



# TIM'S TECH TIPS



## Checking for Cylinder Head-to-Barrel Seal Failure

It is always best practice to follow Genesis' recommended service intervals for your attachment's hydraulic cylinder. Proper and on-time servicing will decrease the likelihood of having an unexpected interruption of availability due to a cylinder failure or leak.

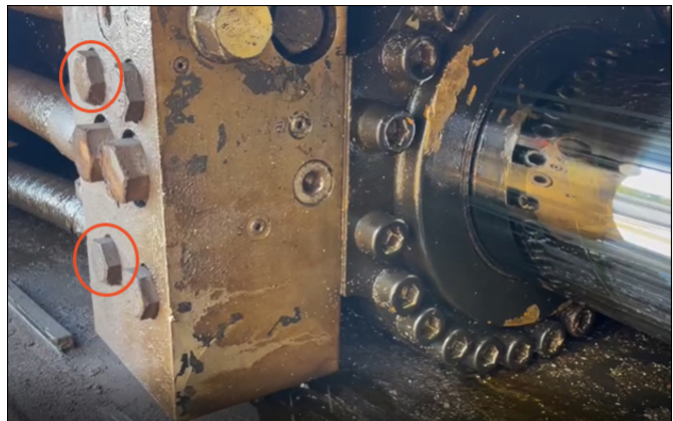
When a cylinder failure occurs, it most often results from one of two sources, the internal high-pressure piston seal or a seal failure inside the gland head, which can be from the head-to-rod or the head-to-barrel seals.

An internal piston seal failure can lead to catastrophic failure if not caught soon enough, and an external rod seal failure is easy to spot.

The seal failure most difficult to identify is the head-to-barrel seal, because it often looks like an O-ring or Epcor® Zero-Leak Gold® plug failure. It isn't uncommon for customers to remove and reseal the regen valve several times before deciding to look elsewhere, which almost always leads to troubleshooting the head-to-barrel seal.

### Follow the steps below to troubleshoot the head-to-barrel seal.

Remove one of the highlighted regen-to-cylinder mounting bolts that are closest to the cylinder hoses.



Start the excavator and run at low idle. While carefully looking into the open hole, fully extend and retract the cylinder, holding over relief in both directions to see if oil is coming up through the threaded cylinder bolt hole. If oil is coming through, the cylinder head-to-barrel seal has failed. If not, reinstall the bolt to factory torque spec.

Remove the other highlighted bolt.

Repeat the test on the second open bolt hole.

The best prevention plan is adhering to the recommended reseal interval, but if you are having trouble tracking down a cylinder or regen valve leak, remember to check the head-to-barrel seal.

If you have questions about cylinder service intervals, reference the [product manual](#) for your attachment or contact Tim at 218-349-5755, [talseth@genesisattachments.com](mailto:talseth@genesisattachments.com), or Loren at 715-919-8316, [llagesse@genesisattachments.com](mailto:llagesse@genesisattachments.com).