

## **IPTC 12801**

### **Hammerless Union - The Safer Alternative**

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#### **Abstract**

The hammerless union is the next generation of union type products targeted at eliminating injuries associated with hammer union make-up. A guided hammer is connected to the union, and a few efficient 'sweet spot' strokes are all that is needed for proper make-up or rig down. This new union and tool are the collaborative user-manufacturer result of dozens of prototype trials in controlled shop environments and several field tests over a 2 year period. A study and final report from a licensed orthopedic physician confirmed that "tennis elbow" was not a significant risk with proper use of the tool.

Anticipated applications are well service temporary flowlines, with particular applications in fracturing, stimulation, cementing and process and pipelines operations. However, any area in which space is constrained or in which swinging a hammer is dangerous is a probable fit. The product is designed to be retro-fitted to existing Flowline products, greatly reducing the financial impact of switching costs.

This product was inspired by safety and the need to eliminate hammer related injuries. The product eliminates shrapnel, accidental hammer impacts, and repetitive use injuries. It also eliminates the need to grind lugs and increases the life of the unions, thus again reducing risk and costs associated with maintenance activities.

A patent application has been submitted for the hammerless union, tool, and the combination. The hammer union has been in use in the oil and gas industry for over 70 years. The hammerless union may be the first effort to successfully and practically replace the hammer in a significant part of make up operations. It also provides this safety incentive with little or no adverse effect to work productivity.

This paper will cover the development, testing and field trials emphasizing improved safety and user satisfaction.