



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **E-12703**

This is to certify that the
Clip, Saddle, Band

with type designation(s)
MBT, 316 Stainless Steel

Manufactured by
Hellermann Tyton
MANCHESTER MANCHESTER, United Kingdom

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
IEC 62275 (2006-10)
DNV Type Approval Programme Appendix 828.50 Cable Ties

Application
For fixing of cables, outdoor and indoor, on board ships and offshore units.

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2013-08-05**

DNV local station: **Liverpool**

Approval Engineer: **Nicolay Horn**

for **Det Norske Veritas AS**

.....
Marit Laumann
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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

Type ... MBT X S Standard Locking Cable Tie, 316 Stainless Steel
 MBT X H Heavy Duty Locking Cable Tie, 316 Stainless Steel

| TYPE | Length mm | Width mm | TYPE | Length mm | Width mm |
|--------|--------------|-------------|--------|--------------|-------------|
| MBT5S | 127 | 4,6 | MBT8H | 201 | 7,9 |
| MBT8S | 201 | 4,6 | MBT14H | 362 | 7,9 |
| MBT14S | 362 | 4,6 | MBT20H | 521 | 7,9 |
| MBT20S | 521 | 4,6 | MBT27H | 681 | 7,9 |
| MBT27S | 681 | 4,6 | MBT33H | 838 | 7,9 |
| MBT33S | 838 | 4,6 | | | |

| | |
|------------------------------------|-----------------------|
| Loop tensile strength, 4.6mm width | 900 N |
| Loop tensile strength, 7.9mm width | 1700 N |
| Max. tested operating temperature | 553 |
| Contribution to fire | Non-flame propagating |
| Resistance to UV light | Resistant |
| Resistance to corrosion | Resistant |

Type Approval documentation

Test reports: Material Certification, Walker Precision Strip, order No. 19168, 22.11.1996
 Tensile Test, at Hellaermann with Lloyd 2000R machine. US Mil Spec. 23190 issue E.
 Vibration Test, Cape Environmental Testing, Works order no. 9079 of 13.03.1997.
 Spreadsheet for status on AS Cable Ties. 2010-03-30 by GTF.

Drawings: MBTS Range & MBTH Range.

Tests carried out

Installation test, loop tensile strength test, vibration test.

Marking of product

Each package of products to be marked with type designation, date of manufacture and batch number.

Certificate Retention Survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at renewal only.

END OF CERTIFICATE