

BendPak Technical Service Bulletin

RML-1500XL Motorcycle Lift – Air Driven Hydraulic Pump Kit

BendPak TSB 133-032024

The purpose of this Technical Service Bulletin (TSB) is to provide instructions for replacing the current Air Hydraulic Pump (5323225) in favor of the new Air Driven Hydraulic Pump Kit (5210479) on all RML-1500XL Motorcycle Lifts.

⚠ WARNING: Always wear proper OSHA-approved Personal Protective Equipment (PPE) while servicing Hydraulics and Lifts. Leather Gloves, Safety Glasses and Steel Toed boots are minimum requirements.

Tools and Supplies required:

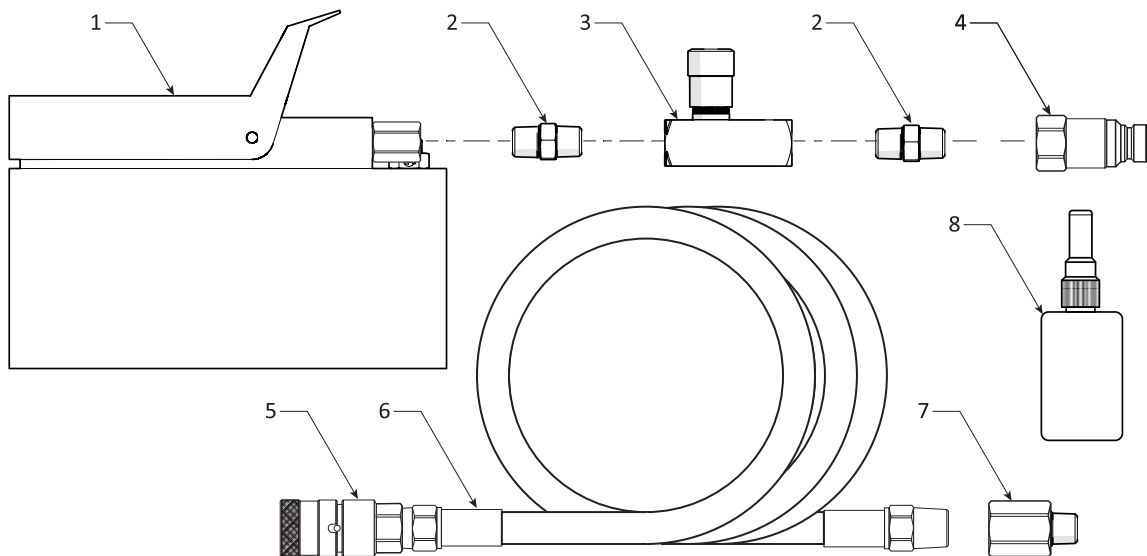
- Open-end wrench set.
- Container for waste Hydraulic Fluid
- Hydraulic Fluid absorbing material
- Clean Shop Towels
- 1/4-18NPT Air Line Connection fittings for customer supplied compressed air. 40 to 120psi at 98 to 105 in.³/min.

To Install the Hydraulic Pump Kit (5210479):

1. Inspect the Kit:

Item	Description	Part Number	Qty.
1	Air Driven Hydraulic Pump	5585737	1
2	Straight Nipple 3/8 NPTF x 3/8 NPTF	5550077	2
3	Flow Control Valve	5590115	1
4	Male Hydraulic Quick-Connect	5550014	1
5	Female Hydraulic Quick-Connect	5550015	1
6	Hydraulic Hose Assembly Ø10 x 2,134 mm	5570281	1
7	Straight Expander 1/4 NPTF Male x 3/8 NPTF Female	5550209	1
8	Thread Sealant	5580012	1

2. Raise the Lift and bring it to rest on the top lock to provide access to the Hydraulic Cylinder and its fittings.



⚠ DANGER **Crushing hazard and pinch points.** Do not place any part of your body between the top deck and any moving part of the Lift unless visual confirmation is made that the safety lock is fully engaged, and that the Lift's downward motion is blocked by a Jack Stand, Forklift or other Load-Holding device that will prevent the Lift's downward movement while working under it.

3. Block the Lift with a Jack Stand or other equal device that will stop the downward movement of the Lift while you are performing this procedure.
4. Release the pressure in the Hydraulic System by pressing the down pedal for a few seconds.
5. Retrieve a container for the waste Hydraulic Fluid.

