AS ISO 24410:2021
ISO 24410:2020

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Earth-moving machinery — Coupling of attachments to skid steer loaders



AS ISO 24410:2021

This Australian Standard ® was prepared by ME-063, Earthmoving Equipment. It was approved on behalf of the Council of Standards Australia on 22 October 2021.

This Standard was published on 5 November 2021.

The following are represented on Committee ME-063:

Australasian Institute of Mining & Metallurgy
Australian Industry Group
Better Regulation Division — SafeWork NSW
Construction and Mining Equipment Industry Group
Department of Regional NSW
Engineers Australia
Institute of Instrumentation, Control & Automation Australia
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This Standard was issued in draft form for comment as DR AS ISO 24410:2021.

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ISBN 978 1 76113 595 8

AS ISO 24410:2021
ISO 24410:2020

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First published as AS ISO 24410:2021.

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Preface

This Standard was prepared by the Standards Australia Committee ME-063, Earthmoving Equipment.

The objective of this document is to provide for the interchangeability of attachments on skid steer loaders by establishing requirements for the quick coupler system including dimensional limits for the attachment mounting frame. These quick couplers are typically used on skid steer loaders as defined in ISO 6165.

Skid steer loaders can use other styles of quick couplers but the coupler would not be interchangeable with attachments designed to conform to this document.

The requirements of this document can be applied to quick couplers used on other compact machines.

Quick couplers used on small skid steer loaders and some compact tool carriers can have a different width requirement than provided in this document. See Annex B.

This document is identical with, and has been reproduced from, ISO 24410:2020, *Earth-moving machinery — Coupling of attachments to skid steer loaders*.

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

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The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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 of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety, ergonomics and general requirements*.

This second edition cancels and replaces the first edition (ISO 24410:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

— addition of safety requirements;

— addition of informative annex regarding the mechanics of a skid steer loader quick coupler;

— addition of width dimensions for narrow skid steer loader attachment mounting frame.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Quick couplers typical to skid steer loaders are now used on other types of compact products, e.g. compact loaders, compact tractors, compact rough-terrain forklift trucks. The growth of the use of this style quick coupler with other products has resulted in the need to provide guidance regarding the design principles of this quick coupler system.

The previous edition of this document only provided the dimensional requirements for the mounting frame on the attachment. Dimensions for the quick coupler itself were not provided as these dimensions are dependent on the design of the quick coupler. This edition also does not provide dimensional requirements for the quick coupler itself; however, it does provide guidance for the quick coupler engagement system.

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NOTES

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1 Scope

This document provides for the interchangeability of attachments on skid steer loaders by establishing requirements for the quick coupler system including dimensional limits for the attachment mounting frame. These quick couplers are typically used on skid steer loaders as defined in ISO 6165.

NOTE 1 Skid steer loaders can use other styles of quick couplers but the coupler would not be interchangeable with attachments designed to comply with this document.

NOTE 2 The requirements of this document can be applied to quick couplers used on other compact machines.

NOTE 3 Quick couplers used on small skid steer loaders and some compact tool carriers can have a different width requirement than provided in this document. See Annex B.

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.

ISO 6165, *Earth-moving machinery — Basic types — Identification and terms and definitions*

ISO 13031:2016, *Earth-moving machinery — Quick couplers — Safety*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6165 and the following 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/

3.1
attachment
assembly of components that can be mounted onto the skid steer loader lift arm for specific use

[SOURCE: ISO 6746-2:2003, 3.5, modified — The term “base machine or equipment” has been replaced with “skid steer loader lift arm”.]

3.2
quick coupler
device mounted on a skid steer loader to allow quick interchange of *attachments* (3.1)

[SOURCE: ISO 13031:2016, 3.1, modified — The term “earth-moving machine” is replaced by “skid steer loader”, and Note 1 to entry is not included here.]

3.3
attachment mounting frame
attachment component that facilitates the quick mounting and removal of an *attachment* (3.1) to the *quick coupler* (3.2)

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