



Self-Adjusting Clutches XTend PC Type I, II, III, IV

Self-adjusting clutches have, dependent on their type, different features which allow them to be distinguished from each other.

1. XTend Type I With Housing Limit Stop (Riveted / Bolted)

| | |
|-----------------------------------|-----------------------------------------------------------------------------|
| Feature | Housing limit stop (1) |
| Special feature | Housing limit stop is riveted (Fig. 1) or bolted (Fig. 2) |
| Installation / re-use / guarantee | When disassembling, the housing limit stop must loosen and be able to move. |

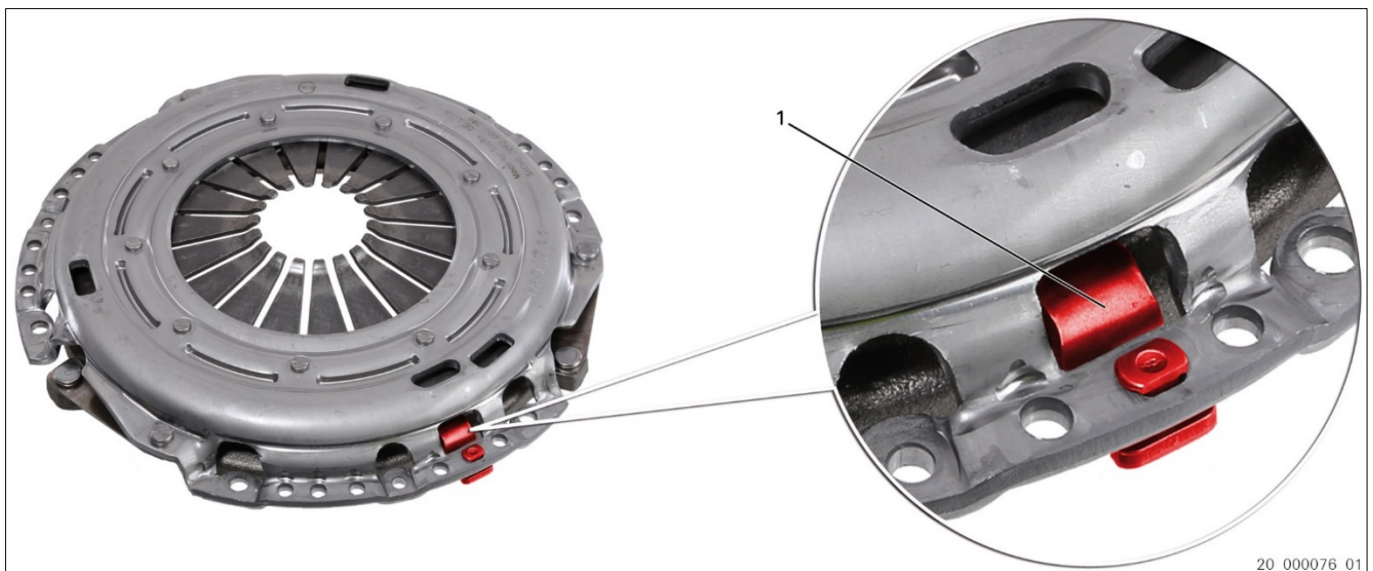


Fig. 1: XTend type I with housing limit stop (riveted)

