

Dismantling the Simplex ignition/steering lock 2D 5 426 549 D and similar types.

First, remove it from the car:

Remove the upper and lower parts of the binnacle around the steering column. Remove the instrument panel. (First undo the join between upper and lower halves of the speedometer cable. You can then withdraw the instrument panel far enough to undo the upper speedo cable from the speedo, and to unplug the three colour-coded multi-plugs. The fibre-optic light feed needs to be detached, and the instrument panel is then free.

Insert key and release steering lock. If you have no key the locking-pin which engages in the collar on the steering column must be teased back. First undo the allen-head bolt which is visible on the collar (5 mm allen hex key). Then with two blades or two screwdrivers you can work the locking pin back into the switch housing, then keep it there while you rotate the steering to gain access to the second allen bolt which secures the locking collar onto the column. The locking pin is spring-loaded towards the steering column, but not locked in position - you can work it back against the spring.

At this point you have steering, and for the trouble of a bit of hot-wiring, the car can be driven. Note, on most switches the wires are crimped into the switch - they go into a multi-way plug eight inches (200 mm) or so from the switch. This is the point where it should be disconnected. They are coded, unusually for the D, by cable colour, not by sleeve colour.

The lock assembly is secured to the bottom of the dash shelf by two tamper-proof nuts, by a chrome collar around the key slot, and by an M6 bolt which goes upwards into the centre of the body of the switch assembly.

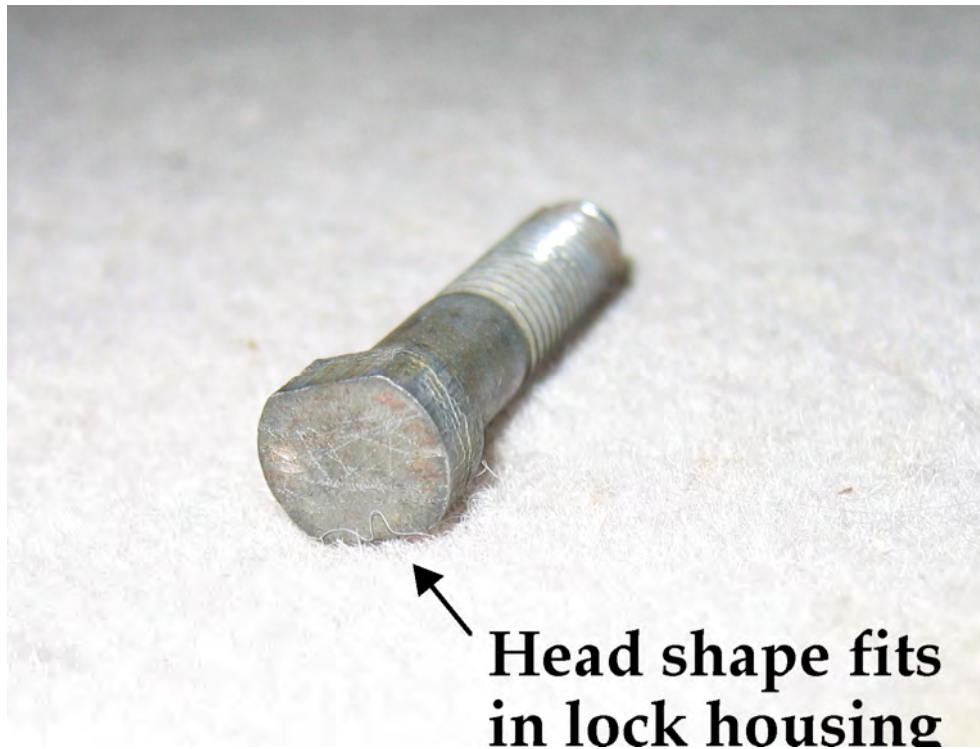
The chrome collar is not usually very tight. Some means of gripping it without damage - e.g. thin card and some slip-joint grips - and it should be unscrewed.

You must now remove the wrinkle-finish trim piece which overlaps the main dashboard and passes beneath the steering column.

The tamper-proof nuts are shown in the Parts list Drawing. Basically they consist of a cone which is internally threaded. When the car was assembled the cone had a smooth-bored hexagonal section attached via the slender part of the cone. As the assembly was tightened the hex head broke away when the required torque was reached, leaving the car thief (and you!) with the slim end of the cone to grip it by to remove it. The one nearest to you as you sit in the driver's seat is easy enough to reach with a pair of vise grip pliers (mole grips).

