

# FIRE SAFETY ON BOATS



**FIRE  
KILLS**

**YOU CAN  
PREVENT IT**

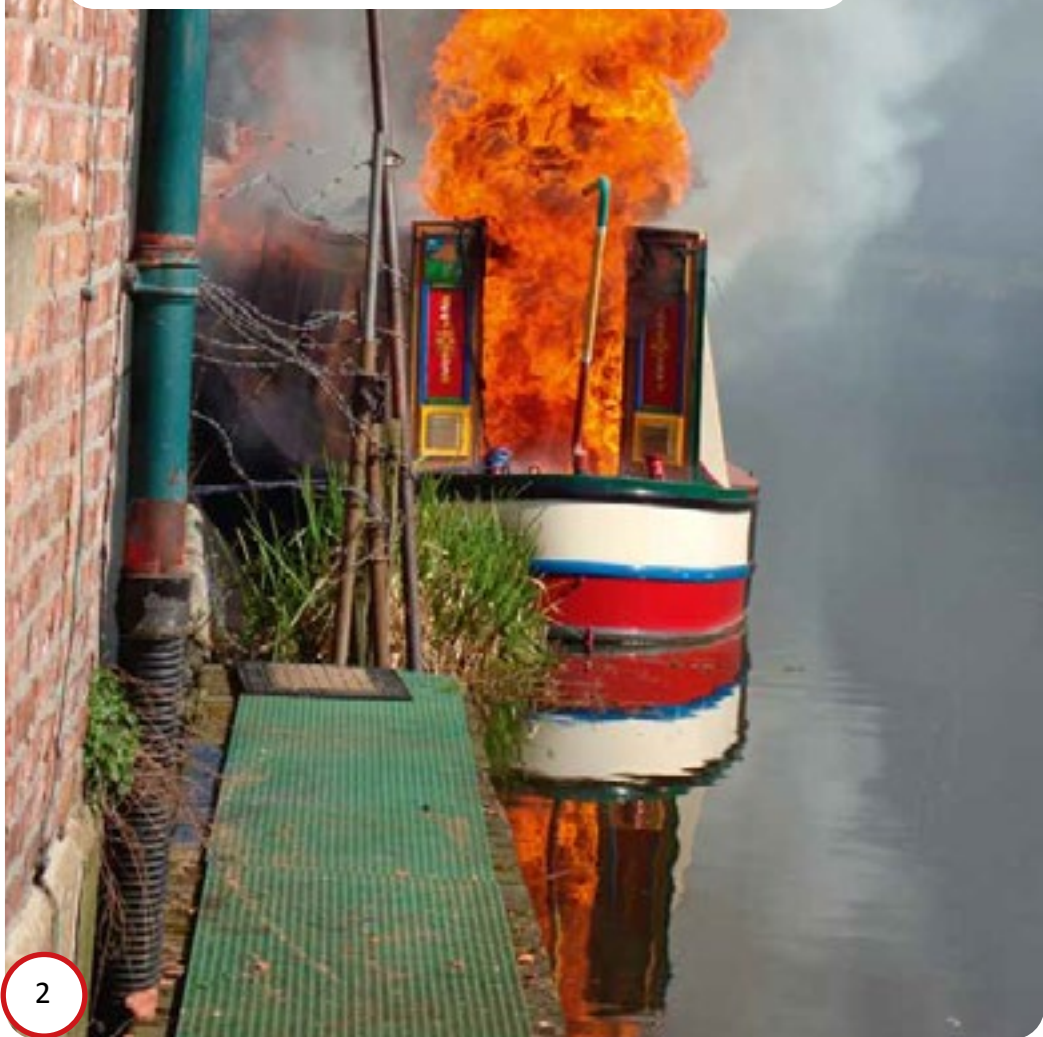
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## Did you know?

- **Fires on boats have killed 30 boaters in the last 20 years.**

Most fires are preventable. This leaflet provides tips and advice on how to protect your boat and crew from fire, and what to do should a fire break out.



