EESTI STANDARD EVS-EN 61057:2003



# Aerial devices with insulating boom used for live working exceeding 1 kV a.c.

EESTI STANDARDIKESKUS

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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| Käesolev Eesti standard EVS-EN 61057:2003 sisaldab Euroopa standardi EN 61057:1993 ingliskeelset teksti. | This Estonian standard EVS-EN 61057:2003 consists of the English text of the European standard EN 61057:1993. |
| Käesolev dokument on jõustatud 15.01.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. | This document is endorsed on 15.01.2003 with the notification being published in the official publication of the Estonian national standardisation organisation. |
| Standard on kättesaadav Eesti standardiorganisatsioonist. | The standard is available from Estonian standardisation organisation. |

**ICS** 13.260, 29.240.20, 29.260.99

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

# EN 61057

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UDC 621.3.002.54:620.1:614.8

Descriptors: Hot-line work, elevator, platform, personnel, electrical insulation, characteristic, dimension, safety device, test, marking

English version

# Aerial devices with insulating boom used for working exceeding 1 kV a.c.

(IEC 1057 : 1991, modified)

Equipements élévateurs à bras isolant utilisés pour les travaux sous tension au-dessus de 1 kV en courant alternatif
(CEI 1057 : 1991, modifiée)

Hubarbeitsbühnen mit isolierender Hubeinrichtung zum Arbeiten unter Spannung über 1 kV a.c.
(IEC 1057 : 1991, modifiziert)

This European Standard was approved by CENELEC on 1993-07-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



## CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B-1050 Brussels**

## Foreword

The CENELEC questionnaire procedure, performed for finding out whether or not the international Standard IEC 1057 : 1991 could be accepted without textual changes, has shown that some common modifications were necessary for the acceptance as European Standard.

The reference document, together with the common modifications prepared by CENELEC Technical Committee TC 78, was submitted to the CENELEC members for formal vote.

The text of the draft was approved by CENELEC as EN 61057 on 1993-07-06.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1994-08-01
- latest date of withdrawal of conflicting national standards (dow) 1995-08-01

Annexes designated 'normative' are part of the body of the standard. Annexes designated 'informative' are given only for information. In this standard, annex ZA is normative and annex ZB is informative.

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# AERIAL DEVICES WITH INSULATING BOOM USED FOR LIVE WORKING

## SECTION 1 - GENERAL

### 1 Scope

This standard is applicable to aerial devices (mobile elevating work platforms [MEWP]), with or without the possibility of an additional jib, as a minimum with an insulating upper boom (extending structure), used for live working on the nominal voltage, which is between 1 kV r.m.s. and 800 kV r.m.s., at power frequency.

The application of some parts of this standard to d.c. systems is still under consideration.

This standard specifies:

- the specialized technical characteristics, tests and checks of the insulating parts (boom, extending structure, transmission of controls along the boom, work platform, bucket, accessories, jibs, etc.) required for live working;
- the technical characteristics, tests and checks of conducting parts, the conductive properties which are essential for positioning near to, or at, the potential of the live element (part) to be worked on;
- the special characteristics which are not necessarily subjected to test, but which are fundamental for ensuring the safety and precision essential to safe working on live parts.

Excluded from this standard, but to be observed:

- specifications applicable to all kinds of aerial devices (mobile elevated work platforms) which are covered by applicable international standards or national regulations, for example design, calculations, stability requirements, roadway code, employment regulations, etc.;
- specifications for those parts of the aerial device (carrier, etc.) not specific to live working;
- specifications for personnel electrostatic shielding equipment (the user should provide adequate shielding equipment in accordance with national regulations).

## 2 Definitions

### 2.1 *Definitions according to IEV*

*Flashover*

An arc by-passing an insulating body (IEV 121-03-14).

*Puncture*

A disruptive breakdown through a solid insulant (IEV 121-03-13).

*Sparkover*

A disruptive discharge: passage of an arc following dielectric breakdown.

NOTE - The term "sparkover" is used when a disruptive discharge occurs in a gaseous or liquid dielectric. The term "flashover" is used when a disruptive discharge occurs over the surface of a solid dielectric in a gaseous or liquid medium. The term "puncture" is used when a disruptive discharge occurs through a solid dielectric.

*Type test*

A test of one or more devices made to a certain design to show that the design meets certain specifications (IEV 151-04-15).

*Routine test*

A test to which each individual device is subjected during or after manufacture to ascertain whether it complies with certain criteria (IEV 151-04-16).

*Sampling test*

A test on a number of devices taken at random from a batch (IEV 151-04-17).

*Acceptance test*

A contractual test to prove to the customer that the device meets certain conditions of its specification (IEV 151-04-20).

### 2.2 *Specific definitions*

*Aerial device*

Any device which is primarily designed to position persons and to handle materials.

NOTE - This device does not include the chassis.