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Brake Fluid replacement – a matter of personal preference.

Although I have done it on occasion, I am not much on bleeding brake lines on vehicles. A messy job where spilled fluid will strip paint off, it usually necessitates an accomplice to push on the brake pedal at appropriate times. There are tools to pressure bleed the brake system by yourself, but they are the purview of the true professional, not the shade tree mechanic.

Historically we have followed maintenance schedules that ask us to have the brake fluid renewed on a regular basis. You see the nature of brake fluid is hydrophilic, i.e. it readily absorbs moisture. This absorption is compounded by the fact that many of us do not garage our vehicles. As such they are exposed to temperature and humidity changes which allow minute amounts of moisture carried in the air to interact with brake fluid that itself readily absorbs moisture. Previously with the passage of time, if you got very small amounts of moisture in the brake fluid, rust would pock mark the master cylinder or the brake wheel cylinders, necessitating a rebuild or replacement.

With the advent of the antilock brake systems on modern vehicles, the importance of clean, dry brake fluid takes on new significance. Cars and tow vehicles have additional antilock hardware that looks like a big aluminum box that is downstream from the master cylinder. The hardware is extremely expensive to replace if mistreated. Recent models of motorhomes also have antilock brakes with similar hardware and deterioration characteristics and most of these are stored outside, exposed to the elements.

It occurred to me that there would be wisdom in changing the old fluid in the brake fluid reservoir since it probably contained minute amounts of moisture. I went to the grocery store and bought a turkey baster with a rubber squeeze bulb at the top. With this I carefully extracted the old fluid out of the brake fluid reservoir and poured in the identical amount of brake fluid from a fresh, sealed bottle. Please take note of the level of brake fluid in the reservoir before beginning the extraction. Also note that there should be no possibility of getting air in the brake lines. Since the fluid gravity-feeds out of the reservoir and the baster will not get absolutely all of the fluid out of the reservoir, no air enters the system.

In doing this maintenance you must be very clean, wiping off all surfaces before removing reservoir caps. Only the best heavy-duty brake fluid should be used from a sealed bottle. Some manufacturers may want you to use their own brand. What has surprised me is that the fluid downstream of the reservoir somehow mixes with the new fluid in the reservoir. After several weeks of driving, a visual inspection indicates that the fluid has darkened slightly in color, indicating a mixing of the new and old fluid.

Although this procedure has worked for me, I am not a professional brake specialist, nor do I purport to be one. Certainly bleeding the brakes would be much more desirable than just replacing the fluid in the reservoir. Specialists I have asked have not heard of the reservoir refill idea, but they feel it certainly can't hurt to put in fresh fluid. I have begun to do this to both of my cars and the motorhome twice yearly. What do you think?