



TIRE SERVICE INTERNATIONAL

# TC-710 Recycling Baler

**buyTSI.com - 800.223.4540**



**READ INSTRUCTIONS THOROUGHLY BEFORE OPERATING**

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**800.223.4540**

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## General Description

The TC-710 Recycling Baler delivers over 45,000 lbs of crushing force available in a 10 HP, 3 PH electric motor or a 18 HP B&S with electric start. Each baler comes with an oil cooler and a 5" diameter cylinder as standard equipment. This mobile unit conveniently fits into a truck or trailer bed and can also be used curb-side or permanently installed in-plant. The TC-710 reduces aluminum cans or plastic bottles into a dense 20" x 20" x 36" bale weighing approximately 150 lbs.

## Safety Requirements

-  **WARNING!** - This symbol indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **WARNING!** - Personal Protective Equipment: Safety goggles, gloves, non-skid shoes and hearing protection are needed for safe operation.
-  **WARNING!** - Keep bystanders and children out of the work area while operating.
-  **WARNING!** - Always keep work area clean, uncluttered, and well lit. Do not work on floor surfaces that are slippery.
-  **WARNING!** - Do not operate if you are tired or under the influence of alcohol, drugs, or medications that could affect your ability to use it properly and safely.
-  **WARNING!** - Inspect before each use. Do not use if loose, broken, bent, cracked or damaged parts are noted. If the unit appears damaged in any way, is missing parts, is missing warning labels, or operates abnormally, remove it from service immediately. All units that have been dropped, impacted suddenly, or dented should be removed from service.
-  **WARNING!** - The warnings, cautions and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood that common sense and caution are factors which cannot be built into this product, but must be applied by the operator.
-  **WARNING!** - Operate in an area with adequate ventilation.
-  **WARNING!** - DO NOT crush or bale combustible materials.

## Electrical Requirements

For a standard TC-710 Baler with electric motor, 220 or 440 volt, 3 phase is required.  
TSI recommends only a certified electrician connect the TC-710 to your power source.

# Set-up Instructions

1. Remove unit from packaging. The TC-710 may be anchored to the floor or casters may be fastened to the mounting pads if mobility is preferred.
2. Remove shipping plug from the top of oil reservoir and replace with breathable air cap.
3. Whether in use or in storage it is advisable to position unit on a flat surface.
4. Review all instructions before connecting unit to electric power source or starting the engine!
5. The TC-710 Baler's primary function is to crush beverage type plastic and aluminum containers. Consult with Tire Service International before crushing other materials.

Fig. 1



NOTE: Fig. 1 displays an electric unit. Gas units have the power source located on the opposite side of where electric motor is mounted.



# Bale Wire Set-up Instructions

## PREPARING TO MAKE A BALE:

Route each of 3 baling wires in the baling chamber as shown in Fig. 2. Each wire rests between the channel openings on either side of the chamber. See photo in Fig. 3 below.

**This configuration works best on your first bale.**

Bales that follow will not have to “balance” on the channels.

