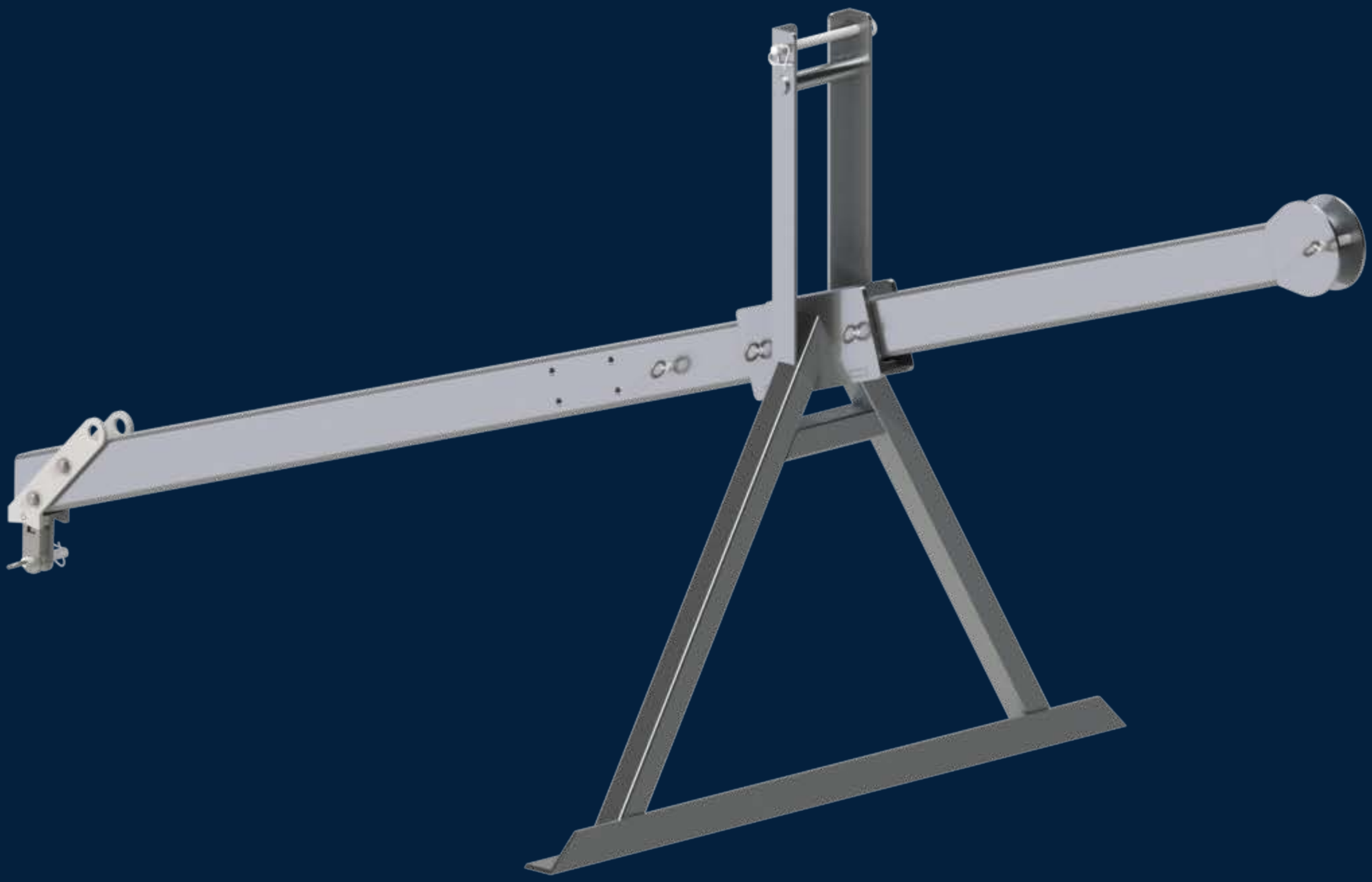
HI-RISE

Engineered Height Safety Solutions

Lightweight Needle

Operations Manual



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⚠ **WARNING:** These instructions must be provided to the user of this product. The user must read and fully understand these instructions, or have them explained, before use. The manufacturer's instructions must be followed at all times for the correct use and maintenance of this product. Any alteration, misuse, or failure to follow these instructions may result in serious injury or death.

