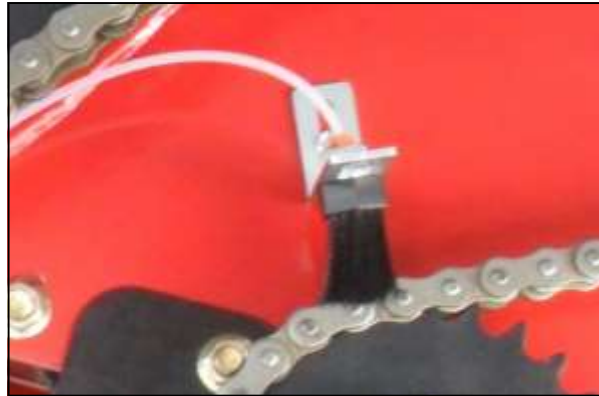
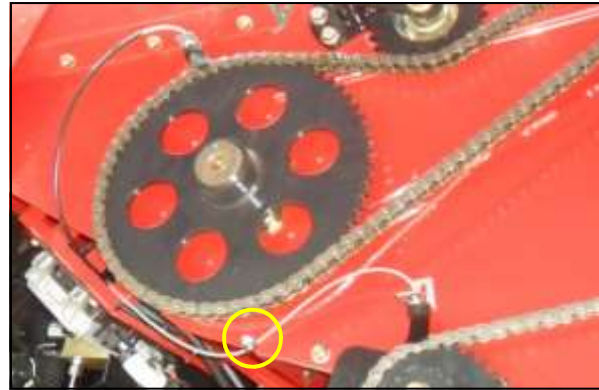


CASE IH Axial-Flow Combine Installation Instructions



Step 10 Connect tubing into fitting on the brush by pushing in on the orange plastic ring. Insert the tube until it bottoms out. To release tubing, press down on orange ring and gently pull tubing.



Step 11 Cut protective poly tubing as needed and slide over oil lines to protect from crop and moving parts. Use line clamps with self-tapping screws or zip-ties provided to secure line.



Step 12 Make sure all brackets and fittings are tight. Fill oil tank with clean lightweight oil. Cycle the auger to actuate the pump. Make sure oil is being pumped through the lines.



Step 13 If oil is not being pumped there may be an air lock in the top of the pump caused by filling the oil tank too fast. Loosen one of the plugs or brass manifold fittings on the pump to allow the air to escape. Retighten manifold or plug.

The Lube Minder Pump has adjustable oil output. If less oil per cycle is desired, loosen the jam nut at the bottom of the pump and screw in the brass plunger approximately five turns. Turning in brass plunger all the way will shut the pump off. Turning the plunger the opposite way will increase the amount of oil delivered.

IMPORTANT: Use new 30 weight oil. In cold weather use a SAE 10 or a mixture of two parts oil with one part diesel fuel.

Our engineers are available to assist you with any installation questions during normal working hours, Central Standard Time, at 1-800-782-5752 or (763)295-5635

Suburban Manufacturing Inc. believes the information presented here to be accurate. Suburban Manufacturing Inc. shall not be held liable for damage or problems caused by possible design changes by the equipment manufacturer or customer-modifications of the equipment prior to the installation of this device. Liability limited to repair or replacement of the Lube Minder unit.

CASE IH 7230, 8230, 9230, 7240, 8240, 9240 Axial-Flow Series Combine Installation Instructions



READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION
Retain for future use



WARNING
Do not attempt to service any machine without exercising the mandatory safety shut down procedure as described in the operators manual.


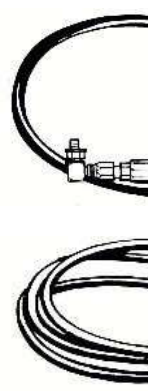

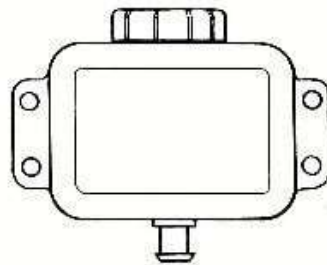
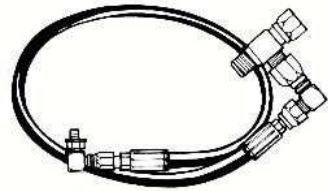
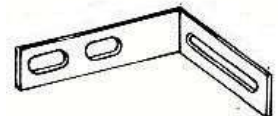
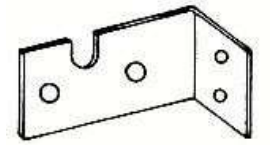


The Lube Minder chain oiler attachment gives the chains a squirt of oil each time the unloader auger is engaged to unload. The chains are oiled in direct proportion to the number of times the grain is unloaded. Clean 5 weight oil, poured in the reservoir tank is all that is needed to lubricate the chains. The hydraulic line that is connected to the Lube Minder pump only serves to power a piston inside the pump each time the machine unloads grain.

