

STEERING COLUMN

Article Text

1991 Volkswagen Vanagon
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Saturday, March 18, 2000 09:48PM

ARTICLE BEGINNING

1991 STEERING
Volkswagen - Steering Columns

Vanagon

DESCRIPTION

Vanagon has an energy-absorbing 2-piece steering column, attached to the dash with brackets and to floorboard with a boot flange. Lower steering shaft connects to steering gear. See Fig. 1.

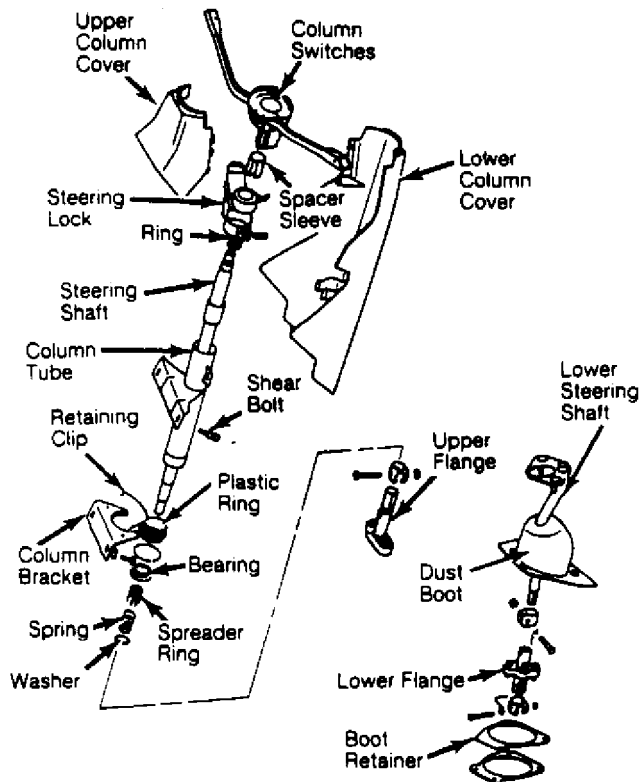


Fig. 1: Identifying Steering Column Components
Courtesy of Volkswagen United States, Inc.

REMOVAL & INSTALLATION

STEERING WHEEL & HORN PAD

Removal & Installation

- 1) Disconnect negative battery cable. Lift center cover from steering wheel. Disconnect horn wiring.
- 2) Ensure steering wheel is in straight-ahead position. Mark shaft and wheel for reassembly reference. Remove retaining nut and washer. Pull steering wheel from shaft. Reverse removal procedure to

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install.

TURN SIGNAL SWITCH

Removal & Installation

Remove steering wheel. See STEERING WHEEL & HORN PAD. Remove retaining screws. Unplug harness connector. Remove turn signal switch. To install, reverse removal procedure. After installation, gap between turn signal switch and steering wheel should be 1/16 - 3/16" (2 - 4 mm). See Fig. 2.

WINDSHIELD WIPER SWITCH

Removal & Installation

Remove steering wheel. See STEERING WHEEL & HORN PAD. Remove turn signal switch. See TURN SIGNAL SWITCH. Remove retaining screws. Unplug harness connector. Remove windshield wiper switch. To install, reverse removal procedure.

IGNITION SWITCH

Removal

1) Remove steering wheel. See STEERING WHEEL & HORN PAD. Remove covers from steering column. Remove turn signal and windshield wiper switches. See TURN SIGNAL SWITCH and WINDSHIELD WIPER SWITCH. Remove lock washer, spring, and horn contact ring.

2) Using Ball Joint Remover ((VW 267a), hold steering column coupling. Pull steering lock housing together with spacer sleeve. Disconnect wiring from ignition switch. Remove switch.

Installation

Reverse removal procedure to install ignition switch. Drive spacer onto column using Tube (VW 420). Spacer upper end-to-shaft end distance must be 2" (51 mm). See Fig. 2.

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CAUTION: Steering column incorporates shear pins which allow column to collapse upon frontal impact. Excessive pressure or impact to shaft may cause column to collapse.

Removal

1) Remove horn pad and steering wheel. Remove column covers. Remove turn signal and windshield wiper switches. See TURN SIGNAL SWITCH and WINDSHIELD WIPER SWITCH.

2) Remove steering lock and spacer sleeve. See IGNITION SWITCH. Remove upper steering shaft-to-upper flange clamp bolt.

3) Remove lower column clamp bolts. Remove upper column retaining bolts. Remove upper steering shaft and column tube as an assembly.

4) Remove lower steering shaft clamp bolt. Remove dust boot

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retaining bolts. Remove lower steering shaft.

Installation

1) To install, reverse removal procedure. Install new gasket on dust boot. Install steering shaft and column tube as an assembly.

2) When installing steering lock and spacer sleeve, clamp lower steering shaft to upper flange with Ball Joint Remover (VW 267a).

3) Ensure distance from top of spacer sleeve to top of upper steering shaft (with steering wheel and nut installed) is 2" (51 mm). Gap between turn signal switch and steering wheel should be 1/16 - 3/16" (2-4 mm). See Fig. 2.

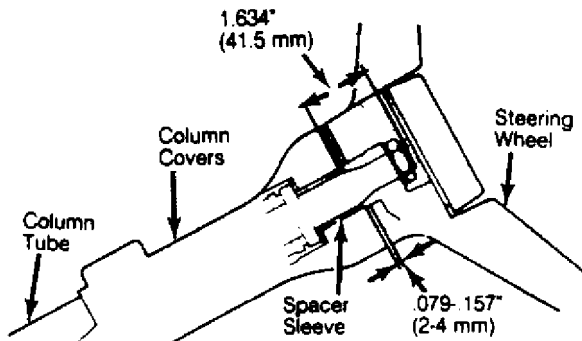


Fig. 2: Installing Spacer Sleeve
Courtesy of Volkswagen United States, Inc.

OVERHAUL

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Disassembly

1) Remove flange from lower steering shaft. Remove clamp from flange. Remove gasket and boot retainer from dust boot.

2) Remove washer, spring, and spreader ring from lower end of upper steering shaft. Remove bearing, plastic ring, and column bracket. See Fig. 1.

3) Remove steering lock ring from upper end of shaft. Drill out and remove shear bolt from column tube. Remove column tube from steering shaft.

Inspection

Check all parts for excessive wear or damage. Check steering shafts for bending, cracks, or other defects. Replace parts as necessary.

Reassembly

To reassemble, reverse disassembly procedure. Steering lock, spacer sleeve, and ring must be assembled before installation onto steering shaft. Tighten new shear bolt until head snaps off.

TORQUE SPECIFICATIONS

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TORQUE SPECIFICATIONS TABLE

Application			Ft. Lbs. (N.m)
Clamp Bolts	15	(20)
Lower Bracket Bolts	18	(24)
Steering Wheel Nut	37	(50)

END OF ARTICLE