Code 4-145096 06/22

TCX58/59
Tire Changer Family
Operating Instructions

TCX 58
Standard version

TCX 59
Leverless version

HUNTER
Engineering Company

Thank you for choosing our Tire Changer

Hunter Engineering Company

Dear Purchaser

Thank you for purchasing your Hunter Tire Changer.

Your Tire Changer has been designed to provide years of safe and dependable service, as long as it is used and maintained in accordance with the instructions provided in this manual.

All persons who will use and/or maintain this Tire Changer must read, understand and follow all warnings and instructions provided in this manual, and be properly trained.

This Owner's Manual should be considered an internal part of your Tire Changer and should remain with the Tire Changer. However, nothing in this manual, and none of the devices installed on the Tire Changer, substitute for proper training, careful operation, good judgment and safe work practices.

Always be sure that your Tire Changer is in optimum working order. If you suspect that anything is not working properly, or that a dangerous situation may exist, immediately shut down the Tire Changer and remedy any condition before you proceed.

If you have any questions concerning the proper use or maintenance of your Tire Changer, please call your authorized Hunter Engineering Company representative or visit Hunter.com to schedule service

Sincerely,

Hunter Engineering Company

OWNER INFORMATION

Owner Name _____

Owner Address _____

Model Number _____

Serial Number _____

Date Purchased _____

Date Installed _____

Service and Parts Representative _____

Phone Number _____

Sales Representative _____

Phone Number _____

Training Checklist

Safety Precautions	**Trained**	**Declined**
Warning and Caution Labels	❒	❒
Pinch Points and Other Potential Hazards	❒	❒
Safe Operating Procedures	❒	❒
Maintenance and Performance Checks		
Mounting Head Inspection	❒	❒
Adjustment and Filling of Oilers	❒	❒
Bead Breaking		
Standard Wheels	❒	❒
Low Profile Wheels	❒	❒
Clamping		
Steel Jaw Internal/External Clamping	❒	❒
Demounting		
Standard Wheels with Bead Lever and Plastic Sleeve Protector	❒	❒
Full Seating of Mount/Demount Head to Prevent Head Failure	❒	❒
Bead Lubrication During Removal of Low Profile Tires	❒	❒
Reverse Drop Center Wheels	❒	❒

Mounting	**Trained**	**Declined**
Standard Wheels	❒	❒
Mounting of Stiff, Low Profile Tires	❒	❒
Reverse Drop Center Wheels	❒	❒
Proper Bead Lubrication for Mounting Protection	❒	❒
Inflation	**Trained**	**Declined**
Safety Precautions	❒	❒
Lubrication and Removal of Valve Core	❒	❒
Bead Sealing and Seating	❒	❒

Individuals and Dates Trained

_____ _____

_____ _____

_____ _____

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_____ _____

Contents

1. Getting Started

1.1 Introduction

1.1.a – PURPOSE OF THE MANUAL

The purpose of this manual is to provide the instructions necessary for optimum operation, use and maintenance of your machine. If you sell this machine, please deliver this manual to the new owner. In addition, so we can contact our customers with any necessary safety information, please ask the new owner to complete and return to Hunter the change of ownership form attached to the last page of this manual.

This manual presumes that the technician has a thorough understanding of rim and tire identification and service. He/she must also have a thorough knowledge of the operation and safety features of all associated tools (such as the rack, lift, or floor jack) being utilized, and have the proper hand and power tools necessary to work in a safe manner.

The first section provides the basic information to safely operate the TCX58/59 tire changer family. The following sections contain 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 “*TCX58/59 Equipment Components*” *page 26*. These references should be read for additional information to the instructions being presented.

The owner of the tire changer is solely responsible for enforcing safety procedures and arranging technical training. The tire changer is to be operated only by a qualified and trained technician. Maintaining records of personnel trained is solely the responsibility of the owner or management.

The TCX58/59 tire changer family is intended for mounting, demounting, and inflating most tires with an approximate dimension of 40 inches in diameter and 15 inches in width.

Copies of this manual and of the documents accompanying the machine may be obtained from Hunter Engineering Company by specifying the type of machine and its serial number.

NOTICE: Design details are subject to change. Some illustrations may vary slightly in appearance from the machine you have.”

An advanced operation section has been provided in *“Advanced Procedures,” page 60.*

1.2 For Your Safety

Hazard Definitions

These symbols identify situations that could be detrimental to your safety and/or cause equipment damage.

DANGER

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

NOTICE: Used without the safety alert symbol indicates potentially hazardous situation, which, if not avoided, may result in property damage.

1.3 General Warnings and Instructions

WARNING

Avoid Personal Injury. Carefully read, understand and follow the warnings and instructions given in this manual. This manual is an essential part of the product. Keep it with the machine in a safe place for future reference.

1. If the use and maintenance procedures provided in this manual are not properly performed, or the other instructions in this manual are not followed, an accident could occur. Throughout this manual reference is made that “an accident” could occur. Any accident could cause you or a bystander to sustain severe personal injury or death, or result in property damage.

⚠ WARNING

Avoid Personal Injury. Carefully read, understand and follow the warnings and instructions given in this manual. This manual is an essential part of the product. Keep it with the machine in a safe place for future reference.

2. Overinflated tires can explode, producing hazardous flying debris that may result in an accident.

3. Tires and Rims that are not the same diameter are “mismatched.” never attempt to mount or inflate any tire and rim that are mismatched. For example, never mount a 16.5” tire on a 16” rim and vice versa. This is very dangerous. A mismatched tire and rim could explode, and resulting in an accident.

4. Never exceed the bead setting pressure (gauge on hose) provided by the tire manufacturer, as stated on the sidewall of the tire.

5. Never place your head or any part of your body over a tire during inflation process or when attempting to seat beads. This machine is not intended to be a restraining device for exploding tires, tubes or rims.

6. Always stand back from tire changer when inflating, never lean over.

⚠ DANGER

An exploding tire and rim may be propelled upward and outward with enough force to cause serious injury or death.

Never mount any tire unless the tire size (molded into the sidewall) matches the rim size (stamped into the rim) exactly or if the rim or tire are defective.

Never exceed tire pressure recommended by tire manufacturer.

This tire changer is not a safety device and will not restrain exploding tires and rims. keep area clear of bystanders.

7. Crushing Hazard. Moving Parts Present. Contact with moving parts could result in an accident.

- Only one operator may work with the machine at a time.
- Keep all bystanders clear of tire changer.
- Keep hands and fingers clear of rim edge during demounting and mounting process.
- Keep hands and fingers clear of mount/demount head during operation.
- Keep hands and other body parts away from moving parts.
- Do not use tools other than those supplied with tire changer.
- Use proper tire lubricate to prevent tire binding.

⚠ WARNING

Avoid Personal Injury. Carefully read, understand and follow the warnings and instructions given in this manual. This manual is an essential part of the product. Keep it with the machine in a safe place for future reference.

8. Electric Shock Hazard.

- Never hose down or power wash electric tire changers.
- Do not operate machine with a damaged power cord
- If an extension cord is necessary, a cord with a current rating equal to or greater than that of the machine must be used. Cords rated for less current than the machine can overheat, resulting in a fire.
- Care should be taken to arrange the cord so that it will not be tripped over or pulled.

9. Risk of Eye Injury. Flying debris, dirt and fluids may be discharged during bead seating and inflation process. Remove any debris from the tire tread, wheel surfaces. Wear OSHA approved safety glasses during mount and demount procedures.
10. Always inspect the machine carefully before using it. Missing, broken, or worn equipment (including warning stickers) must be repaired or replaced prior to operation.
11. Never leave nuts, bolts, tools or other equipment on the machine. They may become trapped between moving parts and cause a malfunction.
12. NEVER install or inflate tires that are cut, damaged, rotten or worn. NEVER install a tire on a cracked, bent, rusted, worm, deformed or damaged rim.
13. If a tire becomes damaged during the mounting process, do not attempt to finish mounting. Remove from service area and properly mark the tire as damaged.
14. To inflate tires, use short bursts while carefully monitoring the pressure, tire, rim and bead. NEVER exceed tire manufacturer's pressure limits.
15. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors (gasoline, paint thinners, solvents, etc.). This machine should not be located in a recessed area or below floor level.
16. Never operate the machine if you are under the effects of alcohol, medications and/or drugs. If you are taking prescription or over the counter medication, you must consult a medical professional regarding any side effects of the medication that could hinder your ability to operate the machine safely.
17. Always use OHSA approved and mandated Personal Protective Equipment (PPE) during use of the machine. See your supervisor for more instructions.
18. Remove jewelry, watches, loose clothing, ties and restrain long hair before using machine.
19. Wear non-slip safety footwear when operating the tire changer.
20. Wear proper back support and employ proper lifting technique when placing, moving, lifting or removing wheels from the tire changer.
21. This machine may only be used, maintained or repaired by properly trained employees of your company. Repairs should only be performed by qualified personnel. Your Hunter service representative is the most qualified person. The employer is responsible for determining if an employee is qualified to safely make any repairs to the machine should repair be attempted by users.
22. The user should understand all warnings decals affixed to this equipment before operating.
23. Do not lock the rim on the turntable during inflation


HUNTER
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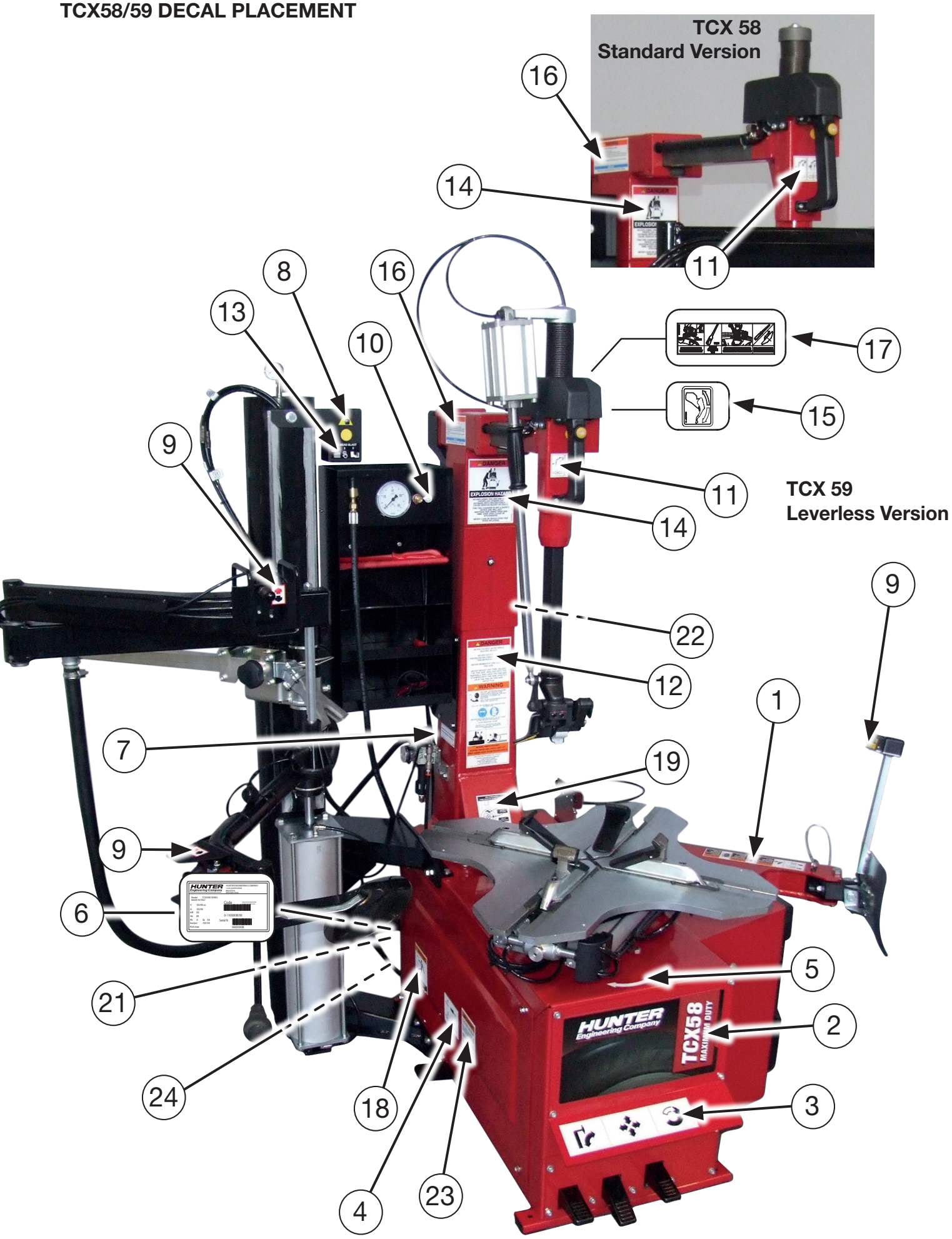
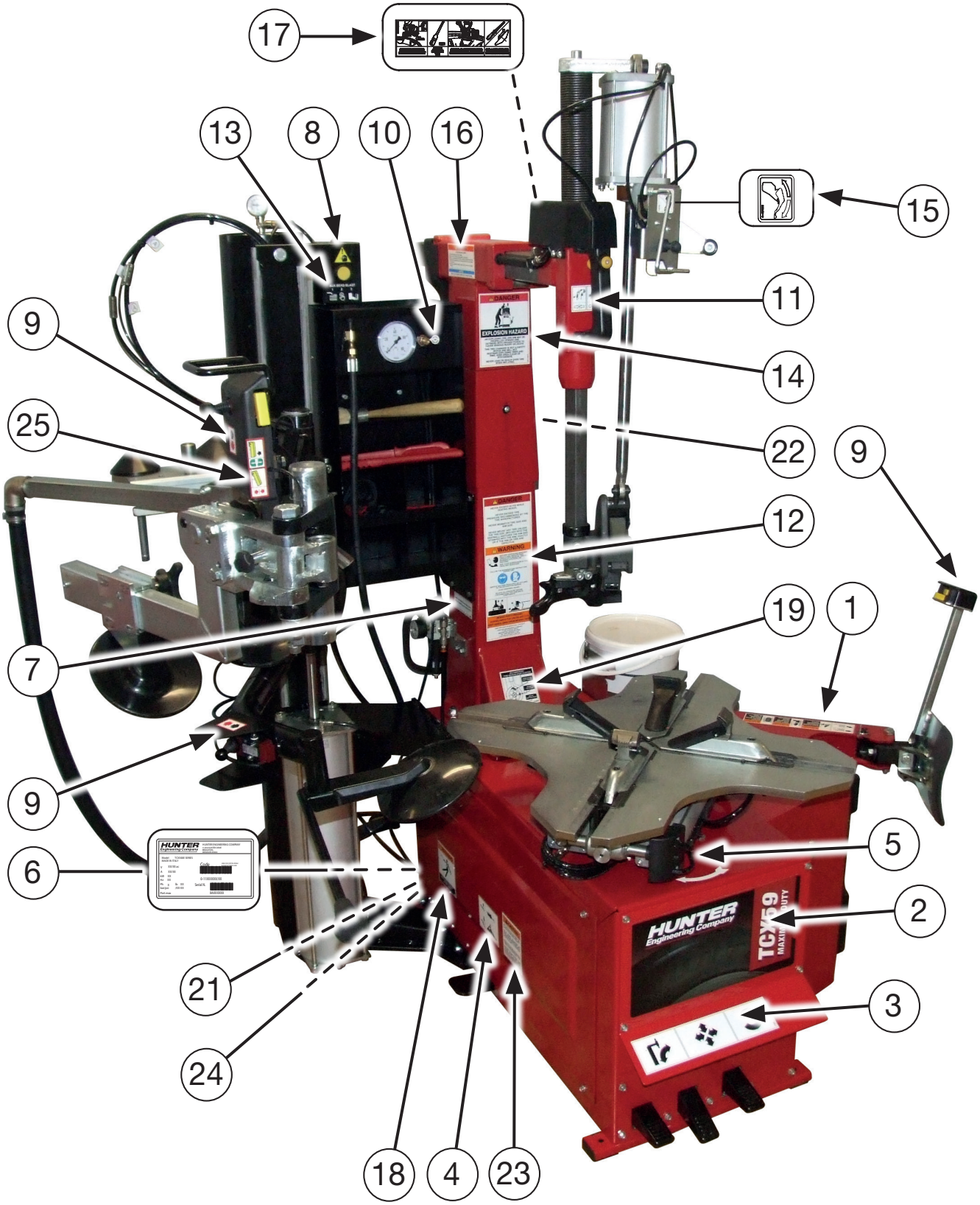
TCX58/59 DECAL PLACEMENT



No.	Part Number	Description
1	RP11-4-402023	DECAL-RIM, TABLE, BEAD BREAKER, BEAD AIR PRESSURE
2	RP11-4-132526	DECAL-HUNTER LOGO
3	RP11-4-113623	DECAL-PEDAL OPERATION
4	RP11-4-402030	DECAL-INFLATION PEDAL OPERATION
5	RP11-3020842	DECAL-TABLE ROTATION
6	Rif. SN	DECAL-MODEL SERIAL NUMBER
7	RP11-4-402027	DECAL-MAXIMUM INLET PRESSURE
8	RP11-4-141077	DECAL-DANGER INDICATION
9	RP11-3013640	DECAL-ARROWS UP-DOWN
10	RP11-4-402021	DECAL-MANUAL TIRE BLEED VALVE
11	RP11-4-402038	DECAL-VERTICAL COMUMN LOCK BUTTON OPERATION
12	RP11-4-115412	DECAL-DANGER-WARNING INDICATION
13	RP11- 4-141076	DECAL-FASTBLAST ACTIVATION BUTTON OPERATION
14	RP11-4-115411	DECAL-DANGER OPERATION
15	RP11-4-407099	DECAL-TOOL MOVEMENT
16	RP11-4-115243	DECAL-WARNING OPERATION
17	RP11-4-113552	DECAL-TL TOOL LABEL
18	RP11-4-115246	DECAL-ELECTRICAL HAZARD
19	RP11-4-113016	DECAL-RECOMMENDED TPMS SENSOR START POSITION
20	Rif. SN	DECAL-BPS SERIAL NUMBER (NOT SHOWN)
21	Rif. SN	DECAL-ETL LISTING MARK
22	RP11-4-136333	DECAL-WARNING INDICATION
23	RP11-4-136662	DECAL-ELECTRICAL HAZARD
24	RP11-4-136663	DECAL-WARNING SOCKET-OUTLET

TCX 59 PRO DECAL PLACEMENT



No.	Part Number	Description
1	RP11-4-402023	DECAL-RIM, TABLE, BEAD BREAKER, BEAD AIR PRESSURE
2	RP11-4-141037	DECAL-HUNTER LOGO
3	RP11-4-113623	DECAL-PEDAL OPERATION
4	RP11-4-402030	DECAL-INFLATION PEDAL OPERATION
5	RP11-3020842	DECAL-TABLE ROTATION
6	Rif. SN	DECAL-MODEL SERIAL NUMBER
7	RP11-4-402027	DECAL-MAXIMUM INLET PRESSURE
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13	RP11- 4-141076	DECAL-FASTBLAST ACTIVATION BUTTON OPERATION
14	RP11-4-115411	DECAL-DANGER OPERATION
15	RP11-4-407099	DECAL-TOOL MOVEMENT
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21	Rif. SN	DECAL-ETL LISTING MARK
22	RP11-4-136333	DECAL-WARNING INDICATION
23	RP11-4-136662	DECAL-ELECTRICAL HAZARD
24	RP11-4-136663	DECAL-WARNING SOCKET-OUTLET
25	RP11-3016568	DECAL-BPS LOCK

Electrical indications

The TCX58/59 is manufactured to operate at a specific voltage and amperage rating.

Make sure that the appropriate electrical supply circuit is of the same voltage and amperage ratings as marked on the TCX58/59.

⚠ WARNING

FIRE HAZARD. DO NOT ALTER THE ELECTRICAL PLUG.

NOTICE

Plugging the electrical plug into an unsuitable supply circuit will damage the equipment.

DANGER

- HAZARDOUS VOLTAGE
- Turn of and lock out system power before servicing.
- Contact may cause electric shock or death

Make sure that the electrical supply circuit and the appropriate receptacle is installed with proper grounding.

To prevent the possibility of electrical shock injury or damage to the equipment when servicing the TCX58/59, power must be disconnected by removing the power cord from the electrical power outlet.

