

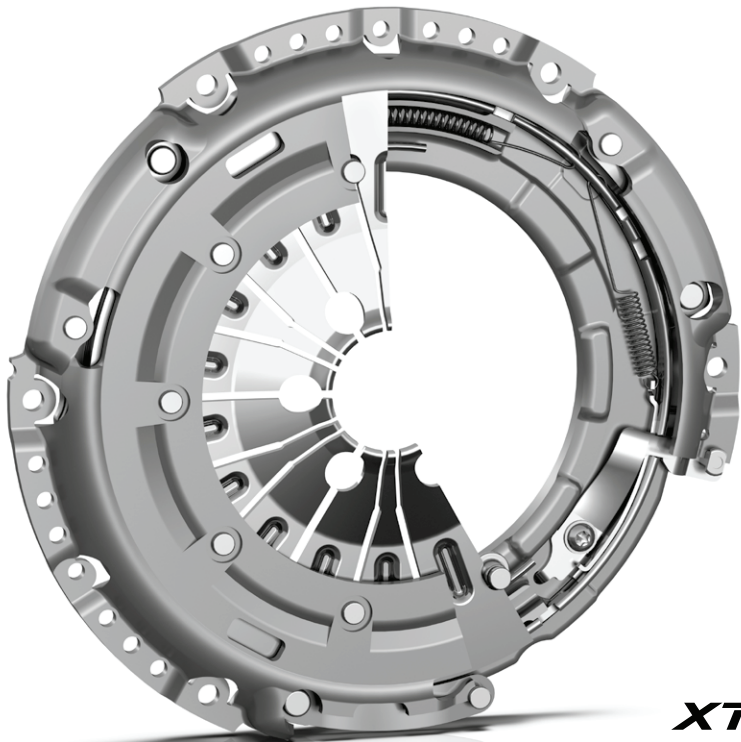
XTend® – Clutch cover with automatic wear compensation

The task

Although clutch facings have undergone substantial improvement in terms of quality and service life, they are still subject to normal wear, even if the vehicle is operated with care. Reduced facing thickness considerably influences the forces within the clutch system. Release and clamp loads rise, and thus the necessary pedal forces as well. XTend® is the ideal solution to counter wear and the associated negative effects on the powertrain. XTend® clutch covers are suitable for all vehicles with high mileage and clutch loads.

The technology

XTend®, the clutch cover with automatic wear compensation, decouples facing wear from the movement of the diaphragm spring. The compensation mechanism constantly registers the reduction in facing thickness, and securely off sets this distance by rotating an adjustment ring. This keeps the force ratios constant, and extends the service life because the facings can accommodate additional wear. Another advantage of XTend® lies in its design: It reduces the axial dimensions of the clutch system needed to accommodate normal facing wear.