⚠ **WARNING:** The Hi-Rise Lightweight Needle should only be used by personnel with an understanding of relevant height safety requirements, and who have Industrial Rope Access competencies (as defined in AS/NZS ISO 22846). Prior to assembly and use of the Lightweight Needle, personnel are required to read and fully understand the content of this user manual in full and sign off with their relevant supervisor that they have done so.

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Lightweight Needle - Operations

Introduction

The Hi-Rise Lightweight Needle has been specifically designed as an Industrial Rope Access System. It requires rated rear connection points to be installed for its safe use and must only be used in accordance with these instructions. Rear connection points can be individual anchor points or rated rail systems. It is NOT to be used as a lifting device.

It has been designed with a minimum static strength of 12kN to comply with AS/NZS ISO 22846:2020 Personal equipment for protection against falls - Rope access systems. The design has also been tested in accordance with AS 5532:2013 Manufacturing requirements for single-point anchor device used for harness-based work at heights.

Instructions for Use

The Hi-Rise Lightweight Needle should only be used by personnel with an understanding of relevant height safety requirements, and who have Industrial Rope Access competencies (as defined in AS/NZS ISO 22846).

Prior to assembly and use of the Lightweight Needle, personnel are required to read and fully understand the content of this user manual in full and sign off with their relevant supervisor that they have done so.

Lightweight Needles may be custom designed to suit specific sites. Any site-specific Needles must also be used with site-specific instructions/requirements.

Limitations and Precautions

The Lightweight Needle is rated to 12kN in accordance with AS/NZS ISO 22846:2020 as an Industrial Rope Access system for use by one person.

Ensure ropes are rigged in accordance with the rigging information provided within this manual. Only suitably rated equipment compliant to AS/NZS ISO 22846:2020 should be used in conjunction with this device.

Ensure the ropes hang vertically down the full extent of the drop. Otherwise, a component of horizontal load may be applied to the unit if the worker should fall and this could lead to instability.

Ensure the unit is only used on a horizontal surface with a maximum forward lean offset on A-Frame of 5 degree from vertical. Maximum allowable back lean offset on the A-Frame is 5 degrees from vertical.

An energy absorbing automatic safety device MUST be used on the safety line. Use of this equipment without this device may expose the user to risk of extensive injury in the event of a fall. The energy-absorbing device should meet the minimum test requirements of 6kN when tested in accordance with AS/NZS ISO 22846:2020.

Lightweight Needle - Operations (continued)

Limitations and Precautions (continued)

Ensure the device has been annually inspected and certified for use.

Check that all pins are secure and have retaining clips in place before use.

Visually inspect all components before assembly for damage. DO NOT USE if any component shows damage or doubt exists to it condition. Contact Hi Rise for advice.

Lightweight Needle systems should always be used in pairs in case a rescue procedure needs to be performed.

Risk Assessments

It is a requirement under OH&S laws that a work method, hazard ID and risk assessment be carried out before any works commence. Methods for safe use of this device are specified in this document; however, techniques and work practices used in conjunction with this device are the responsibility of the end user.

This process should take into account "local" idiosyncrasies such as the crew size and skill level, equipment available, weather conditions, building familiarity, induction requirements and emergency procedures.

The site supervisor should have a plan in place for incident response in case of an emergency. Issues that may need to be covered are communications, responsibilities of various operators, actions by building management, emergency person and vehicle access and spare/additional equipment dedicated for emergency use.