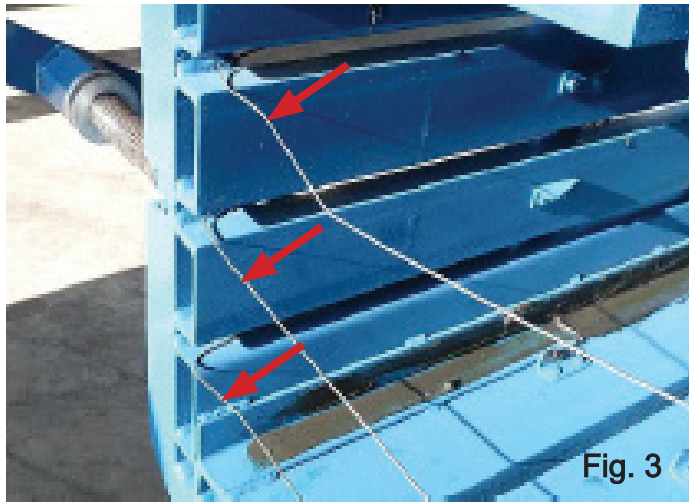
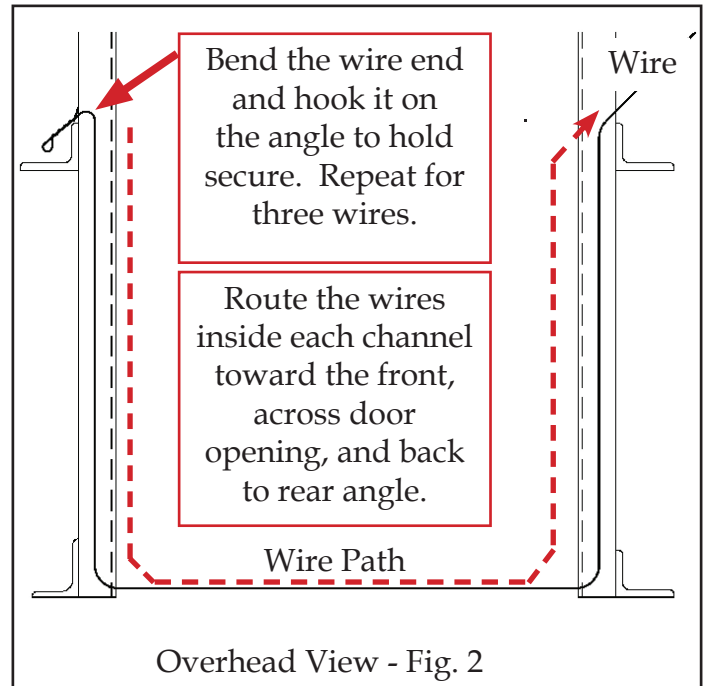


Fig. 3



Overhead View - Fig. 2

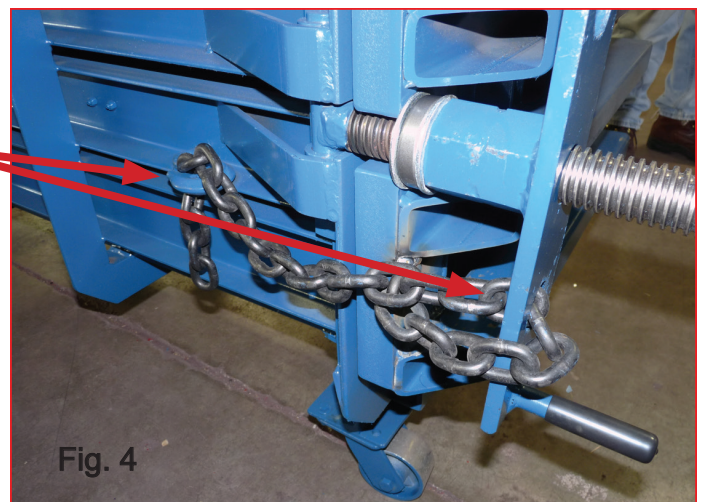
# Door Safety Instructions

The bale chamber end of the unit (Fig. 4) is in a closed position.

Note the chain fastened through the handle and onto the hook. Unless pushing a bale out of the baling chamber the chain must always be hooked for safety purposes.

1. Close door and firmly tighten locking arm. (It is not necessary to tighten the locking arm with excessive force.)
2. Secure safety chain through handle hole and back to hook.

