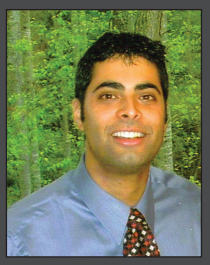
The Repair Guys

Mark Inman



Doug Taylor

In our line of work, we field questions from contractors and technicians concerning repairs, installations, and general backflow prevention practices. We'd like to share some questions that we receive as well as our answers. Everyone has different opinions on these subjects and we would like to hear yours.

Contact us with questions and ideas via email at: imark@backflowparts.com or mail us at American Backflow Products Co., PO Box 37025, Tallahassee, Florida 32315.

Question

I have an 8-inch Ames model 2000SS DCA that has failed. I found debris lodged between the check disc and the seat. Is there any way to safely disassemble these checks so that I can remove the debris and inspect the seat? Are the check discs replaceable as well?

DOUG

Yes, you can disassemble the check valves and replace the rubber disc. But first we should start with the basics of removing the checks from the body. The #1 and #2 cam checks may look basically the same, but they are removed from the body differently. Both cam-checks for the 8-inch 2000SS are bolted into the body and sealed by an o-ring. After closing both gate valves and bleeding the pressure off, simply remove the groove coupler and cover. There is no spring tension on the cover. **(Fig. 1 & 2)**

After removing the cover, you may need to empty the water out of the body of the device so you can see the check retaining bolts and nuts. A manual hand pump is a great time saver in this situation. To remove the #1 cam check, simply remove the (4) 9/16-inch nuts that secure it to the body of the assembly.

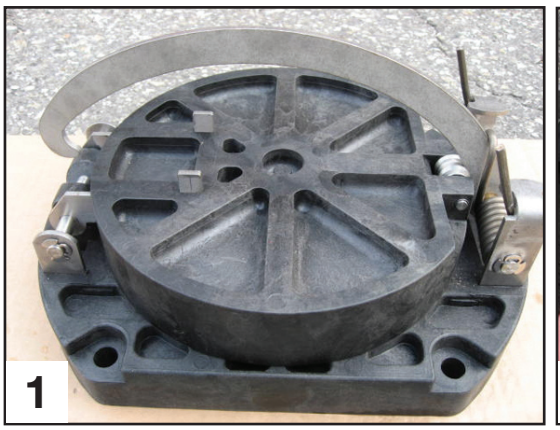
MARK

When you first look at the #2 cam check you will notice that it is mounted downstream of the retaining wall inside the body. You will also notice that there should be a bar attached to the check that extends directly through the flow path of the check valve. We call this bar a centerline access bar. It is used to help remove and install the check valve. **(Fig. 3)**

To remove the #2 cam-check you will need to remove the (4) 9/16-inch bolts that secure the check to the body. Now while holding the centerline access bar, spin the cam check from the 9 o'clock position to the 12 o'clock position, then (without letting go of the access bar) push the cam-check slightly downstream so that the clapper is now parallel to the valve body. Now bring the cam-check through the retaining wall and remove it from the body of the assembly.

DOUG

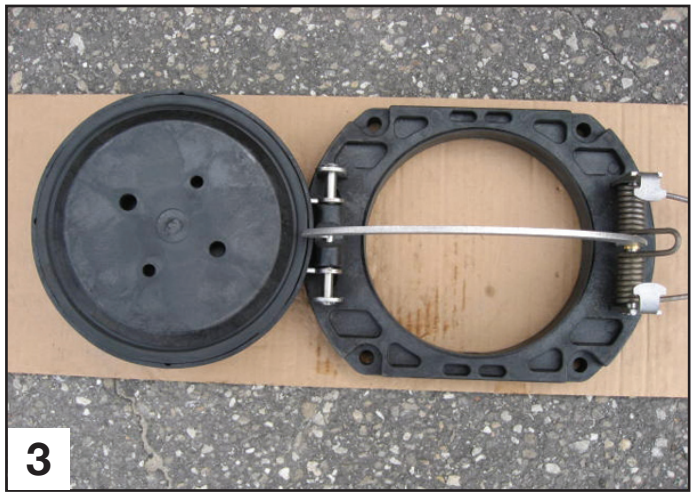
Now that we have both cam-checks removed from the body, we can begin the inspection and cleaning of the check assemblies. The safest and easiest way to inspect and/or clean the cam-check is to relieve the spring tension. To relieve the spring tension from the cam arm you will need either a small diameter nut-driver with a hollow shank or a 1/8-inch X 6-inch long pipe nipple for leverage. With the check assembly lying face down, you will notice the spring on either side of the cam



1

2

arm. Place the nut-driver or pipe nipple over the protruded portion of the torsion spring and carefully move away from and around the torsion spring retaining bracket on both sides of the cam arm. This will relieve the spring tension and allow the clapper to move freely. This will allow you to inspect the clapper face and check valve seat. If upon inspection of the seat you find cracks or nicks, unfortunately you will need to replace the complete cam-check because the seat portion of the cam-check is not sold separately.


3

MARK

Once the spring tension has been released, we can replace the rubber disc. With the clapper assembly open you'll notice four holes in the face of the round disc retainer. The holes are not threaded, but can be used for a handle to help unscrew the disc retainer. Two of these holes will accept a 3/8-inch size bolt, and the other two holes will accept a ½-inch size bolt. The bolts need to be approximately 3 inches long. With the bolts in place, slip a long rod or a long handled screwdriver between the bolts to create a handle for turning. The disc retainer will unscrew counter clockwise. Sounds Easy.

However, it can be difficult. The hard part is trying to keep the clapper assembly in place while not putting too much pressure on the mounting brackets, which could bend or warp. If you decide to replace the rubber on this cam-check, keep in mind that it might take two extra guys to help hold the clapper in place while you unscrew the disc retainer. Also the discs cannot be flipped, so make sure you take along a couple of extra replacement discs.