

OPERATION INSTRUCTIONS

# TC300 TIRE CHANGER



**HUNTER**  
Engineering Company





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# 1. Getting Started

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## 1.1 Introduction

This manual provides operational instructions and information required to maintain the TC300 tire changer.

### “References”

This manual assumes that you are already familiar with the basics of tire changing. The first section provides the basic information to operate the TC300. The following sections contain more detailed information about equipment, procedures and maintenance. *“Italics”* are used to refer to specific parts of this manual that provide additional information or explanation. For example, *Refer to “Equipment Components” page 3*. These references should be read for additional information to the instructions being presented.

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## 1.2 For Your Safety

Read and follow all caution and warning labels affixed to equipment and tools.

Misuse of this equipment can cause personal injury and shorten the life of the TC300.

To prevent accidents or damage to the TC300, use only Hunter recommended procedures and accessories.

Never stand on the TC300.

Keep hands and clothing clear of moving parts.

Wear OSHA approved eye protection when operating the TC300.

Wear non-slip safety footwear when operating the TC300.

Do not wear jewelry, loose clothing, neck ties, or gloves when operating the TC300.

Wear proper back support when lifting or removing wheel from the TC300.

<b>WARNING:</b>	<b>Do not exceed these air pressure limitations:</b>
	<b>Supply line</b> <b>220 psi</b>
	<b>Operating pressure</b> <b>100 to 145 psi</b>
	<b>Bead seating pressure</b> <b>40 psi</b>

Shut air supply off and bleed air pressure from system before disconnecting supply line or other pneumatic components. Air is stored in a reservoir for operation of the inflation ring.

Do not activate the air inflation ring if the tire is not properly clamped.

Do not operate TC300 with worn rubber pads. Worn rubber or plastic parts may not perform properly.

Vehicles equipped with low tire pressure sensors installed on the wheels inside the tires must have certain procedures started at specific locations. Consult manufacture's service manuals.

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## 1.3 Tire Bead Breaking Pedal

**WARNING: Keep arms and legs clear from between bead breaker and side of housing.**

When the bead breaker arm is swung out away from the housing, the right pedal on the front of the base engages to control the bead breaker arm. Step down on the pedal to close the bead breaker arm to loosen the bead. Lift the pedal up to allow the bead breaker arm to open.

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## 1.4 Rim Clamping Pedal

The left pedal on the front of the base controls the rim clamping device. Step down on the pedal to expand the rim clamping device (arms move outward). Lift the pedal up to contract the rim clamping device (arms move inward).

