

# TIRE GROOVER OPERATING INSTRUCTIONS

## UPRIGHT GROOVER SG MODEL



READ INSTRUCTIONS THOROUGHLY BEFORE OPERATING



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# SPECIFICATIONS

## Model SG Upright Groover

Electrical Required:      120 Volts  
   1 Phase  
   60 Hertz  
   20 Amp Circuit

Electrical Supply shall be 20 Amp fused or 20 Amp circuit breaker. The electrical circuit must be protected with a short circuit protective device.

- Air Supply:
- Minimum of ¼ I.D. Air Hose
  - Minimum of 130 PSIG at the machine
  - 6 CFM should be available
  - Air Supply should be filtered lubricated air

Dimensions:	Length	27"	uncrated
	Width	34"	uncrated
	Height	71"	uncrated
	Weight	270#	uncrated

Call factory for shipping weights and dimensions, crated.



# OPERATING INSTRUCTIONS

- General: Fasten unit to a flat concrete slab or surface with anchor bolts.
- Air Pressure: Inlet air supply 100 PSI minimum to 160 PSI maximum.
- Power: Connect unit to 120 Volt, 20 Amp, Single Phase, 60 Cycle outlet.

## WARNING

Only Personnel trained in operating the Upright Groover should operate it.

Use general safety precautions at all times when operating this unit. Be cautious of sharp cutting blade, chain driven rollers and pinch areas.

Using protective eye and footwear is recommended. No loose clothing.

## Main Features

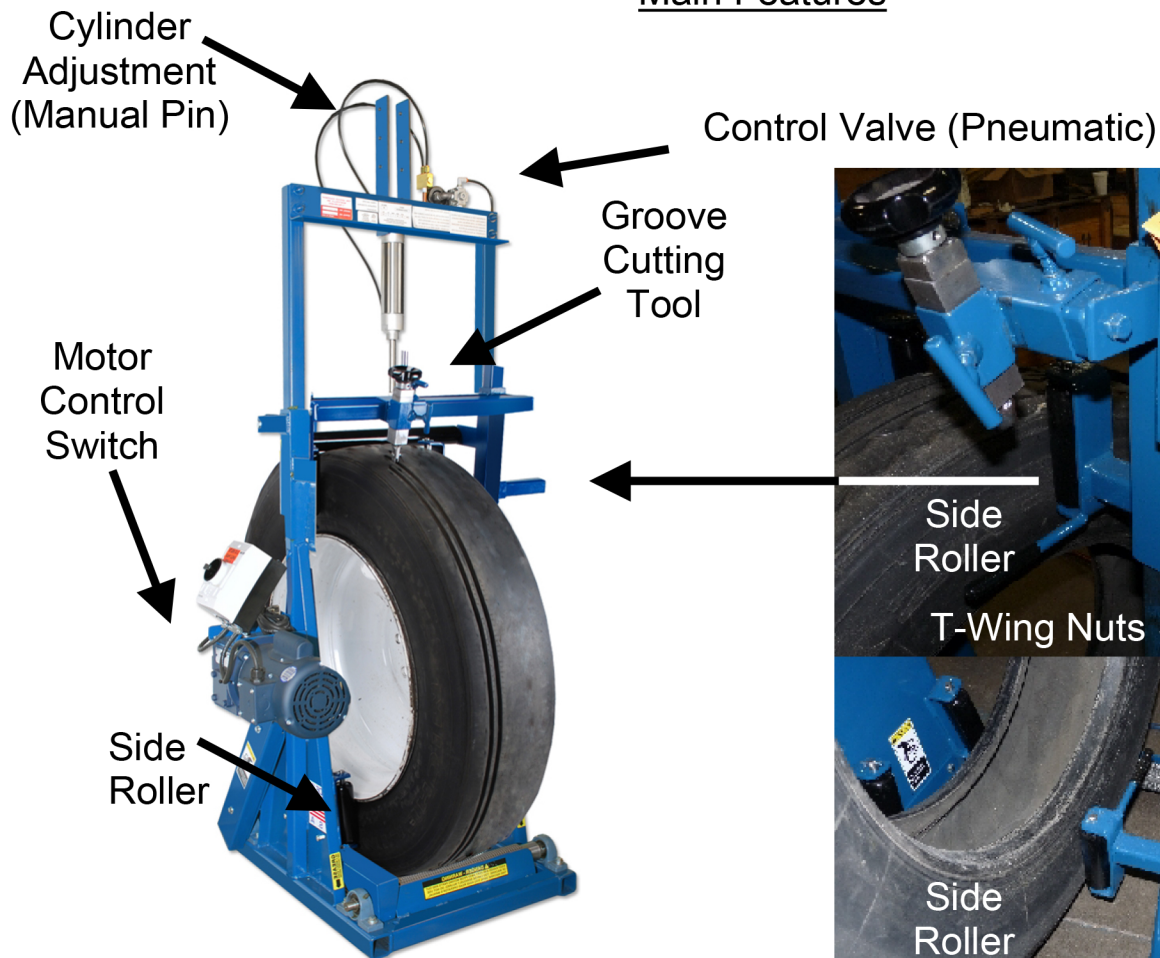
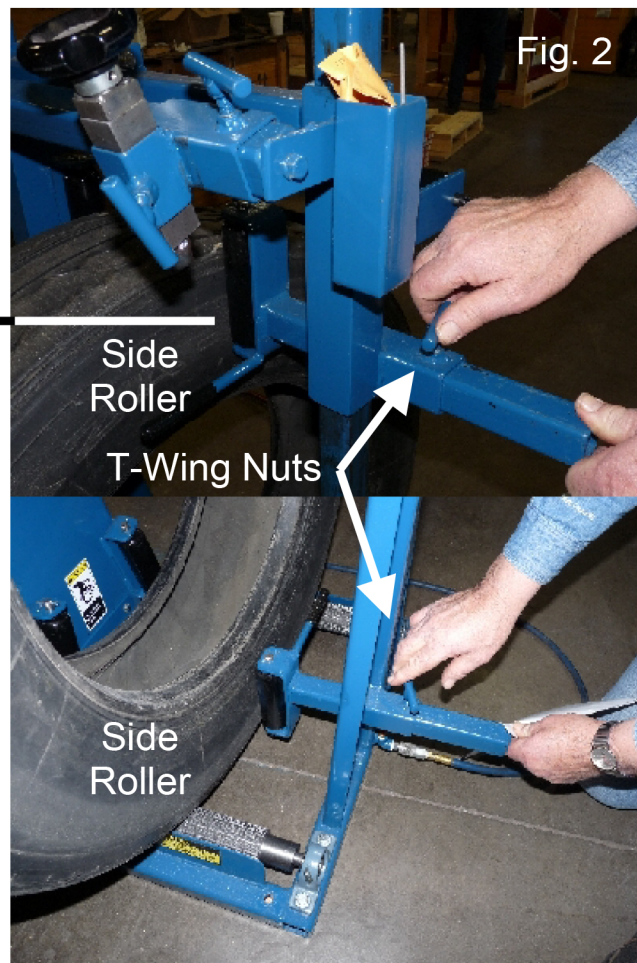


