

6-inch TS6 Trim SawOwner's Manual and Operating Instructions



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Manual Part No. 167892

Caution: Read all safety and operating instructions before using this equipment. This manual **MUST** accompany the equipment at all times.

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TS6

We at Barranca Diamond Products want to thank you for selecting the Barranca Diamond TS6 6-inch Trim Saw (part # 8300017). We are certain that you will be pleased with your purchase. Barranca Diamond takes pride in producing top quality and dependable products for both hobby and commercial lapidary users throughout the world.

Operated correctly, your TS6 6-inch Trim Saw should provide you with years of quality service. In order to help you, we have included this owner's manual. This owner's manual contains information necessary to operate and maintain your TS6 6-inch Trim Slab Saw safely and correctly. Please take the time to familiarize yourself with the TS6 6-Trim Saw by reading and understanding this manual.

If you should have questions concerning your TS6 6-Trim Saw, please feel free to call Barranca Diamond at (310) 523-5867 or toll free (800) 630-7682.

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SAFETY PRECAUTIONS

Read and follow all safety, operating and maintenance instructions. Failure to read and follow these instructions could result in injury or death to you or others. Failure to read and follow these instructions could also result in damage and/or reduced equipment life. In order to prevent injury, the following safety precautions should be followed at all times!

READ OWNERS MANUAL BEFORE USE

Before using this equipment, ensure that the person operating this machine has read and understands all of the instructions in the manual. Precaution is the best insurance against accidents. Read and understand all safety precautions, messages, warnings and hazard symbols. You are responsible for your own safety.

ALWAYS USE SAFETY GLASSES

Safety glasses should always be worn when working around power tools. In addition, a face, dust mask or respirator should be worn if a cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses and may not prevent eye injury - they are NOT safety glasses.

USE PROPER APPAREL

Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may be caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Hand protection (plastic gloves) and a shop bib are recommended during sawing to prevent stains to clothing. Avoid prolonged exposure of skin to the sawing lubricant and wash skin immediately after contact. Do not touch the work material until the motor is off and the machine has come to a complete stop.

ALWAYS USE HEARING PROTECTION

To reduce the possibility of hearing loss, always use hearing protection when operating power equipment.

KEEP GUARDS IN PLACE

In order to prevent injury, never operate the saw without the guards in place!

REMOVE ADJUSTING KEYS AND WRENCHES

Form a habit of checking to see that keys and adjusting wrenches are removed from the power tool before it is turned on.

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. Use the GFCI (Ground Fault Circuit Interrupter) Switch, included with the unit, attached to the main motor power cord plug and keep plugged into the power receptacle outlet source.

DISCONNECT TOOLS

Power tools should always be disconnected before servicing or when changing accessories, such as blades, bits, cutters and the like.

REDUCE THE RISK OF UNINTENTIONAL STARTS

Make sure the ON/OFF switch is in the OFF position before plugging in a power tool.

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.

MAINTAIN TOOLS WITH CARE

Keep tools clean for the best and safest performance. Always follow maintenance instructions for lubricating and when changing accessories.

KEEP WORK AREA CLEAN

Cluttered work areas and benches invite accidents.

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 a safe distance from the work area. Keep power cords disconnected when tool is not in use.

MAKE THE WORKSHOP KID-PROOF

Make the workshops kid-proof by using padlocks, master switches and by disconnecting all power cords.

USE THE RIGHT TOOL

Do not force a tool or an attachment to do a job that it was not designed to do.

SECURE WORK

Clamps or a vise should be used to hold work whenever practical. Keeping your hands free to operate a power tool is safer.

DO NOT FORCE THE TOOL

A power tool will do a better job and operate more safely at the feed rate for which it was designed.

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.

DIRECTION OF FEED

All blades, grinding wheels or polishing belts should always be installed such that rotation is in the direction of the arrow imprinted on the blade, wheel or belt.

