



DPC: 18 / 30375257 DC

**BSI Group Headquarters**

389 Chiswick High Road London W4 4AL

Tel: + 44 (0)20 8996 9000

Fax: + 44 (0)20 8996 7400

www.bsigroup.com

Date: 26 April 2018

Origin: European

**Latest date for receipt of comments: 13 June 2018**

Project No. 2018/00868

Responsible committee: ACE/12 Aerospace fasteners and fastening systems

Interested committees:

Title: Draft BS EN 7101 Aerospace series - Bolt, cylindrical head, hexagonal socket, metric and inch series - Product standard

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

- i) has any issues related to 3rd party IPR, patent or copyright
- ii) affects other national standard(s)
- iii) requires additional national guidance or information

**WARNING: THIS IS A DRAFT AND MUST NOT BE REGARDED OR USED AS A BRITISH STANDARD.  
THIS DRAFT IS NOT CURRENT BEYOND 13 June 2018**

This draft is issued to allow comments from interested parties; all comments will be given consideration prior to publication. No acknowledgement will normally be sent. **See overleaf for information on the submission of comments.**

No copying is allowed, in any form, without prior written permission from BSI except as permitted under the Copyright, Designs and Patent Act 1988 or for circulation within a nominating organization for briefing purposes. Electronic circulation is limited to dissemination by e-mail within such an organization by committee members.

Further copies of this draft may be purchased from BSI Shop <http://shop.bsigroup.com> or from BSI Customer Services, Tel: + 44(0) 20 8996 9001 or email [cservices@bsigroup.com](mailto:cservices@bsigroup.com). British, International and foreign standards are also available from BSI Customer Services.

Information on the co-operating organizations represented on the committees referenced above may be obtained from <http://standardsdevelopment.bsigroup.com>

Responsible Committee Secretary: **Committee Service Centre (BSI)**  
Direct tel: **020 8996 7009**  
E-mail: **csc@bsigroup.com**

## Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

## UK Vote

Please indicate whether you consider the UK should submit a negative (with reasons) or positive vote on this draft.

## Submission of Comments

- The guidance given below is intended to ensure that all comments receive efficient and appropriate attention by the responsible BSI committee. **Annotated drafts are not acceptable and will be rejected.**
- All comments must be submitted, preferably electronically, to the Responsible Committee Secretary at the address given on the front cover. Comments should be compatible with version 6.0 or version 97 of Microsoft Word for Windows, if possible; otherwise comments in ASCII text format are acceptable. **Any comments not submitted electronically should still adhere to these format requirements.**
- All comments submitted should be presented as given in the example below. Further information on submitting comments and how to obtain a blank electronic version of a comment form are available from the BSI website at: <http://drafts.bsigroup.com/>

## Template for comments and secretariat observations

|                  |                               |
|------------------|-------------------------------|
| Date: xx/xx/20xx | Document: <b>ISO/DIS xxxx</b> |
|------------------|-------------------------------|

| 1  | 2                                          | (3)                           | 4               | 5                                                                                                                                  | (6)                                                                      | (7)                                                |
|----|--------------------------------------------|-------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|
| MB | Clause No./ Subclause No./Annex (e.g. 3.1) | Paragraph/ Figure/ Table/Note | Type of comment | Comment (justification for change) by the MB                                                                                       | Proposed change by the MB                                                | Secretariat observations on each comment submitted |
|    | 3.1                                        | Definition 1                  | ed              | Definition is ambiguous and needs clarifying.                                                                                      | Amend to read '...so that the mains connector to which no connection...' |                                                    |
|    | 6.4                                        | Paragraph 2                   | te              | The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK. | Delete reference to UV photometer.                                       |                                                    |

**ASD/TC**

Date: xxxx-xx

**EN 7101**

ASD/TC

Secretariat:

## **Aerospace series — Bolt, cylindrical head, hexagonal socket, metric and inch series – Product standard**

*Luft- und Raumfahrt — Zylinderkopfschraube, Innensechskant, Metrische und Zöllige Reihe - Produktnorm*

*Série aéronautique — Vis à tête cylindrique à 6 pans creux, filetage métrique et imperial – Norme de produit*

ICS: xx.xxx.xx

Descriptors: Aircraft industry, aircraft equipment, bolt, lockwire hole, cylindrical head, bolt thread, specification, characteristic, dimension, dimensional tolerance, surface treatment, designation, marking

Document type: European Standard  
Document subtype:  
Document stage:  
Document language: E

## Contents

Page

|                                                          |           |
|----------------------------------------------------------|-----------|
| <b>Foreword</b> .....                                    | <b>2</b>  |
| <b>1 Scope</b> .....                                     | <b>3</b>  |
| <b>2 Normative references</b> .....                      | <b>3</b>  |
| <b>3 Required characteristics</b> .....                  | <b>4</b>  |
| <b>4 Designation</b> .....                               | <b>12</b> |
| <b>5 Marking</b> .....                                   | <b>12</b> |
| <b>6 Technical specification and qualification</b> ..... | <b>12</b> |
| <b>7 Oversized bolts</b> .....                           | <b>12</b> |

## Foreword

This document (EN 7101) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by xxxx, and conflicting national standards shall be withdrawn at the latest by xxxx.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

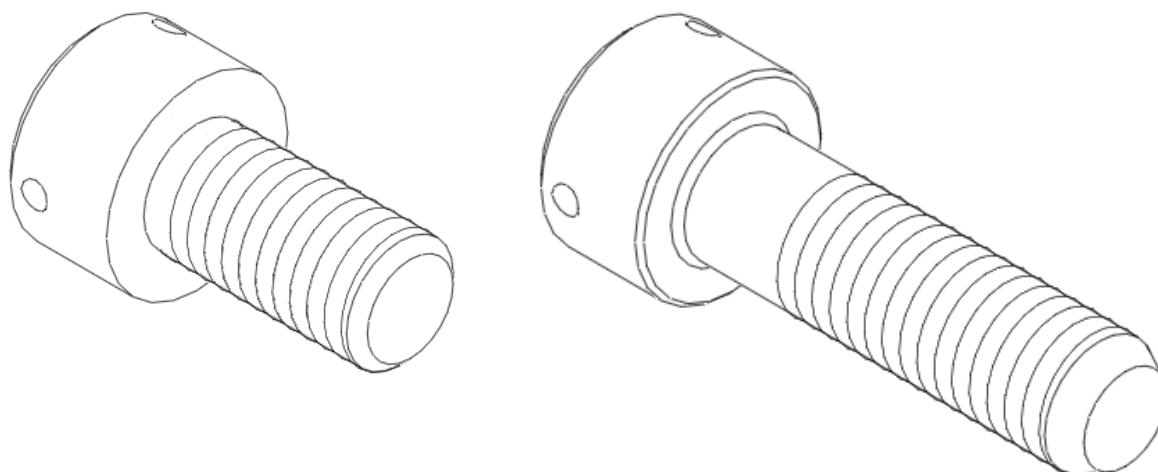
## 1 Scope

See Figure 1.

This standard specifies the characteristics of cylindrical head bolts with hexagonal recess, metric and inch series.

This EN standard is created to be compliant with the constraints of the REACH regulation.

The current edition includes the values for the metric system only. The values for the imperial system will be added in a future edition.



Fully threaded screw

Normal shank bolt

**Figure 1: Isometric view**

## 2 Normative references

The following referenced documents are indispensable for the application 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.

**EN 4016**      *Aerospace series – Oversized bolts*

**EN 7010**      *Aerospace series — User guide for creation and designation of bolts*