System Re-Certification Requirements

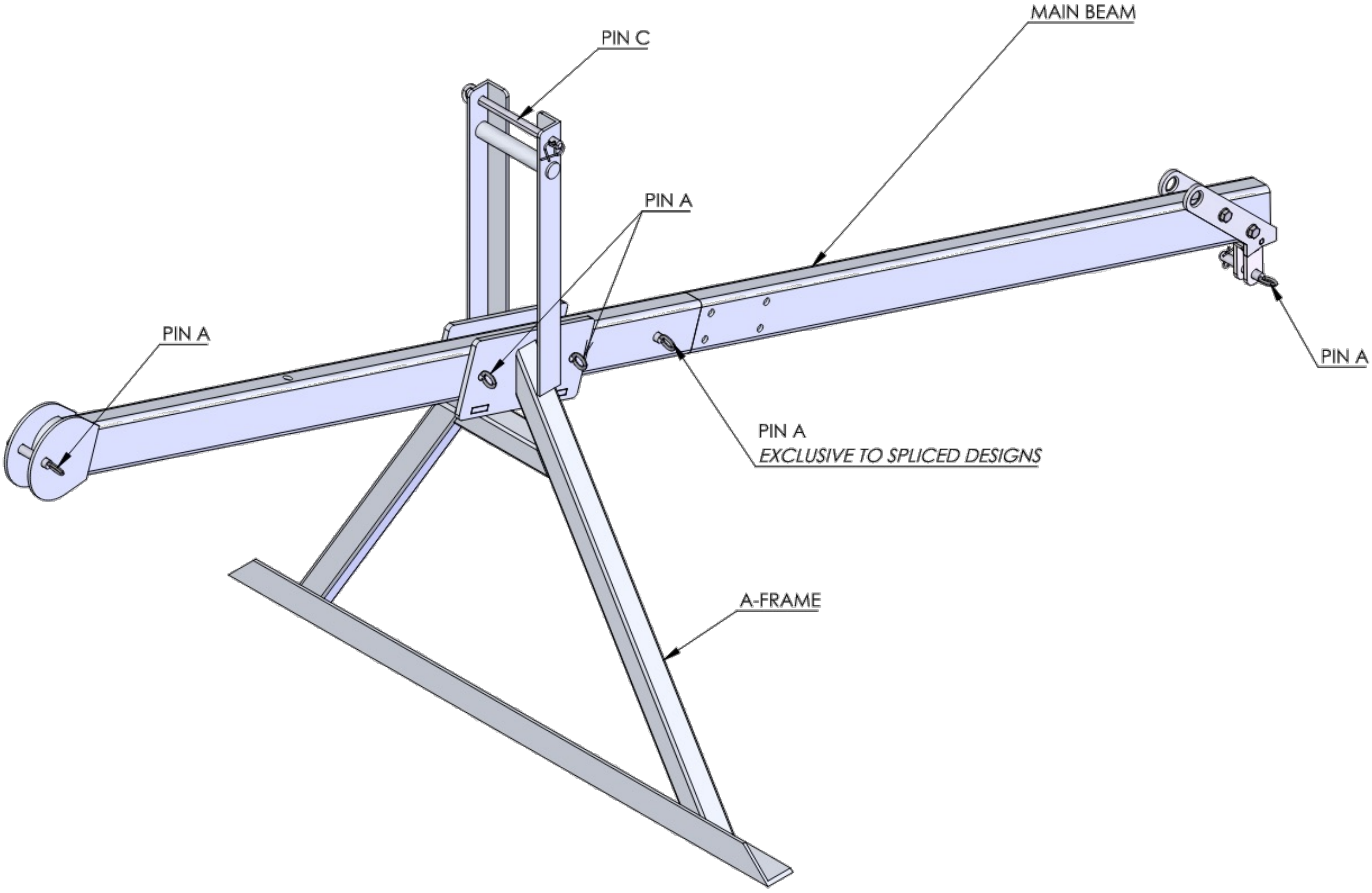
In accordance with Australian Standards all anchors or systems should be inspected, and tested where appropriate, by a competent person on an annual basis. Upon re-certification the system or anchor plaque should be updated. Systems and anchors that have not been certified for over 12 months should not be used.