ONLY OPERATE AT THE PROPER SPEED

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 a tool until it comes to a complete stop. Always turn the tool off, and disconnect the power cord to its source, when leaving the work area or when work is finished. Do not leave extension cords attached to the power cord or power receptacle (wall outlet) when leaving the work area.

CHECK FOR DAMAGED OR WORN PARTS

Before using a power tool, check for damaged parts. A guard or any other part that is damaged should be carefully checked to determine if it would operate properly and perform its intended function. Always check moving parts for proper alignment or binding. Check for broken parts and mountings and all other conditions that may affect the operation of the power tool. A guard, or any damaged part, should be properly repaired or replaced.

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 THE PROPER EXTENSION CORD

If using an extension cord, make sure it is in good condition first. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage that will result in a loss of power and overheating. TABLE 1, shows the correct AWG (American Wire Gauge) size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

USE A GROUND FAULT CIRCUIT INTERRUPTER

Use of a Ground Fault Circuit Interrupter (GFCI) between the end of power cord and wall outlet is required at all times.

USE THE PROPER POWER SOURCE

This tool is only to be used with a 120 volt 60 HZ power source. Ensure power source is at least 15 amps and 110 to 120 volts. Low voltage current can adversely effect electric motor performance and overall life.

USE THE RECOMMENDED COOLING AND LUBRICATING FLUIDS

Never operate a tool dry that requires coolant or lubricant. This can lead to shortened tool life, tool damage and personal injury.

MAINTAIN TOOLS

Keep the diamond blade sharp, the sawing lubricant clean and reservoir filled to the correct level for the best and safest performance. Always follow the maintenance instructions for sharpening the blade, lubricating and servicing the saw.



CAUTION

Sawing, grinding and drilling generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment, always employ dust controls and protection suitable to the material being sawed, ground or drilled; (See OSHA 29 CFR Part 1910.1200). Diamond Blades improperly used are dangerous. Comply with American National Standards Institute Safety Code, B7.1 and Occupational Safety and Health Act covering Speed, Safety Guards, Flanges, Mounting Procedures, General Operating Rules, Handling, Storage and General Machine Conditions.



⚠ WARNING

CALIFORNIA PROPOSITION 65 MESSAGE

Some dust created by power sanding, sawing, grinding, drilling and other activities contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- · Lead, from lead-based paints
- Crystalline silica, from bricks and cement and other masonry products and natural stone
- · Arsenic and chromium, from chemically treated lumber
- Asbestos forming minerals

For further information, consult the following sources:

http://www.osha.gov/SLTC/silicacrystalline/index.html http://www.oehha.org/prop65/out_of_date/6022kLstA.html

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS

In order to prevent potential electrical shock and injury, the following electrical safety precautions and symbols should be followed at all times!

In case of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Do not modify the plug provided if it will not fit the outlet; have the proper outlet installed by a qualified electrician.
- Improper connections of the equipment-grounding conductor can result in a risk of electric shock.
 The equipment-grounding conductor is the wire that has a green outer surface, with or without
 yellow stripes. If repair or replacement of the electric cord or plug is necessary, do not connect the
 equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
- Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks like the one shown in Sketch A of Figure 1. The tool has a grounding plug that looks like the plug illustrated in Figure 1. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

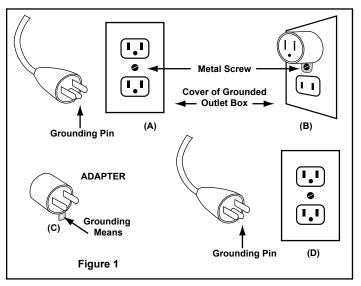


Figure 1

NOTE: Use of a temporary adapter is not permitted in Canada.

To reduce the risk of electrocution, keep all connections dry and off the ground.

A Ground Fault Circuit Interrupter (GFCI) should be provided on the circuit(s) or outlet(s) to be used for this machine. Receptacles are available, having built-in GFCI protection, and may be used for this measure of safety.

