

DATE: March 23, 2017

RE: Potential Oil Seal Leaks with P54, P58, and P59 Pumps

Introduction:

Between 3/23/15 and 12/31/16 the P54, P58, and P59 pumps went through a design change of the crosshead/steel plunger. Prior to this design change the crosshead (Giant Part#: 07777) was two separate parts combined into an assembly. In this case, there were two holes for oil to drain through and return to the pump.

The current crosshead assembly is a single piece, machined out of a steel slug. This part has two milled flat edges and currently does not have the oil return holes. Without these holes pressure is created between the crosshead and the oil seal. Along with this pressure increase, pulsations are created which cause vibration on the plunger oil seal. Which could result in an oil leak.

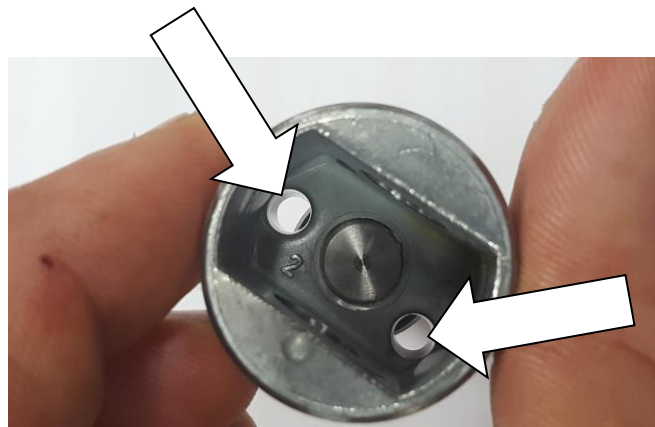


Figure 1: Old Crosshead Design

Previous design with two oil return holes and no milled flats



Figure 2: Current Crosshead Design

New design with milled flats and no Oil return holes

Corrective Action:

The crosshead machining process will be updated to include these two oil return holes.
All future pumps will now be built with the updated crossheads.
For existing pumps, Giant will replace the crossheads with the updated design described above.

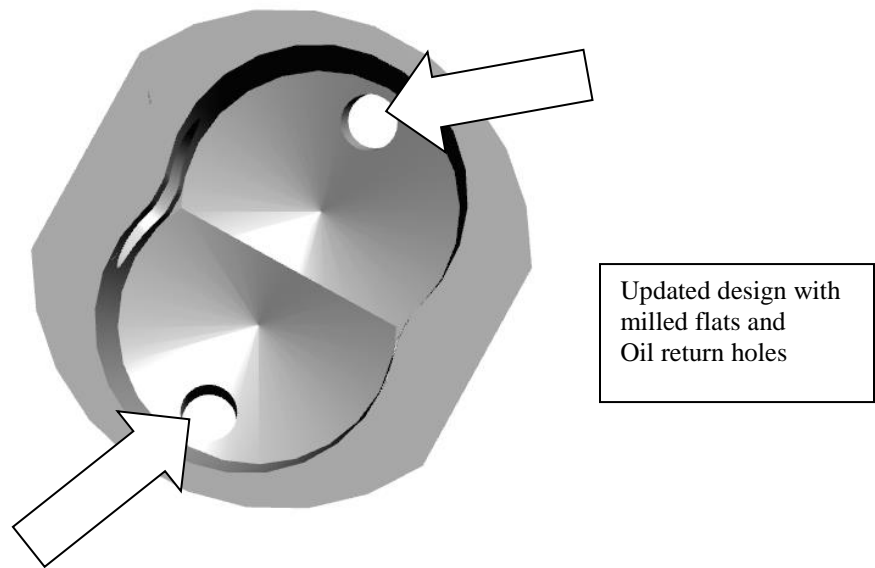


Figure 3: Updated Cross Head Design