After servicing, be sure the TCX58/59 ON/OFF switch is in the “O” (off) position before plugging the power cord into the electrical power outlet.

Specific Precautions/Power Source

The TCX58/59 is equipped with motoinverter, (220VAC / 1PH / 50-60Hz) and standard plug 220V L6-20P plug.

This machine must be connected to a 20 amp branch circuit. Please refer all power source issues to a certified electrician.

WARNING

A protective ground connection, through the grounding conductor in the power cord, is essential for safe operation. Use only a power cord that is in good condition.

Equipment installation and service

A factory-authorized representative should perform installation.

This equipment contains no user serviceable parts. All repairs must be referred to a qualified Hunter Service Representative

Equipment specification

Electrical	
Voltage:	220 VAC, 1 phase, 50-60 Hz, includes NEMA L6-20P
Amperage:	20 amperes
Air	
Air Pressure Requirements:	115-175 PSI (7.9-12.0 bar)
Approximate Air Consumption:	at 8 bar = 6 Lt/s • 0.2118 Ft3/s • 12,70 CFM (ft3/min)
	at 10 bar = 7,76 Lt/s • 0.2471 Ft3/s • 14,82 CFM (ft3/min)
Mechanical	
Clamping System Rotating Speed:	CW – 7 rpm and 17 rpm CCW – 7rpm
Max. Tire Diameter:	44.5 in. w/BPS
Diameter Range:	10-26” (*)

(*) 10/30” with optional adaptors AR46N p/n RP11-8-11100402

Explanations of symbols

These symbols may appear on the equipment.

Alternating current.


Earth ground terminal.


Protective conductor terminal.


Risk of electrical shock.

1.3.b. Air Pressures

The machine is equipped with an internal pressure limiting valve to minimize the risk of over inflating the tire.

1. Never exceed these pressure limitations:
   - Supply line pressure (from compressor) is 220 psi.
   - Operating pressure (gauge on regulator) is 145 psi.

   Bead setting pressure (gauge on hose) is the tire manufacturer's maximum pressure as stated on the sidewall of the tire

2. Activate air inflation jets only when sealing bead.

3. Bleed air pressure system before disconnecting supply line or other pneumatic components. Air is stored in a reservoir for operation of inflation jets.

4. Only activate the air inflation jets if the rim securing device is locked in place and the tire is properly clamped (when possible).

1.4 Special Rim/Tire Considerations

NOTICE

Wheels equipped with low tire pressure sensors or special tire and rim designs may require certain procedures. Consult wheels and tire manufacturer's service manuals.

1.5 Intended Use of The Machine

This machine must be used only to remove and replace an automotive tire on an automotive rim or a motorcycle tire on a motorcycle rim, using the tools with which it is equipped. Any other use is improper and can result in an accident.

1.6 Employee Training

1. The employer is obligated to provide a program to train all employees who service rim wheels in the hazards involved in servicing those rim wheels and the safety procedures to be followed. Service or servicing means the mounting and demounting of rim wheels, and related activities such as inflating, deflating, installing, removing and handling.

   - The employer shall insure that no employee services any rim wheel unless the employee has been trained and instructed in correct procedures of servicing the type of wheel being serviced, and in the safe operating procedures.
   - Information to be used in the training program shall include, at a minimum, the applicable information contained in this manual.

2. The employer shall ensure that each employee demonstrates and maintains the ability to service rim wheels safely, including performance of the following tasks:

   - Demounting of tires (including deflation).
   - Inspection and identification of the rim wheel components.
   - Mounting of tires.
   - Use of any restraining device, cage, barrier, or other installation.
   - Handling of rim wheels.
   - Inflation of the tire.
   - Understanding the necessity of stand back from tire changer during inflation of the tire and during inspection of the rim wheel following inflation, never loan over.
   - Installation and removal of rim wheels.

3. The employer shall evaluate each employee's ability to perform these tasks and to service rim wheels safely, and shall provide additional training as necessary to assure that each employee maintains his or her proficiency.

1.7 Pre-Use Checks

Before beginning work, carefully check that all components of the machine, especially rubber or plastic parts, are in place, in good condition and working properly. If the inspection reveals any damage or excessive wear, no matter how slight, immediately replace or repair the component.

Walk around the machine to ensure that all components are in good condition and operational, and that there are no foreign objects or debris (rags, tools, etc…) in or about the machine which could affect its operation.

These checks must be carried out:
- Before starting the machine.
- At regular time intervals.
- After any modification or repair.

The machine may only be started after this pre-use check is successfully completed.

Do not use the machine if it is placed out of service for tune up, maintenance, lubrication, etc.

1.8 During Use

In the event you hear any strange noise or feel unusual vibration, if a component or system is not operating properly, or if there is anything unusual at all, stop using the machine immediately.

- Identify the cause and take any necessary remedial action.
- Contact your supervisor if necessary.

Never allow any bystander to be within 20 feet of the machine during operation.
To stop the machine in an emergency:

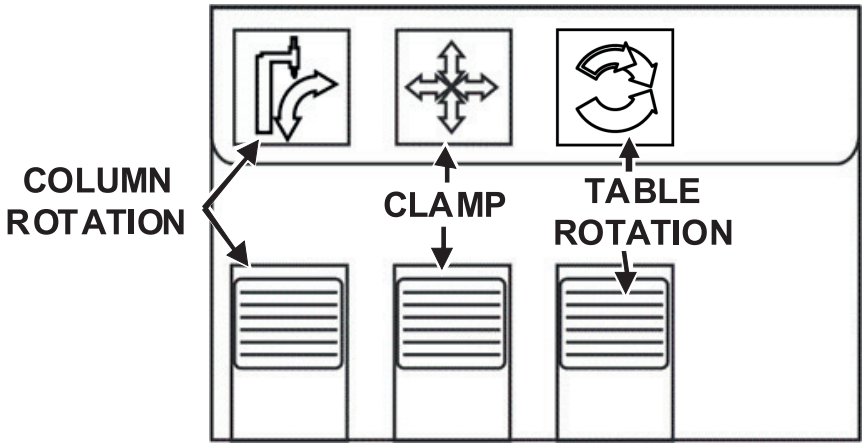
- disconnect the power supply plug;
- cut off the compressed air supply network by disconnecting the shut-off valve (snap coupling).

1.9 Control Pedal Configurations

⚠ WARNING

Avoid unintended machine moviment and personal injury.
Pay close attention to the configuration of your machine.

Control pedals on the TCX58/59 tire changer are configured as shown below:

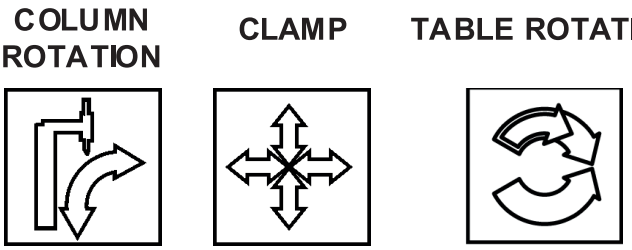


NOTE: SHOVEL CONTROLLED BY POWEROUT BUTTONS

NOTICE

If the unit is equipped with a wheel lift, there is an additional pedal at the far right upper portion of the face of the unit.

Throughout this manual, control pedals are referred to by the associated symbol.



The PowerOut system provides bead breaking controls on the handle for convenience, particularly with larger diameter assemblies.

1.10 Wheel Rotation Pedal

Step down on the rotation pedal to rotate the wheel **clockwise**.
Release the pedal to stop rotation. Depressing the pedal halfway rotates the wheel at slow speed. Depressing the pedal all the way rotates the wheel at fast speed.
Lift up on the pedal to rotate the wheel **counterclockwise**. Release the pedal to stop rotation.

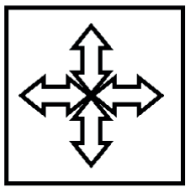
1.11 Tire Bead Breaker Shovel control

⚠ WARNING

Keep arms and legs from between the bead breaker arm and the side of the housing.

Press the “In” button to close bead breaker arm and loosen bead (red arrow).
Press the “Out” button to allow the bead breaker arm to open (black arrow).

1.12 Wheel Clamping Pedal

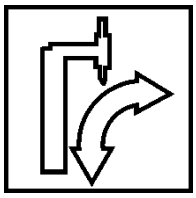


The wheel clamping pedal has three positions (modes of operation): up (expand), neutral (stop), and down (retract).

With the clamps in the fully retracted position or clamped against the outside of a rim, step down fully on the pedal to expand the wheel clamps (clamps move outward). The clamps continue to expand until contacting the rim or until fully expanded.

Internal Clamping:
Press the pedal all the way down to close the 4 sliding clamps completely.
Put the wheel on the table top and depress pedal all the way down, (the pedal will move in the upper position). The 4 sliding clamps will open and clamp the wheel.
External clamping:
Press the pedal to the middle position to position the 4 sliding clamps so that the reference on the table top is more or less in line with the tyre diameter stamped on the sliding clamp.
Place the wheel on the table top and push down on the wheel while depressing the pedal all the way to clamp the wheel.

1.13 Column Rotation Pedal



The column rotation pedal operates the automatic column.

⚠ WARNING

Before activating automatic column, make sure the path of the column is clear of people and other obstructions.

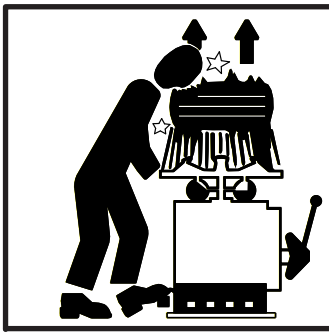
The column tilt pedal has two positions.

With the pedal up, the column rotates toward the operator.

With the pedal down, the column rotates away from the operator.

1.14 Air Inflation Pedal

On the left side of the base, the air inflation pedal operates the two-stage air inflation system. The pedal controls the air going to the inflation hose and the air inflation jets.



⚠ DANGER

- **EXPLOSION HAZARD**
- **Never exceed tire pressure recommended by tire manufacturer. Never mismatch tire size and rim size.**
- **Avoid personal injury or death**

⚠ WARNING

Keep hands clear of wheel during sealing and seating of beads.

⚠ WARNING

Risk of Tire Failure When Driving.
Excessive air pressure can damage the internal structure of a tire, without this damage being visible to you, resulting in an automobile accident, personal injury or death.

1.15 Moving Parts

⚠ WARNING

- **MOVING PARTS PRESENT. MOVING PARTS CAN CUT AND CRUSH**
- **Keep hands away from moving parts**
- **Crush may cause injury**

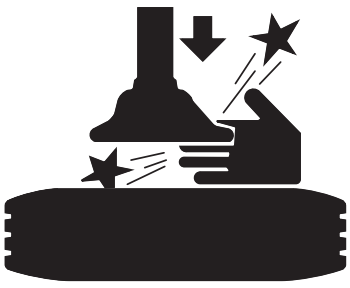
1.16 Inflator and Pressure Limiter

As a safety device, the pressure limiter prevents the operator from using excessive air pressure.

Bead seating pressure should never exceed the tire manufacturer's maximum bead seating pressure as stated on the sidewall of the tire.

If tires being mounted require more than the tire manufacturer's maximum bead seating pressure, the wheel should be removed from the tire changer, placed in an inflation cage, and inflated per manufacturer's instructions.

1.17 Mount / Demount Head



⚠ WARNING

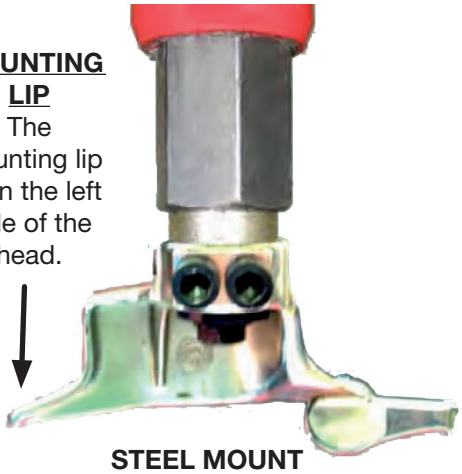
- **MOVING PARTS PRESENT. MOVING PARTS CAN CUT AND CRUSH**
- **Keep hands away from moving parts**
- **Crush may cause injury**

The mount/demount head is suspended from the column above the turntable.

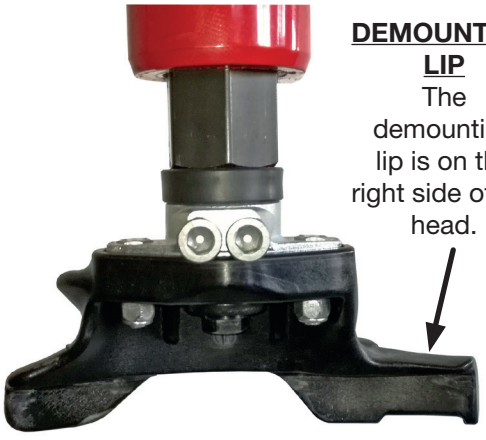
The head has a mounting and demounting lip that is designed to install or remove the bead of tire as the wheel is rotated clockwise.

A. Standard version (TCX58)

MOUNTING LIP
The mounting lip is on the left side of the head.



STEEL MOUNT HEAD



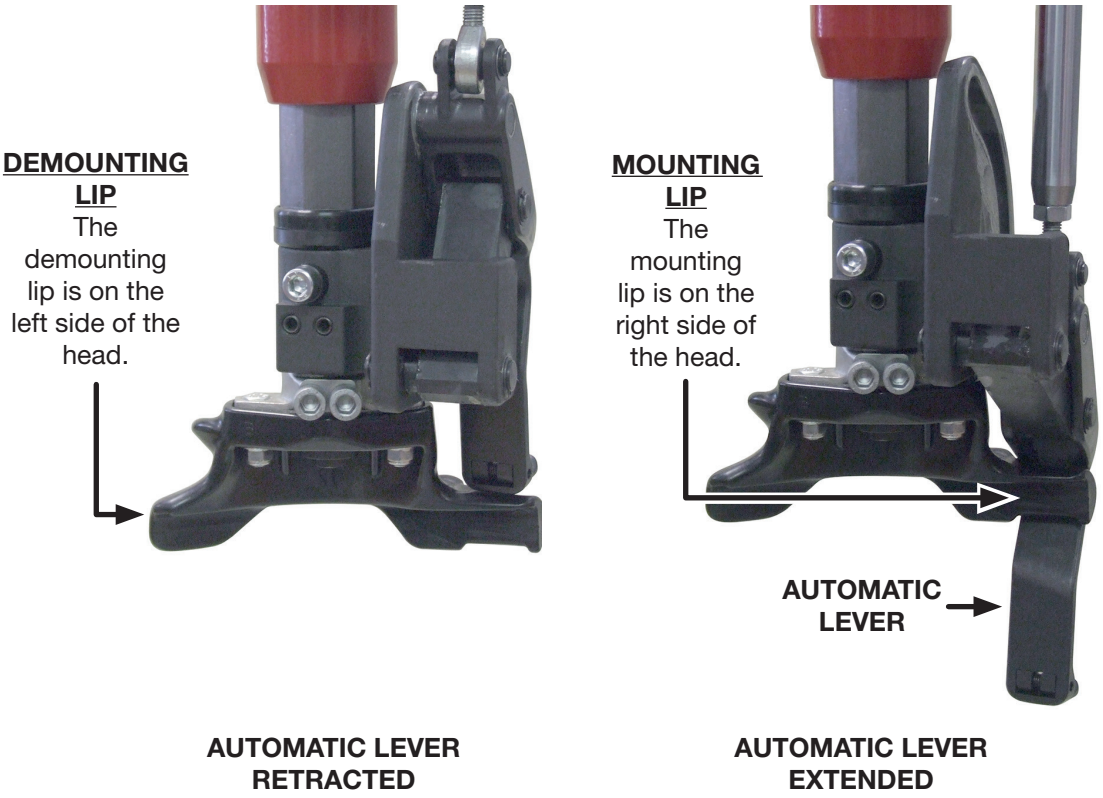
DEMOUNTING LIP
The demounting lip is on the right side of the head.

PLASTIC MOUNT HEAD

B. Leverless version (TCX59)

In addition, the head also incorporates an automatic lever to ease the demounting process.
The bead of tire is placed on top of mounting lip during mounting.
The bead of tire is placed on top of demounting lip during demounting.

C. Hybrid leverless head (TCX59 PRO)



In addition, the head also incorporates an automatic lever to ease the demounting process.
The bead of tire is placed on top of mounting lip during mounting.
The bead of tire is placed on top of demounting lip during demounting.