When using an extension cord, the GFCI should be installed closest to the power source, followed by the extension cord, and lastly, the saw.

ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS (continued)

To avoid the possibility of the appliance plug or receptacle getting wet, position the saw to one side of a wallmounted receptacle. This will prevent water from dripping onto the receptacle or plug. A "drip loop," shown in FIGURE 2, should be arranged by the user to properly position the power cord relative to the power source.

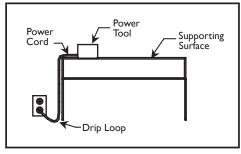


Figure 2: Drip Loop

The "drip loop" is that part of the cord below the level of the receptacle, or the connector, if an extension cord is used. This method of positioning the cord prevents the travel of water along the power cord and coming in contact with the receptacle. If the plug or receptacle gets wet, DO NOT unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the tool. Then unplug and examine for presence of water in the receptacle.

Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cords before using and replace if damaged. Do not abuse extension cords and do not yank on any cord to disconnect. Keep cords away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product form the extension cord.

To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch the plug with wet hands.

Use of under-size extension cords result in low voltage to the motor that can result in motor burnout and premature failure. Barranca Diamond warns that equipment returned to us showing signs of being run in a low voltage condition, through the use of undersized extension cords will be repaired or replaced totally at the customer's expense. There will be no warranty claim.

To choose the proper extension cord:

- Locate the length of extension cord needed in TABLE 1 below.
- Once the proper length is found, move down the column to obtain the correct AWG size required for that length of extension cord.

Extension Cord Minimum Gage for Length					
Volts	Total Length of Cord in Feet				
120 v	25 ft.	50 ft.	100 ft.	150 ft.	
	AWG	AWG	AWG	AWG	
	14	12	Not Reco	mmended	

Table 1

TS6 SPECIFICATIONS

Shipping Weight	40 lbs.		
Main Motor	Baldor		
Horsepower	1/3 HP		
Motor Voltage	110 volt / 60 Hz / Single phase		
Motor RPM	1725 RPM Fixed		
Shaft	5/8"		
Blade Capacity	6" (152.4 mm) diameter		
Vise Capacity (optional)	1.75" (44 mm)	Part# 8300015	
Part#	8300017		

TS6

The TS6 will manually cut specimens up to 1-1/2" (30mm) in height and has a 10" (254 mm) x 11" (279 mm) self-aligning tabletop.

Blade Lubricate

Approximately 1.4 liters (.37 gallon) of lubricant is required to adequately cover the bottom of a 6-inch (152.4 mm) blade. See Figure 6 for proper lubricant level.

The use of petroleum or vegetable based mineral is highly recommended as a lubricant for use with TS6.

NOTICE Water is not recommended for use with the Saw. The steel arbor shaft can rust. In addition, poor sawing performance and short blade life can result if water is used.



CAUTION

Personal injury. Use diamond blades only. Do not use abrasive blades. Particles break away from abrasive blades and may cause personal injury.

UNPACKING

The TS6 6-inch Trim Saw has been carefully packaged for protection during transit from the factory to your location. The blade has been factory installed and the arbor nut securely tightened. No assembly is required.

Carefully unpack and check that the following items have been received:

- (1) Ground Fault Circuit Interrupter (GFCI)
- (1) Dressing Stick
- (4) Rubber Feet and Mounting Screws

If any components are missing or damaged, save the packing list and materials and advise Barranca Diamond and the carrier of any discrepancies.









Trim Saw Packaging Components

TS6 ASSEMBLY

Installation

Tools Needed:

- Large Standard Screwdriver
- Phillips Screwdriver
- · Utility Knife



WARNING Equipment Damage. The 6-inch Trim Saw weighs approximately 40 lbs (19 kg). Follow safe practices to lift the unit from the shipping carton. Improper lifting can result in machine damage.

Personal Injury. Improper lifting of the 6-inch Trim Saw can result in personal injury.

The TS6 has been shipped from the factory thoroughly inspected and tested. Select a location for your saw that provides an adequate working space and a power source.

