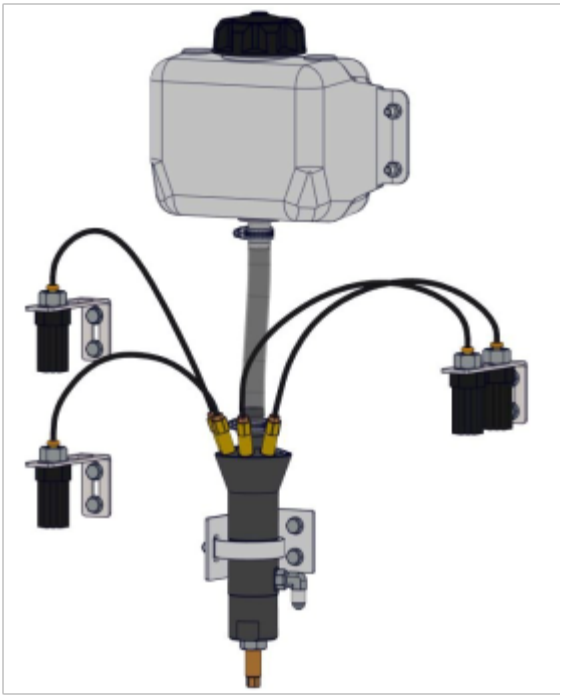


Installation Instructions:
Universal LubeMinder® Kit

Read all instructions carefully before beginning installation.
Do not attempt to service any machine without exercising the mandatory safety shut down procedure as described in the operators manual.
Installing this kit will require working near the tongue of a machine.
Support the tongue following the OEM recommend procedure for service.
Prevent the machine from moving by chocking the wheels.
Make sure all hydraulic pressure is removed from the entire system.
This includes all gates, cylinders, doors, booms, etc.

NOT INCLUDED

1. Hydraulic Hose: A hydraulic hose with one #4 JIC female end is required to run from the oiler pump to the equipment's hydraulic cylinder. See local dealer for information.
2. A tee to tie hydraulic line into pump.
3. 30 Weight Oil: LubeMinder® requires clean 30 weight oil. In colder conditions 10 weight oil may be used.

TOOLING REQUIRED

1. Drill
2. Adjustable or SAE Wrenches
3. Pliers
4. Flat Blade Screwdriver
5. 3 mm Hex Wrench
6. Drill Bit Set (Optional)

DESCRIPTION

The LubeMinder® automatic oiler provides a desired amount of oil to any chain or sprocket. **The system functions off of a 300psi or greater double acting hydraulic cylinder.** The pump actuates each time the equipment's hydraulic cylinder operates. This insures the machine is oiled in direct proportion to the number of cylinder cycles resulting in automatic hourly service per factory recommendation.

INSTALLATION

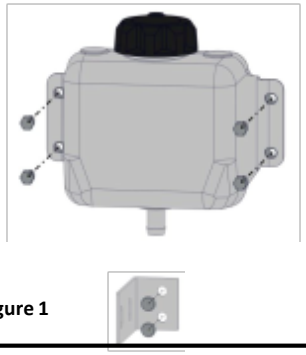


Figure 1

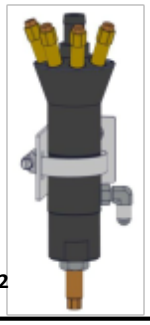


Figure 2

1. Mount the oil reservoir to side of machine closest to the double acting hydraulic cylinder. Using the tank as a template, mark and drill four 7/32" holes. Secure the tank with self tapping screws. See figure 1
2. Using self tapping screws, mount pump bracket approximately 1'-3' below the reservoir. Attach pump to bracket using provided hose clamp. Pump must be mounted in upright position. See figure 2
3. Cut the 5/8" ID hose as needed to connect oil reservoir to pump. Slide the two supplied hose clamps down the hose and secure one to each end of the pump and reservoir tank.
4. At this time, pour approximately 1/8 cup of clean 30 weight oil into the reservoir tank. This allows ample time for the oil to prime the pump and purge all of the air out. Note: Never use used engine oil
5. Once the entire installation is complete, finish filling reservoir tank.
6. Locate the hydraulic cylinder on the equipment. NOTE: The hydraulic cylinder in which the pump will tie in to must be double acting and reach a minimum pressure of 300psi. Disconnect the hydraulic fitting located on the RETURN side of the cylinder
7. Install Tee (not included) on RETURN side of hydraulic cylinder.
8. Route hydraulic line (not included) from hydraulic cylinder to LubeMinder®. Connect the end of the hose to #4 JIC fitting on side of LubeMinder® pump.