**With over 45,000 pounds of platen force hooking the safety chain is an important safety precaution.**

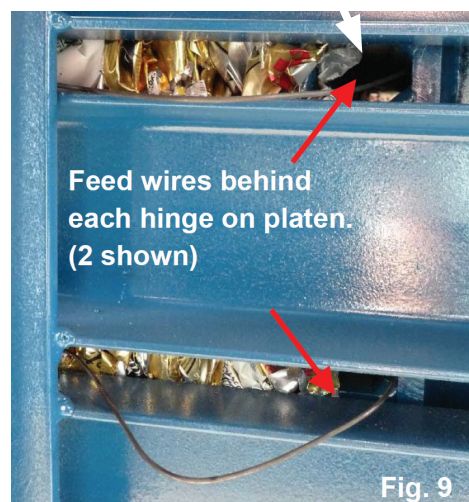
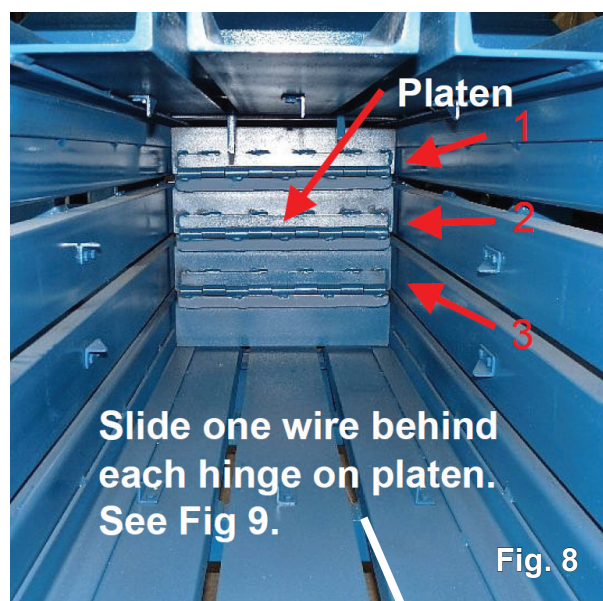
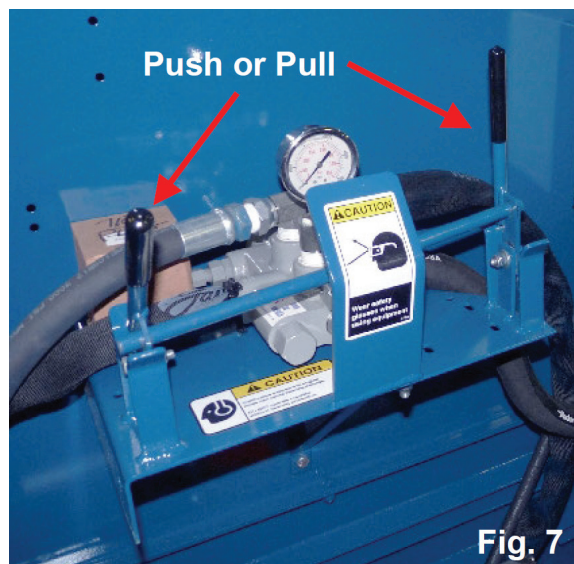


Once the door is closed and locking arm secured by the chain, start the machine.

# Operating Instructions

For gasoline or diesel units refer to engine manual and instructions.

1. Run unit at full throttle when making a bale.
2. Adjust to slow idle when not using hydraulics.
3. Run at slow idle for about 1-2 minutes before shutting off engine.
4. Pull both handles to extend platen Fig. 7.
5. Push both handles to return platen.
6. Retract platen before loading hopper.
7. Load material to be crushed into hopper making sure it slides down into the compacting chamber. Do not let the hopper become clogged.
8. Use the valve control handles (Pull) to extend the platen to compress the contents in the chamber.
9. Retract the platen with the valve control handles (Push.) The valve has a detent position. While cylinder is returning the valve spool will return to neutral. (To adjust see page 7.)
10. To create a full bale, repeat this several times.
11. Displayed in Fig. 8 is an empty bale chamber. The platen compresses the contents towards the door.
12. When the contents can no longer be compressed any further it is time to tie-off the three bale wires.
13. The excess wires that were fed through the chamber must now be threaded back through the rear gap in front of the platen.





