

## Vector Drive Inspection Report

<b>Technician</b>		<b>Cell#</b>	
<b>Serial Number</b>		<b>Date</b>	
<b>Model</b>			
<b>Vector Drive Type</b>			
<b>Horse Power</b>			
<b>Why is the Vector Drive being replaced?</b>			
<b>1a.</b> What alarms are generated?		<b>1b.</b> Does the alarm reset?	Yes    No
<b>1c.</b> When does the alarm occur?			
<b>2.</b> Is the drive physically damaged?			
<b>3.</b> Other - Describe the issue:			
<b>Mandatory Troubleshooting</b>			
<b>4a.</b> What is the incoming voltage to the machine? Measure the incoming voltage at the main circuit breaker and record the measured values below.			
<b>L1-L2</b>	<b>L2-L3</b>	<b>L1-L3</b>	<b>L1-GND</b>
<b>L2-GND</b>	<b>L3-GND</b>		
<b>4b.</b> What is the main transformer tap setting.			
<b>5a.</b> What was the measured DC BUSS output voltage?			
<b>5b.</b> Does the DC Buss gauge in diagnostic match the actual measured DC BUSS voltages?			
<i>Answer questions 6 - 8 if the alarm occurs at power on or servos on, if not skip to question 9.</i>			
<b>6.</b> Power OFF. Wait for the Vector Drive to fully discharge. Disconnect the Spindle Motor Output cables from the drive. Power on the machine does the alarm reset? <i>If you answer yes, then the problem is with the spindle motor, Y/D or cabling.</i>		Yes	No
<b>7.</b> Power OFF. Wait for the Vector Drive to fully discharge. Disconnect the 320V output cables from the drive. Disable all the axis (except Z in mills, X in lathes and Y on Horizontal machines). Power on the machine does the alarm reset? <i>If you answer yes, then the problem is with one of the drive amps.</i>		Yes	No
<b>8.</b> Power OFF. Wait for the Vector Drive to fully discharge. Disconnect the regen cables from the drive. Power on the machine does the alarm reset? <i>If you answer yes, then the problem is with the regen load.</i>		Yes	No
<b>9a.</b> Power OFF. Wait for the Vector Drive to fully discharge. Disconnect all the cables from the drive. With a Multimeter set to Ohms measure and fill out the readings below:			
<b>TB-4 to GND (Chassis)</b>	<b>TB-5 to GND (Chassis)</b>	<b>TB-6 to GND (Chassis)</b>	
<b>TB-2 (Black Lead) to TB-9 (Red Lead)</b>	<b>TB-2 (Black Lead) to TB-10 (Red Lead)</b>	<b>TB-2 (Black Lead) to TB-11 (Red Lead)</b>	
<b>TB-3 (Black Lead) to TB-9 (Red Lead)</b>	<b>TB-3 (Black Lead) to TB-10 (Red Lead)</b>	<b>TB-3 (Black Lead) to TB-11 (Red Lead)</b>	
<b>9b.</b> With a Multimeter set to OHMS measure and fill out the reading below:			
<b>TB-1 (Red Lead) to TB-3 (Black Lead)</b>			
<b>10.</b> With the motor cables at the vector drive disconnected. Power ON. Press [Reset] to clear any alarms. With a Multimeter set to Volts, measure and fill out the readings below:			
<b>TB-3 (Red Lead) to TB-9 (Black Lead)</b>	<b>TB-3 (Red Lead) to TB-10 (Black Lead)</b>	<b>TB-3 (Red Lead) to TB-11 (Black Lead)</b>	
<b>11.</b> Did you checked Y/D wiring?		Yes	No
<b>12.</b> Did you check spindle motor cables for shorts to chassis?		Yes	No
<b>13.</b> Did you check the spindle motor for shorts to chassis?		Yes	No
<b>14.</b> Did you check the axis amps for shorts to chassis?		Yes	No
<b>15.</b> Did you check the axis cables/motors for shorts to chassis?		Yes	No
<b>16.</b> Did you ohm out the Regen box, what was the Ohm reading?		Yes	No
<b>17.</b> Was a ferrite filter installed on the output wires going to the spindle motor?		Yes	No
<b>18.</b> Did you reconnect all cables that were removed and check that all terminal connections are tight and secure After connecting all cables, power on the machine and try to reproduce the alarm(s).		Yes	No
<b>Notes/ Observations:</b>			

Attach this report, an error report, and any relevent documentation to a service notification in the Haas Service App.