

Model 10TSS: 10-inch Trim Saw Owner's Manual and Operating Instructions



Caution: Read and understand

all Safety and Operating Instructions before using this equipment

THANK YOU for selecting the Highland Park Lapidary Model 10TSS trim saw! Our dedicated team is confident that you will be pleased with your purchase. Highland Park Lapidary takes pride in producing top quality, highly dependable products for both hobby and commercial lapidary users throughout the world.

Operated correctly, your Model 10TSS trim saw will provide you with years of quality service, and piles of beautiful rocks. To help familiarize you with the features, maintenance and safe operation of the machine, we have included this owner's manual.

Please take the time to acquaint yourself with the Model 10TSS trim saw by *reading* and *understanding* this manual. If you have questions concerning your Model 10TSS trim saw, our customer service staff is waiting to help you - call 512-348-8528.

TABLE OF CONTENTS

SAFETY

Safety Precautions	Page 3
Product Specifications	Page 5
SETTING UP YOUR MACHINE	
Unpacking	Page 6
Blade Installation	Page 6
Spray Guard Adjustment	Page 7
Removing Tray to fill Reservoir	Page 7
Splash Guard Installation	Page 8
Connect The Machine To Power Outlet	Page 9
MAINTAINING YOUR MACHINE	
Adding or Changing Coolant	Page 10
Replacing or Changing Saw Blade	Page 11
Adjusting Belt Tension	Page 13
TRIM SAW TIPS	
Avoid Blade Wobble	Page 14
Coolant	Page 14
How to Trim Cabochon Preforms	Page 15
How to Cut Slabs	Page 17
EXPLODED VIEWS	
Main Components View #1	Page 19
View #1 Parts List	Page 19
Main Components View #2	Page 20
View #2 Parts List	Page 20
Arbor Assembly View	Page 21
Arbor Parts List	Page 21
Vise Assembly View	Page 22
Vise Parts List	Page 22
Screw & Fasteners View #1	Page 23
View #1 Parts List	Page 23
Screws & Fasteners View #2	Page 24
View #2 Parts List	Page 24-25

SAFETY PRECAUTIONS

Used incorrectly, all electrical equipment carries some risk. To eliminate danger to either yourself or the machine, please read and follow all safety, operating and maintenance instructions! Failure to *read*, *understand* and *follow* these instructions could result in injury or death to you or others, or result in damage and/or reduced equipment life.

EYE PROTECTION Safety glasses should always be worn when operating this machine. Regular eyeglasses do not provide proper protection and may not prevent eye injury - they are NOT safety glasses.

HEARING PROTECTION To reduce the possibility of hearing loss, always use hearing protection when operating this machine.

PROTECT YOUR LUNGS All diamond blades are designed to be used with water or oil, so all cutting should be done with sufficient water or oil (*see figure 1*). A respirator should be always worn when running the machine, because rock dust can be hazardous to your health. While the cutting fluid does reduce the dust, the dust particles are carried in the mist coming off the blade. This particle-filled mist can also be inhaled into the lungs, which is why we recommend always using a respirator when operating the saw.

WARNING: Some materials contain minerals or metals that can be more toxic. For instance, metallic ores may contain some toxic materials, so before grinding and polishing any unfamiliar material, make certain that it will not produce toxic fumes or dust.

AVOID LOOSE CLOTHING AND HAIR Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may be caught in moving parts. Wear protective hair covering to contain long hair. Non-slip footwear is also recommended.

DO NOT OPERATE MACHINE WITH GUARDS REMOVED To prevent injury, never operate the saw without the guards in place.

CONNECTING AND DISCONNECTING POWER

- **DISCONNECTING** The machine should always be disconnected (unplugged) before servicing or when changing blades.
- **CONNECTING REDUCE THE RISK OF UNINTENTIONAL STARTS** Make sure the ON/OFF switch is in the OFF position before plugging in the machine.

ELECTRICAL SAFETY

• GFCI - When connecting this machine to power always use a GFCI (Ground Fault Circuit Interrupter). Because the trim saw can be used with water, the GFCI will prevent risk of electrical shock.

- Never touch electrical wires or motor components while the motor is running. Exposed, frayed or worn electrical wiring and plugs can be sources of electrical shock that could cause severe injury or burns.
- If an extension cord is used, it must not be longer than 12 feet and must be at least 14 gauge wire with a ground.
- Use this tool only with the proper power source 120V 60 Hz.
- If the wiring becomes damaged or frayed, **replace it immediately**.
- Do not allow water to come in contact with electrical components, and do not connect or disconnect the power with wet hands.
- Disconnect the power before servicing the machine or changing the blade.

