

# Steering Gears & Linkage

## 1963-72 MGB & MGC

MGB & MGB GT (1963-72)  
MGC & MGC GT (1969)

### REMOVAL & INSTALLATION

#### DESCRIPTION

Rack and pinion type steering gear mounted to front crossmember. Movement of steering wheel is transmitted through steering shaft to helical pinion. Rotation of pinion causes rack to move laterally where connecting rods, attached to rack, transmit this movement to steering arms on steering knuckles causing front wheels to change direction. Connecting rod inner ball joints are protected by convoluted rubber bellows.

#### ADJUSTMENT

##### STEERING GEAR

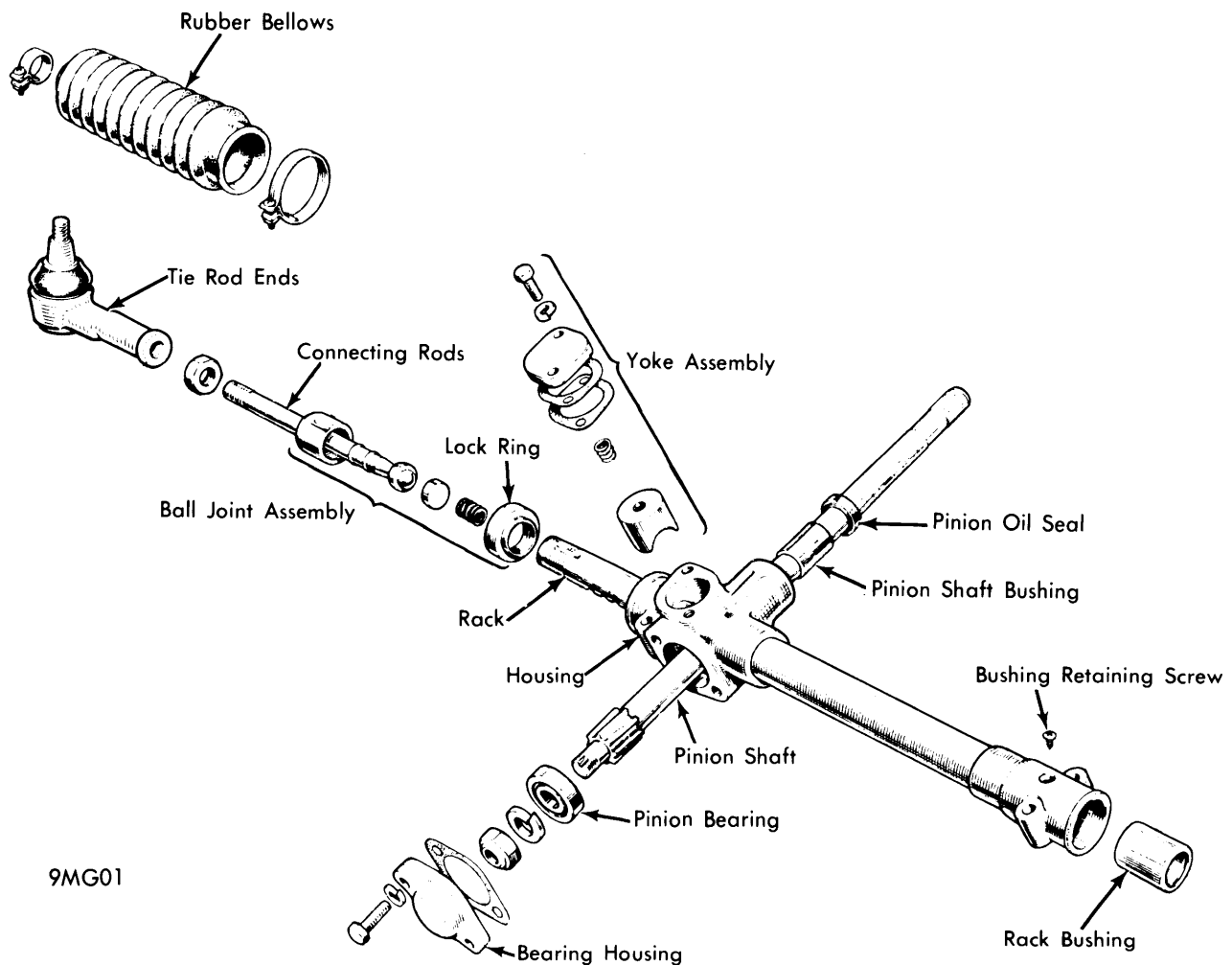
**NOTE** — All adjustments to steering gear assembly are accomplished during reassembly of steering gear. See *Steering Gear Reassembly* in this Article.

