

Dear Industry Colleague,

Read on if you use casing or liner float equipment during your oil and gas well construction. You may find this information extremely valuable.

Did you know that most, if not all, float equipment is supplied un-tested? Float equipment valves are usually designed, samples built and tested to an API approved test regime, but this is a type approval (API 10F) for that particular design and size of valve. The float equipment valves supplied to you may have been manufactured to a design that has passed the API approved testing regime but this does not require any acceptance testing post manufacture for individual valves that are subsequently used in the field. Moreover, an API type approved valve is then inserted into the float equipment steel hull vessel either by cementing it in or by threading and sealing it in some manner, but this valve and the finished assembly is not then tested. The valve is never flow tested nor back pressure or load tested as a unit before or after assembly into the steel hull vessel. The valve or the installation method may fail against back pressure. The valve may fail to operate or hold back pressure after a nominal amount of flow has passed through it. This means the float equipment you are supplied, other than dimensional checks, assembly checks and general QA/QC has not been tested post manufacture before you use it.

We are confident you can verify these points by contacting your float equipment suppliers. You may actually wish to check that the valves that your suppliers are using have actually been built to a design and size that actually passed the API approved type testing and which level of testing was achieved as there are several levels each more comprehensive than the next, the highest one being API 10F 3C. Many of the valves used today are not even API type approved tested let alone post assembly tested. When we consider the lengths we go to as an industry testing the BOP and associated surface equipment and other installed sub assemblies it is quite surprising that most, if not all, float equipment is not tested prior to being supplied to the rig site when we consider the application and consequences of failure.

You are probably aware that most float equipment is function tested at the rig site on the rig floor prior to being run in the hole. However, these are only basic checks to see that the check valve opens to allow flow out and drains and apparently holds back pressure, but these rig floor checks are not comprehensive and only really check that the valves are not blocked and are opening and closing at surface.

So why are we informing you of this information. It is because we have devised a method and service that allows us to perform testing, as a third party, before shipping to the rig that verifies the functional integrity of the float equipment being supplied to you. We will first ensure that the float valves have actually been built to a design that has passed the API approved type testing. In addition we will check that the supplier has assembled, checked and documented the proper installation of the valve into the steel hull vessel according to written and approved procedures. Once these basis QA/QC checks have been done and accepted we shall actually pressure test the back pressure rating of the valve and its retention method using our specially designed testing equipment to API 6A (ISO10423). It is important to perform the test on the actual piece of equipment that is going to be used in the well.

Assuming the verification and initial pressure test is successful we can then perform some defined flow testing with water at the equipment ratings or job design requirements prior to performing the back pressure test again. A full Acceptance Package will be created against the description, part number and serial number of the individual component. Given sufficient lead time we can perform additional testing with mud and temperature.

We can perform these services either by having the float equipment units sent to our premises as individual units or already installed on joints of casing/liner, or we can conduct the same service at the supplier or your onshore location. We work closely with you and your supplier to ensure the highest levels of safety, quality and operational integrity are assured.

Should you wish to discuss our services in more detail please in the first instance contact the under signed.

Regards

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