

Steering Gears & Linkage

VOLKSWAGEN RABBIT, SCIROCCO RACK & PINION

Rabbit
Scirocco

DESCRIPTION

Vehicles are equipped with a rack and pinion steering gear. Attached to rack are two tie rods, the right tie rod is adjustable and the left tie rod is non-adjustable. If left tie rod is to be replaced, replacement tie rod (part no. 171 419 804) is adjustable.

REMOVAL & INSTALLATION

Removal – Disconnect shift linkage bearing plate from rack housing. Loosen upper universal pinch bolt-to-steering column

shaft. Remove lower universal pinch bolt-to-pinion shaft. Disconnect lower universal joint from pinion shaft. Disconnect tie rod outer ends from steering linkage. Disconnect steering gear housing clamp bolts and remove steering gear, with tie rods, from vehicle.

Installation – When installing steering gear assembly, correctly align and insert pinion shaft with steering shaft lower universal joint before securing steering gear housing clamp bolts. Connect tie rod outer ends to steering linkage. Tighten upper and lower universal joint pinch bolts. Connect and adjust shift linkage bearing plate to gear housing.

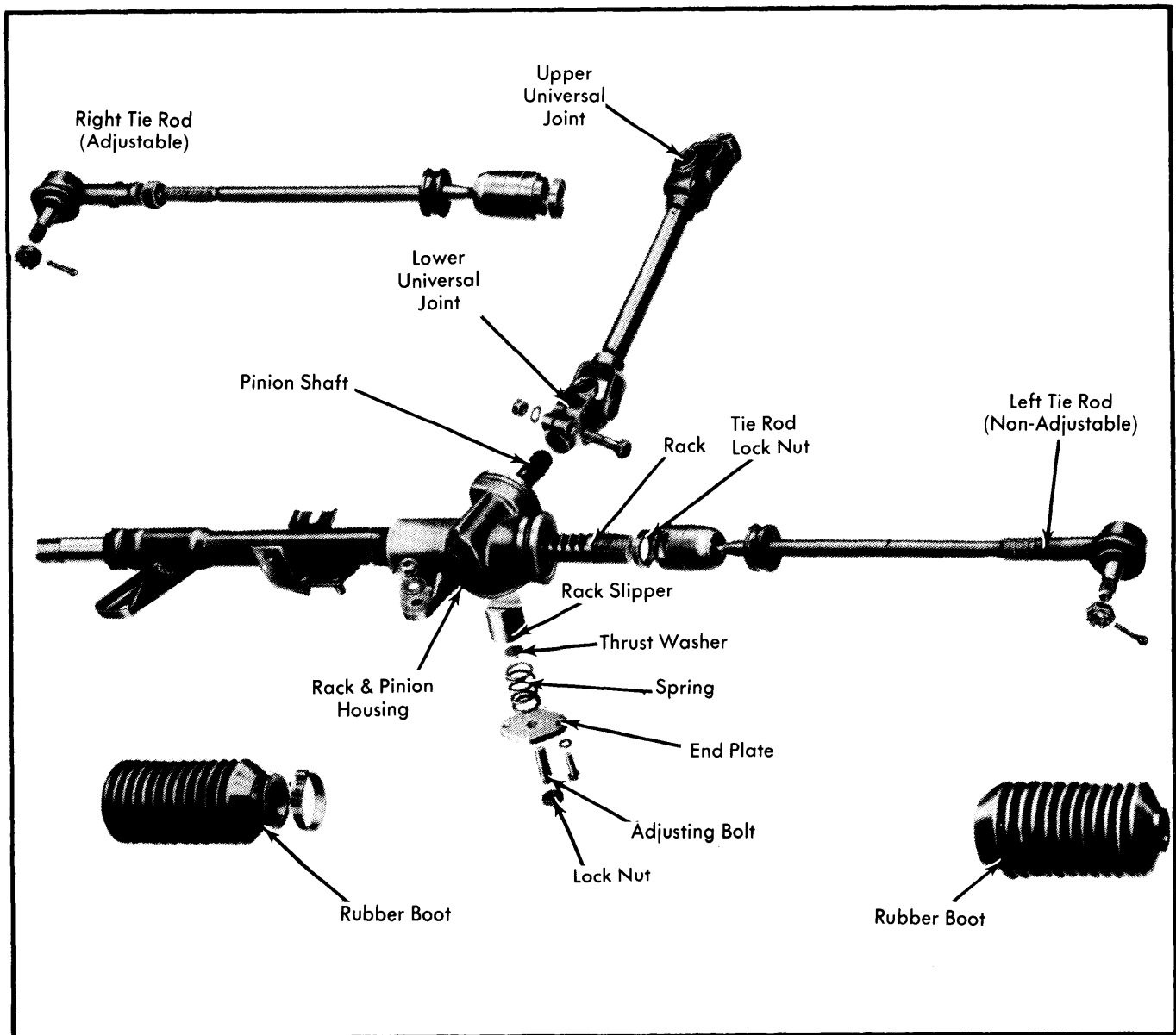


Fig. 1 Disassembled View of Rack & Pinion Steering Gear Assembly

VOLKSWAGEN RABBIT, SCIROCO RACK & PINION (Cont.)

