



# SLOVENSKI STANDARD

## kSIST-TS FprCEN/TS 17471:2020

01-marec-2020

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**Žerjavi - Nakladalni žerjavi - Vmesnik med nakladalnimi žerjavi in delovnimi ploščadmi**

Cranes - Loader cranes - Interface between loader cranes and work platforms

Krane - Interface zwischen Ladekran und Arbeitsbühne

Appareils de levage à charge suspendue - Grues de chargement - Interface entre les grues de chargement et les plates-formes de travail

**Ta slovenski standard je istoveten z: FprCEN/TS 17471**

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**ICS:**

53.020.20      Dvigala      Cranes

**kSIST-TS FprCEN/TS 17471:2020**      **en,fr,de**

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**FINAL DRAFT**  
**FprCEN/TS 17471**

January 2020

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ICS

English Version

**Cranes - Loader cranes - Interface between loader cranes  
and work platforms**

Appareils de levage à charge suspendue- Grues de  
chargement - Interface entre les grues de chargement  
et les plates-formes de travail

Krane - Interface zwischen Ladekran und Arbeitsbühne

This draft Technical Specification is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 147.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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<b>Contents</b>		Page
European foreword.....		3
Introduction .....		4
1	Scope.....	5
2	Normative references.....	5
3	Terms and definitions .....	5
4	Safety requirements.....	5
4.1	Mode of operation.....	5
4.1.1	General.....	5
4.1.2	Manual control device .....	6
4.1.3	Automatic control device .....	6
4.2	Transport position.....	6
4.3	Cables and connections.....	6
4.4	Locking of the work platform .....	6
5	Verification of requirements .....	7
5.1	Work platform as interchangeable equipment.....	7
5.2	Work platform as integral part of the dual-purpose machine.....	7

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## European foreword

This document (FprCEN/TS 17471:2020) has been prepared by Technical Committee CEN/TC 147, “Cranes – Safety”, the secretariat of which is held by BSI.

This document is currently submitted to the Vote on TS.

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## Introduction

This document provides one means to define the technical characteristic of the loader crane and the work platform to create a MEWP by combining them and thereby to conform to the essential health and safety requirements of the Machinery Directive 2006/42/EC.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this document.

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## 1 Scope

This document gives technical information for dual purpose machines that comply with both EN 12999:2011+A2:2018 and EN 280:2013+A1:2015 and deals with the specific aspects related to the fitting and interface of a work platform that is an interchangeable equipment to the base machine.

Loader cranes which are equipped with work platforms as interchangeable equipment are regarded as Mobile Elevating Work Platforms (MEWPs) as defined in 3.1 of EN 280:2013+A1:2015 and are classified as Group B Type 1 as specified in 1.4 of EN 280:2013+A1:2015 and are listed under Annex IV, item 17 of the Machinery Directive 2006/42/EC.

This document does not address hazards which may occur:

- a) when handling suspended work platforms which may swing freely;
- b) when using non-integrated work platforms or other attachments not intended for the lifting of persons.

## 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.

EN 280:2013+A1:2015, *Mobile elevating work platforms - Design calculations - Stability criteria - Construction - Safety - Examinations and tests*

EN 12999:2011+A2:2018, *Cranes - Loader cranes*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13849-1:2015, *Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010, EN 12999:2011+A2:2018 and EN 280:2013+A1:2015 apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

## 4 Safety requirements

### 4.1 Mode of operation

#### 4.1.1 General

A manual or an automatic control device shall be fitted on the dual-purpose machine to switch between the “CRANE” mode and the “MEWP” mode of operation and vice versa.

When in “CRANE” mode of operation, the dual-purpose machine shall comply with EN 12999:2011+A2:2018.

**FprCEN/TS 17471:2020 (E)**

When in “MEWP” mode of operation, the dual-purpose machine shall comply with the applicable parts of EN 280:2013+A1:2015.

**4.1.2 Manual control device**

A safety function shall be provided to prevent unauthorized switching of the operating mode (e.g. a key-switch selector CRANE-MEWP).

In “CRANE” mode of operation, when the work platform is locked to the extending structure, hydraulic and electrically connected, the movements of the extending structure shall be prevented.

The safety related part of the control system performing the switching function shall be in accordance with EN ISO 13849-1:2015 and meet a PLr=c.

The “CRANE” mode of operation may be used to rescue a trapped and/or incapacitated operator on the platform, at the following conditions: hold-to-run controls, one motion at a time and a continuously given audible and visible warning to alert the operator.

NOTE The “CRANE” mode of operation can be used as a safe method to rescue a trapped and/or incapacitated operator when the safety devices of the crane are working correctly.

**4.1.3 Automatic control device**

When the work platform is attached to the extending structure, the control system shall automatically switch from “CRANE” mode of operation to “MEWP” mode of operation.

A separate device, in addition to the interlocking system described in 4.4, shall detect when the work platform is attached to the extending structure.

When the work platform is not attached to the extending structure, the control system shall automatically switch to “CRANE” mode of operation.

The safety related part of the control system performing the switching function shall be in accordance with EN ISO 13849-1:2015 and meet a PLr=c.

**4.2 Transport position**

When in the operating instructions the manufacturer allows the transport of the work platform connected to the base machine, both EN 280:2013+A1:2015, 5.3.1.7 and EN 12999:2011+A2:2018, 5.6.1.3 apply.

When in the operating instructions the manufacturer doesn't allow the transport of the work platform connected to the base machine, only EN 12999:2011+A2:2018 applies.

**4.3 Cables and connections**

Means shall be provided to safely store cables, hoses or other means connecting the platform to the base machine when not in use. Such means shall prevent damage and/or contamination to disconnected components.

**4.4 Locking of the work platform**

The work platform shall be designed to be securely attached to the extending structure, locked and interlocked. The safety related part of the control system performing the interlocking function shall be in accordance with EN ISO 13849-1:2015 and meet a PLr=c.

The interface shall be designed to avoid uncontrolled movements of the platform relative to the extending structure.

In “MEWP” mode of operation, the interlocking system shall prevent any powered movement of the extending structure when the work platform is not secured to the extending structure.