



TIRE SERVICE INTERNATIONAL

# 1100 Stripper Ring Lathe

[buyTSI.com](http://buyTSI.com) - 800.223.4540



**Read this manual before operating**

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# Safety Requirements

1. Thoroughly read all of this manual before using this machine.
2. Only personnel trained should operate this machine.
3. Personal Protective Equipment must be used including safety glasses.
4. Never wet the motor, electric switch, or components. Cover these items if machine is to be washed. Always disconnect electrical power before attempting any maintenance.
5. WARNING - WEAR SAFETY GLASSES
6. USE CAUTION! Machine is equipped with a very sharp rotating blade.
7. Training is advised prior to operating any Tire Truer. Due to physically shaving material from a tire - damage to the tire can occur and proper instruction is highly encouraged.
8. Do not leave machine in use unattended.
9. Do not wear loose clothing

# Installation Requirements

115 Volt, 60 Cycle, single phase, 15 Amp

# Set-Up Instruction

1. Uncrate machine and remove all packaging materials.
2. Operate unit on a clean, level surface with room to maneuver. If Truer Cabinet is not level or sturdy, adjust the leveling screws to make the necessary changes. Maintain unit being level.
3. Connect electric cord to electric supply.
4. Grease zerks that are marked to grease on a regular basis. Apply light oil to all other moving or pivot points.

# Operating Instruction

## Back of Truer Cabinet (All Models)



Fig. 3

Drive Roller Screw

Infeed  
Drive Screw

## Model 1100: Primary Features

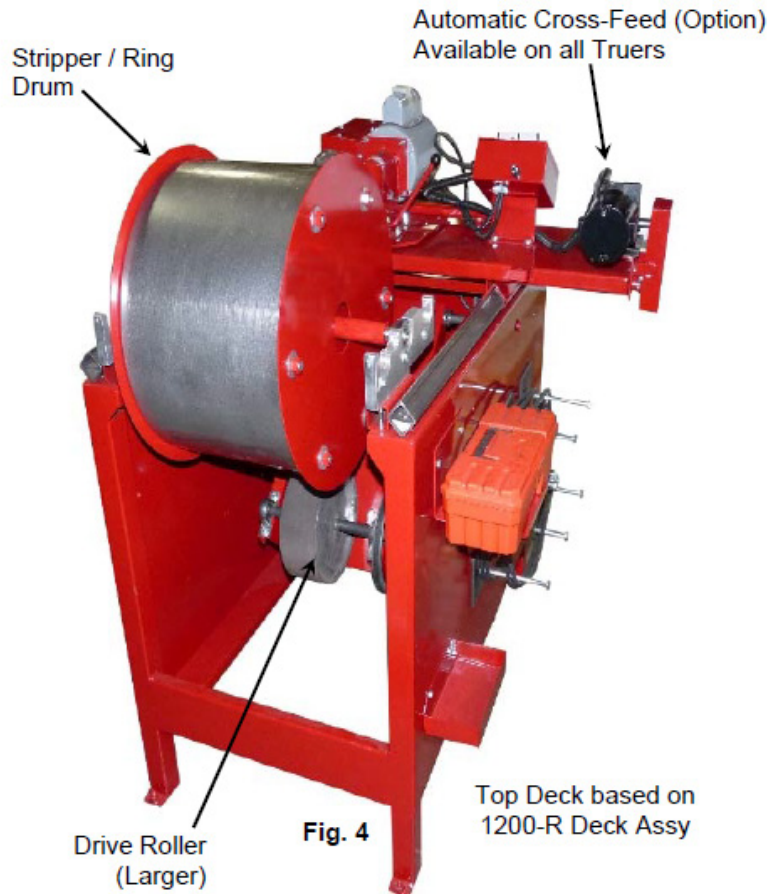


Fig. 4

Drive Roller  
(Larger)

Top Deck based on  
1200-R Deck Assy



1. Tighten Bearing set screws and Thumb Screws in Saddle Block on both sides.

2. Spin the Stripper Ring. It needs to rotate perpendicular to the Mandrel Shaft. Severe damage can occur if attempting to True a poorly mounted ring.

