



**International
Standard**

ISO 13031

**Earth-moving machinery — Quick
couplers — Safety**

AMENDMENT 1

Engins de terrassement — Attaches rapides — Sécurité

AMENDEMENT 1

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

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AMENDMENT 1

Clause 2, Normative references

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

Replace "ISO 6750, *Earth-moving machinery — Operator's manual — Content and format*" with:

"ISO 6750-1, *Earth-moving machinery — Operator's manual — Part 1: Contents and format*"

Replace "ISO 20474-1:2008" with "ISO 20474-1:2017".

4.1.2

After list item b), add the following and renumber subsequent list items accordingly:

"c) Powered quick couplers located at the end of the arm of hydraulic excavators or at the backhoe portion of backhoe loaders shall meet the requirements given in Annex A."

4.3.1, NOTE

Add "or ISO 19014-2" after "ISO 13849-1".

4.5

Replace "ISO 20474-1:2008, 4.18" with "ISO 20474-1:2017, 4.17".

5.2.1

Replace "ISO 6750" with "ISO 6750-1"

Annex A

Add the following new annex before the Bibliography:

Annex A (normative)

Additional requirements for powered quick couplers

Powered quick couplers located at the end of the arm of hydraulic excavators or at the backhoe portion of backhoe loaders shall have a means to minimize the possibility of an attachment being inadvertently dropped to the ground prior to correct engagement of the quick coupler system (i.e. fully engaged with the attachment in its working position).

This means shall meet one of the following:

- provide automatic mechanical locking of the first pin contacted during the process of coupling. This automatic mechanical locking may be activated upon initial contact with the pin or upon activation of the engagement control. The mechanical lock shall only be able to be released as part of the disengagement function;
- prevent the lifting of the attachment until correct engagement is achieved;
- retain the attachment throughout the entire stroke of the bucket cylinder with the arm at an angle of 30° measured through the centreline of the boom pivot and bucket pivot, from vertical away from the operator's station, according to Figure A.1 and with the coupler not fully engaged;

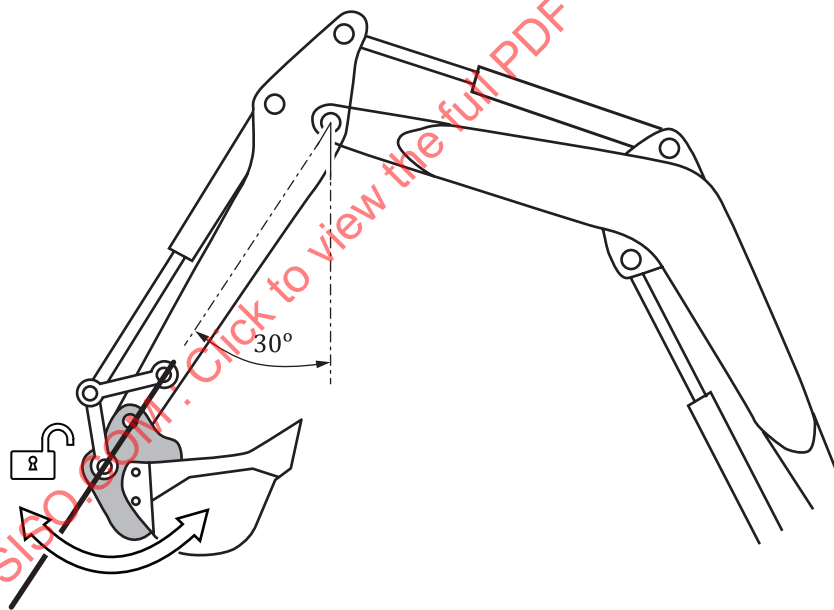


Figure A.1 — Test for the retaining feature

- provide an acoustic and a visual signal, at the operator's station if the engagement is not complete with the attachment in its working position.

The requirements above shall be verified with a functional test. The test shall be done with the attachments intended to be used according to the machine manufacturer's instructions."

Bibliography