

March 10, 2017

**Subject:** Ring Spacer, HP Seal P/N 70-0407 to be eliminated

**Details:**

UNITS AFFECTED: 3P20 Titan Series (Manifold S/A 70-6122, 70-6122M), 5P50 Titan Series (Manifold S/A 70-6120, 70-6120M).

ATTACHMENTS: See sample drawing below.

The Ring Spacers for HP Seal P/N 70-0407 are made with the same material of the manifold (titanium grade 2) so that in the process of machining the crankcase, these Ring Spacers can be built in the manifold so that they will not be a loosened parts. The re-designed of the crankcase will have to eliminate 3 ring spacers in the manifolds of 3P20 pumps (Manifold S/A 70-6122, 70-6122M), and 5 ring spacers in the manifolds of 5P50 Titan Series (Manifold S/A 70-6120, 70-6120M).

**FIG 1**  
The Spacer Rings, HP Seal were eliminated in the modified manifold.

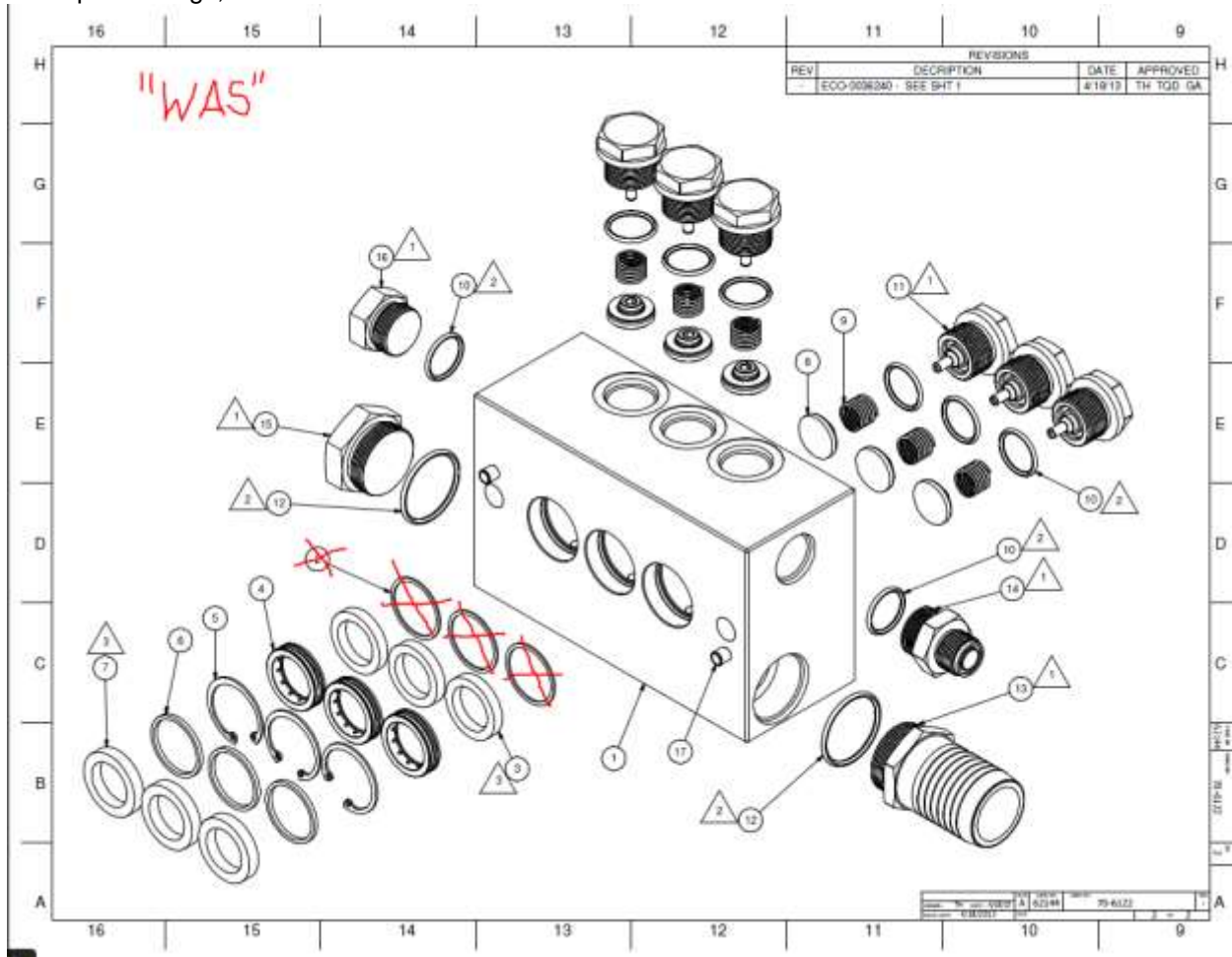
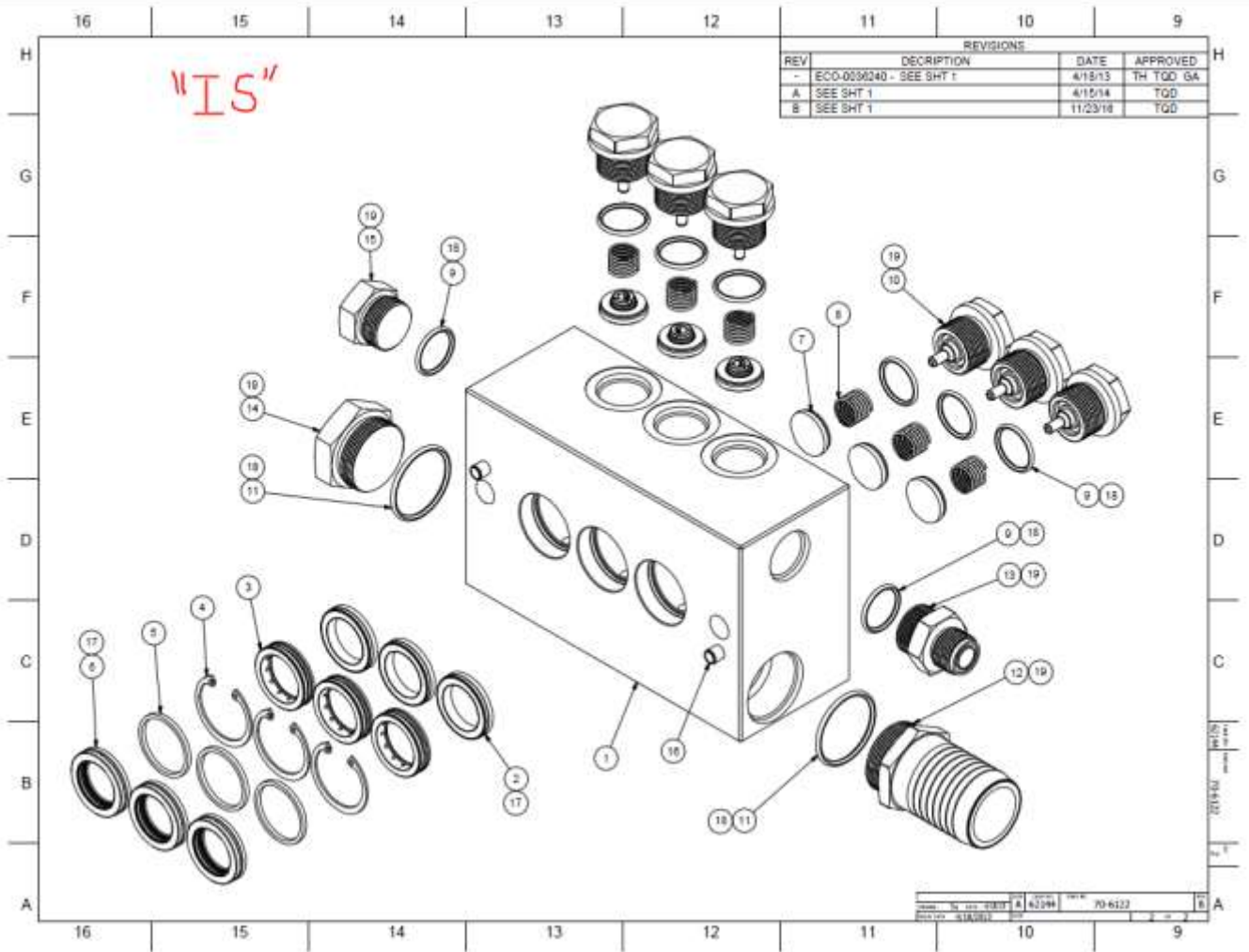


FIG 2



"WAS"

