

TCX56/57

Tire Changer Family

Operating Instructions



TCX 56
Standard version



TCX 57
Leverless version

HUNTER
Engineering Company

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EC Declaration of Conformity

We herewith declare, HUNTER ENGINEERING COMPANY
11250 Hunter Drive
Bridgeton, Missouri 63044-2391 USA

that the following described machine in our delivered version complies with the appropriate basic safety and health requirements based on its design and type, as brought into circulation by us. In case of alteration of the machine, not agreed upon by us, this declaration will lose its validity.

Description of the machine/machinery part Series TCX Tire Changers

Machine type: TCX5x Series
TCX400 Series
TCX500 Series
TCX600 Series
TCX3000 Series

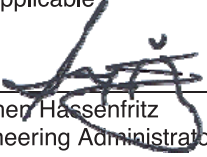
Serial Number: Various

Applicable EC Directives 2006/42/EC
2006/95/EC
2009/105/EC
86/217/EEC
2004/108/EC

Applicable Harmonized Standards EN ISO 12000-1
EN 60204
EN ISO 12000-2

Notified Body according to annex VII
(name, address) Not applicable

Responsible for: Not applicable

Date/Authorized Signature:  January 06, 2011
Title of signatory: Stephen Hassenfritz
Engineering Administrator

Archives

Mach.-No.

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..

You can also contact Hunter Engineering Company at Tel: 800-448-6848 or 314-731-3020, Fax. 314-731-1776 or use

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

☐☐

Contents

1. Getting Started	9
1.1 Introduction.....	9
1.1.a – PURPOSE OF THE MANUAL.....	9
1.2 For Your Safety	10
Hazard Definitions	10
1.3 General Warnings and Instructions	10
Electrical indications	15
Specific Precautions/Power Source	16
Equipment installation and service	16
Equipment specification	17
Explanations of symbols	17
1.3.b. Air Pressures	17
1.4 Special Rim/Tire Considerations	18
1.5 Intended Use of The Machine	18
1.6 Employee Training.....	18
1.7 Pre-Use Checks.....	18
1.8 During Use	19
1.9 Control Pedal Configurations	19
1.10 Wheel Rotation Pedal	20
1.11 Tire Bead Breaker Shovel control.....	20
1.12 Wheel Clamping Pedal	21
1.13 Column Rotation Pedal.....	21
1.14 Air Inflation Pedal	21
1.15 Moving Parts.....	22
1.16 Inflator and Pressure Limiter	22
1.17 Mount / Demount Head	22
1.18 Equipment Components.....	24
1.19 Bead Press System (BPS) Components.....	25
2. Basic Procedures	26
2.1 Bead Breaking	26
2.2 Placing Wheel on Tire Changer	27
Clamping the Wheel from Inside of Rim - Steel Rims	27
Clamping the Wheel from Outside of Rim - Alloy Rims	28
2.3 Demounting Standard Tire from Rim.....	29
TCX56 - STANDARD MOUNTING HEAD	29
Standard Mount / Demount Head	29
Plastic protectors bead lever	29
TCX57 - LEVERLESS MOUNTING HEAD	31
Top Bead Demounting	31
Difficult Tires	33
Precautionary Notes	34
Bottom Bead Demounting with Tool Head	35
Bottom Bead Demounting with Disc	36
Difficult Tires	37
2.4 Alternate Procedure	38
Using the Bead Lever.....	38

2.5 Mounting Standard Tire to Rim.....	40
2.6 Mounting of difficult tires: low profile or Run-Flat tires.....	42
2.7 Match Mounting	44
2.8 Tire Inflation	45
Special procedure	46
2.9 Removal of Wheel from Tire Changer	48
2.10 Clamping Jaw Extensions AR46N.....	49
3. Advanced Procedures	50
3.1 Advanced Bead Breaking Procedures	50
Bead Breaking “AH” Wheels (e.g. BMW M3, M5, Some Porsches, Range Rover, Lancia, etc.)	50
Bead Breaking “AH” Wheels as follows:	50
3.2 Advanced Demounting Procedures (for TCX56).....	51
Demounting Tire from Rim Using the Bead Lever Tool without the Plastic Sleeve Protector	51
Demounting Upper Bead	51
Demounting Lower Bead	51
3.3 Advanced Mounting Procedures	52
3.4 Standard Mount/Demount Head Assembly	52
Checking Mount/Demount Head Calibration	52
For Steel Heads	52
Set Position of Steel Mount/Demount Head on Hex Shaft	52
For Plastic Heads	54
Set Position of Plastic Mount/Demount Head on Hex Shaft	54
Adjust the Offset of Lock Mechanism – Steel and Plastic Heads	55
3.5 Mount/Demount Head Assembly.....	56
Mount/Demount Head Calibration	56
4. Maintenance	60
4.1 Maintenance Schedule	60
4.2 Maintenance and Replacement Parts	62
5. Glossary	63
5.1 Rim Diagram	63
5.2 Illustrations of Various Rim Designs.....	64

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. Alternately, the new owner can send an email to newuser@hunter.com.

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 TCX56/57 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 “*Equipment Components*” page 24. 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 TCX56/57 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 50.

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.

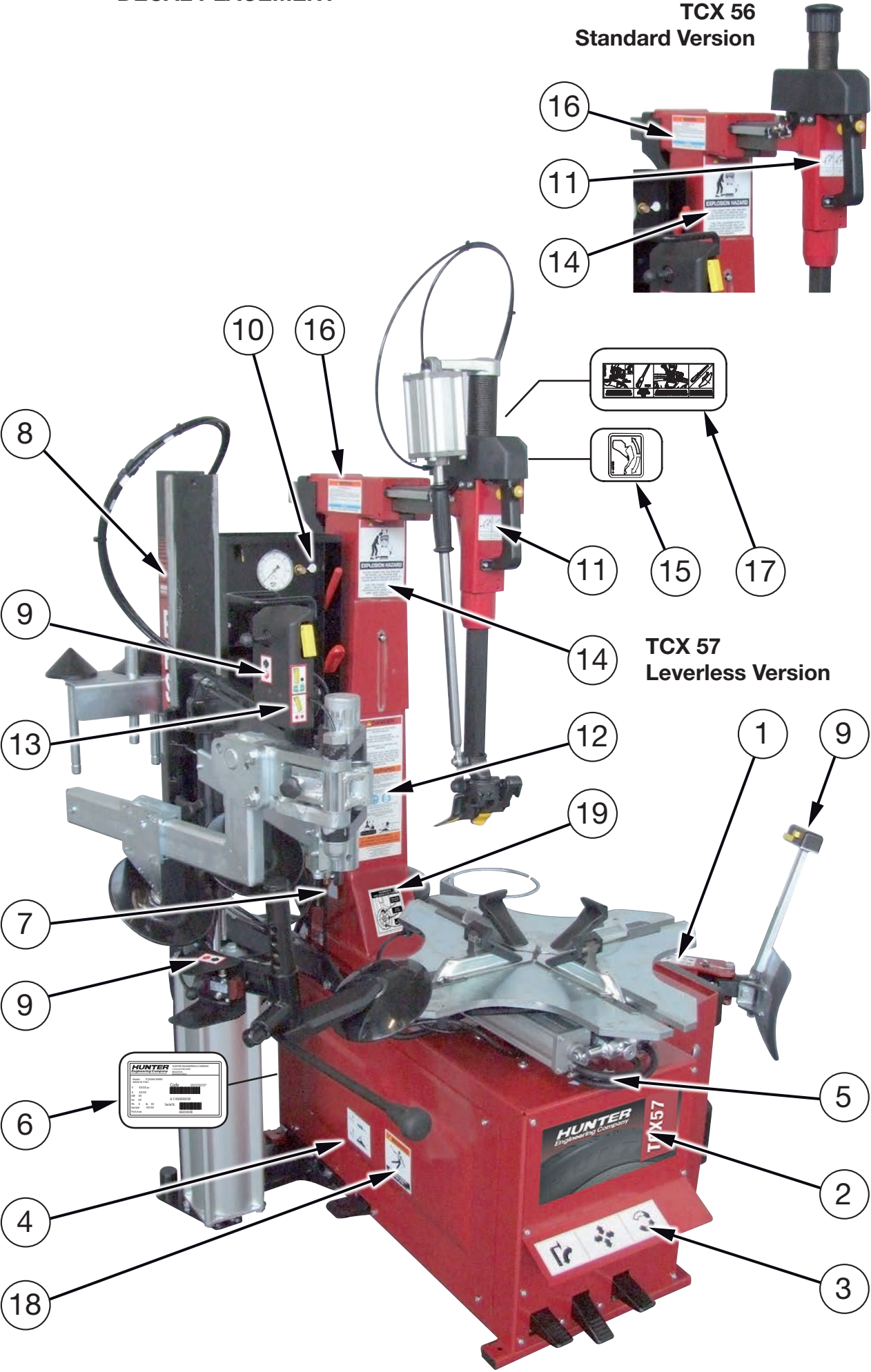


- Never hose down or power wash electric tire changers.
- Do not operate machine with a damaged power cord
- If an extension cord is necessary, a cord with a current rating equal to or greater than that of the machine must be used. Cords rated for less current than the machine can overheat, resulting 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 OSHA 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



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	RP11-4-402018	DECAL-HUNTER BEAD PRESS SYSTEM
9	RP11-3013640	DECAL-ARROWS UP-DOWN
10	RP11-4-402021	DECAL-MANUAL TIRE BLEED VALVE
11	RP11-4-402038	DECAL-VERTICAL COLUMN LOCK BUTTON OPERATION
12	RP11-4-115412	DECAL-DANGER-WARNING INDICATION
13	RP11-3016568	DECAL-BPS LOCK
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)

Electrical indications

The TCX56/57 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 TCX56/57.





WARNING

FIRE HAZARD. DO NOT ALTER THE ELECTRICAL PLUG.

NOTICE

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

	 DANGER
	<ul style="list-style-type: none">• HAZARDOUS VOLTAGE• Turn off 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 TCX56/57, power must be disconnected by removing the power cord from the electrical power outlet.

After servicing, be sure the TCX56/57 ON/OFF switch is in the “O” (off) position before plugging the power cord into the electrical power outlet.

