




HARKEN[®]
R32 Trolleys
Instruction Manual

 Read the manual carefully before using the equipment.

 Translation of the original instructions
Rev. 00 FT
UR32T 15-03-2019



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ABOUT THIS MANUAL

ABOUT THIS MANUAL

Before using the Harken R32 Trolley, read the instructions contained in this Manual thoroughly.

This instruction manual is an integral part of the product, and it supplies all the necessary information for its correct safe use and maintenance.

If you don't understand some of the instructions, please contact Harken's authorized dealer. Harken shall not be liable for damages, injuries or death caused by a non-compliance to the safety and other instructions contained in this manual.

This manual is intended for specialized personnel or expert users.



WARNING!

This product is part of a personal fall-arrest system. Manufacturer's instructions must be provided for each component of the system. The user must read and understand these instructions before using this equipment. They provide proper use, inspection and maintenance information. Alterations or misuse of this equipment, or failure to follow these instructions, may result in a fall or failure to arrest a fall, leading to serious injury or death.

This manual may be modified without notice. See <http://www.harkenindustrial.com> for updated versions.



WARNING!

It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.

SAFETY INFO

- Harken R32 Trolley is designed to protect against the fall from a height risk.
- Harken R32 Trolley must be used by specialized personnel or expert users on PPE (Personal Protective Equipment), specifically trained on the use of this product.
- The R32 trolley must be used solely with Harken rail (IN10459, IN10459.CLEAR) in order to constitute the Harken Access Rail system, wearing suitable PPE (Personal Protective Equipment) compliant with the laws in force on workplace safety.
- Before using the trolley, check its path and the falling hazards, evaluating the minimum fall clearance and choosing the PPE with shock absorber deployment most suitable to the type of hazard.
- Before each use, check the trolley for any trace of wear, corrosion, deformation, loose connection, etc... In case of doubts, if a trolley seems unsafe, it must be checked by an Authorized Harken Inspector.
- All operators using the trolley must observe the instructions for use.
- Harken shall not be liable for injuries or damages resulting from an improper use of the trolley.
- The trolley must be used only by physically and psychically healthy personell. Cardiac and circulatory problems, taking medications, alcohol and drugs could compromise the safety of the user when working at height.
- Before installing and using the Access Rail System, it is mandatory to organize the safety plan in case of emergencies that occur during the work.
- For more information about the Harken R32 Trolley and the related safety information see the website <http://www.harkenindustrial.com>

THE TROLLEYS

R32 TROLLEYS

The R32 trolleys are designed to be used with the R32 rail (IN10459, IN10459.CLEAR) as an adjustable anchorage point for fall arrest and rope access (human suspension). The R32 trolley and components constitutes the Harken Access Rail system. The trolleys are EU certified for the EN 795:2012 Type B.

Lightweight trolleys are constructed of strong, one-piece solid aluminium. The adjustable pinstop allows trolleys to be moved along the rail and locked into a new location. The Torlon® ball bearings inside the trolley, handle high loads, reducing friction so that the trolley moves smoothly along the rail.

The pinstop of the IN150, IN150.CLEAR, IN10448, IN10448.CLEAR is made of Nylon.

COMPONENTS

The R32 trolleys must be used with the following components in order to constitute the Harken Access Rail system:

Trolleys



Six types of trolleys (single trolley for fall arrest system and double trolley for human suspension).

The part number without .CLEAR refers to the black hard-coat anodized version of the trolley.

(Torlon is registered trademark of Solvay Advanced Polymers)

Rail



Extruded anodized aluminium rail available with different length. For more details see the catalog. The rail can also be supplied bent.

The part number without .CLEAR refers to the black hard-coat anodized version of the rail.

