

## TECHNICAL ADVICE

### Mulcher Maintenance

**Grass & Prunnings** Mulchers are great way to manage regrowth, pastures and speed up the breakdown of vegetation and wood for incorporation into the soil, but like all machines maintenance is very important and key to a long life for your machine.



1. **Oil:** All machines need oil and mulchers are no exception. The gearbox oil should be changed each year. They hold only a small amount of oil, normally gear oil (check manufactures recommended oil) and contaminants build up and reduce the lubrication efficiency of the oil and ultimately more expensive gearbox failure. Most gear boxes will have a drain plug, a filler plug and a breather. Be sure to fill to the correct level as indicated in the operator's manual.



2. **Belts:** The drive of most mulchers is through a set of belts and these belts need to be tensioned and checked every year. If the belts have nicks, cuts or cracks in them, it's time to replace them. I always recommend genuine belts; the right belt is going to give you the best life rather than some near fitting set. A new set of belts should be re-tensioned after 5 hours of use as new belts bed in and need re-tensioning.



3. **Flails:** Flails are a wearing item and require turning or replacing when they are worn. Always replace bolts and nuts when replacing flails as worn bolts can cause flails to fly off the rotor when in use. Again genuine flails are always best as they are the correct weight and shape for the design of the machine. In the case you lose a hammer or flail during operation also replace the opposing hammer/flails to ensure rotor remains in balance.

4. **Vibration:** Vibration is the enemy of mulchers and if not checked and repaired the vibration can shake the machine to pieces. Cracks are a sign that something is wrong with the balance of your mulcher rotor. Worn flails can cause vibration, but if the flails are in good order, you need to look for something else. The rotors on machines are balanced at the working speed which can be around 2,000 rpm. Weight blocks are added to the rotor during manufacture to balance it. "Over the years I have seen these weights come off rotors and the result is a vibration in the machine" said Coast & Valley Tractors service manager; look for welds on the rotor with nothing next to the weld, as this is a sure sign that a weight block has come off. Rotor damage from bending is also a cause of vibration. This occurs when something large and/or immovable has been hit and the energy has to go somewhere, so the rotor gets bent. Rotors can be re-balanced but you need experts with equipment to do it.

5. **Bearings:** Bearings need grease, but not too much and not too little. If you push too much grease in, it will blow the seals and when that fresh grease is gone the dirt will get in and that bearing will fail. Too little means you have steel on steel and that will also cause premature failure. I recommend one or two pumps to each bearing with a hand gun every week.



6. **PTO shafts:** Make sure all guards are in place and safety chains are fitted. If these are damaged, replace them; they are cheap and could very well save your life. Greasing the shaft should be done when greasing the bearings and the same policy applies. A little often is best with greasing.



7. **Bolts and hardware:** If they are loose, tighten them, they all hold something together and are there for a reason. Replace missing bolts and ensure they are all tight.

**Lastly, when operating the mulcher it must be run at the nominated PTO speed even if doing light work. Operating it at a low RPM causes damage and early failure.**

### **Summary:**

- Check oil levels
- Check Belt tensioning
- Grease rotor, PTO shaft and roller if fitted
- Inspect Rotor for vibration and hammer or flail wear

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