

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

⚠️ WARNING

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH TIRE CHANGER INSTALLATION AND OPERATION 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.

MAN REV B 01-09-15
P/N 5900158

INSTALLATION AND OPERATION MANUAL

MODELS:

R980XR/XRF

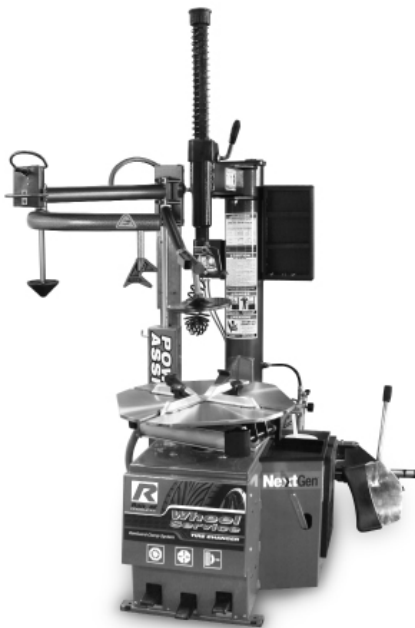
R980NXT/NXTF

R980AT/ATF

READ FIRST



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



R980AT/ATF



R980NXT/NXTF



R980XR/XRF

RECEIVING

The shipment should be thoroughly inspected as soon as it is received. The signed Bill of Lading is acknowledgement by the shipping carrier as receipt of this product as listed in your invoice as being in a good condition of shipment. If any of these goods listed on this Bill of Lading are missing or damaged, do not accept goods until the shipping carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection.

BE SAFE

Your new tire changer was designed and built with safety in mind. However, your overall safety can be increased with 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. Keep this operation manual near the tire changer at all times. Make sure that ALL USERS read and understand this manual.



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RANGER R980 SERIES

This instruction manual has been prepared specifically for you. Your new Ranger Tire Changer is the product of over 40 years of continuing research, testing and development; it 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 its overall performance and longevity.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS

RECORD HERE YOUR TIRE CHANGER INFORMATION HERE WHICH IS LOCATED ON THE SERIAL NUMBER DATA PLATE.

Model No.	
Revision	
Serial No.	
Date of Mfg.	
Voltage	

This information will be required when calling for parts or warranty issues.
Only replace parts with Ranger approved parts.

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, negligence, 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:

Although every effort has been taken to ensure the accuracy of this manual, some information may contain technical incorrectness or typographical errors. BendPak/Ranger assumes no responsibility or liability for damages incurred directly or indirectly as a result of any imprecisions, omissions or discrepancies. Information and specifications are subject to change without notice.

BEFORE YOU BEGIN

NOTIFY THE CARRIER AT ONCE if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT. Support claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. BendPak's willingness to assist in helping you process your claim does not make BendPak responsible for collection of claims or replacement of lost or damaged materials.

IMPORTANT NOTICE

Do not attempt to install this tire changer if you have never been trained on basic automotive service equipment installation procedures. Never attempt to lift components without proper lifting tools such as a forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to ensure proper installation and operation of your tire changer. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

SECTION 1 PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION

OWNER'S RESPONSIBILITY

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

- ◆ Follow all installation and operation 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 equipment 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 decals on the unit clean and visible.

DEFINITIONS OF HAZARD LEVELS

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



Watch for this symbol as it means: Immediate hazards which will result in severe personal injury or death.



Watch for this symbol as it means: Hazards or unsafe practices which could result in severe personal injury or death.



Watch for this symbol as it means: Hazards or unsafe practices which may result in minor personal injury, product or property damage.

INSTALLER / OPERATOR PROTECTIVE EQUIPMENT

Personal protective equipment helps makes installation and operation safer, however, it does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or 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 the technician's hands when handling parts. Sturdy leather steel-toe work shoes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

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



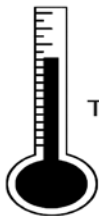


FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH TO OPERATOR OR BYSTANDER OR DAMAGE TO PROPERTY. PLEASE READ THE ENTIRE MANUAL PRIOR TO INSTALLATION.



DO NOT OPERATE THIS MACHINE UNTIL YOU HAVE READ AND HAVE UNDERSTOOD ALL OF THE DANGER, WARNING AND CAUTION ALERTS IN THIS MANUAL. FOR ADDITIONAL COPIES OR FURTHER INFORMATION, CONTACT:

Bendpak Inc.
 1645 Lemonwood Dr.
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CAUTION

The safe operating temperature range for this product is 41° F. - 104 °F.

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



IMPORTANT SAFETY INSTRUCTIONS

SECTION 2- IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely. Do not attempt to install this machine if you have never been trained on basic garage equipment installation procedures. Never attempt to lift components without proper lifting tools such as forklifts or cranes. Stay clear of any moving parts that may fall and cause injury. When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read and understand all instructions and all safety warnings before operating service equipment.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by a qualified service person.
4. Do not let a cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
5. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
6. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
7. Let equipment cool completely before putting away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline). Keep exterior of motor free of oil, solvent, or excessive grease.
9. Keep hair, loose clothing, fingers, and all parts of body away from moving parts. Avoid pinch points.
10. DANGER! To reduce the risk of electric shock, do not use on wet surfaces or expose to rain. The electronics used on this equipment contain high voltage. Disconnect power at the receptacle or at the circuit breaker switch before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service. Or mark circuit breaker switch so that it cannot be accidentally switched on during service.
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. Use only as described in this manual. Use only manufacturer's recommended attachments.
13. Do not attempt to operate this equipment if you have never been trained on basic tire service and mounting / demounting procedures.
14. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses. 
15. Consider work environment. Keep work area clean. Cluttered work areas invite injuries. Keep areas well lit.
16. Guard against electric shock. This equipment must be grounded while in use to protect operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.
17. Only trained operators should operate this machine. All non-trained personnel should be kept away from the work area. Never let non-trained personnel come in contact with, or operate machine.
18. 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. 
19. MAINTAIN WITH CARE. Keep equipment clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.
20. Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect operation of machine. Do not use machine if any component is broken or damaged.
21. NEVER remove safety related components from the equipment. Do not use machine if safety related components are missing or damaged.
22. DRESS PROPERLY. Non-skid steel-toe footwear is recommended when operating machine.
23. 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.
24. STAY ALERT. Use common sense and watch what you are doing. Remember, SAFETY FIRST.

SAVE THESE INSTRUCTIONS

SECTION 3 TIRE AND WHEEL SERVICE SAFETY INSTRUCTIONS



ONLY PROPERLY TRAINED PERSONNEL SHOULD SERVICE TIRES AND WHEELS ON THE R980XR/NXT. 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 all electrical components before cleaning the tire changer. Be sure water or cleaner does not enter the motor or electrical components or come in contact with electrical connections.

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 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.

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 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.



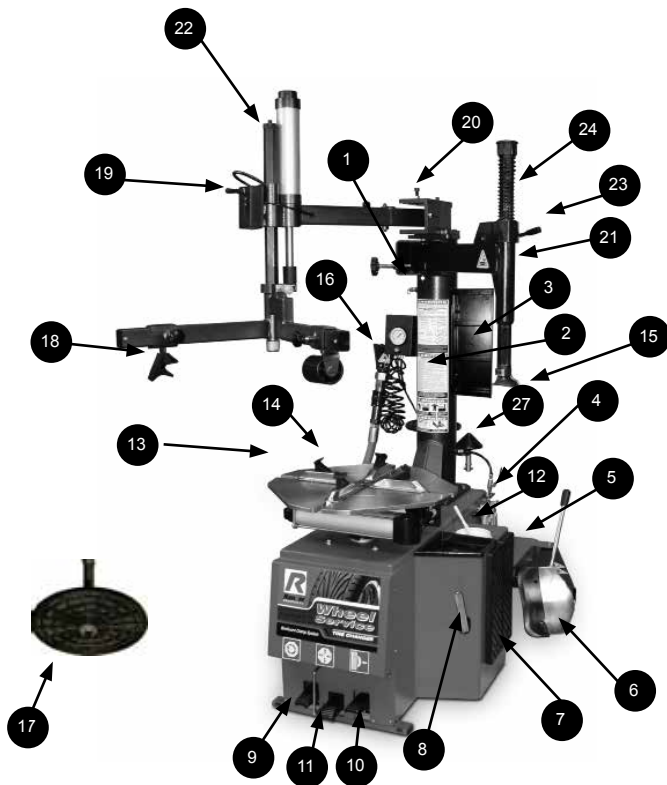
TIRE FAILURE UNDER PRESSURE CAN BE HAZARDOUS. WHEN POSSIBLE, ALWAYS PLACE WHEELS INSIDE AN APPROVED INFLATION CHAMBER OR CAGE BEFORE INFLATING. USE AN APPROVED REMOTE INFLATION VALVE, HOSE, AND GAUGE. ALWAYS WEAR SAFETY GOGGLES FOR EYE PROTECTION. DO NOT STAND BESIDE THE WHEEL OR CAGE DURING INFLATION. KEEP HANDS AND OTHER PARTS OF THE BODY OUT OF THE CAGE DURING INFLATION.



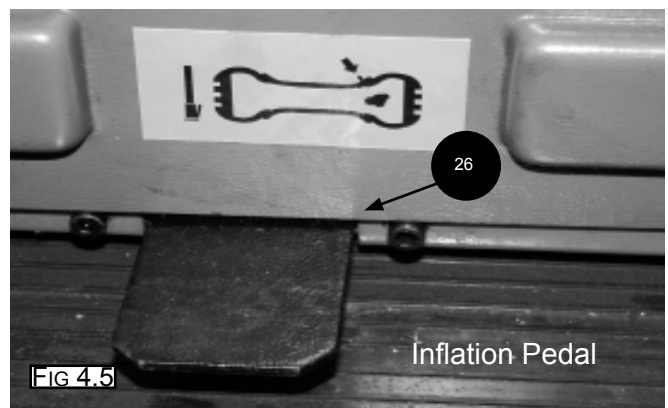
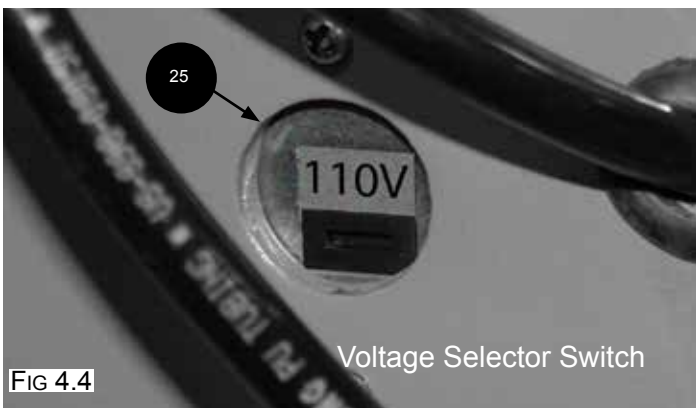
OBSERVE THE TIRE PRESSURE FREQUENTLY. DO NOT EXCEED THE MANUFACTURER'S RECOMMENDED MAXIMUM INFLATION PRESSURE. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE THE TIRE AND RIM TO SEPARATE WITH TREMENDOUS FORCE, RESULTING IN SERIOUS PERSONAL INJURY OR DEATH.

SECTION 4 - DESCRIPTION OF PARTS / R980XR/XRF - R980NXT/NXTF

FIG 4.1

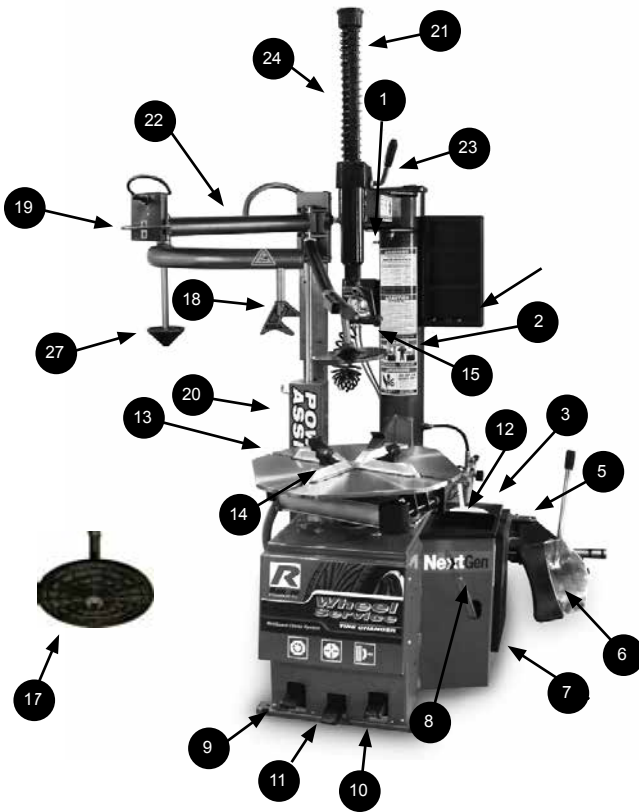


1. Tank Pressure Relief Valve
2. Tower (Air Tank)
3. Tool Tray
4. Air Drier / Oiler (See Fig 4.2)
5. Bead Breaker Arm
6. Bead Breaker Blade
7. Bead Breaker Pad
8. Bead Lifting Tool
9. Turntable Foot Pedal (See Fig 4.3)
10. Bead Breaker Foot Pedal (See Fig 4.3)
11. Wheel Clamp Foot Pedal (See Fig 4.3)
12. Soap Bucket
13. Turntable
14. Wheel Clamps
15. Mount /Demount Head
16. Turbo Blast Hose Assembly
17. Helper Disc (Not included on R980XR)
18. Assist Tower Pusher Block (Not included on R980XR)
19. Assist Tower Controls (Not included on R980XR)
20. Assist Tower (Not included on R980XR)
21. Vertical Shaft
22. Vertical Assist Arm Assembly
23. Vertical Shaft Lock Handle
24. Vertical Shaft Spring
25. Voltage Selector Switch. (Located on Rear of Cabinet. (See Fig 4.4) *F Models have a 220-Voltage only.
26. Inflation Pedal (Located on Left of Cabinet. See Fig 4.5)
27. Inflation Restraint Device



SECTION 4 - DESCRIPTION OF PARTS / R980AT/ATF

FIG 4.1



1. Tank Pressure Relief Valve
2. Tower (Air Tank)
3. Tool Tray
4. Air Drier / Oiler (See Fig 4.2)
5. Bead Breaker Arm
6. Bead Breaker Blade
7. Bead Breaker Pad
8. Bead Lifting Tool
9. Turntable Foot Pedal
10. Bead Breaker Foot Pedal
11. Wheel Clamp Foot Pedal
12. Soap Bucket
13. Turntable
14. Wheel Clamps
15. Mount /Demount Head
16. Turbo Blast Hose Assembly (See Fig. 4.3)
17. Helper Disc
18. Assist Tower Pusher Block
19. Assist Tower Controls
20. Assist Tower
21. Vertical Shaft
22. Vertical Assist Arm Assembly
23. Vertical Shaft Lock Handle
24. Vertical Shaft Spring
25. Voltage Selector Switch. (Located on Rear of Cabinet. (See Fig 4.4)
26. Inflation Pedal. (Located on Left of Cabinet. See Fig 4.5)
27. Inflation Restraint Device



FIG 4.2



FIG 4.3

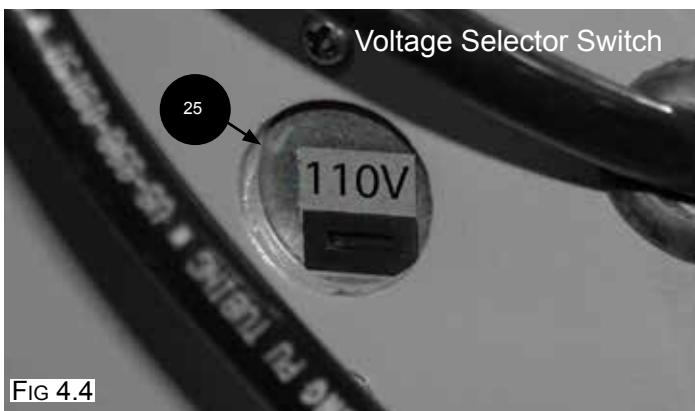


FIG 4.4

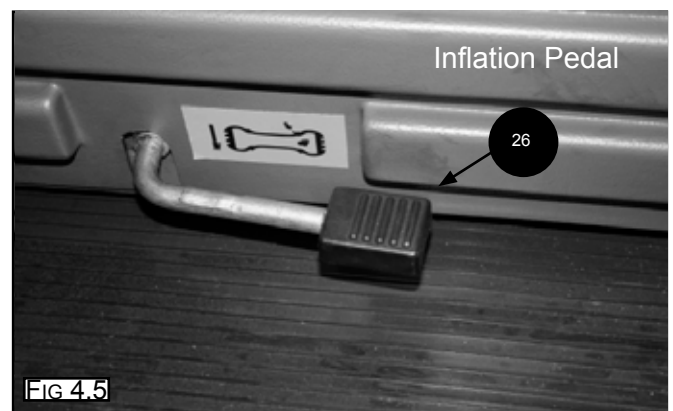


FIG 4.5

SECTION 5 - FEATURES / SPECIFICATIONS

FEATURES / SPECIFICATIONS	MODELS R980XR/XRF R980NXT/NXTF	MODELS R980AT/ATF
Type of Drive System	Electric / Air	Electric / Air
Motor R980XR - R980NXT All F Models have Variable Speed	2 HP (110/208-240VAC 50-60 HZ) 2 HP (208-240V, 50-60 HZ, 1 P)	2 HP (110/208-240VAC 50-60 HZ) R980AT 2 HP (208-240VAC 50-60 HZ, 1 P) R980ATF
Air Requirement	140-165 PSI (10-11 BAR)	140-165 PSI (10-11 BAR)
Wheel Clamping Method (Adjustable)	4 Clamps - Internal / External	4 Clamps - Internal / External
Adj. RimGuard™ Wheel Clamps	Standard	Standard
Table Clamping System	Dual Pneumatic Cylinders	Dual Pneumatic Cylinders
Bead Breaking System	Pneumatic Blade / Dual Settings	Pneumatic Blade / Dual Settings
Power Assist Towers	R980XR:None R980NXT:Standard	Single Assist Tower
Tool Holder	Manual Lock	Manual Lock
Inflation Gauge w/ Integrated Air	Standard	Standard
Inflation Pressure Regulator/Limiter	Standard	Standard
Water Filter	Standard	Standard
Oiler / Lubricator	Standard	Standard
Air Regulator	Standard	Standard
Breaker Bar	Standard	Standard
Large Soap / Lubricator Bucket	Standard	Standard
Brush	Standard	Standard
Alloy-Steel Mount/Demount Head	Standard	Standard
Plastic-Polymer Mount/Demount Head	Standard	Standard
Tower Design	R980XR:Rigid Fixed / Swing Arm R980NXT:Assist Tower/Swing Arm	Rigid Fixed / Swing Arm
Bead Lifting Roller(s)	None	Single Lifting Roller
Upper Bead Assist Roller	None	Standard
Traveling Drop-Center Hold Down	None	Standard
Inflation Restraint Device	None	Standard
Bead Seating System	Turbo Blast / Bead Seating	Turbo Blast / Bead Seating
Tool Tray / Bin Storage	Standard	Standard
Motorcycle Turntable Clamps	Optional	Optional
Internal Rim Clamping Capacity	10" – 30" (254 mm - 762	10" – 30" (254 mm - 762 mm)
External Rim Clamping Capacity	9" – 28" (229 mm - 711	9" – 28" (229 mm - 711 mm)
Turntable Tire Width Capacity	4" – 18" (102 mm – 457	4" – 18" (102 mm – 457 mm)
Bead Breaker Tire Width Capac.	1.5" – 16" (38 mm – 406	1.5" – 16" (38 mm – 406 mm)
Maximum Tire Diameter	50" (1270 mm)	50" (1270 mm)
Shipping Weight	R980XR: 742 lbs. (336 Kg) R980XRF: 751 lbs. (341 Kg) R980NXT: 868 lbs. (394 Kg) R980NXTF: 877 lbs. (398 Kg)	R980AT :800 lbs. (363 Kg) R980ATF:809 lbs. (367 Kg)
*Specifications are subject to change without notice. *NOTE: Internal and External Wheel Clamping dimensions do not translate directly to rim or tire sizes as wheel clamping points may vary by wheel manufacturer.		

