

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

 **JIS B 4630** : 1998

Open ended spanners

ICS

Descriptors :

Reference number : JIS B 4630 : 1998 (E)

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 4630:1994 is replaced with JIS B 4630:1998.

In this revision, Annex to this Standard has been prepared based on corresponding International Standards without any modification of technical contents to conform to ISOs. Further, to make difference between them minimize, a partial content of the former Standard has been amended in the body of this Standard.

Date of Establishment: 1952-03-08

Date of Revision: 1998-03-20

Date of Public Notice in Official Gazette: 1998-03-20

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Machine Elements

JIS B 4630 :1998, First English edition published in 1998-08

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

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

© JSA 1998

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

Open ended spanners

Introduction This standard is Japanese Industrial Standard prepared on the basis of the International Standards shown in the Remarks. However, in the main body of this Standard, the classification and grade specified conventionally in Japanese Industrial Standard and their shape and dimensions, quality, inspection, designation of products and marking are described. In Annex, relevant provisions in the corresponding International Standards are described without modifying the technical content. Further, specifications not contained in the corresponding International Standards (appearance, inspection, designation of products and marking) are additionally included in the Annex as a part of Japanese Industrial Standard.

The provisions underlined with dots in Annex are the matters not specified in the corresponding International Standards.

Remarks: The International Standards corresponding to this Standard are as follows:

ISO/DIS 691 : 1996, *Assembly tools for screws and nuts—Wrench and socket openings—Tolerances for general use*

ISO 1085 : 1986, *Assembly tools for screws and nuts—Double-ended wrenches—Size pairing*

ISO 1703 : 1983, *Assembly tools for screws and nuts—Nomenclature*

ISO 1171 : 1975, *Hand operated wrenches and sockets—Technical specifications*

ISO 3318 : 1990, *Assembly tools for screws and nuts—Double-headed open-ended wrenches, double-headed ring wrenches and combination wrenches—Maximum widths of heads*

ISO 4229 : 1977, *Assembly tools for screws and nuts—Single-head engineer's wrenches—Gaps from 50 mm to 120 mm*

ISO 10102 : 1990, *Assembly tools for screws and nuts—Double-headed open-ended engineers' wrenches*

1 Scope This Japanese Industrial Standard specifies the spanners of round and spear-shape head types (hereafter referred to as “spanner”) used as assembly or disassembly tools for bolts, nuts and square head set screws.

2 Normative reference The following standard contains provisions which, through reference in this Standard, constitutes provisions of this Standard. For this referred standard, only the edition of indicated year constitutes the provisions of this Standard but the revision and supplement made thereafter are not applied.

JIS B 1002 : 1985 *Dimensions of widths across flats*

3 Classification and grade The classification and grade of spanners shall be as given in Table 1.

Table 1 Classification and grade

Classification		Grade	Symbol for grade
By shape of head	By number of head		
Round	Single-headed	Normal class	N
		High-strength class	H
	Double-headed	Normal class	N
		High-strength class	H
Spear-shape	Single-headed	—	S
	Double-headed		

4 Shape and dimensions

4.1 Tolerance on width across flats The tolerance on the width across flats shall be as given in Table 2 (see **JIS B 1002**).

Table 2 Tolerance for width across flats

Unit : mm

Nominal size	Tolerance	
	min.	max.
5.5	+0.02	+0.12
6, 7, 8, 9	+0.03	+0.15
10, 11	+0.04	+0.19
12, 13	+0.04	+0.24
14, 16	+0.05	+0.27
17, 18	+0.05	+0.30
19, 21, 22, 23, 24	+0.06	+0.36
26, 27, 29, 30, 32	+0.08	+0.48
35, 36, 38, 41, 46, 50	+0.10	+0.60
54, 55, 58, 60, 63, 65, 67, 70, 71	+0.12	+0.72
75, 77, 80	+0.16	+0.85

4.2 Round head type

4.2.1 Round single-headed spanner The shape and dimensions of round single headed spanners are as follows :

- The shape of round single head spanners should be as shown in Fig. 1.
- The dimensions of round single head spanners shall be according to Table 3.

