Servicing clutch
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Notes:

- Observe the general repair instructions =>Page 00-23.
- Before renewing the clutch plate and pressure plate

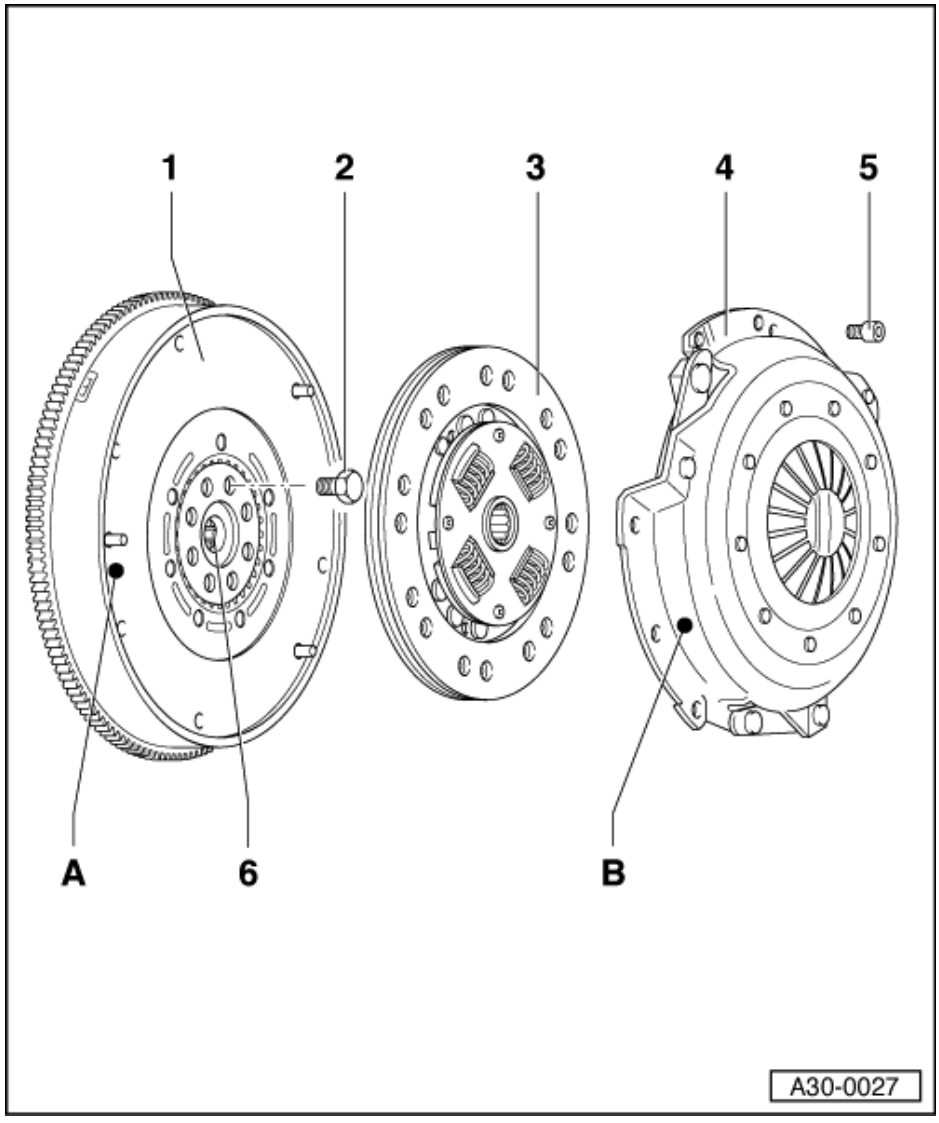
=> Fault-finding No. 9 - Defects on the clutch and clutch mechanism.

- Replace clutch plates and pressure plates with damaged or loose rivets.
- Select the correct clutch plate and pressure plate according to engine code:

=> Parts List

- Clean input shaft splines and (in the case of used clutch plates) the hub splines. Remove corrosion and apply only a very thin coating of grease G 000 100 to the splines. Then move clutch plate to and fro on input shaft until hub moves freely on shaft. Excess grease must be removed.
- Pressure plates are protected against corrosion and greased. Only the contact surface may be cleaned, otherwise the service life of the clutch will be considerably reduced.
- If the clutch has burnt out, thoroughly clean the bell housing, flywheel and parts of the engine facing the gearbox in order to reduce the smell.