TOOLS REQUIRED FOR ASSEMBLY AND INSTALLATION

- ◆ Pallet jack or forklift for moving crate
- ◆ Forklift or Shop crane
- ◆ Utility knife
- ◆ Crow bar or pry bar.
- ◆ Tin Snips or Sheet Metal Snips
- ◆ Hammer
- ◆ Open end metric wrenches and/or socket set
- ◆ Phillips and Slot head screw drivers

- ◆ Metric Allen Key set

PARTS REQUIRED BUT NOT SUPPLIED:

- ◆ Teflon Tape
- ◆ Air fitting to match shop Air Supply line
- ◆ Tool Oil
- ◆ Anchor Bolts and Shims (if Anchoring)

SECTION 6 LIFTING/ UN-CRATING

1. The unit is shipped on a pallet. Approximate shipping dimensions are shown below. (See Fig 6.1)



Fig 6.1



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.

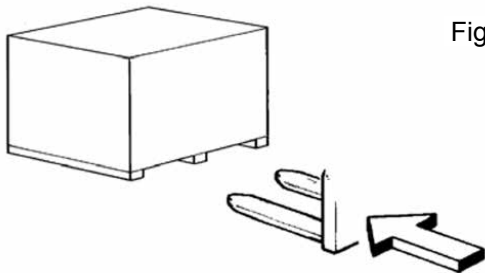


Fig 6.2



BE CAREFUL WHEN CUTTING STEEL BANDING MATERIAL AS ITEMS MAY BECOME LOOSE AND FALL CAUSING PERSONAL HARM OR INJURY. ALWAYS WEAR GLOVES WHEN UN-CRATING THE MACHINE TO PREVENT SCRATCHES, ABRASIONS, OR CUTS DUE TO THE CONTACT WITH PACKING MATERIALS. EYE PROTECTION IS ESSENTIAL DURING UN-CRATING SERVICE ACTIVITY. SAFETY GLASSES WITH SIDE SHIELDS, GOGGLES, OR FACE SHIELDS ARE ACCEPTABLE.

Remember to report any shipping damage to the carrier and make a notation on the delivery receipt.

UN-CRATING INSTRUCTIONS

1. Using a crow bar or pry bar, locate the metal tabs and pry open the tabs and or staples. (See Fig 6.3)

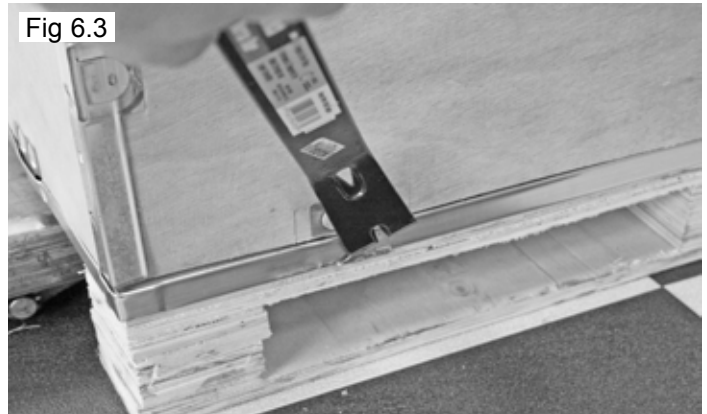


Fig 6.3

2. The entire wooden frame/box can be lifted off after prying the tabs/staples at the base of the crate. (See Fig 6.4)



Fig 6.4

3. Carefully cut the Tire Changer free of the plastic wrapping securing it to the Tire Changer base. Do not unwrap the Assist Tower and Tower Tank at this time. The wrapping helps keep the Swing Arms from moving during lifting and assembly. (See Fig 6.5 - 6.6)



Fig 6.5



Fig 6.6



Fig 6.8

! CAUTION

HANDLING OF THE MACHINE MUST BE PERFORMED ONLY WITH AN APPROPRIATE LIFTING DEVICE SUCH AS A FORKLIFT OR SHOP CRANE. ONLY PERSONNEL WHO ARE EXPERIENCED AND QUALIFIED ON MATERIAL HANDLING PROCEDURES SHOULD HANDLE ANY TRANSPORTATION OR MOVING OF MACHINE.

SECURE THE AIR TANK / ASSIST TOWER WITH SHOP CRANE/FORKLIFT OR PERSONNEL PRIOR TO CUTTING METAL STRAPPING AS AIR TANK / ASSIST TOWER MAY HAVE SHIFTED DURING SHIPPING. BE CAREFUL AS BANDING MAY SNAP OR FLY WHEN TENSION IS RELEASED.



Fig 6.9

! CAUTION

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

5. Either cut or unscrew the metal strapping holding the Air Tank / Assist Tower to the pallet. Using a fork lift or shop crane, remove tank from the pallet and set aside. Secure tank so it can not fall. (See Fig 6.7)

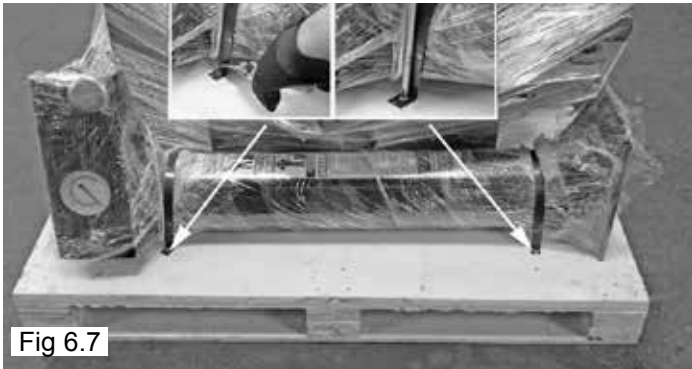


Fig 6.7

6. Remove the two front and rear bolts and nuts fastening the tire changer to the pallet, as indicated in the images below. (See Fig 6.8 - 6.9)

7. Using a shop crane or fork lift, remove the Tire Changer from the wooden pallet, making sure to follow safe material handling procedures. (See Fig 6.10)



Fig 6.10

SECTION 7 INSTALLATION LOCATION



Disconnect tag and lock out power source before attempting to install, service, relocate or perform any maintenance. Do not lift or move unit without appropriately rated equipment. Be sure the unit is securely attached to any lifting device used.

NEVER use the wood shipping skid for mounting the unit. Select a location using Figures 7.1 and 7.2. 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.

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.

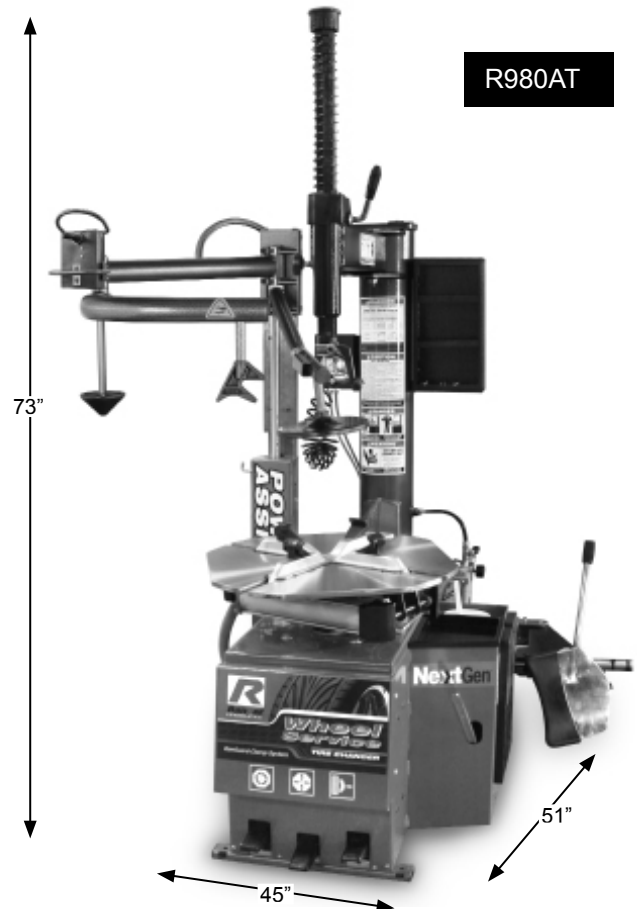
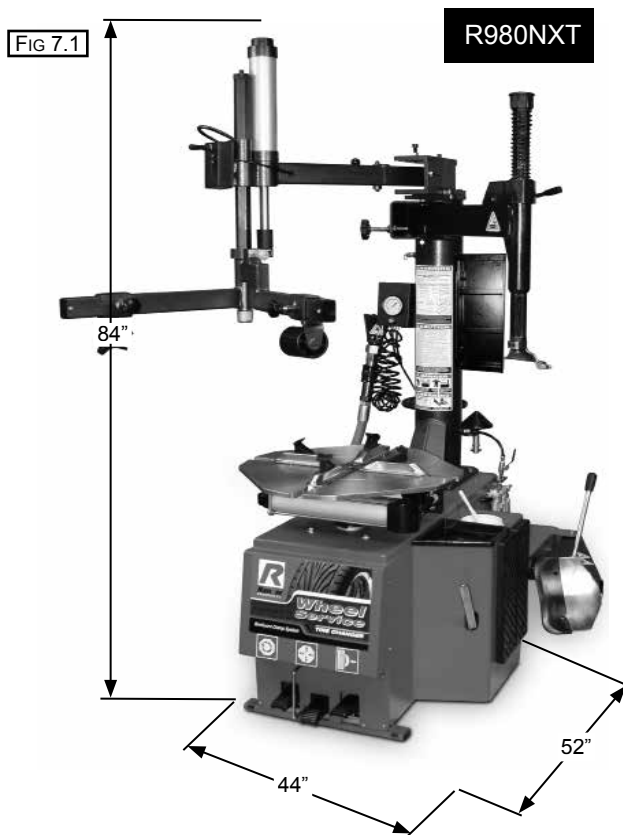
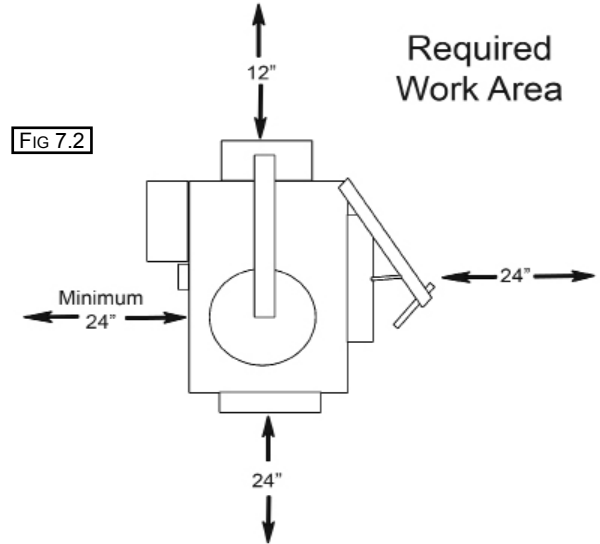
R980XR size is approximately:
43" W x 51" D X 80"H

R980NXT size is approximately:
52" W x 44" D X 84"H

R980AT size is approximately:
51" W x 45" D X 73"H

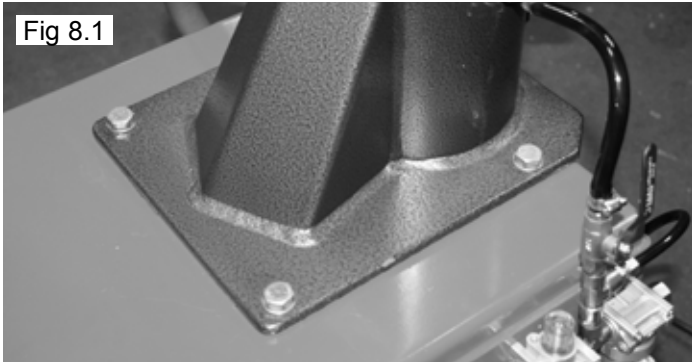


These measurements are the tire changer's working range. Persons other than specially trained and authorized operators are expressly forbidden to enter this area. Choose a safe location that is in compliance with current work place safety regulations. Failure to properly install the tire changer can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



SECTION 8 AIR TANK/ TOWER ASSEMBLY

1. Using a fork lift or other lifting device, lower the Tank/ Tower onto the base and align the holes.
2. Attach the Tank / Tower assembly to the Base using the four bolts on the Tower Base Plate. (See Fig 8.1)



3. Connect the other end of the Air Inflation Hose to the Push to Connect Fitting underneath the Air Inflation Box Assembly. (See Fig 8.2)



SWING ARM / VERTICAL SHAFT / MOUNT-DEMOUNT HEAD ASSEMBLY

1. Raise the Vertical Shaft / Mount-demount head assembly to the highest position and lock it in place by pushing the Locking Handle up.
2. Check the Socket Head Cap Screw on the Cap, tighten if necessary. (See Fig 8.3)
3. Check the operation of the Vertical Shaft and the Locking Handle. (See Section 15, Page 31 for Lock adjustment details)
4. Check that the Mount/Demount Head bolt and set screws are tightened. (See Fig. 8.4)

ANCHORING

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 8.5)

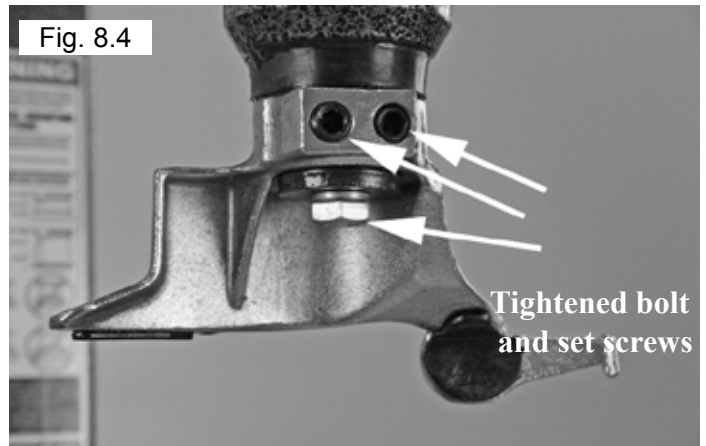
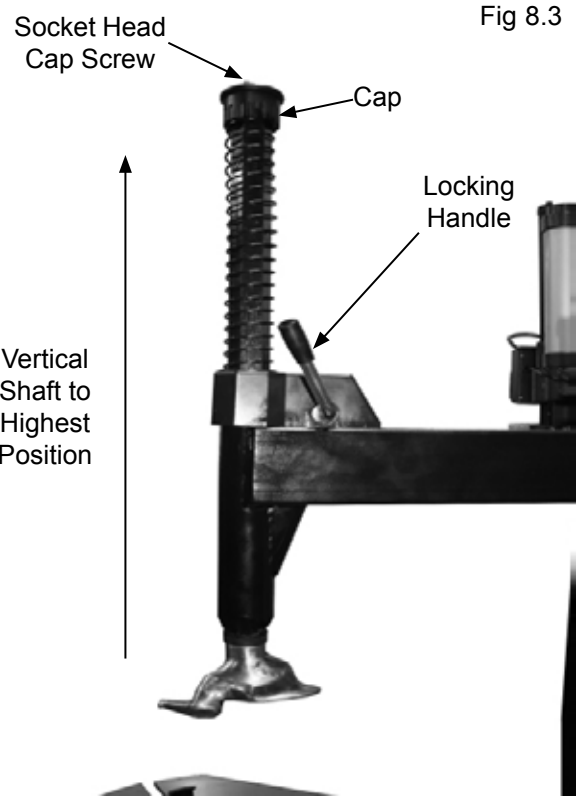
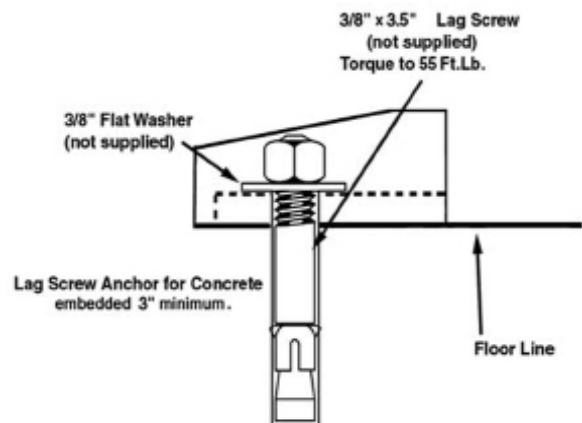


Fig 8.5

Anchor for Concrete



SECTION 9 AIR SOURCE

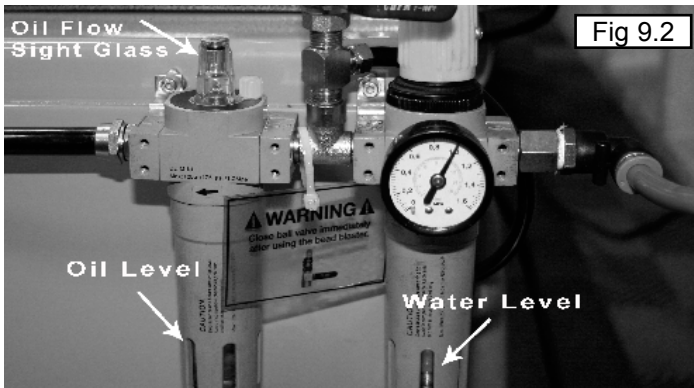
This model requires a 14 to 15 CFM air source at 175 PSI maximum pressure. The safe operating pressure range for this model is between 110 PSI and 175 PSI at the machine. A 1/4" ID hose (or pipe) for connection to the machine is satisfactory. Sufficient air pressure assures good performance.

1. Connect the Air Supply to the Air Drier / Oiler. A proper fitting (not included) to match the supply line of the air supply connection is required. Use Teflon tape on the NPT thread of the fitting. This connection is located on the right side of the rear of the machine. (See Fig 9.1)



OILER ADJUSTMENT

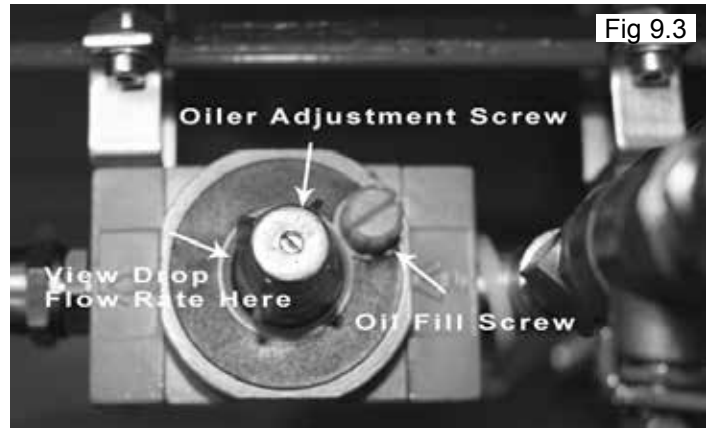
1. Check Oil Level on Oil Level Gauge. (See Fig. 9.2)
If Oil level is low refer to Section 15, for filling instructions.



FAILURE TO PROPERLY MAINTAIN PROPER OIL LEVEL AND ADJUST THE OIL FLOW MAY VOID THE WARRANTY AND DAMAGE THE BEAD BREAKER CYLINDER AND OTHER AIR COMPONENTS.

