993 Idle Stabilizer Valve (ISV) Cleanout

Contributed by:
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Degree of difficulty: 2-3
(In a scale of 1-10, 10 being the most difficult)

Tools you'll need:

- #2 Phillips screwdrivers: regular and preferably a LONG one, too
- Possibly a 7mm box/open end wrench, and/or a 7mm socket, ratchet, and 3-6" extension
- Spray can of brake cleaner (or gun cleaner, basically a spray solvent that's really volatile)
- Paper towels, cleaner, maybe some Q-Tips and Armor All

Preface: This is such a straightforward procedure it's almost a little silly/embarrassing to be writing up a DIY on it. But, hey, I've gotten so used to the comfort of having write-ups like these to hold my hand on other jobs, I figured I could throw one out here for this for somebody else. You undo three hose clamps and wrestle it out of its home. Once removed from the top of the motor, there is NO further disassembly of the ISV needed or recommended. More below:

This picture is swiped from another DIY, but you can see the silver canister sitting on the very top of the intake manifold, just barely fitting below the rear window. In this photo I'd already loosened the most rearward hose clamp & wiggled the aluminum pipe out of the way:

There are two things that make removing the ISV a pain: the factory worker who tightened the hose clamps originally did it with the engine outside of the car. So he didn't have to worry about being able to get a screwdriver on them later when the motor IS in the car; the screws are pointing off in impossible angles. That's why I had to use a 7mm wrench on the back hose clamp, there was no way to get a screwdriver on it. (Robin did it by using a flexible shaft screw driver)

The other problem is just that the circular rubber gasket surrounding the ISV is probably old & dirty, and the cylinder just doesn't want to slide out easily. Grunt and cuss a lot ;-) One thing I did which helped was clamp

down a pair of channel lock pliers on the #2 intake runner right next to the ISV. That gave me a fulcrum to lever a big screwdriver against the left end of the cylinder to get it started sliding out to the right.
(Robin sprayed a little WD-40 around that area to loosen it)

Here's what's left once you wrestle it out:

Here's the ISV alone:

I STRONGLY recommend wearing goggles when using brake cleaner! Or having a garden hose or bathtub handy for massive amounts of flushing out your eye(s) when the inevitable happens and you get a strong back-blast of that stuff directly into your eyeball. Ask me how I know.

That said, peek into the entrance & exit pipes, and twist the ISV around. There probably won't be much movement inside, and it won't look like this yet:

Once you've blasted it good w. the cleaner, shake as much of the dirty cleaner out, and mop up w. paper towels.
I found a couple of Q-Tips helped me scrub off some of the dirt that was on the surface of the rotating
assembly inside. Give the remaining solvent in the cylinder time to dry out; it won't take but a few minutes. I
guess you could hasten that process with an air hose & blow tip, but I'm not in THAT much of a rush.
One other thing I did to make my life easy: notice how gooked-up the inner surface of the rubber ring gasket is:
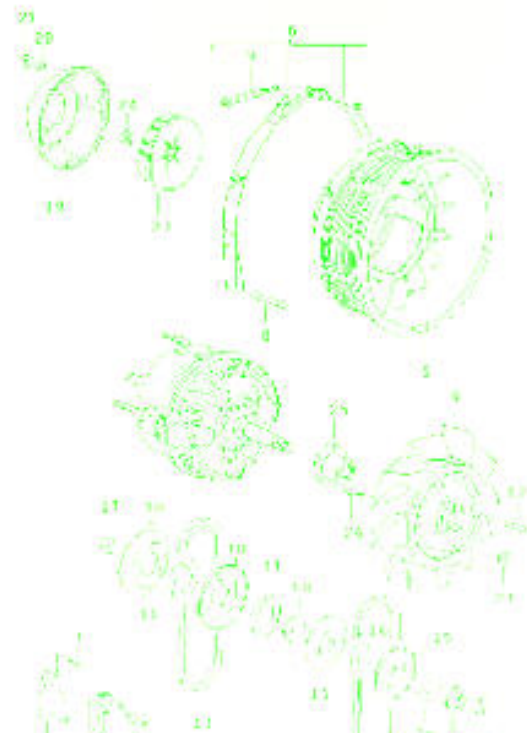
I cleaned up the dirt w. Simple Green, paper towels, and a fingernail. I then soaked the interior of the gasket with Armor All. I don't use that silicone-based stuff anymore on my interior, but figured it would make a good lubricant to sliiide the cylinder back into its home. Worked out okay.
One of the more satisfying things about doing this DIY is that I could reattach the hose clamps such that you CAN actually get to them easily w. a screwdriver in the future! Having a #2 Phillips screwdriver with about a 10" shaft makes this a lot easier on your knuckles.

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