1969-73 BMW (6 CYLINDER ENGINE) HYDRAULIC CLUTCH

2500 (1969-70)
2800 (1969-70)
2800 CS (1969-71)
Bavaria, 2800 Engine (1970-71)
Bavaria, 3.0 Engine (1972-73)
3.0 CS (1972-73)

DESCRIPTION

Clutch is a dry, single disc, diaphragm spring type. A hydraulic system is utilized to engage or disengage clutch. Clutch is self adjusting. Pedal travel is only adjustment required in system.

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

1) From inside driver compartment, pull up rubber boot from shift lever. Pull up foam rubber ring and remove snap ring. Withdraw gear shift lever.

2) Disconnect exhaust pipe at manifold and at support brackets under vehicle. Disconnect drive shaft at transmission. Loosen threaded journal and remove center support bearing.

3) Pull dirve shaft back from transmission. Disconnect speedometer drive and back-up light switch at transmission. Remove nuts securing transmission to clutch housing.

4) Place a floor jack under oil pan and raise to support engine and transmission. Remove bolt at rubber insulator on crossmember and remove crossmember.

5) Pull transmission to rear to remove. Push back rubber boot on slave cylinder and remove snap ring. Pull slave cylinder forward to remove.

6) Remove clutch housing retaining bolts, clutch inspection cover and clutch housing. Loosen clutch assembly bolts alternately one to one and a half turns at a time and remove clutch assembly.

7) To install, reverse removal procedure. Align clutch with a suitable pilot shaft (BMW 603). Tighten bolts to specifications. Push drive shaft center support bearing forward .08" (2 mm) before tightening. Tighten all nuts and bolts to specifications.

CLUTCH MASTER CYLINDER

1) Remove dashboard under panel on left side. Syphon fluid from master cylinder reservoir until level reaches filler pipe. Pull filler pipe from master cylinder.

2) Disconnect line from slave cylinder and push rod at pedal. Remove master cylinder. To install, reverse removal procedure. Bleed hydraulic system. See *Hydraulic System Bleeding.*

CLUTCH SLAVE CYLINDER

1) Siphon brake fluid out of master cylinder until fluid level reaches filler pipe. Disconnect line from master cylinder.

2) Pull back rubber boot, remove circlip and remove slave cylinder toward front. To install, reverse removal procedure. Bleed hydraulic system. See *Hydraulic System Bleeding.*

CLUTCH FORK & RELEASE BEARING

NOTE — Clutch fork and release bearing can be removed and installed without removing clutch housing.

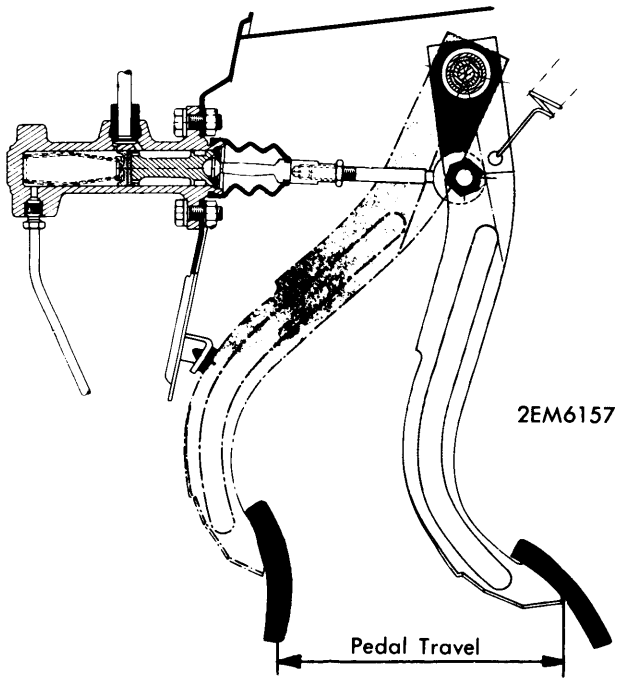
1) With transmission removed as previously outlined, pry clutch fork retaining clip over ball stud and pull clutch fork and release bearing out of clutch housing.

2) To install, reverse removal procedure. Lubricate ball stud and release bearing clips with Molykote Longterm 2.

CLUTCH PILOT BEARING

1) With clutch assembly removed as previously outlined, rotate pilot bearing and check for roughness or noise. If bearing is defective, pull out with a suitable puller.

2) Pack new bearing with high temperature multi-purpose grease and insert in crankshaft. Install cover plate with embossed side outward. Install felt ring and drive cap into stop.



PEDAL TRAVEL

ADJUSTMENT

CLUTCH ADJUSTMENT

No adjustment of clutch actuating components is required. Clutch disc wear can be determined by measuring clutch fork free play. When disc is new; free play should be .6693-.7840" (17-20 mm). If free play is less than .1969" (5 mm), disc must be replaced.

PEDAL TRAVEL

Adjust pedal travel at master cylinder push rod. Adjust until pedal travel is approximately 6.30" (160 mm).

TIGHTENING SPECIFICATIONS

Application	Ft. L.bs (mkg)
Clutch-to-Flywheel	16 (2.2)
Transmission-to-Clutch Housing	34 (4.7)