1. Remove the crating material from the baseboard and around the saw with the screwdrivers and utility knife.

Rubber Feet

- 1. Locate the rubber feet and screws (in a plastic bag). See Figure 3
 - Each rubber foot mounts to the underside of the baseboard.
 - Install the feet before adding cutting lubricant to the reservoir.
- 2. Supporting the left (vise) side of the saw table, turn the trim-saw on it side.
- 3. Position the rubber feet at each corner.
 - NOTE: Drill holes in the wood base may be necessary for easier installation of the rubber feet.
- 4. Install the rubber feet.
- 5. Turn the trim saw back to the upright position.

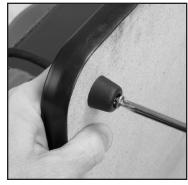


Figure 3: Installing the rubber feet

Adding Lubricant

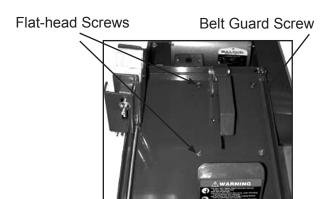
Before operating the TS6, fill the reservoir so the lubricant fluid covers the bottom 1/4" (6.35 mm) of the blade



Equipment Damage. Do not overfill the reservoir. Excess fluid will result in unneceswarning sary spraying of fluid while sawing. Damage to the arbor and motor can occur.

- 1. Unplug the unit.
- 2. Place the 6-inch Trim Saw on a flat surface such as a bench or table.
- Remove the table bed
 - Remove the four flat-head screws that secure the saw table to the reservoir tank (see Figure 4).
 - Remove the two screws securing the belt guard to the table bed and base.
- 4. Remove the saw table.
- 5. Fill the reservoir approximately (1.4 liters .38 gal.) of cutting lubricant to adequately cover the bottom of the blade. See Figure 6 for proper level.
- 6. Be sure tank gasket is place (see Figure 5)
- 7. Replace the table and belt guard.

TS6 MOTOR MOUNT





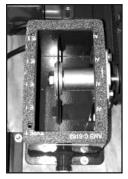


Figure 5: Oil Reservoir

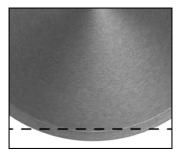


Figure 6: Lubricant Level

NOTICE Water is not recommended for use with the 6-inch Trim Saw. The steel arbor shaft can rust. In addition, poor sawing performance and short blade life can result.

Motor Mounts and Belt Tension

1. Check the four motor mounting nuts to insure they are tight and the motor is secure (see Figure 7).

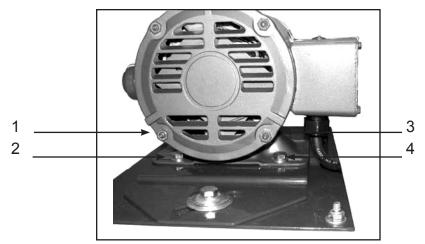


Figure 7: Motor Mounts

2. The V-belt is adjusted and tensioned at the factory. However, if the motor mounts should become loose during shipping or usage, readjust the motor mounting nuts so that no more than 1/2" (12.7 mm) of belt deflection occurs when the belt is depressed by fingertip pressure (see Figure 8).

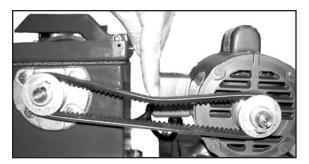


Figure 8: Belt Tension Test

TS6 POWER SWITCH

Power Switch

A Ground Fault Circuit Interrupter (GFCI) is included with the TS6.



Figure 9: GFCI Between Outlet and Power Cord

- 1. Check that the power switch is in the OFF position.
- 2. Attach the power cord from the power box to the GFCI. Plug the GFCI into a 120V / 60Hz / 15 amp (minimum) power receptacle (see Figure 9).
- 3. Push the GFCI RESET button on the switch. A red light will appear to indicate the switch is energized.
 - If the TEST button is pushed, the GFCI will click off and de-energize itself indicating the GFCI is functioning correctly.

