

# Rear Backing Plates

by Tom Endy

The installation of Model A Ford rear backing plates appears to be an easy process. However over the years I have noticed a problem that occurs quite often.

After the four mounting bolts are installed and torqued down the end of the bolt with the hole for the cotter pin protrudes some distance past the end of the slots in the castle nut. In some instances the nut has bottomed on the threads of the bolt and the backing plate is not tight against the end of the axle housing flange.

This phenomenon occurs even with original bolts and all the other hardware being original. In a number of cases I found the four mounting holes in the backing plates wallowed out in the shape of a football caused by the backing plate rocking back and forth during braking and acceleration.



**Fig.1** Shows the castle nut run all the way up on one of the mounting bolts. The hole protrudes way past the end of the castle slot in the nut. This is often how the relationship of the bolt and nut ends up after the backing plate, emergency brake carrier, and grease baffle are installed.



**Fig.2** This is how far the bolts protrude through the backing plate and the emergency brake carrier. The grease baffle, which is very thin, has not been installed yet.



**Fig.3** Special shims have been added on each of the four mounting bolts before the baffle is installed. The total thickness of the shim stack is a nominal .020" in thickness. This will space the castle nuts out further on the bolts and better align them with the cotter pin holes. It will also ensure that the nuts have not bottomed on the threads of the bolts.



**Fig.4** The shims that were used have an inside diameter of .450 and an outside diameter of .750. They fit very neatly between the emergency carrier and the grease baffle.



**Fig.5** The final photo shows the backing plate installed using a nominal .020 of shims on each bolt between the emergency carrier and the grease baffle. The castle nut is properly aligned at the end of the mounting bolt and the cotter pin installs neatly. ©