# Alarms save lives

**Boat fires often grow rapidly & spread quickly. Alarms can give a crew vital seconds to help them escape to safety.**

## Smoke Alarms

- Optical sensor alarms with hush buttons and 'sealed for life' batteries are best for boats.
- See [www.boatsafetyScheme.org/fire](http://www.boatsafetyScheme.org/fire) for more information on the alarm choices & a list of industry recommended models.
- Fit alarms in places you will hear them clearly if they go off.
- Consider installing linked alarms that will go off at the same time.
- Test the alarm when you board and at least monthly. Never disconnect it or remove working batteries.

## Gas leak indicators

- Fit a bubble type gas leak indicator in the LPG cylinder locker.
- Push the gas leak indicator test button routinely to check for leaks in the gas system.

## Carbon monoxide (CO) alarms

- Fit a CO alarm to alert you of any poisonous carbon monoxide.
- Check your CO alarm is suitable for marine use and meets the EN50291-2 standard. Visit the BSS website for more information.
- Look for one of the approval symbols below when buying smoke alarms and either the BSi or LPCB mark when choosing CO alarms.



**Fit alarms to stay safe**



# Safe cooking & heating

## Turn cooking appliances off properly after use.

- Never leave cooking unattended. Turn things off until you come back.
- Take extra care when cooking with oil – it sets alight easily.
- Avoid cooking when tired. Remember, medications and alcohol can cause drowsiness.
- Keep the cooking area clean for safety – a build-up of grease could catch light.
- Spark devices are safer than matches or lighters to light gas cookers, because they don't have a naked flame.
- Only use portable appliances onshore and don't change gas canisters inside the cabin or covered areas.
- Barbecues shouldn't be used on boats – hot charcoal gives off dangerous amounts of CO and blown embers could set your boat alight.
- Keep cabin ventilation clear to prevent a build-up of toxic CO.
- Try to keep fabrics away from cooking hobs to prevent them from catching fire.
- Damaged stoves and flues could burn too hot; check adjacent areas for heat damage. Have your chimney swept regularly.
- Dispose of embers carefully. If they're still warm they could cause a fire or build-up of CO.
- Only use the fuel recommended by the heater manufacturer. Other types may burn too hot.
- Ensure all hob burners have a flame supervision device to shut-off the gas if the flame is blown out.



Turn appliances off properly after use

# Protecting the inside of your boat

**Don't smoke or use candles if you're drowsy because of medications or alcohol.**

## Cigarettes

- Keep cigarettes away from anything that could catch fire, such as curtains.
- Never smoke when refuelling or changing a gas cylinder.
- Dispose of smoking materials carefully - use a proper ashtray that will stay stable on the boat - make sure they're out, right out!
- Take extra care if you smoke when you're tired and never smoke in bed.
- Empty ashtrays regularly. A build-up of ash could catch fire.

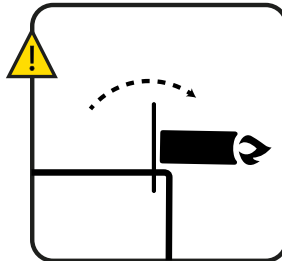
## Furnishings

- Try to choose furniture that carries the fire-resistant label.
- Keep fabrics and paper away from anything hot like hobs, light bulbs, stoves and their flue pipes.
- Watch out for domed- decklights, aka bullseyes, focussing light rays and causing heat damage or fires in strong sunlight.

## Candles

- Candles have started fatal boat fires. Consider using LED alternatives for light or ambience.
- Pot-purri and oil-reed diffusers are far safer alternatives to scented candles.
- If you must use lit candles, ensure they're in secure fire-proof holders and never leave them unattended.

### Top tip



**Put cigarettes out properly**

# Fuel & power safety

## Fuel Safety

- Prevent petrol vapour from entering the boat by closing the doors, windows or hatches and closing the awning when refuelling.
- Refuel outboard engines and generators well away from the boat.
- Leaks, spills and vapour can ignite easily. Clean them up straight away and make sure filler caps are secure after refuelling.
- Only carry spare petrol if necessary and store it in a self-draining locker or on open deck.
- Petrol refuelling should only be supervised by someone familiar with both the boat and petrol vapour risks.

**Make sure you check and maintain your boat's fuel, gas and electrical systems on a regular basis.**

## Engine Maintenance

- Don't let oil or debris build-up in the bilges.
- Inspect the lagging of engine and heater exhausts for damage or deterioration; and check nearby items for heat damage or charring.
- Check exhaust systems of inboard engines for leaks.
- Check for loose fuel joints, damaged fuel tanks or deteriorating hoses.