Power Test

- 1. Move the power switch to the ON position to rotate the blade (see Figure 10).
- 2. Check that the blade is rotating. This indicates the saw is functioning properly.
- 3. Move the power switch to the OFF position.

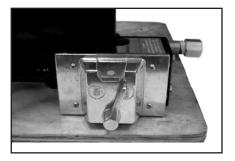


Figure 10: ON / OFF Switch

TS6 CUTTING

Cutting with the Trim Saw



CAUTION

Machine Damage. Use diamond blades only. Check blade for signs of core or segment cracks, uneven segment wear, pounding out of round arbor hole, undercutting, segment loss, dishing or loss of tension. If the blade shows signs of any of these problems the blade must be replaced before starting work.

A damaged blade will not cut correctly and could cause physical injury.

- 1. Move the power switch to the OFF position.
- 2. Open the rock vise jaws to fit the material to be cut.
- 3. Retighten the jaws with the wing nut screw on the rock vise (see Figure 11).
- 4. Position the rock vise close to (but not touching) the diamond blade.

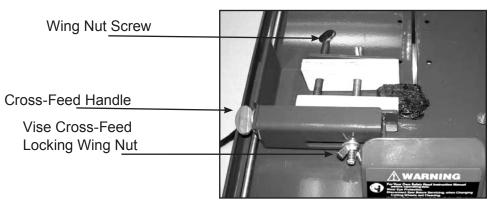


Figure 11: Rock Vise

- 5. When the vise is positioned close to the blade, loosen the wing nut on the front of the vise (see Figure 11).
- 6. Retighten the wing nut on the vise.
- 7. Move the power switch to the ON position to engage the blade.
- 8. Use light but firm pressure to cut the material, letting the blade do the work. Do not force the material into the blade.
- 9. The blade guard height can be adjusted by turning the thumb screw at the rear mounting position of the guard (see Figure 12).



A CAUTION Do not operate without guards in place



Figure 12: Blade Guard Thumbscrew

NOTICE • The blade guard will reduce excessive splash and spray of cutting fluid during rock trimming. It is recommended to wear personal protective gear (safety glasses, gloves and a shop bib) during trimming.

TS6 MAINTENANCE

Maintenance

The 6-inch Trim Saw will continue to perform at optimum levels with proper care, daily cleaning, and general maintenance.



CAUTION Place the ON / OFF switch in the OFF position and unplug cord before servicing and when changing accessories, such as blades and belts.



Figure 13: Drain Pipe

- 1. Place a five-gallon bucket or collection container under the pipe outlet cap.
- 2. Remove the cap with an adjustable wrench to let the lubricant flow into the bucket for proper disposal.
 - It may be necessary to hold the pipe with gripping pliers to prevent it from unthreading from the reservoir when removing the cap.
 - The sludge residue will likely not flow through the drain pipe and will remain inside the reservoir.
- 3. The sludge should be removed when the lubricant is drained by removing the belt guard, saw table and blade, and extracting the sludge with a spatula or spoon.
- 4. Once the sludge is removed, wipe clean the inside of the tank with a disposable towel and refill the lubricant to cover the bottom 1/4" (6.35 mm) of the blade. (see Figure 6)
- 5. Dispose of the used coolant and sludge properly.
- 6. Be sure to check the level of the lubricant inside of the reservoir after every 3 to 5 hours of use. The lubricant will be absorbed onto the rock material, combine with rock mud (sludge) and be lost due to heat and evaporation.

TS6 **V-BELT**

V-Belt

The 6-inch Trim Saw blade arbor is powered by an AX-24 rubber V-belt from the electric motor. The V-belt is correctly tensioned at the factory. Periodically check the belt tension by removing the guard and depressing the belt in the middle between the motor and blade pulleys. There should be 1/2" (12.7 mm) of deflection once the belt is pushed down (see Figure 14). If the belt tension should become too loose, poor sawing performance or slipping will result. If the belt is too tight (i.e. no deflection) the electric motor and blade arbor bearings may be overheated and wear out prematurely or the motor may shut off due to overheating.



