Operator’s Information

ROCKLAND
LRC LOADER RAKE WITH CLAMPS
S/N 150862

Read and follow all safety instructions. Return the Warranty Validation to Rockland® within 10 days of installation to protect your warranty.

- Warranty
- Operation
- Installation
- Maintenance
- Parts
WARRANTY

ACTIVATE YOUR WARRANTY!
There are multiple ways to activate your warranty. You can go to www.rocklandmfg.com and fill out our simple warranty activation form. Also see enclosed flyer (ACTIVATE YOUR WARRANTY!) for alternate ways. Either of the options must be completed within ten days of installation to activate the warranty. Please don't forget this important step for prompt, hassle-free warranty service.

WARRANTY INFORMATION
Your Rockland product is guaranteed for two years or 4,000 hours against any failure due to defective material, design or workmanship. Call your dealer immediately if any problem occurs that might be covered by this warranty. Do not attempt repairs or service without contacting your dealer first. Rockland is not responsible for any warranty work that is performed without our approval.

PAINT
Rockland paints some quick ship products grey or black. On all other products, Rockland makes every effort to match the color of your machine. However, try as we might sometimes, due to paint lots and aging, we cannot guarantee a perfect match. Your understanding is appreciated.

FOR PARTS
Call your dealer if you need optional equipment, parts or service. Your dealer is prepared to provide parts and service whenever required. Have your attachment serial number ready to give to our parts department.

NEED MORE INFORMATION? Call the Rockland Hot Line at 800-458-3773. We will be glad to answer any questions. If there is something wrong or if you think we can do better, please tell us. Use the HOT LINE or e-mail us at service@rocklandmfg.com

ROCKLAND WEB SITE - www.rocklandmfg.com
It's all there - equipment guaranteed to increase machine productivity!

DEALER INSTALLATION RESPONSIBILITY
It is the Rockland dealer’s responsibility to properly install this product on the machine for which it was ordered and to make certain that the installation is done in accordance with the instructions set forth by both Rockland and the manufacturer of the machine.

OWNER’S INFORMATION
It is important that the owner and operator of this product be properly instructed by the dealer in the safe operation and proper maintenance of the product and the machine on which it is installed. One copy of this book is provided free of charge at the time of shipment. Additional copies are $10.00 each.

Thank you for purchasing a Rockland product.
INSTALLATION

1. Install your Rockland loader rake on your machine in place of the factory bucket.

2. Use standard factory bucket pins and hardware or the coupler on your loader. Some loaders have Quick Coupler mounting pins that are different from bucket pins. If your loader is equipped with a Quick Coupler and the coupler is being removed, be sure you use mounting pins for the pin-on bucket.

   NOTE: On some machines the link or lift arm pins cannot be installed without first removing the appropriate cylinder pin and swinging the cylinder out of the way.

NOTE: There are shipping supports welded between the clamp and frame. These supports are painted red for easy identification and must be removed before operation. Cut the support next to the weld and grind the weld flush with the structure surface.

3. Follow all installation and safety procedures set forth in your loader manual. Your machine must be equipped with a three-spool valve and lift arm piping. The attachment has the necessary piping and hydraulics, including jumper hoses, to connect to the lift arm piping.

   WARNING

   DON’T FORGET TO DO THIS!
   Inspection after installation is extremely important! After the product is installed, it must be slowly cycled through every possible operating position and inspected for any possible interference between the Rockland product and the machine. Rockland is not liable for any damages caused as a result of failure to follow this important procedure.

   CAUTION

   Support the clamp tip and product frame so it does not move when supports are removed. Failure to support the frame and clamp tip during support removal can cause injury.

   CAUTION

   DON’T attempt to operate your machine equipped with a Rockland® product UNTIL YOU HAVE BEEN FULLY TRAINED ON SAFE OPERATION OF THE MACHINE!
OPERATION

ALWAYS...

Always travel with the clamp closed. Traveling with the clamp open causes premature pin and bushing wear.

Always lubricate clamp pivots on a regular basis--weekly or daily, depending upon how often they are used.

Always do a daily walk around of the rake and clamp before operating at the beginning of each shift to check for any missing parts or evidence of any structural problems and if any are noted, replace or repair immediately.

Always check for overhead obstructions:
- when backing
- when turning
- when loading
- when unloading

The clamp is designed for squeezing and gripping. Like any good tool it is designed for a specific job and if improperly used can be severely damaged. Proper care and use of the clamp is the responsibility of the owner and operator. There is absolutely no warranty on clamps that have been damaged due to improper or careless operation. Don’t ever use the clamp for any of these things:

NEVER...

Never use the clamp as a bulldozer.

Never travel with the clamp partially open.

Never use the clamp to push or pull trucks.

Never dig, rip or pry with the clamp.

CAUTION

DON’T attempt to operate your machine equipped with a Rockland® attachment UNTIL YOU HAVE BEEN FULLY TRAINED ON SAFE OPERATION OF THE MACHINE ITSELF!
Proper jumper hose installation is the responsibility of the dealer. The routing must take into consideration all operating positions of the attachment. The attachment must be slowly cycled through all operating positions to make sure there are no pinch or chafe points and that the hoses don’t drag on the ground.

