INTERNATIONAL STANDARD

ISO 11525-2

First edition
2015-10-15

Rough-terrain trucks — User requirements —

Part 2: Slewing variable-reach trucks

Chariots tout-terrain — Exigences pour l'utilisateur —

Partie 2: Chariots rotatifs à portée variable

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

Reference number
ISO 11525-2:2015(E)

© ISO 2015

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

COPYRIGHT PROTECTED DOCUMENT

© ISO 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

 © ISO 2015 – All rights reserved

Contents

Page

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

© ISO 2015 – All rights reserved

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The committee responsible for this document is ISO/TC 110, *Industrial trucks*, Subcommittee SC 4, *Rough-terrain trucks*.

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-
0fd0b05454ee/iso-11525-2-2015

ISO 11525 consists of the following parts, under the general title *Rough-terrain trucks — User requirements*:

— *Part 1: General requirements*

— *Part 2: Slewing variable-reach trucks*

— *Part 4: Additional requirements for variable-reach trucks handling freely suspended loads*

— *Part 5: Interface between rough-terrain truck and integrated personnel work platform*

User requirements for lorry-mounted trucks are to form the subject of a future part 2 of ISO 20297.

 © ISO 2015 – All rights reserved

Introduction

This International Standard is one of a set of standards produced by ISO/TC 110/SC 4 as part of its programme of work regarding standardization of terminology, general safety, performance and user requirements for rough-terrain trucks.

Slewing variable-reach trucks (as defined in ISO 10896-2) are known by a variety of terms including "rotating telehandlers" and "multi-purpose rotating handlers".

For unique applications, these trucks can be equipped with a variety of attachments (e.g. jibs, winches, jibs with winch and clamp, mowers, sweepers).

Additional user requirements for variable-reach trucks handling freely suspended loads are covered in ISO 11525-4.

Users need to take into consideration that certain features and characteristics of these trucks are unique and require specific methods for use and training of operators. In addition to general user requirements, these specific methods are also covered in this part of ISO 11525.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

© ISO 2015 – All rights reserved

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

Rough-terrain trucks — User requirements —

Part 2: Slewing variable-reach trucks

1 Scope

This part of ISO 11525 gives specific requirements relating to the use of slewing variable-reach rough-terrain trucks (hereafter referred to as trucks), as defined in ISO 10896-2.

It is intended to achieve the following:

a) the prevention of personal injuries, property damage and accidents;

b) the establishment of criteria for inspection, maintenance, operation and training.

For general user requirements for (non-slewing) variable-reach trucks, refer to ISO 11525-1.

For additional user requirements for variable-reach trucks handling freely suspended loads, refer to ISO 11525-4.

National or local requirements can apply, which could be more stringent.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

2 Normative references

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326f1e-0e7f-41eb-8b25-06f0b0545d4e/iso-11525-2-2015

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5057, *Industrial trucks — Inspection and repair of fork arms in service on fork-lift trucks*

ISO 11525-1, *Rough-terrain trucks — User requirements — Part 1: General requirements*

ISO 10896-2, *Rough-terrain trucks — Safety requirements and verification — Part 2: Slewing variable-reach trucks*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11525-1 and ISO 10896-2 and the following apply.

3.1
authorized person
person approved or assigned to perform a specific task or tasks at a specific location or locations at a worksite

3.2
examiner
competent person (3.7) who tests the competency of the *trainee* (3.11)

3.3
maintenance
act of upkeep, including inspection, lubrication, cleaning, adjustment and scheduled parts replacement

© ISO 2015 – All rights reserved

3.4
modification
change to the truck that affects its *operation* (3.5), *stability* (3.9), capacity or safety

3.5
operation
performance of functions of a truck within the scope of its specifications and in accordance with the manufacturer's instructions, work rules and applicable governmental regulations

3.6
operator
competent (3.7) and *authorized person* (3.1) who controls the *operation* (3.5) of the truck

3.7
competent person
person who has acquired, through training, qualification, experience or a combination of these, the knowledge and skill enabling that person to correctly perform the required tasks

3.8
attachment bracket
quick coupler
device fitted at the end of the boom to facilitate the quick interchange of attachments

3.9
stability
state of the truck in which it does not overturn, described technically as the state in which the sum of the moments acting to overturn the slewing truck is less than the sum of the moments tending to resist overturning

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Note 1 to entry: Conditions that can affect stability include slewing of the upper structure, ground and floor conditions, gradient, wind, speed and loading (trucks equipped with attachments behave as partially loaded trucks even when operated without a load on the attachment), dynamic and static forces, incorrect tyre inflation and the judgment exercised by the *operator* (3.6).

