DNV·GL

Certificate No:
TAS00002RK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Lifting Frame

with type designation(s)
M3021 EHPU

Issued to
Forum U.S. Inc, dba DYNACON
Bryan, TX, USA

is found to comply with
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Houston** on **2020-10-15**
This Certificate is valid until **2025-10-14**.
DNV GL local station: **Houston, Approval CMC**

Approval Engineer: **Bo Cui**

for **DNV GL**

Mark Miser
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

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Product description
M3021 Electro-Hydraulic Power Unit

Application/Limitation

Design Parameter	Value	(Equivalent)
Design temperature	-20°C	(-4°F)
Max gross weight for lifting	16,000 lbf	(71.17 kN)
Design dynamic factor for lifting	2.0	
Number of lifting points	4	
Max. sling angle from vertical	30 degree	
Design shackle pin diameter for lifting	0.89 in	(23 mm)

Type Approval documentation

Tests carried out
Prototype test was carried out on Aug. 20, 2020, witnessed by DNVGL surveyor Robert Steinocher.

Marking of product
For the traceability to this Type Approval Certificate, the products marking shall include:
1. Serial Number.
2. Manufacturer's name or trademark.
3. Additional marking at the manufacturer's discretion
4. Be in accordance with DNVGL-ST-0378

Periodical assessment
In order to maintain the validity of the type approval certificate, periodical assessments should be carried out according to DNVGL-CP-0338. Periodical assessments will, when possible, be harmonised with other surveys and audits carried out.

END OF CERTIFICATE