**HYDRAULIC HOSE & FITTING INSTALLATION**

**NOTICE:** The jumper hoses are long enough! In fact, they may be a bit too long for your installation, that’s why we equip them with reusable fittings.

The hose type is printed on the side of the hose. Follow the procedures that apply to your hose type.

**For Type T28A**

1. Cut hose to length required using a fine-tooth hacksaw or cut-off machine. Clean hose bore. (See Fig. 1)

   ![Fig. 1](image1)

2. Liberally lubricate hose cover with Aeroquip hose assembly lube. Place socket in vise and turn hose into socket counterclockwise until it bottoms. **NOTE:** When assembling long lengths of hose, it may be preferable to put hose in vise just tight enough to prevent from turning, and screw socket onto the hose counterclockwise until it bottoms. (See Fig. 2)

   ![Fig. 2](image2)

3. Lubricate nipple threads and inside of hose liberally. Use heavy oil or Aeroquip 222070 hose assembly lube. (See Fig. 3)

   ![Fig. 3](image3)

4. Screw nipple clockwise into socket and hose. Leave 1/32" to 1/16" clearance between nipple hex and socket. (See Fig. 4)

   ![Fig. 4](image4)

**For Type 2781**

1. Cut hose to length required using a fine-tooth hacksaw or cut-off wheel. Clean hose bore. Hose must be stripped of its rubber cover before inserting in socket. Locate skiving point by putting hose end next to socket. Measure from hose end or socket to notch on socket. (See Fig. 5)

   ![Fig. 5](image5)

2. Cut rubber cover around down to wire reinforcement. Slit lengthwise. Raise flap and pull off with pliers. Clean excess rubber off wire reinforcement with wire brush or soft wire wheel. Do not fray or flare wire reinforcement when brushing. (See Fig. 6)

   ![Fig. 6](image6)

3. Put socket in vise. Screw hose into socket counterclockwise until it bottoms out. When assembling long lengths of hose, it may be preferred to put hose in vise just tight enough to prevent from turning and screw socket onto the hose counterclockwise until it bottoms. (See Fig. 2)

4. Lubricate nipple threads and inside of hose liberally. Use heavy oil or Aeroquip 222070 hose assembly lube. (See Fig. 3)

5. Screw nipple clockwise into socket and hose. Leave 1/32" to 1/16" clearance between nipple hex and socket. (See Fig. 4)

**Disassemble in reverse order.**
MAINTENANCE

Proper maintenance will extend the life of your Rockland product.

- Inspect your attachment daily for stress cracks and wear.
- Immediately contact Rockland at 800-458-3773 upon discovering stress cracks. If stress cracks are ignored and allowed to grow before Rockland is informed of the problem, then some costs of repair may not be covered by Rockland and serious injury or damage may result.
- Check for wear in the mounting bracket. Replace pins and bushing when play increases.
- Check hydraulic system and cylinders daily. Repair any leaks.
- Replace worn parts as needed with Rockland original parts.

SAVE YOUR CYLINDER

1. Take care of cylinder seals because they will take care of you! Seals are wear items and must be periodically replaced. If you don’t replace cylinder seals promptly, you may dramatically shorten the life of the machine’s pump and control valves.

2. New seals have sharp edges that wipe the oil off the rod. Over time, they become rounded and let more and more oil remain on the rod which attracts more and more dirt every time the rod is extended. When cylinder rods have enough oil on them to attract and hold dirt particles, those particles eventually work their way into the cylinder and the hydraulic oil. Once the dirt gets in the oil, it can mess up a valve by getting between the valve spools and the valve body and will damage the finely machined surfaces that are essential for proper operation. When seals are worn to the extent that there is an obvious amount of fluid on the rod, it’s time for replacement.

3. Keep your oil clean - follow all procedures recommended by the machine manufacturer and remember the importance of replacing your cylinder seals at the first sign of too much oil on cylinder rods.

PAY ATTENTION TO LUBRICATION!

If you do not properly lubricate the rodeye of the cylinder, it is likely to seize on the pin. When the rodeye does not pivot freely on the pin, it puts side loads on the cylinder rod as the cylinder is extended and retracted. Side loads will cause premature seal wear, and they are frequently caused by lack of proper lubrication.

ROCKLAND IS NOT LIABLE FOR:

Oil loss caused by leaks in the hydraulic system. Owners are responsible for maintaining the hydraulic system according to the manufacturer’s instructions.

Damage or injuries resulting from the failure to maintain the hydraulic system, or as a result of operating the equipment or Rockland product at temperatures exceeding safe limits.

Damage to the Rockland product or the machine caused by the loss of oil resulting from poor workmanship or improper maintenance by either the owner, dealer, or their representatives.

Replace worn parts as needed with Rockland® original parts. Rake tooth tips can be ordered for your attachment from Rockland®.

