

⚠ WARNING

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

REV A 4-13-10

PN# 5900375

INSTALLATION AND OPERATION MANUAL

TIRE CHANGER

Model RX3040

FOR SERVICING
AUTOMOBILE AND LIGHT
TRUCK SINGLE PIECE
TIRES / WHEELS



Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual.

SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

BE SAFE

Your new Ranger tire changer was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



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RX3040 TIRE CHANGER

This instruction manual has been prepared especially for you.
Your new tire changer is the result of over 25 years of continuous research, testing and development and is the most technically advanced tire changer on the market today.
The manner in which you care for and maintain your tire changer will have a direct effect on it's overall performance and longevity.

READ THIS ENTIRE MANUAL BEFORE OPERATION BEGINS.

RECORD HERE THE FOLLOWING INFORMATION
WHICH IS LOCATED ON THE SERIAL NUMBER DATA PLATE.

Serial No. _____

Model No. _____

Manufacturing date _____

PRODUCT WARRANTY

Your new tire changer is covered under warranty for one year on equipment structure; one year on all operating components and tooling/accessories, to the original purchaser, to be free of defects in material and workmanship. The manufacturer shall repair or replace at their option for this period those parts returned to the factory freight prepaid which prove upon inspection to be defective. The manufacturer will pay labor costs for the first 12 months only on parts returned as previously described.

The warranty does not extend to...

- ◆ defects caused by ordinary wear, abuse, misuse, shipping damage, improper installation, voltage or lack of required maintenance;
- ◆ damages resulting from purchaser's neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) and/or other accompanying instructions supplied;
- ◆ normal wear items or service normally required to maintain the product in a safe operating condition;
- ◆ any component damaged in shipment;
- ◆ other items not listed but may be considered general wear parts;
- ◆ damage caused by rain, excessive humidity, corrosive environments or other contaminants.

THESE WARRANTIES DO NOT EXTEND TO ANY COSMETIC DEFECT NOT INTERFERING WITH EQUIPMENT FUNCTIONALITY OR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF A BENDPAK INC./ RANGER PRODUCT OR THE BREACH OR DELAY IN PERFORMANCE OF THE WARRANTY.

WARRANTY IS NOT VALID UNLESS WARRANTY CARD IS RETURNED.

NOTE:

Every effort has been taken to ensure complete and accurate instructions have been included in this manual, however, possible product updates, revisions and or changes may have occurred since this printing. BendPak Ranger reserves the right to change specifications without incurring any obligation for equipment previously or subsequently sold. Not responsible for typographical errors.

SPECIFICATIONS

Type of drive system: Air / Electric-Hydraulic
Dual motors: 2 & 3-Hp / 208-230V 60HZ 1 Ph
Air requirement: 140-165 psi (10-11 bar)
Wheel clamping method: Threaded Shaft / Cones / Quick-Nut
Bead breaking system: Top and Bottom Power Rollers
Combined bead breaker force: 10,600 PSI
Inflation system: Standard
Wheel clamping capacity: 10" – 30" / 254 mm - 762 mm
Tire width capacity: 3" - 22" / 76 mm - 559 mm
Max tire diameter: 44" / 1118 mm
Turntable speed: 360-Degree Rotation: 8-Seconds
Shipping weight: 1,410 lbs. / 640 kg
Shipping dimensions: 44" x 65" x 75" / 1118 mm x 1651 mm x 1905 mm

FEATURES

Touchless wheel-service technology
Accommodates virtually all OEM wheels and run-flats
Ranger RimGuard™ technology means expensive wheels are handled with greater care
Equipped with four-piece mounting cone package
Wheel protection package comes standard
Reversible tool head
Ergonomic joystick control
Nylon & hardened steel tool head comes standard
Upper and lower bead breaker rollers
Power-assist traveling drop-center arm
Power-drop top assist roller
Hydraulic powered
Integrated wheel lift with easy-guide rollers
Convenient tire hook for lifting tires up and off the wheel flange
Multi-size center cones and quick-nut makes mounting wheels fast and easy
Target-lock™ control provides automatic locating of tool head
Easy view camera and 7" LCD monitor
Turbo-Blast nozzle.
Pressure gauge with built-in pressure regulator and air release valve
Italian-made rear-mounted hydraulic power unit
Five-station hydraulic manifold
High-precision aluminum-alloy valve bodies with durable, corrosion resistant stainless steel spools
Auto-shutdown technology



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.

Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.

For additional copies
or further information, contact:
BendPak Inc. / Ranger Products
1645 Lemonwood Dr.,
Santa Paula, CA. 93060
1-805-933-9970
www.bendpak.com



OPERATOR PROTECTIVE EQUIPMENT

Personal protective equipment helps make tire changing safer. However, equipment does not take the place of safe operating practices. Always wear durable work clothing during tire service activity. Shop aprons or shop coats may also be worn, however loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect operators hands when handling worn tires and wheels. Sturdy leather work shoes with steel toes and oil resistant soles should be used by tire service personnel to help prevent injury in typical shop activities.

Eye protection is essential during tire service activity. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing operator protection. Consideration should also be given to the use of hearing protection if tire service activity is performed in an enclosed area, or if noise levels are high.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.

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SECTION 1

DEFINITION OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



DANGER

Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



WARNING

Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



CAUTION

Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury or product or property damage.



Watch for this symbol! It means BE ALERT! Your safety, or the safety of others, is involved!

SECTION 2

OWNER'S RESPONSIBILITY

To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- ◆ Follow all installation instructions.
- ◆ Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- ◆ Carefully check the unit for correct initial function.
- ◆ Read and follow the safety instructions. Keep them readily available for machine operators.
- ◆ Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- ◆ Allow unit operation only with all parts in place and operating safely.
- ◆ Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ◆ Service and maintain the unit only with authorized or approved replacement parts.
- ◆ Keep all instructions permanently with the unit and all decal's on the unit clean and visible.



Do not attempt to operate this equipment if you have never been trained on basic tire service and mounting / dismounting procedures.



SECTION 3

IMPORTANT SAFETY INSTRUCTIONS!

Read these safety instructions entirely!



1. **READ AND UNDERSTAND** all safety warning procedures before operating lift.
2. **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts.
3. **KEEP WORK AREA CLEAN.** Cluttered work areas invite injuries.
4. Consider work area environment. Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lighted.
5. **ONLY TRAINED OPERATORS** should operate this equipment. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate machine.
6. **USE MACHINE CORRECTLY.** Use machine in the proper manner. Never use adapters other than what is approved by the manufacturer.
7. **DO NOT** override or disable safety valves and/or devices.
11. **ALWAYS INSURE** that any safety components are engaged before any attempt is made to work on or near machine.
9. **DRESS PROPERLY.** Non-skid steel-toe footwear is recommended when operating machine.
11. **GUARD AGAINST ELECTRIC SHOCK!** This equipment must be grounded while in use to protect the operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.

11. **DANGER!** The motor on this machine contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.



12. **WARNING! RISK OF EXPLOSION.** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.



13. **MAINTAIN WITH CARE.** Keep unit clean for better and safe performance. Follow manual for proper lubrication and maintenance instructions. Keep control pedals and/or buttons dry, clean and free from grease and oil.

14. **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.

15. **CHECK FOR DAMAGED PARTS.** Check for condition of all moving parts, breakage of parts or any condition that may affect the machines operation. Do not use if any component is broken or damaged.

16. **NEVER** remove safety related components or device from the machine. Do not use if safety related components are damaged or missing.

17. To reduce fire hazard, keep engine/motor exterior free of oil, solvent, or excessive grease.



111. Illegible and missing warning labels must be replaced immediately. Do not use the tire changer if one or more labels are missing. Do not add any object that could prevent the operator from seeing the labels.

SECTION 4

TIRE AND WHEEL SERVICE SAFETY INSTRUCTIONS



Only properly trained personnel should service tires and wheels on the RX3040. Read all safety and operating instructions thoroughly before use. The following safety instructions are for one piece wheels only. Always refer to the manufacturer's procedures for multi-piece wheels.

ALWAYS wear durable personal protective work clothing and safety gear during tire service activity. Refer to page three for Operator Protective Equipment.

ALWAYS remove all wheel weights and the valve core to deflate the tire before servicing.

ALWAYS keep all working surfaces clean and free of debris.

ALWAYS be aware of what each person is doing - and what they will do before attempting any two-person operation.

ALWAYS cover the electric motor and switch box before cleaning the tire changer. Be sure water does not enter the motor or switch box.

ALWAYS disconnect the electric power and air supply before attempting any maintenance.

Demounting & Mounting

ALWAYS clean and inspect the wheel prior to any service.

NEVER stand on the sliding carriage, frame or work table while demounting or mounting a tire.

ALWAYS keep hands, feet, and other objects away from moving parts while the machine is turned on.

ALWAYS identify the drop Center of the wheel. See page 31.

ALWAYS place the narrow bead seat to the outside when clamping. Failure to demount the tire from the narrow bead seat side may cause damage to the tire beads. See page 31.

ALWAYS apply an approved rubber lubricant to rim flanges and both tire beads before demounting or mounting and seating the beads.

NEVER mount a tire on a damaged or rusty wheel as tire or wheel failure may result during inflation. Explosion from failure may result in severe injury or death of the operator and bystanders.

Inflation

ALWAYS be sure the bead opposite the tool head is in the drop center before rotating the tire when demounting or mounting to avoid damage to the tire beads.

ALWAYS follow all applicable Local, State, and Federal Codes, Rules, and Regulations; such as the Federal OSHA Standard Number 1910.177.

ALWAYS use an approved inflation chamber or inflation cage equipped with a self-gripping chuck and remote inflation gauge and valve.

ALWAYS inflate the tire to manufacturer's recommended cold operating pressure.

DO NOT OVER INFLATE! Tire or wheel failure during and after inflation may result in an explosion capable of causing severe injury or death.

NEVER reinflate a tire that has been run under inflated or flat without first demounting the tire and checking for wheel and tire damage.

ALWAYS inspect the tire interior for loose or broken cords, cuts, penetrating objects, and other damage. Discard tires that cannot be properly repaired.

NEVER rework, weld, heat or braze wheels.

NEVER strike the tire or wheel with a hammer.

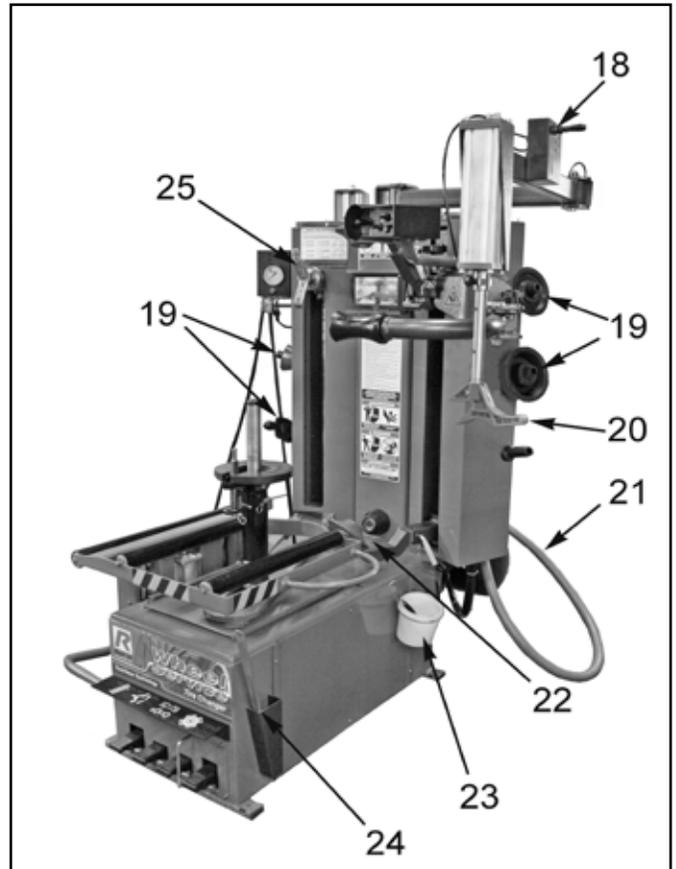
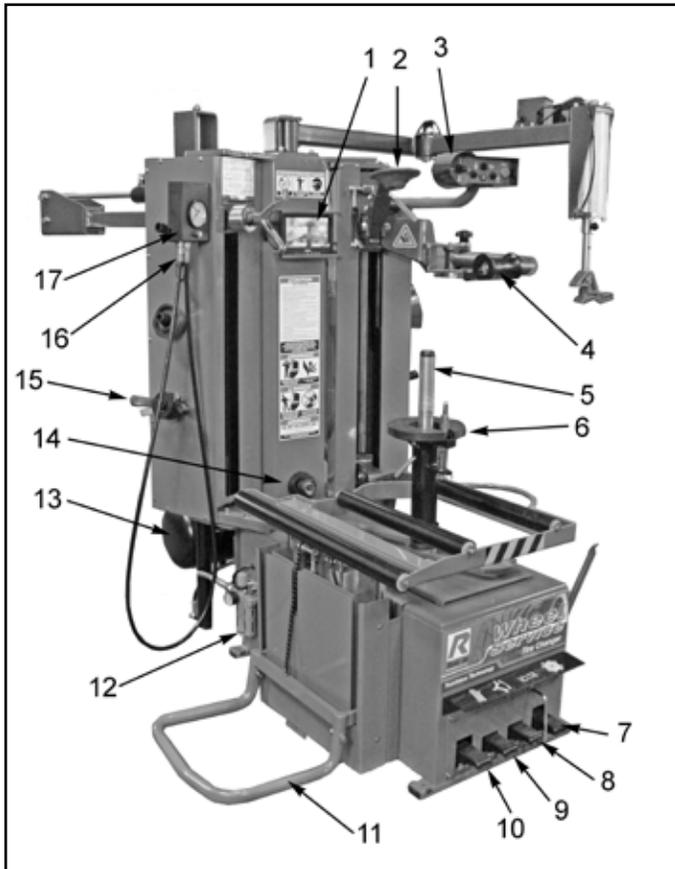
ALWAYS be sure the tire diameter exactly matches the wheel diameter.



Tire failure under pressure can be hazardous. When possible, always place wheels inside an approved inflation chamber or cage before inflating. Use an approved remote inflation valve, hose, and gauge. **ALWAYS** wear safety goggles for eye protection. Do not stand beside the wheel or cage during inflation. Keep hands and other parts of the body out of the cage during inflation. Observe the tire pressure frequently. Do not exceed the manufacturer's recommended maximum inflation pressure. Failure to follow these instructions may cause the tire and rim to separate with tremendous force, resulting in serious personal injury or death.

SECTION 5

DESCRIPTION OF PARTS



(1) Video Monitor — Video assist displays Lower Bead Tools.

(2) Upper Bead Breaker Roller — Breaks Upper Bead.

(3) Control Pod — Houses Hydraulic controls.

(4) Top Bead Assist Roller — Provides downward pressure during tire mounting operations.

(5) Center Post — Provides centering and clamping forces.

(6) Turntable — Provides platform and rotation of Rim and tire.

(7) Turntable Rotation Pedal — Controls the Rotation of the Turntable clock and counter clockwise.

(8) Inflation Pedal — Controls tire inflation and pressure gauge.

(9) Too Head Control Pedal — Controls orientation of Tool Head.

(10) Wheel Lift Control Pedal — Controls operation of Wheel lift- raises and lowers tire/rim.

(11) Wheel Lift Cradle — Support wheel during Lifting and lowering wheel.

(12) Air/Oil Regulator/Dryer — Regulates Incoming Air Pressure, Dries and/or oils incoming air.

(13) Air Tank — Air storage tank for inflation and “Turbo-Blast” bead sealing operation.

(14) Camera — Video assist for Lower Bead operations.

(15) Quick Nut — Locks the Rim to the turntable.

(16) Inflation Hose — Inflates the tire.

(17) Pressure Gauge Assembly — Displays the tire pressure, Releases tire pressure, stores Inflation Hose.

(18) Reversible Drop Center Tool Control — Pneumatic Control of Reversible Drop Center Tool height.

(19) Tool-Storage Pegs — A convenient place to store Cones, Quick nut or other accessories.

(20) Reversible Drop Center Tool — Used to lift and position tire bead correctly during mounting procedures.

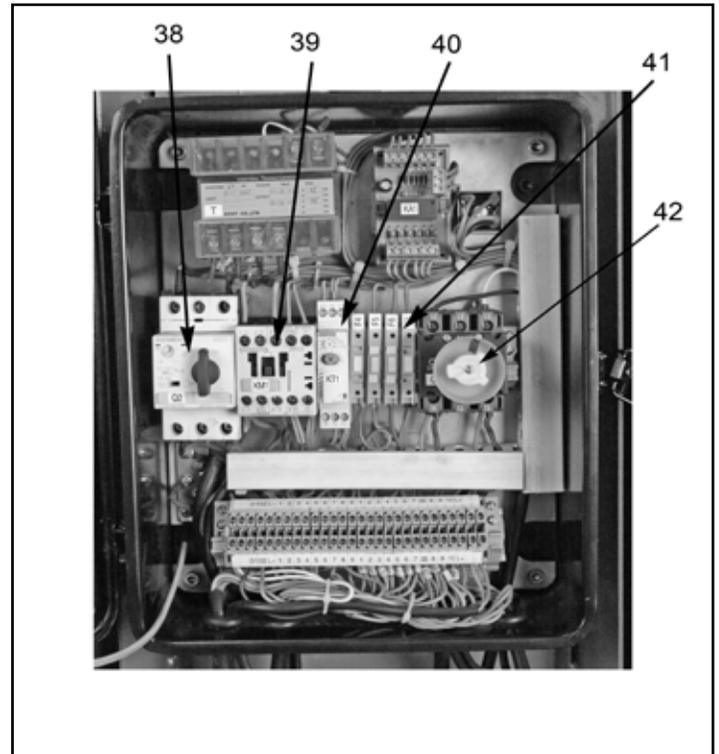
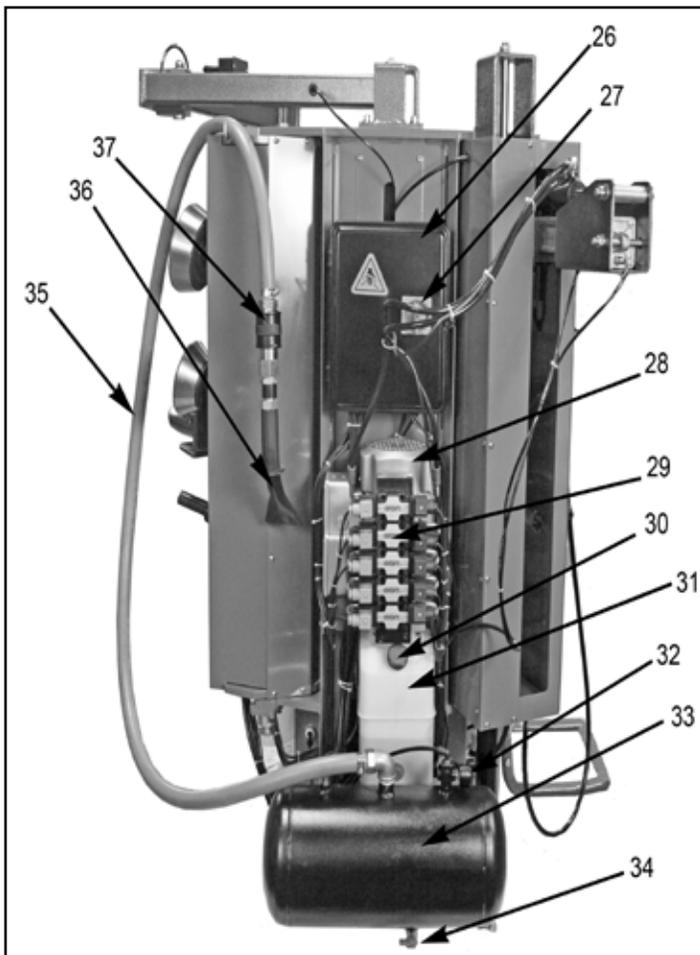
(21) Turbo-Blast Hose Assembly — Used to Seat bead with a powerful pneumatic blast.

(22) Lower Bead Breaker Roller — Breaks Lower Bead.

(23) Tire Lubricant Container — Convenient storage of Bead Lubricating solution and brush.

(24) Tire Iron Tool / Storage — Convenient storage of Tire tools.

(25) Tool Head — Lifts upper and lower beads off of rim during demounting and mounting operations.



(26) Power Center — Houses relays fuses and wiring components.

(27) Power Switch — Powers the Tire Changer On and Off.

(28) Hydraulic Power Unit — Electric motor and pump that supply pressure to hydraulic system.

(29) Hydraulic Manifold — Provides distribution of hydraulic fluid /pressure to various components.

(30) Hydraulic Fluid Reservoir — Stores Hydraulic fluid.

(31) Hydraulic Fluid Fill Cap — Fill Hydraulic Reservoir through this opening.

(32) Air Tank Pressure Gauge Assembly — Displays the Air Tanks's pressure.

(33) Air Tank — Air storage tank for inflation and "Turbo-Blast" bead sealing operation.

(34) Air Tank Drain Valve — Drain valve for draining Air Tank of any moisture buildup.

(35) Turbo-Blast Hose Assembly — Used to Seat bead with a powerful pneumatic blast.

(36) Turbo-Blast Nozzle — Used to direct pneumatic blast towards rim.

(37) Turbo-Blast Open/ Close Valve — Opens and closes Turbo-Blast.

(38) Thermal Protector —

(39) Contactor —

(40) Timer —

(41) Fuses —Provides over load protection.

(42) On /Off Switch — Main Power Switch

SECTION 6 ASSEMBLY INSTRUCTIONS

Crate Lifting



DANGER!

HANDLING OF THE MACHINE MUST BE PERFORMED ONLY WITH AN APPROPRIATE LIFTING DEVICE SUCH AS A FORKLIFT OR PALLET JACK.

ONLY PERSONNEL WHO ARE EXPERIENCED AND QUALIFIED ON MATERIAL HANDLING PROCEDURES SHOULD HANDLE ANY TRANSPORTATION OR MOVING OF MACHINE.

DO NOT LIFT OR MOVE UNIT WITHOUT APPROPRIATELY RATED EQUIPMENT. BE SURE THE UNIT IS SECURELY ATTACHED TO ANY LIFTING DEVICE USE.

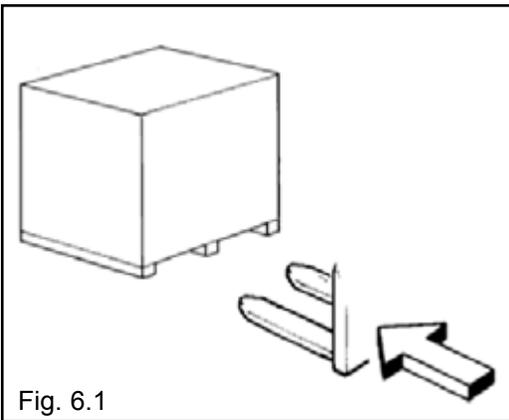


Fig. 6.1

Crate Size 75" x 65" x 44" (1905mm x 1651mm x 1118mm)
Shipping Weight 1,410 lbs / 640 kg. (See Fig. 6.2)

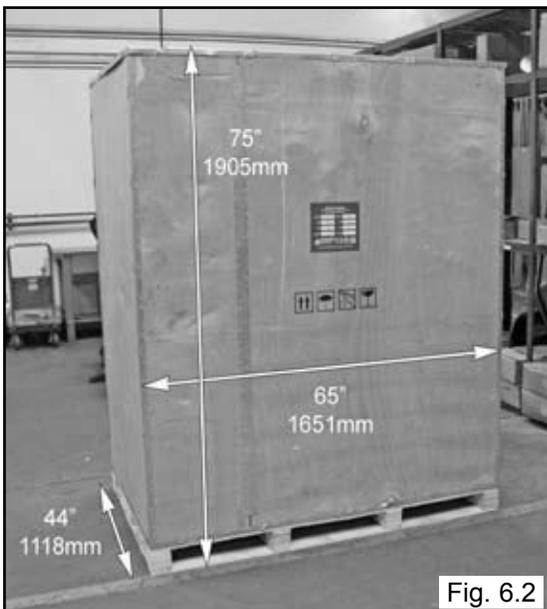


Fig. 6.2

Uncrating Instructions



CAUTION!

BE CAREFUL WHEN CUTTING BANDING, CLIPS, OR STRAPPING MATERIAL AS ITEMS MAY HAVE BECOME LOOSE AND COULD FALL CAUSING PERSONAL HARM OR INJURY. ALWAYS WEAR GLOVES WHEN UNCRATING MACHINE TO PREVENT SCRATCHES, ABRASIONS, OR CUTS DUE TO CONTACT WITH PACKING MATERIALS.

1. Carefully remove the crating fasteners. Using a lifting Device lift the crate up and off the Tire change or disassemble the Crate panel by Panel. Remove packing materials and all skid and pallet fasteners. (See Fig 6.3)

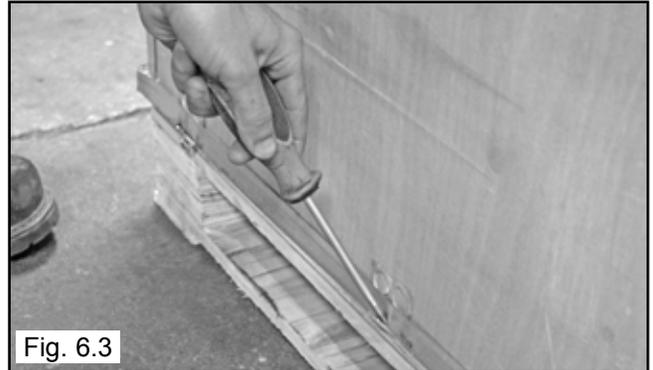


Fig. 6.3



CAUTION!

REPORT ANY SHIPPING DAMAGE TO THE CARRIER AND MAKE A NOTATION ON THE DELIVERY RECEIPT.

2. Carefully cut plastic wrapping off. Carefully remove loose accessories and accessories box from pallet. (See Fig. 6.4)

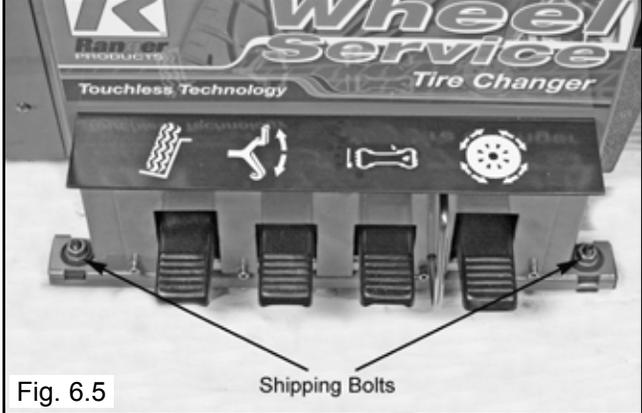


Fig. 6.4

CAUTION

CAUTION!
KEEP THE ASSIST ARMS STRAPPED TO MACHINE UNTIL AFTER REMOVAL FROM THE SHIPPING PALLET. SWINGING ASSIST ARMS MAY CAUSE DAMAGE OR INJURY.

2. Remove any shipping bolts, (four) holding the Tire changer to the Shipping Pallet. (See Fig. 6.5)

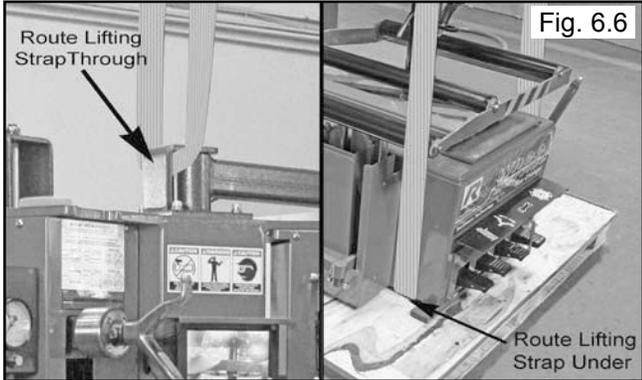


Lifting Points

DANGER

DANGER!
HANDLING OF THE MACHINE MUST BE PERFORMED ONLY WITH AN APPROPRIATE LIFTING DEVICE SUCH AS A FORKLIFT OR PALLET JACK.
ONLY PERSONNEL WHO ARE EXPERIENCED AND QUALIFIED ON MATERIAL HANDLING PROCEDURES SHOULD HANDLE ANY TRANSPORTATION OR MOVING OF MACHINE.
DO NOT LIFT OR MOVE UNIT WITHOUT APPROPRIATELY RATED EQUIPMENT. BE SURE THE UNIT IS SECURELY ATTACHED TO ANY LIFTING DEVICE USE.

