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JAPANESE INDUSTRIAL STANDARD

**Veneer lathes — Test and
inspection methods**

JIS B 6542—1991

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Veneer lathes - Test and inspection methods

B 6542-1991

1. Scope

This Japanese Industrial Standard specifies the structure, nominal sizes and methods for functional tests, running tests, accuracy inspections and machining accuracy inspections of the veneer lathes 350 mm or over to 4500 mm or under in length of tool fitting surface and 400 mm or over to 2200 mm or under in swing⁽¹⁾.

Note (1) The maximum diameter of workpieces capable of being machined.

Remarks 1. The applicable standard to this Standard is as given in the following:

JIS B 6521-Methods of measurement for noise emitted by wood working machinery

2. In this Standard, the units given in { } are in accordance with conventional units, and are appended for informative reference.

2. Structure

Every part of the veneer lathe shall have sufficient rigidity and not adversely affect its machining accuracy.

3. Nominal sizes

Nominal sizes of veneer lathes shall be expressed in terms of the length of tool fitting surface (mm) and swing (mm), and shall be in accordance with Tables 1 and 2.

Table 1. Lengths of tool fitting surfaces Unit: mm

Length of tool fitting surface	Tolerances
350	± 20
500	
600	
1 050	
1 200	
1 250	
1 350	
1 500	
1 850	
2 100	
2 300	
2 400	
2 700	
2 750	
2 950	
3 050	
3 350	
4 200	
4 300	
4 450	
4 500	

Table 2. Swings Unit: mm

Swing	Tolerances
400	± 20
600	
700	
800	
900	
1 000	
1 200	
1 350	
1 650	
1 800	
2 000	
2 200	

Remarks: Veneer lathes shall be designated by name and size (length of tool fitting surface x swing).

Example: Veneer lathe 1500 x 800

4. Functional test methods

Functional tests of veneer lathe shall be carried out in accordance with Table 3.

Table 3. Functional test

No.	Test item	Test method
1	Electrical equipment	Test the insulation condition once each, before and after running tests.
2	Starting, stopping and running operations of rotations of the left and right spindles	Start and stop the spindle several times at an appropriate speed to test smoothness and reliability of operation.
3	Changing operations of speeds of the left and right spindles	Change the speed of the spindles, to test the smoothness of operation and reliability of indication of the control device.

Table 3. (Continued)

No.	Test item	Test method
4	Starting, stopping and running operations of drawing-out and-in motions of the left and right spindles	Draw-out and draw-in the spindle repeatedly to test the smoothness and reliability of starting and stopping.
5	Starting, stopping and running operations of automatic and rapid feeding of the knife holder	Conduct starting, stopping and rapid feeding (forward and backward) at an appropriate speed several times to test smoothness and reliability of operation.
6	Changing operation of feeds of the knife holder	Change feeds to test smoothness of operation and reliability of indication.
7	Cutting angle adjusting device	Test smoothness of function and accuracy of indication.
8	Tool gap adjusting device	Test smoothness of function and accuracy of indication.
9	Marking device	Test smoothness and reliability of function.
10	Fitting and detaching of knife and nose bar	Test reliability and smoothness of fitting and detaching of knife and nose bar.
11	Mounting and dismounting of workpieces	Test reliability and smoothness of mounting and dismounting of workpieces.
12	Safety device	Test reliability of safety function for worker and protective function for machine.
13	Lubricating system	Test reliability of functions such as oil tightness, adequate distribution of oil, etc.
14	Oil hydraulic system	Test reliability of functions such as oil-tightness, pressure adjustment, etc.
15	Pneumatic system	Test reliability of functions such as airtightness, pressure adjustment, etc.
16	Attached equipment	Test reliability of function.

Remarks: For veneer lathes without relevant functions, test items corresponding to these in Table 3 shall be omitted.

5. Running Test methods

5.1 No load running test Allow the spindle to rotate and continue running for 30 to 60 min, measure required electric power and noises after bearing temperatures have been stabilized, record each item specified in Record form 1 of Table 4 and, at the same time observe abnormal vibrations by the sense of touch.

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

Table 4. Record form 1

No.	Time of measurement, hour and minute	Rotational speed of spindle r/min {rpm}		Temperatures °C						Required electric power			Noise in A characteristic dB	Remarks	
		Marked	Measurement actually measured	Bearing of left spindle		Bearing of right spindle		Gear box		Room temperature	Voltage V	Electric current A			Input kW
				Left	Right	Left	Right	Left	Right						

Remarks: Record the measuring conditions of noise in remarks column.

5.2 Load running test After the tests on respective items specified in Table 5 have been carried out, carry out the cutting of a workpiece, measure required electric power and noises, record each item specified in Record form 2 of Table 6, and, at the same time, observe abnormal vibrations and conditions of cut surface by the sense of touch.