2. With the air source connected, depress the Bead Breaker Pedal to operate the Bead Breaker.

3. Observe the sight glass and adjust the oil flow of the oiler by turning the Oiler Adjustment Screw by using a small screwdriver so that 2-3 drops of oil drip through the sight glass for each operation of the Bead Breaker Pedal. (See Fig 9.3)



SECTION 10 ELECTRICAL SOURCE

NOTE:
THIS ADJUSTMENT WILL REQUIRE AT LEAST TWO OPERATORS TO PERFORM.

1. This unit requires power from a 15 amp electrical circuit. The unit is supplied standard with a 110 Volt power cord and plug. (See Fig 10.1). **Please remember that ALL F models are standard 220 V only.**

2. 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 and power cord before plugging in the unit. The electrical source must have a solid connection between ground and building ground.



! WARNING

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

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

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

! DANGER

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.
 - ◆ 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.

! CAUTION

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.

IMPORTANT NOTE:

YOUR MACHINE HAS A DUAL VOLTAGE MOTOR AND CAN BE RUN ON EITHER 110 OR 220 VOLTS. STANDARD WIRING IS 110 VOLTS.

See below before connecting 220 volts to your machine or serious damage to the motor/electronics will result. Have a licensed electrical technician perform any necessary changes to the power source and power cord before plugging in the unit. The electrical source must have a solid connection between ground and building ground.

Confirm voltage selector switch is positioned correctly before connecting power to your machine or serious damage to the motor/electronics will result. (See Fig 10.2)

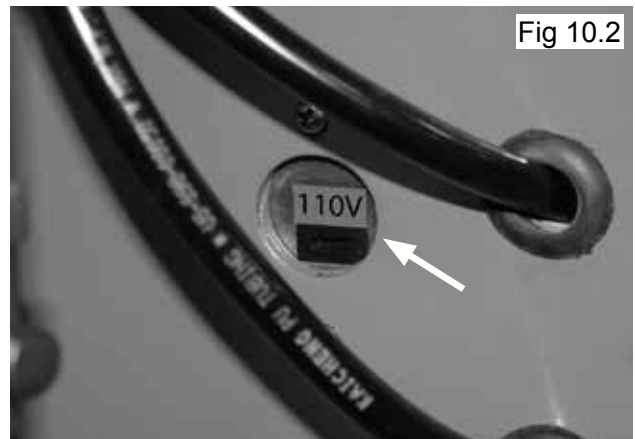


Fig 10.2

**SECTION 11
DEMOUNTING**

NOTE:

THIS 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 EQUIPMENT MANUAL REVIEWS BASIC OPERATION AND USE OF CONTROLS. THESE INSTRUCTIONS SHOULD BE REVIEWED BY ALL OPERATORS BEFORE THEY ARE ALLOWED TO WORK WITH THE MACHINE. KEEP THESE INSTRUCTIONS NEAR THE MACHINE FOR EASY REFERENCE.

! CAUTION

THIS MACHINE MAY OPERATE DIFFERENTLY FROM OTHER TIRE CHANGER MACHINES. PRACTICE WITH A REGULAR STEEL WHEEL AND TIRE COMBINATION TO FAMILIARIZE YOURSELF WITH THE MACHINE'S OPERATION AND FUNCTION.

- ◆ Remember to remove all weights from both sides of the wheel. Weights left on the back side of the wheel may cause

the wheel to be clamped un-level. This may result in the combination mount/demount head contacting the rim causing scratches. On alloy wheels, always rotate the wheel one turn after setting the head to ensure proper wheel chucking.

- ◆ Always review nicks and scratches with owners of expensive wheel and tire combinations prior to servicing.
- ◆ Review the performance wheel section of this manual prior to servicing performance tire/wheel combinations.

BEAD LOOSENING

1. Deflate tire completely by removing the valve core from the valve stem. (See Fig 11.1)



2. The clamps on the table top may extend beyond the table top itself. To avoid damaging the clamps and/or wheel, move the clamps to their full inward position before positioning a tire for bead loosening.

3. Always loosen the bead on the narrow side of the wheels drop center first. (See Fig. 11.5 for description of the drop center)

4. Pull the bead breaker blade away from the machine and roll the wheel into position. If servicing a performance wheel or any other wheel with Tire Pressure Sensor (see section 12), make sure that the valve stem is either in the 12 o'clock or 6 o'clock position.

5. The Bead Breaker Arm Adjustment Rod limits or extends the movement of the arm. Set the Rod as appropriate to the tire and wheel being serviced. (See Fig. 11.2)



6. Position the bead breaker blade against the tire next to, but not on, the rim or the sidewall of the tire. Press the breaker pedal to actuate the blade and loosen the bead. It

may be necessary to loosen the bead in multiple locations around the tire. Use extra care in positioning the bead breaker blade on larger wheels/tires, and on alloy wheels. (See Fig. 11.3)



7. Turn wheel around and repeat procedure on the other side of the wheel. This should be the long side of the drop center. It will be easier to clamp the wheel to the table top if the lower bead is loosened last. (See Fig. 11.4)



8. Determine the mounting side of the wheel. The mounting side is the narrow side of the drop center. (See Fig. 11.5)

Fig 11.5

WHEEL CONFIGURATION

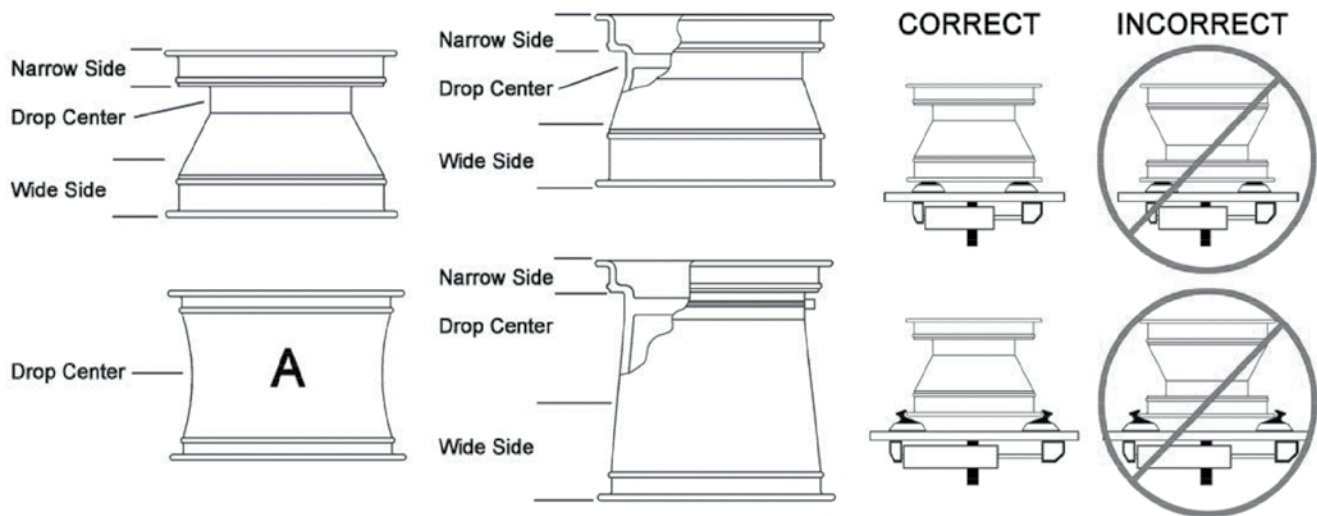




The following instructions help identify how to properly mount wheels on the tire changer turntable. Failure to follow these instructions may lead to tire and/or wheel damage, equipment damage or failure, serious personal injury or death to operator or bystanders or damage to property.

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.

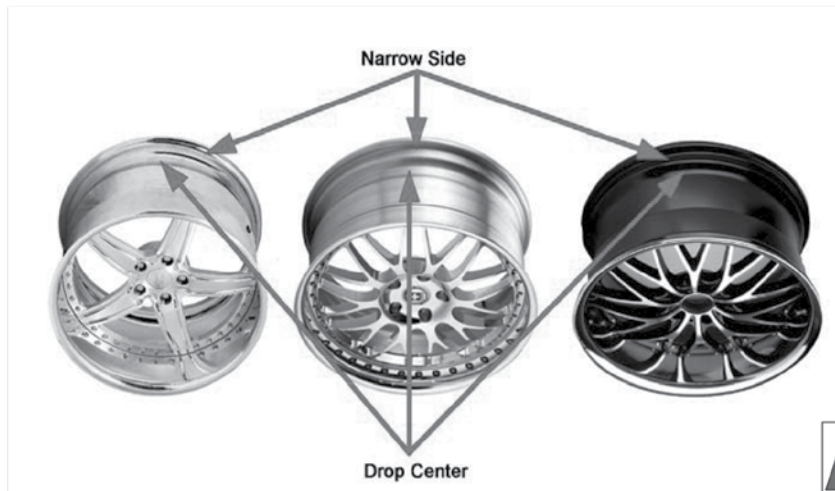


Fig 11.5



WHEEL CLAMPING

1. Place the Wheel Protector pads on the Wheel Clamps if desired when clamping from the outside. (See Fig 11.6)



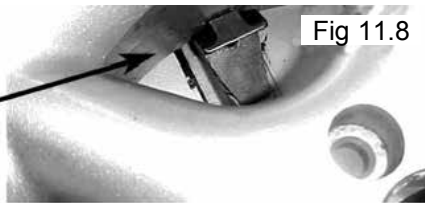
2. Place tire/wheel assembly on Table Top with mounting side up. (See Fig 11.7)



NOTE:
CLAMP STEEL WHEELS FROM THE INSIDE (CLAMPS PUSH OUTWARD AGAINST WHEEL). CLAMP MAG AND CUSTOM WHEELS FROM THE OUTSIDE (CLAMPS PUSH INWARD AGAINST THE OUTSIDE RIM EDGE). REFER TO SECTION 12: CUSTOM AND SPECIAL WHEELS.

3. Use the Wheel Clamp Foot Pedal to move the Clamps inward (pedal down) or outward (pedal up). (See Fig 11.8)

INTERNAL
CLAMPING



EXTERNAL
CLAMPING



DEMOUNTING

1. Apply tire manufacturer's approved rubber lubricant liberally to entire circumference of both upper and lower beads after loosening bead and placing on table top. (See Fig 11.9)



! WARNING

THE RIM AND BEAD MUST BE LIBERALLY LUBRICATED. FAILURE TO USE AN ADEQUATE LUBRICANT CAN LEAD TO THE BEAD BINDING ON THE RIM AND DAMAGE TO THE MOTOR AND OR VOID THE WARRANTY.

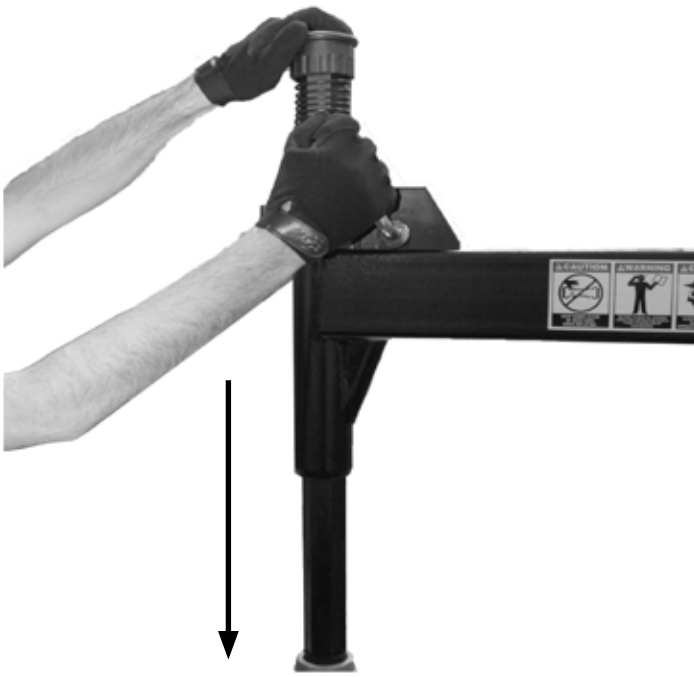
2. After the wheel is secured to the Turntable, swing the Vertical Arm into position. Use the large adjusting Knob to position the Mount/Demount Head directly over the edge of the rim. (See Fig 11.10)



3. Push the Vertical Shaft down and position the Mount/Demount Head into contact with the rim edge. (See Fig. 11.11)

4. Pull the locking handle towards you to lock the Vertical Shaft into position. As the slide is locked, the Mount/Demount Head will move upward approximately 1/8 inch and backward 1/8 inch from the rim edge. The Mount/Demount head roller should not be in contact with the rim edge. (See Fig 11.11 - 11.12)

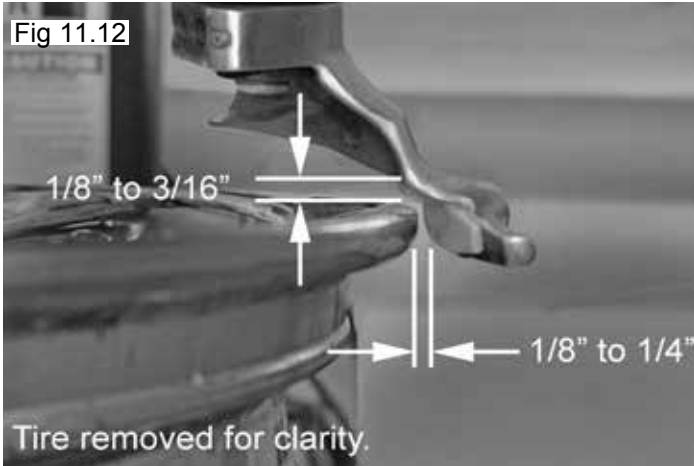
Fig 11.11



! DANGER

THE BEAD LIFTING TOOL AND DEMOUNT HEAD MAY ENCOUNTER RESISTANCE OR COME UNDER LOAD AT TIMES DURING THE MOUNT AND DEMOUNT PROCEDURES. KEEP ONE HAND FIRMLY ON THE TOOL TO AVOID POSSIBLE TOOL KICK BACK. USE THE REVERSING FEATURE (LIFT TABLE TOP PEDAL UPWARDS) TO BACK OUT OF JAM UPS.

Fig 11.12



Tire removed for clarity.

NOTE:

THIS CLEARANCE WILL BE MAINTAINED AS LONG AS THE VERTICAL SHAFT REMAINS LOCKED. THE OPERATOR MAY SWING THE ARM OUT OF THE WAY AND BACK INTO PLACE AGAIN WITHOUT NEEDING TO REPOSITION THE HEAD WHEN CHANGING A LIKE SET OF WHEELS. THE TOOL CLEARANCE MAY CHANGE WITH MACHINE USE AND SHOULD BE INSPECTED OFTEN. FAILURE TO MAINTAIN PROPER CLEARANCE MAY RESULT IN DAMAGE TO THE WHEEL RIM OR TIRE. SEE PAGE 29 FOR ADJUSTMENT PROCEDURE.

NOTE:
FOR LOW PROFILE TIRES, PERFORM STEP 9 TO GET THE UPPER BEAD INTO THE DROP CENTER OF THE WHEEL.

7. Push the Bead Lifting Tool down and away from the wheel to lower the bead into the Drop Center while lifting up on the Table Top Pedal to rotate the turntable counter clockwise. (See Fig 11.14)



8. Insert the smooth curved end of Bead Lifting Tool over the right end knob of the mount/demount head and below the top bead of the tire. (See Fig 11.15)



5. Rotate the wheel using the Turntable Pedal until the valve stem is at the 3 o'clock position in relation to the Mount/Demount Head.

6. Insert the smooth curved end of the Bead Lifting Tool over the tab side of the Mount/Demount Head and below the top bead of the tire. (Fig 11.13)

9. Push the Bead Lifting Tool down toward the wheel to lift the tire bead up and over the tab of the demount head. Hold the Bead Lifting Tool in this position. (See Fig 11.16)



10. Depress the Table Top Foot Pedal to rotate the wheel clockwise. (See Fig 11.17)



11. Hold the Bead Lifting Tool down until the upper bead is solidly above the rim. Continue rotating the wheel clockwise until the upper bead is completely demounted. (See Fig 11.18 - 11.20)



12. Liberally lubricate the lower bead again, if there was any difficulty lubricating the lower bead earlier. (See Fig 11.21)



13. Lift and hold the tire so it is positioned with the lower bead in the drop-center portion of the wheel.

14. Insert the smooth curved end of the Bead Lifting Tool over the tab end of Mount / Demount Head and below the lower bead of the tire. Push the Bead Lifting Tool down toward the wheel to lift the tire bead up and over the left tab side knob portion of the Mount/ Demount Head. Hold the Bead Lifting Tool in this position. (See Fig 11.22 - 11.23)



15. Depress the Table Top Pedal to rotate the wheel.

16. The Mount / Demount Head will guide the bead up and over the edge of the wheel. Continue rotation until the lower bead is demounted. (See Fig 11.24 -11.26)



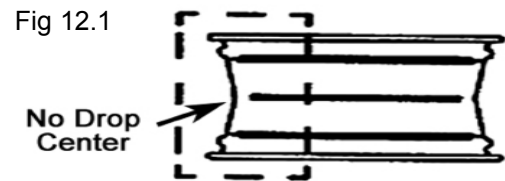
SECTION 12 CUSTOM AND SPECIAL WHEELS



IF A CUSTOM WHEEL IS DAMAGED WHILE DEMOUNTING, STOP, AND AVOID DAMAGING THE OTHER WHEELS. CONTINUE ONLY WHEN THE CAUSE IS IDENTIFIED AND CORRECTED.

ALLOY WHEELS

Some manufacturers offer wheels with little or no drop center. These are not DOT approved. The tire or 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. (See Fig 12.1)

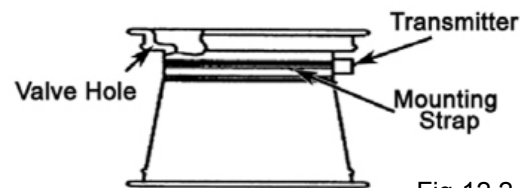


EUROPEAN PERFORMANCE WHEELS (ASYMMETRICAL HUMP)

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 TIRE PRESSURE WARNING SENSORS

Most wheels today have a TPS incorporated into the valve stem. Some are strapped to the wheel opposite the valve hole. (See Fig 12.2)



DEMOUNTING TUBE TYPE TIRES

1. After both tire beads are loosened, try to remove the tube. If you can not remove the tube lubricate the beads and rim liberally.
2. Position the demount head and bead lifting tool 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.
3. After upper bead is demounted, remove tube and demount lower bead.

REMEMBER:

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 TOE.

SECTION 13 MOUNTING

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 13.1)



2. Inspect tire for damage, paying close attention to the beads. Verify size match between tire and wheel. (See Fig 13.2)



3. Lubricate both tire beads liberally with tire manufacturer's approved lubricant. (See Fig 13.3)



THE RIM AND BEAD MUST BE LIBERALLY LUBRICATED. FAILURE TO USE AN ADEQUATE LUBRICANT CAN LEAD TO THE BEAD BINDING ON THE RIM AND LEAD TO DAMAGE TO THE MOTOR AND OR VOID THE WARRANTY.



THE INFORMATION IN THIS SECTION MUST BE READ AND FOLLOWED CAREFULLY TO PREVENT ACCIDENTS AND INJURIES DURING MOUNTING.



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



ATTEMPTS TO FORCE A BEAD SEAT ON MISMATCHED TIRES AND WHEELS CAN CAUSE THE TIRE TO VIOLENTLY EXPLODE, LEADING TO SERIOUS PERSONAL INJURY OR DEATH TO OPERATOR AND/OR BYSTANDERS.