1. Using adequately rated lifting straps or covered chains, lift the Tire changer from the points indicated. (See Fig. 6.6)



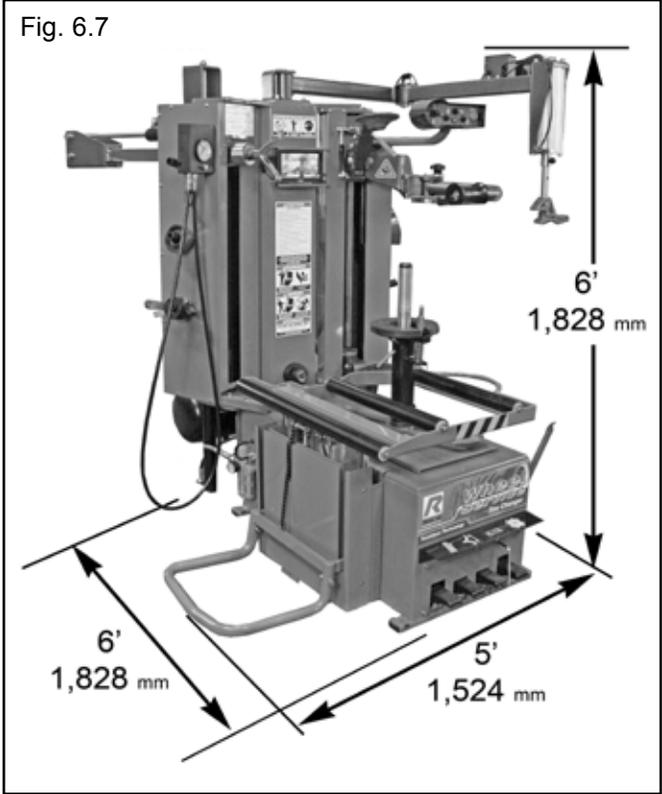
Installation and Assembly

DANGER

DANGER!
DO NOT LIFT OR MOVE UNIT WITHOUT APPROPRIATELY RATED EQUIPMENT. BE SURE THE UNIT IS SECURELY ATTACHED TO ANY LIFTING DEVICE USE.
NEVER USE THE WOOD SHIPPING PALLET FOR MOUNTING THE UNIT.

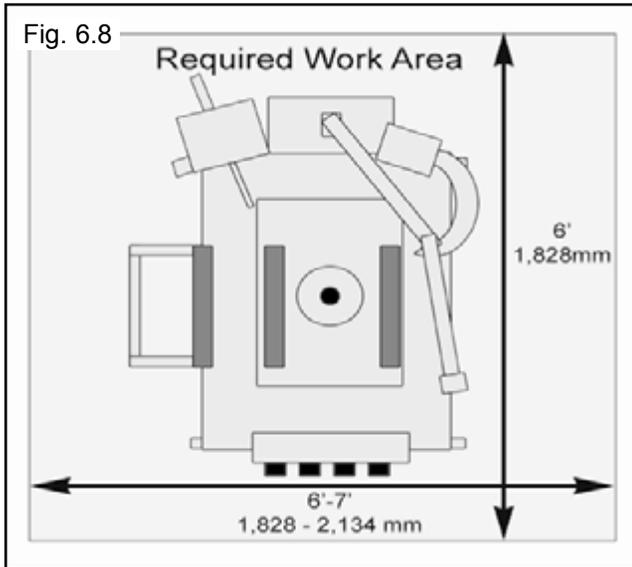
1. Select a location using Figures 6.7 and 6.8. The area should provide the operator with enough space to use the equipment in a safe manner. The area selected should be well lit, easy to clean and should be away from oil, grease, brake lathe chips, etc. Avoid areas where bystanders and customers may be present.

Machine size is approximately:
6' deep x 5' wide x 6' high
(1,828 mm x 1,524 mm x 1,828 mm)



DANGER

These measurements are the tire changer's working range. Persons other than specially trained and authorized operators are expressly forbidden to enter this area. Choose a safe location that is in compliance with current work place safety regulations.



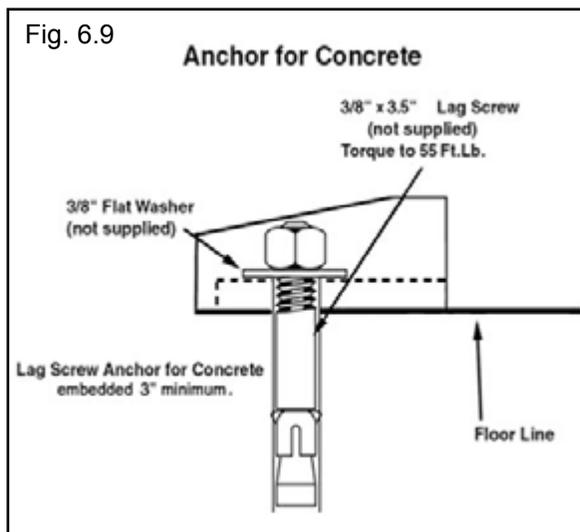
DANGER!

**FAILURE TO PROPERLY INSTALL THE MACHINE
CAN LEAD TO IMPROPER AND UNSAFE
OPERATION.**

**Proper unit installation is necessary for safe use
and efficient operation. Proper installation also
helps protect the unit from damage and makes
service easier. Always keep this manual with unit.**

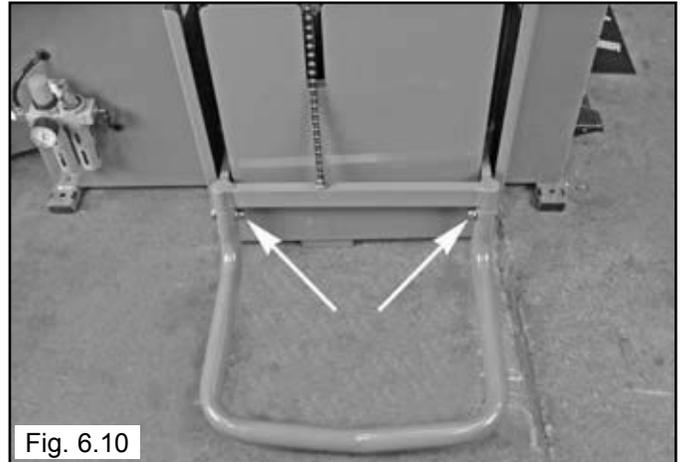
Anchoring

1. It is not essential to anchor the machine to the floor, however, the floor must be smooth and level. When anchoring to a concrete floor use the mounting holes that are provided in the frame. Make sure the machine is solid and level and supported evenly on all anchor points. Solid shims may be used if necessary. (See Fig. 6.9)



Assembly

1. Bolt the Tire Carrier onto the bottom of the Tire Lift.
(See Fig. 6.9)

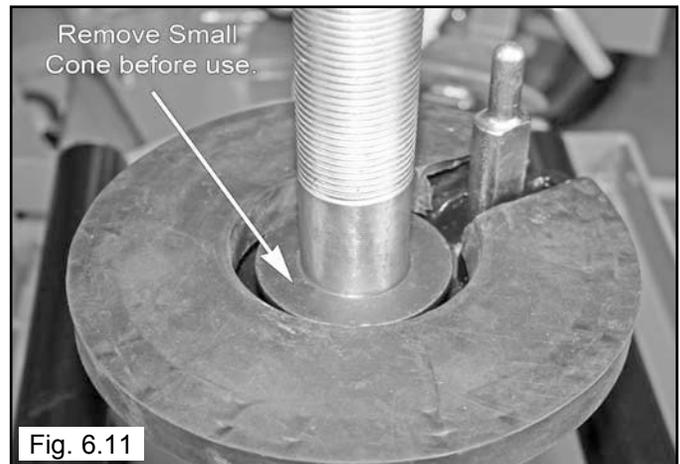


2. Remove the tie downs holding the Assist Arms in place.

3. Remove the Quick Nut and Mounting Cones from the Center Post.

NOTE:

Be sure to remove the Small Cone from the Turntable as it can drop below the Turntable and cause some wheel mounting difficulty. (See Fig. 6.11)



4. Place the Mounting cones, and Quick Nut on the accessory hangers mounted on the sides of the machine

5. Place the Tire Lubricant Container Bracket and place it in the holes on the side panel. Fill the container with Tire manufacturer's recommended lubricant.

SECTION 7

AIR SOURCE

This model requires a 14 to 15 CFM air source at 45-165 PSI minimum pressure. The safe operating pressure range for this model is between 140 PSI and 165 PSI at the machine.



WARNING!

CHECK THAT THE TURBO-BLAST VALVE IS CLOSED BEFORE CONNECTING ANY AIR SOURCE. IF VALVE IS OPEN, AIR BLAST OR HOSE MOVEMENT MAY DAMAGE PERSONNEL OF MACHINE.

1. Connect the Air Supply to the Air Oil Regulator. The unit is furnished with a 1/4" pipe thread female fitting for easy connection. This connection is located on the right side of the rear of the machine. A 1/4" ID hose (or pipe) for connection to the machine is satisfactory. Sufficient air pressure assures good performance. (See Fig. 7.1)

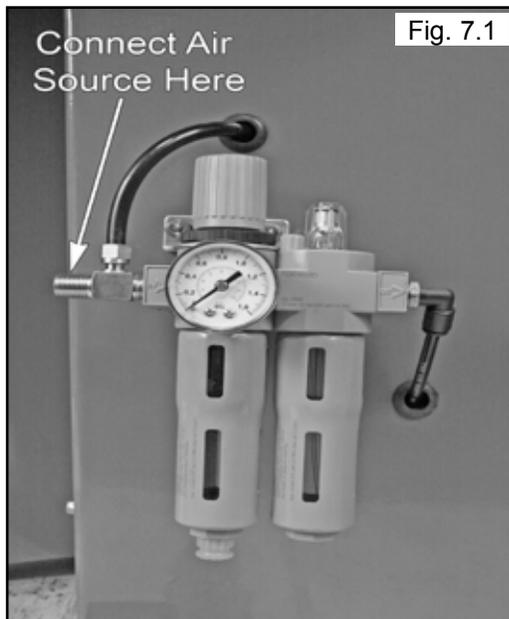


Fig. 7.1

2. Adjust Pressure by turning knob at the top of the Air Regulator and reading the Pressure on the Gauge at the top of the Air Tank/Tower. (See Fig. 7.2)

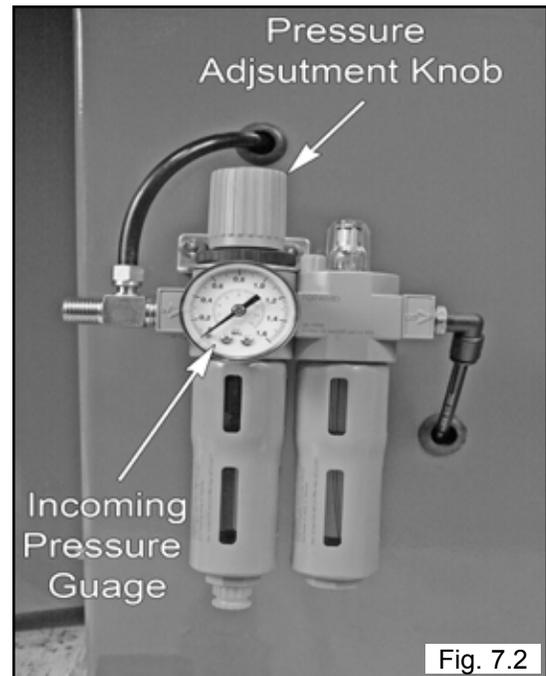


Fig. 7.2

3. Drain water, fill oil and adjust the flow of oil as shown on page 27.

SECTION 8 ELECTRICAL CONNECTIONS

Electrical Source

This unit requires power from a 30 amp electrical circuit. Standard wiring is 208-230V/60hz/Single Phase.

Refer to the serial tag of the machine for specific electrical requirements. Have a licensed electrical technician perform any necessary changes to the power source before plugging in the unit. The electrical source must have a solid connection between ground and building ground.



⚠ WARNING

WARNING!

DISCONNECT, TAG AND LOCK OUT POWER SOURCE BEFORE ATTEMPTING TO INSTALL, SERVICE, RELOCATE OR PERFORM ANY MAINTENANCE.

⚠ DANGER

DANGER!

GUARD AGAINST ELECTRIC SHOCK! THIS EQUIPMENT MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK. NEVER CONNECT THE GREEN POWER CORD WIRE TO A LIVE TERMINAL. THIS IS FOR GROUND ONLY.

⚠ DANGER

DANGER!

THE MOTOR ON THIS MACHINE CONTAINS HIGH VOLTAGE. DISCONNECT POWER AT THE RECEPTACLE BEFORE PERFORMING ANY ELECTRICAL REPAIRS. SECURE PLUG SO THAT IT CANNOT BE ACCIDENTALLY PLUGGED IN DURING SERVICE.

⚠ WARNING

WARNING!

RISK OF EXPLOSION! THIS EQUIPMENT HAS INTERNAL ARCING OR SPARKING PARTS WHICH SHOULD NOT BE EXPOSED TO FLAMMABLE VAPORS. THIS MACHINE SHOULD NOT BE LOCATED IN A RECESSED AREA OR BELOW FLOOR LEVEL.

WIRING INSTRUCTIONS



1. Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate.
Wiring should be performed by a certified electrician only.
2. Overheating, short circuits and fire damage will result from inadequate wiring. Wiring must be installed in accordance with National Electric Code and local codes and standards covering electrical apparatus and wiring.
3. Be certain that adequate wire sizes are used, and that:
 - ◆ Service is of adequate amp rating.
 - ◆ The supply line has the same electrical characteristics (voltage, cycles and phase) as the motor.
 - ◆ The line wire is the proper size and that no other equipment is operated from the same line.



Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate.
Wiring should be performed by a certified electrician only.

STANDARD WIRING IS 208-230V 60HZ / Single Phase



Fig. 8.1

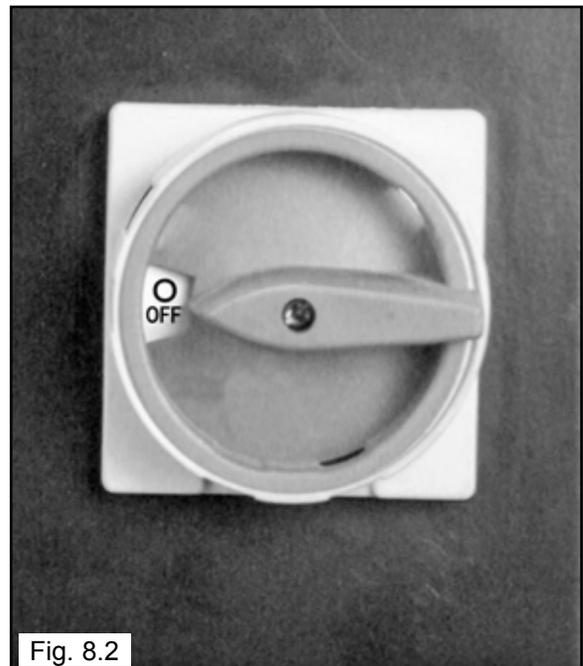


Fig. 8.2

Refer to Page 9 Item # 27 for location of On / Off Switch

SECTION 9

CONTROL OVERVIEW



CAUTION!

THE UNIT MUST BE PROPERLY OPERATED AND MAINTAINED TO HELP AVOID ACCIDENTS THAT COULD DAMAGE THE UNIT AND INJURE THE OPERATOR OR BYSTANDERS.

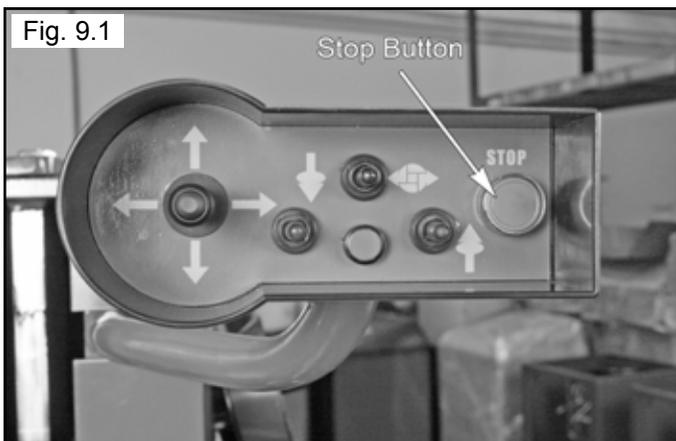
THIS SECTION OF THE OPERATING INSTRUCTION MANUAL REVIEWS THE BASIC OPERATIONS AND USE OF CONTROLS. THESE INSTRUCTIONS SHOULD BE REVIEWED WITH ALL EMPLOYEES BEFORE THEY ARE ALLOWED TO WORK WITH THE MACHINE.

KEEP THESE INSTRUCTION NEAR THE MACHINE FOR EASY REFERENCE.

THIS MACHINE MAY OPERATE DIFFERENTLY FROM MACHINE YOU HAVE PREVIOUSLY OPERATED. PRACTICE WITH A REGULAR STEEL WHEEL AND TIRE COMBINATION TO FAMILIARIZE YOURSELF WITH THE MACHINE'S OPERATION AND FUNCTION.

Stop Button

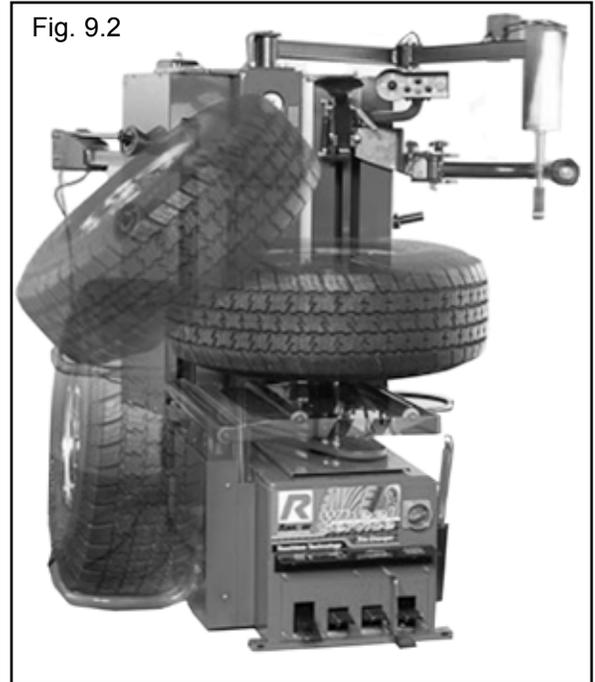
1. The STOP button on the Control Pod turns off the power to the Hydraulic Motor, the Turntable Motor and the Video Assist System. (See Fig. 9.1)



2. The Hydraulic Motor and Video Monitor will turn off Automatically after a period of inactivity. It will come on Automatically when any Hydraulic operation is initiated.

Wheel Lift

Raises and lowers wheel and tire up to and off the Center Post. (See Fig. 9.2)



1. The Wheel Lift is controlled by the Wheel Lift Pedal. (See Fig. 9.3)



The pedal has different modes of operation.

1. Push and release pedal. The Wheel Lift will lift wheel up to top most position (If started in lowered position.)
2. Push and release pedal. The Wheel Lift will lower wheel to bottom position (if started in raised position).
3. By pushing and holding the pedal and “feathering” the pedal, you can slow the decent or ascent of the wheel. (Use this method when lowering the wheel onto the Lug Centering pin.)

Center Post

CENTER POST - HEIGHT ADJUSTMENT

1. The Center Post has two Height position. High and Low.
2. To adjust the Center Post remove the Hair Pin and Shaft pin and raise or lower the Center Post as required. (See Fig. 9.4)

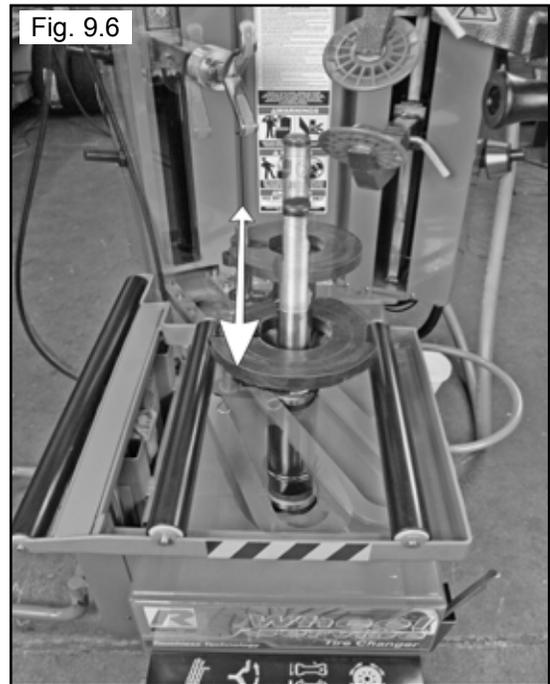
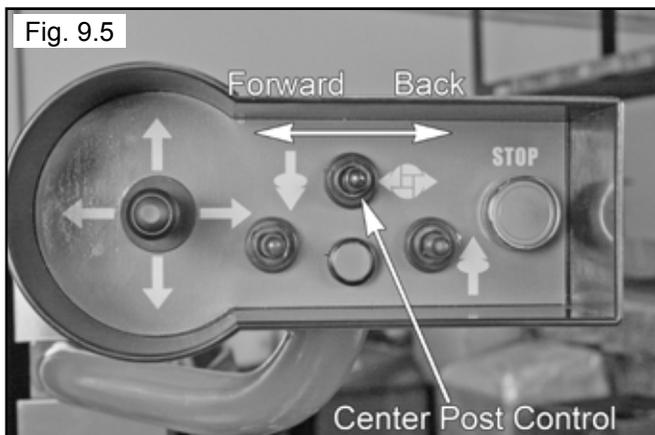


3. Align the holes and replace the Shaft pin and Hair Pin.

CENTER POST - FORWARD AND BACKWARD

The Center post can be Adjusted front and backwards to align the Wheel Rim with the Bead Breaker Rollers and Hook and Tab Assist Arm.

1. The Control for the Center Post Forward and Backward is located on the Control Pod. (See Fig. 9.5 - 9.6)



2. Refer to Wheel Demounting procedures for Complete Operation Instructions and Adjustments during Demounting and Mounting.

Turntable

1. The Turntable rotates clock wise and counter clockwise and is controlled by the Turntable Rotation Pedal.

NOTE:

Table top rotation can be stopped at any time by removing your foot from the rotation pedal. Normal table top rotation for demounting is clockwise. Depress the table top pedal to rotate this direction. To rotate the table top counterclockwise, lift the pedal up with your foot.

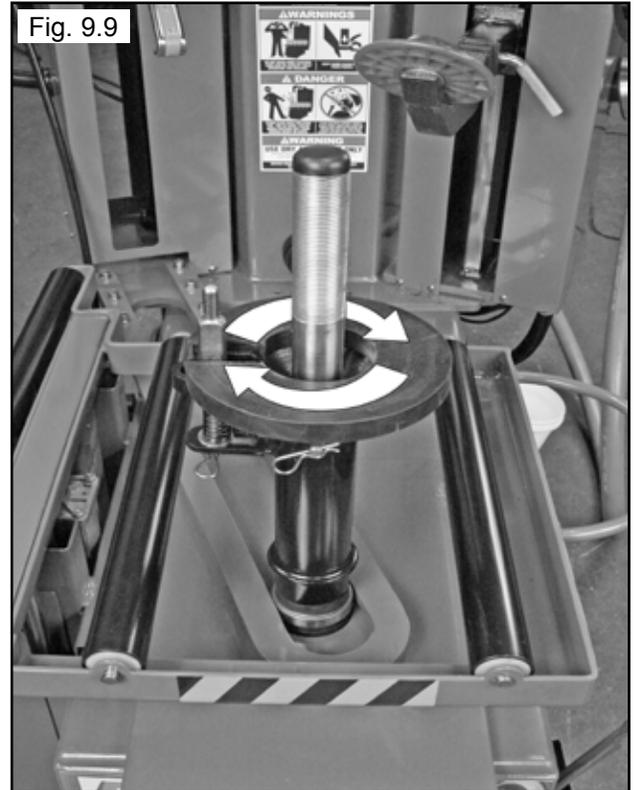
2. Press **DOWN** on the Turntable Rotation Pedal to rotate clockwise. (See Fig. 9.7 & 9.9)

Fig. 9.7



3. Pull **UP** on the Turntable Rotation Pedal to rotate counter clockwise. (See Fig. 9.8 & 9.9)

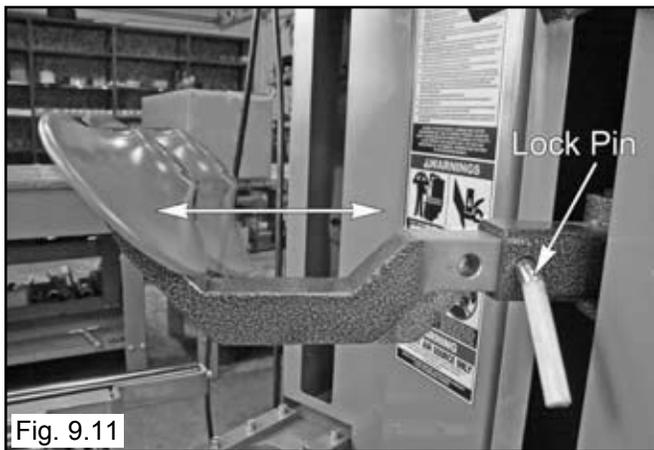
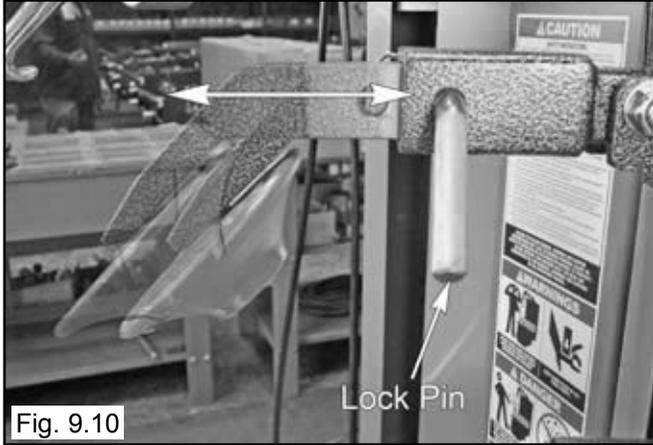
Fig. 9.8



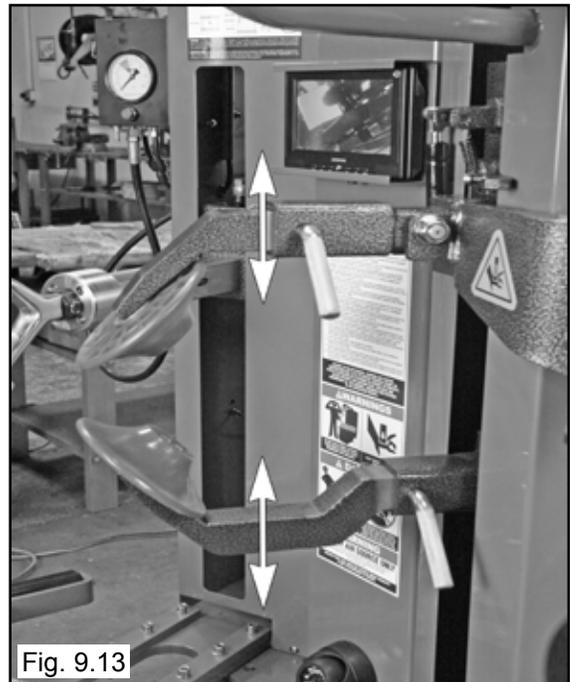
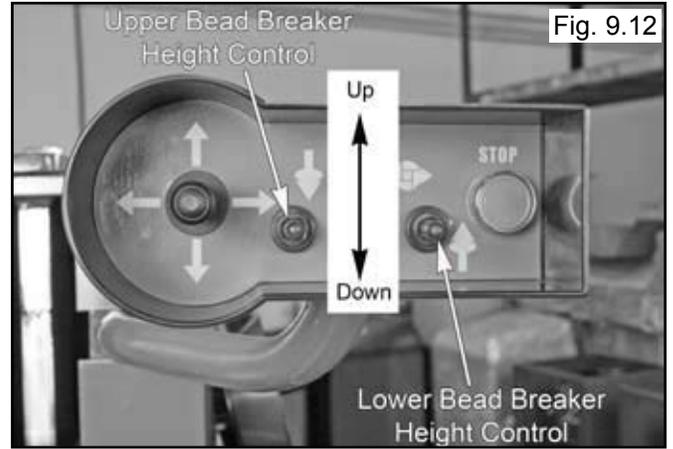
Bead Breaker Rollers

Both the upper and lower Bead Breaker Rollers are adjustable.

