THE MODEL T FORD

ITS REPAIR, SERVICE, AND RESTORATION

DAN TREACE
MTFCI Technical Editor

Mailing address:
P.O. Box 76
Earleton, FL 32631
USA

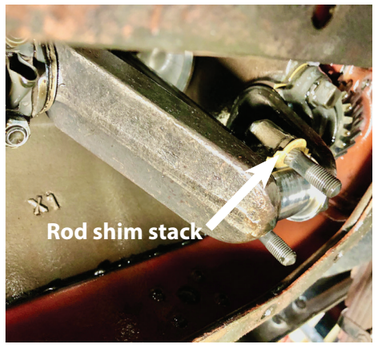
E-mail:
tmodelman@comcast.net

Phone:
(904) 616-4362

Tips for Tightening Connecting Rod Caps

The occasional sound of a rattle or knock from connecting rods can be a concern when closing the throttle while going down a slight grade. Sometimes knocking can also occur when opening and closing the throttle during idling. You can determine which cylinders are affected by shorting a spark plug and listening for a change in the knocking sound. When you know which cylinders are causing the knock, it is time to 'take up the rod' by removing the cap and shim(s) to establish a snug fitting rod cap. Details of this procedure can be found in Chapter V ("Taking Up Connecting Rod Bearings") in *Model T Ford Service*. The following pictures give hints for removing and tightening newer rods with shims. For complete information, refer to Chapter V.

Removal of the inspection cover reveals the crankshaft and connecting rods. Remove only one rod cap at a time. Keep the cap's relation to the crankshaft the same, as you must replace the cap in the same position as it was when removed. In the process of tightening all the rod caps, only tighten one cap at a time. Remove the shims, test tighten, then re-loosen that 'finished' cap. In that manner, the crankshaft will be easy to turn for the subsequent caps to be fitted.



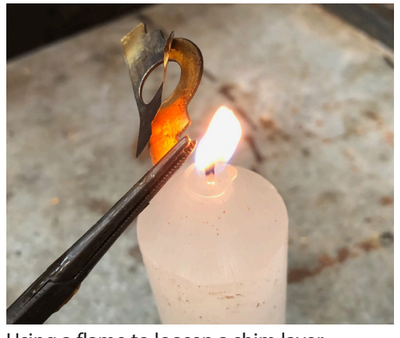
Crankshaft view, noting shim stack on upper rod surface

Cap removed, showing babbitt bearing

Once a cap is removed, check the bearing surfaces. In the photo above, the babbitt was in good condition with full contact surface wear. This cap was loose enough to easily finger push, so only tightening was needed.

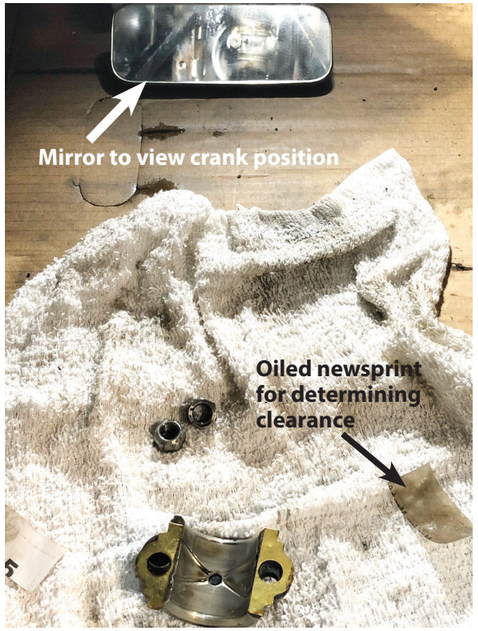
Next, remove the shim stack from the rod and cap. Peel away one layer of the shim using a sharp knife edge. You can also use a flame to weaken the adhesive that holds each layer; this makes peeling much easier.

Normally only one shim layer on each side of the cap is removed. Use a micrometer to check the thickness of a single shim, which will typically be .0025 in.



Using a flame to loosen a shim layer

Verifying shim thickness

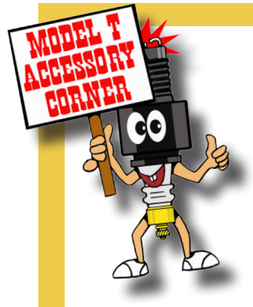


Mirror and oiled paper

Re-fit the cap with the thinned stack of shims and test for good clearance. One simple way to do this is to place a single sheet of newsprint, cut to nest into the lower cap. Oil the paper, then replace and tighten the cap nuts. Try to turn the crankshaft over. If the thin, oiled paper prevents the crankshaft from turning with the hand crank, then you know the shimming is correct. Remove the paper, then replace and tighten the cap. This should allow the crank to turn, with the rod cap clearance now being the thickness of the newsprint. Always use a fresh oiled piece of paper for each rod cap.

A hint for faster fitting is to place a mirror under the crankcase pan to "see" the position of the crankshaft. Stand above it while turning the crank handle to see each set of rods align under the opening, for easier access.

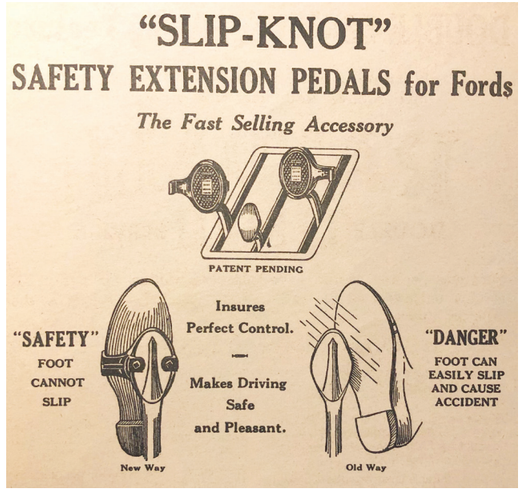
Check the fitted cap again, when securely tightened with the nuts. Gently tap the edges of the cap with a small brass mallet as you place a finger on the other end of the cap to feel any movement. A snug cap will only barely move with a tap of the mallet and should not wiggle or move freely with such a slight tap. • • • •



A showcase of aftermarket accessories from the past, often found on the Ford. Many thousands of inventive products were sold to dealers and owners to upgrade, customize, or improve over the factory parts…in most cases, not so much!

by Dan Treace
Technical Editor

SAFETY PEDAL.
Automotive Mfg. Co., Chicago, Pat. Pend.



"SLIP-KNOT" Safety Extension Pedals

Bolt-on pedal with an extension on the side to maintain foot control. The surface of the pedal extension has a rubber pad insert to prevent slippage.

• • • •