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**JIS B 1081** : 1997

(ISO 3800 : 1993)

**Threaded fasteners—  
Axial load fatigue testing—  
Test methods and evaluation  
of results**

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ICS 21.040.01

**Descriptors** : threads, threaded fasteners, fatigue testing, tensile testing

**Reference number** : JIS B 1081 : 1997 (E)

B 1081 : 1997 (ISO 3800 : 1993)

## **Foreword**

**This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently JIS B 1081 : 1991 is replaced with JIS B 1081 : 1997.**

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In the event of any doubts arising as to the contents,  
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# Threaded fasteners— Axial load fatigue testing— Test methods and evaluation of results

**Introduction** This Japanese Industrial Standard has been prepared based on ISO 3800, *Threaded fasteners—Axial load fatigue testing—Test methods and evaluation of results* issued in 1993 as the first edition without changing the technical contents.

The “Remarks” and “Informative references” underlined with dots in this Standard are the matters not included in the original International Standard.

**1 Scope** This Japanese Industrial Standard specifies the conditions for carrying out axial load fatigue tests on threaded fasteners, as well as recommendations for the evaluation of the results.

Unless otherwise agreed, the tests are of the fluctuating tension type and are carried out at room temperature, the loading applied being centric along the longitudinal axis of the fastener. The influence of the compliance of clamped parts on the strain of the fastener is not taken into account.

This method allows determination of the fatigue strength of threaded fasteners.

The test results can be influenced by the test conditions. For this reason, minimum requirements are specified to reduce this effect. In addition, calibration and centering control methods for the testing apparatus are included.

Remarks : The International Standard corresponding to this Standard is as follows.  
ISO 3800 : 1993 *Threaded fasteners—Axial load fatigue testing—Test methods and evaluation of results*

**2 Normative references** The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS B 1001 *Diameter of clearance holes and counterbores for bolts and screws*

Remarks : The provisions cited from ISO 273 : 1979, *Fasteners—Clearance holes for bolts and screws* are equivalent to the corresponding provisions in the said standard.

JIS B 1005 *Radii under the head for external threaded fasteners*

Remarks : The provisions cited from ISO 885 : 1976, *General purpose bolts and screws—Metric series—Radii under the head* are equivalent to the corresponding provisions in the said standard.

JIS B 1181 *Hexagon nuts and hexagon thin nuts*

Remarks : The provisions cited from ISO 4032 : 1986, *Hexagon nuts, style 1—Product grades A and B*, ISO 4033 : 1979, *Hexagon nuts, style 2—Product grades A and B*, ISO 8673 : 1988, *Hexagon nuts, style 1, with metric fine pitch thread—Product grades A and B* and ISO 8674 : 1988, *Hexagon nuts, style 2, with metric fine pitch thread—Product grades A and B*, are equivalent to the corresponding provisions in the said standard.