



TIRE SERVICE INTERNATIONAL

# TC-100 TIRE CUTTER

**buyTSI.com - 800.223.4540**

*Optional  
Tire  
Compressor  
#TC-100 14  
Shown*



**Read this manual before operating**

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# Safety Requirements

1. Only personnel trained in the TC-100 should be operating this machine.
2. Thoroughly read all safety and operating instructions before using this machine.
3. Personal Protective Equipment must be used, including safety glasses. Using gloves is advised as well as wearing hearing protection. Cut pieces of tires can have sharp edges and may be difficult to handle, so overall attention to safety is required.
4. Keep machine free from debris.
5. Never wet the engine, ignition switch or hydraulic controls. Cover these items before washing.
6. Always disconnect electrical power or battery before attempting any maintenance.
7. Engine needs to be run outside for cooling and exhaust.
8. As a safety feature running the machine requires two hand-levers to be used simultaneously.
9. See special note on California Proposition 65 later in manual

# Installation Requirements

- 10 HP Electric motor 220/460V 60 cycle, 3 phase (standard) needs 100 amp breaker box - 60 amps running
- 18 HP Briggs electric start engine (optional) needs fuel
- 20 HP Kubota diesel (optional) needs fuel
- Hydraulic Info: Machine operates a 2,500 PSI hydraulic system with dual valve levers (standard safety feature) to control the 5" diameter 30" stroke cylinder. Oil reservoir has 28 gallons of capacity pumping at a rate of 28 GPM by a 2 stage hydraulic pump.

# Set-Up Instruction

1. Set-up on level ground and detached from pulling vehicle. Establish the correct cutting position by tilting the unit so the backend of the I-beam rests firmly on the ground. Use the Jack mounted on the pulling tongue to tilt machine into the correct cutting position.
2. For towing, connect to a 2" diameter ball hitch. Once connected, raise leveling jacks to their highest point before moving.
3. Once the unit has been assembled, remove the oil plug from the Oil Tank and replace with the oil breather cap. Store the plug and use whenever relocating the machine.
4. The hydraulic oil reservoir should be filled 2 to 3 inches from the top. If you add or change the fluid, use Type A automatic transmission fluid.

# Operating Instruction (continued)

1. Follow directions for starting engine.
2. DO NOT operate beyond 3/4 throttle speed.
3. When first using the machine cycle it a couple times making sure there are no leaks and everything is running smoothly. Check periodically while using the unit. Become familiar with the levers and operation.
4. Place the tire ramp as shown over the bolts for the roller.
5. Roll the tire on the ramp as shown below.
6. The tire compressor is optional. It is primarily for passenger or light truck tires. The purpose is to compress the whole tire in the cutting area and cut through an entire tire in one cutting pass.
7. Pull both cutting blade levers toward you to activate cutting arm. If one or both levers is released, the cutting arm stops. Push both levers forward to return the cutting arm to an 'open' position.
8. Cut the tire using the operating levers. Rotate the tire in the cutting area 180 degrees to halve it, put both pieces back into the machine and cut them again, giving you four pieces.
9. Clear the area after each cut and do not attempt to cut tires when there's too much debris around the unit.
10. Apply grease to cutter blades (male and female cutting bars) if you hear squeaking. Do this before trying to adjust them.



# Maintenance

1. After running the machine for 10-15 hours adjust shear blades. See next page.
2. Follow engine manufacturers recommended maintenance requirements. Replace engine oil, oil filter, air filter and gas filter every 6 months.
3. Replace Hydraulic Oil Filter element every 100 hours or 6 months.
4. Drain and replace Hydraulic oil from reservoir once per year with SAE 20 or SAE 30 Automatic Transmission Fluid.
5. Grease weekly: At minimum follow directions as stated on decals.
6. Visually check all the hydraulic hoses and fittings each time the TC-100 is used. Monthly check the hoses and fittings for wear and/or leaks. If a hose is damaged or worn too much replace it.
7. When replacing a hose or fitting, tighten and test for leaks until none appear.