XTEND®

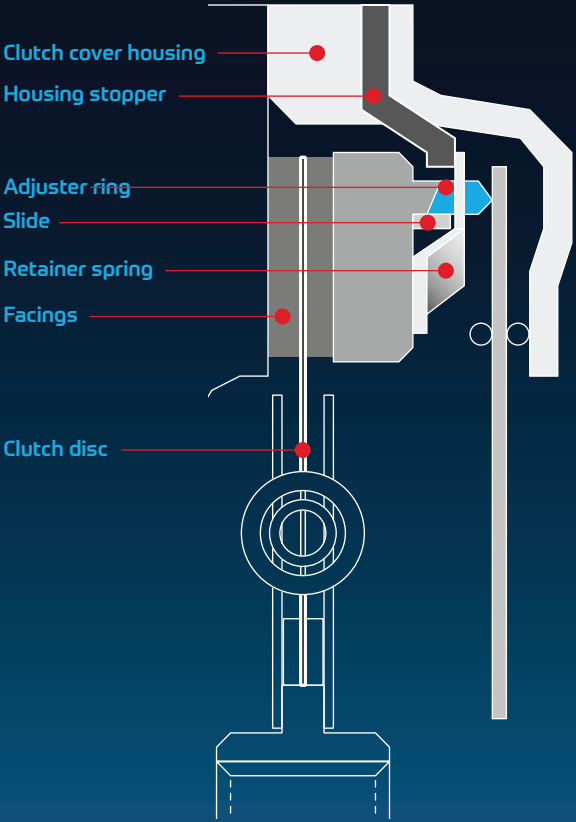
XTend® clutch cover



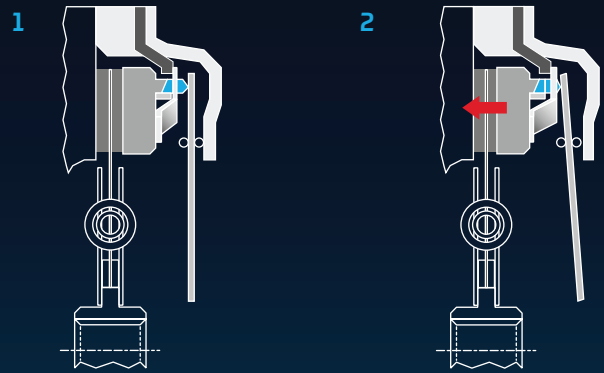
Benefits

- Constant pedal forces throughout the entire service life
- Flexible adjustment to individual vehicle requirements
- Resistance to extreme temperatures, dirt, and aging
- Smaller axial dimensions
- Easy to install and service

Clutch in new condition

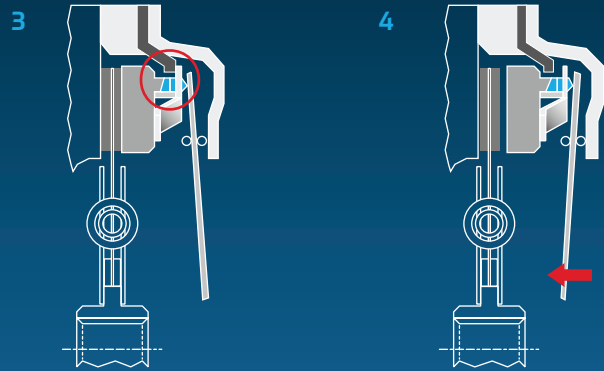


Clearance adjustment during clutch action



Clutch in new condition

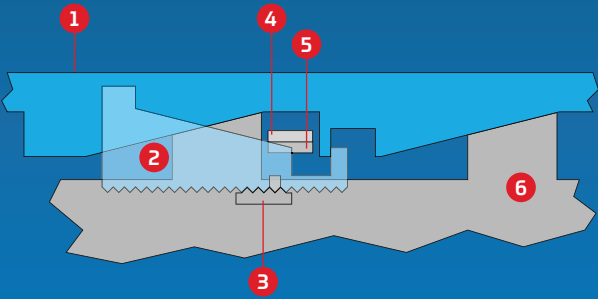
When wear occurs, the clutch cover moves toward the flywheel.



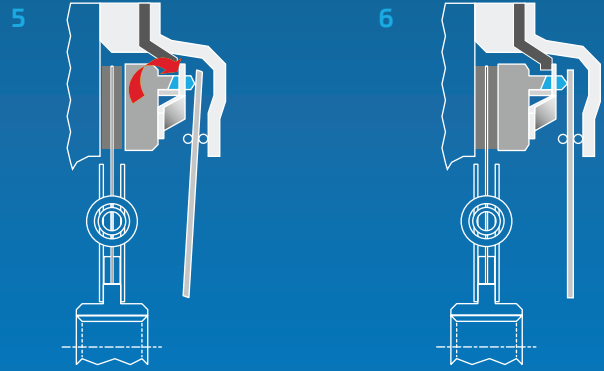
The stopper raises the retainer spring from the adjuster rings, the slide fills the gap.

When the clutch is released ...

Principle of wear compensation



- 1 Adjuster ring
- 2 Toothed slide
- 3 Toothed disc
- 4 Retainer spring
- 5 Stopper
- 6 Pressure plate



... the adjuster ring compensates for the wear.

The clutch has compensated for the wear and the system is reset to its initial force and path settings.