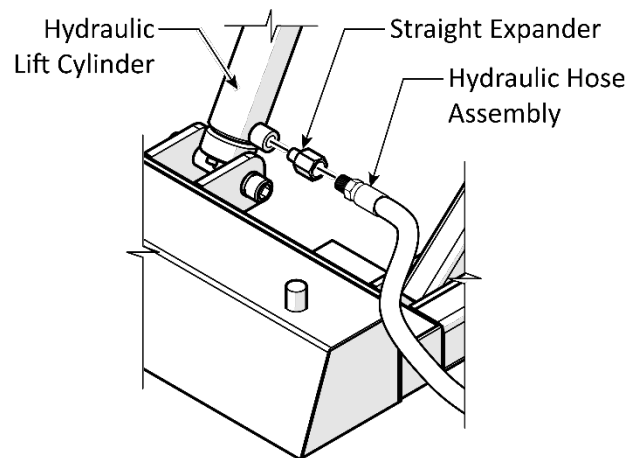
⚠ WARNING: Always wear proper OSHA-approved Personal Protective Equipment (PPE) while servicing Hydraulics and Lifts. Leather Gloves, Safety Glasses and Steel Toed boots are minimum requirements.

6. Place a shop towel under the current pump. Remove the Hydraulic Hose at its connection point to the existing hydraulic pump. Immediately place the Hose into the container for waste Hydraulic Fluid and allow the hose to drain.
7. Remove the Hose and its fittings from the Hydraulic Cylinder under the Lift. Place a shop towel under the port to catch fluid draining from the Cylinder.
8. Promptly clean and remove spilled Hydraulic Fluid.
9. After removal, the Hydraulic Pump, the Hose, waste fluid and any absorbent material used to clean spilled fluid must be disposed of in accordance with national and local environmental regulations.
10. Carefully clean the hydraulic port threads at the bottom of the Lift Cylinder. Remove any thread sealing tape or old thread sealant. Take care not to force debris into the Cylinder or damage the threads while cleaning.
11. Verify all new Hydraulic Fittings and components are clean and dry. Remove any plastic shipping plugs from the fittings and the Pump.
12. Retrieve the Straight Expander Fitting (7). Skipping the first thread, apply a small amount of Thread Sealant (8) to the next four threads on the male side of the fitting. *Only apply the thread sealant when the ambient temperature is between +46.5°F to +70°F (+8°C to 21°C).*

⚠ WARNING Always wear proper protective equipment when handling Thread Sealant.

Only a small amount is required. The sealant will spread to the other threads as it is tightened into place. Any excess liquid will be pushed out as the Fitting is tightened. Use a shop towel to wipe away any excess fluid.

13. Tighten the Fitting into the Hydraulic Cylinder's Port. *Do not over tighten the Fitting.* Refer to the figure on the right.
14. Retrieve the Hydraulic Hose Assembly (6) with female Quick-Connect (5). Apply a few drops of thread sealant to the Male threads and thread the Hydraulic Hose Assembly into the Straight Expander just installed.



- Retrieve the new Hydraulic Pump (1) from the Kit and one of the straight 3/8 NPTF Nipples (2). Remove any shipping plugs from the new Pump.

⚠ CAUTION! Thread the fittings in by hand before tightening with a wrench to prevent cross threading. **Always support the neighboring fitting with a wrench to prevent damaging the valve or its fittings while tightening.**

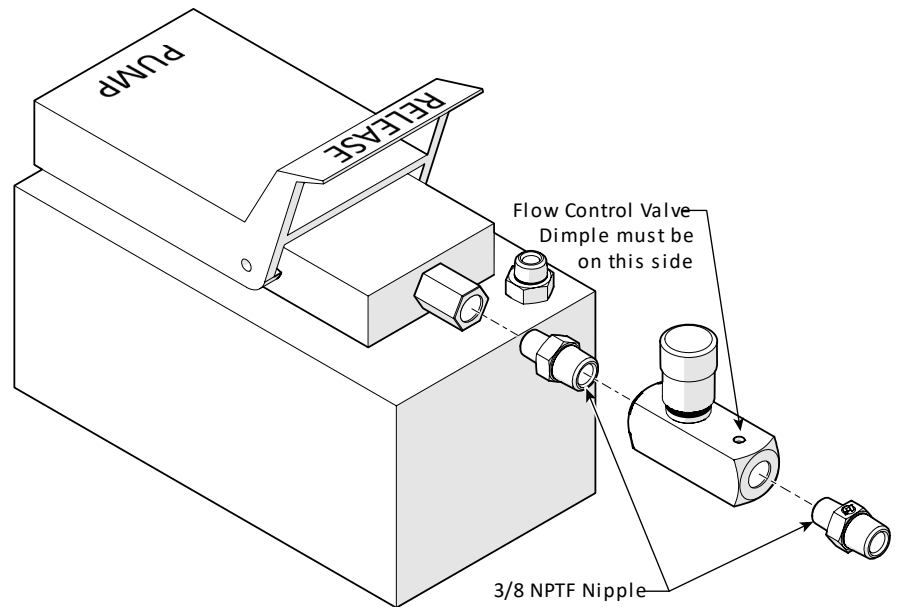
16.

