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### **Petrol Use Demands Caution And Respect Says Boat Safety Scheme**

The use of petrol demands huge respect and extreme caution, not least when refuelling is the succinct advice from the Boat Safety Scheme (BSS).

In the past few weeks, three recent serious incidents linked to the use of petrol have seen nine people needing hospital treatment, two other people injured and eight boats damaged or destroyed.

The BSS is working with navigation and harbour authorities to help boaters, and especially anyone new to boating, to appreciate the nature of petrol vapour especially in the context of the bucket-like quality of a boat cabin and hull.

Petrol, when spilt or exposed to open air, can quickly vaporise into a low-lying, extremely flammable gas-cloud that can flow into the boat's interior and pool in the lower parts where any spark could ignite it

Respecting petrol means a having a rigorous discipline when beginning the trip and refuelling: -

1. Before starting out and even before the crew boards the boat, use sight, touch and sense of smell to check the fuel system and engine for any petrol leaks or weeping fuel and signs of deterioration, looseness, cracks or any other damage.
2. Crucially, do not switch on the electrical supply or turn the ignition key if there's a strong smell of petrol. Ventilate the cabin and bilges and investigate the source.
3. To prevent petrol vapour being blown back or flowing down into the boat during refuelling, close all windows, hatches, doors and awnings; also turn off all cooking appliances and other ignition sources before removing any tank or container caps.
4. Double check before any fuel starts pouring, the correct filling point has been selected. If the worst thing happens and fuel goes down the wrong hole, deal with the situation immediately and get help if you have any issues about handling the problem safely. Warn people around the boat what has happened and what you are doing. Prevent them from igniting the petrol vapour accidentally.

5. Petrol leaks and spills can readily vaporise and ignite in an instant. Clean up any loose fuel straight away and make sure filler caps are secure after refuelling.
6. Avoid decanting petrol from containers, but if you have to, use proprietary anti-spill containers, spouts or nozzles to allow, clean and easy, no-spill refuelling.
7. If you have to carry spare fuel use proper cans, specifically designed for petrol, anything else could allow fuel and vapours to escape. To comply with UK law, don't carry more than 30 litres of petrol and ensure that containers are no more than 10 litres if plastic, or 20 litres if metal.
8. Don't overfill petrol containers, leave some expansion space. Stow them securely upright and protected from pressurisation by siting them away from intense heat and out of direct sunlight. But never stow spare petrol in the engine or cabin space.
9. Avoid refuelling any portable engine or tank aboard the boat; take it to the bank and a safe distance from any boats or other sources of ignition. But always heed any marina or mooring guidance and rules on refuelling and the handling of petrol.
10. Never use any bowl, bucket or other open container to carry or transfer petrol or mix in 2-stroke oil.

BSS manager, Graham Watts said:

'With the family standing on the bank and your provisions boxes getting warm in the sun, if you find a leak or there's a strong smell of petrol, don't be tempted to start the boat. Open up the windows and hatches and ventilate until the smell has gone away, then investigate. If you can't fix the problem quickly and easily, pack the boat down and get a competent fitter to put it right so you can enjoy your boat for your next available weekend.'

He added this warning:

'Do not drop your guard, never ignore a strong smell of petrol whilst underway, moor the boat, get everyone off, stop the motor and investigate the cause. Don't start up again unless you are fully assured that everything is OK and the smell has gone.'

As always, prevention is the best cure, as a routine, have a competent marine fitter carry out a thorough service of the engine, fuel-system components and controls using the right marine-grade parts when replacements are needed – it could make the difference between a great day out with the family, or swift race to the hospital and no boating for some time afterwards.

For more information about staying safe from the risk of fire on boats go to [www.boatsafetyscheme.org/petrolsafety](http://www.boatsafetyscheme.org/petrolsafety)

**ENDS**

## **Notes:**

### **The Nature of Petrol**

Petrol is very volatile, that is, it evaporates quickly generating highly flammable vapours. A small spill of petrol will create a large amount of vapour. Likewise, when it is being transferred and especially when a tank is being filled, the vapour in the 'empty' tank is displaced by the new liquid fuel. Even if the concentration of vapour is too rich to burn immediately, it will dilute to flammable or explosive levels, even though, given enough ventilation, it may dissipate to a safe level eventual.

Petrol vapour is three to four times heavier than air. It will sink to the lowest level of its surroundings, accumulating at low level in places such as cabin floors, lockers, bilges and other enclosed spaces.

**The BSS** is a public safety project owned jointly by Canal & River Trust and the Environment Agency. At least 12 other navigation and harbour authorities have also adopted it. The navigation authorities' purposes for the Scheme are to help reduce the risks of fire, explosion and pollution on small craft. This is done by promoting fire safety and pollution avoidance advice to help boat owners keep themselves and their crews' safe as well as regular examination of fuel systems, gas systems, electrical systems and appliances.