WARNING To service the V-belt, unplug the 6-inch Trim Saw from its power source and remove the fasteners which secure the belt guard housing to the saw table and motor.

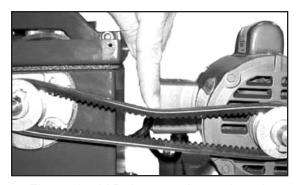


Figure 14: V-Belt correctly tensioned

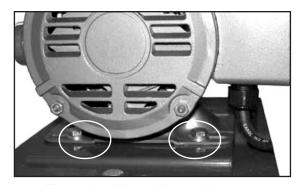


Figure 15: Motor Mount Nuts

Tools Needed:

- Large Standard Screwdriver
- Phillips screwdriver
- 1. Remove the belt guard.
- 2. Adjust the belt tension by loosening the four motor mounting nuts attached to the four studs welded to the rear of the oil reservoir.
- 3. Slide the motor base left or right to increase or decrease belt tension (see Figure 15).
- 4. Securely retighten the motor mount nuts.
- 5. Replace and attach the belt guard to the saw table.

TS6 BLADE ASSEMBLY

Rock Vise Accessory

The Rock Vise accessory has cross feed threads attached to an indexing or crank handle to laterally adjust the vise so that chip thickness is accurately controlled before each chip cut.

These threads should be lubricated periodically with wheel bearing or lithium grease to allow for ease of rotation of the cross feed crank.

Should the wooden jaws on the vise become worn or start delaminating, replacement jaws can be made from 1/2" (12.7 mm) plywood.

Blade Arbor Assembly and Pulleys

The TS6 is equipped with a 5/8" - 18 left-hand fine threaded arbor shaft with sealed ball bearings mounted in an aluminum bearing arbor housing.

A bore die cast zinc coated pulley is mounted on the shaft outside the reservoir. Unusual noises emanating from the saw tank or arbor area, slower then normal cutting speeds and overheating of the shaft or belt are indications of arbor / bearing wear.

NOTICE Using the saw with a worn arbor / bearing assembly can result in permanent damage to other components of the saw.

Periodically check the tightness of the four blade arbor housing mounting bolts to ensure they are securely tightened to the oil reservoir (see Figure 16).



Figure 16: Arbor Housing Mounting Bolts



Figure 17: Pulley Setscrew

Should the die cast pulleys on either the motor or blade arbor shaft need to be removed or replaced, loosen the set screw on the hub of each pulley with a US standard Allen / hex wrench to remove the pulley from the shaft (see Figure 17).

TS6 **MAIN MOTOR**

Main Motor

The motor shaft has sealed ball bearings and requires no lubrication. The motor is protected from thermal damage (overheating) with an automatic shut-off switch.

If the motor overheats it will automatically shut off and restart once its internal components cool down and the motor is restarted manually (red button).

Shut off the main motor by placing the power switch lever to the OFF position and disconnecting the power source.

Allow the motor to cool (2 to 3 hours) and then push the red reset button on the front of the motor (see Figure 18). Restart the unit by turning the switch to ON.



Figure 18: Motor Reset Button



WARNING If the saw motor should stop during operation, the power to the main motor must be shut off by moving the power switch in the OFF position. The motor will restart automatically once cooled down.

> If the motor does not restart after a cool down period, contact Barranca Diamond Service at 800.474.5594

Diamond Blade

Periodically, the diamond blade on the TS6 Trim Saw will need to be resharpened should slow or poor sawing performance occur. Dull or "glazed over" diamonds will either not cut thus stalling the saw and shutting off the motor, or the rock vise and rock material will ride up the blade and possibly damage the blade or "dish" the core. Once the saw begins to labor or struggle to cut gemstones, the user is advised to use the provided sharpening stick and resharpen the blade. Resharpening can be performed either with the automatic power feed (stick secured in vise) or manually with the power feed disengaged and a few slabs cut from the sharpening stick. If no sharpening stick is available, the user could use an abrasive material such as cinder block or brick to remove the glazing over the diamonds on the rim of the blade.

