

## MGB

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joint clamp bolt to specification. Install air cleaner and connect battery cable.

### REMOVAL & INSTALLATION

### ADJUSTMENTS

#### STEERING COLUMNS

**Removal** – 1) Disconnect battery cable and remove air cleaner. Remove upper clamp bolt from universal joint. Remove lower panel from under left-hand side of fascia panel.

2) Disconnect wiring harness from steering column at connector below fascia. Remove bolts securing steering column to toe-plate at floor board.

3) Note location, quantity and thickness of spacing washers between upper column bracket and body mount. Remove bolts and secure washers. Remove column with steering wheel and switch.

**Installation** – 1) Install steering column in vehicle, inserting inner column into universal joint. Install spacing washers in original position and tighten bolts finger tight. **NOTE** – If spacing washers were lost or not marked for installation, steering column must be aligned. See Steering Column Alignment.

2) Install steering column toe-plate retaining bolts at floor board. Now tighten upper column bracket bolts and universal

#### STEERING COLUMN

1) Position toe-plate over steering column and place column in vehicle. Insert one packing washer between each of two top column mounting flanges and body brackets. Screw in upper attaching bolts until finger tight. Ensure column is free to move up, down, and sideways.

2) Screw in three toe-plate bolts until finger tight. Check that lower end of column is free to move and position it centrally in firewall opening.

3) Place one of two large point gauges of alignment tool (18G 1140) on lower end of column, positioning gauge so that retaining screw tightens onto flat of splines. Install remaining large point gauge to pinion shaft, so that retaining screw tightens onto radial groove of pinion splines.

4) Check that rack is properly installed and mounting bolts are tightened. Slacken screw on column point gauge and slide gauge down until points are on same plane, but not overlapping. The column and rack are properly aligned when gauge points meet exactly.