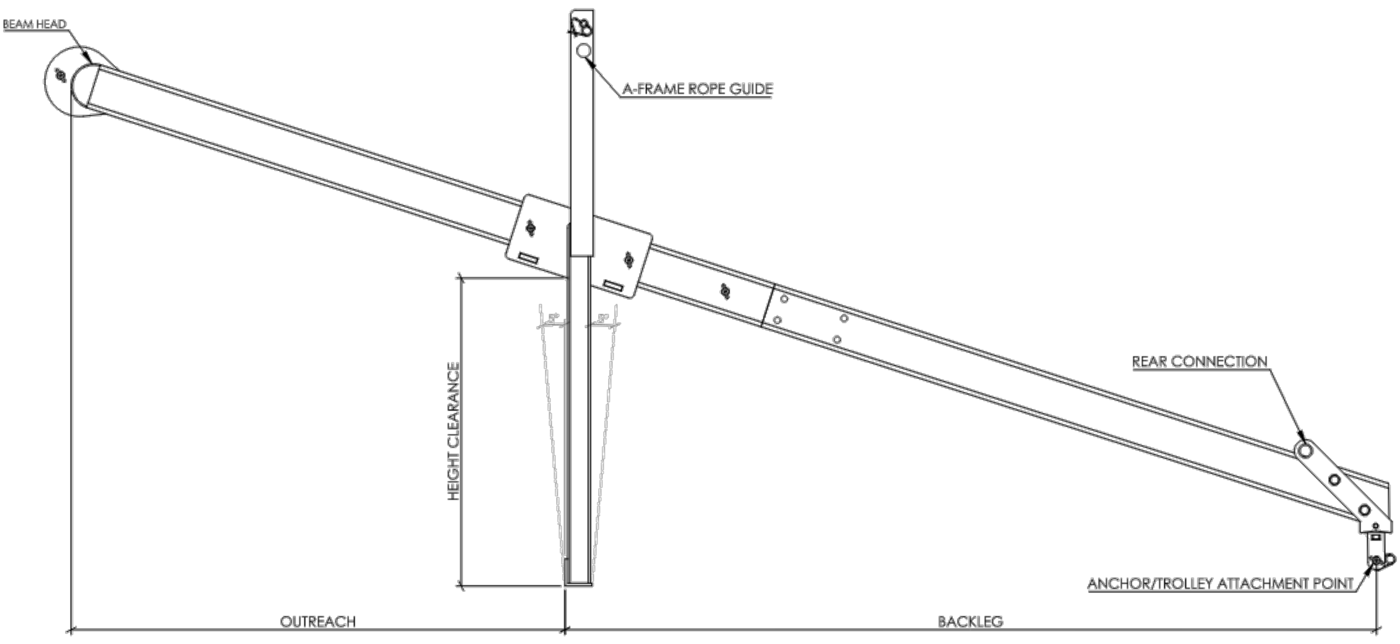
Hi-Rise is able to provide an annual re-certification inspection of all systems and anchor points on request.

As with any piece of equipment, the Lightweight Needle is subject to damage and normal "wear and tear" during use. Any repairs required should be immediately referred to Hi-Rise. Users should constantly check the unit to ensure its continued safety and must ensure it is not used outside its stated parameters.

Lightweight Needle - Components

The Hi-Rise Lightweight Needle System is made up of a series of modular components designed for strength, portability, and ease of use on site. The illustrations below highlight the key components that make up the system, each playing a specific role in ensuring structural integrity and safe operation. Use these labelled diagrams as a reference for identification, assembly and maintenance.





Lightweight Needle - Assembly Instructions

Step 1 – Unpack and Inspect Components

Remove the needle components from storage, take an inventory of components to assure all necessary parts are accounted for, and inspect parts for wear and tear. Ensure all parts are of adequate condition for use before proceeding.

Step 2 – Connect Beam and A-Frame

Insert the Main Beam between the plates on the A-Frame and secure with 2 x Pin A. Be sure to connect retaining clips on the pins so they cannot slide out of position.

