

## VOLKSWAGEN

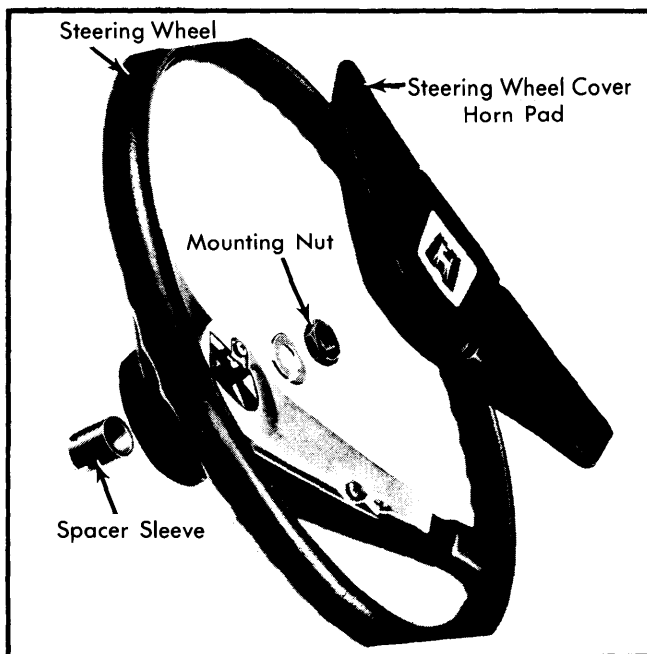
Type 1  
Type 2  
Dasher  
Rabbit  
Scirocco

### REMOVAL & INSTALLATION

#### HORN PAD & STEERING WHEEL

**All Models** — Disconnect battery. Carefully pry off horn pad. Unscrew steering wheel retaining nut. Pull wheel upward and off the shaft.

**CAUTION** — Steering wheel or column has a collapsible section. Care must be taken when working with these components.



**Fig. 1** Typical Volkswagen Steering Wheel Rabbit and Scirocco Shown

#### TURN SIGNAL & WIPER SWITCH

**Removal; Type 1** — Disconnect battery ground. Place ignition key in on position. Remove steering as previously outlined. Remove circlip from groove below steering wheel splines. Disconnect electrical wiring from combination switch. Remove mounting bolt and pull switch assembly up and out.

**NOTE** — Wiper switch must be removed together then, separated. Make sure to bleed air pressure from washer reservoir before disconnecting hose of valve on switch.

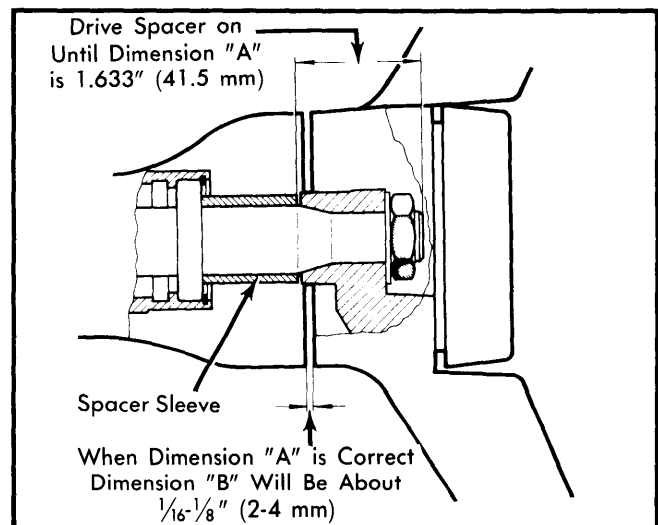
**Installation** — To install, reverse removal procedure and note: Make sure turn signal wires are not crushed by windshield wiper switch. Adjust distance between steering wheel hub and steering column switch to  $\frac{1}{16}$ – $\frac{1}{8}$ " (2-3 mm) by loosening both switch mounting screws.

**Removal (Type 2)** — 1) Disconnect battery ground. Using hand pressure, lift up steering pad. Remove steering wheel mounting nut. Pull steering wheel off shaft.

2) Remove spring and spacer from top end of steering column. Remove 4 screws holding turn signal switch and wiper switch on steering lock housing. Collect 4 spacers located between switches.

3) Disconnect water hoses from valve on wiper switch. Remove turn signal switch, wiper switch and switch housing upper trim from steering column.

**Installation** — To install, reverse removal procedure.



**Fig. 2** Dimensions for Installing Spacer Sleeve

**Removal (Rabbit & Scirocco)** — Disconnect battery ground. Remove steering wheel. Remove 2 screws and 1 bolt from recess in switch housing bottom. Take off housing bottom half. Force switch assembly toward instrument panel as far as possible. Pry off spacer sleeve. Pull up on switch and disconnect wires. Remove switch, then separate turn signals and wipers.

**Installation** — Refit switches together with screw and spacer sleeve. Slide switch assembly onto column and hook up wires. Refer to Fig. 2 for how far to drive on spacer sleeve.

**Removal (Dasher)** — Disconnect battery ground. Remove steering wheel. Remove 2 screws mounting lower switch housing. Disconnect electrical wires. Remove 3 screws attaching turn signal and wiper switches to ignition switch mounting. Remove switches.

**Installation** — To install, reverse removal procedures and note: Drive spacer sleeve on until upper end of spacer is flush with bevel on steering column. Make sure steering wheel is installed with lug for turn signal cancel mechanism facing left side of vehicle.