The second nut is a bit more hidden from view, in an oval cut-out formed in the lower skin of the dashboard structure. It is directly forward of the one you've just removed. For undoing this you need a small-nosed vise grip or something similar. I tried hammering a six-point socket onto it, but I fear that in the process I managed to damage the end of the threads, which made it hard to get it off (although the shocks may have helped loosen it in the first place). The problem may have been that the extension which I used was striking the end of the threads. Whatever, the snipe-nosed locking pliers were able to undo it eventually.

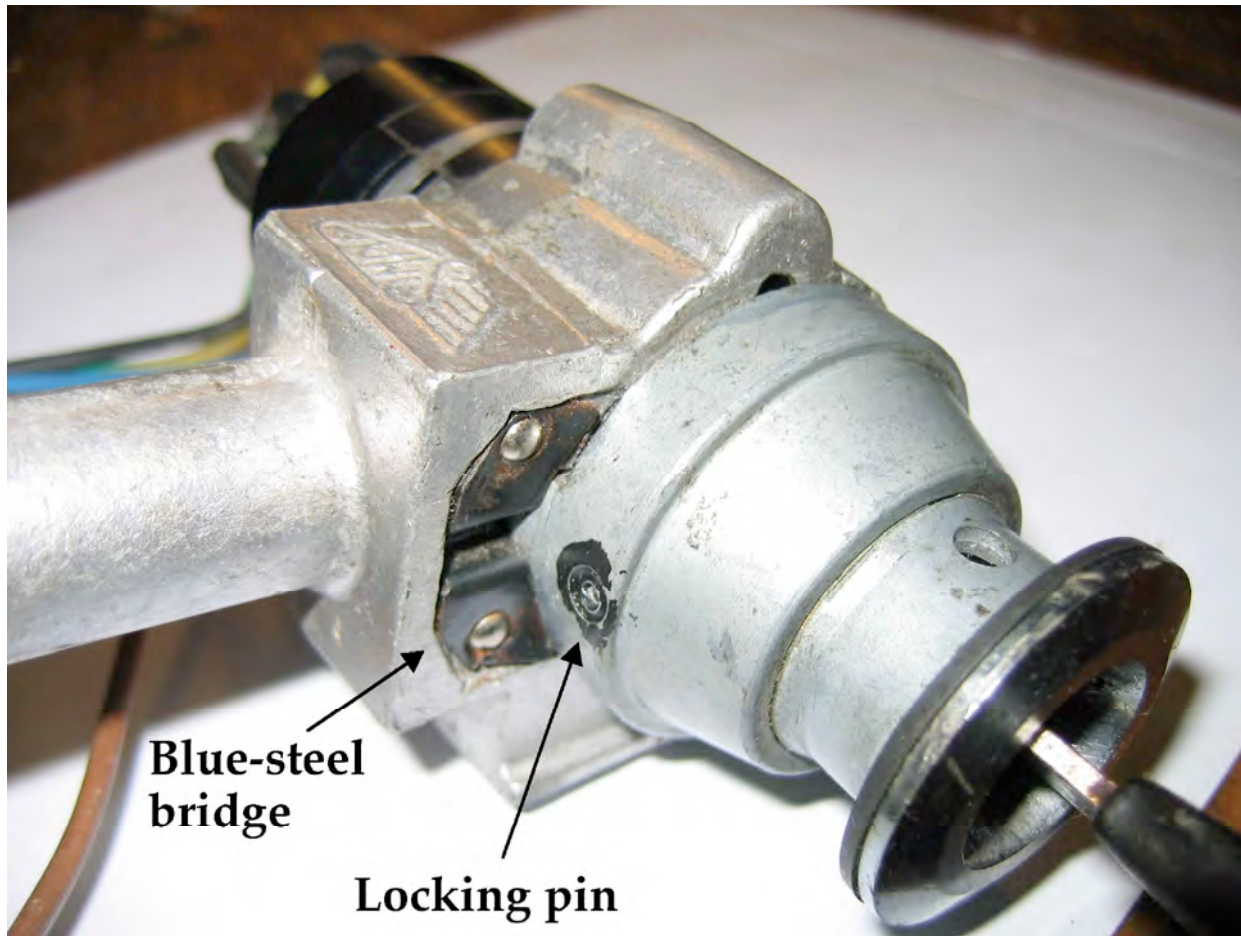
The bolts on which these nuts fit are of a special design, and they are captive in the lock body only when pulled downwards. With luck they will stay there happily, but if one begins to rotate with its nut you need to pull it downwards so that it is trapped again.