TS6 DIAMOND BLADE

Eventually all blades wear out and must be replaced with a new blade. New blades should be mounted on the blade arbor so that the arrow marked on the steel core is pointing in the direction of the blade rotation while in use.

- If the arrow can't be found, use a hand lens or magnifying glass to inspect the rim and see the head and tail of any individual diamond.
- To correctly mount the blade, the head of the diamond must cut first into the rock with the tail trailing behind.
- For notched rim diamond blades it does not matter which way the blade is orientated on the arbor shaft.

Diamond Blade Installation and Removal

It will be necessary to access the blade for inspection or replacement.

- 1. Loosen the four flat-head screws securing the saw table to the reservoir tank, and screw for the belt guard.
- 2. Remove the saw table.
 - The blade is mounted on the 5/8" (15.8 mm) blade arbor between two aluminum blade flanges.
 - A 5/8" 18 left-handed jam nut secures the flanges and blade to the arbor shaft (see



Figure 19: Blade Arbor and Inner Flange



Figure 20: Blade Arbor Blade, Outer Flange, and Jam Nut

- 3. Hold the blade with one hand and use a 15/16" (23.8 mm) wrench to tighten or loosen the jam nut (see Figure 21).
 - The jam nut has left handed threads and is turned counterclockwise to tighten and clockwise to loosen.



Figure 21: Changing the Blade

NOTICE Do not over tighten the jam nut! Blade flanges must always be installed with their concave or recessed side facing the blade (see Figure 22).

- 4. Reattach the saw table with the four mounting screws and belt guard.
- 5. Be sure the cork tank gasket is positioned correctly between the saw table and reservoir and that the proper amount of lubricant is in the reservoir before attaching the saw table.

