Certificate No:
TAM00001A3

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Gas Valve Unit

with type designation(s)
MLP-GVU-50

Issued to
Hu Dong Heavy Machinery Co., Ltd.
Shanghai, **China**

is found to comply with
DNV rules for classification – Ships

Application :

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

Max. inlet pressure [bar]	**9.0**
Size [Ø mm]	**DN80**
Enclosure [enclosed/open]	**Enclosed**

Issued at **Høvik** on
This Certificate is valid until .
DNV local station: **Shanghai**

for **DNV**

Approval Engineer: **Eivind Finne Riley**

Dalibor Bukarica
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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

Product description
Gas pressure control unit.

Application/Limitation

Type	Max. inlet pressure [bar]	Size
MLP-GVU-50	9.0	DN80

Type Approval documentation

Document	Drw No	Rev
Type approval test report	00415966	00a
GVU List	00415469	00c
GVU Assembly	00415228	00b
Design and Function Description	00415965	00a
Safety Valve Data	00415955	00a
Safety Analysis	00397936	00a
Pressure Test	00415966	00a
GVU Unit	00415352	00d
Cover	00415229	00b
Front Cover	00413658	00a
Back Cover	00413659	00c
Certification List	00414443	00c
ITP	00394527	00e
The Approval Drawing List for Classification Society	00439678	00c
GVU Type Approval test program	00442023	00a
GVU Operation and installation manual	00410371	00b
GVU PID	00415637	00d

Places of production

Tests carried out
Type Approval tests for complete unit carried out August 9th 2022, document ID: 00415966

Marking of product
For traceability the following marking is to be carried out on each product:
- Manufacturers name or mark
- Type designation (Serial Number)
- Additional marking at manufacturer's option.

Periodical assessment
DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Program DNV-CP-0338, Section 4.

Other conditions
The GVU control and monitoring systems, including sensors and actuators, are not covered by this type approval.