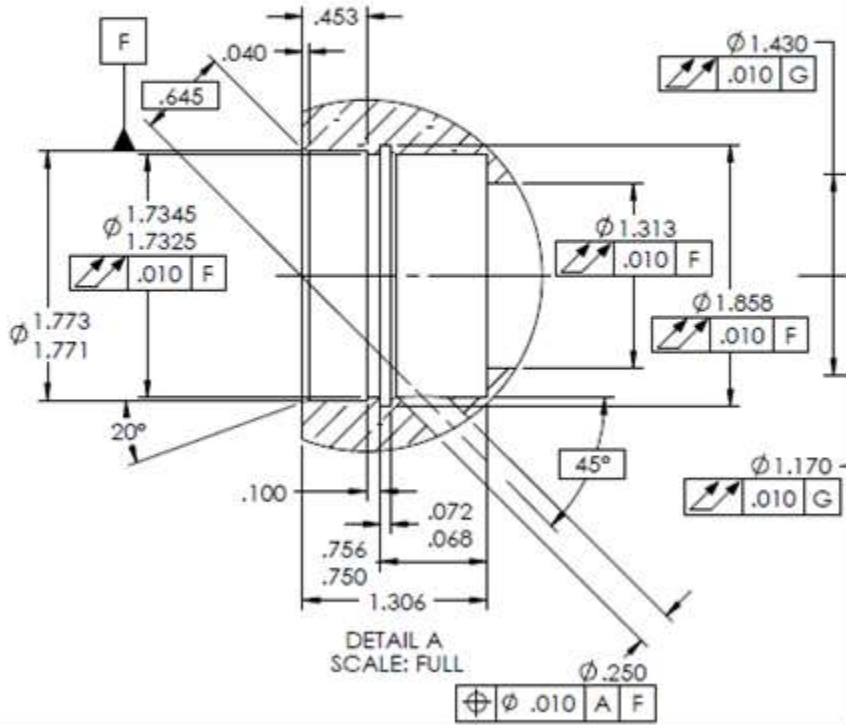
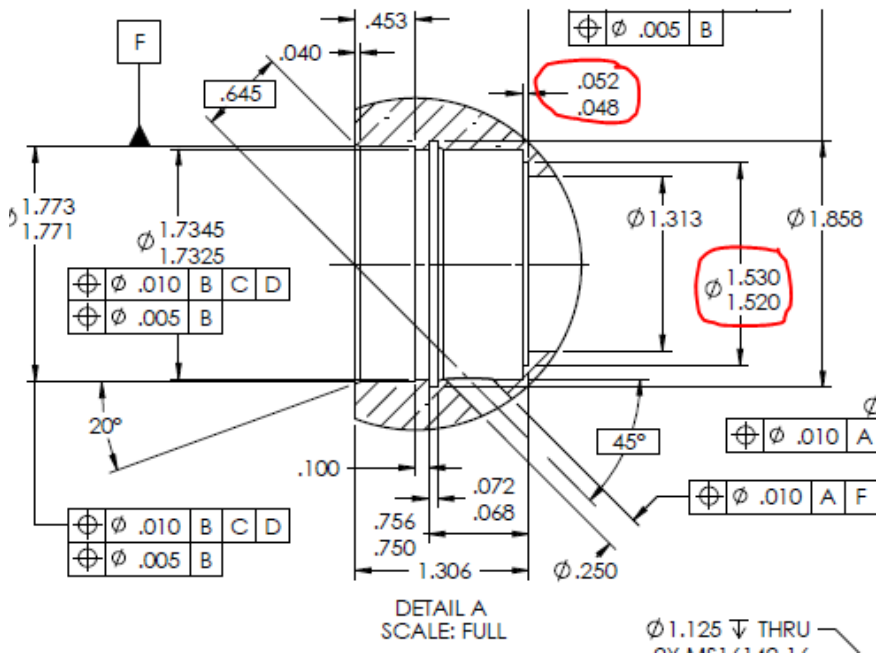


FIG. 4

The new feature Dia 1.530/1.520 with .052/.048 was added inside each bore to eliminate the Spacer Ring for HP Seal

"IS"



The affected population of pumps from the elimination of these rings is assumed to be as follows:  
To be started from the following Revisions of the Manifold S/A(s):

3P20: 70-2030, 70-2029M, 70-2030M with the Manifold S/A(s) as follow:

- 70-6122 REV A
- 70-6122M REV (-)

5P50: 70-3000, 70-2999, 70-2999M, 70-3000M with the Manifold S/A(s) as follow:

- 70-6120 REV D
- 70-6120M REV A

For all pumps that are built before these Revision letters (that have the manifolds to be made without these rings built in feature), then the ring spacers 70-0407 should be re-used whenever doing maintenance (replacing parts from seal kits).

Note: There are 2 ways to check for the manifold Revision:

- Whenever doing the maintenance (replacing the HP Seals) for the manifold, check for the Spacer Rings behind the HP Seals. If the Spacer Rings exist, then the manifold was from the old Rev.
- After removing the HP Seals, check inside the manifold to see the raised up feature (Dia 1.530/1.520 x .052/.048) as shown in FIG 4. If it does not have, then the manifold is from the old Revision, all Ring Spacers are required to use.

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