

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

Last Visit Date

BG2999787-A 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems Manufacturer: NIEDAX (THAILAND) LTD Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

USL4900-5.0/4.0T 30H 3M MARINE LADDER S6

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: USL4900-5.0/4.0T 30H 3M MARINE LADDER S6

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Ladder 900W x 30H x 3000L x 5.0T, Stainless Steel: SS316L: Marine Ladder
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- Rung Space Distance = 300 mm; Side Rial = 5 mm. Thk.; Rung = 4 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 10
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 21.5 / Test span = 2.4 m
- Destruction load, kg/m = 123.6 / Rated load capacity, kg/m = 82.4 (Safety factor 1.5)
- Test Results : Maximum Deflection = 214.5

NOTE: This report evidences that the survey reported herein was carried out in compliance with one or more of the Rules, guides, standards or other criteria of the American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Report is a representation only that the vessel, structure, item or material equipment, machinery or any other item covered by this Report has been examined for compliance with, or has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping. The validity, applicability and interpretation of this report is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Report or in any notation made in the contemplation of this Report shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

AB Report Vendor

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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-A 16-Oct-2015

Page 2 of 2

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

AB Report Vendor

Electronically Signed on 26-Oct-2015, Bangkok Port





NIEDAX (THAILAND) LTD

Attending Office First Visit Date

Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

BG2999787-B

Last Visit Date

16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

USL4900-5.0/2.0T 38H 3M MARINE LADDER S6

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: USL4900-5.0/2.0T 38H 3M MARINE LADDER S6

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Ladder 900W x 38H x 3000L x 5.0T, Stainless Steel: SS316L: Marine Ladder
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- Rung Space Distance = 300 mm.; Side Rial = 5 mm. Thk.; Rung = 2 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 240.1 / Rated load capacity, kg/m = 160.1 (Safety factor 1.5)
- Test Results: Maximum Deflection = 209.5

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

Report Number Last Visit Date 4501006002 BG2999787-B

16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

BG2999787-C

Last Visit Date

16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STLD3W900-3M-T2.0 STR H50

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STLD3W900-3M-T2.0 STR H50

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 50H x 3000L x 2.0T, Stainless Steel: SS316L: Light Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 10
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 21.5 / Test span = 2.4 m
- Destruction load, kg/m = 136.2 / Rated load capacity, kg/m = 90.8 (Safety factor 1.5)
- Test Results: Maximum Deflection = 18.5

NIEDAX (THAILAND) LTD

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Report Number Last Visit Date BG2999787-C 16-Oct-2015

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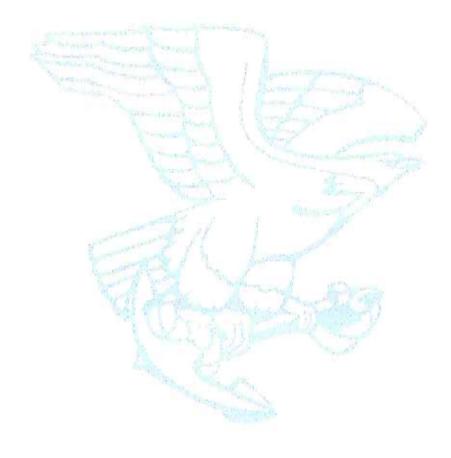
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-D 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems Manufacturer: NIEDAX (THAILAND) LTD Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STMD3W900-3M-T2.0 STR H50

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

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The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STMD3W900-3M-T2.0 STR H50

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 50H x 3000L x 2.0T, Stainless Steel: SS316L: Medium Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 261.6 / Rated load capacity, kg/m = 174.4 (Safety factor 1.5)
- Test Results: Maximum Deflection = 26