1. To adjust the length of the Bead Breaker rollers, remove the Hair Pin and Bead Breaker Lock Pin. (See Fig. 9.10)



2. Both the Upper and Lower Bead Breaker Rollers height is adjustable using the Control Pod. (See Fig. 9.12 - 9.13)



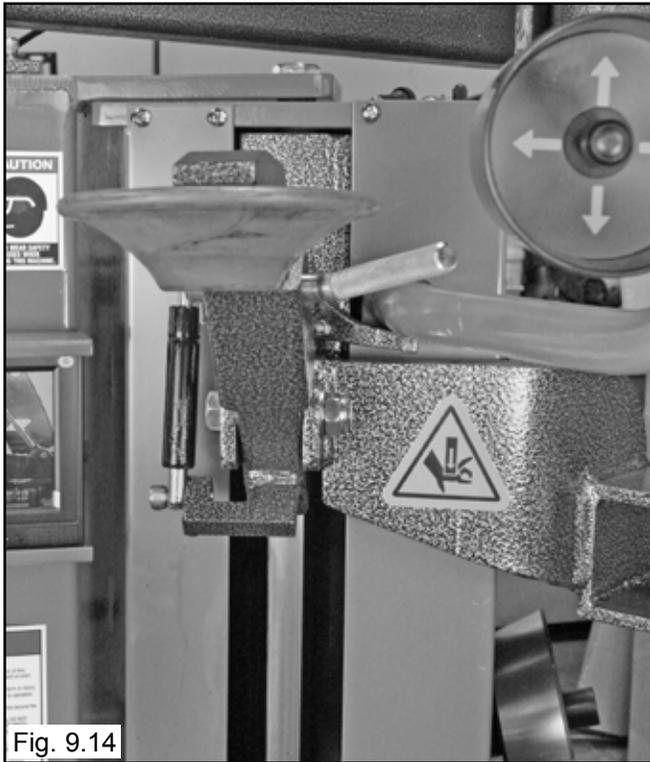
CAUTION!

AFTER ANY ADJUSTMENTS ARE MADE TO THE BEAD BREAKER ROLLER ARMS LENGTHS, THE TARGET LOCK™ END POSITION OF THE TOOL HEAD WILL NEED TO BE ADJUSTED. PLEASE SEE PAGE 54 FOR DETAILS

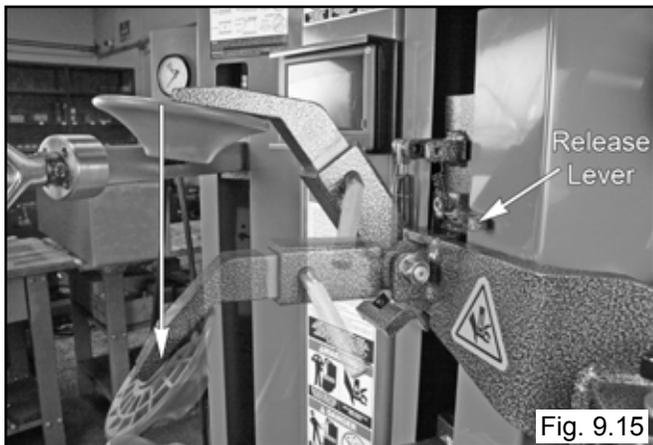
NOTE:

The Bead Breaker Rollers will be in the Shorter position for most Passenger and light Truck Tires and Wheels. The longer length will be applicable for small trailer or ATV type tires.

- When the Upper Bead Breaker Roller is raised to the Highest position the Upper Bead Breaker Roller Arm Automatically flips up and out of the way. (See Fig. 9.14)

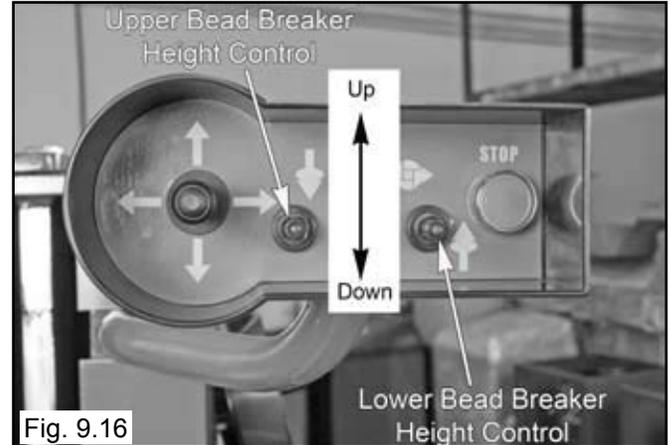


- To flip down the Upper Bead Breaker Roller without raising the Roller to top most position Press on the Release Lever.
- The Upper Bead Breaker Roller must be lowered at least an inch below the top most height before pushing the Upper Roller into the Flipped down and locked position. Push down on the Bead Breaker Roller Assembly to lock it in place. Push on the release lever or raise the assembly to the highest point to release. Push down on the Upper Bead Breaker Roller to lock it in place (See Fig. 9.15)



Top Bead Assist Roller

- The top Bead Assist Roller helps position the top bead into the drop Center of the Wheel during mounting and demounting.
- The height of the Bead Assist Roller's height is controlled and adjusted using the same controller used for the Top Bead Breaker Roller. (See Fig. 9.16)



- It will be set at the same height as the Top Bead Breaker Roller
- Loosen the locking Knob and set the Bead Roller Arm Into the desired Position. (See Fig. 9.17)



- Use the Locking Knob to lock the Bead Roller Arm in position after placement.

Tool Head

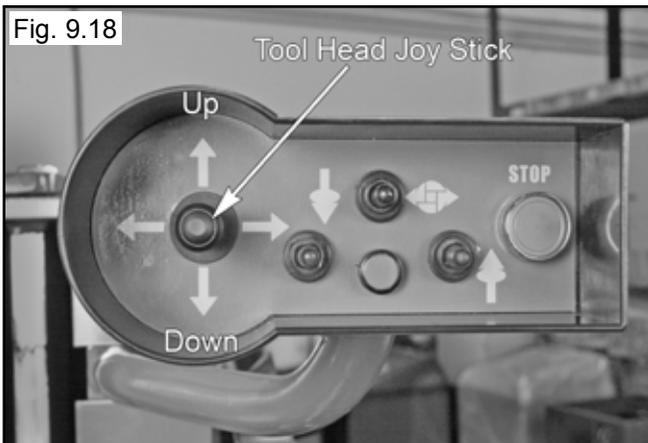
There are two options for the Tool head. Steel and Plastic.

The Tool Head can be adjusted in 4 ways.

1. Up and Down
2. In and Out; Manually
3. Out : Target Lock™ (Auto Locating)
4. Hook or Tab Position

UP AND DOWN

1. Use the Joystick on the Control Pod to raise and lower the Tool Head Assembly Up or Down. (See Fig. 9.18 & 9.19)



IN AND OUT- MANUALLY

1. Using the Joystick on the Control Pod to Retract and Extend the Tool Head Assembly In or Out. (See Fig. 9.20)



IN AND OUT- AUTO LOCATING- TARGET LOCK™

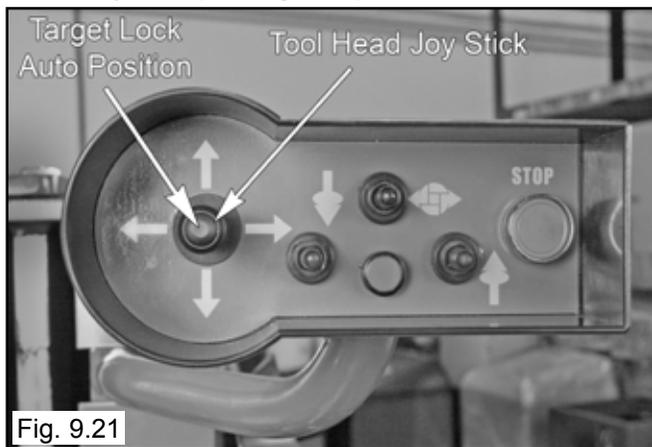
Exclusive to the Ranger RX3040 is the Target Lock™ feature. Once the Position of the Bead Breaker Rollers are located in relation to the Rim edge.



CAUTION!

ANY TIME THE TOOL HEAD IS CHANGED FROM THE STEEL HEAD TO PLASTIC OR VICE VERSA, THE STOP POSITION OF THE TOOL HEAD MUST BE ADJUSTED. SEE PAGE 54 FOR DETAILS

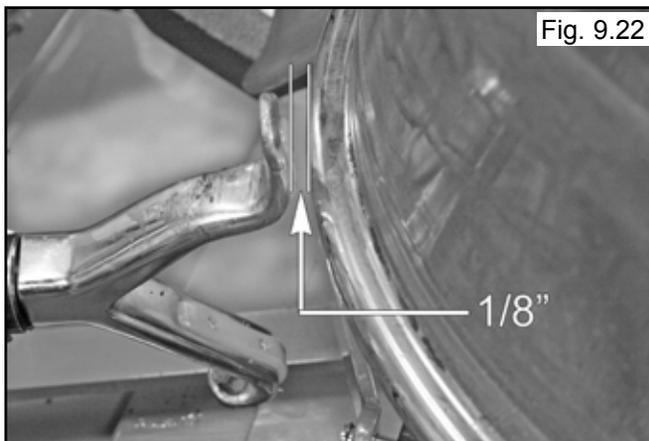
1. Push and hold the center button of the Tool Head Control Joystick. (See Fig. 9.21)



2. The Tool Head Assembly will extend and stop automatically within 1/8' inch of the rim edge. (See Fig. 9.22)

NOTE:

THE TOOL HEAD IS ADJUSTED FROM THE FACTORY SO THAT THE TAB SIDE OF THE TOOL HEAD WILL BE 1/8" FROM THE RIM EDGE WHEN PUSHING AND HOLDING THE TARGET LOCK™ BUTTON ON THE TOOL HEAD JOYSTICK CONTROL. THE HOOK SIDE WILL BE SLIGHTLY FARTHER AWAY FROM THE RIM EDGE.



HOOK OR TAB POSITION

The orientation of the Tool Head can be changed to select either the Hook or Tab end up. Hook end is used for Upper tire Bead.



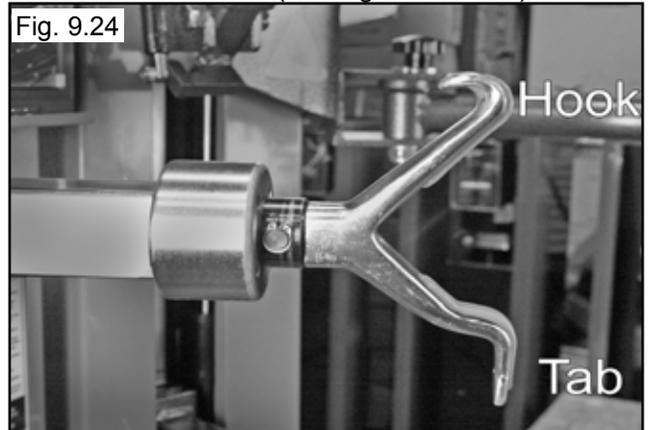
CAUTION!

ENSURE THE TOOL HEAD IS RETRACTED TO PROVIDE ENOUGH CLEARANCE TO ALLOW THE TOOL HEAD TO ROTATE FREELY OR DAMAGE TO THE TIRE CHANGER, RIM AND OR TIRE MAY OCCUR.

1. To change the orientation of the Tool Head Depress the Tool Head Control Pedal and release. (See Fig. 9.23)



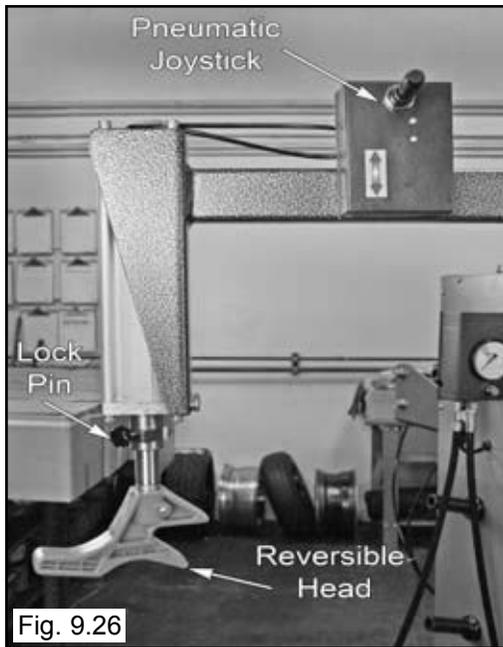
2. Each time the Tool Head Control Pedal is depressed the Tool Head will rotate. (See Fig. 9.24 & 9.25)



Assist Tools

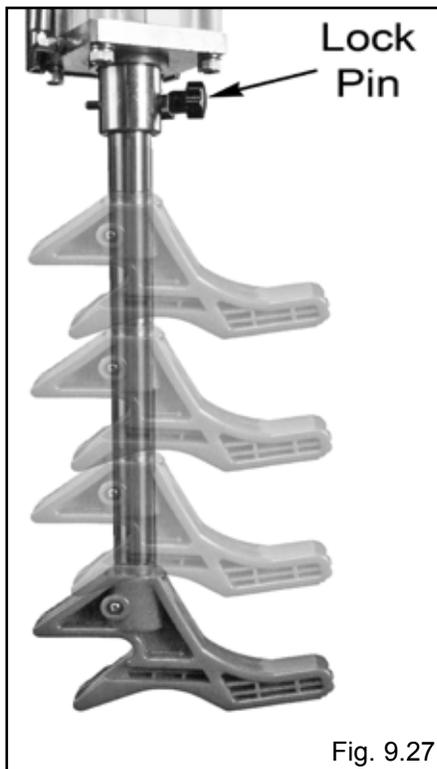
REVERSIBLE DROP CENTER TOOL

1. The Reversible Drop Center Tool is adjustable manually and operated pneumatically using the Joystick mounted on the Drop Center Arm. (See Fig. 9.26)



Drop Center Tool- Manual Adjustment

1. Remove the Lock Pin and adjust the length of the Drop Center Shaft to the desired length. Line up the Pin Holes and replace the Lock pin. (See Fig. 9.27)



2. To Operate the Drop Center Tool. Push Up on the Joystick to move the Drop Center Tool up and press down to move the Drop Center Tool down. (See Fig. 9.28)

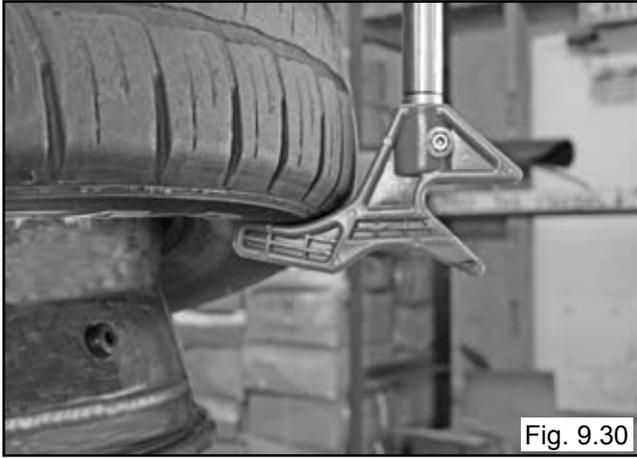


The Drop Center Tool Head performs two functions.

1. Pressing down the Top Bead into the drop Center of the Rim and traveling around the during Demounting. (See Fig. 9.29)



2. Lifting or supporting the under side of the tire to help Center the Lower Bead into the Drop Center of the Rim when Mounting. (See Fig. 9.30)



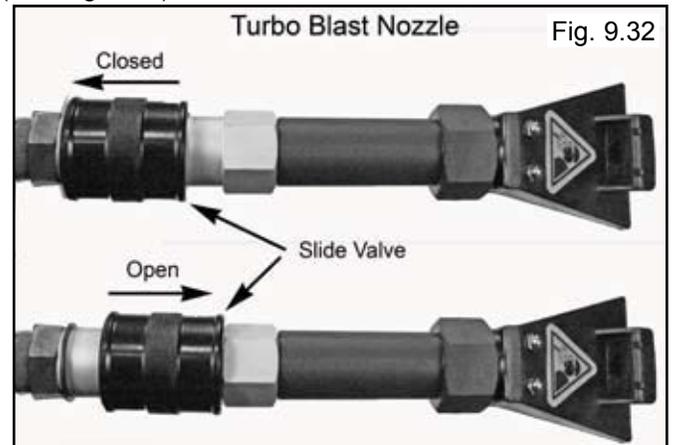
Turbo-Blast Nozzle

The Turbo-Blast Nozzle provides a powerful burst of air to seat the Tire Bead.

1. The Turbo-Blast Nozzle can be stored on the Hook at the rear right of the Tire Changer. (See Fig. 9.31)



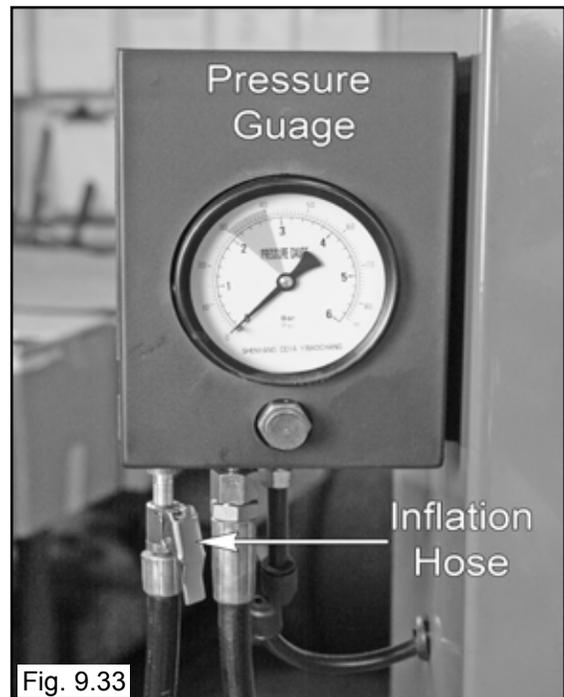
1. To Open the Slide Valve, **PUSH** the Slide Valve Forward.
2. To Close **PULL** the Slide Valve closed.
(See Fig. 9.32)



Inflation Hose

The Inflation hose is used to inflate the tire after Bead Seating.

1. The Inflation Hose is stored clipped to the Bottom of the Tire Pressure Gauge. (See Fig. 9.33)



CAUTION

CAUTION!

NEVER POINT NOZZLE TOWARDS YOURSELF OR OTHER PERSONS. INSPECT NOZZLE, TIRE AND WHEEL FOR DEBRIS. NOZZLE MUST BE POINTED TOWARD TIRE BEAD AREA. HOLD NOZZLE SECURELY WITH BOTH HANDS AT ALL TIMES. NEVER OPERATE THE NOZZLE WITHOUT A TIRE AND WHEEL POSITIONED ON THE TABLE. DIRT AND DEBRIS COULD BE BLOWN INTO THE AIR WITH ENOUGH FORCE TO INJURE THE OPERATOR OR BYSTANDERS.



2. To activate the Inflation hose. Step on the Inflation Pedal. (See Fig. 9.34)



3. The Pressure Gauge will register pressure in the tire.

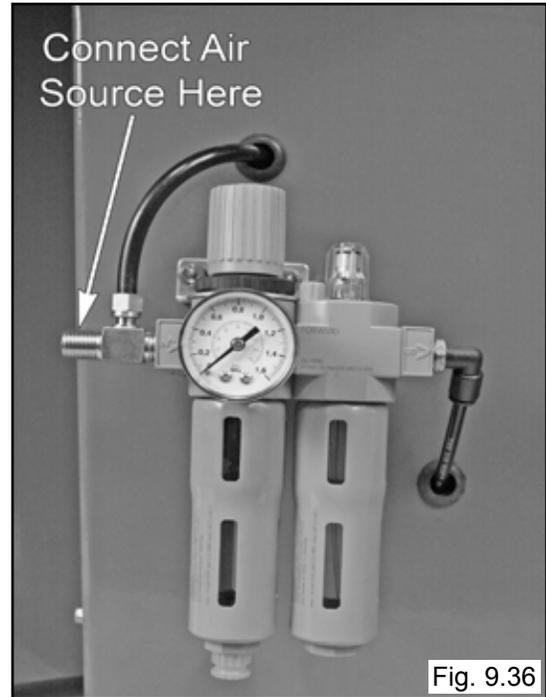
4. To release pressure in the Tire being inflated, Press on the Release Button. (See Fig. 9.35)



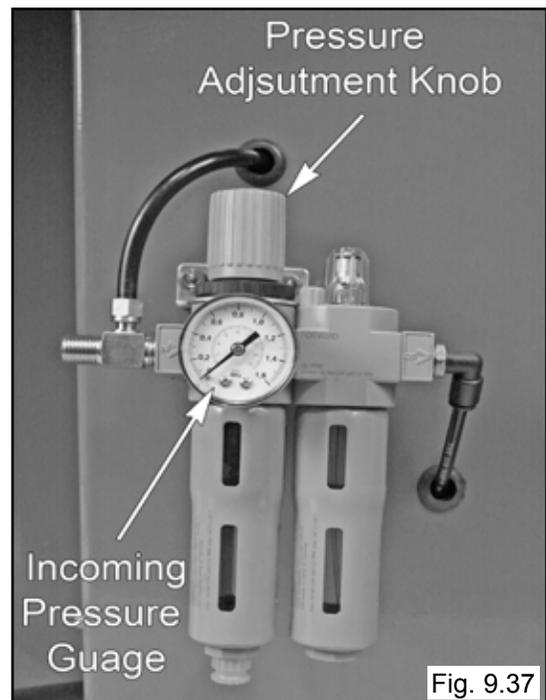
Air /Oil Regulator / Dryer Assembly

The Air Oil Regulator regulates the incoming pressure and, removes moisture from incoming air, and oils the air that is sent to the Pneumatic Cylinders.

1. Connect the incoming Air Source to the Air Oil Regulator using a appropriate fitting for your Air System. (Not Supplied) (See Fig. 9.36)



2. The incoming pressure to the Tire Change is adjusted using the Pressure adjustment Knob. Read the incoming pressure on the Incoming Pressure Gauge. (See Fig. 9.37)



CAUTION

CAUTION!

THE AIR SUPPLY MUST BE DISCONNECTED PRIOR TO FILLING THE OIL RESERVOIR.

3. The Oil Reservoir is filled by unscrewing the Oil Fill Cap. The Oil Level should remain in the Upper Sight Glass when Full. (See Fig. 9.38)

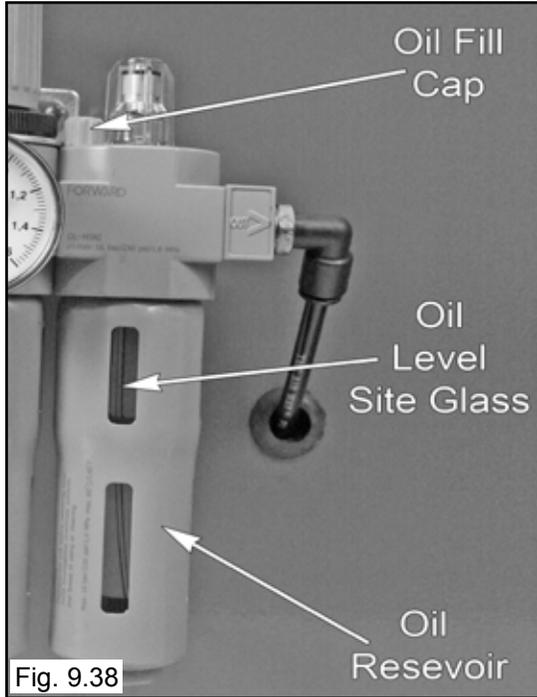


Fig. 9.38

4. The Oiler is adjusted by turning the Small Screw located on top of the Oil View Glass. (See Fig. 9.39)

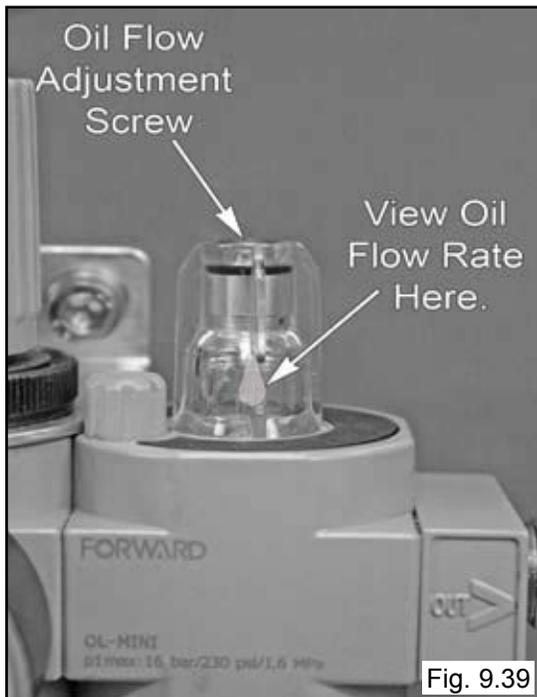


Fig. 9.39

5. Adjust the oil flow so that two to three drops are visible through the Oil Flow Site Glass when operating the Wheel Lift.

Water Reservoir

NOTE!

THE AIR SUPPLY SHOULD BE CONNECTED WHEN DRAINING THE WATER RESERVOIR.

2. To Drain the Water Reservoir Unscrew the Drain plug 1/4 turn and then push up till all water is removed from water Reservoir. (See Fig. 9.40)

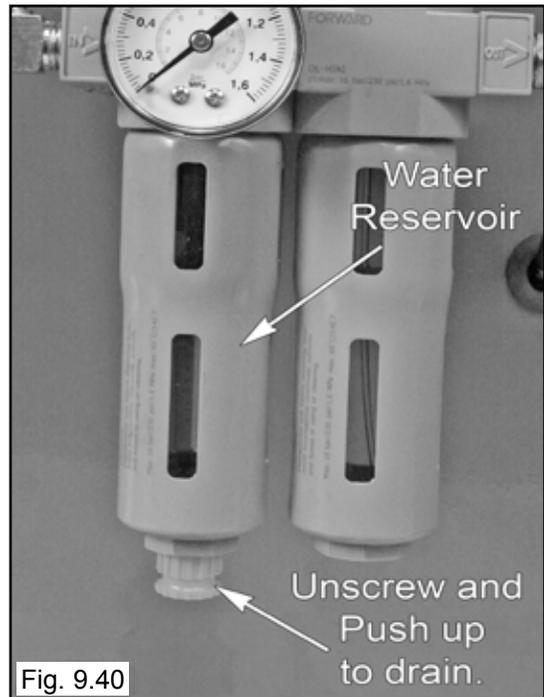


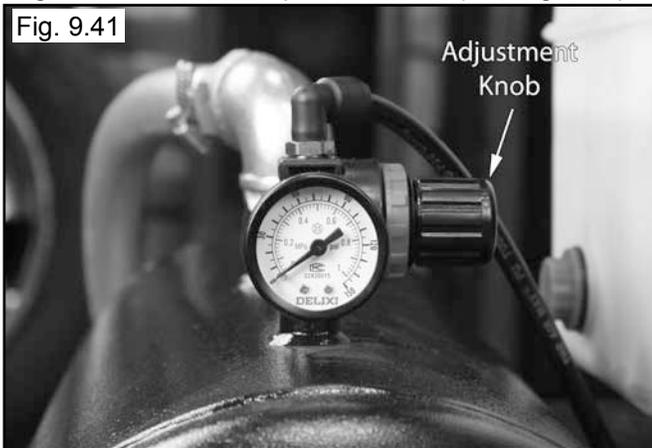
Fig. 9.40

3. When complete, close the drain 1/4 turn.

Air Tank

1. The Air Tank has a separate Pressure Regulator and Gauge. Located on the top of the Tank. (See Fig. 9.41)

Fig. 9.41



2. The Air Tank has a relief / valve located on the top of the tank near the Hose connection. (See Fig. 9.42)

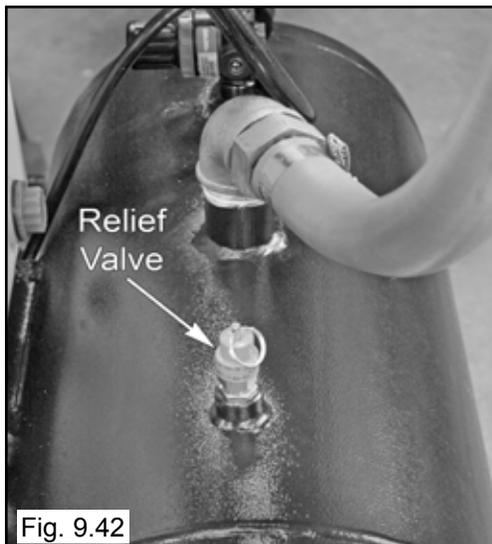
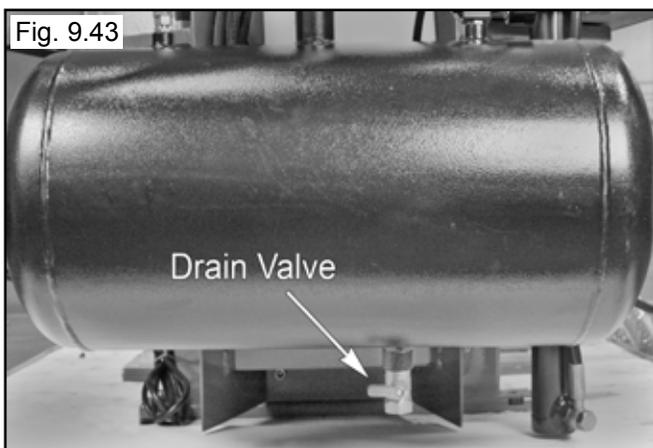


Fig. 9.42

3. The air tank has a drain valve located on the bottom of the Tank. Drain the tank while pressurized during monthly maintenance to rid the tank of any water condensation. If desired plum the drain to an outside location or drain. (See Fig. 9.43)

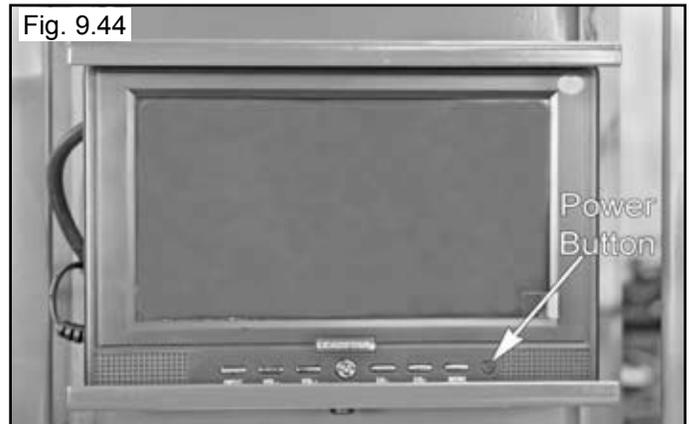
Fig. 9.43



Monitor

1. The Video Monitor will come on when the machine is power up. Check that the Power button is on, if Monitor fails to display an image. (See Fig. 9.44)

Fig. 9.44



Camera

2. The Camera is located at the base of the Tower behind the Center Post. (See Fig. 9.45)

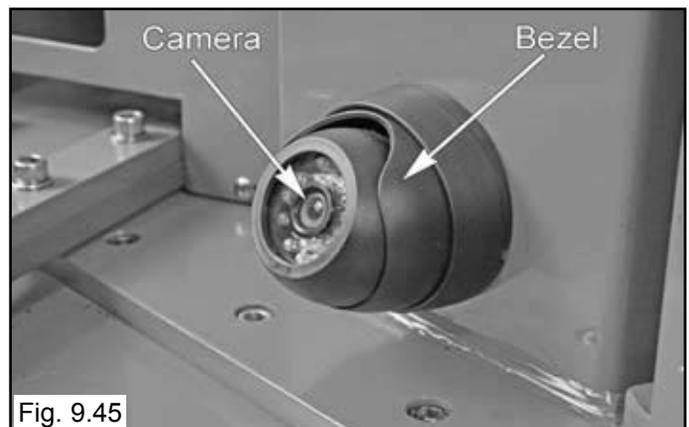


Fig. 9.45

3. The Camera angle of view can be adjusted by rotating the Camera mounting bezel up, down, left and right. (See Fig. 9.46)



Fig. 9.46

4. Adjust the Camera so as to see the lower edge of the Rim where the Tool Head Tab nears the Rim. (See Fig. 9.47 & 9.48)

Fig. 9.47

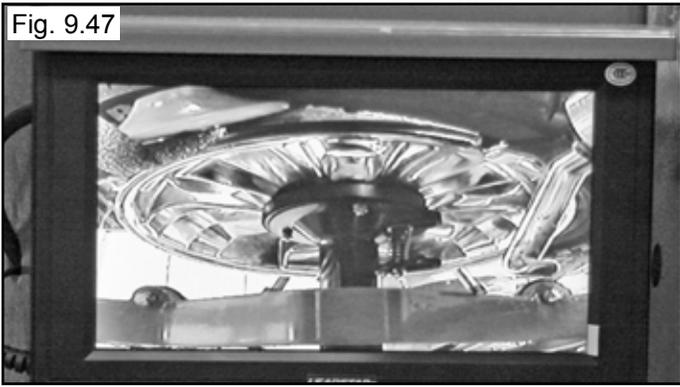


Fig. 9.48



OPERATIONS

SECTION 10

WHEEL INSPECTION and MACHINE PREPARATION



CAUTION!

