

## Removal and Installation of Flywheel

Job No.

03-16

### A. OM 636

The flywheel can be removed from installed or removed engines after removal of the gear box and the clutch.

A new flywheel is balanced and can be installed without further balancing.

#### Removal:

1. Mark crankshaft flange and flywheel if no marking (0) has been provided.
2. Remove the flywheel from the crankshaft after unlocking and unscrewing the hex nuts of the fixing bolts.

**Note:** If the clutch surface A of the flywheel has been reconditioned (see Figure 03-19/1), it can happen that the fixing bolts of the flywheel touch the driven plate. In this case the hexagon screws and possibly the hex nuts must be machined accordingly.

**Repairing the flywheel (see Job No. 03-18 and 03-19).**

3. If the flywheel fixing bolts must be removed for reworking, remove the oil pan (see Job 01-21).

#### Installation:

4. Clean the crankshaft flange and the contact surfaces of the flywheel (dirt on the contact surfaces causes lateral deflection of the flywheel).
5. Carefully mount the flywheel as marked, so that the fixing screws are not pushed back. Before tightening of the screws make sure that one surface of each screw head touches the collar of the crankshaft flange thus preventing turning of the screws.

Use new locking plates and tighten the hex nuts with a torque of 4.5 to 5 mkg.

**Note:** When installing a flywheel without marking set the piston of the 1st cylinder

to ignition dead center (see Job No. 00-3, Paragraph 3).

In this position of the crankshaft check the position of the flywheel and/or OT-marking (TDC) of the latter after mounting the Timing Needle Part No. 636 589 00 23 on the dowel pin (see Figure 03-16/1) or after the installation of a hexagon screw (see Figure 03-16/2).

The Timing Needle Part No. 636 589 00 23 must point to the OT-marking (TDC) of the flywheel

or

the hexagon screw must be situated between the two lines marked with OT (see Figure 03-16/2).

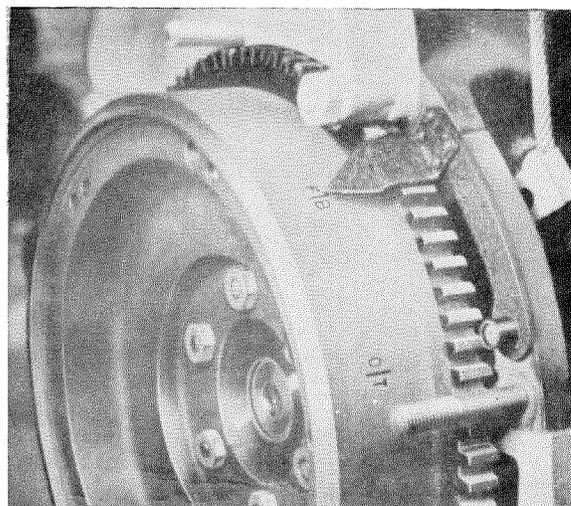


Figure 03-16/1

OM 636

Flywheel Part No. 636 030 02 05

OT = Top Dead Center

FB = Feed Begin

or on the first engines

EB = Beginning of Injection

The markings on this flywheel are advanced 50 deg in relation to the vertical

**The mounting of the flywheel on the crankshaft must be done correctly. If the flywheel is incorrectly mounted, timing of the engine with the help of the markings on the flywheel is not possible.**

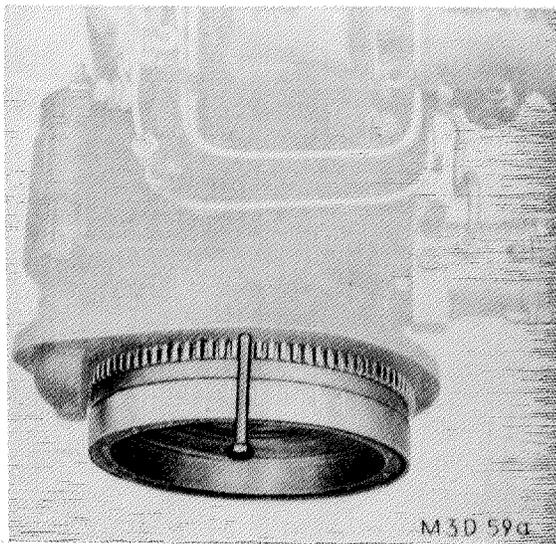


Figure 03-16/2

OM 636

Flywheel Part No. 636 030 01 05  
 In the photograph the crankshaft is set to feed begin. **On the flywheel Part No. 636 030 01 05** the marks