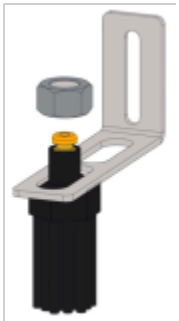


Figure 3

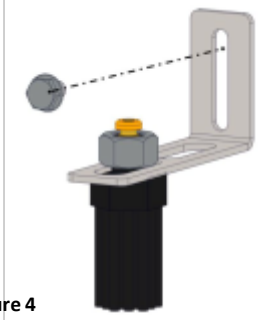
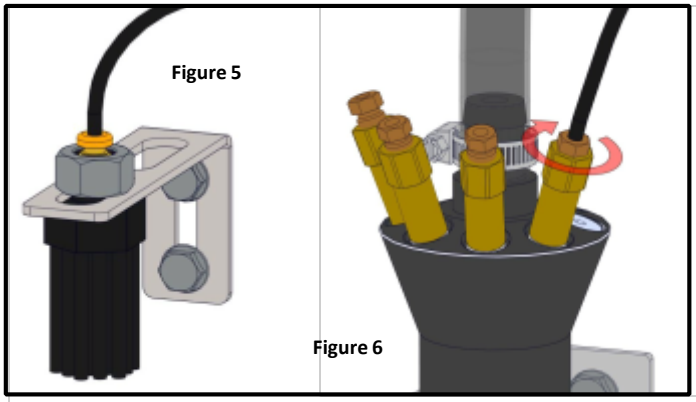


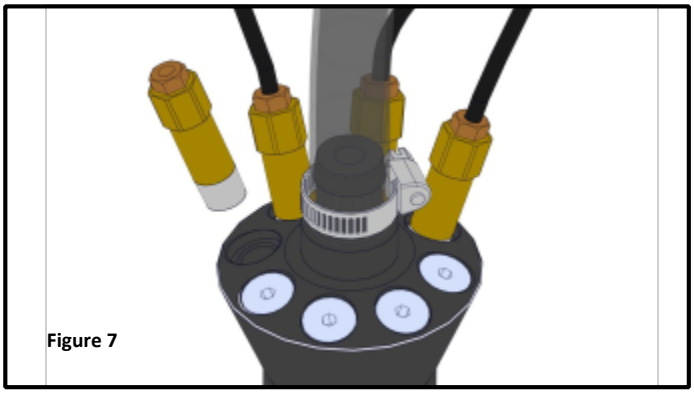
Figure 4

9. Install brushes on to the desired brackets using the 1/2-20 nuts
10. (nuts should only be finger tight at this point as minor adjustment
11. may be necessary). See figure 3
12. Place the brackets over the chain and on top of the sprocket. Using the bracket as a template, mark and drill one 7/32" holes. Secure the bracket with the self tapping screws. See figure 4
13. Adjust brackets so that the brushes are pressing down on the chain approximately 1/2". Snug up the 1/2" nuts on the brushes. Be sure not to overtighten nut as damage may occur to brush.
14. Repeat steps 10-12 for all brushes necessary.
15. Route oil lines. Use push-to-connect fitting on top of brush to secure tubing. Verify that the line is fully seated into the bottom of the push-to-connect fitting. Tubing can be removed from push-to-connect fitting by pressing downward on orange ring. See figure 5
16. NOTE: A small amount of 1/4" black tubing has been provided to use as a protective cover if needed around sharp or rough edges.

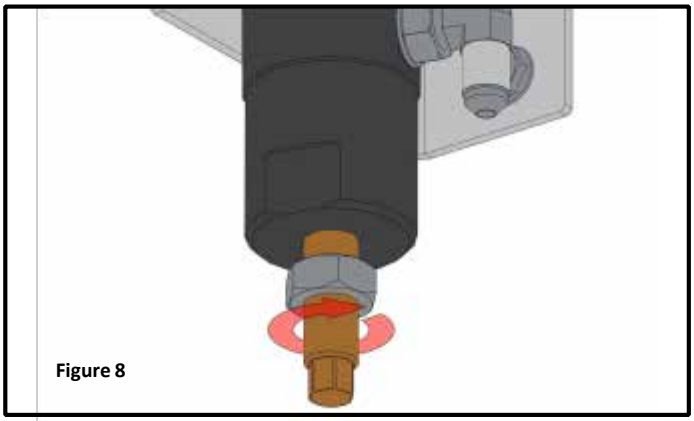
INSTALLATION *cont.*



13. Connect the 5/32" tubing into the manifold fitting located on the top of the oiler pump. Verify that the line is fully seated into the bottom of the manifold assembly. Cut and remove excess tubing.
14. Using a 5/16" wrench, snug the line into place by tightening brass fitting on the manifold assembly. See figure 6
15. Repeat steps 12-13 for the remaining oil lines



