C70 Window Roller Repair
Taken from: http://www.volvospeed.com/vs_forum/topic/115086-how-to-c70-window-rollers-permanent-fix/

Heres the problem:

This happened to two separate window assemblies on my c70 and after doing a search on Volvospeed the only thing I found was people taking it to the dealer and having the whole assembly replaced for $1000+. Plus the new assemblies still have plastic rollers, so its just a matter of time before this happens again due to the amount of pressure on the rollers. This is also a problem specific to the c70 because of all the extra support it needs because there is no frame around the window.

Parts required:
1 – Steel Patio Door Replacement Roller kit (Available at Lowes Hardware)
1 – Grade 8 Bolt ¼ 20 x 1 ½ “
1 – Self Locking Nut ¼ 20
4 – Standard ¼ “ Washers
1 – Fender Washer ¼ “ ID, 2” OD (Only Required if replacing the large style roller (see below for the two ways to do it))
Special Tools Required:
Craftsman #47478 ¼ “ bit ratchet
¼" T-40 bit, ground down to 7/8 " long
8” piece of ½ “ EMT conduit to extend bit ratchet
Compass
Time required:
4 to 6 hours

The C70 coupe has no upper window guides so all window adjustments are in the window frame and window sliders, because of this it is important to mark as many reference points as possible to get the window reinstalled in the same position. Readjusting the window can be a problem. In this write up I mention those I used, but if you find other ways to mark the window and frame, go for it.

Procedure:
1. Raise window to the top. Pull if needed to make sure the window has reached the top stop limit.
2. Place masking tape on window to mark alignment both horizontally and vertically.
3. Use compass to mark tape for horizontal and vertical reference
4. Draw a radius reference with the compass to be sure the distance doesn’t get changed
5. Note the clearance at the bottom of the window and the door when the top of the window makes contact with the rubber.
6. Remove door panel.
   ___ a. Snap off inside handle rim by slipping a small flat blade behind and pulling outward.
   ___ b. Snap off the inside mirror triangle cover by pulling outward.
   ___ c. Snap off the small screw cover in the door handle and remove the Torx screw.
   ___ d. Pull the door panel out and up.
   ___ e. Remove all connectors to the door panel and set door panel aside.
7. Remove speaker.
8. Remove mirror, make sure to mark all spacers to reinstall in same places.
9. Mark door handle assy. for reinstallation alignment
10. Remove door handle assy.
11. Remove the bottom black plastic inner door cover by first removing the door panel bracket (10mm head nut and 10mm head bolt).
12. Remove inner plastic honeycomb assy. (10mm head bolt at the bottom of the door).
13. Remove the 5 top window frame bolts. Note there may be shims behind some or all bolts. Make sure to mark all shims and bolts to replace in same location.
14. Remove the 2 lower 13mm head nuts on the lower window frame adjustment bolts. Both bolts have a Torx hole in the end of each shaft.
15. Remove the 2 lower window frame adjustment bolts by counting the number of turns it takes to remove each bolt and noting that number. When reinstalling turn these bolts to the same point.
16. Remove the 2 remaining 10mm head window motor nuts.
17. Unplug the window motor and push the grommet and wires through the door panel.
18. Lift out the window frame while carefully supporting the window motor. Requires 2 people.
19. With a permanent marker mark the window in various locations around the sliders to make sure the window can be replaced in the exact location.
20. Remove window, noting all shims and brackets.
21. Identify your window roller type. The large roller type uses an approximately 2” roller and the small roller type is approximately 1 ½ “. The large roller type requires the fender washer and modifying the rear window slider.
22. Break off all remaining roller pieces.
23. Drill a small hole (approx. 1/8 in.) in the center of the roller shaft and through the inner panel of the window frame. Note the window frame is very hard and you will need cutting oil and may overheat and damage the drill bit.
24. Increase the drill size to approx. .300 in. and drill through the roller shaft only.
25. Remove the roller shaft. This may require some manipulation, but try not to distort the roller shaft plate.
26. Drill out the inner panel of the window frame to ¼ in. Note the window frame is very hard and you will need cutting oil and may overheat and damage the drill bit. I found that using intermediate sized bits to work up to the required ¼ in. helped.

27. Clean out all metal debris and note distance between the roller shaft plate and the inner door frame panel. You will need to install the ¼ in. washers to fill that gap and not distort either the roller shaft plate or the inner door frame panel.

28. Install the correct number of ¼ in. washers between the roller shaft plate and the inner door frame panel by prying them apart and sliding the washers in.

29. Grind off approx. ½ of the bolt head. This is for clearance between the slider and roller bolt.
30. Install new roller.
   a. If its the Small roller type: Install bolt, roller and secure from the back with the self locking nut. I found that using a small needle nose Vise Grip worked the best to hold the nut inside the door frame channel.
b. If its the Large roller type: Install bolt, fender washer, roller and secure from the back with the self locking nut. I found that using a small needle nose Vise Grip worked the best to hold the nut inside the door frame channel.
31. This step is only required when replacing the large roller type. Grind the window slider to allow for clearance of the new roller bolt.
32. Clean all debris, lubricate sliders, and install cables.
33. Bend all cable tabs to not allow cables to slip off rollers.
34. Reinstall window into frame with proper shims and plates. Align to previous marked locations.
35. Install window frame into door. Carefully supporting motor while installing. Requires 2 people.
36. Secure the window motor with the 2 top 10mm head nuts.
37. Install the 2 lower window frame adjustment bolts by counting the number of turns for each to place them to the same point when removed.
38. Install the 5 top window frame bolts and replace all shims.
39. Install the 2 lower window frame adjustment nuts.
40. Check window operation by removing window switch assy. from door panel and plugging into door plugs. Window should operate correctly.
41. Move window to top position and check all window alignment points. For final check use a piece of paper between the rubber and window
42. If the window is aligned go to step 44.
43. Align window.
   ______a. Adjust the window in the sliders to get the window height aligned at the front and back, and
top and bottom. The only way I found to loosen and tighten the window slider is to use the Craftsman
bit ratchet with the extension pipe attached. You don’t have much room but it can be done if the
window is in the right position. The rear slider has a guide to keep it on the slide rail, but the front
slider doesn’t, because of this the front slider needs to be pushed forward into the slider rail before you
tighten it on the window. I used a thin piece of wood to push it forward.
   ______b. Adjust the window frame using fender shims and the by adjusting the lower adjusting screws.
44. Install mirror but leave the screws loose.
45. Move window to top position and close door then tighten the mirror bolts.
46. Everything else can be reinstalled in reverse order. The door panel has a rubber shim strip between the top edge of the window frame and the door panel, just make sure to install this on the frame before you install the panel
Good Luck!