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## 1.5 Wheel Rotation Pedal

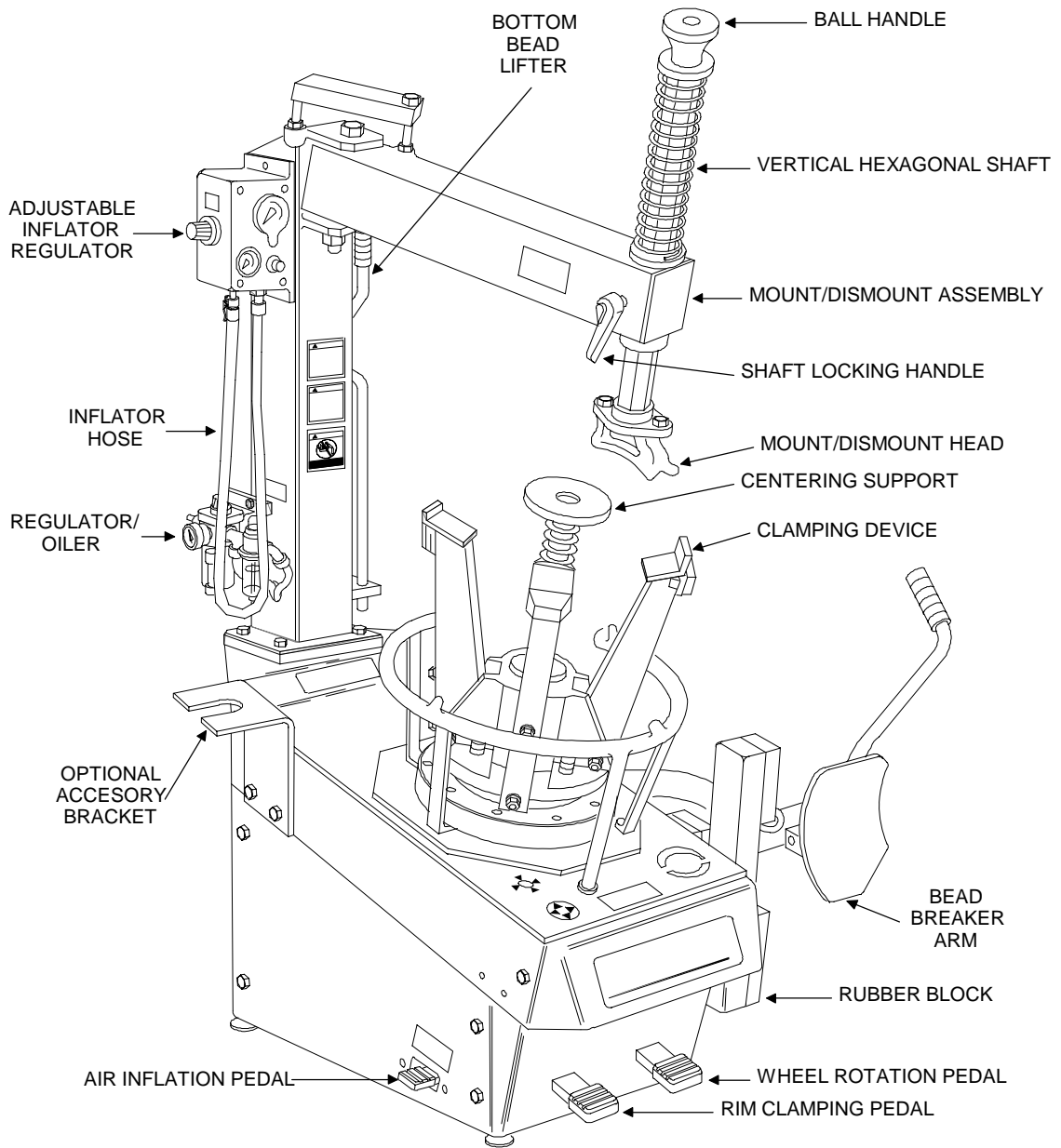
The right pedal on the front of the base controls the rotation of the wheel. Step down on the pedal to rotate the wheel clockwise. Lift the pedal up to rotate the wheel counterclockwise.

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## 1.6 Air Inflation Pedal

The pedal on the left side of the base is a two stage design. The pedal controls the air going to the air inflation ring and the inflation hose. Step down partially on the pedal to inflate tires. Step down completely on the pedal to release high pressure air through nozzles on the air inflation ring to assist with inflating tires.

## 1.7 Equipment Components



**TC300**





# 2. Operation Information

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## 2.1 Bead Breaking

Remove all clip-on weights from both rim lips to protect the rim and extend life of mount/dismount head.

Deflate tire by removing the valve stem core.

**CAUTION:** All air pressure inside the tire must be removed before proceeding. Never attempt to break the bead until all air is removed from the tire. Failure to remove all air from tire may result in injury to operator, or damage to equipment, tire or wheel.

Swing the bead breaker arm out and away from the housing.

Position the wheel against the side of the TC300 between the bead breaker arm and the housing.

Swing the bead breaker arm towards the tire and position the blade between the edge of the rim and the tire bead.



Step down on the right pedal. The bead breaker arm will be pulled towards the TC300 to loosen the bead.

Lift and hold the right pedal up to disengage the bead breaker arm and swing the arm to the open position. Once the arm has been swung to the open position release the pedal.

If the bead has not completely broken, rotate the wheel and repeat the bead breaking procedure at a different area on the tire.

Turn the wheel and break the opposite bead using the same procedure.

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## 2.2 Mounting Wheel on TC300

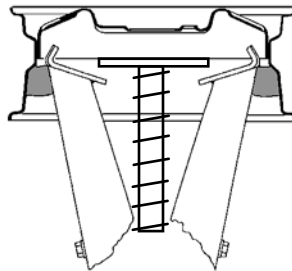
### Clamping Wheel From Inside Of Rim

Lift the clamping (left) pedal to contract the clamping device.

**HINT:** For rims that have a clear coat finish, clean the rubber pads to remove dirt and debris before mounting the wheel on the TC300.

Place the wheel onto the spring loaded centering device.

Push down on the wheel to locate the desire area to which the clamping device will be applied. Hold wheel at this location until properly clamped.



