BOAT SAFETY SCHEME

November 2023

Changes of significance within BSS Examination Checking Procedures Edition 5, Revision 0 - July 2023, compared with Edition 4, Version 0.2 – 28 September 2021

Annex A Explanation of significant changes in Core ECP Glossary Terms and BSS Checks

Reading notes: Deletions over the September 2021 non-controlled review version of the ECP are shown in ~~red strikethrough~~ and insertions are shown in blue underline.

BSS Examination Checking Procedures – Glossary of Terms

~~**electrical equipment space**~~	~~A dedicated space used to contain electrical equipment e.g. distribution boards, invertors, etc., and nothing else.~~

normal laden waterline	The waterline observed at the time of an Examination (providing no attempt has been made to change the waterline by removing or adding to any part of the vessel's structure, fittings or equipment (including LPG cylinders), or by emptying or filling any tanks in whole or in part).

overnight accommodation	A cabin with berthing arrangements (e.g. beds, bunks, dinettes) used for overnight stays.

unintended movement	Any movement beyond that likely to be intended by the manufacturer, and/or where movement is likely to affect the integrity, efficiency or operation of the item or device.

Explanation of changes	
~~**electrical equipment space**~~ ~~A dedicated space used to contain electrical equipment e.g. distribution boards, invertors, etc., and nothing else.~~	The previously used term 'electrical equipment space' was removed from the ECP during the interim review and therefore the Glossary definition is not required

normal laden waterline The waterline observed at the time of an Examination (providing no attempt has been made to change the waterline by removing or adding to any part of the vessel's structure, fittings or equipment (including LPG cylinders), or by emptying or filling any tanks in whole or in part).	During the Hirer Safety Review in 2015-16 the BSS Committees agreed to formalise the longstanding BSS term 'normal laden waterline' by making it a Glossary Term within the Core ECP.
overnight accommodation A cabin with berthing arrangements (e.g. beds, bunks, dinettes) used for overnight stays.	- As above, referencing 'overnight accommodation' -
unintended movement Any movement beyond that likely to be intended by the manufacturer, and/or where movement is likely to affect the integrity, efficiency or operation of the item or device.	- As above, referencing 'unintended movement' -

2.4 Fuel tank vent outlets

2.4.2p	**Are petrol tank vent outlets fitted with a suitable proprietary flame arrester in good condition?**	**R**

The checking actions, requirements and applicabilities remain unchanged for petrol tank vent outlets.
And the check on diesel tank vent outlets is reintroduced as a separate but similarly named Check.

2.4.2d	**Are diesel tank vent outlets in good condition?**	**R**
Check the condition of each diesel tank vent outlet.	Diesel tank vent outlets must be free of signs of restrictions, or other damage or deterioration.	

Explanation of changes	
Renaming of Check 2.4.2R to 2.4.2pR Addition of new Check at 2.4.2dR	At Check 2.4.2 within the 2015 version of the ECP, both petrol and diesel tank vent outlets were required to be fitted with a flame arrestor or flame arresting mesh. To help ensure the BSS Requirements are not more onerous than the standards harmonised to the Recreational Craft Directive (RCD), during the interim review it was agreed that the Requirement should no longer apply to diesel tank vent outlets. However, removing reference to diesel tank vent outlets from 2.4.2 has meant that the 2015 Requirement for diesel tank vent outlets to be in good condition has inadvertently disappeared. Therefore, the Requirement is being kept distinct for petrol tanks and re-introduced for diesel tanks. Both Check references start with the same numbers but the petrol tank check has the suffix 'p' i.e. **2.4.2pR** and the diesel tank has the suffix 'd' (we assume you can spot the pattern) i.e. **2.4.2dR.** This allows for existing Check 2.4.3 to retain its number and therefore not affect ECP Check risk and quality data collection from the BSS Database.

2.4.3	**Is the fuel tank vent outlet in a position where no danger will be incurred from leaking fuel or escaping vapour?**	**R**
Check the position of each vent outlet.	Vent outlets must be clear of any potential sources of ignition and must be in a position where no danger will be incurred from leaking fuel or escaping vapour into the interior of the vessel.	
Applicability – this Requirement does not apply to the following provided there is no risk of unseen spillage from the vent outlet: historic (i.e. bona fide ex-working) diesel-engined boats (Examiners should seek guidance from the BSS Office when determining whether a boat is a bona fide ex-working boat); **or** diesel tanks, of up to a maximum capacity of 30 litres. Applicability – vent outlets located within open vessels such as RIBs having no accommodation and having a continuous deck or sole which is fuel-tight to the interior of the vessel, including bilge spaces, meet this Requirement. Applicability – diesel vent outlets within self-draining cockpits having a continuous deck or sole that are fuel-tight to the interior of the vessel, including bilge spaces, meet this Requirement.		