ROTATING OR MOVING PARTS Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate the motor with covers, shrouds or guards removed.

KEEP WORK AREA CLEAN

- Cluttered work areas invite accidents. Keep your work area clean and organized.
- **DO NOT USE IN DANGEROUS OR HAZARDOUS ENVIRONMENTS** Do not operate equipment in dangerous or hazardous environments. Do not use power tools in damp or wet locations nor expose them to rain. Always keep the work area well lighted. Always work in a well-ventilated area.
- **KEEP CHILDREN AWAY** All visitors and children should be kept at a safe distance from the work area.

WORK METHOD

- **DO NOT FORCE THE TOOL:** Your machine will do a better job and operate more safely at the feed rate for which it was designed. DO NOT change the pulleys to make the blade move faster, and don't push the rock hard against the cutting surface. Let the blade do the work.
- **USE THE RIGHT TOOL TO SERVICE THE SAW:** Do not force a tool or an attachment when servicing or operating this power tool. Use the correct tools for service or adjustments.
- **DO NOT OVERREACH:** Keep proper footing and balance at all times by not overreaching.
- **DO NOT OPERATE A TOOL WHEN TIRED:** When tired, take a break and relax.
- ONLY OPERATE AT THE PROPER SPEED: Do not modify the blade speed on the machine by changing pulleys or putting a faster motor on the machine. Severe personal injury and damage to the motor or equipment can result if operated at speeds above maximum.
- **NEVER LEAVE A TOOL RUNNING UNATTENDED TURN POWER OFF:** Do not leave the machine until it comes to a complete stop. Always turn the tool off when leaving the work area or when work is finished.

PRODUCT SPECIFICATIONS

Trim Saw Model	Model 10TSS
Machine Weight	72 lbs
Main Motor	
Horsepower	1/2HP
Motor Voltage 110 volt / 60 Hz / Single phase	110V/60Hz/ Single Phase
Motor RPM	1725 RPM
Arbor Shaft 5/8"	5/8"
Blade Capacity	10" (254 mm) diameter

- WORKPIECE SIZE The Highland Park Model 10TSS will accommodate manual cutting of specimens up to 3.25" (82.5mm) in height, and has a 16.437" (417 mm) x 13.875" (352 mm) work tray.
- **RESERVOIR** Approximately 1.9 liters (.5 gallon) of coolant is required to adequately cover the bottom of a 10-inch (254 mm) blade. See *Figure 1* for proper lubricant level.

COOLANT SELECTION

- **OIL** The use of thin viscosity mineral oil (6-7 cst at 40 deg C) is advised. No other oil types are recommended since other types of oils may contain additives that will damage the seals, resulting in premature bearing failure. When cutting hard materials like agate and jasper, we highly recommend using mineral oil.
- WATER Some stones that are very soft or may absorb oil cannot be cut in oil without degrading the stone. In these cases, using water is acceptable. When water is used, then the water must be drained out of the saw every day when you are done cutting. The blade is made from steel and will rust less if the machine can dry out at the end of the day.
- **WATER SOLUBLE OILS** We don't recommend the use of water-soluble oils, since they will not prevent rust from forming on the steel components and simply add cost with minimal value.
 - If you are running water or water-soluble oils and you get some rust forming on your blade, *this is not covered by warranty*. Light rust is not a big concern; simply use some steel wool or Scotch Brite to clean the blade, and then apply a coat of rust inhibitor.

SETTING UP YOUR MACHINE

The Highland Park Model 10TSS 10-inch Trim Saw has been carefully packaged for protection during transit from the factory to you. The blade has been factory installed and the arbor nut securely tightened. You should have the following when you unpack your unit:

- Highland Park Model 10TSS Trim Saw
- Splash Guard with mounting screw
- 10" Thinline Blade

Tools Needed

• Phillips Screwdriver and 2 adjustable wrenches

Unpacking the Saw:

The 10-inch Trim Saw weighs approximately 72 lbs. (33 kg.) Take care when lifting the unit from the box, as improper lifting might cause personal injury or cause damage to the machine.

