

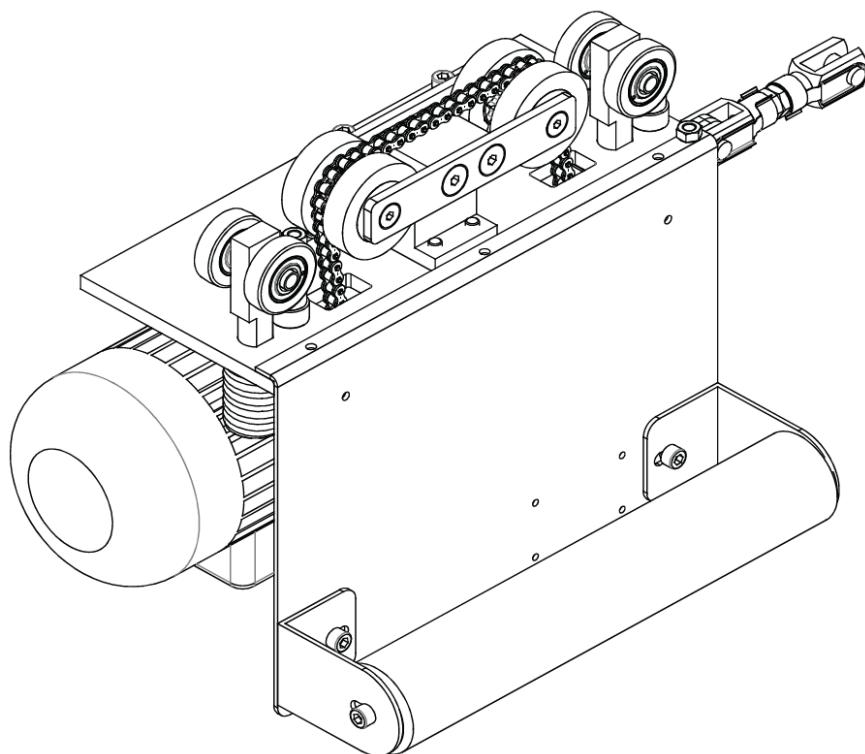


ENCLOSED TRACK CRANE SYSTEMS BY HANDLING SYSTEMS INTERNATIONAL, INC.

OWNER'S MANUAL

MODEL .H120

NIKORAIL TRACTOR DRIVES



SERIAL #:

WARNING

This equipment should not be installed, operated or maintained by any person who has not read and understood all the contents of this manual. Failure to read and comply with the contents of this manual can result in serious bodily injury or death, and/or property damage.

The instructions have been written so as to facilitate the use of Power Driven Trolley as much as possible. The information on this form has been checked carefully for their accuracy. However, there is not given guarantee for the correctness of the contents. The information on this form may change without notice.

Copyright:

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Brands:

All brands (and their logos) are property of their owners.

NIKO is a brand name of Helm Hellas SA and will be used from herein to describe the company.

Official manufacturer:



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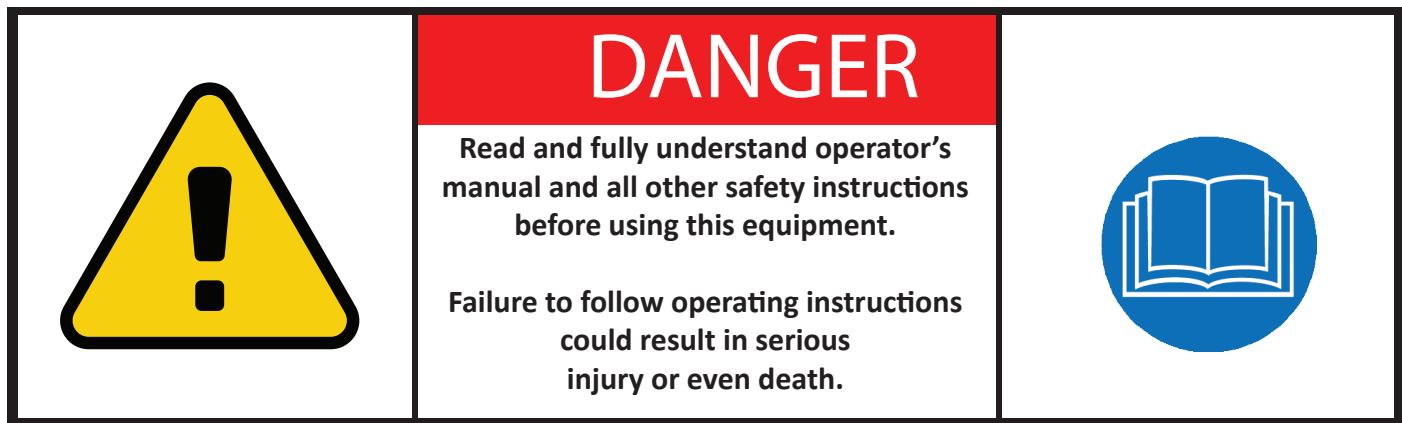


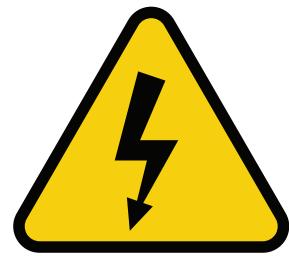
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BASIC RULES FOR SAFETY - OPERATION



GENERAL HAZARD



ELECTRICAL HAZARD

Before first use read the instructions carefully

“NIKO®” does not wire the control panel and power driven trolley(s) (included are only the plug in connections and the pendant control system with a 4 m cable) unless is requested by the customer. Some principle safety standards referring to installation, maintenance and operation of the Power Driven Trolley are as follows. (Please note, this list is not exhaustive).

