

English Version

Firefighting and rescue service vehicles - Part 2: Common requirements - Safety and performance

Véhicules des services de secours et de lutte contre l'incendie - Partie 2 : Prescriptions communes - Sécurité et performance

Feuerwehrfahrzeuge - Teil 2: Allgemeine Anforderungen - Sicherheit und Leistung

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 1846-2:2022) has been prepared by Technical Committee CEN/TC 192 “Fire and rescue service equipment”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1846-2:2009+A1:2013.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

EN 1846 consists of the following parts, under the general title *Firefighting and rescue service vehicles*:

- *Part 1: Nomenclature and designation;*
- *Part 2: Common requirements — Safety and performance;*
- *Part 3: Permanently installed equipment — Safety and performance.*

A list of all parts in a series can be found on the CEN website.

In comparison with the previous edition, the following technical modifications have been made:

- the normative references and Directives have been updated;
- the definitions 3.2 (gross laden mass), 3.13 (cabin) and 3.15 (working platform) have been updated;
- the definitions 3.17 (performance level), 3.18 (power take-off), 3.19 (design check), 3.20 (calculation), 3.21 (visual verification), 3.22 (measurement), 3.23 (functional test) and 3.24 (special verification) have been added;
- the list of significant hazards has been moved to the new Annex K;
- 4.1.1.2 (Energy sources) and 4.1.1.3 (Hot/cold part) have been added;
- 4.1.1.6 (Engine) has been renamed “Main power supply” and updated;
- 4.1.1.10 (Reversing of vehicle) has been updated;
- 4.1.2.2.1 (Construction) has been completed with requirements for ROPS;
- 4.1.2.2.2 (crew protection) has been updated;
- 4.1.2.2.3 (Cabins designed to take respiratory protective device) has been renamed “Cabins designed to take self-contained breathing apparatus (SCBA)” and updated;
- 4.1.2.2.7 (Accommodation) has been updated;

- 4.1.2.2.7, Figure 9 (Minimum dimensions of crew compartment(s)) has been amended and a new Figure 10 “Examples with tunnel” has been added;
- in 4.1.2.3.2 (Access to crew compartments), addition of requirements in case of access with more than two steps;
- 4.1.2.3.3 (Access to equipment other than roof mounted) has been updated;
- 4.1.2.3.5 (Design of the roof and working platforms for access purposes if applicable) has been updated;
- 4.1.2.4.1 (Equipment lockers – General) has been amended;
- 4.1.2.4.2 (Drawers and stowage trays or other stowage devices in lockers) has been updated;
- 4.1.3.2 (Batteries) has been updated;
- 4.1.3.3 (Lighting) has been updated;
- 4.2.1.2, Table 6 (Geometric dimensions) has been updated;
- 4.2.1.3, Table 7 (Dynamic performances) has been amended;
- 4.2.1.4.2 (Driving of special equipment by the engine) “engine” has been replaced with “power source”;
- 4.2.1.5 (Driven components), the verification has been amended;
- 4.2.1.8 (Tyres and wheels) has been renamed “Traction” and updated;
- 4.2.1.9 (Fuel tank and range) has been renamed “Energy storage and range” and updated;
- 4.2.2.2.1 (Cabin – General) has been amended;
- 4.2.2.3.2 (Equipment storage) has been completed with addition of recommendations and visual verification;
- 4.2.3.2 (Electrical power supply) has been updated;
- 5.4.2 (Other markings) has been completed regarding electrical fuses;
- addition of 4.2.6 (Heat resistance of vulnerable organs) and its corresponding verification;
- Annex C (Different methods of determining levels of slip-resistance) has been updated;
- Annex I (Tests for ROPS of the cabin) and Annex J (Example of a ROPS design) have been added;
- Annex ZA (Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC aimed to be covered) has been updated;
- editorial changes have been introduced.

Introduction

This document is a type-C standard as stated in EN ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in the case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

1 Scope

1.1 This document specifies the common requirements for safety and the (minimum) common performance requirements of firefighting and rescue service vehicles as designated in EN 1846-1.

NOTE 1 Categories and mass classes of these vehicles are given in EN 1846-1.

When drafting this document, it has been assumed that the finished standard automotive chassis (or the chassis designed in accordance with the same principles) that is the basis for the firefighting or rescue vehicle offers an acceptable safety level for its basic transport functions within the limits specified by the manufacturer. Therefore, this document does not formulate requirements for this chassis.

This document deals with all significant hazards, hazardous situations and events relevant to firefighting and rescue service vehicles, when they are used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer.

Complementary specific requirements for aerial appliances are the subject of the following European Standards:

- EN 1777: Hydraulic platforms (HPs) for firefighting and rescue services,
- EN 14043: Turntable ladders with combined movements,
- EN 14044: Turntable ladders with sequential movements.

These specific requirements can supplement or modify the requirements of this document and they take precedence over the corresponding requirements of this document.

NOTE 2 Additional regulations, not dealt with in this document, can apply in relation with the use of the vehicles on public roads.

This document deals with firefighting and rescue vehicles intended for use in a temperature range from -15 °C to $+40\text{ °C}$.

NOTE 3 In the case of utilization outside this temperature range, additional measures might be necessary as agreed between the manufacturer and the user. Such requirements are outside the scope of this document.

1.2 This document does not deal with the following types of firefighting or rescue vehicles or equipment:

- vehicles designed exclusively for carrying personnel;
- vehicles with a gross laden mass not exceeding 3 t;
- boats;
- aircraft;
- railway vehicles;
- ambulances (see EN 1789);
- provisions for non-firefighting removable equipment driven by PTO;
- airport vehicles in the scope of the recommendations of the International Civil Aviation Organization (ICAO).