



**NSAI**  
Standards

Irish Standard  
I.S. EN 4131:2009

Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, medium length thread, in heat resisting nickel base alloy, aluminium IVD coated - Classification: 1 250 MPa (at ambient temperature) / 425 °C

## I.S. EN 4131:2009

*Incorporating amendments/corrigenda/National Annexes issued since publication:*  
EN 4131:2009/AC:2010

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<i>This document replaces:</i>	<i>This document is based on:</i> EN 4131:2009	<i>Published:</i> 15 April, 2009
This document was published under the authority of the NSAI and comes into effect on: 7 July, 2009		ICS number: 49.030.20
<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie
Údarás um Chaighdeáin Náisiúnta na hÉireann		

**I.S. EN 4131:2009**

**EUROPEAN STANDARD**

**EN 4131:2009/AC**

**NORME EUROPÉENNE**

April 2010

Avril 2010

**EUROPÄISCHE NORM**

April 2010

**ICS 49.030.20**

English version  
Version Française  
Deutsche Fassung

Aerospace series - Bolts, normal hexagonal head, coarse tolerance normal shank, medium length thread, in heat resisting nickel base alloy, aluminium IVD coated - Classification: 1 250 MPa (at ambient temperature) / 425 °C

Série aérospatiale - Vis à tête hexagonale normale, tige normale à tolérance large, filetage moyen, en alliage résistant à chaud à base de nickel, revêtues aluminium IVD - Classification: 1 250 MPa (à température ambiante) / 425 °C

Luft- und Raumfahrt - Sechskantschrauben, mittlere Gewindelänge, aus hochwarmfester Nickelbasislegierung, Aluminium IVD beschichtet - Klasse: 1 250 MPa (bei Raumtemperatur) / 425 °C

This corrigendum becomes effective on 28 April 2010 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 28 avril 2010 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 28. April 2010 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.