GENERAL RULES AND GUIDELINES

At all stages of installation, operation and maintenance of a “NIKO®” Power Driven Trolley and Carriage System all the safety rules, in accordance with the laws and regulations of each country, should be followed along with the following basic rules:

- Before any work starts, this manual has to be read and understood.
- Any personnel involved with the Power Driven Trolley's installation, operation or maintenance should know where this manual is kept.
- Only trained personnel must be involved with installation, maintenance and operation.
- The area where Power Driven Trolley is installed must be well marked up.
- The personnel involved with installation, maintenance or operation of the Power Driven Trolley must wear appropriate clothing (e.g. helmet, proper shoes etc.).
- Once the installation has been completed, a supervisor must check the proper installation and that the Power Driven Trolley works correctly.
- No modifications on the product are allowed.

BASIC RULES FOR SAFETY - OPERATION

SYMBOL	WARNING
	IMPORTANT! THE POWER DRIVEN TROLLEY MUST ONLY BE USED FOR TRANSFERRING LOADS AND NOT FOR PERSONNEL MOVING
	This product is to be installed 3 m. or more from walking level!
	Only trained personnel must be involved with installation, operation or maintenance of this product.
	Before commencing operation of the power driven trolley or carriage system, its area of movement must be well marked (i.e. warning signs, floor marking etc.).
	ANY PERSONNEL INVOLVED WITH THE INSTALLATION, OPERATION OR MAINTENANCE SHOULD AT ALL TIME WEAR APPROPRIATE CLOTHING (i.e. Helmet, proper shoes etc.).

- All personnel must be made aware of the meaning of warning signs, audible or acoustic or both warnings that will be installed with this product.
- Before any action for installation, operation or maintenance is undertaken this manual should be read and fully understood.

BASIC RULES FOR SAFETY - OPERATION

INSTALLATION – COMMISSIONING RULES AND GUIDELINES:

SYMBOL	WARNING
	Installation must be performed according to chapter 3 "Installation" of this manual.
	If at any point of installation a fitting is not accurate contact our company's qualified personnel AND DON'T ATTEMPT TO FIX THE FITTING.
	If any abnormal noises or behavior occur during first commissioning follow the installation instructions if the problems per-sist contact our company's qualified personnel.
	Before commissioning, all bolts and nuts must be tightened properly, unnecessary cables and hoses must be removed and all safety devices must be placed correctly and their working status checked.
	The carriage system or power driven trolley must not operate if all the track end stops are not installed properly!
	Before commissioning the lifting system (if any) and the carriage system or power driven trolley both must be checked according to the manufacturers' recommendations (for carriage system or power driven trolley see chapter 3 "installation").

BASIC RULES FOR SAFETY - OPERATION

OPERATION RULES AND GUIDELINES:

In particular, the rules below should be followed during operation:

BEFORE OPERATION:

- Operation may start once the operator has verified that there is no instruction to the contrary (e.g. a sign to inform that the Power Driven Trolley is off).
- Before operation starts, all the bolts and nuts must be tightened properly, unnecessary cables or hoses must be removed, and all safety devices should have been placed correctly.
- Any lifting device has been checked as the manufacturer recommends.
- Before the operator begins any kind of usage he must make sure that there are no obstructions, warning signs or anything that would suggest otherwise.

SYMBOL	WARNING
	The working area must be free of obstacles.
	The working area must be clear of all unauthorized personnel.

DURING OPERATION:

SYMBOL	DANGER
	THE CARRIAGE SYSTEM OR POWER DRIVEN TROLLEY MUST NEVER TRANSPORT LOADS THAT EXCEED THE MAXIMUM LOAD!
	DO NOT leave a load unattended.
	WARNING
	The power driven trolley must never lift a load which is not under control.

BASIC RULES FOR SAFETY - OPERATION

- Where there is a power failure, the operator should disable all the devices.
- Both the power driven trolley and its load should always be under the control of the operator.
- The operator must be able to reach the controls easily.
- The operator must comply with the instructions given by a competent person and not by any untrained personnel. The operator should only respond to general workers when they are giving an emergency signal.
- Under no circumstances should loads be operated above people.
- A power driven trolley must not be used to make a sideways pull.
- Compressed gases can only be lifted by a cradle or enclosed platform.
- Before any transportation of a load, ensure that it is well balanced and secured.
- Multiple lines must never be twisted around each other.
- Ensure there is no sudden acceleration or deceleration of the moving load.
- The power driven trolley must not operate if all the track end stops are not installed properly.
- The track end stops must never be hit with force or repetitively at speed.

If any unusual sound or behavior becomes apparent, the operation of the power driven trolley must stop immediately. In this case a detailed inspection must be done.

