

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

---

**JIS D 4103** : 2015

(JSAE)

**Automobile parts—Wheels—  
Performance requirements and  
marking**

---

ICS 43.040.50

Reference number : **JIS D 4103 : 2015 (E)**

D 4103 : 2015

Date of Establishment: 1984-04-01

Date of Revision: 2015-07-21

Date of Public Notice in Official Gazette: 2015-07-21

Investigated by: Japanese Industrial Standards Committee  
Standards Board for ISO area

---

JIS D 4103:2015, First English edition published in 2016-05

Translated and published by: Japanese Standards Association  
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

---

In the event of any doubts arising as to the contents,  
the original JIS is to be the final authority.

© JSA 2016

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

IH/AT

PROTECTED BY COPYRIGHT

## Contents

|  | Page |
|--|------|
| Introduction.....  | 1    |
| 1 Scope.....   | 1    |
| 2 Normative references .....   | 1    |
| 3 Terms and definitions .....  | 2    |
| 4 Performances.....  | 2    |
| 4.1 General.....   | 2    |
| 4.2 Resistance to dynamic cornering fatigue .....  | 2    |
| 4.3 Resistance to dynamic radial fatigue .....   | 3    |
| 4.4 Impact resistance for passenger car .....  | 3    |
| 4.5 Impact resistance for commercial car .....   | 3    |
| 5 Dimensions .....   | 3    |
| 5.1 Contours of rims .....   | 3    |
| 5.2 Fastening methods and dimensions .....   | 3    |
| 6 Test methods .....   | 3    |
| 6.1 Dynamic cornering fatigue test .....   | 3    |
| 6.2 Dynamic radial fatigue test .....  | 6    |
| 6.3 Impact test for passenger car (13° loading method) .....   | 7    |
| 6.4 Impact test for commercial car (30° loading method).....   | 9    |
| 7 Marking.....   | 11   |
| Annex JA (informative) Comparison table between JIS and corresponding<br>International Standards ..... | 13   |

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Society of Automotive Engineers of Japan, Inc. (JSAE) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS D 4103**:1998 is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

# Automobile parts—Wheels— Performance requirements and marking

## Introduction

This Japanese Industrial Standard has been prepared based on the fourth edition of **ISO 3006** published in 2005, the third edition of **ISO 3894** published in 2005, and the third edition of **ISO 7141** published in 2005 with some modifications of the technical contents.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard specifies wheels made of steel and light alloy used on automobiles (hereafter referred to as “wheels”). However, this Standard does not apply to wheels used for emergency tyres, two-wheeled vehicles, industrial vehicles, construction vehicles and agricultural machines.

**NOTE :** The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 3006:2005 *Road vehicles—Passenger car wheels for road use—Test methods*

ISO 3894:2005 *Road vehicles—Wheels/rims for commercial vehicles—Test methods*

ISO 7141:2005 *Road vehicles—Light alloy wheels—Impact test* (overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS D 0101 *Glossary of terms relating to kinds of automobiles*

**NOTE :** Corresponding International standard: ISO 3833 *Road vehicles—Types—Terms and definitions* (MOD)

JIS D 4102 *Wheels and rims for pneumatic tyres—Vocabulary, designation and marking*

**NOTE :** Corresponding International standard: ISO 3911 *Wheels and rims for pneumatic tyres—Vocabulary, designation and marking* (IDT)