



TIM'S TECH TIPS

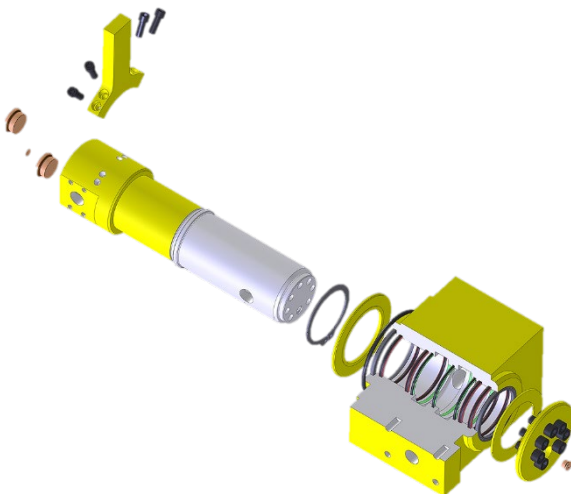
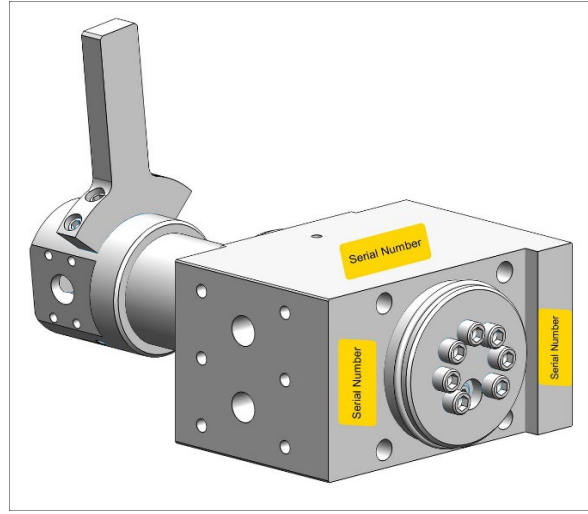


Swivel Manifold Leaks

A swivel manifold is an integral part of an attachment's rotation system. It has absolutely no function regarding the hydraulic/mechanical energy needed to make the shear spin but is an essential component in keeping the cylinder function coupled to the excavator.

The swivel manifold needs to be able to handle substantial oil flow, while also controlling constantly varying oil pressure, extreme swings in oil temperature, and the occasional pressure spike, all while twisting inside itself.

The seals and components inside the swivel manifold are often overlooked and more-often-than-not, addressed reactively, either after the manifold begins to leak or fails to isolate the two paths of oil through the manifold from one another.



Seal failures will manifest as an external oil leak, which can be misidentified as a motor case seal failure or compromised shear function, such as low power, difficulty opening the jaw, or a steady jaw drift. These can typically be troubleshot with hydraulic gauges or a manifold bypass test.

In either case, when a fault is identified, the swivel manifold must be removed from the attachment. In many cases the manifold can simply be cleaned and resealed, but it should also be noted, not all swivel manifolds are created equal.

Today's manifold designs are vastly superior to their predecessors. Improved oil buffering, symmetrical flow characteristics, concentric spool control, seal and wear band materials, and re-engineered components and locations are all items that have been scrutinized and improved. If swivel manifold service life is not meeting your expectation, there is a good chance we have an improved version available.

Replacing a swivel manifold may not be high on your list of priorities, but when the situation arises, it's an option worth considering. Call Tim, 218-349-5755, talseth@genesisattachments.com, or Loren, 715-919-8316, llagesse@genesisattachments.com, to discuss.

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