

# SERVICE

## SHOP DOPE

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### DISASSEMBLY AND ASSEMBLY OF 1955 KH MODEL TRANSMISSION EQUIPPED WITH ACCESS COVER

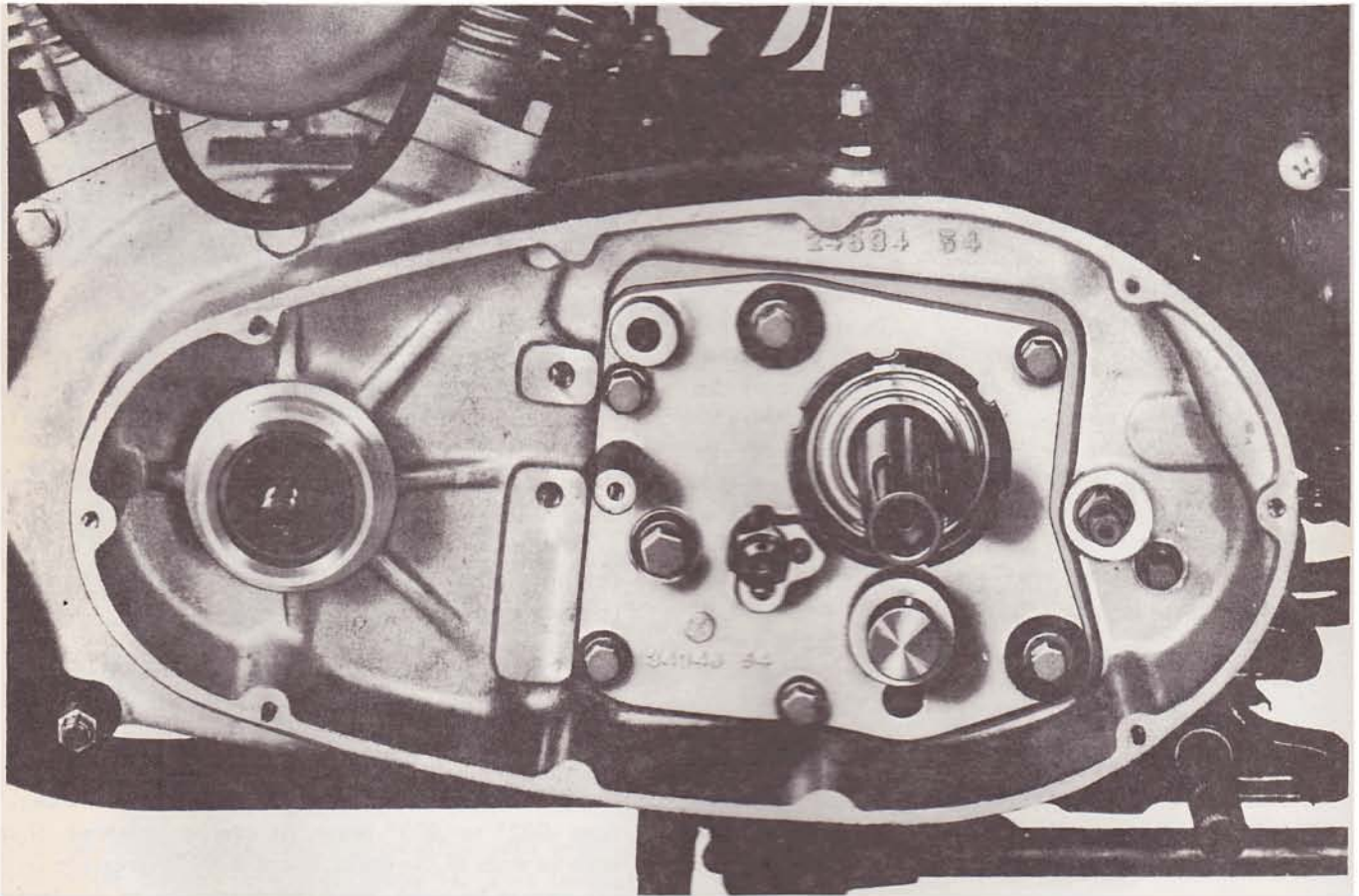


FIGURE 1

To disassemble KH transmission equipped with access cover, drain the transmission compartment and then remove the following: foot rest, rear brake foot pedal, chain case cover, clutch complete, engine sprocket, front chain, front chain tensioner and starter gear. This will leave the access cover exposed as shown in Figure 1.