– Remove gearbox to work on clutch => Page 34-49.



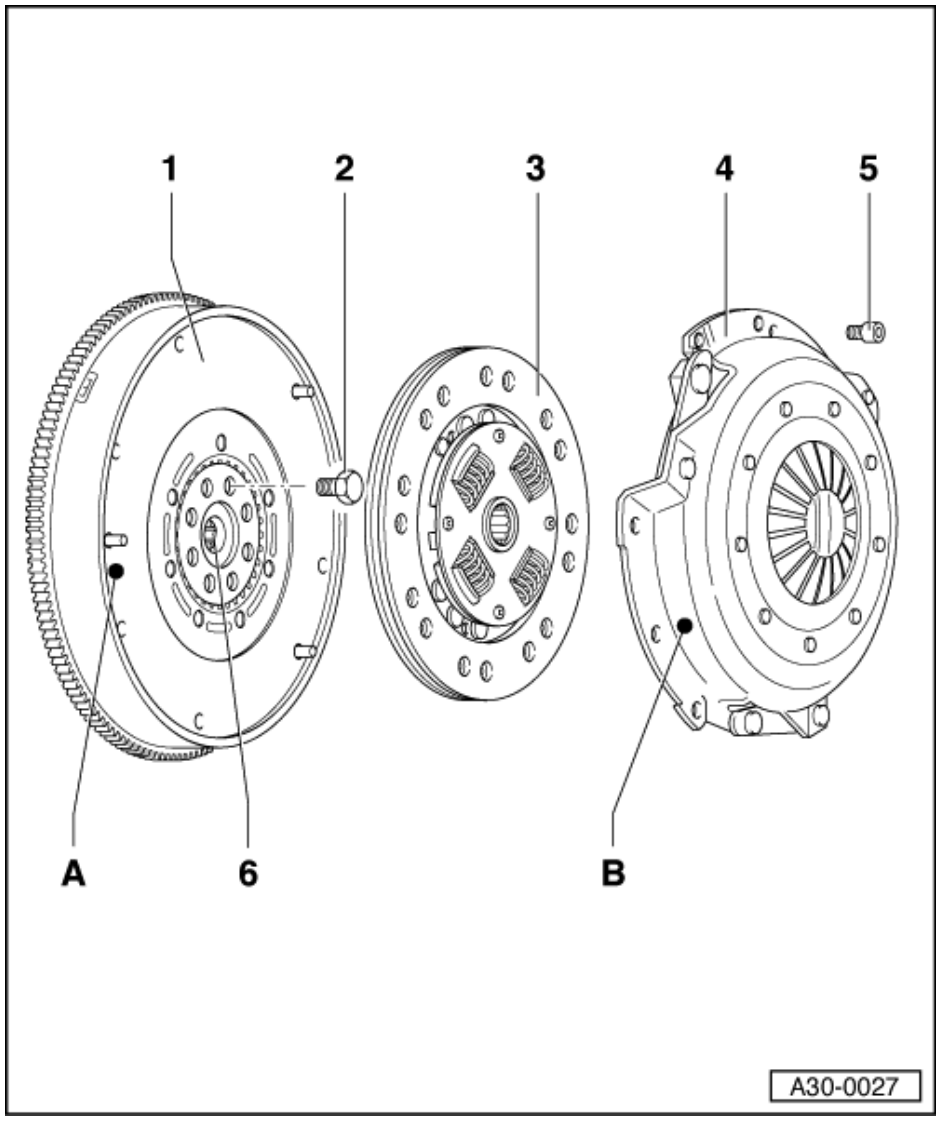
1. **A - Coloured marking on dual mass flywheel**
   - If components are marked: white marking - A- on dual mass flywheel must coincide with white marking - B- on pressure plate.
2. **B - Coloured marking on pressure plate**
   - If components are marked: white marking - A- on dual mass flywheel must coincide with white marking - B- on pressure plate.

