

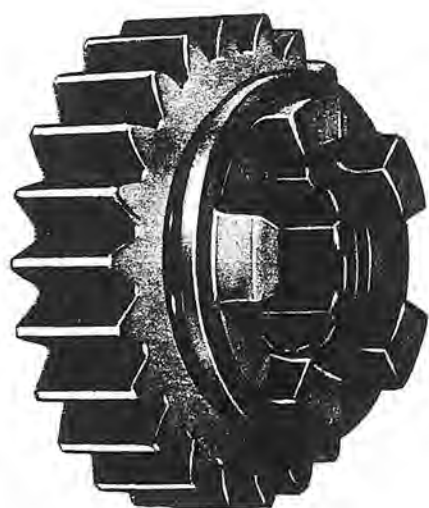
# SERVICE

## SHOP DOPE

No. 376 (Supersedes No. 356, which should be destroyed)

June 8, 1956

TRANSMISSION MAINSHAFT SECOND AND THIRD GEARS  
(This information applies to Models KH, KHK, and KHRM)



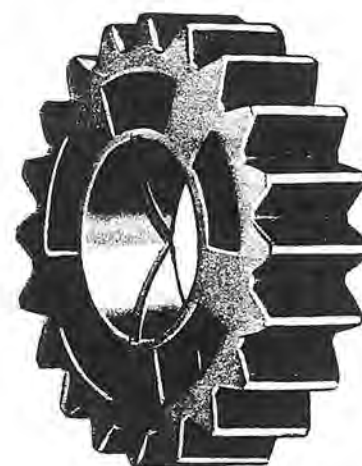
Part No.  
35296-56  
M/S 2nd Gear



Part No.  
35337-56  
Retaining Ring



Part No.  
35364-56  
Washer



Part No.  
35305-56  
M/S 3rd Gear

Illustration shows new design M/S 2nd and M/S 3rd gears having 5 driving lugs and slots instead of 4. These new gears have been used in all 1956 KH transmissions, and from above date will be the only M/S 2nd and M/S 3rd gears supplied for servicing 1954-1955 KH transmissions, as follows:

Transmission M/S 2nd and M/S 3rd gear set, Part No. 35297-54B, consisting of the following:

- 1 35296-56 M/S 2nd gear, 23 teeth-5 lugs (replaces 35297-54A, 4 lugs)
- 1 35305-56 M/S 3rd gear, 20 teeth-5 slots (replaces 35304-54, 4 slots)
- 1 35337-56 M/S 3rd gear retaining ring (replaces 35337-52)
- 1 35364-56 M/S 3rd gear washer (replaces 35364-52)

These new gears, being much stronger than the design used in earlier transmissions, are to be used exclusively for future servicing of all KH transmissions. In other words, when either 35297-54A, 4 lug M/S 2nd gear, or 35304-54, 4 slot M/S 3rd gear requires replacement in a 1954 or 1955 KH transmission, gear set 35297-54B is to be installed.

If you have in stock any new 35297-54A, 4 lug M/S 2nd gears, return them for credit. Do not return 35304-54, 4 slot M/S 3rd gears as this gear will be needed for servicing K model transmissions, see below:

35297-54A, 4 lug M/S 2nd gear (no longer available, if listed on parts order, 35297-54B will be substituted)

35304-54, 4 slot M/S 3rd gear (available for K model only, as one of the gears in gear set 35304-52A, do not order for KH model)

Gears 35297-54A and 35304-54 replaced with gear set 35297-54B in 1954 and 1955 KH transmissions, with not more than 7500 miles service, may be returned for credit, providing return shipment reaches the factory before January 1, 1957, when this replacement offer terminates. Provided also, that returned gears are accompanied by an instruction sheet (mailed separately) giving engine number and mileage of motorcycle from which gears were removed. Unless information is complete, credit will not be issued.

RECOMMENDATION :

Make an effort to service as many 1954 and 1955 KH transmissions as possible with the new gear set, especially new or used motorcycles on hand for sale, and those in the hands of rough operators. This preventive maintenance will pay off in less future service requirements.

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When installing gear set 35297-54B, also inspect 35709-54A, C/S 3rd gear, and 35750-54C, C/S 2nd gear. If it is found that C/S 3rd gear has 24 teeth, and C/S 2nd gear has 21 teeth, it is suggested that such gears be replaced with later gears which have 23 teeth and 20 teeth respectively. Only the later gears are now supplied on parts order. A transmission serviced in this manner has the same gear combination as a 1956 KH.

It is possible that some of the transmissions serviced should have early style countershaft replaced. We repeat the last paragraph of Shop Dope #356. (6/1/55)

"When servicing the transmission of a motorcycle with number below 54KH-2040, inspect the countershaft 35613-54 with its gears removed. If an oil hole is found cross-drilled at 2nd gear position, discard shaft and replace with a later shaft that does not have this oil hole."

Bear this in mind when servicing early 1954 KH transmissions.

HARLEY-DAVIDSON MOTOR CO.  
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