Step down on the clamping pedal until the wheel is completely clamped by the rubber pads.

**NOTE:** Always clamp the wheel as close to the dish as possible. On conical rims always clamp the wheel at the most parallel position to the feet to prevent slippage.

Verify that the wheel has been properly clamped and centered.

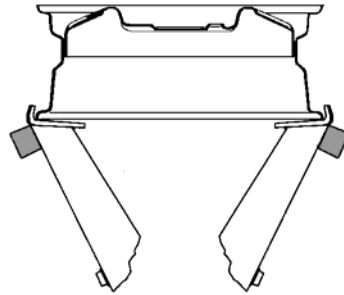
**NOTE:** If the wheel clamping area is oily or wet, clean the back side of the wheel or install the steel clamping jaws (RP6-2035) on the rubber feet to increase wheel gripping ability. Use of steel jaws may damage finish of the inside of the wheel surface during use.

## Clamping Wheel From Outside Of Rim

Place plastic protectors over the claws when working with aluminum rims.

Step down on the clamping (left) pedal to expand the clamping device.

Place the wheel onto the spring loaded centering device.

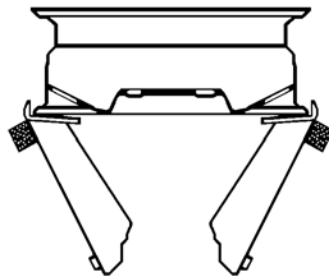


Position the wheel on two of the claws of the clamping device.

Lift the clamping pedal until the rim is completely clamped by the claws.

## Clamping Reverse Drop Center Wheels

Wheels with a reversed offset drop center must be dismantled upside down in order to remove the tire from the rim without damage. Always remove the centering support before inverting wheel on clamps. Remove centering support by placing the tip of the bead lever into the clip, sliding the clip out and walking off the support. Re-install centering support after completing the tire changing procedure.



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## 2.3 Dismounting Tire From Rim

Step down on the rotation (right) pedal to rotate the wheel clockwise until the valve stem is at the 1 o'clock position.

Position mount/dismount arm assembly over the outer edge of the rim lip.

**HINT:** For rims that have a clear coat finish, clean the mount/dismount head to remove dirt and debris before dismounting the tire from the rim.

Push down on the ball handle of the vertical hexagonal shaft to position mount/dismount head on the outer edge of the rim lip.

Secure mount/dismount head position by locking vertical shaft handle.

Position bead breaker tool between right hand edge of mount/dismount head and the bead of the tire.



**HINT:** Always keep control of the plastic protector sleeve by grasping it in the palm of the hand before sliding into position.

Slide plastic sleeve on the bead lever tool towards the tire.

Position plastic sleeve between the bottom right hand edge of mount/dismount head and the bead of the tire.

Using the bead lever tool, lift the tire bead over the right hand end of the head.



Exert pressure down on the end of the tool 180 degrees from mount/dismount head. The bead lever tool must be pushed down parallel to the rim to eliminate the possibility of breaking the plastic sleeve protector. At the same time push down on the tire sidewall at the 9 o'clock position.



**NOTE:** Sidewalls of low profile wheels may be damaged by over extending the bead lever inside the tire and prying out into the sidewall while dismounting.

Step down on the rotation (right) pedal to rotate wheel clockwise until the entire bead is lifted from the rim.

When wheel rotates, the bead lever tool will slide off the mount/dismount head onto the rim. The plastic sleeve prevents the bead lever tool from scratching the rim.

**Hint:** It is important on large low profile tires to always lubricate the bead, drop center and bead seat to prevent possible tire damage during dismount.

Lift tire and repeat this procedure for lower bead.

**NOTE:** If lower bead becomes re-seated on wheel while dismounting upper bead, use bottom bead breaker device to re-break lower bead. (Refer to "Bottom Bead Lifter" page 13.)

Swing the mount/dismount arm assembly away from the wheel without unlocking the column.

Remove tire from rim.

**Hint:** When dismounting large low profile tires the bead of the tire may not become fully turned up onto the lip of the mount/dismount head and the bead will slip off the lever when starting clockwise rotation. Should this occur, pull up briefly on the rotation (right) pedal until the bead fully unfolds on the mount/dismount head and then proceed by pushing down on the rotation (right) pedal to rotate bead off of rim.

