

Tank Valves Work Hard

We recently received an email from an Airstreamer that was having trouble with his dump valves. He stated they both work really hard, it is difficult to slide them in and out. He indicated that his Airstream is a 2002 Classic. He stated he had tried WD40 and it helped some but not for long. No one answer covers all possibilities, but here are some suggestions. First a little review, Airstream for the most part has been using Thetford and Valterra dump (gate) valves in the trailer products. They both operate the

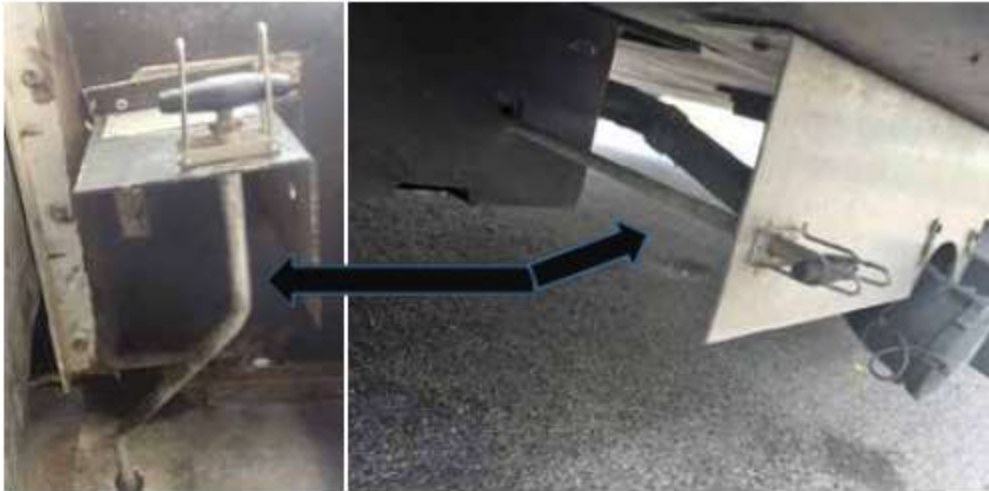
Thetford



Valterra



Handle Extensions to Operate Valves Inside a Tank Pan



Exterior Valve - No Extension



same way just a little different design and color. Some will be located on the outside of the trailer with easy access and some will be located in the tank pan and operated using a handle extension.

The dump/gate valve is one piece of equipment that is not that complicated. It contains a nylon slide, two rubber seals and a shaft with a T- handle, but its components can be easily damaged or become stuck. That's why it is necessary to maintain and replace any parts on the dump valve that are becoming vintage or require extra effort to operate.

The Airstreamer did not indicate what he used the WD40 on, but I would not recommend using WD40 when lubricating the dump valves whether on the handle or the seals. When the dump valve is manufactured, the shaft and slide are coated with a film of grease. Using WD40 will break down the grease and will eventually make it slide harder and if it gets to the rubber seals (gaskets), I believe that it can eventually cause the rubber seals to break down.

Silicone lube is a good choice. Apply the silicone to the valve rods while working them open and closed. If you can get to valves (some are too far away from termination outlet) spray it up both gray and black tank valves with the valves open and then closed. Work the valves back and forth while spraying. Obviously, the system needs to be clean, drained and dry to do this.

Typical problems with gate valves:

- Debris built up around dump valve gaskets

1. Do you use your tank flush when dumping black tank?
2. Do you use RV toilet paper?
3. Be careful of what type of items you put down toilets and drains.
Never dispose of pieces of plastic, garbage or anything else that won't dissolve in your tanks.

- **Gaskets are dried out and getting stiff. Do you use a tank lubricant?**

1. Thetford makes a tank valve lubricant that can be used regularly to keep tank valve gaskets soft, it can be used in both gray and black tanks.
2. People also recommend using a mixture of coconut oil that is sold in health food stores or vegetable oil (I would not use vegetable oil on a regular basis) to help loosen up valve gaskets that work hard.

- **Gaskets twisted or torn**

1. If a dump valve is stuck, don't give it a BIG tug. You may end up tearing your gasket or breaking the handle or rod. Try gently pushing and pulling to see if you can free it up.
2. A good habit to get into is checking the valves before you start using and filling the tanks.
3. Always use some type of lubricant in your tanks before storing for the winter, this will help prevent them from drying out or sticking.
4. A sign that you may have a gasket problem is if you have water in the termination tube when you remove cap.

- **Rod bent, corroded or needing lubricated**

1. Lubricate valve rods with silicone.
2. Check for nicks/damage on rods or any signs of corrosion from road chemicals. The exterior valves are usually located directly in front or behind the wheels making them subject to road debris and moisture.

• **Rod extensions loose or bent and binding**

1. Extensions are riveted to the rod inside the tank pan, they can become loose or catch on pan gasket when opening and closing.
2. Rod extension can be bent from road debris and not be aligned and slide properly.

• **Your trailer is getting older**

1. If you have never replaced the valves or gaskets, it may be time.

So back to the Airstreamer's question, I believe the problem would more likely be dried out seals since he indicated both valves have become hard to operate. I believe I would try using silicone on the valve rods and a tank lubricant to see if that helps. If that doesn't help, it may be time for some new gaskets for the valves as his Airstream would be about 14 years old.