

APPENDIX 6 - HAULAGE HAZARD REGISTER

People Environment & Equipment

Author

Paul Walter

| Last Modified By: | Paul Walter | Date: | 20 th Sept 2021 |
|-------------------|-------------|-----------|----------------------------|
| Document No: | 008 | Revision: | 1 |

This document identifies hazards associated with the movement, storage, maintenance, equipment that is used in haulage at the Devonport Yacht Club, with accompanying risk assessments and management plan to prevent risk of injury, loss, damage or harm to members and the environment. It is to be used in conjunction with the Haulage Manual.

Contents

| This document identifies hazards associated with the movement, storage, maintenance, equipment that |
|--|
| is used in haulage at the Devonport Yacht Club, with accompanying risk assessments and management |
| plan to prevent risk of injury, loss, damage or harm to members and the environment. It is to be used in |
| conjunction with the Haulage Manual1 |
| Haulage Hazard List |
| Risk Assessment – Workshop6 |
| Risk Assessment – Uphaul/Downhaul/Crosshaul/Winches7 |
| Risk Assessment – Haulage Equipment9 |
| Risk Assessment – Cradles11 |
| Risk Assessment – Boat Maintenance11 |
| Risk Assessment – Machinery |
| Risk Assessment – Safety and Environment Protection13 |
| Hazard Assessment & Inspection Survey14 |
| Bi-ANNUAL HAULAGE EQUIPMENT INSPECTION SURVEY15 |
| Haulage Safety Briefing17 |

Haulage Hazard List

| Department / Work Area | Equipment or Operation |
|------------------------|------------------------|
| Workshop | 1. Machinery. |
| | 2. Storage racks |
| | 3. Heavy Lifting |
| | 4. Electrical circuit |
| Up Haul | 1. Trolley |
| | 2. Winch Wire |
| | 3. Winch Operation |
| | 4. Winch Guarding |
| | 5. Trolley Security |
| | 6. Slipways |
| Down Haul | 1. Cradle |
| | 2. Winch Wire |
| | 3. Winch Operation |
| | 4. Winch Guarding |
| | 5. Wire Layout |
| | 6. Wire Purchases |
| | 7. Hardwood Ways |
| | 8. Hand Signals |
| | 9. Cradle Position |
| | 10. Slipways |
| Crossing the Section | 1. Cradle |
| | 2. Winch Wire |
| | 3. Winch Operation |
| | 4. Winch Guarding |
| | 5. Snatch Blocks |
| | 6. Wire Layout |

| | 7. Wire Purchases |
|-------------------|--|
| | |
| | 8. Hardwood Ways |
| | 9. Heavy Lifting |
| | 10. Hand Signals |
| | 11. Cradle Position |
| | 12. Deadman |
| | 13. Lifting Jacks |
| Haulage Equipment | 1. Inspection Plan |
| | 2. Winch Wires |
| | 3. Snatch Blocks |
| | 4. Shackles |
| | 5. Toe Jacks |
| | 6. Wire Strops |
| | 7. Chain Strops |
| | 8. Hardwood Ways |
| | 9. Heavy Lifting |
| | 10. Section Deadman |
| | 11. Winches (Western, Eastern & Side Haul) |
| | 12. Dunnage |
| | 13. Lifting Jacks |
| | 14. Water blaster – Electrical & Operation |
| | 16. Sump Pump – Electrical & Operation |
| | 17. Slipways |
| | 18. Haulage Equipment Trolley |
| | 17. Storage Lockers & Workshop |
| | |

| Cradles | 1. Materials |
|---|--|
| | 2. Engineering Requirements |
| | 3. Structural Integrity |
| | 4. Heavy lifting |
| | 5. Storage |
| Boat Maintenance | 1. Working at height |
| | 2. Ladders |
| | 3. Scaffolding and Planks |
| | 4. Antifouling – Removal & Application |
| | 5. Painting |
| | 6. Electrical Leads |
| | 7. Sanding – Dust Nuisance |
| | 8. Epoxy Resins |
| | 9. Halyards – Noise Nuisance |
| | 10. Dangerous Goods |
| | 11. Water Usage |
| | 12. Firefighting equipment |
| Cleaning, maintenance, or repair of machinery | 1. Secured against movement. |
| | 2. Locks or lock-out procedures. |
| Safety and Environment Protection Equipment | 1. Restricted Access Signs |
| | 2. Boat Maintenance Signs |
| | 3. Hazard Signs |
| | 4. Bastion Safety Barrier Arms and Cones |
| | 5. First Aid Kit |
| | 6. Oil/Chemical Pollution Spill Kit |
| | 7. Water blasting Screens |
| | 8. Settling Tank – Hazardous waste |
| Electrical Safety | 1. Machinery - tagging and testing |
| | 2. Power Leads - tagging and testing |
| | |