# Operating Instructions

Each wire will exit the other side of the bale chamber. Do not cinch the wires tightly through each of their loops and twist together. Slack must be present before twisting off wires or they will break. See Fig. 10.



Fig. 10

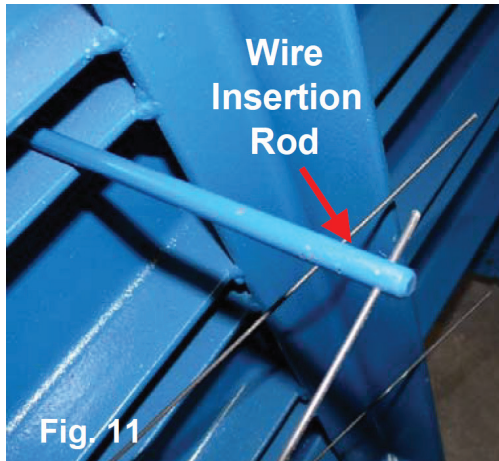
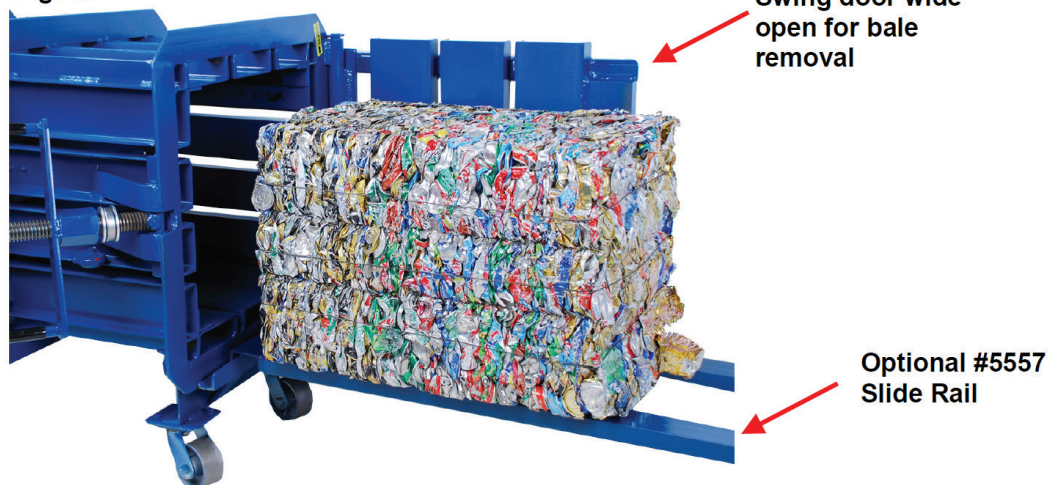


Fig. 11

Use Wire Insertion Rod (Fig. 11) if debris covers these access holes. Plunge rod through, thread wire into hole at rod end and pull. More slack is needed for plastic bottles.

1. Make sure you retract the platen to take some of the slack out of the baling wire you just secured. This also relieves hydraulic pressure from the bale, from the door, and from the Locking Arm.
2. **WARNING - this unit can generate over 45,000 pounds of force. Be sure to push the valve control handles to release pressure from the door before opening it!**
3. Unhook safety chain and carefully unscrew the locking arm for the door. With the door open start making another bale.
4. Have product in the hopper and as you start to crush the contents with the platen, the new bale being made will push the previous one out of the baling chamber.

