

Fearnley Procter



PROCESS APPROVAL

Durum Verschleiss-Schutz GmbH

Carl-Friedrich-Benz-Strasse 7, D-47877, Willich, Germany

The above Company has demonstrated through Procedure Qualification Records (PQR) that their Welding Procedure Specifications (WPS), for the welding process and scope of applications below, are capable of providing the required properties specified by the Company.

Qualification is in conformance with the requirements of:

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 (Drill Pipe with Welded Tool Joints)

PROCESS: Re-application of FD 665 over FD 665.

SCOPE: The procedure followed has been to compare the specific requirements of the relevant Fearnley Procter NS-1™ documentation with the submitted information, and to perform certain testing on the product.

The evaluation of the application procedures for FD 665 on drill pipe tool joints for re-application over itself has been performed in compliance with the general requirements and recommendations as stipulated in NS-1™ Supplementary Requirements, NS.03.30.00.1110 (Rev. 09) Section 5.0, and Sub-Specification 90.1, 90.3 and 160.

The following data was supplied and tests performed by Durum Verschleiss-Schutz GmbH to Fearnley Procter Inc. for 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

REFERENCE DOCUMENTS: Durum Application Procedure for Hardbanding (Doc. No. 112812, Rev AD, 28th Nov. 2012).

NOTA BENE: This certificate relates solely to the Procedure Qualification Record (PQR) of 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 (WPS) by means of a Procedure Qualification Record (PQR) and maintain Welder Performance Qualification (WPQ) in accordance with Fearnley Procter NS-1™ Edition 3 requirements.

Issued By

A handwritten signature in black ink, appearing to read 'Kevin Fearnley', is written over a light green background.

Kevin Fearnley

Chairman NS-1™ Technical Review Committee

Review No : FP NS 150

Certificate No : 0109/14-2

Approval Date : 28th February, 2014

Valid Till : 27th February, 2016

Registered Since : 28th February, 2013

To maintain validity during the said period the above named Company must fully comply with the current Fearnley Procter NS-1™ Edition 3 Quality and Inspection Requirements for New and Refurbished Drilling and Well Completion Equipment latest revisions.

Certificates can be verified at Fearnley Procter Website www.fearnleyproctergroup.com