Risk Assessment – Workshop

| Hazard | Potential Harm | hazard? | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Control Measures | Person Responsible | Date Completed |
|--|---|---------|--|---|-----------------------|-------------------|
| Misuse of machinery or equipment | Injury, crush, or amputation of limbs. | Y | Μ | Only trained operators / persons to assist with haulage and the use of haulage equipment, machines, or controls. | | |
| Material projectiles from power tools or machinery. | Eye injury | Y | Μ | Safety glasses to be worn when operating power tools or drill press. Train, supervise new volunteers | | |
| Noise | Hearing damage | Y | М | Ear protection should be worn by all persons near any equipment or machinery which are operating that require you to raise your voice to be heard. | | |
| Falling Items from storage & workshop racks. | Crush injury to fingers, foot & toes. | Y | М | Gloves and Safety boots should be worn by all persons handling equipment associated with haulage. | | |
| Heavy Lifting & extending | Back injury | Y | М | Use appropriate lifting equipment or another perrons assistance for heavy loads that cause straining to lift or uncomfortable extension to place equipment. Train, supervise new volunteers | | |
| Electrical circuit Power Leads | Risk of electrocution Trips, falls | Y | М | Only trained personnel to work on power circuits. Disconnect leads when not in use | | |

| Hazard | Potential Harm | hazard? | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Control Measures | Person Responsible | Date Completed |
|---|--|---------|--|--|-----------------------|-------------------|
| Winch Wire breakage | Collision, cuts, falls, amputation, or crush | Y | Μ | Keep eyes out for loads being moved by winches? Keep well clear of load and operators unless your trained to assist. Never stand or walk in the bite of a load under tension. Always wear gloves when handling wires. Safety chain to be connected to trolley when stationary. Train, supervise new volunteers | | |
| Crosshaul Winch Operation failure. | Unexpected movement of load causing damage to persons or vessels. | Y | Μ | Winch operator training. Twice yearly inspection by winch maintenance team and haulage inspector of winch components to detect / repair any wear. Safety chain to be connected to trolley when stationary. | | |
| Brake failing | Unexpected free falling of trolley down slipway causing damage to persons or vessels. | Y | Μ | Winch operator training. | | |
| Clutch or Gear lever disengaging. | Unexpected movement of load causing damage to persons or vessels. | Y | Μ | Winch operator training. Ensure gear/clutch dog is engaged fully. Use clutch lock if installed. | | |

Risk Assessment – Uphaul/Downhaul/Crosshaul/Winches

| Slipway Winch operation failure | Unexpected free falling of trolley down slipway causing damage to persons or vessels. | Y | Μ | Winch operator training. Twice yearly inspection by winch maintenance team and haulage inspector of winch components to detect wear. Safety chain to be connected to trolley when stationary. | |
|--|--|---|---|---|--|
| Public entering yard during haulage | Trips, falls, Injury | Y | Μ | Place signs and cones and communicate to warn public of the controlled space and to keep clear. | |
| Hose traps in below ground positions | Trip, falls, injury | Y | Μ | Keep covers in place when not in use | |
| Slipways and sumps | Falls, Injury | Y | Μ | High visibility markings on edges of channels. Caution signs. Train, supervise new volunteers. Keep covers in place when not in use | |
| Trapping of fingers in rotating parts | Risk of partial amputation or crushing of fingers. | Y | I | Machine must be switched off and isolated before removing guards. | |
| Trapping of fingers in wire drum | Risk of partial amputation or crushing of fingers. | Y | I | No unauthorised personnel inside barriers when motor is running. | |
| Electrical circuit | Risk of electrocution | Y | Μ | Only trained personnel to work on power circuits | |

| Hazard | Potential Harm | hazard? | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Measures | Person Responsible | Date Completed |
|------------------------------------|--|---------|--|---|-----------------------|-------------------|
| Snatch Blocks and pulleys | Injury, crushed fingers. Back injury | Y | Μ | Should only be handled with gloves and when winch is stopped and all clear is given by the haulage manger. Bend knees when lifting and ask for assistance if moving multiple blocks or repositioning. Train, supervise new volunteers | | |
| Steel Plates | Crush injury to fingers, foot & toes | Y | Μ | Gloves and Safety boots should be worn by all persons handling equipment associated with haulage. Train, supervise new volunteers | | |
| Chains | Crush injury to fingers, foot & toes | Y | Μ | Gloves and Safety boots should be worn by all persons handling equipment associated with haulage. Train, supervise new volunteers | | |
| Section Deadman | Falls, trips, injury if failure occurs | Y | Μ | Identified on the yard with yellow safety paint. Inspected twice yearly for wear or damage. | | |
| Toe Jacks | Crush injury to fingers, foot & | Y | М | Gloves and Safety boots should be | | |
| Toe Jacks | toes Potential risk to anyone nearby if load moves unexpectedly | Y | М | worn by all persons handling equipment. Only trained operators / persons to assist with haulage and the use of haulage equipment. | | |

