

# Initial Setup Instructions

## Heavy Duty Skid Steer Drum Mulcher



| TOOLS NEEDED                         | PURPOSE                   |
|--------------------------------------|---------------------------|
| 6,000 PSI Pressure Gauge             | Pressure Measurement      |
| Laser Tachometer and Reflective Tape | Speed Measurement         |
| 19mm Open Head Wrench                | Displacement Adjustment   |
| 10mm Open Head Wrench                | Shift Pressure Adjustment |
| 8mm Allen Key                        | Access Plates             |
| 6mm Allen Key                        | Displacement Adjustment   |
| 3mm Allen Key                        | Shift Pressure Adjustment |

### Hydraulic Connections

#### Hydraulic Connections

P: Pressure

R: Return

D: Case Drain

MP: Working Pressure Gauge Port


#### Hose Connection

1. Connect the case drain hose.
2. Connect the return hose.
3. Connect the pressure hose.


**NOTE:** Disconnect in the reverse order.

### IMPORTANT

The case drain **MUST** be connected to the skid steer, otherwise it will result in damage to the drum mulcher.



## WARNING



Read and follow completely before operating or using the mulcher in any capacity.

### Adjust Shift Pressure


The shift pressure of the motor may need adjusted to match the mulcher to the auxiliary pressure of the host machine. Depending on site conditions and personal preference, the shift pressure should be adjusted to 70 – 80% of the system pressure.




## WARNING



**AVOID SERIOUS INJURY OR DEATH**  
Keep away from moving parts.



## WARNING



Disengage the hydraulics and wait for all moving parts to stop before performing any adjustments. Place the mulcher on a firm, level surface before performing any maintenance procedures.

## Adjust Shift Pressure Cont'd



### WARNING



#### AVOID SERIOUS INJURY OR DEATH

Keep the discharge area clear of personnel, bystanders, or damageable property.

### Measure System Relief Pressure

1. Set the mulcher firmly on the ground with the rotor blocked to prevent rotation.
2. Attach the pressure gauge to the MP port (see Figure 1, Item 1). For ease of installation, the guard plate may be removed from around the hydraulic connections.

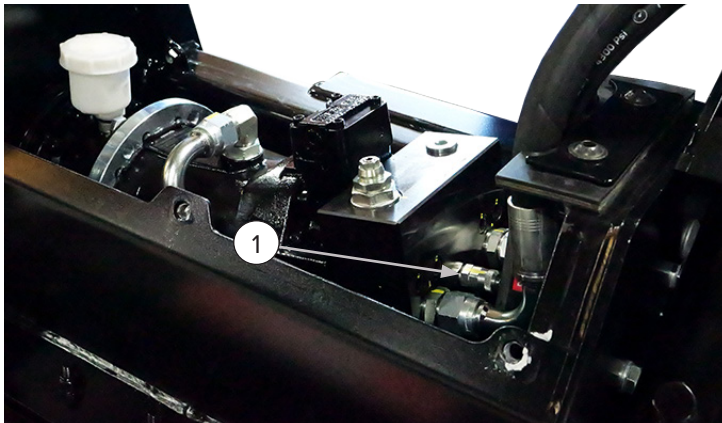


Figure 1

4. Engage the auxiliary hydraulics at full pressure to determine the maximum system pressure.

**NOTE:** DO NOT engage the hydraulics for more than 30 seconds to avoid heat build up in the hydraulic system.

### Measure Shift Pressure

1. With the hydraulics disengaged and the pressure gauge still installed, lift the mulcher clear of the rotor block and anything else that might be caught or entangled in the rotor.
2. With the rotor completely still, engage the hydraulics at full flow and pressure. As the rotor builds speed, the pressure reading on the gauge will spike to the system relief pressure and then begin to fall. The gauge will slow and pause momentarily at a slightly lower reading, and then continue falling to a working pressure of around 600 – 700 PSI. The shift pressure is the level at which the gauge paused. If the shift pressure reading is not 70 – 80% of the system relief pressure, it can be adjusted for a better mulching experience.

### Adjust Shift Pressure

1. Disengage the auxiliary hydraulics, wait for all moving parts to stop, and set the mulcher on a flat, level, and firm surface.
2. Remove the top cover plate at the top of the mulcher and the cap off of the adjustment screw on top of the motor (see Figure 2, Item 1).



Figure 2

3. Loosen the jam nut, and turn the 3mm allen key to adjust. A half turn is equal to 1,160 PSI.

| DIRECTION        | SHIFT PRESSURE |
|------------------|----------------|
| Clockwise        | Decrease       |
| Counterclockwise | Increase       |

4. Hold the allen key in place, and tighten the jam nut. Repeat the above steps for measurement and adjustment until the desired shift pressure is reached.

### Adjust Rotor Speed

The minimum displacement of the motor may need adjusted to match the auxiliary flow of the machine.

The motor displacement varies between 55cc (factory setting) and 85cc. The lower displacement can be decreased from the factory setting.

#### Measure Rotor Speed

1. Remove the side cover to access the rotor pulley.

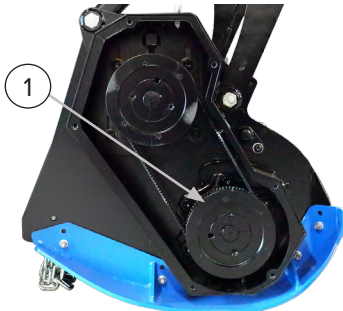


Figure 3

2. Apply reflective tape to the rotor pulley [Figure 3, Item 1].
3. Engage the rotor. Use a tachometer to measure the speed. The rotor speed should be between 1800 – 2500 rpm. If the rotor speed is not between the stated range, adjust the displacement.

**NOTE:** Rotor speed may decrease as hydraulic oil temperature increases.



### WARNING



Disengage the hydraulics and wait for all moving parts to stop before performing any adjustments. Place the mulcher on a firm, level surface before performing any maintenance procedures.

### Adjust Displacement

1. Disengage the auxiliary hydraulics, wait for all moving parts to stop, and set the mulcher on a flat, level, and firm surface.
2. Remove the access cover on the back of the mulcher to access the motor.



Figure 4

7. Loosen the jam nut, and turn the allen bolt to adjust the minimum displacement. Tighten the jam nut when complete. See Figure 5, Item 1.

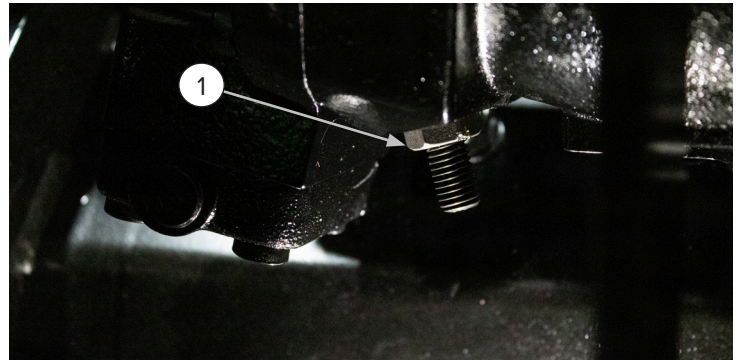


Figure 5

| DIRECTION        | MINIMUM DISPLACEMENT | ROTOR SPEED |
|------------------|----------------------|-------------|
| Clockwise        | Increase             | Decrease    |
| Counterclockwise | Decrease             | Increase    |

8. Measure the rotor speed again, and adjust as needed.





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