Using a Dust Collector

Probably the most important thing you can do for your saw is attach it to an adequate dust collection system and **USE IT**. To get <u>optimal performance</u> the dust collector should provide at least 350 CFM at the dust port of the saw, 400 CFM if using the dust-collecting blade guard. Obviously more is better and it's not like it won't work if you have 349 CFM. Your mileage will, of course, vary.

Most dust collectors will provide at least this much but what is between the dust collector and the tool will actually have the biggest impact.

Lubrication

The gears in the saw require periodic cleaning and lubrication.

Cleaning out the gears can be done with shop towels and a wire brush or even an old toothbrush.

There are many types of lubrication that you can use and they will all provide varying results. Based on my own research, these are my findings:

- 1. Marine grease Provides the best results. Lasts a bit longer than automotive wheel bearing grease and doesn't attract sawdust as much. <u>http://amzn.to/2hUH7Op</u>
- 2. Automotive wheel bearing grease fairly standard for heavy machines. Works well but attracts sawdust, although not as badly as most people fear.
- 3. Lithium grease Works okay but doesn't last very long. Isn't intended for heavy machinery.
- 4. Dry lube (Graphite spray, **P**oly**t**etra**f**luor**e**thylene) Not recommended as it is intended for light machinery. Doesn't last long at all. More expensive than the stuff that actually works.

The smooth elevation shafts shouldn't require any lubrication since the parts that move on them do so with an oil-impregnated bronze bushing that should lubricate it automatically.

Belts

Belts should be checked periodically. The arbor belt is actually static-dissipative so it should be replaced every few years. When a belt wears down it can slip on the pulleys which will cause the blade to slow down. If it slows down enough the saw will cut power to the motor and give you a no-blade-rotation error which is a solid red and a fast blinking green light on the switchbox. A good indicator that you need a new belt is a squeak when you first start the saw.

Here are the belts for the various models of SawStop saws:

- 1. JobSite Saw (JSS):
 - a. Call service department for belt information.
- 2. Contractor's Saw (CNS):
 - a. Motor belt:
 - i. CNS-07-058
 - ii. https://sawstop.3dcartstores.com/Motor-Belt-For-CNS_p_28.html
- 3. Professional Saw (PCS):
 - a. Arbor belt:
 - i. PCS-202
 - ii. <u>https://sawstop.3dcartstores.com/Arbor-Belt-for-CB-ICS-and-PCS-_p_31.</u> <u>html</u>
 - b. Motor belt:
 - i. PCS-203
 - ii. https://sawstop.3dcartstores.com/Motor-Belt-for-PCS_p_30.html
- 4. Industrial Saw (ICS):
 - a. Arbor belt:
 - i. CB104 191
 - ii. <u>https://sawstop.3dcartstores.com/Arbor-Belt-for-CB-ICS-and-PCS-_p_31.</u> <u>html</u>
 - b. Motor belt:
 - i. CB104 192
 - ii. https://sawstop.3dcartstores.com/Motor-Belt-For-CB-and-ICS_p_29.html

Limit Stops

If you find that you can't raise or lower your blade all the way, before you attempt to adjust your limit stops consider that it is most likely an issue with dust build-up in the saw. At this point making adjustments to your limit stops is working around the problem rather than fixing it.

A limit stop is typically a yellow-headed hex bolt that a part of the saw's internal assembly runs up against. For example, as you are angling the blade the internal assembly tilts until it hits the yellow-headed bolt. This is how the saw knows to stop tilting once it gets to 45-degrees and if there is dust buildup where the bolt impacts the internal assembly it will stop too soon and not allow you to get the blade all the way to 45-degrees.

Below are the locations of the limit stops for each saw.

Contractor Saw (CNS)

Fig 4.1.1 - CNS upper elevation limit stop





Fig 4.1.3 - CNS 0-degree and 45-degree tilt limit stops



Professional Saw (PCS)

Fig 4.2.1 - PCS upper elevation limit stop



Fig 4.2.2 - PCS 0-degree and 45-degree tilt limit stops



Industrial Saw (ICS)



Fig 4.3.1 - ICS upper and lower elevation limit stops

Fig 4.3.2 - ICS 0-degree tilt limit stop



Fig 4.3.3 - ICS 45-degree tilt limit stop



Removing and Protecting from Rust

Rust happens. Hopefully you will notice it quickly so you can take the appropriate steps to remove it before it starts pitting the iron.

There are several products that you can use to remove the rust. Personally, I prefer to apply a generous coating of WD-40 to the affected area, let it sit for a while, then use a grey Scotch-Brite pad and a block of wood to scrub it until the rust is gone.

Afterward you should apply something to the exposed metal to protect it from rusting again. There are many products on the market but I personally prefer the tried and true method of applying several coats of Johnson's Paste Wax.

There is a detailed writeup on removing rust and protecting the cast iron table top at the following link:

http://trentdavis.net/2017/06/13/tool-maintenance-protecting-cast-iron-tabletop/

Adjusting the Riving Knife

To make adjustments to the height or alignment of the riving knife you will need to access two pairs of cap head screws on the riving knife clamp. The horizontal positioning bolts are adjusted with an 8 mm allen wrench and the vertical bolts use a 5 mm allen wrench.











Fence Adjustment

The T-Glide fence has a few items that may need periodic upkeep. These include the glide plates, the flex plate, and the fence leveling screws.

Glide Plates

There are a total of 5 glide plates on the fence.



Fig 7.1.1 - Glide Plate locations

These plates can wear down over time and may need to be replaced. The symptoms to be on the lookout for include the fence being out of parallel with the blade and the fence not clamping down as tightly on the front tube.