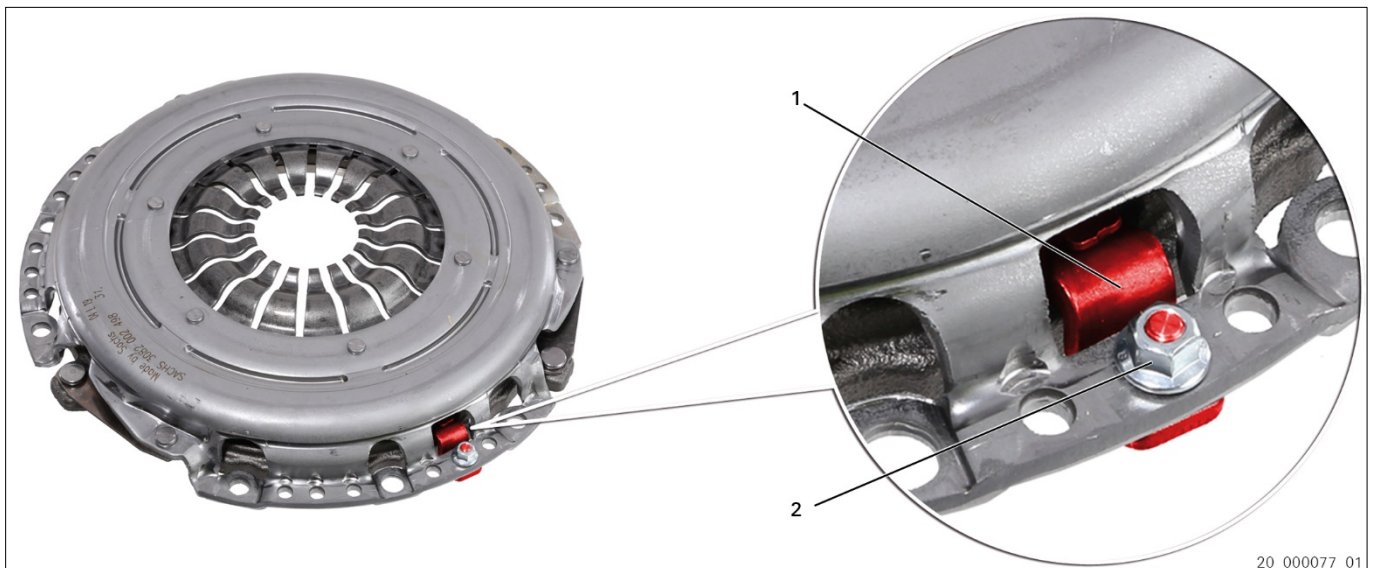


Fig 2: XTend type I with housing limit stop (bolted)

1 Housing limit stop

2 Nut



The housing limit stop (1) can be moved in its delivered condition.
The adjusting mechanism is not active.



XTend type I, riveted design (Fig. 1)

When screwing the clutch cover assembly onto the flywheel, the housing limit stop (1) is locked in place.
→ Adjusting mechanism is activated.

XTend type I, bolted design (Fig. 2)

Once the clutch cover assembly has been screwed onto the flywheel, tighten the nut (2).
→ This locks the housing limit stop in place (1).
→ Adjusting mechanism is activated.



Observe service information: 12498 EN [XTend Clutch With Bolted Stop – Activating Wear Compensation Manually].

Re-use or guarantee

NOTICE

Upon disassembly, ensure that the housing limit stop (1) does not become wedged. If the housing limit stop becomes wedged upon disassembly, the adjusting mechanism may be triggered. The adjusting mechanism cannot be reset.

XTend design (riveted)

When disassembly is being carried out, the housing limit stop (1) must be loosened from the clutch housing.

XTend design (bolted)

Loosen the nut (2) before disassembly. Do not completely unscrew the nut (2).
Observe service information: 12498 EN [XTend Clutch With Bolted Stop – Activating Wear Compensation Manually].



ZF Aftermarket recommends that special tool 4200 080 561 be used for installation and disassembly.



2. XTend Type II With Visible Adjusting Springs (Without / With Locking Piece)

| | |
|-----------------------------------|--------------------------------------------------------------------------|
| Feature | Adjusting springs (1) can be seen externally |
| Special feature | Without or with locking piece (2), depending on item number. |
| Installation / re-use / guarantee | Disassembly and installation may only be carried out with special tools. |