Endstops



Connector



PREREQUISITES AND LIMITATIONS

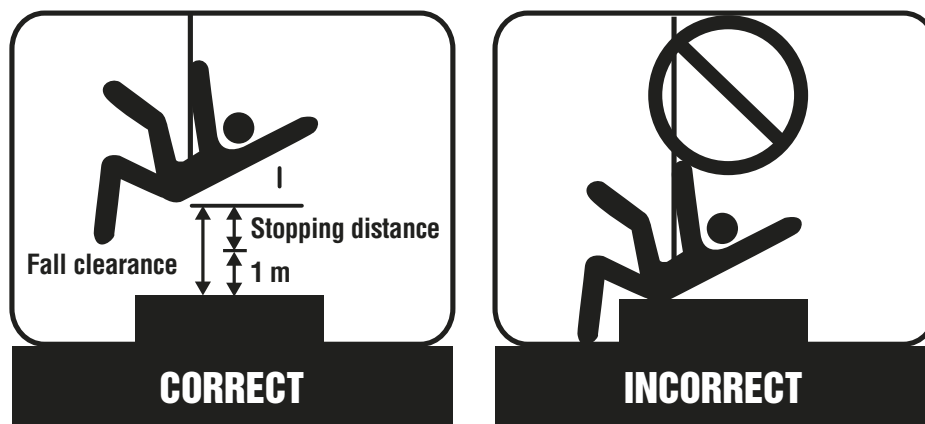
PREREQUISITES AND LIMITATIONS

The R32 trolley and components have been designed to support any accidental operator fall. In order to guarantee its correct operation, and maintain the mechanical integrity in case of fall, each user must wear the Personal Protective Equipment (PPE) recommended by workplace safety regulations.

All PPE must be certified and marked according to the relevant national regulations. By using the personal protective equipment, in case of a fall, the force transmitted to the operator (and consequently to the trolley sliding on the rail) will be no greater than a maximum **6 kN**. Personal fall arrest systems include, but are not limited to: a shock-absorbing mechanism, lanyard and a full body harness to limit the maximum arresting force to 6 kN.

Personal Fall-arrest systems used with this equipment must meet controlling regulations for the country of use.

Fall clearance - There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction and it consists of the stopping distance plus the free space of 1 m under the feet of the user. See appropriate documentation published by regulatory authority.



WARNING!

It is essential for safety to verify the fall clearance required beneath the user at the work place before each occasion of use so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path.



WARNING!

The maximum value of deflection of the trolley and displacement of the anchor point that can occur in service is 12 mm. Consider this value in order to evaluate the system fall clearance correctly.



WARNING!

The maximum value of loads that could be transmitted in service from the trolley to the structure in the horizontal and perpendicular directions are 9 kN.



WARNING!

The use of non-compliant PPE can result in severe injuries, including death.

**WARNING!**

To avoid personal injury, the R32 trolley must be used with a full body safety harness (EN361 approved) and the full body harness is the only acceptable body holding device that can be used in a fall arrest system. With a full body harness can be used also a working harness or chair (EN361 and /or EN813 approved). It must be used also a fall arrest device (EN353/2 approved) and an energy absorber (EN355 approved) that meet also Fall Protection standards as required by the local regulating authority for the country of use. Connectors (hooks, carabiners and D-rings) must be capable of supporting at least 22 kN (5000 lb).

**WARNING!**

Consult Harken when using this equipment in combination with components or subsystems other than those described in this manual. Altering or intentionally misusing this equipment may cause the system to fail which can cause a fall, which could result in severe injury or death.

Before using the Access Rail system make sure that all the people and objects are clear of the systems's moving components.

The R32 trolley is subject to the following limitations:

- The R32 trolley is for the use of one person only and it is a personal issue item.
- In normal use, no more than one person can be connected to a single trolley or a two trolley assembly at one time. Typically, the combined load (including clothing, tools, etc) must not exceed 150 Kg (330lb).
- Do not exceed the maximum number of operators allowed at the same time
- It must be used only by qualified operators trained on the system correct use
- The user must have appropriate training in order to use this product. It is the responsibility of the user of this equipment to assure that they are familiar with these instructions, trained in the correct care and use of the equipment, and be aware of the operating characteristics, application limits, and the consequences of improper use of the equipment. Operators using this equipment must have a minimum training level of: IRATA level 1, SPRAT level 1, or equivalent Work at Height competence, as specified by the local regulating authority.