1.18 TCX58/59 Equipment Components

TCX 58
Standard Version

HEAD POSITION LOCK

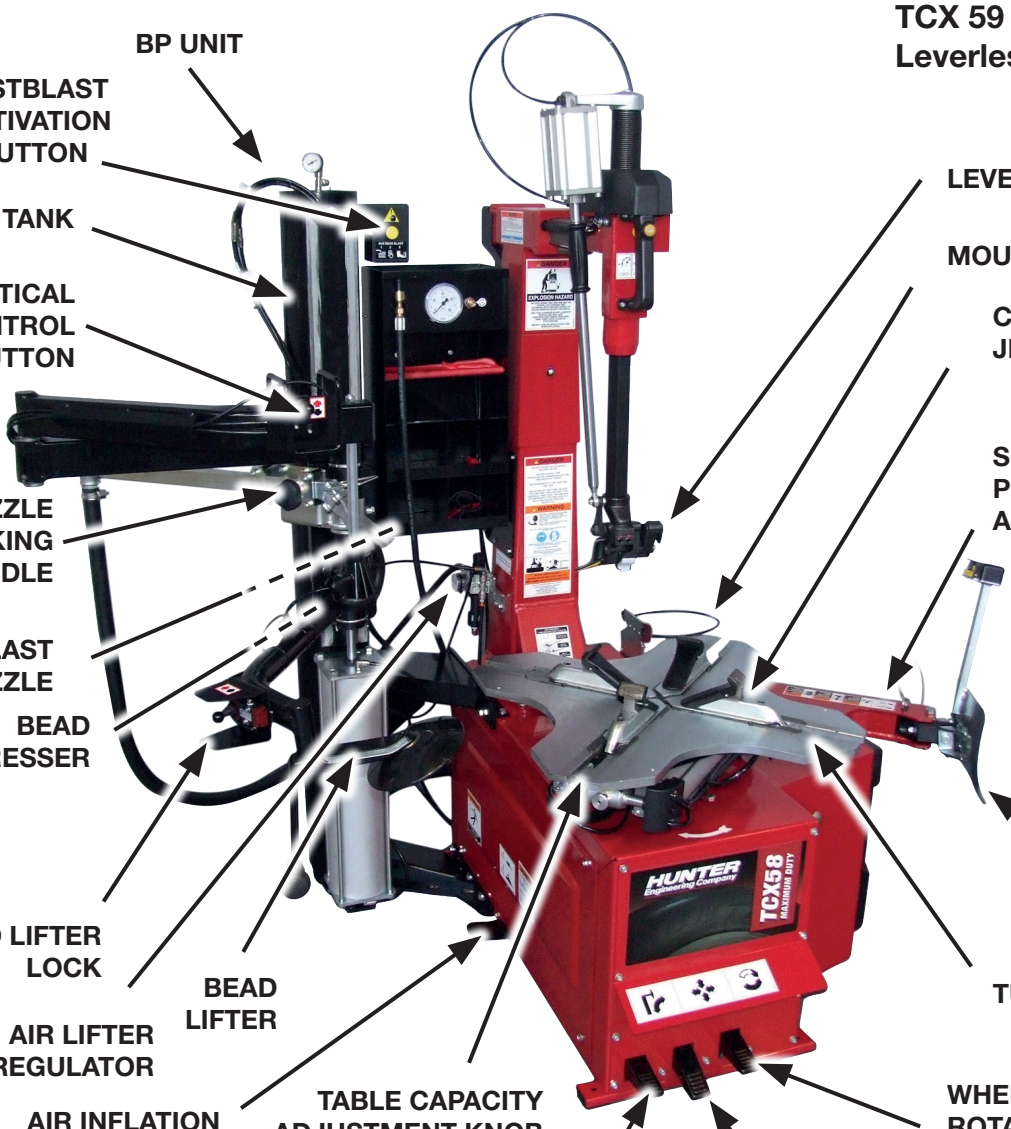
MOUNT/DEMOUNT HEAD

AIR RELEASE BUTTON

INFLATION HOSE

PRESSURE GUAGE

TCX 59
Leverless Version



BP UNIT

FASTBLAST ACTIVATION BUTTON

AIR TANK

BP VERTICAL CONTROL BUTTON

NOZZLE LOCKING HANDLE

FASTBLAST NOZZLE

BEAD PRESSER

BEAD LIFTER LOCK

AIR LIFTER REGULATOR

AIR INFLATION PEDAL

BEAD LIFTER

TABLE CAPACITY ADJUSTMENT KNOB

COLUMN ROTATION PEDAL

WHEEL CLAMPING PEDAL

WHEEL ROTATION PEDAL

TURNTABLE

BEAD LOOSENING ARM AND SHOVEL

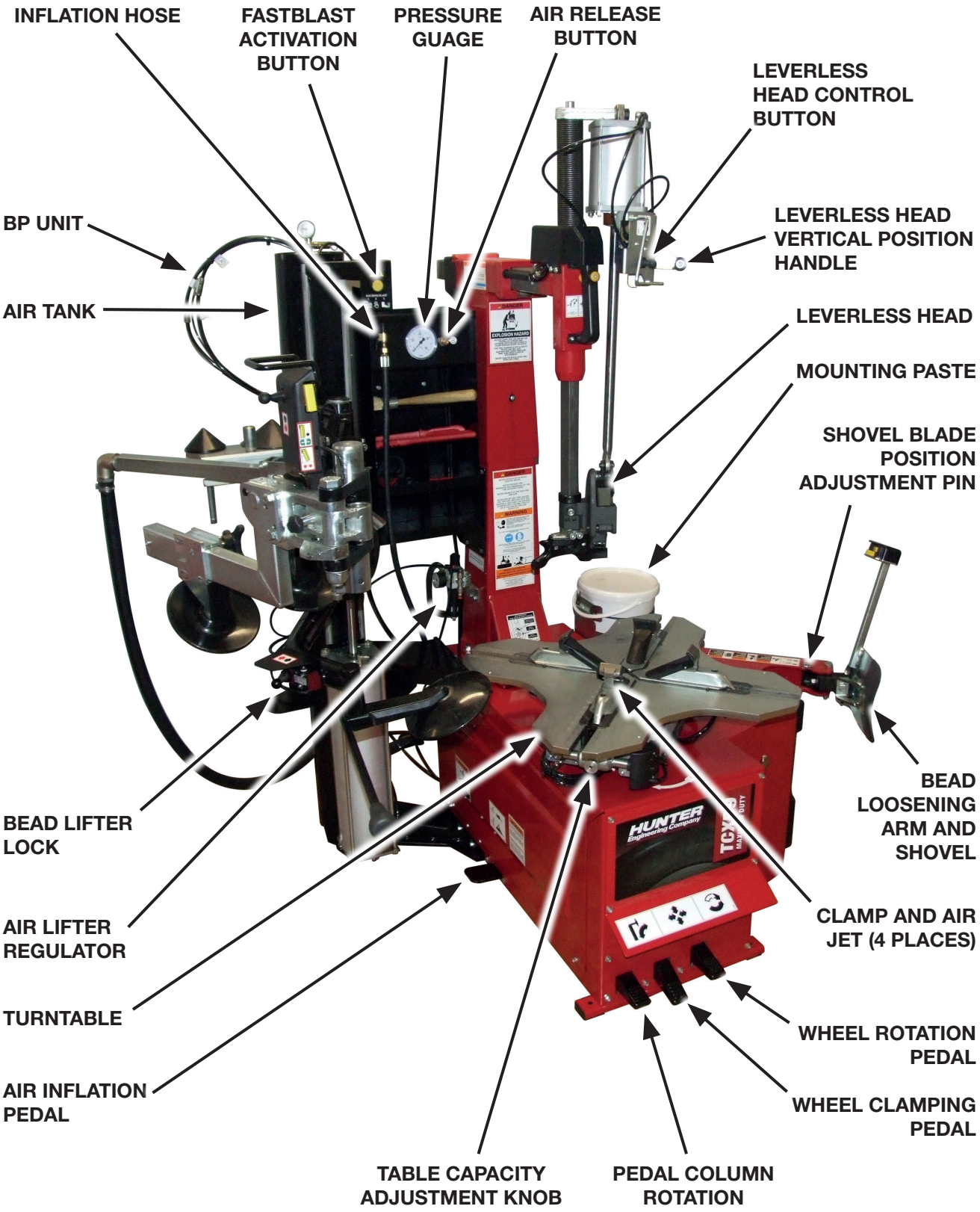
SHOVEL BLADE POSITION ADJUSTMENT PIN

CLAMP AND AIR JET (4 PLACES)

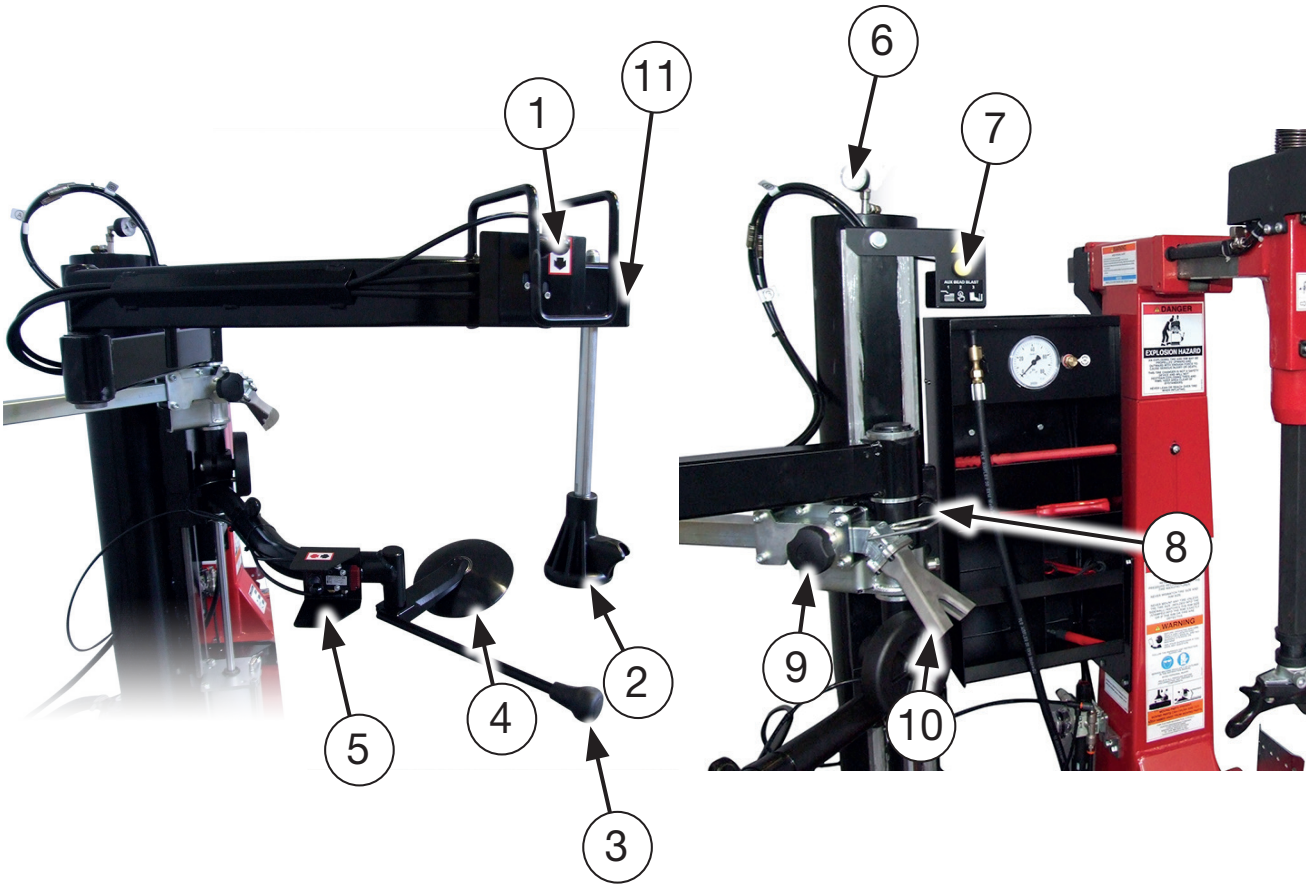
MOUNTING PASTE

LEVERLESS HEAD

TCX 59 PRO


INFLATION HOSE
FASTBLAST ACTIVATION BUTTON
PRESSURE GUAGE
AIR RELEASE BUTTON
LEVERLESS HEAD CONTROL BUTTON
BP UNIT
LEVERLESS HEAD VERTICAL POSITION HANDLE
AIR TANK
LEVERLESS HEAD
MOUNTING PASTE
SHOVEL BLADE POSITION ADJUSTMENT PIN
BEAD LOOSENING ARM AND SHOVEL
BEAD LIFTER LOCK
CLAMP AND AIR JET (4 PLACES)
AIR LIFTER REGULATOR
TURNTABLE
WHEEL ROTATION PEDAL
AIR INFLATION PEDAL
WHEEL CLAMPING PEDAL
TABLE CAPACITY ADJUSTMENT KNOB
PEDAL COLUMN ROTATION

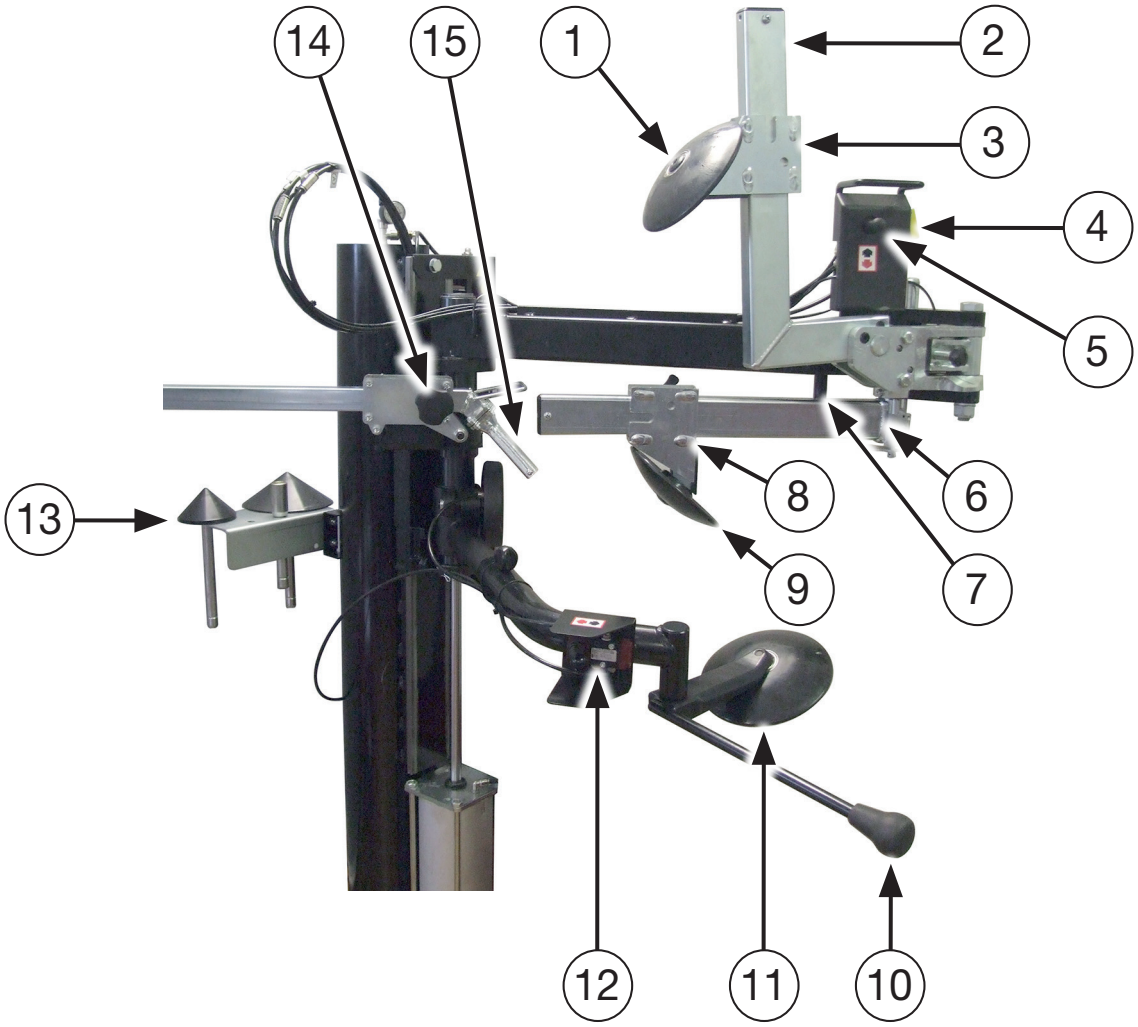
1.19 Bead Pressor (BP) Components



The functional parts of the BP are:

1. Control lever
2. Bead pressor head
3. Bead lifter handle
4. Bead lifter disc
5. Demounting arm lock
6. Air tank pressure gauge
7. FASTBLAST activation button
8. Nozzle position adjustment handle
9. Nozzle locking handle
10. Nozzle
11. Articulated arm handle

1.20 Bead Press System (BPS) Components



The functional parts of the BPS are:

1. Bead presser disc
2. Mounting arm
3. Sliding locking lever
4. BPT/BPS lock release button
5. BPS vertical control lever
6. Articulated arm
7. Rotating arm end of stroke pin
8. Sliding locking lever
9. Bead presser disc
10. Bead lifter handle
11. Demounting disc
12. Demounting arm lock
13. Bead press clamp cones and extension
14. Nozzle locking handle
15. FASTBLAST nozzle

2. Basic Procedures

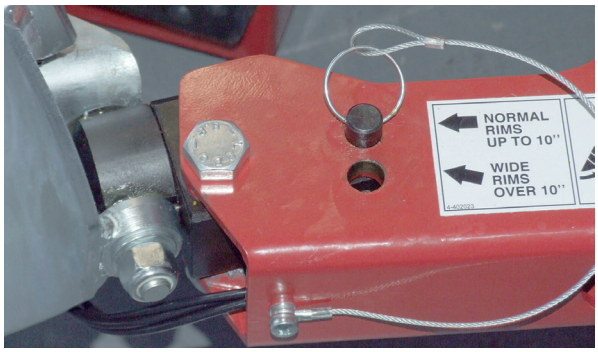
2.1 Bead Breaking

⚠ WARNING

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.

Remove valve stem core to deflate tire completely. Remove all weights from the rim to protect the rim and extend life of the mount/demount head.

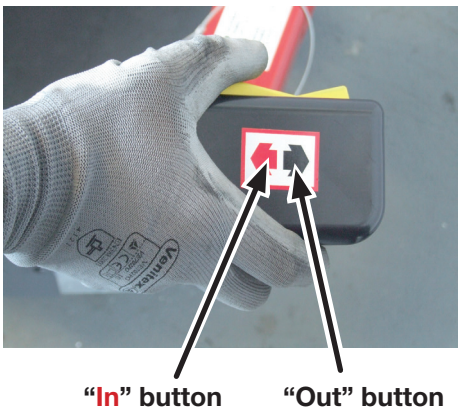
The shovel blade has two-position adjustment. The second position is for wheels 10” wide and larger, but also may be used to break the beads of extreme low profile tires.



Press the “Out” button to allow the bead breaker arm to open and position the wheel against the side of the tire changer, between the bead-breaker arm and the housing.

Press the “In” button to bring the bead breaker arm toward the tire and position the shovel blade on the sidewall of the tire. Locate the blade close, but not contacting, the edge of the rim.

Press the “In” button again to close bead breaker arm and loosen bead.



Release the “In” button to disengage the bead-breaker arm and press the “Out” button to allow the bead breaker arm to open. If the bead has not completely loosened, 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.

2.2 Placing Wheel on Tire Changer

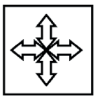
Identify and recognize special wheel combinations such as Reverse Drop Center (needs inverted on changer), AH, “Run-Flat” Extended Mobility Tires, and standard tires with pressure sensors. If you are not fully familiar with these special wheel considerations, DO NOT USE the tire changer. See your supervisor.

Clamping the Wheel from Inside of Rim - Steel Rims

Identify the inner locations on the rim where the clamps will come in contact.

Position the clamps in the fully retracted position (clamps completely in).

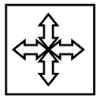
Place the wheel centered onto the turntable.

Step down  on the clamping pedal to expand the clamps to the rim.

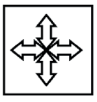
NOTICE

Avoid clamping inside rim of alloy wheels. Steel jaws may damage the finish of inside rim surface during use.
Verify that the wheel has been properly clamped and centered.

Clamping the Wheel from Outside of Rim - Alloy Rims

Place the clamping pedal in the stopped position by partially stepping down  on the pedal with the clamps expanding or in the fully expanded position.
From this stopped position, use additional partial steps on the clamping pedal to incrementally retract the clamps. Set the clamps to the mark on the turntable that corresponds to the size of rim to be clamped (12”- 14” - 16”).

Place the wheel onto the turntable.
Continue to incrementally retract the clamps until all four clamps contact the rim.

Step down  once only on the clamping pedal to fully retract the clamps to the rim.

NOTICE

Always verify that all four clamps are on the rim before applying pressure to prevent possible damage to the rim.

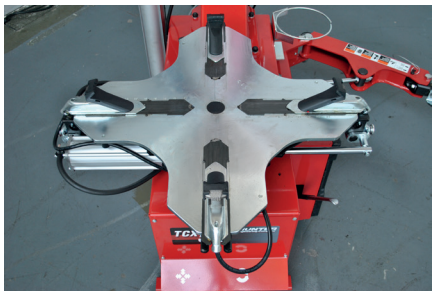
Plastic jaw covers may be used to help maintain rim protection when clamping externally.

Plastic covers also be used to prevent wheel slip.

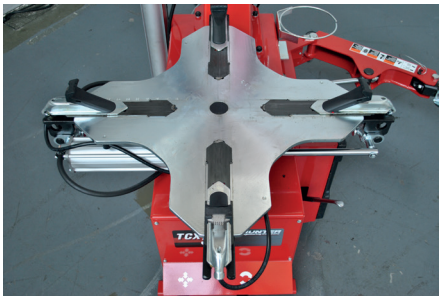
Plastic jaw covers may be replaced periodically when worn by ordering kit RP11-8-11100358 which contains 2 sets of plastic covers.

This tire changer is equipped with an adjustable turntable ; there are two knobs that allow extended clamping capacity up to 26 " (up to 26" clamping externally / up to 28" clamping internally).

- with the knobs facing outwards, we have a clamping capacity that goes from 10" to 22" (clamping externally).



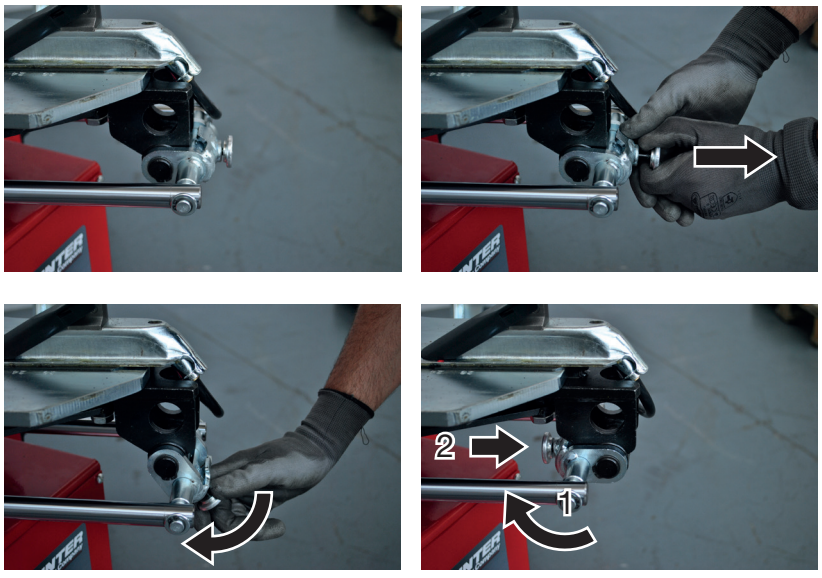
- with the knobs facing inwards we have a clamping capacity that goes from 14" to 26" (clamping externally).



To get this feature, pull the knob and rotate to move through an angle of 180 °
(note: the pin knob must fit into the locking hole).

