



# SERVICE INFORMATION

Technical Customer Service  
VKT-20 Gi/Wi/Go

Motorcycles R50, R60, R69S  
Group: Transmission

München, Jan. '70  
No. 3/69 (275) en.

RE: Detent of speed gears

Dear Sirs,

The jumpout of the 4th speed gear, besides to the cause described in S.I.Group Transmission No. 2/69 (272), may also be attributable to the below mentioned causes which are listed in the order of the frequency of their occurrence:

1. Excessive end play of transmission output shaft. Prescribed play: 0 - 0.10 mm (0 - 0.004"). Description of installation of the transmission output shaft see Repair Manual, page 94.
2. Oppositely settled down operating-pegs of the 3rd & 4th gear shift fork in consequence of contrarily twisted shift fork arms (faulty installation).  
Correction: Install the shift fork into empty transmission housing, measure with dial depth gauge from the mating surface of the transmission housing to both operating pegs, readjust fork if necessary.
3. Badly worn shift dowels of the 4th speed gear. Verify especially that the shift dowels are exactly cylindrical, that their width ranges within the prescribed drawing tolerance of  $9_{h11}$  and that the surface is not scaled.
4. Pounded out windows of the sliding coupling, Part No. 23 31 1 030 140, for 3rd and 4th gear.
5. Fourth speed gear bearing bushing, Part No. 23 22 1 030 266, pounded out.
6. The collar of the 3rd gear bearing bushing, Part No. 23 22 1 030 262 or the 4th gear thrust washer, Part No. 23 22 1 040 104, protrudes beyond the front surface of the speed gear, when unfavourable tolerances coincide. As the sliding coupling in this case does not abut against the

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front surface of the speed gear, the shift dowels of the speed gear consequently cannot engage in their total length into the windows of the sliding coupling. Moreover, the shift fork cannot fully perform the travel preset by the shifter cam plate and in certain circumstances presses with its operating pegs against the sliding coupling, during operation.

Correction: Turn off the collar of the 3rd gear bearing bushing and/or grind off the 4th gear thrust washer on a surface grinder until the bearing bushing collar or the thrust washer flushes with the flat surface of the respective speed gear.  
When grinding off the 4th gear thrust washer, further proceed as follows:

- a) Pick-up the output shaft between centers and re-set the front surface of the 4th gear bearing seat with cup grinding wheel for the amount having been ground off the thrust washer.
- b) Compensate the ground-off distance by means of a shim to be inserted between bearing and circlip.

Very truly yours

BAYERISCHE MOTOREN WERKE  
Aktiengesellschaft  
ppa. i.V.

Delleske

  
Bennewitz