Specific Precautions/Power Source

The TCX56/57 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 Ft ³ /s • 12,70 CFM (ft ³ /min)
	at 10 bar = 7,76 Lt/s • 0.2471 Ft ³ /s • 14,82 CFM (ft ³ /min)
Mechanical	
Clamping System Rotating Speed:	CW – 7 rpm and 17 rpm CCW – 7rpm
Max. Tire Diameter:	43.3 in. w/BPS
Max Bead Roller Opening Width:	15 in.
Diameter Range:	10-30


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.

	<div style="background-color: red; color: white; padding: 5px; text-align: center;">  DANGER </div> <ul style="list-style-type: none"> EXPLOSION HAZARD Never exceed tire pressure recommended by tire manufacturer. Never mismatch tire size and rim size. Avoid personal injury or death
---	--

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 lean 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:

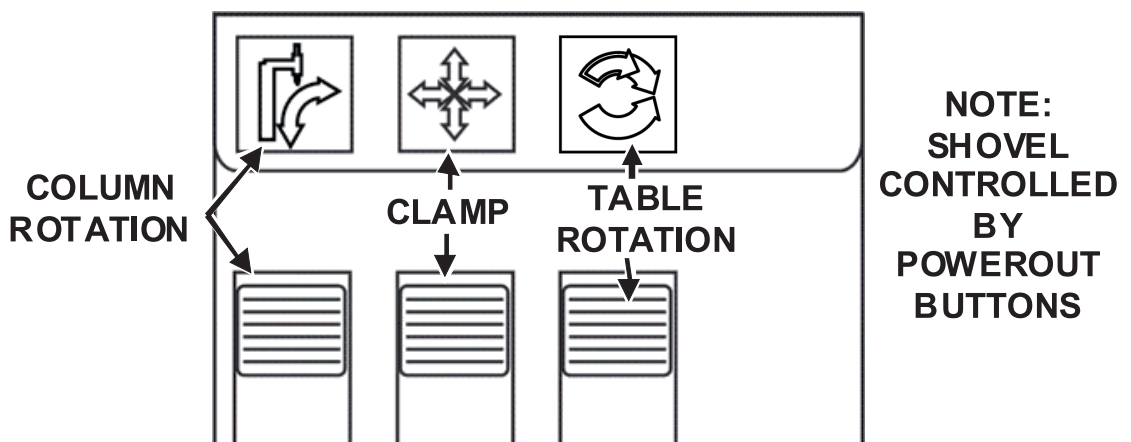
- disconnect the power supply plug;
- cut off the compressed air supply network by disconnecting the shut-off valve (snap coupling).

1.9 Control Pedal Configurations

! WARNING

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

Control pedals on the TCX56/57 tire changer are configured as shown below:

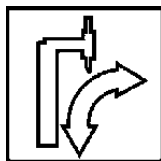


NOTICE

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.

**COLUMN
ROTATION**



CLAMP

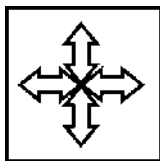


TABLE ROTATION



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

1.10 Wheel Rotation Pedal



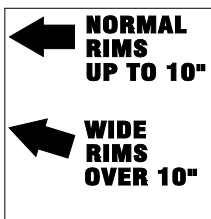
Step down on the rotation pedal to rotate the wheel **clockwise**. Release the pedal to stop rotation. Depressing the pedal halfway rotates the wheel at slow speed. Depressing the pedal all the way rotates the wheel at fast speed. Lift up on the pedal to rotate the wheel **counterclockwise**. Release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

1.11 Tire Bead Breaker Shovel control



WARNING

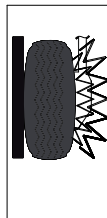
Keep arms and legs from between the bead breaker arm and the side of the housing.



▲ WARNING
CRUSH HAZARD
KEEP HANDS
CLEAR OF
ROTATING
TABLE



▲ WARNING
CRUSH HAZARD
KEEP ARMS
AND LEGS
CLEAR OF
BEAD
BREAKER

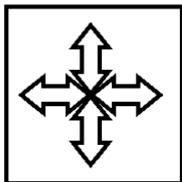


▲ WARNING
EXPLOSION HAZARD
DO NOT
BREAK BEAD
WITH AIR
PRESSURE
IN TIRE.



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.

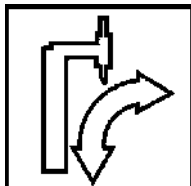
Put the wheel on the table top and depress pedal all the way down, (the pedal will move in the upper position). The 4 sliding clamps will open and clamp the wheel.

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.

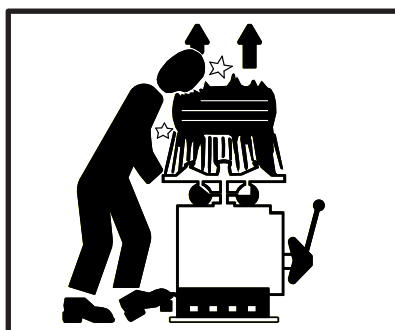
The column tilt pedal has two positions.

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. Refer to illustrations on page 45-48. 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



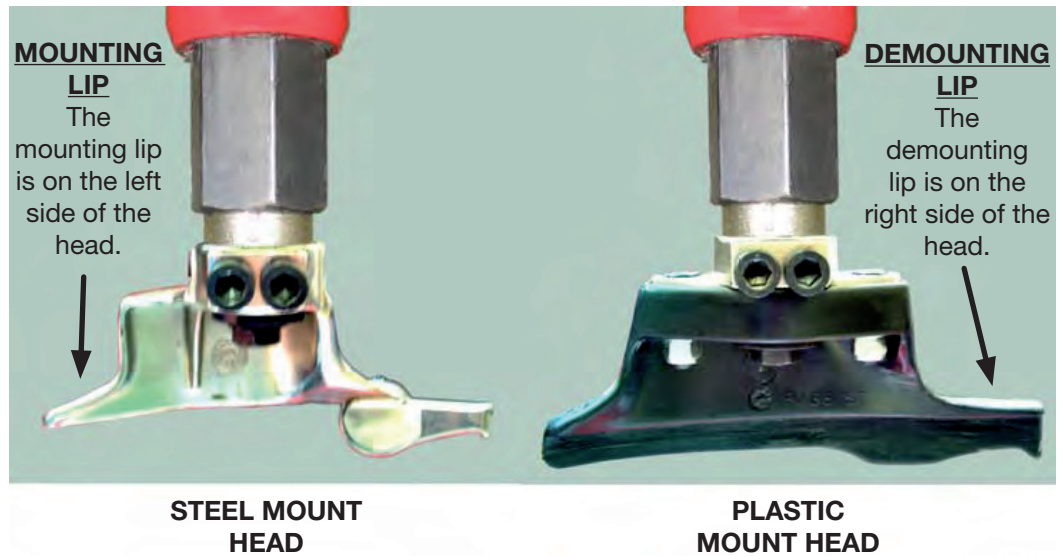
WARNING

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

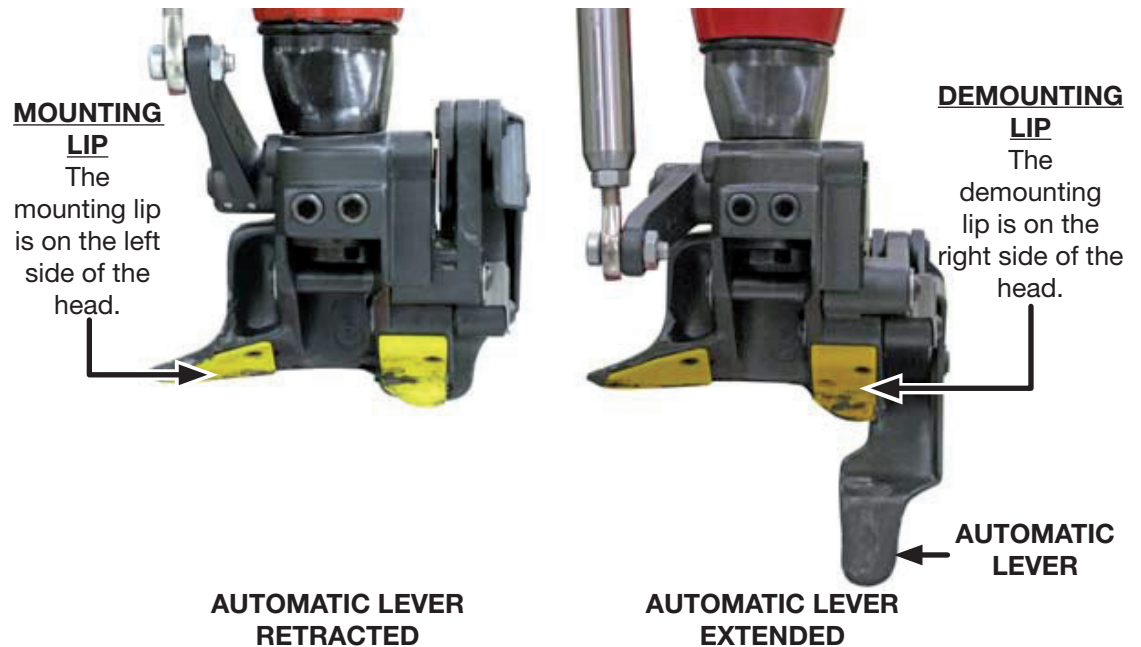
The mount/demount head is suspended from the column above the turntable.

