



**International
Standard**

ISO 8643

**Earth-moving machinery —
Hydraulic excavator and backhoe
loader lowering control device —
Requirements and tests**

*Engins de terrassement — Dispositif de contrôle d'abaissement
de la flèche des pelles et chargeuses-pelleteuses hydrauliques —
Exigences et méthodes d'essai*

**Fourth edition
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Foreword

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This document was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 1, *Test methods relating to safety and machine performance*.

This fourth edition cancels and replaces the third edition (ISO 8643:2017), of which it constitutes a minor revision. The changes are as follows:

- “lifting linkage control valve” has been added in definition [3.1](#);
- “lowering control device” has been changed to “lifting linkage control valve” in [4.8](#) ([Table 1](#)), [5.3.2](#), [5.3.3](#), [5.3.4](#), [5.3.5](#) and [5.3.6.2](#).

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Introduction

Where excavators or backhoe loaders are used for object handling, a failure or rupture in the hydraulic circuit can endanger persons under raised loads.

This risk can be reduced by applying a lowering control device, which ensures controlled lowering of the load in the case of a hydraulic line failure or rupture.

Test procedures are based on the design characteristics of the hydraulic systems of hydraulic excavators and the backhoe part of backhoe loaders, and conditions of use.

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