



# TIM'S TECH TIPS



## O-Ring Failure

When it's time to replace O-rings in a Genesis attachment, not just any O-ring will do. O-ring material and hardness must be considered, and O-rings must be correctly installed.

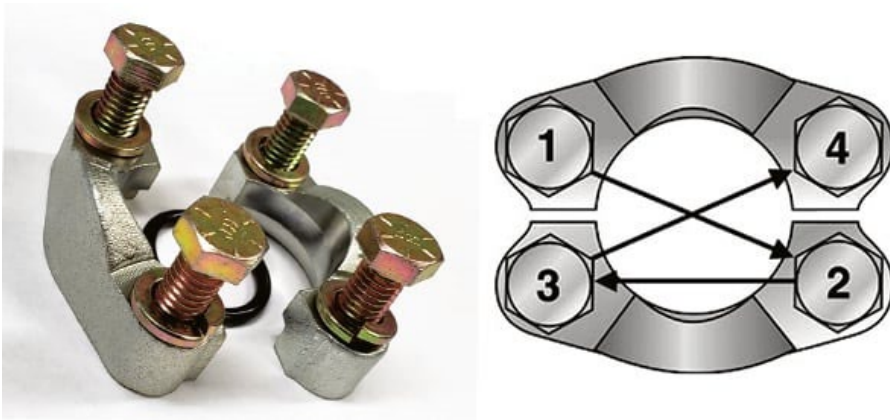
Attachments operate in harsh conditions, so Genesis uses O-rings that are made of Viton™ and have a 90-durometer hardness. Viton™ is a synthetic rubber compound that has a wide operating temperature range. It's also weather and ozone degradation resistant, and chemically resistant, enabling it to perform in demanding environments with minimal downtime or breakdown.

The 90-durometer hardness makes the O-ring very stiff and resistant to extrusion from high pressure exposure.

The Viton™/90-durometer O-ring combination is common to most excavator manufacturers, so they are typically stocked on service trucks and/or at the dealer. Common O-ring sizes for Genesis attachments are Code 62: -12, -16, -20, -24 and -32. O-rings are also available from the [Genesis Parts Department](#).



O-ring installation seems easy enough, but the most common issue we see with O-ring failure is due to the split flanges not being brought down evenly so they're evenly torqued. Uneven torque causes the fitting to not sit flat against the mating surface, so the O-ring is compressed on one side of the fitting but not evenly all the way around. The area that is not compressed will begin to rotate under pressure, causing it to erode, get thin and fail. Often, you will see spiral cuts right where the O-ring failure begins.



**Be sure to follow these steps for correct O-ring installation:**

- Lubricate the O-ring
- Hold it in place
- Bring the split flange clamps down evenly
- Torque the split flange clamps evenly in a cross pattern

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O-rings are small but critical parts that can cause maintenance headaches if not correctly selected, sized and installed. Tim and Loren are here to answer any questions. Tim Alseth, 218-349-5755, [talseth@genesisattachments.com](mailto:talseth@genesisattachments.com); Loren LaGesse, 715-919-8316, [llagesse@genesisattachments.com](mailto:llagesse@genesisattachments.com).

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