SERVICE BULLETIN #1009

SUBJECT Clutch
Maintain Proper Adjustment

MODEL 77 DATE 10/21/57

Maintaining proper clutch adjustment on Model 77 Chain Saw engines is very important due to the high power output of the 77 engine.

As on Models 3-25, 47, 4-30, 4-30A and 73 engines, clutch adjustment is maintained by the Clutch Disc Retaining Ring. These rings, available in various thicknesses (See table for available thicknesses and part numbers), are installed as shown in Figure 1.

TABLE of Ring Sizes (Thickness)

Size	Part Number
.041 in. thick.....	19114A
.051 in. thick.....	19114B
.063 in. thick.....	19114C
.071 in. thick.....	19114H
.080 in. thick.....	19114
.090 in. thick.....	19114D
.100 in. thick.....	19114E
.112 in. thick.....	19114F
.124 in. thick.....	19114G

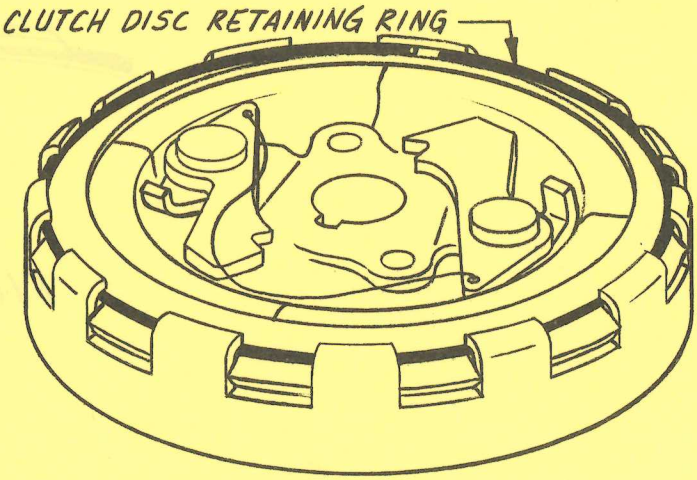


FIGURE 1

If the proper size Clutch Disc Retaining Ring is not installed, or if it is installed incorrectly, clutch slippage may occur, resulting in early clutch failure.

On Model 77 engines especially, the clutch should be examined for possible slippage after the first 10-15 hours of operation. To check the clutch for slippage, do the following:

a. Remove starter assembly.

b. Without depressing the Clutch Disc Retaining Ring, and using finger pressure only, attempt to rotate it.

c. If the ring will turn freely it is too loose and should be replaced with the next larger size.

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When installing a Clutch Disc Retaining Ring, make certain the tips of the ring are supported by the clutch drum. (See Figure 1) Do not install the ring so that the tips are free as shown in Figure 2. If the tips are not supported they will fatigue, due to vibration, and break off, thus causing damage to the clutch, clutch drum or pinion gear. Also, by installing a Clutch Disc Retaining Ring that is too thick damage may result. A ring that is too thick will not seat properly; will cause the clutch to drag, and might possibly slip out of position when the engine is in operation, causing damage to the clutch.

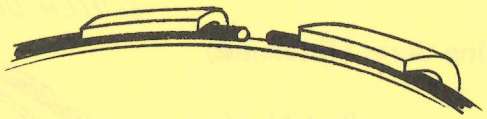


FIGURE 2

Other points to check for determining clutch slippage or drag are the sides of the clutch shoes and the face of the clutch drum. Signs of smearing or distortion an either of these surfaces is a good indication of slippage or drag, and should prompt the chain saw mechanic to install a thicker ring.

It is good policy to request purchasers of Model 77 chain saws to bring their saws back into the shop, after the first few days of operation, for a check-up. During this check-up the clutch should be examined carefully for signs of slippage or drag, and adjusted where necessary. Although it may cost you a few minutes of your time, you may save the customer unnecessary expense later on.