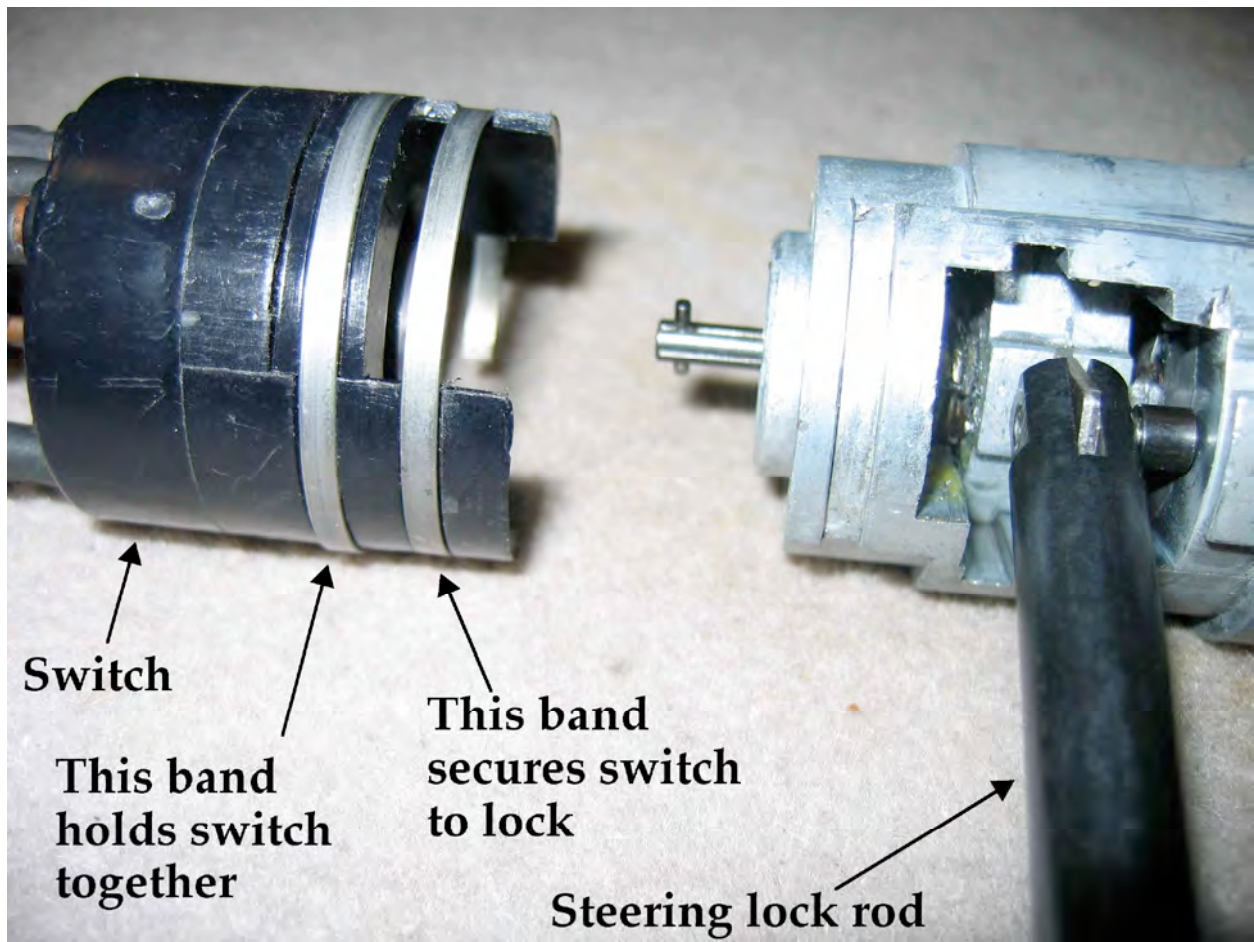
There is also an M6 screw (10 mm A/F head) which helps secure the switch. To gain access to this you need to remove all the screws from the bottom of the dashboard and pull it away from its supporting structure. You can see where this fits in the parts list illustration (although the screw is shown in rather a misleading position - it actually screws into the hole visible beneath the lock barrel).

