

JAPANESE INDUSTRIAL STANDARD (JIS B6202)

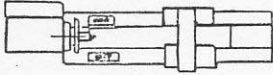
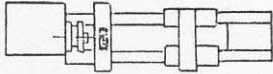
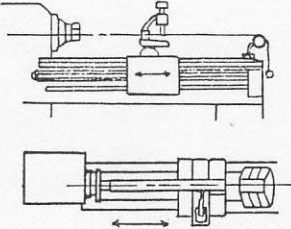
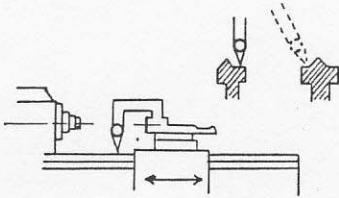
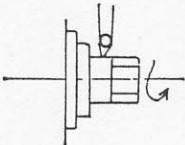
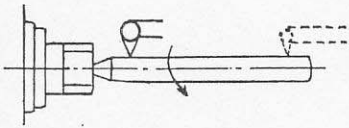
Accuracy of High Speed Precision Lathe

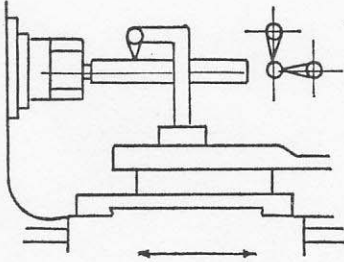
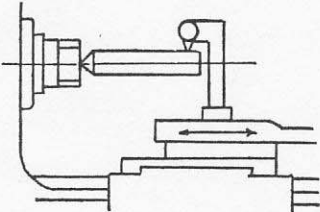
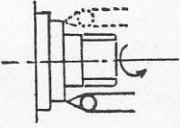
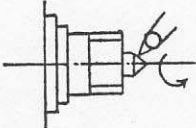
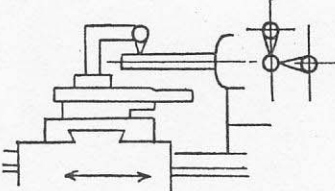
MODEL TSL-800D

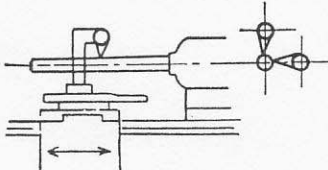
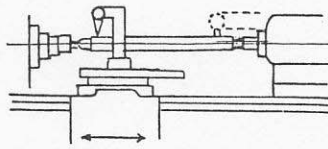
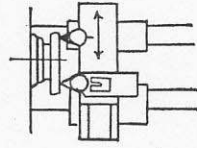
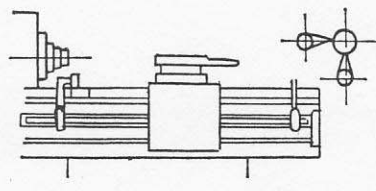
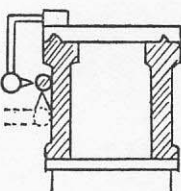
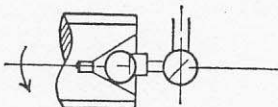
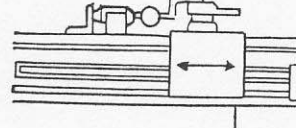
SERIAL NO. E86120247H

DATE 1986.12

TAKISAWA

Test			Recommended Standards				Actual
No.	Item	Illustration	Tool room lathes	Engine lathes			
				Swing			
				up to 500	up to 1000	up to 2000	
1	longitudinal direction (in vertical plane)		0.03/m	0.04/m	0.05/m	0.06/m	0.007
	cross direction (in vertical plane)		0.04/m	0.04/m	0.05/m	0.06/m	0.015
	longitudinal direction (in horizontal Plane)		0.01	for center distance is up to 1000 0.01 0.01 0.02 for center distance is up to 2000 0.02 0.02 0.03 for center distance over 2000 0.04 0.04 0.05			0.008
2	Parallelism of slide ways of carriage and tailstock		0.015	0.02	0.02	0.03	0.008
3	Spindle nose runout		0.005	0.01	0.02	0.02	0.007
4	Spindle hole runout		0.005	0.01	0.02	0.03	0.007
				at end of spindle nose			
			0.015	0.02	0.03	0.04	0.01
				at end of 300 test bar			

Test			Recommended Standards				Actual	
No.	Item		Illustration	Tool room lathes	Engine lathes			
					Swing			
					up to 500	up to 1000	up to 2000	
5	Parallelism of spindle with carriage movement	in vertical plane		0.01	0.01	0.02	0.03	0.01
		in horizontal plane		0.01	0.01	0.02	0.02	
<p>high at free end of test bar</p> <p>in 300</p> <p>forward at free end of test bar</p>								
6	Parallelism of spindle with slide movement (in vertical plane)			0.01	0.01	0.02	0.02	0.005
<p>in 150</p>								
7	Cam action of spindle flange			0.01	0.015	0.02	0.02	0.003
8	Spindle center runout			0.01	0.015	0.02	0.03	0.005
9	Parallelism of carriage movement with tailstock spindle	in vertical plane		0.02	0.02	0.03	0.03	0.008
		in horizontal plane		0.01	0.01	0.015	0.015	
<p>high at free end</p> <p>in 150</p> <p>forward at free end</p>								

Test			Recommended Standards				Actual
No.	Item	Illustration	Tool room lathes	Engine lathes			
				Swing			
				up to 500	up to 1000	up to 2000	
10	Parallelism of carriage movement with tail-stock spindle hole		0.015	0.02	0.03	0.03	0.008 0.02
	in vertical plane		in 300 high at free end of test bar				
	in horizontal plane		0.015	0.02	0.03	0.03	
			in 300 forward at free end of test bar				
11	Vertical alignment of head stock center with tailstock center		0.02	0.02	0.03	0.05	0.015
			high at tailstock				
12	Squareness of cross slide movement with spindle		0.015	0.02	0.03	0.04	0.015
			in 300 to face concave only				
13	Parallelism of carriage slide way with lead screw		0.10	0.10	0.12	0.15	0.04 0.04
	in vertical plane						
	in horizontal plane		0.10	0.10	0.12	0.15	
14	Alignment of lead screw with half nut		0.10	0.15	0.20	0.25	0.05 0.05
	in vertical plane						
	in horizontal plane		0.10	0.15	0.15	0.20	
15	Cam action of lead screw		0.005	0.01	0.02	0.03	0.01
16	Pitch error of lead screw		0.02	0.03	0.04	0.05	0.03
			in 300 (or 12 inches)				

Load test							
driving test	revolution		continuous driving hour		result		
	1800		1H		OK		
	1030		1H		OK		
	560		2H		OK		
Cutting test							
test material		revolution	feed	depth of cut	electric power	result	
quality	dia					heavy cutting	OK
S45C	65	560	0.27	0.0098"		heavy cutting	OK
S45C	65	1030	0.13	0.0043"		roundness	0.005
S45C	65	1030	0.13	0.0043"		cylindricity	0.008
FC25	200	270	0.06	0.0023"		facecutting accuracy	0.01

Motor no. TATUNG 3/4HP 63057400

Electro magnetic switch

Approved by