IT IS HIGHLY RECOMMENDED THAT YOU PRACTICE MOUNTING AND DEMOUNTING PROCEDURES ON A INEXPENSIVE AND OR USED STEEL RIM AND TIRE, BEFORE BEGINNING WORK ON EXPENSIVE TIRES AND RIMS.



DANGER!

YOU MUST BE FAMILIAR WITH THE CONTROLS AND PROCEDURES BEFORE BEGINNING WORK ON VALUABLE TIRES AND RIMS OR DAMAGE OR INJURY MAY OCCUR.



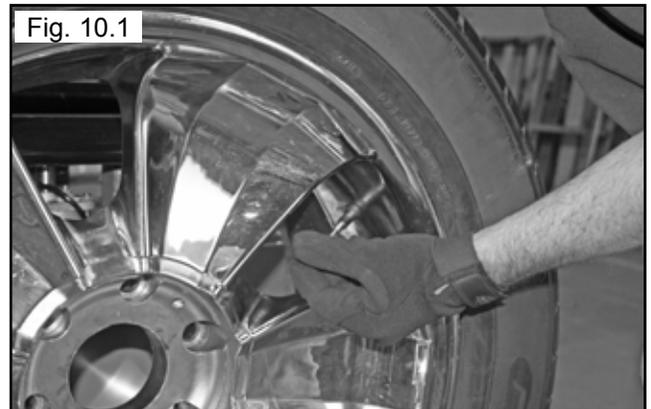
DANGER!

THERE ARE MANY PINCH POINT ON THIS MACHINE. NEVER REST YOUR HAND OR ANY EXTREMITY ON ANY PART OF THE TIRE CHANGER DURING OPERATION. SERIOUS INJURY OR DAMAGE MAY OCCUR. ALWAYS KEEP HANDS AND ARMS CLEAR OF ALL MOVING PARTS.

Wheel Inspection

- ◆ Remember to remove all weight from both sides of the wheel. On alloy wheels, always rotate the wheel on turn after setting the head to insure proper wheel chucking.
- ◆ Review the performance wheel section of this manual prior to servicing performance tire/wheel combinations.
- ◆ Always review nicks and scratches with owners of expensive wheels and tire combinations prior to servicing.

1. Deflate tire completely by removing the valve core from the valve stem. (See Fig. 10.1)



CAUTION!

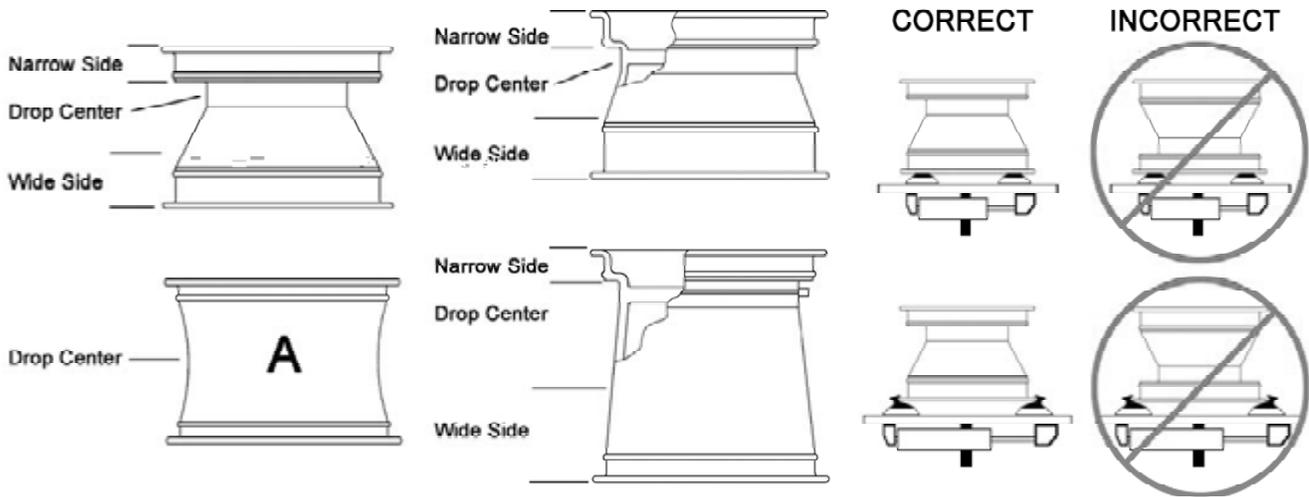
REVIEW *"IMPORTANT WHEEL MOUNTING INSTRUCTIONS"* ON PAGE 31 BEFORE PROCEEDING. FAILURE TO DO SO MAY DAMAGE TIRE, RIM OR TIRE CHANGER.



The following instructions help identify how to properly mount wheels on the tire changer turntable. Failure to follow these instructions may lead to tire and/or wheel damage, equipment damage or failure, serious personal injury or death to operator or bystanders or damage to property.

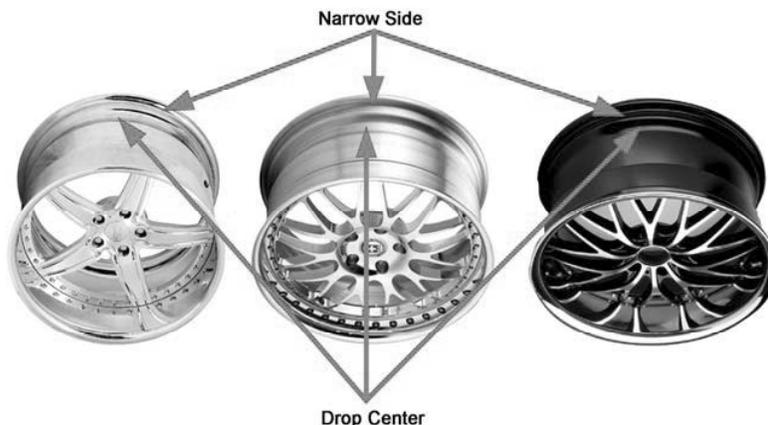
IMPORTANT WHEEL MOUNTING INSTRUCTIONS

1. It is important to understand that tires and/or tire beads do not stretch. It is nearly impossible to mount or dismount the top bead of the tire unless the top bead of the tire is positioned deep into the drop center area of the wheel.
2. Find the position of the drop center on the wheel. Clearly identify the Drop Center, Narrow Side and Wide Side flanges.
3. The tire must ALWAYS be demounted or mounted with the wheel positioned on the turntable with the Narrow Side facing upward and the deepest part of the Drop Center facing upward.



WARNING! - The wheel illustrated above in diagram A has little or no prominent drop center. These are not DOT approved wheel configurations. The tire or wheel - or both - can be damaged during mounting procedures causing the tire to explode under pressure, resulting in serious injury or death. If you attempt to mount/demount this type of wheel, use extreme caution.

IMPORTANT NOTE – Most aftermarket and many OEM performance wheels are REVERSE DROP-CENTER configurations. These wheels MUST be mounted on the turntable with the hub or wheel-face POSITIONED DOWNWARD on the turntable and the Narrow Side and deep part of the Drop Center facing upward.



Machine Prep

⚠ WARNING



⚠ CAUTION

CAUTION!

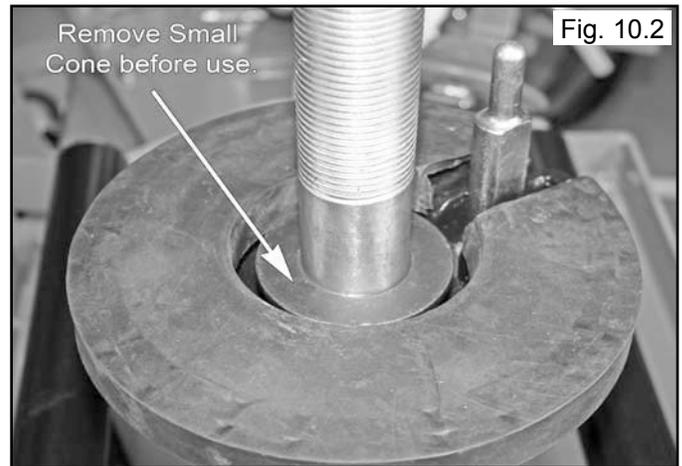
CHECK THAT NO TOOLS, OBJECTS OR PEOPLE ARE IN THE WAY OF THE MOVING COMPONENTS OF THE MACHINE

Before loading a tire onto the RX3040, prepare the machine.

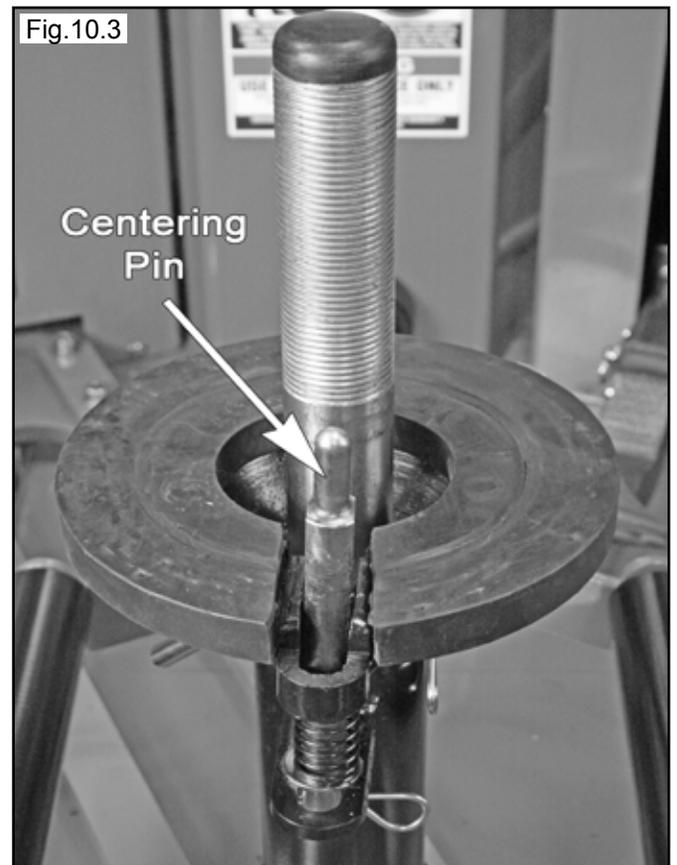
1. Move the upper Bead Breaker Roller to its highest position.
2. Move the Lower Bead Breaker Roller to its lowest position.
3. Move the Drop Center Swing arm out of the way.
4. Pivot the Upper Bead Roller arm out of the way.
5. Retract the Tool Head Arm and raise it to its highest position.

NOTE:

**Be sure to remove the Small Cone from the Turntable as it can drop below the Turntable and cause some wheel mounting difficulty.
(See Fig. 10.2)**



6. Press the Turntable Rotation Pedal and align the Centering Pin towards the front (6 o'clock position) This will ease the alignment of the Pin with a lug hole on the Rim. (See Fig. 10.3)



SECTION 11

DEMOUNTING A TIRE

1. Roll the tire onto the Wheel Lift. (See Fig. 11.1)



CAUTION!

ALWAYS STEADY THE TIRE DURING ANY LIFTING OR LOWERING OPERATION TO PREVENT THE TIRE FROM FALLING OFF THE WHEEL LIFT.

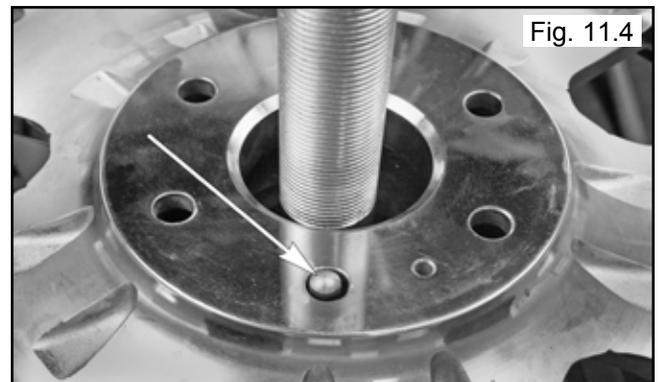
2. Press the Lift Pedal to raise the tire up to full height. (See Fig. 11.2)



3. Move to the left side of the Tire Changer and flip the Tire onto the turntable Lift. (See Fig. 11.3)



4. Center the tire rim over Turntable post.
5. Press the Wheel Lift Pedal again to lower the rim onto Turntable.
6. Align a lug hole on the rim towards the front of the machine (at 6 o'clock position). Slowly lower the Tire so that the Alignment Pin goes into a lug hole on the rim. (See Fig. 11.4)



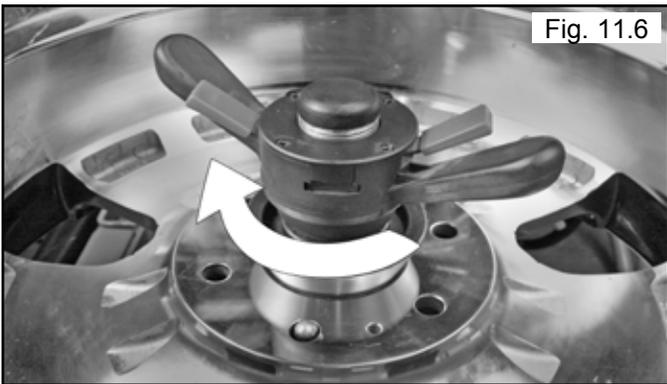
7. Select an appropriate Centering Cone for the hub hole. Slide Cone down Post. (See Fig. 11.5)



CAUTION

CAUTION!
DAMAGE CAUSED BY STRIKING OR HITTING THE QUICK-NUT WITH A HAMMER, TIRE IRON OR HEAVY OBJECT IS NOT COVERED UNDER WARRANTY!

11. Place the Quick Nut over the Post spin and hand tighten the Quicken Nut. (Squeeze the Quick Nut red handles to drop Quick Nut over post then release and tighten.) (See Fig. 11.6)



9. Press the Switch for the Upper Bead Breaker Roller down to lower the Upper Bead Breaker Roller.

11. Lower the Roller Assembly approximately 4 inches to provide clearance to flip down the Upper Bead Breaker Roller assembly. (See Fig. 11.7)

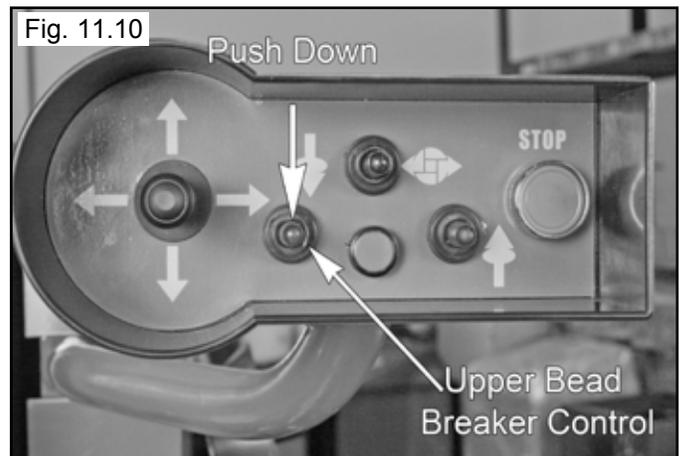
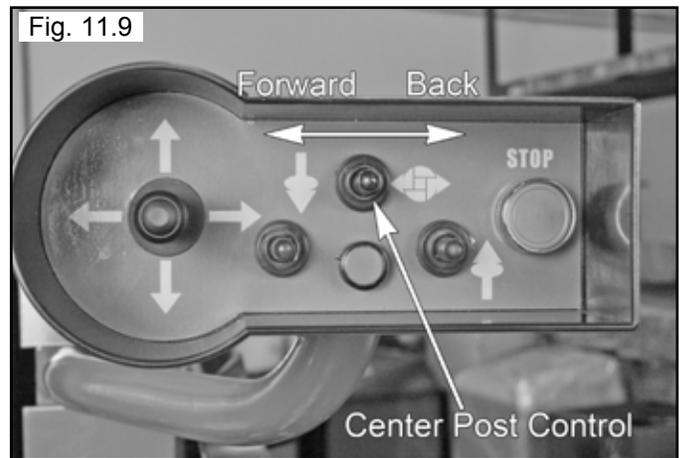


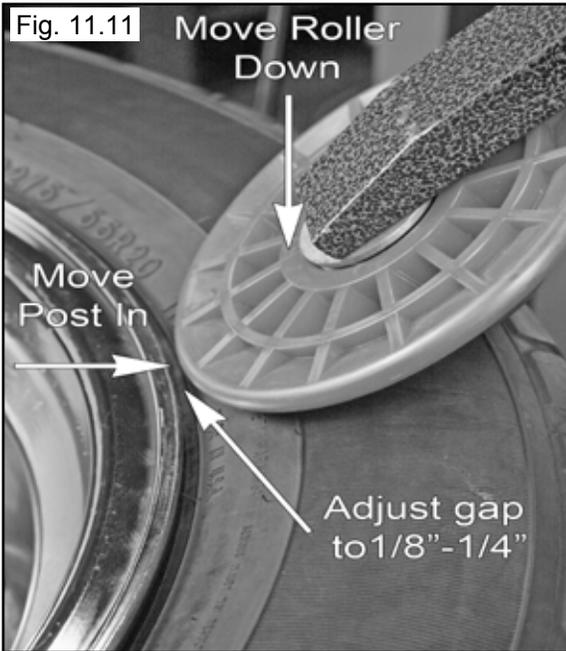
11. Flip Down the Upper Bead Breaker Roller. (See Fig. 11.8)



12. Lower the Upper Bead Breaker Roller to within about an inch of the tire Rim.

13. Use the Center Post Control and the Upper Bead Breaker Control to bring the Upper Bead Breaker Roller to within 1/8"-1/4" of the Rim edge. (See Fig. 11.9 - 11.11)

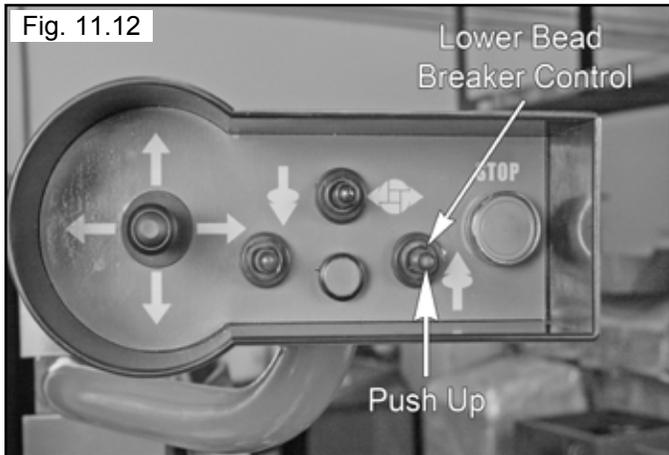




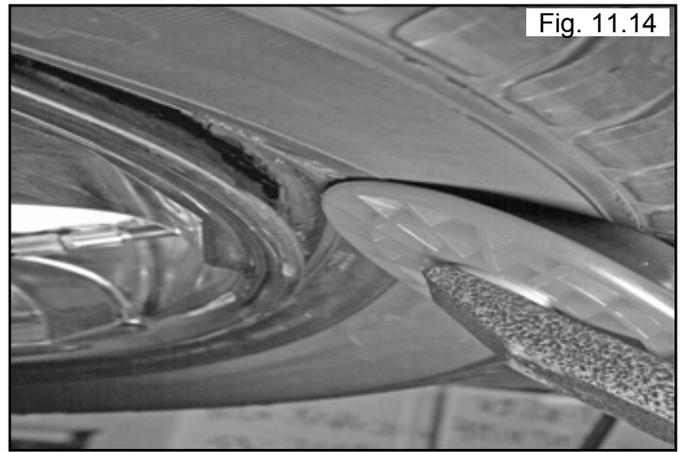
NOTE!

THE LOWER BEAD BREAKER ROLLER IS SET TO BE THE SAME DISTANCE FROM THE RIM AS THE UPPER BEAD BREAKER ROLLER.

14. Press up on the Lower Bead Breaker Control to raise the Lower Bead Breaker Roller to just begin to break the Lower Bead. (See Fig. 11.12)



15. Use the Video monitor to assist in positioning the Lower Bead Breaker Roller. (See Fig. 11.13-11.14)



WARNING!

KEEP HANDS CLEAR!
KEEP HANDS CLEAR OF ALL COMPONENTS OF THE TIRE CHANGER WHEN ROTATING TURNTABLE DURING MOUNTING PROCEDURES. THERE ARE MANY PINCH OR CRUSH HAZARDS IF HANDS ARE KEPT IN CONTACT WITH THE MACHINE DURING DEMOUNTING ROTATION.

NOTE:

TABLE TOP ROTATION CAN BE STOPPED AT ANY TIME BY REMOVING YOUR FOOT FROM THE ROTATION PEDAL. NORMAL TABLE TO ROTATION FOR DEMOUNTING IS CLOCKWISE. DEPRESS THE TABLE TOP ROTATION PEDAL TO ROTATE CLOCK WISE. TO ROTATE COUNTER CLOCKWISE. LIFT THE PEDAL UP WITH YOUR FOOT.

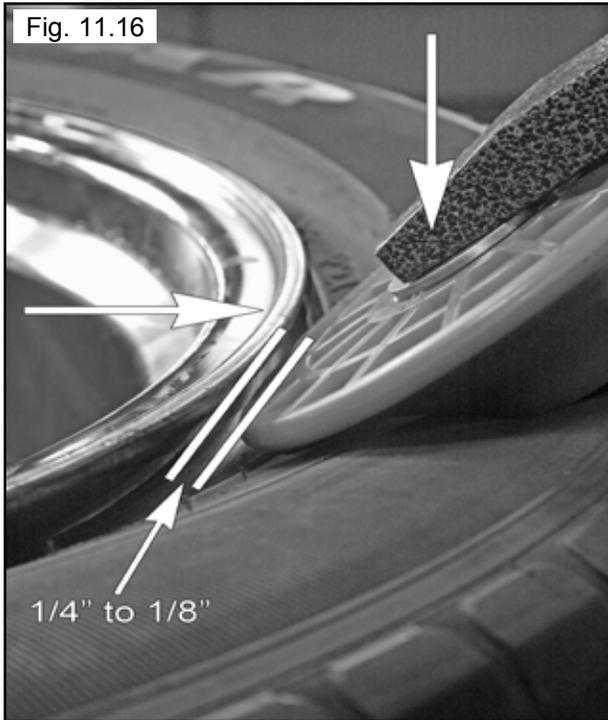
16. Press DOWN on the rotate pedal to rotate the Turntable clockwise. (See Fig. 11.15)



17. Pulse the Upper Bead Breaker switch down in small increments and the Lower Bead Breaker control up as the tire rotates to begin to break both the Upper and Lower Beads.

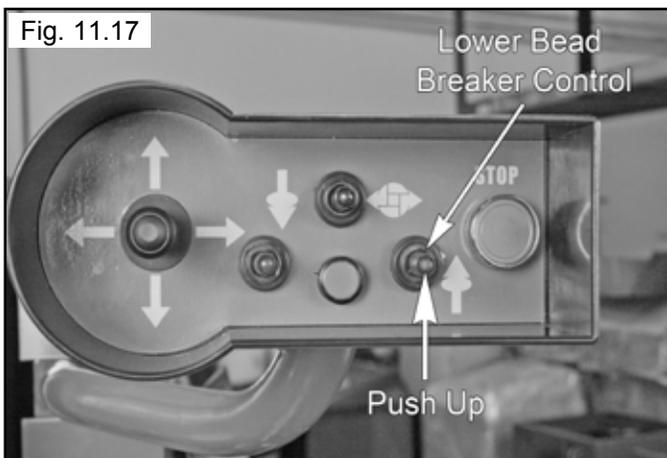
18. Stop the rotation of the Turntable.