The lock assembly should now be free to be removed from the car.

Dismantling the lock assembly.



First, detach the electrical switch from the key-lock and steering column lock. On the black plastic body of the switch you will see two steel bands. These are spring clips, and quite thin and pliable. You need to remove the clip closest to the key lock (or furthest from the wires). With this removed the switch can be withdrawn a short distance. You may then need to rotate it to free it from the tiny T-handle which is turned by the key-lock, and in turn transmits motion to the switch.



Switch

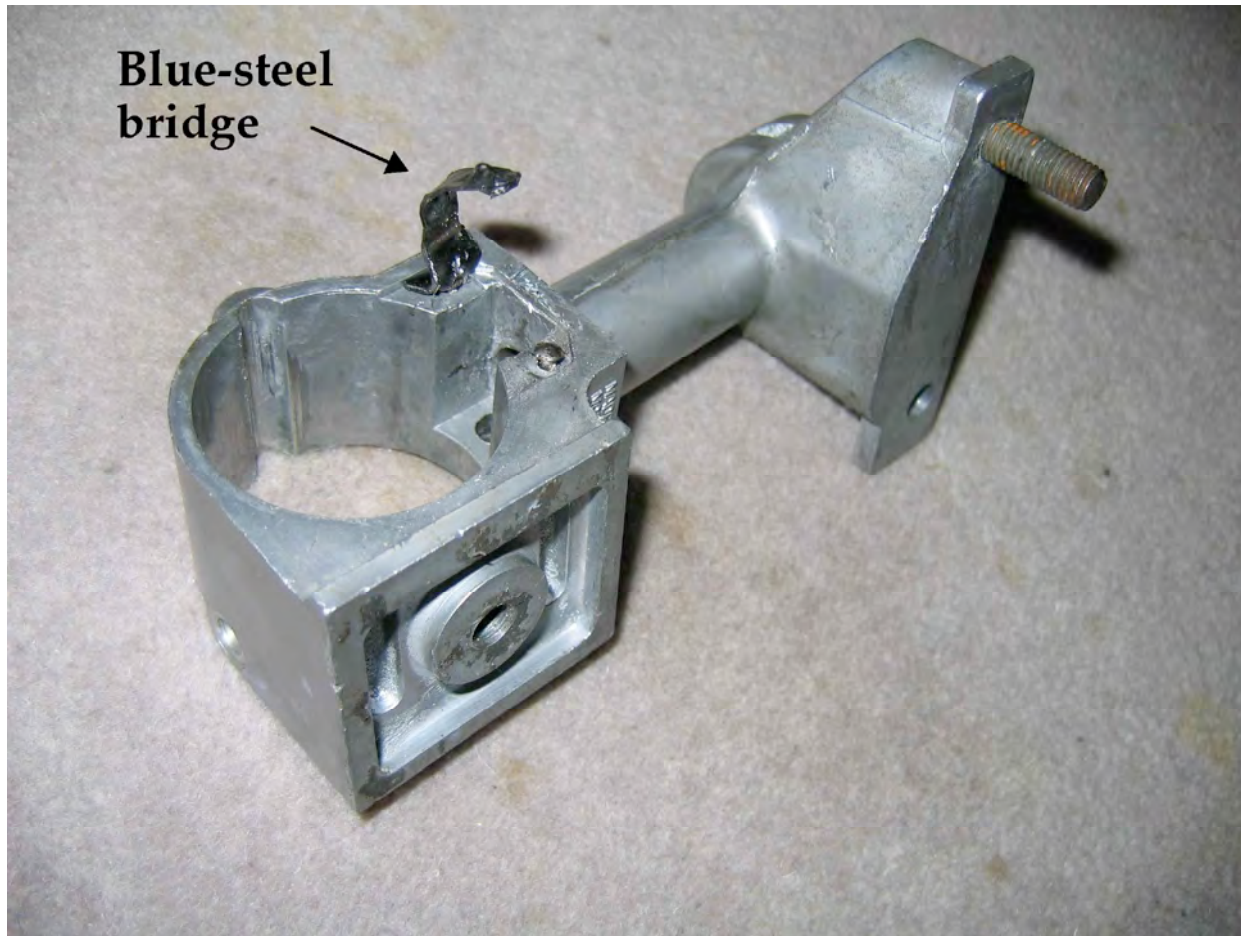
This band holds switch together

This band secures switch to lock

Steering lock rod

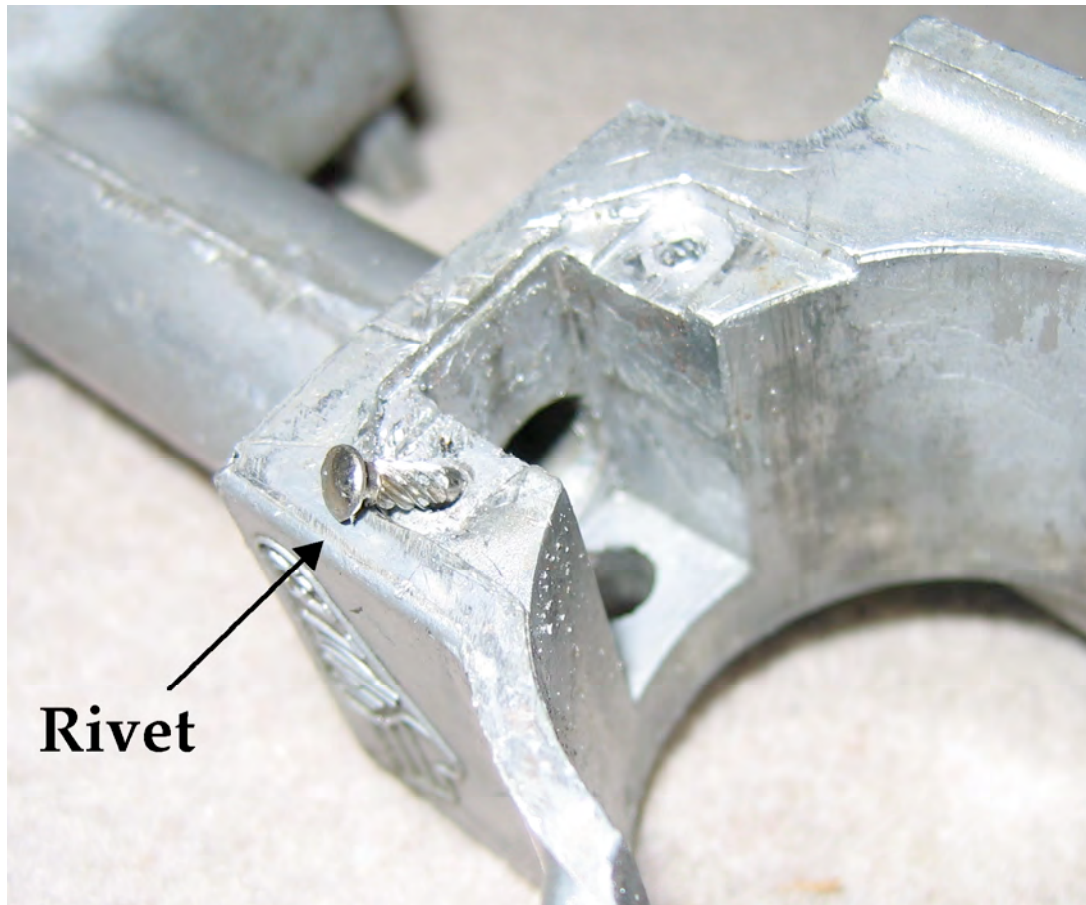
Now the 10 mm diameter steering-lock rod must be detached from the lock. There is a hole in the ally casting through which you can see the end of a 3 mm pin which secures the rod to a tongue coming from the lock. This pin is swaged outwards, much like a clutch or brake rivet. This dished section must be removed with a drill - around a 4 or 5 mm. The pin is of such a length as to run close to the little blue-steel bridge which you can see opposite the window you are looking at the pin through. You can now drive it out with a suitable punch. As you do so the blue steel bridge will be deformed ahead of it.

This bridge has to come out, and I don't know of a kindly way to do this. To begin with it will distort enough to permit the little 3 mm pin to come out, and then the steering-lock rod can be removed. You now have to lever the deformed-looking bridge off the shiny silver rivets which secure it, (or if you are lucky the rivets will come out with the bridge).

