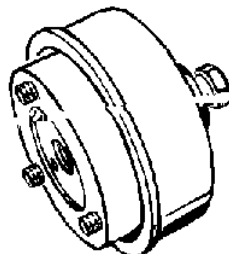
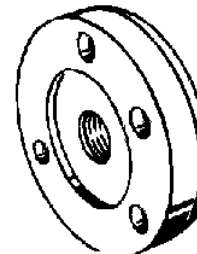




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WM 135919 Removing and installing crankshaft sealing ring - flywheel side

Tools

Designation	Type	Number	Description	
fitting tool	Special tool	9517		<p>10</p>  <p>9517 000 721 951 70</p>
mounting plate	Special tool			<p>10</p>  <p>9517/1 000 721 951 71</p>
slide hammer kit	Commercially available tool	Nr.168		
impact puller mod. G for sealing rings	Commercially available tool	Nr.168-1		

Technical values

Location	Description	Type	Basic value	Tolerance 1	Tolerance 2
Dual-mass flywheel	M10 x 1.25 x 62	Tightening torque	85 Nm (63 ftlb.)		
Drive plate for converter (not GT2)	M10 x 1.25 x 45	Tightening torque	90 Nm (67 ftlb.)		
Clutch pressure plate to flywheel	M8 x 40	Tightening torque	23 Nm (17 ftlb.)		

Preliminary work

Preliminary work

1. Remove engine-transmission unit.
→ 100119 *Removing and installing engine.*

2. Remove transmission.

Manual transmission: → 343527 *Removing and mounting transmission.*

Automatic transmission (997 Turbo only): → 373527 *Removing and mounting automatic transmission.*



Information

Loosen and tighten screws on the component according to specifications.



Information

Loosen and tighten screws on the component according to specifications.

3. **Manual transmission:** Remove clutch.

→ 30501950 *Removing and installing clutch - section on "Removing".*

NOTICE

Removing and installing flywheel

- Leaks
- Risk of damage to the flywheel and adjacent components

- Be very careful during removal and installation.
- Get another person to help because of the weight.

4. Remove flywheel.

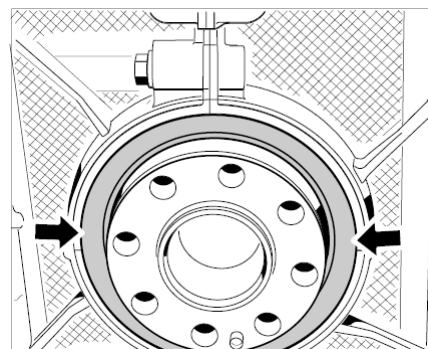
Removing sealing ring

Removing sealing ring



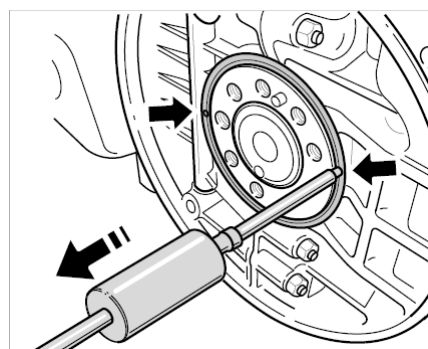
Information

- *Work on delicate engine parts must be carried out conscientiously and precisely.*
 - *Use a suitable tray.*
 - *Absolute cleanliness is essential.*
1. Fit a 3-mm drill bit in a battery-powered screwdriver or power drill. Grease drill bit lightly so that any chips produced will stick.
 - 1.1. Drill two bores at the front of the crankshaft sealing ring **-arrows-**.



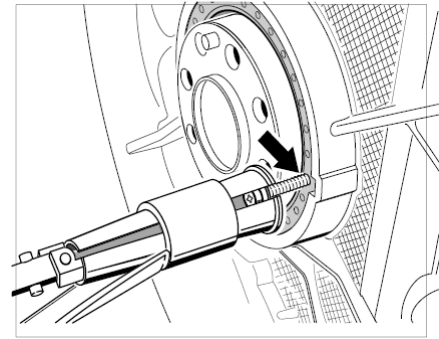
Bore hole positions on sealing ring

2. Screw the threaded tip of the tool **impact puller mod. G for sealing rings Nr.168-1** alternately into the two bores on the sealing ring and drive out in direction of arrow → *Using impact puller* using the guide weight.



Using impact puller

- 2.1. Alternatively, screw a tapping screw approx. 5 mm into the bores and remove the sealing ring using the **slide hammer kit Nr.168**.



Pulling out sealing ring using tapping screws

2.2. Soak up any escaping engine oil with a cloth.

⚠ Caution

Crankshaft flange not cleaned correctly

- Risk of leaks (loss of engine oil)
- Risk of corrosion

- Never use an abrasive or polishing cloth or brushes with metal bristles on the crankshaft flange.
- Follow cleaning instructions.
- Remove corroded spots using a metal-polishing pad only (for example **Never Dull** , available in car and motor bike accessory stores). Then, carefully clean the flange and crankcase bore using a clean, lint-free cloth soaked in solvent naphtha or acetone.