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 (TCX56)



B. Leverless version (TCX57)

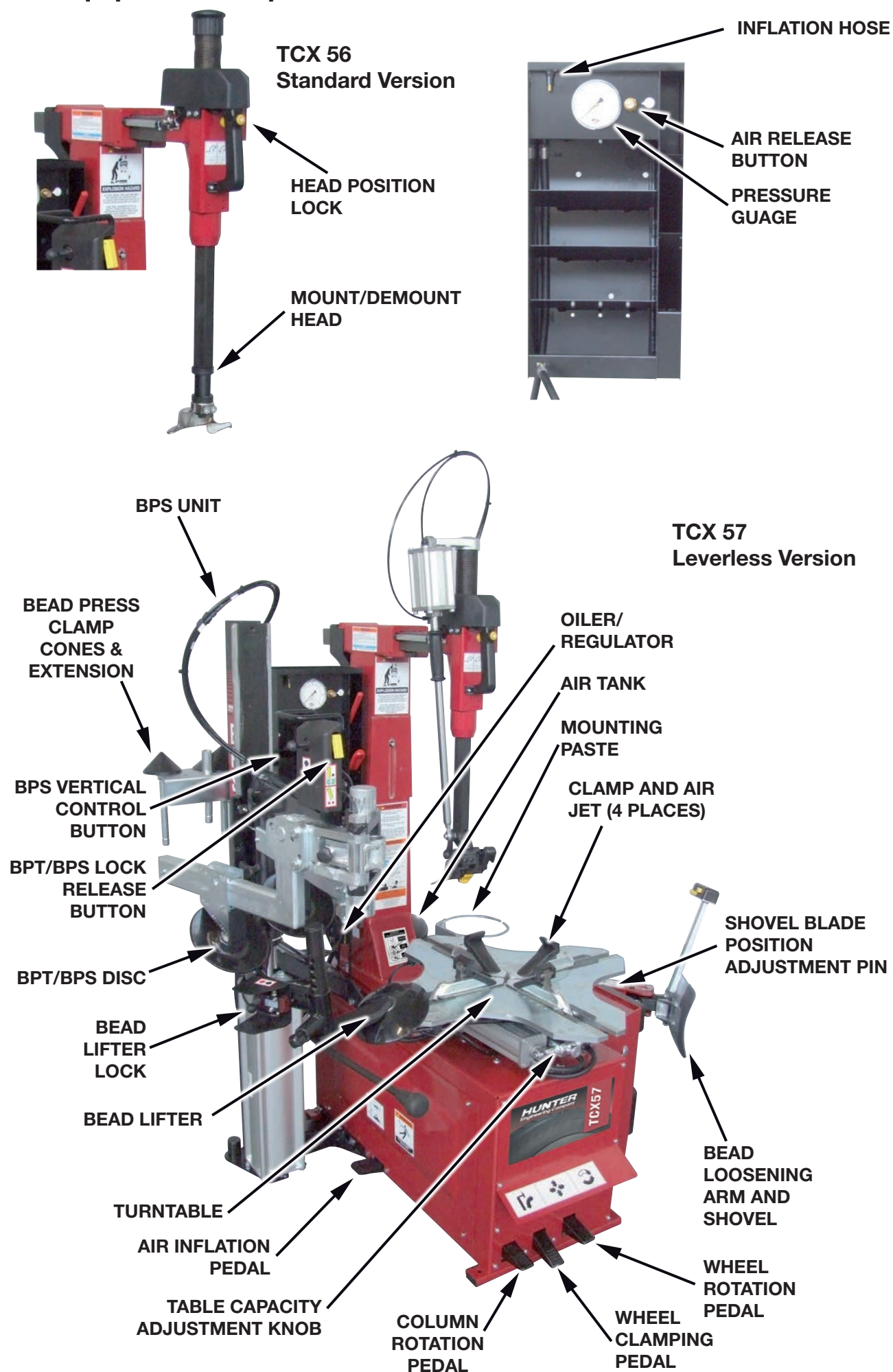


In addition, the head also incorporates an automatic lever to ease the demounting process.

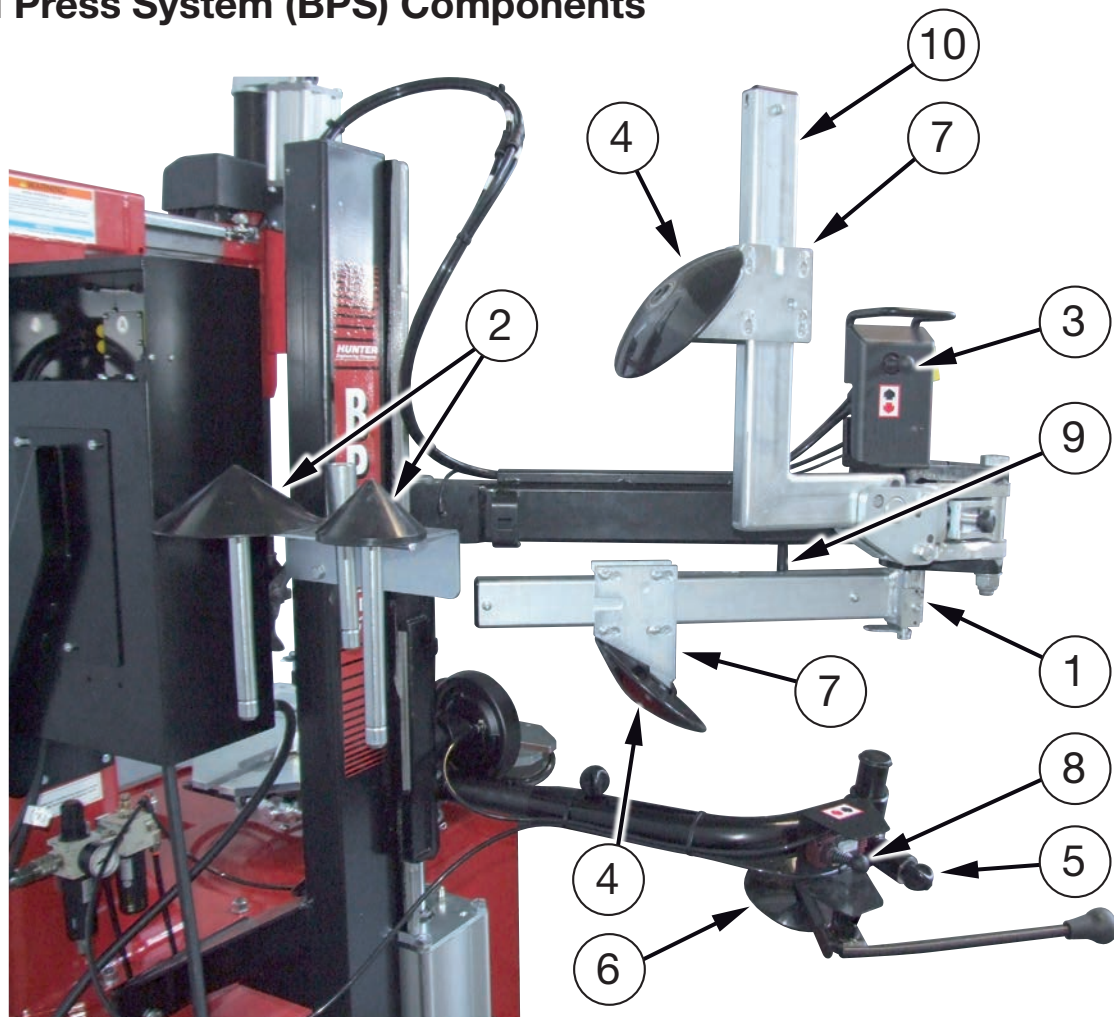
The bead of tire is placed on top of mounting lip during mounting.

The bead of tire is placed on top of demounting lip during demounting.

1.18 Equipment Components



1.19 Bead Press System (BPS) Components



The functional parts of the BPS are:

- | | |
|------------------------|-----------------------------------|
| 1. Articulated Arm | 6. Demounting/match mounting disc |
| 2. Rim Presser cone | 7. Sliding locking lever |
| 3. Control Lever | 8. Demounting arm lock |
| 4. Bead presser disc | 9. Rotating arm end of stroke pin |
| 5. Match mounting lock | 10. Mounting arm |

2. Basic Procedures

2.1 Bead Breaking

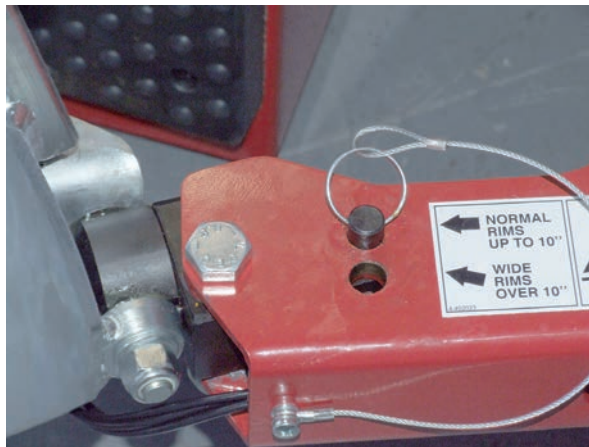


**WARNING**

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.



"In" button

"Out" button



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).



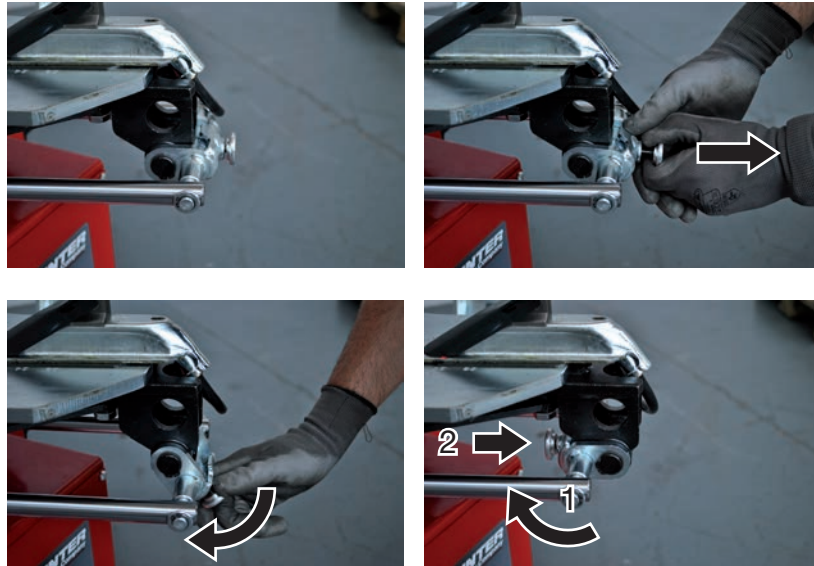
- with the knobs facing inwards we have a clamping capacity that goes from 14" to 26" (clamping externally).



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

TCX56 - STANDARD MOUNTING HEAD

Standard Mount / Demount Head

NOTICE

For leverless mount / demount head, refer to “TCX57 - LEVERLESS MOUNTING HEAD,” on page 31.

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.

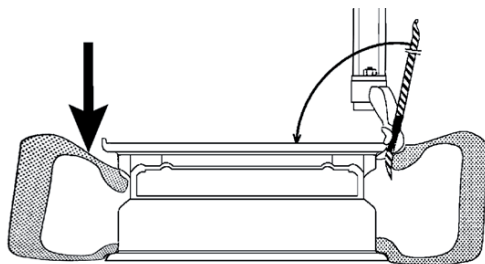
Slide the mount/demount head in or out along the upper rail and lower the head into position. Pull the head position lock handle to lock head into position.