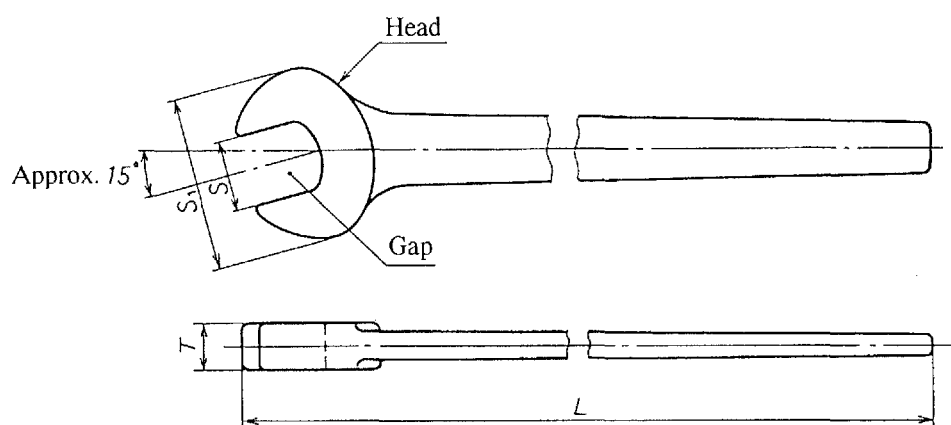


Fig. 1 Shape

Table 3 Dimensions

Unit : mm

Nominal size S	Outside head width S_1	Thickness T	Overall length L		Nominal size S	Outside head width S_1	Thickness T	Overall length L	
	max.	max.	Basic size	Tolerance		max.	max.	Basic size	Tolerance
5.5	17	3.2	80	$\pm 6\%$	30	68	13	270	$\pm 6\%$
6	18	3.5	85		32	73	14	285	
7	20	4	90		35	80	15	305	
8	22	4.5	95		36	81	15	320	
9	24	4.5	100		38	86	16	320	
10	26	5	110		41	91	17	360	
11	29	5.5	120		46	102	19	400	
12	30	6	125		50	110	20	430	
13	33	6.5	135		54	118	21	455	
14	35	7	140		55	121	21	470	
16	39	8	160		58	127	22	490	
17	41	8	165		60	131	23	510	
18	43	8.5	170		63	137	24	535	
19	45	9	180		65	142	24	550	
21	50	10	200		67	145	25	565	
22	52	10	205		70	152	26	590	
23	54	11	215		71	154	26	600	
24	56	11	220		75	162	28	630	
26	60	12	240		77	166	28	645	
27	62	12	245		80	173	29	670	
29	66	13	265						

4.2.2 Round double-headed spanner The shape and dimensions of round double-headed spanners are as follows:

- The shape of round double headed spanners should be as shown in Fig. 2.
- The dimensions of round double headed spanners shall be according to Table 4.

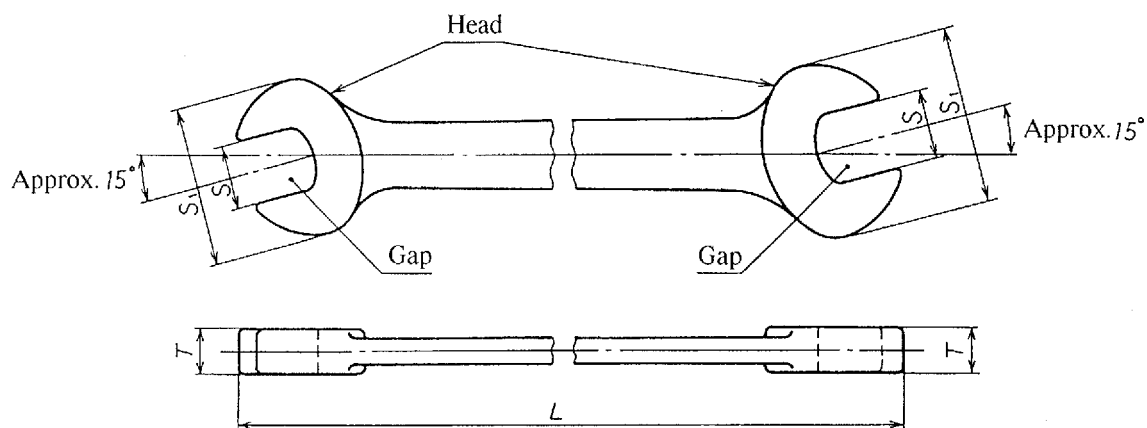


Fig. 2 Shape

Table 4 Pairing and dimensions

Unit : mm

Nominal size S	Outside head width S_1		Thickness T	Overall length L	
	Smaller side	Bigger side		Basic size	Tolerance
	max.	max.	max.		
5.5×7	17	20	4	100	± 6 %
6×7	18	20	4	100	
6×8	18	22	4.5	105	
7×8	20	22	4.5	105	
8×9	22	24	4.5	110	
8×10	22	26	5	120	
9×10	24	26	5	120	
10×11	26	29	5.5	125	
10×12	26	30	6	130	
10×13	26	33	6.5	135	
10×14	26	35	7	140	
11×13	29	33	6.5	135	
12×14	30	35	7	140	
13×16	33	39	8	160	
13×17	33	41	8	165	
14×17	35	41	8	165	
16×18	39	43	8.5	170	