.2.4	[Yes ?]
98	Jointing compound for flared fittings or flared rings and gas tightness by compression of ductile joints (except connections in accordance with EN 16129:2013, Annex M) shall not be used.	6.2.4	[Yes / NA ?]
99	Materials and components of hose assemblies are designed to be suitable for LPG and to withstand the stresses and exposures found in the marine environment.	6.3.1	[Yes ?]
100	Permanently attached end fittings of hoses are swaged sleeve or sleeve and threaded insert.		[Yes ?]
101	The melting point of materials at welded or brazed connections is below 450 °C.	6.4.1	[Yes ?]
102	Fittings through which LPG passes are compatible with LPG and galvanically compatible with the metallic piping to which they are connected.	6.4.2	[Yes ?]
103	Hose clamps, if used to secure cylinder locker vent hoses, are corrosion resistant and reusable.	6.4.3	[Yes / NA ?]
104	End connection fittings are corrosion resistant.	6.4.4	[Yes ?]
105	Where cutting ring fittings are used in conjunction with copper piping, a brass insertion sleeve and brass cutting ring shall be fitted. All components match to avoid galvanic corrosion.	6.4.5	[Yes / NA ?]
106	Threaded gas tight connections are of the taper pipe thread type conforming to ISO 7-1, or fittings conforming to EN 1949.	6.5.8	[Yes / NA ?]
107	For threaded gas tight connections sealants are used conforming to EN 751-2 or EN 751-3.	6.5.8	[Yes / NA ?]
108	Only appliances for use in marine environment are used in the LPG system.	7.1	[Yes ?]
109	The appliances are fitted in accordance with the manufacturers instructions.	7.1	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



110	Each appliance is securely fixed as to eliminate undue stress to piping, hoses and fittings.	7.2	[Yes ?]
111	Each appliance has a flame supervision devices for each burner and/or pilot lights.	7.3	[Yes ?]
112	Needle valves shall not be used as shut-off valves in low pressure side of system and gate valves are not used as shut-off valves.	6.6.8	[Yes ?]
113	If the incoming air is not delivered through sealed ductwork terminating outside the craft, and if the appliance is installed in interior spaces, ventilation shall be provided that allows outside air to pass through fixed openings (Annex B).	7.4	[Yes / NA ?]
114	Ventilation is provided in accommodation spaces where open flame unflued appliances are used or to which compartments containing such appliances are connected by open passageways. Minimum sizing and locations of ventilation openings complies with Annex B.	9	[Yes / NA ?]
115	Prior to charging the system with LPG, the supply line and fittings have been tested with air; test pressure three times the nominal pressure but not more than 15 kPa.	10.	[Yes ?]
116	No pressure drop was indicated after a period of 10 min; in case that any leakage has been indicated by a drop in pressure, the entire LPG system has been checked.	10.	[Yes ?]
117	If the pressure regulating device is not rigidly connected to, and supported by, the cylinder connection, high pressure side components are checked for leakage.	10.	[Yes / NA ?]
118	Flue components are installed with the manufacturer's instructions.	13.1	[Yes ?]
119	The minimum effective area of ventilation is given.	Annex B	[Yes ?]
120	Cooking appliances is suitable for use with LPG in a marine environment and installed in accordance with the manufacturer's instructions.	D.1	[Yes ?]
121	ISO 9094 is meet regarding the proximity and flammability of materials.	D.1	[Yes ?]
122	The cooking appliance is complies with the design specifications.	D.3.	[Yes ?]
123	Appliance has a continuously burning pilot light.	D.6	[Yes ?]

Comments:

CHECKLIST

SMALL CRAFT - OWNER'S MANUAL

Ref.: EN ISO 10240:2005/A1:2015 (ISO 10240:2005/A1:2015) [Note: not harmonised for RCD 2013/53/EU]

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 The general introduction as per Annex A is provided.	Annex A	[Yes ?]	
2 The degree of hazard and safety label of Table 1 is stated.	3	[Yes ?]	
3 Owner's Manual delivered in hardcopy.	4.2	[Yes ?]	
4 Owner's Manual in language of the country of intended use.	4.2	[Yes ?]	
5 If more than 4 pages, the Owner's Manual has an index.	4.2	[Yes / NA ?]	
6 All symbols used are in accordance with ISO 8999 and ISO 11192.	3	[Yes /]	
7 SI units shall be used in accordance with ISO 1000; other units in brackets.	4.3	[Yes ?]	
8 Introductory paragraph is compliant.	5.2	[Yes ?]	
9 General information and craft data is provided.	5.3	[Yes ?]	
10 The maximum recommended number of persons as per to ISO 14946 and ISO 12217 is stated.	5.4	[Yes ?]	
11 Warning note regarding the maximum number of person is included.	5.4	[Yes ?]	
12 Maximum recommended load is stated.	5.5	[Yes ?]	
13 Warning note regarding the maximum load is stated.	5.5	[Yes ?]	
14 Maximum recommended power is provided.	5.6	[Yes ?]	
15 Maximum recommended engine mass is provided if relevant.	5.6	[Yes / NA ?]	
16 Openings in hull information is provided.	5.7.1	[Yes / NA ?]	
17 Bilge pumps and bailing information is provided.	5.7.2	[Yes ?]	
18 Warning note for bilge pumps and bailing is stated.	5.7.2	[Yes / NA ?]	
19 Specific information by relevant part of ISO 12217 is stated.	5.7.3	[Yes / NA ?]	
20 Statements for stability and buoyancy is provided.	5.7.3	[Yes ?]	
21 Capsize recovery information is provided by the relevant ISO 12217 part.	5.7.4	[Yes / NA ?]	
22 Risk of capsizes for multihull sailing craft is provided by the relevant ISO 12217 part.	5.7.5	[Yes / NA ?]	
23 Information connected with the risk of fire or explosion is provided for: - Propulsion engines, generator sets etc. - Gas systems - Other fuel burning devices.	5.8	[Yes / NA ?]	
24 Fire prevention, fire-fighting equipment and means of fire escape are provided as required by ISO 9094.	5.8	[Yes / NA ?]	
25 Information connected with the risk of fire or explosion is provided.	5.8	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



26	Electrical systems: information and instruction for safe operation as per ISO 10133 and ISO 13297 are provided.	5.9	[Yes / NA ?]
27	Motor craft: information on safe handling as per ISO 11592 is provided.	5.10.1	
28	Engine starting: instruction for safe operation is provided.	5.10.2	[Yes / NA ?]
29	If an outboard engine, information required by ISO 11547 is provided.	5.10.2	[Yes / NA ?]
30	Emergency steering: Location and operation are indicated.	5.10.3	[Yes / NA ?]
31	Man-overboard prevention and recovery: information according to ISO 15085 is provided.	5.11.1	[Yes / NA ?]
32	If liferaft stowage area is needed the location is identified.	5.11.2	[Yes / NA ?]
33	Danger from moving parts of machinery: instructions to avoid moving parts of engine, shafts etc., and if relevant details concerning guards are provided.	5.11.3	[Yes / NA ?]
34	Ventilation when using combustion device: The information and warning note are provided.	5.11.4	[Yes / NA ?]
35	Ventilation when using combustion device: The information required by ISO 10239 is provided.	5.11.4	[Yes / NA ?]
36	Recommendations given about securing loose equipment when underway.	5.11.5	[Yes ?]
37	Information in regards to respect for environment is provided.	5.11.6	[Yes / NA ?]
38	Use of holding tanks information is provided as per ISO 8099.	5.11.7	[Yes / NA ?]
39	Anchoring, mooring and towing information required by ISO 15084 is provided.	5.11.8	[Yes / NA ?]
40	Mass of the trailering condition is provided, if relevant.	5.11.9	[Yes / NA ?]
41	Any other information relevant for the safe operation of the craft is provided.	6	[Yes ?]
42	Any other information stated in the an applicable ISO standard is provided. See Annex A in those ISO standards.	Annex A	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT - HYDRAULIC STEERING SYSTEMS

Ref.: EN ISO 10592:2017 (ISO 10592:1994)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 All component parts are supported independently of the connecting tubes.	5.2	[Yes ?]	
2 Connections, fittings, oil fill openings and bleeders are accessible.	5.3	[Yes ?]	
3 Hydraulic fluid is specified in the owner's manual.	6	[Yes ?]	
4 Hydraulic lines supported by clips, straps or other means to prevent chafing or vibration damage.	8.1	[Yes ?]	
5 Hoses and piping protected from hot objects.	8.2	[Yes ?]	
6 Hydraulic components secured to the craft's structure.	8.3	[Yes ?]	
7 Owner's Manual information provided as required.	10	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

8 Outboard motor and inboard-outboard requirements tested.	4	[Yes ?]	
9 All components are compatible to form a complete system.	5.1	[Yes ?]	
10 System withstands corrosion, pressure, vibration, shock and movement.	5.4 - 5.7	[Yes ?]	
11 System operates throughout ambient temperature range of -10 °C and +60 °C.	5.5	[Yes ?]	
12 System withstands throughout storage temperature range of -30 °C and +60 °C.	5.5	[Yes ?]	
13 Materials are suitable.	7	[Yes ?]	
14 System installed as required by manufacturer of the system.	8.1	[Yes ?]	
15 Threaded fasteners provided with locking means.	8.4	[Yes ?]	
16 Steering wheel and helm shafts fit each other.	8.5	[Yes ?]	
17 Threaded fasteners adjusted during installation locked with locking devices as required.	8.6	[Yes ?]	
18 Relief valve or withstand static force in either direction of 3300 N.	9.1	[Yes ?]	
19 System withstands a single tangential force of 450 N in either directions applied at certain places.	9.2	[Yes ?]	
20 Installer's manual provided with the system.		[Yes ?]	
21 Steering wheel certification number.			
22 Steering helm and cable assembly certification number(s).			

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



Comments:

CHECKLIST
SMALL CRAFT - VENTILATION OF PETROL ENGINE AND/OR PETROL TANK COMPARTMENTS

Ref.: EN ISO 11105:2017 (ISO 11105:1997)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Compartments with petrol engines and/or petrol tank are sealed from enclosed accommodation spaces.	4.4	[Yes ?]	
2 These compartments have < 0,34 m ² permanent open area, directly exposed to the atmosphere, for each cubic metre of net compartment volume.	4.5	[Yes / No ?]	
3 If the compartment(s) is open to the atmosphere, following requirements are not applicable (n.a.):		[Yes / NA ?]	
4 Supply or exhaust ducts do not open into an accommodation space.	4.6	[Yes ?]	
5 Electrical components installed in a petrol engine/tank compartment, or a connecting compartment, shall be ignition protected according to ISO 8846.	4.7	[Yes / NA ?]	
6 Each compartment containing a permanently installed engine, a petrol tank with electrical components, or is designated to contain a portable petrol tank, has natural ventilation.	5.1	[Yes / NA ?]	
7 Airflow of natural ventilation is achieved by a supply opening or duct from the atmosphere and an exhaust opening or duct to the atmosphere.	5.2	[Yes / NA ?]	
8 Exhaust openings/ducts of natural ventilation are located in the lower 1/3rd of the compartment.	5.2	[Yes / NA ?]	
9 Supply openings/ducts of natural ventilation are located above bilge water level.	5.2	[Yes / NA ?]	
10 Supply and exhaust openings of natural ventilation are separated at least 600 mm.	5.2	[Yes / NA ?]	
11 The exhaust of a natural ventilation system is a part of the powered ventilation system.	5.6	[Yes / NA ?]	
12 Each compartment containing a permanently installed engine, is ventilated by an exhaust blower system.	6.1	[Yes / NA ?]	
13 Intake ducts for blowers are in the lower 1/3rd of the compartment and above bilge water level.	6.3	[Yes / NA ?]	
14 If an exhaust blower is required: The craft has a label according to 6.5, figure 3.	6.5	[Yes / NA ?]	
15 The required label is located as close as practical to each ignition switch.	6.5	[Yes / NA ?]	
16 The required label is located as close as practical in plain view of the operator.	6.5	[Yes / NA ?]	
17 The explanation of the symbols is included in the Owner's Manual.	7	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



18	The statement "Do not obstruct or modify the ventilation system" is included in the Owner's Manual.	7	[Yes ?]
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The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