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

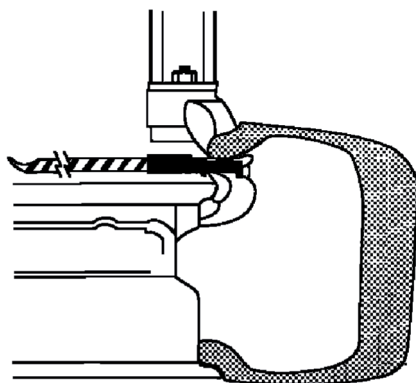
Plastic protectors bead lever

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.

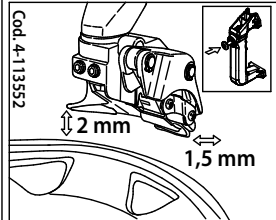
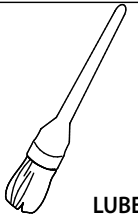
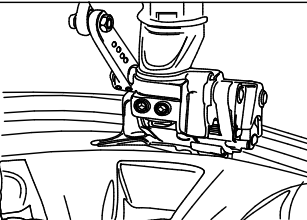
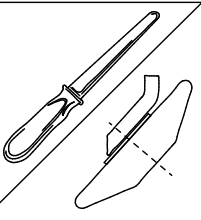
Lift the mount/demount arm assembly up and away from the wheel.

Remove tire from rim.

For additional information on demounting special wheels, refer to "Advanced Demounting Procedures," page 51.

NOTICE

Using leverless mounting head follow always this indications

 <p>Cod. 4-113552</p>	 <p>LUBE</p>		
<p>CHECK MOUNT HEAD CALIBRATION MONTHLY</p>	<p>ALWAYS LUBRICATE TIRE</p>	<p>ALWAYS MOUNT WITH BEAD OVER BACK OF MOUNT HEAD</p>	<p>USE ASSIST FEATURES TO PREVENT DAMAGE</p>

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



**MOUNT HEAD CORRECTLY
PLACED**

BAD



WARNING
THIS CAN DAMAGE THE TIRE

**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.



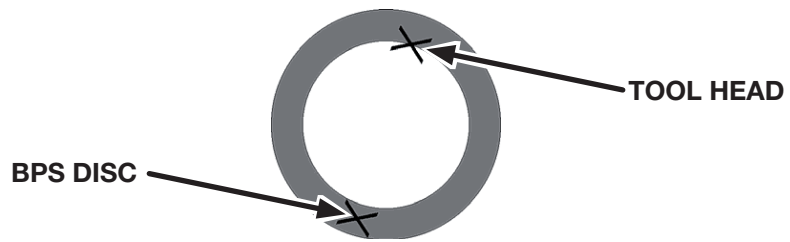
**VALVE
STEM**

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).

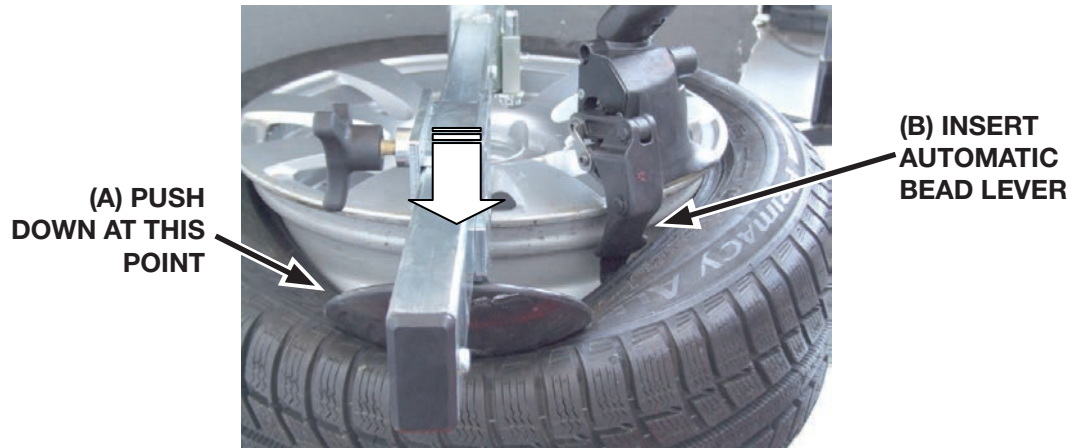


Some of the more difficult tires may not allow for proper insertion of the automatic bead lever because not enough of a gap can be created between the tire and the rim edge.



**NOT ENOUGH GAP
BETWEEN TIRE AND
RIM EDGE**

If this is the case, reposition the upper BPS disc as shown below. Lower the upper BPS disc 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 disc, 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.

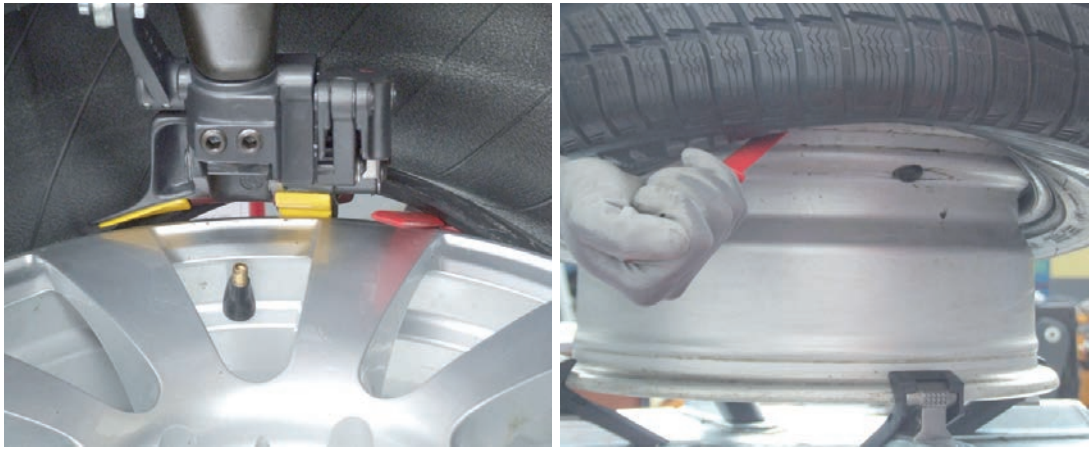
With the tire in position, press the wheel rotation pedal



to rotate the wheel

clockwise and demount the bottom bead.





Bottom Bead Demounting with Disc

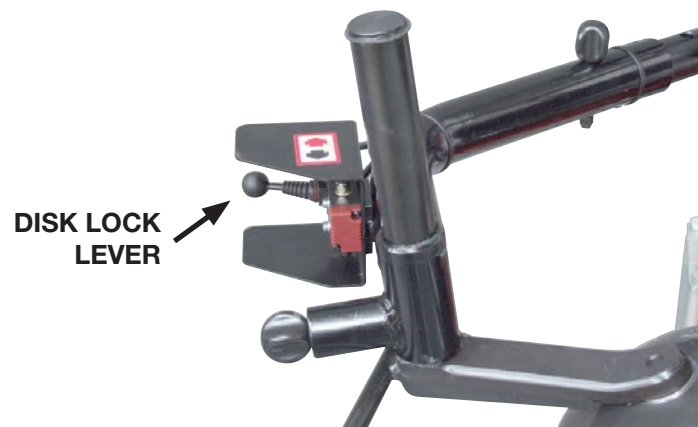
Demounting the bottom bead on certain wheel assemblies, large and heavy assemblies and some run-flat assemblies for example, may be best performed by using the lower disc.

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

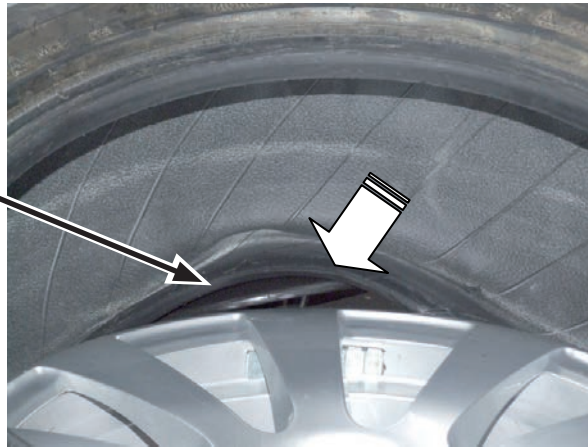
Some of the more difficult tires may have the tendency to “fold” under the lower disc.



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.

DISC
REPOSITIONED
AND LOCKED
IN PLACE



With the tire in position, press the wheel rotation pedal



to rotate the wheel

clockwise and demount the bottom bead.

2.4 Alternate Procedure

Using the Bead Lever

NOTICE

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

Press the wheel rotation



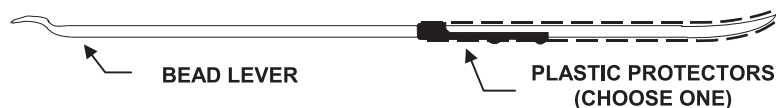
pedal until the valve location is in the one o'clock

position.

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

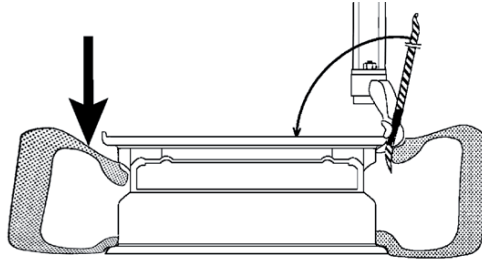
Slide the mount/demount head in or out along the upper rail and lower the head into position. Push the button on handle to lock head into position.

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

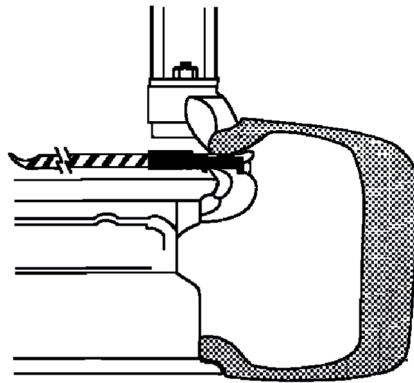


Position the bead lever between the demounting lip of the head and bead of tire. The demounting lip is on the right side of the head.

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.



Lift the wheel rotation pedal



to rotate the wheel counter clockwise slightly such

that the upper bead rides up onto the demount lip.

Push 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.



