

## Massey Ferguson, rear axle noise

~ *Paul Moroni*

The Massey Ferguson that I wrote about working on in the last newsletter came back to visit. I got the phone call four days after delivery that the rear axle seal was dripping, and it had a crunching noise in the transmission.

The owner drove the tractor home from my shop, about 20 miles. He rototilled with the tractor and on his way home it started to make noises and leak oil from the left axle seal. I brought my trailer down and we rode it around in the yard and listened for the noise. It was not constant, but every 20 feet it would clunk. We got it on the trailer to bring it back to the shop.

I jacked up the tractor off the ground so I could spin the left rear wheel to see what it would do and to check if anything felt loose. It seemed okay but that is where the noise seemed to be coming from.

I removed the wheel and then the outer-gear reduction housing with the axle shaft to look inside. I found that the axle shaft retaining nut had spun off and had got into a position to rub against the inner axle shaft bearing. This caused the bearing ball cage (this is the part that holds the ball bearing spaced evenly around the race) to grind away, which then caused all the balls to shift to one side. That forced the outer race to push on the bearing retainer that was casted in the inner reduction housing casing and break a large piece of the casting off. Then the axle shaft moved out of place which caused the noise and the seal to leak.

I removed the hydraulic filter and, luckily, the factory filter has a magnet built into it for just this type of event. The magnet and the filter caught all the metal shavings and protected the pumps from contamination.

I called Big Boy Toys about new parts, and they were very costly. I then called a salvage yard and asked about used parts, but they would only sell individual pieces. My third call was to Cross Creek Tractor Parts. They would sell me the whole left gear reduction assembly complete with all the nuts and bolts that they removed in the process and at a great price. They sent it in two boxes to save on shipping. Finally, I had everything I needed to put it back together and all I had to buy was a tube of gasket sealer.

So, back on the trailer and back to the farm it went.