BS ISO 18893:2024

BSI Standards Publication

Mobile elevating work platforms — Safety principles, inspection, maintenance and operation

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Full document details: BS ISO 18893:2024

National foreword

This British Standard is the UK implementation of ISO 18893:2024.

The UK participation in its preparation was entrusted to Technical Committee MHE/12/1, Lifting Platforms - Mobile elevating work platforms.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Published by BSI Standards Limited 2024

ISBN 978 0 539 22731 4

ICS 53.020.99

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2024.

Amendments/corrigenda issued since publication

Date	Text affected

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International Standard

ISO 18893

Third edition
2024-10

Mobile elevating work platforms — Safety principles, inspection, maintenance and operation

Plates-formes élévatrices mobiles de personnel — Principes de sécurité, inspection, entretien, mise en oeuvre et utilisation

Reference number
ISO 18893:2024(en)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 214, *Elevating work platforms*.

This third edition cancels and replaces the second edition (ISO 18893:2014), which has been technically revised.

The main changes are as follows:

— the Scope was updated to clarify the purpose of the document and its applicability to both new MEWPs on the market and those currently in service;

— in Clause 3, additional terms were added to support the clarifications on MEWP groups and types throughout the document;

— in Clause 4, changes were made to the modification requirements (manufacturer modifications versus owner modifications);

— in Clause 6, requirements were broadened for operator training to include topics such as authorization, supervisor training and operator retraining;

— the original Annex containing examples of misuse was deleted, and a new Annex A was added to show examples of each group and type MEWP.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document, as other documents on mobile elevating work platforms (MEWPs), is part of a programme of work regarding standardization of terminology, ratings, general principles (technical performance requirements and risk assessment), safety requirements, test methods, maintenance, and operation for MEWPs used to raise (elevate) and position personnel (and related work tools and materials).

MEWPs are machines/devices which provide protection from falling when working at height.

The entities with responsibilities related to safe use of a MEWP are established by law in some countries. This document provides guidance in the identification of those responsible entities.

The responsibility for safe operation of a MEWP lies with employers, managers, supervisors, operators, and others using these machines/devices. This document provides requirements so that appropriate MEWPs are selected for use and positioned, used, maintained and inspected for safe use.

The use of competent authorized persons and trained operators (see ISO 18878) is critical to the safe operation of a MEWP.

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Mobile elevating work platforms — Safety principles, inspection, maintenance and operation

1 Scope

This document applies to all mobile elevating work platforms (MEWPs) intended for moving a person(s) along with their necessary tools and materials at an elevated work location.

This document specifies the requirements for selection, inspection, training, maintenance, repair and safe operation of MEWPs to achieve the following objectives:

a) eliminate or reduce accidents, personal injuries and property damage;

b) establish criteria for selection, inspection, training, maintenance, repair and safe operation;

c) help manufacturers, dealers, owners, users, operators, occupants and qualified persons to understand their responsibilities;

d) establish a process for reviews to verify compliance with this document;

e) provide a guide for governmental authorities desiring to formulate safety rules and regulations.

In this document, MEWP classifications comprise a MEWP group (platform location in reference to tipping line) with an associated MEWP type (reference to travelling).

This document is applicable to both new MEWPs put on the market and those MEWPs currently in service.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 18878, *Mobile elevating work platforms — Operator (driver) training*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
anchorage
designated point of attachment utilized with a personal fall protection system

3.2
authorized person
person approved or assigned to perform a specific type of duty or duties at a specific location or locations at a work site

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3.3
configuration
positions in which a *MEWP* (3.13), chassis, *extending structure* (3.5), or work platform can be placed within intended operating limits, including creating variable rated loads

3.4
delivery
transfer of custody, care, and control of a *MEWP* (3.13) from a person or entity to another person or entity

3.5
extending structure
structure that is connected to the chassis and supports the work platform and allows movement of the work platform to its required position

[SOURCE: ISO 16368:2024[1)], 3.8]

3.6
fall arrest system
personal fall protection system designed to arrest the fall of an *operator* (3.17) or *occupant(s)* (3.15)

[SOURCE: ISO 16368:2024, 3.9]

3.7
fall restraint system
personal fall protection system that restrains or prevents an *operator* (3.17) or *occupant(s)* (3.15) from reaching a fall hazard

[SOURCE: ISO 16368:2024, 3.10]