If they need to be replaced, the part number is **TGP2-010** they can be bought from the online parts store at the following url: <u>https://sawstop.3dcartstores.com/Fence-Tube-Glide-Plate_p_51.html</u>

Flex Plate

Fig 7.2.1 - Flex Plate



The Flex Plate is what is used to grip the front of the main tube. These will usually last several years but if they break then your fence will not be able to grip the main tube, thereby making your fence unusable. I recommend inspecting this every few months and replacing it if it seems to be wearing down or cracking. If your saw is used for your business then I recommend having a spare on hand in order to avoid any downtime on your saw.

If it needs to be replaced, the part number is **TGP2-008** they can be bought from the online parts store at the following url: https://sawstop.3dcartstores.com/Flex-Plate-for-SawStop-T-Glide-Fences- p 47.html

Fence Parallelism





There are two screws used to adjust the fence parallelism to the blade. These screws also adjust the clamping pressure of the fence and may need to be adjusted as your glide plates wear down or if your flex plate breaks.

Fence Leveling Screws

Fig 7.4.1 - Fence Leveling Screw locations



The fence has two screws that are used to level the fence. These glide back and forth along the main tube and can wear down over time. These screws also raise or lower the front of the fence. If these wear down enough, the magnification lenses on your fence will sit lower and may eventually rub on the tube rulers resulting in faded numbers and scratched lenses.

If they need to be replaced, the part number is **TGP2-009** they can be bought from the online parts store at the following url:

https://sawstop.3dcartstores.com/Leveling-Adjustment-Screw_p_97.html

Using Bypass Mode

I strongly recommend you learn how to use bypass mode, even if you think you'll never need it. Chances are that you will need it at least once and you'll probably not have time to practice it beforehand.

If you need to order a replacement set of bypass keys, the part number is **CB104 068** they can be bought from the online parts store at the following url: <u>https://sawstop.3dcartstores.com/Bypass-Key-Set_p_53.html</u>

How to use Bypass Mode

Here are the steps for using bypass mode.

- 1. Start with the saw powered up but the main paddle pushed in. You should have a solid green light and the blade will **NOT** be spinning.
- 2. Turn the brass bypass key 90-degrees away from you. It is spring loaded so you will need to hold it.
- 3. Count to 2. (You can alternately wait until you see the red light flash once.)
- 4. Pull the paddle.
- 5. Count to 2 again. (You can alternately wait until you see the red light flash once.)
- 6. Let go of the key.
- 7. At this point, the green light should be slowly (about once per second) flashing and the blade should be spinning.
- 8. To take it out of bypass mode, push the paddle back in. Once the blade comes to a complete stop and the green light goes solid, the saw is automatically out of bypass mode.

Testing your material with Bypass Mode

If you have some material that you suspect may set off the brake, you can test the material by starting the saw in bypass mode and making your first cut. Then, **before you push the paddle back in**, look at the red light on the switchbox. It will be quickly flashing if the material you just cut will set off the brake.

Pulling Advanced Diagnostic Codes

Your saw may sometimes display an error message when you try to use it. Sometimes this will be easy to figure out and remedy. If you find that you can't figure out the error, call SawStop service at (503)582-9934.

One procedure you may be asked to perform is to pull Advanced Diagnostic Codes from the saw. This is something that you can do before calling.

Here are the steps for pulling Advanced Diagnostic Codes.

- 1. Have the original error message displayed on the switchbox LEDs. If the paddle is out, leave it out.
- 2. Turn the bypass key 90-degrees away from you and hold it there. Do not let go.
- 3. Watch the lights. They will do the following:
 - a. There will be an initialization period where you may see them flicker back and forth a few times. Ignore this.
 - b. They will eventually get into a pattern where the green light will flash a certain number of times then the red light will flash a certain number of times.
 - c. Both lights will flash together, kind of long and kind of dim.
 - d. The pattern will repeat again.
- 4. Count the lights.
- 5. Keep the key held and let the pattern repeat itself so you can verify that you counted the lights correctly.
- 6. Let go of the key.

For example, let's say you can't use the saw because it is giving you a solid red and fast flashing green.

Turn the key and hold it there. You'll see the lights dance around a bit then eventually it'll get into a repeating pattern where it flashes the green light flash 3 times and then the red flash 5 times before flashing once together. In this case, your advanced code is 3 green and 5 red. This information is useful in figuring out what is really going on.

Door Switches (ICS or CB only)

The Industrial Saw has switches on each of the doors. I recommend inspecting these periodically and blowing out any sawdust that may have built up in them.

Retraction Bolt (PCS and CNS only)



Fig 11.1.1 - PCS Arbor Retraction Bolt

The Professional and Contractor saw use a bolt and a spring to control the arbor retraction. This should never need to be adjusted. It is a shoulder bolt and should already be at the maximum tension. Tightening this bolt may cause it to shear off which results in the arbor not able to stay elevated. This bolt would then need to be replaced. Call SawStop Service at (503)582-9934 to get a replacement.

Links:

10" Brake cartridge (Rev 2 - Blue) TSBC-10R2 <u>http://amzn.to/2BwP6de</u>

8" Dado brake (Rev 2 - Blue) TSDC-8R2 http://amzn.to/2k8wyeU

Dado table insert: http://amzn.to/2Ah9S27

Recommended dado stack: <u>http://amzn.to/2i4U20s</u>

My blog: www.trentdavis.net

Marine Grease: http://amzn.to/2jzFzdb

Protecting a Cast Iron Table: <u>http://trentdavis.net/2017/06/13/tool-maintenance-protecting-cast-iron-tabletop/</u>

Dado information: http://trentdavis.net/2016/08/31/dado-information/