### Top tip



**Maintain your boat's engine & fuel systems regularly**

**If you can smell gas, turn the supply off and get it checked out straight away!**

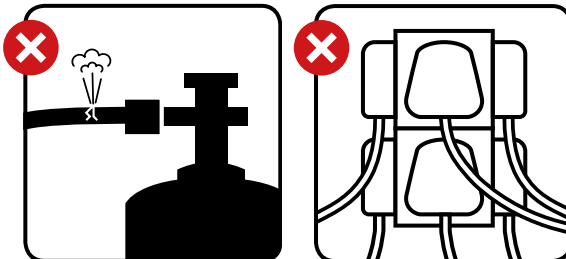
## Gas Safety

- Ensure gas appliances are installed and maintained routinely by trained fitters.
- Never restrict airflow by blocking vents or air gaps.
- Make sure gas cylinders are secure after they've been changed. Test for leaks with proprietary leak detection fluid.
- Whenever possible, turn gas valves off before you go to bed or leave the boat.
- Replace gas hoses showing signs of cracking, brittleness or discolouration.
- Store gas cylinders outside, in a self-draining and fire resistant locker. Keep them upright and secured from moving.

## Electrics

- Check for the British or European safety mark when buying electrical goods.
- Use a trained marine electrician to install and service electrics.
- Don't overload adaptors. Keep to one plug per socket. Use the right fuse or circuit breaker to avoid overheating.
- Unplug appliances when they're not in use or when you leave the boat.
- Take extra care when reinstalling the boat's batteries. Check straps or restraints are secure afterwards.
- Damaged wires and connectors can overheat rapidly, so look out for scorch marks or burning smells. Don't ignore sounds like buzzing, fizzing or crackling.

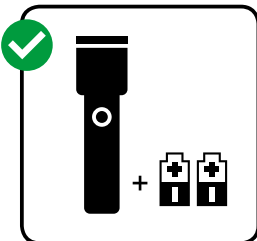
**If there is any sign of a problem, turn the power off and don't switch it on until it's been checked out!**



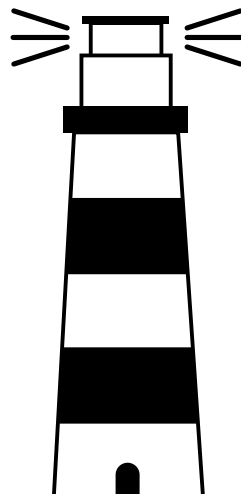
# Plan a safe escape

## Make an emergency and escape plan with everyone aboard.

- Make sure people know how to close emergency valves and switches in case of fire.
- You are more at risk from a fire when asleep, so check your boat before you go to bed. Make sure cooking and heating appliances are off and candles and cigarettes are fully extinguished.
- Keep a torch easily available to help you escape at night. Make sure you have spares and test them regularly.
- Don't go to sea without a VHF radio. Have a charged-up, handheld, waterproof one ready for use at any time.
- Don't rely on a mobile phone. There could be no signal and it may not be waterproof.
- Have enough life jackets for everyone on board, and keep them in good condition.
- Keep exits clear and keys to hand. Don't lock or bolt doors and hatches from the outside.
- Track your location so you can tell the emergency services where you are if needed.
- Inland boaters keep aware of road access points to your bank side if you can.
- Consider having a 'grab-bag' for removing vital possessions in an emergency.



**MAKE A  
MAYDAY  
CALL**  
**AND CHECK FOR  
LANDMARKS**





# What to do if there's a fire

**If in doubt, don't fight a fire yourself. Get out, stay out, call 999/ch16 for help and wait for the fire & rescue services.**

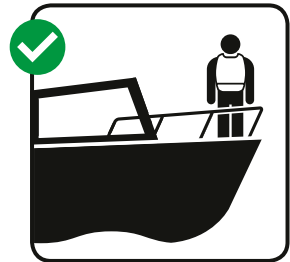
- Do not enter a smoke filled space.
- If you are already in a smoke filled space, keep low down where the air is clearer.
- If you need to break glass to escape, use a blanket to prevent injury.
- Starve the fire of air. Don't open engine hatches or doors unless you have to.