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/8326f0a-0e2f-41eb-8b25-2600b05454ee/iso-11525-2-2015

3.10
trainer
competent person (3.7) who conducts the training of the truck operator (3.6)

3.11
trainee
person who is being trained to become a truck *operator* (3.6)

3.12
user
person or entity responsible for assigning an *operator* (3.6) to operate a truck and specifying the tasks to be performed

Note 1 to entry: Depending on national or other regulations, or local practice, this term can refer to one or more of the following entities: owner, employer, custodian, dealer or entity placing the product on the market.

3.13
responsible entity
person or entity with responsibility for the design, specification, procurement, fabrication, manufacture, assembly, provision of information and testing of a slewing truck

Note 1 to entry: Depending on national or other regulations, or local practice, this term can refer to one or more of the following entities: manufacturer, installer, custodian, dealer, designer or entity placing the product on the market.

© ISO 2015 – All rights reserved

3.14
normal access configuration
normal egress configuration
configuration of the truck on tyres, with its slewing structure in the forward aligned position, with stabilizing devices in transport position, and with the boom lowered and fully retracted

4 General safety requirements

4.1 Principles

This part of ISO 11525 shall be supplemented by good management practices, safety controls and application of sound principles of safety, training, inspection, maintenance, application selection and operation. All data available regarding the parameters of intended use and expected environment shall be considered. Those with direct control over the application and operation of the truck shall be responsible for ensuring good safety practices.

NOTE Different operating conditions can require additional safety precautions, training and special safe operating procedures.

The operation of any truck is subject to certain hazards that can be protected against only by the exercise of care and common sense. It is essential to have competent persons trained in the intended use, safe operation, maintenance and service of this equipment.

The user shall ensure that the operator understands that safe operation of the truck is also the operator's responsibility.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The user shall ensure that the operator's mental or physical condition will not impair his/her ability to operate the truck.

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-0fd0b05454ee/iso-11525-2-2015

In addition to specific training, application selection and operation of the truck, the user shall take the following fundamental unique characteristics for trucks that slew into consideration:

— these trucks are primarily designed for handling supported loads on forks;

— the slewing movement of the upper structure can reduce the need for frequent repositioning of the truck;

— other attachments can be fitted.

Other applicable parts of ISO 11525, together with this part of ISO 11525, shall be referred to for specific applications (e.g. handling of freely suspended loads).

4.2 Operator's manual

The user shall ensure that the operator's manual and any additional safety manuals provided by the manufacturer with the truck are always available to the operator and maintenance personnel.

The user and/or the operator shall refer to the responsible entity should doubts on either the use of the truck or the interpretation of the operator's manual arise.

4.3 Modifications or alterations

Except as provided below, no modifications or alterations to a truck that can affect its capacity, stability or safe operation shall be made without the prior written approval of the original truck manufacturer or its successor. When the truck manufacturer or its successor approves a modification or alteration, the user shall be responsible, prior to operation, for ensuring that appropriate changes are made to information plate(s), documents, certificates, labels, tags and operator manuals.

© ISO 2015 – All rights reserved

If the truck manufacturer is no longer in business and there is no successor, modifications or alterations to the truck shall be carried out under the following conditions:

a) the design, testing and implementation of the modification or alteration is made in accordance with ISO 10896-2 by a competent person;

b) a permanent record is kept of the design, tests and implementation of the modification or alteration;

c) appropriate changes are made to the information plate(s), documents, certificates, labels, tags and operator's manual(s);

d) a permanent and readily visible label is affixed to the truck stating the manner in which the truck has been modified or altered, together with the date of the modification or alteration, and the name of the person or organization responsible for the design, testing and implementation of the modifications.

