



REVIEW NO > 2020-727
CERTIFICATE NO > 0051/21-2
APPROVAL DATE > 22nd July 2021
EXPIRY DATE > 21st July 2023
REGISTERED SINCE > 22nd July 2010

**PRODUCT
APPROVAL
2021**

Postle Industries, Inc.

5500 WEST 164TH STREET, CLEVELAND, OH 44142, USA.

Fearnley Procter Certify that the above company's following Product has been reviewed and approved by a NS-1™ Technical Review Committee.

Fearnley Procter NS-1™ Edition 3 Quality and Inspection Requirements for New and Refurbished Drilling and Well Completion Equipment Standards.

SPECIFICATIONS
> NS.03.30.00.1110

PRODUCT
> Tuffband® NC Alloy Hardbanding Initial Application onto New Drill Pipe Tool Joints

SCOPE: The procedure followed was to compare the specific requirements of the relevant Fearnley Procter NS-1™ Edition 3 documentation with the submitted information, perform certain testing on the product and to conduct an assessment of the Applicant's Quality Management System. The evaluation of the application procedures for Postle Industries, Inc. Tuffband® NC Alloy Hardbanding onto new drill pipe tool joints has been performed in compliance with the general requirements and recommendations as stipulated in NS-1™ Supplementary Requirements, NS.03.30.00.1110 (Rev. 10) Section 5.0, and Sub-Specification 90.1, 90.3 and 160.

The following data was supplied and tests performed by Postle Industries, Inc. for Fearnley Procter under this approval:

- 1) Micro Hardness Test (across weld metal, HAZ plus base metal)
- 2) Hardbanding Adhesion Test Results
- 3) Welding Procedures/Guidelines
- 4) Inspection Guidelines
- 5) Acceptance/Rejection Criteria
- 6) Casing Wear Results
- 7) Chemical analysis of hardband wire.

As a result of this review, Postle Industries, Inc. has been granted approval for the initial application of Tuffband® NC Alloy Hardbanding onto new drill pipe tool joints and deemed suitable for service when applied as per the processes, procedures reviewed and the requirements of NS-1™.



Fearnley Procter Group
Non-productive-time Solutions

Issued By
Kevin Fearnley
Chairman NS-1™ Technical Review Committee

REFERENCE DOCUMENTS: Postle Industries, Inc. Hardbanding Procedure Manual Version 1.1, 12th May 2008 (Initial Approval) and Version 3.0, 1st September 2020 (Re-approval).
NOTA BENE: This certificate relates solely to the Procedure Qualification Record of the Organisation identified above and should not be interpreted as implying that all or any other applicators of this product are competent to do so. Organisations applying the above Hardbanding are required to qualify their own Welding Procedure Specification by means of a Procedure Qualification Record and maintain Welder Performance Qualification in accordance with Fearnley Procter NS-1™ Edition 3 requirements.

To maintain validity during the said period the above named Company must maintain a valid subscription to and comply with the Fearnley Procter NS-1™ Quality and Inspection Requirements for New and Refurbished Drilling and Well Completion Equipment.
Certificates and Levels of Approval can be verified at www.fearnleyprocter.com