

#### IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

> MAN REV C 06-03-2015 P/N 5900381

# INSTALLATION AND OPERATION MANUAL

1,000 POUND CAPACITY MOTORCYCLE / ATV LIFT

MODEL:

RML-600XL



#### 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 <u>ALL USERS</u> read and understand this manual.



1645 Lemonwood Dr. Santa Paula, CA. 93060, USA Toll Free 1-800-253-2363 Tel: 1-805-933-9970 Fax: 1-805-933-9160 www.bendpak.com

# 1,000 POUND CAPACITY - MOTORCYCLE / ATV LIFT

This instruction manual has been prepared specifically for you. Your new Ranger Motorcycle Lift is the product of continuing research, testing and development; it is the most technically advanced motorcycle lift on the market today. The manner in which you care for and maintain your motorcycle lift will have a direct effect on its overall performance and longevity.

# **PRODUCT WARRANTY**

Duration: From the date of purchase by the original Purchaser or 12 months from the date of shipment or whichever comes first.

• One Year (12-Months) Warranty on equipment structure\*

• One Year (12-Months) Warranty on operating components

• One Year (12-Months) Free-Shipping\*\* on ground-freight charges related to warranty performance

#### **Limited Warranty**

1. Who gives this warranty (Warrantor): BendPak/Ranger, 1645 Lemonwood Dr., Santa Paula, CA 93060

2. Who receives this warranty (Purchaser): The original Purchaser (other than for purpose of resale)

3. What products are covered by this warranty: Any Ranger brand Transmission Jack, Floor Jack, Motorcycle Lift

Platform, Specialty Jack, Shop Crane, Cart/Dolly, Jack Stand, Hydraulic Press, Hose Reel, Shop Equipment\*\*\*

4. What is covered under this warranty: manufacturer defects due to material and/or workmanship with the exceptions noted below.

5. What is not covered under this warranty:

a. Any failure that results from Purchaser's abuse, neglect or failure to operate, maintain or service product in accordance with instructions provided in the owner's manual(s) supplied

b. Any damage caused by using equipment beyond rated capacity and/or capability

c. Items or service normally required to maintain the product, i.e. lubricants, oil, etc.

d. Items considered general wear parts such as rubber or plastic pads/protectors, worn casters/wheels, plastic trays, etc. unless wear or failure is a direct result of manufacturer defect due to material and/or workmanship

- e. Any component damaged in shipment or any failure caused by installing or operating equipment under conditions not in accordance with installation and operation guidelines or damaged by contact with tools or surroundings
- f. Any component failure caused by rain, excessive humidity, corrosive environments or other contaminants
- g. Rusted components due to improper maintenance or corrosive environments

h. Cosmetic defects that do not interfere with product functionality

i. Damage due to incorrect voltage or improper wiring

j. Any incidental, indirect, or consequential loss, damage, or expense that may result from any defect, failure, or malfunction of a Ranger product

k. All electrical components are guaranteed for one year against defects in workmanship and/or materials when the lift is installed and used according to specifications

6. Responsibilities of Warrantor under this warranty: Repair or replace with either new or reconditioned unit at Warrantor's option, component and/or unit which is defective, has malfunctioned and/or failed to conform within duration of the warranty period.

7. Responsibilities of Purchaser under this warranty:

a. Provide dated proof of purchase and maintenance records

b. In some cases, components may be required to be shipped to the nearest BendPak/Ranger Authorized Service Center. Freight costs, after 12 months, must be borne by the Purchaser.

c. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).

8. When Warrantor will perform repair or replacement under this warranty: Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts. For more information please visit: www.bendpak.com/Ranger-Warranty.pdf. (Section: Shop Equipment Warranty).

### WARRANTY IS NOT VALID UNLESS WARRANTY CARD IS RETURNED.

# **IMPORTANT NOTICE**

THESE INSTRUCTIONS MUST BE FOLLOWED TO Ensure PROPER INSTALLATION AND OPERATION OF YOUR LIFT. 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.

## PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION AND OPERATION

# **IMPORTANT NOTICE**

Do not attempt to install this lift if you have never been trained on basic motorcycle lift installation procedures. Never attempt to lift components without proper lifting tools such as a forklift or crane. 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 lift. 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.

### PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

### 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.

# **OWNER'S RESPONSIBILITY**

To maintain the lift 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 lift 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.

### **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. Ranger's willingness to assist in helping you process your claim does not make Ranger responsible for collection of claims or replacement of lost or damaged materials.

### INSTALLER / OPERATOR PLEASE READ AND FULLY UNDERSTAND. BY PROCEEDING YOU AGREE TO THE FOLLOWING:

◆ I have visually inspected the site where the lift is to be installed and verified the concrete to be in good condition and free of cracks or other defects. I understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.

• I understand that a level floor is required for proper installation and level lifting.

♦ I understand that I am responsible if my floor is of questionable slope and that I will be responsible for all charges related to pouring a new, level concrete slab if required.

♦ I will assume full responsibility for the concrete floor and condition thereof, now or later, where the above equipment model is to be installed. Failure to follow Danger, Warning, and Caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.

◆ I understand that Ranger lifts are designed to be operated in indoor locations only. Failure to follow installation instructions may lead to serious personal injury or death to operator or bystander or damage to property or lift.





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. Santa Paula, CA. 93060 1-805-933-9970 www.bendpak.com

### 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.



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

## **IMPORTANT SAFETY INSTRUCTIONS**

Read these safety instructions entirely. Do not attempt to install this lift if you have never been trained on basic motorcycle lift 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 lift.



2. Care must be taken as burns can occur from touching hot parts.

3. Do not operate equipment with a damaged pneumatic hose or if the equipment has been dropped or damaged until it has been examined by a qualified service person.

4. Do not let the pneumatic hose hang over the edge of the table or come in contact with hot manifolds or moving fan blades.

5. Care should be taken to arrange the pneumatic hose so that it will not be tripped over or pulled.

6. Adequate ventilation should be provided when working on operating internal combustion engines.

7. Keep hair, loose clothing, fingers, and all parts of body away from moving parts. Keep hands and feet clear of lift when lowering. Avoid pinch points.

8. Use only as described in this manual. Use only manufacturer's recommended attachments.

9. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.

10. Consider work environment. Keep work area clean. Cluttered work areas invite injuries. Keep areas well lit.

11. Only trained operators should operate this lift. All non-trained personnel should be kept away from the work area. Never let non-trained personnel come in contact with, or operate lift.

- 12. DO NOT override self-closing lift controls.
- 13. Clear area if vehicle is in danger of falling.

14. ALWAYS make sure the safety is engaged before attempting to work on or near a vehicle.

15. MAINTAIN WITH CARE. Keep lift 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.

16. Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect operation of lift. Do not use lift if any component is broken or damaged.



17. NEVER remove safety related components from the lift. Do not use lift if safety related components are missing or damaged.

18. STAY ALERT. Use common sense and watch what you are doing. Remember, SAFETY FIRST.

19. USE LIFT CORRECTLY. Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.

20. When the lift is being lowered, make sure everyone is standing at least six feet away.

21. Be sure there are no jacks, tools or any type of equipment left under the lift before lowering.

22. It is important that you know the load limit. Be careful that you do not overload the lift. If you are unsure what the load limit is, refer to this manual or contact the manufacturer.

# SAVE THESE INSTRUCTIONS

### **TOOLS REQUIRED**

• Open-End Wrench Set: SAE/Metric

Socket And Ratchet Set: SAE/Metric

# **IMPORTANT NOTICE**

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# PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION

STEP 1 (Selecting Site)

Before installing your new lift, check the following.

1. LIFT LOCATION: Always make sure that adequate space is available for your new lift.

2. OVERHEAD OBSTRUCTIONS: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.

3. DEFECTIVE FLOOR: Visually inspect the site where the lift is to be installed and check for defective concrete.

4. Your new Ranger Motorcycle / ATV Lift is designed for INDOOR INSTALLATION ONLY.

### STEP 2 (Floor Requirements)

This lift must be installed on a solid level concrete floor with no more than 3-degrees of slope. Failure to do so could cause personal injury or death.