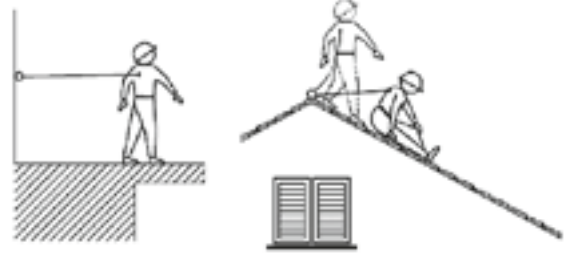
**WARNING!**

Do not use the Harken trolley if you aren't sufficiently trained and experienced in work at height and in the use of the Access Rail system equipment in particular.

- It shall not be used outside its limitations or for any other purposes other than that for which it is intended
- It cannot be used as load lifting system
- It cannot be modified, tampered with or repaired

**NOTE!**

The fall arrest system must be designed, if applicable, for **TOTALLY PREVENTED** or **CONTAINED** falls, so as to prevent the significant mechanical stress due to the risk of falling.

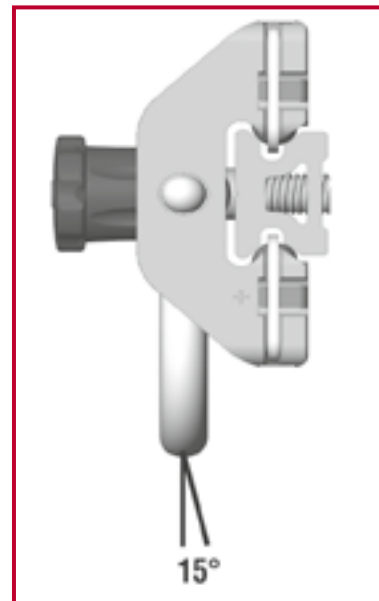
**WARNING!**

It is essential for safety that the anchor device or anchor point should always be positioned, and the work carried out in such a way, as to minimise both the potential for falls and potential fall distance.

**WARNING!**

In the fall arrest systems it is necessary to verify the absence of sharp edges, which could trailing or looping lanyards or lifelines. The design of the fall arrest system must avoid pendulum falls, which could cause post-fall oscillation of the body with possible impact against obstacles.

- **Load angle limitations: IN151, IN151.CLEAR, IN150, IN150.CLEAR, IN10448 and IN10448.CLEAR Trolleys** - Rail must run within 5° of horizontal, but can be mounted at various angles on the horizontal mounting structure. Harken IN151, IN151.CLEAR, IN150, IN150.CLEAR, IN10448 and IN10448.CLEAR Trolleys have the ability to handle loading at an angle up to 15° beyond vertical. Loads beyond 15° from vertical will overload trolley. See image at right.



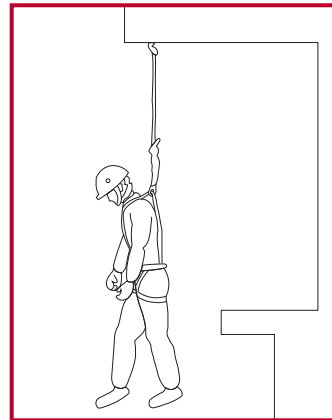
USE

Inspection before each use

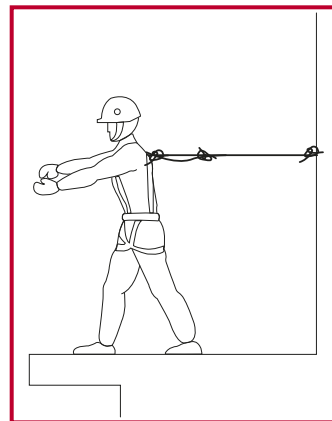
Always perform inspection before using the trolley. See paragraph “ Preliminary and periodical checks”