Fig. 12



# Maintenance Instructions

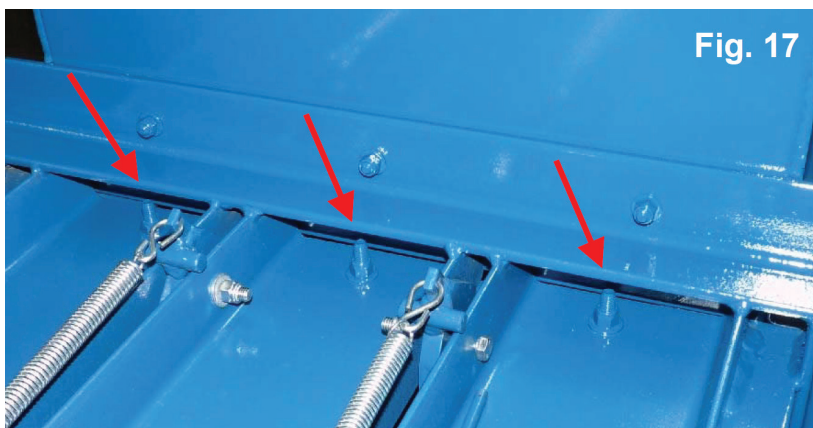


Fig. 17

## SHEAR BLADE REPLACEMENT

1. Remove screws at arrows shown in Fig. 17.
2. Remove shear blade and replace. Install in reverse order.
3. Check for proper blade clearance. Normal clearance is .015 to .020 inches.

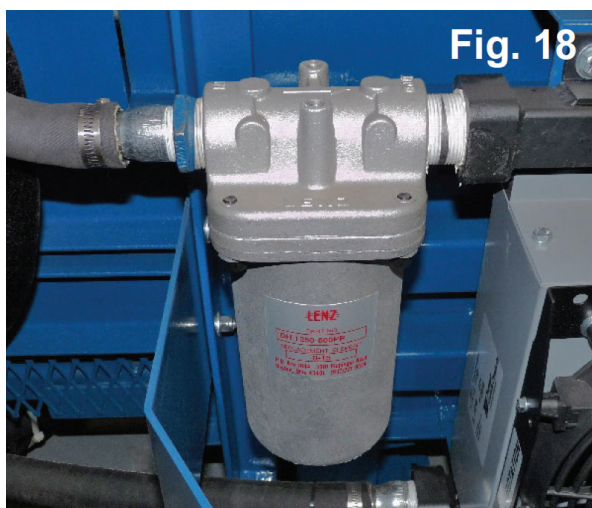


Fig. 18

## OIL FILTER

1. Drain hydraulic fluid every six months when replacing the oil filter. (Fig. 18)
2. Fill hydraulic reservoir 3 inches from top of tank with a universal automatic transmission fluid. Fluid required is approximately 10, 13 or 23 gallons depending on tank size.
3. Replace filter with TSI Part #10130E

