

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 5201 : 1998

Jig bushes and accessories

ICS 25.060.20

Descriptors : jig bushes, work-holding devices

Reference number : JIS B 5201 : 1998 (E)

B 5201:1998

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 5201 : 1989** is replaced with **JIS B 5201 : 1998**.

This revision, with purpose of conformity to the International Standards, employed both **ISO 4247** and **ISO 4248** while some provisions of former Standard were added.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

Date of Establishment: 1958-10-07

Date of Revision: 1998-01-20

Date of Public Notice in Official Gazette: 1998-01-20

Investigated by: Japanese Industrial Standards Committee

Divisional Council on Machine Elements

JIS B 5201:1998, First English edition published in 1999-04

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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Printed in Japan

Jig bushes and accessories

Introduction This Japanese Industrial Standard is made based on **ISO 4247**, *Jig bushes and accessories for drilling purposes—Dimensions*, first edited in 1977, and **ISO 4248**, *Jig bushes—Definitions and nomenclature*, first edited in 1978, without any changing to the technical details of the corresponding International Standards for the corresponding clauses (**2** Definitions, **3** Names of bushes and accessories and types of bushes, **4** Tolerances, and **5** Shapes and dimensions), and the standard details not provided in the corresponding International Standards (Dimension series J Type) are supplemented.

1 Scope This Japanese Industrial Standard specifies press-fit bushes and renewable bushes to be used as guide for drill and reamer, liners to guide them (hereafter referred to as “bushes” as generic term) and their accessories (tenon and locking screw).

Remarks: Corresponding International Standards are as follows:

ISO 4247:1977 *Jig bushes and accessories for drilling purposes—Dimensions*

ISO 4248:1978 *Jig bushes—Definitions and nomenclature*

2 Definitions The definitions of main terms used in this Standard shall be as follows:

- a) **press-fit bush** A bush pressed directly into the appropriate hole in the jig-plate and used for guiding a drill or reamer in cases where it is not anticipated that replacement of the bush will be necessary or where the dimensions between the centers of adjacent holes are such as to preclude the use of renewable bushes and liners. These may be classified to their design as headed or headless.
- b) **renewable bush** A renewable bush intended for insertion in a liner and used for guiding a drill or reamer. There are two types of renewable bushes, round type, which has no way to fix, and notch type, which is able to fix.
- c) **liner** A bush fitted permanently in a jig-plate for the purpose of accommodating renewable bushes. These may be classified to their design as headed or headless.

