

# JIS

## JAPANESE INDUSTRIAL STANDARD

### Test methods for performance and accuracy of wood planers

JIS B 6502—1990

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by

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In the event of any doubt arising,  
the original Standard in Japanese is to be final authority.

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Test methods for performance and accuracy of wood planers

B 6502-1990

1. Scope

This Japanese Industrial Standard specifies the test methods related to functions, running performances and rigidities and the inspecting methods on accuracies and working accuracies of the wood planers given in Table 1 and rectangular two-side wood planers (hereinafter referred to as the "planers") among the planers of 100 mm or over to 900 mm or under in cutterblock length specified in JIS B 0114.

Table 1. Planers

| Name of machine                         |
|-----------------------------------------|
| Hand feed planer                        |
| Levelling planer                        |
| Levelling and thicknessing planer       |
| Levelling and moulding planer           |
| Single-surface planer                   |
| Double-surface planer                   |
| Three-side planing and moulding machine |
| Four-side planing and moulding machine  |

Remarks 1. The rectangular two-side planer means the planer which cuts and dresses adjacent two sides rectangularly.

2. The applicable Standards to this Standard are as given in the following.

JIS B 0114- Glossary of Terms for Wood Working Machinery

JIS B 0905- Balance Quality Requirements of Rigid Rotors

JIS B 6507- General Code of Safety for Wood Working Machinery

JIS B 6521- Methods of Measurement for Noise Emitted by Wood Working Machinery

JIS B 6601- Safety Standards for Construction of Single Surface Planers

3. The equivalent International Standards to this Standard are as given in the following.

ISO 7568 Woodworking machines—Thickness planing machines with rotary cutterblock for one-side dressing—Nomenclature and acceptance conditions

ISO 7569 Woodworking machines—Planing machines for two-, three-, or four-side dressing—Nomenclature and acceptance conditions

ISO 7570 Woodworking machines—Surface planing and thicknessing machines—Nomenclature and acceptance conditions

ISO 7571 Woodworking machines—Surface planing machines with cutterblock for one-side dressing—Nomenclature and acceptance conditions

4. The units and numerical values given in { } in this Standard are based on the traditional unit system and are appended for informative reference.

## Reference Standards:

JIS B 6501- Test Code for Performance and Accuracy of Wood Working Machinery

JIS B 7737- Balancing Machines

JIS Z 8203- SI Units and the Use of their Multiples and of Certain other Units

2. Methods for Functional Tests

The functional tests for planers shall be in accordance with Table 2.

Table 2. Functional Tests

| No. | Test item                                                                                        | Test method                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Electric equipment                                                                               | Before and after a running test, examine the insulating condition once each.                                                                                                                                                                                                                                                                                                                                      |
| 2   | Start, stop and running operation of main spindle                                                | At an appropriate main spindle speed of rotation, repeat 10 times of start and stop to examine.                                                                                                                                                                                                                                                                                                                   |
| 3   | Changing operation of main-spindle speed of rotation                                             | Change the main spindle speed of rotation on overall speeds of rotation in the marking to examine the smoothness of actions and reliability of indications of the operating device.                                                                                                                                                                                                                               |
| 4   | Start, stop and running operation of feed system of workpiece                                    | At an appropriate feed speed, repeat 10 times of start and stop to examine the smoothness and reliability of actions.                                                                                                                                                                                                                                                                                             |
| 5   | Changing operation of feed speed                                                                 | Change the speed on overall feed speeds in the marking and, for that of a no step variable speed type, on the 3 feed speeds of the minimum, intermediate and maximum to examine the smoothness of actions and the reliability of indications of the operating equipment.                                                                                                                                          |
| 6   | Manual feed operation                                                                            | Examine the smoothness and uniformity of actions throughout the overall length of the motion by the manual feed handle, and examine the smoothness and uniformity rotating the sensitive feed handle several times.                                                                                                                                                                                               |
| 7   | Operations of lifting, lowering and clamping of main spindle and operation of automatic stopping | Allow the main spindle to lift and lower to examine the smoothness and uniformity throughout the overall length of motion, and examine the reliability of clamping at the centre and both ends of the motion and the smoothness of the action of the clamping device.<br><br>Furthermore, at the both ends of the motion, examine the smoothness and reliability of the actions of the automatic stopping device. |
| 8   | Lifting, lowering and clamping operations of table                                               | Examine the smoothness and uniformity of actions throughout the overall length of motion, by lifting and lowering the table.<br><br>Furthermore, at the centre and both ends of motion, examine the smoothness of the actions and reliability of clamping of the clamping device.                                                                                                                                 |
| 9   | Actional operation of movable part                                                               | In respect to the movable range of the motion, examine the smoothness and reliability of its action.                                                                                                                                                                                                                                                                                                              |
| 10  | Attaching and detaching of tool                                                                  | Examine the smoothness and reliability of fastening screw and the attaching and detaching of tool.                                                                                                                                                                                                                                                                                                                |
| 11  | Safety device                                                                                    | Examine the reliability of safety function for operators and protecting function for machine (see JIS B 6507 and JIS B 6601).                                                                                                                                                                                                                                                                                     |
| 12  | Lubricating equipment                                                                            | Examine the reliability of functions, such as oiltightness and reasonable distribution of oil quantity.                                                                                                                                                                                                                                                                                                           |
| 13  | Oil hydraulic pressure equipment                                                                 | Examine the reliability of functions, such as oiltightness and pressure regulation.                                                                                                                                                                                                                                                                                                                               |
| 14  | Pneumatic pressure equipment                                                                     | Examine the reliability of functions, such as airtightness and pressure regulation.                                                                                                                                                                                                                                                                                                                               |
| 15  | Accessories                                                                                      | Examine the reliability of functions.                                                                                                                                                                                                                                                                                                                                                                             |

Remarks: For a planer which is not provided with the said function, the corresponding test item to this in Table 2 shall be omitted.

3. Methods for Running Tests

3.1 No-load Running Test Allow the main spindle to rotate, continue to run for 30 to 60 minutes, and, after the bearing temperature has stabilized, measure the required electric power and noise. Together with the recording of respective items specified in the Record Form 1 of Table 3, observe that no abnormal vibration has occurred by the sense of touch.

Furthermore, the measurement of noise shall be in accordance with JIS B 6521.