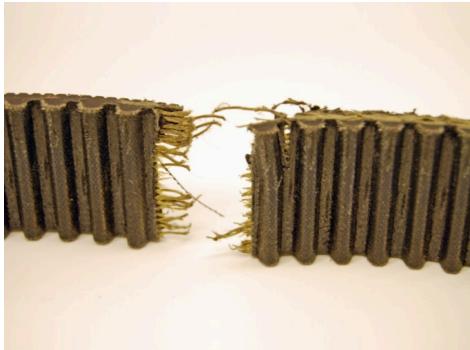




Drive Belt - Troubleshooting Guide

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Introduction



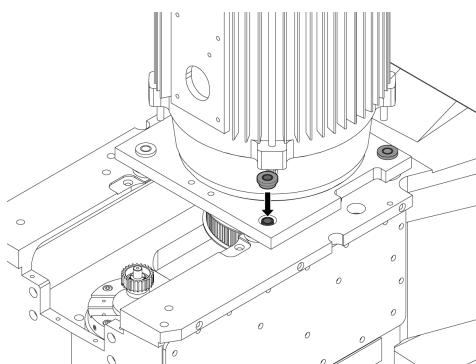
An example of a tensile break.

Symptom Table

SYMPTOM	CHECK	POSSIBLE CAUSE	CORRECTIVE ACTION
 Tensile Break	Application	There is an excessive shock load.	Review the machine application and tooling.
	Belt Tension	The belt tension is too low or too high.	Adjust the belt tension to Haas specifications.
	Belt	The belt has been incorrectly handled or stored before installation.	Follow the correct belt handling procedures.
	Belt Path	There is debris or foreign objects in the belt path.	Remove the debris or foreign objects.
 Excessive Tooth Wear	Application	There is an excessive shock load.	Review the machine application and tooling.
	Belt Tension	The belt tension is too low or too high.	Adjust the belt tension to Haas specifications.
	Belt Tracking/Motor Standoffs	The belt is running partly off unflanged pulley.	Inspect or replace the motor standoffs/isolators.
	Pulley	There is a worn, rough, or damaged pulley.	Inspect or replace the damaged pulley.

Unusually Loud Drive 	Belt Tension	The belt tension is too low or too high.	Adjust the belt tension to Haas specifications.
	Belt Tracking/Motor Standoffs	The belt is running partly off unflanged pulley.	Inspect or replace the motor standoffs/isolators.
	Belt Path	There is debris or foreign objects in the belt path.	Remove the debris or foreign objects.
	Pulley	There is a worn, rough, or damaged pulley.	Inspect or replace the damaged pulley.
	Worn Belt	The belt is worn.	Replace the worn belt.
Tracking 	Belt Tracking/Motor Standoffs	The belt is running partly off unflanged pulley.	Inspect or replace the motor standoffs/isolators.
Tooth Shear 	Application	There is an excessive shock load.	Review the machine application and tooling.
	Belt Tension	The belt tension is too low or too high.	Adjust the belt tension to Haas specifications.
Excessive Belt Edge Wear 	Belt Tracking/Motor Standoffs	The belt is running partly off unflanged pulley.	Inspect or replace the motor standoffs/isolators.
	Belt	The belt has been incorrectly handled or stored before installation.	Follow the correct belt handling procedures.
Soft/Deterioration 	Coolant System	There is coolant or oil contamination on the belt.	Check for coolant or oil leaks.

Belt Alignment Inspection

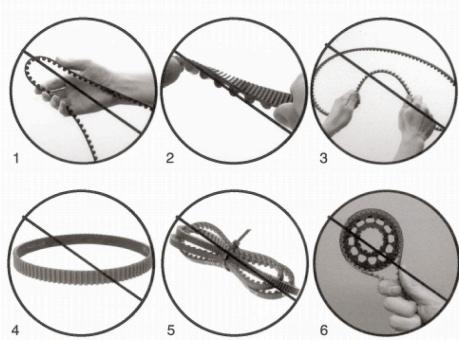


Corrective Action: Inspect or replace the motor standoffs / isolators.

1. Replace the motor standoffs / isolators and set the belt tension to Haas specifications.
2. Test the belt for incorrect tracking in both the clockwise and counterclockwise directions.
3. If the incorrect tracking continues, flip the belt over and install the belt.

4. If the incorrect tracking continues in the opposite direction, replace the belt.

Belt Handling



Corrective Action: Follow the correct belt handling procedures.

1. Do not compress the cord, clinch it tightly or twist the belt during installation. This can cause damage to the belt.
2. Do not roll the belt over the pulley. Support the weight of the gearbox and spindle motor with a hoist. Loosen the motor to easily install the belt. If necessary, remove the screws from the motor to allow more travel.

Damaged Pulleys



Corrective Action: Inspect or replace the damaged pulley.

1. Inspect for damage on the pulley teeth that can cause wear or damage to the belt.
2. Inspect the tooth profile of the pulley to make sure it does not have a saw tooth pattern or worn profile.

Replace the pulley if necessary. You cannot replace the pulley on spindles or gearboxes and spindle motors. You must replace the larger assemblies instead.

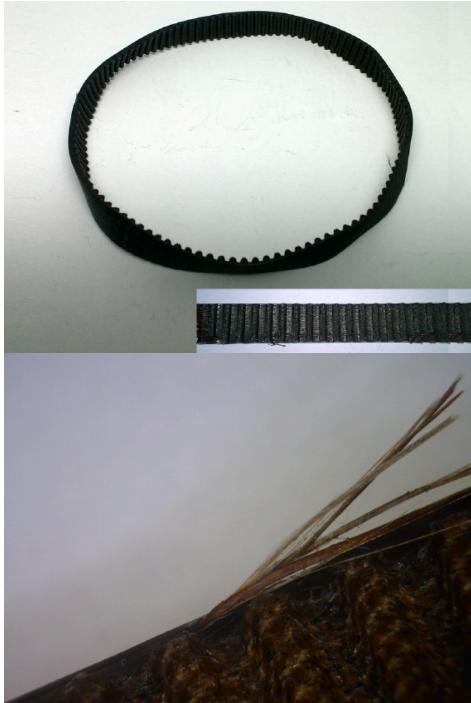
Belt Contamination



Corrective Action: Remove the debris or foreign objects.

1. Make sure that the belt path is clear. The belt runs in close proximity to hoses and sheet metal. It must not rub on anything.
2. Make sure that there is no chip contamination or debris on the belt. Correct the problem as necessary.

Coolant Leaks



Corrective Action: Check for coolant or oil leaks.

1. Coolant contamination on mill spindle belts are typically due to a leak in the TSC system. Some types of coolants and cutting oils can deteriorate the rubber in the belt and can cause failures. Remove the spindle head covers and operate the TSC system. Find the leak and fix it.
2. If the machine has a gearbox, check it for oil leaks that can drip onto the belts.