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**Field Service Bulletin No. 20**

**April 2010**

**SBE 55 ECO Water Sampler Mechanical Modification**

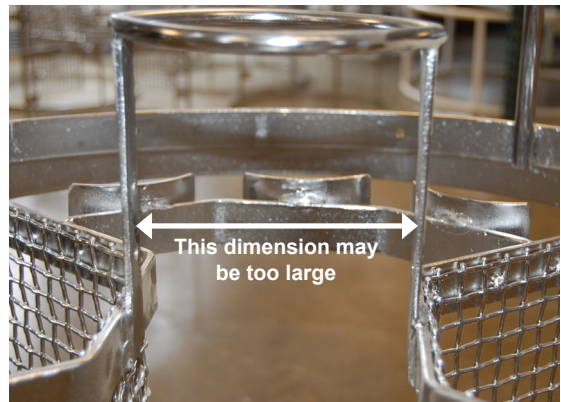
**Equipment Affected**

All SBE 55 ECO Water Samplers shipped through March 2010.

**Description of Problem**

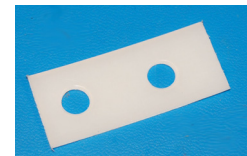
For the specified SBE 55s, the distance between the vertical bars that attach to the latching mechanism **may** be slightly too large to meet our specifications. When the latch assembly is bolted to the bars, this may result in extra stresses on the latch assembly. In the long term, the extra stress may cause cracks in the latch assembly.

We are aware of two failures of latch assemblies as a result of this problem.



**Solution**

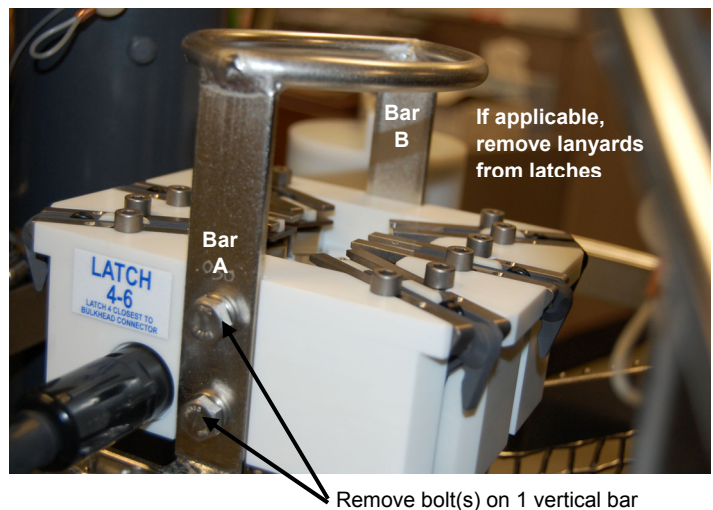
Sea-Bird put together a pack of adhesive-backed shims with several thicknesses. One or more shims can be installed on a vertical bar to obtain the desired snug fit with the latch assembly. Sea-Bird is sending the shim packages and this Field Service Bulletin to any customer who purchased an SBE 55. **If you do not receive a shim package, please contact Sea-Bird.**