- When there is a power failure, the operator must disable all devices.
- The attached load must always be under the control and eye contact of the operator.
- The operator must have a clear view and be within hearing range to the moving acoustic and visible signs.
- The operator must always be within reach of the controls.
- The operator must comply with the instructions given by an authorized person (i.e. load supervisor) and only respond to emergency signals given by others.
- The carriage system and power driven trolley are not designed for sideways pulls.

BASIC RULES FOR SAFETY - OPERATION

SYMBOL	DANGER
	Loads must never be operated, transported or allowed to hover over people or animals.
	Compressed gases can only be lifted by a cradle or enclosed platform.
WARNING	
	Before any transportation of a load ensure that it is well balanced and secured.
	Ensure there is no sudden acceleration or deceleration of the moving load.
	If attachment lines (i.e. chains, hoisting mechanisms) are used make sure they don't get tangled or twisted together.
	The track end stops must never be hit with force or repetitively at speed.
	If any abnormal sound or behavior becomes apparent, the operation of the carriage system or power driven trolley must stop immediately. A detailed inspection must be performed.

- At all stages of installation, operation and maintenance of "NIKO®" Power Driven Trolley, all the safety rules in accordance with the laws and regulations of each country should be followed.
- Some principle safety standards referring to installation, maintenance and operation of the Power Driven Trolley are as follows. (Please note, this list is not exhaustive).
- Before any work starts, this manual has to be read and understood.
- Any personnel involved with the Power Driven Trolley's installation, operation or maintenance should know where this manual is kept.
- Only trained personnel must be involved with installation, maintenance and operation.
- The area where Power Driven Trolley is installed must be well marked up.
- The personnel involved with installation, maintenance or operation of the Power Driven Trolley must wear appropriate clothing (e.g. helmet, proper shoes etc.).
- Once the installation has been completed, a supervisor must check the proper installation and that the Power Driven Trolley works correctly.
- No modifications on the product are allowed.

BASIC RULES FOR SAFETY - OPERATION

The minimum qualifications for an employee selected to operate the system or power driven trolley are as follows:

- Have understood all the safe operating instructions in this manual.
- Have good or corrected vision (to the standard required for a driver's license)
- Be physically able to operate equipment.
- Have good coordination between eyes, hands, and feet.
- Have had no episodes of epilepsy, seizures or other ailments that may render them unconscious
- Have the ability to understand signs, labels, and instructions.
- Must be re-examined for these qualifications at least once every 3 years.

SYMBOL	WARNING
	DO NOT operate the trolley unless you are physically fit and trained to do so.

All the above should never replace the legislation of any country.

1 SYMBOLS In This Manual

Important notes for your safety are distinctively marked.

	WARNING	Warns you about the health and indicates possible risks of injury
	ATTENTION	Indicates possible risks to the machine or other objects.
	NOTE	Highlights tips and information for you

Special Safety Instructions for Power Driven Trolley:

	NOTE	SAVE THESE INSTRUCTIONS
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1 SYMBOLS In This Manual

1.1 Disclaimers

NIKO shall not be liable of any responsibility concerning the installation and if security regulations during/after installation and during usage are not followed.

1.2 Disclaimer of Warranty

All sales are subject to the NIKO Standard Terms and Conditions of Sale (Revision 101707), a copy of which is available at www.niko.eu.com or upon request from NIKO Customer service/sales representatives and the terms of which are incorporated as if fully rewritten herein.

1.3 Disclaimer of Liability

User specifically understands and agrees that NIKO its successors, assigns, officers, agents, employees and members shall not be liable in tort and in contract—whether based on warranty, negligence, strict liability, or any other theory of liability—for any action or failure to act in respect to the recommended operation or inspection or other characteristics of anything covered in this manual. By using or otherwise employing this manual, it is the user's intent and understanding to absolve and protect NIKO its successors, assigns, officers, agents, employees and members from any and all tort, contract, or other liability.

1.4 Indemnity

By referring to, or otherwise employing this manual the user agrees to defend, protect, indemnify, and hold NIKO, its successors, assigns, officers, agents, employees and members harmless of, from and against all claims, losses, expenses, damages and liabilities, direct, incidental or consequential, arising from use of this manual including loss or profits and reasonable counsel fees, which may arise out of the use or alleged use of such manual, it being the intent of this provision and of the user to absolve and protect NIKO, its successors, assigns, officers, agents, employees and members from any and all loss relating in any way to this manual including those resulting from their own negligence.

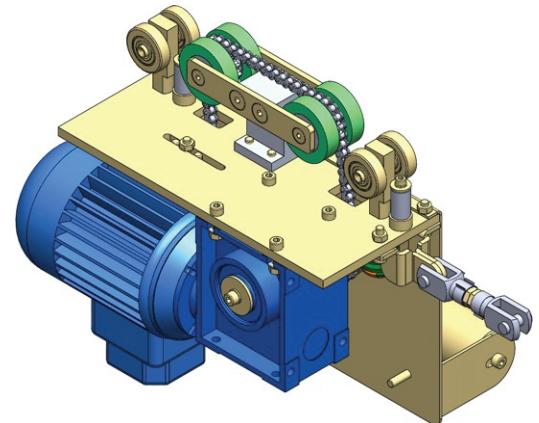
2

INTRODUCTION

2.1 General description

Light cranes & straight monorails can be electrically driven using our power driven trolleys (not to be used in bends).