Explanation of change	
Applicability – this Requirement does not apply to the following provided there is no risk of unseen spillage from the vent outlet: historic (i.e. bona fide ex-working) diesel-engined boats (Examiners should seek guidance from the BSS Office when determining whether a boat is a bona fide ex-working boat); **or** diesel tanks, of up to a maximum capacity of 30 litres.	To help ensure a reasonable and consistent approach, the first Applicability from Check 2.1.1 is being introduced at Check 2.4.3 regarding vent outlets.

2.10 Fuel feed, return and on-engine lines

2.10.2	**Are all fuel feed, return and on-engine hoses suitable for the fuel used and fire resistant?**	**R**
Check the marking on all fuel feed, return and on-engine hoses.	Fuel feed, return and on-engine hoses must be marked, to denote both suitability for the fuel used and fire resistance, to BS EN ISO 7840 or an equivalent standard.	

Applicability – hoses marked to SAE J 1527, DIN 4798 or RINA DIP/66/96 are acceptable.

Applicability – hose assemblies connected to diesel boilers and marked ISO 6806 can be taken as meeting this Requirement

Applicability – the presence of armoured or other external braiding is not evidence of hose suitability or fire resistance. Such hoses must be marked as above.

Applicability – fuel-hose suitability may be supported by a written declaration from the hose manufacturer or supplier or, if appropriate, from the engine manufacturer/supplier or mariniser.

Applicability – fuel lines connecting small capacity diesel containers to the cold start facility on older diesel engines are exempt from this Requirement.

Applicability - fuel hoses in permanently installed fuel systems to diesel appliances may be to ISO 8469 (or equivalent) provided the hose and its connections are not located within an engine space.

Applicability – fuel hoses in permanently installed fuel systems to outboard engines may be to type B1 or B2 of ISO 8469 (or be suitable proprietary outboard engine fuel hose), provided the hose and its connections are located in the open air and where any fuel spillage would drain overboard (e.g. self-draining cockpits or outboard wells not enclosed by a canopy or other cover). Open vessels such as RIBs having a continuous deck or sole that is fuel-tight to the interior of the vessel and bilge spaces, meet this Requirement.

Supporting information on permanently installed fuel systems to outboard engines is provided at Appendix 5.

Explanation of change	
Applicability – hose assemblies connected to diesel boilers and marked ISO 6806 can be taken as meeting this Requirement	This new Applicability reflects the position set out in BSS Technical Bulletin TB 16-01.
Applicability: fuel hoses in permanently installed fuel systems to diesel appliances may be to ISO 8469 (or equivalent), provided the hose and its connections are not located within an engine space.	The inclusion of the new Applicability helps to better align the BSS Requirements with RCD Harmonised standard ISO 14895. Other related changes have also been made at Checks 2.11.1, 2.13.1, 8.1.2 and Appendix 8.

2.10.5	**Do the diesel injector leak-off (spill rail) arrangements meet specified Requirements?**	**R**
Apply the Checking actions from Checks 2.10.1–4 and 2.11.1-3 to the diesel injector leak-off arrangements and refer to Appendix 2a if necessary.	Diesel injector leak-off (spill-rail) arrangements must meet: • all the relevant Requirements at Checks 2.10.1–4 and 2.11.1-3; **or,** • one of the alternative compliance options listed in Appendix 2a.	
Applicability – vintage and traditional engines designed to return the injector leak-off fuel to a catch pot are acceptable provided the catch pot is securely mounted and is free of signs of leaks~~,~~ and of signs of damage or deterioration. On such arrangements, there must be no signs of fuel leaks, but otherwise the fuel line to the catch pot is exempt from the BSS Requirements. Applicability – injector leak-off hoses fitted by the manufacturer within an enclosure on the engine meet this Requirement.		

Explanation of change	
On such arrangements, there must be no signs of fuel leaks, but otherwise the fuel line to the catch pot is exempt from the BSS Requirements.	For added clarity and to help ensure a consistent approach. Injector leak-off fuel lines on vintage and traditional engines routed directly to a catch pot are acceptable as a compliance option under Check 2.10.5 because: only very small quantities of fuel are ever present within the catch pot and the associated fuel line; and the leak-off fuel line is not directly connected to the engine's main fuel system and therefore in the event of a fire and a breach of the leak-off fuel system, fuel from the main fuel system cannot flow into the leak-off and feed the fire. Therefore, as the risk associated with fuel within the leak-off is very low it is reasonable that the BSS Requirements relating to material type are not applied. This approach is consistent with the Applicabilities at Check 2.10.1 and 2.10.2 where fuel lines connecting small capacity diesel containers to the cold start facilities on older diesel engines are exempt from the Requirements.