19	The petrol engine and/or petrol tank compartments have < 0,34 m ² permanent open area, directly exposed to the atmosphere, for each cubic metre of net compartment volume.	4.4	[Yes / NA ?]
20	The minimum cross-sectional area of supply openings/ducts is according to the formula 5.3.	5.3	[Yes ?]
21	The minimum cross-sectional area of exhaust openings/ducts is according to the formula in 5.3.	5.3	[Yes ?]
22	The internal cross-sectional area of each supply and exhaust openings / ducts exceeds 3000 mm ² .	5.4	[Yes ?]
23	Fittings used in flexible ventilation ducts are of at least 80% of the required dimension of the flexible ventilation duct.	5.5	[Yes / NA ?]
24	Exhaust blower(s) have a combined airflow capacity according to the requirements in 6.2, Table 1.	6.2	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT, ENGINE-DRIVEN - FIELD OF VISION FROM HELM POSITION

Ref.: EN ISO 11591:2011 (ISO 11591:2011)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Field of vision including sight water surface is measured with craft in fully loaded, ready for use condition during cruising, manoeuvring, docking or other extended operational modes.	3.1	[Yes ?]	
2 At least one helm station meets the vision requirements .	3.3	[Yes ?]	
3 If more than one helmstation: helmstations that do not comply are marked as required.	3.3	[Yes / NA ?]	
4 Helm stations used either standing or sitting comply in at least one position.	3.4	[Yes / NA ?]	
5 Throttle and shift controls are within 0,7 m of the high eye position.	3.5	[Yes ?]	
6 Throttle and shift controls enable low eye position at all throttle settings.	3.5	[Yes ?]	
7 Craft designed to be operated from both standing and seated positions: controls shall meet the requirements from at least the seated position.	3.5	[Yes / NA ?]	
8 Low eye position may be achieved by seat with vertical height adjustment.	3.6	[Yes / NA ?]	
9 No obstruction of forward vision by permanent and removable tops and/or other structural parts and mounted instruments in the vicinity of the helmsman.	3.7	[Yes ?]	
10 Horizontal forward vision according to 4.1.1.	4.1.1	[Yes ?]	
11 Horizontal forward vision according to 4.1.2.	4.1.2	[Yes ?]	
12 Horizontal forward vision according to 4.1.3.	4.1.3	[Yes ?]	
13 Horizontal forward vision according to 4.1.4.	4.1.4	[Yes ?]	
14 Obstructed vision distance to the water surface in the horizontal range does not exceed four times the hull length or 50 m.	4.1.5	[Yes ?]	
15 Vertical forward vision according to 4.2.1.	4.2.1	[Yes ?]	
16 Vertical forward vision according to 4.2.2.	4.2.2	[Yes ?]	
17 Horizontal astern vision for craft without permanent cabin or superstructure aft of main helm position fulfil requirements of 5.1.	5.1	[Yes / NA ?]	
18 Horizontal astern vision for craft with permanent cabin or superstructure aft of main helm position fulfil requirements of 5.2.	5.2	[Yes / NA ?]	
19 Information and instructions are included in the Owner's Manual.	6	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

20	Field of vision including sight water surface is measured with craft in fully loaded, ready for use condition during cruising, manoeuvring, docking or other extended operational modes.	4.1	[Yes ?]
21	Glazing has at least 70% light transmission.	4.2	[Yes / NA ?]
22	Horizontal forward vision according to 5.1.1.	5.1.1	[Yes ?]
23	Horizontal forward vision according to 5.1.2.	5.1.2	[Yes ?]
24	Horizontal forward vision according to 5.1.3.	5.1.3	[Yes ?]
25	Horizontal forward vision according to 5.1.4.	5.1.4	[Yes ?]
26	Obstructed vision distance to the water surface in the horizontal range does not exceed four times the hull length or 50 m.	5.1.5	[Yes ?]
27	Vertical forward vision according to 5.2.1.	5.2.1	[Yes ?]
28	Vertical forward vision according to 5.2.2.	5.2.2	[Yes ?]

Comments:

CHECKLIST

SMALL CRAFT - FIELD OF VISION FROM THE STEERING POSITION

Ref.: ISO 11591:2019 [Note: not harmonised for RCD 2013/53/EU]

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 At least one steering position meets the vision requirements.	4.1	[Yes ?]	
2 If more than one steering position: steering positions that do not comply are marked as required.	4.1	[Yes / NA ?]	
3 Field of vision from the eye position at the steering position provided through a horizontal arc of at least 112,5° on the starboard side to 112,5° on the port side of the craft without the operator leaving the steering position.	4.2.1.1	[Yes ?]	
4 Clear vision from the eye position maintained with normal movement of the operator while maintaining control of the craft.	4.2.1.2	[Yes ?]	
5 Obstructed vertical vision distance to the water surface in the horizontal range does not exceed four times the length of hull or 50 m.	4.2.2.2	[Yes ?]	
6 Astern unobstructed visibility provided to the operator while maintaining control of the craft by: - normal movement of the operator or; - mirrors or; - other means.	4.3	[Yes ?]	
7 Human-powered craft fulfil additional requirements of 5.1.	5.1	[Yes / NA ?]	
8 If power driven craft with steering wheel or equivalent and fixed installed direction control, requirements for low eye position are met.	6.1.1	[Yes / NA ?]	
9 If power driven craft with steering wheel or equivalent fixed installed direction control, the minimum vertical field of vision from the main steering position, standing or seating while ensuring the requirements 4.2.1.	6.1.2	[Yes / NA ?]	
10 If sailing craft under sail or auxiliary power, field of vision during normal conditions of use can be maintained with normal movement of the operator in the main steering position.	7.1	[Yes / NA ?]	
11 If sailing craft under sail or auxiliary power, sails or parts thereof comply with requirement 4.	7.2	[Yes / NA ?]	
12 If sailing craft under sail or auxiliary power, craft with one or more wheels, tillers or other steering means.	7.3	[Yes / NA ?]	
13 If tillers are used, they have one or more articulating extensions.	7.3	[Yes / NA ?]	
14 Information and instructions are included in the Owner's Manual.	8	[Yes ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

15	Field of vision is measured with craft under normal condition of use.	4.1	[Yes ?]
16	Vertical field of vision forward to the horizon and water surface determined with the craft at an attitude established by the level reference line determined with the craft in the loaded condition (mLDC) in accordance with ISO 8666.	4.2.2.1	[Yes ?]

Comments:

CHECKLIST

SMALL CRAFT - DETERMINATION OF MAXIMUM PROPULSION POWER RATING USING MANOEUVRING SPEED - PART 1:

CRAFT WITH A HULL LESS THAN 8M

Ref.: EN ISO 11592-1:2016

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
Length of hull (LH) [m].	4.1.1	-- -- --	
Maximum engine power [kW].	4.1.1	-- -- --	
Type of engine [Outboard / Inboard / Inboard-outboard / Water jet].	4.2.1	-- -- --	
Engine installation [Single / Multiple].	4.2.4	-- -- --	
Calculate $v = 7\sqrt{LH}$ [knots].	4.1.1	-- -- --	
Is $v_{max} \leq 7\sqrt{LH}$ [knots].	4.1.1	-- -- --	
Engine with maximum power rating installed.	5.1	[Yes?]	
Propeller giving maximum speed installed.	5.2	[Yes?]	
Permanently installed fuel tanks no more than half full.	5.3	[Yes / NA?]	
Portable tanks for outboard engines between full and half full.	5.3	[Yes / NA?]	
Portable tanks for outboard engines located in the manufacturer's designated position or, if none is designated, as far aft as practicable.	5.3	[Yes / NA?]	
Remote steering system installed, if intended for use.	5.4	[Yes / NA?]	
Outboard engine, if applicable, installed in lowest vertical position.	5.5	[Yes / NA?]	
Craft bottom, engine and propeller is clean.	5.6	[Yes?]	
If propulsion unit has power trim it has to be adjusted for maximum speed.	5.7	[Yes / NA?]	
Wind speed less than 10 knots and wave height less than 0,2 m.	6.1	[Yes?]	
Only operator (weight between 70 and 90 kg) on board.	6.2	[Yes?]	
Maximum full throttle speed (v_{max}) measured [knots].	6.3	[Yes?]	
Calculate $d = 6LH$, if maximum speed $v_{max} \leq 30$ knots.	7.3	[Yes / NA?]	
Calculate $d = 6LH + 2(v_{max}-30)$, if maximum speed $v_{max} > 30$ knots.	7.4	[Yes / NA?]	
Test course is set up as shown in Annex A (page 2).	7.4	[Yes?]	
Tests passed according to requirements.	7	[Yes?]	
Boat provided with permanent sign.	7.7.4	[Yes / NA?]	
Owner's manual provides required information.	Annex B	[Yes?]	

Comments:

CHECKLIST

SMALL CRAFT - DETERMINATION OF MAXIMUM PROPULSION POWER RATING USING MANOEUVRING SPEED - PART 2:
CRAFT WITH A LENGTH OF HULL BETWEEN 8M AND 24M

Ref.: ISO/FDIS 11592-2:2018

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
Craft identification number (CIN).	8	-- -- --	
Performance test mass condition (mP).	8	-- -- --	
Length of waterline (LWL) [m].	8	-- -- --	
Type of engine [<u>Outboard</u> / <u>Inboard</u> / <u>Inboard-outboard</u> / <u>Water jet</u>].	8	-- -- --	
Number of engines.	8	-- -- --	
Maximum engine power [kW].	8	-- -- --	
Engine manufacturer.	8	-- -- --	
Propeller type.	8	-- -- --	
Propeller diameter.	8	-- -- --	
Propeller pitch.	8	-- -- --	
Number of propeller blades.	8	-- -- --	
Propeller manufacturer.	8	-- -- --	
Propeller article number.	8	-- -- --	
If applicable, outboard mounting vertical position [m].	8	[Yes / NA?]	
If applicable, hull antifouling system.	8	[Yes / NA?]	
Trim device design drawing(s) attached.	8	[Yes / NA?]	
If applicable, rudder design drawing(s) attached.	8	[Yes / NA?]	
Steering system ratio.	8	[Yes / NA?]	
If applicable thruster information attached.	8	[Yes / NA?]	
Test report(s) attached.	8	-- -- --	
Maximum craft speed v _{max} determined according to requirements.	5.2.2	-- -- --	
Maximum craft speed v _{max} (m/s).	3.4	-- -- --	
Is $F_n = v_{max} / \sqrt{g} * LWL > 1.1$.	3.4	-- -- --	
Calculate $v_{tmax} = 3 * L_H + 24$ [knots].	3.7	-- -- --	
If $v_{max} > v_{tmax}$, maximum test speed limited to 70 knots.	3.7	[Yes / NA?]	
Craft fitted with steering wheel.	4	[Yes / NA?]	
Craft tested in performance test mass condition (mP).	5.2.1	-- -- --	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Engine with maximum power installed.	5.2.3	-- -- --
Equipment installed according equipment manufacturer's recommendations.	5.2.4	-- -- --
Steering system with lowest ratio installed.	5.2.6	[Yes / NA?]
If propeller driven craft, propeller giving maximum speed installed.	5.2.6	[Yes / NA?]
Craft tested with configuration giving the maximum speed.	5.2.7	-- -- --
If changing the position of the propulsion unit without the use of tools, the position for mounting the propulsion unit given the highest speed determined and recorded.	5.2.8	[Yes / NA?]
Craft bottom, engine and propeller are clean in as-new condition.	5.2.9	-- -- --
Stabilizers are activated if needed to attain maximum craft speed.	5.2.10	[Yes / NA?]
If trim devices are installed, they are adjusted to provide maximum craft speed, without loss of directional control.	5.2.11	[Yes / NA?]
Wind speed less than 10 knots and wave height less than 0,2 m or LH/75 m whichever is the highest.	5.3.1	-- -- --
Operator has done practise runs at any throttle setting before running any test.	5.3.2	[Yes?]
Craft test speed not exceed v_{max} or v_{tmax} , whichever is less.	5.3.3	[Yes?]
Quick turn test was properly performed and recorded to the requirements.	6	[Yes?]
Quick turn test passed according to requirements in 4.4 and 6.2.	6.2	[Yes?]
Maximum speed verified.	6.3	[Yes?]
Avoidance line test was properly performed and recorded to the requirements.	7	[Yes?]
Calculate $D = 6L_H$, if maximum speed $v_{max} \leq 30$ knots.	7.4	[Yes?]
Calculate $D = 6L_H + (0.4LH+1.2)(v-30)$, if maximum speed $v_{max} > 30$ knots.	7.4	[Yes?]
Avoidance line test course is set up as shown in Figure 1.	7.1	[Yes?]
Avoidance line test passed according to requirements in 4.1 and 7.3.	7.3	[Yes?]
Craft provided with required warning labels.	9	[Yes?]
Owner's manual provides required information.	10	[Yes?]
Craft provided with engine power label.	11	[Yes?]

