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REPLACING A C2/C3 CORVETTE POWER STEERING CONTROL VALVE

The following is a link to an excellent video on replacing the 1963-1982 Corvette power steering control valve.

http://www.youtube.com/watch?feature=player_embedded&v=bVdw7x9oEQA

Today, a great number of people rely on video presentations rather than the written word. I think this is a great video. I would add the following three comments:

1. PICKLE FORK TOOL

The pickle fork is used to break the taper connection between the control valve and the pitman arm. A pickle fork will usually cut and destroy the control valve rubber boot as it wedges the two components apart. If you are replacing the entire valve with a new one (such as in the video) it probably doesn't make a lot of difference. However, be aware that the pickle fork can cause damage to rubber parts.

2. POWER STEERING FLUID

I always recommend that you refill the system with genuine GM power steering fluid. GM #89020661 or AC Delco #89021182. It is the only fluid that is specifically formulated to operate with the Saginaw power steering pump.

3. DEAIRATION (GETTING THE AIR OUT)

After tightening all the mechanical and hydraulic connections, fill the power steering reservoir with fresh power steering fluid. Fill it to the "COLD" mark on the stick that is part of the pump reservoir cap.

Now do NOT start the engine. Instead, rotate the steering wheel full lock to full lock about 20 times. This will cause the assist cylinder to act as a pump and move power steering fluid (and any air in the system) up through the power steering pump reservoir allowing air to escape. Continue to refill the pump reservoir with fluid as large air bubbles come to the surface and the fluid level drops.

If you start your engine before eliminating most of the air in the system, air will be moved up through the pump itself where it will be whipped into a milky froth by the pumping action of the power steering pump. This will result in millions of very tiny bubbles, a fluid with milky color, a pump that makes a lot of noise, erratic power steering assist, and the fluid may expand and flow back out of the pump reservoir. It will now take a considerable amount of time to effectively eliminate those tiny bubbles and get the power steering system to act properly.

With most of the air out of the system, you can now follow the procedure in the video and balance the control valve.

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