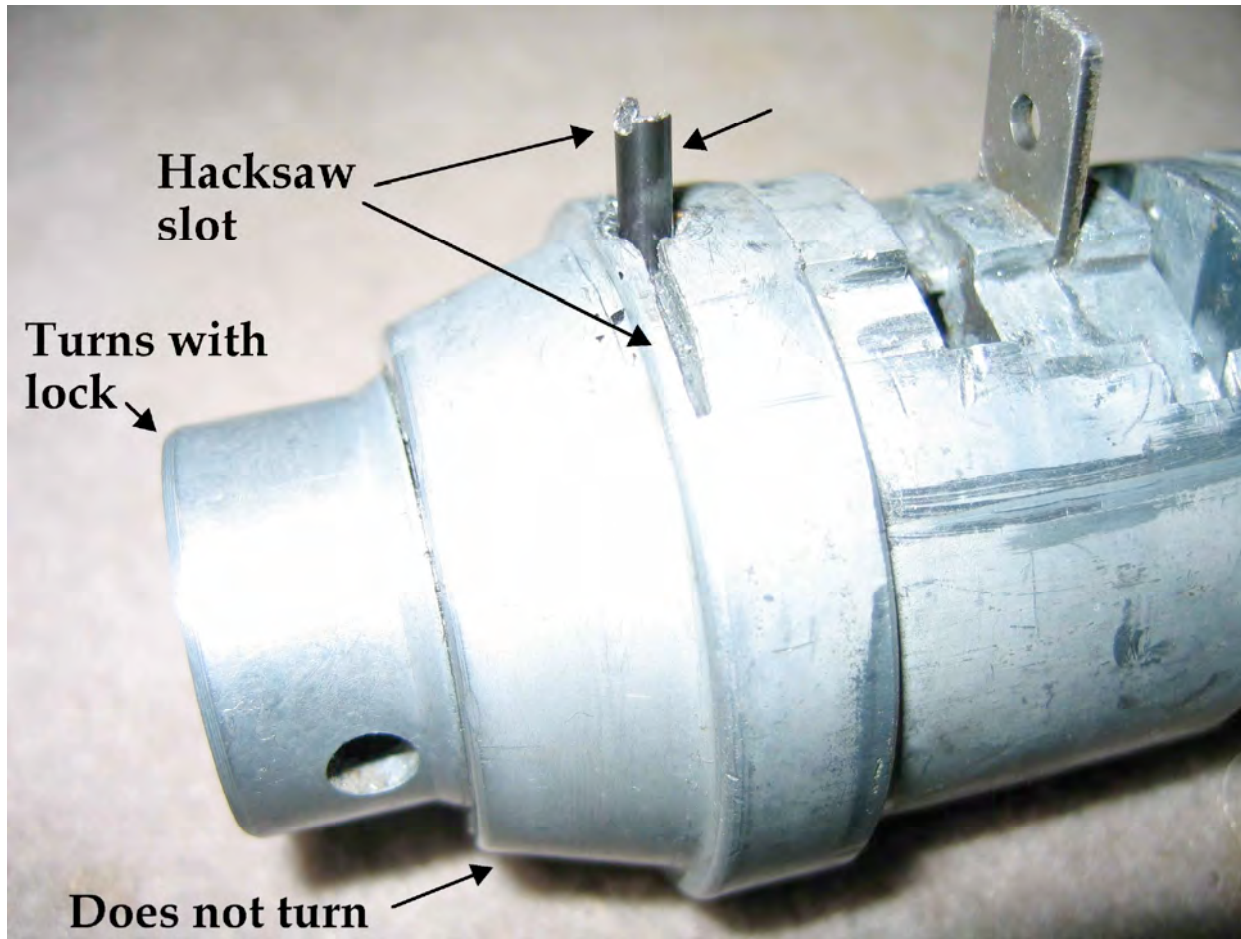


The rivets are hard steel, with helical flutes which burrow into the soft metal of the switch assembly. They take a good bit of force to pull out - I used a pair of side-cutters for this.

