Franklin Multi-Disc Clutch Adjustment

Franklin (at least in the early 1930 period) used a multi-disc clutch. The adjustment to compensate for wear was a little more complicated than on a single disc clutch. The instructions that follow are quoted directly from the 1930 Model 145/147 Franklin Instruction Book. It not only instructs on the adjustments, but also explains how the clutch operates.

Operation of Clutch

The construction of the clutch is shown in detail in Fig. 709. When the clutch is engaged, the coil spring "H" exerts pressure on the flexible levers "J" at the inside ends. The pressure is transmitted to the thrust ring "K" at point "L" The levers pivot at "C" on the adjusting ring "D."

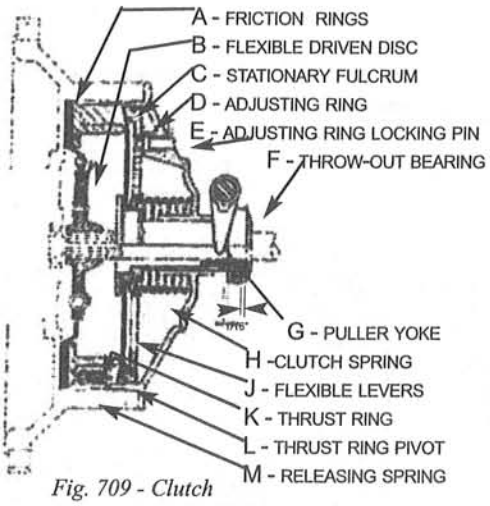

Fig. 709 - Clutch

The flexibility of the levers causes gradual application of pressure to the thrust ring, and makes "grabbing" almost impossible. (This is a special feature of this clutch.) When the clutch is released, the lever is pulled back and the small spring "M" withdraws the thrust ring from contact with friction ring.

The friction rings "A" are riveted to the flexible driven disc "B" which transmits the engine power, free from vibrations, through the splined shaft into the transmission and drive line.

To Adjust Clutch

The clutch must be adjusted so that there is about 1/16" clearance between the throw-out bearing "F," Fig. 709, and the puller yoke "G" which is equivalent to ½" free motion in the clutch pedal. When this clearance is taken up, due to natural wear in the friction rings, readjustment is required; otherwise, the clutch will slip. There must also be at least 7/16" clearance between the clutch throw-out bearing and the clutch cover hub. The clutch is adjusted by moving the adjusting rings, Figs. 709 and 710, clockwise to compensate for wear. To release the adjusting ring, pull out the locking pin "E," in Fig. 709, and turn it downward to hold it in position. Insert a screwdriver through the clutch cover, release the clutch by pushing down on clutch pedal, turn the ring one or more notches as required, then replace the locking pin. This is the only adjustment ordinarily required.

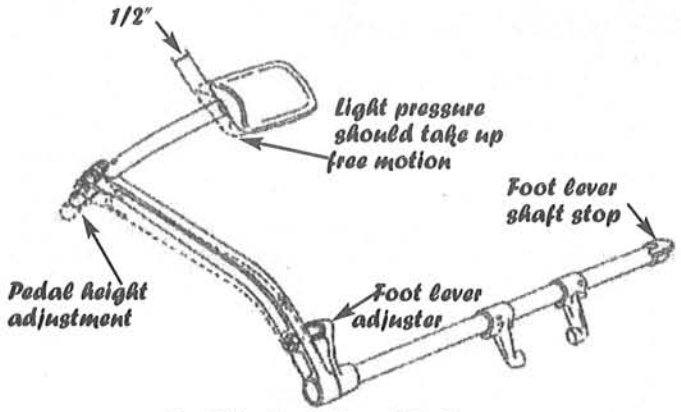

Fig. 711 - Clutch Control Mechanism

The clutch control mechanism is adjustable at two points. See Fig. 711. The position of the foot lever shaft and puller yoke is controlled by the set screw and stop at the right end of shaft. See Fig. 712. The position of the foot lever is controlled by an adjusting quadrant at the left end of the shaft. These adjustments are made at the factory before the car is delivered and no 'readjustment' should be required, except when these parts have been dismantled for repair operations. When the ½" free motion of the clutch pedal is taken up by normal wear, bring it back by adjusting the clutch adjusting ring as previously described.

Fig. 712 - Adjusting Foot Lever Shaft

S.K.