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## 2.4 Mounting Tire To Rim

Lubricate inside and outside of both beads of the tire to be mounted with an approved lubricant.

Step down the rotation (right) pedal to rotate the rim clockwise until the valve stem is at the 1 o'clock position.

Position tire on top of the rim to allow the mount/dismount head through the opening of tire.

Swing the mount/dismount arm assembly in towards the wheel without unlocking the column.

Position mount/dismount head through the opening of the tire.

Position mount/dismount head on the outer edge of the rim lip.

Position edge of lower tire bead on top of the left lip of mount/dismount head.



Push edge of lower tire bead under the right lip of the mount/dismount head while keeping other edge of lower tire bead above the left lip.

Rotate tire clockwise by hand to start the mounting of the tire to the rim.

Step down on rotation pedal to rotate rim and tire clockwise until the lower tire bead is fully over the lip of the rim.

Repeat this procedure for upper bead of tire.

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## 2.5 Tire Inflation

Verify that the wheel has been properly clamped and centered.

Reinstall valve stem core.

Connect inflator hose to valve stem.

Step down completely on the air inflation pedal to release high pressure air through nozzles on the air inflation ring to assist in seating the beads of the tire.

**CAUTION:** Do not exceed 40 psi when seating the beads of a tire.

Step down partially on the pedal to inflate tire to the required pressure.

If adjustable inflator is used, step down partially on the pedal until inflator cycling stops. Tire will be inflated to the preset inflation pressure. (*Refer to "Adjustable Inflator Regulator" page 14.*)

If tire is over inflated, air may be removed from the tire by pressing the air release button located below the air pressure gauge.

Disconnect inflator hose from valve stem.

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## 2.6 Removal Of Wheel From Tire Changer

Verify if rim is clamped to the TC300 from the inside or outside.

Position mount/dismount arm assembly to the right of the wheel.

For rims clamped on inside, lift up on the clamping (left) pedal to release the rim from the clamping device.

For rims clamped on outside, step down on the clamping (left) pedal to release the rim from the clamping device.



# 3. Equipment Information

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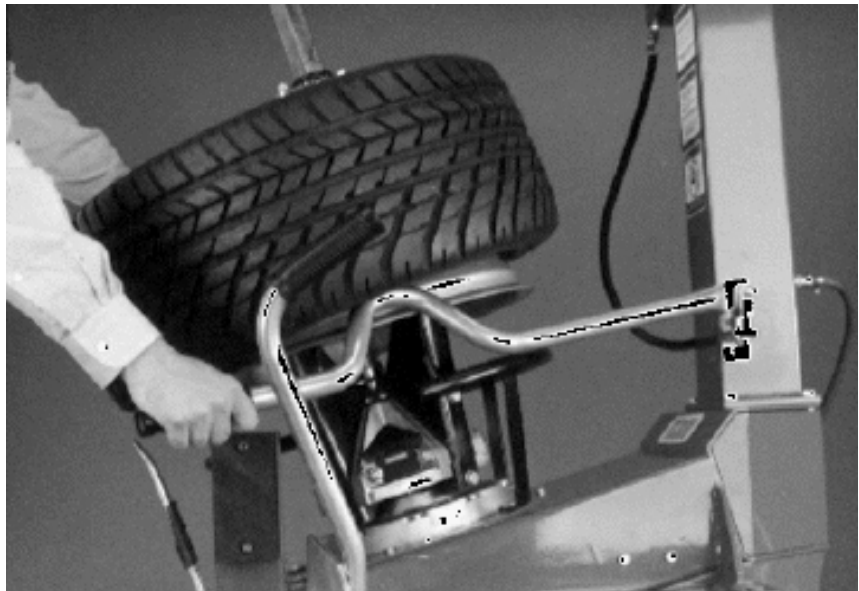
## 3.1 Bottom Bead Lifter

If the bottom bead of the tire slips back onto the rim while the wheel is clamped to the TC300, the bottom bead lifter can be used to lift the bead.

Release the bottom bead lifter from the holding clamp.

Position the curved section of the bottom bead lifter on sidewall of the tire near the rim.

Step down on the rotation (right) pedal and lift up on the bottom bead breaker until the tire bead has been lifted from the rim bead seat.



Return the bottom bead lifter to storage position and secure with holding clamp.

