

Clutches

AUDI QUATTRO

DESCRIPTION

Clutch is a single plate, dry disc type. Pressure plate is a diaphragm spring type. A pre-lubricated release bearing is used. Bearing is operated by slave cylinder push rod and release lever.

Slave cylinder is mounted to top of clutch housing and extends to inside of housing. Clutch pedal is hooked directly to clutch master cylinder push rod fork through a clevis pin.

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

Removal

1) Disconnect battery ground strap, RPM sensor and speedometer cable. Remove upper engine-to-transmission bolts.

2) Remove self-locking nuts from tie rod coupling. Disconnect tie rod coupling from steering rack. Disconnect shift linkage and backup light switch.

3) Drive out clutch slave cylinder lock pin and remove slave cylinder. Support engine from above. Remove axle shaft deflector and exhaust pipe at flange.

4) Remove right and left side axle shafts and transmission mounts. Disconnect driveshaft and differential lock cable. Remove transmission cover plate and support transmission with a jack. Remove lower engine-to-transmission bolts.

5) Pull transmission free of engine and remove from vehicle. Mark relative position of pressure plate and flywheel. Loosen pressure plate bolts one turn at a time and in a crisscross pattern. Remove clutch assembly.

Inspection

1) Check surface of clutch diaphragm spring fingers that contact release bearing. Scores up to a depth of .012" (.3 mm) can be ignored.

2) Check pressure plate for cracks, burn marks and scoring. Replace pressure plate if inward taper of disc contact face exceeds .012" (.3 mm) or if any rivets are damaged or loose.

3) The maximum runout of the clutch disc face is .020" (.5 mm) as measured at the outer edge. Check disc splines for wear and rivets for tightness.

Installation

1) If installing old clutch assembly, align mating marks of pressure plate and flywheel. Use centering tool to align the clutch disc.

2) Torque bolts one turn at a time in a crisscross pattern. Coat disc splines with a light coat of grease. To complete assembly, reverse removal procedure.

RELEASE BEARING & LEVER

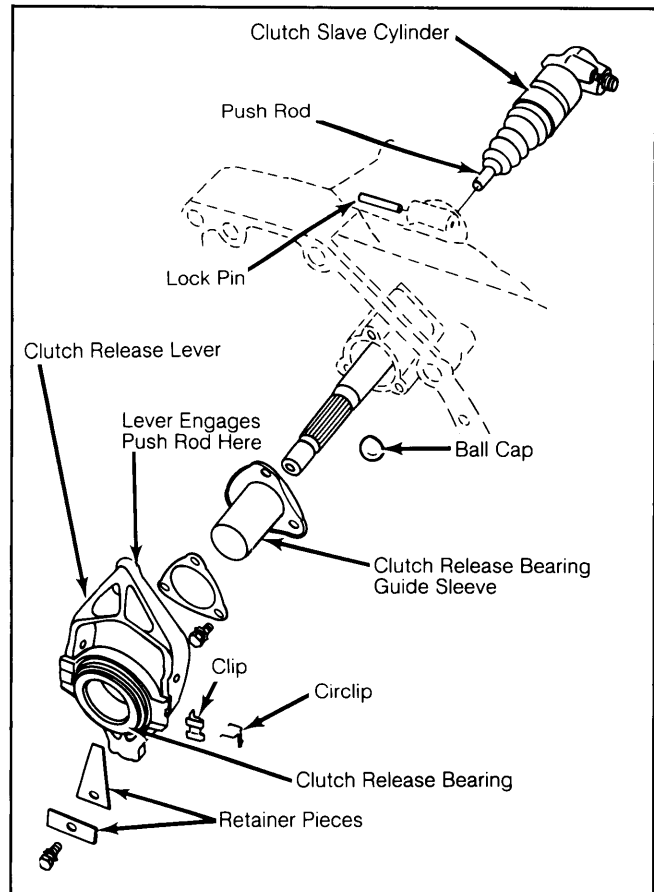
Removal

Remove transmission. Remove two retaining pieces at the bottom of the release lever. Slide release lever and bearing off of guide sleeve. Disengage retaining clips from bearing and separate from release lever.

Inspection

DO NOT wash bearing in solvent. Check for rough or noisy operation and replace if necessary. Inspect release lever and guide sleeve for excessive wear.

Fig. 1: Exploded View of Release Bearing & Lever



Installation

Lubricate ball stud, release bearing surface and slave cylinder push rod tip with molybdenum grease. Install transmission by reversing removal procedure.

ADJUSTMENTS

CLUTCH PEDAL

Adjust master cylinder push rod so that clutch pedal is positioned 3/8" (10 mm) above the brake pedal. If clutch pedal does not return after adjustment, check for air in the hydraulic system, tight pedal bushing or jammed return spring.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Axle-to-Transmission Bolts	58 (80)
Drive Shaft at Rear of Transmission	32 (45)
Steering Rack-to-Tie Rod Coupler Bolts	29 (40)
Engine-to-Transmission Bolts	43 (60)
Pressure Plate Bolts	18 (25)