Fire Extinguisher Info for Tom Keeling's customers June 2026 V1.0

This is a hot topic (no pun intended), loads of boaters ask about fire extinguisher requirements and maintenance / replacement intervals.

The idea of fire extinguishers on boats, located near to points of danger and exit is to enable escape from the boat, by beating back the flames.

Most boaters are aware of the importance of having working extinguishers. Unfortunately, fire extinguisher shops don't know what the BSS requirements are often provide the wrong advice. When boaters say "we just replaced out extinguishers" my first question is "have you still got your old ones" because usually they have bought the wrong ones.

Here's an attempt to help clarify what the requirement is, for my survey and BSS customers.

How many do I need?

The BSS publish the requirements here, check 6.1.1
https://www.boatsafetyscheme.org/media/299451/bss-complete-ecps-private-boat-public-version-2023.pdf

Here is the table from that link that shows the requirements based on boat length.

Length of vessel	Minimum number	Minimum combined fire rating
Under 7m (23ft)	2	10A/68B
7–11m (23–36ft)	2	13A/89B
Over 11m (36ft)	3	21A/144B

If you don't have an engine **or** fuel burning appliances you can reduce the requirement by x 1 off 5A 34B.

So an 18ft boat with outboard falls into the first category, needing x 2 extinguishers with a combined rating of 10A / 68B. With no appliances this can be reduced by x 1 off 5A 34B meaning the total required is now x 1 @ 5A 34B.

A 40ft unpowered butty but with a gas cooker would need x 2, totalling 16A 110B.

What should each extinguisher be rated at?

The BSS needs each extinguisher to be rated a minimum of 5A 34B (and to have 3rd party accreditation, for example a kitemark, more below).

Obviously if a boat needs a total of 21A 144B, over a minimum of x 3 extinguishers, to make that happen with 5A 34B extinguishers, x 5 will be needed. 5A 34B extinguishers in dry powder form are generally 1kg in weight.

5 x 5A / 34 B = 25A / 170B

It's much more convenient to have the minimum number each with a higher capability e.g. 8A 55B.

3 off 8A 55B

= 24A /165B

However it does not matter how you get to the total minimum rating required over the x 3 extinguishers. You could have a variety:

1 off 13A 70B
1 off 5 A 34B
1 off 8A 55B

Total 25A 159B

A, B and C ratings

People often ask 'what does this mean?'.

The Fire Safety Advice Centre gives this guidance here https://www.firesafe.org.uk/portable-fire-extinguisher-general/#:~:text=Class%20A%20fires%20–%20are%20fires,are%20fires%20involving%20flammable%20gasses

- **Class A fires** – are fires involving organic solids like paper, wood, etc
- **Class B fires** – are fires involving flammable liquids
- **Class C fires** – are fires involving flammable gasses

Put simply, the greater the number rating of a fire extinguisher, the bigger the fire it can extinguish. So while you can meet the biggest BSS requirements with x 5 off 5A 34B extinguishers, it might not be the most practical in terms of beating back a fire to enable escape.

One of the main issues encountered on BSS examinations is that different extinguishers of the same weight, appearance and footprint have different capabilities. Throughout the 90s and 00s it was very common to find 1kg extinguishers on boats, rated 8A 55B each, with a typical narrowboat having x 3 of these (total being 24A 165B, we need minimum 21A 144B).

Owners are now replacing these, going online or to a shop and buying x 3 extinguishers of the same shape, colour and weight, but without realising the ratings are different. Very

often these will be just 5A 34B or another variety e.g. 8A 34B, they buy 3 of these and the boat fails the BSS examination on rating shortfall.

What seems to be happening is it is now less common to find 8A 55B in 1kg format. This is likely a cost reason, it's probably cheaper to manufacture extinguishers that are less capable because the concentration of the extinguishing agent will be lower. This is of course doesn't help boaters.

Do they need to be Dry Powder?

No, they need to be AB rated extinguishers, and these are available in Foam and Water Mist.

Foam extinguishers are bigger physically to get the same capability as dry powder, so are less common on small boats as they take up more physical room.