It is always necessary that the two knobs are in the same position with respect to center of the turntable: both facing outwards (10"-22") or both facing inward (14"-26").

A mixed position, with a knob facing outwards and the other facing inwards, is not recommended.



2.3 Demounting Standard Tire from Rim

TCX58 - STANDARD MOUNTING HEAD

Standard Mount / Demount Head

NOTICE

For leverless mount / demount head, refer to “TCX59 - LEVERLESS MOUNTING HEAD,” on page 35.

For Hybrid leverless mount / demount head, refer to “TCX59 PRO - HYBRID LEVERLESS MOUNTING HEAD,” on page 42.

NOTICE

Clean the mount/demount head to remove dirt and debris before demounting the tire from the rim.

Press the wheel rotation pedal until the valve location is in the one o’clock position.

Position the mount/demount head against the outer edge of the upper rim lip.

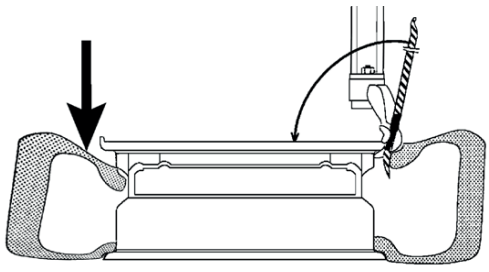
Slide the mount/demount head in or out along the upper rail and lower the head into position. Pull the head position lock handle to lock head into position.

A plastic protector sleeve may be installed on the bead lever tool to aid in rim protection.

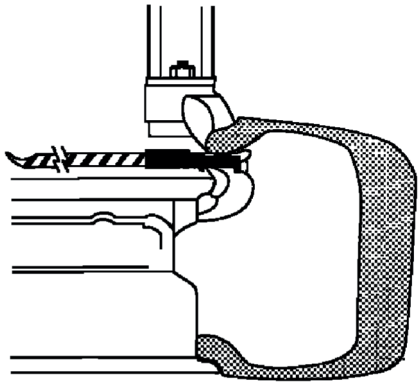
Plastic protectors bead lever

Position the bead lever between the demounting lip of the head and bead of tire. The demounting lip is on the right side of the head.

Push down on the tire sidewall 180 degrees from the mount/demount head to slip the bead into the drop center of rim.



Using the bead lever tool, lift the tire bead over the demounting lip of the head.



The bead lever tool must be pulled down parallel to the rim.

Press the wheel rotation pedal  to rotate the wheel clockwise.

Remove the bead lever tool from the tire when it easily slides out, approximately after a quarter rotation of the wheel.

Continue to press the wheel rotation pedal  to rotate the wheel clockwise until the entire bead is lifted from the rim.

Lift tire and repeat this procedure for lower bead.

Lift the mount/demount arm assembly up and away from the wheel.

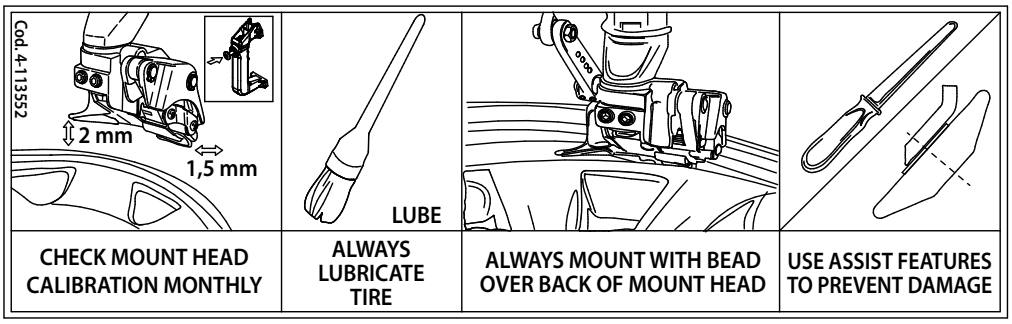
Remove tire from rim.

For additional information on demounting special wheels, refer to “Advanced Demounting Procedures,” page 61.

TCX59 - LEVERLESS MOUNTING HEAD

NOTICE

Using leverless mounting head follow always this indications



Top Bead Demounting

Position the mount/demount head against the outer edge of the upper rim lip. The plastic surfaces should contact the rim lip.

Slide the mount/demount head in or out along the upper rail and lower the head into position. Lock the lever. Adjust the diameter knob for correct side spacing. The mount / demount head will automatically build in the proper vertical spacing.

NOTICE

Always make sure the wheel is being rotated while inserting the automatic lever.

Locate an area with a gap between the tire and wheel.

Press the wheel rotation pedal  to rotate the wheel clockwise. While rotating, insert the automatic lever into the rim / tire assembly using the control switch.

NOTICE

Always ensure that the automatic lever is inserted in a gap between the rim and the tire. If the automatic lever is inserted without a gap, tire damage can occur.

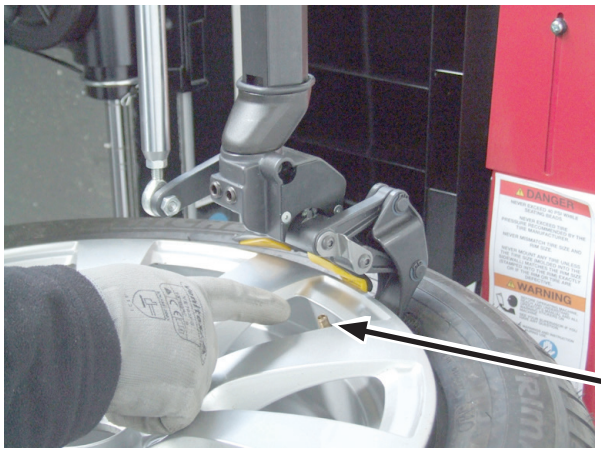
GOOD	BAD
	
MOUNT HEAD CORRECTLY PLACED	MOUNT HEAD INCORRECTLY PLACED

NOTICE

If the automatic lever does not completely seat under the upper bead, continue to rotate until it does.

Press the wheel rotation pedal  until the valve location is in the one o'clock position.

Position the valve stem directly beneath the tool head.

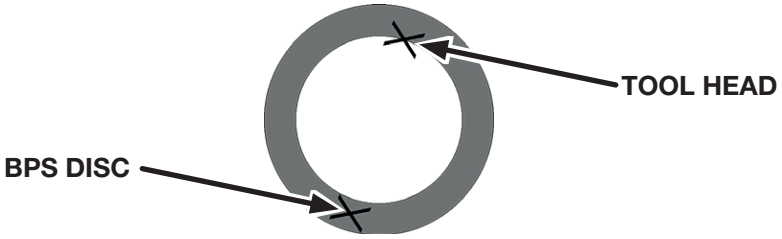


VALVE STEM

Pull up on the automatic lever to pull the bead over the edge of the rim.

Difficult Tires

On difficult tires where the automatic bead lever does not have sufficient power to pull the tire over, use the Bead Press System (BP or BPS) (if equipped) on the opposite side of the tire and press down.

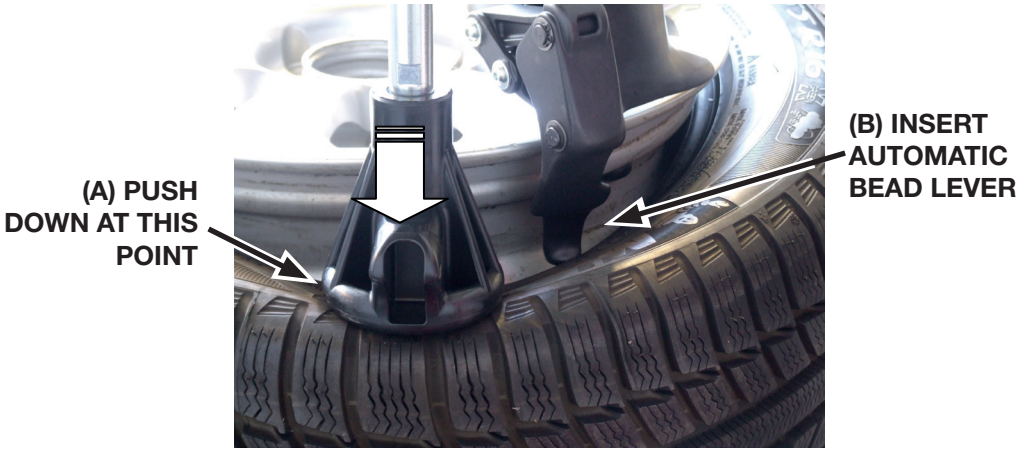


Press the wheel rotation pedal  to rotate the wheel clockwise and fully demount the upper bead.

If the bead does not establish traction, use the provided spatula (shown below).

Some of the more difficult tires may not allow for proper insertion of the automatic bead lever because not enough of a gap can be created between the tire and the rim edge.

If this is the case, reposition the bead pressor as shown below. Lower the bead pressor and push down to create a gap between the tire and the rim edge (A), then insert the automatic bead lever (B).



Raise the BP, and then rotate  .

Precautionary Notes

NOTICE

When basic procedures are NOT followed, sharp angled wheel flanges increase potential damage to tires during mounting. Be sure the mounting head is placed on the rim with sufficient gap between the bead and bead seat. If the tire is incorrectly pushed onto the rim by the side of the mounting head, it may become "trapped" and increases mounting stress to the tire bead.

Insufficient lubrication and failure to place tire into drop center during mounting may also cause the mount/demount head to fail prematurely.

Bottom Bead Demounting with Tool Head

Position the tire on the rim assembly as shown below. Insert the automatic lever into the rim/ tire assembly.

Lift the tire up and over the automatic lever and raise the automatic lever to lift the lower bead.

Alternatively, you may lift the tire up first, lower the automatic lever, lift the tire into place and then lower the automatic lever beneath the bottom bead.

With the tire in position, press the wheel rotation pedal  to rotate the wheel

clockwise and demount the bottom bead.

Bottom Bead Demounting with Disc

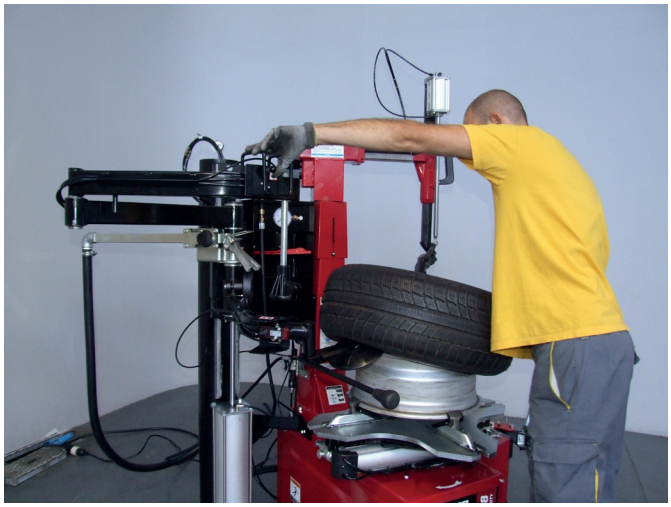
Demounting the bottom bead on certain wheel assemblies, large and heavy assemblies and some run-flat assemblies for example, may be best performed by using the lower disc.

Return the tool head to the “resting” position.

Lower and align the lower disc to touch the bottom of the rim edge.

Lock the disc in place using the disc lock lever.

While supporting the opposite side of the tire, raise the lower disc until it is just above the rim edge.



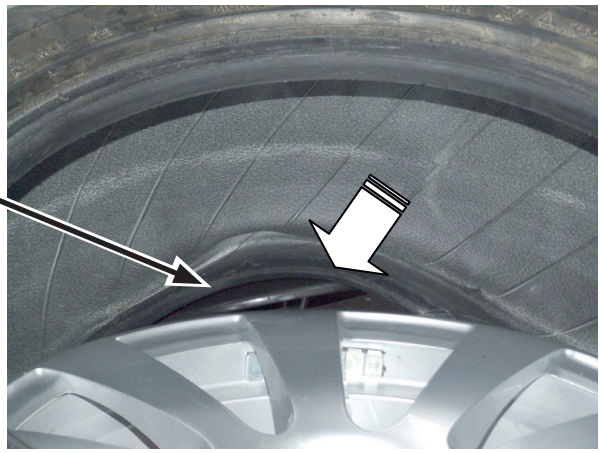
This will create a gap between the rim edge and the tire.

With the tire in position, press the wheel rotation pedal  to rotate the wheel clockwise and demount the bottom bead.

Difficult Tires

Some of the more difficult tires may have the tendency to “fold” under the lower disc.

If this is the case, reposition the lower disc. While supporting the opposite side of the tire, again, raise the lower disc until it is just above the rim edge. Create a gap between the rim edge and the tire.
Temporarily unlock the lower disc lock lever and pull the lower disc in between the rim edge and the tire. Then lock the lower disc in place.

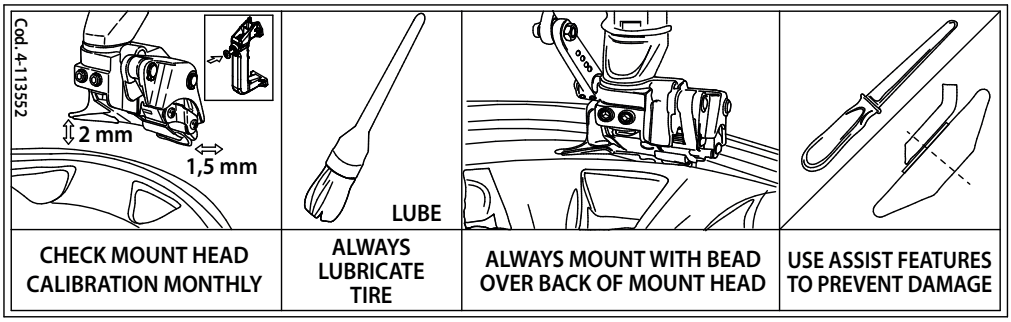


With the tire in position, press the wheel rotation pedal  to rotate the wheel clockwise and demount the bottom bead.

TCX59 - LEVERLESS HYBRID MOUNTING HEAD

NOTICE

Using leverless mounting head follow always this indications



Top Bead Demounting

Position the mount/demount head against the outer edge of the upper rim lip. The plasticsurfaces should contact the rim lip.

Slide the mount/demount head in or out along the upper rail and lower the head into position. Lock the lever. Adjust the diameter knob for correct side spacing. The mount / demount head will automatically build in the proper vertical spacing.

Locate an area with a gap between the tire and wheel.

Press the wheel rotation pedal  to rotate the rim in proper position. Release rotation pedal and insert the automatic lever into the rim / tire assembly using the control switch.

NOTICE

Always ensure that the automatic lever is inserted in a gap between the rim and the tire. If the automatic lever is inserted without a gap, tire damage can occur.

GOOD

MOUNT HEAD CORRECTLY PLACED

BAD

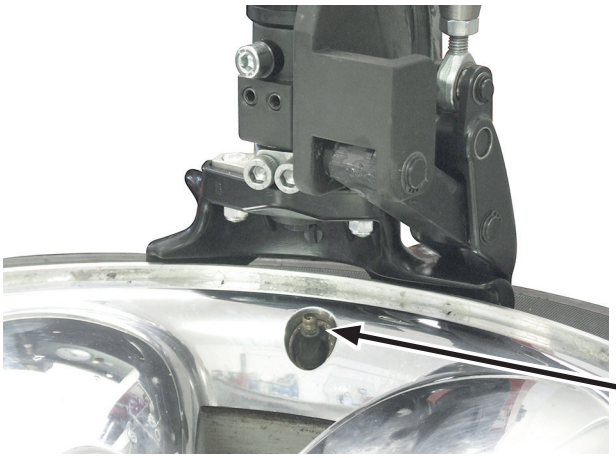
MOUNT HEAD INCORRECTLY PLACED

NOTICE

If the automatic lever does not completely seat under the upper bead, continue to rotate until it does.

Press the wheel rotation pedal  until the valve location is in the twelve o'clock position.

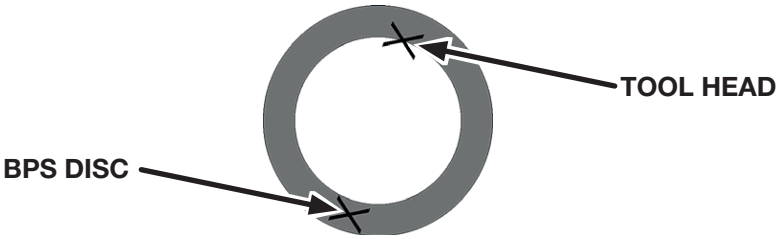
Position the valve stem directly beneath the tool head.



Pull up on the automatic lever to pull the bead over the edge of the rim.

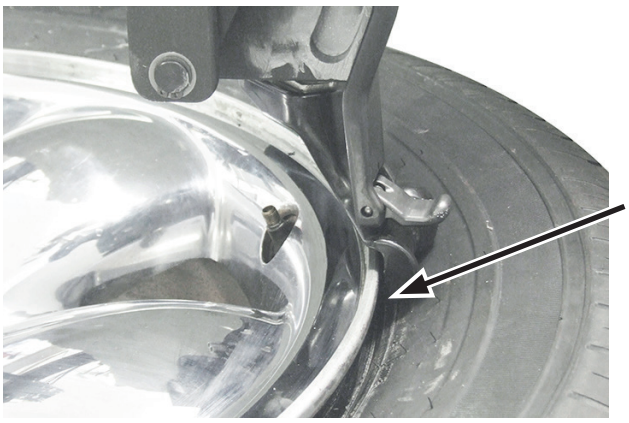
Difficult Tires

On difficult tires use the Bead Press System (BP or BPS) on the opposite side of the tire and press down.

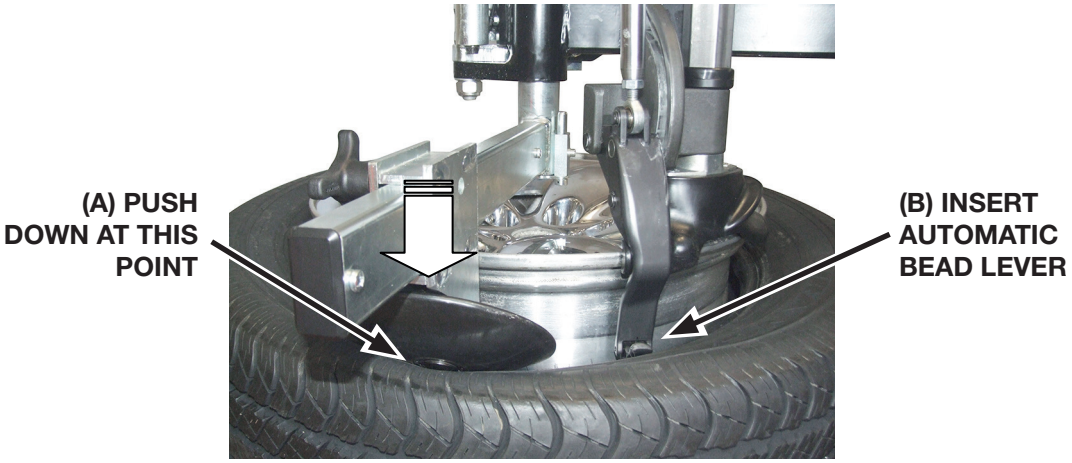


Press the wheel rotation pedal  to rotate the wheel clockwise and fully demount the upper bead.

Some of the more difficult tires may not allow for proper insertion of the automatic bead lever because not enough of a gap can be created between the tire and the rim edge.



If this is the case, reposition the bead pressor as shown below. Lower the bead pressor and push down to create a gap between the tire and the rim edge (A), then insert the automatic bead lever (B).



Raise the BPS, and then rotate  .

Precautionary Notes

NOTICE

When basic procedures are NOT followed, sharp angled wheel flanges increase potential damage to tires during mounting. Be sure the mounting head is placed on the rim with sufficient gap between the bead and bead seat. If the tire is incorrectly pushed onto the rim by the side of the mounting head, it may become “trapped” and increases mounting stress to the tire bead.

Insufficient lubrication and failure to place tire into drop center during mounting may also cause the mount/demount head to fail prematurely.

Bottom Bead Demounting with Tool Head

Position the tire on the rim assembly as shown below. Insert the automatic lever into the rim/ tire assembly.

Lift tire up over the hook until you hear a “click” (which means the bead has been loaded on the lip), then operate the valve and bring up the hook to raise the bead.

With the tire in position, press the wheel rotation pedal  to rotate the wheel clockwise and demount the bottom bead.

