

Commanding a Higher Standard [™]

THE PHOENIX FORGE GROUP

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PRODUCT SPECIFICATION BULLETIN **CERTIFICATE of COMPLIANCE**

PIPE UNIONS – A105 FORGED STEEL

We hereby certify that the forged steel pipe unions manufactured by Capitol Manufacturing conform to the requirements of the latest edition of MSS SP-83 and AAR-404-42. These products conform to the applicable metallurgical and hardness requirements of requirements of NACE MR0175, NACE MR0103, and ISO 15156 and do not exceed a Rockwell hardness of C-22 or a Brinnell hardness of 187 HBW maximum.

We further certify that these unions fully conform to the chemical and mechanical requirements of the latest edition and addenda of ASTM/ASME A105/SA105. The carbon equivalent of these unions do not exceed the 0.47 maximum carbon equivalent value specified in supplementary requirement S.4 of ASTM A105. These products conform to the applicable requirements of CSA-51, ASME B31.1, B31.3, and ASME Section VIII, Division 1 Boiler and Pressure Vessel Codes.

The steel that was used to make these unions was fully killed during the steel making process using fine-grained melting practice. Material test reports are retained at Capitol Manufacturing and are available upon request. As specified by ASTM A105, round specimens were used during tensile testing to establish the basis of the minimum elongation criteria of 22%.

These unions are capable of passing a hydrostatic test compatible with the rating of the finished forging. We certify that Capitol Manufacturing forged steel unions are manufactured and inspected in the United States of America. This certification of compliance conforms to requirements of DIN 50.049 3.1.B. All measuring and test equipment used for acceptance of these products fully conform to specified requirements and have been calibrated in accordance with MIL-STD-45662, ANSI/NCSL Z540-1-1994, and ISO 10012-1.

These products are produced in accordance with the Capitol Manufacturing ISO 9001:2008 Certified Quality System Program. These products are inspected by independent quality control personnel conforming to the requirements of EN 10204 Section 3.1B. These products were not exposed to mercury or any other metal alloy that is liquid at ambient temperatures during processing or while in our possession.

Bulletin: B-14.00 Rev. 4 Date: 08/01/11 Approved: Guy Cuccio Title: Technical Services Mgr.









