

JIS

JAPANESE INDUSTRIAL STANDARD

Hand riveter

JIS B 4627—1994

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In the event of any doubt arising,
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Hand riveter

B 4627-1994

1. Scope This Japanese Industrial Standard specifies the hand riveters to be used for fastening the components and the like by using the blind rivets specified in the Annex.

Remarks: The standards cited in this Standard are given in the following:

JIS B 7725 Vickers hardness testing machines

JIS B 7726 Rockwell and Rockwell superficial hardness testing machines

JIS G 3311 Cold rolled special steel strip

JIS G 3444 Carbon steel tubes for general structural purposes

JIS G 3522 Piano wires

JIS G 4051 Carbon steels for machine structural use

JIS G 4102 Nickel chromium steels

JIS G 4105 Chromium molybdenum steels

JIS G 4804 Free cutting carbon steels

JIS H 5202 Aluminium alloy castings

JIS H 5302 Aluminium alloys die castings

JIS Z 2244 Method of Vickers hardness test

JIS Z 2245 Method of Rockwell and Rockwell superficial hardness test

2. Types The types of the hand riveters shall be three types of the one-hand vertical type, one-hand lateral type and two-hand vertical type.

3. Shapes and dimensions The shapes and dimensions of the hand riveters shall be as given in the following:

- (1) The shapes of the hand riveters shall generally be in accordance with Fig. 1.
- (2) The maximum dimensions of the hand riveters shall be in accordance with Table 1.

Table 1. Maximum dimensions

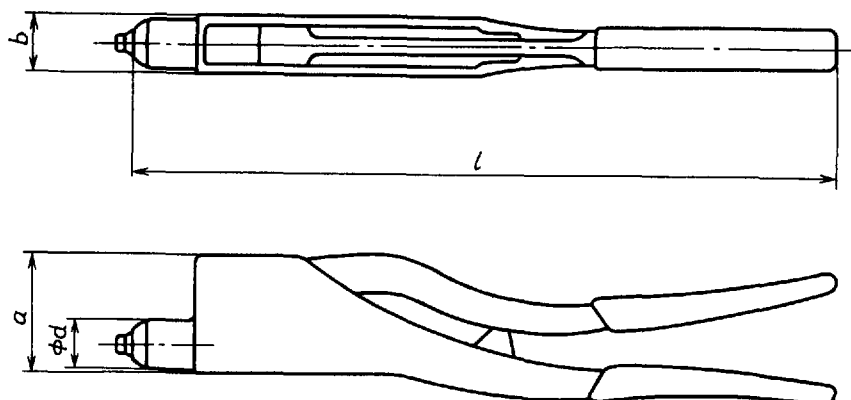
Unit: mm

Type	<i>a</i>	<i>b</i>	<i>d</i>	<i>l</i>
One-hand vertical type	58	31	26	350
One-hand lateral type	95	31	26	300
Two-hand vertical type	97	37	32	780

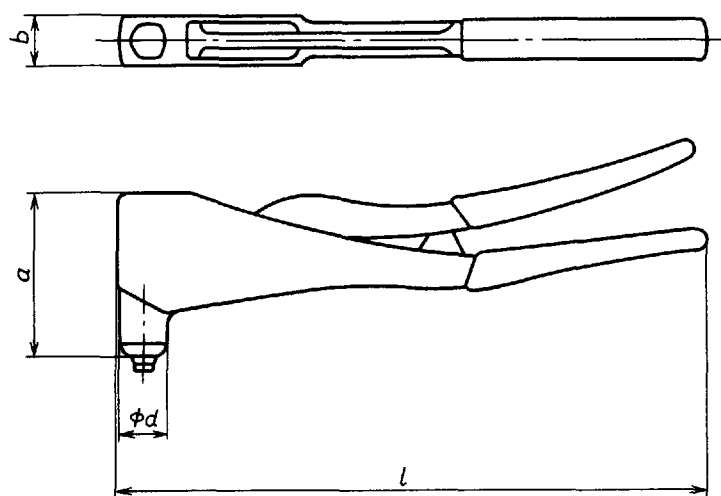
Remarks: The dimension *d* shall be measured at the place of 10 mm from the tip end of the body.

