IEC 61057

Edition 2.0 2017-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Insulating aerial devices for mounting on a chassis

Travaux sous tension – Dispositifs élévateurs isolants pour montage sur un châssis

IEC 61057:2017-0506en-fr)

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LIVE WORKING – INSULATING AERIAL DEVICES FOR MOUNTING ON A CHASSIS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61057 has been prepared by IEC technical committee 78: Live working.

This second edition cancels and replaces the first edition published in 1991 and IEC TS 61813:2000. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) general review of the requirements and test provisions;
b) preparation of the elements of evaluation of defects, and general application of IEC 61318:2007;
c) distinguishes between tests for hollow booms and those for foam filled booms;
d) references ISO 16368 for particular mechanical tests;

e) further information on vacuum protection and leakage current monitoring and a mandatory requirement that aerial devices for bare hand work be fitted with a permanently installed lower test electrode system;

f) *controls* of high electrical resistance;

g) reference to SAE for insulating hydraulic hoses;

h) inclusion of IEC TS 61813 for care, maintenance and in-service testing of aerial devices with insulating booms.

The text of this standard is based on the following documents:

FDIS	Report on voting
78/1182/FDIS	78/1183/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

Terms defined in Clause 3 are given in italic print throughout this standard.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This document covers *insulating aerial devices* for use at temperatures between −25 °C and +55 °C. Where aerial devices are for use in unusual atmospheric conditions (for example, higher or lower temperatures), other considerations may be appropriate and will be identified by the *manufacturer* both in the markings and instructions for use.

The products covered by this document are primarily intended to be used for live working or for work within the live working zone. It recognizes that a user may specify a product, or products complying with this document where there is a risk of accidental contact with live (energized) part(s). In such circumstances users are reminded that national or local regulations regarding maintaining of Minimum Approach Distances to live parts, or those obtained from IEC 61472 are to be applied. Annex A of this document gives advice and information.

The product covered by this document may have an impact on the environment during some or all stages of its life cycle. These impacts can range from slight to significant, be short-term or long-term, and occur at the global, regional or local level.

Except for a disposal statement in the Instructions for use, this document does not include requirements and test provisions for the *manufacturer*s of the product, or recommendations to the users of the product for environmental improvement. However, all parties intervening in its design, manufacture, packaging, distribution, use, maintenance, repair, reuse, recovery and disposal are invited to take account of environmental considerations.

LIVE WORKING – INSULATING AERIAL DEVICES FOR MOUNTING ON A CHASSIS

1 Scope

This document is applicable to *insulating aerial devices* for mounting on a *chassis*, to be used for live working on electrical installations at nominal voltages above 1 000V r.m.s. AC in the range 45 Hz to 65 Hz and 1 500V DC.

The primary purpose of an aerial device is for work positioning of personnel. Other devices, such as jibs, may be fitted in order to assist the *operator* in performing the work.

This document also includes requirements and tests for the parts of the *chassis* influencing the performance of the *insulating aerial device*s to be used for live working.

When mounted on a *chassis*, the *insulating aerial device* becomes a component of a mobile elevating work *platform* (MEWP). Complementary requirements for the resulting MEWP are included in ISO 16368.

NOTE 1 In Europe, EN 280 instead of ISO 16368 is often used as reference for complementary requirements.

The products designed and manufactured according to this document contribute to the safety of users, provided they are used by skilled persons, in accordance with safe methods of work and the instructions for use.

NOTE 2 Any requirements that are in conflict with or are meant to be complementary to ISO 16368 are delineated herein.

Radial boom (digger) derricks are not covered by this document.

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.

IEC 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60060-2, *High-voltage test techniques – Part 2: Measuring systems*

IEC 60212:2010, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 60417, *Graphical symbols for use on equipment* (available at http://www.graphical-symbols.info/equipment)

IEC 61318, *Live working – Conformity assessment applicable to tools, devices and equipment*

IEC 62237:2003, *Live working – Insulating hoses with fittings for use with hydraulic tools and equipment*