

VOLKSWAGEN TYPE 1 & 2

Type 1
Type 2

DESCRIPTION

Clutch is dry, single disc, diaphragm spring type. Clutch operation is mechanical through cable actuation. A prelubricated clutch release bearing is also used.

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

Removal – 1) Remove air cleaner, disconnect battery ground cable, and drain engine oil. Disconnect all electrical wires, marking for reinstallation. Remove vacuum hoses and heater warm air tubes.

2) Disconnect throttle cable. On Type 2, remove coil, oil filler pipe and dipstick. On all models, remove heater control cables and fuel line.

3) Support engine with jack and remove engine mounting bolts. Slide engine to rear and downward to remove. Install suitable holding tool to keep flywheel from turning. Mark pressure plate and flywheel for reassembly. Loosen bolts alternately and evenly and remove clutch assembly.

Installation – Apply multi-purpose grease to pilot bearing and light oil to felt ring. Lubricate transmission input shaft with molybdenum disulphide powder. Position clutch disc against flywheel and align using a suitable centering tool. Install pressure plate and mounting bolts, tightening alternately and evenly. Replace engine, reversing removal procedure.

CLUTCH CABLE

Removal (Type 1) – Disconnect clutch cable from clutch operating lever, then withdraw rubber sleeve from guide tube and cable. Remove accelerator pedal and disconnect accelerator cable. Remove push rod lock plate and disconnect brake pedal return spring at push rod pin. Remove pedal cluster mounting bolts, pull back pedal cluster and remove clutch cable by pulling toward front of vehicle.

Installation – Lubricate cable with multi-purpose grease. Insert threaded end of cable in guide tube and push completely through. Install pedal assembly with cable connected. Ensure rubber boot is seated correctly on rear of guide tube, connect clutch cable lever, then lubricate and install wing nut. Reverse removal procedure to install remaining components. Adjust free play.

Removal (Type 2) – Disconnect cable from clutch operating lever on transmission. Pull rubber boot from guide tube and rear of cable. Pull guide tube and cable out of bracket on transmission. From under vehicle, remove pedal cover plate. Unbolt clutch pedal and remove pedal lever assembly from frame. Disconnect cable, bend up lock plate and pull out cable toward front of vehicle.

Installation – Lubricate cable with multi-purpose grease and install into guide tube. Connect cable to pedal, push cable through boot, and install boot onto cable guide. Lubricate and install wing nut. Reverse removal procedure to install remaining components. Adjust free play.

CLUTCH RELEASE BEARING

Removal – Remove engine. On Type 2 models, pry off spring clip retainers. On all models, disengage spring clips. Remove release bearing by sliding off guide tube.

NOTE – Do not wash bearing in solvent or any cleaning solution.

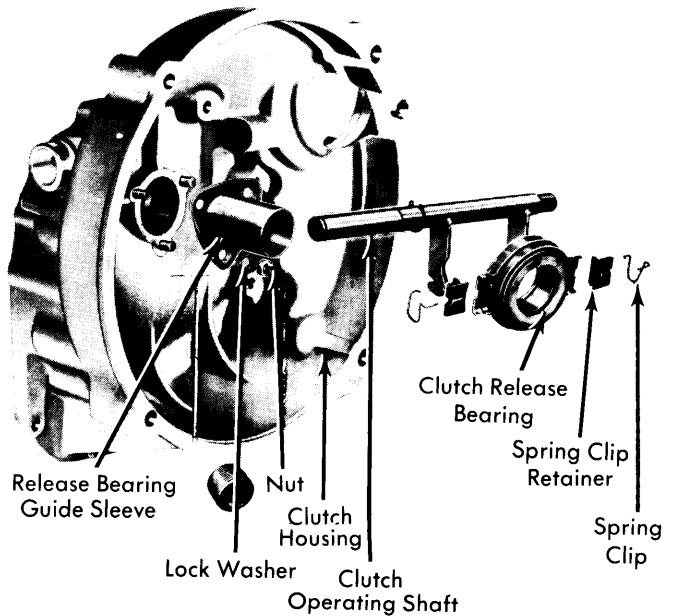


Fig. 1 Clutch Release Bearing Assembly (Type 2 Shown)

Installation – Roughen plastic guide sleeve with emery cloth, but do not lubricate. Lubricate metal guide sleeve with molybdenum disulphide paste. Coat pivoting points between bearing and operating shaft with multi-purpose grease. Position bearing to shaft and install spring clips and retainers (Type 2). Make sure clips are correctly positioned. With engine installed, check and adjust clutch free play.