NIEDAX (THAILAND) LTD

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BG2999787-D 16-Oct-2015

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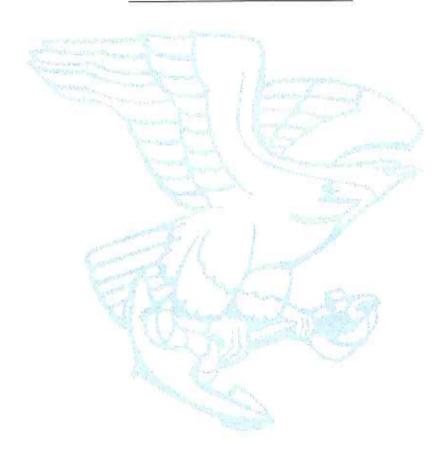
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-E 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD3W900-3M-T2.0 STR H50

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD3W900-3M-T2.0 STR H50

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 50H x 3000L x 2.0T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 428.8 / Rated load capacity, kg/m = 285.8 (Safety factor 1.5)
- · Test Results: Maximum Deflection = 38

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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002 BG2999787-E

Report Number BG2999787-Last Visit Date 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

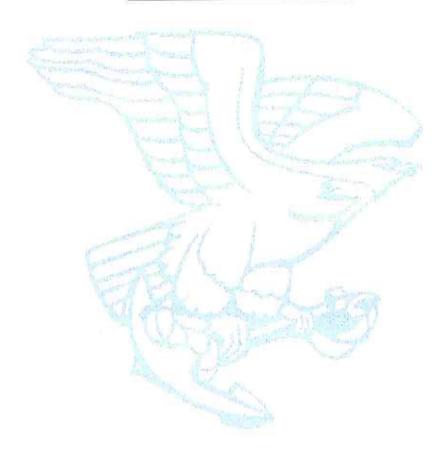
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-F 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD3W900-3M-T1.5 STR H50

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

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The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD3W900-3M-T1.5 STR H50

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 50H x 3000L x 1.5T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 388.8 / Rated load capacity, kg/m = 259.2 (Safety factor 1.5)
- Test Results: Maximum Deflection = 38.5

NIEDAX (THAILAND) LTD

Attending Office First Visit Date

Bangkok 12-Oct-2015

Purchase Order No.

4501006002 BG2999787-F

Report Number Last Visit Date

16-Oct-2015

Surveyor(s) to The American Bureau of Shipping **Attending Surveyors**

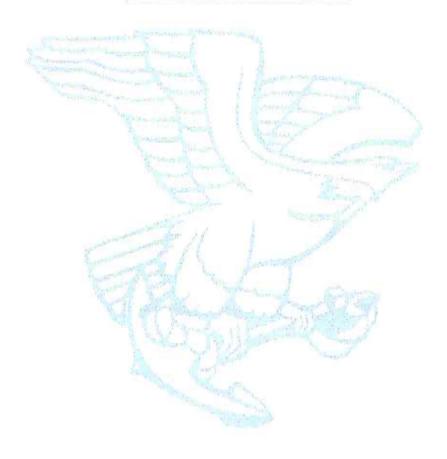
Srihaprom Apichart

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Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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Page 2 of 2 AB Report Vendor



NIEDAX (THAILAND) LTD

Attending Office First Visit Date

Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

BG2999787-G

Last Visit Date

16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD3W900-3M-T1.0 STR H50

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Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

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Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD3W900-3M-T1.0 STR H50

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 50H x 3000L x 1.0T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Side Rial = 1.0 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 250.8 / Rated load capacity, kg/m = 167.2 (Safety factor 1.5)
- Test Results: Maximum Deflection = 39

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.
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4501006002 BG2999787-G 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

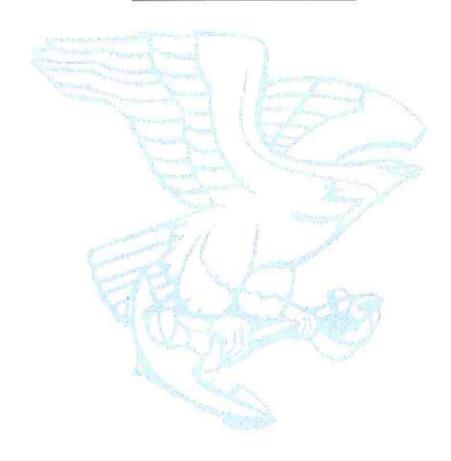
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Reviewed By

Suwanyen, Tawatchai

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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-H 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD11W900-3M-T2.0 STR H40

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

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At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD11W900-3M-T2.0 STR H40

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 40H x 3000L x 2.0T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 43.0 / Test span = 2.4 m
- Destruction load, kg/m = 197.1 / Rated load capacity, kg/m = 131.4 (Safety factor 1.5)
- Test Results: Maximum Deflection = 52.5

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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 D) LTD Purchase Order No.