Your Highland Park Model 10TSS Trim saw has been shipped from the factory thoroughly tested and inspected. Choose a place in your workspace for your saw that allows adequate working space and has a convenient power outlet. Avoid using an extension cord; it's much safer to connect the machine directly to a wall power outlet.

Place the 10-inch Trim Saw on a flat surface such as a sturdy bench or table that is strong enough to support the machine, and is at a good working height for you.

Blade Installation: (for video, go to <u>Changing the Blade on the 10TSS Trim Saw</u> on the Highland Park Lapidary YouTube channel.)

- Unwrap the BLADE and wipe it off with a clean rag or paper towel to ensure that there is no dirt on the sides of the **blade** where the **arbor flanges** mount.
- Remove the 4 Phillips-head screws that hold the top tray to the reservoir tank. Once you remove the 4 screws, you can easily lift the tray off the top of the **reservoir**. Remove the **arbor nut**, the **outer flange**, **blade bushing** and **inner flange**.
- Wipe off all the components and the end of the **arbor shaft.** This will ensure that there are no small pieces of dirt that might get under the **blade** or **flanges** when they are installed. (Whenever you change the **blade**, be very careful that everything is clean. Even a small rock chip can make the **blade** wobble and run out of true.)
- Next, slide one of the flanges back on the **arbor shaft**, then slide the **blade bushing** onto the **arbor shaft**.
- Place the **blade** on the **arbor shaft**, positioning it on the **blade bushing** so the **blade bushing** is inside the hole on the *blade*.

- Carefully hold the **blade** in place and slide the second **flange** onto the **arbor shaft.** If you bump the *blade*, it may slip off the bushing and drop down a bit. If this happens, you will need to carefully put it back on the **blade bushing**.
- Next, you will put the **arbor nut** on the end of the **arbor shaft** and thread it on by hand until it seats against the **flange**. The **arbor nut** is a right-hand thread. Lightly snug the **arbor nut**, but don't tighten it yet. Turn the **blade** by hand to make sure it is turning true and is seated properly on the **bushing**. When you confirm this is the case, then you can use the two adjustable wrenches to tighten the **arbor nut**.

Spray Guard Installation:

- The spray guard covers the top of the blade during cutting and can be adjusted to control the amount of the blade that is exposed when cutting.
- Unwrap the spray guard, being careful to not lose the screw, washers, nut and spacer. Install the spray guard on the brackets at the back of the tray. Make sure that the spacer is in place as you put the screw through the brackets and spray guard. If you lose the spacer, then the spray guard won't stay properly in position.
- Tighten the screw holding the nut with an adjustable wrench until the spray guard can be raised and lowered easily, but stays in position. Before starting your saw, check to make sure that the spray guard is adjusted so that the blade is not touching it.



Tighten until Spray Guard can be moved, but stays in one place when you let go.

For a video on how to install the spray guard, see the Highland Park Lapidary YouTube page!

Removing the Tray to fill the Reservoir:

Since your tray is off and your blade is installed, you are now ready to fill the reservoir. Make sure that the drain plug is installed in the reservoir. Then, you can fill the reservoir until the coolant is covering about the bottom 3/8" of the blade (see below).



Line represents proper coolant level

Do not overfill the **reservoir**, as this will cause unnecessary spray while using the machine. Replace the **top tray** and carefully lower the tray down over the **blade** and into place, being careful not to bend the blade.

If you are filling your saw with the top ON, simply pour lubricant into the top slot, until water sprays from the front of the blade on its own. This will take a little over five quarts of water. Note: If you plan to run water in your machine, we suggest putting a ball valve on the **drain port.** This will make it much easier to drain the water at the end of each day.

Splash Guard Installation:

- The splash guard helps to reduce splash from coming out of the front of the trim saw when you are cutting. To install it, remove it from the packaging, being careful not to lose the screw and washers that are provided.
- Next, place the splash guard inside the front lip of the *tray*. Insert the screw through the hole on the front of the tray, and carefully thread it into the splash guard. Do not cross-thread it or force it - *tighten lightly* just so the splash guard does not move, *Do not overtighten*, or you may damage the splash guard mounting nut threads.



Proper Splash Guard Installation

Connect the machine to the power outlet:

- Check that the **power switch** is in the OFF position.
- Attach the **power cord** from the machine to the power outlet.
- Move the **power switch** to the ON position to start the rotation of the *blade*
- Check that the **blade** is rotating and running true. This indicates the saw is functioning properly. Move the **power** switch back to the OFF position.



