
**Earth-moving machinery — Safety —
Part 12:
Requirements for cable excavators**

Engins de terrassement — Sécurité —

Partie 12: Exigences applicables aux pelles à câble





COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Safety requirements and protective measures	3
4.1 General.....	3
4.2 Operator's station.....	3
4.2.1 General.....	3
4.2.2 Roll-over protective structures (ROPS).....	3
4.2.3 Operator's protective guard.....	3
4.3 Operator's controls and indicators.....	3
4.3.1 Controls for driving and steering.....	3
4.3.2 Warning indicator.....	3
4.4 Steering.....	3
4.5 Swing brakes.....	4
4.6 Lift system.....	4
4.6.1 Force-controlled operation (lifting, lowering).....	4
4.6.2 Free-fall operation.....	4
4.6.3 Switchover.....	4
4.6.4 Boom.....	4
4.6.5 Ropes.....	4
4.6.6 Rope drum, rope pulley.....	5
4.7 Limiting devices.....	5
4.7.1 Load moment limiting device.....	5
4.7.2 Lift limiting switch.....	5
4.7.3 Limit switch for the boom hoist system.....	5
4.8 Calculation of the lift capacity.....	5
4.8.1 Calculation method.....	5
4.8.2 Rated load table for object-handling application.....	6
4.9 Safety-related parts of the control system.....	6
4.10 Stability.....	6
4.10.1 General.....	6
4.10.2 Stability in different applications.....	6
4.10.3 Dragline bucket.....	7
4.10.4 Grab and front shovel.....	7
4.10.5 Object-handling applications.....	7
4.11 Cable excavator with electrical power source.....	7
5 Verification of safety requirements and protective measures	7
6 Information for use	7
Annex A (normative) Requirements for cable excavator swing brakes	9
Annex B (informative) Illustrations	12
Bibliography	15