BEN-EUI

SEMI-PREMIUM INTEGRAL JOINT CONNECTION

Connecting Customers to Solutions

Benoit™

THE BRAND

Built to withstand the most demanding operating conditions.

Benoit Machine & Repair Works officially opened in 1943 with its first manual lathe. By the 1970s, Benoit had established itself as the premier oilfield machine shop supplying product to the Gulf of Mexico.

In 2012, a group of domestic and international investors recognized the value in expanding Benoit. With the backing of Kanematsu USA, JFE Steel Corporation, and private investment the assets and intellectual property of Benoit Machine became Benoit Premium Threading, LLC.

With more than 500,000 sq/ft. of manufacturing space, we design and develop a comprehensive variety of products for exploration and production operations ranging from premium connections to proprietary and specialized well equipment. All of our products are built to withstand the most demanding operating conditions. More than 100 million feet of our premium threaded tubing, tools and accessories are in downhole environments around the world.

BEN-EUI

Designed for higher performance and reliability

The BEN-EUI is an innovative semi-premium tubing connection that offers an alternative solution to the API EUE 8RD connection. By providing customers enhanced operational performance, the BEN-EUI allows E&P companies to better develop and execute completion schedules. The BEN-EUI offers operators higher pressure and torque ratings; eliminates the use of a coupling, reducing risk and increasing clearance. The uniform ID makes the connection ideal for coated applications such as CO2 injection wells or salt water disposal wells, were a reduction in torque value is not critical to the performance of the connection. The elimination of the connection J area offers significant performance advantages over the API EUE 8RD connection.

BENEFITS

Performance tested to API 5C5: 2018

100% performance under tension loads and 80% to 100% performance under compression loads

Available in two designs, with or without the need for re-cuts

Smaller diameter than API EUE 8RD allowing better clearance

Internal and External torque stop/shoulders
Rugged buttress style thread form for improved strength

Easily lined for corrosion protection

Flush I.D. eliminates the “J” area turbulence and resulting erosion / corrosion to erosion and corrosion

PERFORMANCE

Finite Element Analysis

Finite Element Analysis (FEA) performed on the BEN-EUI showed significantly improved distribution of stresses associated with make-up, as well as tension, compression, bending and torsion when compared to industry-standard API EUE 8RD connections. These reduced stresses significantly improve connection life and ensure the connection is less susceptible to stress-related corrosion.

CAL II SERIES B

MODIFIED TESTING

The BEN-EUI has been rigorously tested to ensure its performance under combined loading conditions similar to those encountered with today's complicated horizontal completions. Testing was performed at Stress Engineering Services to API 5C5:2018 CAL II Series B testing protocols.

MAKE AND BREAKS

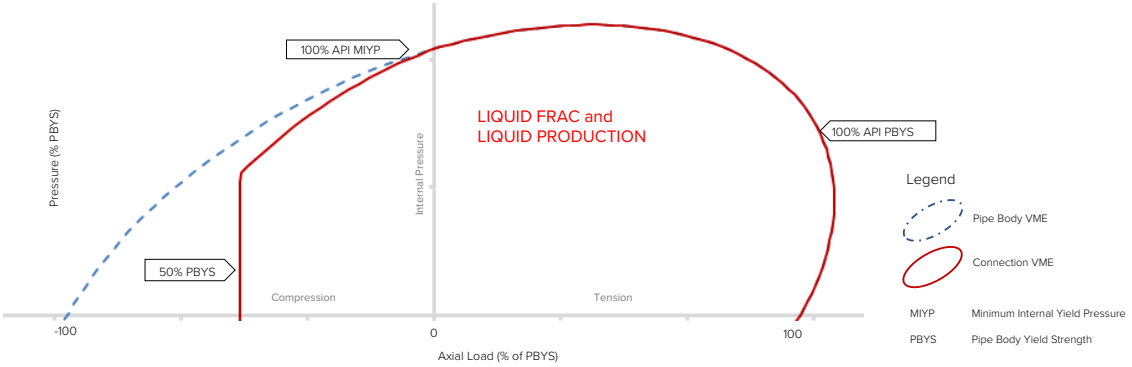
Numerous make-ups and break-outs of the connection were performed using worst-case combinations of connection tolerances. This test ensures the connection will make-up easily to the specified make-up torques without galling of the threads.

FRAC CYCLING

The test consisted of cycling two samples through 30 frac cycles each, with 15 cycles at ambient temperature and 15 cycles at an elevated temperature of 275°F. Combined loads were applied at 90% of the connection VME envelope. Frac pressures applied were 100% of pipe body MIYP. Bending at 20 degrees per 100ft was also applied.

SEALABILITY TESTING

The fluid-tight sealability testing consisted of cycling two samples through 241 load steps, each of different applied tension and compression loads plus internal pressures and bending. Tensile and compressive loads of 100% and 80% of pipe body were applied. Fluid pressures applied were 100% of API calculated burst of the pipe body. Bending at 20 degrees per 100ft was also applied.



HOUSTON (281) 709-4878 | 19450 State Hwy 249, Suite 140 | Houston, TX 77070
HOUMA (985) 879-2497 | 3400 Industrial Park Drive | Houma, LA 70363

www.benoit-inc.com