1. **Flywheel/dual mass flywheel**

- Make sure that centring pins are a tight fit.
- Contact surface for clutch lining must be free of grooves, oil and grease
- Removing and installing:

=> 4-cylinder engine (5-valve), Mechanics; Repair Group 13; Removing and installing sealing flanges and flywheel/drive plate; Removing and installing dual mass flywheel/drive plate

=> 4-cylinder engine (5-valve turbo), Mechanics; Repair Group 13; Removing and installing sealing flanges and flywheel/drive plate; Removing and installing dual mass flywheel/drive plate



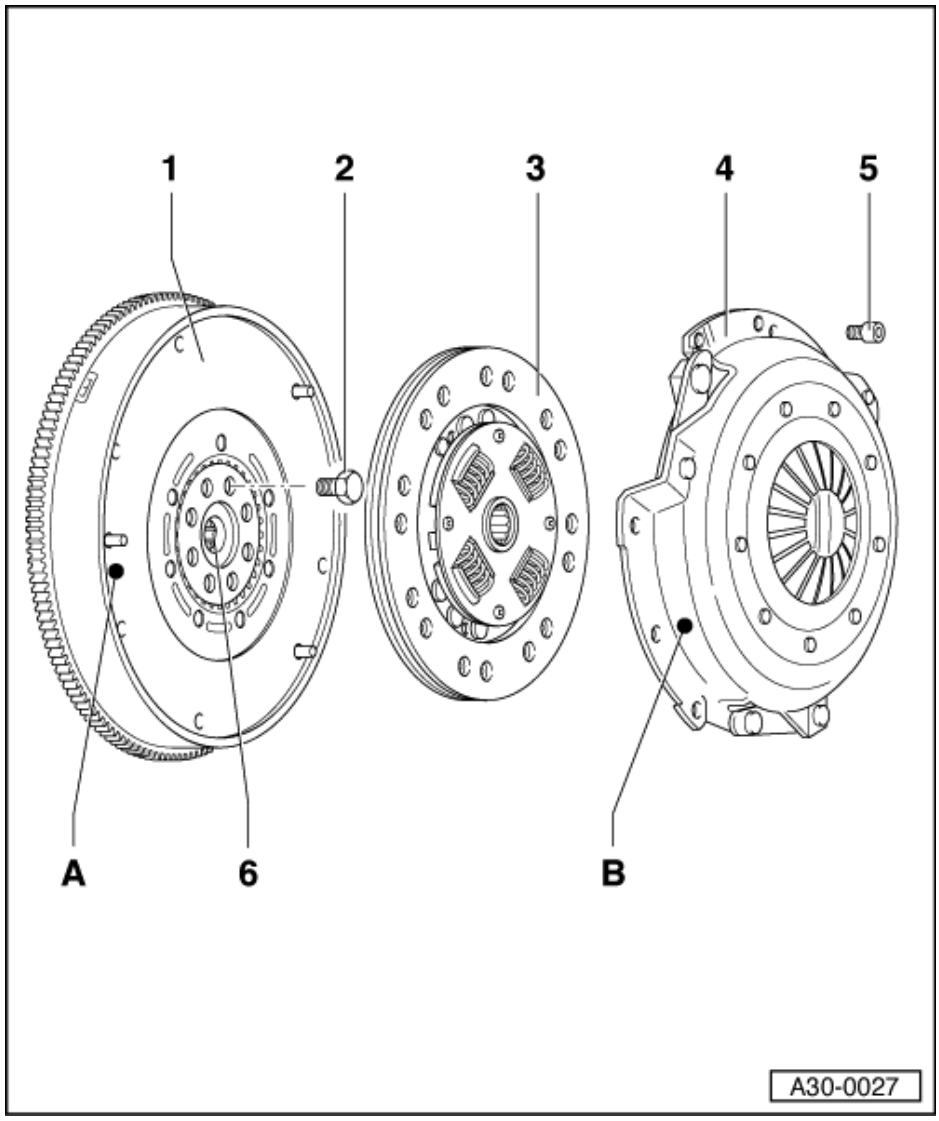
=> 4-cylinder diesel direct injection engine (TDI), Mechanics; Repair Group 13; Removing and installing sealing flanges and flywheel/drive plate

=> 6-cylinder Engine (2-valve), Mechanics; Repair Group 13; Crankshaft group; Removing and installing flywheel/drive plate, Installation dimensions

=> 6-cylinder Engine (5-valve), Mechanics; Repair Group 13; Dismantling and assembling cylinder block, crankshaft and flywheel; Removing and installing flywheel/drive plate, Installation dimensions