Unless transmission is damaged inside so that it cannot be shifted from one position to another, shift into high gear before further disassembly. Remove the 6

access cover cap screws (1 and 2, FIGURE 2). Remove the two dowel cones (1, FIGURE 2).

NOTE: If the hole through the dowel cones (1, FIGURE 2) is threaded with a  $3/8 \times 24$  thread, insert a bolt into cone, and tap the end of bolt sidewise with a light hammer to remove cones. If the hole through the dowel cones is not threaded insert a rod or bolt that is reasonably close in size to the hole, and tap sidewise to remove cones. All hold-down bolts must be removed before attempting to remove dowel cones.

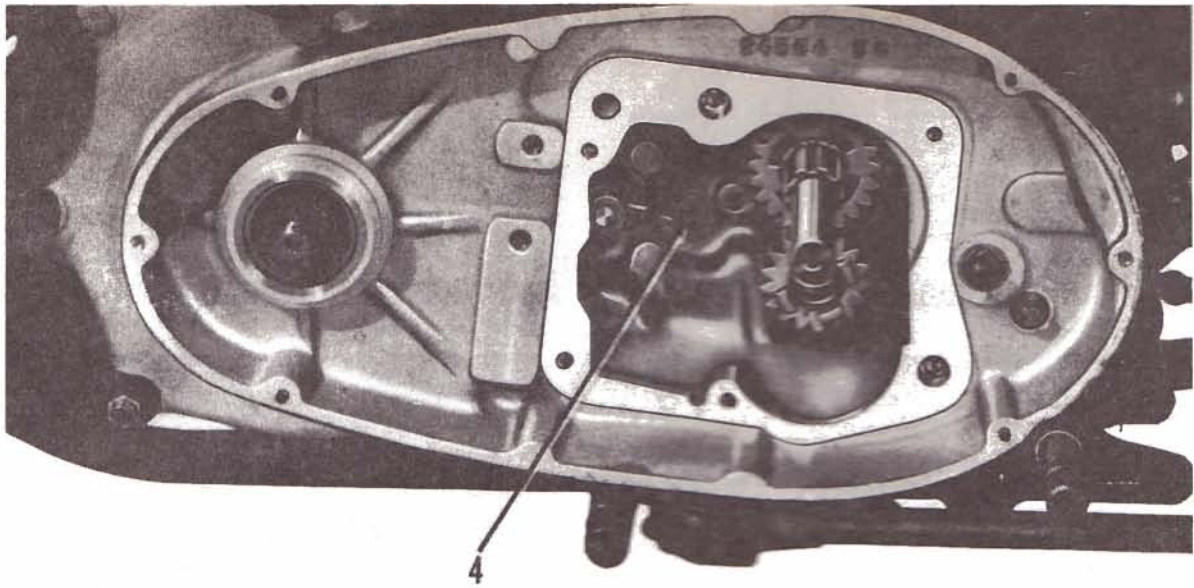


FIGURE 2

Remove access cover assembly (3, FIGURE 2) with countershaft, shifting mechanism and all transmission parts, except the countershaft low gear, main shaft and mainshaft low and third gears, which will remain in transmission case.

In the majority of transmission repair jobs, it probably will not be necessary to remove parts that do not

come out with access cover. However, if it is found that this must be done, it will first be necessary to remove kick starter crank and spring, transmission sprocket cover, and mainshaft sprocket. This will allow the mainshaft, mainshaft low and third gears, mainshaft end play adjusting washer, 23 roller bearings, roller bearing thrust washer and countershaft low gear to be removed as shown in FIGURE 3.



