

Mill Spindle Inspection Report

Technician		Cell#	
Serial Number		Date	
Model			

Why is the Spindle being replaced?			
1a. What is the symptom?	Noise	Exceeds 140 °F	Seized Other
1b. What is the temperature of the spindle? Use the Spindle Temperature Check section of the Mill Spindle - Troubleshooting Guide to measure the temperature.	Value:		
1c. If there is an issue with noise, take a video of the noise with the covers on and with the doors closed. Attach video to machine history.	Done	n/a	
1d. When does the symptom occur?	Constant	Intermittently	
2. Is the spindle physically damaged?	yes	no	
3. Other - Describe the issue:			

Mandatory Troubleshooting	
Lubrication	
4. Are there leaks around the sight glass?	yes no
5. Did you see 1 to 3 drops of oil during the oil pump cycle?	yes no
6. Has a Spindle - Lubrication Oil - Collection Test been run and was an adequate amount of oil collected?	yes no
7. Is the lube line for the spindle loose or not fully seated in the fitting? If yes, the following must be answered for a replacement spindle.	yes no
7a. Was the lube line hanging freely inside the head, not fully seated in the fitting, or has any part been damaged?	yes no
7b. If you answered yes to 6a pictures and video must be submitted. If the line was loose a good video of you pulling on the line must be submitted. If damaged good pictures or video must be submitted.	Done n/a
7c. Have you taken good picture or video of where you found the oil in the spindle head and the condition of the oil?	Done n/a
7d. Is the cut on the end of the lube line straight? It must be straight for a proper seal with the fitting.	yes no
Spindle Condition	
Inline Spindles	
8. Has the spindle motor alignment been verified?	yes no
9. Has the NCE gap been reset with the correct shim?	yes no Shim dimension Value: Axial Alignment Value: Radial Alignment Value:
Belted Spindles	
10. Is the drive sprocket/belt in good condition?	yes no
11. Is the encoder sprocket/belt in good condition?	yes no
12. Has the belt tension been verified?	yes no
Inline & Belted Spindles	
13. Look through the alarm history is there any Z-Axis servo Errors alarms generated?	yes no
14. Has a vibration test been performed? If no, run a test and attach to service notification.	yes no
15. Has a motor only vibrations test been performed? If no, run a test and attach to service notification.	yes no
16. Has the spindle been balanced? If no, balance the spindle.	yes no
17. Is the TSC union or coolant collector making noise?	yes no
18. Is the spindle taper in good condition?	yes no
19. Is the spindle fan working?	yes no
20. Is the spindle fan vibrating?	yes no
21. On machines equipped with TSC. Did you performed a Vibration analysis with the TSC Union/Adapter removed?	yes no
22. Has the spindle to toolchanger alignment been verified?	yes no
HSK Spindle Only	
23. Has the push out been verified?	yes no
24. Has the grippers been greased? If yes, what grease is being used?	yes no value:
Drawbar Condition	
25. Has the drawbar clamp force been checked? If yes, what is the force value?	yes no value:
26. If the spindle is belted with a carbide drawbar has the face runout been verified? If yes, what is the value?	yes no value:
27. If the spindle is belted what is the drawbar shaft runout?	value:
28. Are the ball bearings and drawbar cup in good condition?	yes no

Tool Holders Condition	
29. Are the pull studs in good condition?	yes no
30. Have the pull studs been torqued to spec?	yes no
31. Are the correct pull studs and tool holders being used?	yes no
32. Have the tool holders been balanced? If no, balance them.	yes no
Spindle Deflection Test	
33. Has the Spindle Deflection Test been performed with T-0140? If yes, please what is the push, pull, and lost motion values? NOTE: Please only perform this if steps 1-30 have been performed and verified, and the machine is continuing to have surface finish issues. Total deflections should not exceed 0.0025 for 40 taper and 0.003 for 50 taper. Do not add lost motion to total deflection.	yes no Push Deflection: Pull Deflection: Lost Motion:
Notes/ Observations:	
Attach this report, an error report, and any relevant documentation to a service notification in the Haas Service App.	