

English Version

Fixed firefighting systems - Hose systems - Part 3: Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose

Installations fixes de lutte contre l'incendie - Systèmes équipés de tuyaux - Partie 3: Maintenance des robinets d'incendie armés équipés de tuyaux semi-rigides et des postes d'eau muraux équipés de tuyaux plats

Ortsfeste Löschanlagen - Wandhydranten - Teil 3: Instandhaltung von Schlauchhaspeln mit formstabilem Schlauch und Wandhydranten mit Flachschauch

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Foreword

This document (EN 671-3:2009) has been prepared by Technical Committee CEN/TC 191 "Fixed firefighting systems", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 671-3:2000.

EN 671 has the general title *Fixed firefighting systems – Hose systems* and is in three parts:

- *Part 1: Hose reels with semi-rigid hose;*
- *Part 2: Hose systems with lay-flat hose;*
- *Part 3: Maintenance of hose reels with semi-rigid hose and hose systems with lay-flat hose.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Hose reels and hose systems in proper condition provide a very effective firefighting facility with a continuous supply of water available immediately. They are especially valuable in an early stage of fire and can be operated efficiently by an untrained person. Hose reels and hose systems will have a long service life but it shall be realized that their usefulness depends on maintenance to ensure instant readiness when required.

1 Scope

This European Standard specifies requirements for inspection and maintenance of hose reels and hose systems such that they continue to provide the service for which they were manufactured, supplied or installed i.e. to ensure a first emergency intervention to fight a fire before more powerful means can be implemented.

This European Standard is applicable to hose reel and hose system installations in all types of buildings irrespective of the nature of use of the buildings.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 671-1:2001, *Fixed firefighting systems – Hose systems – Part 1: Hose reels with semi-rigid hose*

EN 671-2:2001, *Fixed firefighting systems – Hose systems – Part 2: Hose systems with lay-flat hose*

EN 694:2001, *Fire-fighting hoses – Semi-rigid hoses for fixed systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 694:2001, EN 671-1:2001, EN 671-2:2001 and the following apply.

3.1

competent person

person with the necessary training and experience with access to the relevant tools, equipment and information, manuals and knowledge of any special procedures recommended by the manufacturer, to be capable of carrying out the relevant maintenance procedures of this European Standard

3.2

maintenance

combination of all technical and administrative actions including supervision actions, intended to retain an item, or restore it to a state in which it can perform a required function

3.3

responsible person

person responsible for or having effective control over fire safety provisions adopted in or appropriate to the premises or the building

NOTE Due to national regulations the responsible person could either be the user or the owner of the premises.

3.4

supplier

party responsible for the product, process or service and able to ensure that the quality assurance is exercised

NOTE The definition may apply to manufacturers, distributors, importers, assemblers, service organizations.

4 Routine checks by the responsible person

Regular checks of all hose reels and hose systems shall be carried out by the responsible person or his representative at intervals depending on environmental circumstances and/or fire risk/hazard, to make sure that each hose reel or hose system is:

- a) located in the designated place;
- b) unobstructed, visible and has legible operating instructions;
- c) not obviously defective, corroded or leaking.

The responsible person shall arrange for immediate corrective action, where necessary.

The result of regular checks shall be recorded by the responsible person.

5 Records of hose reels and hose systems

In order to check conformity with the manufacturer's instructions of the hose reel or hose system installation, the responsible person shall keep records of a plan showing the exact location and technical data of the installation.

6 Inspection and maintenance

6.1 Annual inspection and maintenance

The inspection and maintenance shall be carried out by the competent person.

The hose shall be fully run out, put under building system pressure and the following points checked:

- a) the appliance is unobstructed and free from damage and components not corroded or leaking;
- b) operating instructions are clear and legible;
- c) the location is clearly marked;
- d) brackets for wall mounting are suitable for their purpose and are fixed and firm;
- e) the flow of water is steady and sufficient;

NOTE The use of flow indicator and pressure gauge is recommended. For lay flat hose systems this test can be done with another hose with the same specifications e.g. shorter length.

- f) pressure gauge, if fitted, is working satisfactorily and within its operating range;
- g) the entire length of hose shall be inspected for signs of cracking, distortion, wear or damage; if the hose shows any signs of defect it shall be replaced or proof-tested to maximum working pressure;
- h) hose clips or bindings are of the correct type and are securely fastened;
- i) hose drums rotates freely in both directions;
- j) for swinging reels, check that the pivot rotates easily and that the reel swings minimum required angles stated in Parts 1 and 2 of this European Standard;

- k) on manual reels, check the manual stop valve is of correct type and that it operates easily and correctly;
- l) on automatic reels, check the correct operation of the automatic valve and check for the correct operation of the isolating service valve;
- m) check the condition of the water supply pipe work, particular attention shall be paid to any flexible pipe work for signs of damage or wear;
- n) if fitted with a cabinet, check for signs of damage and check that the cabinet doors open freely;
- o) check that the nozzle is of the correct type and easy to operate;
- p) check the operation of any hose guide and ensure they are correctly and firmly fixed;
- q) leave the hose reel and hose system ready for immediate use; if any extensive maintenance is necessary the hose reel or hose system shall be labelled "OUT OF ORDER" and the competent person shall inform the user/owner.

6.2 Periodic inspection and maintenance for all hoses

Every 5 years all hoses shall be pressurized to maximum working pressure according to EN 671-1 and/or EN 671-2.

7 Records of inspection and maintenance

The record shall include:

- a) date (year and month);
- b) result;
- c) extent and date of installation of replacement parts;
- d) if any further action is required;
- e) date (year and month) for the next inspection and maintenance;
- f) identification of each hose reel and/or hose system.

After inspection and maintenance it is recommended that hose reel and hose system is protected with a security seal.

After inspection and necessary corrective measures (6.1 and 6.2), hose reels and hose systems shall be marked "CHECKED" by the competent person.

A permanent record of all inspections, checks and tests shall be kept by the responsible person.

8 Fire safety during inspection and maintenance

Because inspection and maintenance can temporarily reduce the effectiveness of fire protection:

- a) depending on the estimated fire hazard, only a limited number of hose reels and hose systems shall undergo extensive maintenance simultaneously in one particular area;

- b) the provision of additional fire safety precautions and safety instructions shall be considered during the maintenance period and during periods when water supplies are shut down.

9 Rectification of defects

Only components (for example hoses, nozzles, inlet stop valves) approved by the manufacturer/supplier of the hose reel or hose system shall be used to replace those components found to be defective.

NOTE It is essential that all defects are rectified in the shortest possible time to ensure that the firefighting installation is restored in a satisfactory condition.

10 Maintenance and inspection label

Maintenance and inspection data shall be recorded on a label which shall not cover any of the manufacturer's marking.

The following data shall be provided on the label:

- a) the wording CHECKED (see 7);
- b) name and address of the hose reel or hose system supplier (see 3.4);
- c) mark clearly identifying the competent person (see 3.1);
- d) date (year and month) when the maintenance was carried out (see 6.1 and 6.2).