19. Use the Center Post Control and bring the Turntable Assembly closer to Bead Breaker Rollers.
(See Fig. 11.16)

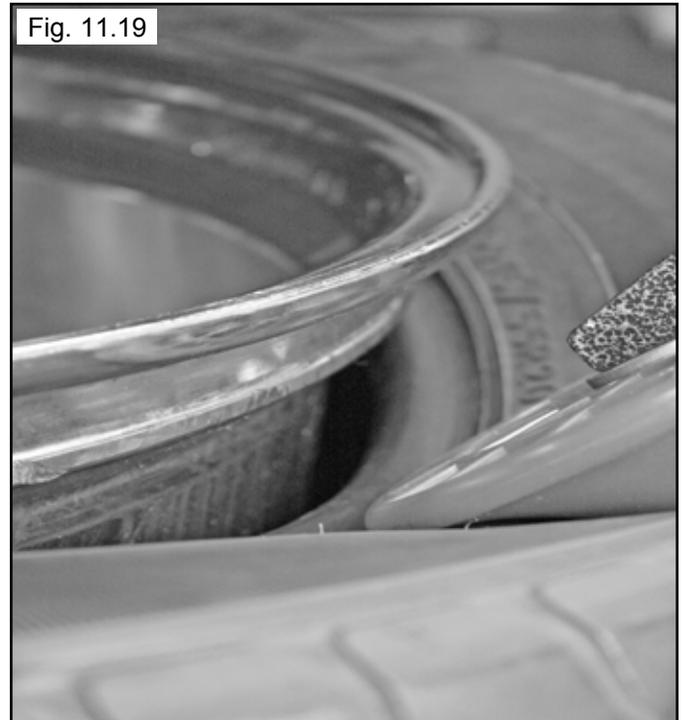


20. Press DOWN on the rotate pedal to rotate the Turntable clockwise.

21. Keep moving the Upper Bead Breaker Roller Down until the Upper Bead is into the Rim's drop Center.
(See Fig. 11.17)

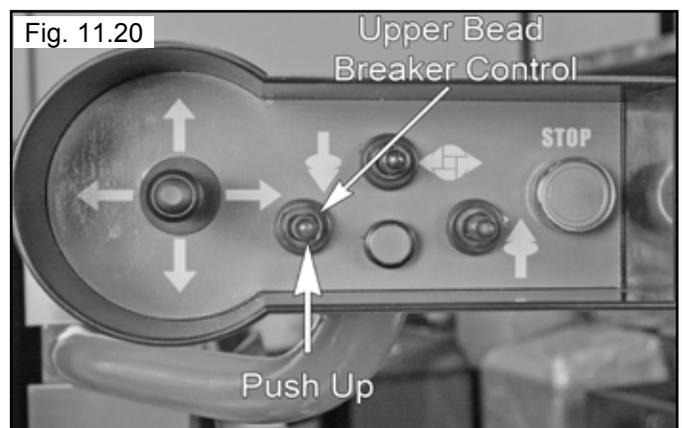


22. Pulse the Upper Bead Breaker switch down in small increments and the Lower Bead Breaker control up as the tire rotates to complete breaking both the Upper and Lower Beads. (See Fig. 11.18 - 11.19)



23. Use the Center Post Control and bring the Turntable Assembly back so the rim edge is 1/4\"/>

24. Raise the Upper Bead Breaker Roller out of the way.
(See Fig. 11.20)

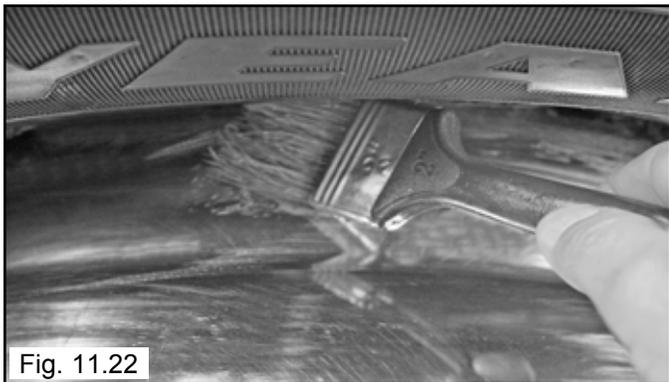


⚠ WARNING

WARNING!

ALWAYS USE A LIBERAL AMOUNT OF TIRE MANUFACTURE'S RECOMMENDED LUBRICANT. FAILURE TO DO SO CAN DAMAGE THE TIRE, RIM OR THE ELECTRIC MOTOR AND MAY VOID THE WARRANTY.

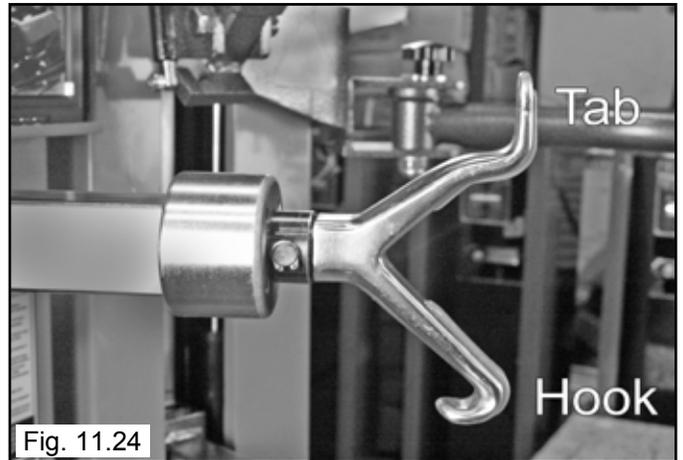
25. Apply tire manufacturer's approved rubber lubricant liberally to entire circumference of both Upper and Lower Beads after loosening Beads. (See Fig. 11.21 - 11.22)



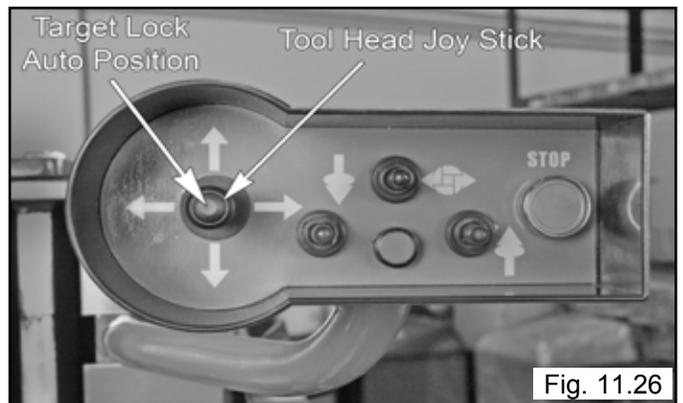
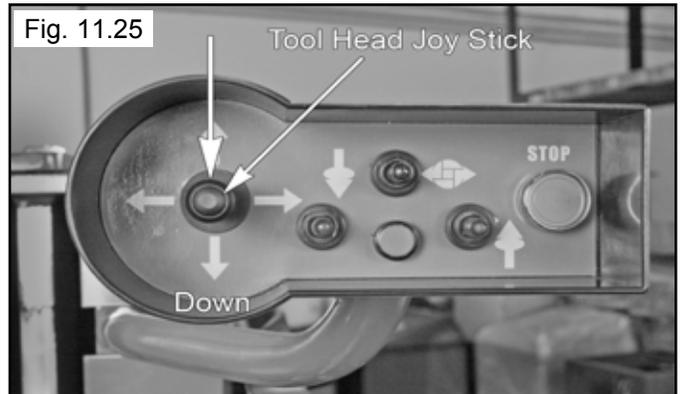
26. If necessary press the Hook Rotation Pedal to position the Tool Head with the Hook pointing Down. (See Fig. 11.23)



27. Using the Tool Head Control, lower the Tool Head down to just above the rim. (See Fig. 11.24)



28. Then press the Target Lock™ button on the Tool Head Control Joystick and hold. The Tool Head will extend from it's preset position to approximately 1/4" - 3/8" from the Rim edge. (See Fig. 11.25 - 11.26)



29. Depress the Turntable Rotation Pedal.
(See Fig. 11.27)



! WARNING

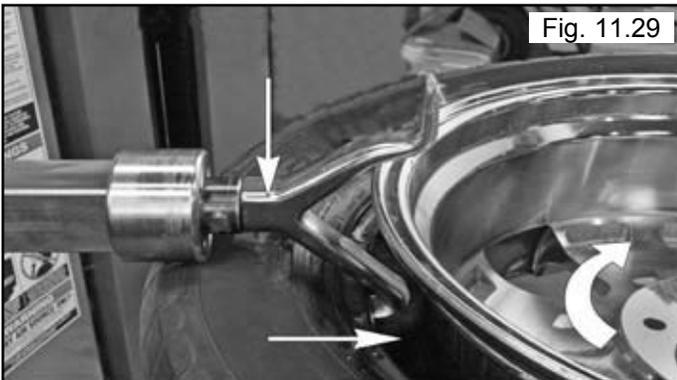
WARNING!

ALWAYS USE A LIBERAL AMOUNT OF TIRE MANUFACTURE'S RECOMMENDED LUBRICANT. FAILURE TO DO SO CAN DAMAGE THE TIRE, RIM OR THE ELECTRIC MOTOR AND MAY VOID THE WARRANTY.

30. While the tire is rotating use the Tool Head Control Joystick to lower the Hook down and in. (See Fig. 11.28)



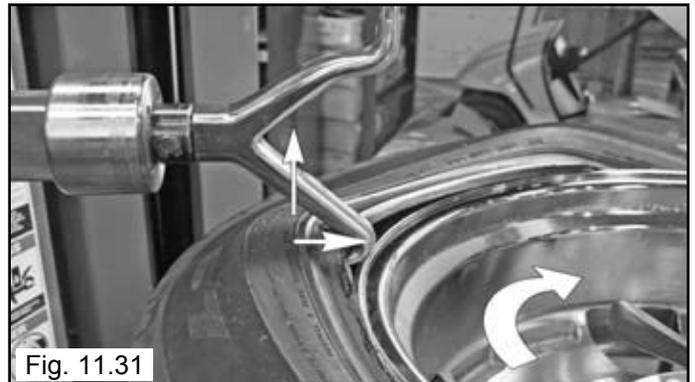
31. Continue moving Tool Head Hook down and in until the Tire Bead pops under the hook. (See Fig. 11.29)



32. Continue rotating the tire and Pull Bead out.
(See Fig. 11.30)



33. Continue Pulling the Bead up . . . and then in.
(See Fig. 11.31)



34. Until Upper bead pops off tire. (See Fig. 11.32)



Removing Lower Bead

1. Move the Tool Head up and retract the Tool Head in.
2. The Tool Head should be with the Tab positioned up.
3. With the Tool Head fully retracted, move the Tool Head Assembly down to it's lowest position.
(See Fig. 11.33)



4. Position the Drop Center Tool as shown to bring the lower Bead up onto the Tire's Drop Center.
(See Fig. 11.34)

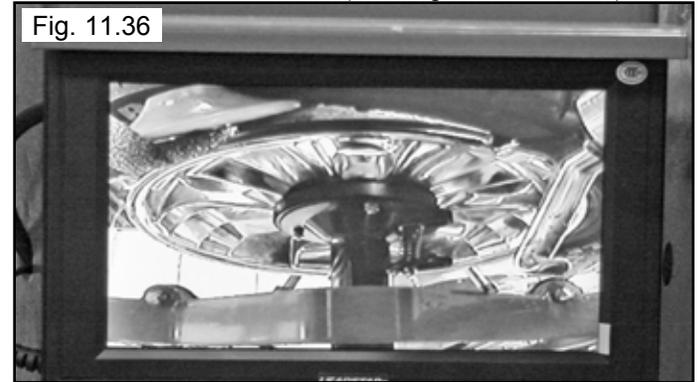


5. Raise Drop Center Tool until lower bead is in drop center. (See Fig. 11.35)



6. Push the Target Lock™ button and Hold, the Tool Head Tab will extend to the preset position 1/4" from the rims edge.

7. Use the video assist feature to guide the Tool Head Tab under the tire's lower Bead. (See Fig. 11.36 - 11.37)



8. Raise Tool Head Tab Until the lower bead is above the upper Rim Lip. (See Fig. 11.38)



9. Keep the Lower Bead in the Drop center of the Rim.

! WARNING

WARNING!

**KEEP HANDS CLEAR!
KEEP HANDS CLEAR OF ALL COMPONENTS
OF THE TIRE CHANGER WHEN ROTATING
TURNTABLE DURING MOUNTING PROCEDURES.
THERE ARE MANY PINCH OR CRUSH HAZARDS
IF HANDS ARE KEPT IN CONTACT WITH THE
MACHINE DURING DEMOUNTING ROTATION.**

NOTE:

**TABLE TOP ROTATION CAN BE STOPPED AT
ANY TIME BY REMOVING YOUR FOOT FROM THE
ROTATION PEDAL. NORMAL TABLE TO ROTATION
FOR DEMOUNTING IS CLOCKWISE.
DEPRESS THE TABLE TOP ROTATION PEDAL TO
ROTATE CLOCK WISE.
TO ROTATE COUNTER CLOCKWISE. LIFT THE
PEDAL UP WITH YOUR FOOT.**

10. Rotate the Turntable clockwise. (See Fig. 11.39)



11. Continue to rotate the Turntable and until lower bead pops off the Rim. (See Fig. 11.40)



SECTION 12

CUSTOM AND SPECIAL WHEELS



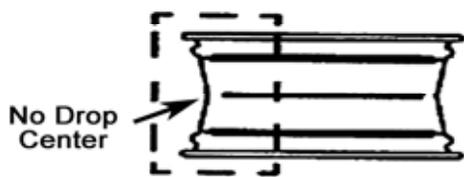
DANGER!

IF A CUSTOM WHEEL IS DAMAGE DURING DISMOUNTING, STOP AND AVOID DAMAGING THE OTHER WHEEL. CONTINUE ONLY WHEN THE CAUSE IS IDENTIFIED AND CORRECTED.

Alloy Wheels

Some manufactures offer wheels with little or no drop center. These are not DOT approved. The tire, wheel, or both, can be damaged and the tire could explode under pressure, resulting in serious injury or death. If you attempt to mount/demount this type of wheel, use extreme caution.

Fig. 12.1



European Performance Wheels (Asymmetrical Hump)

Some European wheels have very large humps except near the valve hole. On these wheels, the beads should be loosened at the valve hole on both the upper and lower sides first.

Wheels with Low Pressure Warning Sensors

Some vehicles have a pressure sensor located behind the valve stem. On these wheels, the beads should be loosened at the opposite the valve stem on both upper and lower sides first.

Performance wheels on some vehicles (including Corvette, BMW, Lamborghini Diablo) have a pressure sensor strapped to the rim opposite the valve hole. On these wheels, the beads should be loosened at the valve hole on both upper and lower sides first.

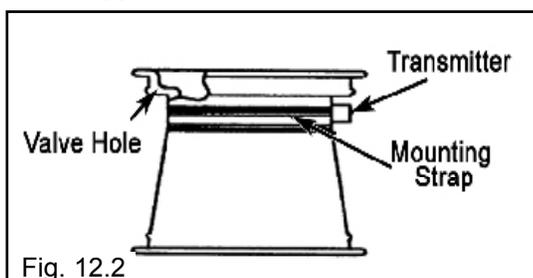


Fig. 12.2

SECTION 13

DEMOUNTING TUBE TYPE TIRES

1. After both tire beads are loosened, lubricate the beads and rim liberally.

NOTE:

TABLE TOP ROTATION CAN BE STOPPED AT ANY TIME BY REMOVING YOUR FOOT FROM THE ROTATION PEDAL. NORMAL TABLE TO ROTATION FOR DEMOUNTING IS CLOCKWISE. DEPRESS THE TABLE TOP ROTATION PEDAL TO ROTATE CLOCK WISE. TO ROTATE COUNTER CLOCKWISE. LIFT THE PEDAL UP WITH YOUR FOOT.

2. Position the Tool Head Hook and bead lifting tools as described earlier paying careful attention not to pinch the tube. Depress the table top pedal and rotate only a short distance at a time. This allows you to stop the process should you suspect the tube is getting pinched.

FOR TUBE-TYPE TIRES

WITH TUBE-TYPE TIRES, DEMOUNT THE UPPER BEAD AND REMOVE THE TUBE BEFORE DE-MOUNTING THE LOWER BEAD.

3. After upper bead is demounted, remove tube and demount lower bead.

SECTION 14

MOUNTING A TIRE

WARNING

WARNING!

CHECK TIRE AND WHEEL CAREFULLY BEFORE MOUNTING. MAKE SURE THE TIRE BEAD DIAMETER AND WHEEL DIAMETER MATCH EXACTLY. CONSULT THE RUBBER MANUFACTURER'S ASSOCIATION OR TIRE INDUSTRY ASSOCIATION FOR APPROVED RIM WIDTHS FOR TIRE SIZES.

DANGER

DANGER!

ATTEMPTS TO FORCE A BEAD SEAT ON MIS-MATCHED TIRES AND WHEELS CAN CAUSE THE TIRE TO VIOLENTLY EXPLODE, CAUSING SERIOUS PERSONAL INJURY OR DEATH TO OPERATOR AND OR/BYSTANDERS

WARNING

WARNING!

NEVER MOUNT A TIRE AND WHEEL HANDED TO YOU BY ANYONE WITHOUT CHECKING BOTH TIRE AND WHEEL FOR DAMAGE AND COMPATIBILITY. BE EXTRA CAUTIOUS OF PERSON WITHOUT KNOWLEDGE OF TIRE SERVICE. KEEP BYSTANDERS OUT OF SERVICE AREA.

WARNING

WARNING!

NEVER MOUNT A DAMAGE TIRE. NEVER MOUNT A TIRE ON A RUSTY OR DAMAGED WHEEL. DAMAGED TIRES AND/OR WHEELS MAY EXPLODE.

WARNING

WARNING!

IF YOU DAMAGE THE TIRE BEAD DURING MOUNTING, STOP! REMOVE THE TIRE AND MARK IT AS DAMAGED. DO NOT MOUNT A DAMAGED TIRE.

1. Inspect the wheel closely for damage. Clean the wheel and remove any light corrosion or rubber residue. Do not attempt to service heavily corroded wheels. (See Fig. 14.1)



Fig. 14.1

2. Inspect tire for damage, paying close attention to the beads. Verify size match between tire and wheel. (See Fig. 14.2)



Fig. 14.2

WARNING

WARNING!

ALWAYS USE A LIBERAL AMOUNT OF TIRE MANUFACTURE'S RECOMMENDED LUBRICANT. FAILURE TO DO SO CAN DAMAGE THE TIRE, RIM OR THE ELECTRIC MOTOR AND MAY VOID THE WARRANTY.

3. Lubricate both tire beads liberally with tire manufacturer approved tire lubricant. (See Fig. 14.3)



Fig. 14.3

Lower Bead Seating

Before performing the mounting procedure, prepare the machine.

1. Move the Upper Bead Breaker Roller to its highest position.
2. Pivot the Upper Bead Roller arm out of the way.
3. Move the Lower Bead Breaker Roller to its lowest position.
4. Move the Drop Center Swing Arm out of the way.
5. Retract the Tool Head Arm and raise it to its highest position.
6. Check that rim is properly mounted and secure. Refer to Demounting section Page 33 for review.

1. Place tire on Rim.
2. Lower Hook /Tab Arm till lower bead is below rim.
3. Rotate Turntable until Lower Bead drops below top edge of Rim. (See Fig. 14.4)



4. If necessary, for some stiff sidewall tires, use the Upper Bead Breaker Roller to help push the down on the tire, to Push bead below rim lip. (See Fig. 14.5)



Upper Bead Seating

1. Lower the Tool Head with the Tab side down to bring the upper bead below the upper rim edge. (See Fig. 14.6)



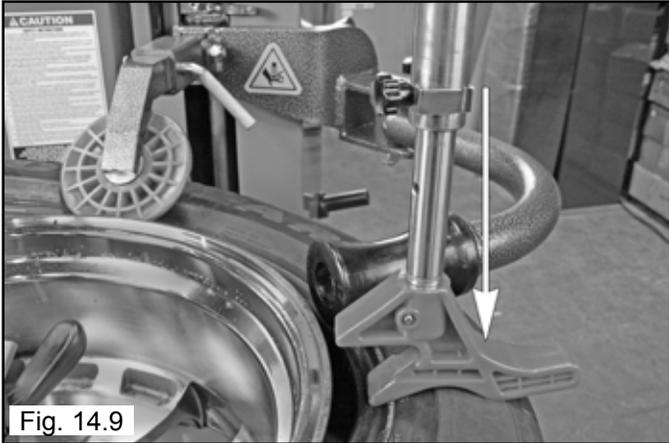
2. Lower The Upper Bead Breaker Roller and if needed, position the Assist Arm Roller to press the Upper Bead into the drop center of the Rim. (See Fig. 14.7)



3. Lower the Drop Center Tool with the "mouth" side facing the rim and contact the tire just ahead of the Assist Arm Roller. (See Fig. 14.8)



4. Lower the Drop Center Tool to Push the Upper Bead below the Rim's Drop Center. (See Fig. 14.9)



5. Press the Turn table Rotation pedal to rotate the tire and rim clockwise. **KEEP HANDS CLEAR!** (See Fig. 14.10)



6. Continue rotation till Upper Bead drops below Rim. (See Fig. 14.11 & 14.12)



⚠ WARNING



⚠ WARNING

WARNING!

KEEP HANDS CLEAR!
KEEP HANDS CLEAR OF ALL COMPONENTS OF THE TIE CHANGER WHEN ROTATING TURNTABLE DURING MOUNTING PROCEDURES. THERE ARE MANY PINCH OR CRUSH HAZARDS IF HANDS ARE KEPT IN CONTACT WITH THE MACHINE DURING DEMOUNTING ROTATION.

NOTE:

TABLE TOP ROTATION CAN BE STOPPED AT ANY TIME BY REMOVING YOUR FOOT FROM THE ROTATION PEDAL. NORMAL TABLE TO ROTATION FOR DEMOUNTING IS CLOCKWISE. DEPRESS THE TABLE TOP ROTATION PEDAL TO ROTATE CLOCK WISE. TO ROTATE COUNTER CLOCKWISE, LIFT THE PEDAL UP WITH YOUR FOOT.

1. Move the Upper Bead Breaker Roller to its highest position.
2. Pivot the Upper Bead Roller arm out of the way.
3. Move the Drop Center Swing Arm Up and to the right, out of the way.

SECTION 15

MOUNTING TUBE TYPE TIRES

1. Lubricate the beads and rim liberally.
2. Mount the lower Bead as indicated in Section 14.
3. Round out the tube with a small amount of air. Avoid pinching or forcing the tube. Apply rubber lubricant to the tube.
4. Insert the tube into the tire paying careful attention not to pinch the tube.
5. Mount the Upper Bead as indicated in Section 14. Stop the Rotation periodically. This allows you to inspect the tube and stop the process should you suspect the tube is getting pinched.
6. Mount the top bead.



WARNING!

DO NOT FORCE THE TIRE ONTO THE RIM. BEAD DAMAGE COULD RESULT MAKING THE TIRE UNSAFE AND/OR CREATING THE RISK OF INJURY.

SECTION 16

INFLATION INSTRUCTIONS

Tire inflation is performed in four steps: Restraint, Bead Seal, Bead Seat, and Inflation. Read the explanation of each step and understand them thoroughly before proceeding.



DANGER!

CHECK INFLATION GAUGE FOR PROPER OPERATION. ACCURATE PRESSURE READINGS ARE IMPORTANT TO SAFE TIRE INFLATION. REFER TO THE OPERATING MAINTENANCE SECTION OF THIS MANUAL FOR INSTRUCTIONS.



WARNING!

TIRE FAILURE UNDER PRESSURE IS HAZARDOUS. THIS TIRE CHANGER IS NOT INTENDED TO BE A SAFETY DEVICE TO CONTAIN EXPLODING TIRES, TUBES, WHEELS OR BEAD SEALING EQUIPMENT. INSPECT TIRE AND WHEEL CAREFULLY FOR MATCH, WEAR, OR DEFECTS BEFORE MOUNTING. ALWAYS USE APPROVED TIRE BEAD LUBRICANT DURING MOUNTING AND INFLATION. THE INFLATION PEDAL, LOCATED AT THE CENTER OF THE FRONT SIDE OF THE MACHINE, CONTROLS THE FLOW OF AIR THROUGH THE INFLATION HOSE.



DANGER!

THE CLIP-ON AIR CHUCK ON THE END OF THE INFLATION HOSE AND ALL INFLATION RELATED COMPONENTS SHOULD BE CHECK WEEKLY FOR PROPER OPERATION. DO NOT USE THIS MACHINE FOR TIRE INFLATION IN ANY PARTS ARE DAMAGED OR APPEAR NO TO BE IN PROPER WORKING ORDER.

INFLATION PEDAL OPERATION

The inflation pedal located at the front of the checks air pressure in the tire; controls the flow of air through the inflation hose. (See Fig. 16.1)



Fig. 16.1

Tire Inflation – This is the activated position. With the inflation hose attached to the tire valve and the pedal depressed, line pressure is allowed to flow through the valve and into the tire for inflation. Tire pressure is indicated on the gauge in this position. (See Fig. 16.2)



Fig. 16.2

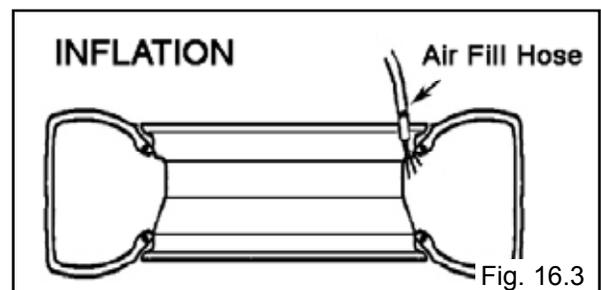


Fig. 16.3

STAGES OF INFLATION

Review the following descriptions and diagrams carefully. Refer to them as necessary during wheel restraint, bead sealing, and inflation to verify that you are proceeding properly and safely.



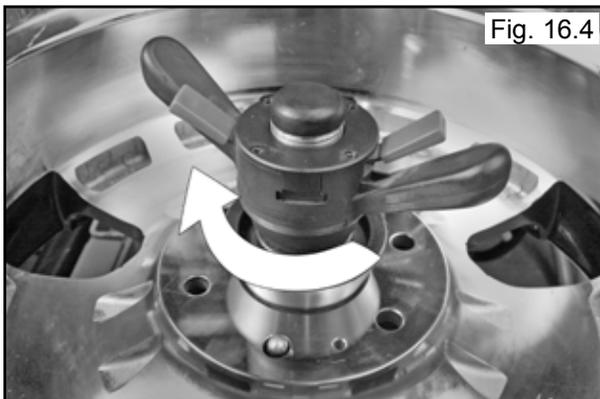
WARNING!

THIS DEVICE ACTS AS A RESTRAINT DEVICE ONLY. IT WILL NOT PROTECT OPERATORS IN THE EVENT OF CATASTROPHIC TIRE/ WHEEL RUPTURE OR FAILURE. ALWAYS USE EXTREME CAUTION DURING THE INFLATION PROCEDURE. AS AN ADDED SAFETY PRECAUTION, SAFETY CAGES THAT CONFORM TO OSHA STANDARD 1910.177 ARE RECOMMENDED.

STAGE ONE / WHEEL RESTRAINT

The tire rim needs to be securely mounted to the turntable during all stages of inflation.

1. Check that rim is properly mounted and secure. Refer to Demounting section Page 33 for review. (See Fig. 16.4)



STAGE TWO / BEAD SEALING

1. Remove the Valve Stem Core and position Valve Stem and connect the Inflation Hose. (See Fig. 16.5)



Fig. 16.5

2. Hold tire up against upper edge of the wheel. Be sure tire's top bead is over the bottom of the valve stem. (See Fig. 16.6)



Fig. 16.6



CAUTION!

NEVER POINT NOZZLE TOWARDS YOURSELF OR OTHER PERSONS. INSPECT NOZZLE, TIRE AND WHEEL FOR DEBRIS. NOZZLE MUST BE POINTED TOWARD TIRE BEAD AREA. HOLD NOZZLE SECURELY WITH BOTH HANDS AT ALL TIMES. NEVER OPERATE THE NOZZLE WITHOUT A TIRE AND WHEEL POSITIONED ON THE TABLE. DIRT AND DEBRIS COULD BE BLOWN INTO THE AIR WITH ENOUGH FORCE TO INJURE THE OPERATOR OR BYSTANDERS.



- Position the Turbo-Blast Nozzle to direct air towards the Rim Center just under the Rim lip. (See Fig. 16.7)



Fig. 16.7

- Depress inflation pedal and open the Turbo-Blast Valve. The blast of air from the jets will expand tire and seal the beads. (See Fig. 16.8)



Fig. 16.8

- Release the inflation pedal. Verify that both beads are completely sealed to the wheel. Repeat these steps if beads have not sealed. It may be necessary to wait a few seconds for the air storage tank to recover before attempting again. If tire and wheel are properly lubricated and operator cannot achieve bead seal after a few attempts, the valve core should be removed from the valve stem to allow more air flow into the tire to assist with bead seal. After bead seal is achieved, remove the chuck and reinstall the valve core.

TIRE INFLATION



WARNING!

CHECK THE FUNCTION OF THE PRESSURE LIMITER REGULARLY AND MAINTAIN IT ACCORDING THE INSTRUCTIONS PROVIDED IN THIS MANUAL FOR SAFE AND PROPER OPERATION. DO NOT TAMPER WITH OR ATTEMPT TO ADJUST THE PRESSURE LIMITER. TIRES REQUIRING INFLATION BEYOND 60 PSI SHOULD ONLY BE INFLATED IN A SAFETY CAGE.