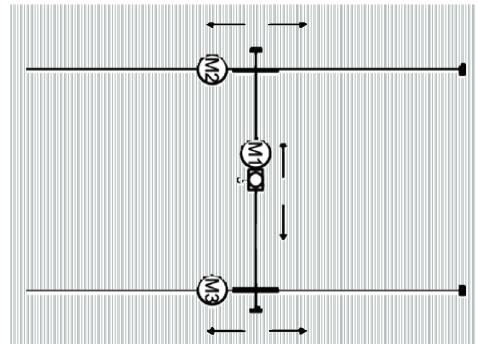
This is particularly useful for cranes that carry loads greater than 1000 Kg. The power driven trolley operates using 4 high quality friction wheels that ensure long life and accuracy of movement.



Electric travel is possible in 3 options:

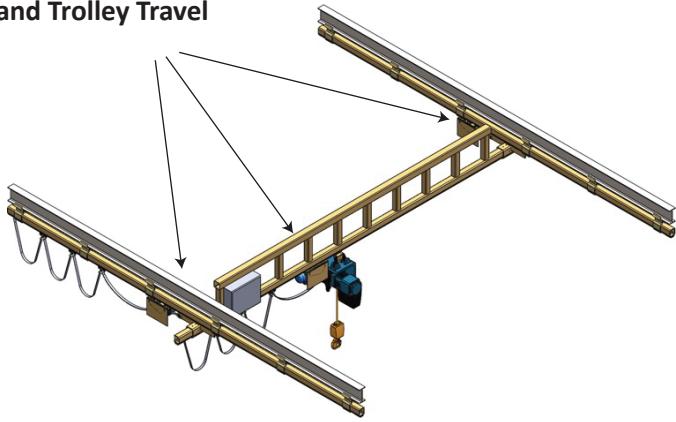
1. Powered hoist trolley traveling across the bridge only (M 1)
2. Powered travel of the crane bridge only (M 2 + M 3)
3. Powered travel in all directions (M 1 + M 2 + M 3)

Our power driven trolleys have inverter controlled motors that allow soft start and soft stop travel.



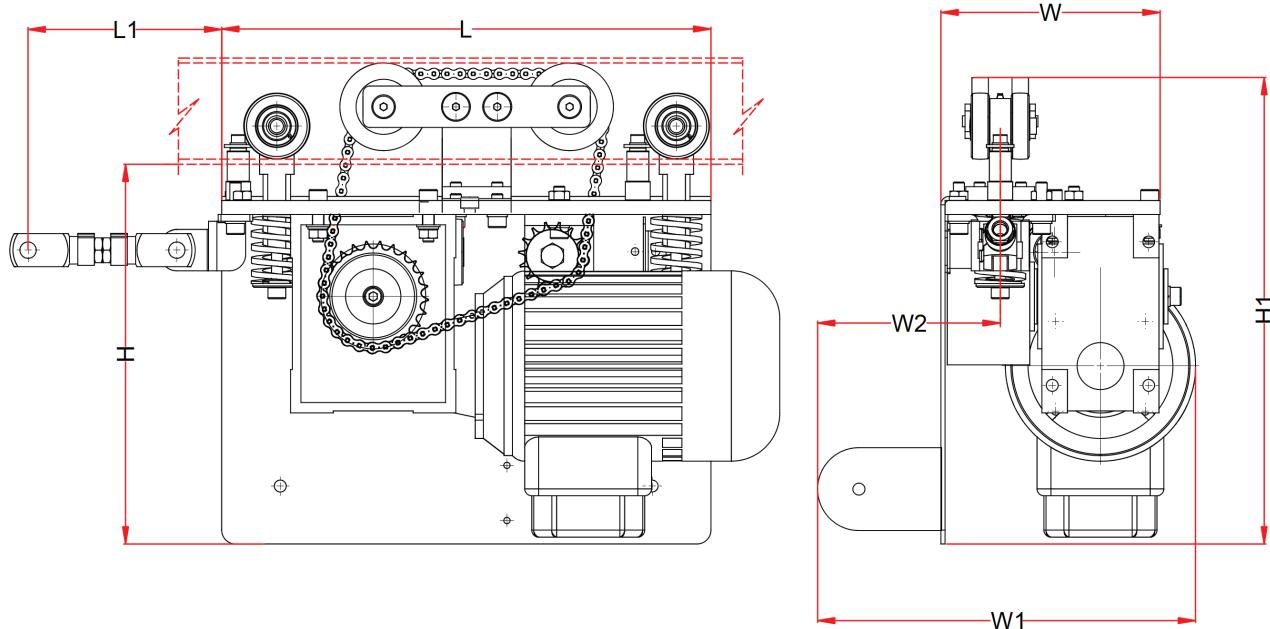
2.2. Typical applications

Power Driven Bridge and Trolley Travel



Monorail Application of Tower Driven Trolley

3 TECHNICAL DETAILS



NIKO Profile No.	Power Driven Trolley	Transferred Load (lbs.)	L (inches)	L1 (inches)	W (inches)	W1 (inches)	W2 (inches)	H (inches)	H1 (inches)
25.000	25.H120	1000	13.98	5.71	6.3	10.24	5.59	10.83	13.07
26.000	26.H120	1000	13.98	5.71	6.3	10.24	5.59	10.87	13.66
27.000	27.H120	4000	13.98	7.09	6.3	10.24	5.59	10.91	14.96

Reduction gear for reliable operation and low maintenance.