3. Check for run-out and concentricity to the Mandrel Shaft before Truing!

4. If necessary make adjustments and check for debris

5. Double-check that the ring rotates evenly on the Mandrel Shaft and Bearings before proceeding.

# Operating Instruction - Set Up

1. Use the Infeed Drive Screw to advance the Cutter Blade close to the ring. Rotate by hand to see how much is out-of-round.
2. Turn Drive Roller ON and raise it to engage with the ring by turning the Drive Roller Screw located at the rear of machine. It is spring loaded so no need to force it.
3. Lift the Blade Safety Guard and turn the Cutter Blade switch ON in the direction which truing is to be performed. We suggest truing the right half first. Start at center and move right.
4. Make sure Cutter Blade is razor sharp before each pass.
5. Turn on Lamp and adjust it to shine directly where you're cutting.
6. Turn the Infeed Drive Screw with the Cutting Gauge on it (in back of unit) to advance the blade until it barely starts cutting. Observe how much is out-of-round to determine the depth of the cut.
7. Grip the Infeed Drive Screw (keep it from turning) & turn the slip-wheel Cutting Gauge to set to zero. For example, later when you turn the Infeed from 0 to 20 on the Cutting Gauge you could take a .020" deep cut into the tire. At the end of each cutting pass you'll be backing the Cutting Blade away from the ring so setting this at zero establishes a starting point to return to upon going back to center to do the other half.
8. The Cutter Gauge measures the depth of cut. Turning it one full revolution makes the Cutting Blade move 1/8" (.125") into or away from the surface.
9. In no case should a single cut be more than 1/32" in depth. Basically from 0 to 3 on the Gauge, which is .030 inches. Still, we suggest starting with a .020 inch cut.
10. There are marks all the way around the Gauge so if one forgets to pre-set the Cutter Gauge, you can always use somewhere on the dial for a starting reference point.
11. Between each mark = .005"
12. The Cutting Blade is specially hardened but will become dulled by embedded objects on the surface. To insure a clean, smooth job sharpen when necessary.
13. Blade life depends on the operator almost as much as the differences in material.

# Operating Instruction - Cutting

- 1.** The machine should be ON. The Roller Drive should be spinning, the Lamp should be ON and the Cutter Blade should be making a .020" deep cut.
- 2.** Using the Crossfeed Crank on the Top Deck slowly traverse the Top Deck & Cutting Blade across the ring. Note the Motor Assembly and Cutting Blade pivoting slightly to match the profile of the ring.
- 3.** KEEP CUTTER BLADE RAZOR SHARP - KEEP THE CUTTING AREA CLEAN
- 4.** Observe the rate of speed you're moving the Top Deck and how consistent your cut is being made. Go faster or slower to suit the desired end-result.
- 5.** Upon completing the end of your first pass, back the Top Deck and Cutting Blade away from the surface using the upper crank handle. Be careful not to lose where your 'zero' setting is.
- 6.** Turn the Cutter Blade Motor OFF.
- 7.** While Truing, make sure ring position does not change. The Mandrel Shaft, Bearings and Thumb Screws as well as the ring mounted on the Adapter need to be secure at all times. This includes the Profile Arms, Knobs and linkage assembly.
- 8.** Turn the Cutter Blade Motor ON, this time Reverse the motor direction by toggling the switch toward the new direction of truing. Set your cut and proceed cutting in the reverse direction.
- 9.** We highly recommend Truing both sides in stages for each change of depth before making the final cut. Slowing down traversing the Top Deck results in a smoother end result.
- 10.** It is possible a novice will prefer repeating the operation several times by taking lighter cuts until all the high spots have been removed. After experience, an operator can gain more confidence, skill and a better understanding of what the machine can do.
- 11.** When complete, turn OFF the Motors, lamp and remove the ring.
- 12.** Consider the end result. If the cut is flat you can proceed by setting the depth desired. Engage the Drive Roller and prepare the Cutter Blade.
- 13.** For finer cuts remove less rubber material on the final pass and slow down the speed of the Cutter Head traversing speed. Manually sharpen the Cutting Blade more often if necessary.