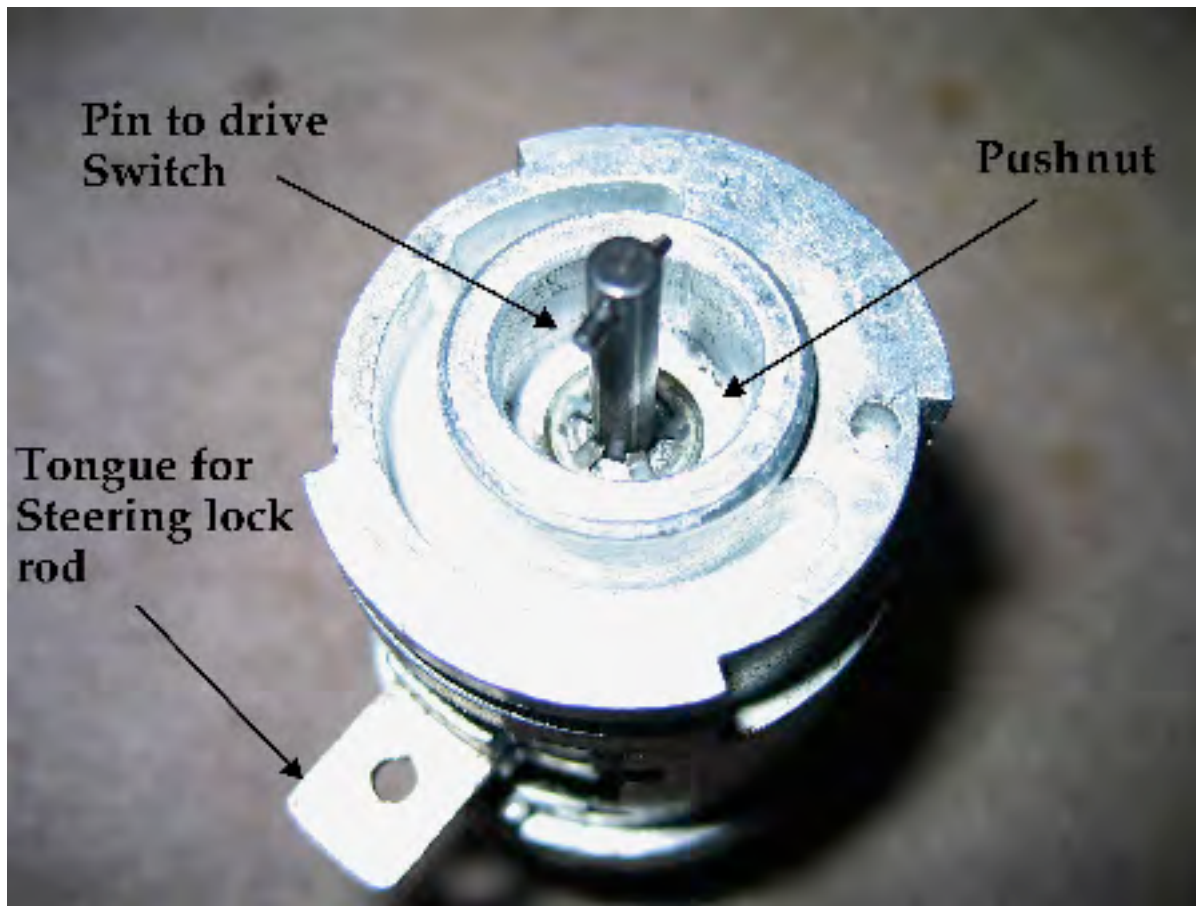
The lock body can now be removed from the main steering-lock casing.



If you have the key you can get the tongue back into the lock so that it will clear the blue-steel bridge, but there is no way to get the 3 mm pin out without severely distorting the bridge, so it seems to me that you are better off removing it completely and either bending it back into shape and refitting it or replacing it later on.



Next you have a pin which secures the lock assembly to its casing. This little pin is 3 mm diameter throughout its 14 mm length, but with a little hole in its outer end, and again this hole has been swaged outwards, in this case to make a frictional lock with the casing. I took a hacksaw and made a cut through the head of the pin (cutting into the zinc alloy in the process), so that I could take a screwdriver to it, because I still thought it might be threaded. In the event I soon twisted off the thin swaged top section. So I deepened the cut and then found that the pin beneath was happy enough to turn, so I worked it back and forth until it was free enough to dislodge by tapping the whole assembly on an anvil. I could now draw the pot-metal lock-housing out, taking care not to allow the tongue of the steering-lock link to catch in the outer casing.



I now have a little five-leaf clip which appears to secure the key-lock assembly into its housing via its long 4 mm extension shaft, and a tiny 1.5 mm pin which is pressed into the end of the shaft at right angles. The spring clip I'd feel happier removing if I had a replacement to hand.

With much searching (and the help of Ken Nelson) I discover that they are called 'pushnuts' or Palnuts. These seem to be sold in imperial sizes, but 3.32" is very close to 4 mm.

The 1.5 mm pin tapped out ok (I tapped it to flush with the rod, then pulled with some strong grips).