

Recommendations for

The construction of simple smoke viewers

Co-operating organizations

The Solid Fuel Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Consulting Engineers
- British Cast Iron Research Association
- British Coal Utilisation Research Association
- British Coke Research Association
- British Electrical and Allied Manufacturers' Association
- British Ironfounders' Association
- British Mechanical Engineering Confederation Limited
- British Steel Industry*
- Chamber of Coal Traders
- Chemical Industries Association
- Coal Utilisation Council
- Coke Oven Managers' Association
- Council of Ironfoundry Associations
- Domestic Solid Fuel Appliances Approval Council
- Electricity Council, the Central Electricity Generating Board and Area Boards in England and Wales*
- Gas Council*
- Heating and Ventilating Contractors Association
- Imperial Chemical Industries Limited
- Institute of British Foundrymen
- Institute of Fuel*
- Institution of Gas Engineers*
- Institution of Heating and Ventilating Engineers
- Institution of Mechanical Engineers
- Low Temperature Coal Distillers' Association of Great Britain Limited
- Ministry of Housing and Local Government
- Ministry of Public Building and Works
- National Coal Board*
- Society of British Gas Industries
- Water-tube Boilermakers' Association*
- Women's Advisory Council on Solid Fuel

The scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- British Industrial Measuring and Control Apparatus Manufacturers' Association
- Combustion Engineering Association
- Engineering Equipment Users Association
- National Industrial Fuel Efficiency Service
- Scientific Instrument Manufacturers' Association

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Contents

	Page
Co-operating organizations	Inside front cover
Foreword	ii
Type 1. Light viewed directly or by reflection	1
Type 2. Viewers using an opalescent screen	4
Figure 1 — Type 1 direct smoke viewer	2
Figure 2 — Type 1 “periscope” smoke viewer	3
Figure 3 — “Periscope” in Figure 2	3
Figure 4 — Type 2 viewer with opalescent screen	5
Figure 5 — Type 2 viewer modified by Method 1	6
Figure 6 — Type 2 viewer modified by Method 2	6
Figure 7 — Type 2 viewer modified by Method 3	6

Foreword

These recommendations make reference to the following British Standards:

BS 2740, *Simple smoke alarms and alarm recorders*.

BS 2811, *Smoke density indicators and recorders*.

The simple smoke viewers described in these recommendations give visual indications of the density of smoke passing along flues or up chimneys. They enable the fireman to know when he is making smoke in particular furnaces and a number of smoke viewers may be used on the individual furnaces of a battery connected to a common chimney fitted with a smoke alarm or smoke indicating instrument.

These simple devices will not normally provide quantitative information, but may be used, as indicated above, to supplement the information provided by photoelectric instruments of the types specified in BS 2740¹⁾ and BS 2811²⁾.

Two types of viewer are described. In the first a light is viewed through the flue gases and the appearance of the light itself is taken as an indication of the density of smoke. This type is normally used in brick-set boilers. In the second a beam of light passes through the smoke on to an opalescent screen, the brightness of which gives a similar indication. This may be used in most other boilers.

The windows of these viewers are liable to damage by grit particles during soot blowing. For this reason, it may be necessary to protect them while the soot blowers are in operation.

Cleaning should be carried out manually at least once per shift, and always after soot blowing.

As wide variations may occur in different installations these recommendations are intended mainly as a guide, and the apparatus described may be modified to suit special circumstances.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 6 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ BS 2740, "*Simple smoke alarms and alarm recorders*".

²⁾ BS 2811, "*Smoke density indicators and recorders*".