2.11 Fuel feed, return, and on-engine fuel line connections

2.11.1	**Are all fuel line connections of the correct type and free of signs of leaks?**	**R**
Check the type of fuel line connections that can be seen or reached and check for signs of leaks by sight or touch.	Fuel pipe connections must be screwed, compression, cone, brazed or flanged. Fuel hose connections must be either pre-made end fittings on hose assemblies or hose clips/clamps onto hose nozzles or formed pipe-ends. Fuel line connections must be free of signs of leaks, signs of damage or deterioration.	
Applicability – the Requirement that fuel hose connections must be either pre-made end fittings on hose assemblies or hose clips/clamps onto hose nozzles or formed pipe-ends does not apply to fuel systems on liquid-fuelled appliances. On such systems hose may be connected to pipe without a formed end. In such circumstances the hose must be secured to the pipe with a clip/clamp and the connection must be free of signs of leaks, and signs of damage or deterioration. Applicability – soft-soldered joints are not acceptable. Examiners concerned that particular joints may have been made using soft solder must require the owner to provide proof that this is not the case. Applicability – injector leak-off (spill rail) arrangements having push-on connections on flexible fuel lines are acceptable for options covered by the alternative compliance options set out in Appendix 2a.		

Applicability – the push-fit end connections on the fuel lines connecting small capacity diesel containers to the cold start facility on older diesel engines should be considered as meeting this Requirement if the connections are free of signs of leaks. Applicability – fuel hoses in permanently installed fuel systems to outboard engines may terminate at the outboard with a proprietary quick-release self-closing connector conforming to 5.2.1.

Explanation of change	
Applicability – the Requirement that fuel hose connections must be either pre-made end fittings on hose assemblies or hose clips/clamps onto hose nozzles or formed pipe-ends does not apply to fuel systems on liquid-fuelled appliances. On such systems hose may be connected to pipe without a formed end. In such circumstances the hose must be secured to the pipe with a clip/clamp and the connection must be free of signs of leaks, and signs of damage or deterioration.	The inclusion of the new Applicability helps to better align the BSS Requirements with RCD Harmonised standard ISO 14895. Other related changes have also been made at Checks 2.10.2, 2.13.1, 8.1.2 and Appendix 8.

2.13 Fuel shut-offs

2.13.1	**Is an emergency fuel shut-off installed in every fuel feed line?**	**R**
Check the means to shut off the fuel in the fuel feed line from every fuel tank.	An effective emergency shut-off must be installed in all fuel feed lines. Any of the following methods are acceptable: • a manual shut-off valve as close as practical to the tank; **or,** • all fuel lines, including those on the engine, being above the level of the top of the tank; **or,** • an anti-siphon valve at the tank; **or,** • an electrically operated valve at the tank activated to open only during engine starting or running, provided that a manual emergency operating or bypassing device is present.	
Examiner action – Examiners must refer to Section 1 of Appendix 8 for essential information on examining fuel feed line shut-off valves for liquid-fuelled appliances. Applicability – in regard to manual shut-off valves, accessibility takes precedence over proximity to the tank. Applicability – if an Examiner cannot verify a claim from an owner that the emergency shut-off facility is provided by way of an anti-siphon valve or an electrically operated valve, they should contact the BSS Office for help verifying the claim.		

Explanation of change	
Examiner action – Examiners must refer to Section 1 of Appendix 8 for essential information on examining fuel feed line shut-off valves for liquid-fuelled appliances.	To help Examiners and others better understand how to apply the Requirements for emergency fuel shut-offs (at Check 2.13.1) and appliance shut-off valves (at Check 8.1.2) new Essential information has been added to Section 1 of Appendix 8. The added text at Check 2.13.1 reminds Examiners and other of the Essential information in Appendix 8. Other related changes have also been made at Checks 2.10.2, 2.11.1, 8.1.2 and Appendix 8.

2.15 Engine installation

2.15.1	Are all parts of engine mounting systems secure and in good condition?	R
Check engine mounting systems for condition and completeness where they can be seen or reached.	Engine mounting systems must be free of signs of damage or deterioration, including: • ~~show no signs of~~ fractured engine mounting brackets; **or** ~~**and**~~**,** • ~~not have~~ loose, missing or fractured bolts or nuts; **or** ~~**and**~~**,** • ~~show no evidence of~~ significant deterioration of any flexible mounts; **or** ~~**and**~~**,** • ~~show no signs of damaged or~~ heavily corroded metal bearers or rotten timber bearers.	
Applicability – for internal combustion engines housed in the original equipment manufacturer's cocoon, this Check applies to the cocoon's mounting system.		