Water mist are more expensive and the comparatively low capabilities make them unsuitable – even very large ones only have small AB ratings and might not even meet minimum BSS requirements per extinguisher even in very large volume extinguishers.

Therefore Dry Powder is the most commonly found extinguisher type on small craft.

Certification

The BSS publishes accepted certification marks at Appendix 6, via the link previously provided above. Look out for these marks. Don't buy extinguishers without a marking they will fail a BSS examination.

AFNOR 'NF' mark	Apragaz Belcert	BSI 'Kitemark'
British Approvals for Fire Equipment	British Approvals for Fire Equipment	Marine Equipment Directive 'ship's wheel'
Loss Prevention Certification Board	Loss Prevention Certification Board	Société Générale De Surveillance

Condition checks

There is generally a poor culture relating to servicing of fire extinguishers. People tend to rely on the BSS examination and a gauge showing the pressure needle not in the red as enough.

You can routinely look for obvious damage yourselves (and these checks are part of BSS procedures). The BSS requires at check 6.1.1 that:

> Fire extinguishers must not show any of the following indicators of poor condition:
>
> - - missing safety pin;
> - - dents; gouges; significant rust or other form of corrosion;
> - - perished hose;
> - - pressure gauge (where fitted) indicator in the 'red' sector;
> - - signs of damage or deterioration to trigger assembly, including deterioration caused by ultraviolet light and heat.

However, we cannot identify if there is an issue with the internal powder content due to deterioration. This is generally described as being two main problems caking and packing.

Caking and Packing

Caking – basically moisture gets into the extinguisher and causes the powder to cake, which can prevent discharge occurring fully or at all.

Packing – where particles of different size stored and subject to vibration, the bigger particles end up at the bottom and so on.

There is no way to see if this has occurred from visual inspection. These problems come from moisture and vibration, two conditions we encounter on boats for sure.

This document explains what happens really clearly
https://arlweb.msha.gov/Alerts/SafetyFlyers/ansul/F-8083%20caking-packing.pdf

Servicing

So, how often should fire extinguishers be serviced?

The MCA provide a clear guide here in MGN 276 (M+F) Amendment 1: Fire protection - maintenance of portable fire extinguishers. Available at this link:

> https://www.gov.uk/government/publications/mgn-276-mf-amendment-1-fire-protection-maintenance-of-portable-fire-extinguishers/mgn-276-mf-amendment-1-fire-protection-maintenance-of-portable-fire-extinguishers

Table 1 : Extinguisher Servicing Intervals

Type of portable extinguisher	Basic service	Extended service (test discharge)	Overhaul (hydraulic test)
Water, foam, & water based	Every year	Every 5 years	Every 10 years[c]
Powder	Every year	Every 5 years	Every 10 years[c]
Powder – primary sealed	Every year	Every 10 years[a]	Every 10 years[c]
CO2	Every year	Every 5 years[b]	Every 10 years
Powder, Foam – Composite Cylinder	Every Year	Every 10 Years	Every 10 Years

[a] Primary sealed portable fire extinguishers should be returned to the manufacturer/supplier for recharge.

[b] This service is only necessary for cylinders which have been previously hydraulically tested.

[c] IMO Resolution A.951 (23).

The reality is a fire service agent is likely to say the 10 year old extinguisher should be replaced, because based on cost it is probably cheaper to do so that hydraulic test and refill and refit.

If you shop carefully, you can buy a 13A 70B extinguisher with a BS Kitemark for £16.19 inc VAT (plus delivery)[1]

Will my old extinguisher work?

I personally would not want to be sitting on my boat lined with wood and filled with fuels and asking this question.

The only boat-based study I can find is here, the guy tested 130 boat extinguishers and 17 failed, that's a 13% fail rate overall; yes, it's a dated piece of work but is food for thought.

You can buy x 3 new 2kg extinguishers for around £50 inc VAT plus £6 delivery, over 10 years that equates to £5.60 per year for three extinguishers that could save your life. It's a bargain, I wouldn't even ask the question, just buy them if you are in any doubt.

Tom

[1] https://www.fireprotectionshop.co.uk/products/fireshield-dry-powder-fire-extinguisher correct as of June 2026