Comments:

CHECKLIST
SMALL CRAFT - WATERTIGHT COCKPITS AND QUICK-DRAINING COCKPITS

Ref.: EN ISO 11812:2018 (ISO 11812:2001)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 The loading and measurement conditions are in the "fully loaded ready-for-use" condition according to ISO 8666.	5.1	[Yes ?]	
2 The measurements/calculations were made with the boat upright and at rest in smooth water.	5.1	[Yes ?]	
3 Watertight cockpits have sills in accordance with clause 8.	5.2	[Yes / NA ?]	
4 Watertight cockpits have a degree of water tightness according to clause 9.	5.2	[Yes / NA ?]	
5 Quick-draining cockpits/recesses have the bottom height HB above the waterline, in accordance with clause 6.	5.3	[Yes / NA ?]	
6 Quick-draining cockpits/recesses have draining devices according to clause 7.	5.3	[Yes / NA ?]	
7 Quick-draining cockpits/recesses have sills in accordance with clause 8.	5.3	[Yes / NA ?]	
8 Quick-draining cockpits/recesses show a degree of water tightness according to clause 9.	5.3	[Yes / NA ?]	
9 If the cockpit bottom has more than one level, annex B is used.	5.3	[Yes / NA ?]	
10 Closing appliances fitted in watertight and/or quick-draining cockpits, giving access to the interior of the boat, fulfil the requirements of ISO 12216 and clause 9.	5.4	[Yes / NA ?]	
11 The minimum cockpit bottom height $H_{B,min}$ is according to Table 2.	6.1	[Yes ?]	
12 Are surfaces up to 10% of the horizontal projection of the cockpit bottom which are not required to comply with 6.1 considered to be full of water when assessing the fully load condition.	6.2.1	[Yes / No ?]	
13 Lockers in cockpit bottoms fulfilling the requirements of 5.3 and clause 9 need not be considered full of water, but only filled with the maximum loading corresponding to the "fully loaded" condition.	6.2.2	[Yes / NA ?]	
14 Cockpit draining only by gravity.	7.1.1	[Yes ?]	
15 The requirements of 7.1.3.1 and 7.1.3.2 are fulfilled when the boat is heeled to port and starboard.	7.1.3	[Yes ?]	
16 If a sailing monohull: Drainage is provided for at least 90% of the cockpit volume at the lesser heel angle of 30°, or when the deck at side touches the water.	7.1.3.1	[Yes / NA ?]	
17 If a non-sailing boat or multihull: Drainage is provided for at least 90% of the cockpit volume at 10° heel.	7.1.3.2	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



18	The quick-draining cockpit has at least two drains, one port and one starboard, unless one opening enables drainage when the boat is heeled to both port and starboard, as required in 7.1.	7.3	[Yes / NA ?]
19	Drains with a circular cross section have a diameter of at least 25 mm.	7.4.1	[Yes / NA ?]
20	Drains with other cross-sectional shapes have an area of at least 500 mm ² , and a minimum dimension of 20 mm.	7.4.1	[Yes / NA ?]
21	When devices that prevent loose objects from falling into the draining system are used, like grids: The requirements of Table 4 or annex D are fulfilled.	7.4.2	[Yes / NA ?]
22	Centreboard housings and other types of aperture are used as drains and are designed for this purpose.	7.5	[Yes / NA ?]
23	Drain outlets are: - above waterline, or - below waterline and fitted with seacocks, unless the drain outlet is an integral part of the hull extending from the outlet up to 0,75 HB,min above the waterline.	7.6	[Yes / NA ?]
24	Drain piping is protected against damage from loose objects stowed in the boat and against being kicked or stepped on.	7.7	[Yes / NA ?]
25	Drain piping does not trap water and is only used for cockpit drainage.	7.7	[Yes / NA ?]
26	Watertight cockpits have no opening below the height h_c .	8.1	[Yes / NA ?]
27	The sill height is measured vertically from the cockpit bottom to the lowest point on the sill edge that allows ingress of water.	8.2.1.	[Yes ?]
28	The sill height is according to the requirements of Table 5.	8.2.2	[Yes ?]
29	Above sill level, appliances complying with ISO 12216 are used up to h_c .	8.2.3	[Yes / NA ?]
30	Semi-fixed sills and washboards have a device maintaining them in place, when in use, at least operable from the inside.	8.2.4	[Yes / NA ?]
31	Semi-fixed sills and washboards meet the strength requirements of ISO 12216.	8.2.4	[Yes / NA ?]
32	Semi-fixed sills are only detachable with the use of tools.	8.2.4	[Yes / NA ?]
33	A provision is made for washboards to be stored in a specific location in the vicinity of the companionway.	8.2.4	[Yes / NA ?]
34	All surfaces of watertight cockpits up to h_c have water tightness degree 1.	9.1	[Yes / NA ?]
35	All surfaces of quick-draining cockpits up to h_c have water tightness degree 1.	9.2.1	[Yes / NA ?]
36	The water tightness of the closing appliances is according to Table 6.	9.2.1	[Yes / NA ?]
37	Hatches and appliances located in the cockpit bottom or sides up to $h_{s,min}$ are fitted with seals and sills at least 12 mm high, or tested as installed to water tightness degree 2 according to annex E.	9.2.1	[Yes / NA ?]
38	The lowest point of non-closable ventilation openings are at least $2h_{s,min}$, or 0,3 m, whichever is the greater, above cockpit bottom, and watertight to degree 4.	8.2.2	[Yes / NA ?]
39	The cockpit is documented "watertight" or "quick-draining" in the owner's manual.	10	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

40	When the boat is upright, 98% of the cockpit volume drains, excluding any recess in according with the exceptions of 6.2.	7.1.2	[Yes ?]
41	The draining time is determined by measurement of actual draining time.	7.8.1	[Yes / NA ?]
42	The draining time is determined by calculation.	7.8.1	[Yes / NA ?]
43	The draining time is calculated according to the quick method in 7.8.4.	7.8.3	[Yes / NA ?]
44	The draining time is calculated according to the thorough method in Annex C.	7.8.3	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT - HULL CONSTRUCTION AND SCANTLINGS
Ref.: EN ISO 12215

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



NOTE 1: If necessary for the assessment of the structure, surveys shall be carried out during selected phases of the project.

NOTE 2: This is to control dimensions and positions of structural members and enforcements between drawing and craft, to make a visual inspection of construction details and to perform checks of the specimen's construction process (laminating, welding, gluing, etc.) and/or the manufacturers related quality system.

Please insert YES, NO, N.A. as appropriate

	Document- ation attached as per listing next page	Verified on craft under assessment
Design and manufacturing drawings		
1 General arrangement		
2 Lines plan, if used for assessment		
3 Deck plan		
4 Construction plans (with cross sections over all bulkheads and several frames)		
Detail drawings		
5 Engine mounts		
6 Keel - hull connection		
7 Deck - hull connection		
8 Mast support		
9 Chainplates		
10 Rudder		
11 Strong points		
12 Other strength critical items (i.e. hydraulic rams, ...)		
13 Other laminate details		
Manufacturing details		
14 List of used materials		
15 GRP schedule / Sandwich schedule		
16 Description welding procedure		
17 Description laminate procedure (e.g. resin / core)		
18 Description of wood construction		

Manufacturer:	
Boat Model Name:	



Following drawings shall be submitted as a minimum (If possible we would prefer the 3D file (.step/.iges))

- | | |
|----|---|
| 1 | General plan |
| 2 | Deck plan |
| 3 | Overview of all stiffening members |
| 4 | Cross sections, longitudinal and transversal in different positions of the hull |
| 5 | Design drawings with the bottom, side, deck panel/stiffener/bulkhead |
| 6 | Stiffener cross section drawings at various locations |
| 7 | Deck-hull connection |
| 8 | Rudder main drawing and different cross sections |
| 9 | Other strength critical items |
| 10 | Material data specification and material designation |
| 11 | Product specification sheets |
| 12 | If applicable, description welding procedure |
| 13 | If applicable, laminate schedule |
| 14 | If applicable, Keel-hull connection |
| 15 | If applicable, Keel main drawing and different keel cross sections |
| 16 | If applicable, Keel bolt arrangement |
| 17 | If applicable, Keel floor arrangement |
| 18 | If applicable, Chainplates |

	Drawing Title	Drawing Number	Drawing Date
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Scantlings calculations are attached to this document.

CHECKLIST
SMALL CRAFT - ELECTRICAL SYSTEMS - ALTERNATING CURRENT INSTALLATIONS

Ref.: EN ISO 13297:2018 (ISO 13297:2014)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Requirements	Checked ?
1 Fully insulated D.C. systems: A.C. protective conductor is connected to metallic hull respectively to the craft external ground/earth for a non-conductive hull.	4.2 [Yes / NA ?]	
2 Metallic craft: the hull is not used as a circuit conductor.	4.3 [Yes / NA ?]	
3 The a.c. protective conductor has a single final connection to metallic hull respectively to the main grounding point/earthing point.	4.4 [Yes ?]	
4 Metallic craft: connection of the protective conductor is above any anticipated water accumulation.	4.5 [Yes / NA ?]	
5 Metallic housings or enclosures of appliances are connected to the protective conductor.	4.6 [Yes / NA ?]	
6 Individual circuits cannot be energized by more than one source at a time.	4.7 [Yes ?]	
7 The transfer and cut-off from one powering source to another fulfils 4.7.	4.7 [Yes / NA ?]	
8 Energized parts are IP2X (IEC 60529) or guarded by other protective means against accidental contact. Access only by use of tools if not IP 2X protected.	4.8 [Yes ?]	
9 A warning symbol per 5.2 is displayed at these energized parts.	4.8 [Yes ?]	
10 If the polarity of the system has to be maintained for the proper operation, a reverse polarity indicating devices fitted.	4.11 [Yes / NA ?]	
11 If both a.c. and d.c. circuits are fitted, distribution is from separated panelboards or clearly divided identified sections.	4.12 [Yes / NA ?]	
12 Wiring diagrams identifying circuits and components are provided.	4.12 [Yes ?]	
13 Shore power inlets marked to indicate voltage and currents plus warning symbols.	5.1 [Yes / NA ?]	
14 A permanently mounted waterproof warning sign is at the panel-board, reflecting the demanded pictograms or warning notes.	5.2 [Yes ?]	
15 Switches and controls are marked to indicate their use, unless purpose is obvious and mistaken operation will not cause a hazardous condition.	5.3 [Yes ?]	
16 Electrical equipment is marked/identified as demanded.	5.4 [Yes ?]	
17 Double pole circuit breakers that open both live and neutral conductors are installed in the unpolarized system.	7.1.1 [Yes / NA ?]	
18 No fuses are installed in the unpolarised system. In polarized system a fuse shall interrupt the active (phase) conductor.	7.1.2 [Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



