



Spindle Minimum Lubrication System - How it Works and Troubleshooting Guide

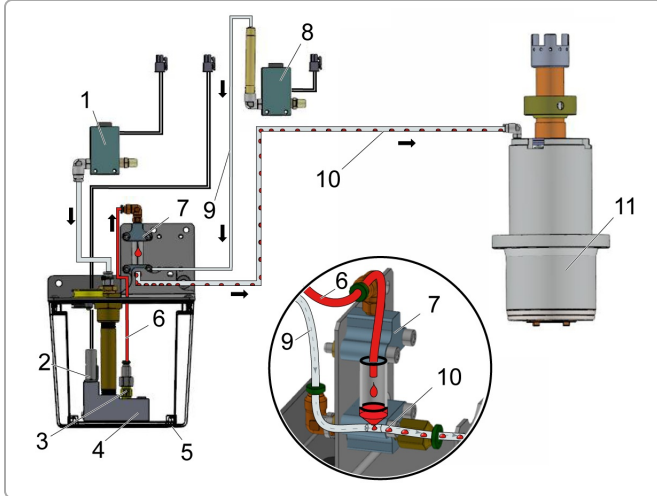
Scan code to get the latest version of this document



Translation Available



How it Works



The spindle Minimal Lubrication System optimizes the amount of lubrication to the spindle by automatically supplying a specific amount of air/oil mist lubrication only when it is needed. This reduces waste and limits the possibility of excess lubrication.

The spindle lubrication solenoid [8], located in the CALM cabinet, provides a constant stream of air [9] to the sight glass when the spindle is turning.

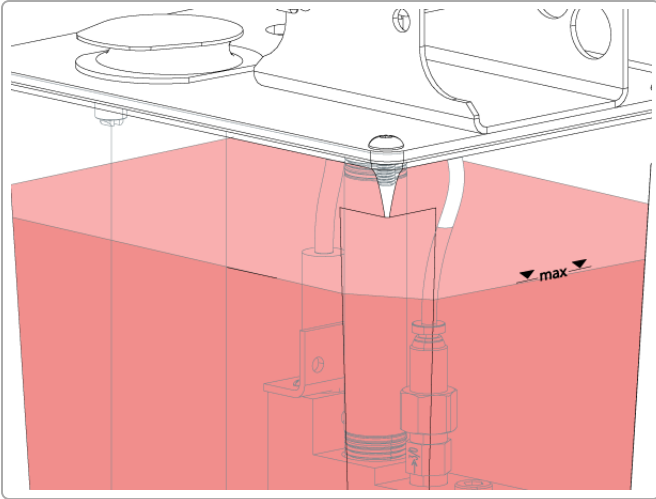
The oil slowly drips through the sight glass and into the air stream.

The air carries the oil droplets [10] up the spindle air/oil tube to lubricate the spindle bearings.

If the oil level in the reservoir [5] is low, the low lubrication level switch [2] turns on. This generates Alarm **805** LOW SPINDLE LUBRICATION.

Symptom	Possible Cause	Corrective Action	Section
Alarm 805 LOW SPINDLE LUBRICATION.	The reservoir oil level is low.	Refill the reservoir.	1
	The oil level sensor is faulty.	Test the oil level sensor.	2
Hot, Noisy, or Failed Spindle	The reservoir is filled with the incorrect oil type.	Refill the reservoir.	1
	There are leaks in the fittings.	Inspect the fittings for leaks.	3
	The lubrication tube is damaged.	Inspect the lubrication tube for damage.	4
	A solenoid is not functioning.	Test the air and lubrication solenoids.	5
	Incorrect oil flow.	Perform an oil collection test.	6

Section 1



Symptom: Alarm **805** LOW SPINDLE LUBRICATION. Hot, noisy, or failed spindle.

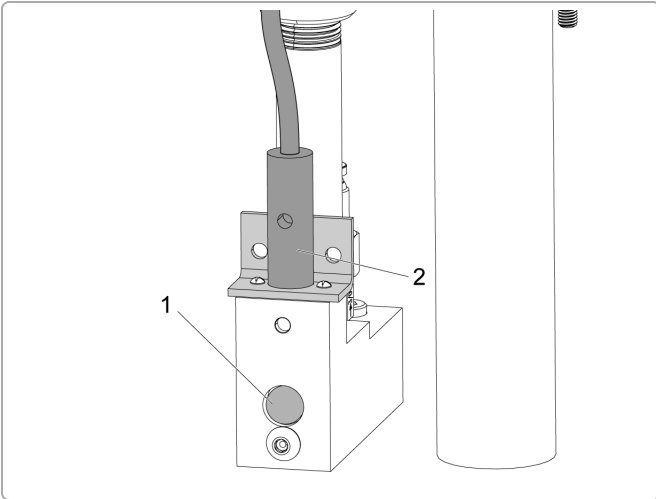
Possible Cause: The reservoir oil level is low. The reservoir is filled with the incorrect oil type.

Corrective Action:

Refill the oil reservoir with Mobil SCH 625. If Mobil SCH 625 is not available, use Mobil 1 5W-20 or Mobil 1 10W-30.

Refer to the lubricant tables at diy.haascnc.com.

Section 2



Symptom: Alarm **805** LOW SPINDLE LUBRICATION.

