
**Ships and marine technology —
Marine cranes — Manufacturing
requirements**

*Navires et technologie maritime — Grues marines — Exigences de
fabrication*

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 21125:2019](https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019)

<https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 21125:2019](https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019)

<https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General requirements	2
5 Fabrication standard	2
5.1 Materials.....	2
5.2 Welded connection of steel plates.....	2
5.3 Machinery processing.....	4
5.4 Anticorrosion and oil seal.....	5
6 Mechanical, hydraulic and electrical assembly	5
6.1 Field requirements.....	5
6.2 Mechanical assembly.....	5
6.3 Hydraulic assembly.....	6
6.4 Installation of electrical system.....	6
6.4.1 General requirements.....	6
6.4.2 Cable lay.....	6
6.5 Other installations.....	6
6.6 Shipboard installation.....	7
7 Lubricating, oil sealing and coating	7
8 Tests	8
9 Markings and plates	8
Bibliography	9

[ISO 21125:2019](https://standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33c8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019>

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 4, *Outfitting and deck machinery*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

<https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019>

Ships and marine technology — Marine cranes — Manufacturing requirements

1 Scope

This document specifies the general technical manufacturing requirements for marine cranes of metal construction.

This document is applicable to the following types of marine cranes:

- deck cranes mounted on ships for handling cargo or containers in harbour conditions;
- floating cranes or grab cranes mounted on barges or pontoons for operating in harbour conditions;
- engine room cranes and provision cranes, etc. mounted on ships (including floating docks) for handling equipment and stores in harbour conditions.

NOTE Marine cranes in other types of crane can refer to this document.

This document does not apply to cranes manufactured to operate in:

- ambient operating temperatures below -20 °C ;
- ambient operating temperatures above $+45\text{ °C}$;
- lifting operations below sea level;
- lifting operations involving more than one crane;
- emergency rescue operations;
- shore-side cargo handling cranes;
- lifting lifeboats, liferafts accommodation ladders, pilot ladders, gangways and their handling appliances;
- launching appliances for survival craft and rescue boats.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3828, *Shipbuilding and marine structures — Deck machinery — Vocabulary and symbols*

ISO 4306-1, *Cranes — Vocabulary — Part 1: General*

ISO 19354:2016, *Ships and marine technology — Marine cranes — General requirements*

ISO 19355, *Ships and marine technology — Marine cranes — Structural requirements*

ISO 19356, *Ships and marine technology — Marine cranes — Test specifications and procedures*

ISO 19360, *Ships and marine technology — Marine cranes — Technical requirements for rigging applications*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4306-1, ISO 3828 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 oil sealing

process of coating the machining surface of metal components with anti-corrosion grease to prevent corrosion

4 General requirements

The manufacturing of marine cranes shall be in accordance with ISO 19354, ISO 19355, ISO 19356 and ISO 19360.

5 Fabrication standard

5.1 Materials

5.1.1 Materials of marine cranes shall meet the requirements of 4.3 in ISO 19354:2016.

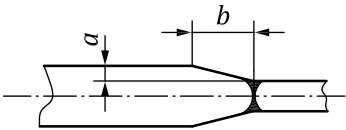
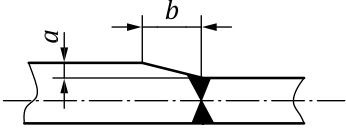
5.1.2 Detailed test records shall be kept for all the specified materials requiring testing. Inspection certificates shall be provided for the inspected materials required by a ship inspection institution.

5.2 Welded connection of steel plates ISO 21125:2019

<https://standards.iteh.ai/catalog/standards/iso/10f5c3bc-33e8-476f-b2f0-e1a6cf5f97cd/iso-21125-2019>

5.2.1 The connection of components of different thickness shall be in accordance with [Table 1](#).

Table 1 — Requirements for the connection of components of different thickness

Butting form	Transitional slope
	$a:b \leq 1:3$
	$a:b \leq 1:3$

NOTE If the thickness difference is less than 4 mm, the connection can be done by its shape evenly within the welding width.