The unit is equipped with a pressure limiter/regulator to assist the operator with proper tire inflation. The pressure limiter will keep most car and light truck tires from inflating beyond 60 PSI (smaller tires may reach higher pressures). It is the operators responsibility to follow all instructions and to control inflation pressure as specified in these instructions. (See Fig. 16.9)

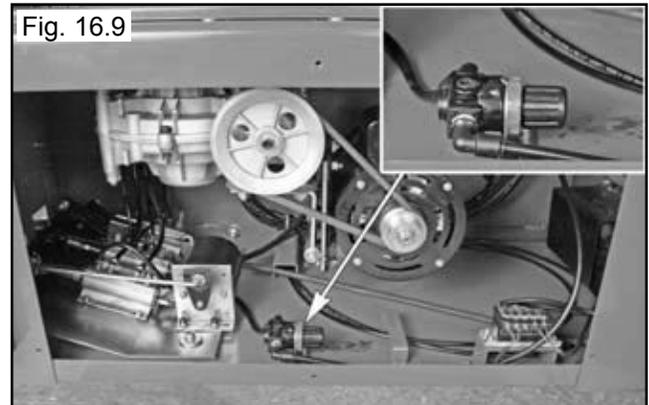


Fig. 16.9

STAGE THREE / BEAD SEATING

Bead seating usually occurs on the long tapered side of the wheel first and the shorter side last. Bead seating will usually require at least 7 PSI in the tire. 40 PSI is the maximum safe pressure at this stage regardless of tire operating pressure. Most European import cars and many aftermarket alloy wheels are very tight and can be difficult to bead seat. Also note that asymmetrical hump and run-flat tires are extremely difficult to bead seat. Follow tire manufacturer's recommended procedure for bead seating.



WARNING!

OPERATOR SHOULD KEEP HANDS, ARMS AND ENTIRE BODY AWAY FROM THE TIRE DURING THE REMAINING BEAD SEAT AND INFLATION PROCEDURES. DO NOT STAND OVER TIRE, AS PERSONAL INJURY COULD RESULT FROM INFLATING TIRE. AVOID DISTRACTION DURING INFLATION. CHECK TIRE PRESSURE FREQUENTLY TO AVOID OVER INFLATION. EXCESSIVE PRESSURE CAN CAUSE TIRES TO EXPLODE, CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDER.



1. Once tire pressure is indicated on the air gauge (inflation pedal depressed, continue to inject air into the tire in short intervals. Check the pressure frequently. Stand back during bead seat. Keep hands, arms, and entire body away from tire during this procedure. Tire beads should move outward and "pop" into their bead seat position as pressure inside the tire increases. If this does not happen, a problem exists. Investigate carefully. (See Fig. 16.10)



WARNING!

**KEEP HAND AND FINGERS CLEAR!
KEEP ENTIRE BODY AWAY FROM THE TIRE.**



2. Release air pressure from the tire by pressing the manual release valve button. NOTE: The inflation hose must be attached to the valve stem during this procedure. (See Fig. 16.11)



 **WARNING**

WARNING!

CHECK TIRE PRESSURE FREQUENTLY. NEVER EXCEED 40 PSI WHILE SEATING BEADS. ONCE SEATED, NEVER EXCEED TIRE MANUFACTURER'S RECOMMENDED AIR PRESSURE. TIRES CAN EXPLODE, ESPECIALLY IF THEY ARE INFLATED BEYOND THEIR LIMITS. AT ALL PRESSURE LEVELS, WHEN INFLATING THROUGH THE VALVE STEM; KEEP HANDS, ARMS, AND ENTIRE BODY AWAY FROM INFLATING TIRE. AN EXPLODING TIRE, WHEEL OR BEAD SEATING EQUIPMENT MAY PROPEL UPWARD AND OUTWARD WITH SUFFICIENT FORCE TO CAUSE SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDER.

MIS-MATCHED TIRES AND WHEELS

NEVER ATTEMPT TO MOUNT MIS-MATCHED TIRES AND WHEELS. MIS-MATCHED TIRE AND WHEEL COMBINATIONS CAN EXPLODE, CAUSING PERSONAL INJURY OR DEATH TO OPERATOR AND BYSTANDERS. FOR SAFETY, DO NOT ATTEMPT TO MOUNT AND INFLATE MIS-MATCHED TIRES AND WHEELS.

 **DANGER**

DANGER!

NEVER INCREASE AIR PRESSURE TO EXCEED 40 PSI WHEN ATTEMPTING TO SEAT BEAD. IF OPERATOR IS UNABLE TO OBTAIN BEAD SEAT, SOMETHING IS WRONG. DEFLATE TIRE COMPLETELY, INSPECT TIRE AND WHEEL; CORRECT ANY PROBLEMS FOUND, RE-LUBRICATE BOTH BEADS AND REATTEMPT BEAD SEAL AND SEAT PROCEDURES. FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL.

STAGE FOUR / TIRE INFLATION

1. Make sure both beads are seated. When both beads are seated, the tire is ready for inflation.
2. Replace the valve core if it was removed.
3. Depress the inflation pedal to inflate the tire.
DO NOT STAND OVER TIRE DURING INFLATION.
4. Do not inflate the tire above the manufacturer's recommended pressure as stamped on the tire sidewall. The typical inflation pressure for automobile tires is between 24 and 45 PSI. Light truck inflation pressure typically covers a wider range. Release air pressure from the tire by pressing the manual release valve button.



DANGER!

IMPORTANT!
WHEN INFLATING TIRES THAT REQUIRE MORE THAN 60 PSI, ALWAYS USE A SAFETY CAGE AND AIR HOSE WITH A CLIP-ON CHUCK AND IN-LINE VALVE. THE HOSE MUST HAVE ENOUGH LENGTH BETWEEN THE CHUCK AND THE OPERATION/IN-LINE VALVE TO ALLOW THE OPERATOR TO OUTSIDE THE TRAJECTORY.



WARNING!

THE INFLATION PRESSURE LIMITER IS PRE-SET AT THE FACTORY AND SHOULD NEED NO ADJUSTMENT. ADJUST ONLY IF PRESSURE EXCEEDS 60 PSI.

OPERATING A TIRE CHANGER WITH A DEFECTIVE, IMPROPERLY ADJUSTED, OR BY-PASSED PRESSURE LIMITER COULD RESULT IN A TIRE EXPLOSION WITH SEVERE INJURY OR DEATH TO THE OPERATOR OR BYSTANDERS.

ALWAYS BE SURE THAT THE PRESSURE LIMITER IS OPERATING PROPERLY ON THE MACHINE AT ALL TIMES. PRESSURE LIMITER IS SET AT 60 PSI. ANY REQUIRED INFLATION ABOVE 60 PSI SHOULD BE PERFORMED IN AN INFLATION CHAMBER/ SAFETY CAGE. A TIRE EXPLOSION MAY CAUSE PERSONAL INJURY OR DEATH TO OPERATOR OR BYSTANDERS.

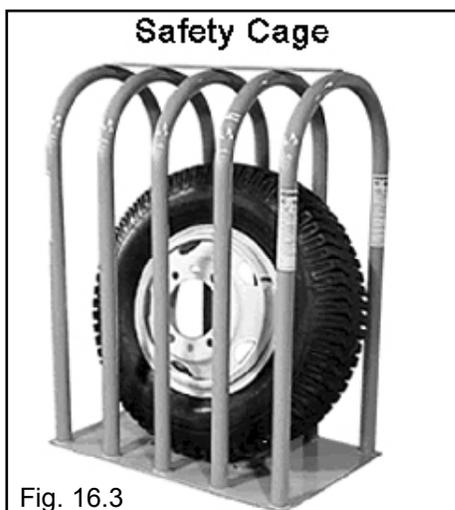


Fig. 16.3

SECTION 17

MAINTENANCE INSTRUCTIONS

Read and follow all the maintenance instructions provided in this manual to keep the machine in good operating condition. Regular inspections and proper maintenance are essential to preventing accidents and injuries. These instructions will help you service the unit. Instructions are for a person with some mechanical ability and training. No attempt has been made to describe all basic steps like how to loosen or tighten fasteners. Basic procedures such as cycling systems and checking operation of the equipment are not fully described here since they are described in other sections of this manual. Do not attempt to perform work beyond your ability or at which you have no experience. If you need assistance, call an authorized service center or contact the factory.



- ◆ Before making any inspection, adjustment, or repair, disconnect the power source and block out all moving parts to prevent injury.
- ◆ Keep the machine and the immediate work area clean. Do not use compressed air to remove dirt and debris from the machine. Foreign material may be propelled into the air and into operator or bystander causing personal injury.
- ◆ Wear protective clothing and use eye protection when making any adjustments or repairs to the machine.

DAILY

- ◆ Check the tire pressure gauge function daily, and check the accuracy monthly. Use a pressurized tire and a high quality stick or digital -type pressure gauge. If necessary, adjust the dial of the machine gauge. If the gauge is defective, replace it immediately.
- ◆ Make sure all fasteners are securely tightened and all guards and covers are in place.

- ◆ Check for worn, damaged or missing parts including grips and protective covers. Replace them before allowing the unit to be used.
- ◆ Check the tire pressure gauge function daily, and check.
- ◆ On a daily basis, inspect the unit and check to be certain that all systems are operating normally. Follow detailed inspection and testing procedures as specified for various components at regular intervals.
- ◆ Replace any damaged or missing safety decal's. They are available from the factory.

WEEKLY

Water Separator/Lubricator Maintenance

Check oil and water levels regularly, and perform these maintenance items weekly:

- ◆ Observe the sight glass on the water separator/filter unit. If water is observed, drain by pressing upwards on the drain plug at the bottom of the reservoir.
- ◆ Disconnect air supply to machine.
- ◆ Add oil to the lubricator if the fluid level is below the middle of the sight glass. Remove the reservoir by turning counter-clockwise and pulling down. Add SAE 10W non-detergent oil or an air tool oil if necessary.

NOTE!

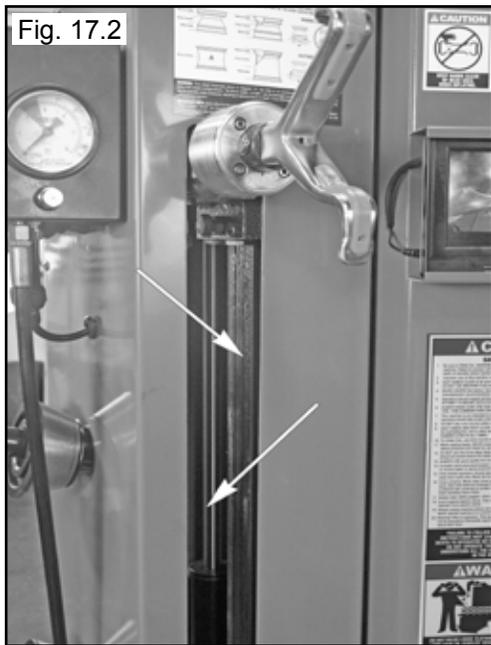
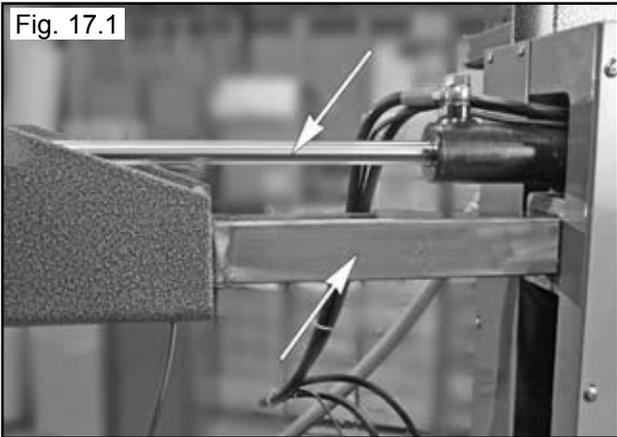
REFER TO SECTION 9 PAGE 26 FOR DETAILS OF AIR OIL REGULATORS ADJUSTMENTS.

- ◆ Reconnect the air when service/adjustments are complete.

MONTHLY

- ◆ Check adjustment of the Target Lock™ Tool Head monthly. See page 54 for details
- ◆ Check function of the inflation hose pressure limiter/regulator monthly. Always secure/stow the cover if adjustments are made. **The pressure regulator should never be adjusted to exceed 60 PSI.** See page 56 for details

- ◆ The vertical and horizontal slides and the helper slides should be cleaned with a vaporizing solvent and then lubricated with chassis grease once a month. (See Fig. 17.1 - 17.3)



- ◆ The table top, steel Tool Head, and other working surfaces should be cleaned with a vaporizing solvent every month.

SEMI ANNUALLY

- ◆ Every six months add about 250g of 26 weight gear oil to the gearbox.

ANNUALLY

- ◆ Replace hydraulic fluid annually with AW32 hydraulic fluid; use a clean funnel to refill fluid.
- ◆ Check the level of oil in the reduction gearbox and refill with 26 weight gear oil.
- ◆ Check and adjust the tension of turntable drive belt. See page 57.
- ◆ All air mufflers should be disassembled and cleaned with solvent every three months.

ADJUSTMENT OF TOOL HEAD TARGET LOCK™ LIMIT SWITCH

1. Mount an empty rim onto the turntable.



CAUTION!

ANY TIME THE TOOL HEAD IS CHANGED FROM THE STEEL HEAD TO PLASTIC OR VICE VERSA, THE STOP POSITION OF THE TOOL HEAD MUST BE ADJUSTED.



WARNING!

KEEP HANDS CLEAR!
KEEP HANDS CLEAR OF ALL COMPONENTS OF THE TIRE CHANGER WHEN ROTATING TURNTABLE DURING MOUNTING PROCEDURES. THERE ARE MANY PINCH OR CRUSH HAZARDS IF HANDS ARE KEPT IN CONTACT WITH THE MACHINE DURING DEMOUNTING ROTATION.

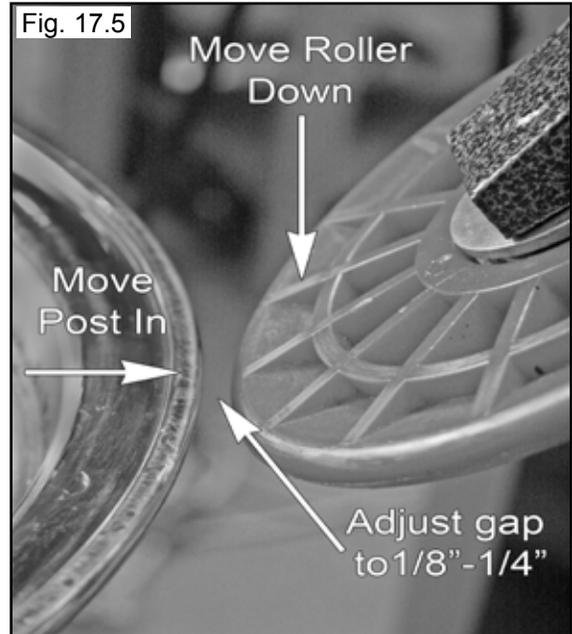


NOTE!

REVIEW SECTION 6-8 FOR DETAILS ON CONTROLS AND MOVEMENT OF BEAD BREAKER ROLLER AND TOOL HEAD.

2. Lower the Upper Bead Breaker Roller to within about an inch of the tire Rim.

3. Use the Center Post Control and the Upper Bead Breaker Control to bring the Upper Bead Breaker Roller to within 1/8"-1/4" of the Rim edge. (See Fig. 17.5)



4. Retract the Tool Head Arm and raise it to its highest position.
5. Flip Tool Head so that Tab Side is pointing UP.



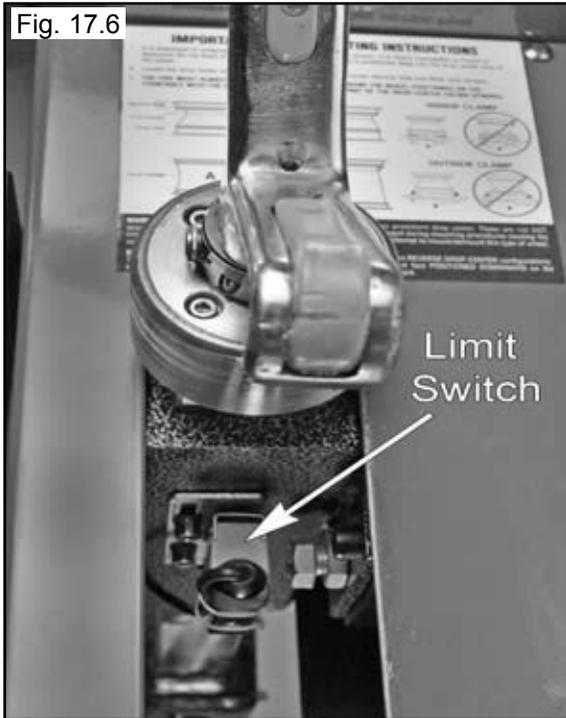
WARNING!

DISCONNECT, TAG AND LOCK OUT POWER SOURCE BEFORE ATTEMPTING TO INSTALL, SERVICE, RELOCATE OR PERFORM ANY MAINTENANCE.

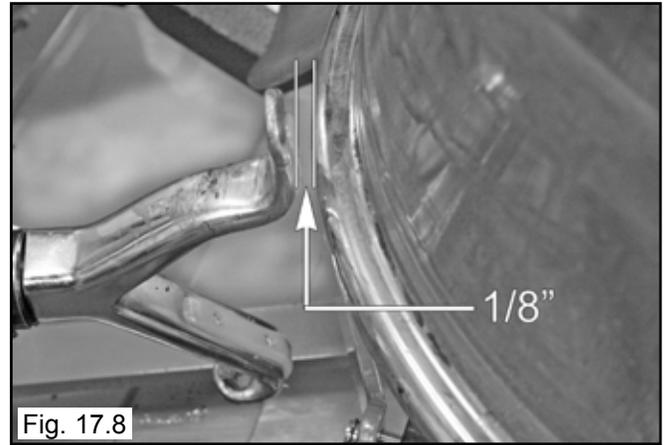
6. Turn Power off at the machine and LOCK OUT TAG / OUT the machine while performing the Limit switch adjustment.

7. The Limit switch is located under the Tool Head Sliding Arm.

8. Loosen the Socket Head Cap screws and move the switch assembly forward or rearward as required. (See Fig. 17.6)

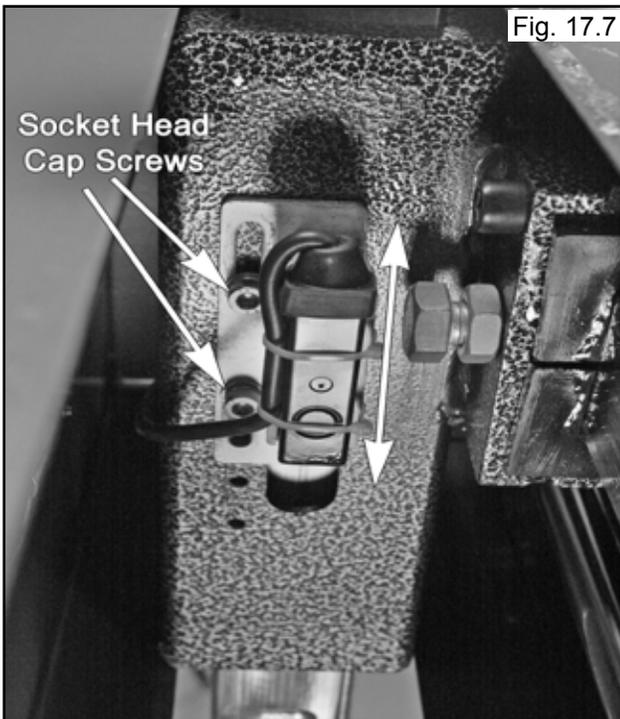


11. Lower the Tool Head to gauge the distance from the Tab Side of the Tool Head to the Lower Rim Edge. (See Fig. 17.8)



NOTE:
THE TOOL HEAD IS ADJUSTED FROM THE FACTORY SO THAT THE TAB SIDE OF THE TOOL HEAD WILL BE 1/8" FROM THE RIM EDGE WHEN PUSHING AND HOLDING THE Target Lock™ BUTTON ON THE TOOL HEAD JOYSTICK CONTROL. THE HOOK SIDE WILL BE SLIGHTLY FARTHER AWAY FROM THE RIM EDGE.

9. Tighten The Socket Head Cap Screws. (See Fig. 17.7)



12. Raise the tool head above the Rim and repeat adjustment procedure if necessary until the desired distance is obtained.

10. Power up the Machine and press and hold the One Touch Button until the Tool Head Arm stops extending.

INFLATION PEDAL PRESSURE LIMITER MAINTENANCE



**THE PRESSURE LIMITER IS PRE-SET AT THE
FACTORY AND SHOULD NEED NO ADJUSTMENT.
ADJUST ONLY IF PRESSURE EXCEEDS 60 PSI.**

Operating a tire changer with a defective, improperly adjusted, or by-passed pressure limiter could result in a tire explosion with severe injury or death to the operator or bystanders. Always be sure that the pressure limiter is operating properly on the machine at all times. Pressure limiter is set at 60 PSI.

Any required inflation above 60 PSI should be performed in an inflation chamber/safety cage. A tire explosion may cause personal injury or death to operator or bystanders.

The inflation pedal pressure limiter helps prevent inflation of standard size or larger tires or tubes beyond 60 PSI to minimize risk of explosion. This device is for the safety of the operator and bystanders. Proper operation of the pressure limiter is essential to safe operation of the machine. (See Fig. 17.9)

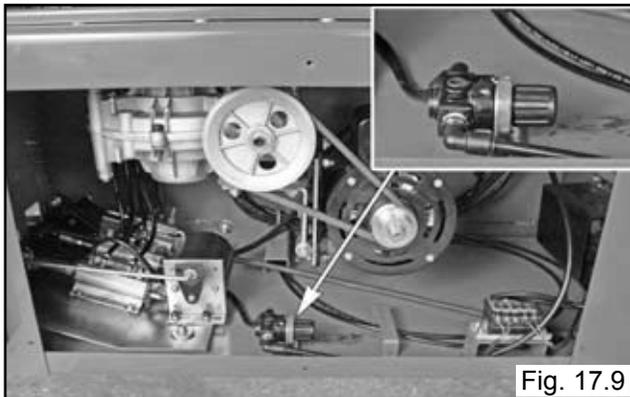


Fig. 17.9

Check operation of the pressure limiter as follows at least once a month:

1. Remove tires and/or wheels from the machine.
2. Connect the inflation hose to an empty service tank with a pressure gauge (gauge should read 0). Use a certified tank with at least 250 PSI pressure rating. (See Fig. 17.10)

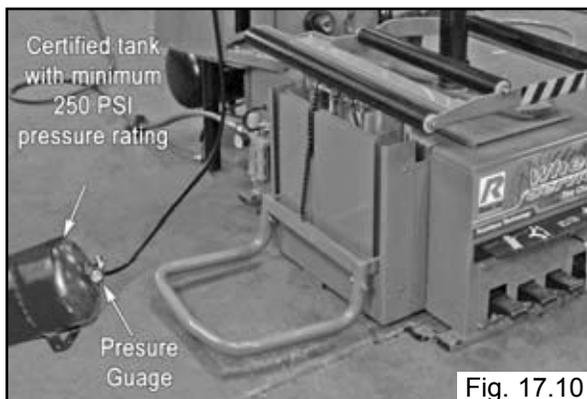


Fig. 17.10

3. Depress inflation pedal to start air flow through the hose and into the tank. Maintain a steady pressure for constant flow.

4. Watch the rising pressure on the tank gauge and the gauge on the machine. As tank pressure reaches 60 PSI, the pressure limiter should stop the air flow automatically. Both gauges should read 60 PSI \pm 5 PSI.

5. If the pressure exceeds 60 PSI, adjust the knob on the regulator by lifting the locking cover and turning COUNTERCLOCKWISE. After adjustment is made, secure cover in the locked position.

6. Repeat steps 1-6. Re-adjust if necessary.

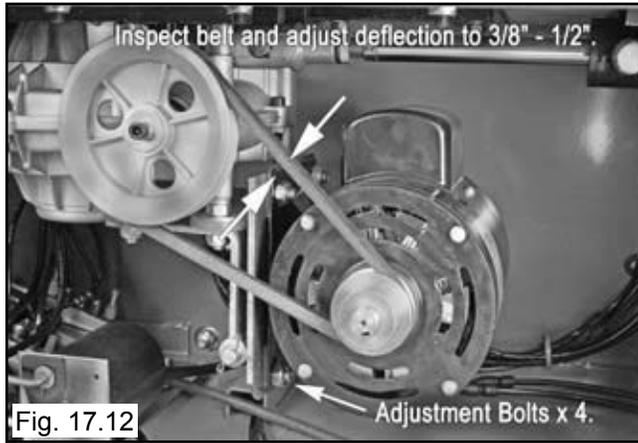
7. After pressure limit has been set, check the manual release valve function by pressing the button and releasing pressure from the tank until it reaches 50 PSI. Disconnect inflation hose, and release air inside tank. (See Fig. 17.11)



Fig. 17.11

DRIVE BELT ADJUSTMENT

1. Remove right side access panel.
2. Inspect the Drive Belt for cracking and wear and replace as necessary. Adjust the Belt deflection to $3/8'' - 1/2''$. (See Fig. 17.12)



CRITICAL SAFETY WARNINGS

CAUTION



KEEP HANDS CLEAR OF BEAD AREA WHEN INFLATING.

WARNING



BE SURE TO READ ALL WARNING LABELS AND INSTRUCTION MANUAL PRIOR TO OPERATION OF THIS MACHINE.

CAUTION



ALWAYS WEAR SAFETY GLASSES WHEN OPERATING THIS MACHINE.

DANGER



STAND CLEAR WHILE INFLATING TIRE. TIRE OR WHEEL FAILURE UNDER PRESSURE MAY CAUSE SERIOUS INJURY OR DEATH.

DO NOT WEAR LOOSE CLOTHING, LONG HAIR OR JEWELRY. MOVING PARTS CAN SNAG OR PULL.

WARNING



NOZZLE MUST ALWAYS BE POINTED TOWARD TIRE BEAD AREA. HOLD NOZZLE SECURELY WITH BOTH HANDS AT ALL TIMES.



KEEP HANDS CLEAR OF ALL PINCH POINTS.

USE DRY AIR SOURCE ONLY
ALWAYS drain air compressor tank daily or use in-line dryer.

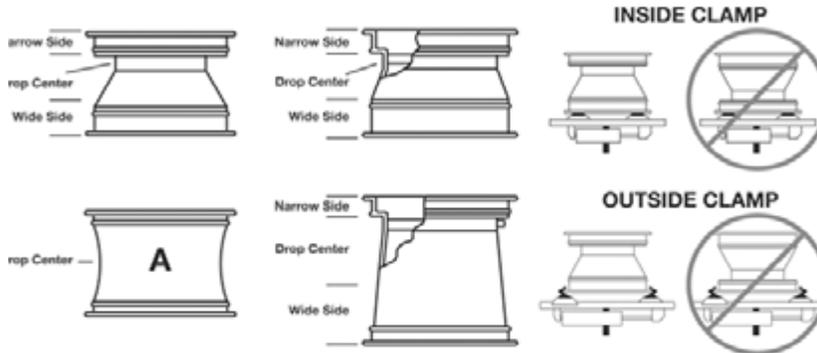
SERVICE PARTS AND LABOR NOT COVERED UNDER WARRANTY IF RUST OR CORROSION IS PRESENT.

CRITICAL SAFETY WARNINGS

The following instructions help identify how to properly mount wheels on the tire changer turntable. Failure to follow these instructions may lead to tire and/or wheel damage, equipment damage or failure, serious personal injury or death to operator or bystanders or damage to property.

IMPORTANT WHEEL MOUNTING INSTRUCTIONS

- It is important to understand that tires and/or tire beads do not stretch. It is nearly impossible to mount or dismount the top bead of the tire unless the top bead of the tire is positioned deep into the drop center area of the wheel.
- Locate the drop center of the wheel. Clearly identify the Drop Center, Narrow Side and Wide Side flanges.
- THE TIRE MUST ALWAYS BE DEMOUNTED OR MOUNTED HAVING THE WHEEL POSITIONED ON THE TURNTABLE WITH THE NARROW SIDE AND THE DEEPEST PART OF THE DROP CENTER FACING UPWARD.**



WARNING: The wheel illustrated above in diagram "A" has little or no prominent drop center. These are not DOT approved wheel configurations. The tire or wheel - or both - can be damaged during mounting procedures causing the tire to explode under pressure, resulting in serious injury or death. If you attempt to mount/demount this type of wheel, use extreme caution.

IMPORTANT NOTE: Most aftermarket and many OEM performance wheels are REVERSE DROP-CENTER configurations. These wheels **MUST** be mounted on the turntable with the hub or wheel face **POSITIONED DOWNWARD** on the turntable and the Narrow Side and deep part of the Drop Center facing upward.

