



REVIEW NO > 2018-619
CERTIFICATE NO > 0235/19-3
APPROVAL DATE > 4th November 2019
EXPIRY DATE > 3rd November 2020
REGISTERED SINCE > 4th November 2019

**DESIGN
APPROVAL
2019**

Jiangsu Shuguang Huayang Drilling Tool Co., Ltd.

SHUGUANG AVENUE # 18, BAIMI TOWN, JIANGYAN DISTRICT, TAIZHOU CITY, JIANGSU PROVINCE, 225532 P.R.C.

This is to certify that the following connection has been reviewed and approved by **Fearnley Procter** and a NS-1™ Technical Review Committee and is defined as being **"Fully Interchangeable"** (see *Nota Bene* below).

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

- > Drill Pipe with Welded Tool Joints
NS.03.30.00.1110

CONNECTION

- > JSJET39 rotary connection Design Review and Compatibility Assessment with Grant Prideco™ eXtreme™ Torque (XT39™)

SCOPE CONTENT

- > A Level 3 Design and Performance Review was carried out on the Jiangsu Shuguang Huayang Drilling Tool Co., Ltd. JSJET39 Rotary Connection against the requirements for interchangeability / compatibility with the Grant Prideco™ eXtreme™ Torque XT39™ connection.
- > A comprehensive series of make and break-out trials were also witnessed during this review, including testing to connection yield (failure) to ensure connections demonstrate physical interchangeability and compatibility under repeated make & break.



Fearnley Procter Group

Non-productive-time Solutions

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

A handwritten signature in black ink, appearing to read 'Kevin Fearnley'.

CONDITIONS: 1) When the Jiangsu Shuguang Huayang Drill Tool Co., Ltd. JSJET39 connection is interfaced with a Grant Prideco XT39™ connection, care must be taken to confirm the material properties & key dimensions of both components are the same. The applied make-up torque and final operating capabilities must be determined taking into account the key dimensions and the lowest strength material used. 2) Any changes/revisions to the essential design stated in the supplied drawings by Jiangsu Shuguang Huayang Drill Tool Co., Ltd. and documented in FZE 2018-619 Job Report will render the equipment design "unapproved" subject to Fearnley Procter Group review of the changes.

NOTA BENE: When the JSJET39 connection is paired with a Grant Prideco XT39™ connection of different material specification, Box OD, or Pin ID, the connection can be considered as 'Compatible', meaning that the connection with the lesser performance specifications should dictate the make-up torque, torsional strength and tensile strength for operational use. (Note: This limitation would equally apply to two Grant Prideco™ XT39™ connections with a difference in material specification, Box OD, and Pin ID)

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