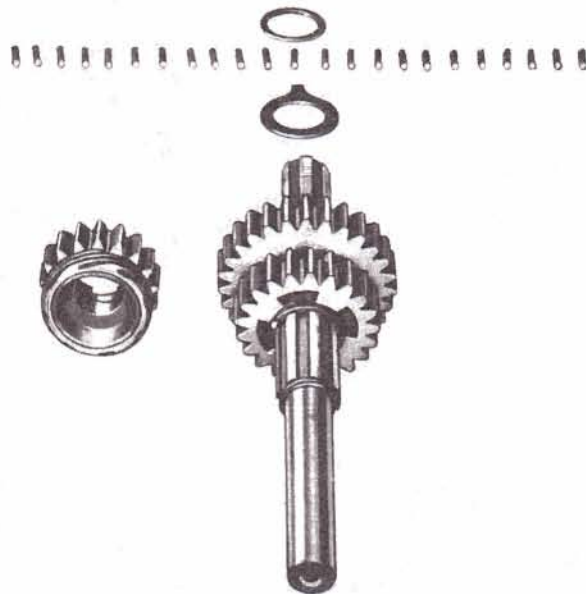
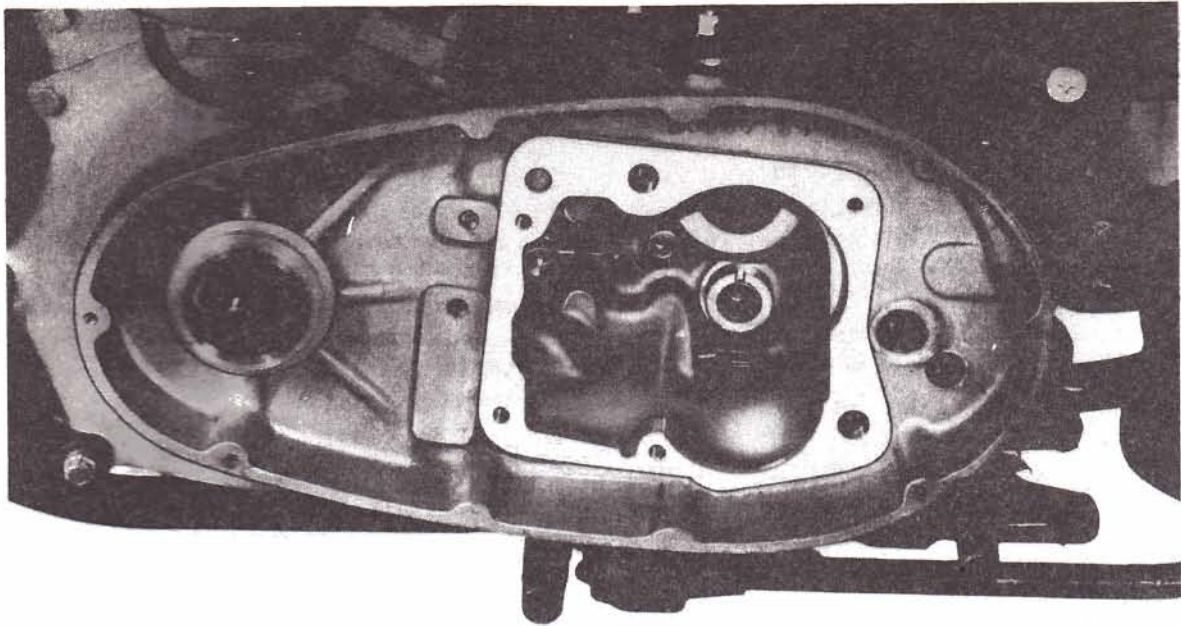


FIGURE 3

**TO ASSEMBLE THE TRANSMISSION, REVERSE THE ORDER OF DISASSEMBLY**

1. Assemble bearing roller, thrust washer and 23 bearing rollers in place in bearing race using grease to hold them in position.
2. Install countershaft low gear in position. With low and third gears and thrust washer assembled on mainshaft (ear of thrust washer downward) insert

mainshaft through bearing. CAUTION: MAKE CERTAIN THAT NO BEARING ROLLERS FALL OUT OF POSITION INTO TRANSMISSION CASE.

It is necessary to exactly center the gear shifter lever arm (4, FIGURE 2) so that it will engage in its position in the gear shifter pawl yoke when

access cover assembly is installed. Before securing the access cover make certain that the above has been accomplished by lightly working the shifter foot lever both ways, testing for engagement.

Secure access cover assembly (3, FIGURE 2) in position with first the dowel cones and bolts (1, FIGURE 2) and then with hold down bolts (2, FIGURE 2).

3. Assemble all remaining parts removed from motorcycle and refill transmission with correct amount of Harley-Davidson oil.

**NOTE** - In manufacturing left crankcase, the semi finished access cover is attached to semi finished crankcase and then the case and cover as a unit are finished machined.

Therefore:

Access cover only is not available for replacement of a damaged cover.

Access cover is not interchangeable from one left crankcase to another, as the bearing bores in cover are not likely to align with bearing bores in right crankcase.