Off/On Switch

OPTIONAL ACCESSORIES (for video, go to

How To Set up Vise and Table on your 10" inch Stainless Trim saw on the Highland Park

Lapidary YouTube channel)

Your Highland Park Model 10TSS 10-inch Trim Saw can also be used with two optional accessories:

• Vise Assembly – part number 10SS008

- The vise assembly option is easy to install on your Model 10TSS trim saw.
 Simply remove the left two Phillips screws in the *tray* and mount the vise with these two screws.
- Position the vise assembly to get it as parallel to the blade as possible; snug the screws and move the vise forward and backward. The gap between the vise and the blade should be identical as you slide it from the front to the back.
- You can use the Highland Park Blade Alignment kit to help in getting the vise set perfectly. If the vise is not set parallel to the blade it can damage the blade with extended use!



Properly Installed Vise Assembly

- Clear Polycarbonate Hood part number 10SS010
 - The hood provides an excellent way to reduce the mist that comes off the machine when you are cutting. The hood sits inside the tray and has an opening on each side. This allows you to put your hands in from either side when you are cutting, with good visibility looking through the clear hood.

MAINTAINING YOUR MACHINE

Your Highland Park Model 10TSS 10-inch Trim Saw has been designed to require minimal upkeep. The following easy, routine maintenance will keep it running smoothly.

- CHECK FOR DAMAGED OR WORN PARTS Before using the machine, check for damaged parts or wires. A guard or any other part that is damaged or worn should be replaced. Regularly check moving parts for proper alignment or binding.
- USE RECOMMENDED ACCESSORIES AND PARTS Consult the owner's manual for recommended accessories and parts. Using improper parts and accessories may increase the risk of personal and/or bystander injury. Use only diamond blades that are designed for lapidary cutting.
- USE ONLY RECOMMENDED COOLING AND LUBRICATING FLUIDS Never operate a tool that requires coolant or lubricant in a dry state. This can lead to shortened tool life, tool damage and personal injury.
- MAINTAIN TOOLS AND COOLANT Keep the diamond blade sharp and change the cutting oil before it starts to get too dirty (oil will start looking muddy and thick). Keep the reservoir filled to the correct level for the best and safest performance. Always follow the maintenance instructions for sharpening the blade and servicing the saw.

ADDING COOLANT:

As you run your trim saw, you will lose some coolant with each cut. Coolant, both water and oil, will remain on the stone you are cutting, and eventually the level in the reservoir will drop. If you notice that not as much oil or water is coming into your cut as you work, this is an indicator that it's time to add some coolant. There is no need to remove the tray each time; simply slowly add coolant as the saw is running until you see the coolant being delivered to your cut. Add the coolant slowly so you don't overfill it.

CHANGING THE COOLANT:

After some period of time, depending on what materials you are cutting and how much cutting you are doing, the coolant will become full of mud from the cutting. You will notice that the oil coming up into the cut is very dirty. Continuing to run the saw when the coolant is very dirty will begin to affect the

cutting process and increase the wear on the blade. To change the coolant, you will need to remove the tray, and then drain and clean out all the dirt, and replace the coolant with clean oil as follows:



Remove all 4 screws from top

• Unplug the machine from the electrical outlet.

• Remove the four Phillips head screws that hold the top tray to the **reservoir tank.** Note: When installing screws, make sure the screw is perpendicular to the hole. If it feels tight as you turn it, do not force it; this can damage the threads and break the screw, causing a significant problem.

• Do not tighten any of the screws until all four screws are in place and everything is aligned. Don't over tighten.

• Once you remove the 4 screws, carefully lift the tray straight up, being careful not to damage the blade as you lift it off the **reservoir tank.**

• Remove the **blade** carefully being careful to not bend the *blade* when you undo the **arbor nut**. The **arbor nut** is a right-hand thread. Note which way the *flanges* are installed so you can put them back together correctly.

• Clean the **blade** and inspect it for any damage. Replace damaged **blades**, as running a damaged **blade** can cause serious injury.

If there is a thick layer of mud in the bottom of the

reservoir, use a putty knife to carefully scrape the thick mud out. Avoid pushing thick mud into the **drain port**.

- Position a container under the **drain** and open the **drain** to let the dirty coolant out.
- Wipe out the **reservoir** and clean up the remaining mud and coolant.
- Use Teflon tape on the threads of the **drain plug** before putting it back in the **drain port.** If you are using a ball valve on your drain, then simply close the valve.