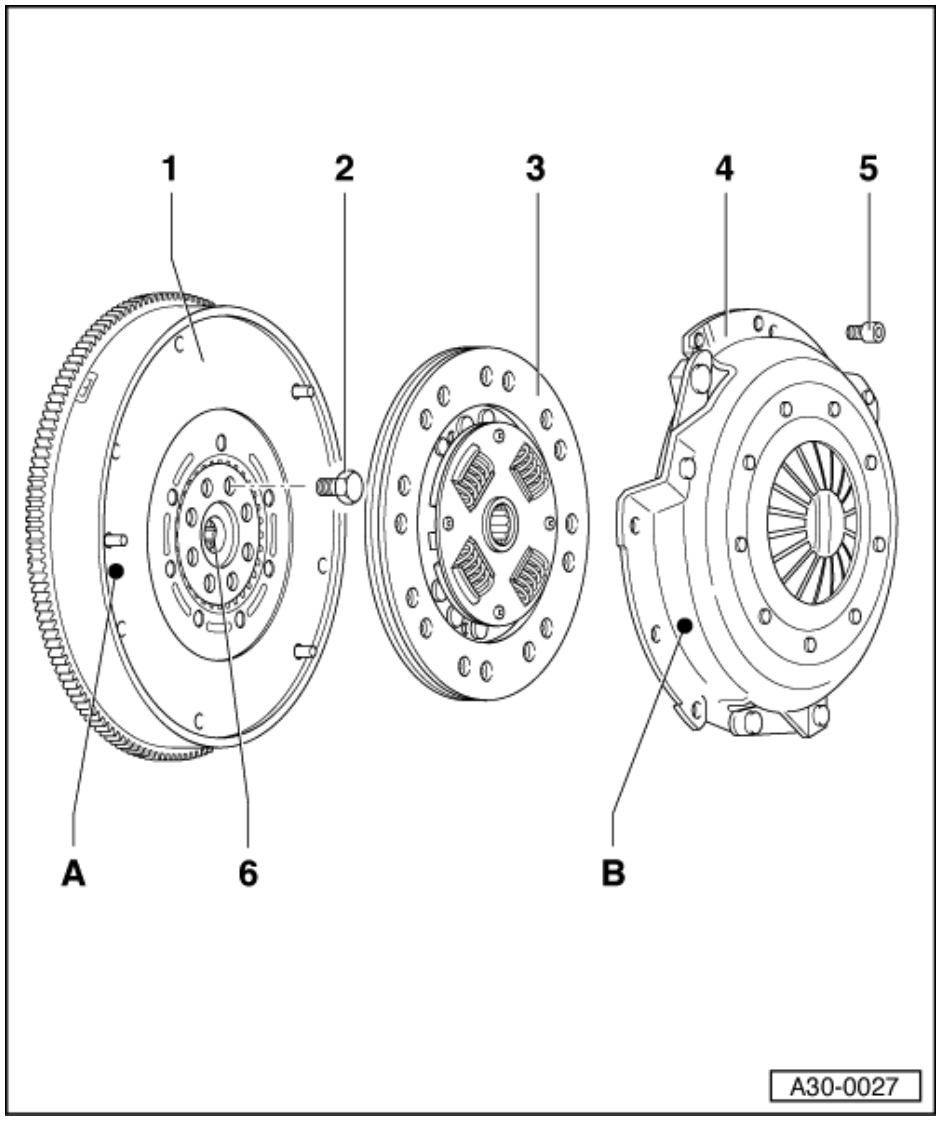
2. **Bolt for flywheel**
   - Replace
   - Vehicles without dual mass flywheel 60 Nm

+ turn 90o further
- Vehicles with dual mass flywheel 60 Nm + turn 180o further



3. Detach clutch plate

- Installation position:
- – Spring pack (coil springs) towards pressure plate and gearbox
- – Clutch lining must make full contact with flywheel
- – Marking "Getriebeseite" (if present) goes towards pressure plate and gearbox
- Do not grease
- Clutch plate diameter => from Page 00-3
- Centring =>Fig.1
- Lightly grease splines