Bottom Bead Demounting with Disc

Demounting the bottom bead on certain wheel assemblies, large and heavy assemblies and some run-flat assemblies for example, may be best performed by using the lower disc.

Return the tool head to the “resting” position.

Lower and align the lower disc to touch the bottom of the rim edge.

Lock the disc in place using the disc lock lever.

While supporting the opposite side of the tire, raise the lower disc until it is just above the rim edge.

This will create a gap between the rim edge and the tire.

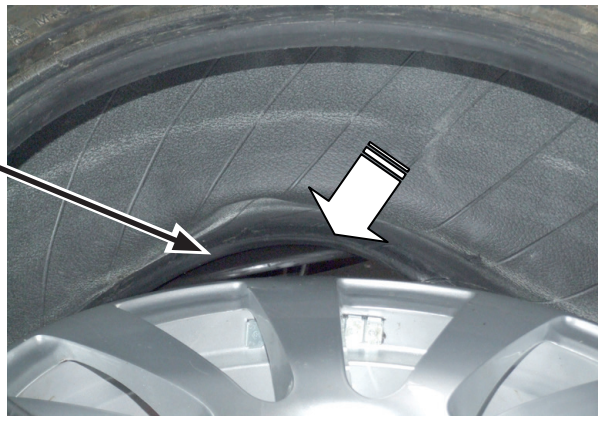
With the tire in position, press the wheel rotation pedal  to rotate the wheel clockwise and demount the bottom bead.

Difficult Tires

Some of the more difficult tires may have the tendency to “fold” under the lower disc.

If this is the case, reposition the lower disc. While supporting the opposite side of the tire, again, raise the lower disc until it is just above the rim edge. Create a gap between the rim edge and the tire.

Temporarily unlock the lower disc lock lever and pull the lower disc in between the rim edge and the tire. Then lock the lower disc in place.



With the tire in position, press the wheel rotation pedal  to rotate the wheel clockwise and demount the bottom bead.

2.4 Mounting Tire to Rim

NOTICE

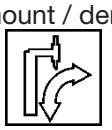
The mounting procedure is equivalent for both:TCX58 and TCX59.

Always use this “checklist” as a guide when mounting tires to ensure proper service.
There are four basic steps when mounting a tire to a rim:

- Position the bead on top of the mounting lip of the mount/demount head.
- Position the bead under the demounting lip of the mount/demount head.
- Lock the tire to the rim in the mounting position.
- Slip the bead into the drop center.

These four basic steps to mounting do not necessarily follow the same sequence, however all four steps need to be performed to mount a tire to a rim.

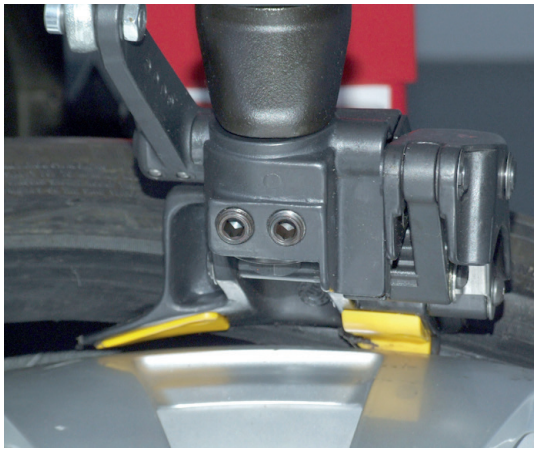
Mount a standard tire to rim as follows:

Lubricate inside and outside of both beads of the tire to be mounted with supplied mounting paste.
Position tire on top of the rim and tilt tire forward. Move the mount / demount head into “working” position by pressing the column rotation pedal 

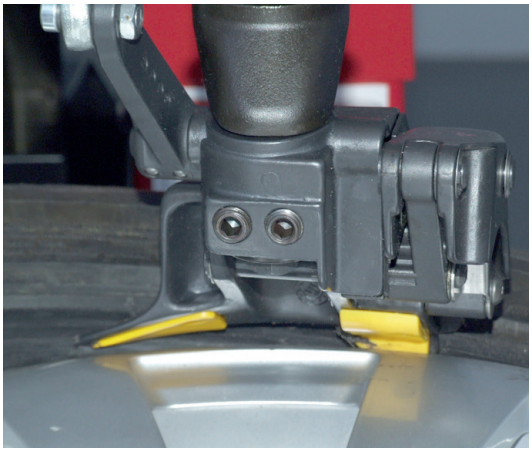
Rotate the assembly clockwise until the lower bead drops into the drop center of the rim.

NOTICE

When mounting the top bead, it is important to get the correct positioning of the tire on the mount / demount head.

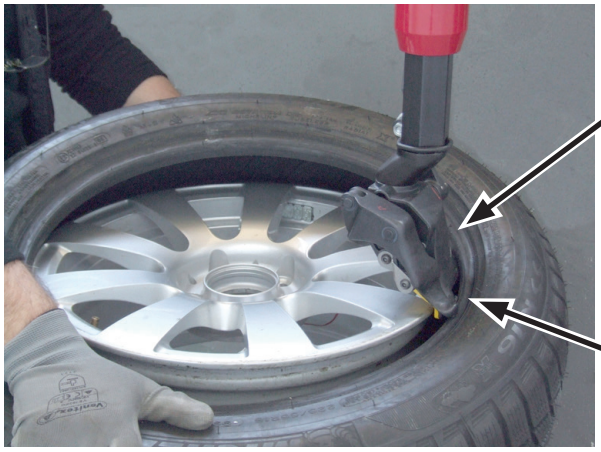


MOUNT HEAD CORRECTLY PLACED



MOUNT HEAD INCORRECTLY PLACED

Position the tire such that the back of the tire is over the mount / demount head and the front of the tire under the finger of the mount / demount head.



BP:

Move the arm of the BP to the 3 o'clock position and lower the upper bead pressor down onto the edge of the tire.

With the tire in position, press the wheel rotation pedal  to rotate the wheel

clockwise and mount upper bead.

If equipped use the optional clamp to assist mounting when ever more difficult tires are being serviced.

A. Use the clamp as traction point and use the press head to put the bead in the drop center of the rim.

B. Use the press head as traction point and use the clamp to put the bead in the drop center of the rim.

BPS:

Move the articulated arm of the BPS to the 3 o'clock position and lower the upper bead press disc down onto the edge of the tire.

With the tire in position, press the wheel rotation pedal  to rotate the wheel

clockwise and demount the bottom bead.

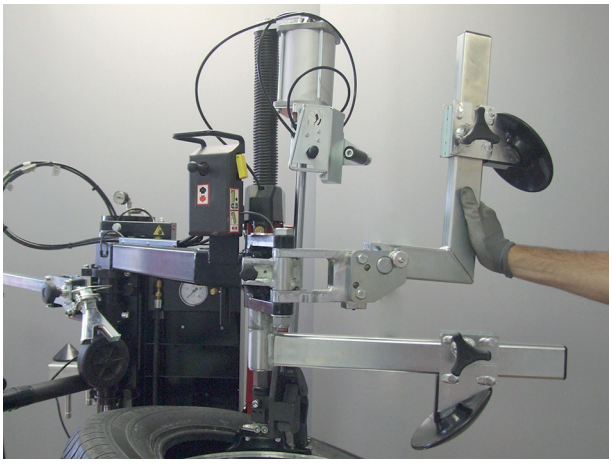
2.5 Mounting of difficult tires: low profile or Run-Flat tires (BPS only)

Mount the first bead as usual.

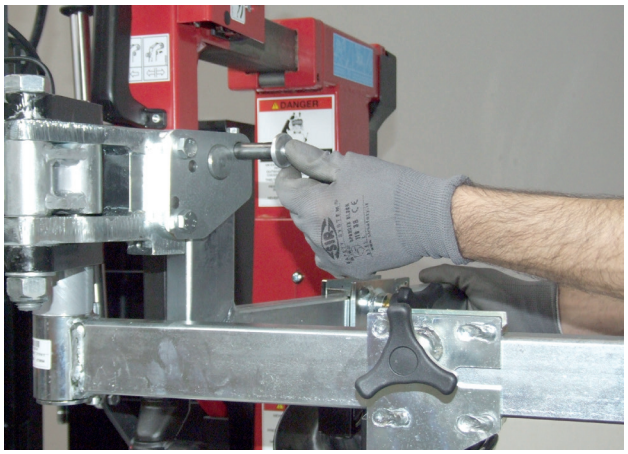
Move the valve to about 5 o'clock.

Bring the BPS arm to the working position with the bead breaker disc in its limit stop position.

Rotate the BPT arm anti-clockwise and stop at h.2.



Tilt down the mobile part of the arm and secure with its pin. Rotate the BPT arm anti-clockwise until its locking.



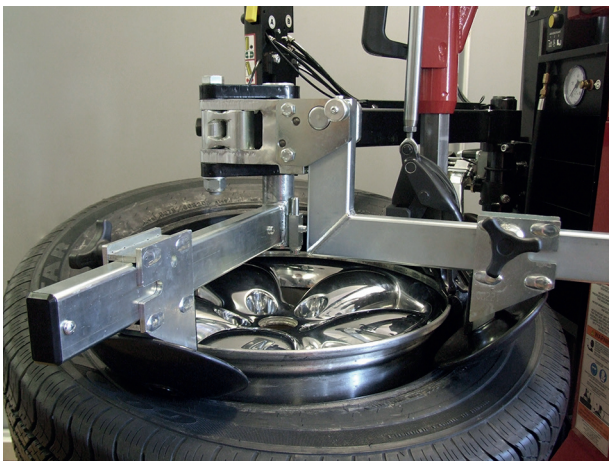
Adjust the position of the bead pressing disc to suit the diameter of the rim.

Use the knob to adjust the distance between the disc and the tool head (); the distance must be as small as possible.

Turn the rotary arm of the BPS anti-clockwise until it is next to the fixed arm.

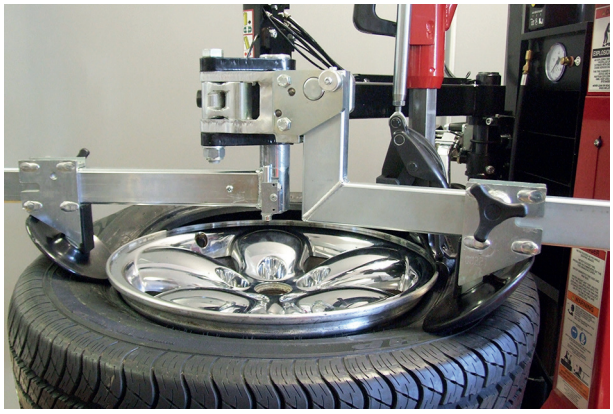
Fit the edge guard at about 4 o'clock, or in the traction point, if different.

Lower the BPS arms carriage until the tyre bead is level with the well of the rim.



Start rotating the chuck, at the same time guiding rotation of the mobile arm with your hand.

During this stage, check that the section of bead between the fixed and mobile discs remains inside the well of the rim



If it does not, repeat the operation from the beginning, increasing the initial pressure.

NOTICE

The operating pressure of the tyre changer and BPS must be between 8 and 10 bar.

If it is lower and the procedures are not carried out exactly as described, there may be problems with the rim slipping on the chuck.

To solve this problem, during mounting of the second bead, make sure that the entire section of tyre between the fixed and rotary arms of the BPS is correctly positioned inside the well of the rim.

It is also essential to emphasise that excessive pressure in this stage may also cause slipping problems, so keep the working arms of the BPS at the correct height.

⚠ WARNING

When using the bead pressing disc, never apply excessive pressure, and never press hard enough to cause deformation of the tread surface.

Keep turning until the second bead is completely mounted, checking that the edge guard remains in place in the traction point.

NOTICE

The PT has a mechanical system which automatically gradually reduces the pressure applied by the bead pressing disc as it rotates, to prevent damage to the tyre.

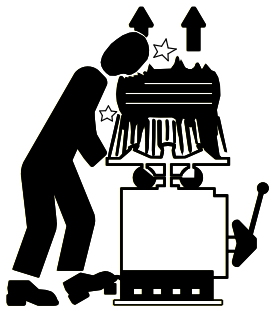
Raise the BPS arms.

Unlock the BPT with its release button.

Tilt up the arm and secure with its pin.

Move the BPS and vertical post to the retracted position.

2.6 Standard tire inflation



DANGER

- **EXPLOSION HAZARD**
- **Never exceed tire pressure recommended by tire manufacturer. Never mismatch tire size and rim size.**
- **Avoid personal injury or death**

Verify that both upper and lower tire beads and rim bead seat have been properly lubricated with an approved mounting paste.
Do not lock the rim on the turntable during inflation. It is acceptable to keep the wheel clamped to initially seal the bead using blast inflation. However be sure to unclamp before continuing inflation.

Remove valve stem core if not already done.

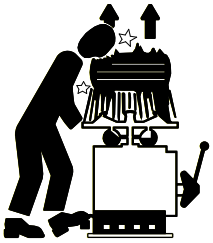
Connect inflation hose to valve stem.

Step down partially on the pedal to inflate tire and seal beads with inflation hose. Frequently stop to check bead seating pressure on gauge.

WARNING

Avoid personal injury. Follow the following instructions.

1. Overinflated tires can explode, producing hazardous flying debris that may result in an accident.
2. Tires and Rims that are not the same diameter are “mismatched”. Never attempt to mount or inflate any tire and rim that are mismatched. For example, never mount a 16” tire on a 16,5” rim (or vice versa). This is very dangerous. A mismatched tire and rim could explode, and resulting in an accident.
3. Never exceed the Bead setting pressure (gauge on hose) provided by the tire manufacturer’s, stated on the sidewall of the tire.
4. Never place your head or any part of your body over a tire during inflation process or when attempting to seat beads. This machine is not intended to be a restraining device for exploding tires, tubes or rims.
5. Always stand back from the tire changer when inflating, never lean over.



⚠ WARNING

An exploding tire and rim may be propelled upward and outward with enough force to cause serious injury or death.

Do not mount any tire unless the tire size (molded into the sidewall) matches the rim size (stamped into the rim) exactly or if the rim or tire are defective or damaged.

This tire changer is not a safety device and will not restrain exploding tires and rims. keep area clear of bystanders.

Special procedure

In case during inflation the tire does not seat on the rim because of the excessive gap between tire/rim, it is possible to use a air-pressure airblast through jaws on turn table.

Verify that both upper and lower tire beads and rim bead seat have been properly lubricated with an approved mounting paste.

Remove valve stem core if not already done.

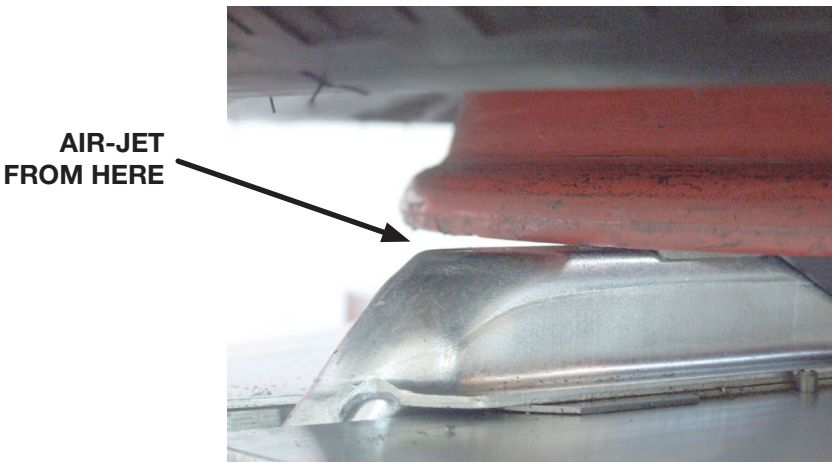
Connect inflation hose to valve stem.

Pull up on the tire lightly to reduce the gap between upper bead and the rim.

⚠ WARNING

Do not stand over tire during inflation.

Step down completely on the air inflation pedal (pedal on the left side of the base) to release a high-pressure air blast through jets on the clamps to assist in seating the beads of the tire.



NOTICE

To increase the effectiveness of the inflation jets, always liberally lubricate beads and raise the lower bead while activating inflation jets.

Step down partially on the pedal to inflate tire and seal beads with inflation hose. Frequently stop to check bead seating pressure on gauge.

⚠ WARNING

Do not exceed tire manufacturer's maximum pressure as stated on the sidewall of the tire when seating beads.

Reinstall valve stem core into the valve stem after beads have been seated, and then inflate tire to vehicle manufacturer recommended pressure.

⚠ WARNING

Activate air inflation jets only when sealing bead.

Bleed air pressure from system before disconnecting supply line or other pneumatic components. Air is stored in a reservoir for operation of inflation jets.

⚠ WARNING

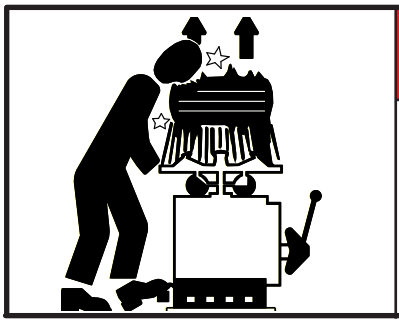
- **Only activate the air inflation jets if the rim securing device is locked in place and the tire is properly clamped.**
- **Never mount a tire to a rim that is not the same diameter (e.g., 16 1/2 inch tire mounting on a 16 inch rim).**

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

Disconnect inflation hose from valve stem.

2.7 Inflating difficult tires

The FastBlast device has been developed to simplify bead insertion and then inflation of the tire. When operating on very soft tires, or tires which have been stored horizontal for a long period of time, bead insertion and inflation may be very difficult because the air directed into the tubeless tire comes straight out again due to the failure to achieve a seal between the rim and the tire.
By emitting a powerful air jet in a very short time, the FastBlast device generates a series of forces inside the tire which help rapid insertion of the bead onto the rim.
The device is activated using the inflation pedal, but only when FastBlast is selected. This makes accidental or improper use impossible.



DANGER

- **EXPLOSION HAZARD**
- **Never exceed tire pressure recommended by tire manufacturer.**
- **Never mismatch tire size and rim size.**
- **Avoid personal injury or death**

- Verify that both upper and lower tire beads and rim bead seat have been properly lubricated with an approved mounting paste.
- Do not lock the rim on the turntable during inflation, the wheel must not be clamped for safety reasons. It is acceptable to keep the wheel clamped to initially seal the bead using blast inflation. However be sure to unclamp before continuing inflation.
- Adjust the opening of the clamps so that they are positioned inside the rim without leaving excessive play.
- Remove valve stem core if not already done.
- Connect inflation hose to valve stem.

- Make sure that the tire is completely sealed on the rim in the lower part of the wheel.
- Adjust the position of the FastBlast nozzle to suit the diameter of the rim. Use the knob to adjust the distance between the nozzle and the rim; use knob to lock nozzle at desired position.

NOTICE

FastBlast inflation system has been designed to work effectively with the nozzle 3-4 inches (76-101 mm) above the rim. Do not position the nozzle too close to the rim edge and do not position it below the level of the upper rim edge, as this would reduce its effectiveness

Select the device by pressing, then releasing the FastBlast button. there is no need to hold the button down.

⚠ WARNING

Do not stand over tire during inflation.

Step down completely on the air inflation pedal (pedal on the left side of the base) to release a high-pressure air blast through jet on FastBlast to assist in seating the beads of the tire.

Step down partially on the pedal to inflate tire and seal beads with inflation hose. Frequently stop to check bead seating pressure on gauge.

⚠ WARNING

Do not exceed tire manufacturer's maximum pressure as stated on the sidewall of the tire when seating beads.

Reinstall valve stem core into the valve stem after beads have been seated, and then inflate tire to vehicle manufacturer recommended pressure.

⚠ WARNING

Activate air inflation jets only when sealing bead.

Bleed air pressure from system before disconnecting supply line or other pneumatic components. Air is stored in a reservoir for operation of inflation jets.

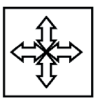
⚠ WARNING

- **Only activate the air inflation jets if the rim securing device is locked in place and the tire is properly clamped.**
- **Never mount a tire to a rim that is not the same diameter (e.g., 16 1/2 inch tire mounting on a 16 inch rim).**

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

Disconnect inflation hose from valve stem.