Risk Assessment – Haulage Equipment

| Hardwood Ways | Crush injury to fingers, foot & toes. Back injury | Y | Μ | Train, supervise new volunteers. Should only be handled with gloves and safety boots. Bend knees when lifting and ask for assistance if moving or repositioning. Train, supervise new volunteers | |
|-----------------------|--|---|---|--|--|
| Water Blaster | Eyesight, breathing, skin irritation. slip, falls, overspray. Environmental damage | Υ | M | Full PPE gear should be worn when operating. Care taken when moving around the vessel. Screens are to be placed around the vessel when water blasting. The sump pump must be used and checked for operation before blasting commences. Train, supervise new volunteers. | |
| Electrical circuit | Risk of electrocution | Y | Μ | Power leads tagged and correctly plugged in. Only trained personnel to work on power circuits | |
| Settling Tank | Hazardous Waste Trips, Falls | Y | Μ | Disposal for treatment by Envirowaste Ltd. Covers intact and correctly installed. | |

Risk Assessment – Cradles

| Hazard | Potential Harm | hazard? | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Control Measures | Person Responsible | Date Completed |
|---------------------------------|---|---------|--|---|-----------------------|-------------------|
| Vessel tipping over | Potential risk to anyone nearby and property. | Y | Μ | Cradles and vessels must be approved by the Haulage Master and Safety Inspector prior to the commencement of haulage. | | |
| Heavy Lifting & extending | Back injury | Y | Μ | Use appropriate lifting equipment or another person's assistance for heavy loads that cause straining to lift or uncomfortable extension to place equipment. Train, supervise new volunteers | | |

Risk Assessment – Boat Maintenance

| Hazard | Potential Harm | Signific ant hazard? Yes/ No | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Control Measures | Person Responsible | Date Completed |
|----------------------|--|--|--|---|-----------------------|-------------------|
| Working at height | Falls from ladders/scaf folding/plan ks | Y | Μ | Ladders must be secured to prevent tipping. Scaffold and planks must be appropriate for use. Train, supervise new volunteers | | |
| Noise | Hearing damage. Noise Nuisance | Y | Μ | Ear protection should be worn by all persons near any equipment or machinery which are operating that require you to raise your voice to be heard. Halyards must be securely tied off to prevent clanging on masts. | | |

| | | | | Tarpaulins must be secured to prevent excessive noise. | |
|---|---|---|---|--|--|
| Material projectiles from power tools or machinery. | Eye injury | Y | М | Safety glasses to be worn when operating power tools or drill press. | |
| Dust | Respiratory, dust nuisance, environmen tal damage | Y | М | Dust masks to be worn when sanding or removing paint and antifoul. Vacuum or dust extractors must be used on power tools to eliminate dust nuisance to surrounding persons or boats. Groundsheets and tarpaulins must be used to mitigate nuisance and prevent damage to environment. | |
| Paint / Glues | Hazardous Substances | Y | М | Refer to Safety Data Sheets. | |
| Fire | Burns, damage to boats and surrounding property | Y | М | Fire extinguishers on vessels and winch house. Fire hoses in winch hose. Train, supervise new volunteers | |
| Oil/Chemica l Spill Pollution | Hazardous substances. Environmen tal damage. | Y | I | Spill Kit located in the workshop. Follow the guidelines in the Haulage Manual (Section 5 – Health and Safety) | |
| Waste | Trips, falls, environmen tal damage | Y | M | Use rubbish bins provided or take your rubbish away. Keep areas around boats clear of clutter. | |
| Power Leads | Trips, falls | Y | М | Disconnect leads when not in use | |

| Electrical circuit | Risk of electrocutio n | Y | М | Power leads tagged and correctly plugged | |
|--------------------|------------------------------|---|---|--|--|
| | | | | in. | |

Risk Assessment – Machinery

| Hazard | Potential Harm | hazard? | <u>E</u> liminate <u>I</u> solate <u>M</u> inimise | Measures | Person Responsible | Date Completed |
|-----------------------------|--------------------------|---------|--|--|-----------------------|-------------------|
| Cleaning and Maintenance | Injury | Y | Μ | Moving parts must be secured against movement. Locks or lock-out procedures must be followed. Train, supervise new volunteers | | |
| Electrical circuit | Risk of electrocution | Y | Μ | Only trained personnel to work on power circuits. Tagging and testing kept up to date. | | |

