
**Rough-terrain trucks — User
requirements —**

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

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Chariots tout-terrain — Exigences pour l'utilisateur —

*Partie 4: Exigences supplémentaires pour les chariots à portée
variable manipulant librement des charges suspendues*

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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](#).

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

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*

Introduction

Slewing and non-slewing variable-reach rough-terrain trucks, when permitted, may be fitted with attachments that can lift and move freely suspended loads.

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Rough-terrain trucks — User requirements —

Part 4:

Additional requirements for variable-reach trucks handling freely suspended loads

1 Scope

This part of ISO 11525, when used in conjunction with ISO 11525-1 or ISO 11525-2, defines specific user requirements relating to the use of non-slewing and slewing variable-reach trucks operating with freely suspended loads.

When provisions of this part of ISO 11525 are different from those which are stated in ISO 11525-1 or ISO 11525-2, the provisions of this part of ISO 11525 take precedence over the provisions of ISO 11525-1 or ISO 11525-2.

It is intended to achieve the following:

- a) prevention of personal injuries, property damage and accidents;
- b) establishment of criteria for inspection, maintenance, operation and training.

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

General user requirements for non-slewing variable-reach trucks are given in ISO 11525-1.

General user requirements for slewing variable-reach trucks are given in ISO 11525-2.

This part of ISO 11525 is not applicable to flexible intermediate bulk containers as defined in ISO 21898.

2 Normative references

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 10896-4, *Rough-terrain trucks — Safety requirements and verification — Part 4: Additional requirements for variable-reach trucks handling freely suspended loads*

ISO 11525-1:2012, *Rough-terrain trucks — User requirements — Part 1: General requirements*

ISO 11525-2:2015, *Rough-terrain trucks — User requirements — Part 2: Slewing variable-reach trucks*

ISO 16715, *Cranes — Hand signals used with cranes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10896-4, ISO 11525-1 and ISO 11525-2, and the following apply.

3.1

fall zone

area below an elevated or suspended load or the attachment

4 Safety requirements

4.1 Principles

The safety requirements of this part of ISO 11525, along with the general safety requirements of ISO 11525-1 or ISO 11525-2, 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 1 Different operating conditions can require additional safety precautions, training, and special safe operating procedures.

NOTE 2 In some local, regional, national markets, the operator might be required to undergo additional training beyond the scope of this part of ISO 11525.

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 questions on either the use of the truck, the handling of freely suspended loads or the interpretation of the operator's manual arise.

4.3 Modifications or alterations

The requirements of ISO 11525-1 or ISO 11525-2 shall apply.

4.4 Manufacturer's bulletins

The requirements of ISO 11525-1 or ISO 11525-2 shall apply.

4.5 Operator qualifications

The requirements of ISO 11525-1 or ISO 11525-2 shall apply.

Users shall ensure that operators receive the necessary level of training as required.

4.6 Operator's responsibility for training

Before operating a truck with a freely suspended load, the operator shall ensure that he/she has been trained in accordance with the training requirements of ISO 11525-1 or ISO 11525-2 along with the additional training requirements in this part of ISO 11525.

4.7 Operator training

Operators shall be trained in accordance with the training requirements of ISO 11525-1 or ISO 11525-2 along with the additional training requirements in [4.7.1](#).

4.7.1 Additional training for handling freely suspended loads

Training on the handling of freely suspended loads shall, as a minimum, include the following:

- a) how handling and travelling with a freely suspended load affects the trucks stability, e.g. operation on slopes, fast and sudden movements;

- b) how to minimize the hazards associated with the movement of the freely suspended load during handling and travelling, e.g. tethering, boom position, gradual boom movements, slow travel speed;
- c) potential hazards around a freely suspended load, e.g. collisions, crushing, falling objects;
- d) unapproved applications for freely suspended loads, e.g. lifting of personnel;
- e) any additional training requirements outlined by the truck manufacturer or local, state, federal, national standards and regulations, e.g. signalling, rigging/slinging.

4.7.2 Testing, retraining and enforcement

4.7.2.1 Testing

In addition to the testing requirements in ISO 11525-1 or ISO 11525-2, the operator shall be tested on handling of a freely suspended load including load pickup and placement.

4.7.2.2 Retraining

Operators shall be retrained in accordance with the requirements of [4.7.2.1](#).

4.7.2.3 Record keeping

Records of the person(s) trained in the operation of the truck shall be retained in accordance with the requirements of ISO 11525-1 or ISO 11525-2.

4.8 Inspection and maintenance (standards.iteh.ai)

The inspection and maintenance requirements of ISO 11525-1 or ISO 11525-2 shall apply.

5 Operating safety rules and precautions

5.1 Operator's responsibility for safety

The operator is responsible for the safe operation of the truck in accordance with ISO 11525-1:2012, Clause 5 or ISO 11525-2:2015, Clause 5.

5.2 Travelling with a freely suspended load

In addition to the requirements of ISO 11525-1 or ISO 11525-2, the operator shall use tether/tag line(s) with trained personnel to control the freely suspended loads.

5.3 Picking and placing freely suspended loads

The operator shall:

- a) before starting to pick or place a freely suspended load:
 - 1) know or determine the weight of the load including the weight of all riggings (e.g. slings, shackles) and the position of its load centre;
 - 2) verify the capacity of the surface before placing a load on it;
 - 3) ensure that the frame is levelled both longitudinally and laterally within the manufacturer's requirements before raising the boom or mast, with or without a load, and/or with the aid of an assistant;