With the BPS bead lifter - If the lower bead becomes reseated onto the rim, the lower bead lifter may be placed under the tire and used to lift the tire into the drop center. Always insert a bead lever into the BPS bead lifter to position and stabilize the roller. Raise bead lifter and rotate tire to loosen bead. Remove bead lifter. Swing the mount/demount arm assembly up and away from the wheel. Remove tire from rim.

2.5 Mounting Standard Tire to Rim

NOTICE

The mounting procedure is equivalent for both:TCX56 and TCX57.

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.



**BACK OF TIRE
OVER MOUNT /
DEMOUNT HEAD**

**FRONT OF TIRE
UNDER MOUNT
/ DEMOUNT
HEAD FINGER**

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.

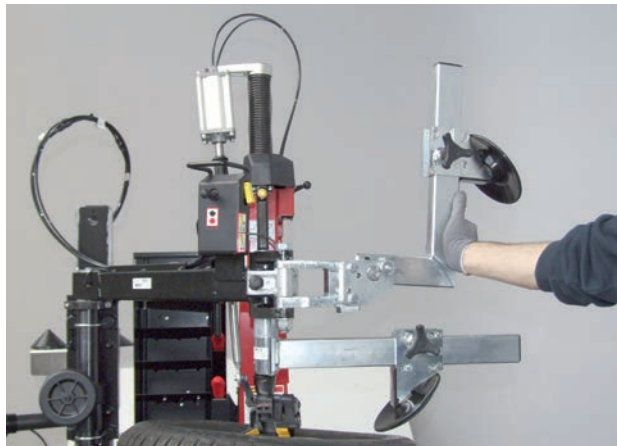
2.6 Mounting of difficult tires: low profile or Run-Flat tires

Mount the first bead as usual.

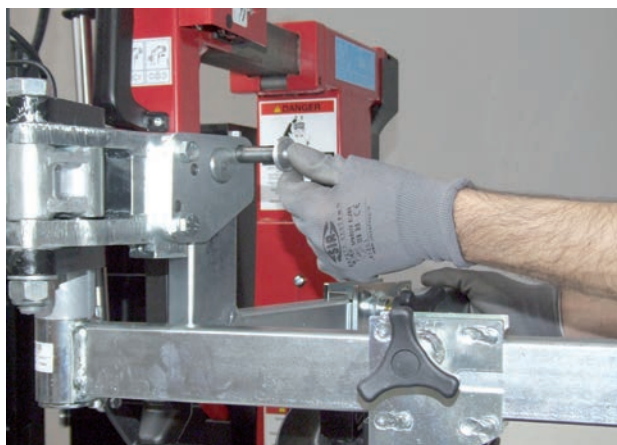
Move the valve to about 5 o'clock.

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.



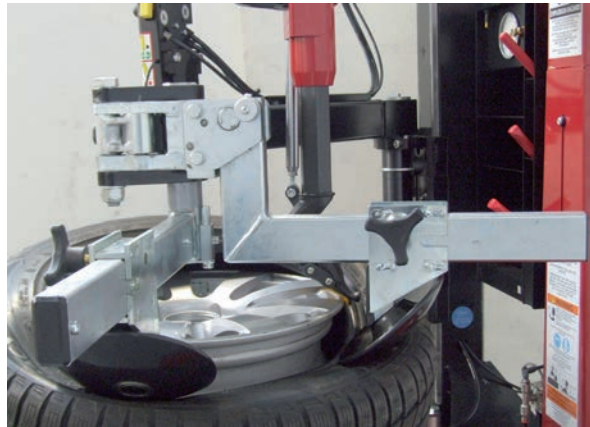
Adjust the position of the bead pressing disc to suit the diameter of the rim.

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 PT 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 PT 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 PT 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 PT 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 PT 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 PT arms.

Unlock the BPT with its release button.

Tilt up the arm and secure with its pin.

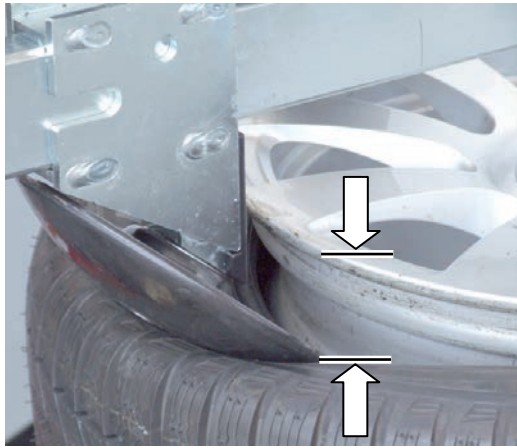
Move the pt and vertical post to the retracted position.

2.7 Match Mounting

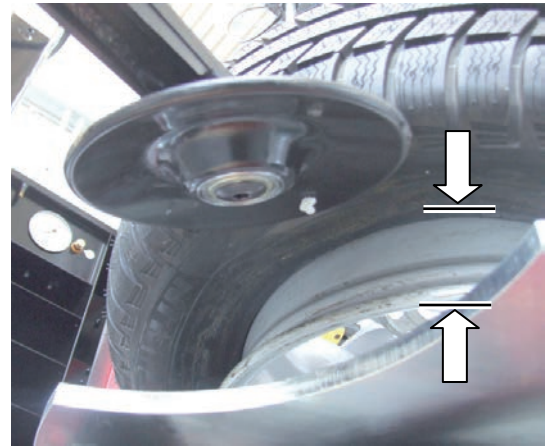
Move the articulated arm of the BPS to the edge of the rim and lower the upper bead press disc down. Lower the upper bead press disc to approximately half the depth of the rim.



Position the lower disc at the rim edge on the bottom of the assembly and lock it in place. Raise the lower disc such that the pitch between the upper and discs is approximately equal.



UPPER DISC



LOWER DISC

With the tire in position, press the wheel rotation pedal

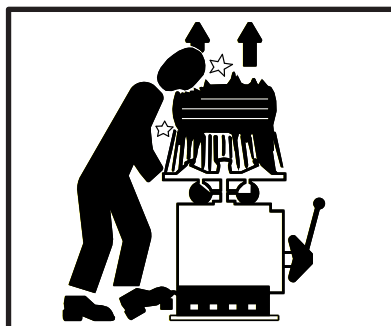


to rotate the wheel

clockwise. The tire will be stalled and the rim will rotate to allow the Match Mounting procedure.



2.8 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

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.

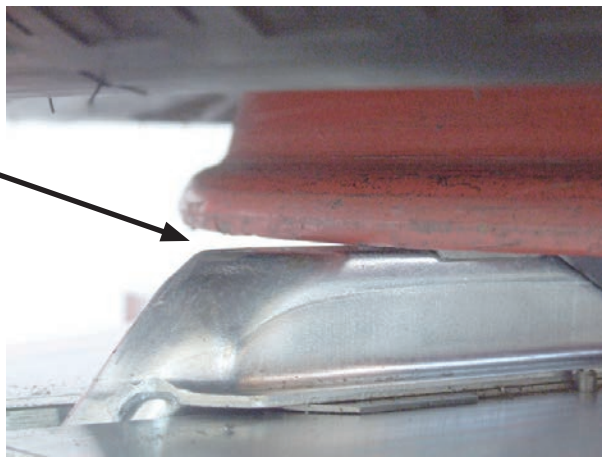


WARNING

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.

**AIR-JET
FROM HERE**



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.



WARNING

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.

2.9 Removal of Wheel from Tire Changer



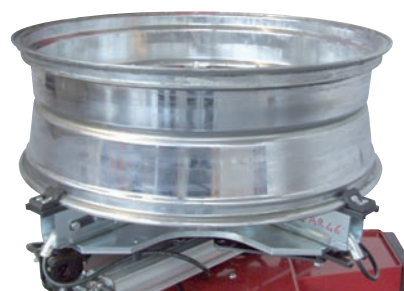
Lift the clamping pedal to release the rim from the clamping device.

2.10 Clamping Jaw Extensions AR46N

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

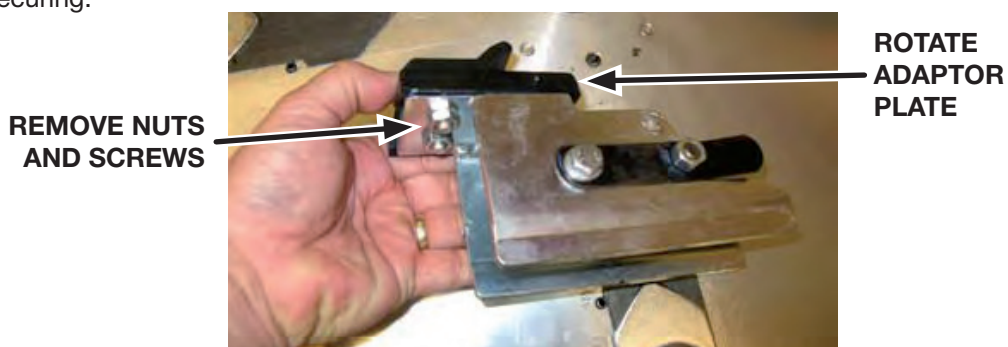


**JAW ADAPTORS IN REDUCER
CONFIGURATION ON 4" WHEEL**



**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.



**JAW ADAPTORS IN REDUCER
CONFIGURATION**



**JAW ADAPTORS IN EXTENSION
CONFIGURATION**

3. Advanced Procedures

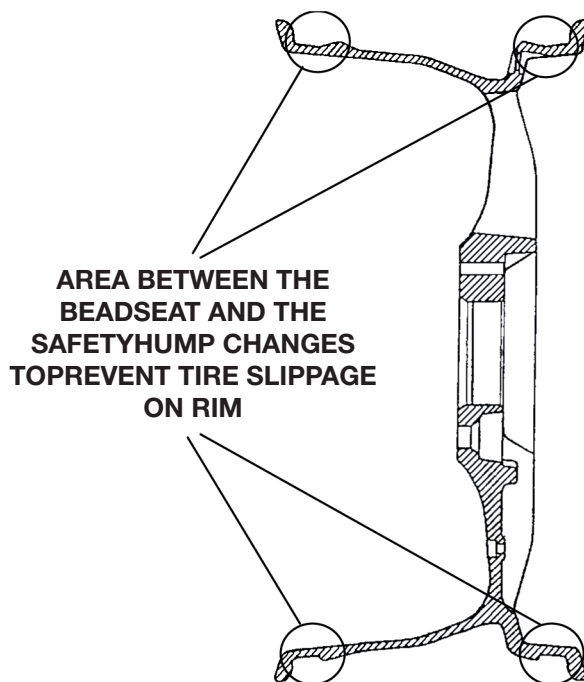
The capabilities of the TCX56/57 tire changer family allow the user to utilize numerous advanced procedures on a variety of rims and tires. For the operator to take advantage of these features, this section explains in detail what additional steps can be taken.