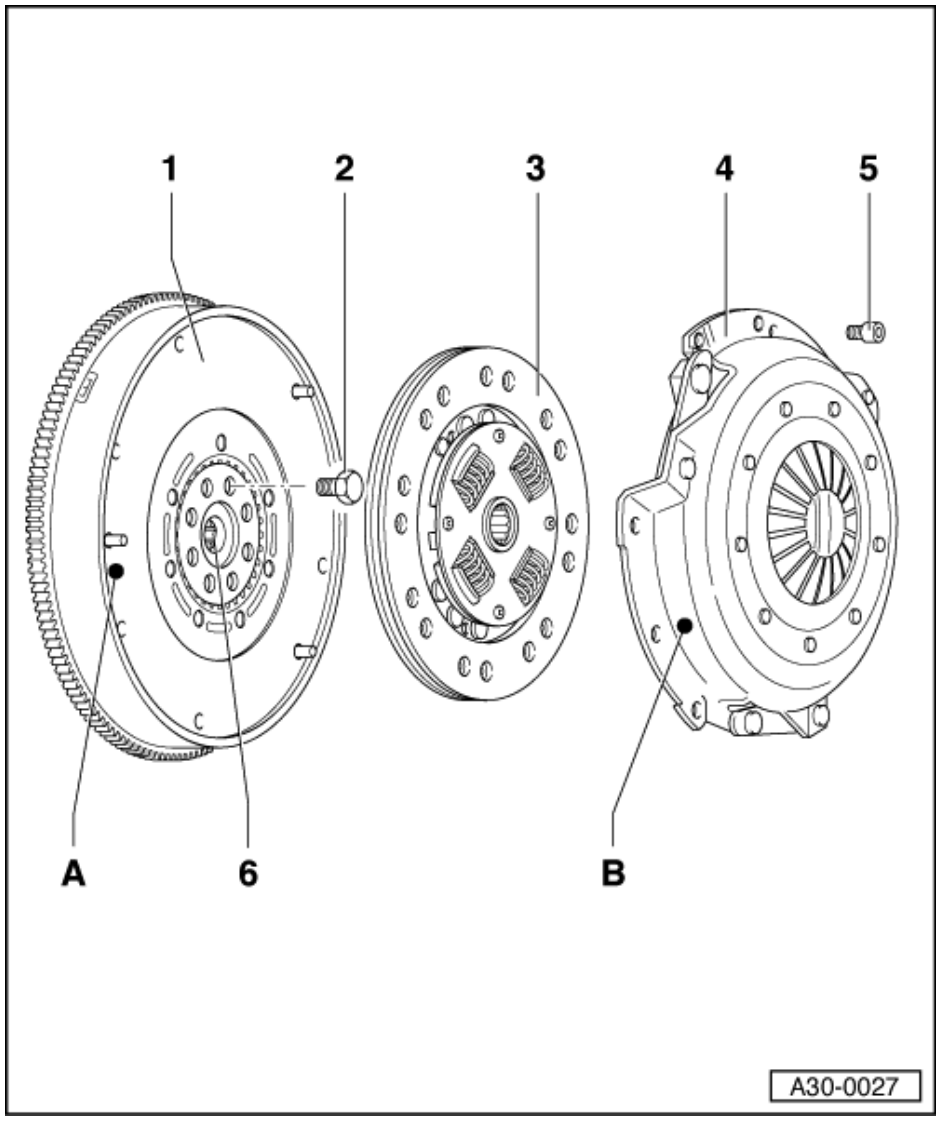


4. **Pressure plate**
   - Removing and installing => Fig.1
   - Check ends of diaphragm spring => Fig.2
   - Checking spring connection and riveted fastenings => Fig.3
5. **Release and tighten bolt - 25 Nm**
   - Loosen and tighten gradually in several stages working diagonally
6. **Needle bearing**
   - Removing and installing

=> 4-cylinder engine (5-valve), Mechanics; Repair Group 13; Removing and installing crankshaft; Removing and installing