- Drive wheels molded with rubber for smooth acceleration.
- Standard motor units configurated for 3 phase power 230-400 V.
- Power: 0,37 Kw , 1400 rpm motor, current: 230 V - 1,8 A / 400 V - 1,04 A.
- Inverter controlled speed , (lower speed 7m/min , higher speed 20m/min) with soft start & soft stop

3.1 Control Panel & Pendant Control

Operation is being achieved through an electrical control panel and pendant control unit.

NIKO does not wire the control panel and power driven trolleys (included are only the plug-in connections and the pendant control with cable 4m). NIKO will wire the power driven trolleys only after customer's request.

Art No.	Description	Use
X3.114	Control Panel for power driven trolley Nr.25.000 - 27.000, with 2 inverter	For control of three power driven trolleys
X3.115	Control Panel for power driven trolley Nr.25.000 - 27.000, with 1 inverter	For control of two power driven trolleys
X3.116	Control Panel for power driven trolley Nr.25.000 - 27.000, with 1 inverter	For control of one power driven trolley
X3.700	Pendant control with emergency button (2 buttons, dual speed) & 4m long cable	For system with one power driven trolley
		For system with two power driven trolleys
X3.701	Pendant control with emergency button (4 buttons, dual speed) & 4m long cable	For system with one power driven trolley and inlet for connection of electr.hoist
		For system with two power driven trolleys and inlet for connection of electr.hoist
		For system with three power driven trolleys
X3.702	Pendant control with emergency button (6 buttons, dual speed) & 4m long cable	For system with three power driven trolleys and inlet for connection of electr.hoist

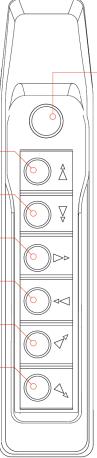
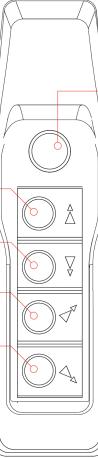
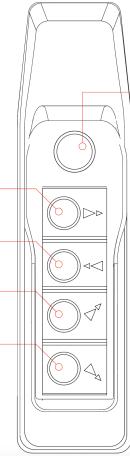
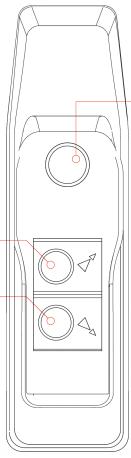
3.2 unpacking

After opening the packaging of Power Driven Trolley, please check the contents to ensure that it includes the following items:

1. Manual Leaflet
2. Power Driven trolley
3. Electrical diagrams

If any of the above items are missing or appear damaged, please contact immediately with NIKO. Please do not throw away the packaging. You'll find it useful if you need to refer back to it, for any reason, to pack the Power Driven Trolley again.

3.3 Description of basic functions

X3.702 PENDANT CONTROL WITH EMERGENCY BUTTON, 6 BUTTONS DUAL SPEED, OPERATION IS BEING ACHIEVED THROUGH A PENDANT CONTROL UNIT.	X3.701 PENDANT CONTROL WITH EMERGENCY BUTTON, 4 BUTTONS DUAL SPEED, OPERATION IS BEING ACHIEVED THROUGH A PENDANT CONTROL UNIT.
For system with three power driven trolleys and inlet for connection of electrical hoist	For system with one or two power driven trolleys and inlet for connection of electrical hoist
	
X3.701 PENDANT CONTROL WITH EMERGENCY BUTTON, 4 BUTTONS DUAL SPEED, OPERATION IS BEING ACHIEVED THROUGH A PENDANT CONTROL UNIT.	X3.700 PENDANT CONTROL WITH EMERGENCY BUTTON, 2 BUTTONS DUAL SPEED, OPERATION IS BEING ACHIEVED THROUGH A PENDANT CONTROL UNIT.
For system with three power driven trolleys without connection for electrical hoist	For system with one or two power driven trolleys without connection for electrical hoist
	

3.4 Operation Emergency

The emergency safety button is used to perform an emergency stop. With this feature all electrical systems (motors, etc.) are switched off and electrically isolated from the power supply for safety reasons.

To return to operating mode, release the emergency safety button and press start to boot process from the beginning.

4

INSTALLATION INSTRUCTIONS OF POWER DRIVEN TROLLEY

Except the mechanical installation, which includes the installation of the electric guards, the warning light/horn and the requirements of the installment bars (some sold separately by NIKO®) special electrical and safety connections must be made, in case an electrical switchboard is not purchased by NIKO®.

These include:

- a) Special electrical switchboard (key installed, for use only by qualified personnel)
- b) Prior to fuse F0 there should be a cut off circuit preventing startup after power failure if there is no action by the operator (see relay example provided in annex)
- c) Components for electrical installation equal to or better than the ones suggested by NIKO®.

