Emergency Brake Cross Shaft Change

by Tom Endy

The E-brake cross shaft was changed in April 1930 and documented in the Ford service bulletins of that date on page 449. The change is not only significant, it is also not very well documented in vender catalogs and other publications. Prior to April 1930 the two levers attached to the E-brake shaft were located under the frame. The new version has the levers on the end of the shaft protruding through a hole in the frame on each side. The new shaft is also solid as opposed to the earlier shaft being tubular.



This photo shows the later E-brake cross shaft removed from a 1930 Tudor. Each end of the shaft protrudes through a hole in the frame on each side. The hole is beveled on the inside of the frame in the shape of the bearing and provides one half of the bearing race.

E-brake shafts see little wear and are largely ignored when a Model A is restored. Most just sit there and get rusty and cruddy, but see little wear to the parts because of the short duty cycle. The one in the photo was extremely cruddy before it was bead blasted and it was found in excellent condition. The only parts that have to be replaced are the two tapered pins that hold the two lever arms to the shaft at each end. The pin is Ford part number A-23830. Bratton part number 4160 (for the E-brake) or 11260 (for the clutch release shaft) they are both the same pin.



Shown in the photo is one end of the shaft showing how the lever mounts to the shaft. A tapered pin is driven into the hole in the lever and shaft. A new pin can be seen protruding from the far side of the lever. The frame hole is beveled on one side to provide half of the bearing race. The bracket on the right is the other half of the bearing race, and bolts to the frame with two mounting bolts. The other end of the shaft has the same assembly, except the two levers are a left and a right. When installed each must point outward toward the rear of the car. On the bottom of each lever is where the E-brake rods that attach to the brake levers on the rear backing plates attach.

The section of frame with the hole in it will be positioned between the lever and the round shaped bearing.

The tapered pin is the same used in the assembly of the clutch release shaft in the bell housing. It is described as being 5\16X1&1\4". Ford part number A-23830.



The bracket seen laying on the table below the shaft is called a cross-shaft support. It bolts to a section of frame forward of the shaft and parallel to it. The curved end rides on the shaft and provides stabilization at the center. The lever hanging down attaches to a short brake rod that attaches to the E-brake handle. It is off-set to the right when installed correctly in the car.

In order to remove the later E-brake cross shaft from the car the tapered pin in each lever must be driven out first. Next remove the two mounting bolt that attach the bracket on each side. The shaft can then be slid out of the frame. The two bearings then just slide off the shaft. The cross-shaft support bracket does not have to be removed in order to remove the cross-shaft. Removal of the cross-shaft support is optional and only if it is to be cleaned and painted.

The removal process sounds easy; however, the shaft may be extremely rusted and cruddy and it is in a difficult area to work in. It may be very difficult to get the cross shaft out of the car and apart due to rust and crud.