SLOVENSKI STANDARD
SIST EN 61236:2011

01-maj-2011

Nadomešča:
SIST EN 61236:1999

Delo pod napetostjo - Sedeži, palične skobe (objemke) in pribor za delo pod napetostjo (IEC 61236:2010)

Live working - Saddles, stick clamps and their accessories

Arbeiten unter Spannung - Mastsättel, Stangenschellen und Zubehör

Travaux sous tension - Selles, manchons et leurs accessoires

Ta slovenski standard je istoveten z: EN 61236:2011

ICS:

13.260	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working
29.260.01	Električna oprema za delo v posebnih razmerah na splošno	Electrical equipment for working in special conditions in general

SIST EN 61236:2011 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61236

March 2011

ICS 13.260; 29.240.20; 29.260.99

Supersedes EN 61236:1995

English version

Live working - Saddles, stick clamps and their accessories (IEC 61236:2010)

Travaux sous tension - Selles, manchons et leurs accessoires (CEI 61236:2010)

Arbeiten unter Spannung - Mastsättel, Stangenschellen und Zubehör (IEC 61236:2010)

This European Standard was approved by CENELEC on 2011-02-01. 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61236:2011 E

Foreword

The text of document 78/850/CDV, future edition 2 of IEC 61236, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61236 on 2011-02-01.

This European Standard supersedes EN 61236:1995.

This EN 61236:2011 includes the following significant technical changes with respect to EN 61236:1995:

– 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 EN 61318:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2011-11-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2014-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61236:2010 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60743:2008 NOTE Harmonized as EN 60743:2001+A1:2008 (not modified).

———————

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 61318	2007	Live working - Conformity assessment applicable to tools, devices and equipment	EN 61318	2008
IEC 61477	-	Live working - Minimum requirements for the utilization of tools, devices and equipment	EN 61477	-

IEC 61236

Edition 2.0 2010-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Live working – Saddles, stick clamps and their accessories

Travaux sous tension – Selles, manchons et leurs accessoires

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX X

ICS 13.260; 29.240.20; 29.260.99

ISBN 978-2-88912-240-0

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

LIVE WORKING – SADDLES, STICK CLAMPS AND THEIR ACCESSORIES

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.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

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);