These connections must be performed by a licensed electrician with regard to national and international rules and legislations.

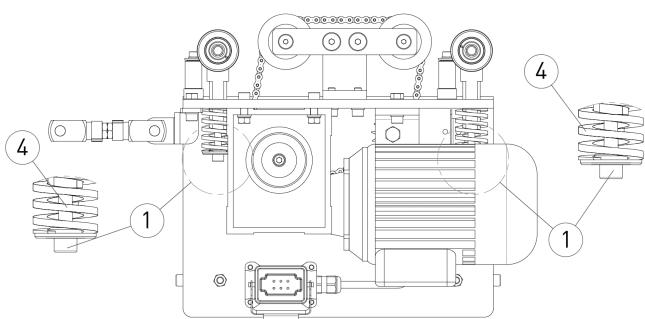


FIGURE 1

STEP 1: Any load must be removed from system. The track end stops of the long travel tracks must be uninstalled.

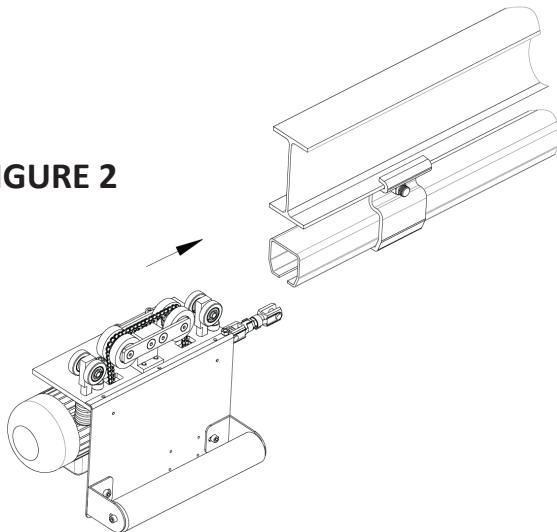
STEP 2: Power driven trolleys type .H120 have to pass inside long travel tracks with the correct orientation. This means that the connection clamps will be close to the end carriages or to hoist trolley when they are installed.

STEP 3: Unscrew (do not remove) the socket screws (f/n 1) that hold the adjustable wheel trolleys assembly. See Figure 1

4

INSTALLATION INSTRUCTIONS OF POWER DRIVEN TROLLEY

FIGURE 2



STEP 4: Insert the power driven trolley .H120 into the track profile. See Figure 2.



For safety reasons the stoppers on the track profiles will be installed in each step of the installation.

STEP 5: The friction wheels (drive wheel f/n 2) should not be in contact with the upper face of the track profile. See Figure 3.

STEP 6: Regulate the balance weight (f/n 3) until the trolley's driven base is parallel to the track profile. See Figure 4.

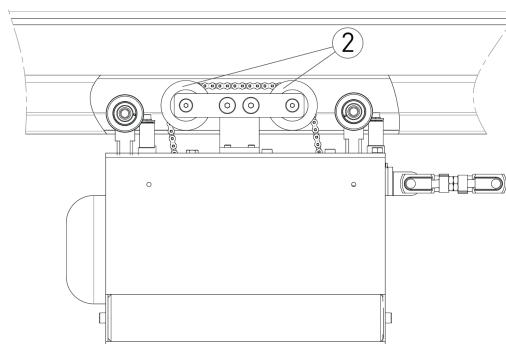


FIGURE 3

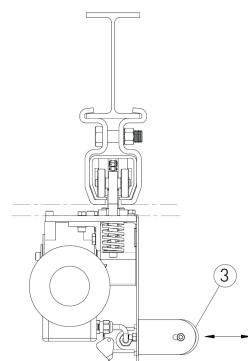


FIGURE 4

STEP 7: At this step, connection between hoist trolley and end carriage is done. Then the track end stops must be re-installed. See Figure 5.