Connections to trolley

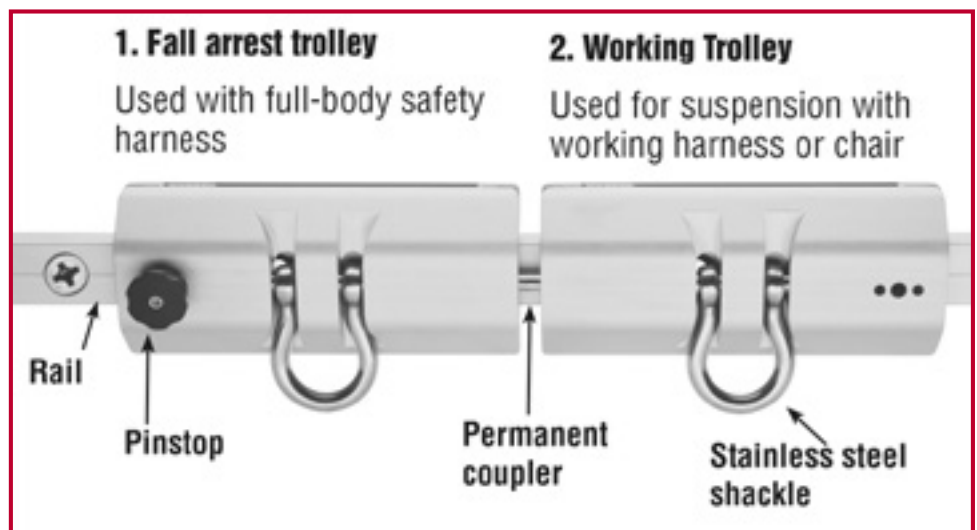
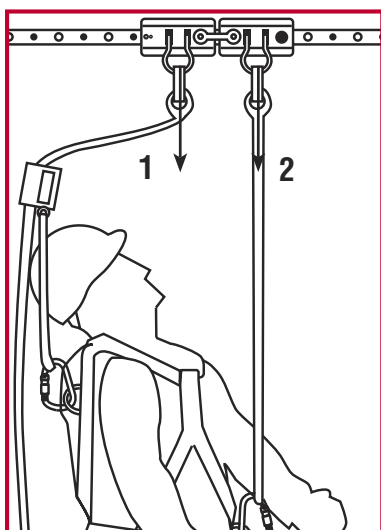
- The single trolley (IN151, IN151.CLEAR, IN150, IN150.CLEAR) is used for fall arrest.



- The single trolley (IN151, IN151.CLEAR, IN150, IN150.CLEAR) is used for fall arrest.



- The double-trolley assembly (IN10448, IN10448.CLEAR) is designed for rope access (human suspension). The double trolley assembly is designed for single person use. It consists of a fall-arrest trolley (1) joined to the working trolley (2), using a permanent coupler.



Connection requirements

When using a hook with positive locking mechanism to connect to trolley shackle, ensure roll-out cannot occur. Roll-out occurs when interference between hook and mating connector causes hook gate to unintentionally open and release.

Use self-locking snap hooks and carabiners to reduce possibility of roll-out. Hooks or connectors must completely close over attachment object.

Do not attach a connector that will impact the side of the trolley when in use.

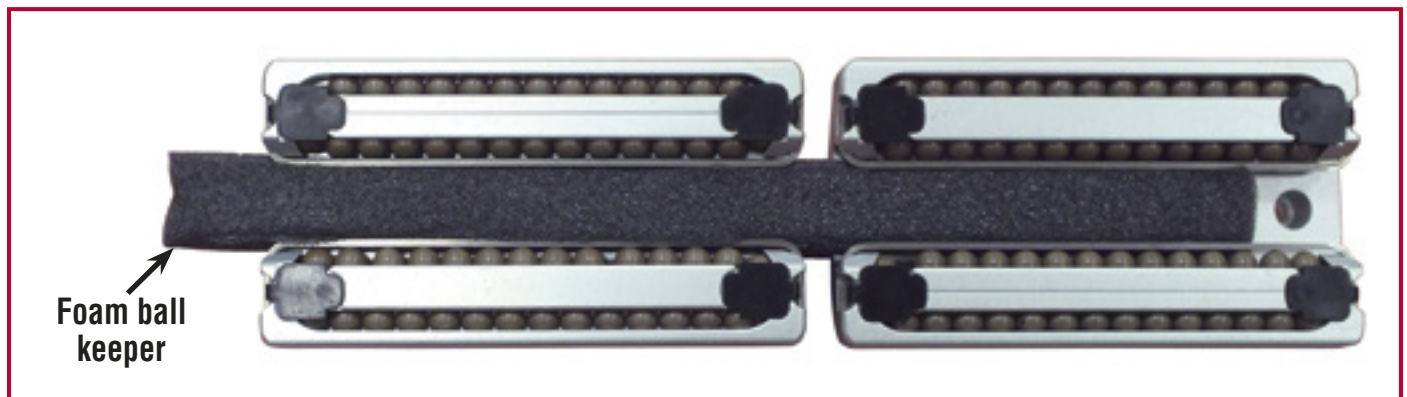
Loading trolley assembly on rail



WARNING!