REPLACING or CHANGING THE SAW BLADE

• Carefully clean both **arbor flanges** and the exposed end of the **arbor shaft** and wipe both sides of the blade off carefully. Grit or rock chips can make the **blade** wobble if they are on the **flanges** or **blade** when you reassemble it. Be certain the blade bushing stays in place in the center of the blade, and does not slip.



This blade bushing has slipped from the blade and will cause the blade to wobble or seize up.



This blade bushing is perfectly aligned, which will allow your saw to cut cleanly and smoothly.

- Replace the first **flange** with the flat side of the **flange** against the **arbor shaft** and the recess towards the **blade**
- Put the **blade bushing** on and locate the **blade** properly on the bushing.
- Put the second **flange** on with the recess towards the blade. Slide it on, not allowing the blade to move, until the flange is against the face of the blade. Hold it firmly while putting the **arbor nut** in place, not letting the blade wobble. Rotate the **blade** by hand to verify that the **blade** is turning true, not wobbling either front to back or side to side. If it isn't turning true, take the **arbor nut** and **flanges** back off and make sure that the **blade** and **blade bushing** are in the correct position.
- Once the **blade** is running true, tighten the **arbor nut.** Don't over tighten the **arbor nut**, because doing so may damage the **flanges** and cause the **blade** to not run true.
- Carefully lower the **tray** back down onto the **reservoir**, being careful not to bend the **blade**. Replace the 4 screws.



Place 1st flange flat side against arbor shaft, recessed side against blade.



Place second flange with the recess against the saw blade and secure with the arbor nut.

BELT TENSION:

The drive belt is adjusted and tensioned at the factory. However, after some amount of use, it may be necessary to adjust the tension on the belt if it begins slipping. To adjust the tension, first unplug the machine. Next, remove the **side cover** for the **belt guard**, loosen the **motor mounting nuts**, and move the motor back more so that no more than 1/2" (12.7 mm) of belt deflection occurs when the **belt** is depressed by fingertip pressure



Testing Belt Tension

GENERAL CLEANING:

With use, your Highland Park Model 10TSS Trim Saw may get some dust and oil residue on it. Keeping your machine clean is a good way to keep it looking great and avoid issues. Unplug the saw before wiping it down. You can use a mild cleaning solution like Formula 409 or Simple Green, but don't spray the cleaner directly on the machine. Instead, spray the solution on your cleaning rag, and then use the rag to wipe the surfaces of the machine.

TRIM SAW TIPS

Whether you're a seasoned professional, new to the lapidary field, or somewhere in between, the HP Lapidary 10TSS trim saw will provide you with hours of enjoyment as you explore the fascinating world of rocks and minerals. Here are a few tips that will help you use your new saw successfully:

AVOID BLADE WOBBLE

For a video on blade wobble, see <u>"Causes of Blade Wobble"</u> on the Highland Park Lapidary YouTube channel.

Your blade should be tight on the arbor and run without wobbling. Blade wobble will reduce the blade's effectiveness, make your cuts rougher, and in some cases, damage the diamond blade itself. Fortunately, it's easy to avoid - just make sure your blade is running true! Wobble generally can be identified by looking at the blade straight on and from the side. If it's wobbling, the blade will appear to have a slight side-to-side motion or moving front to back. The first thing to check is that your blade bushing is in the proper position. If it is, other issues can cause blade wobble.

Even though it looks like it's caused by a bent blade, a wobble is sometimes caused by small pieces of debris trapped between the shaft and the arbor or an improperly installed blade bushing. Even a tiny speck can keep your blade from running smoothly. To fix most wobble issues, take your blade off the shaft. Clean the shaft carefully, and run your fingers along the edges and surface of the arbor. If you find a small bur, use a file or wet/dry sandpaper to smooth the surface. Clean the saw blade's center hole, and make sure all the pieces are free from contamination. Make sure the blade bushing is in the proper position when reinstalling the saw blade, perfectly centered. Turn the blade by hand to verify that it is now running straight and true.

COOLANT

Coolant is crucial to keeping the blade running smoothly and cleanly. Friction between the rock and the blade causes heat to build up, and the blade cools down again as it dips down into the coolant. Be sure to keep your coolant levels high enough that you can always see some coolant spraying onto your stone as you cut. Excessive spray means that you have overfilled the coolant reservoir; don't panic, the spray will reduce after you have cut a few stones.

