BS ISO 16707:2016

BSI Standards Publication

Ships and marine technology — Marine evacuation systems — Determination of capacity

Documents
Document Sharing Hub

Full document details: BS ISO 16707:2016

National foreword

This British Standard is the UK implementation of ISO 16707:2016.

The UK participation in its preparation was entrusted to Technical Committee SME/32, Ships and marine technology - Steering committee.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 78148 3

ICS 47.020.01

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2016.

Amendments/corrigenda issued since publication

Date	Text affected

Documents
Document Sharing Hub

Full document details: BS ISO 16707:2016

INTERNATIONAL STANDARD

ISO 16707

First edition
2016-10-15

Ships and marine technology — Marine evacuation systems — Determination of capacity

Navires et technologie maritime — Systèmes d'évacuation en mer — Détermination de la capacité

Reference number
ISO 16707:2016(E)

Documents
Document Sharing Hub

© ISO 2016

Full document details: BS ISO 16707:2016

COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, 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

© ISO 2016 – All rights reserved

Documents
Document Sharing Hub

Full document details: BS ISO 16707:2016

Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **1**
4 Test arrangement ... **2**
4.1 Test rig ... 2
4.2 Position of the test rig ... 2
4.3 Installation height of MES ... 2
4.4 MES/ship interface ... 3
4.5 Associated survival craft ... 3
4.6 Access to embarkation area ... 3
5 Test persons ... **3**
5.1 Number of test persons ... 3
5.2 Selection of test persons ... 3
6 Test procedure ... **4**
7 Test timing ... **4**
7.1 Timekeepers ... 4
7.2 Sequences to be timed ... 5
8 Capacity calculation ... **6**
8.1 Principle ... 6
8.2 Formulae and abbreviations ... 6
8.3 Calculation of average descent time ... 6
8.4 Calculation of survival craft handling time and boarding time ... 7
8.5 Calculation of congestion time ... 7
8.6 Calculation of MES capacity ... 8
8.7 Calculation adjustment for increased/reduced height of passage (see 4.3) ... 8
Annex A (informative) **Capacity calculation examples** ... **9**
Annex B (informative) **Test forms** ... **17**

© ISO 2016 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 16707:2016

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 on 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 the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Lifesaving and fire protection*.

© ISO 2016 – All rights reserved
Documents
Document Sharing Hub
Full document details: BS ISO 16707:2016

Introduction

This document is intended to provide means of evaluating and determining the maximum evacuation capacity of marine evacuation systems (MES). As a consequence of MES systems being installed on large passenger ships, there has been an increase in system capacity during recent years. This document provides a uniform test regime while reducing the risk of injury to test personnel by reducing the number of persons required to complete the test. The capacity determined through this document is based on trial conditions as described in referenced IMO instruments and does not take into account factors such as adverse weather conditions, ship-specific installations or arrangements, or the physical capabilities of the passengers to be evacuated.

© ISO 2016 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 16707:2016

Documents
Document Sharing Hub

INTERNATIONAL STANDARD ISO 16707:2016(E)

Ships and marine technology — Marine evacuation systems — Determination of capacity

1 Scope

This document specifies a procedure for the evaluation and determination of the capacity of a marine evacuation system as required by the International Maritime Organization Life-Saving Appliance Code (LSA Code) and as an alternative to the procedure specified in Resolution MSC.81(70) part 1/12.6.1.

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.

IMO Revised recommendation on testing of life-saving appliances [IMO Resolution MSC.81(70) (as amended through IMO Resolution MSC.321(89)]

IMO International Life-Saving Appliance (LSA) Code [IMO Resolution MSC.48(66) (as amended through IMO Resolution MSC.320(89)]

IMO International Convention for the Safety of Life at Sea (SOLAS), 1974 [as amended through Res. MSC.47(66)]

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
available evacuation time
total period allowed for evacuation of the ship

Note 1 to entry: 30 min for SOLAS passenger ships or in 17 min and 40 s for passenger ships subject to the High Speed Craft (HSC) Code.

3.2
approved installation height
maximum installation height for which the *MES* (3.5) is to be approved

3.3
associated survival craft
craft forming part of and used in conjunction with a *marine evacuation system* (3.5) and which are not directly accessible via the *passage* (3.7)

3.4
handling of associated survival craft
deployment, retrieval, inflation, mooring, and other actions necessary to prepare the *survival craft* (3.9) for boarding

© ISO 2016 – All rights reserved

Documents
Document Sharing Hub
Full document details: BS ISO 16707:2016