Step 3 – Attach Needle to Rear Anchorage

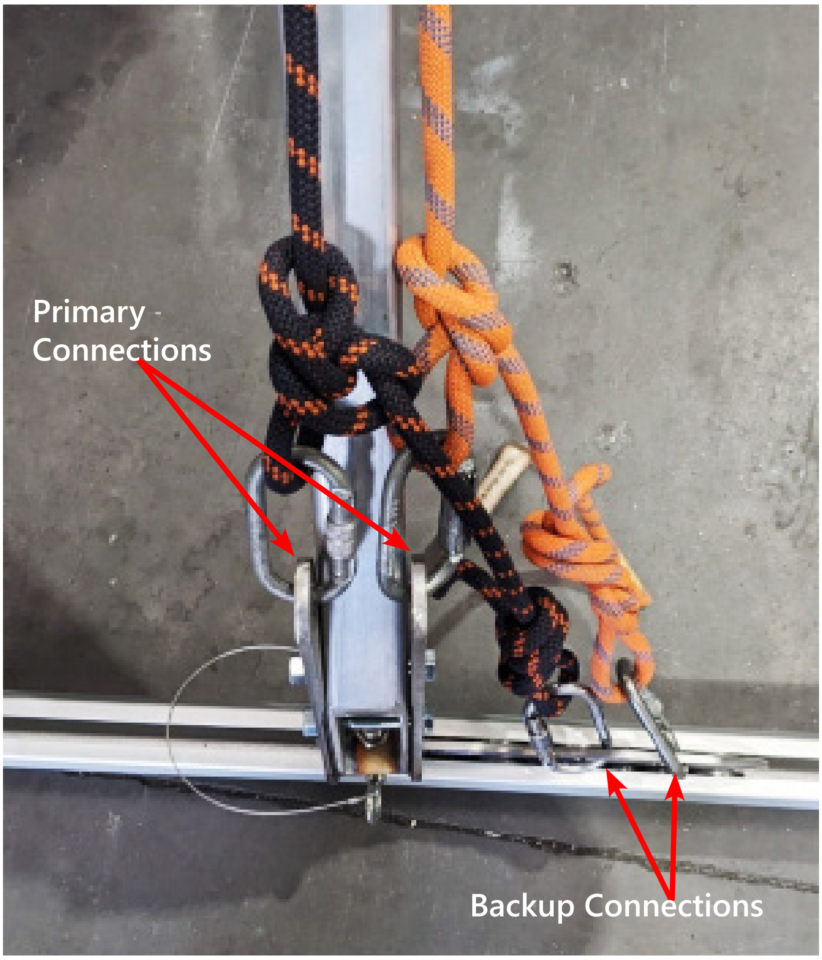
Utilise the Needle's rear attachment point to connect the system to the rated connection point (anchor, rail trolley, etc.) using 1 x Pin A. For unique custom Needles the connection method may differ, refer to site specific documentation for details.

Step 4 – Finalise Setup

Move completed Lightweight Needle into location and double check all pins to ensure they are secured with retaining clips.

Establish dual rope system in accordance with Industrial Rope Access Trade Association (IRATA) practice standards. Utilise the 2 rear connection points of the Needle as the main connection for both the primary and secondary ropes. Backup both ropes to the secondary anchor point/trolley.

Route ropes along the beam, through the rope guide at the top of the A-Frame, and over the Beam Head. Reinstall all rope retaining pins correctly. Back up the ropes to the building structure wherever possible.



Lightweight Needle - Maintenance Checklist

Regular inspection and maintenance are essential to ensure the continued safety, performance, and compliance of the Hi-Rise Lightweight Needle System. The checklist below provides a record of key components and areas to be checked during routine inspections and maintenance.

Item	Criteria	Pass/Fail	Comments	Date
Main Beam	Welds free of cracks/damage			
	No deformation in beam or head plates			
	No structurally significant dents or scratches			
	Rope contact points free of damage/sharp edges			
A-Frame	Welds free of cracks/damage			
	No deformation in hollow members, side plates, or angle members			
	No structurally significant dents or scratches			
	Rope contact points free of damage/sharp edges/deformation			
Rear Connection	Rope connection points free of damage/sharp edges			
	Bolts securing to Main Beam are tight/undamaged			
	Anchor connection point freely rotates			
	Anchor connection point is free of damage			
Pins	All required pins are accounted for			
	All pins have retaining clips attached via wire rope			
	Retaining clips are undeformed			
	Pins are free of structurally significant dents, scratches, or corrosion			
	Pins are undeformed			

HI-RISE Warranty Statement

HI-RISE ACCESS PTY LTD (herein Hi-Rise)

Equipment offered by Hi-Rise is warranted against manufacturing defects in workmanship and materials for a period of one year from the date of purchase or installation, or date of first use by the original owner. Evidence of first use must be recorded. This warranty applies only to the original purchaser and is the only warranty applicable to this product.

Hi-Rise will replace or repair all defective items at it's sole discretion, following inspection by the relevant personnel to determine the appropriate course of action. This warranty does not cover damage resulting from wear and tear, abuse, damage in transit, a failure by the purchaser to maintain the product or from any other damage caused beyond the control of Hi-Rise. Hi-Rise shall be the sole judge of product condition and warranty options.

Limitation of Liability

In no event will Hi-Rise be liable for any indirect, incidental or consequential loss or damages incurred through the installation of Hi-Rise products.

HI-RISE
Engineered Height Safety Solutions

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Engineered Height Safety Solutions

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