Explanation of change
Through the interim review it was agreed, where appropriate, to consolidate individual references to 'damage' and to 'deterioration' and instead to use the ECP Glossary term 'damage or deterioration' (where practicable to the followed in the Requirement by a list of examples). However, during the main interim review this agreed approach was inadvertently not adopted at Check 2.15.1 and the 2021 version still includes individual references to 'damage' and to 'deterioration'.

BSS Examination Checking Procedures – Part 3 – Electrical systems

3.5 Fuses and circuit breakers

3.5.2	Are all fuse panels, boxes, holders and consumer units in good condition and complete?	R
Check the condition of all fuse panels, boxes, holders and consumer units which can be seen. Where they are designed to have one, check all fuse panels, boxes, holders and consumer units which can be seen for the presence of lids or covers covering exposed terminals.	All fuse panels, boxes, holders and consumer units must: • be free of signs of damage or deterioration; **and**, • be fitted with a lid or cover of suitable proprietary manufacture over exposed terminals where they are designed to have one.	
Applicability – this Check applies to both AC and DC supplies. Applicability – in the event significant overheating is seen on fuse panels, boxes, holders or consumer units take the actions described in Appendix A and B.		

Explanation of change
'Suitable proprietary manufacture' is an ECP Glossary Term: An item or device that is, on the face of it, manufactured for the purpose determined during the Examination. The inclusion of the term within the Requirement at Check 3.5.2 helps ensure boat owners and others do not replace original equipment manufacturer covers with non-proprietary covers (e.g. margarine cartons held in place with sticky tape) when the original covers are lost or broken.

5.3 Spare fuel containers and spare portable petrol tanks

5.3.2	Are all spare petrol containers suitable for the purpose?	R
Check the markings on all spare petrol containers.	Spare petrol containers must be marked as suitable for the purpose. Markings must be in an indelible form and legible and include: • the words 'PETROL' and 'HIGHLY FLAMMABLE'; ~~• an appropriate hazard warning sign;~~ • the capacity marked in litres or gallons. Individual spare petrol containers made from plastic must have a marked capacity of no more than 10-litres. Individual spare petrol containers made from metal must have a marked capacity of no more than 20-litres.	

~~Applicability – providing all the other required markings are present, suitable spare petrol containers that are not marked with an appropriate hazard warning sign may be accepted.~~

Applicability - the suitability of any spare portable petrol tank is covered at Check 5.2.1.

Guidance for owners – the marked capacity of spare petrol containers allows for the expansion of fuel with changes in temperature; boat owners should be careful not to overfill containers beyond their marked capacity.

Guidance for owners – to be compliant with the Petroleum (Consolidation) Regulations 2014 boat owners must ensure all portable petrol storage containers are legibly and indelibly marked/labelled with i) an appropriate hazard warning sign, ii) manufacturer's name and iii) the date and month of manufacture. The Regulations apply to all boat owners and it is the responsibility of individual boat owners to ensure compliance.

Supporting information on the Petroleum (Consolidation) Regulations 2014 is provided at Appendix 5.

Explanation of changes
The first part of the Requirement states that … markings must be in an indelible form and legible and include an appropriate hazard warning sign; however, the first Applicability states: Applicability – providing all the other required markings are present, suitable spare petrol containers that are not marked with an appropriate hazard warning sign may be accepted. This approach was considered to be inconsistent, either it's a Requirement for spare petrol containers to be marked with an appropriate hazard warning sign or it isn't. Given this confused approach and that there is reference to an appropriate hazard warning sign within the second Guidance for owners (under boat owner responsibilities), the second bullet point of the Requirement and the first Applicability are being deleted.

Continues over the page with significant changes to Checks in Part 6….

6.1 Portable fire extinguishers

6.1.1	**Are the correct number of suitable portable fire extinguishers provided, and do they have the correct combined fire ratings?**	**R**
Identify all portable fire extinguishers on board. Check all portable fire extinguishers for their individual fire ratings, accredited third-party certification marks, and condition.	The minimum number of suitable portable fire extinguishers and their minimum combined fire ratings must be as prescribed in the following table. To be considered as suitable, portable fire extinguishers must: • have an individual fire rating of 5A/34B or greater; **and**, • be marked with at least one accredited third-party certification mark; **and**, • not show any of the following indicators of poor condition: – missing safety pin; – dents; gouges; significant rust or other form of corrosion; – perished hose; – pressure gauge (where fitted) indicator in the 'red' sector; ~~– obvious under-weight indicating whole or partial discharge;~~ – signs of damage or deterioration to trigger assembly, including deterioration caused by ultraviolet light and heat. The minimum number….**etc the check continues as the 2021 version**	

Explanation of change
Historically, all PFEs were categorised by the weight of the extinguishing medium, which was marked on the body of the PFE. However, this is no longer the case, and therefore it is very difficult for Examiners to determine from weight alone whether a PFE is fully or partially discharged. As Examiners cannot accurately measure the weight of the extinguishing medium within an extinguisher that part of the Requirement relating to weight has been removed.