## Hydraulic Pressure Adjustment

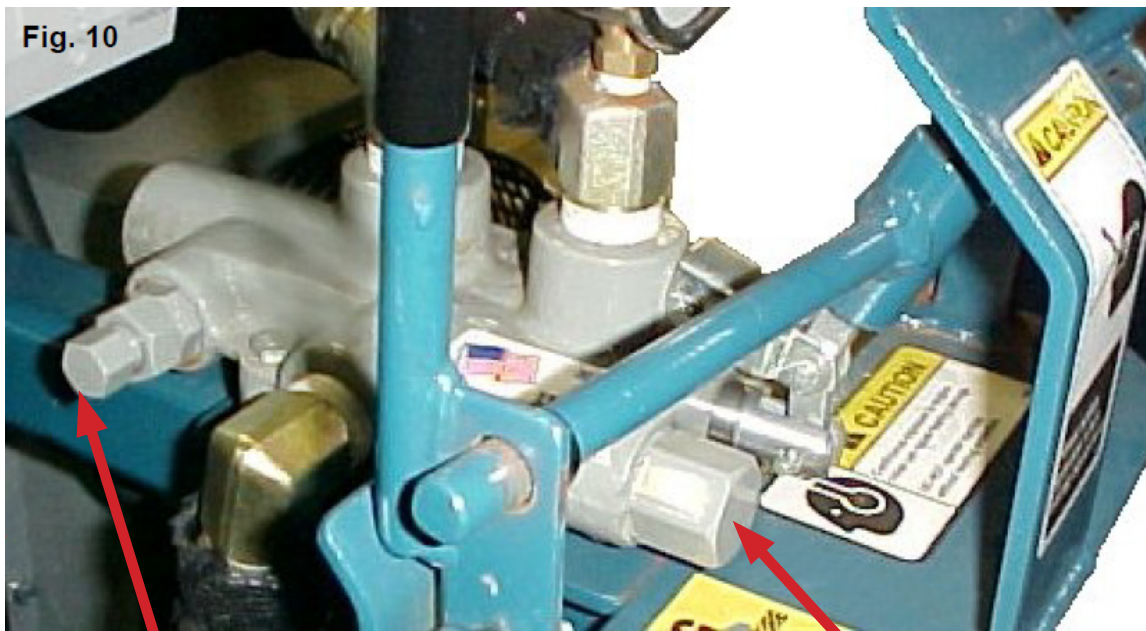


Fig. 10

If valve "kicks out" on the shear arm return stroke, the detent will have to be slightly tightened. Tighten outer nut 1/4 turn and tighten lock nut. Continue to cut. If valve still "kicks out" readjust it another 1/4 turn.

Hydraulic pump pressure at the valve is to read 2600-2800 PSI on the gauge. If pressure adjustment is needed, remove the cap and either loosen or tighten adjusting nut beneath the cap.



# Blade Adjustment

## *Female Shear Bar Adjustment:*

1. As the steel belting from tires start to string out and not cut properly the original bar edges will eventually need to be adjusted.
2. To do this, run the unit and stop the Male Shear Arm in position as shown. Shut off or unplug the unit.
3. Loosen the 1/2" Bolts on one side of the unit and loosen the Lock Nuts for the Socket Head Screws. Use an Allen wrench to adjust the Socket Head Screws to drive the Female Shear Bar securely flush against the Male Shear Arm (do not add force upon it) and tighten the Lock Nuts. Do this for both sides. There should be zero clearance between the Male and Female Shears.



## *Changing the Female Shear Bars:*

1. Each Female Shear Bar has 4 available cutting edges. Run the unit and stop the Male Shear Arm in position as shown. Shut off or unplug the unit.
2. Remove the 1/2" Bolts from both sides as well as both Female Shear Bars. Loosen the Locking Nuts and back-out the Socket Head Screws so there's access to clean the mounting surface. Use a putty knife and emery cloth to scrape the mounting surface as clean as possible.
3. Reposition each Female Shear Bar by choosing a newer edge to use for cutting and loosely replace all the 1/2" Bolts. Make the proper adjustments to align each Female Shear Bar to the Male Shear Arm as stated above.



## *Maintaining the Male Cutter Bar:*

1. The Male Cutter Bar may be turned end for end if it shows areas of wear. After rotating it make sure to readjust the Female Shear Bars as stated above.
2. For replacement shear bars order in advance so you don't have any down-time!

# Replacement Parts List

There are four different models. Each may use different parts (see X). Please reference the list below to make sure the correct item is being ordered.

TC-100 Tire Cutter, Electric, 10HP, 3PH

TC-100 Tire Cutter, Electric, 10HP, 1PH, 220V

TC-100 Tire Cutter, Gas, 18HP

TC-100 Diesel

Item	Description	D	G	1	3
3022	Cylinder 5 x 30	X	X	X	X
3029	Female Shear Blade (two on bottom)	X	X	X	X
3030	Male Shear Blade (top)	X	X	X	X
10171	Gauge, Sight for Reservoir	X	X	X	X
3019-4000	Gauge, 2.5 Dia x 1/4 NPT	X	X	X	X
3020-2SP	Valve, 2 spool	X	X	X	X
4571-RK-MARZ	Repair Kit for Hyd Pump - Marzochii	X	X	X	X
4571-RK-PRINCE	Repair Kit for Hyd Pump - Prince	X	X	X	X
10130-E	Filter Element with O-ring	X	X	X	X
10152-12V	Oil Cooler Assembly		X		
10678 1 OR 3 PH SWITCH	Electric Switch ONLY (for 1 or 3 phase)			X	X
3143-10HP-1PH-60CY	Electric Motor 10 HP 1 Phase			X	
3143-10HP-3PH-60CY	Electric Motor 10 HP 3 Phase				X

# Notes

# California Proposition 65

California's Proposition 65 entitles California consumers to special warnings for products that contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm if those products expose consumers to such chemicals above certain threshold levels.

**WARNING:** Some of Tire Service International's products can expose you to chemicals including chromium compounds, which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Your risk from exposure to these chemicals varies, depending on exposure time. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles. Wash your hands after touching TSI's products.

## 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.

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