19	Each a.c. motor installation and each motor is individually protected according to 7.1.3 or has an integral overcurrent / thermal protection unless the motor will not overheat under a continuous locked rotor.	7.1.4	[Yes / NA ?]
20	Double-pole circuit-breakers are installed in all supply circuits.	7.2.1	[Yes / NA ?]
21	A manually reset trip-free circuit-breaker is installed within 0,5 m of the source of power or, the conductor from the source of power to the panel-board circuit-breaker is contained within a protective covering or, within a conduit or cable trunking or equivalent protective covering.	7.2.2	[Yes ?]
22	Main shore power inlet circuit breaker: additional fuses or circuit-breakers are provided within 3 m of the inlet or attachment point to the electrical system in the craft, measured along the conductor for those located over 3 m from the shore-power inlet connection or the electrical attachment point of a permanently installed shore-power cord.	7.2.2	[Yes / NA ?]
23	No fuses are installed in the unpolarised system. In polarized system a fuse shall interrupt the active (phase) conductor.	7.1.2	[Yes / NA ?]
24	Each a.c. motor installation and each motor is individually protected according to 7.1.3 or has an integral overcurrent / thermal protection unless the motor will not overheat under a continuous locked rotor.	7.1.4	[Yes / NA ?]
25	Double-pole circuit-breakers are installed in all supply circuits.	7.2.1	[Yes / NA ?]
26	A manually reset trip-free circuit-breaker is installed within 0,5 m of the source of power or, the conductor from the source of power to the panel-board circuit-breaker is contained within a protective covering or, within a conduit or cable trunking or equivalent protective covering.	7.2.2	[Yes ?]
27	Main shore power inlet circuit breaker: additional fuses or circuit-breakers are provided within 3 m of the inlet or attachment point to the electrical system in the craft, measured along the conductor for those located over 3 m from the shore-power inlet connection or the electrical attachment point of a permanently installed shore-power cord.	7.2.2	[Yes / NA ?]
28	Overcurrent protection is provided for live conductors of each branch circuit of a polarised system at the point of connection to the main panel board bus.	7.3.1	[Yes / NA ?]
29	Branch circuit in unpolarised systems: both conductors are provided with overcurrent protection by double-pole circuit-breakers and double-pole switches, if used, at the point of connection to the main panel-board bus.	7.3.2	[Yes / NA ?]
30	Craft earth leakage protection provided in all sources by one or more double-pole RCDs (30mA trip sensitivity & 100 ms max. trip time).	8.2	[Yes ?]
31	The RCD device has an internal circuit for manual testing of the trip function.	8.3	[Yes ?]
32	Active conductors are black or brown.	10.7	[Yes ?]
33	Neutral conductors are white or light blue.	10.7	[Yes ?]
34	Protective conductors are green or green/yellow.	10.7	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



35	Conductor connections located protected from the weather are minimum IP 55.	11.1	[Yes ?]
36	Connections above deck exposed to intermittent immersion are IP 67.	11.1	[Yes / NA ?]
37	Conductors are supported throughout their length in conduits, cable trunking or trays, or by individual supports at maximum intervals of 450 mm.	11.2	[Yes ?]
38	Separation of a.c. and d.c. wiring is achieved by: - separate compartment in ducting or trunking system; or - installation on tray or ladder with physical separation; or - separate conduit, sheath or trunking system; or - directly fixed to a surface and separated by at least 100 mm.	11.3	[Yes / NA ?]
39	Conductors are routed above bilge water level or at least 25mm above automatic bilge pump switch.	11.4	[Yes ?]
40	Wiring and connections routed in the bilge area are in IP67 enclosures and without connections below foreseeable water level.	11.4	[Yes / NA ?]
41	Conductors have suitable terminals; no bare wires to stud or screw connection.	11.7	[Yes ?]
42	Terminals are screw clamp, screwless, ring or captive-spade type as per 11.8.	11.8	[Yes / NA ?]
43	No twist-on connectors (wire nuts) are used.	11.10	[Yes ?]
44	Exposed shanks of terminals are protected against accidental shorting. Those for the grounding systems may be exempt.	11.11	[Yes / NA ?]
45	Conductors are routed 50 mm away from water-cooled exhaust components, unless an equivalent thermal barrier is provided.	11.12	[Yes / NA ?]
46	Conductors are routed 250 mm away from dry exhaust components, unless a thermal barrier is provided.	11.12	[Yes / NA ?]
47	Conductors exposed to physical damage are protected by sheaths, conduits or other means. Bulkhead and structural members passages for conductors are protected against chafing.	11.13	[Yes ?]
48	Maximum of four conductors are secured on one terminal stud.	11.15	[Yes ?]
49	When designed to supply motor circuits or a generator is installed, a system voltmeter is installed on the panel board.	12.2	[Yes / NA ?]
50	The panel board is permanently marked with the system voltage and frequency.	12.3	[Yes ?]
51	The front side of the panel board is readily accessible, rear side accessible.	12.4	[Yes ?]
52	Depending on location, connections and components of panel board(s) have correct IP ratings (ICE 60529).	12.5	[Yes ?]
53	A visible means is provided on the panel board, indicating the inverter is active on line and/or standby (voltmeter or lamp).	12.6	[Yes / NA ?]
54	A warning label is displayed on the panel board when an inverter is installed.	12.7	[Yes / NA ?]
55	Shore power inlets have minimum rating of IP44 when mated with plug.	13.1	[Yes ?]
56	The a.c. and d.c. system sockets are not interchangeable.	13.2	[Yes ?]
57	Socket outlets are subjected to rain, spray or splashing are minimum IP 55, also when in use and mated with an appropriate plug.	13.3	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



58	Socket outlets subjected to flooding are IP 67, also when in use and mated with an appropriate plug.	13.4	[Yes / NA ?]
59	Socket outlets have grounding and terminal provided for the protective conductor.	13.5	[Yes ?]
60	Socket outlets for the galley area are located such that chords can be plugged in without crossing above a stove or sink.	13.6	[Yes / NA ?]
61	Powering of the a.c. system is supplied by one of the following means as stated in clause 14.1.	14.1	[Yes ?]
62	Inverter outlet circuits are protected.	15.2	[Yes / NA ?]
63	The terminals for conductor are clearly labelled (d.c. +/- or POS/NEG or +/-).	15.4	[Yes / NA ?]
64	The inverter provides ready connection and terminal are labelled accordingly.	15.6	[Yes / NA ?]
65	Warning labels on access to all a.c compartments are present.	15.8	[Yes / NA ?]
66	Inverter(s)/charger(s) is/are marked/identified as required.	15.9	[Yes / NA ?]
67	Inverter(s) is/are marked/identified additionally as per 15.10.	15.10	[Yes / NA ?]
68	Information and instructions are included in the Owner's Manual.	Annex B	[Yes ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

69	The protective conductor insulation is green or green with yellow stripe. Neither colour is used for current carrying conductors. Note: the equipotential conductor of the D.C. system also uses green or green with a yellow stripe insulation.	4.1	[Yes ?]
70	The neutral conductor is only grounded at the source of power.	4.9	[Yes ?]
71	The shore power neutral is grounded through the shore power cable and not grounded on board of the craft (see exceptions).	4.9	[Yes / NA ?]
72	If fitted in the protective conductor, the galvanic isolator is fail-safe.	4.10	[Yes / NA ?]
73	The value of current flow for overcurrent protection devices for motor loads is consistent with the demand load characteristics of the protection circuit.	7.1.3	[Yes ?]
74	According to Table A.1 the rating of the overcurrent protection device \leq the maximum current-carrying capacity of the conductor being protected.	7.1.5	[Yes ?]
75	Isolation and polarisation transformers, including a bank of transformers operating as a unit are overcurrent protected.	7.2.3	[Yes / NA ?]
76	Transformers are protected by an individual overcurrent device on the primary side, rated \leq 125 % of the rated primary current of the transformer.	7.2.3	[Yes / NA ?]
77	RCD are of the trip-free type.	8.1	[Yes ?]
78	Not double-insulated appliances and fixed a.c. electrical equipment have exposed conductive parts connected to the protective conductor.	9	[Yes / NA ?]
79	Appliances have integral or external overcurrent protection.	9	[Yes ?]
80	Conductors and flexible cords have a minimum rating of 300/500 V.	10.1	[Yes ?]
81	Conductors and flexible cords are of multistrand copper.	10.2	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



82	Conductors and flexible cords are sized in accordance with Table A.1.	10.2	[Yes ?]
83	Conductor insulation outside engine spaces is temperature rated at ≥ 60 °C.	10.3	[Yes / NA ?]
84	Conductors are at least 1 mm ² in area, except those in internal wiring with 0,75 mm ² .	10.4	[Yes ?]
85	In engine spaces the conductor insulation is temperature rated at ≥ 70 °C and insulation is oil-resistant or be protected by conduit or sleeving. Current carrying capacity is derated to Annex A.	10.5	[Yes / NA ?]
86	The protective conductor does not have a cross-sectional area less than that of the live conductor in the supply circuit in accordance to clause 10.6.	10.6	[Yes ?]
87	The d.c. circuit is separated from the a.c. circuit by an earthed metal screen in a multicore cable.	11.3	[Yes / NA ?]
88	Studs, nuts and washers are corrosion resistant and galvanically compatible.	11.5	[Yes ?]
89	Aluminium and unplated steel are not used for studs, nuts or washers.	11.5	[Yes / NA ?]
90	Solderless crimp-on terminals and connectors are attached with a suitable crimping tool.	11.6	[Yes / NA ?]
91	Friction type connectors used only in circuits not exceeding 20 A and with separation force > 20N.	11.9	[Yes ?]
92	Tensile values for connectors are in compliance.	11.14	[Yes ?]
93	Receptacles/sockets have a voltage rating matching the power sources.	13.7	[Yes ?]
94	The shore power cable(s) capacity alone (or with the on board generator in addition) is at least as large as the required system load(s).	14.2	[Yes / NA ?]
95	If installed, a.c. generators are connected to the distribution system as per 4.6 or 4.9.	14.3	[Yes / NA ?]
96	The power feeder conductor is protected at the generator with overcurrent protection rated at maximum 120 % of the nominal output. For exception see note regarding self-limiting generators.	14.4	[Yes / NA ?]
97	Inverter(s) is/are installed as per 15.1.	15.1	[Yes / NA ?]
98	If installed in conditions according to clause 6, inverter(s) shall have IGP and be marked accordingly.	15.3	[Yes / NA ?]
99	A separate d.c. equipotential conductor is installed from the metallic case to the engine negative terminal or bus; see 15.5.	15.5	[Yes / NA ?]
100	The inverter integral switch is switching all live conductors. Note requirement for grounded conductor in 15.7.	15.7	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT - STEERING GEAR - GEARED LINK SYSTEMS

Ref.: EN ISO 13929:2017 (ISO 13929:2001)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Materials used does not effect accuracy and reliability of compasses or navigational instruments, whatever the steering angle may be.	4.2.2	[Yes ?]	
2 All components securely fastened to structure of craft, which is reinforced as necessary.	5.1	[Yes ?]	
3 Threaded fasteners whose integrity affects operation of the system are referenced by instructions for correct assembly.	5.1	[Yes ?]	
4 Threaded fasteners whose integrity affects operation of the system are locked by a device whose presence is determined by visual inspection.	5.1	[Yes ?]	
5 Rudder stops are fitted to ensure that the max. rudder angle specified by steering system manufacturer is not exceeded.	5.2	[Yes ?]	
6 Where the helm or pedestal is mounted remotely from the rudder operating level, the gearboxes are connected via universal joints and solid linkages.	5.3	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

7 Rudder stops withstand 150 % of the specified max. output force at full lock.	5.2	[Yes ?]	
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Comments:

CHECKLIST
SMALL CRAFT - LIQUID-FUELLED GALLEY STOVES AND HEATING APPLIANCES

Ref.: EN ISO 14895:2016 (ISO 14895:2016)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Is petrol used as fuel or for priming of the appliances?	4.2	[No ?]	
2 Heaters and their exhaust systems are installed outside areas flammable vapours can accumulate.	4.3	[Yes / NA ?]	
3 Marine environment has been considered for design and installation of appliances (e.g. vibration, craft movement, humidity, corrosion).	4.4	[Yes ?]	
4 Appliance control is readily accessible and located to minimize possible injury from burners and/or hot components where being used.	4.5	[Yes ?]	
5 Outgoing combustion of heaters pass through sealed ductwork terminating outside of the craft.	4.6	[Yes / NA ?]	
6 Where user awareness for the safe operation of an appliance is required, a durable, permanently legible sign covering the operation, including the refuelling procedure if applicable, and any unique hazards involved with its use, shall be provided on or in the immediate vicinity as per clause 8.	4.7	[Yes / NA ?]	
7 Appliances requiring priming shall be fitted with a readily accessible drip pan to contain any fuel overflowing from the priming fuel container under conditions of pitch and heel as applicable (see 6.8 for stoves and 7.1 for heaters).	4.9	[Yes / NA ?]	
8 The drip pan shall be at least 20 mm deep.	4.9	[Yes / NA ?]	
9 Appliances shall not feature open flame pilot lights. If pilot lights are integral then they shall be installed so that outgoing products of combustion pass through sealed ductwork terminating outside the craft.	4.10	[Yes / NA ?]	
10 The appliance and any associated remote fuel tank is securely fastened to the craft.	5.1	[Yes ?]	
11 The risk of injury or damage is minimized by the position of the appliance.	5.2	[Yes ?]	
12 The heater and/or heater exhaust components shall not constitute a risk of fire, even in the case of overheating.	5.3	[Yes ?]	
13 For stoves with non-integral fuel tank: a readily accessible shut-off valve, non-integral with the stove is located near the fuel tank.	5.4	[Yes / NA ?]	
14 The valve shall close against the flow of fuel.	5.4	[Yes / NA ?]	
15 The on- and off-position and closing direction of the valve shall be indicated.	5.4	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