4.4 Manufacturer's bulletins

The user shall comply with the applicable bulletins as directed by the responsible entity.

4.5 Operator qualifications

Users shall allow only competent and authorized persons to operate a truck. Truck operators shall be competent to operate the equipment safely, in addition to being trained in accordance with this part of ISO 11525.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4.6 Operator's responsibility for training

Before operating any truck, the operator shall be trained in accordance with 4.7 and shall have read and be familiar with the operator's manual(s) and any other safety information provided by the manufacturer and user on the particular truck type being operated, the application and environment in which the slewing truck is to be used and any attachments used.

ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b35-06f0b05454ee/iso-11525-2-2015

4.7 Operator training

4.7.1 Operator training programme

Personnel who are not considered competent to operate a truck shall operate the truck only as part of the operator training programme. This training shall be conducted under the direct supervision of a trainer.

The operator training programme shall be based on user policies, industry standards, local regulations and policies, operating conditions and the manufacturer's instructions.

NOTE Information on operator training is available from sources including users, truck manufacturers, government agencies dealing with employee safety, trade organizations of truck users, public and private organizations and safety consultants.

The training programme shall emphasize safe and proper operation that avoids injury to the operator and others and prevents property damage. The training program shall include the following items.

a) Information about the truck(s) the trainee will operate:

   1) characteristics of this type of truck, including possible variations between these trucks and other equipment (e.g. mobile elevating work platforms, cranes) in the workplace;

   2) specifications with respect to other rough-terrain trucks (e.g. non-slewing trucks);

   3) significance of information plates, load charts (maximum and minimum extension of the outriggers, aligned or non-aligned positions, slewing range), warnings and instructions affixed to the truck;

 © ISO 2015 – All rights reserved

4) operating and safety instructions in the truck's operator's manual;

5) instructions for inspection and maintenance to be performed by the operator;

6) engine operation;

7) type of drive system and its characteristics;

8) methods of steering and manoeuvring in aligned position and for slewing angles greater than 90°;

9) braking methods and characteristics, with and without loads;

10) visibility, with and without loads;

11) load charts, how to read and comprehend them and the limitations of the load chart due to the mass and load centres and slewing positions;

12) explanation of the stability characteristics (combination of longitudinal and lateral configuration) in different conditions affected by load handling (raising, lowering and slewing), stabilizing device configuration and slewing position, operation/manoeuvring without loads, height, attachments, grade/ramps, centre of gravity of the load and centre of gravity of the truck, combined load centre of gravity, counterbalance principle, use of suspension system;

13) controls and instrumentation, including their location, identification, function and method of operation for different slewing configurations (forward aligned or non-aligned positions greater than 90°), and the identification of symbols;

14) load-handling capabilities and proper use of forks and other load bearing or non-load carrying attachments;

15) refuelling and battery charging;

16) guards and protective devices for the specific type of truck;

17) how to use stabilizing devices, chassis levelling and other stability-related functions, and examples of improper operation and the risks associated with them;

18) how to correctly use the operator restraints, e.g. seat belt, and other safety devices;

19) basic steps to be taken in the event of a tip-over, e.g. bracing for impact;

20) wheel loadings when loaded and unloaded;

21) correct entering and exiting the truck in normal operation;

22) normal access/egress configuration and the need to always maintain three points of contact, i.e. one hand and two feet or two hands and one foot;

23) types of attachments and their applications/limitations;

24) other characteristics, if any, of the particular truck;

25) use of upper slewing structure locking pin for transportation.

b) Operation and worksite-related topics:

1) surface conditions on which the truck is to be operated, loaded and unloaded, e.g. floor and ground conditions, ground pressure, ramps and inclines, trailers;

2) load handling at height and at ground level;

3) levelling of the truck prior to picking and placing loads;

iTeh STANDARD PREVIEW
(standards.iteh.ai)
ISO 11525-2:2015
https://standards.iteh.ai/catalog/standards/sist/e8326fde-0e7f-41eb-8b25-

© ISO 2015 – All rights reserved