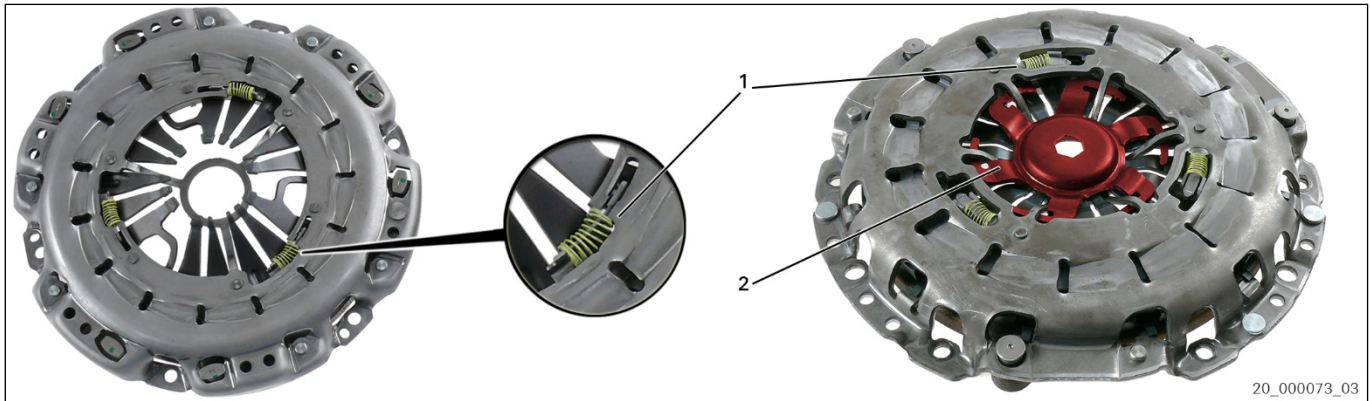


Fig. 3: XTend type II without / with locking piece

1 Adjusting springs

2 Locking piece

XTend type II, design without locking piece



Use clamping device with centering pin (special tool 4200 080 561) to assemble the self-adjusting clutch cover assembly XTend type II without locking piece. This prevents the housing from warping and thus also prevents pedal pulsation and uncontrolled adjustment.

XTend type II, design with locking piece



Once the clutch cover assembly has been screwed onto the flywheel, remove the locking piece (2). Observe SACHS assembly instructions 10332 IN and 11363 IN. Center the clutch disk using the appropriate centering pin (special tool 4200 080 561).

Re-use or guarantee

NOTICE

Resetting of the setting mechanism may lead to functional impairments.



Use special tool 4200 080 561 for disassembly and installation.



3. XTend Type III With Non-Visible Adjusting Springs (Without / With Locking Piece)

| | |
|-----------------------------------|----------------------------------------------------------------------------------|
| Feature | Adjusting mechanism (2), worm |
| Special feature | Without or with locking piece (1), depending on item number. |
| Installation / re-use / guarantee | Disassembly and installation: Observe the vehicle manufacturer's specifications. |