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 TCX56)

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:

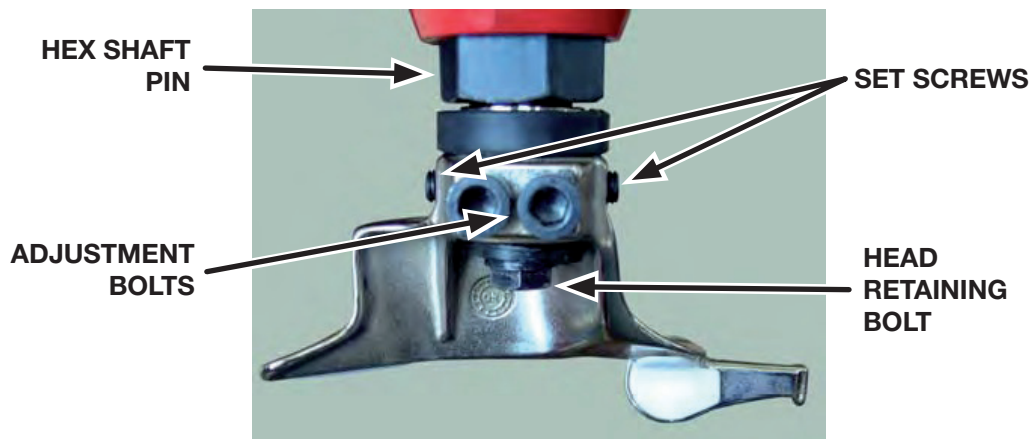
- Position the bead on top of the rear lip of mount/demount head.
- Position the bead under the front lip of the mount/demount head.
- Lock the tire to the rim in the mounting position.
- Slip the bead into the drop center.

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 TCX56 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.

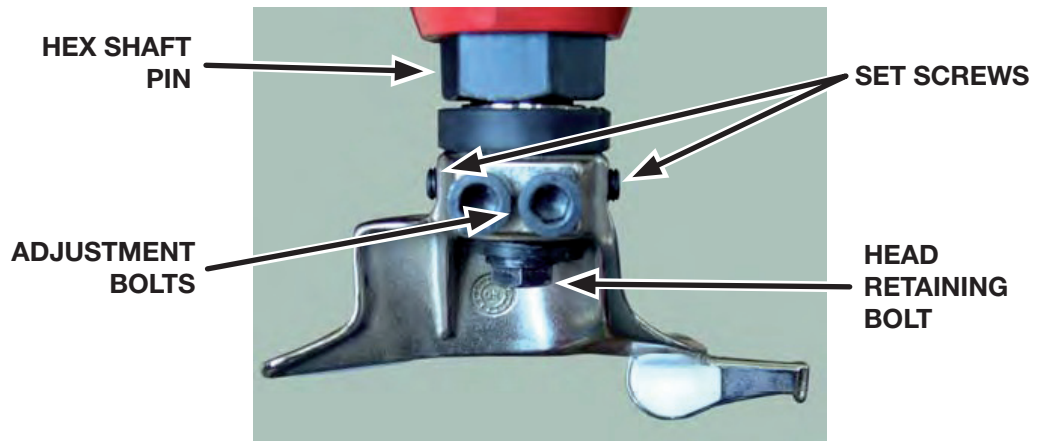
Checking Mount/Demount Head Calibration

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

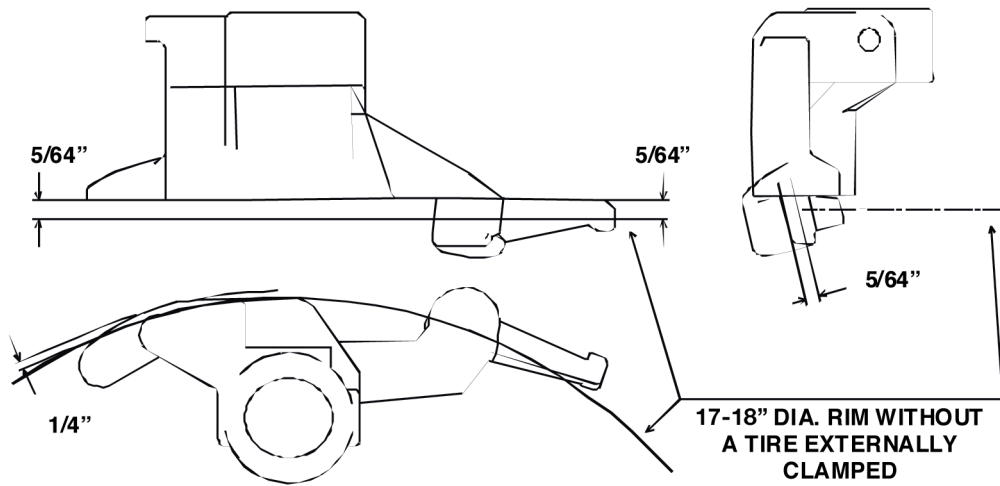
OVER-HANG

Measure with depth gauge

1/4-inch specification

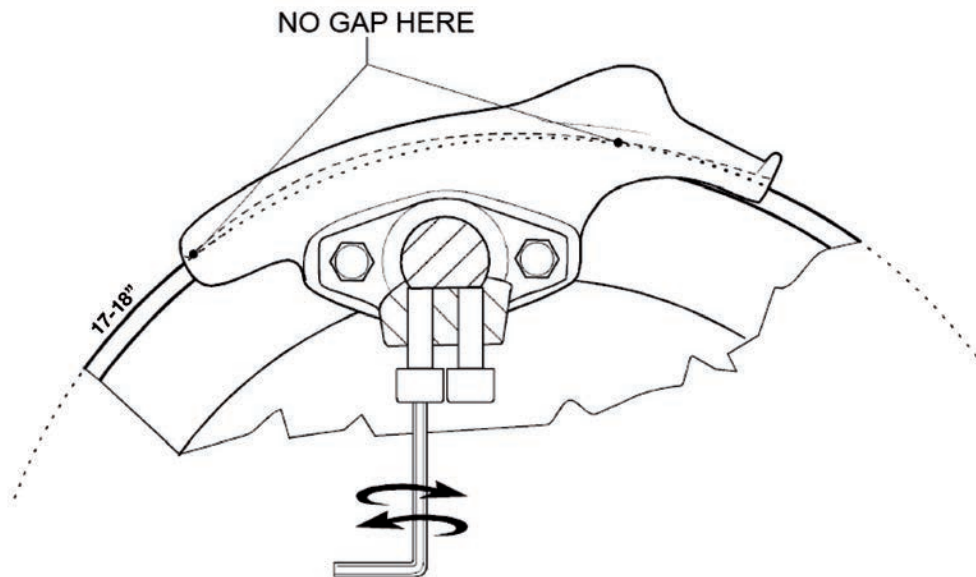
- 7- Fully tighten the set screws, checking when done that sides of the tool head are still the same distance from the edge of the rim.
- 8- When the correct position has been achieved, tighten the adjustment bolts alternately to lock it in position.
- 9- Tighten the head retaining bolt.

Figure below is a summary of the desired end result.



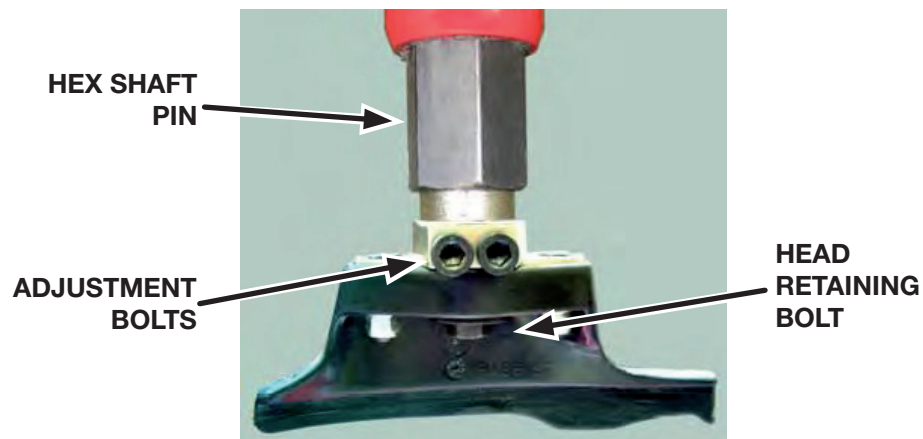
For Plastic Heads

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 a 17-18" rim without a tire on the tire changer 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- Keep the roller in contact with the edge of the rim, alternately loosen and tighten the two hex bolts until there is no gap.
- 5- When the correct position has been achieved, tighten the hex bolts alternately to lock it in position.
- 6- 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



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.

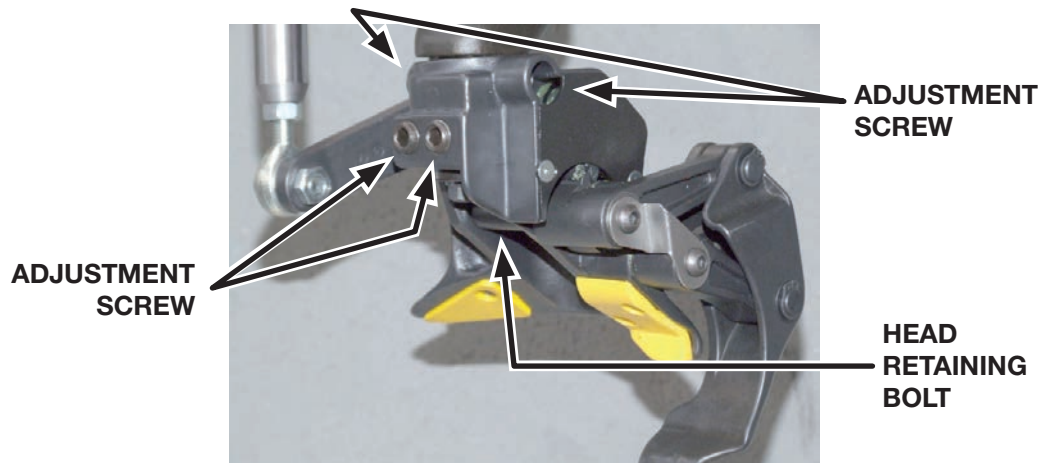
Confirm head clearances to the 17-18" in rim are correct. Position the mount/demount head on the outer edge and lock in this position. Check clearances.