A level floor is suggested for proper use and installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.

### STEP 3 (General Specifications)

Main Lifting Table	
Side Extensions (Standard)	10" W x 79" L
Approach Ramps	10" W x 14" L
Extended Approach Ramp	13 3/4" W x 14" L
Lowered Height	7 1/16"
Capacity	1000 lb



READ ENTIRE MANUAL AND COMPLY WITH ALL SAFETY AND SERVICE PRECAUTIONS. DEATH, PERSONAL INJURY AND / OR PROPERTY DAMAGE MAY OCCUR UNLESS INSTRUCTIONS ARE FOLLOWED CAREFULLY.

### STEP 4 (Unpacking and Setup)

1. Open carton, then remove ramp and shipping boards.



THE LIFT MAY BE DAMAGED AND/OR PERSONAL INJURY MAY RESULT IF THE PRESSURE EXCEEDS THE MAXIMUM 100 PSI RATING.

2. Connect foot-operated air valve to 100 psi air supply.

3. With lift in the lowered position insert ramp mounting pins into holes at either end of table to mount ramp.

4. Stand clear of lift table, and depress the UP side of foot valve to raise table.

5. Engage Safety Bar and lower lift onto safety by depressing the DOWN side of foot valve.

TO LOWER LIFT:

1. Raise the lift slightly and lift the safety latch and lower to next position or to the floor.



VISUALLY CONFIRM THAT SAFETY LOCK IS ENGAGED BEFORE ENTERING WORK AREA. REMAIN CLEAR OF ELEVATED LIFT UNLESS VISUAL CONFIRMATION IS MADE THAT SAFETY LOCK IS FULLY ENGAGED AND THE LIFT IS LOWERED ONTO THE SAFETY LOCK, REFER TO INSTALLATION / OPERATION MANUAL FOR PROPER SAFETY LOCK PROCEDURES AND / OR FURTHER INSTRUCTION.

# SAFE LIFTING / MAINTENANCE

1. Loads must be centered on table at all times.

2. Loads must be firmly positioned and secured on table at all times.

3. All moving parts have been lubricated at the factory and should be re-lubricated every 6 months to prevent galling. Zerk grease fittings are located at each end of frame pivot shaft and at the top end of inside frame assembly.

4. Lightly oil cylinder rod when it becomes dry.

5. Lubricate piston and piston seal by pumping oil through the air bleed hole in the plate end of the cylinder every 6 months.

6. Pivot shaft set screws should be checked frequently to ensure they are tight. These are located at the top end of the inside frame assembly.

### Step 5 (Wheel Clamp Installation)

1. Align mounting holes of Left and Right Wheel Clamps and bolt to table with hardware provided. Align mounting holes of Tire Stop and bolt to table with hardware provided.

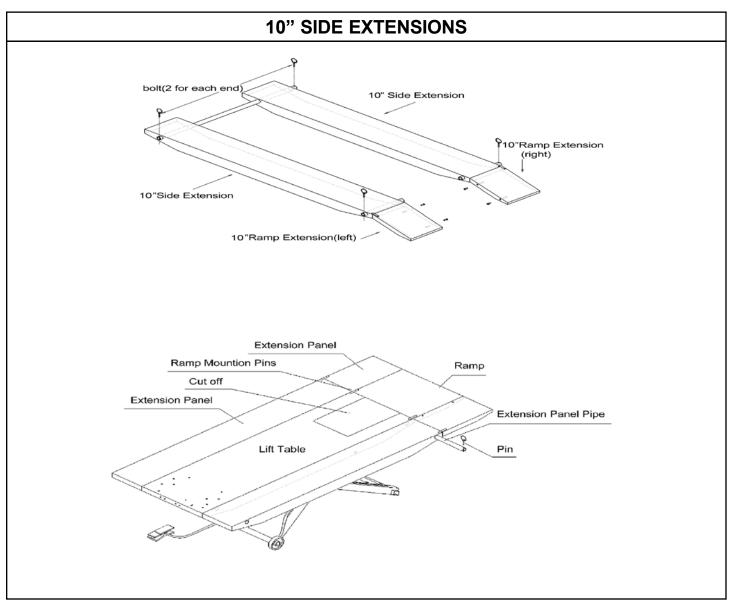
### Step 6 (10" Side Extension Installation)

