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VSEP Technical Service Bulletin

Bulletin Number: **08282026**

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VSEP Types: **All Series I-84 VSEP Units**

Components: **Seismic Shaft, Alignment Nut, and Seismic Mount**

Subject: **Correct Locking of Alignment Nut Above Seismic Mount**

Summary: Previous VSEP manuals and instructional videos may have instructed users to lock the alignment nut down against the seismic mount. This method is incorrect for Series I-84 VSEP units and can restrict the intended rotational movement of the seismic shaft within the mount.

Why this matters:

- During VSEP operation, the seismic shaft must be able to rotate within the seismic mount. This movement helps absorb radial vibrational displacement of the unit.
- If the alignment nut is tightened directly against the seismic mount, the nut and mount can become bound together on the seismic shaft. The mount can then be displaced by forces generated during startup and shutdown.
- This condition can allow the VSEP unit to come out of alignment more easily and can cause premature wear of the four polyurethane seismic mount pads.

Correct Procedure:

1) Position the alignment nut for operation with a slight visible gap between the bottom of the alignment nut and the top of the seismic mount. The nut must **not** be tightened down against the mount.

2) Lock the alignment nut in position using the set screw. The set screw shown in the photographs is a 1/4”-20 x 1” bolt.

3) Tighten the set screw against the seismic shaft sufficiently to prevent the alignment nut from rotating out of position. Do not eliminate the gap between the alignment nut and seismic mount.

4) After locking the nut, verify that the alignment nut is not contacting the seismic mount and that the seismic shaft remains free to rotate within the mount during operation.

IMPORTANT: The raised “UP” alignment-nut position shown on Page 3 is used during VSEP alignment or shipping only. It is NOT the operating position.

Recommended Weekly Visual Inspection:

New Logic Research recommends that the seismic shaft and alignment nut assembly be visually inspected once per week during normal operation. Verify the following:

1) The seismic shaft is fully threaded, with no damaged or missing threads.
2) The flange facing the seismic mount is intact and is not chipped or worn.
3) There is no visible rust on the shaft or associated part.
4) The alignment nut is in the proper operating position, with a slight gap between the alignment nut and the seismic mount.
5) The seismic shaft is not chipped, cracked, bent, deformed, or otherwise visibly damaged.

Please contact Field Service Department at (775) 783-7600 or email support@vsep.com if you have any questions about this or other technical issues with your VSEP system.

Correct Alignment Nut Locking - Reference Photographs

Figure 1. Operating position. Leave a slight gap between the alignment nut and seismic mount.

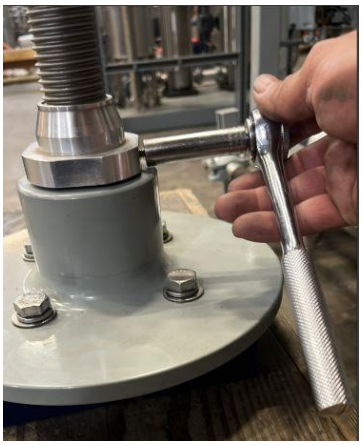

Figure 2. Tighten the 1/4”-20 x 1” set screw (bolt) to lock the alignment nut in position.

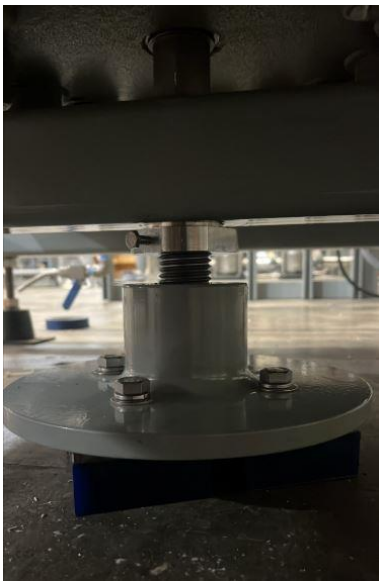

Figure 3. Alignment nut in the raised “UP” position for alignment or shipping. This is NOT the operating position.