! 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 PERSONS WITHOUT KNOWLEDGE OF TIRE SERVICE. KEEP BYSTANDERS OUT OF SERVICE AREA.

! WARNING

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

! WARNING

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

4. Place tire over wheel and move Vertical Arm and Mount/ Demount Head into position as described earlier. Position tire so that the lower bead is above the left side of the Mount/ Demount Head and below the right front knob. (See Fig 13.4)



5. Manually push the tire down into the drop center of the wheel directly across from the Mount/ Demount Head to reduce the tensional force on the bead. Depress the Table Top Pedal and rotate the wheel to begin mounting the lower bead. Rotate the Table Top until the lower bead is fully mounted. (See Fig 13.5 - 13.6)



6. For the top bead, rotate the Table Top until the valve stem is at the 3 o'clock position in relation to the Mount/ Demount Head. Lift the upper bead above the right side of the Mount/ Demount Head and below the knob. (See Fig 13.7)



7. With the Bead Lifting Tool, press down on the tire to hold the upper bead in the drop center. (See Fig. 13.8)



8. Stand firmly in place and be prepared to hold the Bead Lifting Tool down as the tire/ Turntable rotates. Depress the Table Top Pedal and rotate the tire until the bead is mounted. (See Fig. 13.9 - 13.12)



Fig. 13.9

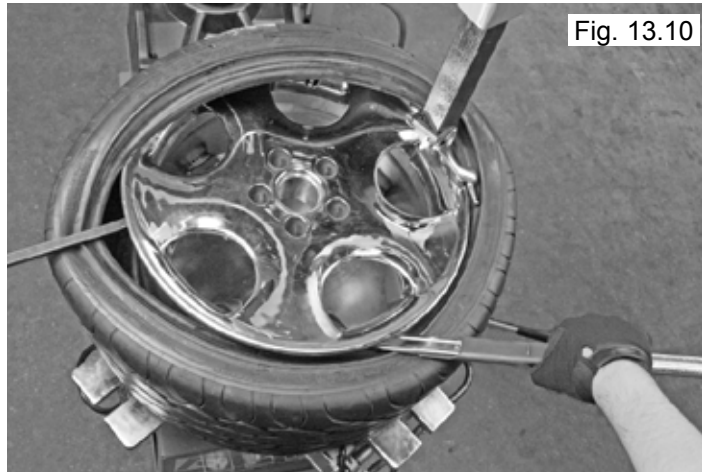


Fig. 13.10



Fig. 13.11

NOTE:
LOW PROFILE TIRES MAY REQUIRE USE OF THE BEAD LIFTING TOOL.



Fig. 13.12

NOTE:
THE FOLLOWING PROCEDURES SHOW THE ASSIST TOWER BEING USED; THE TIRE CHANGER YOU ARE USING MAY NOT HAVE THE ASSIST TOWER INSTALLED.*

9. Swing the Assist Tower into position and lower the Roller Arms so that they press down on the tire to hold the upper bead in the drop center. The Upper Arm must be locked and positioned next to the Mount-demount Head. (See Fig 13.13)



Fig. 13.13

10. Depress the Table Top Pedal. As the Turntable rotates the Lower Arm will follow the tire around. Keep rotating the table until the bead is mounted. (See Fig 13.14 - 13.16)



Fig. 13.14

***NOTE:**
ASSIST TOWER IS STANDARD EQUIPMENT INCLUDED ON THE R980NXT MODEL.



Fig 13.15



Fig 13.16



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

MOUNTING TUBE TYPE TIRES

1. Lubricate the beads and rim liberally.
2. Position the Mount/Demount Head as described earlier. Mount the bottom bead first.
3. Apply rubber lubricant to the tube. Insert the tube into the tire paying careful attention not to pinch the tube. Round out the tube with a small amount of air.
4. Lower the Arm Rollers onto the tire as described earlier.
5. Round out the tube with a small amount of air. Apply rubber lubricant to the tube.
6. Depress the Table Top Pedal and rotate only a short distance at a time.
7. Mount the top bead.

SECTION 14 INFLATION

The Inflation Pedal located at the center of the left side of the machine serves two different functions. It checks air pressure in the tire and controls the flow of air through the Inflation Hose. (See Fig 14.1)

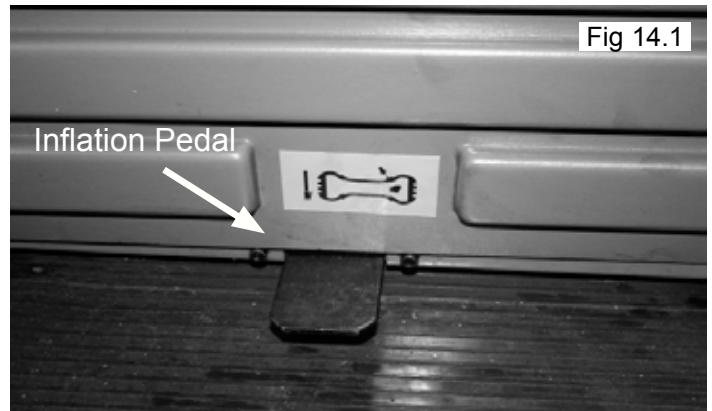


Fig 14.1



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. IF THE RIM HAS BEEN CLAMPED FROM THE OUTSIDE FOR TIRE MOUNTING, RELEASE THE CLAMPS ONCE BEAD SEAL IS OBTAINED, LIFT THE TIRE, AND MOVE THE CLAMPS TO THE CENTER OF THE TABLE TOP.



THE CLIP-ON AIR CHUCK ON THE END OF THE INFLATION HOSE AND ALL INFLATION RELATED COMPONENTS SHOULD BE CHECKED WEEKLY FOR PROPER OPERATION. DO NOT USE THIS MACHINE FOR TIRE INFLATION IF ANY PARTS ARE DAMAGED OR APPEAR NOT IN PROPER WORKING ORDER.

⚠ 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 LEFT SIDE OF THE MACHINE, CONTROLS THE FLOW OF AIR THROUGH THE INFLATION HOSE.

Position One - Tire Pressure - With the Inflation Hose attached to the tire valve and the pedal in this position, the air gauge will register the air pressure in the tire. Whenever your foot is removed from the pedal, it will return to this position. (See Fig 14.2)

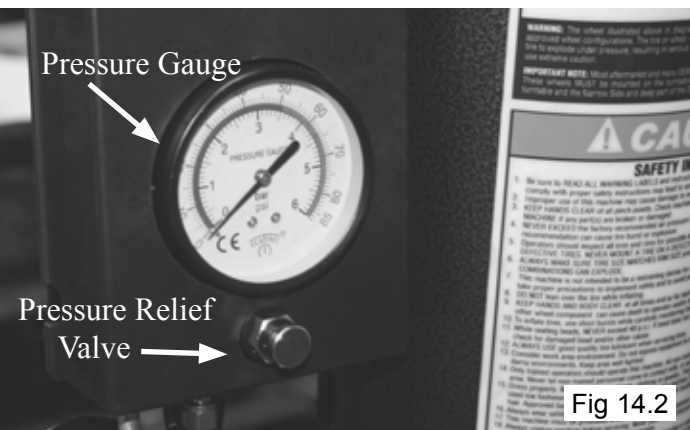


Fig 14.2

Position Two - Tire Inflation - 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 not indicated on the gauge in this position. (See Fig 14.3)

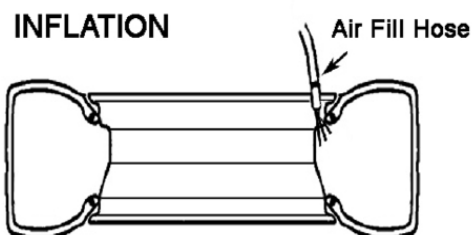


Fig 14.3

⚠ WARNING

CHECK THE FUNCTION OF THE PRESSURE LIMITER REGULARLY. MAINTAIN IT ACCORDING TO 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.



TIRE INFLATION

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. It is the operators responsibility to follow all instructions and to control inflation pressure as specified in these instructions. (See Fig 14.4)

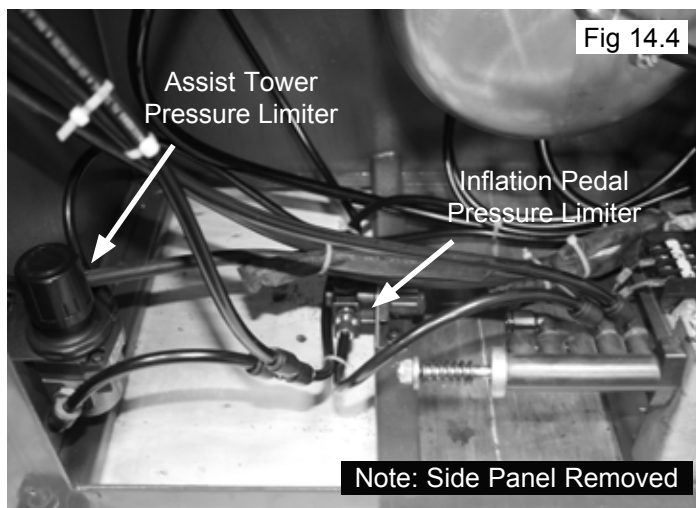


Fig 14.4

Note: Side Panel Removed

STAGES OF INFLATION

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 and refer to them as necessary to verify that you are proceeding properly and safely.



THIS MACHINE IS NOT INTENDED TO BE A RESTRAINING DEVICE FOR EXPLODING TIRES, TUBES, OR RIMS. KEEP HANDS AND BODY CLEAR AT ALL TIMES AND AS FAR BACK AS POSSIBLE DURING INFLATION. DO NOT LEAN OVER THE TIRE WHILE INFLATING. AN EXPLODING TIRE, RIM OR OTHER WHEEL COMPONENT CAN CAUSE DEATH TO OPERATOR AND/OR BYSTANDER. REMAIN CLEAR AT ALL TIMES.



THIS OBJECT IS 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

As an added safety precaution, a wheel restraint device has been added to protect operators during tire inflation.

1. Swing the Assist Tower to the side of the wheel and insert the restraint device as shown. (See Fig 14.5)



Fig 14.5



HOLD THE RESTRAINT TOOL FIRMLY IN PLACE WHEN INSTALLING AND/OR REMOVING FROM THE LEFT HELPER ASSEMBLY. THE UNIT CAN DROP SUDDENLY TO THE FLOOR. BE SURE TO KEEP FEET CLEAR AT ALL TIMES.

2. Make sure the restraint tool is centered in the center hub of the wheel then press down on the left hand control valve. (See Fig 14.6).



Fig 14.6



OPERATOR SHOULD KEEP HANDS, ARMS, AND ENTIRE BODY AWAY FROM THE TIRE DURING THE FOLLOWING 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.

STAGE TWO / BEAD SEALING

1. Position valve stem in front of operator and connect the inflation hose after removing the valve core. (see Fig 14.7)



2. Step on the inflation pedal to allow air to flow into the tire and seal the beads. (see Fig 14.8)



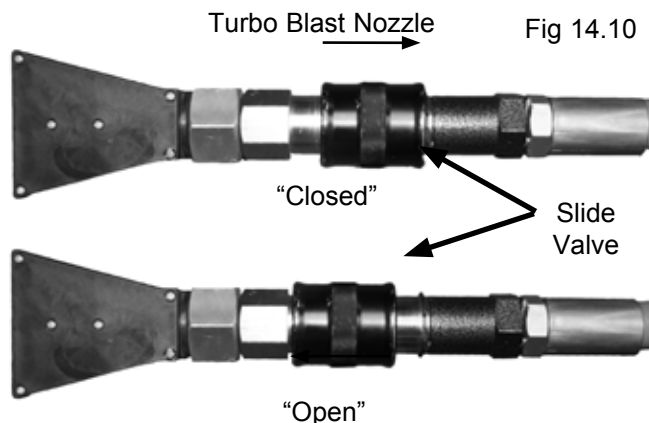
TO SEAL LOW PROFILE OR DIFFICULT BEADS, USE THE TURBO



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.

BLAST TO SEAL THE BEAD

1. To Open the Slide Valve, PUSH the Slide Valve Forward.
2. To Close PULL the Slide Valve closed. (See Fig 14.10)



3. Position the Turbo-Blast Nozzle to direct air towards the Rim Center just under the Rim lip. (See Fig. 14.11)



4. Depress inflation pedal and open the Turbo-Blast Valve for less than one full second. The blast of air from the Turbo Blast Nozzle will expand tire and seal the beads.

5. Repeat these steps if beads have not sealed. It will 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, check to see if the valve core has been 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.

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 FOLLOWING BEAD SEAT AND INFLATION PROCEDURES. DO NOT STAND OVER TIRE, AS PERSONAL INJURY COULD RESULT FROM INFLATING TIRE.

! DANGER



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

! WARNING

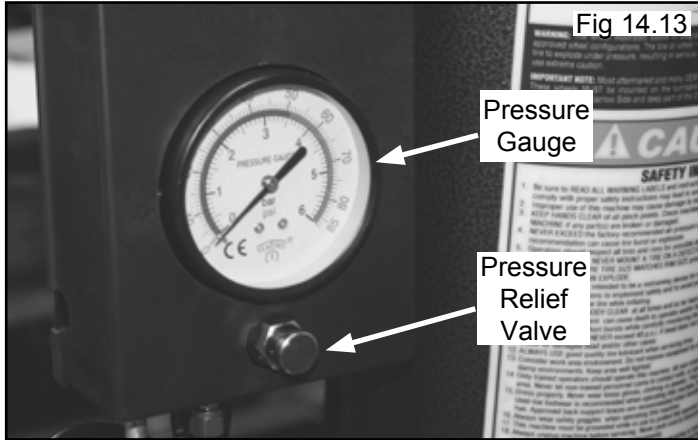
AVOID DISTRACTION DURING INFLATION. CHECK TIRE PRESSURE FREQUENTLY TO AVOID OVER INFLATION. EXCESSIVE PRESSURE CAN CAUSE TIRES TO EXPLODE, CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDER.

1. Once tire pressure is indicated on the pressure gauge 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 14.12)



NOTE:
THE INFLATION HOSE MUST BE ATTACHED TO THE VALVE STEM DURING THIS PROCEDURE.

2. Release air pressure from the tire by pressing the manual Pressure Relief Valve. (See Fig 14.13)



! 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 SEALING EQUIPMENT MAY PROPEL UPWARD AND OUTWARD WITH SUFFICIENT FORCE TO CAUSE SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDER.

WARNING

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

DANGER

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 TIRE BEADS, AND REATTEMPT BEAD SEAL AND SEAT PROCEDURES. FOLLOW ALL SAFETY INSTRUCTIONS IN THIS MANUAL AND ON MACHINE.

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 Pressure Relief Valve.

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 SEALING EQUIPMENT MAY PROPEL UPWARD AND OUTWARD WITH SUFFICIENT FORCE TO CAUSE SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDER.

Safety Cage



NOTE:

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

- ◆ BEFORE MAKING ANY INSPECTION, ADJUSTMENT, OR REPAIR, DISCONNECT THE POWER SOURCE AND OR AIR SUPPLY 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.

SECTION 15 MAINTENANCE INSTRUCTIONS

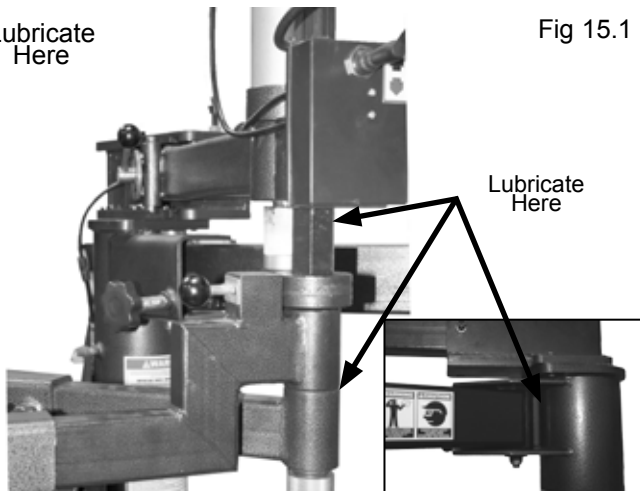
Read and follow all the maintenance instructions provided in this manual to keep the machine in good operating condition. Regular inspections and proper maintenance are essential to preventing accidents and injuries. These instructions will help you service the unit. Instructions are for a person with some mechanical ability and training. No attempt has been made to describe all basic steps such as how to loosen or tighten fasteners. Basic procedures such as cycling systems and checking operation of the equipment are not fully described since they have been described previously in 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.

DAILY

- ◆ Check the tire pressure gauge function, and check the accuracy monthly. Use a pressurized tire and a high quality pressure 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 oil level and remove water from the separator.
- ◆ 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.

MONTHLY

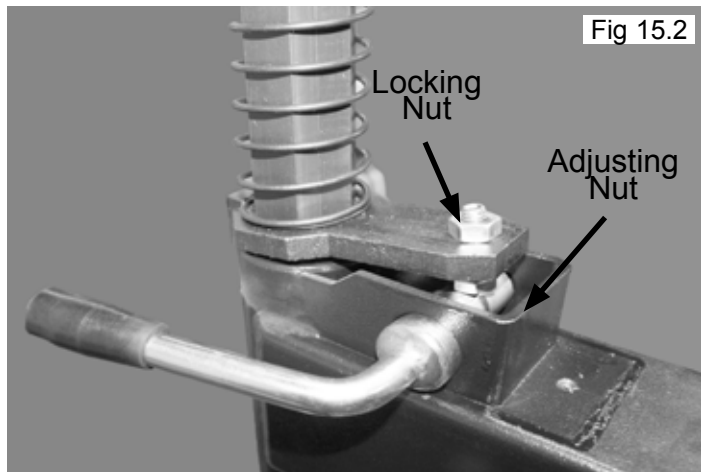
- ◆ Pivot Points, assist tower vertical shaft should be cleaned with a vaporizing solvent and then lubricated with chassis grease. (See Fig 15.1)
- ◆ Check adjustment of the mount/demount head.



- ◆ Check the condition and adjustment of the turntable drive belt.
- ◆ Check function of the Inflation Pedal pressure limiter/ regulator. **The pressure regulator should never be adjusted to exceed 60 PSI.**
- ◆ Clean the table top, clamps, steel mount/demount head, and other working surfaces with a vaporizing solvent.
- ◆ Replace any damaged or missing safety decals, available from the factory.

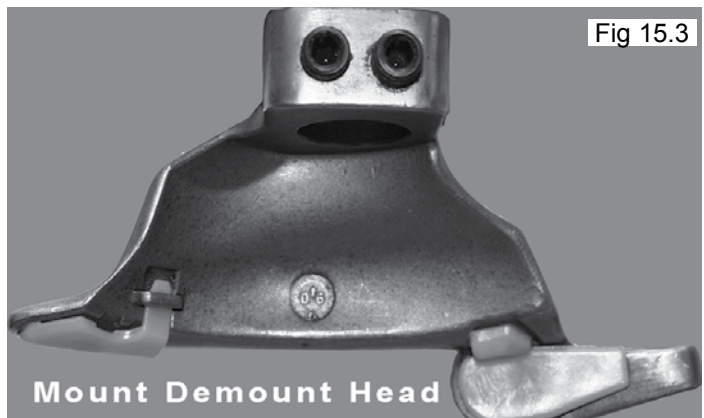
Mount/Demount Tool Head Adjustment

To adjust tool head clearance, adjust locking nut up or down until lift clearance is 1/8" to 3/16". Recheck clearance. (See Fig 15.2)



Mount/Demount Head Cleaning

Clean dirt and debris from the mount/demount tool roller with small screw driver or pick. Lubricate with light penetrating oil. (See Fig. 15.3)



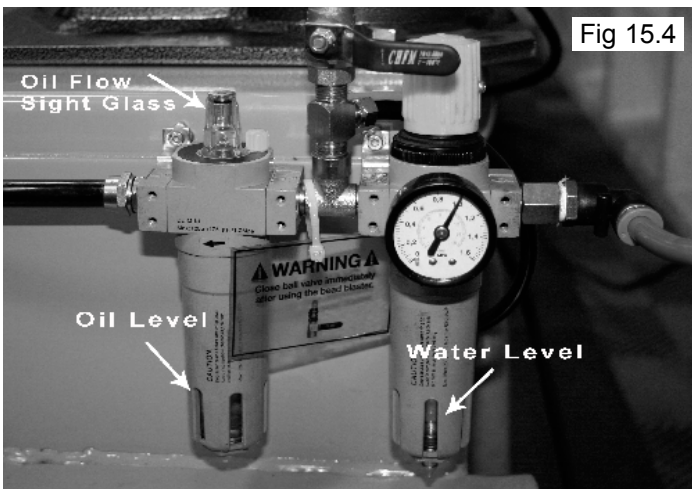
⚠ WARNING

FAILURE TO MAINTAIN THE WATER SEPARATOR/AIR OIL IN PROPER CONDITION MAY VOID WARRANTY. DRAIN WATER OUT OF THE SYSTEM REGULARLY AND KEEP THE OIL RESERVOIR FILLED.

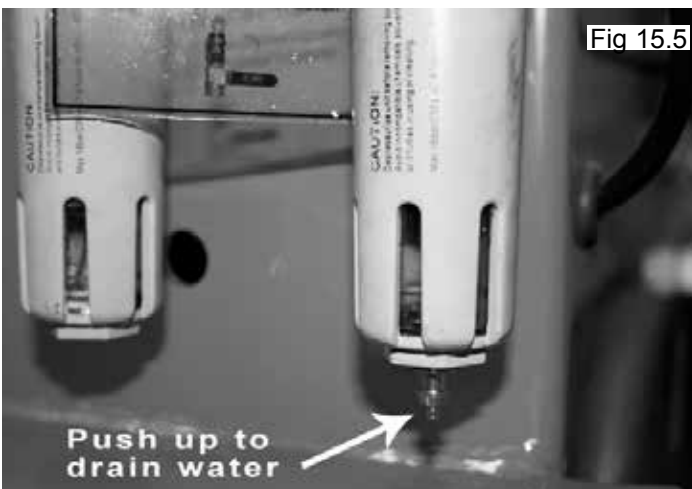
**AIR DRIER/OILER MAINTENANCE
AIR/WATER MAINTENANCE**

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

1. Observe through the clear sight glass the oil and water levels. (See Fig 15.4)

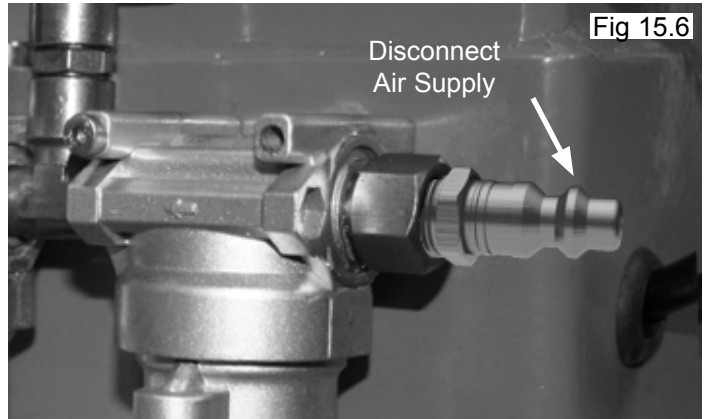


2. If any amount of water is observed, drain by pushing up on the drain plug at the bottom of the reservoir. (See Fig 15.5)



OILER MAINTENANCE

1. Disconnect air supply from machine. (See Fig 15.6)



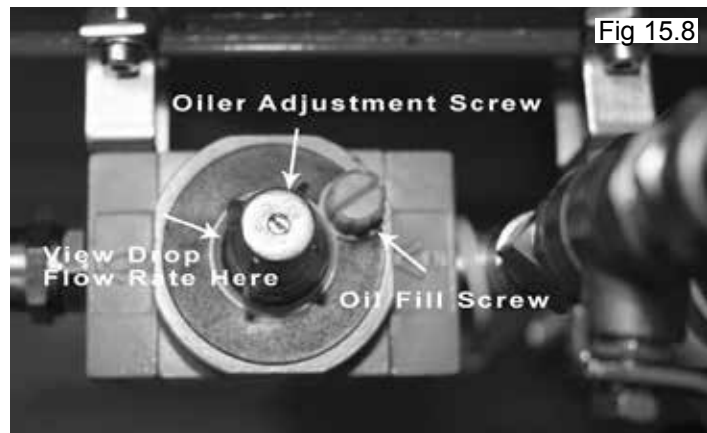
2. Reservoir Cup may be removed for cleaning by turning the reservoir counter-clockwise and pulling down. Add oil to the lubricator if the fluid level is below the middle of the gauge. Unscrew the Oil Reservoir Cup, add SAE 10W non-detergent oil or an air tool oil if necessary. (See Fig 15.7)



3. Replace the Cup and reconnect the air supply when service/adjustments are complete.

NOTE:
THIS ADJUSTMENT WILL REQUIRE TWO PERSONS TO PERFORM.

4. With the air source connected, depress the Bead Breaker Pedal to operate the Bead Breaker. Observe the sight glass and adjust the oil flow of the oiler by turning the Oiler Adjustment Screw counter clockwise so that 2-3 drops of oil drip through the sight glass for each operation of the Bead Breaker Pedal. (See Fig 15.8)

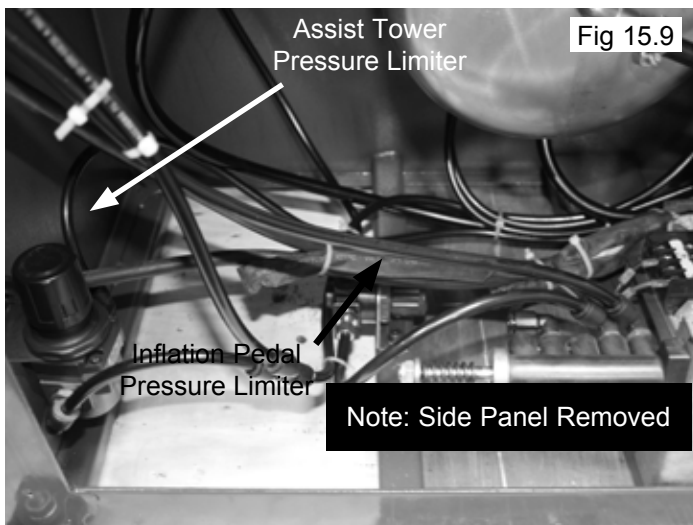


Inflation Pedal Pressure Limiter Maintenance



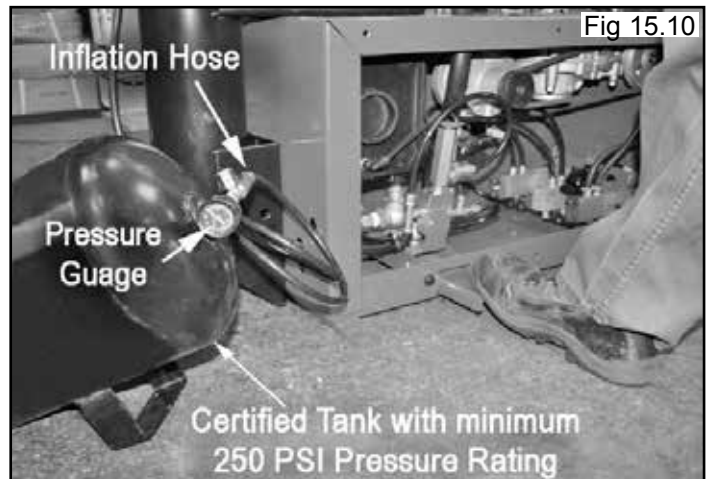
THE INFLATION PRESSURE LIMITER IS PRESET AT THE FACTORY AND SHOULD NEED NO ADJUSTMENT. MODIFY ONLY IF PRESSURE EXCEEDS 60 PSI. OPERATING A TIRE CHANGER WITH A DEFECTIVE, IMPROPERLY ADJUSTED, OR BYPASSED PRESSURE LIMITER COULD RESULT IN A TIRE EXPLOSION WITH SEVERE INJURY OR DEATH TO OPERATOR OR BYSTANDERS. 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.

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 15.9)



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

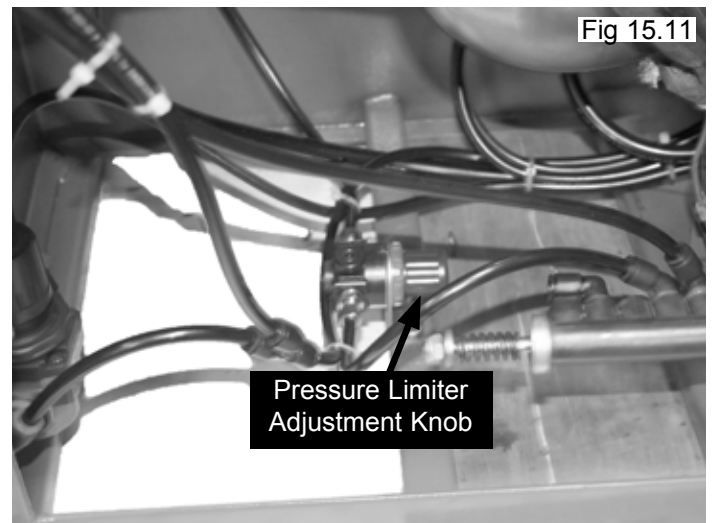
1. Remove tires and/or wheels from the machine.
2. Connect the Inflation Hose to an empty service tank with a pressure gauge (the gauge should read 0). Use a certified tank with at least 250 PSI pressure rating. (See Fig 15.10)



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

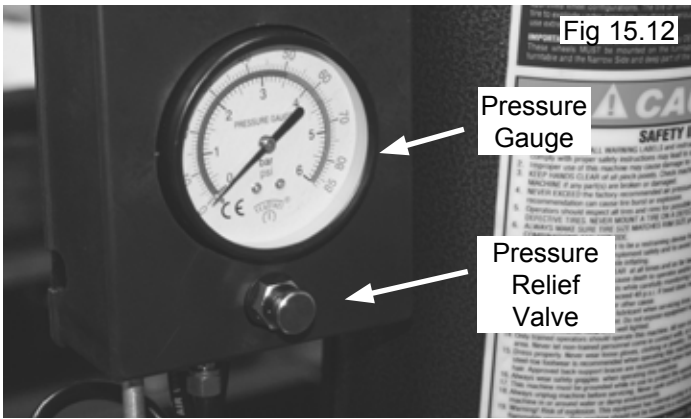
4. Watch the rising pressure on the tank gauge and the gauge on the machine. As tank pressure reaches 60 PSI, the pressure limiter should stop the air flow automatically. Both gauges should read 60 PSI \pm 5 PSI.

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. (See Fig 15.11)



6. Repeat steps 1-6. Readjust 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. Release air inside tank and disconnect Inflation Hose. (See Fig 15.12)

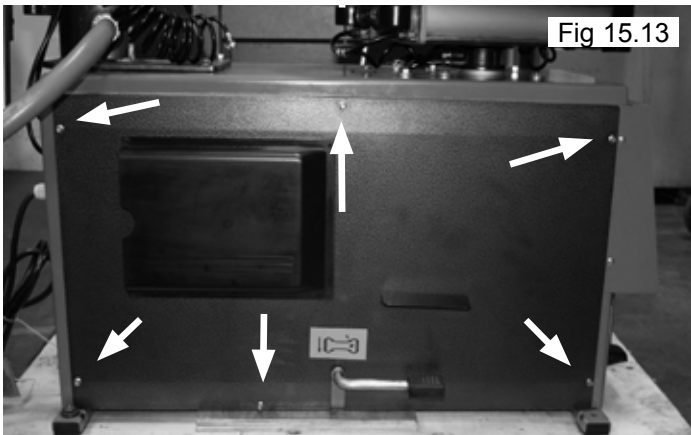


TURNTABLE DRIVE BELT INSPECTION / ADJUSTMENT



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.

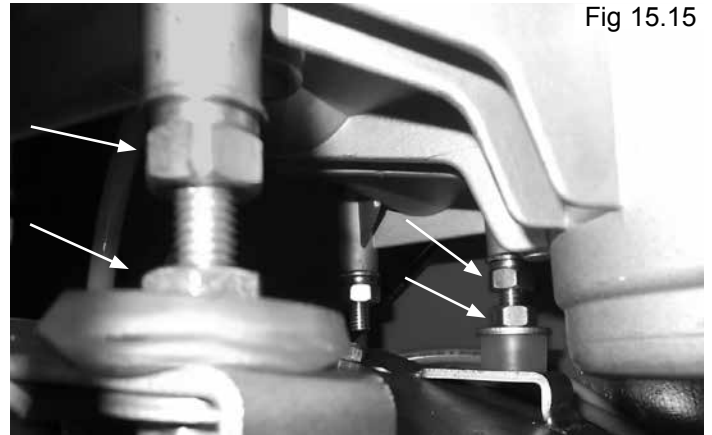
1. Remove the Side Panel. (See Fig 15.13)



2. Inspect the Drive Belt for cracking and wear and replace as necessary. (See Fig 15.14)

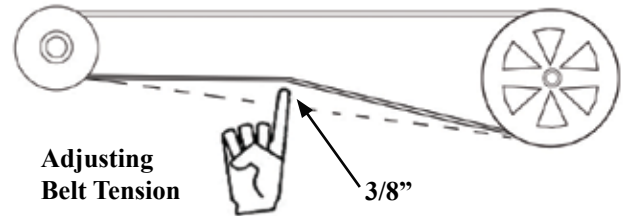


3. Loosen the four Motor mounting bolts and nuts. (See Fig 15.15)



4. Adjust the Belt deflection to 3/8" - 1/2". (See Fig 15.16)

Fig 15.16

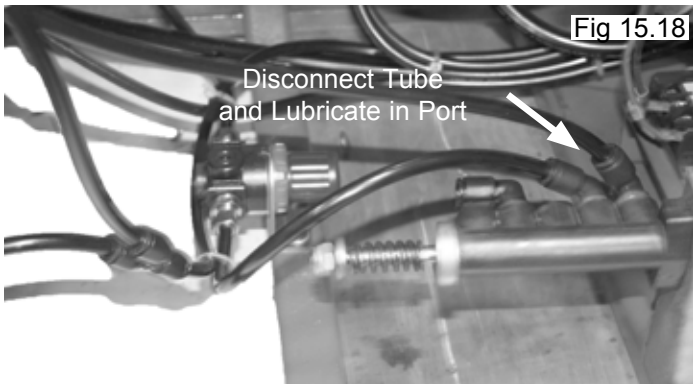


INFLATION VALVE LUBRICATION

1. Disconnect Air Supply from the machine. (See Fig 15.17)



2. Disconnect the Air Line going to the left port on the Inflation/Bead Blast Pedal. Place 1/2 oz. of SAE 10W non-detergent oil or an air tool oil into the open port. (See Fig 15.18).

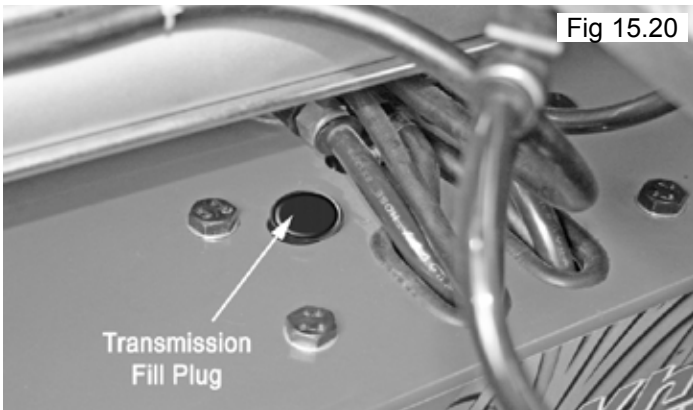


4. Press the Inflation Pedal six times to work the oil into the Valve. (See Fig 15.19)



TRANSMISSION INSPECTION / LUBRICATION

1. Rotate the Turntable so that the Transmission fill plug is visible and remove plug. (See Fig. 15.20)



2. Put a flexible wire into the Transmission Oil Fill Hole until the wire hits the bottom of the well. (See Fig 15.21)



3. Remove the wire and check the capacity level of the Transmission fluid. The oil should cover no more than 1" (25 mm) of the wire.



FILLING OIL LEVEL HIGHER WILL RESULT IN LEAKAGE OF THE TRANSMISSION SEALS.

NOTE:

**Gearbox Requires
90 Plus Viscosity Gear Oil**



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.



ALWAYS INSPECT TIRES BEFORE MOUNTING. DEFECTIVE OR DAMAGED TIRES MAY BURST OR EXPLODE WHEN INFLATING AND MAY LEAD TO SERIOUS HARM OR INJURY.

 <h2>CAUTION</h2>	 <h2>WARNING</h2>	 <h2>CAUTION</h2>
		
<p>KEEP HANDS CLEAR OF BEAD AREA WHEN INFLATING.</p>	<p>BE SURE TO READ ALL WARNING LABELS AND INSTRUCTION MANUAL PRIOR TO OPERATION OF THIS MACHINE</p>	<p>ALWAYS WEAR SAFETY GLASSES WHEN OPERATING THIS MACHINE.</p>

 **WARNING**



KEEP HANDS CLEAR OF ALL PINCH POINTS

 **DANGER**



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

 **WARNING**

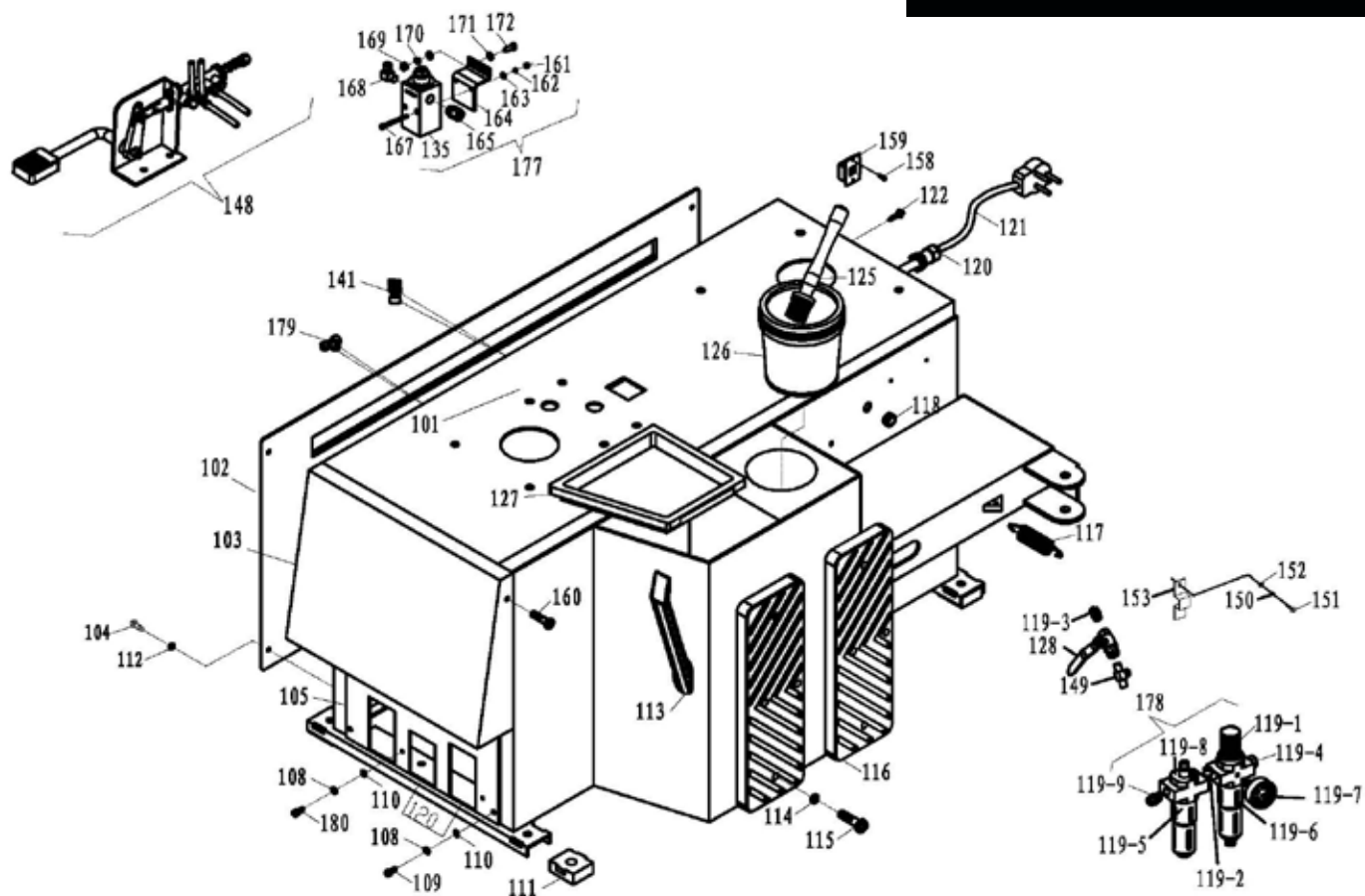


DO NOT WEAR LOOSE CLOTHING, LONG HAIR OR JEWELRY. MOVING PARTS CAN SNAG AND PULL

 **CAUTION**
READ FIRST

- ✓ 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 operation of this machine may cause damage to machine or cause personal harm or injury.
- ✓ **ALWAYS** wear safety goggles when operating this machine.
- ✓ **KEEP HANDS CLEAR** of all pinch points.
- ✓ Check machine for damaged parts prior to operation. **DO NOT USE MACHINE** if any component is broken or damaged.
- ✓ **NEVER EXCEED** the factory recommended air pressure of tire. Over inflating the tire beyond the manufacturer's recommendation can cause tire burst or explosion.
- ✓ Operators should inspect all tires and rims for possible defects prior to mounting.
- ✓ **ALWAYS INSPECT TIRES BEFORE MOUNTING.** Defective or damaged tires may burst or explode when inflating and may lead to serious harm or injury.
- ✓ **ALWAYS MAKE SURE TIRE SIZE MATCHES RIM SIZE** prior to mounting. Mounting tires on defective or improper rims can cause tire burst or explosion and may lead to serious harm or injury.
- ✓ This machine is not intended to be a restraining device for exploding tires, tubes, or rims. All operators should take proper precaution 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 component thereof can cause injury or death to operator and/or bystanders. **REMAIN CLEAR AT ALL TIMES.**
- ✓ To inflate tires, use short bursts while carefully monitoring the pressure, tire, rim, and bead.
- ✓ 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 mismatch of tire, damaged bead and/or other cause.
- ✓ **ALWAYS USE** good quality tire lubricant when servicing tires.

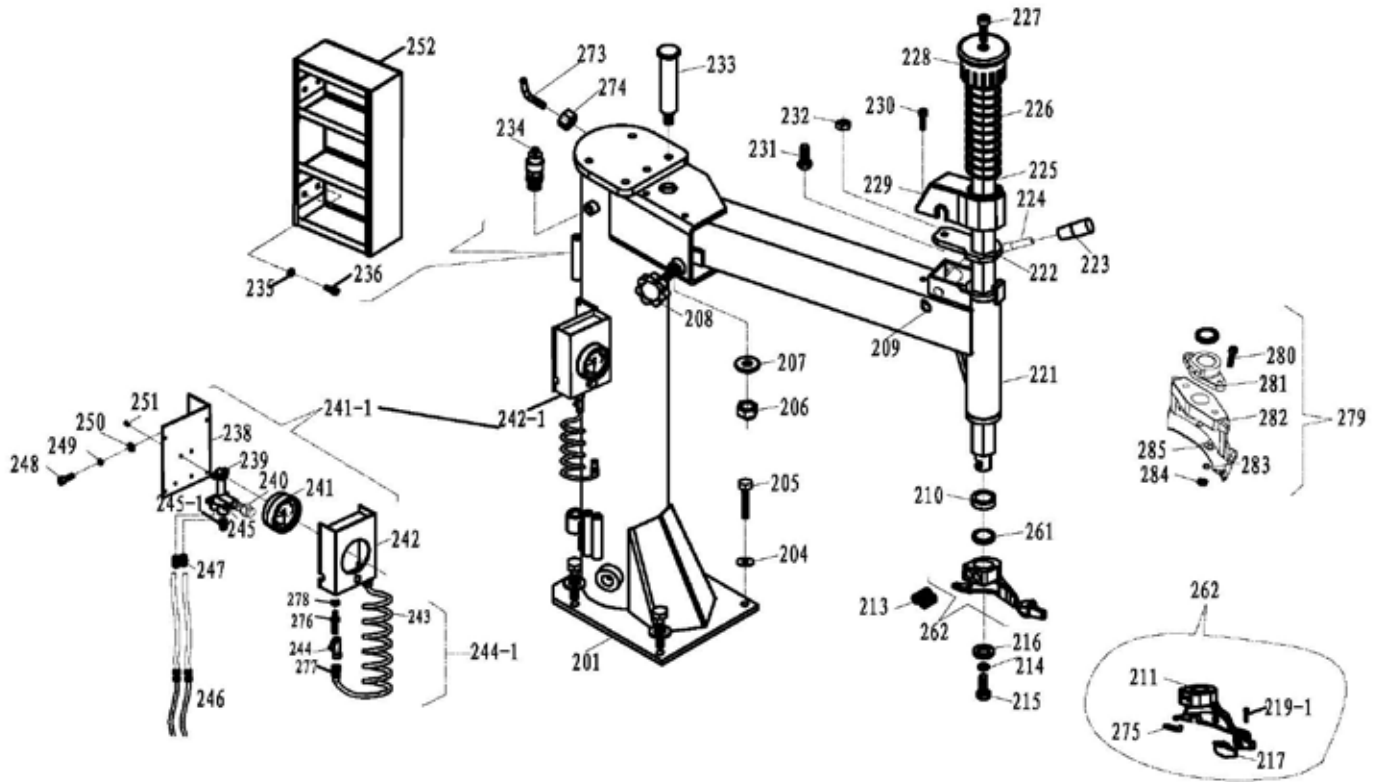
Always Think Safety!



101	Chassis Weldment
102	Chassis Side Cover
103	Foot Pedal Hood
104	PHPS M6 x 1.0 x 20
105	Chassis Front Board
106	Hex Nut M8 x 1.25
107	Pedal Divider
108	Washer M6 x 12 Flat
109	SHCS M6 x 1.0 x 16
110	Washer M6 Flat
111	Plastic Foot Pad
112	Washer M6 Flat
113	Pry Bar
114	Washer Ø6mm
115	PHPS M6 x 25
116	Wheel Support Pad
117	Bead Breaker Return Spring
118	Rubber Grommet Ø12
119	Air Drier / Oiler
119-1	Air Filter with Regulator
119-2	Tee Fitting ¼ NPT x ¼ Female NPT
119-3	FTG NPL 1/4 NPT x Ø8mm
119-4	Barbed Tube Fitting 1/4"
119-5	Oiler Cup
119-6	Filter Cup
119-7	Air Pressure Gauge

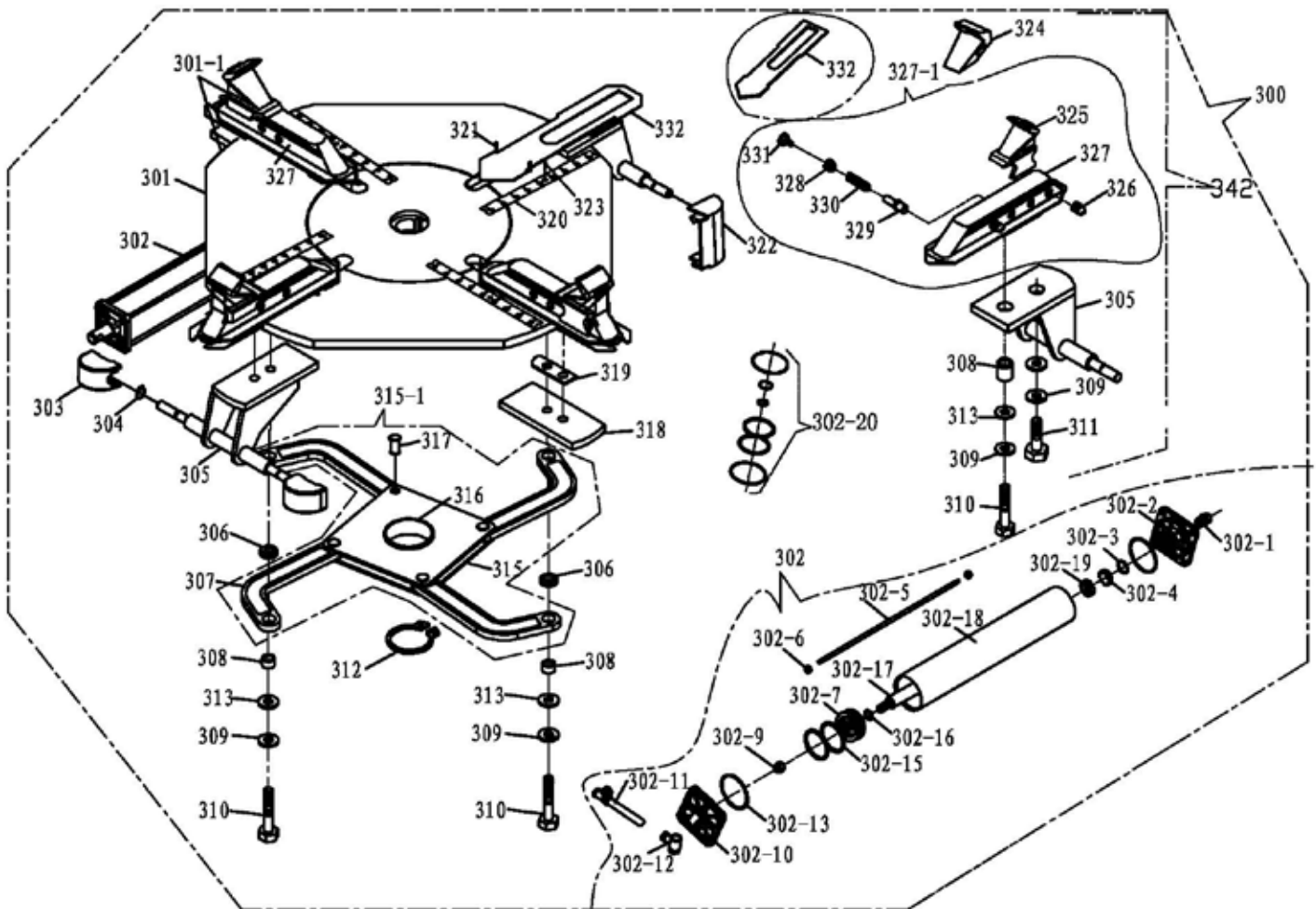
119-8	Air Regulator w/Gauge; I Models
119-9	Fitting G1/4" Ø12 Straight
120	Power Cord Grip
121	Power Cord
122	STS M5.5 x 1.0 x 25
125	Soap Brush
126	Soap Bucket
127	Tool Tray
128	¼" Ball Valve
135	Full Flow Inflation Regulator
141	Y-branch Air Fitting Ø8mm
148	Inflation Foot Pedal
158	Cross Recessed Round Head Screw M4x16
159	Voltage Switch 110/120V
161	Nut M4
164	Full Flow Inflation Kit Bracket
165	Fitting G 1/4" Ø8
167	Socket Head Cap Screw M4x50 and M4x45
168	Fitting 90° Ø8-G1/4"
169	Nut M6
170	Washer, Ø6 Spring
171	Washer, Ø6 flat
172	Hexagon Headed Bolt M6x20 and M6x16
177	Wire/hub terminal block assembly

R980 ALL MODELS Tower / Horizontal Arm



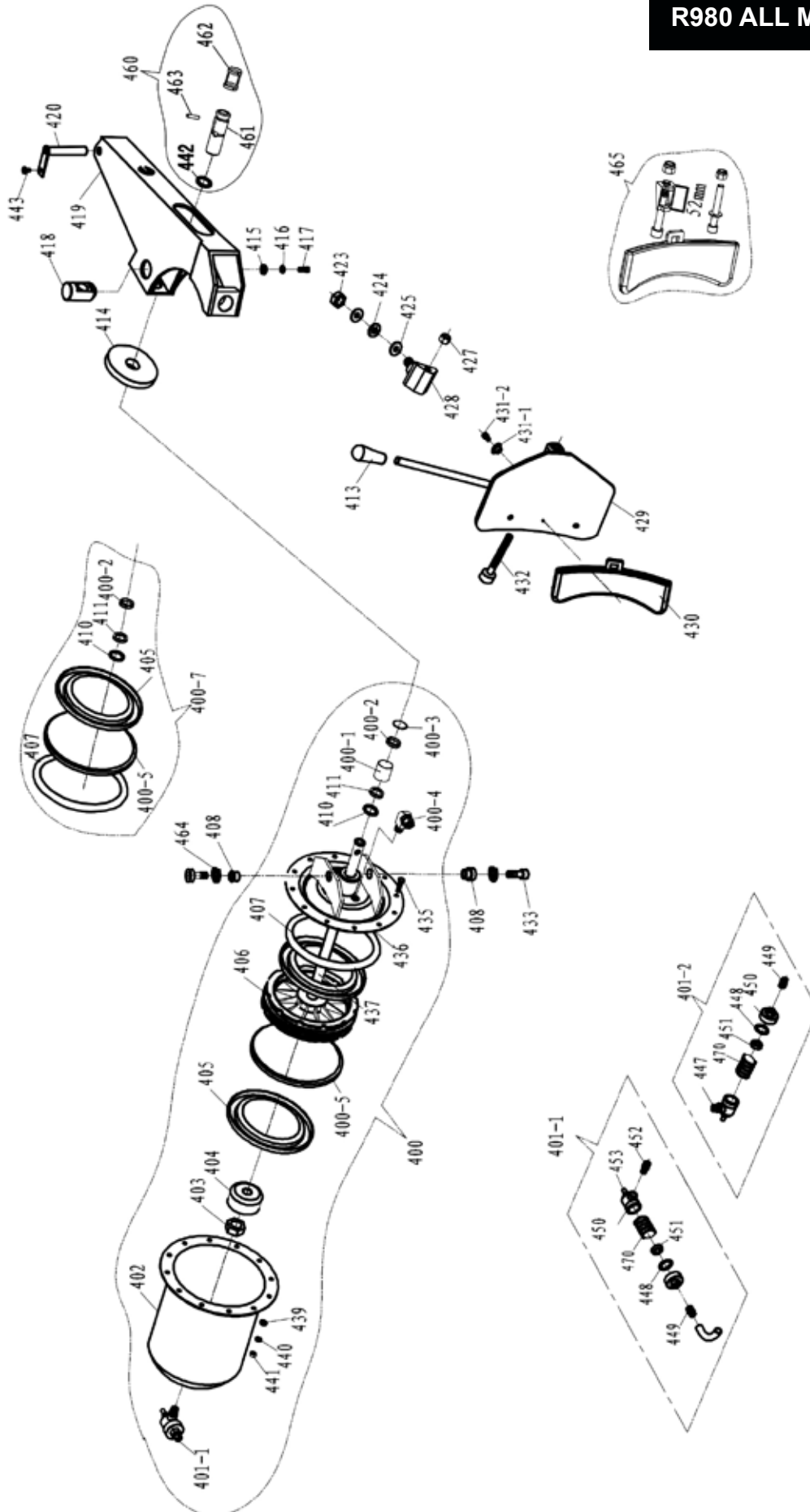
201	Tower Unit Weldment	224	Locking Handle	245-1	Air Chuck
204	Washer Ø12	225	Vertical Shaft	246	Y-branch Air Fitting Ø8mm
205	Hex Head Bolt M12 x60	226	Hex Shaft Spring	247	Union Fitting 8mm x 1/8" NPT
206	Locknut M16	227	SHCS M8x1.25 x 25	248	SHCS M6 x 10
207	Lock pad	228	Hex Shaft Cap	249	Washer M6
208	Position Fixing Handle	229	Hex Shaft Lock Cover	250	Washer M6 Flat
209	M18 Snap Ring	230	SHCS M6x30	251	PHPS M3 x 10
210	Mount / Demount Head Bushing Ø46x34x12	231	SHCS M12 x 1.75 x 25	252	Tool Box
211	Metal Mount-Demount Head	232	Thin Nut M12 x 1.75	261	M-demount head Adjust Pad
213	M12 X 16 Mount-demount Head Set Screw	233	Swing Arm Pivot Pin	262	M-demount head Adjust Assy
214	Washer Ø10	234	Pressure Release Valve	273	Turbo Blast Hook
215	Hex Bolt M10 x 20	235	Washer M6 Flat	274	Nut M8
216	Mount-demount Head Retaining Washer	236	SHCS M6 x 16	275	Nut M6
217	Roller Insert	239	Tire Inflator Relief Valve	276	Inflation Hose Plug
218	Mount-demount Head Roller	240	Air Release Valve	277	Fitting G1/8"φ8
219-1	Innner Hexangular Set Screw	241	Inflating Gauge	279	Plastic MDH assembly
221	Swing Arm Unit Weldment	242	Inflation System Plastic Cover	280	SHCS M8x40
222	Hex Shaft Locking Plate	242-1	Tire Inflator Box Assy	281	Plastic MDH Flange
223	Locking Handle Cover	243	Coiled Air Hose Ø8mm (9ft)	282	Plastic Flange Adapter
		244-1	Inflation Hose Assy	283	Lock Washer
		245	Gauge Block 1/8"	284	Nut M8