- Apply a few drops of Thread Sealant to the male threads on one end of the 3/8 NPTF Nipple and thread that side of the fitting into the Hydraulic Pump by hand, then tighten with a wrench. Refer to the figure below.

- Apply a few drops of thread sealant to the threads at the open end of the 3/8 NPTF Nipple just installed.

- Retrieve the Flow Control Valve (3).

Note! The dimple on the top of the Valve body is used to orient the valve's installation direction. Refer to the figure below. The Dimple **must** be mounted away from the pump to ensure the flow direction is correct. Install the Valve onto the 3/8 NPTF Nipple.

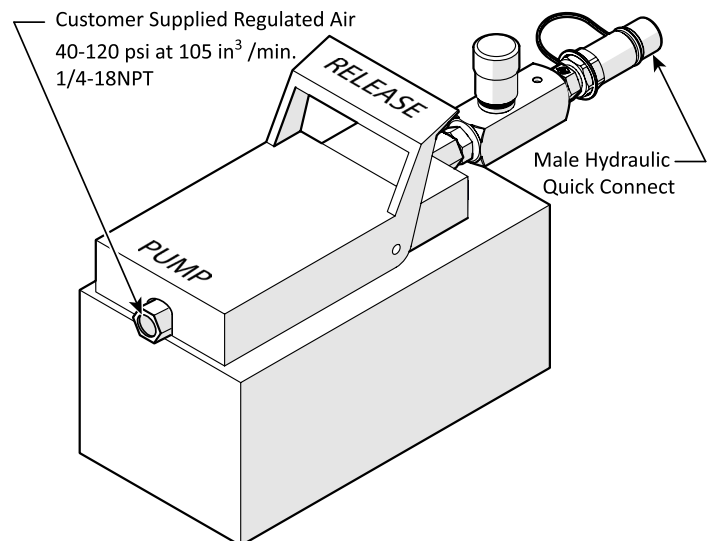


- Retrieve the remaining straight 3/8 NPTF Nipple. Apply a few drops of thread sealant on one side of the Nipple and thread that side into the Flow Control Valve, then tighten with a wrench.

- Apply a few drops of Thread Sealant to the threads at the end of the 3/8 NPTF Nipple.

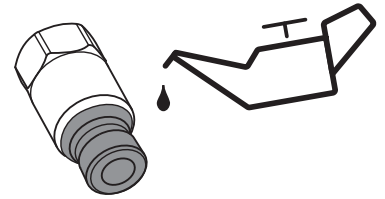
- Thread the Male Quick-Connect Fitting (4) onto the 3/8 NPTF Nipple, then tighten with a wrench.

- The Compressed Air supply and mating fitting is the customer's responsibility. Apply thread sealant to an appropriate fitting and then thread and tighten into the pump's air inlet. Refer to the figure on the right.

