Checking and Subsequent Machining of Timing Housing Cover OM 636

Job No. 01–16

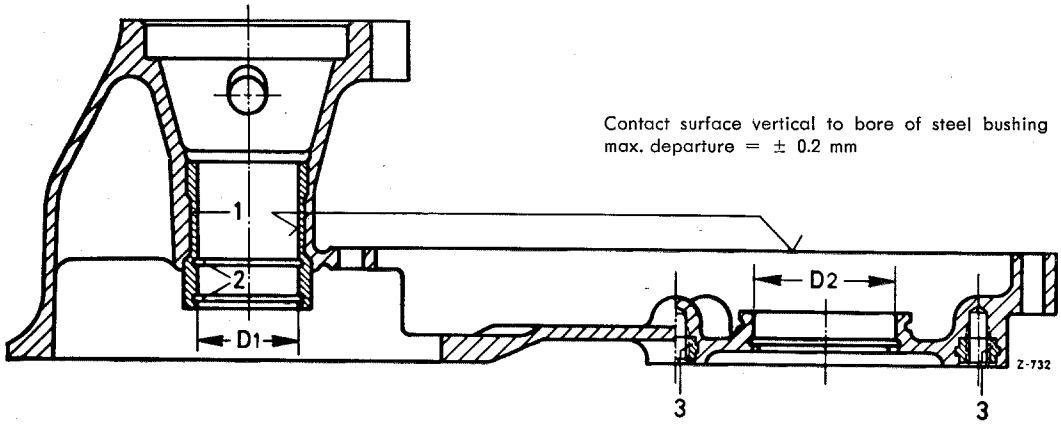

Figure 01–16/1

2nd Version of Timing Housing Cover with Cast-in Steel Bushing

1 Cast-in steel bushing to support injection pump drive
2 Grooves of retaining rings
3 Cast-in threaded sleeve for mounting of front engine support
D_1 Bore supporting the annular ball-bearings
D_2 Bore for the crankshaft

1. Check the thoroughly cleaned timing housing cover for cracks, especially in the vicinity of the flange for the fuel main filter.

2. Check levelness of the contact surface provided to fix the cover to the crankcase, refinish if necessary.

3. Check condition of fixing studs for the mounting of the injection pump, replace if necessary. Check tight seating of threaded sleeves (3) for mounting of front engine support (see Figure 01–16/1). The dowel pins must be in perfect condition, if not, replace the cover.

4. Check angle between contact surface and bore of steel bushing. The permissible departure may be ± 0.2 mm. This check is only necessary if the engine has been damaged in an accident.

5. Measure the bore (D_1) provided to support the injection pump drive. This is especially important on the 1st version of the timing housing cover, which, opposite to the 2nd version, has no cast-in steel bushing (see Figure 01–16/1 and 01–16/3).

6. Check crankshaft bore (D_2) for wear. Very scored bores (caused by the scavenging spiral in the spacer) cause loss of oil. The diameter of the bore is 48.05 to 48.112 for all timing housing cover versions.

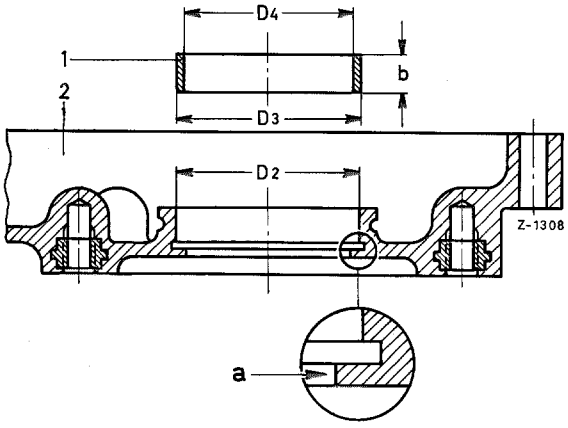

Figure 01–16/2

1 Bushing (for repairs only, part No. 636 015 02 50 – can also be manufactured in own workshop)
2 Timing gear housing cover
a Collar (this collar is applicable only to engines with separate pulley and intermediate piece with oil baffle plate)
b Height of bushing = 10.0 mm
D_2 Dia. of finished bore in timing gear housing cover = 50.500 mm
D_3 Outer dia. of bushing = 50.543 – 50.559 mm
D_4 Inner dia. of bushing before pressing in = 47.3 – 47.5 mm
after pressing in: 48.05 – 48.100 mm

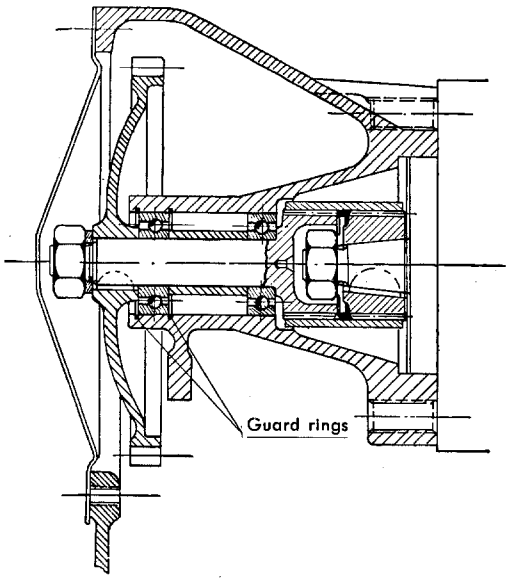

Figure 01–16/3

1st version of timing housing cover

Part No. 636 010 05 17

The diameter of the bore for the annular ball-bearing is 31.987 to 32.003 mm for the 1st version and 34.994 to 35.010 mm for the 2nd version. If the bores are worn out, replace the timing housing cover.

If the bore D_2 shows wear, then press in aluminum bushing (1) if necessary (see Figure 01–16/2) or replace the timing gear housing cover. The bushing (1) can be manufactured in your own workshop or supplied under part No. 636 015 02 50. After pressing in turn the bushing (1) to the measure 48.05–48.10.

Note: Presently, the engines of the type 636.914 and 636.917 are equipped with a timing housing cover (3rd version) Part No. 636 010 23 17. In this design there is no longer a collar (a) in the bore (D_2) (see Figure 01–16/2).

Timing Housing Cover

Part No.	installed in the engines with the type designation
636 010 05 17 1st version	636. { 914 915 916 918 931
636 010 16 17 or 636 010 18 17 optional 2nd version	636. { 914 * 915 916 918 919 930 931 932 * 933 * 934 935 936 * } 636.917/ { 0 2 3 4 5 6 9 10 11 12 13 14 15 16 } 636.917/ { 17 18 19 20 21 22 23 24 25 26 27 29 30 31 32 } 636.917 – { 021 050 180 221 222 223 340 350 370 * 636. { 914 only up to engine serial No. 636.914–75 00569 932 only up to engine serial No. 636.932–95 00160 933 only up to engine serial No. 636.933–95 00194 936 starting with engine serial No. 636.936–00 0251
636 010 23 17 3rd version	636. { 914 * 932 * 933 * 936 * } 636.917 – { 00 040 090 120 190 240 251 252 253 260 270 } 636.917 – { 271 272 280 290 300 310 320 330 360 * 636. { 914 starting engine end No. 75 00570 932 starting engine end No. 95 00161 933 starting engine end No. 95 00195 936 up to engine end No. 00 0250
636 010 22 17 Outside Production	636.917 { /28 and/or 917–022 /33 and/or 917–023