Continues over the page with significant changes to Checks in Part 7….

7.4 Protecting LPG cylinders and components against damage

7.4.5	**Is the cylinder locker or housing of suitable proprietary manufacture, and has it been maintained to ensure its integrity is retained?**	**R**

Determine whether the cylinder locker or housing is of suitable proprietary manufacture. Where lockers or housings are not obviously of suitable proprietary manufacture, determine the material type, estimate the thickness, and determine how the seams have been made. Determine the materials used in any repair to cylinder lockers and housings.	Cylinder lockers and housings must be of suitable proprietary manufacture. Cylinder lockers and housings may be accepted as being of suitable proprietary manufacture if they are constructed of materials that are either: • the same material and thickness of the surrounding hull structure; **or,** • metal of minimum thickness of approximately 1mm with fully welded or brazed seams; **or,** • FRP of minimum thickness of approximately 5mm thickness. The integrity of cylinder locker and housing seams must not rely upon glue or sealant. To ensure the original integrity is retained, any repairs to cylinder lockers or housings must meet the material thickness Requirements above; **and:** • metal locker or housing repairs must be made using a plate of similar metal and must be seam welded or brazed; • FRP locker or housing repairs must be made using fiberglass fabric/matting and resin.

Applicability – lockers and housings of suitable proprietary manufacture made from moulded plastic are considered as replacement items and therefore if damage or deterioration has affected their integrity they should be replaced with new and not repaired.

Applicability - it is acceptable for lockers or housings made from the same material as the surrounding hull structure, metal or FRP to be repaired, but it is recognised that it is sometimes difficult to identify the repair method if the repair has been covered in paint. If the method of repair cannot be established ~~is in doubt~~ but ~~otherwise~~ looks sound, Examiners should pass the arrangements and record notes of their findings on their checklist.

Applicability – the above Requirements only apply where a failure of the locker or housing structure could lead to gas escaping from the cylinder or system components within the locker or housing flowing directly into the interior of the vessel, or where the locker or housing structure is within 0.5m of openings into the interior of the vessel or any source of ignition.

Applicability – a combination of wooden cylinder lockers lined with FRP of a lesser thickness than 5mm may be estimated as equivalent.

Supporting information on lockers and housings of suitable proprietary manufacture is provided at Appendix 7.

Explanation of change	
If the method of repair cannot be established ~~is in doubt~~ but ~~otherwise~~ looks sound, Examiners should pass the arrangements and record notes of their findings on their checklist.	The new text within the 2nd Applicability better reflects the required actions. The use of 'in doubt' is not correct as it perhaps implies that an Examiner may have reason to suspect that an incorrect repair method has been used (in which case the logical outcome would be that the repair does not meet the Requirement).

7.9 Low-pressure LPG hoses and hose connections

7.9.1	**Are all low-pressure LPG hoses accessible for inspection, of the correct material and in good condition?**	**R**
Check the accessibility of all low-pressure LPG hoses. Check the markings of all LPG hoses. Check the condition of hoses.	All LPG hoses on the low-pressure side: • must be accessible for inspection along their entire length; **and,** • must be marked to BS EN 16436 Class 2; or BS EN 16436 Class 3; or BS 3212 type 2; **and,** • must be free of flaws, brittleness, cracking, abrasion, kinking, 'soft' spots or joins. On hoses covered with metal braiding the braiding must be free of signs of damage or deterioration including corrosion and kinking.	
Applicability – hoses not accessible for inspection along their entire length must be recorded as 'not verified' on your checklist, and it must be considered that the Check has not been completed until such time as their general condition has been verified. Applicability – pre-made hose assemblies conforming to BS 669 or EN 14800 may be used to connect free-standing cookers to LPG supply pipework. BS 669 hoses usually have a red stripe running along the length of the hose but may not be marked with BS 669. EN 14800 hoses ~~are usually coloured yellow, or have a yellow stripe running along the length of the hose, and~~ should be marked EN 14800. The connections on such hoses must terminate with self-sealing bayonet connections at the connection points to the LPG supply pipework. The portable appliance connection Checks at 7.10 also apply.		