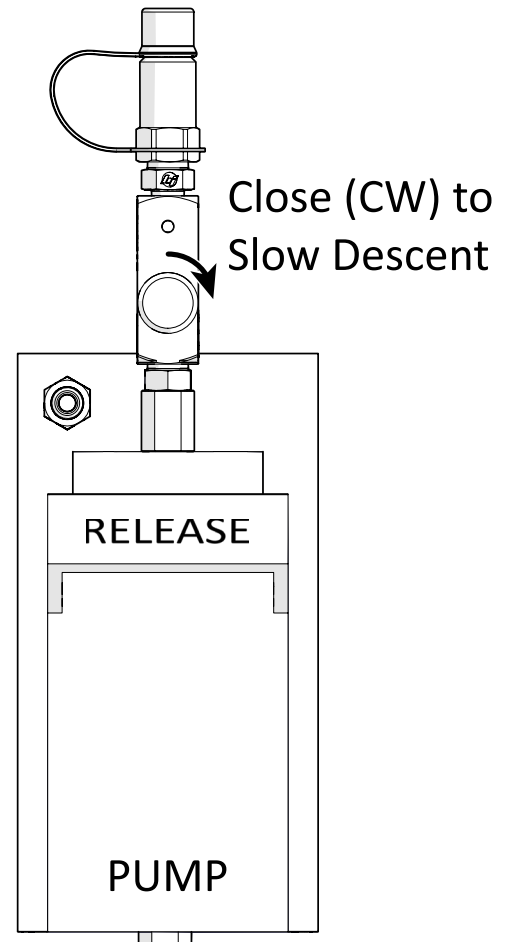
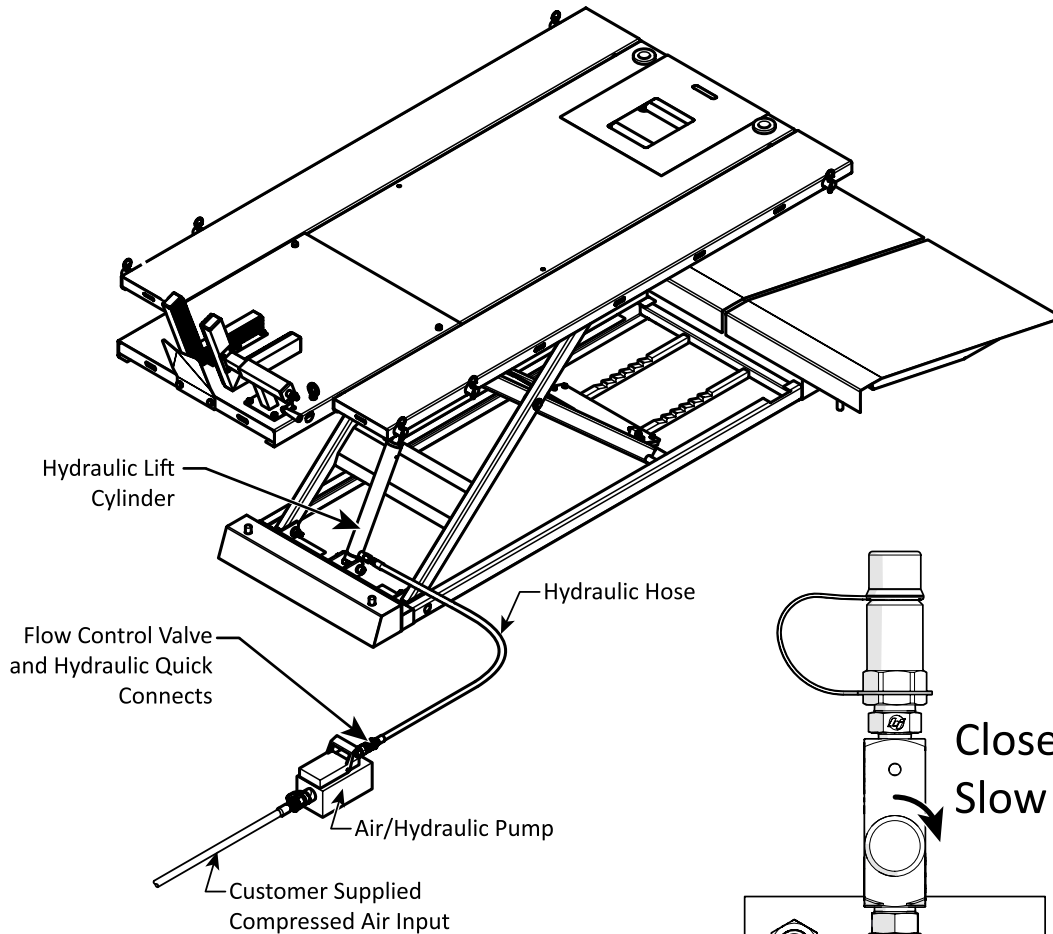


IMPORTANT! Allow the thread sealant to cure for the manufacturer's recommended 24 hours prior to applying hydraulic pressure to the system.

24. Prior to mating the Quick-Connects, liberally coat the exterior of the male Quick-Connect fitting with hydraulic fluid. This will ensure that the internal O-ring seals will move smoothly over the mating surfaces without tearing.