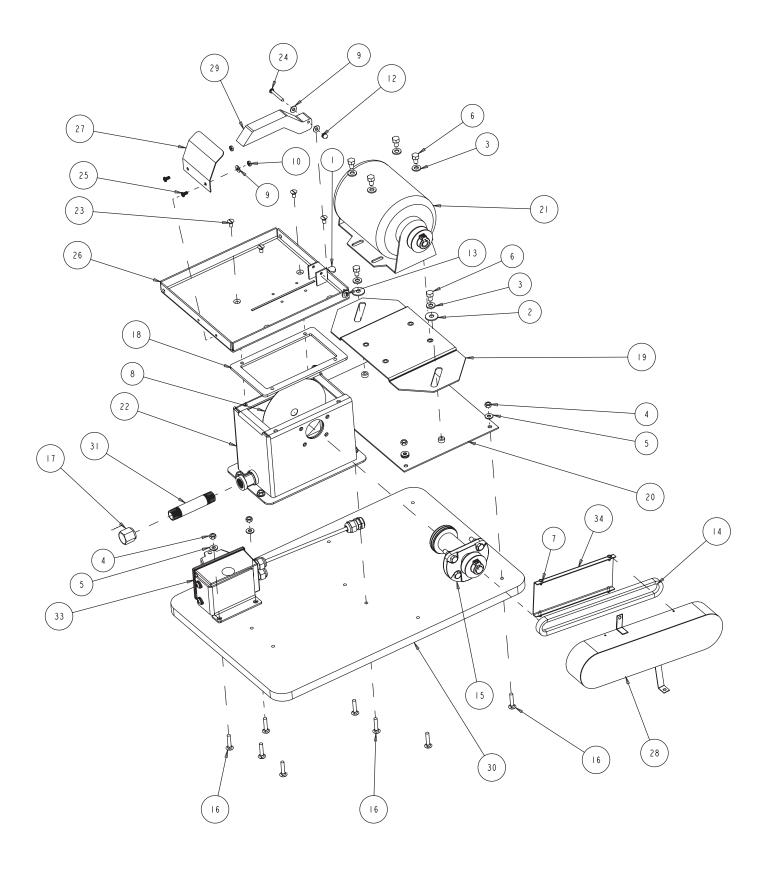


Figure 22: Convex (recessed) Side of the Blade Flange

6-inch Trim Saw Accessories

Item	Description	Part#
Diamond Rim Blade	(154.4 mm) x .020" (.508 mm) x 5.8" (15.8 mm)	153692
Dressing Sticks	6" x 1" x 1"	999997

TS6 PART LIST



TS6 PART LIST

ITEM NO.	DESCRIPTION	PART OR IDENTIFYING NO.	QTY. REQ.
1	SCREW, THUMB 1/4- 20 X 3/4	150991	1
2	5/16 FENDER WASHER	151053	2
3	WASHER, 5/16 SAE FLAT	151754	6
4	NUT, 1/4 - 20 HEX	151893	10
5	WASHER, 1/4 SAE FLAT	151915	12
6	SCREW, 5/16 -18 X 1/2 HEX HEAD MACHINE	152473	6
7	SCREW, #6 - 32 X 3/8 PAN HEAD SELF TAPPING	152516	4
8	BLADE, MK-303C, 6" X .020 X 5/8" BORE	153692	1
9	WASHER, #10 SAE FLAT	154369	4
10	NUT, HEX 10 - 32	156269	2
11	PULLEY, 2" X 5.8" BORE	161020	1
12	NUT, 10 - 32	161040	1
13	SCREW, RND HEAD 10 - 32 X 1/4	161041	1
14	BELT, MICRO-V AX-24	161085	1
15	SHAFT HOUSING ASSEMBLY	161086	1
16	SCREW, CARRIAGE 1/4 - 20 X 1 - 1/4	161041	10
17	FITTING, HEX HEAD CAP 1/2 NPT	161547	1
18	GASKET, TANK	161566	1
19	TOP, MOTOR MOUNT	161668	1
20	BOTTOM, MOTOR MOUNT	161669	1
21	MOTOR, 1/3 HP	161672	1
22	WELDMENT, TANK	161808	1
23	SCREW, 1/4 - 20 X 3/4 FLAT HEAD PHILLIPS MACHINE	161856	4
24	SCREW, 10 - 32 X 1-1/2 PAN HEAD SLOT MACHINE	161874	1
25	SCREW, PAN HEAD PHILLIPS 10 - 32 X 3/8"	161875	2
26	TABLE, WELDMENT	161864	1
27	GUARD, SPLASH	161965	1
28	GUARD, BELT	162151	1
29	GUARD, BLADE, COMP	162152	1
30	BOARD, BASE	162206	1
31	PIPE NIPPLE 1/2" MNPT X 4"	165445	1
32	PALLET, TS-6	166215	1
33	SWITCH ASSEMBLY	166601	1
34	GUARD, INNER BELT	167859	1
35	DRESSING STICK, GREEN	999997	1

CUSTOMER SERVICE AND WARRANTY

The machine is warranted against material and manufacturing defects due to assembly or defective materials for 1 year from date of purchase. Please complete the warranty registration card and return. Any problems encountered should be directed to Barranca Diamond Customer Service department at (800) 630-7682 M-F 8-5pm PST.

Should the saw need to be serviced at the factory please call the above number to obtain a Return Merchandise Authorization RMA number prior to return the saw for repair or replacement of any components.

Barranca Diamond does not warranty the main motor unless defective upon initial use. Please contact a Baldor motor manufacturing service center in your area for any and all electric motor problems under the 1 year warranty.

Barranca Diamond sells replacement parts, please have the serial number, and replacement part number ready when calling customer service (see parts list and exploded view).

Serial Number:	
Date of Purchase:	

NOTES



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