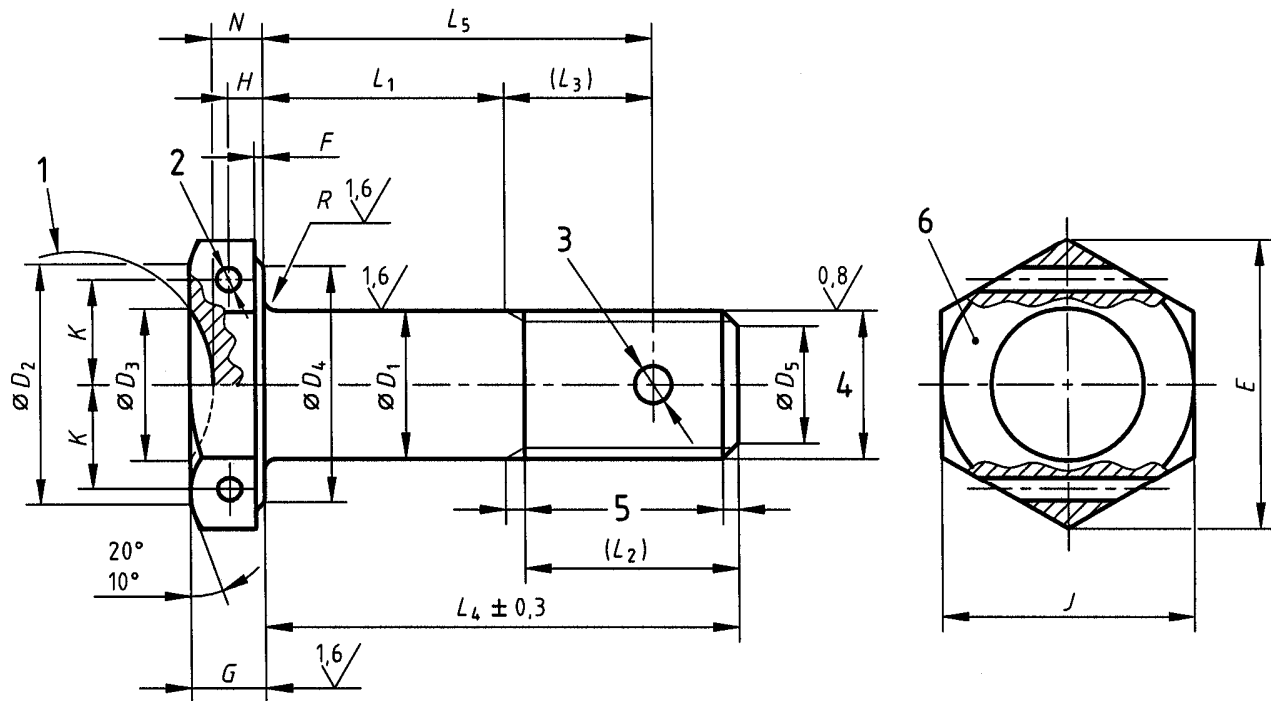


EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

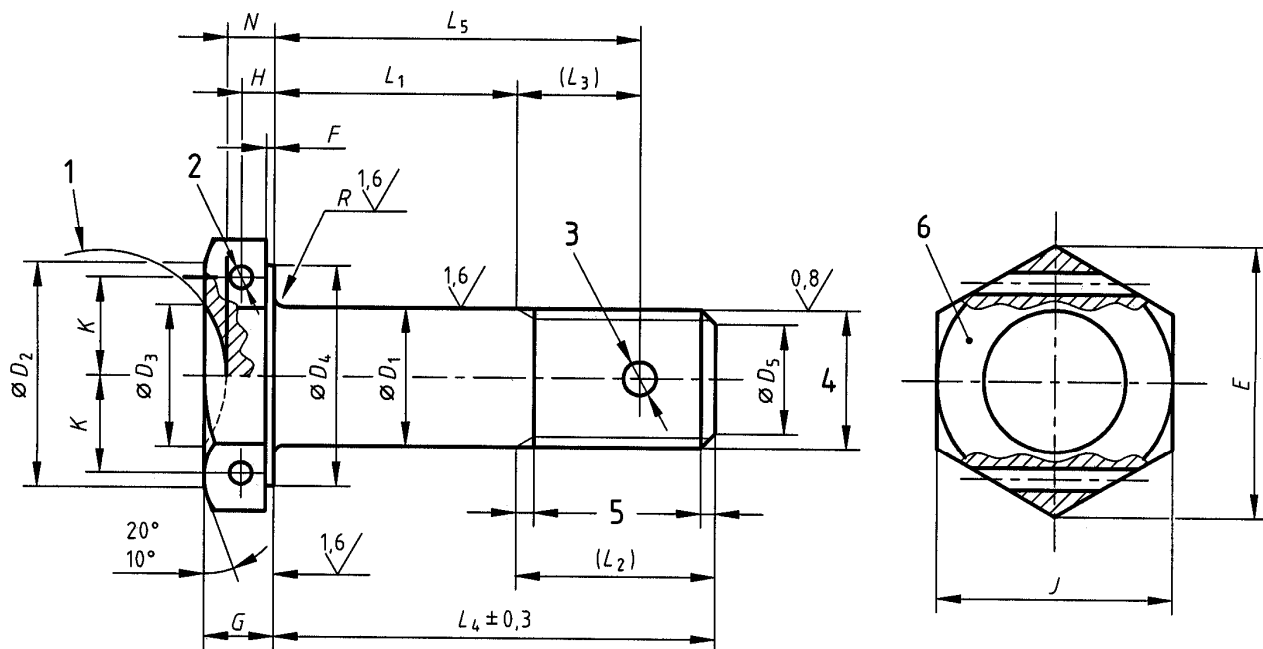
**Management Centre: Avenue Marnix 17, B-1000 Brussels**

# 1 Modification 1

Replace Figure 1: "



" with the following: "



"

ICS 49.030.20

English Version

**Aerospace series - Bolts, normal hexagonal head, coarse  
tolerance normal shank, medium length thread, in heat resisting  
nickel base alloy, aluminium IVD coated - Classification: 1 250  
MPa (at ambient temperature) / 425 °C**

Série aéronautique - Vis à tête hexagonale normale, tige  
normale à tolérance large, filetage moyen, en alliage  
résistant à chaud à base de nickel, revêtues aluminium IVD  
- Classification : 1 250 MPa (à température ambiante) / 425  
°C

Luft- und Raumfahrt - Sechskantschrauben, mittlere  
Gewindelänge, aus hochwarmfester Nickelbasislegierung,  
Aluminium IVD beschichtet - Klasse : 1 250 MPa (bei  
Raumtemperatur) / 425 °C

This European Standard was approved by CEN on 12 March 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	3
1 <b>Scope</b> .....	4
2 <b>Normative references</b> .....	4
3 <b>Required characteristics</b> .....	5
4 <b>Designation</b> .....	8
5 <b>Marking</b> .....	8
6 <b>Technical specification</b> .....	8

## **Foreword**

This document (EN 4131:2009) 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 October 2009, and conflicting national standards shall be withdrawn at the latest by October 2009.

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

This standard specifies the characteristics of bolts, normal hexagonal head, coarse tolerance normal shank, medium length thread, in heat resisting nickel base alloy, aluminium IVD coated.

Classification: 1 250 MPa <sup>1)</sup> / 425 °C <sup>2)</sup>

## 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 2424, *Aerospace series — Marking of aerospace products*

EN 2952, *Aerospace series — Heat resisting alloy NI-PH2601 — Solution treated and cold worked — Bar for forged fasteners —  $D \leq 50 \text{ mm}$  —  $1\,270 \text{ MPa} \leq R_m \leq 1\,550 \text{ MPa}$  <sup>3)</sup>*

EN 3219, *Aerospace series — Heat resisting nickel base alloy (Ni-P100HT) — Cold worked and softened — Bar and wire for continuous forging or extrusion for fasteners —  $3 \leq D \leq 30 \text{ mm}$  <sup>3)</sup>*

EN 9100, *Aerospace series — Quality management systems — Requirements (based on ISO 9001:2000) and Quality systems — Model for quality assurance in design, development, production, installation and servicing (based on ISO 9001:1994)*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

ISO 3193, *Aerospace — Bolts, normal hexagonal head, normal shank, short or medium length MJ threads, metallic material, coated or uncoated, strength classes less than or equal to 1 100 MPa — Dimensions*

ISO 3353-1, *Aerospace — Lead and runout threads — Part 1: Rolled external threads*

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*

ISO 7913, *Aerospace — Bolts and screws, metric — Tolerances of form and position*

ISO 9154, *Aerospace — Bolts, with MJ threads, made of heat-resistant nickel-based alloy, strength class 1 550 MPa — Procurement specification*

TR 3775, *Aerospace series — Bolts and pins — Materials* <sup>4)</sup>

MIL-DTL-83488D, *Coating, aluminium, high purity* <sup>5)</sup>

---

1) Minimum tensile strength of the material at ambient temperature.

2) Maximum that the bolt can withstand without continuous change in its original characteristics, after return to ambient temperature. The maximum temperature is determined by the surface treatment.

3) In preparation at the date of publication of this standard.

4) Published as ASD Technical Report at the date of publication of this standard.

5) Published by: Department of Defense (DOD), the Pentagon, Washington, D.C. 20301, USA.



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
-