STOVES IN BOATS

Some of the basics about fitting and using solid fuel stoves on boats in the UK and Ireland. The numbers in (brackets) are sections in British Standard BS 8511:2010 Code of practice for the installation of solid fuel heating and cooking appliances in small craft where much more detailed information can be found. The code isn’t compulsory, but will always be referred to if an accident occurs.

A good stove and its chimney will follow the rules here and:
- Be recommended by the manufacturer for use in boats.
- Be installed by a competent person. (5.2)
- Be strictly to the maker’s instructions
- Be the right size for the space to be heated.
- Have securely latching doors which can’t jolt open.
- Use very dry wood or smokeless fuels.
- Avoid bituminous coal (called ‘housecoal’ or ‘Polish coal’).
- Have chimney and flueways cleaned very regularly.
- Have door seals, windows and liners kept sound.
- If your stove has a lower ash door which can be opened separately from the main door – take very great care, leaving it open can make the fire burn far too fiercely, a common cause of serious boat fires.

Heat PROTECTION PANELS

Stoves and uninsulated flue pipes can easily get hot enough to set fire to paint, wood or other combustibles a distance away. A single fireproof panel fastened straight to a wall is no use – heat can pass straight through it.

One way of making a good protection panel is to have: a 10mm air gap (supported on offcuts), then 25mm thick calcium silicate board (which can be tiled) then at least a 45mm gap to the stove body, all extending at least 200mm above the stove. (7) (This construction can be used as the hearth underneath a stove with legs, if topped by a 15mm cement-board panel.)

No special info from the manufacturers? No protection panels? Then 800mm

FULLY-INSULATED FLUE

safer, makes the fire more efficient, more heat, less fuel, more controllable, lights faster, makes much less smoke

OPEN-SIDED RAIN CAP (8.4)

INSULATED CHIMNEY

Insulated pipe outside and inside the cabin, for safety and to keep the smoke HOT so it rises. Uninsulated pipe cools the smoke down and drastically spoils stove performance. (8.2)

FIT ALARMS! Carbon Monoxide in smoke is poisonous, and fire can start unnoticed.

BS EN50291 CO alarm

BS EN14604 Optical smoke alarm

The whole chimney able to be CLEANED from end to end (8.5)

STOVE SITED where it won’t cause obstruction, particularly to escape routes or near steps. (5.1)

WELL AWAY FROM COMBUSTIBLES …anything like wood, GRP, fuel, gas containers, oil, candles, curtains, cushions, clothing, books, oil lamps, foldable, made of sturdy, non-flammable material, to fully protect combustibles underneath. (8.3). They should be of the diameter recommended by the stove manufacturer, and never less than 100mm.

THE HEARTH needs to project at least 225mm in front and 150mm to each side of the stove OR have a high lip. Made of sturdy, non-flammable material, to fully protect combustibles underneath. (6)

STOVE SHOWN is Tiger Cub

from www.percydoughty.com

A SOUND CHIMNEY

Even tiny leaks in the chimney can let air in, which cools the smoke, stops it rising, and risks poisonous CO gas leaking out.

IDEALLY STRAIGHT, but never more than 2 x 30° bends and NO horizontal lengths! (8)

Check with the makers, but insulated pipe often needs to be 3/4 of its diameter away from unprotected combustibles (8.2)

If there has to be a short length of uninsulated pipe to connect to the insulated chimney, then at least 3x its diameter away from unprotected combustibles.

Pick a stove specifically recommended for boats, with the CE safety mark

THE ROOF

The pipe should have provision for expansion, have no join inside the roofspace and be well protected from combustibles (8.4)

FLUE PIPES

fit socket end up, and are sealed with fire cement (8.3). They should be of the diameter recommended by the stove manufacturer, and never less than 100mm.

WITH THE CE SAFETY MARK

PROTECTION PANEL

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