3 Names of bushes and accessories and types of bushes

3.1 Names Main names of bushes and accessories used in this Standard shall be in accordance with Fig. 1.

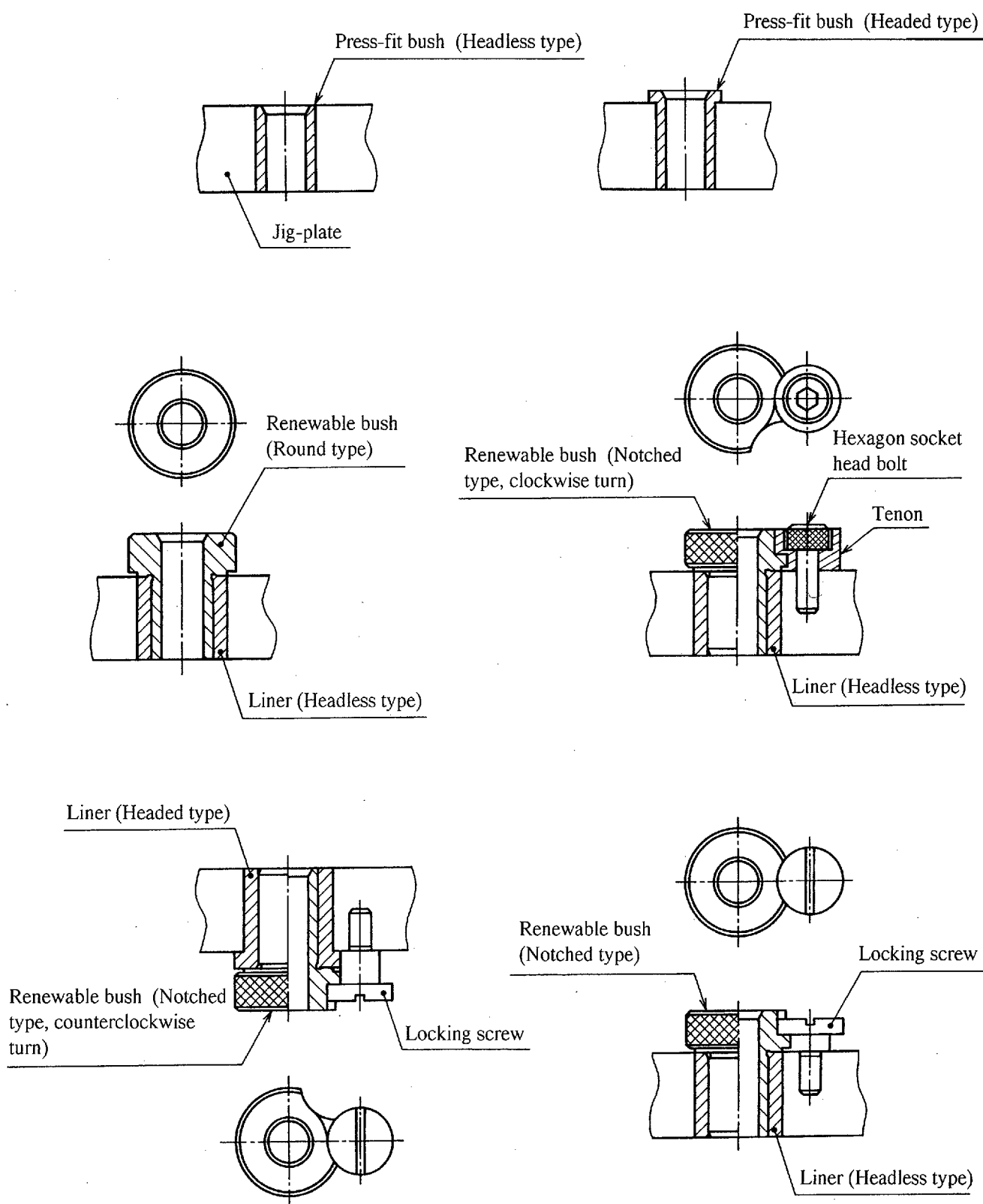


Fig. 1 Names

3.2 Types Types of bushes used in this Standard shall be in accordance with Table 1, according to shape, uses and dimension series.

Table 1 Types

Type	Shape	Use	Dimension series
Press-fit bush	Headless type	Drill	I-series
	Headed type	Reamer	J-series
Renewable bush	Round type		
	Notched type, clockwise turn		
	Notched type, counterclockwise turn		
	Notched type		
Liner	Headless type	Bush	
	Headed type		

Remarks: I-series of dimension series corresponds to ISO.

4 Tolerances Tolerance of bushes shall be in accordance with Table 2.

Table 2 Tolerances

Type	Use	I-series		J-type		Diameter of head d_2
		Diameter of bore d_1	Diameter of head d	Diameter of bore d_1	Diameter of head d	
Press-fit bush	Drill	F7	n6	G6	p6	h13
	Reamer	—	—	F7		
Renewable bush	Drill	F7	m6	G6	m5	
	Reamer	—	—	F7		
Liner	Bush	F7	n6		p6	

Remarks: Tolerance of jig-plate hole shall be H7.

5 Shapes and dimensions

5.1 Press-fit bushes Shapes and dimensions of press-fit bushes shall be in accordance with Table 3.

Table 3 Shapes and dimensions of press-fit bushes

