

Bleeding the Auto Park brake system

What we will try to do here, is to include all of the information we have on bleeding the Hydroboost system (brake booster), the power steering system, and the AutoPark system. All three systems run off of the power steering pump. These procedures are especially important when you are cleaning up after over travel issues. As long as there is foam and air in the system, it will whine and make weird noises. Additionally, the brakes may be spongy and the power steering and AutoPark may not work properly. BLEEDING IS VERY IMPORTANT and it may take more than one session of it to get the air out of the nooks and crannies of the system.

Most of the following is stuff we have lifted from manuals and such - - There will very likely be some duplications of content between the various writeups.

BLEEDING THE POWER STEERING SYSTEM

When a power steering pump or gear has been removed or an oil line has been disconnected, the air that has entered the system must be bled out before the vehicle is operated. If air is allowed to remain in the power steering fluid system, noisy and unsatisfactory operation of the system may result. Bleed air from the hydraulic system as follows:

- When bleeding the system, and any time fluid is added to the power steering system, be sure to use only power steering fluid as specified in SECTION 0B.
1. Fill the pump fluid reservoir to the proper level and let the fluid settle for at least 2 minutes.
 2. Start the engine and let it run for a few seconds, then turn the engine off.
 3. Add fluid if necessary.
 4. Repeat the above procedure until the fluid level remains constant after running the engine.
 5. Raise the front of the vehicle so the wheels are off the ground.
 6. Start the engine. Slowly turn the steering wheel right and left, lightly contacting the wheel stops.
 7. Check the fluid level and add fluid if necessary.
 8. Lower the vehicle and turn the steering wheel slowly from lock to lock.
 9. Stop the engine. Check the fluid level and refill as required.
 10. If the fluid is extremely foamy, allow the vehicle to stand a few minutes and repeat the above procedure.

The following pertains to bleeding the actuator - - There is a port on the top, back end of the actuator for this purpose.

BLEEDING SYSTEM

- Shift lever and control lever should be in park.
 - Bleed the power steering system. Refer to SECTION 3B.
 - Reset the shift lever to neutral.
1. Open the port on the actuator and allow fluid to flow until no air remains in the fluid.
 2. Tighten the port.
 3. Open the exhaust line fitting to the control valve.
 4. Put the control valve in the park position.
 5. Allow a small amount of fluid to bleed out of the fitting.
 6. Tighten the fitting.
 7. Cycle the system and observe any noise that indicates trapped air.

Finally, the Hydroboost system may need bled:

5D2-8 HYDRAULIC BOOSTER SYSTEM**ON-VEHICLE SERVICE****CHECKING AND ADDING FLUID**

For information on checking and adding fluid to the power steering pump reservoir, refer to SECTION 3B.

BLEEDING THE HYDRAULIC BOOSTER SYSTEM

NOTICE: Power steering fluid and brake fluid cannot be mixed. If the brake seals contact steering fluid or the steering seals contact brake fluid, seal damage will result.

Any time the hydraulic booster system has been opened, the system should be bled. Refer to SECTION 3B for the procedure on bleeding the power steering system.

FLUSHING THE HYDRAULIC BOOSTER SYSTEM

Refer to the flushing procedures in SECTION 3D.

PIPES, HOSES, AND FITTINGS

Refer to SECTION 3B.

BOOSTER ASSEMBLY**MOTORHOME****←← Remove or Disconnect (Figure 2)**

1. Apply the parking brake.
2. Hoses from the booster.
3. Nuts (7).
4. Master cylinder (8).
 - Support the master cylinder.
5. Brake pedal rod.
6. Nut (11).
7. Bolt (16) and washer (12).
8. Nut (14).
9. Bolt (18) and washer (15).
10. Nuts (19).
11. Bolts (17) and washers (13).
12. Booster assembly (9).

→→ Install or Connect (Figure 2)

NOTICE: For steps 7 and 10, refer to "Notice" on page 5D2-1.

1. Booster assembly (9).
2. Bolts (17) and washers (13).
3. Nuts (19). Leave finger tight.

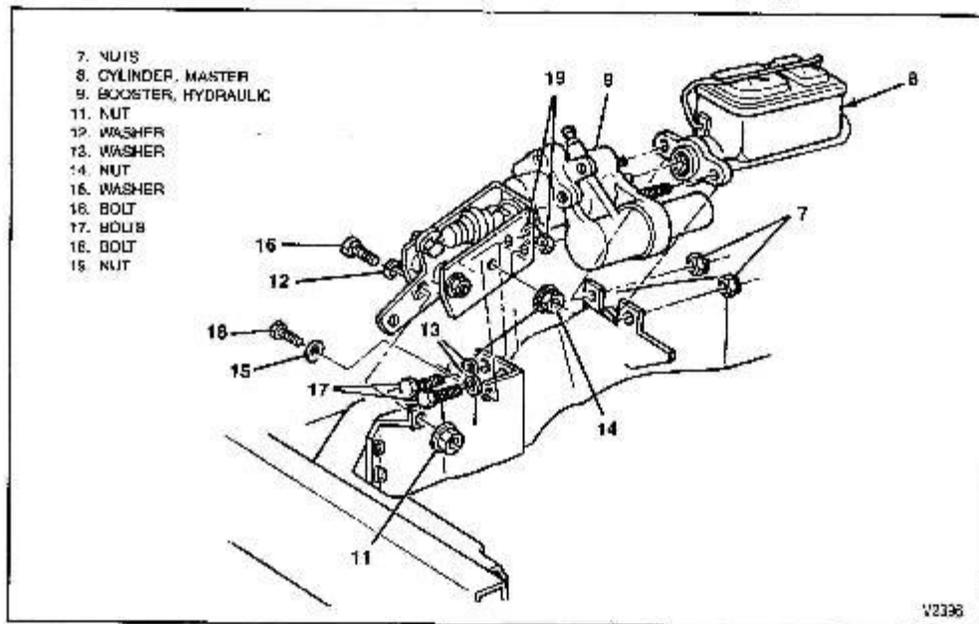


Figure 2—Motorhome Hydraulic Booster

Of the three procedures listed above, bleeding the power steering is probably the most productive. Foam in the system will migrate as the brakes, power steering and AutoPark are used. There may be bubbles trapped in the three different sub-systems though, making it necessary to bleed those sub-systems individually.

As mentioned earlier, this is one of the most tedious procedures one will encounter in AutoPark repair. It is not at all unusual to have to repeat some of the bleeds more than once.

If you find that the system becomes noisy after cycling the AutoPark by putting the shift lever out of PARK with the engine running, that is a sign that you have still NOT cured your problems with OVERTRAVEL. As long as you have an over travel issue, the system will ingest air EVERY TIME you cycle the AutoPark.

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