
British Standard Specification for

Portable fire extinguishers

Extincteurs d'incendie portatifs — Spécifications

Tragbare Feuerlöscher



AMD 5989

Amendment No. 1
published and effective from 31 May 1989
to BS 5423 : 1987

Specification for portable fire extinguishers

Revised text

AMD 5989
May 1989

Foreword

At the end of the foreword insert the following.

**'Compliance with a British Standard does not of itself
confer immunity from legal obligations.'**

AMD 5989
May 1989

Clause 11.3 Information

In the last line of item (f), delete '11.6' and substitute '11.5'.

AMD 5989
May 1989

Clause F.2 Test for minimum burst pressure

Delete the last paragraph, starting 'Subject the component', and substitute the following.

**'Apply hydraulic pressure to the component, increasing the
pressure from zero to P_{B-0}^{+1} bar in not less than 30 s. For
low pressure extinguishers and low pressure cartridges
maintain the pressure at P_{B-0}^{+1} bar for 30_{-0}^{+2} s. For high
pressure cartridges, further increase the pressure at not
more than the previous rate until burst occurs.'**

Amendment No. 2
published and effective from 15 May 1994
to BS 5423 : 1987

Specification for portable fire extinguishers

Revised text

Contents list

Delete the titles of tables 2, 3 and 4 and figures 1 and 2 and substitute the word
'Deleted'.

AMD 8110/May 1994

Clause 2.2 Halons and carbon dioxide acceptable for use

Delete the existing title and text and substitute the following.

**'2.2 Halons and carbon dioxide as
extinguishing media**

2.2.1 Halons

Only halon 1211, which shall comply with BS 6535 :
Part 2 : Section 2.1, shall be used.

2.2.2 Carbon dioxide

Carbon dioxide used as the extinguishing medium
shall comply with BS 6535 : Part 1.'

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Clause 2.3 Propellants

Delete the existing text and substitute the following.

**'2.3.1 Halon 1211 and carbon dioxide
extinguishers**

Any propellant shall be nitrogen, with a water content
and tracer content not exceeding those specified in
table 1.

2.3.2 Powder extinguishers

The propellant shall be one, or a mixture, of the
propellants listed in table 1 with a water content and
tracer content not exceeding those specified in table 1.

2.3.3 Water and foam extinguishers

The propellant shall be one, or a mixture of the
propellants listed in table 1 with a tracer content not
exceeding that specified in table 1.'

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Table 1. Propellants

Delete the existing table and substitute the following.

Table 1. Propellants		
Material	Maximum water content percentage, <i>m/m</i> (not applicable to water and foam extinguishers)	Maximum tracer gas content percentage, <i>m/m</i>
Air	0.006	} 3.0
Argon	0.006	
Carbon dioxide	0.015	
Helium (conforming to BS 6535 : Part 1)	0.006	
Nitrogen	0.006	

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Clause 2.4.2 Halon extinguishers

Delete the number and title of subclause 2.4.2.1 but retain the text.

Delete the numbers, titles and texts of subclauses 2.4.2.2 and 2.4.2.3 entirely.

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Clause 3.3 Closures

Delete the existing text and title and substitute the following.

'3.3 Venting

Each closure, and any pressure retaining part intended to be removed during service or maintenance, shall be provided with an automatic means of venting any residual pressure from the extinguisher. The initial venting of any residual pressure shall occur when the closure, or pressure retaining part, securing means is disengaged by not more than one third of full engagement.'

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Clause 5.3 Operating head materials

Delete the clause numbers, titles and texts of 5.3.1, 5.3.2, 5.3.3, 5.3.4 and 5.3.5 and substitute the following.

'Operating heads shall be machined from one of the following:

- (a) carbon steel; or
- (b) austenitic stainless steel; or
- (c) copper alloy; or
- (d) aluminium alloy.

complying with the material specification for valve bodies of BS 341 : Part 1 : 1991.'

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Table 2. Mechanical properties of copper alloys

Delete the existing table.

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Clause 5.4.1 Threads of body necks and head stems

Delete the existing text of 5.4.1.1 and 5.4.1.2 and substitute the following.

‘5.4.1.1 *Tapered head stems.* If the operating head stem is tapered the dimensions and tolerances of the stem and the body neck threads shall comply with those specified for 25T tapered valve stems and container neck threads in BS 341 : Part 1 : 1991.

5.4.1.2 *Parallel head stems.* If the operating head stem is parallel the dimensions and tolerances of the stem and the body neck threads shall be as specified 25P parallel valve stems and container neck threads with ‘O’-ring seal in BS 341 : Part 1 : 1991.’

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5.4.2 Toroidal sealing rings

Delete this subclause entirely and substitute ‘5.4.2 *text deleted.*’

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5.4.3 Head outlet thread

Delete the existing text and substitute the following.

‘The outlet fitting connection of the head shall be as specified for valve outlet connection number 8 in BS 341 : Part 1 : 1991.’

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Table 3. Thread of head stem and body neck

Delete the existing table.

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Table 4. Thread of head outlet

Delete the existing table.

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Figure 1. Thread of head stem and body neck (taper thread)

Delete the existing figure.

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Figure 2. Thread for head stem and neck (parallel thread)

Delete the existing figure.

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Clause 10.1 General

In the existing text delete lines, 2, 3, 4 and 5 up to and including the words 'type approval,'.

Number the existing 'NOTE' as 'NOTE 1' and add a new NOTE as follows.

'NOTE 2. The quality control scheme should include tests to ensure that all extinguishers and filling packs are charged with extinguishing medium of the performance and specification as tested in the type approval. For powder and foam extinguishers it is appropriate for these tests to include discharge and performance tests; for water, water with additive, carbon dioxide and halon extinguishers discharge and performance testing is not usually necessary if suitable physical and chemical testing is carried out.'

