

Steering Column Repair/Restoration

Removal of steering column: The main reasons for steering column removal include: 1) the need to replat or restore its components; 2) the replacement of the turn signal wiring; and 3) the repair of the telescoping mechanism. To start, remove the horn ring. On the '55 T-Bird two screws hold the ring to the steering wheel at the spokes and are removed from behind the ring; on the '56-'57 turn the horn ring counter-clockwise and remove it. Remove the turn signal lever by turning it counter-clockwise. Disconnect the horn wire at the connector to the wire loom in the engine compartment on the left apron and remove the wire from the steering shaft. Next, remove the steering wheel by removing the 5/8" nut on the steering shaft. The steering wheel is removed using a steering wheel puller which can be purchased from any automotive store or from CASCO (tool TL-12). Even with a puller the steering wheel can be difficult to remove. Take note of the splines on the steering shaft and how the steering wheel hub is oriented on the shaft as future reference for re-assembly. Turn the steering column lock collar (3526) clockwise and extend the column. If the steering column lock collar is frozen, a strap wrench or a pipe wrench covered with a rag can be used to turn the collar. Apply lots of penetrating oil prior to and during the procedure. If the column will not extend once the collar is loosened, continue to apply penetrating oil and try to extend the column but be careful not to damage the steering wheel. If the column will not extend then it will need to be fixed once it is removed and is on the bench. You don't have to remove the four Phillips screws from the "horse collar" steering column bracket cover (3679) but you can if you wish. The screws go into the column to dash bracket (3678). It may be difficult to remove these screws without full extension of the column. Remove the two large Phillips screws from the bottom of the steering column to dash bracket (3678). A 1/2" wrench on the nuts at the top of the bracket will be required to remove the screws. Disconnect the turn signal wires from the brown junction block under the dashboard at the driver's side of the column. Next, go to the engine compartment and loosen the nut on the bolt of the clamp (3507) holding the chrome steering column tube to the steering gearbox; slide the clamp back off the tube onto the gearbox collar. Return to the passenger compartment and pull the column off the gearbox and through the firewall. The column tube may be fixed tight to the gearbox and may need to be pried off the gearbox. If the column cannot be removed from the gearbox or the steering shaft separated from the gearbox shaft then the gearbox will need to be removed and the column and gearbox removed as a unit. If this is required the steering column seal (3513) and seal plate will need removal so that the gearbox can be pulled through the firewall. Once out of the car and on the bench the column can then be separated from the gearbox. Take note of the alignment of the steering column shaft on the gearbox shaft, and especially note that there is a wide groove that needs to line up at re-installation. Note also that the steering column tube has two grooves in its lower end that fits over two raised areas on the gearbox collar at re-installation. Clean any burrs from the gearbox shaft and clean all old grease from both shaft ends and coat with new white lube.

Disassembly of the steering column: Remove the clip and spring on the turn signal stud and remove the turn signal mechanism from the center of the steering column tube flange (3511). Remove the two turn signal switch screws then remove the 3 screws holding the steering column shield (3669) to the flange (3511). Slide the lock collar (3526) toward

the “horse collar” (3679) and the dash bracket (3678). The shield (3669) can then be slid down also. Now remove the turn signal wires from the 3509 assembly. Note a protective metal slide (13327) is connected to the 3509 assembly and how it fits in the column tube. Remove the screw (50629) in the slot of the steering column tube assembly (3509). Parts 3511 and 3509 are attached as a friction fit and can now be removed together from the column end along with the upper steering shaft. The shield (3669) can then be removed as well as the lock collar (3526), “horse collar” (3679), and column-dash bracket (3678). If necessary remove the steering shaft from the flange (3511) by removing snap ring at the shaft bearing and press the shaft-bearing assembly out of the 3511 flange.

All chrome parts can now be sent out for plating. Instruct the plater not to plate the top 3-4 inches of the steering column to avoid producing an over-tight fit of part 3509 over the column. If the plating is too thick, 3509 will not slide on the chrome tube and the column will not telescope. If the upper end of the column is already plated and the fit with 3509 is too tight, then use a drum sander on an electric drill to remove some metal from the inside of 3509 until it slides freely on the column. Also, after plating the column it will frequently fit too tight onto the gearbox. Remove excess chrome from the inside of the column tube with a die grinder so that the tube fits over the gearbox end easily.

Reassembly of the steering column: Reassemble the column on the bench as follows from the top end. Place dash-column bracket (3678) on the column (note orientation of the screw holes; this bracket fits on only one way) then place the “horse collar” (3679), and lock collar (3526), and shield (3669) on the column. Install steering shaft and bearing in flange 3511 if removed previously and install snap ring. Fit flange 3511 to part 3509 and install on the column. Run the turn signal wire from flange 3511 end into 3509 and into slot in column. Install wire protector 13327 and its screw in 3509. Install screw (50629) into column side at groove of 3509. This screw limits the length of the telescoping. Install 3 screws through 3511 into shield 3669. Tighten lock collar (3526) on 3509. Place column in dash. Feed the horn wire through the column and through the gearbox. Now feed the column onto the gearbox steering shaft after placing column clamp 3507 on gearbox collar. Note how the wide groove on the gearbox shaft and the same on the upper shaft end must line up in order to slide the upper shaft onto the gearbox shaft. This may take some effort and wriggling and sometimes two people are needed to align the column shaft to the gearbox shaft. Once the shafts are aligned and connected, push the column forward onto the gearbox. Note how the slots in the end of the column tube fit over the raised areas on the gearbox collar. Tighten lower steering column clamp (3507). Connect the horn wire to wire loom at the driver’s side apron in the engine compartment. Move to the passenger compartment and install the long screws in the dash-column bracket and tighten the screws with a ½” wrench on the nuts. Install the 4 screws in the “horse collar” (3679) and the rubber insulator (3683) under 3679. Connect turn signal wires in the dash junction box according to their color codes. Reinstall turn signal mechanism, steering wheel, horn ring, and turn signal lever. Test and adjust telescope mechanism and tighten lock collar.

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