16. If less than four brushes are required, remove additional manifold assemblies using a 7/16" adjustable wrench.
17. If additional manifold assemblies are removed, use a 3 mm hex wrench to seal open pump port/s with provided plugs.
18. Verify that all brackets and fittings are tight. Replace and guards and shields that were removed during LubeMinder® installation.
19. Fill oil reservoir.
20. Cycle the cylinder in which the pump is connected to until oil can be seen in all brush lines. Once oil can be seen in the lines, top off reservoir tank with remaining oil. NOTE: Depending on the length of oil tubing used, 20-30 cycles may be necessary for initial oil to reach brushes.



21. The LubeMinder® pump is factory set to deliver the maximum amount of oil per cycle. If less oil is desired, loosen the jam nut and turn in adjusting rod located on bottom of pump. If rod is turned completely in, pump is shut off.

FAQ'S

Why is it necessary to oil my chains and sprockets?

1. To resist friction and wear between moving parts.
2. To flush away dirt and foreign material.
3. To lubricate chain-sprocket contact surfaces.
4. To retard rust and corrosion.
5. To carry heat away from bearings.
6. To cushion load impact areas of running parts.

I manually oil my chains everyday, why do I need LubeMinder®?

A chain assembly is a series of traveling metal bearings requiring proper lubrication for maximum performance. The lubrication forms a separating wedge between the pins and bushings in the chain joints—much like that formed in journal bearings. Oil applied manually to the rollers will not flow between the chain link plates and fill the critical pin bushing joints ultimately causing constant metal-to-metal contact and debris build-up. As a result of this build-up, chain elongation or "stretch" occurs. Metal wear and debris build-up cause a small distortion at the load area on every pin bushing. A #60 chain has 36 pin bushings per foot. Over a 15 foot length—that equals 540 potential distortion points.

This condition directly affects your equipment. As the chain gets longer—it rides too high on the sprocket and often the sprocket teeth begin to look like a wheat sickle. The affected sprockets can cause timing problems or chain and teeth breakage—resulting in downtime.

How can LubeMinder® increase the life of my equipment?

The LubeMinder® applies oil when the chain is warm and running. This is the best time to apply lubricant because you get the proper lubrication. Consistent oiling minimizes metal-to-metal contact and provides cooling. Oil pumped to a brush located next to the chain maximizes the amount of debris cleaned off the chain while it disperses the oil to the pin bushing joint to help eliminate chain stretch.

Is the LubeMinder® adjustable?

YES. We preset the LubeMinder® at the factory to deliver the maximum amount of oil, which is 0.5 oz (15 ml) per stroke The Lube Minder® can adjusted all the way down to zero. This is done by simply turning the brass adjusting screw on the bottom of the pump. This will modify the oil dispensing rate to fit your specific operating conditions. *See step 21*

How long does a full reservoir last?

The LubeMinder® reservoir is designed to last for an entire day. The dispense rate can be varied by adjusting the pump.

What does a LubeMinder® kit contain?

The Universal LubeMinder® Kit is a generic system. You will need two quarts of 30 weight oil to fill the reservoir, a hydraulic hose for connecting the pump to the double acting hydraulic cylinder.

How long will it take to install a LubeMinder® on my equipment?

Most LubeMinder® installations average around 2-4 hours.

What type of oil should I use?

30 weight oil is the most common oil used. Most chain manufacturers recommend a good grade of clean petroleum chain oil without additives. Additives generally leave a varnish or gum residue which prevents oil from penetrating the chain joints. Never use used engine oil.

How does the LubeMinder® cycle?

LubeMinder® pump cycles by tying into any double-acting hydraulic cylinder on your equipment. For example, on a combine, you would use the cylinder which swings the unloader auger back and forth. On a round baler, use the cylinder which opens and closes the tailgate. On a mower-conditioner, use the cylinder which raises and lowers the cutting head.

What pressure is required to cycle the LubeMinder® pump?

The most common LubeMinder® pump sold with kits for round balers and combines requires about 300 PSI (21 BAR).

Does the LubeMinder® consume hydraulic fluid?

No. The LubeMinder® does not consume hydraulic fluid. Hydraulic fluid is only required to actuate the pump.