Risk Assessment – Safety and Environment Protection

| Hazard | Potential Harm | hazard? | <u>E</u> liminate Isolate <u>M</u> inimise | Control Measures | Person Responsible | Date Completed |
|-------------------------|--|---------|--|---|-----------------------|-------------------|
| Unauthorised Accesss | Injury to public | Y | M | Restricted area signage in place during haulage operations | | |
| Settling Tank | Hazardous Waste | Y | М | Disposal for treatment by Envirowaste Ltd. Covers intact and correctly installed. | | |
| Water blasting | Eyesight, breathing, skin irritation. slip, falls, overspray. Environmental damage | Y | Μ | Full PPE gear should be worn when operating. Care taken when moving around the vessel. Screens and caution signs are | | |

| to be placed around the vessel when water blasting. The sump pump must be used and checked for operation before |
|--|
| operation before |
| blasting commences. |
| Train, supervise new volunteers. |

Hazard Assessment & Inspection Survey

Copy this sheet for use when carrying out inspection and hazard assessment on the yard. These notes to be transferred to the DYC Master File by the Haulage Master.

The Haulage Safety Officer is required to be trained and have a complete understanding of all hazards, risk management and control measures when undertaking the following Inspection Survey. **DEVONPORT YACHT CLUB (Inc)**

KING EDWARD PARADE



PHONE: 64 9 4450048

http://www.dyc.org.nz

DEVONPORT, AUCKLAND 9

Bi-ANNUAL HAULAGE EQUIPMENT INSPECTION SURVEY

Date:

| ITEM | Component | Pass/Fail | Comment/Work Required |
|-----------------------|---------------------|-----------|-----------------------|
| West Slip Winch | On/Off Switches | | |
| | Transmission | | |
| | Dog Clutch | | |
| | Brake | | |
| | Cable | | |
| West Crosshaul Winch | On/Off Switches | | |
| | Transmission | | |
| | Dog Clutch | | |
| | Brake | | |
| | Cable | | |
| West Slip Trolley | Wheels and bearings | | |
| | Chassis | | |
| | Cable Attachment | | |
| | Safety Chain | | |
| | Slides and ropes | | |
| West Slip | Rail and Fastenings | | |
| | Safety Chain | | |
| East Slipway Winch | On/Off Switches | | |
| | Transmission | | |
| | Dog Clutch | | |
| | Brake | | |
| | Cable | | |
| East Crosshaul Winch | On/Off Switches | | |
| | Transmission | | |
| | Dog Clutch | | |
| | Cone Clutch | | |
| | Brake | | |
| | Cable | | |
| East Slip Top Trolley | Wheels and bearings | | |
| | Chassis | | |
| | Cable Attachment | | |
| | Slides | | |
| | Safety Chain | | |

| ITEM | Component | Pass/Fail | Comment/Work Required |
|----------------------|----------------------|-----------|-----------------------|
| East Slip Trackwork | Rail and Fastenings | | |
| | Safety Chain | | |
| Haulage Gear Trolley | Wheels and tyres | | |
| | Mechanical Jacks | | |
| | Chains | | |
| | Blocks | | |
| Water blaster | Power Cables | | |
| | Switches | | |
| | Low Pressure Hose | | |
| | High Pressure Hose | | |
| | Blaster operation | | |
| Workshop | Welder | | |
| | Clean & Tidy | | |
| | Drill press | | |
| | Offhand Grinder | | |
| Sump Pump | Power Cable | | |
| | Pump Operation | | |
| Yard | Deadman chains | | |
| | Power Outlets | | |
| | Fire Extinguishers | | |
| | Water meter readings | | |

At the time of this inspection and to the best of my knowledge the equipment is safe for use other than for any items identified by me as requiring attention. If any item affecting safety has been noted, that equipment has been eliminated or taken out of service until I have been satisfied that suitable repairs have been made.

Inspected By:

Date:

| Repairs Inspecte | d and | Passed: | |
|-------------------------|-------|---------|--|
|-------------------------|-------|---------|--|

Date:

Original To Secretary for filing when completed.

Haulage Safety Briefing

| HAULAGE SAFETY BRIE | FING / CHECKLIST |
|---|------------------|
| HAULAGE DATE | |
| VESSEL (S) HAULED | |
| NAMED OFFICERS | OF THE DAY |
| HAULAGE / SAFETY MANAGER | |
| FOREMAN | |
| HAND SIGNALS | |
| WINCH OPERATOR (S) | |
| | (Initialled) |
| RESTRICTED AREA NOTICE BOARDS IN PLACE | |
| WINCH BASTION ARMS & CONES IN PLACE | |
| HAZARDS IDENTIFIED | |
| * Trips * Falls * Wires & Chains | |
| * Heavy Lifting * Crush Injury | ┥┝───┥ |
| H&S INDUCTIONS COMPLETED | |
| PPE WORN BY ALL VOLUNTEERS | |
| FIRST AID KIT LOCATED IN WORKSHOP | |
| COMMENTS / | ACTIONS |
| | |
| | |