Replacement Tooth Tip
**LOADER RAKE WITH CLAMPS PARTS LIST**

Order replacement parts from your dealer. Product serial number must accompany parts orders.

<table>
<thead>
<tr>
<th>KEY NO.</th>
<th>PART NO.</th>
<th>QTY.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>2001</td>
<td>2</td>
<td>Pin</td>
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<td>3</td>
<td>2003</td>
<td>2</td>
<td>Bolt, Locknut</td>
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<td>4</td>
<td>10-4270</td>
<td>2</td>
<td>Hydraulic Cylinder</td>
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<tr>
<td>5</td>
<td>2004</td>
<td>2</td>
<td>Pin</td>
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<td>6</td>
<td>2005</td>
<td>2</td>
<td>Bolt, Locknut</td>
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<tr>
<td>7</td>
<td>2006</td>
<td>*A/R</td>
<td>Tooth, Upper</td>
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<td>8</td>
<td>2007</td>
<td>2</td>
<td>Clamp</td>
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<td>9</td>
<td>2008</td>
<td>*A/R</td>
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<td>10</td>
<td>2009</td>
<td>2</td>
<td>Pin</td>
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<td>11</td>
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<td>Bolt, Locknut</td>
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<td>12</td>
<td>2011</td>
<td>*A/R</td>
<td>Gusset</td>
</tr>
<tr>
<td>13</td>
<td>2012</td>
<td>1</td>
<td>Tree Grabber</td>
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</table>

*A/R= As Required*
### CYLINDER 10-4270 PARTS

Order replacement parts from your dealer. Product serial number must accompany parts orders.

<table>
<thead>
<tr>
<th>KEY NO.</th>
<th>PART NO.</th>
<th>QTY.</th>
<th>DESCRIPTION</th>
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<tr>
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<td>18-0001</td>
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<td>Lube Fitting</td>
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<tr>
<td>2</td>
<td>18-4623</td>
<td>1</td>
<td>Headcap - Torque to 1200 ft. lbs.</td>
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<tr>
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<td>18-0013</td>
<td>1</td>
<td>Set Screw</td>
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<td>4</td>
<td>18-1337</td>
<td>1</td>
<td>Buffer Ring</td>
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<td>5</td>
<td>18-4771</td>
<td>1</td>
<td>Tube Assembly (Includes #1, 10)</td>
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<td>6</td>
<td>18-3337</td>
<td>1</td>
<td>O-Ring</td>
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<td>7</td>
<td>18-3331</td>
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<td>8</td>
<td>18-3334</td>
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<td>Piston Bearing</td>
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<td>18-1335</td>
<td>1</td>
<td>Wiper Ring</td>
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<td>10-4189</td>
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<td>Bushing</td>
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<td>11</td>
<td>18-4619</td>
<td>1</td>
<td>Piston Apply Loctite 242 Torque to 1100-1200 ft/lbs</td>
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<td>12</td>
<td>18-4769</td>
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<td>Rod Assembly (Includes #1, 10)</td>
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<td>18-1338</td>
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<td>1</td>
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<td>Piston Seal</td>
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<td>18-3336</td>
<td>1</td>
<td>Set Screw Apply Loctite 242 Torque to 35 ft/lbs</td>
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</tbody>
</table>

**NOTE:** When service is done to the cylinder, the set screws must be replaced and all parts that have a torque specification must be checked and proper torque applied as listed. If a service kit is to be ordered, Loctite must be used on parts that require it and then torque. Failure to properly service or properly torque parts can result in severe damage and void your warranty.

**Cylinder Lengths**

Retracted ... 26-7/8''
Extended ... 40-7/8''

Port Size: 3/4-16 Thread SAE O-Ring
A. Disconnect the battery ground cable to prevent damage to the machine’s electrical system.

B. Existing welds should always be removed with a carbon arc, grinder or pneumatic chipper. Oxyacetylene torches should not be used because they produce a carburized surface. Carburization can cause weld cracks.

C. If a carbon arc is used, the area should be ground clean to remove all carbon deposits.

D. Remove any grease, oil, rust, paint or mill scale from all surfaces that are to be welded.

E. Use AWS E-7018 low hydrogen rod for manual electrode welding. For semi-automatic gas shielded arc, use AWS E70T-1 wire or AWS E70T-2. Electrodes must be dry and stored according to the electrode manufacturer’s recommended procedures.

F. Preheat all areas being welded to 300°. Slowly heat from the opposite side of the plate being welded. Check temperature on weld side 3” from the center line of weld. Maintain a 300° temperature while welding. All welds must be allowed to slowly cool. Do not quench with water. In cold weather, do not permit drafts over welds that are cooling.

G. Use stringer beads. Do not create wide beads because they cause severe shrinkage and may crack while cooling.

H. Do not exceed 450° interpass temperature. Check the interpass temperature at the beginning of the most recent weld with a 450° thermal crayon. If it does not melt, continue welding.

I. When a long continuous weld is required, do not start a weld at one end and continue to the opposite end. Run short beads always backstepping them to assure a quality weld.