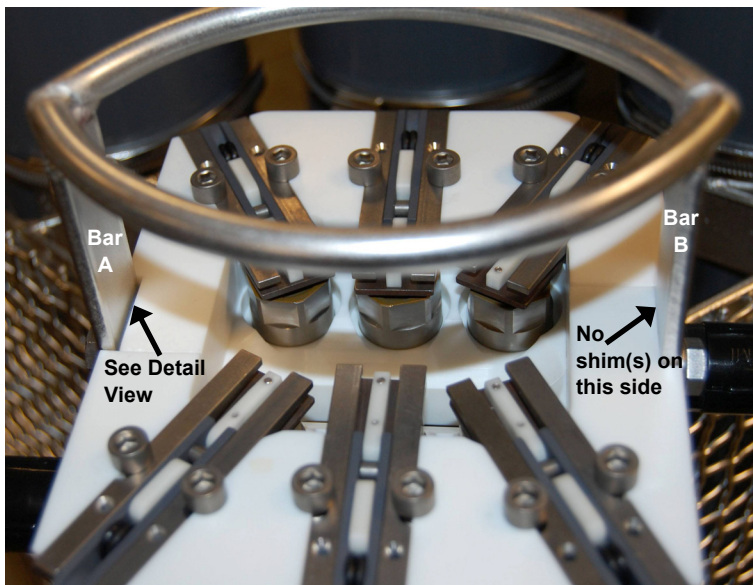
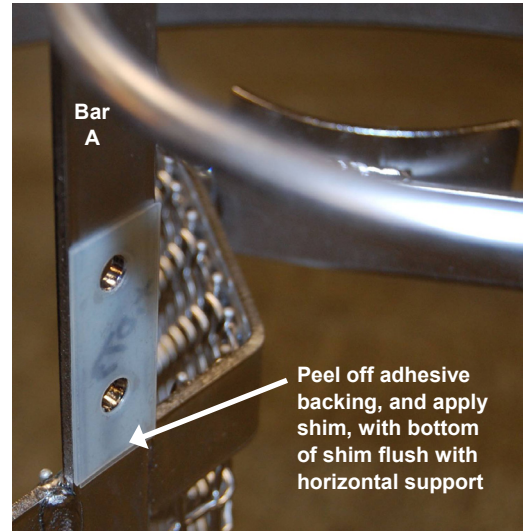
Install the shim(s) as shown below.

**Procedure for Installing Shim(s)**

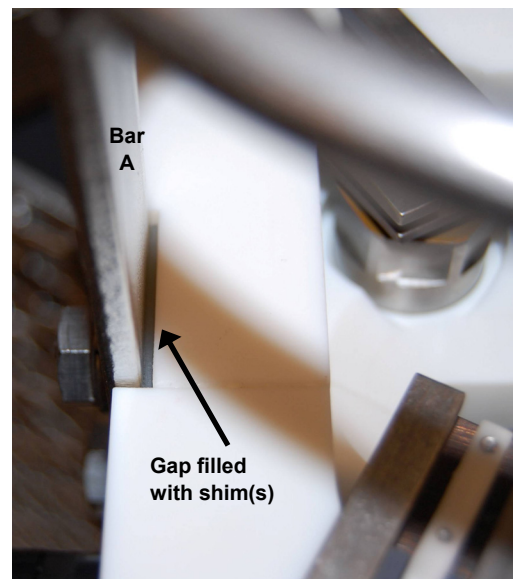
1. Remove the lanyards from the latches (see the SBE 55 manual for details).
2. **On one side only (calling it Bar A)**, remove the bolt(s) attaching the latch assembly(s) to the vertical bar.
3. **On the other side (calling it Bar B)**, tighten the bolt(s) attaching the latch assembly(s) to the vertical bar, so that the latch assembly(s) is snug against Bar B.



4. Look at Bar A and check for a gap between the latch assembly and the vertical bar. If there is a gap, you will use the provided shim(s) to eliminate the gap:
  - A. **Without removing the adhesive backing from the shims**, wedge one or more shims in the gap. When the gap is closed, remove the shim(s), and set them aside.
  - B. Remove the remaining bolt(s) attaching the latch assembly(s) to the frame, and remove the latch assembly(s).
  - C. Peel the adhesive backing off the shim(s) you will use, and apply the shim(s) to Bar A, with the bottom of the shim flush to the horizontal support and the bolt holes aligned.
  - D. Reinstall the latch assembly(s), and secure it to the vertical bars with the bolts.



**Modification Complete**



**Detail View – Modification Complete**

5. If deploying soon, reinstall the lanyards on the latches (see the SBE 55 manual for details).