Fig. 1. Shapes

(1) One-hand vertical type



(2) One-hand lateral type



(3) Two-hand vertical type

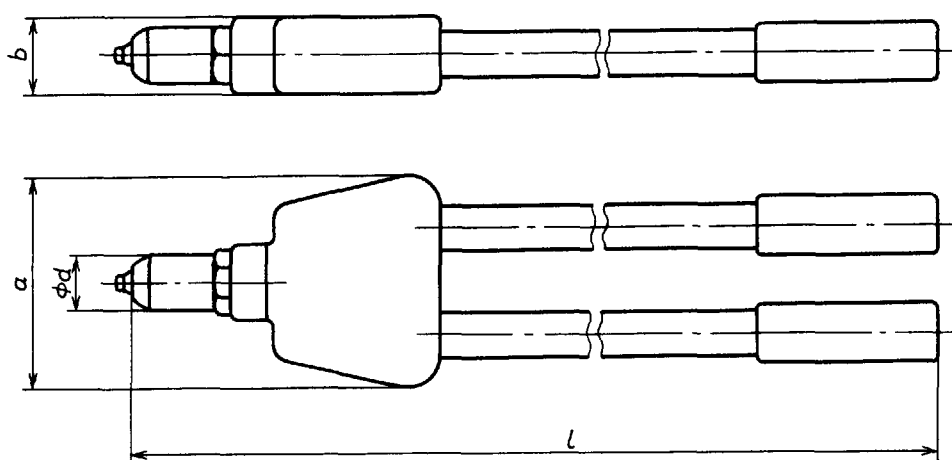
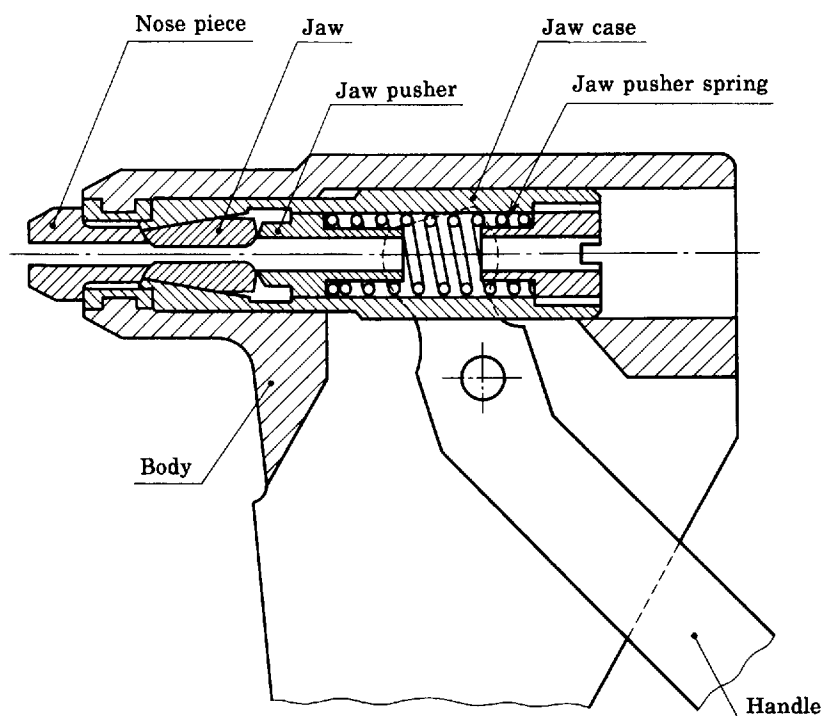


Fig. 1. (continued)

(4) Details of head parts (one-hand lateral type)

4. Qualities

4.1 Appearance The appearance of the hand riveters shall be free from cracks, harmful flaws, burrs, rust and other harmful defects in use, and the degrees of finish shall be excellent.

4.2 Functions

4.2.1 Strokes The strokes of the hand riveters, when subjected to the test of 6.1, shall be 4.5 mm or over for one-hand vertical type and one-hand lateral type, and 5.5 mm or over for two-hand vertical type.

4.2.2 Insertion, chucking and separation of blind rivet The insertion, chucking and separation of the blind rivet, when subjected to the test of 6.2, shall be such that the blind rivet conforming to each nose piece can be inserted smoothly and can be chucked without sliding.

Further, the core spindle after fastening the rivet shall fall naturally without entanglement.

4.2.3 Operating force of handle The operating force of the handle of the hand riveter, when subjected to the test of 6.3, shall be not more than the numerical value of Table 2.

Table 2. Operating forces

Unit: N	
Type	Operating force
One-hand vertical type	294
One-hand lateral type	294
Two-hand vertical type	196

4.3 Mechanical properties

4.3.1 Strength The hand riveter, when subjected to the test of 6.4, shall be free from the defects in use on each part, as well as satisfy the requirements of 4.2.1 and 4.2.2.

4.3.2 Hardness The hardness of the respective parts of the hand riveter, when subjected to the test of 6.5, shall be not smaller than the values of Table 3.

Table 3. Hardness

Name of parts	Hardness
Jaw	670 HV
Jaw case or jaw case head	490 HV (48 HRC)
Nose piece	600 HV

5. Materials The materials of the respective parts of the hand riveter shall be those in Table 4 or that satisfies the qualities specified in 4.

Table 4. Materials

Name of parts	Material
Jaw	SNC415 of JIS G 4102
Jaw case or jaw case head	S45C of JIS G 4051
Handle	SCM435 of JIS G 4105 S45CM of JIS G 3311 STK290 of JIS G 3444
Nose piece	SUM22 of JIS G 4804
Body	Class 4C of JIS H 5202 Class 10 of JIS H 5302 S30CM of JIS G 3311
Jaw pusher spring	Piano wire class A of JIS G 3522