CAUTION

SAFETY INSTRUCTIONS

- Be sure to **READ ALL WARNING LABELS** and instruction manual prior to operation of this machine. Failure to comply with proper safety instructions may lead to serious harm or even death of operator and/or bystanders.
- Improper use of this machine may cause damage to machine or cause personal harm or injury.
- KEEP HANDS CLEAR** of all pinch points. Check machine for damaged parts prior to operation. **DO NOT USE MACHINE** if any part(s) are broken or damaged.
- NEVER EXCEED** the factory recommended air pressure of tire. Over inflating the tire beyond the manufacturers recommendation can cause tire burst or explosion.
- Operators should inspect all tires and rims for possible defects prior to mounting. **DO NOT ATTEMPT TO MOUNT DEFECTIVE TIRES. NEVER MOUNT A TIRE ON A DEFECTIVE WHEEL.**
- ALWAYS MAKE SURE TIRE SIZE MATCHES RIM SIZE** prior to mounting. **MISMATCHED TIRE / RIM COMBINATIONS CAN EXPLODE.**
- This machine is not intended to be a restraining device for exploding tires, tubes, or rims. All operators should take proper precautions to implement safety and to avoid personal injury or harm.
- DO NOT** lean over the tire while inflating.
- KEEP HANDS AND BODY CLEAR** at all times and as far back as possible during inflation. An exploding tire, rim or other wheel component can cause death to operator and/or bystander. **REMAIN CLEAR AT ALL TIMES.**
- To inflate tires, use short bursts while carefully monitoring the pressure, tire, rim, and bead.
- 1. While seating beads, **NEVER** exceed 40 p.s.i. If bead does not seat at 40 p.s.i. immediately relieve pressure and check for damaged bead and/or other cause.
- 2. **DO NOT** aim the Turbo-Blast Bead-Seating Nozzle towards yourself or any person. Nozzle must always be aimed toward tire bead area. Hold Nozzle securely with both hands at all times.
- 3. **ALWAYS USE** good quality tire lubricant when servicing tires.
- 4. Consider work area environment. Do not expose equipment to rain. Never operate machine in or around water or damp environments. Keep area well lighted.
- 5. Only trained operators should operate this machine. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate machine.
- 6. Dress properly. Never wear loose gloves, clothing or jewelry. They can be caught in moving parts. Non-skid steel-toe footwear is recommended when operating this machine. Wear protective hair covering to contain long hair. Approved back-support braces are recommended when handling heavy loads.
- 7. Always wear safety goggles when operating this machine.
- 8. Guard against electric shock. This machine must be grounded while in use to protect the operator from electric shock.
- 9. Always unplug machine before servicing. Never yank cord to disconnect it from the receptacle. Never operate machine in or around water or damp environments.
- 0. Warning! Risk of explosion. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.

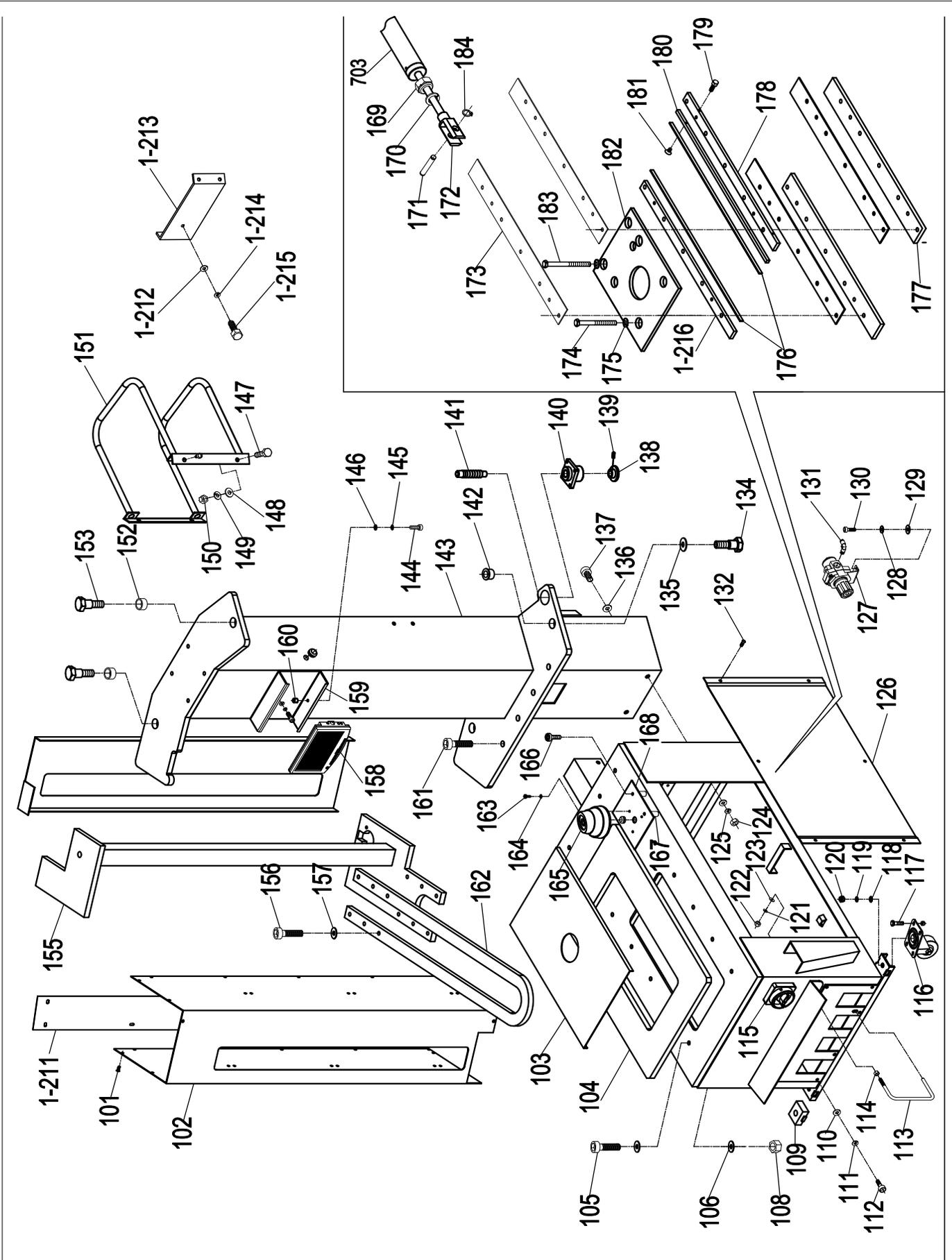
Failure to follow Danger, Warning and Caution instructions may lead to serious personal injury or death to operator or bystander or damage to property. Do not operate this machine until you read and understand all the dangers, warnings and cautions in the operations manual.

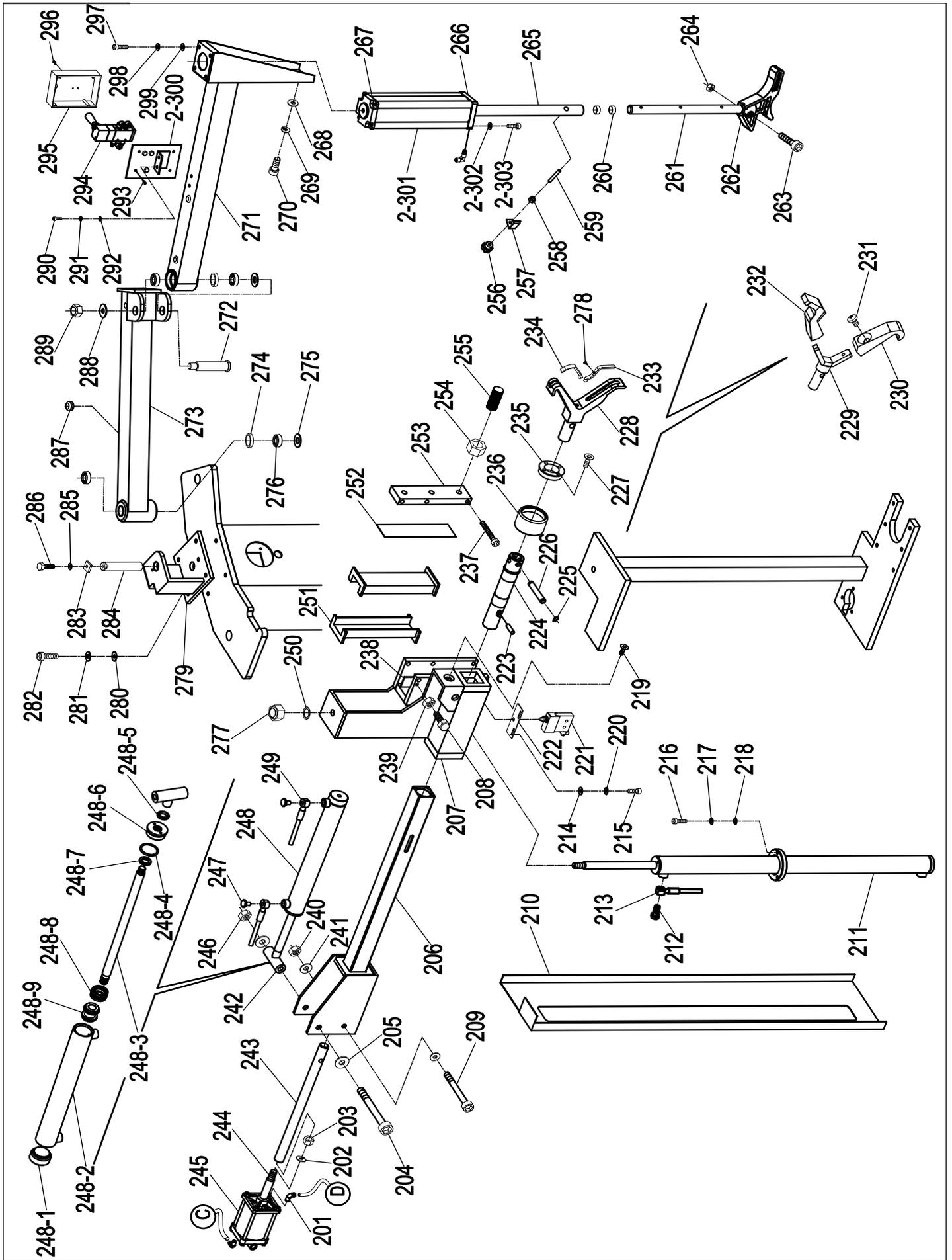
FEATURES / SPECIFICATIONS MODEL RX3040

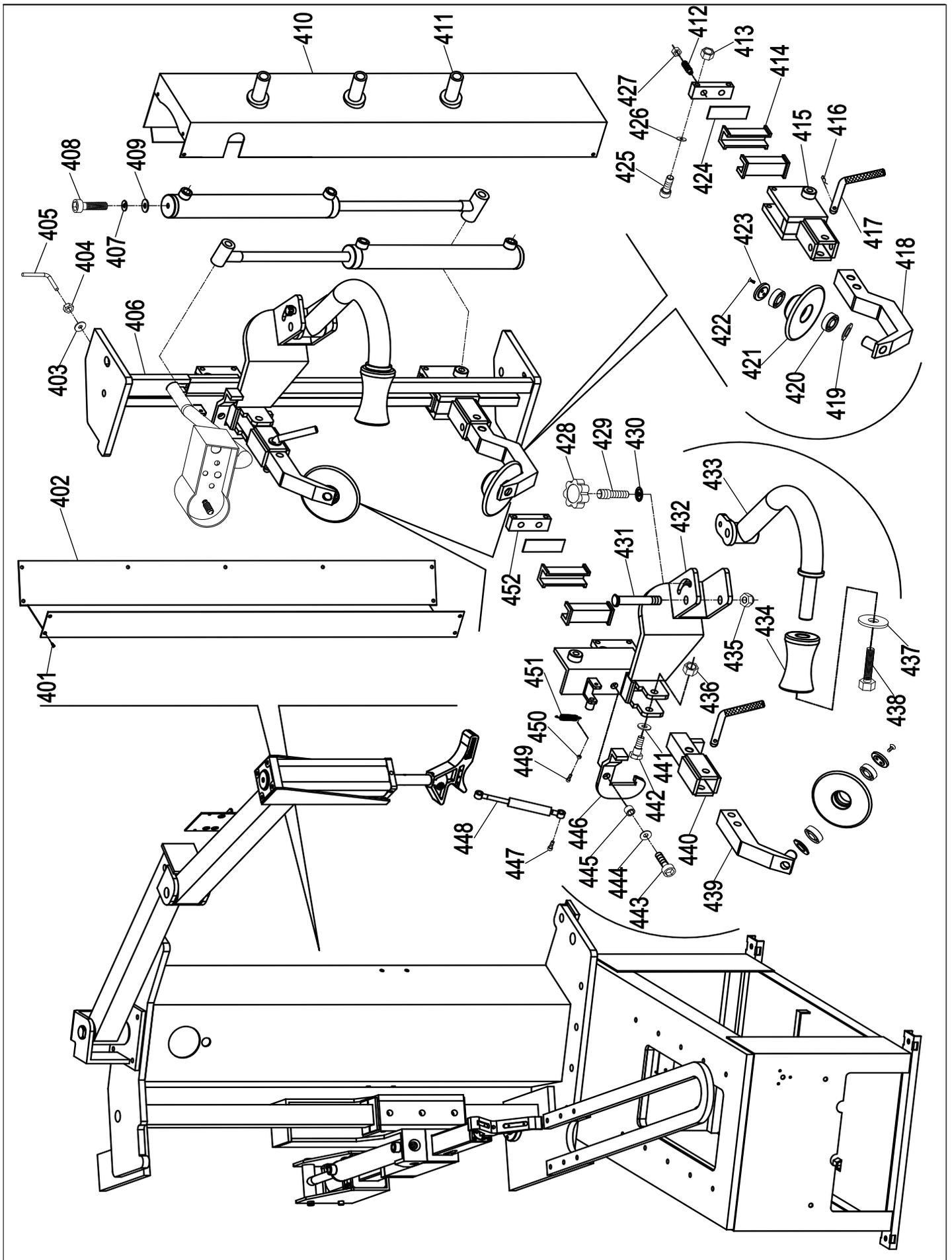
Type of Drive System	Air / Electric-Hydraulic
Dual Motors*	2 & 3 Hp / 208-230V 60HZ 1 Ph
Air Requirement	140-165 psi (10-11 bar)
Wheel Clamping Method	Threaded Shaft / Cones / Quick-Nut
Wheel Clamping Capacity	10"-30" / 254 mm-762 mm
Tire Width Capacity	3"-22" / 76 mm-559 mm
Bead Breaking System	Top and Bottom Power Rollers
Combined Bead Breaker Force	10,600 psi
Tool Head	2 Position Automatic / Mount & Demount
Inflation System	Standard
Inflation Pressure Regulator/Limiter	Standard
Traveling Drop-Center Top Mount Helper	Standard
Top Power Assist Bead Roller	Standard
Water Filter / Oiler / Lubricator	Standard
Air Regulator	Standard
Breaker Bar	Standard
Large Soap Bucket / Brush	Standard
Powerful "Turbo Blast" Bead Seating System	Standard
Tire Inflation	Pressure gauge with air pressure relief valve
Max Tire Diameter	44" / 1118 mm
Turntable Speed	360° Rotation 8-Seconds
Shipping Weight	1,410 lbs. / 640 kg

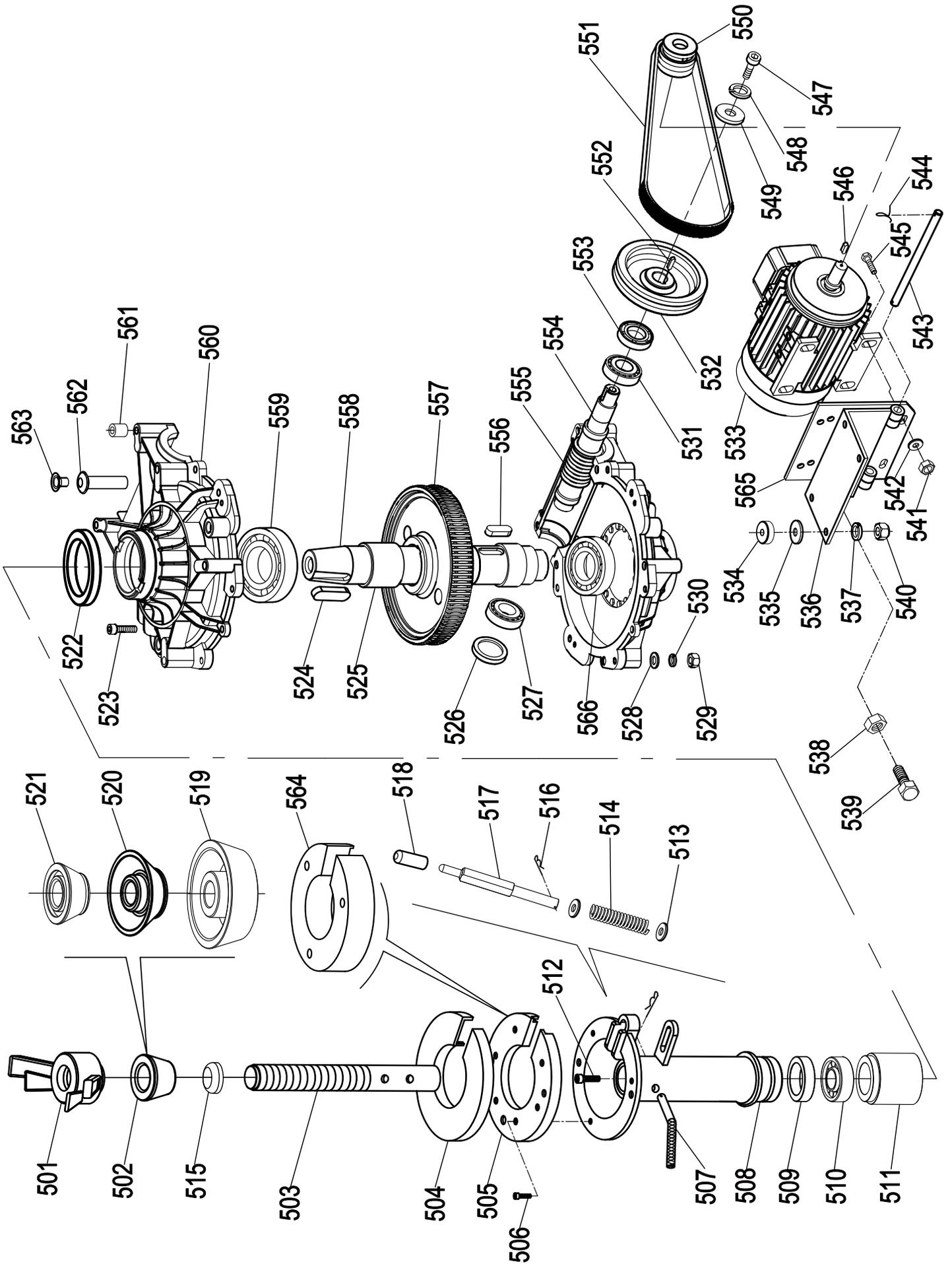
* Global voltages available. Specifications are subject to change without notice.