Explanation of change	
EN 14800 hoses ~~are usually coloured yellow, or have a yellow stripe running along the length of the hose, and~~ should be marked EN 14800	Hose manufactured to ISO 14800 is not always coloured yellow. Therefore, to remove unnecessary confusion, the reference to 'yellow' has been removed.

7.9.4	**Are all low-pressure LPG hoses used to connect regulators or appliances to LPG supply pipework only, and are they a maximum of 1m in length?**	**R**
Check the location of all LPG low pressure hoses. Measure the length of any LPG hoses used to connect appliances or regulators to LPG supply pipework.	Except on 'all-hose' systems, low pressure LPG hoses may only be used to connect a cylinder regulator and/or appliances to the LPG supply pipework. LPG hoses used to connect appliances or regulators to LPG supply pipework must not exceed 1m in length.	
Applicability – where a bubble leak detector of suitable proprietary manufacturer is located within a cylinder locker or cylinder housing, up to 1m of hose may be installed between the cylinder mounted regulator and the detector, and up to 1m of hose may be installed between the detector and the supply pipework. The hose between the detector and the supply pipework must be located within the locker or housing. Applicability - where there is a single appliance located very close to the cylinder installation it is permissible for hose to run from the cylinder installation to the appliance without pipework provided the hose length does not exceed 1m. Applicability - for 'all-hose' systems apply Check 7.9.6		

Explanation of change	
Applicability – where a bubble leak detector of suitable proprietary manufacturer is located within a cylinder locker or cylinder housing, up to 1m of hose may be installed between the cylinder mounted regulator and the detector, and up to 1m of hose may be installed between the detector and the supply pipework. The hose between the detector and the supply pipework must be located within the locker or housing.	This new Applicability formalises the longstanding BSS Office position.

8.1 Appliance fuel and power supply

8.1.2	Are all liquid-fuelled appliances fitted with shut-off valves, and are the valves or their means of operation, in a readily accessible and safe position?	R
Identify all fuel supplies to liquid-fuelled appliances and check for the presence of shut-off valves. Check the position and accessibility of the shut-off valves, or their means of operation.	Liquid-fuelled appliances must be provided with a shut-off valve to shut off the fuel supply. All shut-off valves, or their means of operation, must be installed in a readily accessible position. All shut-off valves, or their means of operation, must be installed within reach of the appliance but not in a position that requires the user to reach over or around the appliance to operate them.	

~~Applicability – on installations where the fuel tank is located in close proximity to the appliance the supply valve close to the tank (as required at Check 2.13.1) may be accepted as the appliance shut-off valve. However, for installations where the fuel tank is not located near the appliance (e.g. where the tank also supplies an internal combustion engine and/or is located in an engine space) an appliance shut-off valve is likely to be required in addition to the tank valve at Check 2.13.1.~~

Examiner action – Examiners must refer to Section 1 of Appendix 8 for essential information on examining fuel feed line shut-off valves for liquid-fuelled appliances.

Applicability – the valve should normally be situated in the same compartment as the appliance. However, there may be installations where it is not physically possible or safe to do so. For example: where the appliance is installed on a bulkhead between compartments; or, if there is less than approximately 1m of fuel pipe in the same compartment. In these cases, it is acceptable for the valve to be installed at the nearest practicable point.

Applicability – automatic fire valves of suitable proprietary manufacture are an acceptable alternative to manually operated valves. Where fire valves are fitted these may be located immediately adjacent to the appliance.

Applicability – appliances fitted with electrical fuel-supply pumps that shut off the fuel supply when the pump is not in use, are an acceptable alternative to manually operated valves. The control/switch for such pumps does not have to be installed within easy reach of the appliance.

Explanation of change	
~~Applicability – on installations where the fuel tank is located in close proximity to the appliance the supply valve close to the tank (as required at Check 2.13.1) may be accepted as the appliance shut-off valve. However, for installations where the fuel tank is not located near the appliance (e.g. where the tank also supplies an internal combustion engine and/or is located in an engine space) an appliance shut-off valve is likely to be required in addition to the tank valve at Check 2.13.1.~~ Examiner action – Examiners must refer to Section 1 of Appendix 8 for essential information on examining fuel feed line shut-off valves for liquid-fuelled appliances. The control/switch for such pumps does not have to be installed within easy reach of the appliance.	To help Examiners and others better understand how to apply the Requirements for emergency fuel shut-offs (at Check 2.13.1) and appliance shut-off valves (at Check 8.1.2) new Essential information has been added to Section 1 of Appendix 8. This new information in Appendix 8 replaces the first Applicability in the Sept 21 Edition. The added Examiner actions at Check 8.1.2 reminds Examiners and other of the Essential information in Appendix 8. Other related changes have also been made at Checks 2.10.2, 2.11.1, 2.13.1 and Appendix 8.