R980 ALL MODELS Turntable Assembly

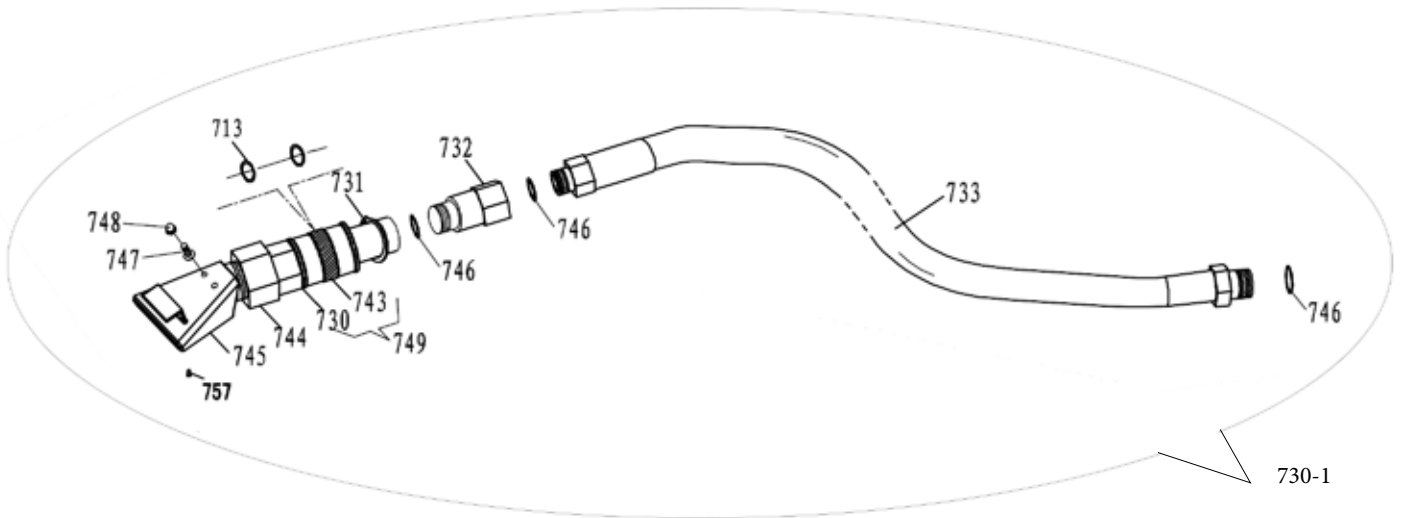


300	Turntable Assembly
301	Turntable Plate
301-1	Plate Assembly
302	Jaw Clamp Cylinder
302-1	Fitting; 1/8 8mm Straight
302-2	Small Front Cylinder Cover
302-3	O-ring Ø16x2.4
302-4	Jaw Clamp Cylinder
302-18	Jaw Clamp Cylinder Body
303	Small Cylinder Cover
304	Snap ring Ø12
305	Slide Guide
306	Square Turntable Slide Rod Pad
307	Square Turntable Link
308	Metal Bushing 18 x 12 x 11
309	Washer Ø12
310	HHB Ø12 x 50
311	HHB Ø12x25
312	Snap ring Ø65

313	Washer Ø12 Flat
315-1	Square Turntable Assembly
316	Square Turntable Spacer
317	Square Turntable Press Pin
318	Slide Guide Board
319	Slide Shim Adjustment
320	Turntable Ruler
321	Split Pin
322	Small Cylinder Back Cover Guard
323	Turntable Ruler Screw; M4x6
324	Jaw Clamp Cover Set (QTY 4)
325	Jaw Clamp
326	Special Screw M10x1
327	Jaw Clamp Support
328	Jaw Clamp Inner Adjustment Knob
329	Jaw Clamp Inner Adjustment Pin
330	Jaw Clamp Pin Spring
331	Jaw Clamp Locking Pin
342	Complete Turntable

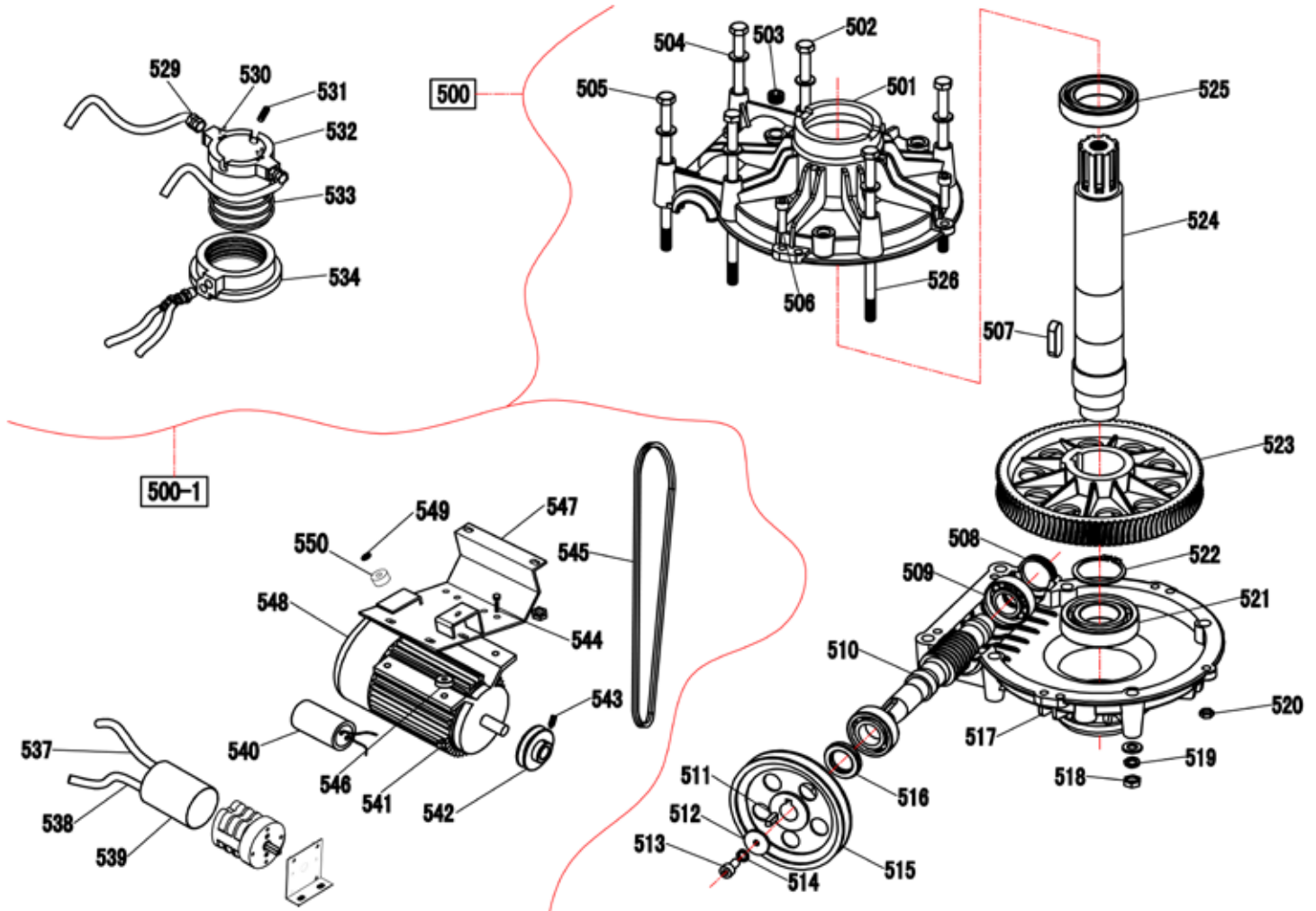


400	Bead Breaker Cylinder Assy	425	Washer Ø16
400-1	Bearing B3025	427	Locknut M12 x 1.75
400-2	Seal Ring Ø30x20x7	428	BB Blade Hinge
400-3	Type I Hole With Elastic Ring	429	Bead Breaker Blade
400-4	Fitting; 90° G1/4" Ø10	430	Bead Breaker Blade Cover
400-5	Guide Ring	431	Bead breaker Cover Plug
400-7	Pairs of Large Cylinder Seal Hair Accessories	432	SHCS M12 x 1.75 x 90
401-1	Quick Release Valve Assembly (B)	433	SHCS M14 x 2.0 x 30
401-2	Quick Release Valve Assembly (A)	434	Metal Bushing Ø18 x Ø12 x 11
402	Large Cylinder Tube	435	Hex Bolt M6 x 1.0 x 16
403	Thin Nut M18 x 2.5 x 1.5	436	Cylinder Head Cap
404	Piston Spacer	437	Cylinder Rod
405	Wiper Seal Ø200 x 12 x 6mm	438	Piston Spacer Pad
406	Cylinder Piston	439	Washer M6 Flat
407	O-ring Ø193 x 5.7	440	Washer M6 x 12mm Flat
408	Eccentric Bushing	441	Nut M6 x 1.0
409	Cylinder Wear Ring Ø25	442	BB Blade Adjustment Rod Pin
410	O-ring Ø25 x 3.1	443	Cross Recessed Round Head Screw
411	Wiper Seal Ø25	447	Fitting G1/4" 12mm
412	Brass 90° Fitting ¼ NPT x 10mm	448	Metal Quick Exhaust Valve
413	Bead Breaker Blade Handle	449	Quick Exhaust Valve Metal Cup
414	BB Rubber Disk	450	Metal Quick Exhaust Valve
415	Worm pressure pad	451	Quick Exhaust Valve Metal Cup
416	Washer Ø8mm	452	Fitting: G1/4" - G 1/4"
417	SHCS M8 x 1.25 x 16	453	Silencer 1/4" NPT
418	BB Arm Slide	460	Adjust the set of assembly
419	Bead Breaker Arm	461	BB Blade Adjustment Rod Pin R30XLT
420	BB Arm Pivot Pin	462	Adjust the collection
421	Snap Ring Ø16	463	BB Blade Adjustment Rod Pin, R30XLT
422	BB Blade Adjustment Rod	464	Washer Ø14
423	Locknut M16 x 2.0	465	Upgraded Shovel Kit
424	Wave Washer Ø16	470	Metal Quick Exhaust Valve Spring



713	O-ring Ø40x3.55	744	Turbo Blast Handle/Connector
730	Turbo Blast Nozzle Adapter	745	Jet Blast Nozzle
730-1	Turbo Blast Complete	746	O-ring Ø28x3.55
731	Snap Ring Ø40	747	CRRH Screw M6x12
732	1" Connector	748	Acorn Nut M6
733	Turbo Blast 1" Hose	749	Turbo Blast Valve Assembly
743	Turbo Blast Valve	757	CRH Tapping Screw 4.2x13

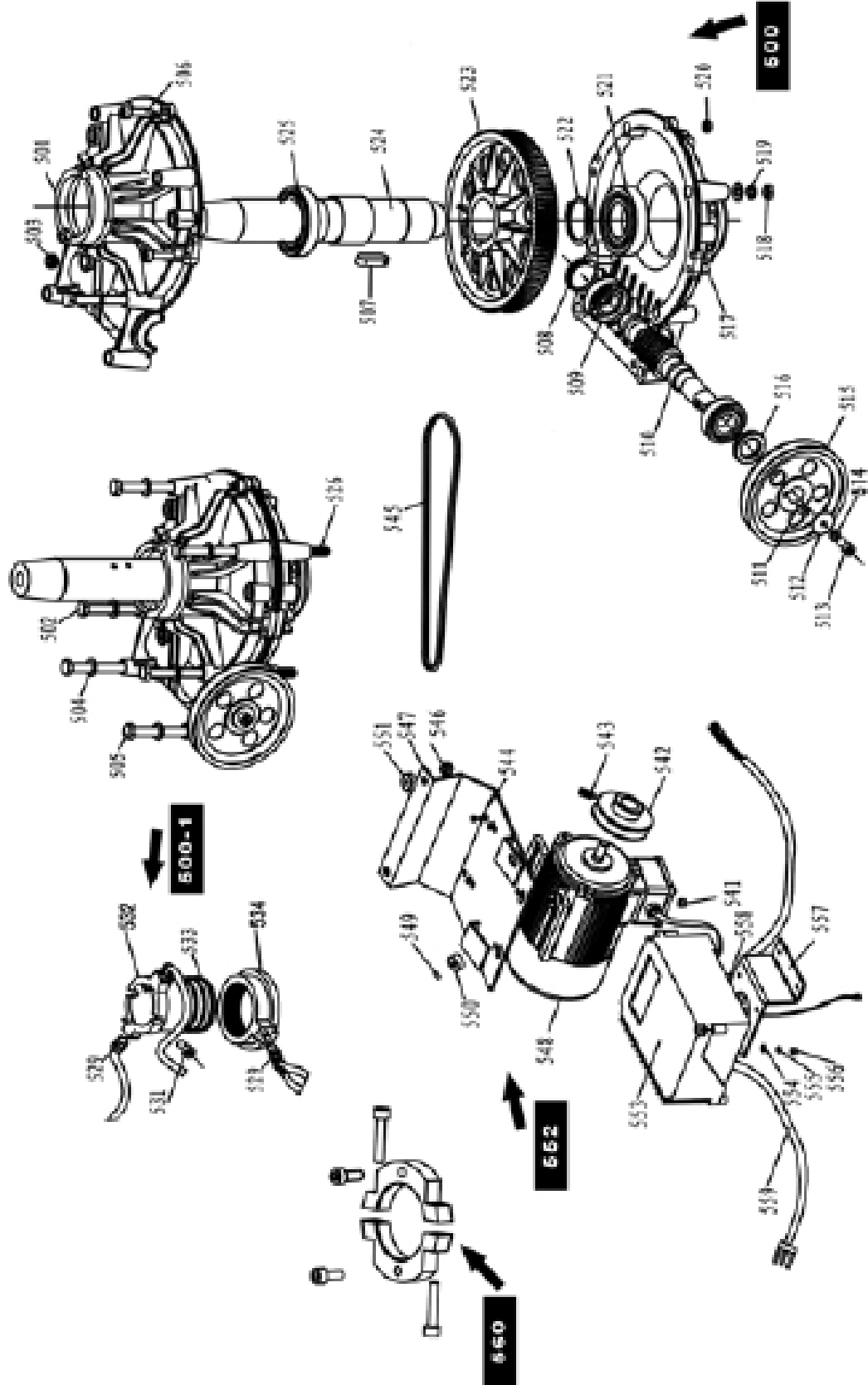
R980 Standard Transmission Motor Assembly

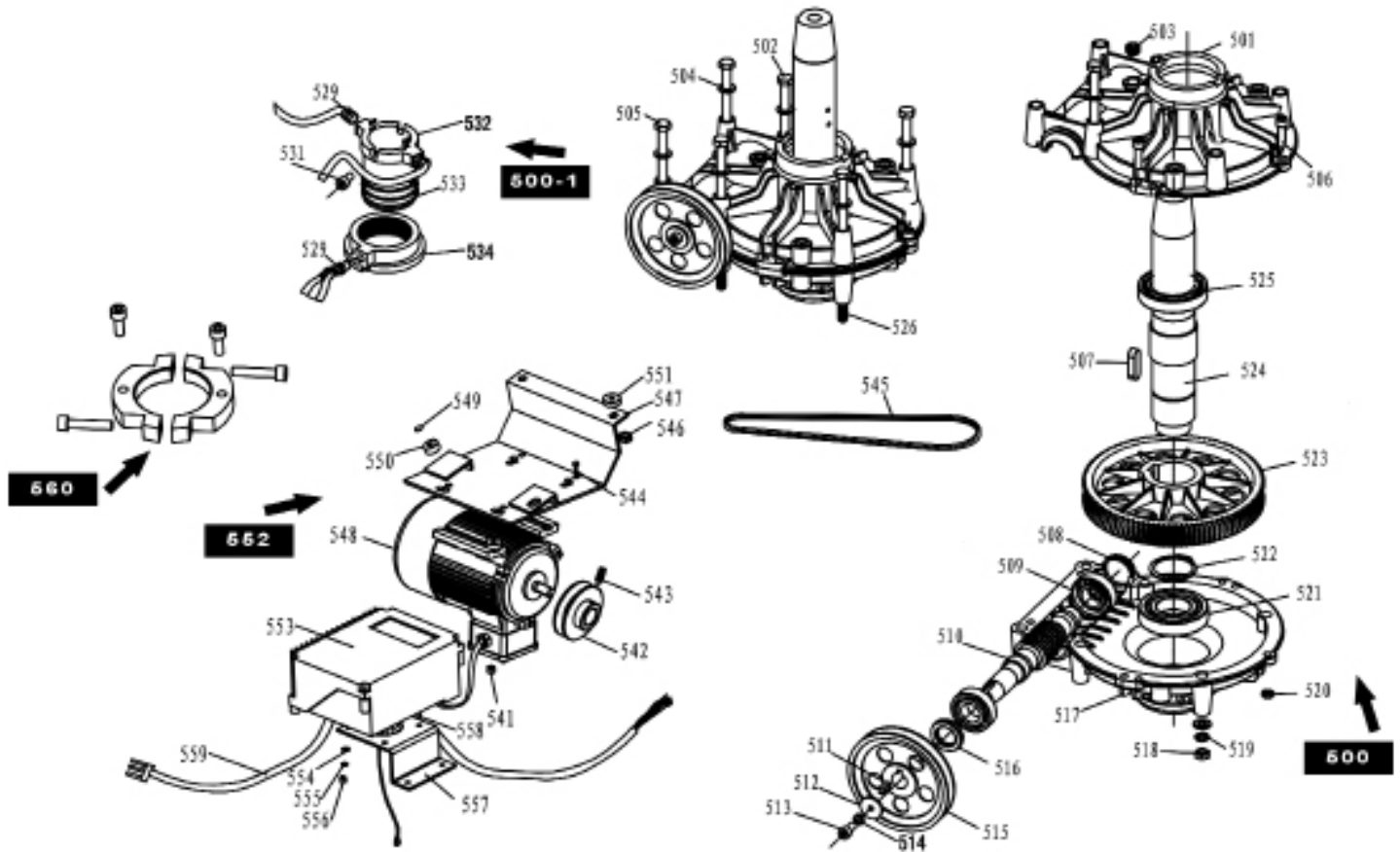


500	Transmission Assembly	515	Large Belt Pulley	533	O-ring Ø60 x 2.65
500-1	Rotary Joint Block	516	Oil Seal Ø45 x 25 x 10	534	Rotary Joint Block Collar
501	Gearbox Top Flange	517	Gearbox Bottom Flange	537	Electrical Line
502	Hex Bolt M10 x 1.5 x 200	518	Nut M10 x 1.5	538	Power Lline
503	Oil Plug	519	Washer Ø10	539	Directional Switch Cover
504	Washer Ø10	520	Nut M8 x 1.25	540	Electric Capacitor
505	Hex Bolt M10 x 1.5 x 180	521	Bearing 80208	541	Locknut M8 x 1.25
506	SHCS M8 x 1.25 x 30	522	Snap Ring Ø50	542	Motor Pulley
507	Turntable Key 12 x 8 x 35	523	Helical Gear M2(Al)	543	SSS with flat point M8 x 1.25 x 16
508	Oil Block 45 x 8	524	Turntable Shaft	544	Hex Bolt M8 x 1.25 x 40
509	Cone Roller Bearing 7205	525	Bearing 80110	545	V Belt
510	Gear Stud M2	526	Hex Bolt M10 x 1.5 x 170	546	Rubber Washer
511	Tab 6 x 6 x 20	529	90° Fitting 1/8" NPT x Ø8mm	547	Motor Mounting Weldment
512	Gear Stud Pad	530	PHPS M3 x 0.5 x 6	548	Electric Motor
513	SHCS M8 x 1.25 x 16	531	SHCS M6 x 1.0 x 8	549	Washer Ø10
514	Washer Ø8	532	Rotary Joint Block	550	Transmission Bracket Bushing

