

Watts 263A Regulator Maintenance or Repair

Sometimes a customer will become aware of a problem with the regulator that is indicated by a reading on the gauge that is more than what they have it set at. Most of the time, this is an indication of the need to perform some maintenance on it.

A regulator is just a valve that automatically opens and closes by way of a diaphragm, needle valve and valve seat. If the valve cannot close for any reason, it will not be able to hold the pressure. Various things can get in the way of it closing, such as, organic material, gravel, grit, or more often, mineral deposits (scale) around the perimeter of the valve seat. The nice thing about the watts valve is that you can take it apart for maintenance, rebuilding or repairing. We stock every part of this unit, so even if it has a wear issue, it is repairable and does not need to be tossed as so many products in our disposable society.

I suggest getting a thin rag and a pencil with an eraser on it, along with some white vinegar, CLR, or other mineral dissolving product. The access to the valve seat area is through the bottom hex plug. Loosen the lock nut and screw the adjustment bolt out or to the left (counter clockwise) until it gets loose. This removes the tension on the main spring in the upper half of the unit and makes it a bit easier to perform the task. Unscrew the hex plug on the bottom of the regulator and note that there will be a spring there that you need to be sure does not get away from you. Set the spring aside and remove the rubber needle valve cone on the s/s pin. Turn the regulator upside down and if the needle valve does not fall out, bump it against the palm of your hand which will usually get it to fall out.

If not, you probably have a bit of gunk in there that is making it stick. The needle valve should move or slide easily on that s/s pin. You can reach in with tweezers or needlenose pliers and pull it out, if needed. Now you have exposed the valve seat, which is nothing more than a hole down in the brass body that the rubber cone part of the needle valve seals into. Examine the rubber cone and valve seat to see if anything obvious is there that could be holding it up. Most of the time, if it is mineral deposit, it is very difficult to see, but don't let that stop you from cleaning it!

Soak a corner of the rag in the vinegar or whatever you have, and push that soaked corner down in there so that it contacts the valve seat hole. Now take the eraser end of the pencil and apply pressure against the rag and twist the pencil back and forth to both dissolve any scale and get it to wipe on out of there. Flush the unit out with some water and replace the needle valve and spring. Note that the spring fits over a protrusion on the top of the rubber cone that holds it in place. Screw the hex plug back in and you are ready to test. 90% of the time, this procedure will fix the problem.

Hook the regulator up to the hoses and turn the water on and see if the unit holds at zero. If it does, then go ahead and turn the adjustment bolt to the right or clockwise, until you reach the desired pressure. If the source pressure is not high enough to get where you want it to be, stop short or back it off to a pressure below what the source is, so that you can accurately determine

if the regulator is holding or if it creeps on up beyond where you have it set. If you set it at the source pressure, or beyond, you will not be able to determine at this time if it is holding at the set pressure, or not. But let's assume that you are unlucky enough to be in the other 10%. Let's examine the next step to help make a diagnosis of the problem. This step can be performed while you are doing the cleaning, or you can go back in now because the cleaning did not help. You will need a piece of 500 grit, or so, sandpaper or emory cloth. Cut a strip about the width of the pencil or a bit more, and about 4" long. With the hex plug, spring and needle valve removed, fold the sandpaper over the end of the eraser evenly so the you can hold it in place with your one hand with the paper on both sides of the pencil. Squeeze the paper and push the pencil down into the brass body and work the pencil back and forth, just like you did with the vinegar.

What you are trying to do is get the grit of the paper to sand or polish the soft brass around the perimeter of the valve seat hole. Reposition the paper, as needed, to get the brass to turn shiny and allow you to see any wear or imperfections in that valve seat rim. Water can be rather abrasive with what is in it and can wear a groove or divet in that valve seat that would prevent the valve from sealing. This is not too common, but it can happen. If you find that is the problem, then you either have to replace the bottom section of the regulator or if you are really handy and have the ability to try and grind that valve seat with a cone shaped grinding bit, like dremel tools offer, then you may be able to repair it.

I have had a customer report that he successfully did make such a repair. If this kind of a situation happened within the first year, it would be covered by warranty, even though it is not a defect. Watts is just a pretty good company to deal with. If the brass is not worn, but the unit still does not hold pressure, then the next step is to purchase the rebuild kit for your 263A and replace the diaphragm, needle valve and small spring. Sometimes, the rubber parts will get dry and harden up over time, especially with part-time use.

Though we have thousands of customers out there in the RV circles, and have sold thousands of these regulators, we try and offer help and satisfaction for those that are not capable of performing their own maintenance, by providing free labor to determine what the problem is with their unit. We only ask that the customer pay the shipping back and forth and for any parts that may be needed to bring their regulator back to good working condition.