8.4 Protection against fire risks from appliance installations

8.4.3	Are non-portable appliances secured against unintended movement?	R
Check for the presence of securing systems on all non-portable appliances. Where they can be seen or reached, check the condition of the securing systems. Where practicable, apply light manual force to check the security of all non-portable appliances.	Securing systems must be installed on all non-portable appliances, and the securing systems and their fixing points must: • be suitable, such as screw/bolt fastenings directly through the appliance's frame (or additional metal brackets) into adjacent boat structure; **and**, • show no signs of damage or deterioration, including fractured mounting brackets, missing, loose or fractured bolts or nuts. Non-portable appliances must be secured against unintended movement under light manual force.	
Examiner action - Examiners must refer to section 1 of Appendix 8 for essential information on the securing of solid fuel appliances (including stoves and ranges). Applicability – appliances in gimbals may tilt, but the retaining mechanism must be secure. Applicability – appliances connected to the fuel supply by hoses or electrical cables may be retained using fixed chains provided there is no possibility of strain on the hose and/or cable connections. Applicability - this Check applies to all fuel-burning appliances but does not apply to electrical appliances.		

Explanation of change
Detailed information has been added to Appendix 8 covering the BSS Requirements addressing the securing of solid fuel stoves. The new Examiner action helps ensure Examiners refer to that information when applying Check 8.4.3 to such appliances.

8.8 LPG appliance burning operation

8.8.1	Are all LPG appliance burners delivering a proper flame?	R
Light all LPG appliance burners and operate them at their maximum setting at the same time.	A satisfactory flame picture must be present at each LPG appliance burner when all burners in the system are operating at their maximum setting at the same time.	
Examiner action – Examiners must compare flame pictures at each burner to the 'burner flame trouble chart' at section 1 of Appendix 8. Examiner action - before operating the burners on any flued appliances, carry out the Checks at 8.10.1/2/3. The flame picture assessment should not be carried out if a fault at 8.10.1/2/3 is recorded. Applicability – any appliances with 'hidden' burners must be ignited as part of this Check but there is no Requirement to see the burner flame picture. Applicability – in the event any appliance burner cannot be lit mark your checklist 'not verified' and note the reason why. In such cases the burner must be considered as non-compliant until such time as a satisfactory flame picture has been verified. Applicability ~~Examiner action~~ - in the event of a poor flame picture, take the actions described in Appendix A, ~~or A and B~~ In addition, in the event the poor flame picture indicates the flame could extinguish and lead to a gas leak take the actions described in Appendix B~~, and if the regulator is found not to lock-up within industry recommended tolerances, take the actions described in Appendix A, or A and B, and make a note on the BSS Warning Notice about the performance of the regulator. Where it can be established, also note the age of the regulator if it is over 10 years old.~~		

Explanation of change	
Applicability ~~Examiner action -~~ in the	Elsewhere within the Checks the instruction to Examiners to take the actions described by App A or B is an Applicability rather than an Examiner action.
in the event of a poor flame picture, take the actions described in Appendix A, ~~or A and B~~ In addition, in the event the poor flame picture indicates the flame could extinguish and lead to a gas leak take the actions described in Appendix B	The added text provides additional clarity around when Appendix B should be triggered.
~~and if the regulator is found not to lock-up within industry recommended tolerances, take the actions described in Appendix A, or A and B, and make a note on the BSS Warning Notice about the performance of the regulator. Where it can be established, also note the age of the regulator if it is over 10 years old~~.	This text simply repeats the text within the Examiner action at Check 7.12.2. Although there could be a correlation between poor flame pictures and regulator lock up and/or the age of a regulator to repeat the text at Check 8.8.1 is unnecessary and potentially confusing.

8.10 Appliance flues and exhausts

8.10.4	Are all open flues to LPG appliances operating effectively?	A/R
Carry out a flue spillage test on all open flues connected to LPG appliances as described in Appendix E.	Open flues to LPG appliances must ensure safe transfer of flue gases to the outside of the boat.	

Applicability – 8.10.4 is an Advice check for privately owned and managed vessels, but is a mandatory Requirement for hire boats.

Examiner action - before operating the burners on any open-flued appliances such as instantaneous water heaters carry out the Checks at 8.10.1, 8.10.2 and 8.10.3. The flue spillage test should not be carried out if:

- a fault at 8.10.2/3 is recorded; **or**,
- there is no flue pipe connected to the draught diverter; **or**
- a Tannoy vent, or similar, is in use as the flue terminal.

Supporting information is provided at Appendix 8.

Applicability – if for any reason the flue spillage test cannot be carried out mark your checklist 'not verified' and note the reason why.