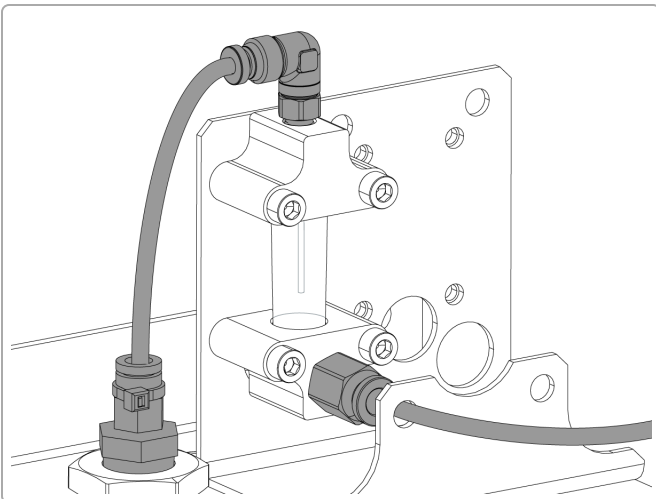
Possible Cause: The oil level sensor is faulty.

Corrective Action:

Make sure the oil float [1] moves freely.

Go to [Proximity Sensor - How it Works and Troubleshooting Guide](#) to troubleshoot the proximity sensor [2].

Section 3



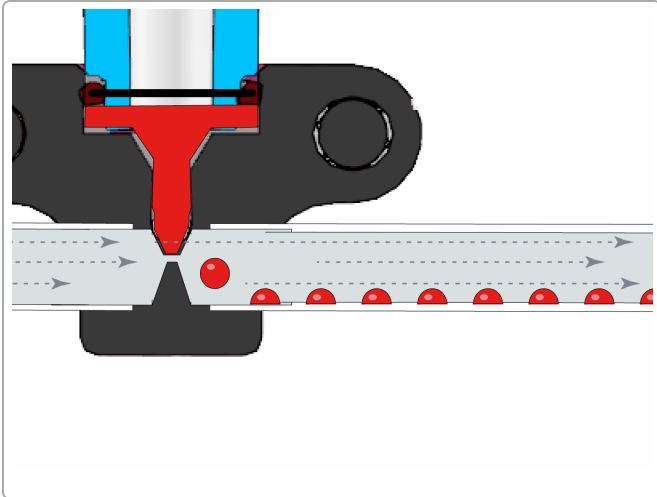
Symptom: Hot, noisy, or failed spindle.

Possible Cause: There are leaks in the fittings.

Corrective Action:

Examine the fittings on top of the oil pump tank. The oil collects on top of the oil pump tank, underneath the leaking fitting. Tighten or replace any leaking fittings.

Section 4



Symptom: Hot, noisy, or failed spindle.

Possible Cause: The lubrication tube is damaged.

Corrective Action:

Examine the lubrication tube between the lube panel and the spindle for kinks, splits, or pinches.

Make sure you can see oil droplets in the tube.

Replace the tube if it is damaged.

Section 5



Symptom: Hot, noisy, or failed spindle.

Possible Cause: A solenoid is not functioning.

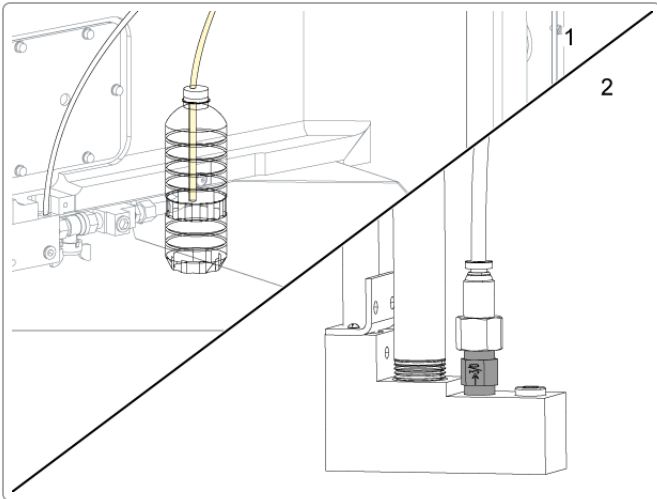
Corrective Action:

Use a multimeter or voltage detector to measure voltage at the solenoid connector while you do the **Spindle Lubrication Test**:

- **Next Generation Control:** Press **[DIAGNOSTIC]**. Cursor to the **Maintenance** and **Lube** tabs.
- **Classic Haas Control:** Press **[PARAM DGNOS]** (2) times and cursor to the **LUBE** tab.
- Press **[F3]** to start the 30 second Spindle Lubrication Test.

If the multimeter or voltage detector does not show 120 VAC during the test, go to [I/O PCB - How it Works and Troubleshooting Guide \(Classic Haas Control\)](#) to troubleshoot the I/O PCB.

Section 6



Symptom: Hot, noisy, or failed spindle.

Possible Cause: Incorrect oil flow.

Corrective Action:

Perform an oil collection test [1]. Refer to [Mill - Spindle - Lubrication Oil - Collection Test](#).

If the oil supply is insufficient, and all other functions have been checked, replace the flow meter [2] in the oil pump.