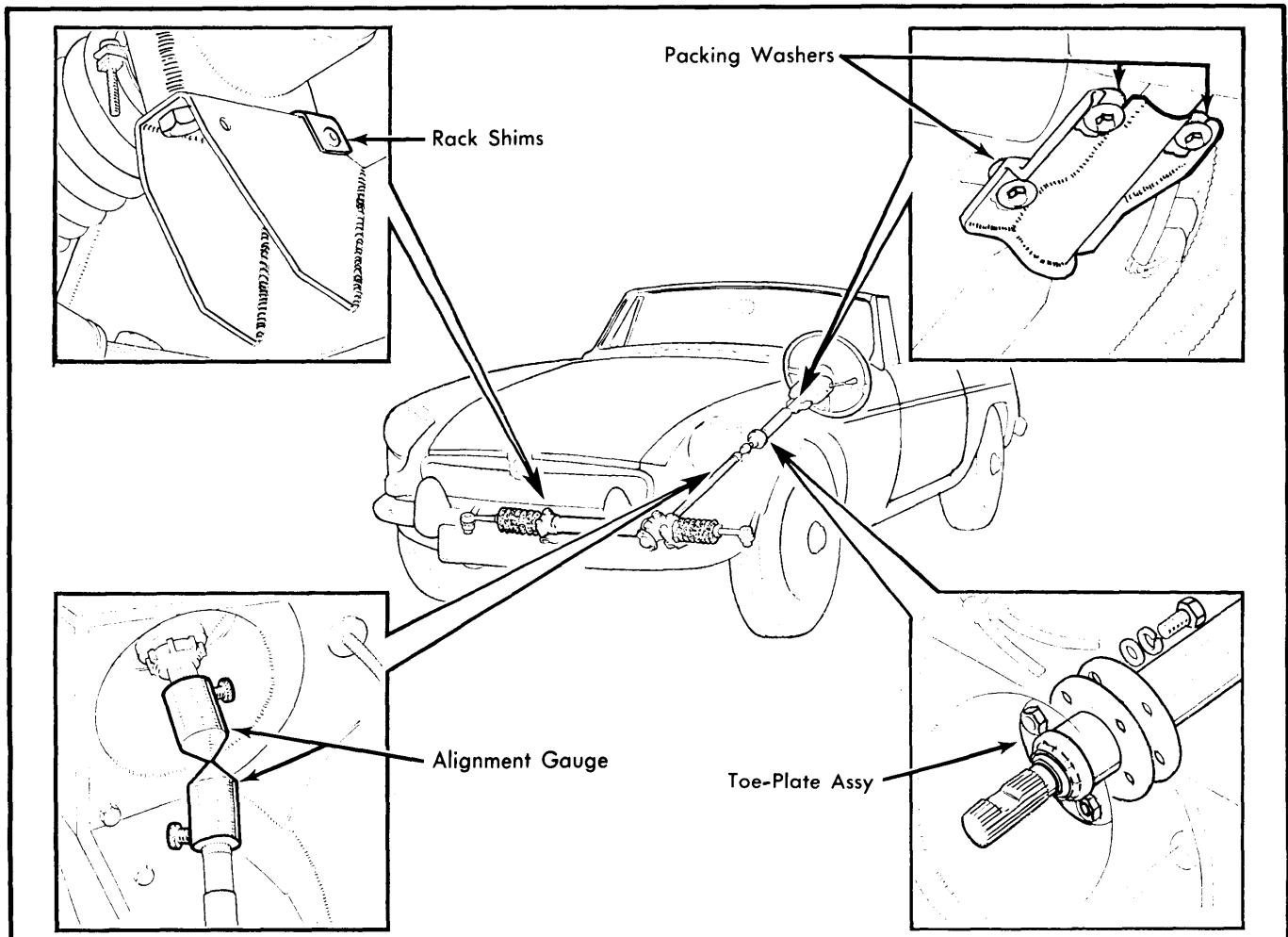


Fig. 1 Necessary Steps for Proper Steering Column Alignment

# Steering Columns

## MGB (Cont.)

5) Correct any horizontal misalignment by moving lower end of steering column. If vertical misalignment exists, remove rack bolts, add necessary shims between mounting brackets and crossmember, replace and tighten mounting bolts, and recheck vertical alignment. When correct alignment is achieved, rivet shims to mounting bosses through holes provided.

6) Remove rack assembly. See appropriate article under *Steering Gears & Linkage* in this section. Remove gauges from column and pinion. Check that column is in straight-ahead position, and fit universal joint to splines with pinch-bolt hole aligned with machined flat.

7) Check that rack is in straight-ahead position, install rack, and fully tighten mounting bolts. Tighten toe-plate bolts and steering column upper mounting bolts.

8) Measure gap between column upper mounting flange and body bracket at the third bolt position. Fit packing washers to thickness of gap, then install and tighten third mounting bolt. Install both universal joint pinch bolts and tighten as necessary.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Upper Column Mounting Bolts .....	12-17 (1.7-2.4)
Universal Clamp Bolts .....	20-22 (2.8-3.0)
Steering Wheel Nut .....	27-29 (3.7-4.0)

## MG MIDGET

### Midget

### REMOVAL & INSTALLATION

#### STEERING COLUMN

**Removal** - 1) Disconnect battery cable. Remove heater air intake hose. Remove pinch bolt securing steering column clamp to steering gear pinion shaft, then remove screws securing toe-plate to floor board.

2) Note location, quantity and thickness of spacing washers between upper column mount and body mount. Disconnect steering column wiring harness at connector below fascia. Remove steering column with steering wheel and switches.

**Installation** - 1) If a new steering column is being installed or if spacer washers were lost, steering column must be aligned. See *Steering Column Alignment*.

2) To install old steering column, reverse removal procedure. Make sure spacer washers were installed in original position. Tighten all bolts and nuts to specifications.

#### STEERING COLUMN ALIGNMENT

1) Turn pinion shaft on steering gear to straight ahead position. Install steering column in vehicle and position inner column in straight ahead position and insert pinion shaft in steering column.

2) Install two top column upper bracket bolts and tighten until weight is off of steering column and column bracket is parallel with body bracket. Steering column should pass through toe-plate hole approximately in center.

3) Measure spaces between brackets. Install spacer washers between both brackets that are same thickness as distance just measured. Tighten bolts finger tight.

4) Tighten toe-plate screws. Tighten column-to-pinion shaft clamp bolt. Measure gap between column and body brackets at third bolt hole and install a spacer washer of same thickness. Tighten bolt finger tight.

5) Remove toe-plate and bolt securing steering column to pinion shaft at steering gear. Pull up on steering column slightly and push down on pinion shaft. Column should move freely.

6) If column moves hard, check for proper installation and shim alignment (if any) of rack and pinion steering gear. If column moves easily, tighten three upper mounting bolts, toe-plate bolts, and column-to-steering clamp bolt.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Upper Column Mounting Bolts .....	12-17 (1.7-2.4)
Pinion Shaft Pinch Bolt .....	9-12 (1.2-1.7)
Steering Wheel Nut .....	37 (5.1)