16	If the fuel tank is located outside of the galley and mounted higher than the stove or back siphoning is not prevented, a second valve is fitted ready accessible and reachable outside of zone II as per ISO 9094.	5.4	[Yes / NA ?]
17	Electrical operated shut-off devices, which are interrupting the fuel flow when not activated, are permitted.	5.4	[Yes / NA ?]
18	For heaters with a non-integral tank: a fuel shut-off device shall be located near the remote fuel tank.	5.4	[Yes / NA ?]
19	The valve shall close against the flow of fuel.	5.4	[Yes ?]
20	The on- and off-position and closing direction of the valve shall be indicated.	5.4	[Yes ?]
21	Electrical operated shut-off devices, which are interrupting the fuel flow when not activated, are permitted.	5.4	[Yes / NA ?]
22	Any remote fuel tank is installed outside Zone II as per ISO 9094.	5.5	[Yes ?]
23	Fuel lines are solid metallic piping or flexible hoses meeting ISO 8469, clause 5 outside and ISO 7840 inside of engine rooms.	5.7	[Yes / NA ?]
24	Joints in the distribution pipes or hoses are kept to a minimum.	5.8	[Yes / NA ?]
25	Remote tanks filling point shall be outside of Zone II as per ISO 9094.	5.9	[Yes ?]
26	The combustion air inlet is positioned or guarded that it cannot be blocked.	5.10	[Yes / NA ?]
27	Heating air shall be fresh air or re-circulated and drawn from clean area not likely to be contaminated by exhaust fumes.	5.11	[Yes / NA ?]
28	Any ductwork is securely fastened.	5.11	[Yes / NA ?]
29	If the appliance consumes air for combustion from habitable spaces and no other means of ventilation is provided to the habitable space, then fixed ventilation shall be provided of size equal to or greater than the appliance's combustion air intake.	5.12	[Yes / NA ?]
30	Exhaust outlet shall be located to avoid emissions from entering the habitable space(s) of the craft.	5.13	[Yes / NA ?]
31	Any ducting used to route the hot heating air through the vessel shall be so positioned or protected that no injury or damage could be caused if it were to be touched.	5.14	[Yes / NA ?]
32	Any brackets or ties used to support or secure such parts as per 5.15 and/or 5.16 shall be of a suitable heat resistant material. If the heater is installed in a locker, then suitable steps shall be taken to protect any surrounding material and contents from heat damage.	5.17	[Yes / NA ?]
33	The duplicate label (see Clause 8) shall be affixed where it is clearly visible if the original appliance label is obscured.	5.18	[Yes / NA ?]
34	If a portable tank is used, it shall be of suitable design and labelled for the type of fuel used and shall have provisions to be secured on-board the craft.	5.19	[Yes / NA ?]
35	Stove design and construction.	6	
36	Liquid-fuel priming pans or troughs shall be secured to the burner or heat generator so that their relationship is maintained.	6.1	[Yes / NA ?]
37	Priming pans or troughs shall be designed to contain fuel without spillage under conditions of pitch or roll of the craft to 15° in any direction.	6.2	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



38	Oven doors shall be provided with a means to prevent unintentional opening due to force from sliding food and utensils.	6.9	[Yes / NA ?]
39	Operating, maintenance and installation instructions shall be supplied with every stove, drawing particular attention to set up, maintenance, regular operation, prevention of risks and risk management.	6.10	[Yes / NA ?]
40	Heater design and construction.	7	
41	A clearly visible tell-tale shall be provided and shall indicate when the combustion heater is switched on or off.	7.7	[Yes / NA ?]
42	Operating, maintenance and installation instructions shall be supplied with every heater, drawing particular attention to set up, maintenance, regular operation, prevention of risks and risk management.	7.8	[Yes / NA ?]
43	Marking	8	
44	Each appliance shall be permanently marked or labelled with the following information. A duplicate label shall be provided by the manufacturer.	8.1	[Yes ?]
45	- manufacturer's name or trademark;	8.1	[Yes ?]
46	- model number;	8.1	[Yes ?]
47	- rated heating output (for heaters);	8.1	[Yes ?]
48	- serial number;	8.1	[Yes ?]
49	- fuel type(s) on integral tanks at the opening used for filling or heater ID plate;	8.1	[Yes ?]
50	- operating voltage (where relevant).	8.1	[Yes ?]
51	A permanent, legible warning label, in language acceptable in the country of use, shall be affixed on or adjacent to open flame stoves.	8.2	[Yes / NA ?]
52	Stoves with integral fuel tanks shall have a permanent, legible warning label on, or adjacent to, the stove with the following informational elements in language acceptable in the country of use.	8.3	[Yes / NA ?]
53	Non-pressurized stoves with integral tanks designed to have the fuel container removed for filling, shall have a permanent, legible warning label with the following informational elements in language acceptable in the country of use.	8.4	[Yes / NA ?]
54	Openings for filling fuel tanks shall be identified to indicate the type of fuel to be used with the 'Openings for filling fuel tanks shall be identified to indicate the type of fuel to be used with the.	8.5	[Yes / NA ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

55	Appliance is installed according to manufacturer's instructions.	4.1	[Yes ?]
56	Protection shall be provided to prevent human contact with exposed parts of the heating system exceeding a surface temperature of 110 °C.	5.15	[Yes ?]

Manufacturer:	
Boat Model Name:	



57	The heater or the heated medium shall not be liable to cause burns to persons. The surface temperature of any part of the heating system likely to come into contact with any person during normal craft operation shall not exceed a temperature of 85 °C.	5.16	[Yes / NA ?]
58	Pressurized liquid-fuel tanks integral with a stove shall be equipped with a pressure relief valve designed to release at not more than twice the vapour pressure of the fuel used at 60 °C.	6.3	[Yes / NA ?]
59	Pressurized liquid-fuel tanks integral with a stove shall be shielded or insulated so that, under continuous operation at maximum heat, the pressure in the tank will not exceed 50 % of the relief valve setting.	6.4	[Yes / NA ?]
60	Pressurized liquid-fuel tanks integral with a stove shall be designed to withstand four times the relief-valve setting.	6.5	[Yes / NA ?]
61	Pressurized liquid-fuel tanks integral with a stove shall be tested to withstand a minimum internal pressure of two times the design working pressure or 700 kPa, whichever is greater.	6.6	[Yes / NA ?]
62	Stoves shall be capable of operating during periods of craft pitch or heel at angles up to 15° in any direction sustained at the maximum angle for at least 15 s. Stoves in monohull sailing craft shall be capable of operation at sustained angles of heel of 30°. This may be obtained by the use of gimbals.	6.7	[Yes / NA ?]
63	Means shall be provided on or adjacent to stove-top cooking surfaces to prevent both deep and shallow cooking utensils from sliding across or off the stove, at pitch angles of up to 15° for all craft, and heel angles of 15° for engine-driven craft and sailing multihull and 30° for monohull sailing craft. This may be obtained by gimbals.	6.8	[Yes / NA ?]
64	Heaters shall be designed and constructed to meet the following general requirements: - be suitable for marine use; - be able to operate at least of 15° heel or pitch in any direction; - have overheat control devices.	7.1	[Yes / NA ?]
65	Heaters shall not pollute the heating air. The combustion circuit of the heat exchanger shall be subjected to a leakage test to ensure that exhaust gasses cannot enter the heated air intended for the habitable space.	7.2	[Yes / NA ?]
66	The temperature of the heated air entering the habitable space shall not exceed 150 °C to be measured at the centre of the heating air outlet.	7.3	[Yes / NA ?]
67	An integral flame failure device shall be installed in every heater. This device shall recognize a flame failure and shut the heater down in a controlled manner.	7.4	[Yes / NA ?]
68	In the event of a failed start the heater shall be designed to avoid any fuel overflowing. This may be achieved by supplying a safety lock out system following a pre-determined number of failed start attempts or by supplying of return lines.	7.5	[Yes / NA ?]
69	If a combustion air blower is fitted, a delayed shut-off shall be provided, even in the event of overheating or in the event of an interrupted fuel supply.	7.6	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



Comments:

CHECKLIST

SMALL CRAFT - BUILDER'S PLATE

Ref.: ISO 14945:2004+A1:2005 [Note: not harmonised for RCD 2013/53/EU]

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 A rigid builder's plate is mounted but not on the boat shell.	4.1	[Yes / NA ?]	
2 Alternatively to a rigid plate, the boat shell is used for the marking.	4.1	[Yes / NA ?]	
3 The required information characters are at least 5 mm in height.	4.3	[Yes ?]	
4 Other characters are at least 3 mm in height.	4.3	[Yes ?]	
5 Pictograms and symbols are at least 8 mm in height.	4.4	[Yes ?]	
6 Plate is readily visible in the cockpit or near the main steering position.	4.5	[Yes ?]	
7 Plate is separate from the hull identification number.	4.5	[Yes ?]	
8 Manufacturer's name is displayed.	5.1	[Yes ?]	
9 Boat design category/categories is/are displayed.	5.1	[Yes ?]	
10 The following information is displayed:			
11 Manufacturer's recommended maximum load according to ISO 14946, excluding the mass of the contents of fixed fuel and water tanks when full, with the person symbol and the suitcase symbol.	5.1	[Yes ?]	
12 If OB powered craft: the mass of the engine(s) is included and the outboard engine symbol.	5.1	[Yes / NA ?]	
13 Maximum number of persons according to ISO 14946 and the person symbol.	5.1	[Yes ?]	
14 If manufacturer wishes to assign more than one design category, the plate shows the maximum number of persons and the maximum load clearly identified to belong to the specific design category.	5.2	[Yes / NA ?]	
15 Additional information is provided in the label and does not impair the legibility of the minimum required information and is separated from it (preferably by a line or similar delimiter).	5.3	[Yes / NA ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

16 If boat shell is not used, the builder's plate is rigid plate or flexible label affixed to the craft in such a way that it can only be removed by the use of tools.	4.1	[Yes / NA ?]	
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Manufacturer:	
Boat Model Name:	



17	Characters and other markings on the builder's plate are carved, stamped-burned, embossed, moulded, etched, printed, affixed by permanently setting adhesive, or is applied by other suitable means. Alternatively, the information is printed or etched on the craft itself.	4.2	[Yes ?]
18	The characters contrast or are on a different level to the background so that alterations are obvious.	4.2	[Yes ?]
19	The colours applied to the label are fade resistant.	4.2	[Yes ?]

Comments:

CHECKLIST

SMALL CRAFT - BILGE-PUMPING SYSTEMS

Ref.: EN ISO 15083:2018 (ISO 15083:2003)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Bilge-pumping systems is capable of removing water from all main compartments of the craft where water can accumulate.	5.1	[Yes ?]	
2 If fore and aft peaks have a combined volume of more than 10 % of the displacement they are linked to the bilge-pumping system.	5.1	[Yes / NA ?]	
3 Can trapped water in fore and aft peaks with a combined volume of less than 10 % be emptied into the main bilges by a valve, or drained by other means.	5.1	[Yes / NA ?]	
4 Type(s), number(s) and location(s) of bilgepumps as required by 5.2.	5.1	[Yes ?]	
5 Check documented pumps to have capacity of each bilge pump, as stated. This shall be according to 5.1.3 shall be not less than (see table 2): - 10 l/min for boats with LH less than or equal to 6 m, - 15 l/min for boats with LH greater than 6 m and less than 12 m, or - 30 l/min for boats with LH greater than or equal to 12 m.	5.3	[Yes ?]	
6 Pump handle is secured unless pump is permanently fitted.	6.1.3	[Yes / NA ?]	
7 Discharge of bilge pump into cockpit only if this is open aft to sea.	6.1.4	[Yes / NA ?]	
8 Bilge pump not connected to cockpit drains.	6.1.4	[Yes ?]	
9 If a switch is subjected to spray, it is water resistant to IP56.	6.2.3	[Yes / NA ?]	
10 Bilge pump mounted in an accessible location.	7.1	[Yes ?]	
11 Water inlet prevents ingestion of debris, e.g. by strainer.	7.2	[Yes ?]	
12 Outlet above maximum heeled waterline unless seacock is installed.	7.5	[Yes / NA ?]	
13 Hose connections secured with non-corrosive clamps or mechanically fastened.	7.7	[Yes / NA ?]	
14 Non-submersible bilge pump motor is mounted above bilge water level.	7.8	[Yes ?]	
15 Automatic bilge pump control has manual power supply switch.	7.9	[Yes ?]	
16 Automatic bilge pump control has visual indication to show power supply.	7.10	[Yes ?]	
17 Manual bilge pumps can be operated to their capacity.	7.11	[Yes ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