needle roller bearing in crankshaft

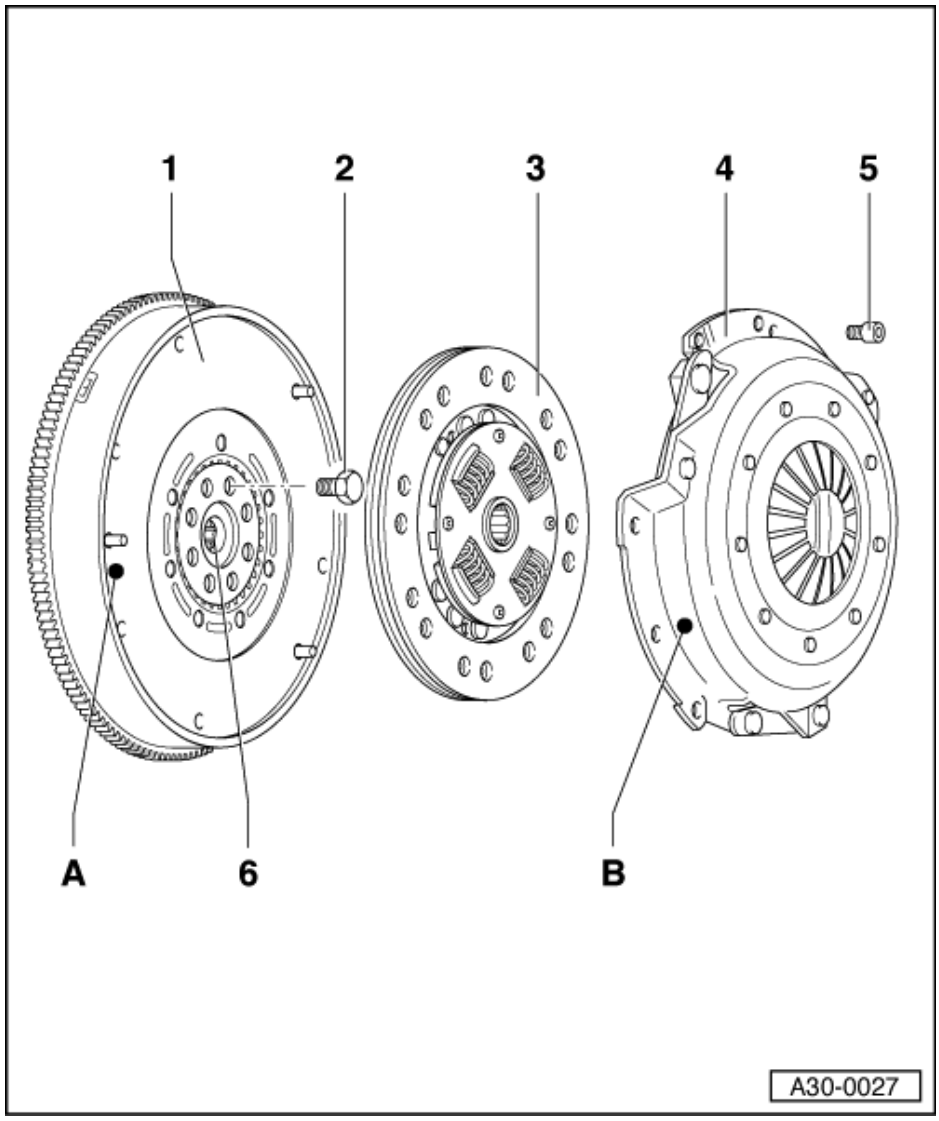
=> 4-cylinder engine (5-valve turbo), Mechanics; Repair Group 13; Removing and installing crankshaft; Removing and installing needle roller bearing in crankshaft



=> 4-cylinder diesel direct injection engine (TDI), Mechanics; Repair Group 13; Removing and installing crankshaft; Removing and installing needle roller bearing in crankshaft

=> 6-cylinder engine (2-valve), Mechanics; Repair Group 13; Crankshaft group; Removing and installing needle bearing in flywheel

=> 6-cylinder Engine (5-valve), Mechanics; Repair Group 13; Dismantling and assembling cylinder block, crankshaft and flywheel; Removing and installing needle bearing in flywheel

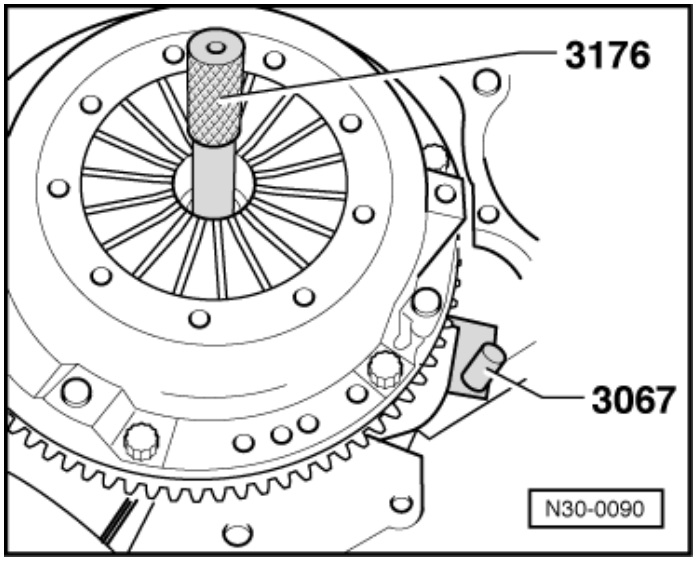


→ Fig.1 Centring clutch plate and removing and installing pressure plate

- Installation position of clutch plate: spring pack (coil springs) or marking "Getriebeseite" towards pressure plate and gearbox.