TOOLING REQUIRED

- 1) Electric Drill
- 2) Standard/Metric Wrench Set
- 3) Standard/Metric Socket Set
- 4) Pliers
- 5) Tubing Cutter

LUBEMINDER COMPONENTS

 <p>Brass Manifold This comes pre-installed into the Pump. There is one Manifold for each oil line.</p>	 <p>Lube Minder Pump This is the unit that meters and dispenses the lubrication. This is a 2-piece unit, take care not to change the orientation of the top portion to the bottom portion as this will cause the unit to leak.</p>	 <p>Brush Assembly The Brush is located at the point of lubrication. Position this where it will contact the chain or sprocket without getting caught in the mechanism.</p>	 <p>Reservoir Tank This connects to the fitting at the top of the Pump with a short length of hose (supplied)</p>
 <p>Hydraulic Hose Assembly This connects the Lube Minder Pump to the hydraulic source. This will be a high-pressure connection—please observe all appropriate safety precautions.</p>	 <p>Brush Brackets These are used to mount the Brush Assemblies.</p>	 <p>Pump Bracket Used to mount the Pump to your piece of equipment.</p>	<p>IMPORTANT Components shown here may vary slightly depending on the make and model of equipment being lubricated. Refer to detailed installation instructions for specific information.</p>

Our engineers are available to assist you with any installation questions during normal working hours, Central Standard Time, at 1-800-782-5752 or (763)295-5635

Suburban Manufacturing Inc. believes the information presented here to be accurate. Suburban Manufacturing Inc. shall not be held liable for damage or problems caused by possible design changes by the equipment manufacturer or customer-modifications of the equipment prior to the installation of this device. Liability limited to repair or replacement of the Lube Minder unit.

READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

WARNING Do Not attempt to service any machine without exercising the mandatory safety shut down procedure as described in the operators manual.

CAUTION Installing this kit requires working near the tongue of the machine. NEVER work under a machine that is supported only by the storage jack, support the tongue on steel or wooden blocks and prevent the machine from moving by blocking the wheels.

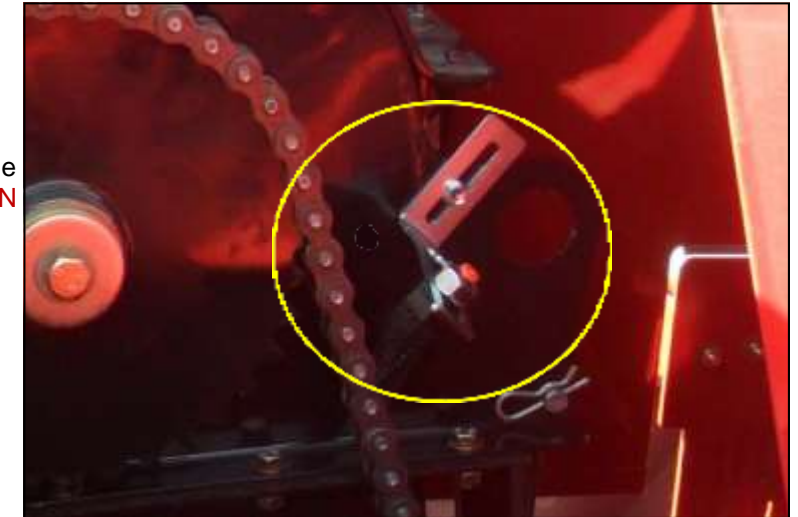
The automatic chain oiler attachment gives a squirt of oil every time the hydraulic cylinder that it is connected to cycles. In this way, the machine is oiled in direct proportion to the number of cycles and adequate lubrication is assured.

Clean oil, which is placed in the reservoir tank mounted on the machine, is all that is needed to lubricate the chains, sprockets, gears, or pivot bushings. The LUBE MINDER does not use any oil from the tractor hydraulic system. The hydraulic hose connected to the bottom of the oil pump assembly only serves to power a piston in the pump every time the cylinder is cycled.