3.8
familiarization
provision of the necessary information to a *qualified person* (3.20) or trained *operator* (3.17) regarding the features, functions, devices, limitations, and operating characteristics, as defined by the *manufacturer* (3.12), in order to properly use a specific model of *MEWP* (3.13)

3.9
hazardous atmosphere
location that contains, or has the potential to contain, an explosive or flammable atmosphere

3.10
load-sensing system
system of monitoring the vertical load and vertical forces on the work platform

[SOURCE: ISO 16368:2024, 3.19]

3.11
maintenance
act of upkeep such as inspection, lubrication, refuelling, cleaning, adjustment, and scheduled parts replacement

3.12
manufacturer
person or entity that makes, builds, or produces a *MEWP* (3.13)

1) Under preparation. Stage at the time of publication: ISO/FDIS 16368:2024.

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3.13
mobile elevating work platform
MEWP
machine/device intended for moving a person(s), along with their necessary tools and material, to an elevated work location, consisting of at least a work platform with controls, an *extending structure* (3.5), and a chassis

[SOURCE: ISO 16368:2024, 3.22]

3.13.1
group A MEWP
MEWP (3.13) on which the vertical projection of the centre of the work platform area, in all work platform *configurations* (3.3) at the maximum chassis inclination specified by the *manufacturer* (3.12), is always inside the tipping lines

[SOURCE: ISO 16368:2024, 3.23]

3.13.2
group B MEWP
MEWP (3.13) that is not in group A

[SOURCE: ISO 16368:2024, 3.24]

3.13.3
type 1 MEWP
MEWP (3.13) for which travelling is only allowed when in the stowed position

[SOURCE: ISO 16368:2024, 3.25]

3.13.4
type 2 MEWP
MEWP (3.13) for which travelling with the work platform in the elevated travel position is controlled from a point on the chassis

Note 1 to entry: Type 2 and type 3 MEWPs can be combined.

[SOURCE: ISO 16368:2024, 3.26]

3.13.5
type 3 MEWP
MEWP (3.13) for which travelling with the work platform in the elevated travel position is controlled from a point on the work platform

Note 1 to entry: Type 2 and type 3 MEWPs can be combined.

[SOURCE: ISO 16368:2024, 3.27]

3.14
modification
change or addition to a *MEWP* (3.13) as originally manufactured which affects the *operation* (3.16), stability, safety factors, rated load, or safety of the MEWP

3.15
occupant
person in the *MEWP* (3.13) work platform other than the *operator* (3.17)

[SOURCE: ISO 16368:2024, 3.35, modified — “MEWP” was added before “work platform”.]

3.16
operation
performance of functions of a *MEWP* (3.13) within the scope of its specifications and in accordance with the *manufacturer's* (3.12) instructions, work rules and applicable governmental regulations

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3.17
operator
person who controls the *operation* (3.16) of a *MEWP* (3.13)

3.18
operator's manual
manual provided by the *manufacturer* (3.12) and intended to be a part of the *MEWP* (3.13) which includes information to allow for safe *operation* (3.16) of the MEWP

3.19
owner
person or entity that has possession of a *MEWP* (3.13) by virtue of proof of purchase or legal possession of the MEWP

3.20
qualified person
person who, by possession of a recognized degree, certificate or professional standing, or by extensive knowledge, *training* (3.26) and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the work or the project

3.21
repair
act of restoring to good condition that which has been broken, damaged or worn due to use, abuse or other reasons

3.22
retraining
required instruction based on the user's observations or evaluations to maintain a previously trained person's status as qualified for the task

3.23
risk assessment
process to identify potential hazards associated with a task and the work environment where the task is to be performed, and the development of methods to remove or control the risk to workers from identified hazards

3.24
safety-related bulletin
publication from the *manufacturer* (3.12) of a *MEWP* (3.13) that needs attention to ensure safe *operation* (3.16) of the MEWP

3.25
stabilising device
device or system used to stabilise a *MEWP* (3.13) by supporting and/or levelling the complete MEWP or the *extending structure* (3.5)

EXAMPLE Outrigger, jack, suspension-locking device, extending axle, torsion bar.

[SOURCE: ISO 16368:2024, 3.50]

3.26
training
instruction to enable the trainee to become a *qualified person* (3.20) regarding the tasks to be performed, including knowledge regarding potential hazards

3.27
transport
movement of the *MEWP* (3.13) outside the boundaries of the work site

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