18	Electrical bilge pumps complies with ISO 8849.	6.2.1	[Yes / NA ?]
19	Electrical connections water resistant to IP67.	6.2.2	[Yes / NA ?]
20	Electrical connections located above acceptable water level if not submersible.	6.2.2	[Yes / NA ?]
21	Intake hose collapses under maximum suction.	7.3	[Yes ?]
22	Pump discharge lines non-restrictive.	7.4	[Yes ?]
23	Simultaneous operation of several pumps at time diminishes the capacity of the entire system.	7.6	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT- ANCHORING, MOORING AND TOWING - STRONG POINTS

Ref.: EN ISO 15084:2018 (ISO 15084:2003)
IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Is the anchoring or towing strong point be used for mooring as well.	5.1	[Yes / No ?]	
2 The minimum number of strong points is as required - all craft: one anchoring/towing point forward; - craft over 6 m LH: at least one mooring point aft; - craft over 12 m LH: at least one additional mooring point both forward & aft; - craft over 18 m LH: at least one additional mooring point port and starboard.	5.2	[Yes ?]	
3 If strong points secured with nuts and bolts, doubling plates or washers of adequate size are used.	7.1	[Yes / NA ?]	
4 Where the intended use of a strong point for anchoring and/or being towed is not self evident, the strong point is labelled.	7.3	[Yes / NA ?]	
5 All required information and instructions are included in the Owner's Manual.	8	[Yes / NA ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

6 The strong points are assessed to comply with the horizontal loads defined in clause 6.2 by direct calculation or a test.	6.2; 6.3	[Yes ?]	
7 If the boat manufacturer specifies or supplies lines, chains or cables which exceed the requirements with the breaking strength defined in clause 6.2, the breaking strength are assessed to withstand a breaking strength of not less than 125 % of the rope or chain that is specified or supplied.	6.4	[Yes / NA ?]	
8 The craft structure in the vicinity of strong points is reinforced to take the loads calculated for the breaking strength.	7.1	[Yes ?]	
9 All strong points are made of corrosion resistant materials.	7.2	[Yes ?]	
10 Non metallic strong points are UV stabilized.	7.2	[Yes / NA ?]	

Comments:

CHECKLIST

SMALL CRAFT- MAN-OVERBOARD PREVENTION AND RECOVERY

Ref.: EN ISO 15085:2003/A2:2018 (ISO 15085:2003/Amd 2:2017)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Safe access is provided either via the working deck, the interior of the boat or combination thereof to boat steering including emergency steering, strong points, sail handling and trimming, interior and engine room compartment.	4.1	[Yes ?]	
2 If working deck is limited, owner's manual to be checked for defined area.	4.1	[Yes / NA ?]	
3 The working deck area is free, continuous and not angled more than 15° from the horizontal.	4.3	[Yes ?]	
4 The working deck area has a width of ≥ 100 mm for Design Cat. D, 120 mm for Cat. C, and 150 mm for Cat. A and B, measured according to 4.3.	4.3	[Yes ?]	
5 All working decks are connected.	4.4	[Yes ?]	
6 Steps and obstacles higher or longer than 500 mm are avoided.	4.4	[Yes ?]	
7 For non-sailing boats: the requirements of Table 3 are fulfilled.	6.2	[Yes / NA ?]	
8 For sailing boats: The requirements of Table 4 are fulfilled.	6.3	[Yes / NA ?]	
9 Working deck areas are slip resistant.	7.1	[Yes ?]	
10 The slip resistant surfaces have no spacing greater than 75 mm for non-glazed areas, and 500 mm for glazed areas.	7.1	[Yes ?]	
11 Sailing dinghies have at least slip resistant surfaces on locations where people are supposed to tread.	7.1	[Yes / NA ?]	
12 Trampolines and nets part of the working deck, have slip-resistant characteristics.	7.2	[Yes / NA ?]	
13 Openings in the working deck area having a depth > 1m, and not provided with a lid or hatch, are surrounded by guard-rails according to clause 9.	7.2	[Yes / NA ?]	
14 Openings in the working deck area having a depth > 1m, and not provided with a lid or hatch, are provided with nets or trampolines.	7.2	[Yes / NA ?]	
15 The junction between trampoline or net and the boat does not involve any risk of foot trapping.	7.2	[Yes / NA ?]	
16 The connection of trampoline and nets withstands a uniform load of 3000 N/mm ² or 50% of the crew limit, whichever is smaller.	7.2	[Yes / NA ?]	
17 Footstops are as close as practical to the outboard edges of the working deck with regard to the exceptions in 8.2.	8.2	[Yes ?]	
18 For Cat. C sailing boats: the footstop height is 25 mm.	8.3	[Yes / NA ?]	
19 For Cat. C non-sailing boats: the footstop height is 20 mm.	8.3	[Yes / NA ?]	
20 For Cat. A and B sailing boats: the footstop height is 30 mm.	8.3	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



21	For Cat. A and B non-sailing boats: the footstop height is 25 mm.	8.3	[Yes / NA ?]
22	The footstop height is measured according to the requirements of 8.3.	8.3	[Yes / NA ?]
23	The footstop angle to the vertical is $\leq 30^\circ$.	8.3	[Yes / NA ?]
24	If angled surfaces foot-stops on non-sailing boats of design categories C and D: Surfaces shall have an inclination $\geq 20^\circ$ from the horizontal and a height according to 8.3 being slip-resistant.	8.4	[Yes / NA ?]
25	The vertical clearance between deck and foot-stop the open spaces to the lowest foot-stopping point is ≤ 40 mm. See figure 2e.	8.5	[Yes / NA ?]
26	Within 100 mm from the footstop there is no step in the working deck level > 15 mm.	8.6	[Yes / NA ?]
27	Gaps in footstop rails are ≤ 100 mm to the edge of the adjacent fitting or footstop rail.	8.7	[Yes / NA ?]
28	Handholds fitted < 300 mm inboard from the outer working deck edge are placed ≥ 500 mm above deck level, but not higher than the adjacent superstructure.	9.2	[Yes / NA ?]
29	Handholds fitted > 300 mm inboard from the outer working deck edge are placed at any height.	9.2	[Yes / NA ?]
30	On route along the outer edges of the working deck, the maximum distance between two handholds is $\leq 1,5$ m.	9.2	[Yes / NA ?]
31	Low guard-rails have a height of at least 450 mm.	10.2	[Yes / NA ?]
32	High guard-rails have a height of at least 600 mm.	10.2	[Yes / NA ?]
33	For low guard-rail: if discontinuities in working deck level, the vertical gap between the lowest guard-rail/line and the deck or foot-stop, coaming etc, is not greater than 560 mm.	10.2	[Yes / NA ?]
34	For high guard-rail: if discontinuities in working deck level, the vertical gap between the lowest or intermediate guard-rail/line and the deck or foot-stop, coaming etc, is not greater than 380 mm.	10.2	[Yes / NA ?]
35	The maximum length of these discontinuities is ≤ 600 mm.	10.2	[Yes / NA ?]
36	If sailing craft: If high guard-rail/guard-lines are installed, an intermediate guard-rail is fitted with the gap between this intermediate line and the deck, foot, stop, bulwark, etc, whichever is higher, ≤ 300 mm.	10.3	[Yes / NA ?]
37	The gap between this intermediate guard-rail and the deck, foot-stop, coaming etc., is ≤ 300 mm.	10.3	[Yes / NA ?]
38	Alternatively, the intermediate line is replaced by a device limiting the gap between two adjacent protections below 380 mm, in any direction.	10.3	[Yes / NA ?]
39	Any part of the working deck higher than H1 in Table 5 from the adjacent part of the working deck is equipped with a footstop according to clause 8.	10.4	[Yes / NA ?]
40	Any part of the working deck higher than H2 in Table 5 from the adjacent part of the working deck is equipped with a footstop according to clause 8, and guard-rails having the same height as at the outer periphery of the deck.	10.4	[Yes / NA ?]
41	If openings in the guard-rail/guard-lines: Permanently fixed and quickly operable mobile sections are fitted in way of these openings. These sections shall be designed not to open inadvertently.	10.5	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



42	Openings in guard-rails for passage of sails have no gap transversally and the space between the rails is ≤ 150 mm.	10.5	[Yes / NA ?]
43	The bow pulpit opening between pulpit and any part of the boat is ≤ 360 mm.	10.6	[Yes / NA ?]
44	If high guard-rails are required: Aft pulpits are ≥ 600 mm height.	10.7.1	[Yes / NA ?]
45	If high guard-rails are required: The transversal lines do not meet the requirements of 10.1, 10.2, 10.3 and 12.2.1 since they meet the requirements of 10.7.1.	10.7.1	[Yes / NA ?]
46	If low guard-rails are required: Aft pulpits are ≥ 450 mm height.	10.7.2	[Yes / NA ?]
47	If low guard-rails are required: The transversal lines do not meet the requirements of 10.1, 10.2, 10.3 and 12.2.1 since they meet the requirements of 10.7.2.	10.7.2	[Yes / NA ?]
48	If a sailing catamaran, the wire/rod and stanchion bracing on the forward cross beam is regarded as guard-rail. The minimum height is according to Table 4.	10.8	[Yes / NA ?]
49	If a sailing catamaran, the longitudinal guard-rail height on outer edges diminishes to zero at forward beam. The greatest distance between handhold points on transverse and longitudinal guard-rails is $\leq 0,75$ m.	10.8	[Yes / NA ?]
50	If a sailing catamaran, guard-rails are omitted on the central hull in areas where a person falling from working deck would land on a trampoline. The width of this trampoline is at least 700 mm.	10.9	[Yes / NA ?]
51	Guard-lines are firmly supported. Means is provided to tension the line.	12.1	[Yes / NA ?]
52	The spacing between stanchions or guard-line supports is $\leq 2,2$ m.	12.2.1	[Yes / NA ?]
53	Stanchions/line supports are mechanically secured in their supports, not taken into consideration the tension of the guard-lines.	12.2.3	[Yes / NA ?]
54	Guard-lines are held horizontally and vertically by the stanchion/line support.	12.2.3	[Yes / NA ?]
55	Stanchions/line supports are not angled outboard more than 10° from the vertical, at any point above 50 mm from the deck.	12.2.3	[Yes / NA ?]
56	Hooking points are located within 1 m of the edge of the main access hatch/door.	13.2	[Yes / NA ?]
57	Hooking points are located within 2 m of all outside steering positions.	13.2	[Yes / NA ?]
58	Hooking points are located within 2 m of the mast of sailing boats.	13.2	[Yes / NA ?]
59	Hooking points are located within 2 m of the winch positions of sailing boats.	13.2	[Yes / NA ?]
60	Hooking points are located within 2 m of the windlass or towing strong points.	13.2	[Yes / NA ?]
61	Hooking points are not more than 3 m apart.	13.2	[Yes / NA ?]
62	If a habitable sailing multihull of Cat. A and B: At least one hooking point is in the vicinity of each escape hatch to be used in inverted position.	13.2	[Yes / NA ?]
63	Any hooking point is inscribed within a circle of 15 mm diameter.	13.3	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