- 1) Mount the oil reservoir on the machine. Use the tank as a template mark and drill four 7/32" holes. Secure the tank with self-tapping screws.
- 2) Mount the pump bracket in the same manner, position the LUBE MINDER below the outlet of the oil tank and in a vertical position with the barbed fitting on top. Use the hose clamp, position so elbow fitting rests on clamp.
- 3) Cut the 5/8" ID hose as needed to connect the oil tank to the pump. Slide the hose clamps over each end of the hose and secure one end to the pump and one end to the tank.
- 4) At this time, pour about 1/8 cup of clean 30 weight oil into the tank. This will allow some time for the oil to run down into the pump and allow air to escape. When the entire installation is finished you may finish filling the tank.
- 5) **IMPORTANT – MAKE SURE ALL GATES, CYLINDERS, DOORS, BOOMS, ETC. HAVE NO PRESSURE ON THE HYDRAULIC LINES.** The hydraulic cylinder that the pump will be tied into must be DOUBLE ACTING and reach 300 PSI of pressure to actuate the LUBE MINDER pump. Disconnect the fitting and install the tee and brass manifold fittings, reconnect the hydraulic hose that runs to the cylinder. Connect the new hose to the brass manifold fitting, route the hydraulic hose to the LUBE MINDER oil pump. Connect the end of the hose to the side of the oiler pump. Every time that this hydraulic cylinder cycles the LUBE MINDER oiling pump will cycle (examples of ways to cycle pump follows).
- 6) Install the brushes into the brackets, (**The 1/2-20 nuts should only be finger tight - after final adjustment of brushes - tighten the 1/2-20 nut NO MORE THAN 1/4 TURN - tightening brush more could BREAK THE BRUSH**). For best results place the brackets over the chain and on top of a sprocket. Using the bracket as a template, mark where the holes need to be drilled, and drill a 7/32" hole. Secure the brackets with the self tapping screws. Adjust brackets so brushes are pushed down into the chain approximately 1/2". At this time tighten the 1/2-20 nuts on the brushes 1/4 turn (**Be careful not to over tighten, as this could BREAK THE BRUSH**). Note: more brushes may be added to a system by installing union tees in the 5/32" oil lines. A small in-line check valve may be needed if lines are at different heights.
- 7) Route the oil lines. First, connect the 5/32" tubing to one of the compression fittings on the LUBE MINDER oil pump. **IMPORTANT: When installing tubing into brushes, please follow instructions exactly or the tubing may not stay in the fitting.** Route the longest lines first. Four feet of 1/4" black tubing has been provided to use as a protective cover if needed. This will help protect 5/32" oil lines if they are run through a panel cut-out. Cut as needed and slide over 5/32" tubing to protect against sharp edges. **IMPORTANT: Tubing can only be removed from fittings by pushing in on the orange plastic ring and pulling the tube out while holding the ring down.** Finish routing the remaining lines in the same manner to each brush. (Secure tubing to machine with cable ties). **IMPORTANT: When installing tubing into check valve fitting on oiler pump, do not over-tighten the compression fitting.** Connect the 5/32" tube into the fitting on the brush by pushing in on the orange plastic ring. While holding the ring in, insert the tube until it bottoms out. (Hint: if you make a mark 3/4" from the end of the tube, push the tube in until the mark becomes flush with the orange push ring.) Rotate the tube back and forth approximately 1/4 turn. This will cut a small groove in the OD of tube for grippers to hold. **IMPORTANT: Tubing can only be removed by pushing down on the orange plastic ring, holding it down and pulling the tube out.**



CASE IH Axial-Flow Combine Installation Instructions



8 cont. Using large brush bracket as template, drill hole in grain elevator tab. **DO NOT DRILL INTO GRAIN ELEVATOR.**



