1971-73 MAZDA

1200 (1971-72)
616 (1971-72)
618 (1972)
808 (1973)
R100 (1971-72)
RX2 (1971-73)
RX3 (1972-73)
B 1600 Pickup (1972-73)

DESCRIPTION

Clutch is a dry, single disc, diaphragm spring type. A hydraulic system is utilized to engage or disengage clutch. A pre-lubricated clutch release bearing is also employed.

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

1) Disconnect battery ground wire. From inside driver compartment, remove console assembly (if equipped) and pull up boot on shift lever.

2) Remove bolts from gear shift lever cover plate. Remove plate, dust boots and bushing with gear shift lever. Disconnect wires at starter and back-up light switch. Remove starter.

3) Drain transmission oil and disconnect speedometer cable. Remove clutch fork return spring. Remove nuts from slave cylinder and remove cylinder with push rod.

4) On 1200 models, disconnect parking brake return spring and cable from lever. Disconnect exhaust pipe from manifold and push out of way.

5) Disconnect drive shaft from differential and pull from transmission. Support transmission with a jack and remove rear crossmember.

6) Remove bolts securing transmission to engine. Pull transmission to rear to remove. Install a suitable flywheel holder and remove clutch assembly.

7) To install, reverse removal procedure. Use a suitable pilot shaft (49 0813 310) to align clutch. Tighten all bolts and nuts to specifications.

CLUTCH MASTER CYLINDER

1) Remove line to slave cylinder. On 2300 models remove line from reservoir. Remove master cylinder retaining bolts and pull cylinder from firewall.

2) To install master cylinder, reverse removal procedure. Adjust pedal free play. See *Pedal Free play*. Bleed hydraulic system. See *Hydraulic System Bleeding*.

CLUTCH SLAVE CYLINDER

1) Remove line from master cylinder. Remove clutch fork return spring. Remove bolts securing slave cylinder to bell housing and remove cylinder.

2) To install, reverse removal procedure. Adjust clutch fork free play. See *Clutch Fork Free play*. Bleed hydraulic system. See *Hydraulic System Bleeding*.

CLUTCH RELEASE BEARING

1) With transmission and clutch removed as previously outlined, slide release bearing off of clutch fork. Rotate bearing and check for noise or roughness.

NOTE — Bearing is pre-lubricated, do not wash in any type of solvent or cleaning solution.

2) Bearing must be replaced if any noise or roughness is detected. Inspect clutch fork for wear or cracking.

CLUTCH PILOT BEARING

Rotary Engine Models — 1) Pilot bearing is needle bearing type and is secured in flywheel end of eccentric shaft.

2) Rotate bearing and check for roughness or noise. If bearing is defective, pull out and drive in new bearing.

Piston Engine Models — 1) Pilot bearing is ball bearing type, pressed into flywheel.

2) Rotate bearing and check for roughness or noise. If bearing is defective, drive out old bearing and install new bearing.

OVERHAUL

CLUTCH MASTER CYLINDER

All Models Exc. 1200 — 1) Remove master cylinder as previously outlined. Clean outside of master cylinder and drain brake fluid. Remove reservoir.

2) Pull off rubber boot and pry out piston stop ring with a screw driver. Withdraw stop washer, piston, piston cup and return spring.

3) Thoroughly clean all components in alcohol or brake fluid. Do not use gasoline or solvent to clean master cylinder components.

4) Check piston cups for wear or damage. Inspect piston and cylinder bore running surfaces for wear or damage. Make sure compensating port hole is not blocked.

5) Check clearance between piston and bore in cylinder. If clearance exceeds .006" (.15 mm), cylinder or piston must be replaced.

6) Coat all components in brake fluid before assembly. Install reservoir. Insert return spring in bore. Install primary piston cup so that flat side faces piston.

7) Install secondary cup on piston and install in bore. Install stop washer and stop ring. Fill reservoir half full of fluid and pump piston with a screwdriver until fluid comes out of outlet hole.

8) Install rubber boot on master cylinder and install in vehicle as previously outlined.

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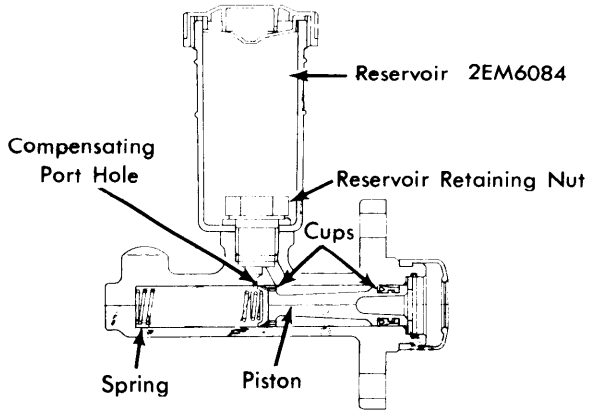


MASTER CYLINDER & COMPONENTS (EXC. 1200)

1200 Models – 1) Remove master cylinder as previously outlined. Thoroughly clean outside of master cylinder. Remove union from cylinder.

