

Time:

Boat Safety Equipment

Bailers and Bilge Pumping Arrangements

Key Concepts:

Main Teaching Points

1) Discuss boat safety requirements for bailers and bilge pumping arrangements.

- a) bailer or one manual water pump fitted with or accompanied by sufficient hose to enable a person using the pump to pump water from the bilge of the vessel over the side of the vessel;
- b) bilge pumping arrangement for vessel over 12m, but not over 20m.

2) Discuss situations where prohibition/exemptions may apply.

A bailer or manual pump is not required for any pleasure craft that is

- (a) a self-bailing sealed hull sailing vessel fitted with a recess-type cockpit that cannot contain a sufficient quantity of water to make the vessel capsize; or
- (b) a multi-hull vessel that has subdivided multi-sealed hull construction

3) Review examination criteria for bailers and bilge pumping arrangements

- a) An approved bailer must be made of plastic or metal, having an opening of at least 65 cm² (~3 1/2" diameter) and a volume of at least 750 ml. (~3 cups).
- b) Even if the pleasure craft that is not over 12 m (39'-4") has a power-driven pump, it must also carry a bailer and/or a manual water pump;
- c) Ensure discharge hose is capable of clearing gunwale when manual pump is in use;
- d) Ensure there is a good flow over the side.
- e) As for the bilge pumping arrangement, the power-driven pump must be capable of pumping bilge water efficiently out of the discharge outlet (hull outlet);
- f) Ensure there is a good flow over the side;
- g) Ensure that pump has suction in every watertight compartment;
- h) **Recommendation:** ensure that every suction strainer, if present is clear of debris

Notes

Quick Points

	Boat Safety Requirements
	Prohibitions / Exemptions
	Examination criteria

Instructor notes

Exceptions from the Small Vessel Regulations (SVR) – Part II

<http://www.tc.gc.ca/acts-regulations/GENERAL/C/C SA/regulations/o70/csa076/csa76.html#0.2.VF5B4I.Z2BFBE.ZEFTID.U2>

Reference material

PCCC Manual pg 60.
Safe Boating Guide Pg 50

Equipment Standards from *Small Vessel Regulations* (SVR) Schedule III Requirements found in *Small Vessel Regulations* (SVR) section 16.02, 16.03, 16.04, 16.05

Bilge pumping arrangements <http://www.tc.gc.ca/MarineSafety/tp/TP1332/menu.htm> see [Chapter 5, Bilge Pumping Systems](#) for further information on automatic bilge pumps)

Rationalization:

Suggested Activities:

Just how much water is 750ml???

Using a bailer with a volume of 750ml, time students as they bail 1 cubic foot of water from a water bucket. One cubic foot of water equates to 7.48 gallons (28.31 liters) or (28, 310 milliliters). This should take approximately 38 attempts.



<i>Method of Evaluation & Condition</i>	<i>Skill / Knowledge and Standard</i>
<u>Skill</u>	
Each candidate shall participate in a thorough examination of the required boat safety equipment demonstrating the inspection criteria for each and/or may be evaluated for these points by written examination	In the case of a bailer, ensure it is dedicated to that purpose, made of plastic or metal bailer and is min. 750ml / 65cm ² In the case of manual water pump, must be able to reach the bilge and discharge over the side of the vessel.
<u>Knowledge</u>	
Each candidate shall participate in a thorough examination of the required boat safety equipment demonstrating the inspection criteria for each and/or may be evaluated for these points by written examination	Each candidate shall state all compulsory boat safety equipment for vessels under 20 meters. Candidates shall ID situations where prohibition/exemptions may apply and ensure that numbers, classifications and locations meet the requirements of SVR • Bailers- not required for multi-hull vessels with subdivided multiple seal compartments. Propelling device- any apparatus that can be used manually by a person