

Australian Standard<sup>®</sup>

## Cranes, hoists and winches

### Part 5: Mobile cranes (EN 13000:2010, MOD)

*AS 1418.5—2013, Cranes, hoists and winches, Part 5: Mobile cranes (EN 13000:2010, MOD), is a modified adoption of EN 13000:2010, Cranes—Mobile cranes, and is reproduced with the permission of CEN, Avenue Marnix 17, B-1000 Brussels, Belgium. All exploitation rights of the European Standards in any form and by any means are reserved worldwide to CEN and its National Members, and no reproduction may be undertaken without express permission in writing by CEN through Standards Australia Limited.*



This Australian Standard® was prepared by Committee ME-005, Cranes. It was approved on behalf of the Council of Standards Australia on 13 May 2013.  
This Standard was published on 7 June 2013.

---

The following are represented on Committee ME-005:

- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Institute for Non-Destructive Testing
- Bureau of Steel Manufacturers of Australia
- Crane Association of New Zealand
- Crane Industry Council of Australia
- Department of Commerce, WorkSafe Division (WA)
- Department of Justice and Attorney General, Qld
- Department of Labour New Zealand
- Electricity Engineers Association (New Zealand)
- Elevating Work Platform Association of Australia
- Engineers Australia
- Horticulture New Zealand
- Institution of Professional Engineers New Zealand
- NSW Department of Trade and Investment, Regional Infrastructure and Services
- Transport NSW
- Vehicle Loading Crane Interests
- WorkCover New South Wales
- WorkSafe Victoria

Additional Interests:

- CPE Machinery
  - Caelli Constructions, Vic.
  - Fatco Engineering Australia
  - Putzmeister Australia
  - S and T Services
  - Schwing Australia
  - Stewart Associates, Construction Engineers
- 

This Standard was issued in draft form for comment as DR2 AS 1418.5.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

---

### **Keeping Standards up-to-date**

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting [www.standards.org.au](http://www.standards.org.au)

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.org.au](mailto:mail@standards.org.au), or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

---

Australian Standard<sup>®</sup>

**Cranes, hoists and winches**

**Part 5: Mobile cranes  
(EN 13000:2010, MOD)**

First published as AS 1418.5—1980.  
Sixth edition 2013.

**COPYRIGHT**

© Standards Australia Limited

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 484 1

## PREFACE

This Standard was prepared by the Standards Australia Committee ME-005, Cranes, to supersede AS 1418.5—2002.

The objective of this Standard is to set out requirements for the design of mobile cranes for reference by mobile crane designers, users and regulators.

This Standard is an adoption with national modifications and has been reproduced from EN 13000:2010, *Cranes—Mobile cranes* and has been varied as indicated to take account of Australian conditions. The modifications are listed in Appendix ZZ.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this European Standard’ should read ‘this Australian Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex or appendix to which they apply. A ‘normative’ annex or appendix is an integral part of a Standard, whereas an ‘informative’ annex or appendix is only for information and guidance.

The CEN introduction refers to Type A, B and C standards. The source document is classified as a Type C Standard. The classifications are defined as follows:

- (i) Type A standards give basic concepts, principles for design and general aspects that can be applied to all machinery.
- (ii) Type B standards deal with one safety aspect (e.g. minimum distances, noise, temperatures) or one type of safeguard that can be used across a wide range of machinery.
- (iii) Type C standards deal with detailed safety requirements for a particular machine or group of machines. They contain performance requirements and/or descriptive specifications for individual products or product families.

## CONTENTS

<b>1</b>	<b>Scope .....</b>	<b>9</b>
<b>2</b>	<b>Normative references .....</b>	<b>9</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>12</b>
<b>4</b>	<b>Safety requirements and/or protective measures .....</b>	<b>15</b>
<b>4.1</b>	<b>Structures and components .....</b>	<b>15</b>
<b>4.1.1</b>	<b>General.....</b>	<b>15</b>
<b>4.1.2</b>	<b>Load effects .....</b>	<b>16</b>
<b>4.1.3</b>	<b>Limit states .....</b>	<b>21</b>
<b>4.2</b>	<b>Equipment and devices.....</b>	<b>23</b>
<b>4.2.1</b>	<b>General principles.....</b>	<b>23</b>
<b>4.2.2</b>	<b>Control station .....</b>	<b>23</b>
<b>4.2.3</b>	<b>Protection against falling tools .....</b>	<b>25</b>
<b>4.2.4</b>	<b>Seats .....</b>	<b>25</b>
<b>4.2.5</b>	<b>Controls and control systems .....</b>	<b>26</b>
<b>4.2.6</b>	<b>Limiting and indicating devices .....</b>	<b>27</b>
<b>4.2.7</b>	<b>Steering system .....</b>	<b>33</b>
<b>4.2.8</b>	<b>Braking systems .....</b>	<b>34</b>
<b>4.2.9</b>	<b>Protection devices .....</b>	<b>36</b>
<b>4.2.10</b>	<b>Hydraulic and pneumatic systems and components.....</b>	<b>38</b>
<b>4.2.11</b>	<b>Pressure vessels and fuel tanks .....</b>	<b>40</b>
<b>4.2.12</b>	<b>Electric and electronic components and related phenomena .....</b>	<b>40</b>
<b>4.2.13</b>	<b>Hooks and hook blocks .....</b>	<b>41</b>
<b>4.2.14</b>	<b>Specific requirements for spare tyres/wheels .....</b>	<b>41</b>
<b>4.2.15</b>	<b>Specific requirements for pin jointed jib/fly jib connections .....</b>	<b>41</b>
<b>4.3</b>	<b>Visibility .....</b>	<b>41</b>
<b>4.3.1</b>	<b>Crane operator's field of view.....</b>	<b>41</b>
<b>4.3.2</b>	<b>Lighting.....</b>	<b>42</b>
<b>4.4</b>	<b>Noise and noise reduction .....</b>	<b>42</b>
<b>4.4.1</b>	<b>Noise and noise reduction at source by design.....</b>	<b>42</b>
<b>4.4.2</b>	<b>Noise reduction by information.....</b>	<b>42</b>
<b>4.5</b>	<b>Fire protection.....</b>	<b>42</b>
<b>4.5.1</b>	<b>Fire resistance.....</b>	<b>42</b>
<b>4.5.2</b>	<b>Fire extinguisher .....</b>	<b>43</b>
<b>4.6</b>	<b>Requirements for transport and travel .....</b>	<b>43</b>
<b>4.6.1</b>	<b>General.....</b>	<b>43</b>
<b>4.6.2</b>	<b>Separately transported parts .....</b>	<b>43</b>
<b>4.7</b>	<b>Roll over and tip over protection .....</b>	<b>43</b>
<b>5</b>	<b>Verification .....</b>	<b>43</b>
<b>5.1</b>	<b>Methods of verification .....</b>	<b>43</b>
<b>5.2</b>	<b>Test procedures and conditions .....</b>	<b>46</b>
<b>5.2.1</b>	<b>General.....</b>	<b>46</b>
<b>5.2.2</b>	<b>Conceptual verification by calculation .....</b>	<b>46</b>
<b>5.2.3</b>	<b>Conceptual verification by experiment .....</b>	<b>46</b>
<b>5.2.4</b>	<b>Examination after test .....</b>	<b>46</b>
<b>5.2.5</b>	<b>Test report .....</b>	<b>46</b>
<b>5.3</b>	<b>Verification based on noise emission values .....</b>	<b>47</b>
<b>6</b>	<b>Information for use .....</b>	<b>47</b>
<b>6.1</b>	<b>Format of instruction.....</b>	<b>47</b>

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-