OT = Top Dead Center and  
 FB = Feed Begin

are bordered by 2 lines each (see Fig. 03-16/2)

### Table of installed Flywheels

Part No.	installed in the engines with the type designation																																
636 030 00 05	636.915																																
636 030 01 05 (outer dia. 278 mm and flywheel inertia moment 0.76 kgm <sup>2</sup> )	<table border="0"> <tr> <td rowspan="14">636.</td> <td rowspan="14">}</td> <td>912</td> <td rowspan="14">636.917-</td> <td rowspan="14">}</td> <td>021 and/or /3</td> </tr> <tr> <td>914</td> <td>050 and/or /6</td> </tr> <tr> <td>932</td> <td>253 and/or /32</td> </tr> <tr> <td>933</td> <td>270 - -</td> </tr> <tr> <td>936</td> <td>271 - -</td> </tr> <tr> <td>917/9</td> <td>280 - -</td> </tr> <tr> <td>917/11</td> <td>290 - -</td> </tr> <tr> <td>917/14</td> <td>310 - -</td> </tr> <tr> <td>917/15</td> <td>340 - -</td> </tr> <tr> <td>917/16</td> <td>350 - -</td> </tr> <tr> <td>917/17</td> <td></td> </tr> <tr> <td>917/18</td> <td></td> </tr> <tr> <td>917/21</td> <td></td> </tr> <tr> <td>917/22</td> <td></td> </tr> </table> <p>and also in the engines of the type 636.917/0 of the version E, G, H, K, L, N, O, R, S and T.</p>	636.	}	912	636.917-	}	021 and/or /3	914	050 and/or /6	932	253 and/or /32	933	270 - -	936	271 - -	917/9	280 - -	917/11	290 - -	917/14	310 - -	917/15	340 - -	917/16	350 - -	917/17		917/18		917/21		917/22	
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636 030 02 05 (outer dia. 256 mm and flywheel inertia moment 0.62 kgm <sup>2</sup> )	<table border="0"> <tr> <td rowspan="14">636.</td> <td rowspan="14">}</td> <td>916</td> <td rowspan="14">636.917-</td> <td rowspan="14">}</td> <td>090 and/or /10</td> </tr> <tr> <td>918</td> <td>120 and/or /13</td> </tr> <tr> <td>919</td> <td>180 and/or /19</td> </tr> <tr> <td>930</td> <td>190 and/or /20</td> </tr> <tr> <td>931</td> <td>240 and/or /25</td> </tr> <tr> <td>934</td> <td>251 and/or /30</td> </tr> <tr> <td>935</td> <td>260 - -</td> </tr> <tr> <td>917/2</td> <td>300 - -</td> </tr> <tr> <td>917/4</td> <td>320 - -</td> </tr> <tr> <td>917/24</td> <td>330 - -</td> </tr> <tr> <td>917/26</td> <td>360 - -</td> </tr> <tr> <td>917/27</td> <td></td> </tr> </table> <p>and also in the engines of the type 636.917/0 of the version A, B, C, D, F, Q, U, V, W, X, Y and Z.</p>	636.	}	916	636.917-	}	090 and/or /10	918	120 and/or /13	919	180 and/or /19	930	190 and/or /20	931	240 and/or /25	934	251 and/or /30	935	260 - -	917/2	300 - -	917/4	320 - -	917/24	330 - -	917/26	360 - -	917/27					
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and 636.917/0 of the version I, M and P the flywheel is supplied by the customer and sent to DB	636.917/12																																
The engines of the type designation'	636.917- { 022 and/or /28 023 and/or /33 221 and/or /23 222 and/or /29 223 - - 252 - - 270 - -																																
are delivered ex DB-works Untertürkheim																																	
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