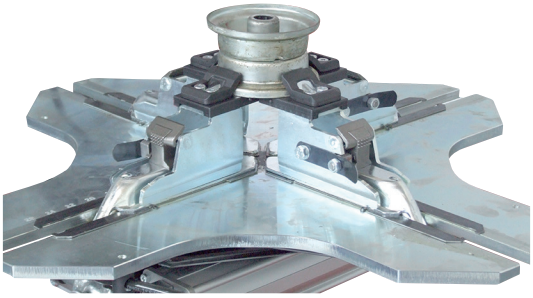
2.8 Removal of Wheel from Tire Changer

Lift the clamping pedal  to release the rim from the clamping device.

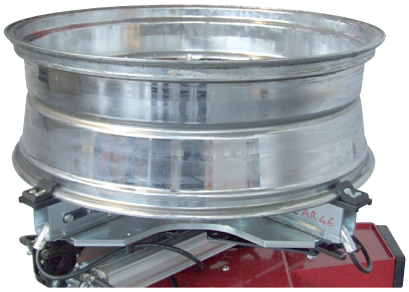
2.9 Clamping Jaw Extensions AR46N (OPTIONAL)

AR46N p/n RP11-8-11100402 (OPTIONAL)

The clamping jaw extension / reducers add 4 inches of exterior clamping OR reduce external clamping by 6 inches.



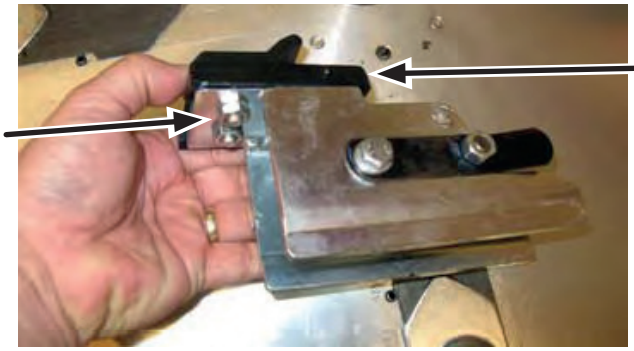
JAW ADAPTORS IN REDUCER CONFIGURATION ON 4” WHEEL



JAW ADAPTORS IN EXTENSION CONFIGURATION ON 30” WHEEL

The jaw adaptors may be configured for either extension or reduction by removing the two nuts and screws from the adaptor as shown below, rotating the adaptor plate 180°, and re-securing.

REMOVE NUTS AND SCREWS



ROTATE ADAPTOR PLATE

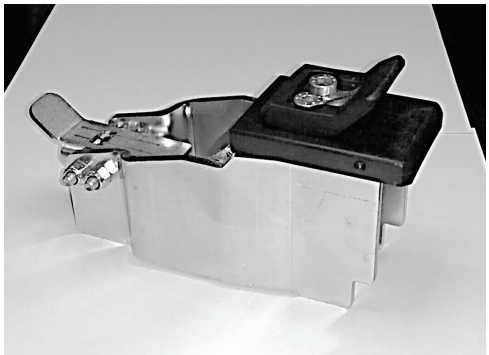
JAW ADAPTORS IN REDUCER CONFIGURATION

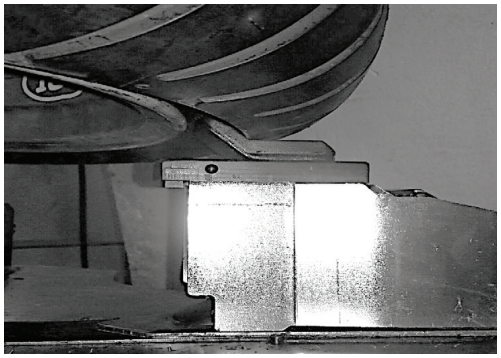
JAW ADAPTORS IN EXTENSION CONFIGURATION

ARN p/n RP11-8-11100430 (OPTIONAL)

Series of adapters to reduce the external clamping capacity by 6”.

Can be used with and without jaw protectors.





3. Advanced Procedures

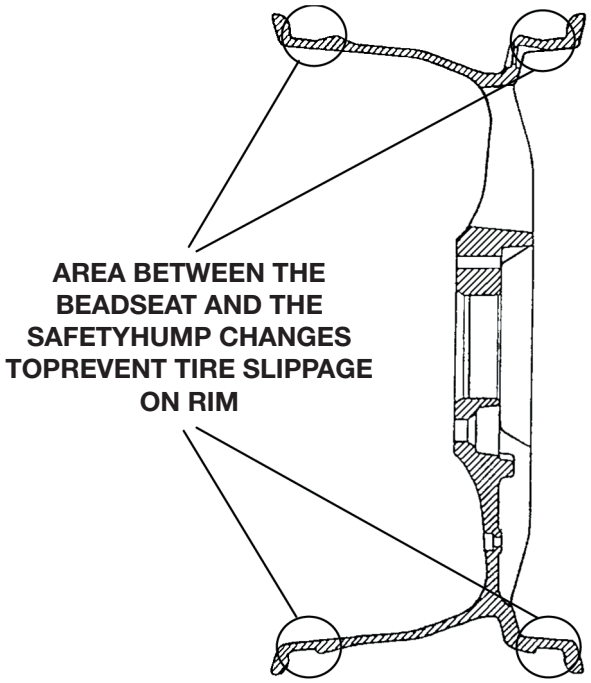
The capabilities of the TCX58/59 tire changer family allow the user to utilize numerous advanced procedures on a variety of rims and tires. For the operator to take advantage of these features, this section explains in detail what additional steps can be taken.

3.1 Advanced Bead Breaking Procedures

Bead Breaking “AH” Wheels (e.g. BMW M3, M5, Some Porsches, Range Rover, Lancia, etc.)

“AH” (Asymmetrical Humps), “Bead Locking System” wheels may be identified by looking on the back of a rim for “AH” in the rim size designation casting (e.g. 8X17-AH).

“AH” wheels are designed so that the lowest point of the safety hump is located at the valve stem or 180 degrees out. These two points are where it is easiest to break the bead from the bead seat.

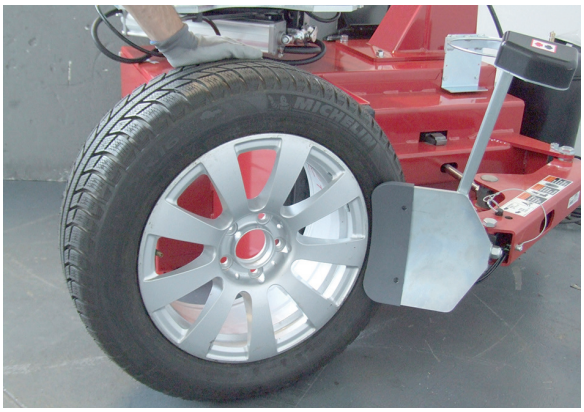


Bead Breaking “AH” Wheels as follows:

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

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

Rotate the wheel so that the valve stem is in line with or 180 degrees from the blade.



Swing the bead breaker arm toward the tire and position the blade one to two inches from the edge of the rim on the sidewall of the tire.

Press the “in” button on the bead-breaker control handle

The bead breaker arm will be pulled toward the tire changer to break the bead.

Press the “out” button to disengage the bead breaker arm.

If the bead has not been completely broken, rotate the wheel 180 degrees and repeat the bead breaking procedure.

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

3.2 Advanced Demounting Procedures (for TCX58)

NOTICE

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

Demounting Tire from Rim Using the Bead Lever Tool without the Plastic Sleeve Protector

Sometimes the sidewall of the tire is so stiff that use of the bead lever tool with the plastic sleeve protector is not possible. The technician needs every bit of clearance to be able to pry the bead of the tire up and over the mount/demount head.

Demounting Upper Bead

Position mount/demount head onto the outer edge of the upper rim lip.

Position bead breaker tool without plastic sleeve protector between demounting lip of the head and the bead of the tire. The demounting lip is on the right side of the head.

Using the bead lever tool, pry the tire bead over the demounting lip of the head.

Position the bead lever tool parallel to the rim.

Lift slightly on the wheel rotation pedal  to rotate the wheel counterclockwise

approximately 1/2 inch, to fully unfold the bead onto the mount/demount head.

Slide the bead lever tool out from between the mount/demount head and the tire.

Step down on the wheel rotation pedal  to rotate wheel clockwise until the entire

bead is lifted from the rim.

Demounting Lower Bead

Pull the tire up and tilt to place rear of lower bead in drop center behind mount/demount head.

Lubricate tire bead lever tool and then insert it over the demounting lip of the head and under the lower bead of the tire.

Pull the lower bead up and over the demounting lip of the head.

Push the bead lever half-way through tire and rim. Grasp inside of bead lever with one hand and grasp outside of bead lever at the base with the other hand. Firmly pull bead lever straight up.

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

3.3 Advanced Mounting Procedures

Always use this “checklist” as a guide when mounting tires to ensure proper service.

There are four basic steps when mounting a tire to a rim:

- Position the bead on top of the rear lip of mount/demount head.
- Position the bead under the front lip of the mount/demount head.
- Lock the tire to the rim in the mounting position.
- Slip the bead into the drop center.

These four basic steps to mounting do not necessarily follow the same sequence, however all four steps need to be performed to properly mount a tire to a rim.

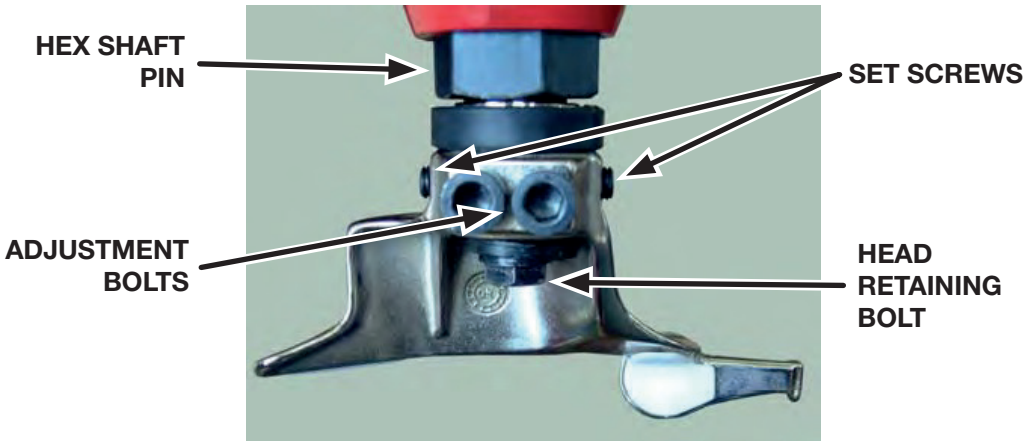
3.4 Standard Mount/Demount Head Assembly

There are plastic and steel mount/demount head assemblies available for the TCX58 tire changer family. Both use standard procedures for mounting and demounting.
To change the mount/demount head assembly:

1- Loosen the set screws (steel heads only) and the adjustment bolts.

2- Remove the head retaining bolt.

3- Remove the mount/demount head assembly.



4- Place the mount/demount head assembly that you wish to use over the lower section of the hex shaft and reverse the above procedures to install.

Checking Mount/Demount Head Calibration

For Steel Heads

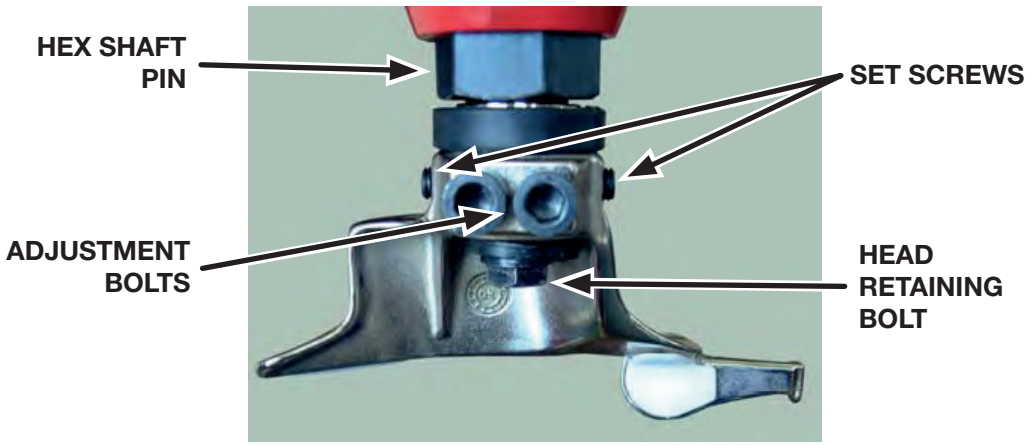
Calibration will require the use of a 17-18” bare rim.

Set Position of Steel Mount/Demount Head on Hex Shaft

1- Clamp rim without a tire on the tire changer turntable.

2- Loosen the head retaining bolt slightly so that the head is still attached.

3- Loosen the two adjustment bolts and set screws so that the tool head can swivel on the hex shaft pin.



4- Position the tool head manually against the edge of the rim so that both sides of the tool head are resting on it.

5- Tighten the set screws in alternation to maintain 5/64 in. horizontal gap at leading and trailing edge of the mount head. Double check distance with feeler gauge. See above figure.

6- Keep the roller in contact with the edge of the rim, alternately loosen and tighten the two adjustment bolts until the gap is 1/4-inch.

BACK EDGE OF HEAD

OVER-HANG

Measure with depth gauge

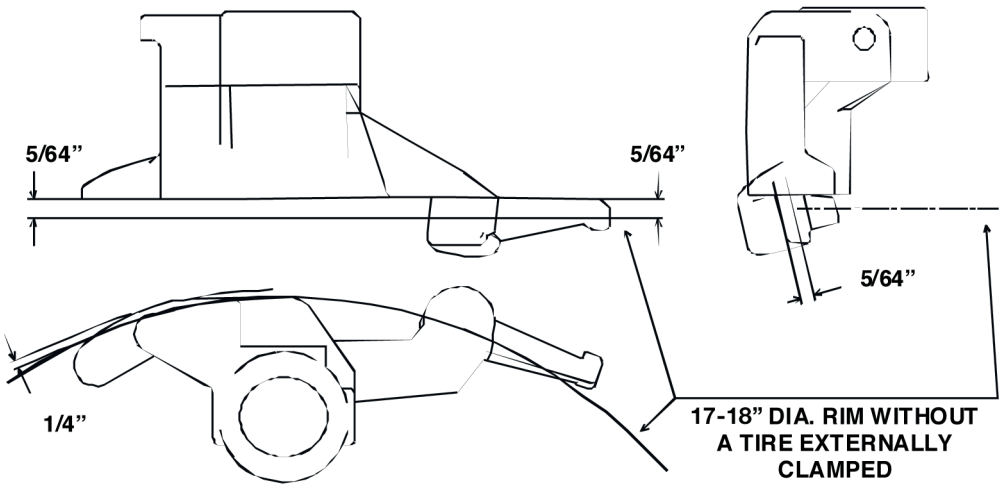
¼-inch specification

7- Fully tighten the set screws, checking when done that sides of the tool head are still the same distance from the edge of the rim.

8- When the correct position has been achieved, tighten the adjustment bolts alternately to lock it in position.

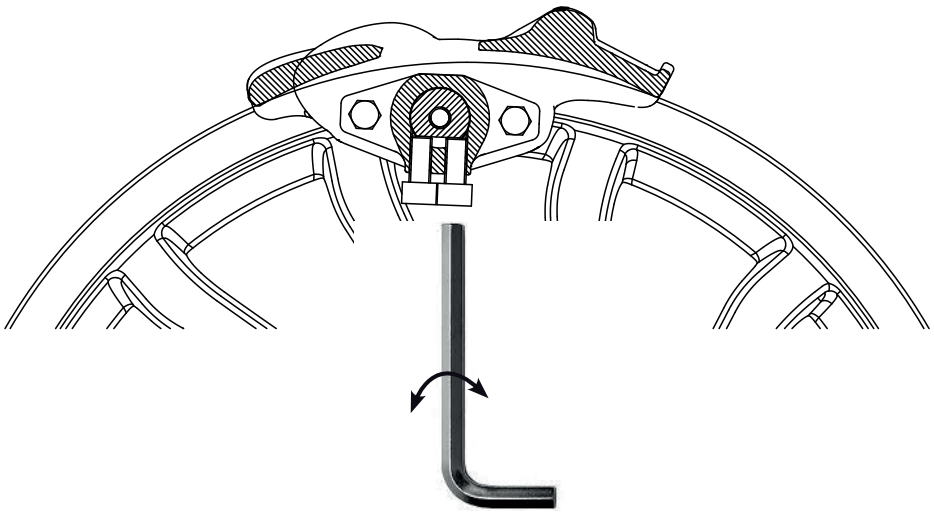
9- Tighten the head retaining bolt.

Figure below is a summary of the desired end result.



For Plastic Heads

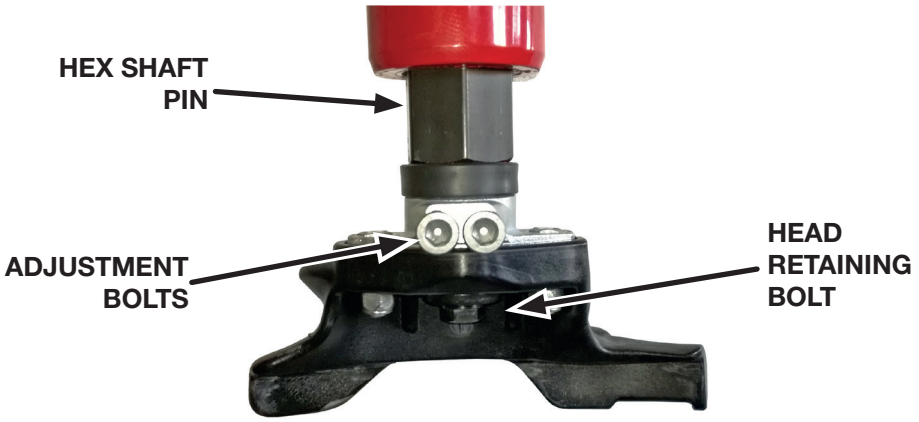
Calibration will require the use of a 17-18” inch bare rim. Figure below is a summary of the desired end result.



Set Position of Plastic Mount/Demount Head on Hex Shaft

1- Clamp the rim without a tire on the turntable.

2- Loosen the head retaining bolt slightly so that the head is still attached.



3- Position the tool head manually against the edge of the rim.

4- When the correct position has been achieved, tighten the adjustment bolts to lock it in position.

5- Tighten the head retaining bolt.

Adjust the Offset of Lock Mechanism – Steel and Plastic Heads

1- Again, position the mount/demount head on the outer edge of upper rip lip and lock in this position.

2- Use gauges to measure distances between head and the top of the rim. Measure at inserts on steel head

It must be adjusted to touch in these two points

TIRE MOUNTING LIP

TOP GAP

Measure with feeler gauge

5/64-inch specification

TIRE DEMOUNTING LIP

SIDE GAP

Measure with feeler gauge

5/64-inch specification

Change the offset by removing the plastic cover and adjusting the nuts located on front of the locking mechanism.

Replace the plastic cover.

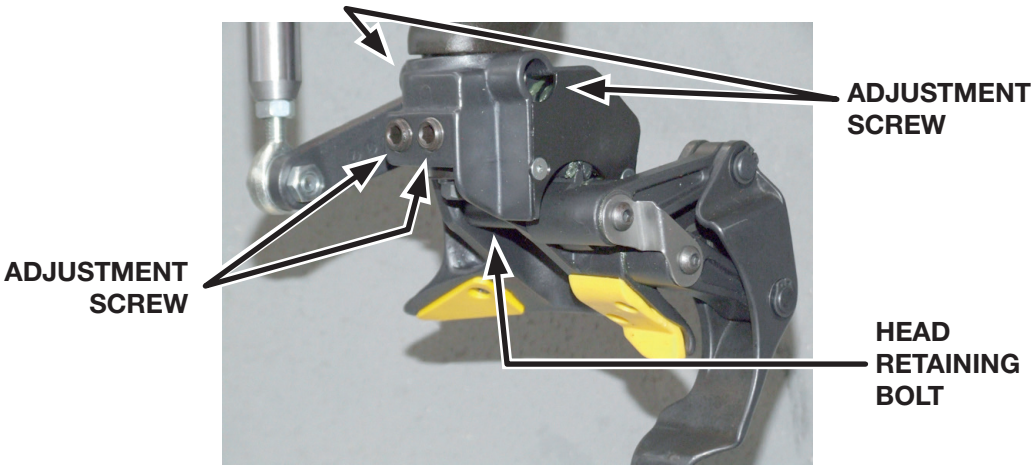
Confirm head clearances to the 17-18” in rim are correct. Position the mount/demount head on the outer edge and lock in this position. Check clearances.

