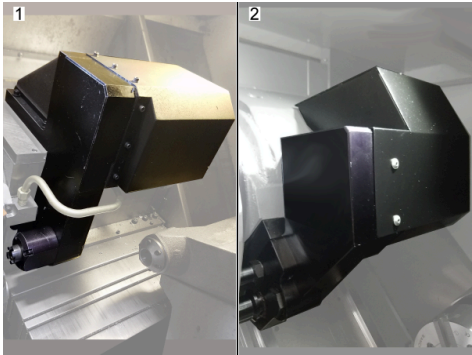




Live Tooling - Troubleshooting Guide

Live Tooling - Troubleshooting Guide

Introduction



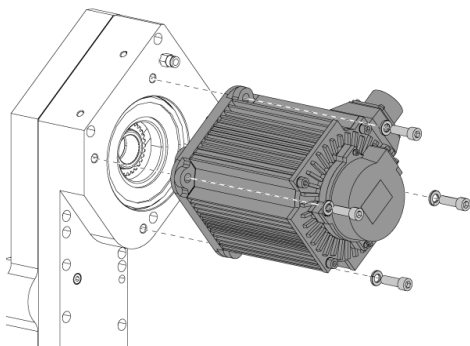
- 1. **Live tooling SL Series:** The live tooling for SL series is belt driven.
- 2. **Live tooling ST Series:** The live tooling for ST series is gear driven.

Refer to the [SET UP LIVE TOOLS PROPERLY ON YOUR HAAS LATHE](#) video for more information.

Symptom Table

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Live tooling or Y Axis alarms.	Servo motor is contaminated.	Inspect the servo motor.
The drive castle or tool is not turning.	The drive belt is faulty.	Inspect the drive belt.
Live tooling drive gets hot.	The live tooling bearing cap is out of alignment.	Align the live tooling.
	The live tooling bearing is faulty.	Examine the bearing.
Drive castle does not engage the tool.	The drive castle spring is broken.	Remove the castle and examine the spring.
Drive castle hits the tool holder during a tool change.	The drive castle is coming loose.	Tighten the drive castle retaining screw.
Noisy	Oil level is low (gear drive only).	Add oil to the live tooling.
	The live tooling bearing cap is out of alignment.	Align the live tooling bearing cap.
	The live tooling bearing is faulty.	Examine the bearing.
	The live tooling gears are faulty (gear drive only).	Inspect gearing for damage

Servo Motor

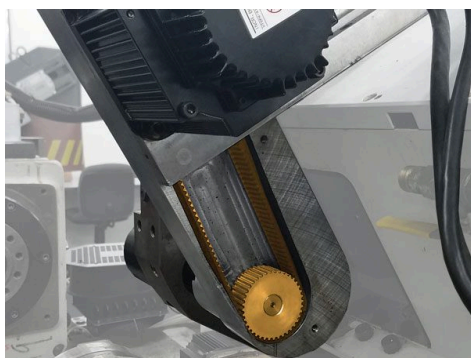
**Corrective Action:**

Examine the outside of the servo motor for contamination or damage.

Remove the servo motor. Make sure the shaft can turn freely.

Refer to: [SIGMA 1 - AXIS SERVO MOTOR AND CABLES - TROUBLESHOOTING GUIDE](#) or [SIGMA 5 - AXIS SERVO MOTOR AND CABLES - TROUBLESHOOTING GUIDE](#) to troubleshoot the servo motor.

Drive Belt

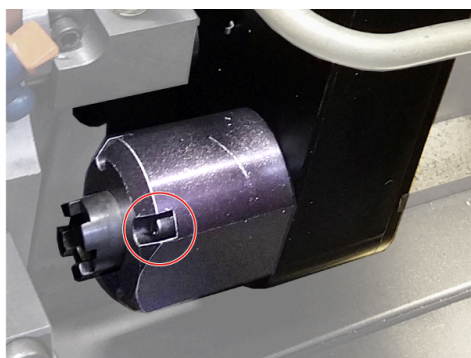
**Corrective Action:**

Examine the drive belt for contamination or damage.

Make sure the belt has the correct tension.

If the belt is damaged, replace the belt.