3. Clean crankshaft flange and crankcase bore carefully.



Information

Visually inspect the crankshaft flange and crankcase bore for damage.

4. Check crankshaft flange and crankcase bore for damage.

The sealing faces must not be damaged.

4.1. Small burrs can be removed using an oilstone (not on the sealing faces). Then clean thoroughly with acetone or solvent naphtha.

Installing sealing ring

Installing sealing ring

1. Install sealing ring (open side facing the engine).

NOTICE

Incorrect handling of sealing rings and covers

- Leaks
- Risk of damage to components

- Use clean tools without burrs.
- Make sure not to leave any scores or scratches when cleaning.

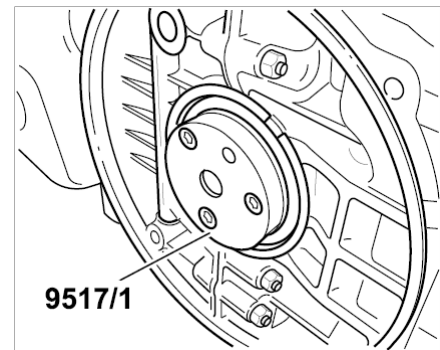
NOTICE

Sealing ring not oiled correctly

- Damage to micro-sealing lip
- Leaks

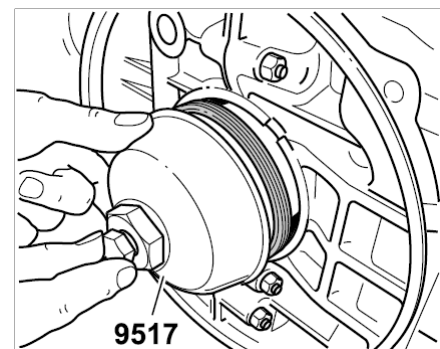
- Only coat the outer sealing face of the crankshaft sealing ring very lightly with new engine oil.
- Never oil or grease the micro sealing lip.
- Never touch the micro sealing lip.

- 1.1. Secure the **mounting plate 9517/1** for the **fitting tool 9517** to the crankshaft flange and tighten hand-tight using the hexagon socket head bolts supplied → *Base plate for fitting crankshaft sealing ring*.



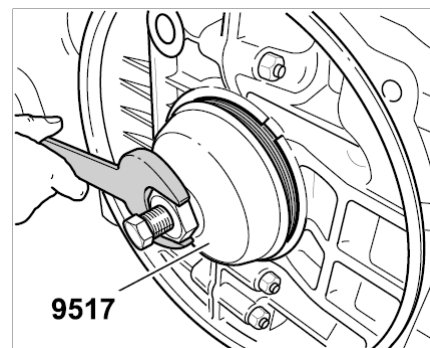
Base plate for fitting crankshaft sealing ring

- 1.2. Carefully slide crankshaft sealing ring onto the base plate at the correct position.
- 1.3. Secure the mounting bell of the **fitting tool 9517** to the base plate. To do this, tighten the centre hexagon-head bolt of the mounting bell by hand.



Securing mounting bell to base plate

- 1.4. Pull the crankshaft sealing ring onto the crankshaft flange by turning the tightening nut of the mounting bell in a clockwise direction until the mounting bell is completely aligned with the contact surface of the crankcase.



Pulling in crankshaft sealing ring

2. Loosen the tightening nut and the hexagon-head bolt of the fitting tool, then remove the tool. Screw off ground plate.

Subsequent work

Subsequent work

NOTICE

Removing and installing flywheel

- Leaks
- Risk of damage to the flywheel and adjacent components

- Be very careful during removal and installation.
- Get another person to help because of the weight.

1. Install flywheel.

→ **Tightening torque: 85 Nm (63 ftlb.)**

Turbo only (not GT2): → **Tightening torque: 90 Nm (67 ftlb.)**



Information

Loosen and tighten screws on the component according to specifications.



Information

Loosen and tighten screws on the component according to specifications.

2. **Manual transmission:** Install clutch.

→ *305019 Removing and installing clutch.*

→ **Tightening torque: 23 Nm (17 ftlb.)**

3. Mount transmission.

Manual transmission: → *343527 Removing and mounting transmission.*

Automatic transmission (997 Turbo only): → *373527 Removing and mounting automatic transmission.*

4. Install engine-transmission unit.

→ *100119 Removing and installing engine.*

997420, 997421, 997630, 997631, 997840, 997841

Model year as of 2007

C00, C02, C05, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C32, C33, C34, C35, C36, C37, C38, C39, C45, C46, C98, C99