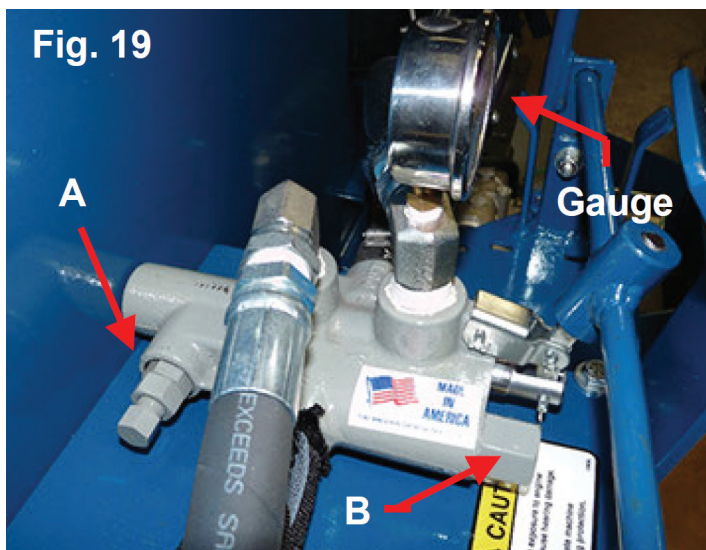


Fig. 19

## VALVE ADJUSTMENT

1. If the valve "kicks out" on the platen's return stroke, the detent will have to be tightened slightly. At "A" loosen the lock nut. Turn the outer screw in 1/4 turn (clockwise) and tighten lock nut. Continue to bale. If it "kicks out" again, loosen the nut and readjust the screw another 1/4 turn. Repeat as necessary.
2. Normal hydraulic pump pressure at the gauge is 2400-2500 P.S.I. when the ram is fully extended. If adjustment is needed remove the cap nut at "B" (in Fig. 19) and use an allen head wrench to make an adjustment to the hydraulic pump pressure. To increase pressure turn the screw in 1/4 turn. To decrease pressure turn the screw out 1/4 turn.
3. Repeat as necessary until the correct pressure is attained.

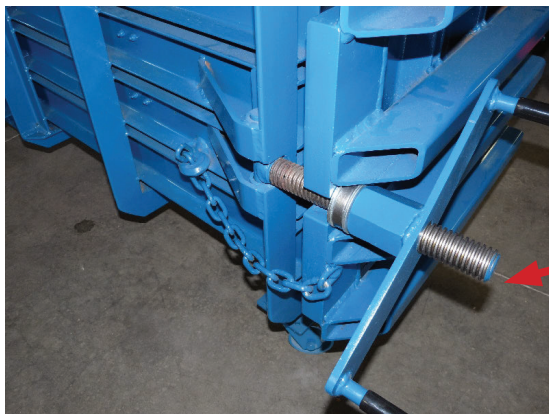
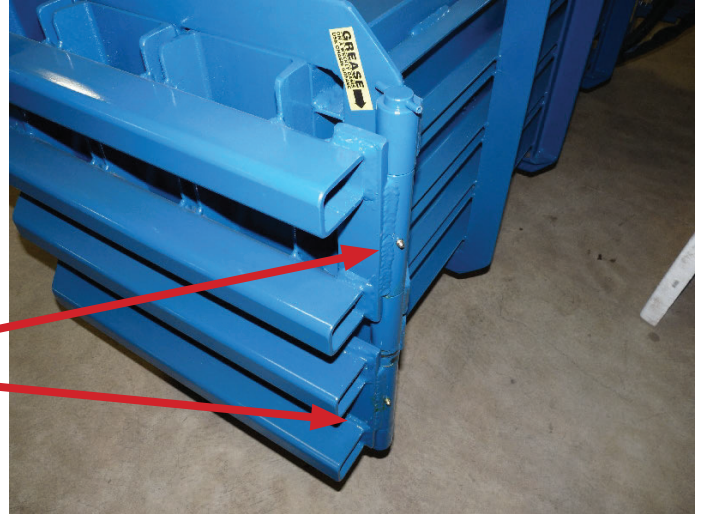
Do not exceed a maximum of 2500 PSI at the gauge. If a replacement gauge is needed contact TSI and refer to Part #3019.



# Lubrication Instructions

## GREASE ZERKS

Grease door hinge and both sides of the bale chamber. The zerks are identified with decals



## ACME DOOR THREAD

Keep threaded rod for door clean and well lubricated with spray silicone.



# Troubleshooting

ISSUE	<u>SOLUTION</u>
Motor does not run or does not have any power	<p><u>ELECTRIC MOTOR</u></p> <p>Recheck power supply to unit. Check motor nameplate for amperage, voltage &amp; hz required. Supply electric power as required to the baler. Check to make sure all electrical connections are proper. Check curcuit breaker box to insure proper breakers are installed. If motor runs the wrong direction, rewire as per wiring instructions on motor name plate. The proper direction is clockwise looking at the fan.</p> <p><u>GAS ENGINE</u></p> <p>Follow engine manufacture's recommended requireements</p>
Hydraulic pressure will not attain 2400 – 2500 PSI on gauge.	<ol style="list-style-type: none"> <li>1. Reservoir tank is low on fluid. Add fluid to be 3 inches from top of tank.</li> <li>2. Hydraulic filter element clogged or dirty. Replace filter element with a new filter.</li> <li>3. Readjust relief valve in hydraulic valve body – See operating and maintenance instructions on page 7.</li> <li>4. Motor is not operating properly – see motor section above.</li> <li>5. Hydraulic pump may be defective and pump will have to be replaced.</li> </ol>
Bale is loose and not compacted solid	Hydraulic system is not developing pressure – see section above