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.



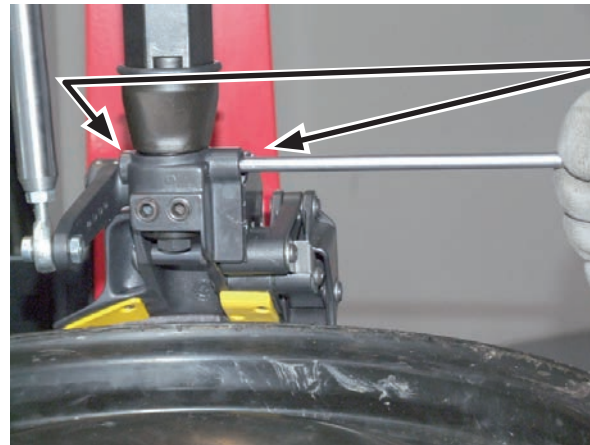
3. Position the tool head manually against the edge of the rim so that both sides of the tool head are resting on it. Keep the tool head in position without engaging the head position lock.



Horizontal Adjustment of the Tool Head

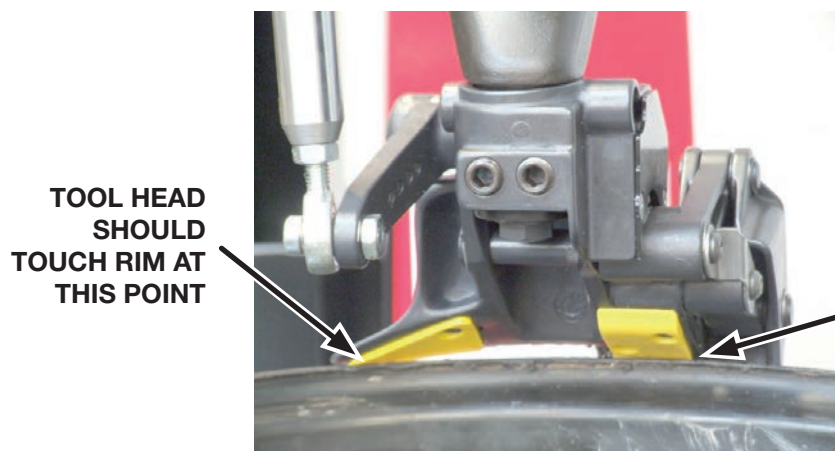
1. Lower the automatic lever of the tool head to access the adjustment screws on the side.

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



**ADJUSTMENT
SCREW**

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



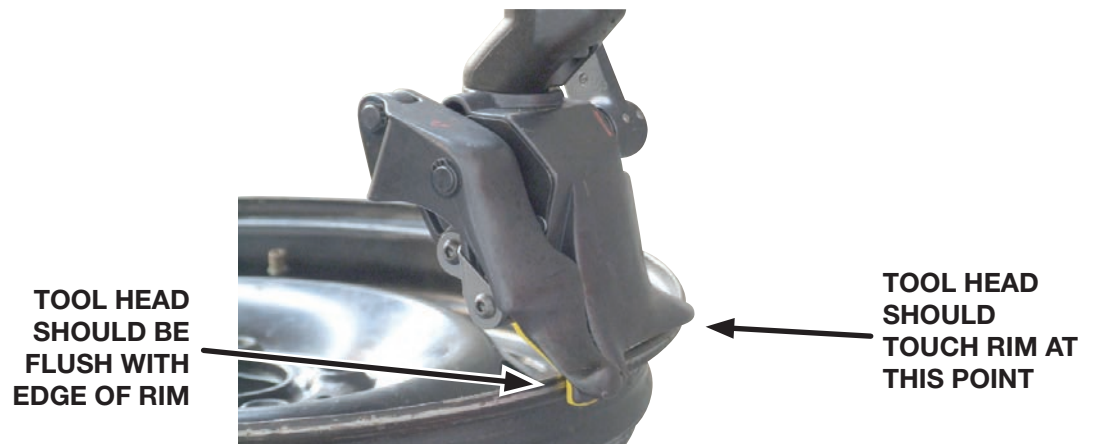
**TOOL HEAD
SHOULD
TOUCH RIM AT
THIS POINT**

**TOOL HEAD
SHOULD
TOUCH RIM AT
THIS POINT**

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.



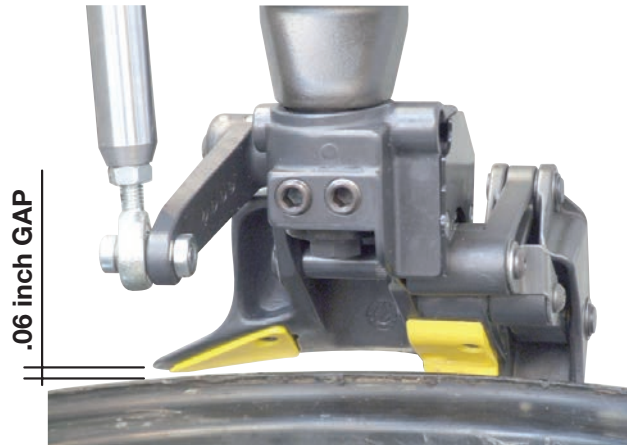
**TOOL HEAD
SHOULD BE
FLUSH WITH
EDGE OF RIM**

**TOOL HEAD
SHOULD
TOUCH RIM AT
THIS POINT**

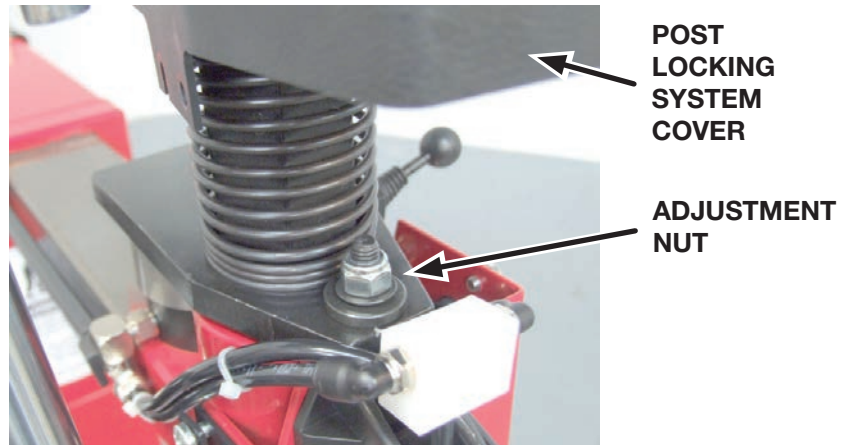
3. Fully tighten the adjustment screws starting with the head retaining bolt.
Release the post and reposition the tool head on the rim for gap adjustment.

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.



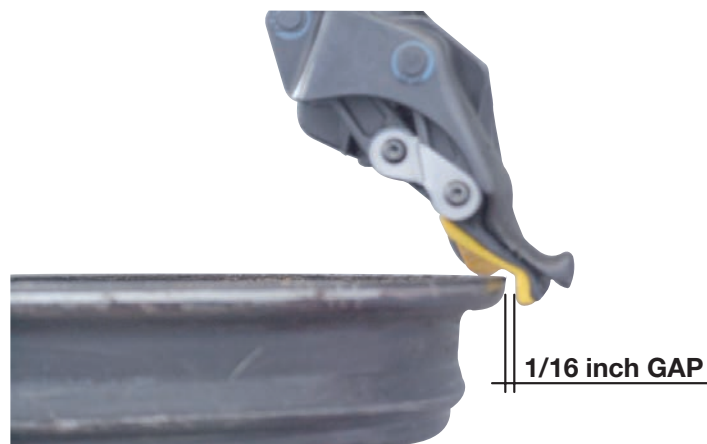
2. If the gap is not correct, release the head position lock and adjust the nut beneath the post locking system cover to adjust the gap. The cover must be removed. Back off the nut to increase the gap and tighten to reduce the gap.



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

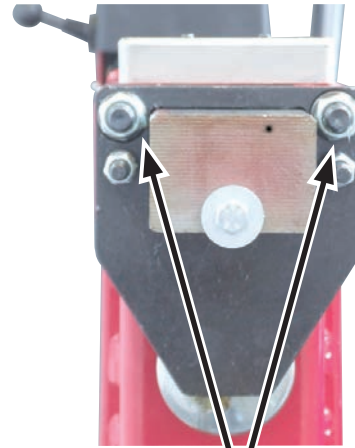
1. Release the tool head, then reposition it on the rim and lock it in place with the head position lock.
2. Using a feeler gauge, check the horizontal gap between the tool head and the rim. The distance should be 1/16 inch.



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

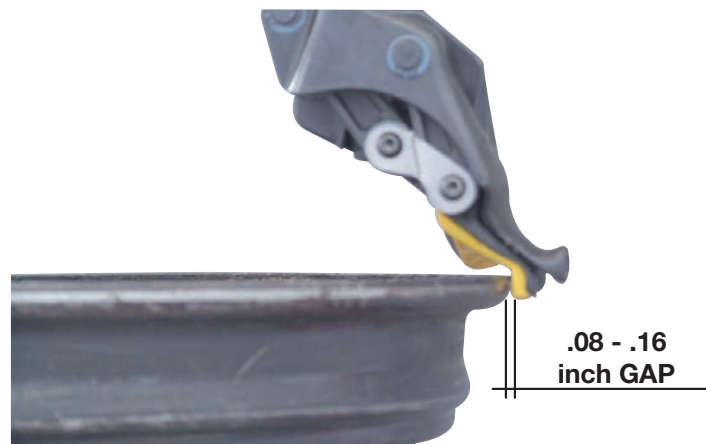


ADJUSTMENT
NUT

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.

