

## AIRFLOW OVERDRIVE LEAK

For some years We have noticed (and heard discussion of) leaks from the rear of Airflow transmissions and overdrives.

In the restoration efforts of our Airflow we discovered that the bearings and the seals could readily be purchased from Penn Ball Bearing Co., Philadelphia. They can duplicate almost any bearing if you furnish them with any number on your old one or- give them the exact dimensions.

In the <sup>t</sup>ear down and overhaul of the transmission we found that only replacement of the three bearings was necessary and the cutting out of shimm washers to give the minimum end play of the cluster gear. (That procedure is in your shop manual)

When we dismantled the overdrive we found a few more items, even though small, were advisable. The short splines on the free-wheeling end of the overdrive clutch shaft (this is the large-main shaft) had slight burrs on each "land". These should be carefully removed with a (fine) HAND file.

The varnish from ? years accumulated in the area of the rollers and the small spring loaded "tees" should be fully removed. We ran the cases through a hot tank cleaning but removed the rollers and the tees and springs first. (These little tees look abit like plastic-or composition material)

The large bearing in the rear case half of the overdrive can be replaced easily while you have it apart. Now for the real news. There were two different sizes of yo kes in the two 1934 overdrives we have. One we will call small and the other which is the one that seems to be on most 35-36-37 models, we will call large. (It should measure about 1.877)

You can find a (Chicago-Rawhide) seal that fits the opening in the rear case half with no problem. That opening is 2.835 in size. If you have a yoke that has an outside diameter of 1.564 or close to that, then you can have the outside cut down to 1.554 or 1.553 and polished-then a seal NO CR 15234 or a National No. 471915 will fit and stop all your leaks.

If you have the large yoke then its a bit more difficult. The yoke must have a sleeve pressed over it and the diameter cut and polished to measure 2.002 or 2.003

We found an old Plymouth drive shaft that measured 2.000 was still satisfactory- we cut a two inch piece and cut about one half the skin thickness out and then pressed it over the yoke and this expanded it somewhat. It then measured 2. plus twenty five thousandths- which gave sufficient to cut and polish to the desired 2.003 We then purchased a seal number CR 19848 for \$3.12 and it worked like gangbusters. This seal is almost one half inch thick-so will fill the space alrite. 4

by John Smith

The previously mentioned "small" yoke and seal CR 15234 is only one fourth inch thick and allows you to use two seals against each other- if you desire. We did that on the rear axel seals-but thats astory for another time.

We tried to photograph each of the yokes after all work was complete and enclose a photo to try and give you a good look at what we think is one solution to the leak problem.

