

# A V8 Clutch!

by Tom Endy

## Defying Henry:

Of late I have noticed that a number of my fellow club members have been installing a V8 clutch and pressure plate in their Model A Fords. I'm not sure I know why they are doing this; the clutch Henry put in my Victoria seems to work just fine. Like anything else on a Model A Ford, make a design change, and Henry will get you. This story is about some of the ways he can do that.

## Flywheel rework:

In order to install a V8 clutch disk and pressure plate the Model A flywheel must be removed and taken to a machine shop for rework. The ridge on the clutch side of the flywheel has to be machined off. This ridge is what the Model A pressure plate bolts to. When using a Model A clutch this ridge must be maintained at 1.123" distance from the clutch surface of the flywheel. When having a flywheel re-surfaced for use with a Model A clutch you should tell the machine shop person to machine the ridge as well, and hopefully end up with the 1.123" dimension restored. After the ridge has been removed for the V8 conversion a series of new holes must be drilled in the flywheel to accommodate the bolt pattern of the V8 pressure plate. It is important that after all the machining is done that you check the distance between the clutch surface and the surface where the four bolt holes are located for mounting to the crankshaft flange. You should have at least a 7/16" distance. Anything less and you risk the possibility of the heads of the mounting bolts contacting the series of springs located on the clutch disk.

## Back at the ranch:

After you have re-installed the flywheel and you are lying underneath the car resting and contemplating the next move, there is one other thing to check. Place the new V8 clutch disk on an old transmission pilot shaft and plug it into the pilot bearing in the middle of the flywheel (prudence dictates that you did install a new pilot bearing while you had the flywheel out). Check to see that the friction surface of the disk is fully contacting the clutch surface of the flywheel. Rotate the disk 360 degrees to see that there is no interference (like the springs hitting the flywheel mounting bolt heads). It is essential that while making this check that you have the clutch disk oriented in the right direction. The disk has a "snout" sticking out

from the middle on each side. The long snout goes toward the transmission; the short snout goes toward the flywheel. Here is where Henry is waiting for you.

The "short" snout can be anywhere short from a 1/16" protrusion to a 3/8" protrusion. It is possible (and often likely) that the short snout will contact the outer ring of the pilot bearing and not allow the friction portion of the disk to contact the flywheel clutch surface properly.

## What to do:

If you ignore this condition and go ahead and install the clutch, when you engage the clutch the pressure plate will try to push the clutch disk against the flywheel. However, with the snout up against the pilot bearing it will not allow the center of the clutch disk to move forward. The force of the pressure plate will push the outer circumference of the disk in contact with the flywheel in a sort of a warp fashion. The clutch will appear to work, for a while, and then it will fail due to the constant warping action. The remedy is to grind the short snout down to even shorter. It is cast iron and grinds very easily. Grind it down so that it is below the surface of the friction material on the disk. Check it again and make sure that the friction surface of the disk nicely seats up against the clutch surface of the flywheel.

## Check it on the car:

It is best to do the checking with the flywheel installed in the car and not laying on a bench. The pilot bearing when installed flush in the flywheel, while lying on a bench, may be pushed out some amount when the flywheel is bolted up to the crankshaft flange. It depends on how much of a relief is machined into the flywheel in the area of the backside of the bearing.

## Be nice to Henry:

Like anything else when making changes to Henry's design, double check everything. Just because some other guy was easily able to install a V8 clutch in his Model A Ford does not guarantee that yours will automatically fit.☺