

Did They Get It Wrong?

by Tom Endy

The clutch release shaft:

During the early production years of the Model A Ford, the clutch release shaft (p/n A7510-B) in the bell housing of the single disk clutch had two woodruff key slots machined into it, one to accommodate the clutch release arm (p/n A7511-B) and the other to accommodate the clutch release fork (p/n A7515-B). The arm and the fork each had a mating slot to lock it to the woodruff key. Each part was then held in place by a 3/16" diameter locking pin through a corresponding hole in the shaft.

In the later production years, as the depression deepened, Ford looked for ways to take cost out of the manufacturing process. Engineers looked at all aspects of the car to determine what parts could be made cheaper without affecting the integrity of the part. When they reviewed the clutch release assembly it was decided that the two woodruff keys in the shaft, and the slots in the arm and the fork could be eliminated. This would eliminate a considerable amount of machining. To compensate for the lack of the woodruff key the locking pins and corresponding holes in the shaft were increased in size from 3/16" to 5/16". New part numbers were created; the new shaft became A7510-C, the new arm A7511-C, and the new fork A-7515-C.

The service bulletin:

A service bulletin was released in June 1929 (page 351) to accommodate repairs to cars with the earlier part numbers. This is where I think they may have gotten it wrong. The service bulletin is quoted in full here.

“When replacing an old design clutch release shaft with a new one it will be necessary to increase the size of the hole in the old design arm to accommodate the new pin. It will also be necessary to install a new fork as there is not sufficient stock at that point to permit increasing the diameter of the pin hole in the old fork.”

If you examine the old fork you will notice that there is ample material to accommodate a larger hole to allow use of the larger diameter pin.

However, there is not ample material to allow the arm to be drilled out to accommodate the larger pin.

If the pin hole in the arm is enlarged the outer circumference of the new hole is almost to the edge of the arm and would certainly be prone to a crack at that point.

Perhaps the engineer writing the service bulletin got the two parts confused and reversed the instructions for the two parts. I would think after 70 plus years someone would have caught it by now. Maybe this is the reason why you hear about clutch release arms breaking occasionally.

I certainly would never drill out an old A7511-B release arm to accommodate a 5/16" locking pin, as it would be an invitation to failure of the arm. ☺



The above photo shows two A7511-B arms. The arm on the left has the original 3/16" hole. The arm on the right has been drilled out to 5/16". Note how close to the edge the new hole is.



The above photo shows two A7515-B forks with the original 3/16" holes. Note there is ample material to drill the holes out to 5/16".