Applicability – Examiners are not required to undertake a flue spillage test on fridges with open-flues.

~~Applicability – if for any reason the flue spillage test cannot be completed mark your checklist 'not verified' and note the reason why.~~

Applicability – in the event a fault is determined, take the actions described in Appendix A.

Explanation of change	
All changes	The new approach means that Examiners are no longer required to undertake a flue spillage test on instantaneous water heaters fitted with a Tannoy vent or similar as the flue terminal and instead, for such installations can record 'not verified' at Check 8.10.4 without undertaking the test. This change reflects that instantaneous water heaters fitted with Tannoy type vents have been found not to pass the test and therefore making Examiners test such heaters could put them at risk of CO poisoning. New supporting material is also being added to ECP Appendix 8.

9.1 Engine/gearbox oil leak collection

9.1.2	**Where a fixed bilge pump or fixed bilge suction line draws from an engine tray or oil-tight area is the risk of pollution minimised?** ~~**Does the bilge pumping system minimise the risk of avoidable pollution?**~~	**R**

Check for presence of a fixed bilge pump or fixed bilge suction line within an engine tray or oil-tight area. If present, check for the presence of a bilge water filter installed in the overboard discharge line or the facility to discharge to a holding tank. If a bilge water filter is present, verify the discharge level performance by examining any markings on the filter, or if necessary, any presented declaration from the manufacturer or supplier.	Fixed bilge pumps and fixed bilge suction lines must not draw from an engine tray or oil-tight area, unless the: • discharge is through a bilge water filter capable of a 5ppm discharge performance level, as verified by markings on the filter or an appropriate declaration from the manufacturer or supplier; or, • there is a facility to discharge to a holding tank.

Examiner action ~~Applicability~~ – if a portable bilge pump or bilge suction line is discovered within an engine tray or oil-tight area, the owner should be advised to remove it, but no fault is recorded.

Applicability – for the following makes of bilge water filter a 5ppm discharge performance level can be assumed – Wavestream and Bilgeaway. For all other makes, in cases where the discharge performance level of a bilge water filter cannot be verified, 'not verified' must be marked on your checklist, and the filter must be considered as non-compliant until such time as the performance level is verified.

Applicability – if a significant quantity of fuel or oil is found to be escaping into the watercourse during an Examination, take the actions described in Appendix A and B.

Guidance for owners – the effectiveness of bilge water filters is entirely dependent on the element/cartridge being unclogged. To help ensure contaminated bilge water is not pumped into the watercourse, boat owners must ensure the element/cartridge is replaced as required.

Supporting information on recognising 5ppm bilge water filters is provided at Appendix 9.

Explanation of change	
Where a fixed bilge pump or fixed bilge suction line draws from an engine tray or oil-tight area is the risk of pollution minimised? ~~**Does the bilge pumping system minimise the risk of avoidable pollution?**~~	The new Check Item Question better reflects the Requirement.
Examiner action ~~Applicability~~ – if	The first Applicability instructs Examiners to advise boat owners and is therefore an Examiner action rather than an Applicability.
watercourse during an Examination, take the actions described in Appendix A and B.	The change has been made to add clarify that Examiners should only apply Appendices A and B if they actually see contaminants entering the watercourse.

9.2 Sanitation systems

9.2.1	Is a closable valve fitted in the discharge line of any toilet or toilet holding tank with overboard discharge?	R
Check all toilets and toilet holding tanks for the presence of an overboard discharge line. If present, check for the presence of a closable valve installed in the discharge line and check its condition and completeness.	All toilets and toilet holding tanks having an overboard discharge line must have a closable valve fitted in the discharge line. The valve and connections must be complete and leak-free.	
Examiner action ~~Applicability~~ – Examiners must not operate sanitation system valves. Applicability – depending on the system's actual configuration, on installations with a direct overboard discharge and a holding tank the diverter valve may function as the closable valve. ~~Examiner action~~ Applicability – if toilet waste is found to be escaping into the watercourse during an Examination contact the BSS Office and take the relevant actions described in Appendix B. Supporting information on toilet and holding tank configurations with overboard discharge is provided at Appendix 9.		

Explanation of change	
Examiner action ~~Applicability~~ – Examiners….	The first Applicability instructs Examiners not to do something and is therefore an Examiner action rather than an Applicability.
~~Examiner action~~ Applicability – if toilet waste…	Throughout the Checks, Applicablities are used to guide Examiners when to apply Appendices A and/or B.
watercourse during an Examination contact the BSS Office	The change has been made to add clarify that Examiners should only contact the BSS Office and apply Appendices A and B if they actually see contaminants entering the watercourse.

– Significant Change Document for BSS Checks, Annex A Ends –