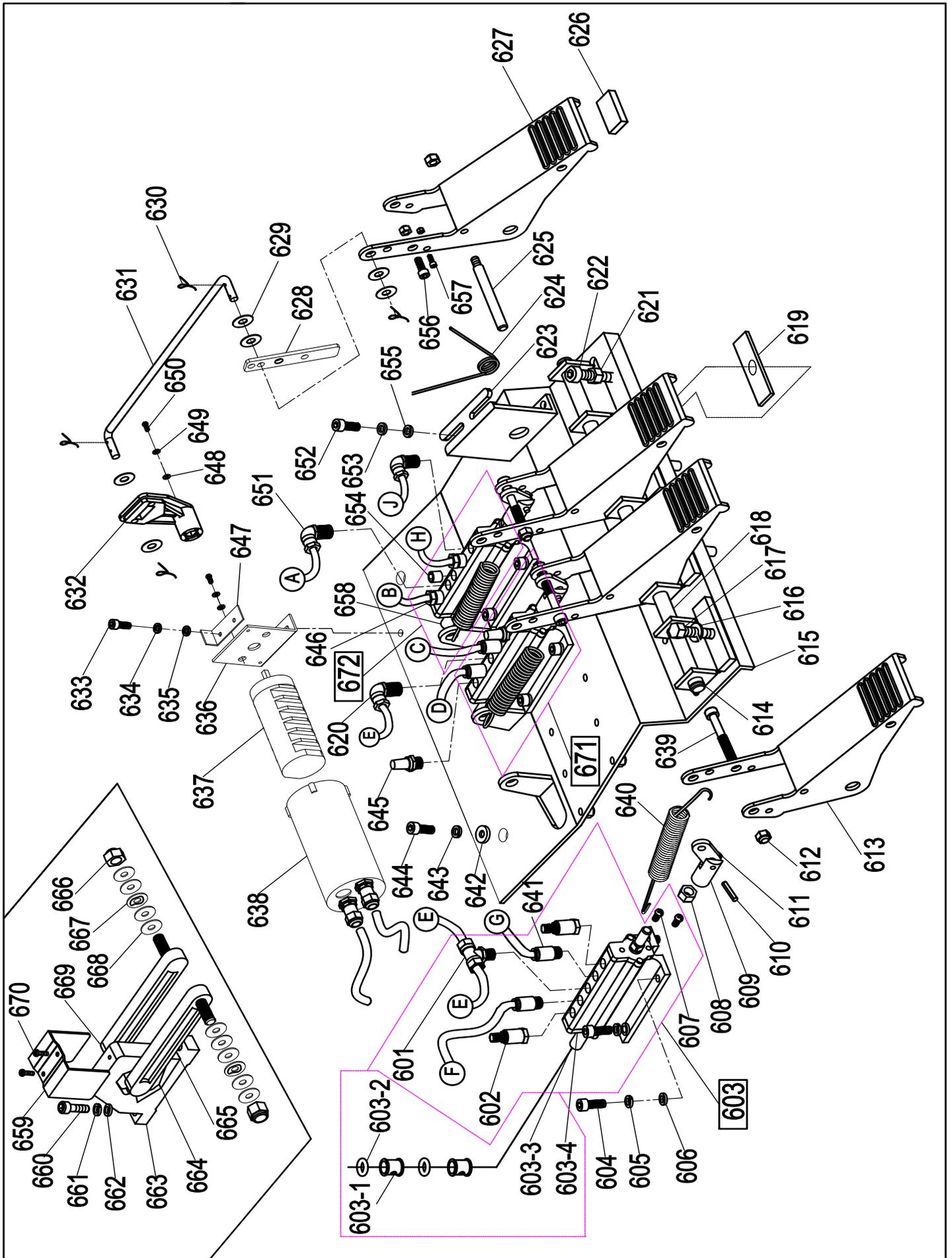
Parts Breakdowns

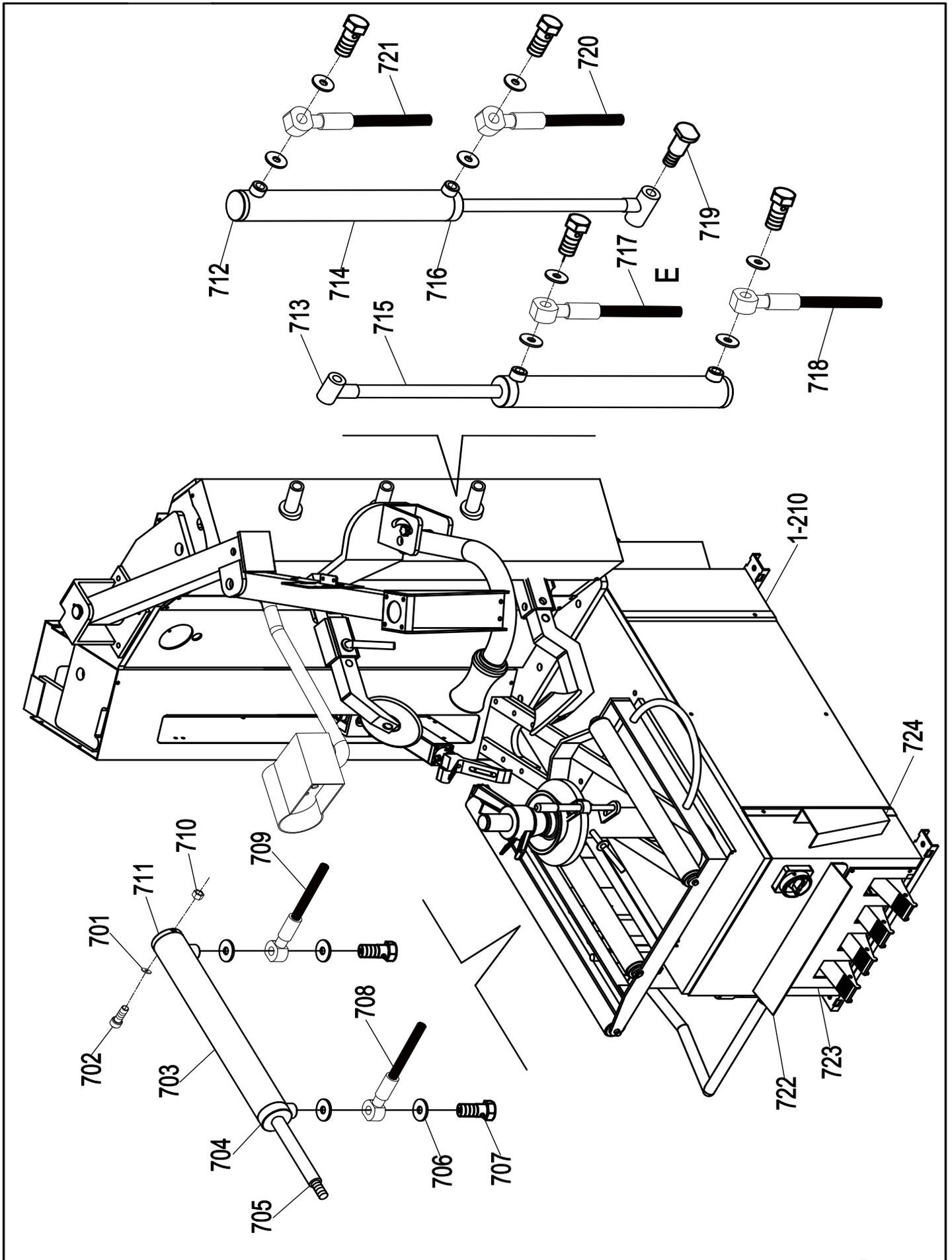


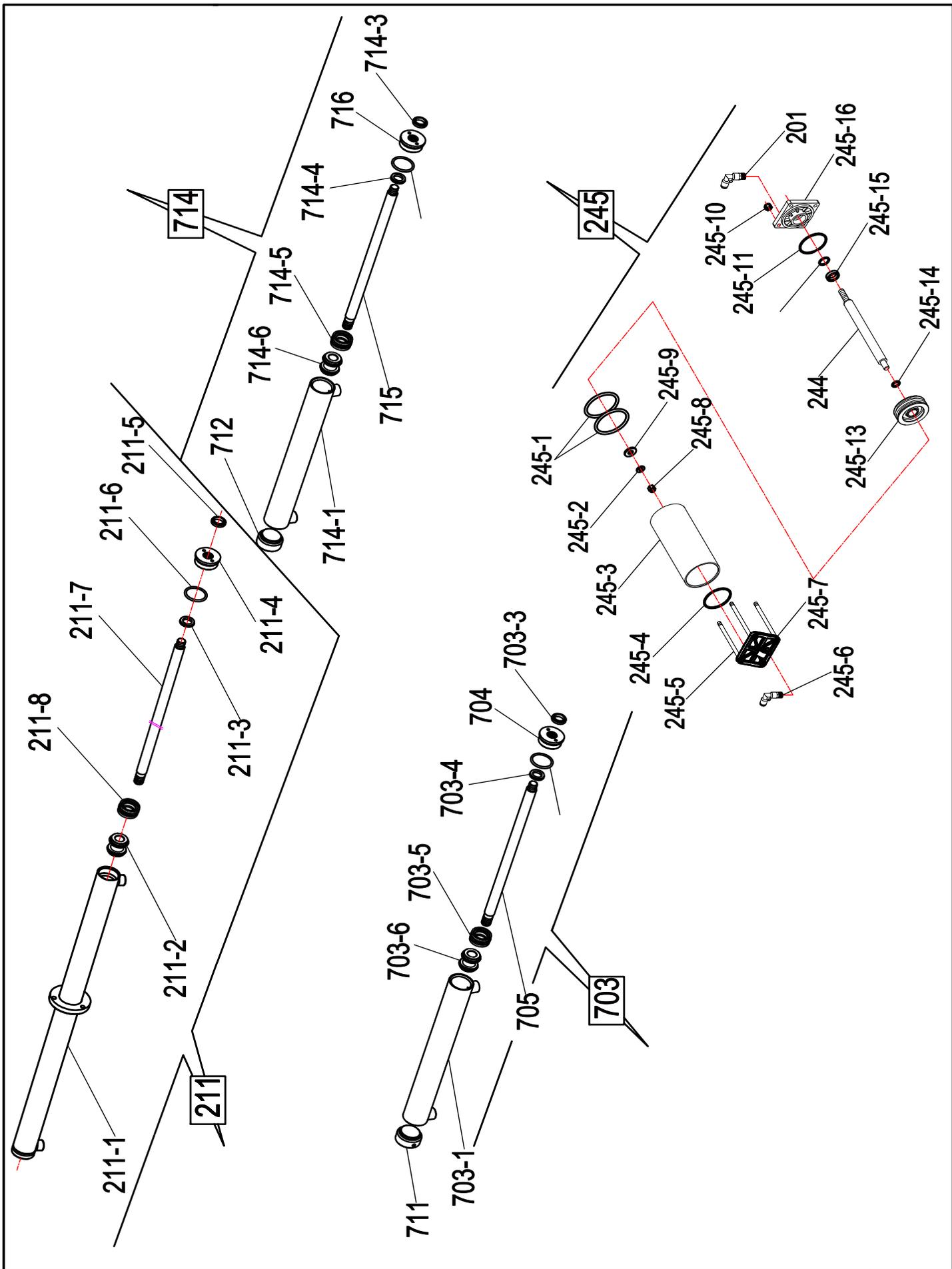


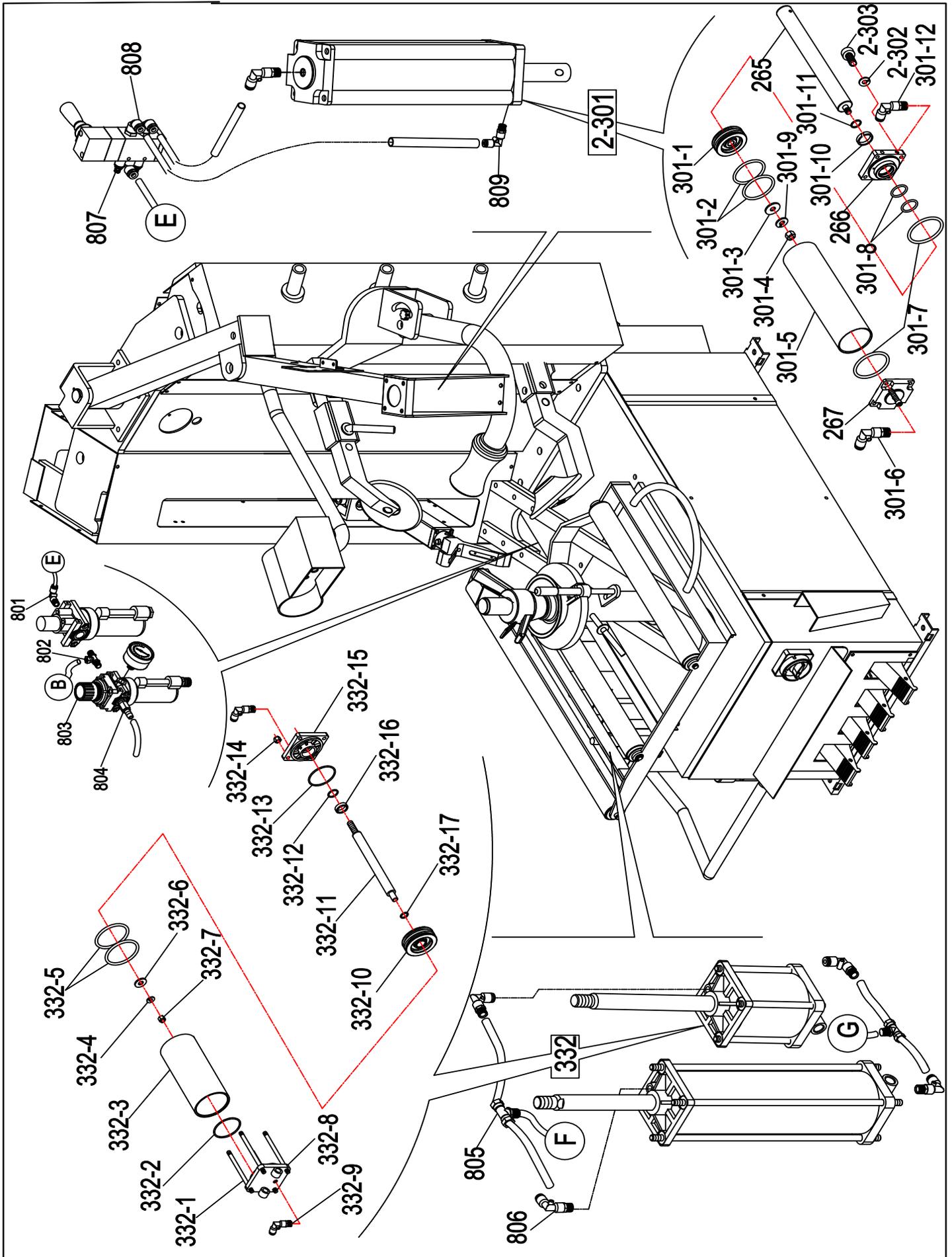


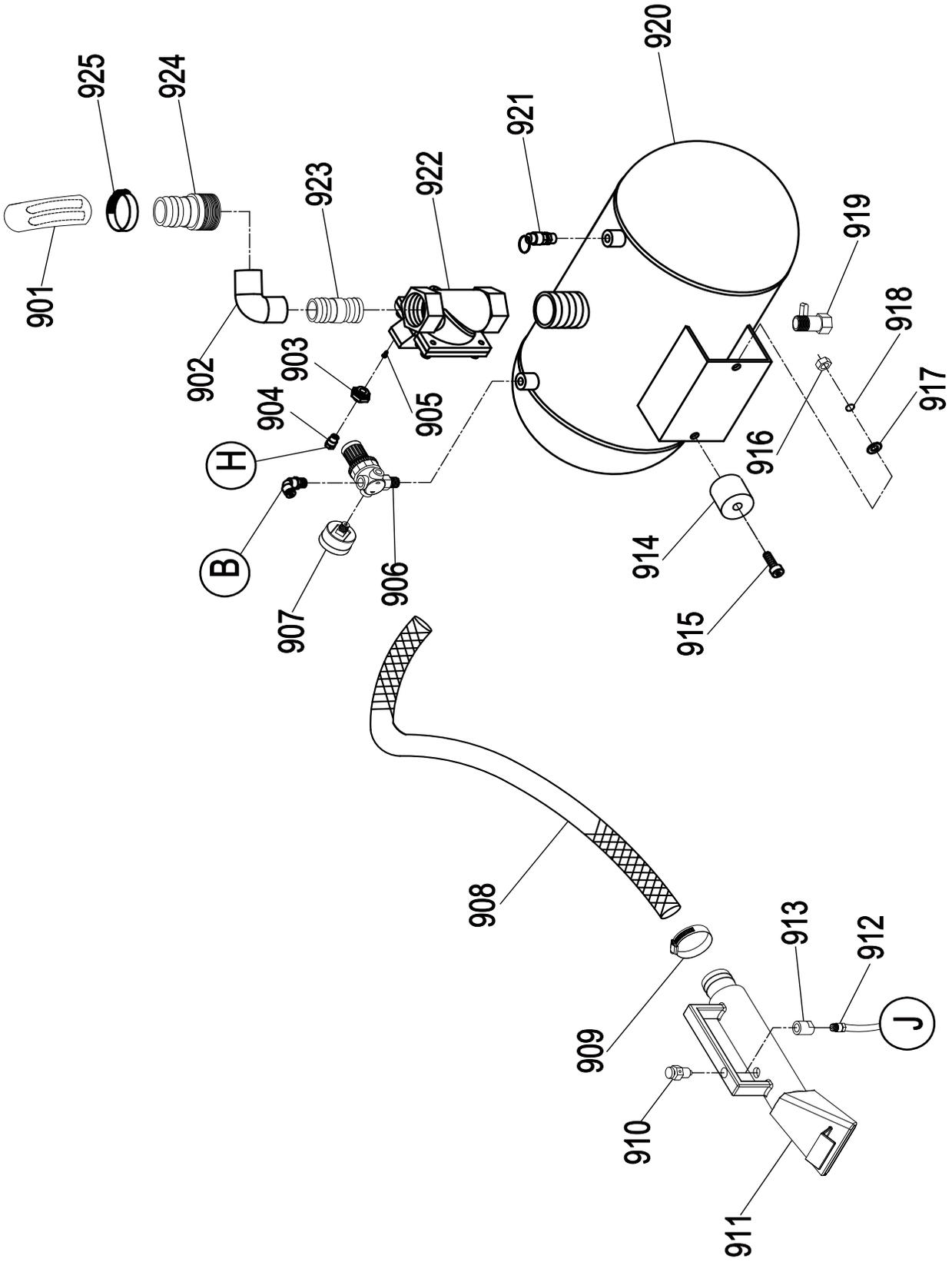






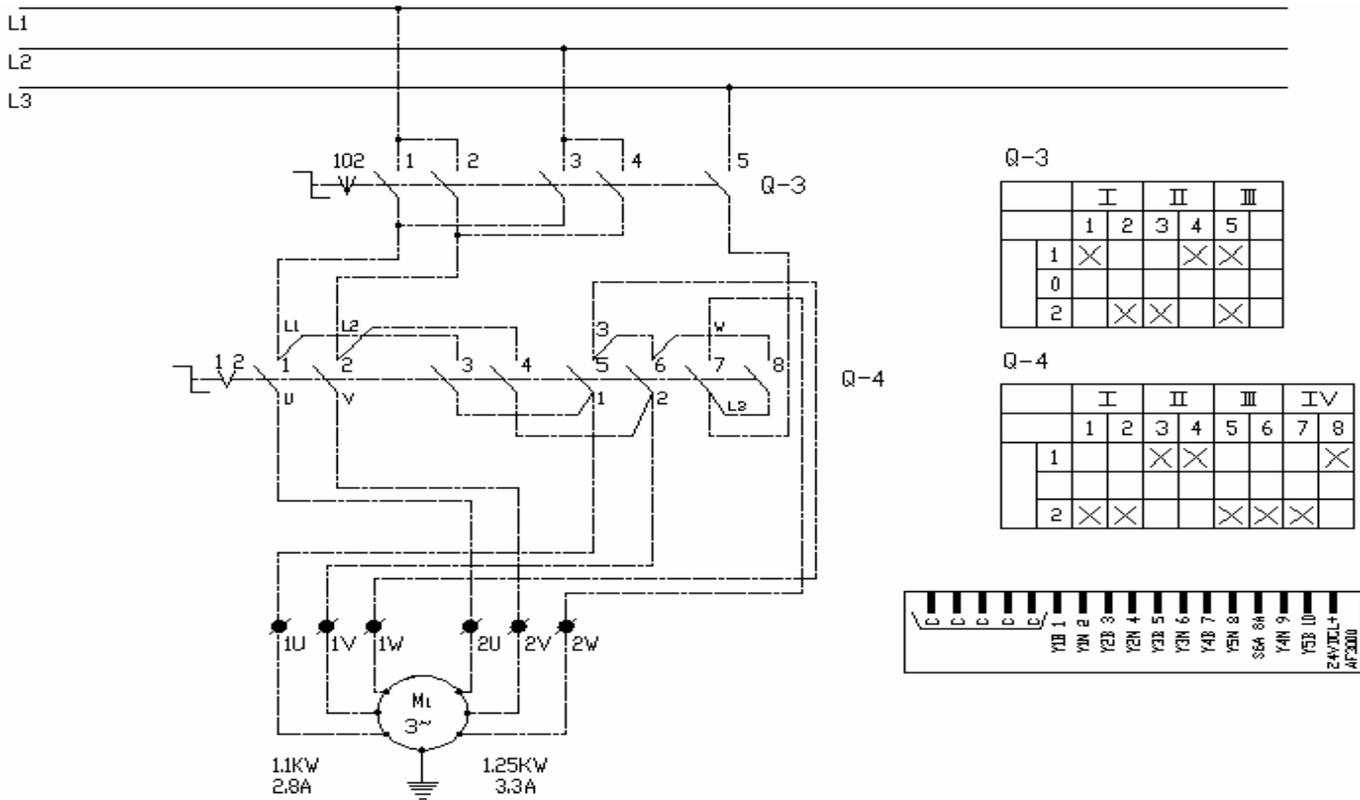
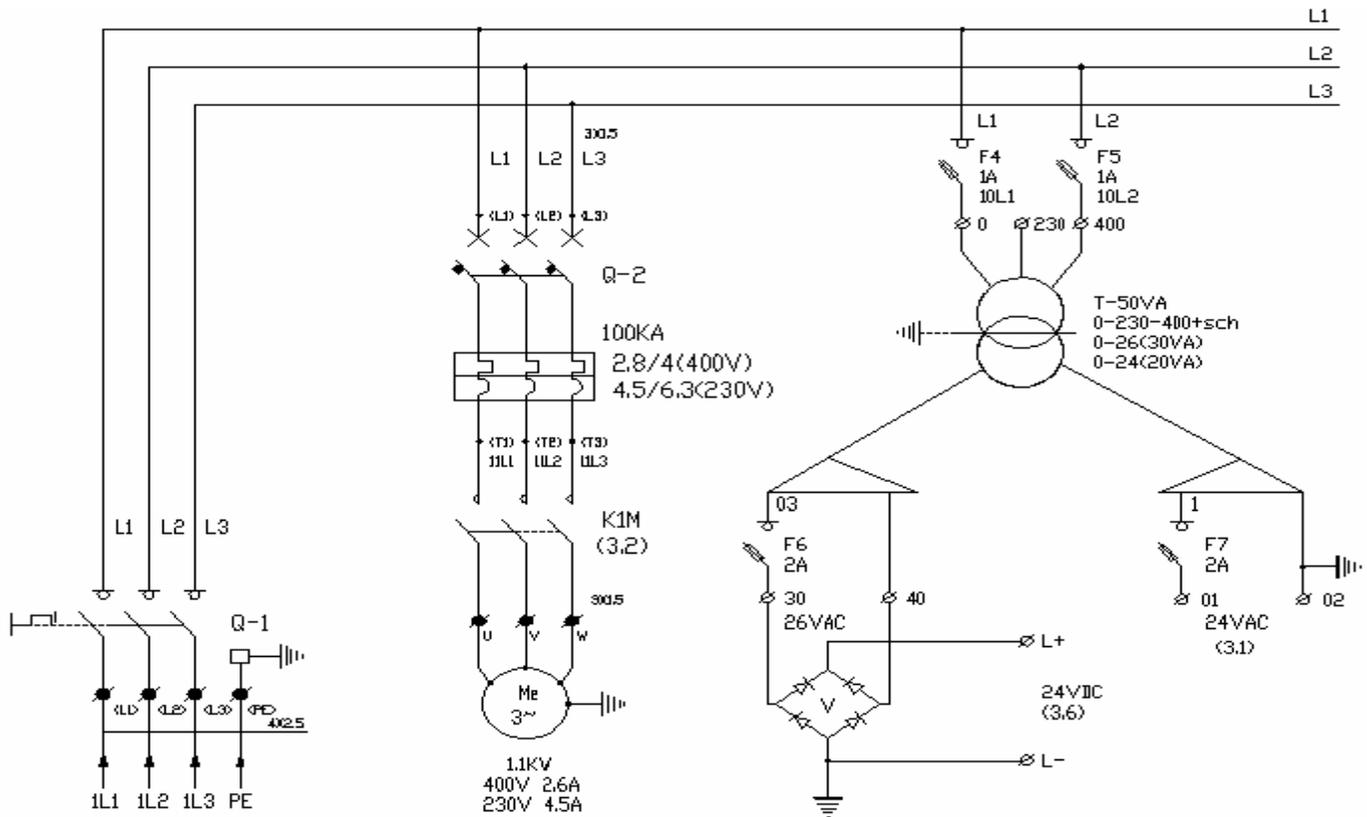






TIRE CHANGER

X. Electric Schematic Diagrams



Q-3

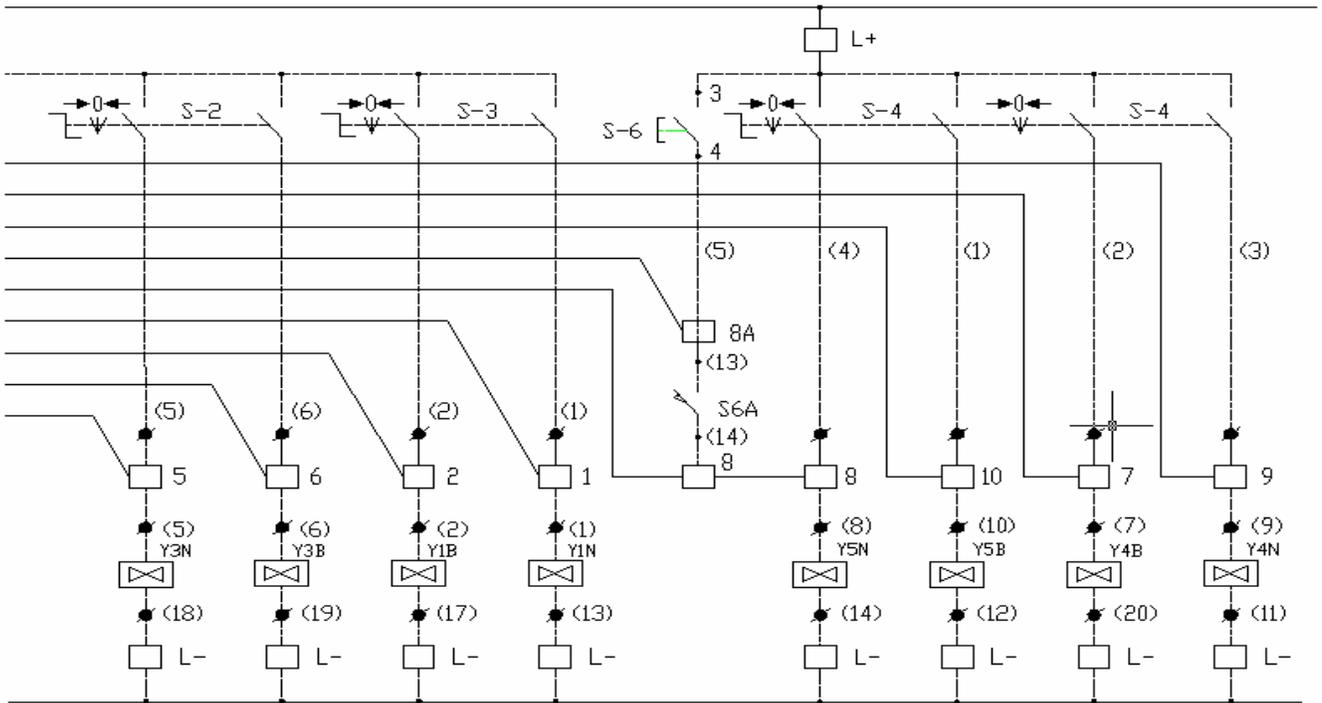
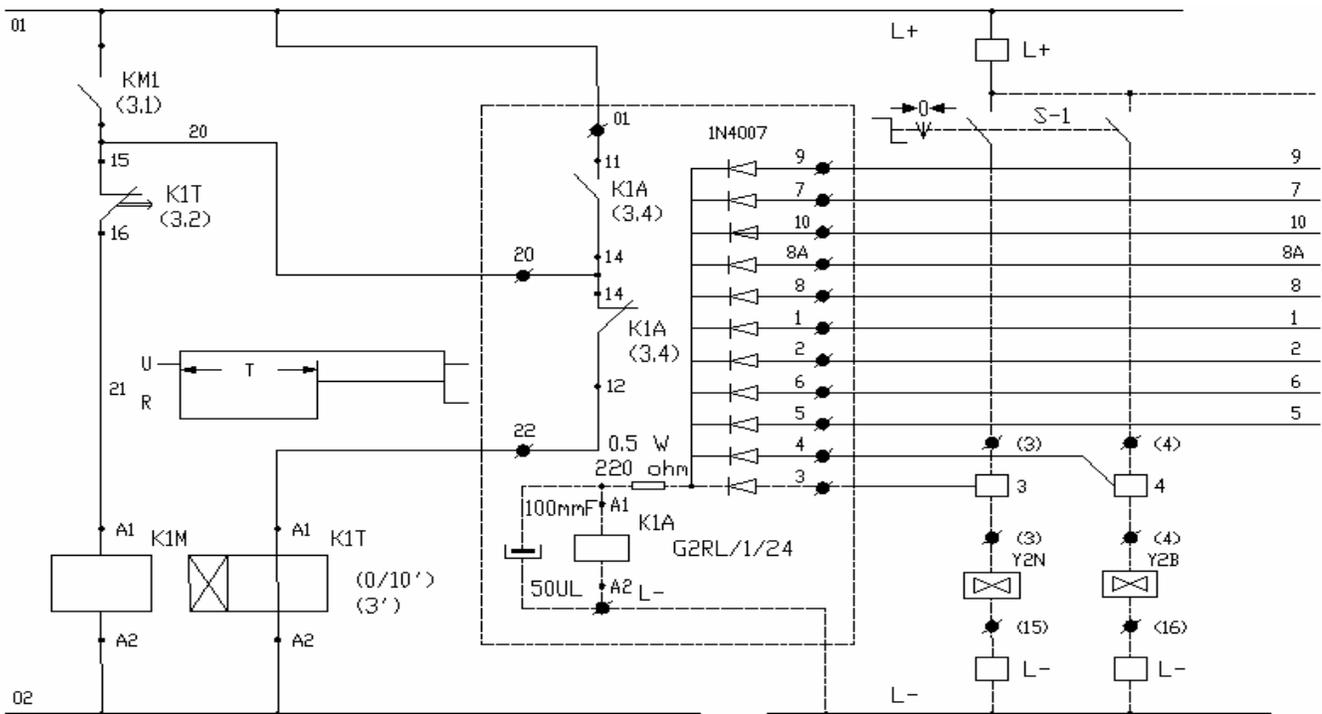
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0			
2		×	×

Q-4

	I	II	III	IV
1		×	×	
2	×	×		×



TIRE CHANGER

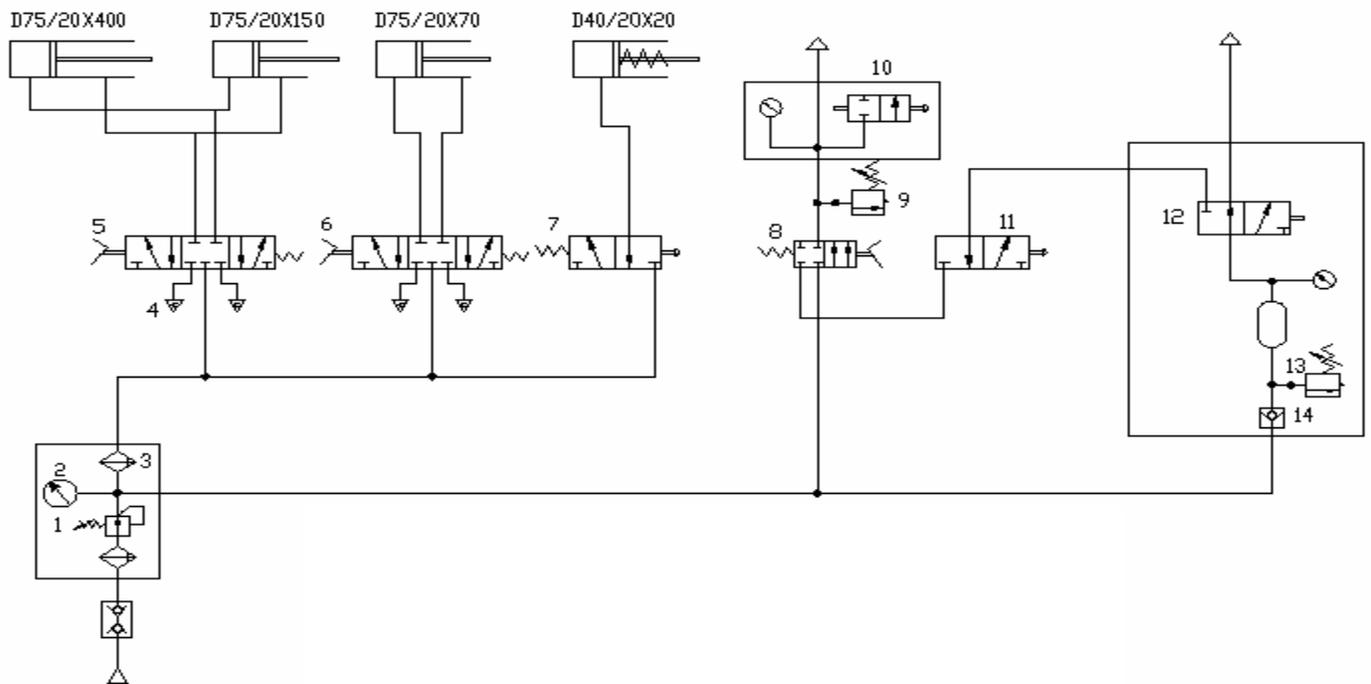



 — All electric appliances must be installed by electricians.

TIRE CHANGER

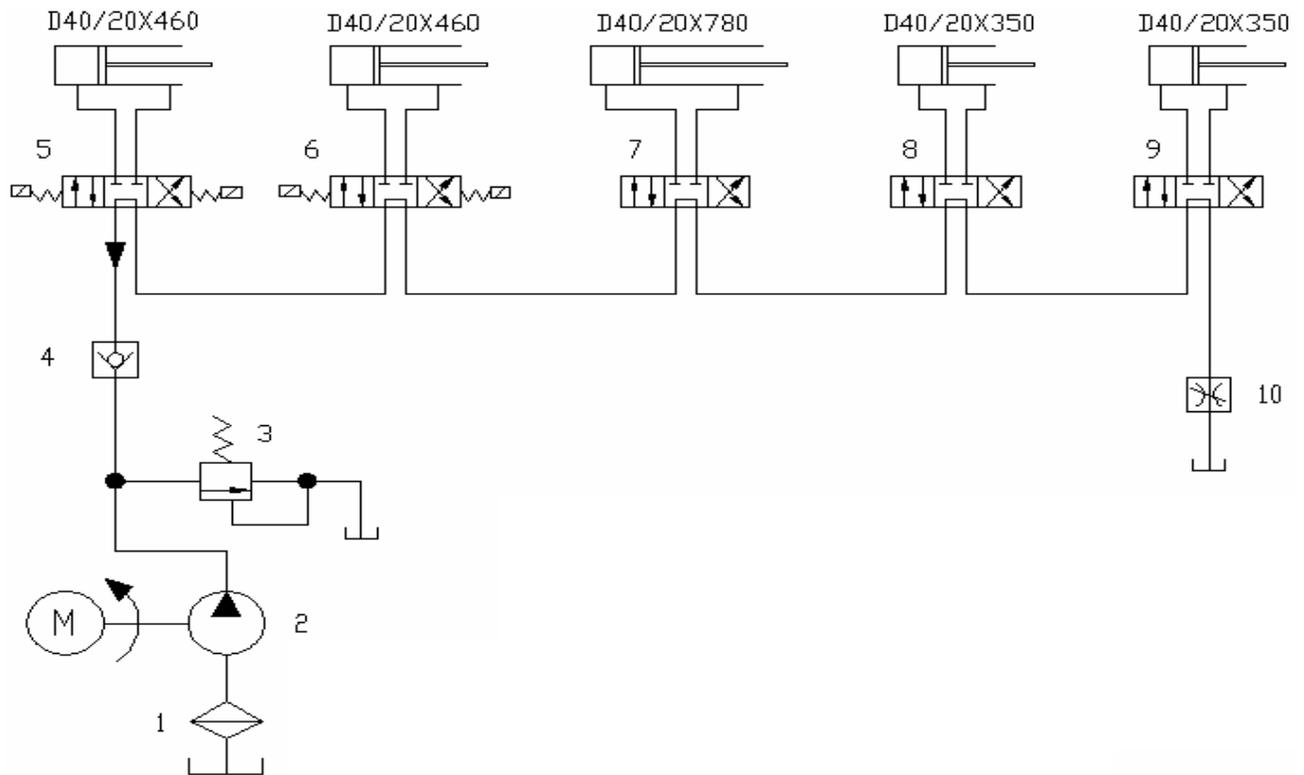
XI. Air Circuit Schematic Diagram

1. Pressure regulating valve
2. Pressure gauge
3. Oil-water separator
4. Muffler
5. Tire carrier valve under three-position five-way control
6. Rotary valve of working head under three-position five-way control
7. Column switching normal valve under manual control
8. Anti-blowout inflation valve under pedal control
9. Pressure regulating valve
10. Air relief valve under manual control
11. Anti-blowout inflation valve under manual control
12. Anti-blowout inflation valve
13. Pressure regulating valve
14. One-way valve



XII. Oil Circuit Schematic Diagram

1. Filter screen
2. Gear pump
3. Overflow valve
4. One-way valve
5. Tire shovel wheel cylinder under 4/3 electromagnetic control
6. Tire shovel wheel cylinder under 4/3 electromagnetic control
7. Working head lifting cylinder under 4/3 electromagnetic control
8. Working head back-and-forth cylinder under 4/3 electromagnetic control
9. Worm gear case back-and-forth cylinder under 4/3 electromagnetic control
10. Throttle valve





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