# Operating Instruction - Control Panel

1. Note the Crossfeed Direction Switch and Speed Control Adjustment knob. These control the direction of the Top Deck and the speed in which it moves the Cutter Blade across the face of the ring.
2. The Speed Control varies from 0 RPM to a faster RPM.



## Maintenance Instruction

1. Maintenance is based on Truing approximately 100 rings a week.
2. Daily - Keep the machine clean. Remove rubber chips and debris with a brush or air nozzle. Too much accumulated debris can complicate operation of machine as well as add to hazardous working conditions. We recommend cleaning working contact areas after each ring is trued.
3. Daily - Check Blade and Sharpening Stone. Refer to Cutter Head Repair Parts List to order.
4. Daily - Make sure Mandrel is straight. If it is not straight the result on truing a ring incorrectly is magnified considerably. Maintaining straightness is essential.
5. Daily - Verify Blade Safety Cover is operational.
6. Weekly - Lightly oil and lubricate all working surfaces such as slide rails, drive screws, pivot points, gears and contacting movable parts for longer product life and smoother operation with a silicone solution. It should offer corrosion protection, metal wetting, water displacement and penetration to surfaces it's applied to. Depending on use it may be necessary to lubricate more often than weekly.
7. Monthly - Add standard chassis grease to zerks on Cutter Head and Flange Bearings.
8. Monthly - Check belt wear. Total belt deflection when tight is 1/4" to 3/8" midway between pulleys.

# Cutter Blade & Grinding Stone Replacement

**1.** TSI suggests installing a new stone with each new blade. This will provide proper seating of the stone to the blade, will extend the life of the blade and give better sharpening.

**2.** BE VERY CAREFUL WHEN HANDLING OR CHANGING CUTTING BLADE!

**3.** TURN OFF POWER!

**4.** Use Spanner Wrench and Allen head wrench to remove the Cutter Blade.

**5.** Loosen the Socket Head Cap Screw while inserting the Spanner Wrench into the Blade to keep it from turning. Loosen and remove the Screw and Cap, then remove the Cutter Blade.

**6.** Before installation of the new Cutter Blade replace the Grinding Stone.

**7.** Changing Stone - Lift the manual blade sharpening lever to lower stone cradle. As supplied with each unit, work the short ended Allen Head Wrench into the Stone-Bolt Hex.

**8.** While holding the Allen Head Wrench in place, let go of the manual sharpening lever, then insert the Special Socket into the bottom of the Stone Cradle to make contact with the Jam Nut. Loosen and remove the old Stone and Paper Washers.

**9.** In reverse order replace the Stone and Paper Washers. Tighten securely so there's no play left between the Stone in the Cradle and the Bearing housed in the Grinding Stone Cradle.

**10.** For the Stone replacement make sure to replace the Paper Washers. These are shipped with replacement blades and stones when ordered.

