Safe Use of 2-inch Hammer Unions for Oilfield Applications

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Safe Use of 2-inch Hammer Unions for Oilfield Applications

1 Scope

1.1 General

This recommended practice (RP) sets forth procedural recommendations as well as an engineering solution to the mismatching of a female 2-inch Figure 402, a female 2-inch Figure 602, or a female 2-inch Figure 1002 hammer union component (sub) with a male 2-inch Figure 1502 hammer union component (wing nut) as described in 3.2. The procedural recommendations described in this RP should be implemented to reduce further incidents.

The engineering solution, which prevents the mating of female 2-inch Figure 402, 2-inch Figure 602 and/or 2-inch Figure 1002 subs with the wing nut of the 2-inch Figure 1502 hammer union, applies to the manufacture of new hammer union components and should not be applied in the modification of existing hammer union components due to unknown factors caused by field wear.

1.2 Objective

The objectives of this RP are as follows.

a) Raise awareness of the incompatibility of these hammer union components, whereby these components will mate improperly when threaded together; and are likely to fail explosively below the rated working pressure of the hammer union parts (male or female).

b) Describe a recommended procedural solution to the industry that will reduce the likelihood of a 2-inch Figure 402, 2-inch Figure 602 and/or 2-inch Figure 1002 hammer union component being made-up inadvertently to a 2-inch Figure 1502 hammer union component. This procedural solution is critical because, depending on industry acceptance and implementation, the engineering solution might take years to effectively eliminate industry equipment manufactured to the original design of 2-inch Figure 402, Figure 602, and Figure 1002 hammer union components.

c) Advise users and suppliers of hammer unions to adopt those procedural recommendations that are reasonably practicable to implement.

NOTE The recommendations in this document build on advice and advisories previously communicated to the industry.

d) Describe an engineering design solution to the industry that makes impossible the mating of female 2-inch Figure 402, 2-inch Figure 602 and/or 2-inch Figure 1002 subs with the wing nut of the 2-inch Figure 1502 hammer union.

e) Recommend users and suppliers of hammer unions implement this new engineering design on their job sites for 2-inch Figure 402, Figure 602 or Figure 1002 components. However, users should exercise caution in reintroducing 2-inch Figure 402, 2-inch Figure 602, and 2-inch Figure 1002 components if already banned from a company's fleet.

2 Terms, Definitions, and Abbreviations

2.1 Terms and Definitions

For the purposes of this publication, the following terms, definitions and abbreviated terms apply.