

Metering pumps and dispensers to be installed at filling stations and used to dispense liquid fuel —

Part 3: Guide to maintenance after installation

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Industrial-process Measurement and Control Standards Policy Committee (PCL/-) to Technical Committee PCL/6, upon which the following bodies were represented:

- Associated Offices Technical Committee
- Association for Petroleum and Explosives Administration
- British Cable Makers' Confederation
- Council for Electrical Equipment for Flammable Atmospheres (BEAMA Ltd.)
- Department of Trade and Industry (National Weights and Measures Laboratory)
- Health and Safety Executive
- Independent Engineering Insurers' Committee
- Institute of Measurement and Control
- Institute of Petroleum
- Institute of Trading Standards Administration
- Local Authorities Co-ordinating Body on Trading Standards
- London Fire and Civil Defence Authority
- National Inspection Council for Electrical Installation Contracting
- National Inspection Council, Quality Assurance Ltd.
- Petrol Pump Manufacturers' Association
- Petrol Retailers' Association

This British Standard, having been prepared under the direction of the Industrial-process Measurement and Control Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 30 September 1991

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Foreword

This Part of BS 7117 has been prepared under the direction of the Industrial-process Measurement and Control Standards Policy Committee. It forms Part 3 of a standard on metering pumps and dispensers to be installed at filling stations and used to dispense liquid fuel into the tanks of motor vehicles, boats and light aircraft and into portable containers.

The other Parts are as follows:

- *Part 1: Specification for construction;*
- *Part 2: Guide to installation.*

Attention is drawn to the existence of statutory requirements and by-laws which place responsibility for complying with specific safety requirements on the licensee and user. At the date of publication of this standard, these include the following:

- The Health and Safety at Work, etc. Act 1974
- The Electricity at Work Regulations 1989. SI 635
- Memorandum of Guidance on the Electricity at Work Regulations 1989. HS(R)25
- The Factories Act 1961
- The Petroleum (Consolidation) Act 1928
- The Weights and Measures Act 1985

and other relevant statutory requirements or by-laws.

For detailed guidance on construction and operation of petrol filling stations the reader is directed to the Health and Safety Executive publication HS(G)41.

Assessed capability. Users of this British Standard are advised to consider the desirability of assessment and registration of a supplier's quality systems against the appropriate Part of BS 5750 by a third party certification body.

Compliance with accepted standards is demonstrated by the production of a certificate from a certification body, of which there are a number of competent ones, but not all of which have recognition by UK Petroleum Licensing Authorities.

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.

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

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover 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.

0 Introduction

The vapours given off by fuels dispensed at filling stations are flammable. If ignited they may burn with considerable explosive force when mixed with air in appropriate proportions. Therefore sources of ignition should be excluded wherever possible from hazardous areas where vapour may be present. Electrical equipment whether portable or fixed, used in such areas, and in the vicinity of metering pumps should be constructed so as not to be a source of ignition of flammable vapour. It is important that such equipment is correctly designed, selected, installed, used and maintained and does not facilitate the perpetration of fraud.

NOTE This Part of BS 7117 should be used in conjunction with Parts 1 and 2.

1 Scope

This Part of BS 7117 provides guidance for carrying out the maintenance of metering pumps and dispensers constructed in accordance with BS 7117-1, when standing on prepared foundations. Guidelines for a training syllabus are included in Appendix A.

Except where specifically mentioned, the recommendations in this Part apply to apparatus suitable for use and storage at ambient temperatures between $-20\text{ }^{\circ}\text{C}$ and $+40\text{ }^{\circ}\text{C}$ inclusive, unless otherwise marked.

This Part applies to equipment for fuels which are flammable liquids having a flash point not exceeding $100\text{ }^{\circ}\text{C}$, but does not include equipment for liquefied petroleum gas.

NOTE The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this Part of BS 7117 the definitions given in BS 7117-1 and BS 7117-2, BS 4727, BS 5501, BS 6941 and BS 5345 (published in a number of Parts) apply, together with the following.

2.1

maintenance

routine work carried out on equipment in accordance with the instructions and manuals of the certificate holder to ensure that the equipment is preserved in a safe and fully operational condition

2.2

repair

work carried out to restore equipment that is faulty to its certified conditions in accordance with the instructions and manuals of the certificate holder

2.3

refurbishing/overhaul

work carried out on equipment that is not necessarily faulty to restore it to its certified conditions in accordance with the instructions and manuals of the certificate holder

NOTE Such work may involve replacement of parts by identical components or a rebuild to its certified design by the certificate holder or his authorized agent.

2.4

reworking/modification

alterations carried out on certified equipment in such a way that the equipment no longer conforms to the original certificate

3 Training

3.1 Guidelines for a training syllabus are given in Appendix A.

3.2 All persons who may be involved with the maintenance of metering pumps and dispensers installed at filling stations should be adequately trained in the following:

- the fire and explosion hazards of petrol (and, where appropriate, of diesel);
- legal requirements and petroleum licensing conditions relevant to maintenance;
- the installation and maintenance procedures for the equipment concerned;
- those aspects of the filling station operational and emergency procedures necessary for maintenance to be effectively and safely carried out;
- the precautions necessary for safe working.

3.3 Any instructions issued by equipment suppliers relating to installation, maintenance, equipment safety and/or modifications, etc. should be included in training courses and issued to personnel being trained to carry out the work.

Any training programme should stress the importance of maintaining strict compliance with the certificates issued by the Certification Authority.

3.4 Details of the training programme given to personnel should be recorded and kept up to date by their employer. The programme should be regularly reviewed to ensure that refresher training, and any training in new techniques or for new equipment, is provided when necessary.