IEC 61236

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Saddles, stick clamps and their accessories

Travaux sous tension – Selles, manchons et leurs accessoires

IEC 61236:2010

IEC Central Office
3, rue de Varembé
CH-1211 Geneva 20
Switzerland
Email: inmail@iec.ch
Web: www.iec.ch

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Tél.: +41 22 919 02 11
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIVE WORKING – SADDLES, STICK CLAMPS AND THEIR ACCESSORIES

FOREWORD

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International Standard IEC 61236 has been prepared by IEC technical committee 78: Live working.

This second edition cancels and replaces the first edition published in 1993. It constitutes a technical revision.

It includes the following significant technical changes from the previous edition:

– clarification of the requirements and of the test provisions;
– addition of a test for the durability of marking;
– application of conformity assessment for products having completed the production phase, according to IEC 61318:2007 (Ed. 3).

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

Enquiry draft	Report on voting
78/850/CDV	78/867/RVC

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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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- withdrawn,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

The requirements provided in this standard are essential requirements. Each user of this standard may supplement it with their own requirements. These will cover, for example, required mechanical performance and conditions of interchangeability with equipment already in service. In such cases, caution should be taken to maintain or improve the performance of the products.

This International Standard has been prepared in accordance with the requirements of IEC 61477.

The products covered by this standard 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 of 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 standard does not include requirements and test provisions for the manufacturers of the product, or recommendations to the users of the product for environmental improvement. However, all parties involved in the product's design, manufacture, packaging, distribution, use, maintenance, repair, reuse, recovery and disposal are encouraged to take account of environmental considerations.

LIVE WORKING – SADDLES, STICK CLAMPS AND THEIR ACCESSORIES

1 Scope

This International Standard is applicable to saddles, stick clamps and their accessories, used for live working.

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

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.

IEC 60417, *Graphical symbols for use on equipment*

IEC 61318:2007, *Live working – Conformity assessment applicable to tools, devices and equipment*

IEC 61477, *Live working – Minimum requirements for the utilization of tools, devices and equipment*

3 Terms, definitions and symbols

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61318 and the following apply.

3.1.1
accessory
supplemental metal device used with saddles and stick clamps to carry out the live work

3.1.2
family of devices
devices which have the same function (utilization, use, etc.)

3.1.3
rated value
value of a quantity used for specification purposes, established for a specified set of operating conditions of a component, device, equipment, or system

[IEC 60050-151:2001, 151-16-08]

3.1.4
saddle
metal device fixed to a pole, cross-arm or tower and used with a stick clamp to hold or guide support sticks and other equipment

[IEC 60743:2008, 10.3.1 and IEC 60050-651:1999, 651-09-06, modified]

3.1.5
stick clamp
metal device used with a stick or saddle to hold or guide a support stick

[IEC 60743:2008, 10.3.6, modified]

3.1.6
type of device
devices which have the same design and application and are of similar dimensions

3.2 Symbols

T_N rated torque given by the manufacturer for a device or a part of a device and for testing purposes

F_{TN} rated tensile force given by the manufacturer for a device or a part of a device and for testing purposes

F_{BN} rated bending force given by the manufacturer for a device or a part of a device and for testing purposes

F_{GN} rated slippage force given by the manufacturer for a device and for testing purposes

4 Requirements

4.1 General

The following requirements have been prepared in order that the saddles, stick clamps and their accessories covered by this standard are designed and manufactured to contribute to the safety of the users, provided they are used by persons skilled for live working, in accordance with safe methods of work and the instructions for use.

NOTE Appropriate measures should be taken to minimize the weight and size of the equipment to optimize handling.

4.2 Dimensional requirements

For each type of device, the manufacturer shall indicate the dimensions or operating ranges related to the specific functions of the device, in particular the dimensions of acceptable supports for the saddles, and the specified diameters of acceptable tubes and rods for stick clamps shall be indicated.

4.3 Mechanical requirements

For each type of device, the manufacturer shall give the rated values as outlined in Table 1.

Table 1 – Mechanical ratings for each type of device

Type of device	Rated values			
	Bending F_{BN}	**Tensile** F_{TN}	**Torque** T_N	**Slippage** F_{GN}
Chain (strap) binder		- Whole device - Locking device	Tightening device	
Ring saddle with rigid bracket	- Whole device - Locking device	Chain (strap) and locking device		
Ring saddle with chain bracket	Locking device	- Whole device - Chain (strap) and locking device	Tightening device	
Lift-type saddle	- Whole device - Locking device	- Chain (strap) and locking device - Shackle		
Pole-type saddle	- Whole device [a] - Locking device	Chain (strap) and locking device		
Saddle extension	Whole device			
Tower-type saddle	Whole device [a]		Mounting bolts	
Crossarm-type saddle	Whole device [a]		Mounting bolts	
Block saddle	Whole device			
Tower-arm yoke	Whole device		Mounting bolts	
Platform pivot attachment	Whole device			
Saddles and accessories for hydraulic tension puller	- Saddle for triangular yoke - Saddle for rectangular yoke - Insulating rope gin	- Assembly - Tenon extension - Block anchoring point		
Stick clamp	Whole device	Assembly [b]	Mounting bolts	Whole device
Rigid support-stick stirrup	Whole device			Whole device
Swivel support-stick stirrup		Whole device		Whole device
Offset eye	Whole device			

[a] The manufacturer shall give the values F_{BN} for these devices with and without saddle extension.

[b] Applicable to stick clamps designed to be coupled.

4.4 Protection against corrosion

Metallic parts shall be protected against corrosion, either by their composition or by a suitable surface treatment.

For each type of device, the manufacturer shall demonstrate that the metallic parts are corrosion resistant.

4.5 Marking

Each device shall be marked with the following permanent items of marking:

– manufacturer's name or trade mark;
– type reference;
– year and, if possible, month of manufacture;
– rating (or capacity if requested by the customer);