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## 3.2 Adjustable Inflator Regulator

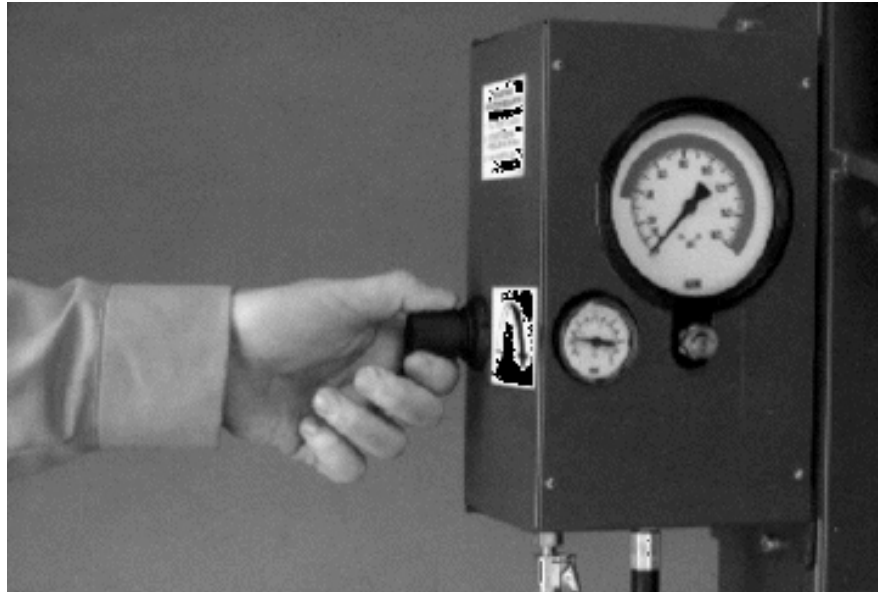
The adjustable inflation regulator serves two purposes:

As a safety device, it prevents the operator from using excessive air pressure to seat the tire bead during tire mounting. The pressure is regulated to the maximum 40 psi bead seating pressure as mandated by OSHA safety standards. If there are tires being mounted that require more than the OSHA standard for inflation pressure the wheel should be removed from the TC300 and placed in an inflation cage and inflated per instructions of the manufacturer.

For time savings and quality control assurance, the regulator also will enable the operator to preset the amount of inflation pressure that is desired with an adjustable regulator. The unit will automatically inflate the tire to the preset inflation pressure through the inflation hose.

Set adjustable inflator as follows:

Locate the adjustment knob on the side of the adjustable inflator regulator.



Pull knob out to unlock.

Rotate knob to preset the desired inflation pressure. The preset inflation pressure is indicated on the small gauge mounted below the main gauge.

Push knob back in to re-lock adjustment.

# 4. Maintenance

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## 4.1 Maintenance Schedule

Proper care and maintenance is necessary to insure that the TC300 operates properly. Proper care will also insure that rims and tires are not damaged during the mount/dismount process.

<b>Maintenance Schedule</b>	<b>Perform The Following Maintenance</b>
<b>Daily</b>	<p>Drain Condensation from pressure regulator reservoir by pressing in on the fitting on the bottom of the regulator.</p> <p>Check for worn or damaged rubber and nylon components that should be replaced to prevent damage from occurring. Replace worn parts as needed (rubber pads and blocks, claw protectors, lever protector sleeve and mount/dismount head).</p> <p>Clean all areas that come in contact with rims or tires to prevent possible damage to rim.</p>
<b>Weekly</b>	<p>Clean TC300 with shop towels or a vacuum cleaner, instead of cleaning with compressed air which can blast dirt between moving parts.</p> <p>Use window cleaning solution to wipe off the TC300. Do not use cleaning solvents to clean pressure regulator/oiler.</p>
<b>Periodically</b>	<p>Refill the pressure regulator/oiler using mineral oil, air tool oil, ATF as needed. Petroleum based oils should never be used in the oiler and will void all warranties.</p>

## Maintenance Replacement Parts

QTY	NAME	NUMBER
1	Safety Goggles	179-15-2
1	Brush	RP6-1506
1	Mounting Paste	RP6-5749995
1	Steel Jaw Cover set	RP6-2035
1	Additional Mount/Dismount Head	RP6-0343
1	Hand Held Bead Lever	RP6--0322
1	Protector Sleeve	RP6-0326
2	Rubber Block	RP6-0381
1	Rubber Block Long	RP6-0659
4	Nylon Jaw Protector	RP6-0310