Using thin viscosity mineral oil (6-7 cst at 40 deg C) as coolant is advantageous (but not required) when cutting hard materials such as jasper and agate. The trim saws may be used with water, but the water should be drained from the holding reservoir after each session to prevent rust buildup on the blade. Note: If you are running water or water-soluble oils and you get some rust forming on your blade, *this is not covered by warranty*. A minor amount of surface rust will not affect the performance of the saw.

HOW TO TRIM CABOCHON PRE-FORMS

Creating a cabochon pre-form is the first step to making beautiful jewelry, and is a job your trim saw will do beautifully. You will find that trimming a slab allows the blade to move substantially faster through the rock, because it is much thinner. There are a few things to remember when cutting pre-forms:



Move the template around the slab until you find a shape and



Trace the shape onto the slab with a stylus or fine-tip Sharpie.

- 1. Highland Park Lapidary offers a variety of <u>well-designed templates</u> to trace geometric shapes on your slab in preparation for cutting. You also can create shapes using masking tape or contact paper, or draw a shape freeform. Choose the shape you want, then move the template around on the slab until you find the perfect pattern. Use a fine-point Sharpie, or an aluminum or brass scribe, to trace the shape onto the slab.
- 2. Next step is to prepare your pre-form, cutting it from the slab. Turn on the saw and make sure the coolant is running freely. When pushing the rock into the blade, your fingers should hold the slab firmly on both sides, avoiding pushing your finger into the blade to eliminate injury. The flat diamond-embedded edge will grind rock away, but it will not cut a finger off, unlike a wood saw.



Hold rock or slab firmly with both hands, keeping fingers away from the blade



While the blade grinds rather than cuts, pushing your finger against it can still result in injury if force is great enough.

3. Some beginners make the mistake of trying to cut around curves, which can damage both the blade and the cabochon. Your blade is hard, flat, and does not bend around corners. Cut round objects by making straight cuts around them first, freeing them from the main slab. Then, use your trim saw to trim off the corners to make the piece more rounded. Patience is key here; trimming too quickly can result in fractured, uneven pre-forms.



Cut straight lines all around your shape.



Cut increasingly smaller straight lines to round the edges.

4. To finish the preform, clean up the sides by rubbing them against the edges of the running blade. Your pre-form is ready!



Continue cutting in small, straight cuts until you have a rough shape, leaving a small border outside of your line.



Your perform is now ready for the next step - polishing.

HOW TO CUT SLABS

Your 10TSS trim saw can be used to cut slabs from rocks up to 3.25" in height. Highland Park Lapidary offers an add-on vise for the 10TSS (SKU: 10SS008) that will help keep rocks for slabbing steady and parallel. If you don't have a vise, cut a flat surface on the rock, and then use that surface on the bottom while slabbing to help the stone move more smoothly as you cut.



Do not hold rock at an angle with an empty space (or your finger!) between the rock and the blade. This can catch and pinch.



Instead, put the flattest part of the rock against the cutting table, allowing you to move the rock against the blade smoothly.

Cutting a good slab from a rock on a trim saw requires patience and the ability to allow the blade to do the work, rather than pushing or twisting the rock. To cut a slab, first examine your stone for a flat area that can sit securely against the cutting deck. This will be the bottom for your slab cuts and will sit flat against the machine. Avoid trying to cut at an angle; if you catch part of the rock on the saw and your finger is in the way, it can result in a nasty pinch! Progress SLOWLY, with just a little pressure on the rock. When the first cut falls off, it likely will have a little nub where the rock breaks off; use the saw to remove it.

After you have the first face cut, decide how thick you want your slab to be. Use a ruler to measure and place a mark on the stone where you want to cut. Be sure to take the blade thickness into account and place the measured mark so that it will just line up with the left edge of the blade.

Now comes the tricky part! Place the rock with the mark in line with the blade, making sure the flat cut is flush against the table of the saw. Be sure the flat surface is *parallel to the blade and* keep it steady as the blade moves through the rock.

Remember, keep up slow, steady, light pressure on the rock to reduce blade marks and fracturing. Pushing the rock too fast through the trim saw or turning it over to cut from a variety of angles, will create little microfractures in the rock that often won't go away with polishing.