## Inland Fires

- If you are inland or moored near to land, move everybody off the boat and call 999 immediately.

## Fires at Sea

- If you are off-shore move as far away from the fire as you can on deck. Get everybody into life jackets.
- Take a handheld VHF radio onto deck with you to call for help.
- Notify the Coastguard by radio, make a Mayday call and/or display a distress signal.



**Get out, stay out and call the emergency services**

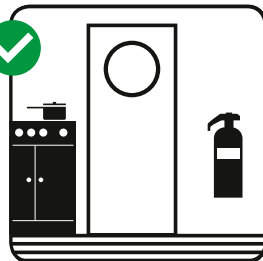
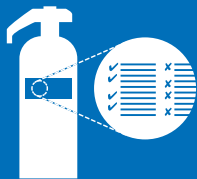
# Fire blankets & portable extinguishers

**Only consider using extinguishers to extinguish a small fire, or to aid a safe escape past flames.**

- Familiarise yourself with how to use any extinguishers on board.
- Keep fire blankets and extinguishers within easy reach, close to exits and risk points, such as the galley and engine area.
- Check extinguishers on a regular basis for serious dents, leaks and loss of pressure.
- Check the pin and firing mechanism for any signs of problems or weaknesses.
- Check the dates on extinguishers and fire blankets. Have extinguishers serviced by a competent person, or replace them as recommended by the instructions.
- Only choose extinguishers that carry recognised approval marks such as those shown below, and choose units marked with at least an 'A' and 'B' fire rating.

**Be prepared for a dry powder extinguisher to create a dense powder-cloud, reducing visibility and impairing breathing. Don't jeopardise your escape.**

## Top tip



**Always read instructions**

# Further information

- For more information on boat fire safety and routine safety checks visit **[www.boatsafetyscheme.org/fire](http://www.boatsafetyscheme.org/fire)**
- For more information on carbon monoxide and CO alarms visit **[www.boatsafetyscheme.org/co](http://www.boatsafetyscheme.org/co)**
- For information on sea regulations and emergencies at sea visit the Maritime and Coastguard Agency at **[www.gov.uk/mca](http://www.gov.uk/mca)**
- For more information on electrical safety visit **[www.boatsafetyscheme.org/stay-safe/electrical-safety](http://www.boatsafetyscheme.org/stay-safe/electrical-safety)**
- For advice, checks of emergency equipment and emergency rescue information contact Royal National Lifeboat Institute at **[www.rnli.org.uk](http://www.rnli.org.uk)**
- For information about past incidents with lessons learnt, and for reporting accidents see Marine Accident Investigation Branch at **[www.gov.uk/maib](http://www.gov.uk/maib)**

## Boating Advice

- For boat builders and service engineers contact British Marine **[www.britishmarine.co.uk](http://www.britishmarine.co.uk)**
- For advice on navigation, boat handling and emergency training contact the Royal Yachting Association **[www.rya.org.uk](http://www.rya.org.uk)**

## General Fire Safety

- Contact your local fire and rescue service for free advice.
- For more information on fire safety visit **[firekills.campaign.gov.uk](http://firekills.campaign.gov.uk)**

## Acknowledgements

- We acknowledge the assistance of the:
  - Fire Industries Association; and
  - Fire Protection Associationwith the writing of this booklet.



## Check List

- Everybody aboard needs to know the emergency & escape plan
- Get to know how to use the fire blanket and fire extinguishers
- Test the smoke alarms this month
- Keep escape routes clear – if a fire wakes you up, you’ve got to get out fast
- If the boat’s occupied, ensure doors and emergency exits will open from the inside
- Don’t leave the galley when cooking & don’t cook while tired
- Don’t use portable LPG camping equipment aboard
- Dispose of cigarettes carefully – put them out, right out
- Keep fabrics like curtains, towels & clothing safely away from hobs & heaters
- Don’t ignore anything that looks, smells or sounds like it is scorching, melting or sparking
- Handle petrol away from the boat – keep petrol vapour out of the cabin

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For more information on general fire safety  
visit [firekills.campaign.gov.uk](http://firekills.campaign.gov.uk)

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