BSS Examination Checking Procedures – Part 5 – Outboard and portable combustion engines and portable fuel systems

Recommendations for change May 2012

5.1.1	**Do permanently installed ~~fixed~~ fuel systems supplying outboard and portable combustion engines comply with the applicable BSS requirements for the fuel supply system?**	**R**
Identify permanently installed ~~fixed~~ fuel systems supplying outboard and portable combustion engines. Apply the relevant Part of the BSS requirements to the permanently installed ~~fixed~~ fuel system.	Permanently installed ~~fixed~~ fuel systems supplying outboard and portable combustion engines must be compliant with the applicable BSS requirements of Part 2 or Part 7.	
Applicability – LPG-fuelled outboard engine fuel installations are assessed by special arrangement with the BSS Office. See Checklist Item 5.5.1. Applicability – In the event an examiner identifies a portable combustion engine (excluding outboard engines) supplied with fuel from a permanently installed fuel system the BSS Office should be contacted for advice.		
Rationale – • check question, check and requirements sections - reference to 'permanently installed' replaces 'fixed' and is made standard throughout ECPs (editorial change) • new 2nd applicability accords with the outcome of 'crossover' project as agreed by BSSTC and covers the possibility of portable engines other than outboards being connected to a permanently installed fuel system. (neutral impact change)		

5.1.2	**Are all components of portable fuel systems of suitable proprietary manufacture?**	**R**
Check the type of all components of portable fuel systems including the tank, fuel hose and priming bulb, and hose connections. Verify components not identified as of suitable proprietary manufacture, if necessary by examining any presented declaration from the manufacturer or supplier.	Portable fuel system components must be of suitable proprietary manufacture, for example: • tanks must be designed to store petrol and permit convenient carrying and removal for refilling outside the vessel; • hoses and other fuel components must be intended for use with petrol; • hose connections must be secured with proprietary clamps, clips or ties. Portable fuel system components not identified to be of suitable proprietary manufacture must be supported by an appropriate declaration from the manufacturer or supplier.	
Applicability – in cases where verification of components to be of suitable proprietary manufacture is not achieved the BSS Checklist must be marked as 'not verified' and the item considered as non-compliant until such time as verification is achieved. Applicability – the point/s of connection of any outboard engine portable fuel system to any permanently installed fuel system must be made 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. Such connections must be made with proprietary quick-release, self-closing connectors. In such installations all of the portable fuel system components must comply with the applicable BSS requirements at 5.1.2 - 5.1.4. Applicability – In the event an examiner identifies a portable fuel system supplying a permanently		

installed inboard engine, refer to check 2.15.3
Rationale – • New 2nd Applicability – makes clear that portable fuel hoses must located in the outboard well of cabin cruisers and end with proprietary quick-release, self-closing connectors where connected to any permanently installed fuel system. Enhanced check to reflect the outcome of the crossover project at BSSTC. This is a new applicability. The impact assessment is that it very few boat owners will be affected by this change because less than 5% of outboard powered cabin cruisers are estimated to have permanently installed fuel systems and nearly all will already have connections as described – it is anticipated that between 10 - 20 boats per year subject to BSS examination may be affected. The risk assessment is the change is necessary to ensure consistent risk control and to support the concept that all portable fuel system components are readily removable in an emergency. By their nature portable fuel system components are less robust than permanent fuel system components as they will not have fire resistance and may have a reduced life expectation. (GR 13) • New 3rd Applicability – points examiners to refer to the proposed new 2.15.3 in the event they find a portable fuel system supplying a permanently installed inboard engine. See 2.15.3 editorial change) • Both additions accord with the outcome of 'crossover' project as agreed by BSSTC.