Notes:

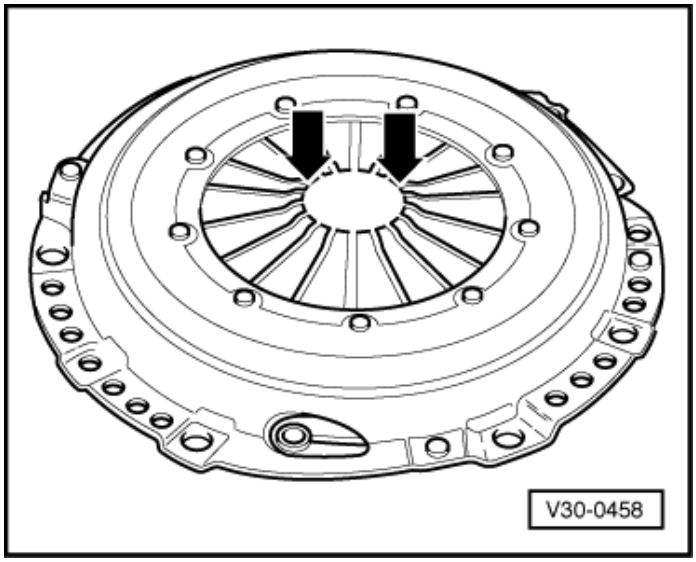
- The clutch plate lining and the contact surface of the pressure plate must make full contact with the flywheel before the securing bolts are inserted.
- Tighten securing bolts evenly and in diagonal sequence to avoid damaging centring holes in pressure plate and centring pins on flywheel.



- When assembling, ensure that white marking (if provided) on dual-mass flywheel coincides with white marking on pressure plate.
- Loosen and tighten bolts gradually in several stages working diagonally. Tightening torque: 25 Nm.
- Reverse position of retainer 3067 when removing.

- Use mandrel 3176 to centre clutch plate.

→ Fig.2 Checking ends of the diaphragm spring

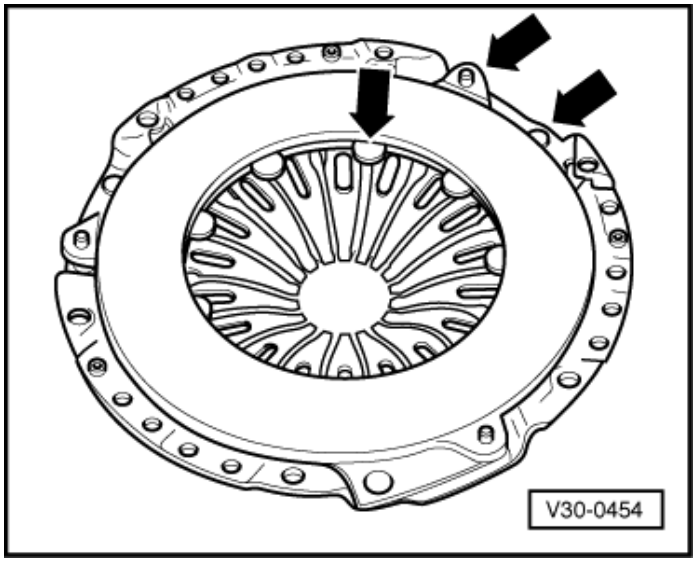


- Wear up to half the thickness of the diaphragm spring is permitted.

Note:

When performing repairs always match up clutch pressure plate and clutch plate by checking engine code (see Parts Catalogue).

→ Fig.3 Checking spring connection and riveted fastenings



- Check spring connection between pressure plate and cover for cracks and make sure rivet fastenings are seated tightly.
- Renew clutches with damaged springs or loose riveted fastenings -arrows-.