1. Insert pipes from extension panel package through holes in lift table.

2. Mount panels on ends of pipe on each side of table with ramp hole towards the outside.

3. Secure ramp extensions to ramp with bolts provided. Make sure ramp hooks are positioned on the outside.

4. Insert eye bolt in drilled out hole and tighten with nut. Insert the other bolt, tighten down with nut. Put on the caps and tighten.





# RML-600XL SAFE LIFTING GUIDE



- 1. Center load on table 1000 lb. maximum.
- 2. Connect to 100 PSI maximum shop air.
- 3. Keep safety bar in position at all times except when lowering.
- 4. Keep hands and tools from under table.
- 5. Do not mount table when in elevated position.
- 6. Do not ride vehicle onto lift.
- 7. Lift must be in the lowered position when transporting.
- 8. Only trained operators should use lift.
- 9. The working area should be sufficiently lit.
- 10. Foot controller should be at least 3 feet away from lift during raising and lowering operation.
- 11. Lift is recommended for indoor use only.

# SAFE LIFT OPERATION

Motorcycle lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. Safe operation of a motorcycle lift requires that only trained employees should be allowed to use the lift.

### TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:

- Proper positioning of the vehicle on the table.
- Use of the operating controls.
- Understanding the lift capacity.
- Proper use of jack stands or other load supporting devices.
- Proper use, understanding and visual identification of safety lock devices and their operation.
- Reviewing the safety rules.
- Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