**11.** Remember, there should not be any "wobble" of the Stone if the nut is securely tightened.

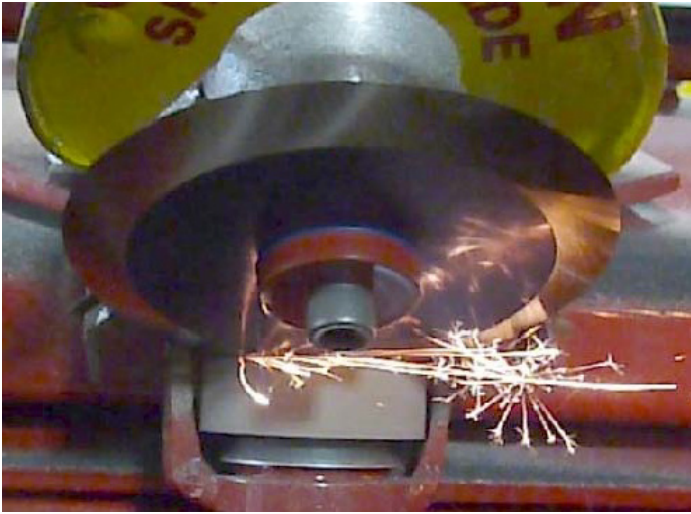
**12.** When replacing the Cutter Blade make sure the spring loaded Carbide Blades are firmly against the back-side of the Cutter Blade. Use the Spanner Wrench to tighten Cutter Blade.

**13.** Once Cutting Blade and Stone have been replaced recheck your work. Upon everything being properly replaced, run the unit to sharpen and 'seat' the new Stone and Cutting Blade to each other.



# Cutter Blade Sharpening

1. Using lever, lift the Stone to make contact with the Cutter Blade.
2. Grind on it for a few seconds then release so blade can briefly cool and debris can clear itself.
3. Don't burn edge of blade with continuous grinding.
4. Repeat the grinding and releasing process until the blade is razor sharp.





# Spare Parts List (110v - 220v)

Item	Description
15507	V-Belt, Drum, 4L360
15523	Switch, Omron Z-15GW22-B
6427	Bearing Housing Complete
15005	Blade, Truer
15067-60 Lower	Motor, Lower Electric 1/3 HP 60 Hz
15138	Bearing, Stone
15211	Dust Cup, Stone
15226	Stone w/ 2 paper washers
15229	Stone Bolt (15229) & Nut (15021)
6306	Spring Mounted Carbide Clip (was #6476)
15074	Toggle Switch, 3 Position Reversing
15075	Toggle Switch, Drive Motor
15076	Toggle Switch, Truer Lamp
15004	Seal Oil 1.13 OD x .125wall
15094	Bushing 7/8 id x 1 1/8 od
15030	Bearing .7/8 ID x 1.652 OD
15044	Spring Pin 5/32 Dia x 3/4
10894	Electric Drive Motor for ACF
15355	Rheostat Relay Power Crossfeed
15410	Switch Toggle, 9 Terminal 3P
15014	Top Table Crossfeed Nut
15013	Infeed, Acme Nut, Hand Crossfeed
6447K	Infeed Nuts Assy/Keeper
6438	Shaft Assembled

# Warranty and Return Policy

Warranty & Workmanship you can depend on.

With over 30 years of manufacturing experience we maintain the ability to provide competitive prices while employing and manufacturing the majority of our products in the USA. Pride in our workmanship and standing behind each and every product is not just our claim but our uncompromising responsibility.

Tire Service International equipment is warranted to be free from defects in materials and workmanship for a period of one year from the date of original purchase to the original owner. Repair labor is warranted for 90 days from the date of original purchase. Bushings, blades, bearings and normal wear and tear are not covered under warranty. Careless handling, negligence, misuse, abuse, mutilation, improper operation, making unauthorized repairs, additions, and or alterations automatically cancel this warranty and relieves TSI of any obligation. Cheetah tanks claimed to be defective while under warranty will be evaluated at our manufacturing plant and either repaired if possible or exchanged and returned or credit issued to the customer account at our discretion. Damage resulting from dropping the tanks will not receive warranty consideration. Warranty parts need to be returned prepaid to the plant for credit. Any replacement parts shipped from the plant will be shipped at the customer's expense. Machines requiring warranty work must be brought to the manufacturing plant in 201 Chelsea Rd, Monticello, MN or to a repair facility authorized by TSI.

**!!WARNING!!** Goods returned without an RGA will be refused. A Returned Goods Authorization form must be obtained before returning any material or goods. All non-warranty returns will be subject to a 15% restocking fee plus any additional charges for reconditioning/ repacking.

# Notes



**Register your product  
online!**

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