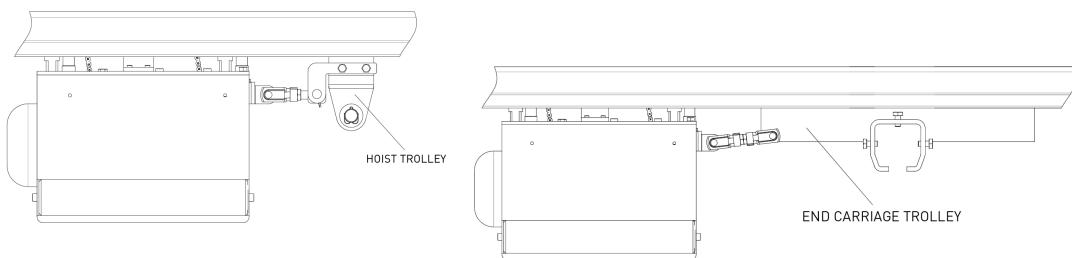


FIGURE 5

4

INSTALLATION INSTRUCTIONS OF POWER DRIVEN TROLLEY

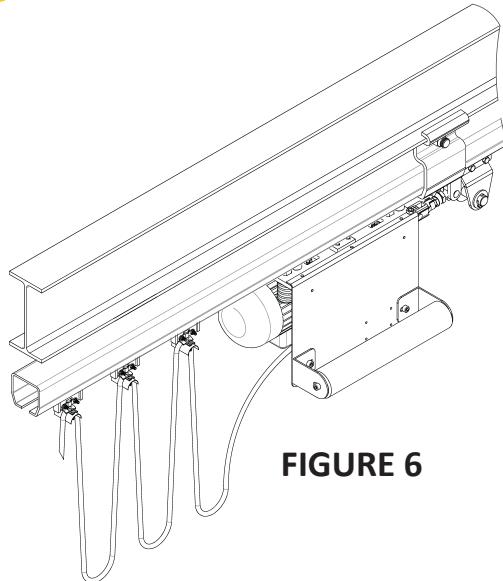


FIGURE 6

STEP 8: The control power box is in most cases already installed on the cross bridge by the manufacturer; if not, a qualified person has to install the control power box following the manufacturer's electrical diagrams.

STEP 9: The power supply cable has to pass through the clamps of the cable trolleys that move inside the cross bridge track and long travel track. See Figure 6.

STEP 10: Tighten the socket screws

(Figure 1, f/n 1) against the springs (Figure 1, f/n 4), so that the friction wheels start to contact the upper face of the track profile. See Figure 7.

STEP 11: The installer should now test the trolley's movement without load. The installer should try stopping the trolley. If there is only minimal slippage, you may proceed to the next step. If not, the installer should repeat step 10.

STEP 12: The installer should now test that the trolley's movement with full load.

If not, he should repeat step 11. The installer should try stopping the trolley. If there is only minimal slippage, the power driven trolley is ready for use. If not, the installer should repeat the procedure of step 11 & step 12.



**Excessive screwing of the socket screws (f/n 1)
can damage the rubber wheels.**

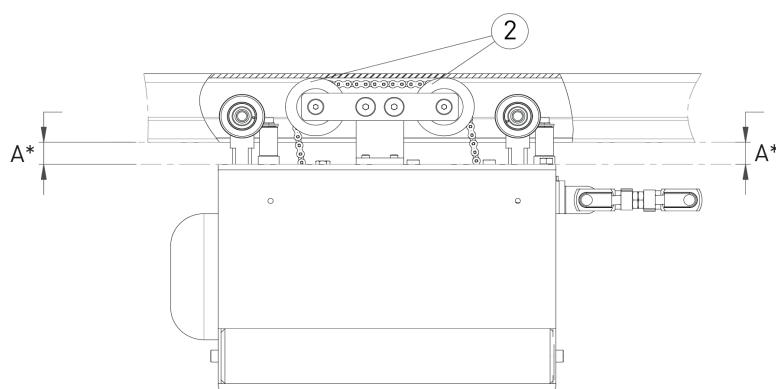


FIGURE 7



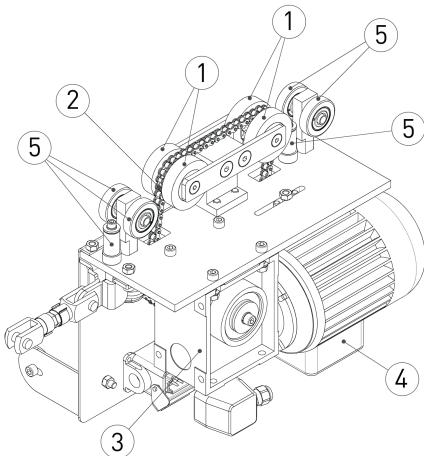
IMPORTANT!
In all cases dimension
"A"** must be the same
on both sides of trolley.

* Indicative value:
 $A = 1-1/32"$

5

INSPECTION AND MAINTENANCE

Schedule



This plan should refer to preventive maintenance actions.

DAILY: Visual inspection for damages or uneven wear.

	Frequency of Inspection	
Item	Yearly or every 2000 hrs	
Friction wheels (f/n 1)		Check for uneven wear, tread and separation. If any of these conditions exist, friction wheels may need to be replaced. Uneven wear may be prevented by right balance of power driven trolley and correct track alignment.
Roller chain (f/n 2)		Check if there is any abnormally uneven wear.
		Check and remove any accumulation of dirt or foreign materials. Check if the chain tension is the appropriate one and tension with the tensioner if necessary.
		Clean the chain and apply fresh grease.
		Check for chain elongation; if the elongation is more than 2% replace the chain.
Gear box (f/n 3)		Check for lubricant leaks around the seal rings; replace if necessary.
		Gear box is sealed with a high grade lubricant. Replacement is not required.
Electrical motor (f/n 4)		While motor is running, check that : Smooth running characteristics and motor noise during operation have not deteriorated.
		While the motor has been shut down, check that : All the fixing bolts for the mechanical and electrical connections are tight. Cables and insulating parts/components are in a good condition and are not discoloured. Cleaning depending on local degree of pollution . Clean the cooling air passages thought which the ambient air flows, using dry compressed air.
Ball bearings/ side rollers (f/n 5)		Check for cracks, pits and/or grooves. If any of these conditions has appeared , bearings should be replaced.
		Check ball bearings for easy and smooth rotation. Replace if necessary. Lubricate the ball bearings and side rollers. Friction wheels must be clean and free of lubricants.
Check that all hardware is tightened		

This manual should include all technical information on the system and the individual components and units eg inverter, controller etc.