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Clause 11.2 Warning markings

Under item (c) in the list identify the existing warning wording as item '(1)' and insert the following text.

'(2) THIS EXTINGUISHER IS NOT SUITABLE FOR
USE ON DEEP FAT FIRES.'

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Clause 11.3 Information (as amended by Amendment No. 1)

In item (b) of the list delete the existing text from 'the mass of the extinguisher', to '(see N.3).' and substitute the following.

'(1) for stored pressure extinguishers not fitted with a pressure indicating device or pressure checking connection, the nominal mass corresponding to an 'L' extinguisher (see N.3(b) (1));

(2) for stored pressure extinguishers fitted with a pressure indicating device or pressure checking connection, the pressure or pressure indication corresponding to an 'L' extinguisher (see N.3(b) (2)) and the mass (which shall not be less than the minimum nominal fully charged mass less 10 % of the nominal charge) at which the manufacturer recommends the extinguisher should be withdrawn from service;

(3) for cartridge extinguishers, the mass of the cartridge and contents at the reduced content corresponding to an 'L' extinguisher (see N.3(b) (3)), and the nominal mass of the extinguisher filled with the lower tolerance of the filling deviation (see 2.1).'

Delete the existing text of item (g) of the list and substitute the following.

'The following instruction for extinguishers except halon extinguishers:

'Depressurize and recharge after any use'; or
'Depressurize and discard after any use',

whichever is appropriate and the following warning:

'Slacken closures by [manufacturer's appropriate wording to allow automatic release (see 3.3)] to vent residual pressure before attempting complete removal.' or

the following instruction for halon extinguishers:

'Do not depressurize after any use. Return to supplier or send for processing to recover halon.'

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Clause 11.6 Marking of gas cartridges

In line 3 of the note delete 'Although clause 15(g) of BS 5045 : Part 6 : 1981' and substitute 'Although clause 16 of BS 5045 : Part 6 : 1987'.

In lines 7 and 8 of the note delete 'Similarly clause 15(i) of BS 5045 : Part 6 : 1981' and substitute 'Similarly clause 16 of BS 5045 : Part 6 : 1987'.

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In the list of publications referred to delete the references to BS 1472, BS 1474, BS 1806, BS 2872, BS 2874, BS 3643 and DIN 477.

Delete the title of BS 341 and substitute the following.

'Transportable gas container valves

Part 1 Specification for industrial valves for working pressures up to and including 300 bar'

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Amendment No. 3
published and effective from 15 December 1995
to BS 5423 : 1987

Specification for portable fire extinguishers

Revised text

Clause 11.3 Information (as amended by
Amendment No. 1 and No. 2)
Delete clause **11.3** entirely and substitute the following.

11.3 Information

Extinguishers shall be clearly marked with the following.

- (a) The manufacturer's or vendor's name and address.
- (b) The instruction to inspect the extinguisher regularly; for operational serviceability (see **3.1.3**); possible loss of content or pressure (see **9.4.1**) together with as appropriate:
 - (1) for stored pressure extinguishers not fitted with a pressure indicating device or pressure checking connection, the nominal mass corresponding to an 'L' extinguisher (see **N.3(b) (1)**);
 - (2) for stored pressure extinguishers fitted with a pressure indicating device or pressure checking connection, the pressure or pressure indication corresponding to an 'L' extinguisher (see **N.3(b) (2)**);
 - (3) for cartridge extinguishers, the mass of the cartridge and its contents at the reduced content corresponding to an 'L' extinguisher (see **N.3 (b) (3)**).
- (c) The number and date of this British Standard, i.e. BS 5423 : 1987*.
- (d) The temperature range over which the manufacturer claims that the extinguisher will operate satisfactorily. Water and foam extinguishers without freezing point depressant shall be marked with a lower limit not less than +1 °C.
- (e) The year of manufacture.
- (f) The words 'Test pressure...bar' and 'Working pressure (at 20 °C)...bar' (except high pressure extinguishers see **11.5**).

*Marking BS 5423 : 1987 on or in relation to a product is a claim by the manufacturer that the product has been manufactured to the requirements of the standard. The accuracy of such a claim is therefore solely the manufacturer's responsibility. Enquiries as to the availability of third party certification to support such claims should be addressed to the appropriate certification body.

(g) The following instruction for extinguishers except carbon dioxide and halon extinguishers:

‘Depressurize and recharge after any use’; or
‘Depressurize and discard after any use’,

whichever is appropriate and the following instruction for halon extinguishers:

‘Do not depressurize after any use. Return to supplier or send for processing to recover halon.’

the following instruction for carbon dioxide extinguishers:

‘Recharge after any use.’

(h) Where appropriate, a warning that refillable extinguishers should be recharged in accordance with BS 6643 : Part 1 by a competent person and should comply with the requirements of **2.7** of this British Standard.

(i) The instruction (with reference to any separate leaflet) to service and maintain the extinguisher regularly.

NOTE. Full maintenance instructions for the fire extinguisher should either be marked on the extinguisher, or supplied with the refill, or be given on a separate leaflet as appropriate.

(j) The manufacturer’s identification of the extinguishing medium (which may be by means of a reference number).

(k) The manufacturer’s identification of any freezing point depressant (which may be by means of a reference number) and the maximum amount which may be used.

NOTE. A tag or label for recording the dates, etc. of servicing is often fixed to extinguishers. This should not obscure any of the markings required or recommended in this clause.

AMD 8585/December 1995
