

# APPROVAL CERTIFICATE

**THIS IS TO CERTIFY:**

That the (undernoted components / product(s) has/have been manufactured, inspected and tested in accordance with the relevant requirements of NORSOK M650 Edition 4 with Type designation(s)

**Fasteners – ASTM A276 / ASTM A1082 UNS Gr. S32760  
 ASTM A182 / ASTM A276 / ASTM A479 / ASTM A1082**

Issued to,

**TRIPLEFAST MIDDLE EAST LIMITED,  
 BLDG 47, OILFILEDS SUPPLY CENTER LIMITED,  
 P.O.BOX No. 18664,  
 JABEL ALI FREE ZONE,  
 DUBAI, UAE.**

Has been reviewed and found to comply with,

- **NORSOK M630 EDITION 06 MDS-D59 REV.01,**  
 - **ASTM A276 / ASTM A1082 UNS Gr. S32760 STRAIN HARDENED BOLTING'S.**
- **NORSOK M630 EDITION 06 MDS-D60 REV.01,**  
 - **ASTM A182/ASTM A276/ASTM A479/ASTM A1082 SOLUTION ANNEALED BOLTING'S.**

**Product description:**

**Fasteners**

**Studs: (Strain hardened condition in compliance with NORSOK M630 MDS D59)**

1. 1-1/2" – 8UN Stud Bolts ASTM A276 UNS S32760
2. 1-1/8 " – 8UN Stud Bolts ASTM A276 UNS S32760
3. 3/4" – 10UNC Stud Bolts ASTM A276 UNS S32760
4. 5/8" – 11UNC Stud Bolts ASTM A276 UNS S32760
5. 7/8" – 9UNC Stud Bolts ASTM A276 UNS S32760
6. 1/2" – 13UNC Stud Bolts ASTM A276 UNS S32760

**Heavy Hex Nuts: (Solution Annealed condition in compliance with NORSOK M630 MDS D60)**

7. 1-1/2" – 8UN Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760
8. 1-1/8 " – 8UN Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760
9. 3/4" – 10UNC Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760
10. 5/8" – 11UNC Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760
11. 7/8" – 9UNC Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760
12. 1/2" – 13UNC Heavy Hex Nuts ASTM A479/ A276/A182/A1082 UNS S32760



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**REV.0**  
Date of issue: **2020-02-10**

**Application / Limitation:** For Various Assemblies / Material procured in compliance with Norsok MDS

**Approval documentation:** Qualification Test Record (QTR's) as per Norsok M650 Edition 04

**Tests Carried out:**

In accordance with Norsok M630 MDS D59 Rev.01 and MDS D60 Rev.01 requirements

- Chemical Composition with Pitting Resistance Equivalent Number (PREN) in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Tensile Testing in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Charpy V Notch Impact testing in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Microstructure testing in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Pitting Corrosion in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Delta Ferrite content testing in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Proof Load testing on Hex Nuts in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Hardness testing on Bolts and Nuts in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- Surface discontinuity testing on Bolts and nuts in compliance with relevant ASTM standards; Norsok M630 MDS D59 rev.01 and MDS D60 rev.01
- NDE test compliance in accordance with relevant ASTM standards and Norsok compliance.

**Marking of product:**

For traceability to this certificate, each bolts and nuts shall be provided with a following data with hard stamped / engraved on finished products

- Manufacturer's name or Trademark
- Material Grade with Heat Treatment condition
- Heat Number and/or Heat Treatment lot details.
- "FLT" marking for Low Temperature service application's and/or "FG" marking for General Service applications.

This Certificate is not valid for systems / installations which are subjected to classification by DNVGL.

Issued at **Dubai** on **2020-02-10**

**Validity : 2025-02-09**

for **DNV GL**

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**Vasu Chaganti**  
**Project Sponsor/Head of Section**