Report Number

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16-Oct-2015

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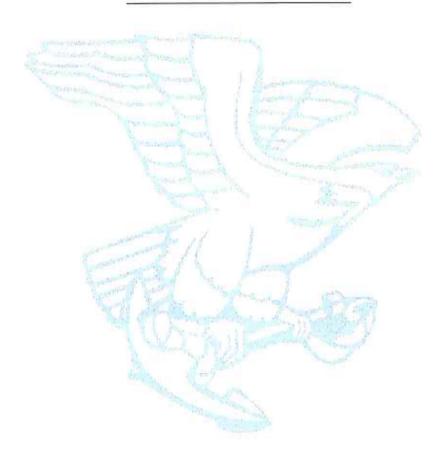
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NIEDAX (THAILAND) LTD

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Report Number

BG2999787-I

Last Visit Date

16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD11W900-3M-T1.5 STR H40

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD11W900-3M-T1.5 STR H40

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 40H x 3000L x 1.5T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 10
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 21.5 / Test span = 2.4 m
- Destruction load, kg/m = 134.4 / Rated load capacity, kg/m = 89.6 (Safety factor 1.5)
- Test Results: Maximum Deflection = 42.5

Customer Name NIEDAX (THAILAND) LTD
Attending Office Bangkok

 Purchase Order No.
 4501006002

 Report Number
 BG2999787-I

 Last Visit Date
 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

12-Oct-2015

Srihaprom Apichart

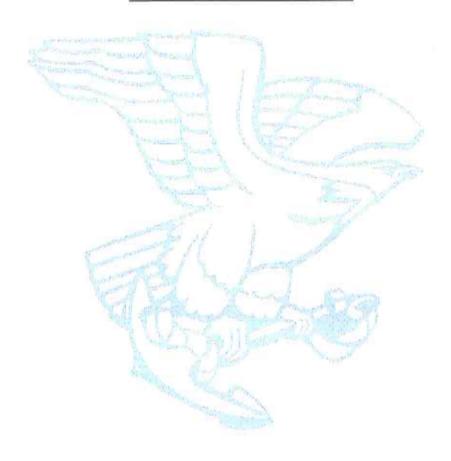
Electronically Signed on 26-Oct-2015

Reviewed By

First Visit Date

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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AMERICAN BUREAU OF SHIPPING

Customer Name

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-J 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

TS6STHD11W900-3M-T1.0 STR H40

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Tray: TS6STHD11W900-3M-T1.0 STR H40

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Tray 900W x 40H x 3000L x 1.0T, Stainless Steel: SS316L: Heavy Duty
- Loading Material: Steel Strip 1.6mmT x 67mmW x 2.4mL, 2.021 Kg/strip
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 10
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 21.5 / Test span = 2.4 m
- Destruction load, kg/m = 83.3 / Rated load capacity, kg/m = 55.5 (Safety factor 1.5)
- Test Results: Maximum Deflection = 23.5

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

BG2999787-J

Last Visit Date 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

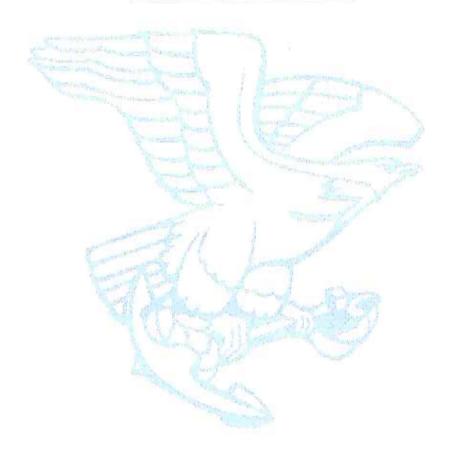
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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AMERICAN BUREAU OF SHIPPING

