

JIS

JAPANESE INDUSTRIAL STANDARD

Piano actions

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Piano actions

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1. Scope

This Japanese Industrial Standard specifies the piano actions, hereinafter referred to as the "actions".

Remarks: The standards cited in this Standard are shown in Attached Table 1.

2. Types

The actions shall be classified into upright type (including spinet type) and grand type.

3. Name of each part

The name of each part of action shall be in accordance with Attached Fig. 1 for upright type, and with Attached Figs. 2 and 3 for grand type.

4. Quality

The quality of actions shall comply with each following item:

- (1) The motion of action shall be smooth and sensitive, little in friction resistance and, when tested according to 7.1 and 7.2, shall not generate defects harmful to practical use.
- (2) The actions shall be arranged in complete coincidence with keys and correlating motions shall be good.
- (3) The motion of hammer shall be free from lateral vibration and the string striking shall be correct.
- (4) The correlating motions of damper and damper pedal shall be smooth and rapid.
- (5) The iron and steel parts such as screws, wires, etc. of each part shall be those applied with rust preventive treatment.

5. Structure and dimensions

The structure and dimensions of actions shall comply with each following item:

- (1) The mechanism of actions generally, in the case of upright type, shall be under damper action shown in Attached Fig. 1, and in the case of grand type, be double escapement repetition action shown in Attached Fig. 2 or Attached Fig. 3.

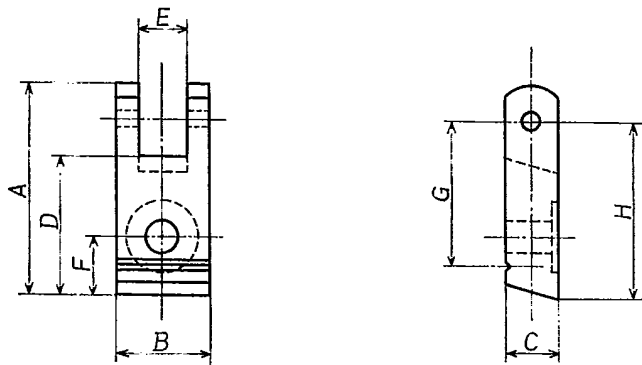
- (2) Upright type actions shall be of such structure that those are, individually, screw-stopped on the centre rail fixed with the bracket and as integral can be attached and detached with piano body by bracket.
- (3) Several times attaching part of flange of each part shall be so connected that the friction resistance is not generated in large amount by centre pin of 1.15 to 1.35 mm in diameter and bushing.
- (4) The centre pin of upright type hammer butt shall, as a rule, be fixed by butt plate.
- (5) The string striking distance of hammer shall, as a rule, be 40 to 50 mm, taking the depth 10 mm of motion of white key as the reference.
- (6) The hammer head shall be that the hammer wood is adhered rigidly by hammer felt of good quality.
- (7) The hammer shank shall be little in deflection and rich in elasticity, and the diameter for upright type and the diameter of fitting part with hammer head for grand type shall be 5.3 to 6.35 mm.
- (8) The damper head shall be equipped with felt rich in elasticity of good sound-stopping effect or that equivalent or superior in quality thereto.
- (9) The contact surface of hammer roller of grand type and hammer butt of upright type with the jack shall be equipped with action skin of good quality to be little in friction resistance and be so worked that the jack actuates rapidly.
- (10) The hammer rail or under rail of upright type and hammer rail of grand type shall be equipped with elastic cloth or that equivalent or superior thereto to prevent noise.
- (11) The contact surface of each part of actions shall be equipped with cushioning by felt cloth or action skin, etc. to prevent noise.
- (12) The shank flange of grand type actions shall be so screw-stopped securely with the shank rail that lateral vibration is not caused by round-head screw and washer and the centre pin, be interference fitted.
- (13) Each flange shown in Table 1 shall, as a rule, be screw-stopped securely by round-head screw.

Table 1. Classification of flange

Type	Classification of flanges
Grand type	Support flange Damper lever flange
Upright type	Wippen flange Hammer butt flange Hammer under rail flange Damper lever flange

- (14) Dimensions of upright type butt flange shall, as a rule, be as shown in Fig. 1.

Fig. 1. Dimension of flange



Unit: mm

Symbol	Dimension
A	29.0
B	12.0
C	7.0
D	18.0
E	6.5
F	8.5
G	20.0
H	24.0

6. Materials

Materials of actions to be used shall comply with each following item:

- (1) Materials of each part of actions to be used for other parts than those shown in Table 2 shall be such timbers as maple trees, white birches, birches, beeches, etc. or moulded plastics.