64	Attachment points for jack-lines are fitted port and starboard on deck, to provide secure fixing of jack-lines.	14.2	[Yes / NA ?]
65	The jack-lines are long enough to allow movement on deck for boat operation.	14.2	[Yes / NA ?]
66	Jack-lines are as long as practicable. Attachment points are fitted at the ends of each section.	14.2	[Yes / NA ?]
67	If a high-speed boat: Each occupant has a body support limiting the risk of being thrown overboard in case of sharp turns, acceleration or movements in sea.	15.1	[Yes / NA ?]
68	Support is provided by one handhold according to clause 9 and body support.	15.1	[Yes / NA ?]
69	Support is provided by two handholds according to clause 9, allowing simultaneous gripping of two hands.	15.1	[Yes / NA ?]
70	The body support has a height of ≥ 120 mm above the rigid bottom of the seat with compressed cushion.	15.1	[Yes / NA ?]
71	When standing or leaning, the body support provides support for back and torso.	15.2	[Yes / NA ?]
72	When sitting riding astride a seat, body support is provided by action of the knees.	15.2	[Yes / NA ?]
73	Propeller propulsion is not used as means of reboarding.	16	[Yes ?]
74	The boat is provided with a means of reboarding by a person in the water unaided, by either:	16	
75	- a rigid ladder according to 16.2, or	16.1	[Yes / NA ?]
76	- a non-rigid ladder according to 16.3, or	16.1	[Yes / NA ?]
77	- another dedicated device, or	16.1	[Yes / NA ?]
78	- a design of the watercraft which enables reboarding without a dedicated device.	16.1	[Yes / NA ?]
79	Any device for activation of a deployable device is located not higher than 500 mm above waterline.	16.1	[Yes / NA ?]
80	Any flexible activation device, e.g. a rope, is fixed not higher than 500 mm above the waterline.	16.1	[Yes / NA ?]
81	A deployable device can be activated even if engine is stopped with any primary energy fault.	16.1	[Yes / NA ?]
82	Attention has been paid to the location of the means of reboarding relative to possible danger from propeller(s).	16.1	[Yes ?]
83	The reboarding means leads directly to the working deck.	16.1	[Yes / NA ?]
84	The reboarding means leads to a part outside of the working deck with slip resistance surface and fitted with handholds on its way leading to the working deck.	16.1	[Yes / NA ?]
85	If reboarding means is rigid ladder, following requirements are met:	16.2	
86	- it does not swing away in the water under load, and	16.2	[Yes / NA ?]
87	- it is not angled beyond vertical as installed, and	16.2	[Yes / NA ?]
88	- steps or rungs have a treading depth of 25 mm being slip resistant, and	16.2	[Yes / NA ?]
89	- steps or rungs have a maximum spacing of 305 mm, and	16.2	[Yes / NA ?]
90	- a minimum rung width of 100 mm per foot or a minimum total width of 200 mm for two foot [figure a)], and	16.2	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



91	- a horizontal tread clearance of at least 100 mm from adjacent structure, and	16.2	[Yes / NA ?]
92	- the bottom step is at least 560 mm below the waterline in m _{LC} condition, and	16.2	[Yes / NA ?]
93	- allows a grip clearance from adjacent structures of at least 32 mm, and	16.2	[Yes / NA ?]
94	- a handhold that can be reached on the ladder or its vicinity not more than 500 mm away from the upper step or rung, and	16.2	[Yes / NA ?]
95	- the highest step or rung is located not more than 500 mm below the adjacent area leading to the working deck, and	16.2	[Yes / NA ?]
96	- the ladder fulfils its purpose if subjected to a vertical force of 1800 N applied at any point.	16.2	[Yes / NA ?]
97	If reboarding means is a non-rigid ladder, following requirements are meet:	16.3	
98	- steps or rungs have a treading depth of 25 mm being slip resistant, and	16.3	[Yes / NA ?]
99	- steps or rungs have a maximum spacing of 305 mm, and	16.3	[Yes / NA ?]
100	- the bottom step is at least 1200 mm below the waterline in m _{LC} condition and	16.3	[Yes / NA ?]
101	- the highest step or rung is located not more than 500 mm below the adjacent area leading to the working deck, and	16.3	[Yes / NA ?]
102	- rigid rungs have a width of 250 mm, and	16.3	[Yes / NA ?]
103	- the ladder is attached by at least two separate points spaced not less than the rung width, and	16.3	[Yes / NA ?]
104	- the submerged steps or rungs have negative buoyancy, and	16.3	[Yes / NA ?]
105	- the ladder fulfils its purpose if subjected to a vertical force of 1800 N applied at any point the ladder.	16.3	[Yes / NA ?]
106	The owner's manual indicates the items as required according to Table 7 for the type of vessel.	17	[Yes ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

107	If appropriate, a text or a sketch in the owner's manual shall indicate the working deck area(s) as defined by the boat builder.	4.1	[Yes / NA ?]
108	Handholds withstand, as installed, a horizontal force of 1500 N without rupture.	9.3	[Yes / NA ?]
109	Guard-rails withstand a horizontal force of 280 N with a deflection at the force level of ≤ 50 mm.	11	[Yes / NA ?]
110	Guard-rails withstand a horizontal force of 560 N without breaking.	11	[Yes / NA ?]
111	Guard-lines have a strength according to Table 6.	12.1	[Yes / NA ?]
112	Any device forming a part of guard-lines withstand the loads defined in Table 5.	12.1	[Yes / NA ?]
113	Stanchions or guard-line supports withstand a horizontal force of 280 N with a deflection at the force level of ≤ 50 mm, assessed with no lines on.	12.2.2	[Yes / NA ?]
114	Stanchions or guard-line supports withstand a horizontal force of 560 N without breaking, assessed with no lines on.	12.2.2	[Yes / NA ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



115	If boat is in Cat. C: Hooking points withstand a horizontal force of 3600 N .	13.3	[Yes / NA ?]
116	If boat is in Cat. A and B: Hooking points withstand a horizontal force of 6000 N.	13.3	[Yes / NA ?]
117	Attachment points for jack-lines withstand a horizontal force of 20000 N in the direction of, and up to an angle of 30° from a line connecting them.	14.3	[Yes / NA ?]
118	If a deployable device is provided as means of reboarding, the work force required for activation is maximum 100 N.	16.1	[Yes / NA ?]
119	A test according to 16.4 has been conducted by a person wearing a flotation device according to Table 1, if the device is: - non-rigid ladder, or - any other dedicated device, or - reboarding by design of the craft.	16.4	[Yes / NA ?]

Comments:

CHECKLIST
SMALL CRAFT- NAVIGATION LIGHTS - INSTALLATION, PLACEMENT AND VISIBILITY

Ref.: EN ISO 16180:2018 (ISO 16180:2013)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	

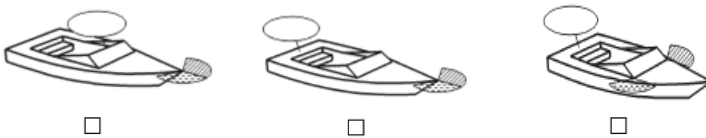


Subject to check	Clause	Requirements	Checked ?
------------------	--------	--------------	-----------

- | | | | |
|---|--|--|--|
| 1 Length of hull [m] | | | |
| 2 Maximum speed [knots] | | | |
| 3 Craft type (<u>N</u> on- <u>P</u> owered , <u>P</u> ower, <u>S</u> ail, <u>S</u> ail+ <u>P</u> ower) | | | |

Power craft and/or sailing craft under power

- 4 Please indicate the configuration for power craft or sailing craft under power less than 12 m in length of hull.



Green

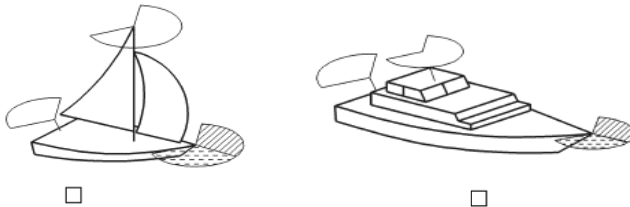


Red

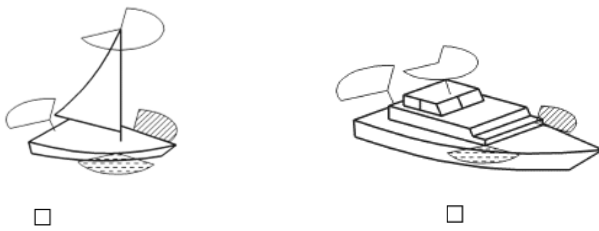


White

- 5 Please indicate the configuration for a power craft or sailing craft under power $\geq 12\text{m}$ to $< 20\text{m}$ in length of hull.



- 6 Please indicate the configuration for power craft and sailing craft under power $\geq 20\text{m}$ in length of hull.



compliant: Yes or V

not applicable: NA








follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



Sailing craft

7 Please indicate the navigation light configuration for the sailing craft.

			Green
<input type="checkbox"/>	<input type="checkbox"/>		Red
			White
<input type="checkbox"/>	<input type="checkbox"/>		

8	Navigation lights are visible under normal operating condition.	4.2.2	[Yes ?]
9	Navigation lights are not obscured by fixed structures or optional equipment.	4.2.3	[Yes ?]
10	Navigation lights are mounted so that they do not shine in operators' eyes in normal operation position to prevent reflection of a craft's structure within operator's field of vision.	4.2.4	[Yes ?]
11	One switch or one position of a multiple position switch, shall display the complete navigation light configuration as required for the craft while underway.	4.2.6	[Yes ?]
12	Another switch or switch position shall display the anchor light only.	4.2.6	[Yes ?]
13	Damage of navigation lights caused by contact with other objects under normal operating conditions is minimized.	4.2.7	[Yes ?]
Power driven craft (including sailing craft under power and sail) - underway			
14	If two masthead lights are carried the aft one shall be at least 4,5 m vertically higher than the forward one.	4.4.2.1	[Yes / NA ?]
15	If two masthead lights are carried the horizontal distance between them shall not be less than one half of the length of the craft.	4.4.2.1	[Yes / NA ?]
16	If two masthead lights are carried the forward light shall be placed not more than one quarter of the length of the craft from the stem.	4.4.2.1	[Yes / NA ?]
17	Craft less than 7m with a maximum speed of less than 7m exhibit an all-round white light.	4.4.2.1	[Yes / NA ?]
18	If craft less than 7m with a maximum speed of less than 7m carries sidelights then the all-round white light is 1 m higher.	4.4.2.1	[Yes / NA ?]

Manufacturer:	
Boat Model Name:	



19	The masthead light or all-round light for craft less than 12 m in length of hull displaced from the fore and aft centreline provided that the sidelights are combined into one lantern or are located as close as possible to the same fore and aft line as the masthead light or all-round light.	4.4.2.2.2	[Yes / NA ?]
20	If craft less than 12m, masthead light 1m minimum above the sidelines.	4.4.2	[Yes / NA ?]
21	If craft ≥ 12 m to < 20 m in length of hull, masthead light 2,5 m minimum above the gunwale.	4.4.2.3	[Yes / NA ?]
22	If craft ≥ 20 m in length of hull, masthead light forward of midship at a height above the hull of not less than 6 m.	4.4.2.4	[Yes / NA ?]
23	If craft ≥ 20 m in length of hull and breadth of the craft exceeds 6 m, masthead light at a height above the hull not less than such breadth, not greater than 12m.	4.4.2.4	[Yes / NA ?]
Sailing craft - Underway under sail alone			
24	Two all-around lights in a vertical line installed where they can best be seen.	4.4.3.1	[Yes / NA ?]
25	If two all-round lights are installed, the upper being red and the lower green, in addition to the prescribed sidelights and stern light but not with a tricolour light.	4.4.3.1	[Yes / NA ?]
26	Sailing craft under 7 m in length of hull have lights as prescribed for craft under 12m in length of hull,	4.4.3.1	[Yes / NA ?]
27	Sailing craft under 7 m in length of hull have ready an electric torch or lantern showing a white light.	4.4.3.1	[Yes / NA ?]
28	If craft less than 12m, combination sidelight on the fore and aft centreline.	4.4.3.2	[Yes / NA ?]
29	If craft ≥ 12 m to < 20 m in length of hull, combination sidelight placed over the fore and aft centreline.	4.4.3.3	[Yes / NA ?]

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

30	Navigation lights comply with positioning COLREG? Documentation about the position is submitted.	4.2.1	[Yes / NA ?]
31	Navigation lights comply with technical requirements of COLREG? Documentation about the technical compliance is submitted.	4.2.1	[Yes / NA ?]
32	Navigation lights ensure required arcs of visibility, vertical separation and location requirements when craft is in fully loaded, ready-to-use condition.	4.2.5	[Yes / NA ?]
33	Navigation lights installed according manufacturers' instructions.	4.3.1	[Yes / NA ?]
34	Electric navigation lights installed in accordance with ISO 10133 or ISO 13297 or equivalent safety standard.	4.3.2	[Yes / NA ?]
35	Used conductors are sized for no more than 3% voltage drop.	4.3.2	[Yes / NA ?]
36	If a metallic frame or enclosure in a direct current (dc) system has a current carrying connection, it shall be mounted on an electrically nonconductive surface and polarity of the electrical leads shall be observed.	4.3.3	[Yes / NA ?]

