



How to swap the Vehicle Speed Sensor (VSS) from your Sterling 10.25 axle to your Sterling 10.5 axle.

Around 2011 Dual Channel Rear ABS became available in the Super Dutys. The "Stability Control" package moved the rear speed sensor from the differential out to the wheel ends.

The OBS relies on the sensor in the differential to provide Vehicle speed information to the engine and transmission computers.

It's actually pretty easy to swap the sensor and tone wheel from your old axle to the new one. Here is how we do it.

Start with removing the diff cover and draining the oil.

Measure the distance between the sensor and the tone wheel using feeler gauges.

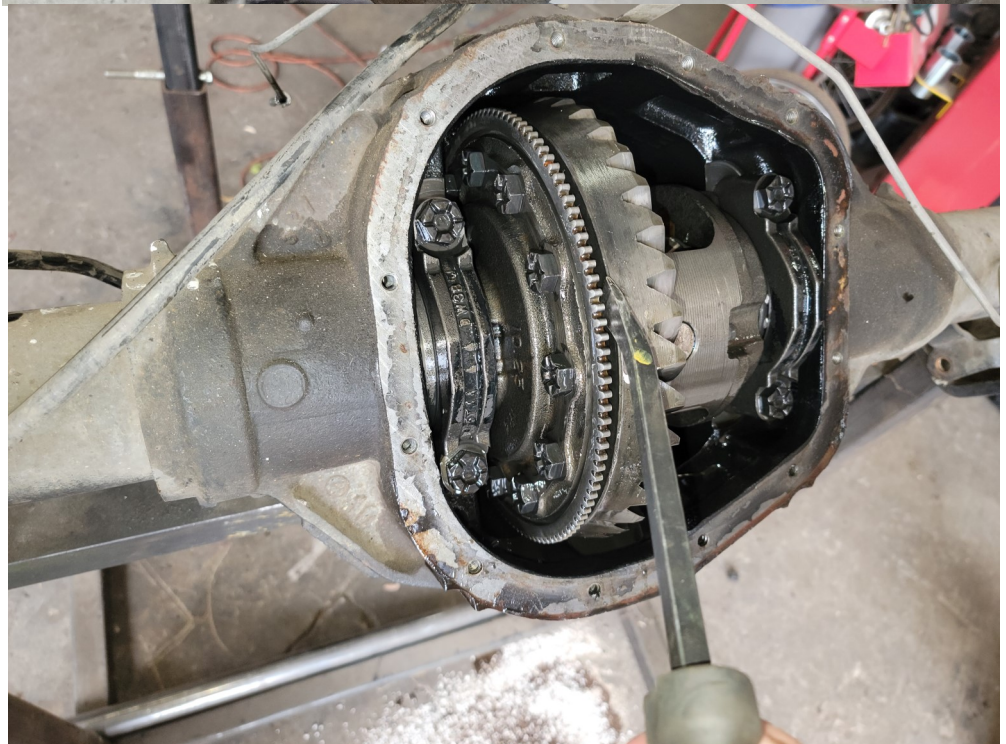
Remove the sensor and the tone wheel from your old axle.



The tone wheel is just pressed on to the differential carrier.

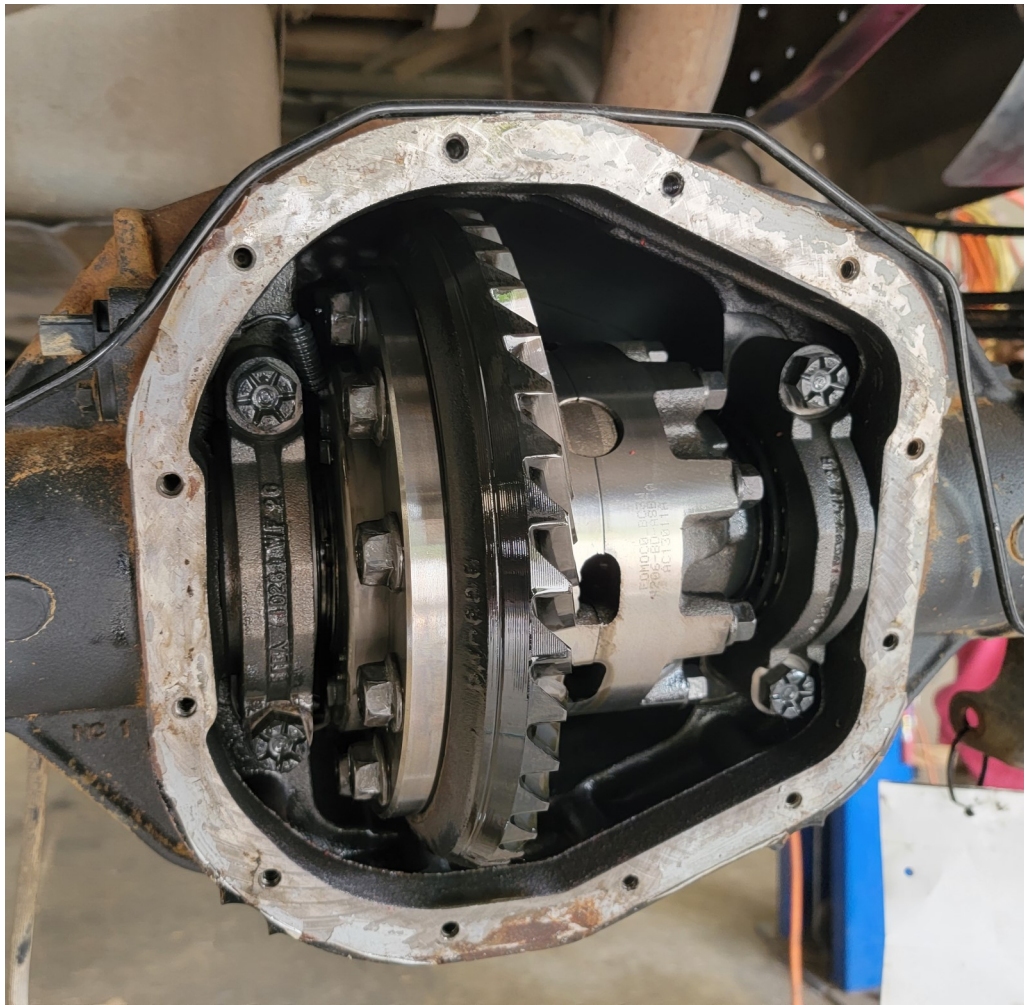
Gently pry the tone wheel off. Rotate the differential and pry at various points around it to evenly work it off of the diff.

Then remove the axle shafts and differential carrier to get the tone wheel out.



Next remove the axle shafts, diff cover and differential carrier from your 10.5 axle..

Be mindful to keep track of the differential caps and shims. Mark them to be sure they are installed back in the same location.



You can see there is a little nub on the inside of the ring. This is not needed and will need to be ground down smooth to fit on the 10.5 carrier.

Press the tone wheel on by lightly tapping it on with a rubber or brass hammer, working your way around to work it on evenly.

There is enough of a press fit that the little nub is not necessary.



With the differential carrier removed grind the housing smooth and drill the holes for the sensor and bolt.

Tap the bolt hole.



Thoroughly clean any debris from the inside of the axle.



Install the sensor and check the distance between the sensor and the tone wheel.

Grind the housing down further as needed to get the proper distance. Be careful to keep debris out of the axle.

Give the axle a final cleaning inside and out.

Torque the differential cap bolts.

Install the axle shafts and torque.

Install the diff cover.

Paint axle and fill with oil.