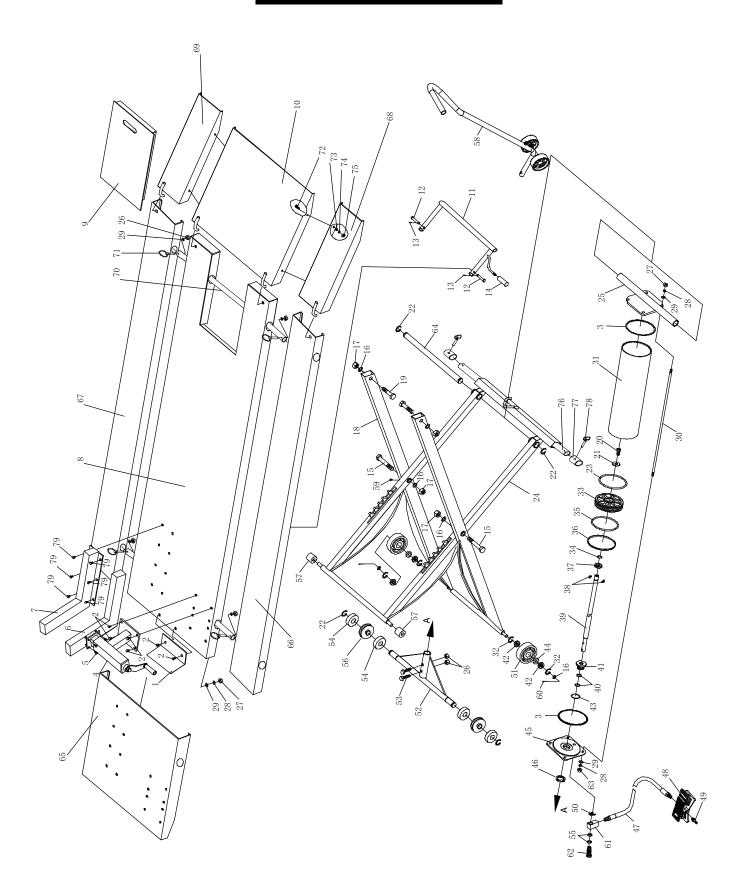
### LIFT OPERATION SAFETY

- It is important that you know the load limit. Be careful that you do not overload the lift . If you are unsure what the load limit is, refer to this manual or contact the manufacturer.
- The center of gravity should be followed closely to what the manufacturer recommends.
- Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, pipes, antennas, etc.) are not in the way.
- Be sure that prior to the vehicle being raised the motorcycle is secured to the table.
- Prior to being raised, make sure there is no one standing closer than six feet from the lift.
- After positioning the vehicle on the lift, make sure the ignition is off, overhead obstructions are cleared, and the transmission is in neutral.
- The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, etc.
- Pay attention when walking under a vehicle that is up on the lift.



- **DO NOT** leave the controls while the lift is still in motion.
- **DO NOT** stand directly in front of the vehicle or in the bay when vehicle is being loaded into position.
- **DO NOT** Go near vehicle or attempt to work on the vehicle when being raised or lowered.
- **REMAIN CLEAR** of lift when raising or lowering vehicle.
- DO NOT rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- Always lower the vehicle down slowly and smoothly.
- ONLY TRAINED OPERATORS should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- USE LIFT CORRECTLY. Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- **DO NOT** override self-closing lift controls.
- CLEAR AREA if vehicle is on danger of falling.
- STAY ALERT. Watch what you are doing. Use common sense. Be aware.
- CHECK FOR DAMAGED PARTS. Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.

# RML-600XL PARTS BREAKDOWN



# RML-600XL PARTS BREAKDOWN

Part #	Description	Qty.	Part #	Description	Qty.	Part #	Description	Qty.
1	Stop plate	1	31	Cylinder	1	61	Revolver	1
2	Bolt M10×25	6	32	Retaining ring	4	62	Joint	1
3	Nylon ring	2	33	Piston	1	63	Nut	4
4	Adjustable shelf	1	34	O-Ring	1	64	Frame/Cylinder pivot shaft	1
5	Bolt M8×16	4	35	O-Ring	1	65	Front extension	1
6	Movable vise assy	1	36	Seal ring	1	66	Left side extension	1
7	Stationary vise assy	1	37	Retaining ring	1	67	Right side extension	1
8	Platform	1	38	Retaining ring	1	68	Left ramp extension	1
9	Removable plate	1	39	Piston rod	1	69	Right ramp extension	1
10	Ramp	1	40	O-Ring	2	70	Support pipe	2
11	Detent bar	1	41	Shaft bushing	1	71	Lifting ring	4
12	Clevis pin	2	42	Cam roller bearing	4	72	Bolt M8×25	4
13	R-pin	2	43	O-Ring	1	73	Lock washer Ø8	4
14	Handle socket	1	44	Retaining ring	2	74	Washer Ø8	4
15	Bolt M16×130	2	45	Front cap	1	75	Nut M8	4
16	Washer	6	46	Nut	1	76	Pipe	1
17	Lock nut M16	4	47	Air hose	1	77	Pipe sleeve	2
18	Lifting arm	1	48	Foot-operated air valve	1	78	Pin	4
19	Bolt M16×80	2	49	Air hose connector	1	79	Bolt M10×16	6
20	Bolt M12×25	1	50	Retaining ring	1			
21	Press ring	1	51	Wheel	2			
22	Retaining ring	4	52	Connection	1			
23	O-Ring	1	53	Bolt M10×45	2			
24	Lifting arm	1	54	Cam roller bearing	4			
25	Cylinder end plate	1	55	O-Ring	2			
26	Lock nut M10	12	56	Cam bearing spacer	2			
27	Nut M10	16	57	Roller	2			
28	Lock washer Ø10	8	58	Mobile car	1			
29	Washer Ø10	18	59	Lube mouth	4			
30	Stay bolt	4	60	R-pin	2			



p/n 5900381

#### For Parts or Service Contact:

BendPak Inc. / Ranger Products 1645 Lemonwood Dr. Santa Paula, CA 93060 Tel: 1-805-933-9970 Toll Free: 1-800-253-2363 Fax: 1-800-933-9160

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