Manufacturer:	
Boat Model Name:	



Comments:

CHECKLIST

SMALL CRAFT - PERMANENTLY INSTALLED PETROL AND DIESEL FUEL TANKS

Ref.: EN ISO 21487:2018 (ISO 21487:2012/A1:2014/A2:2015)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements	Checked ?
1 Fuel type.	3.1/3.2	[Petrol / Diesel]	
2 Provisions are made for determination of fuel level or quantity.	4.3.1	[Yes ?]	
3 Metal tanks shall be designed/installed that no exterior surface will trap water.	4.3.2	[Yes / NA ?]	
4 Non-integral tank supports, chocks or hangers shall be separated from the surface of metal tanks by a non-abrasive material, or welded to the tank.	4.3.4	[Yes / NA ?]	
5 The fuel fill pipe has a minimum diameter of 28,5 mm.	4.3.7	[Yes ?]	
6 Diesel tank equipped with inspection hatch(es), at least 120 mm diameter.	4.3.10	[Yes / NA ?]	
7 If petrol tank, not integral with hull.	5.1.1	[Yes / NA ?]	
8 If petrol tank, all fittings and openings on top. Metallic fill and ventilation pipes may be connected to the sides or ends if welded to the tank and reach above the tank top.	5.1.2	[Yes / NA ?]	
9 If petrol tank, no tank drains are permitted.	5.1.3	[Yes / NA ?]	

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

10 All seals such as gaskets, o-rings and joint-rings shall be of non-wicking, i.e. non-fuel absorbent, material.	4.1.1	[Yes ?]	
11 All materials are resistant to deterioration by the fuel and to other liquids (e.g. grease, lubricating oil, bilge solvents and sea water).	4.1.2	[Yes ?]	
12 Copper-based alloys for fittings are acceptable for direct coupling with all tank materials specified in Table 1, except aluminium.	4.2	[Yes / NA ?]	
13 Copper-based alloy fittings are used for aluminium tanks only if a galvanic barrier is arranged between fitting and tank.	4.2	[Yes / NA ?]	
14 Rigid fuel suction tubes and fill pipes which extend to the tank bottom have sufficient clearance to prevent contact with the bottom during normal operation.	4.3.3	[Yes / NA ?]	
15 If baffles are provided, the open area of the baffle is not greater than 30% of the tank cross-section in the plane of the baffle.	4.3.5	[Yes / NA ?]	
16 Baffle openings do not prevent fuel flow across the bottom or trap vapour.	4.3.6	[Yes / NA ?]	

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



17	The ventilation pipes have a minimum inside diameter of 11 mm (95 mm ²) or a ventilation opening preventing tank pressure exceeding 80% of the marked.	4.3.8	[Yes ?]
18	The tank material and thicknesses comply with the requirements of Table 1.	4.3.9	[Yes ?]
19	Non-integral tank installed to introduce loads into the structure.	4.4.1	[Yes / NA ?]
20	If petrol tank, the pressure-impulse test requirements in 7.3 are met.	5.2.2	[Yes / NA ?]
21	Alternatively, a metallic petrol tank may be tested in accordance to 7.2 with enhanced pressure but fulfils requirements for plating thickness, construction and welding.	5.2.2	[Yes / NA ?]
22	If a non-metallic petrol tank, the fire test requirements in 7.4 and/or 7.5 are met.	5.2.3	[Yes / NA ?]
23	If integral and cored hull, the core does not deteriorate from exposure.	6.1.1	[Yes / NA ?]
24	Diesel integral fuel tanks are in accordance with ISO 12215-5.	6.1.3	[Yes / NA ?]
25	Diesel tanks meet the leakage test requirements according to 7.1.2.	6.2.1	[Yes / NA ?]
26	If diesel tank is non-metallic, non-integral and installed in engine compartment, the tank is fire tested according to 7.4 or 7.5.	6.2.3	[Yes / NA ?]
27	Petrol and/or diesel fuel tank has been type tested with hydraulic pressure/strength test by fuel tank manufacturer.	7.2.1	[Yes / NA ?]
28	Individual fuel tank has been leakage tested by fuel tank manufacturer.	7.2.2	[Yes ?]

Comments:

CHECKLIST

SMALL CRAFT - ELECTRICAL/ELECTRONIC CONTROL SYSTEMS FOR STEERING, SHIFT AND THROTTLE

Ref.: ISO 25197:2018 (ISO 25197 2012+A1:2014)

IMCI Checklist ISO All_In_One en210301

Manufacturer:	
Boat Model Name:	



Subject to check	Clause	Requirements Checked ?
1 In the owner's manual and/or by on-product labelling the operational characteristics, instructions and warnings for proper use are described.	4.11	[Yes ?]
2 Warning labels on the portable helm or where the device is stored are existing.	7.3	[Yes ?]

Note:
 With regards to the certification of electrical/electronic control systems for steering, shift and throttle, following Recommendation For Use (RFU) has been published by the Recreational Craft Sectorial Group (RSG) as RFU #115:

Scenario/Question:
 Are shift and throttle and dynamic position control systems, or combinations thereof, which are included in scope of standard ISO 25197, Annex II components?

Recommended Solution:
 No. Only those components that control the steering that are listed in Annex II.3: steering wheels, steering mechanisms and cable assemblies.

A "control head" (e.g. a joystick) which controls both the throttle and steering systems are considered to be Annex II components but a throttle of a shift, which is independent of the system that controls the attitude of the drive unit/rudder, is not.

The following questions shall be filled in by the watercraft manufacturer and appropriate documentation shall be submitted to the inspector for verification.

3 The manufacturer of the system has submitted a Declaration of Conformity with regards to the compliance as Annex II component according to the Recreational Craft Directive for the parts of the system intended for steering control of the boat. See also comment on last page of this checklist.		[Yes ?]
4 The manufacturer of the system has submitted a confirmation with regards to the compliance to ISO 25197 for the parts of the system intended for throttle control of the boat. See also comment on last page of this checklist.		[Yes ?]
5 All electronic/electrical components are designed to withstand a reversed-polarity connection of the power leads.	4.1	[Yes ?]

Manufacturer:	
Boat Model Name:	



6	All electronic/electrical components are designed with reverse polarity protection from internal surges.	4.2	[Yes ?]
7	The system is energized whenever the propulsion engine(s) are running.	4.4	[Yes ?]
8	The system is fully operational within five seconds after being powered (except for dynamic positioning and displays).	4.5	[Yes ?]
9	Multi-installed engine steering systems are redundant by virtue of the fact that they are both mechanically and electrically independent of each other.	4.6	[Yes / NA ?]
10	A single device is allowed for control of multiple engines (e.g. steering wheel, joystick).	4.6	[Yes / NA ?]
11	Each helm station shall give a visual indication when active.	4.7	[Yes ?]
12	The main steering position is designated, included in the owner's manual and meets ISO 11591.	4.7	[Yes ?]
13	When the system enters a fail-safe mode, the operator is alerted by a visible and/or audible means at each helm station.	4.8	[Yes / NA ?]
14	The sound pressure of an audible alarm 1 metre from the command station is at least 75 dB(A), but not greater than 85 dB(A). Systems incorporating a mute feature shall maintain the visual alert as long as the failure persists.	4.9	[Yes ?]
15	Muting of the alarm is not allowed if the alert system is only audible.	4.9	[Yes ?]
16	Instructions for proper installation and use of the steering system shall be made available by the manufacturer.	4.10	[Yes ?]
17	It is only be possible to start propulsion equipment in neutral (exception: temporary override for emergency situations).	4.12	[Yes ?]
18	Within 0,5 seconds on a physical input command, the steering, shift and throttle actuators do react/adjust to the input.	4.13	[Yes ?]
19	ISO 8846 is meet for electrical components intended to be installed in petrol engine or petrol tank compartments for IGP.	4.16	[Yes ?]
20	For each system design, a risk identification/analysis, using an established method, has been carried out (e.g. an FMEA or according to IEC 61508).	4.17	[Yes ?]
21	If the system provides both, cruising- and manoeuvring mode, an indication to the operator at the command station is provided of which mode the system is in. The system does not change the mode without input from the operator.	4.18	[Yes / NA ?]
22	The control head operation is permitted for both cruising-mode and manoeuvring-mode operation.	5.1	[Yes ?]
23	When the operator releases the grip, the control head position shall return to the neutral.	5.2	[Yes ?]
24	When released in cruising mode, the control head engine throttle control must not be returned to a low RPM or a manufacturer-determined idle state for operation.	5.3	[Yes ?]
25	Releasing the control head in manoeuvring mode to neutral results in a disengaged transmission and determined idle or stop state of electric motors.	5.4	[Yes ?]
26	The control head orientation relative to the craft and the movement of the craft are identically.	5.5	[Yes ?]
27	The orientation relative to the craft is clearly indicated for portable helms.	5.6	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



28	If the control head includes a rotation function, the control head activation, clockwise or counter-clockwise, results in rotating the craft in the same direction.	5.7	[Yes / NA ?]
29	Transfer of command from one station to another is completed at the helm station intended to be active.	6.0	[Yes / NA ?]
30	Portable helm station controls can only be used in the manoeuvring mode.	7.1	[Yes / NA ?]
31	In case that a portable helm station control has a loss of communication or malfunction it results in disengaged transmission and idling thermal engine(s) and stopping electric engine(s). In addition the operator is notified and able to transfer the function to another helm.	7.2	[Yes / NA ?]
32	The signal strength of a wireless device is displayed at the portable control or an audible warning signal alerts the operator that the signal is weak and he/she is about to lose control.	7.4	[Yes / NA ?]
33	A wireless device shall only be able to control the boat of origin.	7.5	[Yes / NA ?]
34	An indication of its electrical-charge status is given on a wireless portable helm control and the device shall prevent activation when the charge is insufficient to maintain a connection for 15 minutes without loss of the wireless communication link.	7.6	[Yes / NA ?]
35	A wireless portable helm control notifies the operator when the device is 15 minutes from deactivation due to insufficient charge.	7.7	[Yes / NA ?]
36	Any applicable radio and telecommunications legislation is met by a wireless portable helm control.	7.8	[Yes ?]
37	Check point 8.1 to 8.8 only if a Dynamic Positioning System (DPS) is part of the system. Otherwise scratch out 8.1 to 8.8.	8.0	[Yes ?]
38	A Dynamic Positioning System (= DPS) can only be activated manually.	8.1	[Yes ?]
39	The craft main helm station has a visual display for the DPS precision value.	8.2	[Yes ?]
40	Warning labels or text for the DPS are existing.	8.3	[Yes ?]
41	Activation of the DPS is only possible if the DPS precision value is within the manufacturer-set limits.	8.4	[Yes ?]
42	The DPS control system alerts the operator visually and audibly about disengagement in case that the DPS precision value of an activated dynamic-positioning (autonomous) mode is out of the manufacturer-set limits.	8.5	[Yes ?]
43	The manufacturer has set the maximum allowable envelope/radius and heading deviation. This one is not adjustable by the operator.	8.6	[Yes ?]
44	The manufacturer has set the maximum engine speed for dynamic positioning. This one is not adjustable by the operator.	8.7	[Yes ?]
45	If the helm stations not equipped with a display screen, it is labelled with the same warnings as in 8.3.	8.8	[Yes ?]

compliant: Yes or V

not applicable: NA

follow up on variation report: Rpt or X

Manufacturer:	
Boat Model Name:	



46	In case that a command station in a multiple helm system has a malfunction, the system does not prevent transfer or operation from other helm stations. In addition the operator is notified audible and/or visual about the malfunction.	9.1.1	[Yes / NA ?]
47	In the event of loss of steering control affecting only one engine in a multi-engine installation, the system is still be capable of steering the boat.	9.1.2	[Yes / NA ?]
48	In the event of a command station failure, the operator shall be notified and the affected command station is switched to a fail-safe mode.	9.1.3	[Yes ?]
49	In the event of loss of steering control in a single-engine rudder or strut installation, emergency control of the rudder is be possible.	9.1.4	[Yes / NA ?]
50	The system notifies the operator of a command logic loss or a malfunction in its computer command logic.	9.2	[Yes ?]
51	Tests as required by ISO 25197 have been conducted by the manufacturer of the system.	10	[Yes ?]
52	If the helm station(s) is (are) not equipped with an electronic display shall and the craft has a dynamic-positioning system installed, this one is labelled.	11	[Yes / NA ?]
53	Instructions are included in the owner's manual as required by ISO 25197.	12	[Yes ?]

Comments:
