

**CERTIFICATION OF WORK**  
(To be completed by the Contractor and saved in the Contractor's CMMS)

**INSPECTION, TESTING, AND CERTIFICATION OF WORK**  
(To be completed by the Contractor and saved in the Contractor's CMMS)

FACID/Building: PA118 Date of Visit: 2019 JUNE 28

Contractor Personnel on Site:

- |                                 |          |
|---------------------------------|----------|
| 1. <u>JUSTIN ACE SUPERVISOR</u> | 4. _____ |
| 2. _____                        | 5. _____ |
| 3. _____                        | 6. _____ |

**Work Performed:**

**Inspection, Testing, and Certification**

1. Annual Crane Testing
2. Asset# 6920 WO# 9072 & 9184
3. \_\_\_\_\_
4. \_\_\_\_\_

**CERTIFICATION OF WORK**

To be signed by the Contractor:

Print Name: Don Hanson Date: 6-28-19

Signed: \_\_\_\_\_

To be signed by Facility Manager:

By signing the Certification of Work, the said government representative signature does not constitute acceptance of any work performed by the contractor, it only acknowledges that the contractor was on-site during the identified timeline:

Print Name/Rank: ACE JUSTIN WS. 09 Date: 2019 JUNE 28

Signed: Justin M. Ace

E-Mail: JUSTIN.M.ACE.CIV@MAIL.MIL

# MAINMAN ASSESSMENT REPORT

**KONECRANES®**  
Lifting Businesses™

Report created: Jun 28, 2019, 7:43:50 PM

## Customer and Service Information

|                          |                                                                      |                           |                                                                       |
|--------------------------|----------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------|
| <b>Customer</b>          | Tidewater Inc                                                        |                           |                                                                       |
| <b>Business Location</b> | Erie USARC, Conneaut Lake                                            |                           |                                                                       |
| <b>Address</b>           | 6467 Mike Wood Blvd, Conneaut Lake                                   |                           |                                                                       |
| <b>Agreement</b>         | U242 - Erie USARC                                                    |                           |                                                                       |
| <b>Service Request</b>   | 1-89476667822                                                        |                           |                                                                       |
| <b>Description</b>       | ERI - June 2019 MAINMAN Assessment w/ Routine Maintenance on 1 asset |                           |                                                                       |
| <b>PO Number</b>         | Karlee Demain                                                        |                           |                                                                       |
| <b>Billing Type</b>      | Fixed                                                                |                           |                                                                       |
| <b>Customer Contact</b>  | Karlee Demain<br>703-565-8472<br>karlee.demain@tideh2o.net           | <b>Konecranes Contact</b> | Betsy Nogrady-Lake<br>5854810717<br>betsy.nogrady-lake@konecranes.com |

## Summary

|                                |                                         |
|--------------------------------|-----------------------------------------|
| <b>Service Request Status:</b> | Completed                               |
| <b>Service Products:</b>       | Routine Maintenance, MAINMAN Assessment |
| <b>Assets Serviced:</b>        | 1                                       |

## Findings and Actions

## Findings and Actions by Asset (Top 5)

3 Safety Risks

PA118-00001

3

1

1 Repaired Items

3 Quotes

**Note!** The condition of certain components on serviced/inspected cranes cannot be directly verified through visual inspection without further disassembly and/or the use of other inspection methods. These advanced services are excluded from the scope of this service. Inspection frequency for these components should follow OEM recommendations and/or governing regulations. These components are listed separately and identified as follows:

Undetermined Conditions (Unable to Inspect - Not in Scope)

## Findings and Actions (1 Assets)



**PA118-00001**

Monorail system - 1 trolley electric wire rope hoist

|                      |             |                    |          |
|----------------------|-------------|--------------------|----------|
| <b>Manufacturer</b>  | HOMEMADE    | <b>Model</b>       | Unknown  |
| <b>Serial Number</b> | Unknown     | <b>Span</b>        | 50ft     |
| <b>Criticality</b>   | N/A         | <b>Lift</b>        | 20ft     |
| <b>Site Location</b> | PA118-00001 | <b>Volt/Ph/Hz</b>  | 208-3-60 |
| <b>Capacity/SWL</b>  | 10 Ton      | <b>Environment</b> | N/A      |

**Service Products** Routine Maintenance & MAINMAN Assessment



**Comment**

Maintenance log book



✓ **Markings** – Visual assessment

✓ **Documentation** – Visual assessment

Trolley

Structure

✓ **Trolley intermediate structure** – Visual assessment

Trolley idle side

✓ **Trolley idle side structure** – Visual assessment

✓ **Trolley idle wheel and bearings** – Visual assessment, Lubricate, Operational assess...

✓ **Trolley idle wheel and bearings** – Visual assessment, Lubricate, Operational assess...

✓ **Trolley bumpers** – Visual assessment

✓ **Rail sweeps** – Visual assessment

Trolley driving side

✓ **Trolley driving side structure** – Visual assessment

✓ **Trolley driving wheel and bearings** – Visual assessment, Lubricate, Operational as...

✓ **Trolley driving wheel and bearings** – Visual assessment, Lubricate, Operational as...

✓ **Open gear transmission** – Visual assessment, Lubricate, Operational assessment

✓ **Trolley bumpers** – Visual assessment

✓ **Rail sweeps** – Visual assessment

Trolley traversing machinery

✓ **Traversing gear** – Visual assessment, Lubricate, Operational assessment

✓ **Traversing coupling** – Visual assessment, Lubricate, Operational assessment

✓ **Traversing motor** – Visual assessment, Lubricate, Clean, Operational assessment

✓ **Protection guards and covers** – Visual assessment

Hoisting machinery

✓ **Hoisting gear** – Visual assessment, Lubricate, Operational assessment

|                                                                                              |                                                                                                                                                       |                     |
|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>! Hoisting gear - internal</b>                                                            |                                                                                                                                                       | <b>Quote</b>        |
| <b>Date Reported:</b>                                                                        | Jun 28, 2019                                                                                                                                          |                     |
| <b>Technician:</b>                                                                           | Donald Hanson                                                                                                                                         |                     |
| <b>Task Type:</b>                                                                            | Visual assessment                                                                                                                                     |                     |
| <b>Fault Code:</b>                                                                           | Other fault                                                                                                                                           |                     |
| <b>Risk:</b>                                                                                 | <b>Safety Risk</b>                                                                                                                                    |                     |
| <b>Recommendation:</b>                                                                       | Disassemble/Inspect                                                                                                                                   |                     |
| <b>Comment:</b>                                                                              | The hoist is overdue Doran internal hoist gear case inspection & load test. This was brought to the attention of and, requested by WS 9 Steve Buslja. |                     |
| <b>✓ Hoisting coupling</b> – Visual assessment, Lubricate, Clean, Operational assessment     |                                                                                                                                                       |                     |
| <b>✓ Hoisting motor</b> – Visual assessment, Lubricate, Clean, Operational assessment        |                                                                                                                                                       |                     |
| <b>✓ Hoisting brake - holding</b>                                                            |                                                                                                                                                       | <b>Repaired</b>     |
| <b>Date Reported:</b>                                                                        | Jun 28, 2019                                                                                                                                          |                     |
| <b>Technician:</b>                                                                           | Donald Hanson                                                                                                                                         |                     |
| <b>Task Type:</b>                                                                            | Visual assessment                                                                                                                                     |                     |
| <b>Fault Code:</b>                                                                           | Other fault                                                                                                                                           |                     |
| <b>Risk:</b>                                                                                 | <b>Safety Risk</b>                                                                                                                                    |                     |
| <b>Recommendation:</b>                                                                       | Repair                                                                                                                                                |                     |
| <b>Comment:</b>                                                                              | The hoist brake coil set screw was loose. I tightened it into place.                                                                                  |                     |
| <b>✓ Hoisting brake - control</b> – Adjust, Visual assessment, Clean, Operational assessment |                                                                                                                                                       |                     |
| <b>✓ Rope drum</b> – Visual assessment, Operational assessment                               |                                                                                                                                                       |                     |
| <b>✓ Rope drum bearings</b> – Visual assessment, Lubricate, Operational assessment           |                                                                                                                                                       |                     |
| <b>✓ Rope clamps</b> – Visual assessment                                                     |                                                                                                                                                       |                     |
| <b>✓ Rope anchorage</b> – Visual assessment                                                  |                                                                                                                                                       |                     |
| <b>Hoisting wire rope</b>                                                                    |                                                                                                                                                       | <b>Notification</b> |
| <b>Date Reported:</b>                                                                        | Jun 28, 2019                                                                                                                                          |                     |
| <b>Technician:</b>                                                                           | Donald Hanson                                                                                                                                         |                     |
| <b>Task Type:</b>                                                                            | Lubricate                                                                                                                                             |                     |
| <b>Fault Code:</b>                                                                           | Acceptable                                                                                                                                            |                     |
| <b>Risk:</b>                                                                                 | <b>No direct risk</b>                                                                                                                                 |                     |
| <b>Recommendation:</b>                                                                       | No Action                                                                                                                                             |                     |
| <b>Comment:</b>                                                                              | I lubricated the wire rope                                                                                                                            |                     |
| Hook block                                                                                   |                                                                                                                                                       |                     |
| <b>✓ Hook block structure and markings</b> – Visual assessment                               |                                                                                                                                                       |                     |
| <b>Rope sheave and bearings</b>                                                              |                                                                                                                                                       | <b>Notification</b> |
| <b>Date Reported:</b>                                                                        | Jun 28, 2019                                                                                                                                          |                     |
| <b>Technician:</b>                                                                           | Donald Hanson                                                                                                                                         |                     |
| <b>Task Type:</b>                                                                            | Lubricate                                                                                                                                             |                     |
| <b>Fault Code:</b>                                                                           | Acceptable                                                                                                                                            |                     |
| <b>Risk:</b>                                                                                 | <b>No direct risk</b>                                                                                                                                 |                     |
| <b>Recommendation:</b>                                                                       | No Action                                                                                                                                             |                     |
| <b>Comment:</b>                                                                              | I lubricated The upper and lower sheave bearings                                                                                                      |                     |
| <b>✓ Crosshead</b> – Visual assessment, Operational assessment                               |                                                                                                                                                       |                     |
| <b>✓ Thrust ball bearing</b> – Lubricate, Operational assessment                             |                                                                                                                                                       |                     |

✓ **Hook forging** – Visual assessment

! **Hook forging - internal**

**Quote**

**Date Reported:** Jun 28, 2019

**Technician:** Donald Hanson

**Task Type:** Visual assessment

**Fault Code:** Other fault

**Risk:** **Safety Risk**

**Recommendation:** Analyze / Survey / Assessment

**Comment:** An NDT inspection of the hook is recommended.

✓ **Latch** – Visual assessment, Operational assessment

## Electrics

### Power supply

✓ **Runway mainline disconnect** – Visual assessment, Operational assessment

✓ **Trolley power supply** – Visual assessment, Operational assessment

✓ **Tow arm** – Visual assessment

✓ **Collector assembly** – Visual assessment, Operational assessment

✓ **Conductor** – Visual assessment

✓ **Pendant power supply** – Visual assessment, Operational assessment

✓ **Connection box** – Visual assessment

✓ **Festoon cable** – Visual assessment

### Control system

✓ **Trolley cubicle** – Visual assessment

✓ **General wiring and conduits** – Visual assessment

✓ **Operation control** – Visual assessment, Operational assessment

✓ **Hoist cubicle** – Visual assessment

! **General wiring and conduits**

**Quote**

**Date Reported:** Jun 28, 2019

**Technician:** Donald Hanson

**Task Type:** Visual assessment

**Fault Code:** Other fault

**Risk:** **Safety Risk**

**Recommendation:** Repair

**Comment:**

The wiring from the collector assembly passes through an opening that is not bushed

✓ **Operation control** – Visual assessment, Operational assessment

✓ **Pushbutton pendant** – Visual assessment, Operational assessment

✓ **Pushbutton pendant cable** – Visual assessment

✓ **Hoisting limit switches** – Visual assessment, Adjust, Operational assessment

✓ **Operation control** – Visual assessment, Operational assessment

## Runway

### Beam

✓ **End stops** – Visual assessment



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Jun 28, 2019 Justin Ace, Customer



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Jun 28, 2019 Donald Hanson, Technician

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Undetermined Conditions: Unable to Inspect - Not in Scope (1 Assets)



PA118-00001

Monorail system - 1 trolley electric wire rope hoist

Jun 25, 2019

**! Hoisting gear - internal**

**Notification**

**Fault Code:** Not in Scope

**Risk:** **Undetermined Condition**

**Recommendation:** Disassemble/Inspect

**Comment:**

Disassembly is required to inspect this component. Inspection frequency is as required by the OEM and/or governing regulations

**! Hoisting coupling - internal**

**Notification**

**Fault Code:** Not in Scope

**Risk:** **Undetermined Condition**

**Recommendation:** Disassemble/Inspect

**Comment:**

Disassembly is required to inspect this component. Inspection frequency is as required by the OEM and/or governing regulations

**! Mechanical load brake**

**Notification**

**Fault Code:** Not in Scope

**Risk:** **Undetermined Condition**

**Recommendation:** Disassemble/Inspect

**Comment:**

Disassembly is required to inspect this component. Inspection frequency is as required by the OEM and/or governing regulations

**! Hook nut and locking parts**

**Notification**

**Fault Code:** Not in Scope

**Risk:** **Undetermined Condition**

**Recommendation:** Disassemble/Inspect

**Comment:**

Disassembly is required to inspect this component. Inspection frequency is as required by the OEM and/or governing regulations

**! Hook forging - internal**

**Notification**

**Fault Code:** Not in Scope

**Risk:** **Undetermined Condition**

**Recommendation:** Disassemble/Inspect

**Comment:**

Disassembly is required to inspect this component. Inspection frequency is as required by the OEM and/or governing regulations

## Component Condition

- ✓ Acceptable (No issues detected)
- ! Need Attention

## Findings and Actions

### **Safety Risk**    ⚠ WARNING

Indicates an unsafe condition. Failure to remedy such condition before continued operation of the identified asset may result in personal injury, including death, or property damage.

### **Production Risk**

Indicates an inefficient condition. Failure to remedy such condition before continued operation of the identified asset may result in inefficient asset performance or an interruption in production.

### **Undetermined Condition**

**Unable to Inspect - Not in Scope**

Indicates that the component condition could not be directly verified through visual inspection without further disassembly and/or the use of other inspection methods.

These advanced services are generally excluded from the scope of typical compliance and preventive maintenance inspections. Consultation Services may be added to a Service Program or offered on a stand-alone basis to assess the condition of these components.

Inspection frequency for these components should follow OEM recommendations and/or governing regulations. If these are not readily available, Konecranes recommendations may be used.

If no records are available, disassembly/inspections of these components should be carried out without delay to determine their current condition and to establish a baseline for subsequent inspections.

### **Undetermined Condition**

**Not able to Complete**

Indicates that the component condition could not be directly verified through visual inspection as a result of asset configuration and/or obstruction. In this case, the visual inspection was part of the service scope but it was not completed.

### **Improvement Opportunity**

Indicates a potential opportunity to improve the safety, productivity, application or useful life of the asset.

### **Acceptable / Repaired Item**

Component condition is verified by Konecranes service technician. No actions required. If a component or other object has been repaired within the service visit, green color code is shown as well.

Repaired Items correspond to those repairs performed by, observed by or reported to the Konecranes Technician during the delivery of the referenced Service Request.

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