

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Marine Riser Equipment**

with type designation(s)  
**Telescoping Joint Packer**

Issued to  
**LORD Corporation**  
**Cary, NC, USA**

is found to comply with  
**DNVGL-OS-E101 – Drilling facilities, Edition January 2018**  
**DNVGL-SI-0166 – Verification for compliance with Norwegian shelf regulations, Edition July 2018**

## Application :

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL. when accompanied with a DNV GL Product Certificate (PC).**

Issued at **Houston** on **2020-04-30**

for **DNV GL**

This Certificate is valid until **2025-04-29**.

DNV GL local station: **Certification & Inspection Services**

Approval Engineer: **Mark Miser**

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**Christian Nilsen**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-031926-1**  
Certificate No: **TAD000019C**

## Product description

The telescopic joint packer provides a seal in the annular space between the inner and outer barrels of the telescopic joint. This product is for Cameron supply only.

The equipment is manufactured at the following locations:

- LORD Corporation, Cambridge Springs, PA, USA

## Application/Limitation

| <u>Design Parameter</u>           | <u>Value</u>                                      |
|-----------------------------------|---|
| Rated Working Pressure            | : 500 psi   |
| Minimum Design Temperature        | : 32°F to 180°F                                   |
| Designation of Systems; Equipment | : Marine Drilling Riser; Telescopic Joint, Packer |
| Service                           | : Standard  |

## Type Approval documentation

### Drawings

| <u>Drwg. No.</u> | <u>Rev.</u> | <u>Title</u>           |
|------------------|-------------|------------------------|
| J-28508-1        | J           | KIT, TJ PACKER ELEMENT |

### Material Specifications

| <u>Components</u> | <u>Material Spec</u> | <u>Part No.</u> | <u>Minimum Yield Strength</u> | <u>Avg. Charpy Impact</u> |
|-------------------|----------------------|-----------------|-------------------------------|---------------------------|
| Split Ring        | ASTM A-29            | J-28508-1       | 60,000 psi                    | N/A                       |
| Packer            | Nitrile Elastomer    | J-28508-1       | N/A                           | N/A                       |
| Flat Head Socket  | Steel                | J-28508-1       | 120,000 psi                   | N/A                       |
| Cap Screw         |                      |                 |                               |                           |

### Calculations

| <u>Doc. No.</u> | <u>Rev.</u> | <u>Title</u> |
|-----------------|-------------|--------------|
| -               | -           | -            |

## Tests carried out

| <u>Doc. No.</u> | <u>Rev.</u> | <u>Title</u>  |
|-----------------|-------------|---|
| IPA-140211-002  | -           | API 16F 2 <sup>nd</sup> Edition Test Results for Cameron Split Telescopic Joint Packer (Cameron P/N 2788233-07)/(LORD P/N: J-28508-1) |

## Marking of product

Marking shall:

1. Be reviewed and approved by the DNV GL local surveyor
2. Identify and differentiate each production unit <i.e. serial number>
3. Establish traceability to product design and fabrication documentation
4. Be in accordance with API 16F

## Periodical assessment

For retention of the Type Approval, DNV GL's surveyor shall perform periodic surveys in accordance with DNV GL Type Approval Scheme DNVGL-CP-0338.