3.5 Mount/Demount Head Assembly

Mount/Demount Head Calibration

The mount/demount head is pre-calibrated from the factory, however, double checking the calibration is recommended. Calibration requires the use of an (approximately) 18 inch bare rim.

1. Clamp rim without a tire on the tire changer turntable.
2. Before making any adjustments, loosen the four adjustment screws and tighten the head retaining bolt until some grip is obtained.

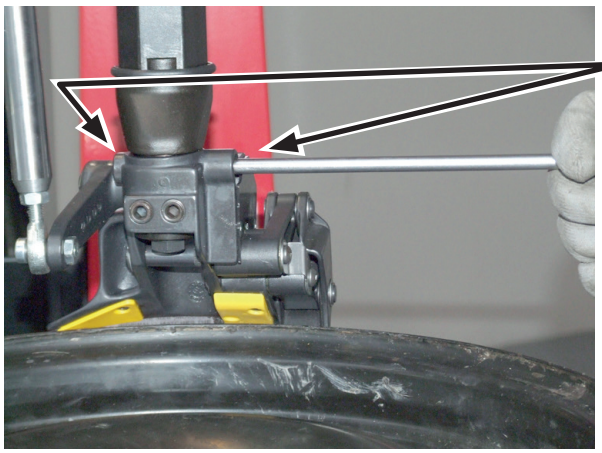


3. Position the tool head manually against the edge of the rim so that both sides of the tool head are resting on it. Keep the tool head in position without engaging the head position lock.

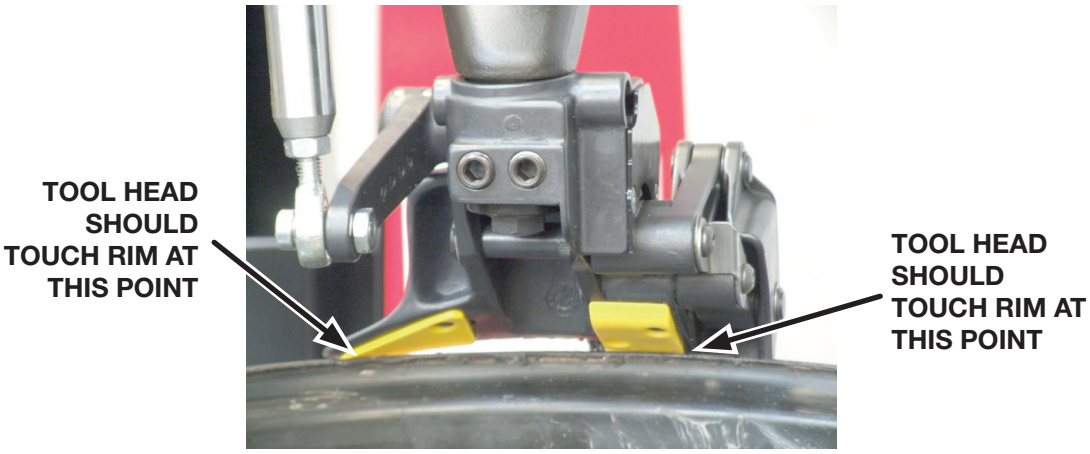
Horizontal Adjustment of the Tool Head

1. Lower the automatic lever of the tool head to access the adjustment screws on the side.

2. Use the side adjustment screws to set the tool head perfectly horizontal in relation to the rim.



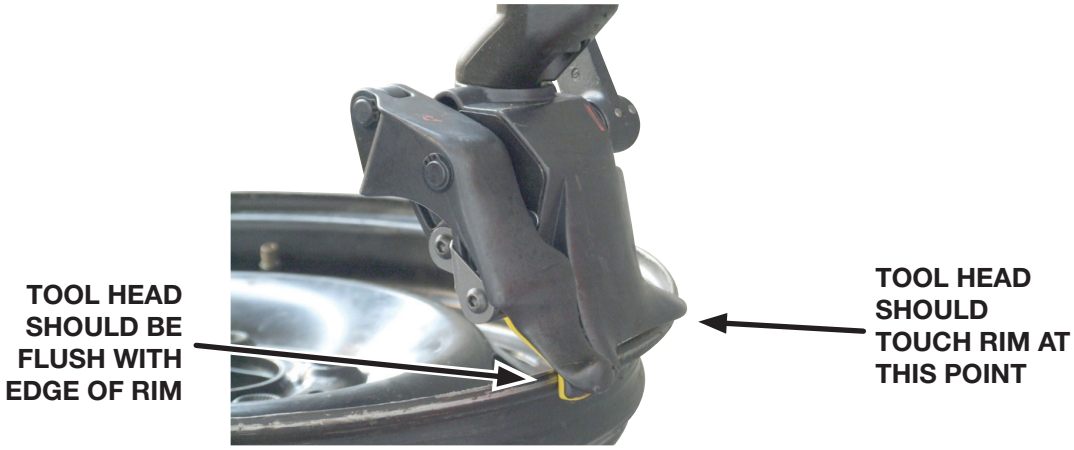
3. The tool head should be touching the rim at the points shown below:



4. Tighten the side adjustment screws, but not completely.

Radial Adjustment of the Tool Head

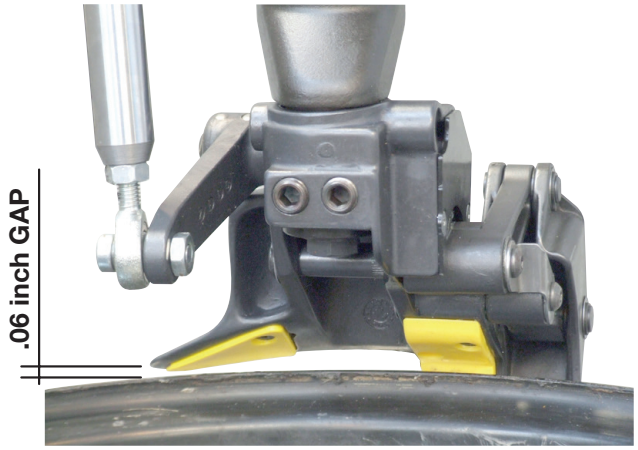
1. Release the tool head, then reposition it on the rim and lock it in place with the head position lock.
2. Adjust the two front adjustment screws and set the tool head so the left side is touching the rim and the right side is flush with the edge of the rim.



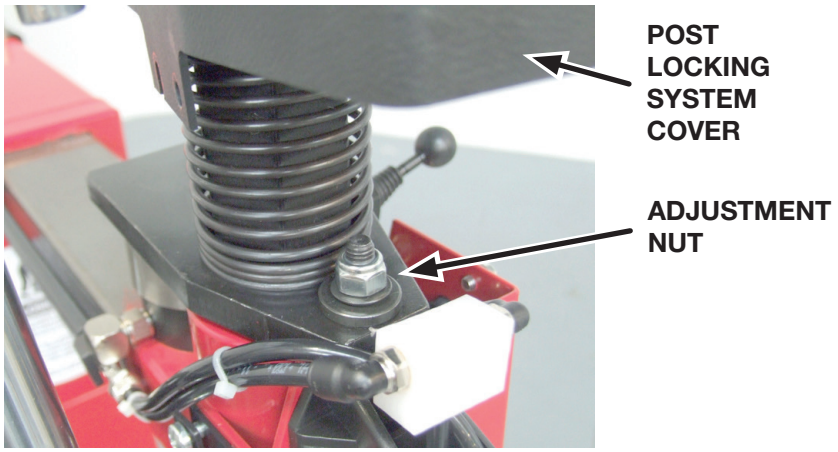
3. Fully tighten the adjustment screws starting with the head retaining bolt. Release the post and reposition the tool head on the rim for gap adjustment.

Adjusting the Vertical Gap

1. Reposition the tool head on the rim and lock it in place with the head position lock. Using a feeler gauge, check the distance between the tool head and the rim. The distance should be .06 inch.



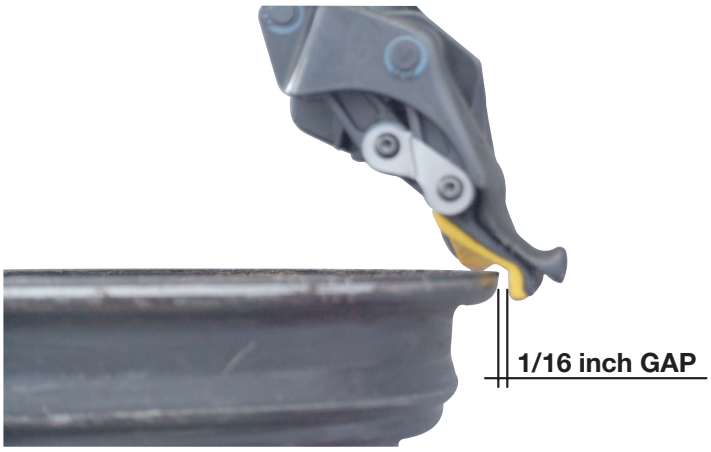
2. If the gap is not correct, release the head position lock and adjust the nut beneath the post locking system cover to adjust the gap. The cover must be removed. Back off the nut to increase the gap and tighten to reduce the gap.



3. Reposition the tool head on the rim and lock it in place with the head position lock. Re-check gap.

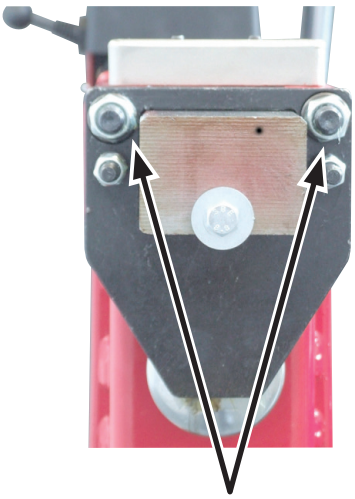
Adjusting the Horizontal Gap

1. Release the tool head, then reposition it on the rim and lock it in place with the head position lock.
2. Using a feeler gauge, check the horizontal gap between the tool head and the rim. The distance should be 1/16 inch.



3. If the gap is not correct, release the head position lock and adjust the nuts beneath the horizontal post locking system cover to adjust the gap. The cover must be removed. Back off the nuts to increase the gap and tighten to reduce the gap.

REMOVE THE HORIZONTAL POST LOCKING SYSTEM COVER

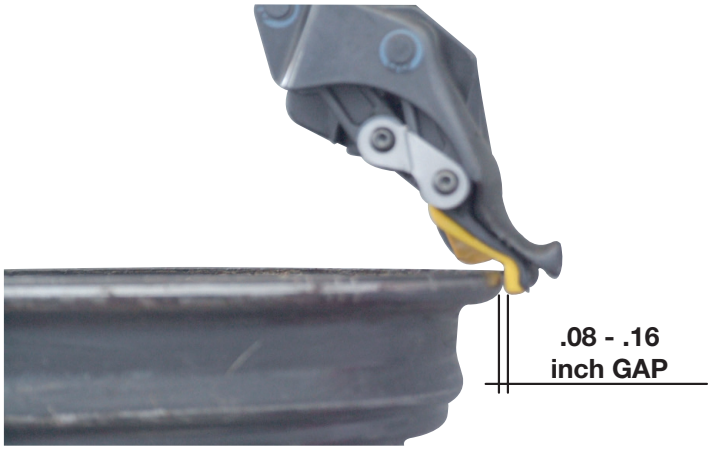


ADJUSTMENT NUT

NOTICE

To ensure that the horizontal locking plate functions correctly, the two nuts must be adjusted symmetrically.

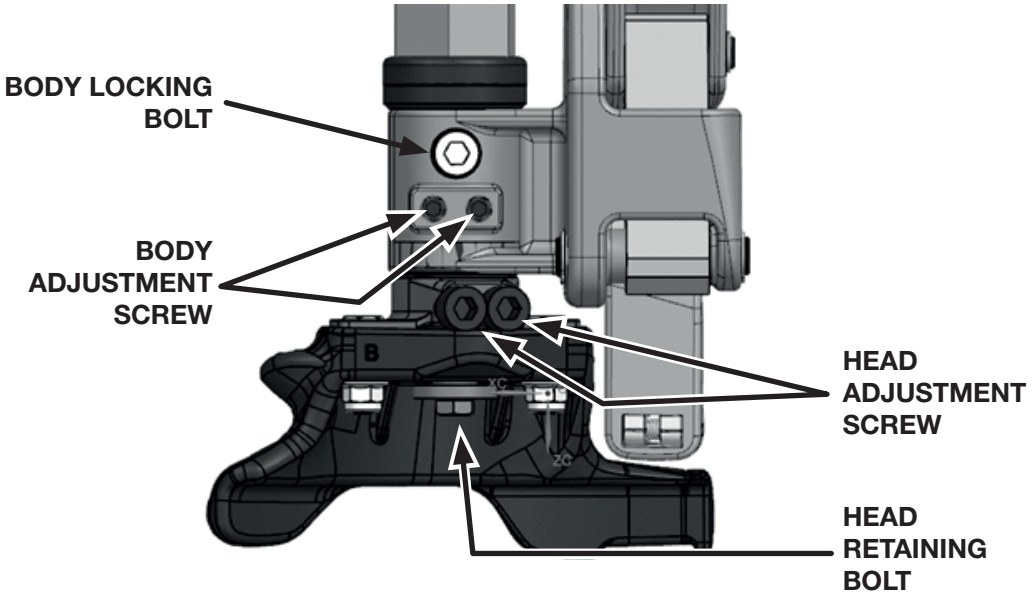
4. Reposition the tool head on the rim and lock it in place with the head position lock. Re-check gap.
5. When the adjustments are complete, check the gap between the hook of the tool head and the outboard safety hump of the rim. The distance should be between .08 and .16 inch. If not, repeat the calibration process.



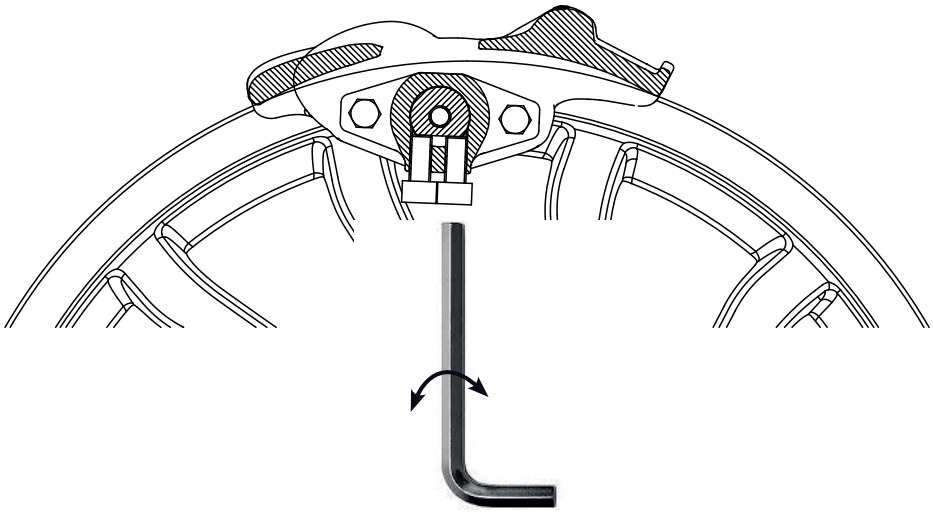
6. When finish mount the cover.

3.6 HYBRID Mount/Demount Head Assembly

1. Clamp rim without a tire on the tire changer turntable.
2. Before making any adjustments, loosen the four adjustment screws, the locking bolt and tighten the head retaining bolt until some grip is obtained.

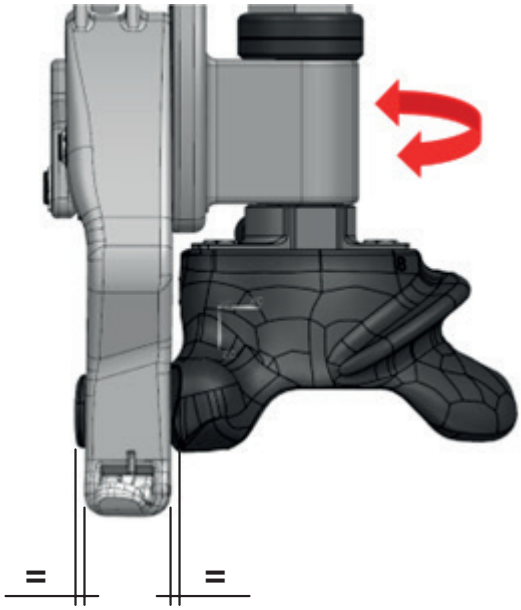


3. Position the tool head manually against the edge of the rim so that both sides of the tool head are resting on it. Keep the tool head in position without engaging the head position lock. Figure below is a summary of the desired result.

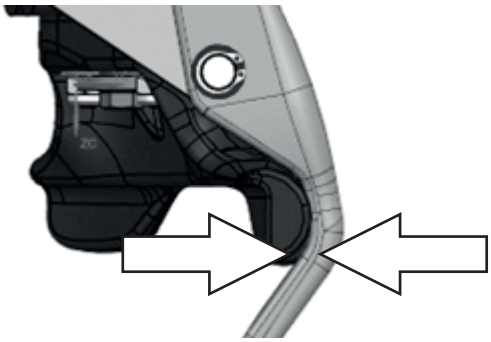


4. When the correct position has been achieved, tighten the head adjustment screws at 30 Nm to lock it in position.
5. Tighten the head retaining bolt at 50 Nm.

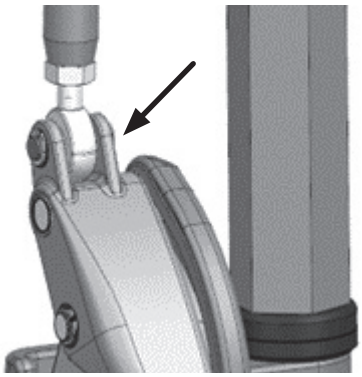
6. Move down the leverless hook “half way” (as in the picture). Center the hook in respect to the plastic head lip.



7. Move hook to bottom position and make sure it matches the profile of the plastic head lip.

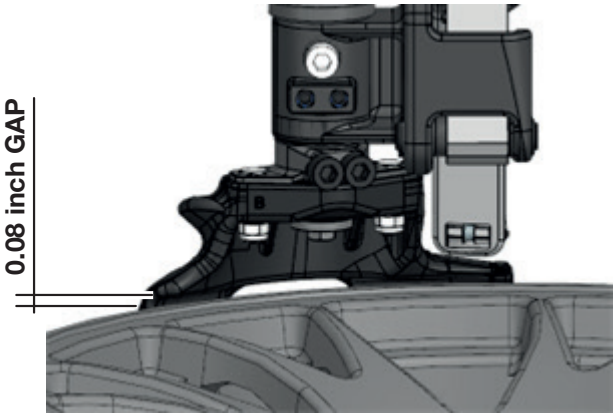


8. Tighten the “body adjustment screws” at 30 Nm and “body locking bolt” at 50 Nm.
9. Adjust cylinder joint and check that at both end of strokes (fully up and fully down) the hook has no residual play.

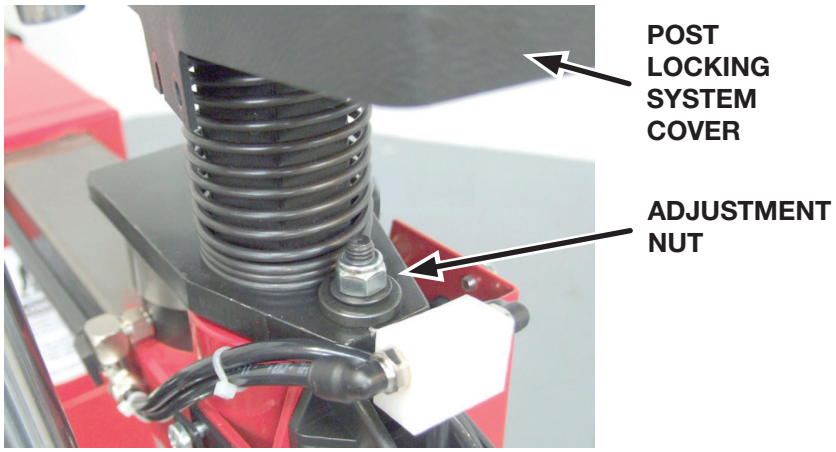


Adjusting the Vertical Gap

1. Reposition the tool head on the rim and lock it in place with the head position lock. Using a feeler gauge, check the distance between the tool head and the rim. The distance should be .08 inch.



