

## Mooring tail base design certificate

### General information

|                                 |                  |                                       |           |
|---------------------------------|------------------|---------------------------------------|-----------|
| <b>Issue date:</b> 01.02.2023   |                  | <b>Expiry date:</b> 28.10.2026        |           |
| <b>Line manufacturer :</b>      | India Nets       | <b>Independent inspection agency:</b> | DNV       |
| <b>Line design designation:</b> | Timm Flex 8      | <b>Material type and grade:</b>       | Nylon 6HT |
| <b>Line construction:</b>       | 8 strand plaited | <b>Jacketed:</b>                      | N         |
| <b>Design range:</b>            | 32mm to 112mm    | <b>Rotating:</b>                      | N         |

### Base design performance indicators

| Performance Indicators                    | Smallest Diameter                    |                 |                 |                 | Largest Diameter |       |           |          |
|---|--------------------------------------|-----------------|-----------------|-----------------|------------------|-------|-----------|----------|
| <b>Diameter</b>                           | Design:                              | 32 mm           | Measured:       | 32.67mm         | Design:          | 112mm | Measured: | 117.32mm |
| <b>Tail Design Break Force (TDBF)</b>     | 21 t                                 |                 |                 |                 | 226 t            |       |           |          |
| <b>Tail Linear Density (TLD)</b>          | 0.632 kg/m                           |                 |                 |                 | 7.795 kg/m       |       |           |          |
| <b>Load Bearing Linear Density (LBLD)</b> | 0.632 kg/m                           |                 |                 |                 | 7.795 kg/m       |       |           |          |
| <b>Tail Tenacity (TT)</b>                 | 33.23 t/kg/m                         |                 |                 |                 | 28.99 t/kg/m     |       |           |          |
| <b>Splice type</b>                        | As per India Nets splicing manual    |                 |                 |                 |                  |       |           |          |
| <b>Maximum Line Tenacity (MLT)</b>        | 33.23 t/kg/m                         |                 |                 |                 | 28.99 t/kg/m     |       |           |          |
| <b>Dynamic Stiffness (Ksh, Kex)</b>       | Sheltered (Ksh): 3.00xTDBF           |                 |                 |                 |                  |       |           |          |
|   | Exposed (Kex): 11.38xTDBF            |                 |                 |                 |                  |       |           |          |
| <b>Tension-tension endurance (CTF)</b>    | CTF 50%: 1.16x10 <sup>4</sup> cycles |                 |                 |                 |                  |       |           |          |
|   | CTF 20%: 3.46x10 <sup>6</sup> cycles |                 |                 |                 |                  |       |           |          |
|   | <b>%TDBF:10</b>                      | <b>%TDBF:20</b> | <b>%TDBF:30</b> | <b>%TDBF:40</b> | <b>%TDBF:50</b>  |       |           |          |
| <b>Average Immediate Strain* (e)</b>      | 8.78%                                | 11.56%          | 15.63%          | 17.57%          | 18.85%           |       |           |          |

\*Performance indicators are tested on samples: 32 mm for mooring tail

#### Name and address of manufacturing facility:

#### INDIA NETS-Unit-I<sup>st</sup> & II<sup>nd</sup>,

Plot No. - D-1 to 12, B-1, 2 & F-3 to 5, Indore Special Economic Zone, Phase – I, Sector – III,  
Pithampur – 454775, (Dist – Dhar)  
Plot No. - F-1 & F2, Indore Special Economic Zone, Phase – I, Sector – III, Pithampur –  
454775, (Dist – Dhar)

**Independent inspector:** ANIL KUMAR

**Completion date:** 07.12.2022

**Address of independent inspector:** DNV, MUMBAI, INDIA

### Base design testing information

#### Name and address of test facility:

#### INDIA NETS-Unit-I<sup>st</sup> & II<sup>nd</sup>,

Plot No. - D-1 to 12, B-1, 2 & F-3 to 5, Indore Special Economic Zone, Phase – I, Sector – III,  
Pithampur – 454775, (Dist – Dhar)  
Plot No. - F-1 & F2, Indore Special Economic Zone, Phase – I, Sector – III, Pithampur –  
454775, (Dist – Dhar)

**Independent inspector:** ANIL KUMAR

**Completion date:** 07.12.2022

**Address of independent inspector:** DNV, MUMBAI, INDIA

## Base design sample and product documentation reviewed

Independent inspector: ANIL KUMAR

Date of review: 29.01.2023

|   |                                     |  |                                     |  |                                     |
|---|-------------------------------------|--|-------------------------------------|--|-------------------------------------|
| Base design sample manufacturing report | <input checked="" type="checkbox"/> | Material test report                           | <input checked="" type="checkbox"/> | Splicing instructions  | <input checked="" type="checkbox"/> |
| Base design sample manufacturing ITP    | <input checked="" type="checkbox"/> | Design specification                           | <input checked="" type="checkbox"/> |  |                                     |
| Base design sample test report          | <input checked="" type="checkbox"/> | Manufacturer's discard and inspection criteria | <input checked="" type="checkbox"/> | Procedures for testing and inspection of retired mooring lines | <input checked="" type="checkbox"/> |

Equivalent documents from other type approval programme:

MEG4/MLBDC/TF8/22/002

INDEPENDENT INSPECTOR

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