

Mill Gearbox Service Checklist

Technician		Cell#	
Serial Number		Date	
Model			
Gearbox Basic Troubleshooting			
1. What alarms are generated?			
2. Machine's Software Version			
	2a. For NGC: Has the software been updated to its most recent version	Yes	No
	2b. For CHC: Has Parameter 150 been verified with the correct value? (Ref: AD0188/AD0136)	Yes	No
3a. Has the machine been warmed up for ten minutes before operation?		Yes	No
	3b. Has the gearbox run at 50% max RPM for two hours in high gear and for another two hours in low gear?	Yes	No
4. Has the air supply been checked to ensure that needed requirements are met and that there are no leaks?		Yes	No
Gearbox Mechanical Troubleshooting			
5. Have the orifices been checked for clogs?		Yes	No
6. For 40T: Has the sump tank been checked to ensure there is a weep hole and a foam gasket?		Yes	No
7. For 50T: Has the solenoid and orifice been checked to ensure updated parts?		Yes	No
8a. Has the gearbox been inspected?		Yes	No
	8b. Does the gearbox shift when applying air to it?	Yes	No
	8c. Has the oil level been checked?	Yes	No
	8d. Has the gearbox been checked for leaks?	Yes	No
9. Is there a dampener (orifice fitting) installed? If so, remove it.		Yes	No
10a. Have the drive belts been checked for wear?		Yes	No
	10b. Has the tension of the drive belts been checked? If so, are they within allowed range?	Yes	No
11. Have the gears been checked for damage with a vibration analysis?		Yes	No
Gearbox Oil Pump Troubleshooting			
12. Has the P-Tech oil pump been checked to ensure it has been updated?		Yes	No
13a. Has the oil filter been checked?		Yes	No
	13b. Have the spring and the inlet screen been checked and cleared of clogs?	Yes	No
	13c. Have the oil filter fittings been checked for tightness?	Yes	No
14a. Has the oil flow switch been checked?		Yes	No
	14b. Has the oil flow sensor been checked manually to ensure function?	Yes	No
	14c. Has the Valve Style Oil Flow Sensor been checked?	Yes	No
	14d. Has continuity across the switch leads been checked?	Yes	No
	14e. For 50T: Has the oil flow switch been checked for proper location/relocated if needed?	Yes	No
15a. Have the oil-pump motor gears and couplers been inspected?		Yes	No
	15b. Has the oil-pump motor been checked to confirm it is receiving power?	Yes	No
	15c. Have the oil pump gears been inspected?	Yes	No
	15d. Has the coupler been inspected?	Yes	No
16a. Has the oil pressure switch been checked?		Yes	No
	16b. Has the pressure switch connection been checked to ensure it is clean and properly seated?	Yes	No
	16c. Has the continuity of the pressure switch been checked with the pump is running?	Yes	No
17. Has the continuity of the oil-level switch been checked?		Yes	No
Gearbox Electrical Troubleshooting			
18a. Have the high/low gear sensors and solenoid been checked?		Yes	No
	18b. Have the high/low gear sensors been checked for contamination?	Yes	No
	18c. Has the high/low gear solenoid's voltage been checked?	Yes	No
19. For 50T: Has the anti-siphon solenoid been checked?		Yes	No
20. For NGC: Has the solenoid been checked for a delay when commanded? (Ref: AD0594)		Yes	No
21. Have the wye/delta contactors been checked to ensure the terminals are tight?		Yes	No
22a. Have the encoder system and its components been checked?		Yes	No
	22b. Has the encoder feedback been checked for accuracy?	Yes	No
	22c. For GB with belted encoder: Has the encoder pulley/belt been inspected?	Yes	No
	22d. Has runout and play been checked for within the encoder?	Yes	No
Notes/Observation			
<p>Attach this report, an error report, and any relevant documentation to a service notification in the Haas Service App.</p> <p>Answer these questions in the notes section</p>			