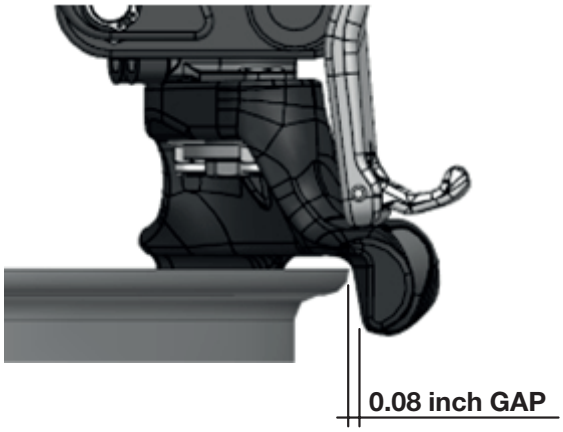
2. If the gap is not correct, release the head position lock and adjust the nut beneath the post locking system cover to adjust the gap. The cover must be removed. Back off the nut to increase the gap and tighten to reduce the gap.



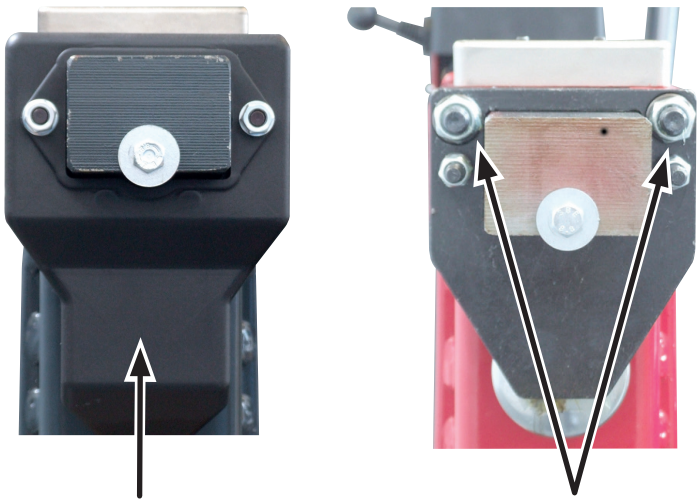
3. Reposition the tool head on the rim and lock it in place with the head position lock. Re-check gap.

Adjusting the Horizontal Gap

1. Release the tool head, then reposition it on the rim and lock it in place with the head position lock.
2. Using a feeler gauge, check the horizontal gap between the tool head and the rim. The distance should be .08 inch.



3. If the gap is not correct, release the head position lock and adjust the nuts beneath the horizontal post locking system cover to adjust the gap. The cover must be removed. Back off the nuts to increase the gap and tighten to reduce the gap



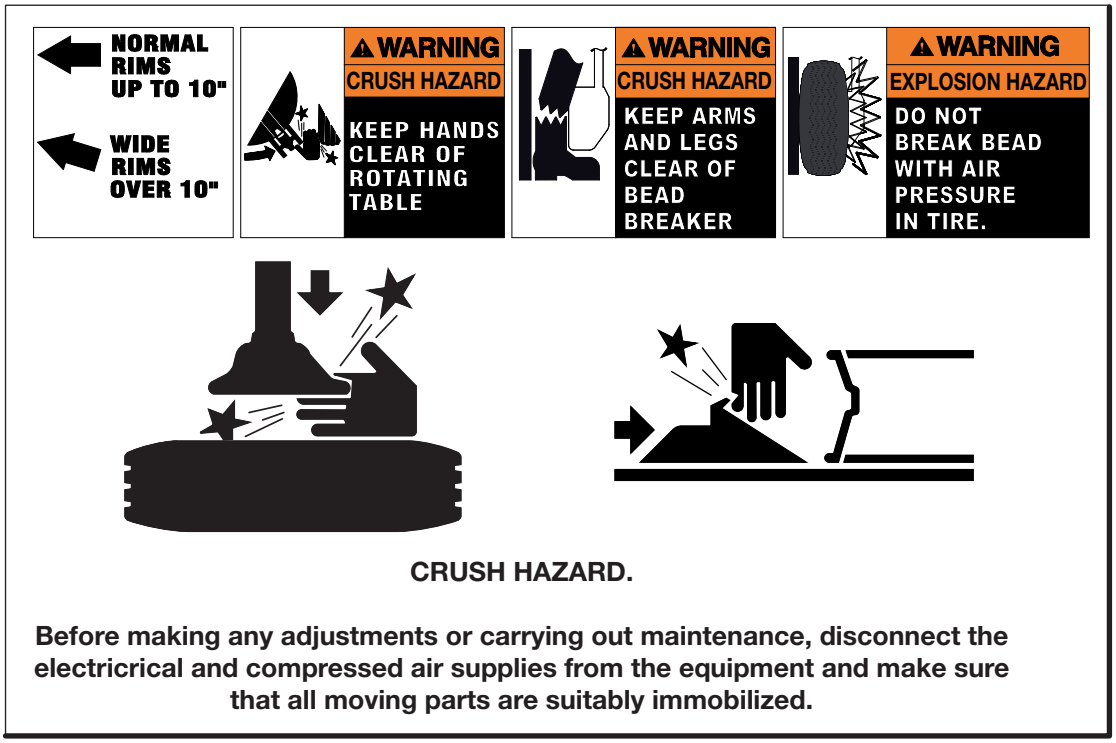
NOTICE

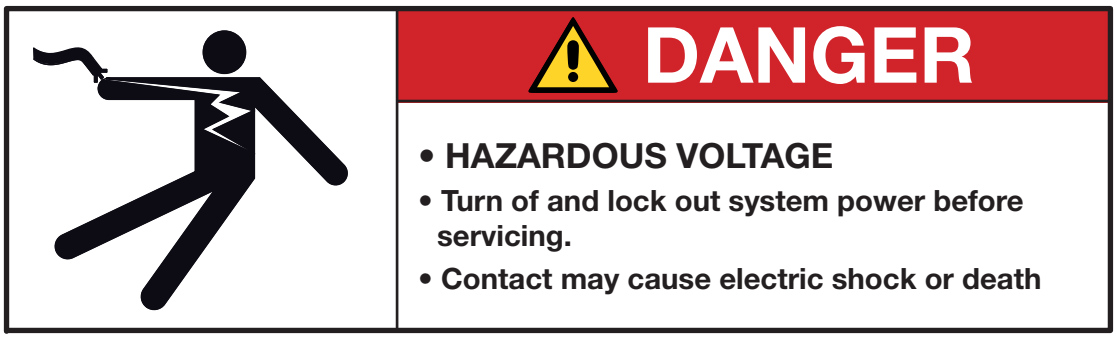
To ensure that the horizontal locking plate functions correctly, the two nuts must be adjusted symmetrically.

4. Reposition the tool head on the rim and lock it in place with the head position lock. Re-check gap.
5. When finish mount the cover.

4. Maintenance

4.1 Maintenance Schedule





Before carrying out cleaning or maintenance operations on the machine, or when replacing machine parts, turn off the machine, and disconnect all power sources. Follow any “lock out – tag out” procedures in your jurisdiction. See your supervisor for additional information. Should any maintenance task require the disabling, removal or disassembling of any safety device, that device must be immediately restored or replaced when the maintenance is complete.

Wear personal protective equipment (PPE) and clothes, in compliance with the local rules and regulations, including but not limited to OSHA. See your supervisor for instructions.
If you have any questions concerning the proper use or maintenance of your machine, please contact your nearest Hunter Engineering Company representative.
You can also contact Hunter Engineering Company at
Tel: 800-448-6848 or 314-731-3020.

In case of a written request, please specify the:

- Machine model;
- Serial number;
- Detail of the problems encountered
- Inspections that have been performed
- Adjustments made and their outcome
- Any other useful information.

You may address your written requests to:

HUNTER ENGINEERING COMPANY
11250 Hunter Drive
Bridgeton, Missouri 63044

Fax: 314-731-1776

e-mail: Customerservice@hunter.com

The components of Hunter Engineering Company products are designed as a single integrated system. To avoid compromises in terms of safety, performance, durability and function, and to prevent voiding of the warranty, do not substitute Hunter Engineering Company components with components manufactured by other companies. Use only ORIGINAL replacement PARTS supplied by Hunter Engineering Company.

During maintenance procedures,

- Never modify or alter the machine or any of its components.
- Use proper stairs, ladders or platforms to access areas that cannot be reached from ground level.
- Use appropriate personal protection equipment (PPE), such as eye protection, face shield, respiratory protection, gloves and coveralls, when performing maintenance, repairs or adjustments in compliance with local and OSHA regulations. Check with your supervisor.
- Never attempt any repairs or adjustments to any hydraulic component or auxiliary unit, including pumps, hoses, fittings, if the system is pressurized or operational or if the machine is in operation. Always shut down the machine, relieve all pressure and wait for all motion to come to a complete stop before performing any repairs or adjustments.

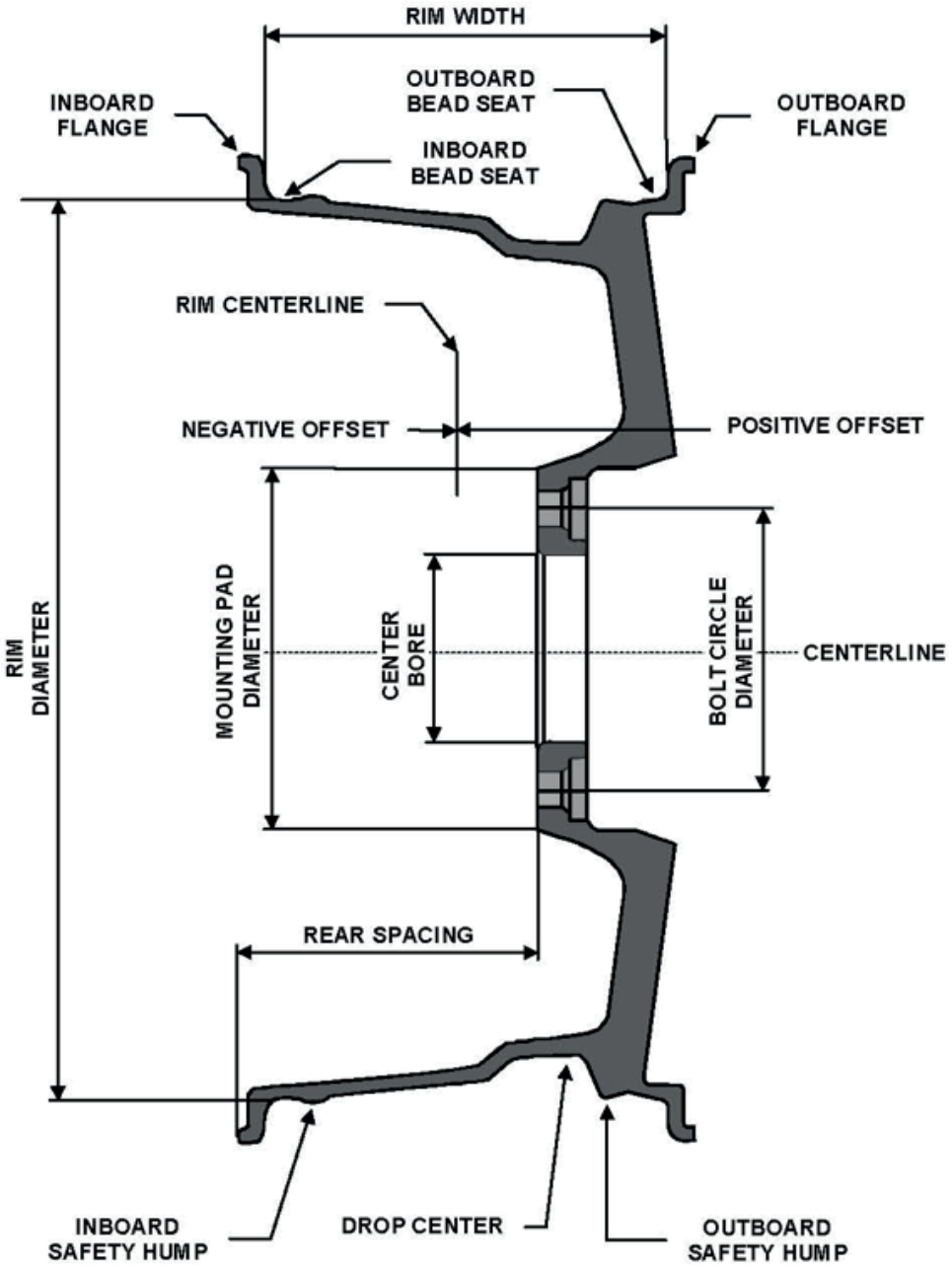
Maintenance Schedule	Perform the Following Maintenance
Daily	Drain condensation from pressure regulator reservoir by pressing in on the fitting located on the bottom of the regulator. Check for worn or damaged rubber and nylon components that should be replaced to prevent damage from occurring. Replace worn parts as needed (tool supports, rubber pads, lever protector sleeve and mount/demount head). Clean all areas that contact rims or tires to prevent possible scratching to rim.
Weekly	Clean tire changer with shop towels or a vacuum cleaner. **Do not clean with or use compressed air, which can blast dirt between moving parts.** Do not use cleaning solvents to clean pressure regulator and oiler (if present).
Periodically	Check for loose bolts and tighten per specifications.

4.2 Maintenance and Replacement Parts

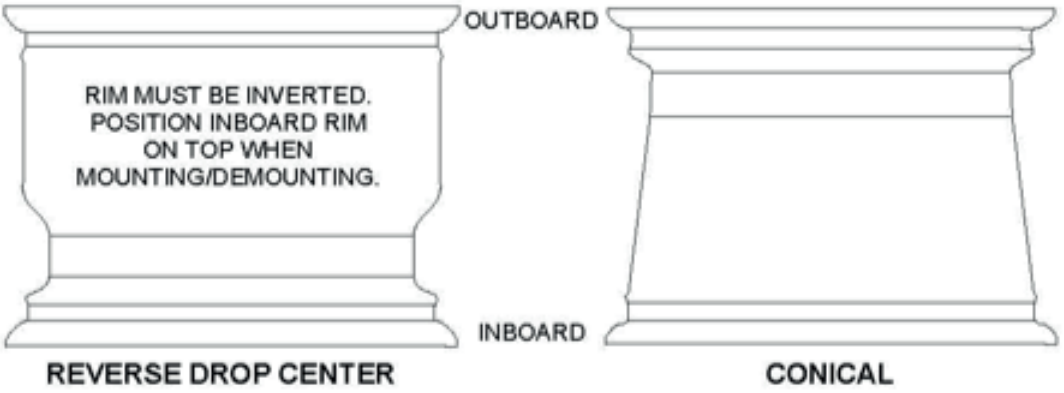
NAME	NUMBER
Safety Goggles	179-15-2
Brush	RP6-1506
Mounting Paste	RP6-3784
Polymer Mount/Demount Head	RP11-8-11400327
Hand Held Bead Lever - straight	RP11-3009516
Bead Lever Protector Sleeve (Std) (4)	RP11-8-11400098
Jaw Protection Kit (2 sets - 8 covers)	RP11-8-11100425
TCX58 Steel Head Inserts (10 sets - 20 covers)	RP11-8-11100369
TCX59 Mount/demount Protector Kit consisting of: 10 demounting protectors 5 mounting protectors 15 protector screws	RP11-8-11400325

5. Glossary

5.1 Rim Diagram

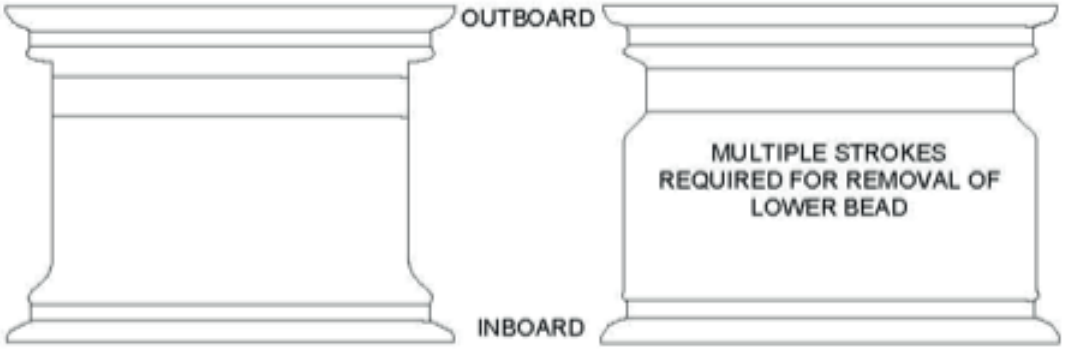


5.2 Illustrations of Various Rim Designs



REVERSE DROP CENTER

CONICAL



LONG DROP CENTER

CYLINDRICAL

NO DROP CENTER


HUNTER
Engineering Company


HUNTER
Engineering Company

OWNER INFORMATION

New Owner Name_____

New Owner Address_____

Prior Owner Name_____

Prior Owner Address _____

Model Number_____

Serial Number _____

Date Purchased_____

Date Installed_____

Return Completed Form To:

HUNTER ENGINEERING COMPANY
11250 Hunter Drive
Bridgeton, Missouri 63044
Tel: 800-448-6848 or 314-731-3020
Fax: 314-731-1776
e-mail: Customerservice@hunter.com

8. Warranty

Tire Changers are fully warranted for a period of three (3) years with the exception of consumable parts.
Replacement parts purchased through the Hunter Service Center and no longer covered by machine warranty are warranted for a period of six (6) months.
Field labor is covered under this warranty for a period of six months.

This warranty does not include normal wear items and does not apply to any product which has been subject to abuse, misuse, alterations, accident, exposure to the elements, tampering, unreasonable use, or failure to provide reasonable and necessary maintenance.

In case of any warranty claim it will be necessary to contact your local authorized Hunter Service Representative. To have an item considered for warranty it must be returned to Hunter Engineering Company for inspection and evaluation. This must be done on a freight prepaid basis. If after our inspection the product proves to be defective, and is within the time frame specified, we will repair or replace the item at no additional cost.

This is Hunter Engineering Company's only warranty with respect to new equipment. Hunter Engineering Company disclaims all other warranties to the extent permitted by law. This express warranty and any implied warranties of merchantability and fitness for a particular purpose shall not extend beyond the warranty period. Hunter Engineering is not responsible for any incidental or consequential damages, including, but not limited to, loss of business.

We do not authorize any person to assume for us any other liabilities with our products. Any remaining warranty may be transferred to subsequent purchasers by forwarding the purchaser's name, address, phone number and equipment serial number to:

Hunter Engineering Company
Customer Service Department
11250 Hunter Drive Bridgeton, MO
63044 (800) 448-6848

Hunter Research and Training Center

HUNTER TRAINING

Hunter operates the most advanced, up-to-date Training Center in the industry today.

The courses have been designed to meet the needs of new and experienced technicians who want to increase their mechanical and diagnostic capabilities. The low student-teacher ratio (average 7 to 1) and the emphasis on “hands-on” training (70% time in shop) create an excellent learning environment.

Highlights of the Hunter Training Center include:

✓ An instruction staff with years of shop, field, and teaching experience.
✓ Fully-equipped service bays.
✓ Classrooms equipped with modern teaching aids.
✓ The most up-to-date wheel alignment, balancing service, and brake equipment on the market today.

Classes Available

- ❐ Align 1 (Basic Alignment Theory and Practice) - 3 day / 24 hours
- ❐ Align 2 (Advanced theory / Aftermarket Adjustment) - 2 day / 16 hours
- ❐ Align 3 (Advanced Diagnostics and OEM Procedures) - 2 day / 16 hours
- ❐ Performance Tire (Basic and Advanced Tire Changing) - 1 day 8 hours
- ❐ Road Force® / GSP9700 Certification - 2 day / 16 hours
- ❐ Rolling Smooth (Basic & Advanced vibration theory) - 1 day / 8 hours
- ❐ Heavy-Duty Truck Alignment 1 (Fundamental Alignment) - 3 day / 24 hours
- ❐ Heavy-Duty Truck Alignment 2 (Advanced Alignment) - 2 day / 16 hours

Cod.4-145096 - 06/22

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