Customer Name Attending Office

First Visit Date

NIEDAX (THAILAND) LTD

Bangkok 12-Oct-2015 Purchase Order No. Report Number 4501006002

Last Visit Date

BG2999787-K 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity: One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

LS6ST4W900-4M-T1.5/1.5 STR H75

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: LS6ST4W900-4M-T1.5/1.5 STR H75

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product : Cable Ladder 900W x 75H x 4000L, Stainless Steel : SS316L
- Loading Material: Steel Strip 1.6mmT x 67mmW x 3.7mL, 3.115 Kg/strip
- Rung Space Distance = 300 mm.; Side Rial = 1.5 mm. Thk.; Rung 1.5 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 10
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 31.0 / Test span = 3.7 m
- Destruction load, kg/m = 159.2 / Rated load capacity, kg/m = 106.1 (Safety factor 1.5)
- Test Results: Maximum Deflection = 174.5

Customer Name NIED
Attending Office Bang

NIEDAX (THAILAND) LTD

Bangkok 12-Oct-2015 Purchase Order No. Report Number

Last Visit Date

4501006002 BG2999787-K 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Srihaprom Apichart

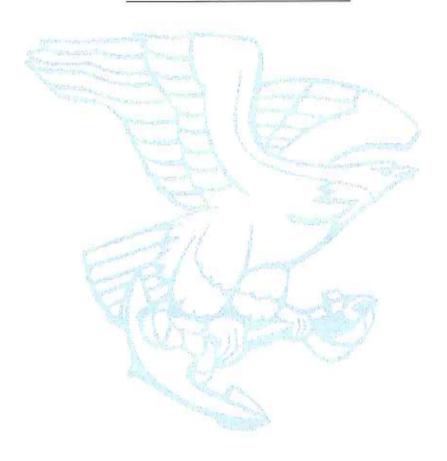
Electronically Signed on 26-Oct-2015

Reviewed By

First Visit Date

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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AMERICAN BUREAU OF SHIPPING

Customer Name Attending Office

First Visit Date

NIEDAX (THAILAND) LTD

Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-L 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

LHGST8W900-6.5M-T1.6/1.6 STR H150 20C

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: LHGST8W900-6.5M-T1.6/1.6 STR H150 20C

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product: Cable Ladder 900W x 150H x 6500L, SS400: Hot Dip Galvanize
- Loading Material: Steel Strip 1.6mmT x 67mmW x 6.0mL, 5.136 Kg/strip
- Rung Space Distance = 300 mm.; Side Rial = 1.6 mm. Thk.; Rung 1.6 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 102.6 / Test span = 6.0 m
- Destruction load, kg/m = 242.8 / Rated load capacity, kg/m = 161.9 (Safety factor 1.5)
- Test Results: Maximum Deflection = 104.5

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No. Report Number

Last Visit Date

4501006002 BG2999787-L 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

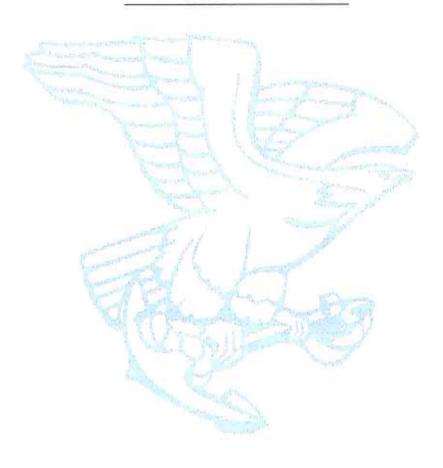
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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AMERICAN BUREAU OF SHIPPING

Customer Name

NIEDAX (THAILAND) LTD

Attending Office First Visit Date

Bangkok 12-Oct-2015 Purchase Order No.

140.

Report Number Last Visit Date BG2999787-M 16-Oct-2015

4501006002

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

LALST5W900-4M-T1.8/1.6 STR H100

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

The principal data has been verified in accordance with the applicable Rules/specifications and approved plans, and confirmed to be within acceptable tolerances.

