

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

**USHA MARTIN LIMITED
(Wire and Wire Ropes Division)
RANCHI , JHARKHAND, INDIA**

is an approved manufacturer of
Steel Wire Ropes

in accordance with
**DNVGL-OS-E304 – Offshore mooring steel wire ropes
DNV GL rules for classification – Ships**

and the following particulars:

Products	Steel wire ropes for ship towlines and mooring lines, Steel wire ropes for mobile offshore mooring
Constructions	See page two
Max. Diameter	See page two

Manufacturer approved by this certificate is accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Høvik** on **2017-12-04**

for **DNV GL**

This Certificate is valid until **2021-01-03**.

DNV GL local station: **Visakhapatnam**

Approval Engineer: **Sastry Kandukuri**

**Hanne Anita Hjerpetjønn
Head of Section**



Particulars of the approval

Steel wire ropes for ship towlines and mooring lines

Construction Group ^{1),2)}	Max. Diameter (mm)
6x19	64
6x24	40
6x37	107
6x7	40

Remarks:

- 1) Including other constructions in the construction or classification group.
- 2) Requirements for construction groups that are not covered in Pt.3 shall be in accordance with a relevant recognized international standard or an approved specification.

Steel wire ropes for mobile offshore mooring

Classification ^{1),2)}	Max. Diameter (mm)
6x36	90
6x61	127

Remarks:

- 1) Including other constructions in the construction or classification group.
- 2) Requirements shall be in accordance with DNV GL offshore standard, approved documentation and in addition a relevant recognized international standard if applicable.

Construction ¹⁾	Max. Diameter (mm)
Spiral strand 1x156	66.5
Full locked coil	95

Remarks:

- 1) Min. breaking force acc. to EN-12385.