Carefully align trolley assembly with rail and gently roll into place. If balls are lost, trolley assembly must not be used. Trolley with missing balls may come off rail resulting in a fall, severe injury or death. Contact an official Harken R32 Trolley inspector or the nearest official Harken Service Center to restore the correct functionality of the product.

When removing the trolley from the rail, use the foam ball keeper sent with the original packaging to avoid losing balls bearings.



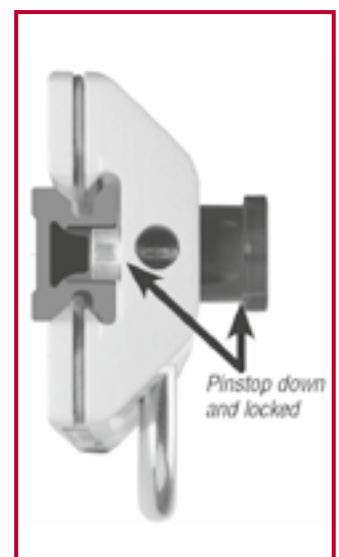
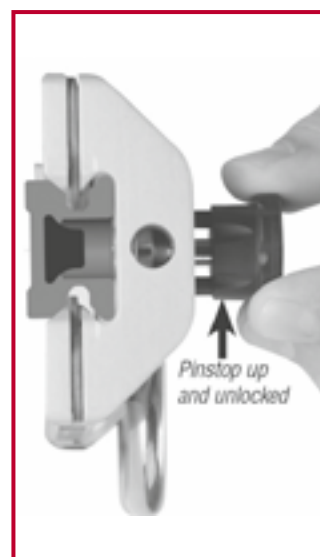
Operating pinstop

Lift pinstop and rotate to lock it out. Trolley will roll freely. To secure trolley, position pinstop over rail hole and rotate knob until pin drops into hole.



WARNING!

When using the trolley with pinstop on a wall mounted rail not properly horizontal installed and the pinstop is in the unlocked position, pay attention because in the event of a fall the trolley will slide without impediments.



Using trolley without pinstop (IN151, IN151.CLEAR)

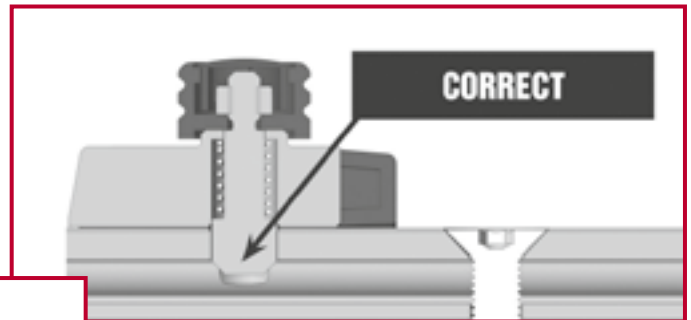


WARNING!

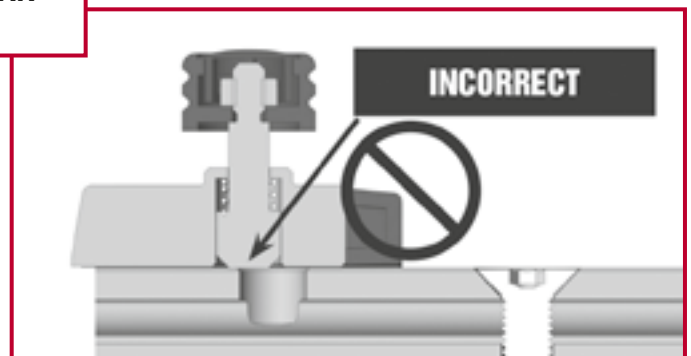
When using the IN151, IN151.CLEAR trolley on a wall mounted rail not properly horizontal installed, pay attention because in the event of a fall the trolley will slide without impediments.