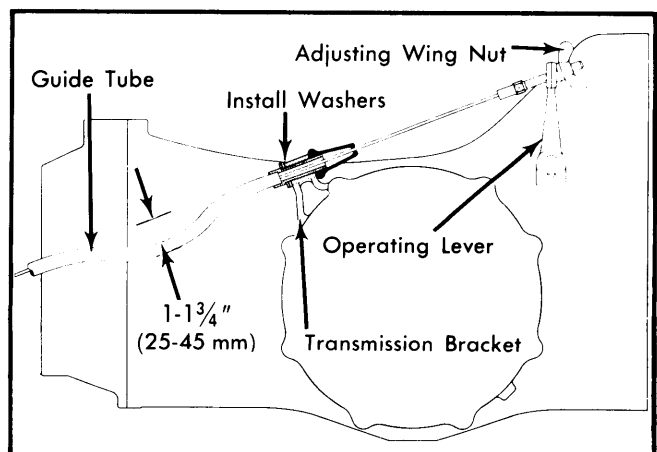


Fig. 2 Clutch Cable Measuring and Adjustment Points

VOLKSWAGEN TYPE 1 & 2 (Cont.)

ADJUSTMENT

CLUTCH ADJUSTMENT

Guide Tube — Clutch cable guide tube should sag approximately 1-1 $\frac{3}{4}$ " (25-45 mm). See Fig. 2. This preload is obtained by inserting or removing washers between bracket on transmission and end piece of guide tube.

NOTE — If sag is greater than 1 $\frac{3}{4}$ " (45 mm), stiff operation and/or damage may result.

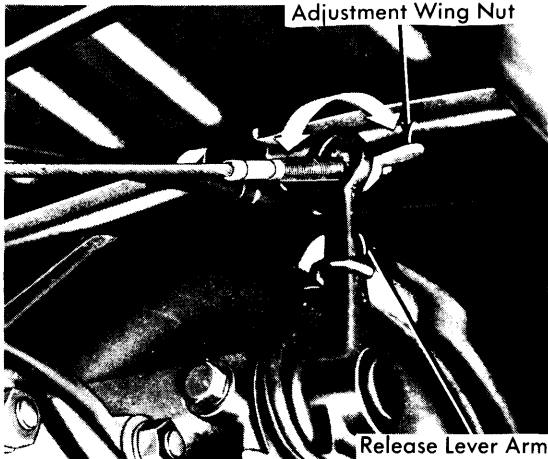


Fig. 3 Clutch Free Play Adjustment Point

Clutch Pedal Free Play — Free play (measured at pedal pad) should be $\frac{3}{8}$ -. $\frac{3}{4}$ " (10-20 mm) for Type 1 and $\frac{3}{8}$ -1" (10-25 mm) for Type 2. To adjust, raise and support vehicle on safety stands. Adjust wing nut located on end of clutch cable at release lever until clearance is .08" (2 mm) between operating lever and wing nut. See Fig. 3. After adjustment, lugs of wing nut must engage cutouts in lever.

NOTE — On some replacement clutches, a white paint spot is used for a balance mark. Position mark 180° from $\frac{3}{16}$ " (5 mm) countersunk hole or 180° from white paint balance mark on flywheel.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Engine-to-Transmission Nuts	22 (3.0)
Clutch-to-Flywheel Bolt	80 (11.0)
Flywheel-to-Crankshaft	
Type 1	253 (35.0)
Type 2	80 (11.0)