**CERTIFICATE OF INSPECTION** 

**8L LATHE** 

**SERIAL NUMBER:** 

Title	Seal or Signature	Date
Inspection Director		
Inspector		
Tormach QA Representative		
The above signatures certification.	y this machine has passed all inspection requirements	and is approved for delivery. See attached inspection

**QA 1: PRECISION INSPECTION** 

No.	Inspection Item		Tolerance (mm)	Actual (mm)
G1		a: Leveling the lathe	a: 0.04/300	
G2		Perpendicularity of X-axis to spindle axis	0.03/100	
G3		<ul><li>a: Runout of spindle taper</li><li>hole a spindle nose</li><li>b: 200 distance</li></ul>	a: 0.01 b: 0.03	
G4	a	Parallelism of center line of spindle to carriage movement  a: in horizontal plane  b: in vertical plane	<b>a:</b> 0.03/200 <b>b:</b> 0.03/200	
35	a b	Parallelism of tailstock quill to carriage movement a: in horizontal plane b: in vertical plane	<b>a:</b> 0.02/50 <b>b:</b> 0.02/50	
G6	a b	Parallelism of tailstock quill taper hole to carriage movement a: in horizontal plane b: in vertical plane	<b>a:</b> 0.02/5 <b>b:</b> 0.02/50	
G7		Difference between two centers	0.02-0.06	
G8	a	<ul><li>a: Distance from bed</li><li>guide to spindle center</li><li>b: Distance from table</li><li>surface to spindle center</li></ul>	a: 105+1.0/-0 b: 53.5 +0.50/0	

No.	Inspection Item		Tolerance (mm)	Actual (mm)
G9	z — Ø	Forward/reverse lost motion of travel a: X-axis b: Z-axis	<b>a:</b> 0.03 <b>b:</b> 0.04	
G10	z Ø	Axis repeatability a: X-axis b: Z-axis	<b>a:</b> 0.015 <b>b:</b> 0.015	
G11	b c	Spindle drive pulley  a: Perpendicularity of pulley face to axis rotation	a: 0.08	
G12	F F	Run-out at spindle end a: End play of the spindle	a: 0.01	

#### **Cut Testing**

One machine is selected for each production batch (or each 20 machines produced, whichever is fewer). If the selected machine does not meet specification, then all machines in production batch must be completely inspected. If the selected machine does meet specification, all other machines in the production batch will be reported as not selected (NS).

No.	Inspection Item		Tolerance (mm)	Actual (mm)
P1	D>D <sub>a</sub> /8 l <sub>1</sub> =D <sub>a</sub> /2 l <sub>2me</sub> -80mm	Accuracy of finishing outside circle a: Cylindricity b: Roundness	<b>a:</b> 0.01/50 <b>b:</b> 0.005	
P2	Lmax=30 D=150	Planeness of finishing end face	0.025/100	

#### **QA 2: FUNCTION/APPEARANCE**

No.	Test Name	Description	Completed
T1	Emergency Stop Switch	Check for function.	
T2	Spindle Direction	Wheel spins counterclockwise when viewed from front.	
Т3	Spindle Motor Drive Program	After power cycling the variable frequency drive (VFD), verify the following settings:  • 00.011 (Machine Name) is 770  • 00.012 (Parameter Version) is 3.05  • 00.015 (Control Firmware Version) is 1.10.00 or greater  • 00.016 (Power Firmware Version) is 1.10.00 or greater  • 00.017 (User Program Version) is 7732	
T4	Power Disconnect	Check for function.	
T5	X Limit Switch	Check for function.	
T6	Z Limit Switch	Check for function.	
T7	Smooth Operation	X, Z, spindle operate smoothly; no unusual noise or vibration.	
T8	Spindle Encoder	Check for proper function.	
Т9	Safety Signs	Safety sign (PN 34071) is installed in correct location.	
T10	Information Signs	Information signs are installed in correct locations.	
T11	Paint Quality	Paint meets appearance requirements.	
T12	Spindle Door Switch	Check for function.	
T13	Enclosure Door Switch	Check for function.	
T14	Drawtube Install	Drawtube with test collet and remove.	