Live Tool Alignment

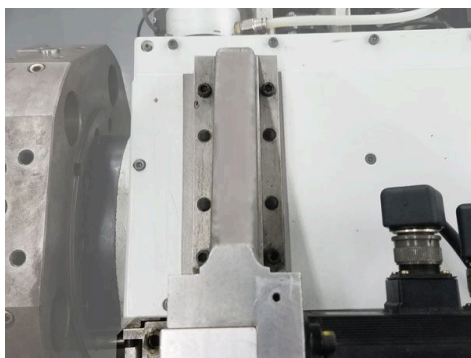
**Corrective Action:**

Loosen the (4) screws that hold the bearing cap in position. Do not remove the screws.

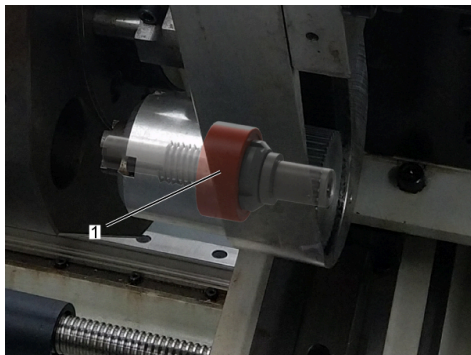
Operate the live tooling at a slow speed. This allows the live tooling shaft to return to center.

Tighten the (4) screws.

If the drive continues to run hot, loosen the (8) screws to adjust the live tooling's alignment.



Live Tool Bearing

**Corrective Action:**

Remove the bearing cap.

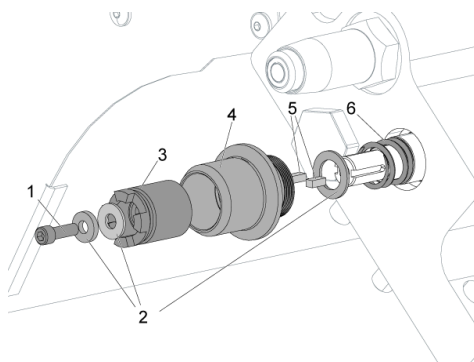
Remove the motor.

Remove the belt cover plate, if the live tool is belt driven. Remove the gearbox cover plate if the live tool is gear driven.

Remove the belt and drive sprocket, if the live tool is belt driven. Otherwise, remove the drive gear.

Examine the bearing [1]. Replace the bearing if it is faulty.

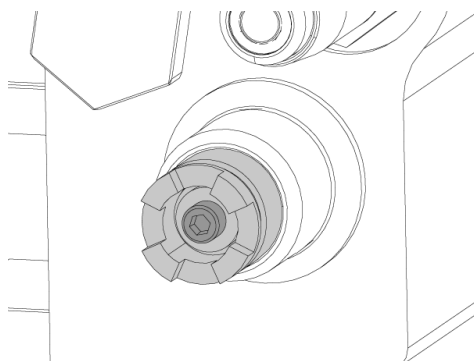
Drive Castle Spring

**Corrective Action:**

Remove the retainer screw [1], washers [2], driver castle [3], bearing cap [4], locking keys [5], washer [2], and the spring [6] from the drive castle shaft.

Examine the spring for damage or breakage. If the spring is faulty, replace it.

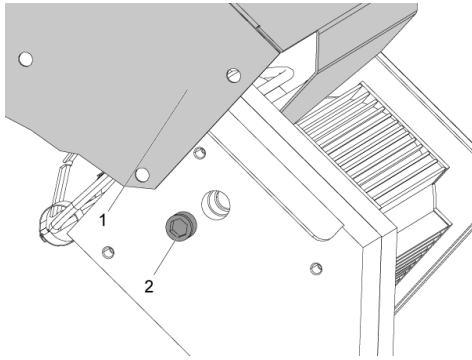
Drive Castle

**Corrective Action:**

Firmly seat the drive castle onto the live-tooling shaft.

Make sure the drive castle retaining screw is tight.

Oil Level Check

**Corrective Action:**

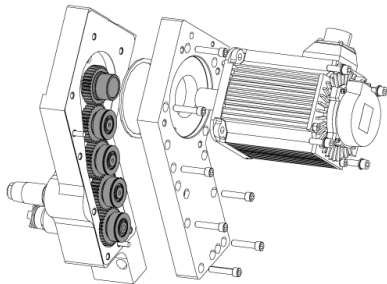
Remove the motor cover [1].

Remove the plug [2] from the oil port.

If oil does not seep out of the port, the oil is low.

Refer to: [LUBRICANT, GREASE, AND SEALANT TABLES FOR HAAS MACHINE COMPONENTS](#).

Live Tooling Gears

**Corrective Action:**

Remove the motor cover.

Remove the motor.

Open the gearbox case.

Examine the gears.