Once you are finished, use the edge of the saw to trim off the nub that occurs when the slab falls from the stone (or, to avoid the nub, cut even more slowly as the slab nears the end). You have cut a slab on your trim saw!

Enjoy your Highland Park 10TSS Trim Saw - HAPPY CUTTING!

EXPLODED VIEWS & PARTS LISTS



Main Components View #1 Parts List

Part Number	Description	Quantity
100060	Toggle switch guard	1
1055002	Bakelite Base	1
10SS007	Table Assembly	1
1055008	Vise Slide Assembly	1
1055009	Switch Box	1
10SS010	Plastic Hood	1
10SS031	Splash Guard Assembly	1
10SS035	10SS Spray Guard Assembly	1
WR0033	Moulded Plug Cord	1
WR0054	Heavy duty toggle switch	1



MAIN COMPONENTS View #2 Parts List

Part Number	Description	Quantity
10000955	5/8-18 Arbor Nut	1
10SS001	Tank Assembly	1
10SS003	Arbor Assembly	1
10SS005	Belt Guard Body	1
10SS006	Belt Guard Cover	1
10SS011	Flange	2
10SS033	Motor Adjust Bar	1
10SS034	Motor Adjust Guide	1
BLT046	Serpentine Style Belt	1
F00027	1/4-20 x 1-1/2 SHCS Socket Head Cap	1
FT0105	Stainless Steel Drain Plug	1
HW0024	Key Stock	1
MF00059	M6-1.0 Flat Washer	1

MT0014	Electric Motor	1
SP17B625	1.7 inch Serpentine Style Pulley with 5/8 inch bore	1
SP20B5	2 inch Serpentine Style Pulley with 1/2 inch bore	1
TL002	Saw Blade	1

ARBOR ASSEMBLY EXPLODED VIEW



ARBOR ASSEMBLY Parts List

Part Number	Description	Quantity
10SS020	Arbor Shaft	1
BR0051	Ball Bearing	2
BR0052	Arbor Shaft Seal	1
HP1002	Arbor Housing	1
HW0086	Retaining Ring	1



VISE ASSEMBLY EXPLODED VIEW

VISE ASSEMBLY PARTS LIST

Part Number	Description	Quantity
10SS023	Vise Body	1
10SS024	Vise Slide Bracket Assembly	2
10SS025	Vise Rail	1
10SS026	Vise Slide Block	2
10SS027	Vise Back Jaw	1
1055028	Vise Front Jaw	1
10SS032	Vise Wood	2
F00046	10-32 Flat Washer	4
F00048	10-32 Lock Washer	4
F00058	10-32 x 3/8 PHP Pan Head Phillips	4
F00153	5/16-18 Flat Washer	2
F00199	5/16-18 x 3" Spade Head Thumb Screw	1

F00200	5/16-18 Wing Nut	2
F00201	5/16-18 Threaded Rod	1

10TSS Screws & Fasteners View #1 EXPLODED VIEW



10TSS Screws & Fasteners View #1

Part Number	Description	Quantity
F00009	1/4-20 Flat Washer	2
F00010	1/4-20 Lock Washer	2
F00021	1/4-20 x 1/2 PHP Pan Head Phillips	2
F00046	10-32 Flat Washer	13
F00047	10-32 Hex Nut	1
F00048	10-32 Lock Washer	12
F00049	10-32 x 1/2 PHP Pan Head Phillips	5
F00058	10-32 x 3/8 PHP Pan Head Phillips	10
F00128	8-32 Flat Washer	2

F00129	8-32 Hex Nut	2
F00136	8-32 x1/2 PHP Pan Head Phillips	2
F00210	10-32 x 1 1/4" SS304 PHP Pan Head Phillips	1

10TSS Screws & Fasteners View #2 EXPLODED VIEW



10TSS Screws & Fasteners View #2

Part Number	Description	Quantity
F00080	4-40 3/16 PHP Pan Head Phillips Brass	2
F00081	5/16-18 Flat Washer	8
F00082	5/16-18 Lock Washer	8
F00084	5/16-18 Hex Nut	8
F00094	5/16-18 x 1-1/4 FHSCS Flat Head Socket	8
F00105	5/16-18 x 3/8 Black Set Screw	2

F00161	5/16-18 x 1/2 Set Screw	2
MF00071	M8-1.25 x 20mm PHSCS Pan Head Socket	4
MF00084	M8 Flat Washer	4
MF00085	M8 Lock Washer	4