Fig. 1



# PREPARATION

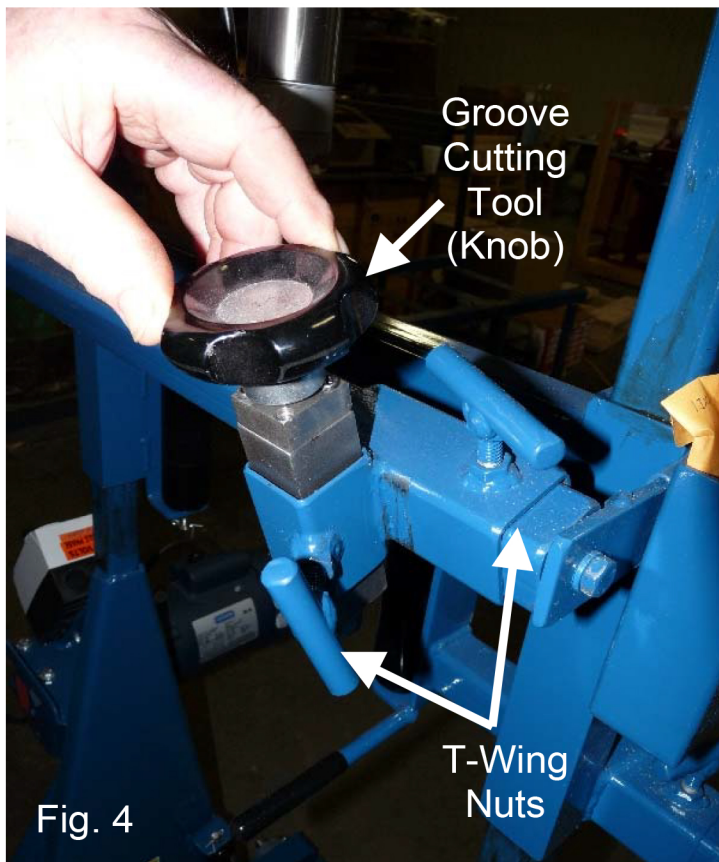
Adjust machine to load a tire onto the Drive Rollers.

Loosen T-Wing Nuts, move Side Rollers, Air Cylinder and Cutting Blade parts out of the way so a tire can be loaded. Refer to Figures 1 and 2.