Using removable endstop

If using IN3212.CLEAR removable endstop, always be sure the pinstop is inserted into one of the stop holes in the rail. The bottom of the knob must be flush with the body of the endstop.



**IN3212.CLEAR
endstop**



WARNING!

Always be sure the pinstop is securely fastened to a pinstop hole in the rail. Failure to seat in a pinstop hole can result in a fall which could result in severe injury or death.

Rescue plan

When using this equipment, the employer must have a rescue plan and the means at hand to implement it. The plan must be communicated to authorized persons and rescuers. The system and trolley integrity **MUST** be assessed prior to any rescue for the safest and quickest recovery.

After a fall, replacing equipment



WARNING!

Any trolley which has been subjected to the forces of arresting a fall must be immediately withdrawn from use and not used again until confirmed in writing by and authorized Harken R32 Inspector that it is acceptable for use.

PRELIMINARY AND PERIODICAL CHECKS

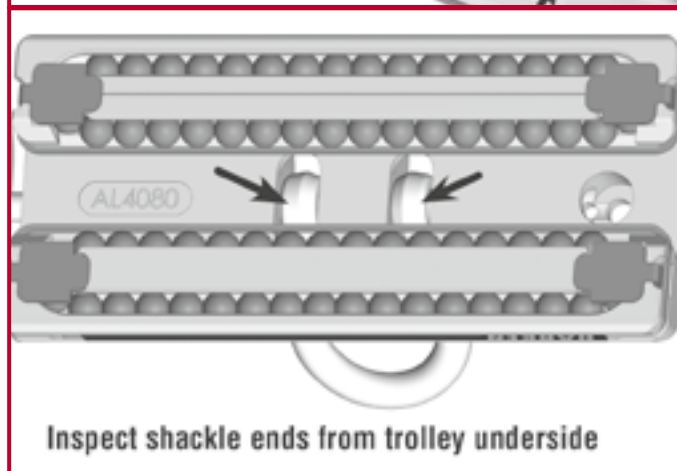
PRELIMINARY AND PERIODICAL CHECKS

Before each use

Before using the R32 trolley, check its condition and visually check each component per manufacture's instructions. The following are Harken specific inspection procedures:

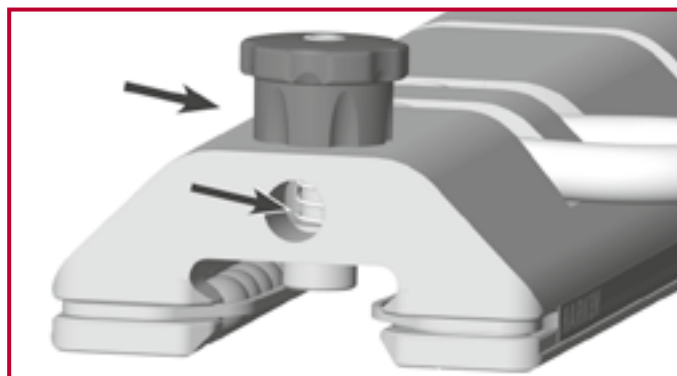
A - Inspect shackle

Inspect shackles carefully, especially the ends inside the trolley for signs of corrosion, cracks, or elongation. If damaged, do not use. Damaged shackles can indicate that trolley was overloaded. Return complete trolley assembly to one of the authorized Harken Service Centers.



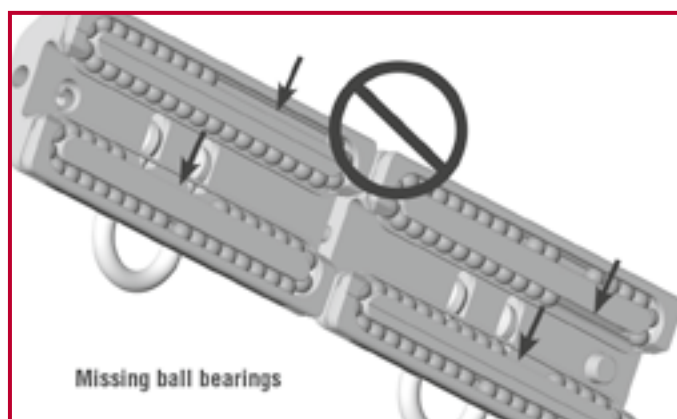
B - Inspect pinstop

Inspect pinstop for spring degradation, cracks or wear that may affect locking strength and operation.



