Fourth edition 2007-07-15

# Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope

Engins de terrassement — Dimensions des opérateurs et espace enveloppe minimal pour les opérateurs



### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Со	ontents	Page
Fore	eword	iv
Intro	oduction	v
1	Scope	1
	Normative references	
3	Terms and definitions	1
4	Physical dimensions of operators	2
5	Minimum operator space envelope	6
Ribliography		10

# **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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 3411 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety requirements and human factors*.

This fourth edition cancels and replaces the third edition (ISO 3411:1995), which has been technically revised.

# Introduction

The operator dimensions in this International Standard are derived from male and female data from the United States of America (CAESAR Data), Europe (ISO 15534-3:2000) and Asia (China, Japan, Korea and Thailand).

The dimensions of the male Asian data were found to be within the range of the 5<sup>th</sup> and 95<sup>th</sup> percentiles of the combined USA and European data. Thus, to represent the operator populations for the USA and Europe, the operator dimension data are based upon the data from those two regions. To account for the potential increase in female Asian operators, the small operator dimension values were maintained from ISO 3411:1995 and used instead of the larger dimensions from the USA and European data.

The dimensions given in this International Standard are either actual measurements obtained from the sources listed above or, when specific dimensions were not available, were derived by proportionally scaling the values from ISO 3411:1995, based on the trend of growth seen across the available measured dimensions.

The operator minimum normal interior space envelope for enclosures stated in this International Standard can be supplemented or modified by standards for specific earth-moving machinery.