6 WARRANTY

NikoRail® Limited Warranty

Enclosed Track Workstation Cranes & Jib Cranes

NikoRail by Handling Systems International, Inc. ("NikoRail") warrants the NikoRail Enclosed Track Workstation Crane and Jib Crane products manufactured by NikoRail to be free from defects in material and workmanship, subject to the terms, conditions, limitations, and exclusions set forth herein.

Warranty Coverage Periods

Manual Push-Pull Systems

NikoRail warrants its manual push-pull Enclosed Track Workstation Crane and Jib Crane products manufactured by NikoRail to be free from defects in material and workmanship for a period of eleven (11) years or 20,000 hours of use, whichever occurs first, from the date of receipt by the purchaser.

This warranty expressly includes NikoRail-manufactured crane trolleys, end trucks, and associated wheels supplied as part of the system.

Motorized Systems

NikoRail warrants its motorized Enclosed Track Workstation Crane and Jib Crane products manufactured by NikoRail to be free from defects in material and workmanship for a period of two (2) years or 4,000 hours of use, whichever occurs first, from the date of shipment.

This motorized warranty applies only to NikoRail-manufactured structural and mechanical components.

Exclusions

This warranty does not apply to, and NikoRail shall have no obligation with respect to, any failure, defect, or damage resulting from:

- Operation in excess of rated or recommended capacities
- Misuse, abuse, negligence, accident, or improper application
- Improper installation or inadequate supporting structure
- Lack of proper inspection or maintenance
- Alteration, modification, or repair not expressly authorized in writing by NikoRail
- Normal wear items and consumables, including but not limited to brake linings, contact surfaces, seals, bearings, and other wear components

No NikoRail system shall be field modified after manufacture without prior written authorization from NikoRail. Any unauthorized field modification shall void this warranty in its entirety.

Paint and Finish

All NikoRail equipment receives a factory-applied industrial coating prior to shipment. This warranty does not cover damage to paint or finish resulting from handling, storage, transportation, installation, environmental exposure, or normal wear.

Paint and finish are considered cosmetic in nature and are not warranted against scratching, chipping, fading, corrosion caused by environmental conditions, or other surface deterioration occurring after shipment. Touch-up of paint or finish is the responsibility of the purchaser or end user.

Freight and Transportation Damage

Risk of loss or damage to equipment shall pass to the purchaser upon NikoRail's delivery of the equipment in good condition to the carrier. Damage occurring during transportation is not a warranty matter.

The purchaser is responsible for inspecting all equipment upon receipt, noting any visible damage on the carrier's delivery receipt, and filing all freight damage claims directly with the carrier within the carrier's required time limits. Failure to properly document and report freight damage at the time of delivery may result in denial of any claim. NikoRail shall not be responsible for freight damage claims that are not properly noted, documented, and submitted in accordance with carrier requirements.

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Warranty Remedy

NikoRail's sole obligation and the purchaser's exclusive remedy under this warranty shall be, at NikoRail's option, the repair or replacement of the defective part(s) with new or reconditioned parts of equal or substantially similar design, provided that the purchaser gives prompt written notice of the alleged defect and returns the defective part(s) to NikoRail for inspection if requested.

Any warranty reimbursement, credit, or compensation issued by NikoRail shall be provided solely to the original purchasing dealer or purchaser of record. NikoRail shall have no obligation, and shall not be required, to issue payment, reimbursement, or credit directly to any end user, subcontractor, installer, service provider, or other third party, regardless of whether such party performed warranty-related work.

All warranty reimbursements shall be issued in the form of a credit to the purchasing dealer's account, unless otherwise expressly agreed to in writing by NikoRail. The purchasing dealer shall remain solely responsible for coordinating warranty service, approving repair costs, and compensating any third-party service providers or subcontractors it elects to engage.

The purchaser or end user shall be solely responsible for all freight, transportation, handling, labor, access equipment, travel, and related costs associated with any warranty work, unless otherwise expressly authorized in writing by NikoRail.

Under no circumstances shall the performance of warranty-related work by a third party create any contractual relationship or payment obligation between NikoRail and such third party.

Third-Party Components

For components or equipment furnished by NikoRail but not manufactured by NikoRail, NikoRail's liability is limited solely to the extent of the warranty provided by the original manufacturer of such components.

Limitations of Liability

NikoRail shall not be liable under any circumstances for any incidental, special, indirect, or consequential damages, whether or not foreseeable, including but not limited to loss of use, loss of production, loss of profits, downtime costs, or injury to persons or damage to property. All such damages are expressly disclaimed.

Conditions of Warranty

This warranty:

- Is personal to the original purchaser only
- Applies only to equipment properly installed, operated, and maintained in accordance with NikoRail's written instructions
- Does not cover repairs, alterations, or replacements made without prior written authorization from NikoRail

Exclusive Warranty

This warranty constitutes NikoRail's sole and exclusive warranty with respect to the equipment and materials it manufactures.

NikoRail makes no other warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose, all of which are hereby expressly disclaimed.

NOTES



ENCLOSED TRACK CRANE SYSTEMS BY **HANDLING SYSTEMS INTERNATIONAL, INC.**

Chicago, IL
www.hsicrane.com