ADJUSTMENT

RACK & TIE RODS

1) Center rack in housing so rack protrudes an equal amount from each end of housing (see Fig. 2).

2) Screw tie rods onto rack and adjust to specified dimensions (see Fig. 3). **NOTE** — Do not move rack from its centered position. With adjustment correct, secure tie rods with lock nuts and install rubber boots.

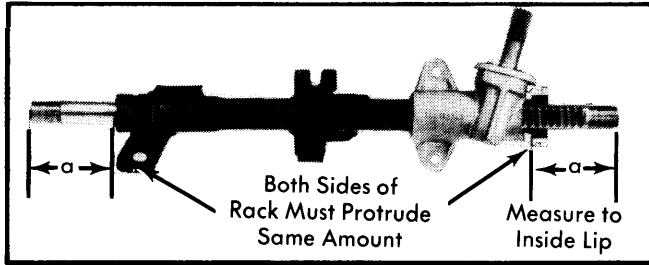


Fig. 2 Centering Rack in Steering Gear Housing

Tie Rod Specifications

Application	Dimension "B"	Dimension "C"
Man. Trans.	2.72" (69 mm)	2.72" (69 mm)
Auto. Trans.	2.64" (67 mm)	2.72" (69 mm)

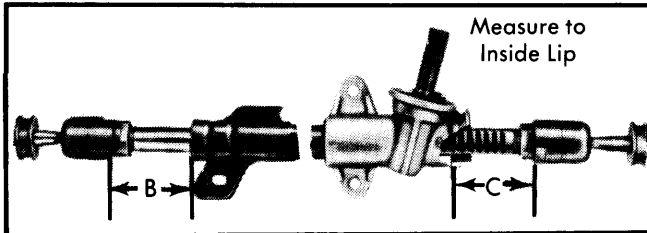


Fig. 3 Installation Adjustment of Tie Rods on Rack

3) If replacing the non-adjustable left tie rod with adjustable type, adjust tie rod length "D" to 14.92" (379 mm) (see Fig. 4). Then install as described in step 1).

4) Loosen pinion shaft adjusting screw lock nut, then turn adjusting bolt until it just contacts thrust washer. Tighten lock nut.

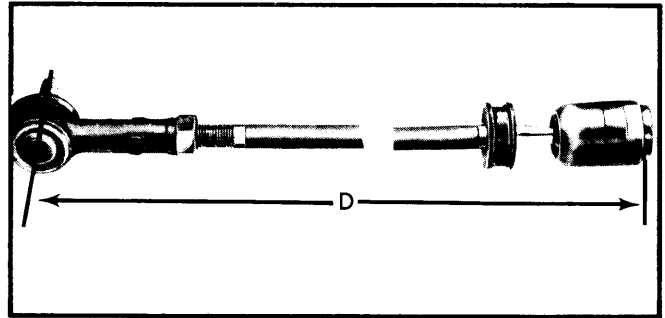


Fig. 4 Adjustment of Replacement Left Tie Rod (Part No. 171 419 804)

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Tie Rod End to Steering Arm	22 (3.0)
Tie Rod End Locknut	29 (4.0)
Gear Box Mounting Bolts	14 (2.0)
Universal Joint Pinch Bolts	22 (3.0)