##### STEERING GEAR

**Removal** — 1) Raise front of vehicle, position safety stands under lower control arms and remove both front wheels. Remove tie rod end nuts and separate tie rod ends from steering arms.

2) Remove pinch bolt from universal joint at pinion shaft. Remove bolts securing steering gear to crossmember and remove steering gear by dropping downward.

**Installation** — To install steering gear, reverse removal procedure. If a new steering gear is being installed, steering column must be aligned. See *Steering Column Alignment* in this Section. When connecting universal joint to pinion shaft, make sure steering column and rack are in straight ahead position.



9MG01

#### STEERING GEAR COMPONENTS

## 1963-72 MGB & MGC (Cont.)

### OVERHAUL

#### STEERING GEAR

**Disassembly** – 1) Remove steering gear as previously outlined. Loosen tie rod end lock nuts and remove tie rod ends from connecting rods. Loosen retainers and remove rubber bellows.

2) Remove yoke cover plate, shims, spring and yoke. Remove pinion bearing housing and withdraw pinion with bearing and lock nut. Remove pinion oil seal from steering gear housing.

3) Using a punch, punch indentations in lock ring, clear of slots in ball joint housing and rack. Loosen lock ring and remove ball joint from rack with a suitable wrench (18G.1030).

4) Follow same procedure for removing ball joint assembly from opposite side. Withdraw rack from steering gear housing from pinion shaft end.

5) Inspect bushings in ends of housing. If excessive wear is noted, remove bushing retaining screw and withdraw bushing. Thoroughly clean and inspect all components for wear or damage and replace as necessary.

**Assembly** – 1) If rack bushing in housing was removed, install new bushing in housing making sure that hole in housing is between flat portions of bushing.

2) Using a 7/64" drill, drill through hole in housing into outer shell of bushing. Coat bushing retaining screw with sealing compound and tighten screw in housing.

3) Install pinion shaft bushing in housing if removed. Check bearing on end of pinion shaft. If bearing is defective, remove lock nut and press off bearing. Press on new bearing, install new lock washer and tighten nut. Lock nut on pinion shaft by peening nut into slot of shaft.

4) Insert rack into housing from pinion side of housing. Insert pinion and install bearing housing using a new gasket. Install pinion shaft oil seal into housing until flush with top of housing.

5) Install a new ball joint lock ring onto rack and install seat spring, inner seat, connecting rod and outer ball joint seat. Loosen lock ring to meet outer ball joint housing.

6) Tighten ball housings until connecting rod is held firmly without free play. If correctly adjusted, connecting rod should require 32-52 INCH lbs. to rotate in seat.

7) Tighten lock ring on rack to specification. Secure lock ring by peening lips into slots of lock ring. Install other ball joint assembly following same procedure.

8) Install yoke, spring and cover and tighten cover finger tight. Centralize rack in housing and measure gap between yoke cover and housing. Turn pinion one-half turn each way and remeasure gap.

9) Add .002-.006" to measurement. Total is correct thickness of shim needed to be installed between yoke cover and housing. Shims are available .0025, .005 and .010" thick.

10) Apply sealer to mating surfaces of yoke cover and housing, install a suitable thickness shim(s) and tighten cover. Install rubber bellows on side furthest from pinion.

11) Stand steering gear up on end with pinion end up. Pour in .4 pint of S.A.E. 90 Hypoid oil into steering gear. Install remaining bellows and tighten retainers. Install tie rod ends and tighten lock nuts.

*NOTE* – Before installing steering gear on MGC models, loosen lock nuts and position tie rod ends so that distance between studs of tie rod ends is 44 1/8". Tighten lock nuts.

#### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Tie Rod End Lock Nuts.....	33-37
Ball Joint Lock Ring.....	33-37