McCULLOCH

SERVICE BULLETIN # 1067

SUBJECT

Clutch Assembly

MODEL **55**, S55, S55A, 1-80 DATE 8/7/59

Two important changes have been made to the clutch assembly to reduce wear and provide longer service life.

A new, cast iron clutch shoe replaces P/N 51837B clutch shoe. The cast iron clutch shoes will only be sold in matching sets of four. The number for the matching set is 55523.

The clutch disc retaining ring, P/N 51646, has been changed from spring wire to music wire. Music wire is stronger than spring wire, and in addition to increasing the life of the retaining ring, it will also reduce the possibility of clutch damage.

NOTE

When installing the 55523 clutch shoe assembly on 55 series engines or the 1-80 engine, use retaining rings, P/N 51646C, D, E, F, G or H. Retaining rings, P/N 51646, A, and B are too small for the 55523 assembly on these engines. On engines (other than 55 series models or the 1-80 model) using 51646 clutch disc retaining rings, P/N 51646, A, and B will still be applicable.

Clutch adjustment is maintained by the clutch disc retaining ring. This ring, available in various thicknesses (see following table for thicknesses and part numbers), is installed as shown in 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.

The clutch should be examined for slippage after the first 10-15 hours of operation. To check the clutch for slippage, do the following:

a. Remove starter assembly.

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RING SIZES (Thickness)

Part Number	Size
51646C	.063 in. thick
51646D	.071 in. thick
51646E	.080 in. thick
51646F	.090 in. thick
51646G	.106 in. thick
51646H	.118 in. thick

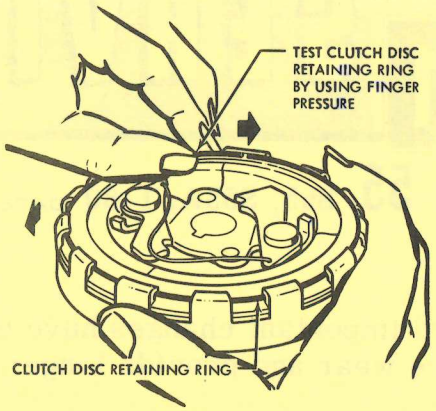


Figure 1

b. Rotate the clutch drum by hand. If the clearance between the friction disc and the clutch shoes is too loose or sloppy, a larger size retaining ring should be installed.

c. If there is no clearance between the friction disc and the clutch shoes and the clutch cannot turn freely, the retaining ring is too large in diameter and should be replaced with a ring of smaller size.

When installing a clutch disc retaining ring, be sure that the tips of the ring are supported by the clutch drum (see Figure 1). Do not install the ring with the tips free as shown in Figure 2.

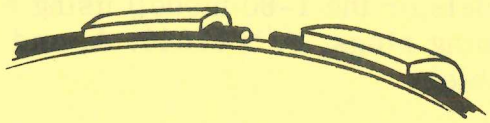


Figure 2

If the tips are not supported they will fatigue, due to vibration, and break off, causing damage to the clutch or clutch drum. 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 and cause damage to the clutch.

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 on either of these surfaces are a good indication of slippage or drag, and should prompt the chain saw mechanic to install a larger size ring.