# Notes

## OUTPUT

PRODUCT	BALE POUNDS
Beverage Cans	150 lbs
P.E.T Bottle	150 lbs
HDPE	140 lbs

## POWER SUPPLY & HYDRAULICS

Total Platen Force	45,160 lbs
Cylinder Bore & Stroke	5" x 30"
Per Square Ince on the Platen	113 lbs
System Pressure	2,500 PSI
Cycle Time	20 Seconds
Oil Cooler	Standard
Bale Size	20" x 20" x 36"

## MACHINE DIMENSIONS

Length	8'9"
Height	3'11"
Width	3'6" (Electric) - 4'6" (Gas)
Weight	2,030 lbs
Power Unit: Electric (Standard)	10 HP Electric 220/440 V, 3 Phase
Power Unit: Gas (Optional)	18HP B&S Gas with Electric Start

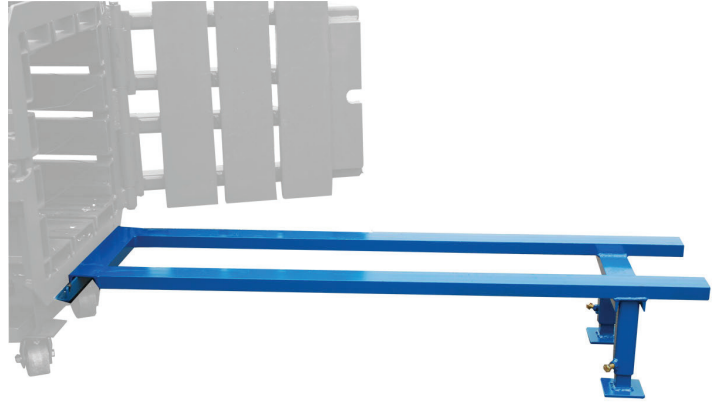


# TC-710 Baler Accessories

## SLIDE RAIL

The table mounts to all TC-710 Balers and can be adjusted for height.

TSI Part #5557



## DRIP PAN

The drip pan slides under the crushing chamber. It also has a drain plug.

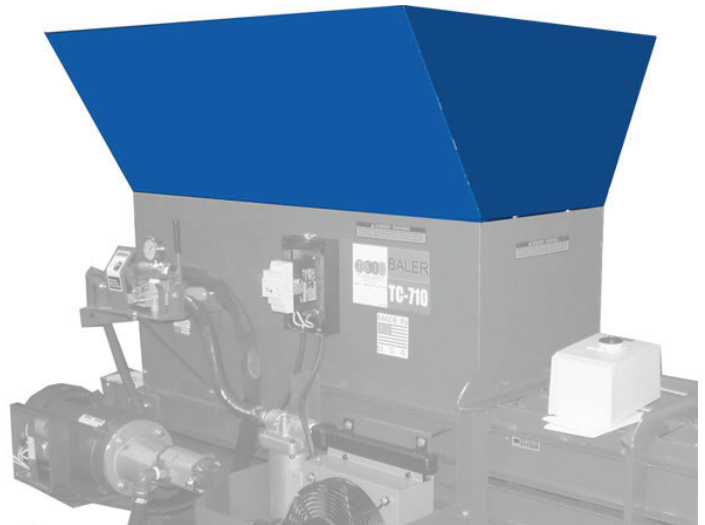
TSI Part #5954



## HOPPER CHUTE

The hopper chute allows for more volume of materials being fed into the TC-710.

TSI Part #6116K



# 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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