

# SERVICE INFORMATION

Cust. Serv. - Techn. Dept.  
VKT er/lü/wi-pi

Two-cylinder motorcycles  
Group: Engine

München, 25-9-1964  
Nr. 4/64 (214) en

Re: Strange engine and transmission noises being developed in some cases on the two-cylinder models

The strange, partly creaking or crushing noises being developed from a running engine, which already disappear when slightly pulling the clutch, as well as ball bearings getting defective prematurely on the transmission primary shaft at front are due to an offset rotation axis of crankshaft to primary shaft of transmission.

To eliminate this occasionally occurring deviation, we suggest - besides of referring to the Repair Manual R 50, R 50 S, R 60, R 69 S for the dismantling and assembling operations - to proceed in accordance with the following instructions:

1. Before totally dismantling the engine, remove clutch and flywheel retaining screw. Install a dial gauge with support and rods (see sketch) or our universal measuring device 5104 (with supplementary support for dial gauge) on rear journal end of crankshaft. As support for the measuring device serves a flywheel retaining screw provided with a corresponding thread.

If then, by checking round the large centering bore for the transmission, on the flywheel bellhousing (228 mm  $\varnothing$ ) an offset larger than 0.05 mm (equalling a total runout of 0.1 mm) is measured, dismantle the engine completely.

2. On the rear bearing bush remove the retaining nuts with the lock washers, and tap the bushing by means of a suitable drift out of the cold engine housing.

To install the new bearing bushing (Part No. 00 01 163), heat the engine housing up to approx. 80° C (176° F) and press the new bushing with gasket by hand into the bore. If necessary, use a hammer handle to bring the bushing into a snug fit on the flange. Fasten the bushing by tightening the nuts carefully and evenly (10.8 ft-lbs).

3. After the engine housing has grown cold, measure the bearing bushing with the cylinder dial gauge. The following specifications, with regard to the interference fit of the rear main bearing, must be obtained:

Max. allowable out-of-round of the bearing bore = 0.020 mm

Diameter of the bearing bore = 72 mm - 0.035  
- 0.070

SERVICE INFORMATION  
Nr. 4/64 (214)

Two-cyl. motorcycles  
Group: Engine

- 2 -

This specification means that with an eventual out-of-round the bore must not be smaller than 71.930 mm, nor larger than 71.965 mm.

4. Subsequently install crankshaft and front bearing coverplate into the engine housing and re-check the central location of the bearing with regard to the centering on the flywheel bell housing with the aid of the dial gauge. An offset up to 0.05 mm (total runout of 0.1 mm) is permissible.
5. For safety remove the front ball bearing on the primary shaft of the transmission and replace it with a new one.

Note: With the universal-dial type test indicator 5104 practically all measurements can be carried out on our vehicles, for which a dial gauge is required. It may be installed in threaded bores of 6.8 and 10 mm and with the aid of the supplied intermediate bushings it can also be attached to studs of the mentioned sizes.

Price of the test indicator without dial gauge           DM 34.--  
with supplementary test indicator adapter appr.       DM 40.--

BAYERISCHE MOTOREN WERKE  
Aktiengesellschaft

1 sketch

  
Bönisch

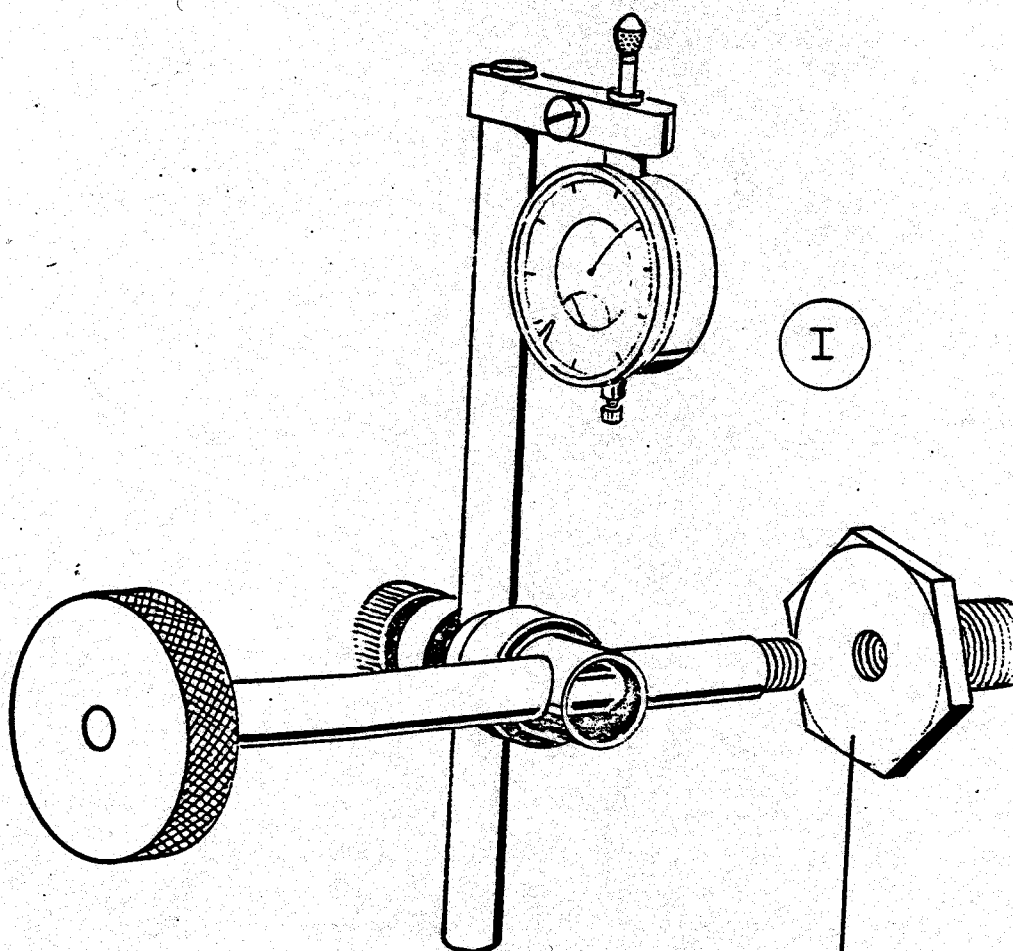
1.V.

  
Makowitzki

SERVICE INFORMATION  
Nr. 4/64 (214)

Motorrad-  
Gruppe:

## Messvorrichtung (Schema)



Schwungrad-Befestigungsschraube  
mit eingeschnittenem Gewinde