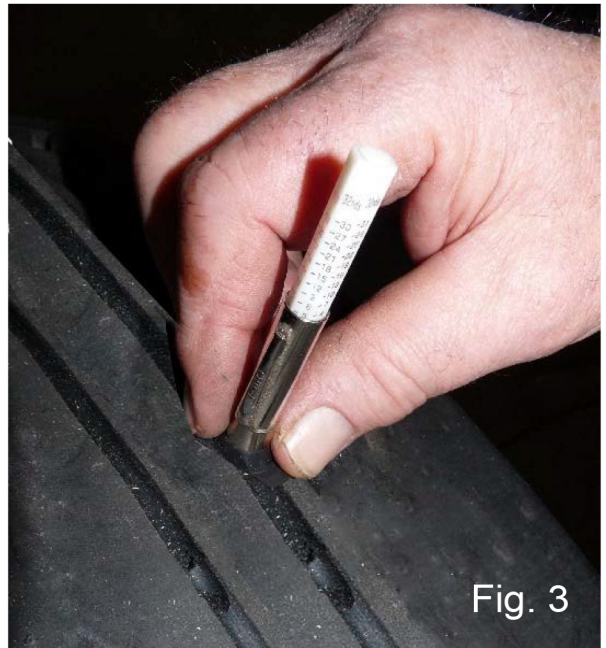
Use the Tire Depth Gauge (Fig. 3) to determine the available amount of rubber to be removed from the tire. Check the depth in several places and plan to cut a groove to the shallowest depth, leaving at least 2/32" of tread.

Meaning: If a tire is worn more in one area than in another, determine the shallowest depth available and groove the entire tire to that depth.

Raise the grooving blade using the Knob for clearance from the tire before activating the air cylinder. (See Fig. 4)



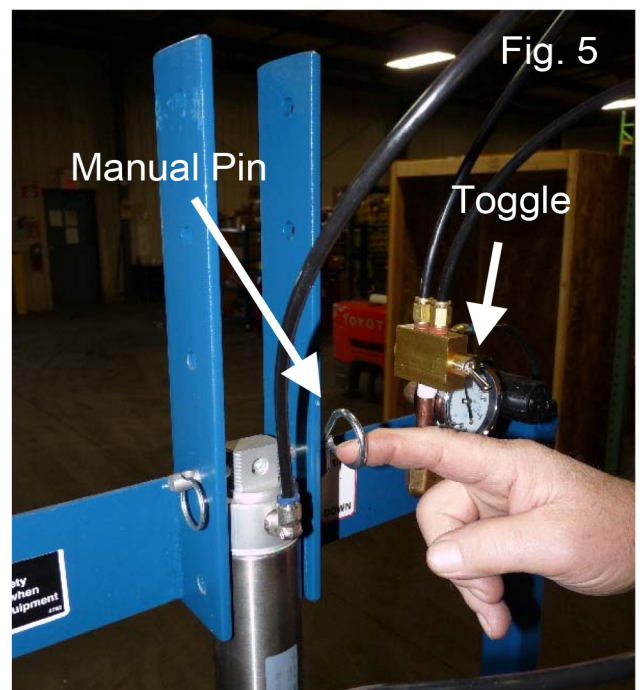
At this point check tire for rocks. Remove all rocks and debris. Using an ice pick or other suitable tool is advisable. Turn unit on and off to rotate tire. The tire treads need to be clear before grooving.



Load tire onto the Drive Rollers, re-adjust the Side Rollers until they come into contact with the tire.

Activate Air Cylinder. (See arrow in Fig. 5.) The upper Roller is to firmly come into contact with the tire.

The Roller should not compress the tire enough to distort it upon contact. Readjust Air Cylinder height if necessary. See Fig. 5.





The arrow in Fig. 6 points to the knob on the Air Pressure Control Valve. This adjusts how much contact pressure the Upper Roller has on the tire.

Figure 7 is an example of the Upper Roller pressing a little too much on the tire.



Fig. 6

Don't forget to tighten the T-Wing Nuts before turning on switch.



Fig. 7

The Grooving Blade (Fig. 8) needs to be sharpened regularly. Each blade is heat treated and sharpened on both sides.

With the metal file provided sharpen the blade at a 45° angle until razor sharp.

Sharpen as often as necessary. In order to maintain consistent grooves and smooth operation of the machine, this is a very important factor for good results.

Once the blade has been sharpened to the point of wearing it down to about half its original width, it's time to replace the blade.