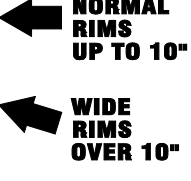









6. When finish mount the cover.

4. Maintenance

4.1 Maintenance Schedule

	<div> DANGER</div> <ul style="list-style-type: none">• EXPLOSION HAZARD• Never exceed tire pressure recommended by tire manufacturer. Never mismatch tire size and rim size.• Avoid personal injury or death
---	---

 <p>NORMAL RIMS UP TO 10"</p> <p>WIDE RIMS OVER 10"</p>	<div> WARNING</div> <p>CRUSH HAZARD</p> <p>KEEP HANDS CLEAR OF ROTATING TABLE</p>	<div> WARNING</div> <p>CRUSH HAZARD</p> <p>KEEP ARMS AND LEGS CLEAR OF BEAD BREAKER</p>	<div> WARNING</div> <p>EXPLOSION HAZARD</p> <p>DO NOT BREAK BEAD WITH AIR PRESSURE IN TIRE.</p>
<div></div> <p>CRUSH HAZARD.</p> <p>Before making any adjustments or carrying out maintenance, disconnect the electrical and compressed air supplies from the equipment and make sure that all moving parts are suitably immobilized.</p>			

	<div> DANGER</div> <ul style="list-style-type: none">• HAZARDOUS VOLTAGE• Turn off and lock out system power before servicing.• Contact may cause electric shock or death
---	--

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.

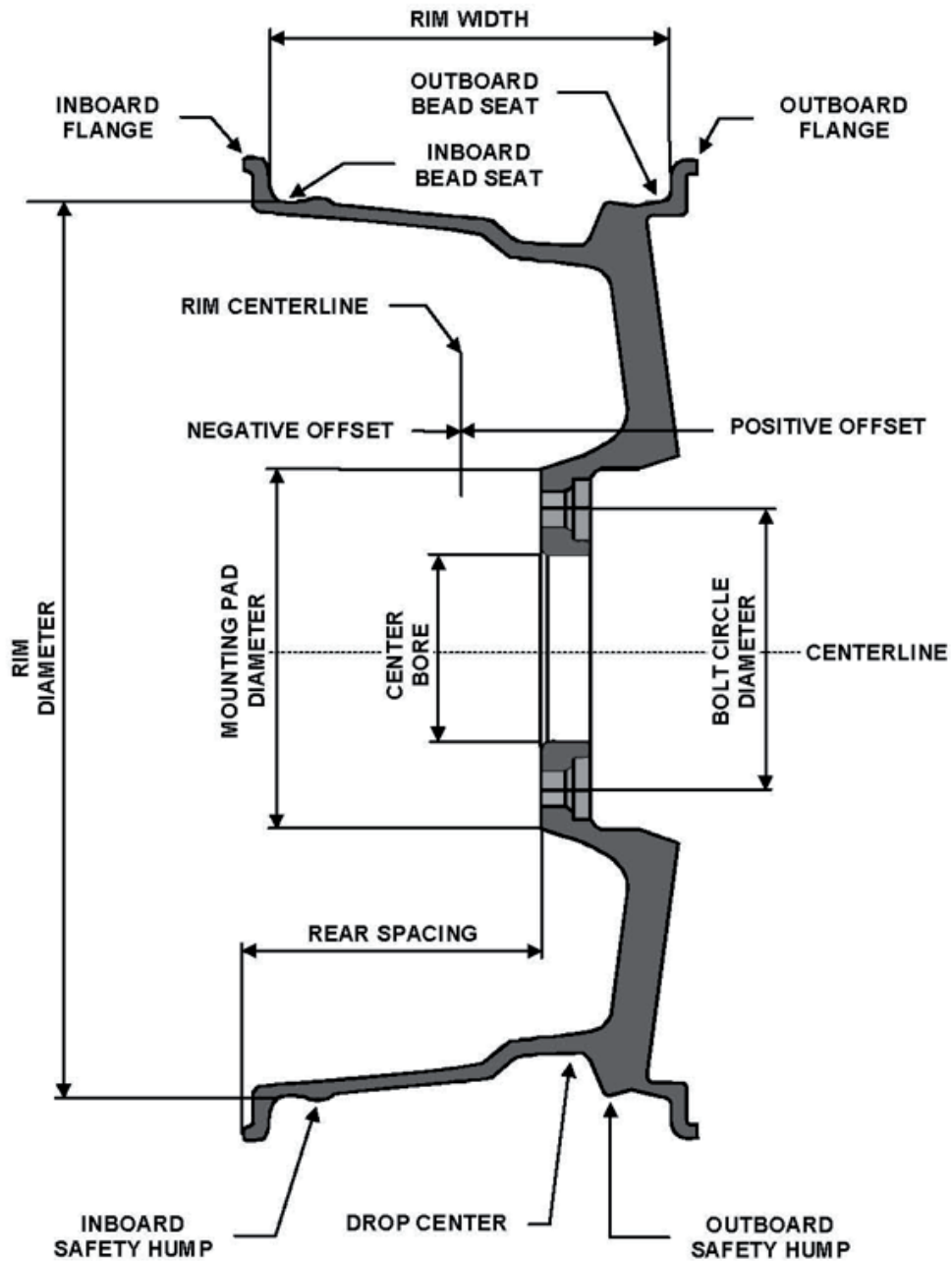
Maintenance Schedule	Perform the Following Maintenance
Daily	<p>Drain condensation from pressure regulator reservoir by pressing in on the fitting located on the bottom of the regulator.</p> <p>Check for worn or damaged rubber and nylon components that should be replaced to prevent damage from occurring. Replace worn parts as needed (tool supports, rubber pads, lever protector sleeve and mount/demount head).</p> <p>Clean all areas that contact rims or tires to prevent possible scratching to rim.</p>
Weekly	<p>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.</p> <p>Do not use cleaning solvents to clean pressure regulator/oiler.</p>
Periodically	<p>Refill the pressure regulator/oiler using only Hunter Lubri-Oil, 148-133-2, as needed. Petroleum-based oils should never be used in the oiler and may void all warranties.</p> <p>Adjust the oiler to release one drop of oil every three rotations of the clamping table by adjusting the screw on top.</p> <p>Check for loose bolts and tighten per specifications.</p>

4.2 Maintenance and Replacement Parts

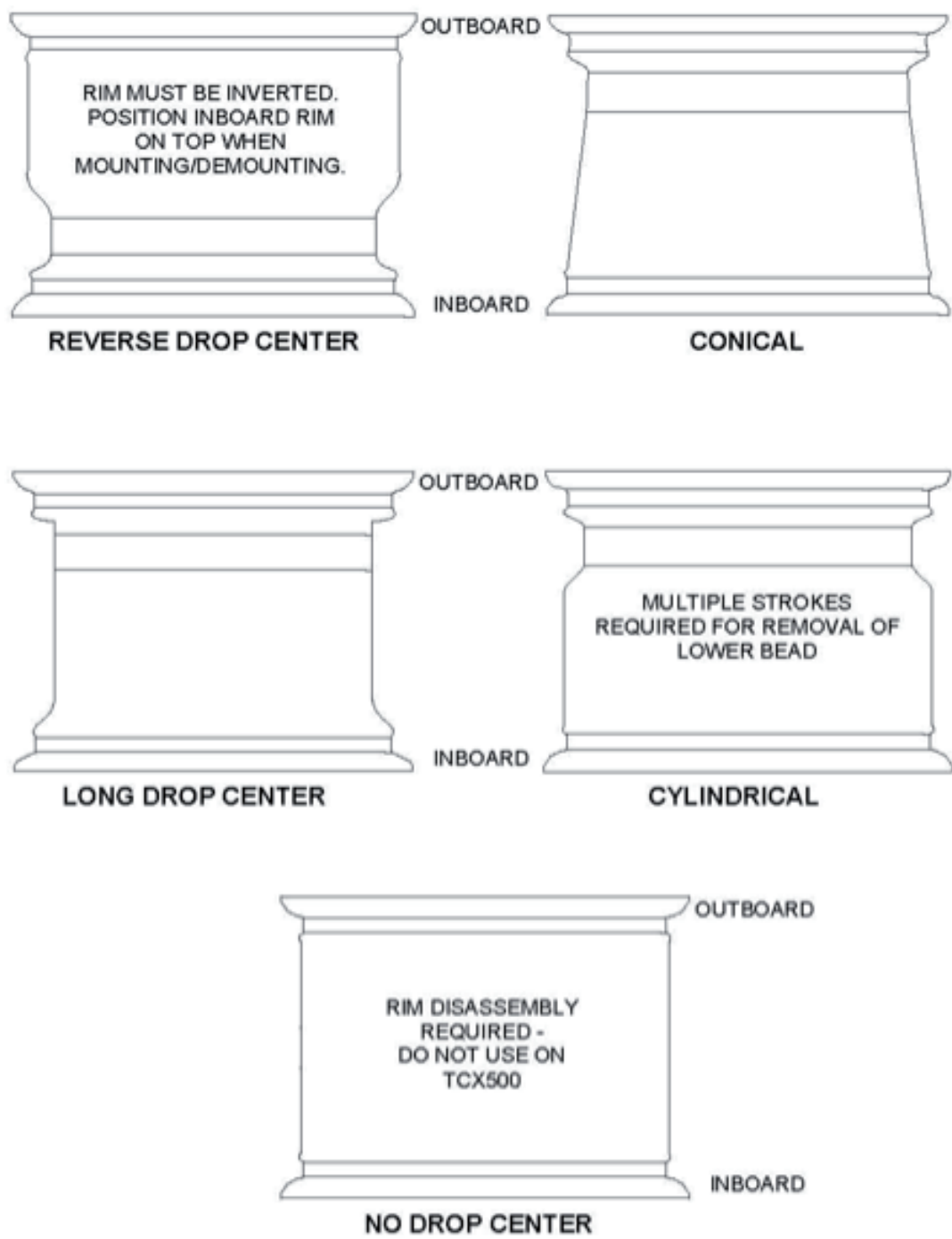
NAME	NUMBER
Safety Goggles	179-15-2
Brush	RP6-1506
Mounting Paste	RP6-3784
Polymer Mount/Demount Head	RP11-3314813
Hand Held Bead Lever - straight	RP11-3009516
Bead Lever Protector Sleeve (Std) (4)	RP11-8-11400098
Jaw Protection Kit (2 sets - 8 covers)	RP11-8-11400085
TCX56 Steel Head Inserts (10 sets - 20 covers)	RP11-8-11400096
TCX57 Mount/demount Protector Kit consisting of: 10 demounting protectors 5 mounting protectors 15 protector screws	RP11-8-11400293

5. Glossary

5.1 Rim Diagram



5.2 Illustrations of Various Rim Designs





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

Hunter Research and Training Center



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- ✓ 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.

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- ❑ 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

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