Fig. 4: XTend type III without locking piece

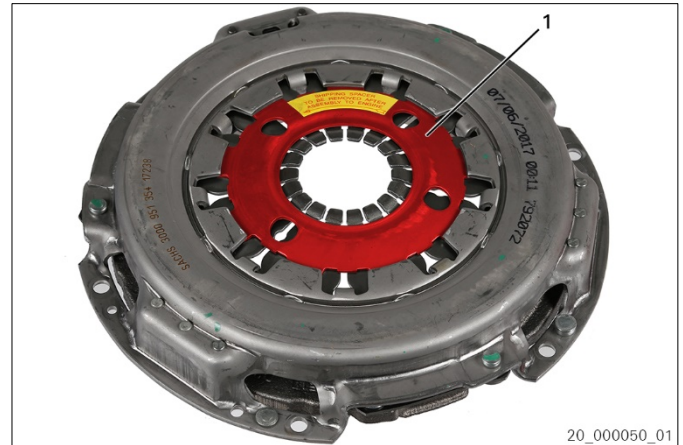


Fig. 5: XTend type III with locking piece

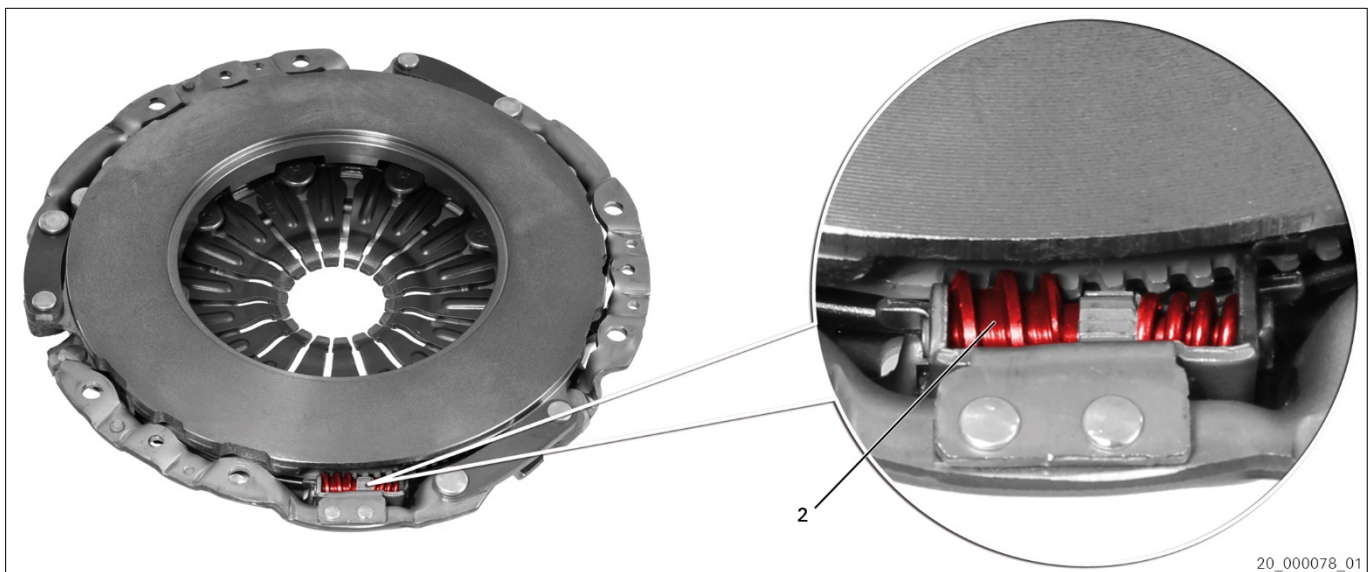


Fig 6: XTend type III adjusting mechanism (example)

1 Locking piece

2 Adjusting mechanism

XTend type III, design with locking piece



Once the clutch cover assembly has been screwed onto the flywheel, remove the locking piece (1). Observe service information: 12497 EN [XTend Clutch, Type III].

Re-use or guarantee



ZF Aftermarket recommends that special tool 4200 080 561 be used for disassembly and installation. Observe service information: 12832 EN [XTend clutch - Disable wear compensation (special tool)].



4. XTend Type IV With Locking Plate (Riveted)

| | |
|-----------------------------------|--------------------------------------------------------------------------|
| Feature | Locking plate (1) |
| Special feature | – |
| Installation / re-use / guarantee | Disassembly and installation may only be carried out with special tools. |



Fig. 7: XTend type IV with locking plate (riveted)

1 Locking plate

XTend type IV with locking plate



To assemble the self-adjusting clutch cover assembly XTend type IV, use the clamping device / special tool. This prevents the housing from warping and thus also prevents pedal pulsation and uncontrolled adjustment.

Re-use or guarantee



Use special tool 4200 080 561 for disassembly and installation. Observe the vehicle manufacturer specifications.



5. SACHS special tool 4200 080 561



Fig. 8: Special tool: clamping fixture with centering pin

The clutch tool kit is ideal for disassembling and installing XTend and conventional clutches and for centering clutch disks. The clutch tool kit not only prevents undesired adjustment of the XTend clutch but also prevents the housing of conventional clutches from warping during assembly.

The clutch centering tool is ideal for centering the clutch disk, including for engines without a pilot bearing in the crankshaft or where the crankshaft bore diameters are larger than the clutch disk hub diameter. The clamping elements and centering elements guarantee precise centering in the clutch disk with one clamping element as well as precise centering in the pilot bearing or crankshaft bore with the other clamping element.



Before installation, check the lateral run-out of the clutch disk: maximum value 0.5 mm. Clutches with a locking piece are centered using a special centering pin. Only remove the locking piece after installation is complete! ZF Aftermarket strongly recommends that the clutch cover assembly, clutch disk and release bearing all be replaced. Observe the attached installation instructions and relevant service information!



Exercise caution when handling the clutch. The default settings (ex works) which are required for the function may be altered if caution is not exercised. Use the clamping device with centering pin to install and disassemble self-adjusting clutch cover assemblies without a locking piece. This prevents the housing from warping and thus also prevents pedal pulsation and uncontrolled adjustment.



www.aftermarket.zf.com/serviceinformation