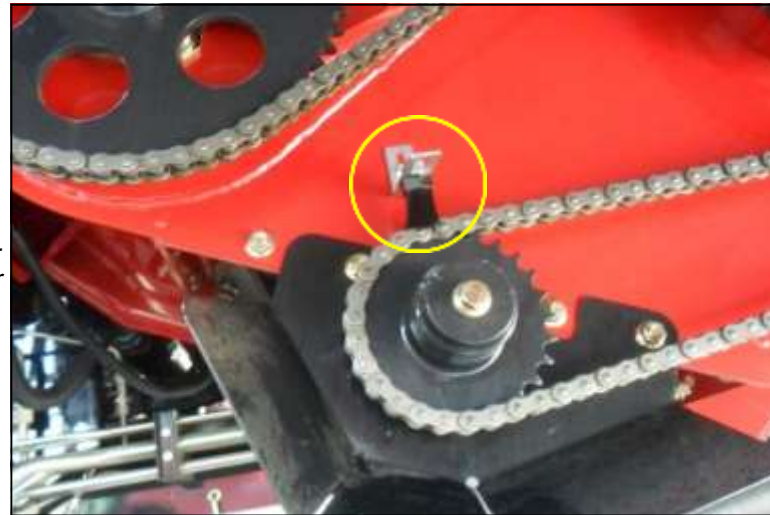
8 cont. Note: bracket may need adjustment so that brush comes in contact with chain while still maintaining vertical nature. (45° from vertical is ok). Once bracket is positioned correctly, secure using a 1/4" tap tight bolt.



Step 9 Run lines from brushes to pump manifolds. Route the longest lines first. Avoid hot and moving parts. Use zip ties to secure the 5/32" oil line along the way. Note: To connect line in manifold, slide nut & ferrule on to tubing. Push tubing down into manifold. Tighten Nut. (5/16" head)

CASE IH Axial-Flow Combine Installation Instructions

Step 6 Using medium brush bracket as template, drill hole and mount bracket with 1/4" tap tight bolt. Attach brush to bracket and position brush on chain. *Note: medium bracket allows for brush adjustment during one or two chain operation.*



Step 7 Locate the outer elevator chain. Using small brush bracket as template, drill hole and mount bracket with 1/4" tap tight bolt. Attach brush to bracket and position brush on chain.



Step 8 Locate the inner elevator chain inside the grain bin.



- 8) Make sure all brackets and fittings are tight and that all guards and shields are in place, then fill the oil tank. Cycle the cylinder that the pump is connected to until oil can be seen in all the oil lines. (If you experience problems priming the pump, you may need to bleed air out of the hydraulic hose where it is connected to the LUBE MINDER pump. Crack the fitting until oil comes out then re tighten). **IMPORTANT: When actuating the pump to prime it, make sure engine RPM is at least 1300 RPM to allow enough pressure to build up in the system.** Once oil is shown in all lines, fill the oil tank. Depending on the length of tubing involved, it may take 20-30 cycles to fill all the tubes and purge out air from the lines. Make sure there are no air pockets in the 5/8" tube that feeds oil from the tank to the pump.
- 9) The oiler pump output is adjustable. If less oil is desired, loosen the jam nut on the bottom of the oiler and screw in the adjusting shaft 1/4", or approximately 5 turns. It is not recommended to screw the shaft in more than 15 turns as this may not allow for proper lubrication and may completely shut off the oil flow. Turning the shaft the opposite way will increase the amount of oil delivered. **DO NOT BOTTOM OUT THE BRASS ADJUSTING ROD.** **IMPORTANT: Use new 30 weight oil. In cold weather use a SAE 10 or a mixture of two parts oil with one part diesel fuel.**

NOTE: IF YOU NEED HELP WITH ASSEMBLY INSTRUCTIONS PLEASE CALL TOLL FREE 1-800-782-5752 AND ASK FOR THE CUSTOMER SERVICE DEPARTMENT.

Cutaway view of Lube Minder pump showing internal components



COMBINES: The pump may be cycled off the cylinder that actuates the unloader auger boom. The hydraulic hose assembly should be connected to the side of the cylinder that returns the boom back to the side of the combine for best results. Another cylinder would be the one that activates the feeder hose.



ROUND BALERS: The pump may be cycled off the cylinder that opens and closes the rear gate. For best results tee into the top of the cylinder, this will activate the LUBE MINDER as the rear gate closes.



FORAGE HARVESTERS: The pump may be cycled off of the cylinder that actuates the discharge chute or the header lift cylinder.

MOVER CONDITIONERS / WINDROWERS: The pump may be cycled off of the lift cylinder or the swing arm cylinder.



MANURE SPREADERS: The pump may be cycled off of the side discharge or rear gate cylinder.

POTATO / BEET HARVESTERS: The pump may be cycled off any double acting lift cylinder.

