

#### INSTALLATION INSTRUCTIONS FOR AUTOMATIC LUBEMINDER

# John Deere S-Series Combine

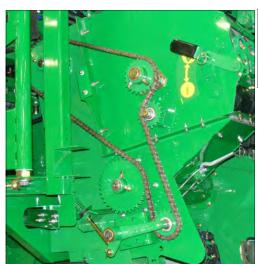
Step 8a On S550, S660, S670: Mount Bracket on Clean Grain Chain As Pictured.





Optional orifice installation for clean grain chain (Push into end of tubing)

Step 8b On S680, S690: Mount Bracket on Tailings Elevator Chain As Pictured.



Tailing Elevator Drive Train On S680 and S690 On left - without cover On right - with cover

# **IMPORTANT!!!!**

Drill an 1 to 1-1/6 hole with hole saw 2 1/4" from edge of the guard to install tailing elevator chain brush. After hole is open, use provided tear drop shield as a template . Drill a 7/32" hole and secure the shield with a self-taping screw. These guards are **MANDATORY** and must be installed. If a brush breaks or is removed at a later date, slide the tear dropped shield over hole and secure.







# CAUTION: CHECK THAT ALL GUARDS ARE PROPERLY IN PLACE BEFORE PROCEEDING.

<u>Step 9</u> Make sure all brackets and fittings are tight. REPLACE ALL GAURDS REMOVED DURING INSTALLATION Finish filling the oil tank with clean lightweight oil. Cycle the auger to actuate the pump.

Note: On the S680 and S690 Follow the Re-Calibration procedure

Make sure oil is being pumped through the lines. If no oil is being pumped there is an air lock in the top of the pump caused by filling the oil tank too fast. Use a 3 mm Allen wrench to loosen one of the plugs on top of the pump by the brass manifold fittings to allow the air to escape. Retighten plug. Once oil is shown in all lines, re-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.

<u>Step 10</u> The LubeMinder is set at the factory to deliver the maximum amount if oil per cycle. If less is desired loosen the jam nut at the bottom of the pump and screw in the brass adjusting shaft approximately five turns. By screwing the adjusting shaft in more than fifteen turns it will turn the pump off.

IMPORTANT: Use new 30 weight oil. In cold weather use a SAE 10 or a lighter oil.

**NEVER USE BAR & CHAIN OIL OR USED MOTOR OIL!!!** 



#### INSTALLATION INSTRUCTIONS FOR AUTOMATIC LUBE MINDER

# John Deere S-Series Combines:

\$550, \$660, \$670, \$680, \$690

#### READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLATION

# WARI

### **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 three 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 that is mounted in the rear of the engine compartment, 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
- 3. Pliers

5. Allen Wrenches

- 2. Adjustable Wrench
- 4. Standard Screwdriver

# **LUBE MINDER COMPONENTS**



Brass Manifold

This comes pre-installed into the Pump. There is one Manifold for each oil line.

## 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.

### 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.



## Reservoir Tank

This connects to the fitting at the top of the Pump with a short length of hose (supplied)



# **Brush Brackets**

These are used to mount the Brush Assemblies.



### **Hydraulic Hose Assembly**

This connects the Lube Minder Pump to the hydraulic source. This will be a highpressure connection—please observe all appropriate safety precautions.



# **Pump Bracket**

Used to mount the Pump to your piece of equipment.



### Oil Feed Tubing

This tubing is used, as required, to connect the Brushes to the Manifolds.

# 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.

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.

## INSTALLATION INSTRUCTIONS FOR AUTOMATIC LUBEMINDER

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Step 1 Mount the oil reservoir tank as shown. Using the tank as a template, drill two 1/4" holes in the rear engine compartment panel. Secure tank with 1/4 x 3/4 hex head bolts, lock washers and nuts.



Please note the following:

- ► Grain Tank Unloader Chain: All models.
- ► Feederhouse Drive Chain : All models.
- ► Clean Grain Drive Chain: **S550**, **S660** & **S670**
- ► Tailings Elevator Drive Chain: **S680 & S690**

Step 2 Using the pump mounting bracket as a template, drill two 7/32" holes in the vertical angle support as shown. Secure with 1/4 x 3/8 self-tapping screws. Fasten the Lube Minder pump to the bracket with the band Clamp Provided. (5/16" head)



Step 3 Cut the 5/8" braided hoses as needed to connect the reservoir tank and the oiler pump. Slide a hose clamp over each end of the hose and secure one end to the bottom of the reservoir and one end to the barb on top of the pump. (1/4" head on hose clamp) IMPORTANT: At this time, slowly pour in approximately 1/8 cup of lightweight oil (SAE 30). This lightweight oil will run down into

the pump and allow the air to escape from the top of the pump preventing an air lock.

Step 4 Install the hydraulic hose assembly by removing the hose from the 90 degree elbow on the cylinder.

This cylinder actuates the unloader drive. Install the run tee as shown and connect the end of the hose that runs back to the Lube Minder pump and back to the side port.

Note: On the S680 and S690 only.

After Installation of the Lube Minder Lubrication System is complete:

- •Go to the combine Operators Manual,
- Calibration Procedures,
- •When to Calibrate section,
- Unloading Auger Engage Calibration and
- •Follow the Re-Calibration procedure.





## INSTALLATION INSTRUCTIONS FOR AUTOMATIC LUBEMINDER

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Step 5 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 ½". 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).

<u>Lube Minder Brush</u>: Comes with a Quick Connect / Disconnect and nut to mount to bracket



Grain Tank Unloader Chain

Step 6 Start with the longest run of 5/32 tubing at the feeder house drive chain. Route 5/32 tubing along hydraulic lines underneath the cab and route back to Lube Minder pump, continue to follow the hydraulic lines.

IMPORTANT: the 1/4" black tubing has been provided to protect the 5/32" tubing near the brushes. Run the 5/32" tubing through the inside of the 1/4" black tubing near all brushes.

### DO NOT CONNECT TUBING TO THE BRUSHES OR PUMP AT THIS TIME.

In the same manner, route the tubing from the other brush locations. Secure all tubing with the cable ties to prevent contact with moving parts or loose crop or debris. A 10' section of cable protector has been provided to route the three 5/32" lines through, near the Lube Minder pump.

Cut the ends of the tubes squarely with a sharp cutter and connect 5/32" tubing to the brushes.

IMPORTANT: Tubing must only be removed by pushing in and holding down the orange plastic ring. Only doing this the tubing may be pulled out without being

At the Pump Slide Nut and Ferrule on to tubing. Push tubing down into manifold. Then tighten Nut. (5/16" head)







**Use Short Bracket and mount** As Forward as Possible!