All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: LALST5W900-4M-T1.8/1.6 STR H100

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product : Cable Ladder 900W x 100H x 4000L : Aluminum
- Loading Material: Steel Strip 1.6mmT x 67mmW x 3.7mL, 3.115 Kg/strip
- Rung Space Distance = 300 mm.; Side Rial = 1.8 mm. Thk.; Rung = 1.6 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 62.0 / Test span = 3.7 m
- Destruction load, kg/m = 221.2 / Rated load capacity, kg/m = 147.5 (Safety factor 1.5)
- Test Results: Maximum Deflection = 103.0

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No. Report Number

Last Visit Date

4501006002 BG2999787-M 16-Oct-2015

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

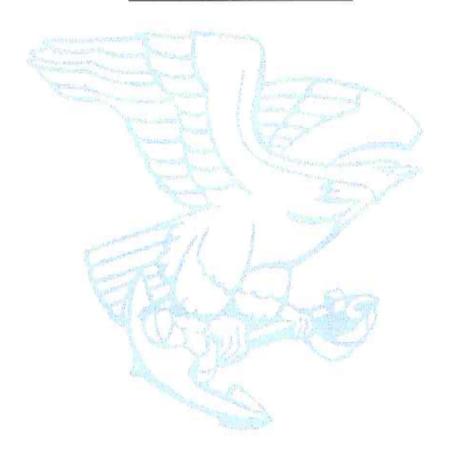
Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

Electronically Signed on 26-Oct-2015, Bangkok Port



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NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number Last Visit Date BG2999787-N 16-Oct-2015

Certification Of:

Metal Cable Support & Tray Systems

Manufacturer: NIEDAX (THAILAND) LTD

Quantity:

One(1)

Survey Location:

Banchang - Rayong, Thailand

Equipment Data

Model Number

LALST5W900-4M-T1.5/1.5 STR H100

This is to Certify that the undersigned surveyor(s) to this Bureau did, at the request of the customer, carry out the following survey and report as follows:

Traceability of materials used on this project has been verified.

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All testing (pressure/load/operational/etc.) has been carried out as applicable and verified in accordance with the applicable Rules/specifications.

Testing machines are maintained in a satisfactory condition and records of their recheck or calibration dates confirmed.

At the specific request of the Manufacturer's Representative, the samples of "Metal Cable Support & Tray Systems" as listed herein have been witnessed the Load Tests carried out at "NIEDAX (Thailand) Ltd" and reported as follows:-

Load Testing of Metal Cable Ladder: LALST5W900-4M-T1.5/1.5 STR H100

- Standard/Type of Test: NEMA VE1-2009, Section 5.2.8: Loading to Destruction (Method A)
- Test Product : Cable Ladder 900W x 100H x 4000L, Stainless SS316L
- Loading Material: Steel Strip 1.6mmT x 67mmW x 3.7mL, 3.115 Kg/strip
- Rung Space Distance = 300 mm.; Side Rial = 1.5 mm. Thk.; Rung = 1.5 mm. Thk.
- · Loading Distribution :
 - o No.of rows across the specimen breadth = 10
 - o No.of loading strip for each layers = 20
 - o No.of rows across the specimen length = 1
 - o Weight of each loading layer = 62.0 / Test span = 3.7 m
- Destruction load, kg/m = 216.2 / Rated load capacity, kg/m = 144.1 (Safety factor 1.5)
- Test Results: Maximum Deflection = 85.0

NIEDAX (THAILAND) LTD

Attending Office First Visit Date Bangkok 12-Oct-2015 Purchase Order No.

4501006002

Report Number

BG2999787-N

Last Visit Date

16-Oct-2015

Page 2 of 2

Surveyor(s) to The American Bureau of Shipping Attending Surveyors

Srihaprom Apichart

Electronically Signed on 26-Oct-2015

Reviewed By

Suwanyen, Tawatchai

AB Report Vendor

Electronically Signed on 26-Oct-2015, Bangkok Port