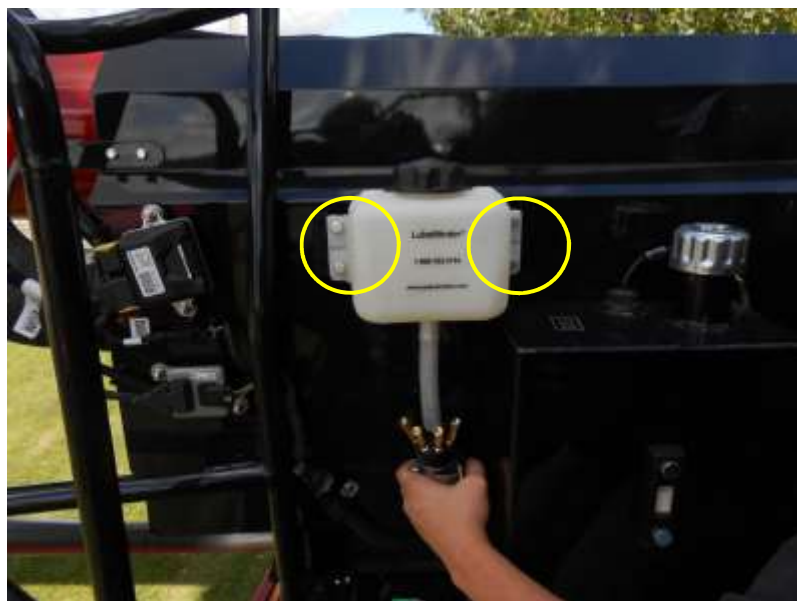
DISCS: The pump may be cycled off the lift cylinders (system can be used for oiling all pivot bushings every time the disc is raised or lowered).



Suburban Manufacturing, Inc.
 10531 Dalton Ave NE, Monticello, Minnesota 55362
 800-782-5752 Fax (763) 295-6601 www.gosuburban.com

CASE IH Axial-Flow Combine Installation Instructions

Step 1 Attach reservoir to mounting bracket using 5/16 bolts and nuts.



Step 2 Using the mounting bracket as a template, drill holes with provided 7/32" drill bit. Secure mounting bracket to shield using 1/4" tap tight bolts.

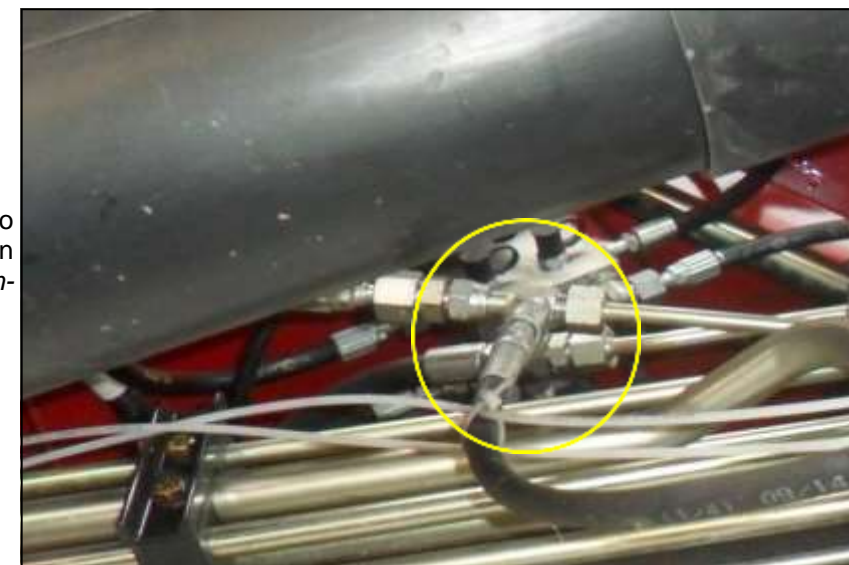


Step 3 Using pump bracket as a template, drill holes and mount bracket using 1/4" tap tight bolts. Secure pump to bracket with large hose clamp. Using the two small hose clamps, secure hose to pump and reservoir.



CASE IH Axial-Flow Combine Installation Instructions

Step 4 Plumb in the hydraulic hose from pump to the auger unloader swing out circuit shown above. *Note: oiler will only actuate when the unloader auger boom operates in and out.*



4 cont. Avoid hot and moving parts. Use zip ties to secure the hydraulic line along the way.



Step 5 Locate the auger drive chain. Using small brush bracket as template, drill hole and mount bracket with 1/4" tap tight bolt. Attach brush to bracket and position brush on chain. **Tighten nut on brushes slightly more than hand tight. Further tightening can cause damage to brushes.**