#### STEERING/IGNITION LOCK

**Removal (Type 1)** — 1) Remove steering wheel. Remove clip and plastic bushing from steering column. Remove turn signal switch and wiper switch. Remove steering/ignition lock retainer plate.

# 10-20 Steering Wheel & Column Switches

## VOLKSWAGEN (Cont.)

2) Disconnect wiring harness from switch. If no hole is present in lock mechanism housing, one must be drilled. Refer to Fig. 3.

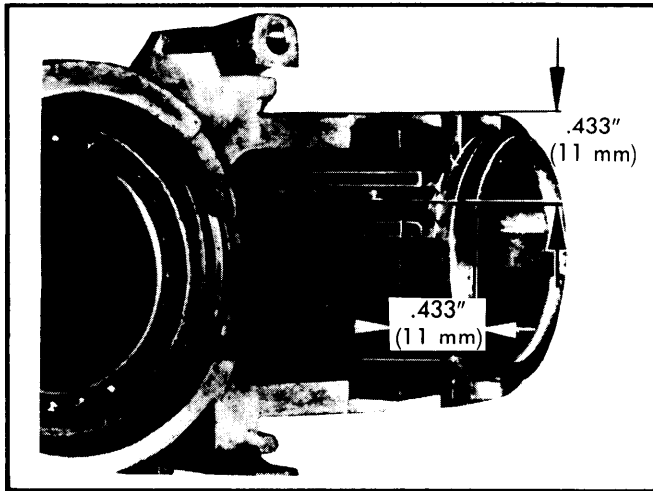


Fig. 3 Measurements for Drilling into Steering Lock Cylinder - Type 1 Only

3) Using a small, pointed tool, work through drilled hole and push down on cylinder lock retaining pin. Insert ignition switch key. Turn key and pull cylinder out of housing.

**Installation** - To install, reverse removal procedure and note: Insert lock cylinder by pushing into place without key installed. Then, use key to turn cylinder to **left**. Check operation.

### STEERING LOCK & CYLINDER

**Removal (Except Type 1)** - 1) It is necessary to drill into cylinder lock to gain access to cylinder release pin. Refer to Fig. 3 to determine where  $\frac{1}{8}$ " hole must be drilled.

**NOTE** - On Type 2 models, hole for cylinder removal is accessible when cover plate has been removed. Note that not all models have pre-drilled hole.

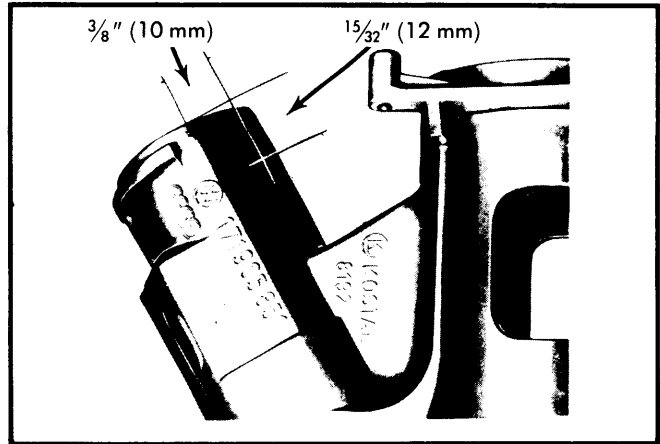


Fig. 4 Measurements for Drilling into Steering Lock Cylinder

2) Insert a pin through hole and press down spring holding lock cylinder in housing. It may be necessary to insert key to pull out cylinder.

**Installation** - To install, press cylinder in until it snaps into position. Reverse removal procedure for remaining components.

### IGNITION SWITCH

**Removal (All Except Type 1)** - Remove shear bolt and remove switch housing. There is 1 set screw on back side of switch (near wire connector) holding ignition switch in housing.

## VOLVO

240  
260

### REMOVAL & INSTALLATION

#### HORN PAD & STEERING WHEEL

**Removal** - 1) Using a screwdriver, pry up both lower corners. Do not lever screwdriver against steering wheel.

2) Grip contact plate and padding then, snap out upper corners. Disconnect electrical wire. Remove steering wheel nut. Attach suitable steering wheel puller and remove steering wheel.

**Installation** - To install, reverse removal procedure.

#### TURN SIGNAL & WIPER SWITCHES

**Removal** - Remove steering wheel as previously described. Remove column covers from around switches. Disconnect wiring from switch(es) to be replaced.

**Installation** - Attach wiring to replacement switch(es). Replace covers and replace steering wheel. Check switch operation.

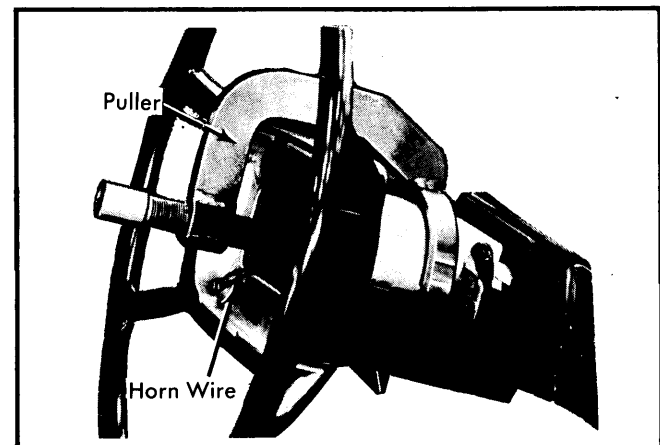


Fig. 1 Using Puller to Remove Steering Wheel