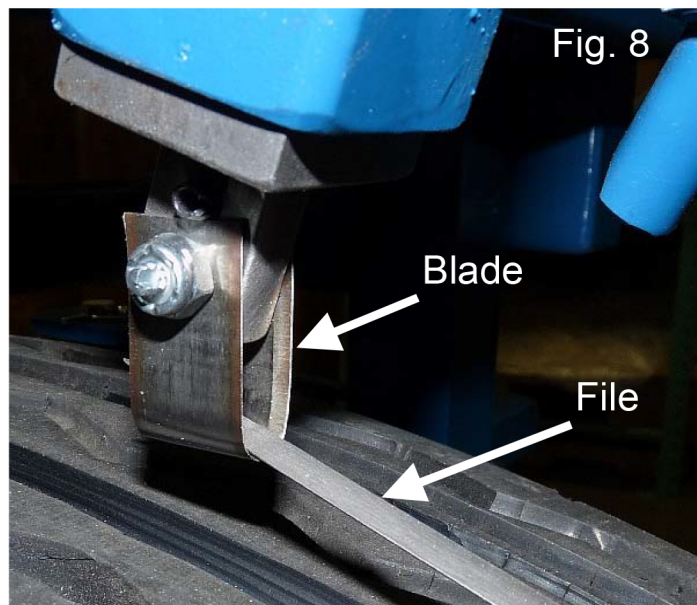


Fig. 8

Unplug from power source and air supply when not in use.



Fig. 9

Start machine and carefully line-up the Blade in the desired groove to cut. Use T-Wing Nut on Groover to align, then set the position of the cutting Blade. (See arrow in Fig. 9.)

Once Groove position is established slowly adjust the depth of the Grooving Blade (Figures 9-11.)

**DO IT SLOWLY!** This precision adjustment must not cut too deep into the tire as it could damage the tire. Allow the tire to make a full revolution on the machine before setting for a deeper groove to be cut.

Continue to cut Grooves in the tire as desired.

If strands of rubber begin to collect on Blade, use a piece of wood or other type object to gently disengage them from the cutting Blade. Keep hands and fingers clear as this Blade is razor sharp and personal injury could occur.

Sharpening between grooves may be necessary.

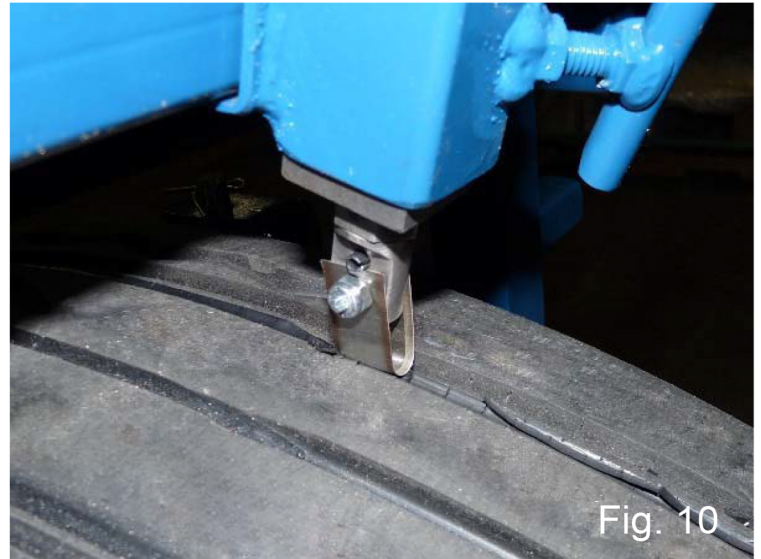


Fig. 10



Fig. 11

When grooves are complete, turn off the machine, raise the Air Cylinder with the Air Switch and turn knob to raise cutting Blade.

To continue with same size tire simply put another tire on the Rollers. If tire size changes just adjust the Side Rollers and Air Cylinder height then proceed as previously directed.

Don't forget to inspect each tire for rocks or other debris before cutting process.

Remember, keep the cutting Blade sharp.

## MAINTENANCE

Every 30 days

Grease all zerks with standard Chassis grease.

Likewise maintain grease on the vertical slide members for the upper cutter assembly.

Clean loose rubber particles from machine regularly.

Unplug and remove from air supply when not in use.

Inspect drive chain, sprockets and chain guard to clear debris obstructing operation.

Lubricate if necessary.

## NOTES



# Warranty Statement & Return Policy

Warranty & Workmanship you can depend on.

TSISSG products are designed and developed by experts in their respective industries. Our passion for designing and testing is second only to our drive for creating industry innovations and real world solutions which our customers can depend upon. With over 25 years of manufacturing experience we maintain the ability to provide competitive prices while employing and manufacturing in the USA. We are the manufacturer of the majority of our products so taking pride in workmanship and standing behind each and every product is not just our claim but our uncompromising responsibility.

TSISSG 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 TSISSG 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 Monticello, MN or to a repair facility authorized by TSISSG.

## Return Policy:

!!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.



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