

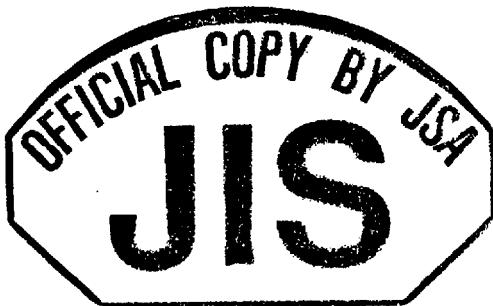
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JAPANESE INDUSTRIAL STANDARD

Test Code for Performance and
Accuracy of Hydraulic Presses

JIS B 6403-1077
(Reaffirmed: 1985)



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JAPANESE INDUSTRIAL STANDARD

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Test Code for Performance and
Accuracy of Hydraulic PressesB 6403-1977
(Reaffirmed: 1985)1. Scope

This Japanese Industrial Standard specifies test methods and inspection concerning running performance and precision of hydraulic presses to be used for punching, bending, forming and drawing, hereinafter referred to as the "press". However, the inspection of precision shall not be applied to horizontal press, columnar type and C-frame presses not equipped with slide guide and presses of special structure⁽¹⁾.

Note ⁽¹⁾ Presses of special structure mean presses for powder forming and forging (excluding ordinarily used presses for working of metal plates), press brakes, ram moving type presses and special presses with power feed device.

2. Methods of Running Tests

2.1 Methods of running test consist of performance tests, idling tests and load running tests and shall comply with 2.2 to 2.4.

2.2 Performance Test Methods Performance test shall be conducted by operating every part to test the smoothness of actuation and the reliability of functions according to the following:

Applicable Standards:

JIS B 6003-Methods of Vibration Testing for Machine Tools

JIS B 6004-Method of Sound Level Measurement for Machine Tools

JIS B 6201-Test Code for Performance and Accuracy of Machine Tools

Reference Standard:

JIS B 0111-Glossary of Terms for the Presswork Machinery

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B 6403-1977

Test item		No.	Method	
Operation of press	Operation of start and stop of press	1-11	Conduct operation of start and stop 3 times continuously to test smoothness and reliability of actuation.	
	Running operation of slide(2)	1-12	Conduct running operation(2) 3 times continuously to test smoothness and reliability of actuation.	
	Operation of speed adjustment of slide	1-13	Conduct adjusting operation at maximum speed to test smoothness and reliability of actuation.	
	Adjusting operation of strokes of slide	1-14	Conduct adjusting operation at maximum stroke of slide to test smoothness and reliability of actuation.	
	Operation of pressure adjustment of slide	1-15	Conduct operation of pressure adjustment to test smoothness and reliability of actuation.	
	Indicator	Indicator for strokes of slide	1-16	Test the reliability of indication.
		Indicator for adjusting strokes of slide	1-17	Test the reliability of indication.
	Counter		1-18	Test the reliability of indication.
	Attached equipments	Moving bolster	1-21	Test the smoothness and reliability of actuation.
		Automatic die clamber	1-22	Test the smoothness and reliability of actuation.
Die cushion		1-23	Test the smoothness and reliability of actuation.	
Blank feed mechanism		1-24	Test the smoothness and reliability of actuation.	
Product feed mechanism		1-25	Test the smoothness and reliability of actuation.	

(Cont'd)

Test item			No.	Method
Auxiliary equipments	Safety devices	Safety devices	1-31	Test the safety for workers of gate guard, sweep guard, pullback guard, two-hand lever, two-hand button, photo-electric type sensing safety device, etc.
		Indirect safety device	1-32	Test the safety for workers of anti-repeat device, preventing device of slide dropping, emergency stop button, warning light, buzzer, button of completion of preparation, etc.
	Lubricating device	Oil supply pressure of oil pump and pressure switch	1-41	Test the reliability of function.
		Oil supplying state	1-42	Test the adequateness of oil supplying state of every part.
		Oiltightness	1-43	Test the reliability of oiltightness of sliding part and circulating part.
	Pneumatic equipment	Self operating regulating valve and pressure gauge	1-51	Test the reliability of function.
		Pressure switch	1-52	Test the reliability of function.
		Airtightness	1-53	Test the reliability of function.
	Hydraulic equipment	Pressure gauge	1-61	Test the reliability of function.
		Fluidtightness	1-62	Test the reliability of function.
	Machine protecting device	Oil hydraulic overload preventing safety valve ⁽³⁾	1-71	Measure the actuating pressure 3 times or over to ascertain that it is within 120 % of maximum pressure to be used.
		Other overload preventing equipments ⁽³⁾	1-72	Test the reliability of protection for mechanical function.
	Electric device		1-81	Test the insulating state each once before and after running test.

Notes (2) Running operation includes operations of intermittent one-stroke running, continuous running, time limited continuous running, inching and stopping.

(3) For presses not equipped with oil hydraulic overload preventing safety valve, conduct test specified for other overload preventing equipments.