R980XRF/NXTF/ATF

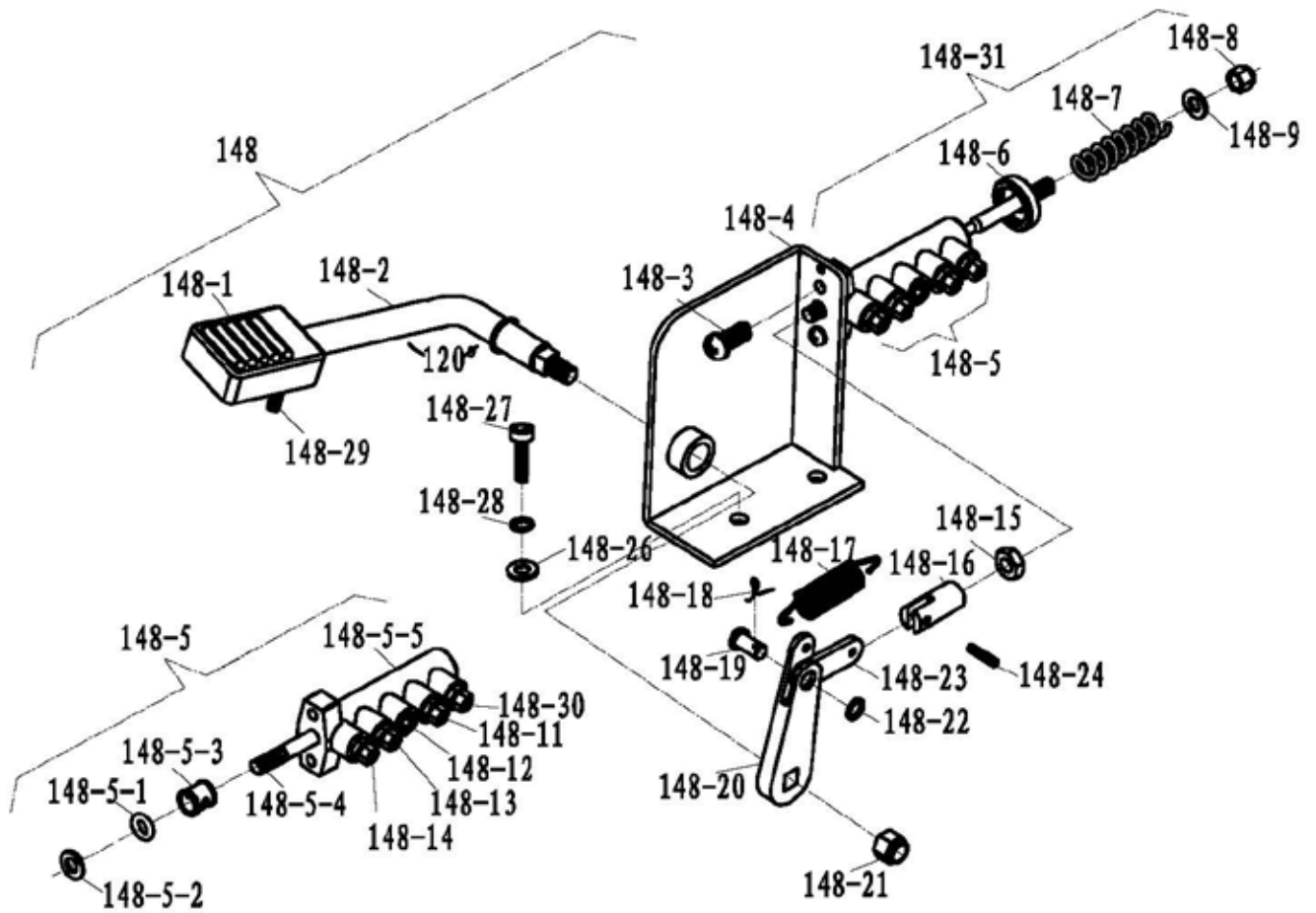
GEAR BOX/ROTARY JOINT BLOCK/MOTOR





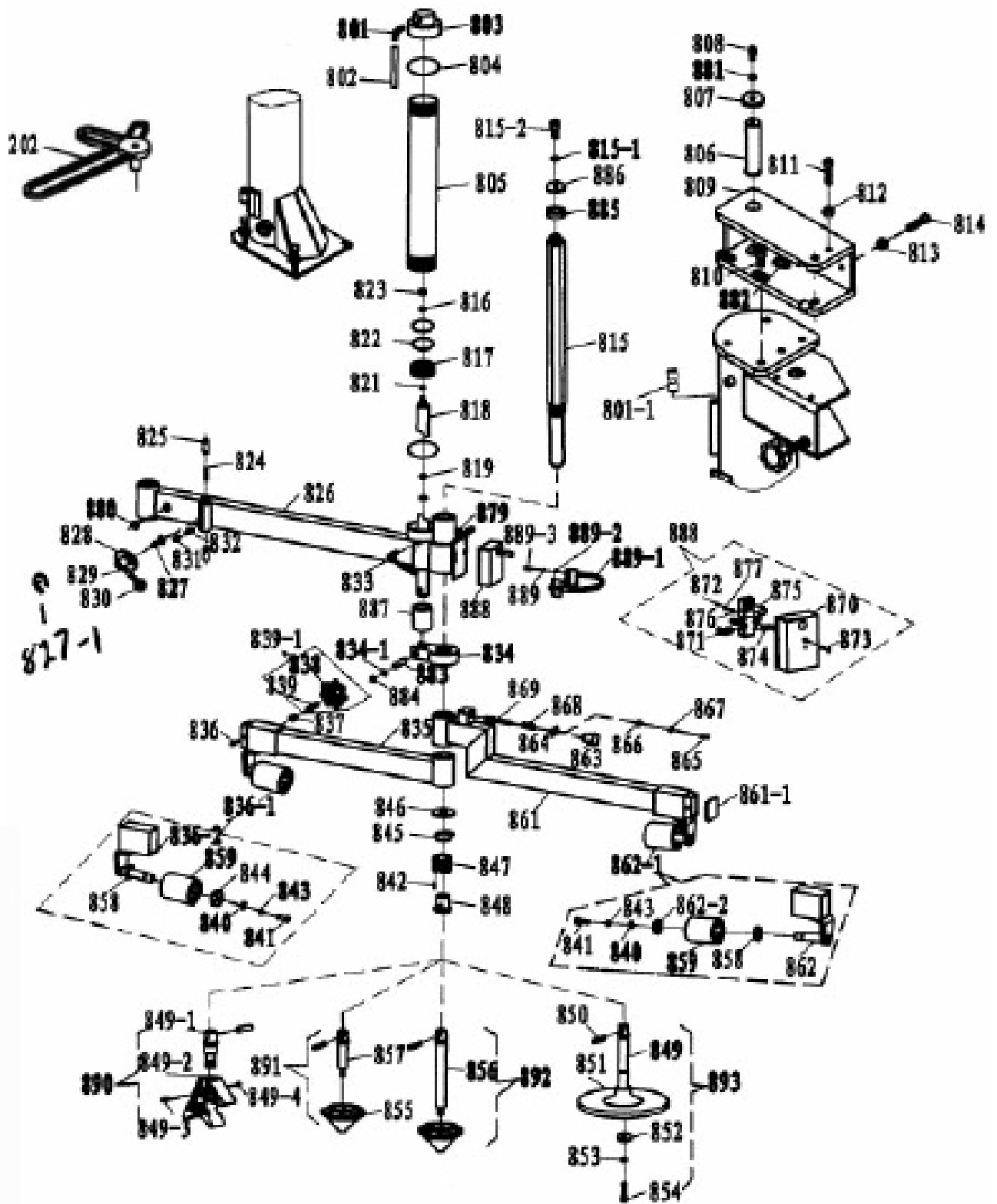
500	Transmission Assembly	518	Nut M10	543	SSS with flat point M8 x 16
500-1	Rotary Joint Block	519	Washer Ø10	544	Hex Bolt M8 x 40
501	Gearbox Top Flange	520	Nut M8	545	V Belt
502	Hex Bolt M10 x 1.5 x 200	521	Bearing 80208	546	Nut M10
503	Oil Plug	522	Snap Ring Ø50	547	Motor Mounting Weldment
504	Washer Ø10	523	Helical Gear M2(Al)	548	Integrated Co
505	Hex Bolt M10 x 1.5 x 180	524	Turntable Shaft	549	Washer Ø10
506	SHCS M8 x 1.25 x 30	525	Bearing 6010	550	Transmission Bracket Bushing
507	Large Gear Key 12 x 8 x 35	526	Hex Bolt M10 x 170	551	Rubber Washer
508	Oil Block 45 x 8	529	Fitting G $\frac{1}{8}$ " x Ø8mm	552	Motor with Support B
509	Cone Roller Bearing 6205	531	Inner Hexangular Screw M6x20	553	Frequency Converter
510	Gear Stud M2	532	Rotary Joint Block Inner Piece	554	Washer; Ø5flat
511	Tab 6 x 6 x 20	533	O-ring Ø60 x 2.75	555	Washer; Ø5
512	Gear Stud Pad	534	Rotary Joint Block Inner Piece	556	Nut M5
513	SHCS M8 x 1.25 x 16	537	Linear Motor	557	Inverted Fixed Plate
514	Washer Ø8	540	Motor Run	558	Cross Recessed Round Head Screw M5X20
515	Big Size Belt Pulley	540-1	Starting Capacitance	559	Power Cord
516	Oil Seal Ø45 x 25 x 10	541	Locknut M8	560	Rotary Valve Fixed Set
517	Gearbox Bottom Flange	542	Motor Pulley		

R980XRF Inflation Pedal Assembly



148-1	Inflation Pedal
148-2	Inflation Pedal Lever
148-3	PHPS M6 x 1.0 x 16
148-4	Pedal / Valve Bracket Weldment
148-5	Bead Blaster Valve Assembly
148-5-1	O-ring Ø15.4 x 3.9
148-5-2	Washer
148-5-3	Air Valve O-ring Spacer
148-5-4	Bead Blaster Valve Rod
148-5-5	Air Valve Body
148-6	Air Valve Reinforce Pad
148-7	Pressing Spring
148-8	Locknut M8 x 1.25
148-9	Washer Ø8
148-10	Washer M6 x 12mm Flat
148-11	FTG 90° 1/8" NPT x Ø8mm
148-12	1/8" NPT Plug

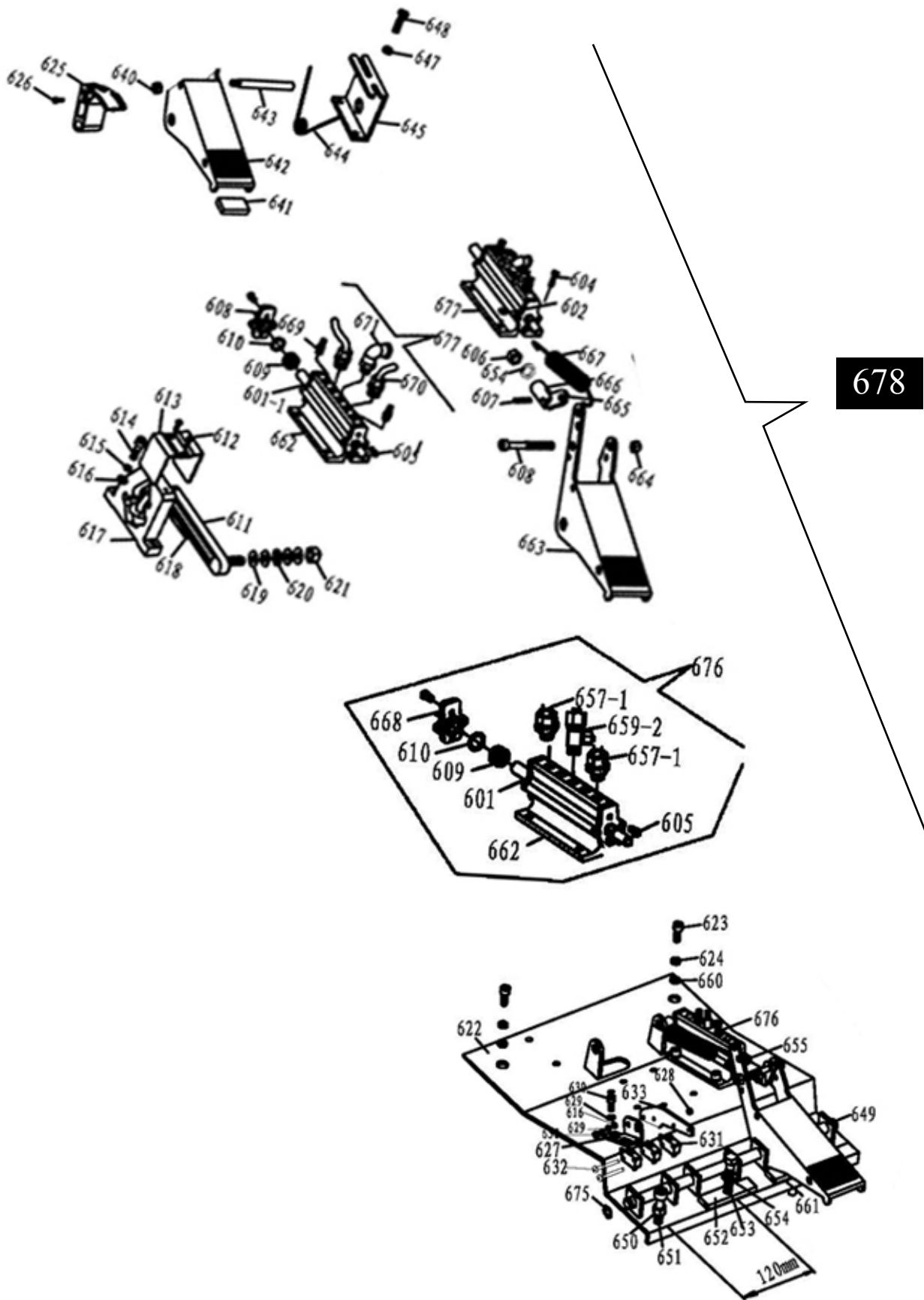
148-13	FTG 90° 1/8" NPT x Ø8mm
148-14	FTG 90° 1/4" NPT x Ø8mm
148-15	Nut M8 x 1.25
148-16	Pedal Valve Link
148-17	Pedal Spring
148-18	Cotter pin
148-19	Pin Ø8
148-20	Pedal Link Lever
148-21	Locknut M10 x 1.5
148-22	Washer Ø8
148-23	Pedal Link
148-24	Roll Pin Ø4 x 18
148-25	Washer Ø10
148-26	Washer Ø8
148-27	SHCS M8 x 1.25 x 20
148-28	Washer Ø8
148-29	SSS M6 x 1.0 x 10



801	90° Fitting 1/8 NPT
801-1	8mm to 6mm union
802	PU Air Compressor Hose Ø6mm
803	Assist Tower Rear Cylinder Plate
804	O-ring Ø85 x 3.6mm
805	Cylinder Body Ø75 x 360mm
806	Assist Tower Pivot Pin
807	Gland
808	SHCS M10 x 1.5 x 25
809	Assist Tower Arm Bracket
810	SHCS M12 x 1.75 x 25
811	SHCS M12 x 1.75 x 25
812	Nut M12 x 1.75
813	Nut M10 x 1.5
814	SHCS M10 x 1.5 x 35
815	Guide Pin
815-1	Washer, Ø10; Spring
815-2	SHCS M10x25
816	Washer M10x40
817	Small Cylinder Piston
818	Assist Cylinder Rod Ø30 x 533mm
819	O-Ring Ø35 x 3.1; R30XLT (10)
820	Assist Tower Cylinder Wear Ring
821	O-ring Ø16 x 2.4mm
822	O-ring Ø75 x 5.7mm
823	Locknut M10 x 1.5 NL
824	Assist Tower Lock Spring
825	Assist Tower Lock Pin
826	Assist Arm Weldment
827	Assist Tower Lock Shaft
827-1	Snap ring Φ8
828	Assist Tower Lock Cam
829	Assist Tower Lock Handle
830	Assist Tower Lock Knob
831	Assist Tower Lock Roller
832	Assist Tower Lock Link
833	Quick union Φ6 G1/8"
833	Fitting Φ6-G1/8" 90°
834	Connect plate
834-1	Washer, Φ12 flat
835	Lower small arm unit weldment
836	PHPS Screw M6x12
836-1	Fixed Roller Assy
836-2	Assist Arm Side Roller Weldment (A)
836-3	Free Roller Assy
837	AT Roller Lock Nylon Insert
838	Club Hand Shank M12
839	Sliding Sleeve Fasten Lead Screw
839-1	Assist Tower Roller Lock Knob
840	washer Ø10
841	SHCS M10X15(levo)

842	straight pin Ø3X18
843	washer Ø10 spring
844	Assist Tower Roller Lock Spacer
845	Snap Ring Ø35
846	clout
847	Assist Tower Quick Chuck, Outer
848	Assist Tower Quick Chuck, Inner
849	tray lever
850	straight pin Ø10X45
851	Plastic Disk
852	big arm pin roll clout
853	washer Ø10
854	SHCS M10X20
855	Assist Arm Cone
856	Long Cone Shaft
857	Short Cone Shaft
858	Friction Roller Washer
859	Assist Tower Roller
861	upper small arm unit weldment
861-1	block
862	Assist Tower Roller Slide
862-1	Free Roller Assembly
862-2	Roller Pad
863	Roller Arm Lock Knob
864	Roller Arm Lock Knob Catch
865	PHPS M5X10
866	washer Ø5; flat; spring
867	washer Ø5
868	Roller Arm Lock Knob Spring
869	Roller Arm Lock Knob Pin
870	L/R Assist Arm Valve Cover
871	quick union G1/4"
872	PHPS screw M4X12
873	PHPS screw M4X30
874	adjustment silencer G1/8"
875	Assist Arm Control Valve
876	washer Ø4; flat
877	washer Ø4
879	cross recessed tapping screws M4 2x13
880	cable holder Ø16
881	washer Ø10
882	SHCS M12X20
883	cylinder pin
884	seeger ringØ12
885	upper cushion pad
886	upper cushion plate
887	lower cushion pad
888	Assist Arm Control Valve Cover
889	Washer Ø5; Spring

R980 ALL F Models Foot Pedal Assembly



601	Air Valve Spool
602	Washer M6 x 12mm Flat
603	Washer M6 Flat
604	PHPS M6 x 1.0 x 12
605	PHPS M4 x 0.7 x 10
606	Nut M8 x 1.25
607	Roll Pin Ø4 x 18
608	SHCS M6 x 1.0 x 55
609	Air Valve O-ring Spacer
610	O-ring Ø17 x 4
611	Foot Pedal Cam Link
612	PHPS M3 x 0.5 x 10
613	Foot Pedal Cam Cover
614	SHCS M6 x 1.0 x 20
615	Washer M6 x 12mm Flat
616	Washer M6 Flat
617	Foot Pedal Cam
618	Cam Arc Washer
619	Washer Ø8mm
620	Wave Washer Ø8mm
621	Locknut M8 x 1.25
622	Foot Pedal Mounting Weldment
623	SHCS M8 x 1.25 x 20
624	Washer Ø8
625	Turntable Directional Switch
626	SHCS M6 x 1.0 x 16
627	Washer M6 x 12mm Flat
628	Washer M6 Flat
629	Washer Ø5
630	Washer Ø5
631	PHPS M5 x 0.8 x 16
632	Turntable Direction Switch Cam
633	Directional Switch Cam Linkage
634	PHPS M4 x 0.7 x 16
635	Washer Ø4
636	Washer Ø4
637	Washer Ø6
638	Cotter Pin Ø3 x 25

639	Directional Switch Bracket
640	Locknut M6 x 1.0
641	Foot Pedal Rubber Insert
642	Foot Pedal (Left)
643	Foot Pedal Limit Rod
644	Foot Pedal Torsion Spring
645	Torsion Spring Bracket
646	Washer M6 Flat
647	Washer M6 x 12mm Flat
648	PHPS M6 x 1.0 x 12
649	Foot Pedal Shaft
650	Nut M8 x 1.25
651	SHCS M8 x 1.25 x 50
652	Foot Pedal Adjustment Pad (thin)
653	Hex Bolt M8 x 1.25 x 16
654	Spring Lock Washer Ø8
655	big cylinder locating coat
656	Silencer ¼"
657	Barbed Tube Fitting ¼"
658	FTG NPL ¼ NPT
659	Tee Fitting ¼ Female NPT x ¼ NPT
660	Washer Ø8
661	Foot Pedal Adjustment Pad (thick)
662	Air Valve
663	Foot Pedal (Center/Right)
664	Locknut M6 x 1.0
665	Air Valve Connecting Link
666	Foot Pedal Link
667	Foot Pedal Return Spring
668	Air Valve End Cap
669	Silencer ⅛"
670	FTG NPL ⅛" NPT x Ø8mm
671	FTG 90° ⅛" NPT x Ø8mm
672	FTG NPL ¼ NPT x ¼ Female NPT
673	FTG 90° ¼ NPT x ¼ Female NPT
675	Seeger Ring Ø12
676	BB Cylinder Air Valve Assembly
678	Foot Pedal Assembly



The Benchmark of Quality

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