2) Remove rubber boot from cylinder. Pry out stop ring with a screwdriver and remove stop washer. Withdraw piston, pistion cup and return spring from bore.

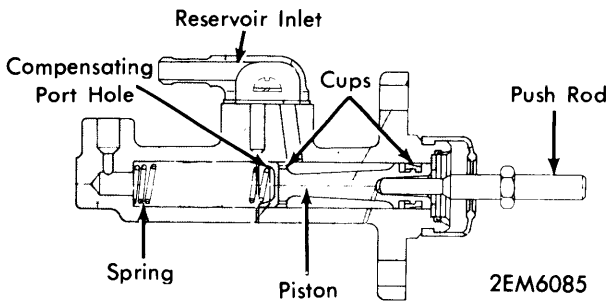
3) Wash all components in alcohol or brake fluid. Do not use gasoline or solvent to clean components. Make sure compensating port hole in cylinder is cleaned.

4) Check clearance between piston and bore in cylinder. If clearance exceeds .006" (.15 mm), replace cylinder or piston. Check piston and bore of cylinder for wear or damage.

5) Check piston cups for wear or damage and replace as necessary. Coat all components in brake fluid before assembling master cylinder.

6) Insert return spring in bore and install primary cup with flat side against piston. Install secondary cup on piston and insert piston in bore.

7) Install stop washer and stop ring. Install rubber boot. Install master cylinder as previously outlined.



MASTER CYLINDER & COMPONENTS (1200)

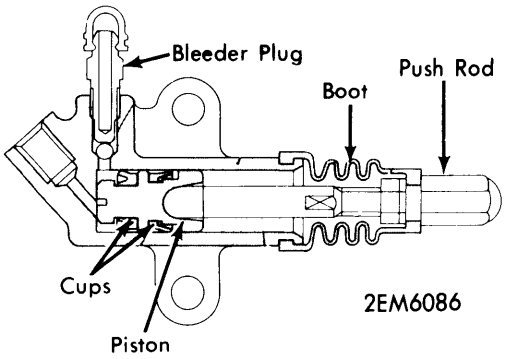
CLUTCH SLAVE CYLINDER

1) Remove slave cylinder as previously oulined. Remove bleeder plug and check ball. Pull out push rod and remove rubber boot. Withdraw piston and cup.

2) Thoroughly clean components in alcohol or brake fluid. Do no clean components in gasoline or solvent. Inspect piston and bore in cylinder for wear of damage.

3) Check clearance between piston and bore in cylinder. If clearance exceeds .006" (.15 mm), replace piston or cylinder. Check piston cup for wear or damage.

4) Coat all components with brake fluid before assembling. Install cups on piston and install in cylinder. Install rubber boot and push rod. Install bleeder plug and ball. Install clutch slave cylinder as previouly outlined.



SLAVE CYLINDER COMPONENTS (TYPICAL)

ADJUSTMENT

CLUTCH PEDAL FREE PLAY

To adjust clutch pedal free play, loosen lock nut on master cylinder push rod. Turn push rod until specified free play is obtained.

Clutch Pedal Free Play

Application	Free Play
All Models (Exc. R100)	.8-1.2" (20-30 mm)
R100 Models	.2-.4" (5.0-10.0 mm)

CLUTCH FORK FREE PLAY

To obtain correct clearance between clutch release bearing and clutch, correct clutch free play must be obtained. to adjust clutch fork free play, remove clutch fork return spring. Loosen push rod lock nut and turn adjusting nut until specified free play is obtained. Tighten lock nut and reinstall return spring.

Clutch Fork Free Play

Application	Free Play
All Models (exc. B 1600 Pickup)	.12" (3.0 mm)
B 1600 Pickup	.16" (4.0 mm)

HYDRAULIC SYSTEM BLEEDING

1) System must be bled whenever a line as been disconnected. To bleed system, remove rubber cap from bleeder plug and attach a rubber hose.

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2) Insert other end of hose in a container half full of fluid. Open bleeder plug and depress clutch pedal. Allow pedal to return slowly.

3) Continue pumping action on pedal until air bubbles are not longer seen in container. Close bleeder plug and make sure fluid in reservoir is to full mark. Remove hose and install cap on bleeder plug.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Clutch-to-Flywheel	20 (2.8)
Master Cylinder Retaining Bolts	20 (2.8)

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