25. Connect the Hydraulic Hose to the Pump using the Quick-Connects. The pump is delivered with Hydraulic Fluid already in the reservoir.



26. Connect to a compressed air supply (40-120 psi at 98 to 105 in³/min.) Refer to the figure above.

27. Step down on the pedal labelled **PUMP** for a few seconds to raise the Lift off its Safety Locks.

28. Look for Hydraulic Fluid leaks. If leaks are detected return the Lift to its Safety Locks and tighten any fittings as required.

29. Remove any Jack Stands or Forklift blocking the Lift's downward movement.

30. Close the Flow Control Valve by turning the valve Clockwise (CW) until the valve stem stops, then **open the valve no more than a 1/4 turn**. Refer to the figure on the right.

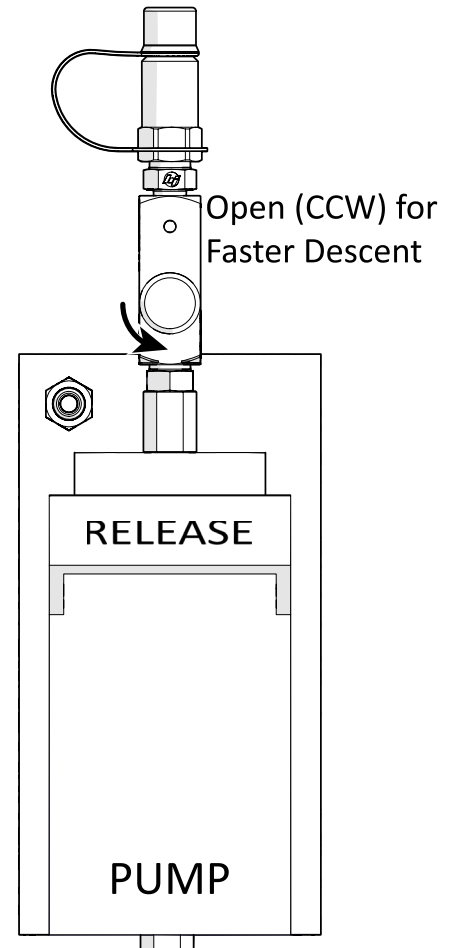
⚠ WARNING! Failure to close the Flow Control Valve may result in rapid platform descent and possible severe injury.

31. Move the Safety Lock control to the **Off** Position (Up). Slowly step on the Pump's **RELEASE** pedal.
 - a. **If the Top Deck Lowers too quickly**, release the foot pedal, and close the Flow Control Valve (CW) slightly to reduce the speed.
 - b. **If the Top Deck moves too slowly**, release the foot pedal, and open the Flow Control Valve (CCW) slightly to increase the speed.

⚠ WARNING! Make **small adjustments** to the Flow Control Valve and then test for effect. Large adjustments may result in rapid descent.

32. Once the desired lowering speed is achieved, continue to hold the **RELEASE** pedal until the Lift returns to the ground.
33. Raise and lower the Lift several times to bleed air from the system.
34. Refer to the Lift Installation and Operation Manual (5900183) for further instructions and safety information.

IMPORTANT! The Hydraulic Pump will run with either dry or lubricated compressed air. Lubricated air is preferred to extend the life of the internal pump components. Air Supply requirement is 40 to 120 psi at 98 to 105 in³/min.



Component and Waste Fluid Disposal

The Hydraulic Hoses, Fittings, and the Power Unit itself must be disposed of in accordance with current national, state, and local regulations governing the use and disposal of hazardous materials. These components and any used Hydraulic Fluid **must not** be disposed of by dropping it into the trash or dumping it into the street. The Hydraulic Fluid contains toxic ingredients that are harmful to the environment. These components and the Hydraulic Fluid are required to be recycled or must be delivered to a hazardous waste collection facility. If you have large amounts of Hydraulic Fluid, consider contacting a commercial waste disposal company. In all cases, the best approach is to find an appropriate facility and contact them — in advance — to ask them: what kinds of fluids and materials they accept, what kind of containers it must be in, what hours they are open, their location, and any other information specific to their facility. If you are unable to find an appropriate facility, the website earth911.com has resources that may be of help.

⚠ WARNING! Do not operate the Lift if there are maintenance or operation issues; instead, take the Lift out of service, then contact the dealer, visit bendpak.com/support, email support@bendpak.com, or call **(800) 253-2363** select option 7, then 4.