Inspect ball bearings

Every time that the trolley assembly is removed from rail, make sure each trolley contains all 72 balls. Do not load trolley onto rail and use trolley assembly if balls are missing.



WARNING!

Do not use trolleys if balls are missing. Trolleys with missing balls can come off rail, resulting in a fall, severe injury or death.

**WARNING!**

At the end of the inspection, in case of identified faults, damaged parts, wear, corrosion, deformation, faults that are detected during the compulsory periodical inspection, a fall with consequent stress for the trolley has occurred, or doubts about the condition of the product, **DO NOT USE** the trolley and contact an authorized Harken R32 Trolley Inspector or an authorized Harken Service Center.

**NOTE!**

Check the legibility of the R32 trolley markings

Annual check

The R32 trolley must be inspected thoroughly at least once every 12 months for Personal Protective Equipment Regulation specification, or 6 months for Human Suspension.

**WARNING!**

The regular periodic examinations are needed procedures for the safety of users because the safety of users depends upon the continued efficiency and durability of the equipment.

Contact an authorized Harken R32 Trolley Inspector for the mandatory inspection. The register of the authorized Harken Industrial product inspector is available on the web site: <http://www.harkenindustrial.com>

Do not use the R32 trolley without performing the mandatory inspection. The inspection performed by an authorized Harken R32 Trolley Inspector must be recorded in the Equipment Record of this Manual and the Inspection report signed by the Inspector must be stored by the trolley owner.

It is recommended that the trolley is marked with the date of the next or last inspection.

**WARNING!**

DO NOT USE the R32 trolley if:

- you detect damage, wear, corrosion or deformation on the trolley
- faults are detected during the compulsory periodical inspection
- a fall with consequent stress for the trolley has occurred

LIFESPAN

The R32 trolley has a lifespan of 30 years from the manufacturing date, in the absence of causes which could determine its decommissioning and on condition that all the periodic inspections required and any necessary maintenance are carried out, with recording of their results on the Inspection/Repair history record.

The manufacturing date is indicated in the Serial Number of the trolley written in the trolley labelling.

PACKAGING - STORAGE - TRANSPORTATION

S/N XXXXXX-XXX

Manufacturing
year

Manufacturing
day of the year

Number
of the trolley
manufactured
that day

Ex: S/N 2019038-009

Number of the trolley manufactured that day:
9th trolley of the day

Manufacturing day of the year: 38th day of the year (= February 7)

Manufacturing year: 2019

For the trolleys IN10448, IN10448.CLEAR, which is composed of two trolleys, the year of manufacturing of the oldest trolley is the reference year of manufacturing.

PACKAGING, STORAGE, TRANSPORTATION

Every trolley is supplied by Harken in its original packaging in order to prevent the development of dust and dirt and potential damages.

Check the packaging integrity and if it is damaged, before using the trolley proceed with an accurate inspection.

During the storage and the transportation use the original packaging.

Store the trolley in a dry, ventilated, low umidity and not salt place in order to avoid corrosion and protect the product against impacts, chemical reagents or possible damages which could reduce the lifespan or may affect the performance of the trolley.

MAINTENANCE

In order to keep the R32 trolley in proper working conditions flush ball with fresh water.

It is important to clean the trolley from dirt, grease and anything that can prevent the trolley from sliding correctly on the rail. To clean the trolley use fresh water.

When the trolley and ball are dry, apply McLube® Sailkote™ high performance dry lubricant to improve the ease of movement of the trolley along the rail.



(McLube is a registered trademark of McGee Industries, Inc.)
(Sailkote is a trademark of McLube, a division of McGee Industries, Inc.)

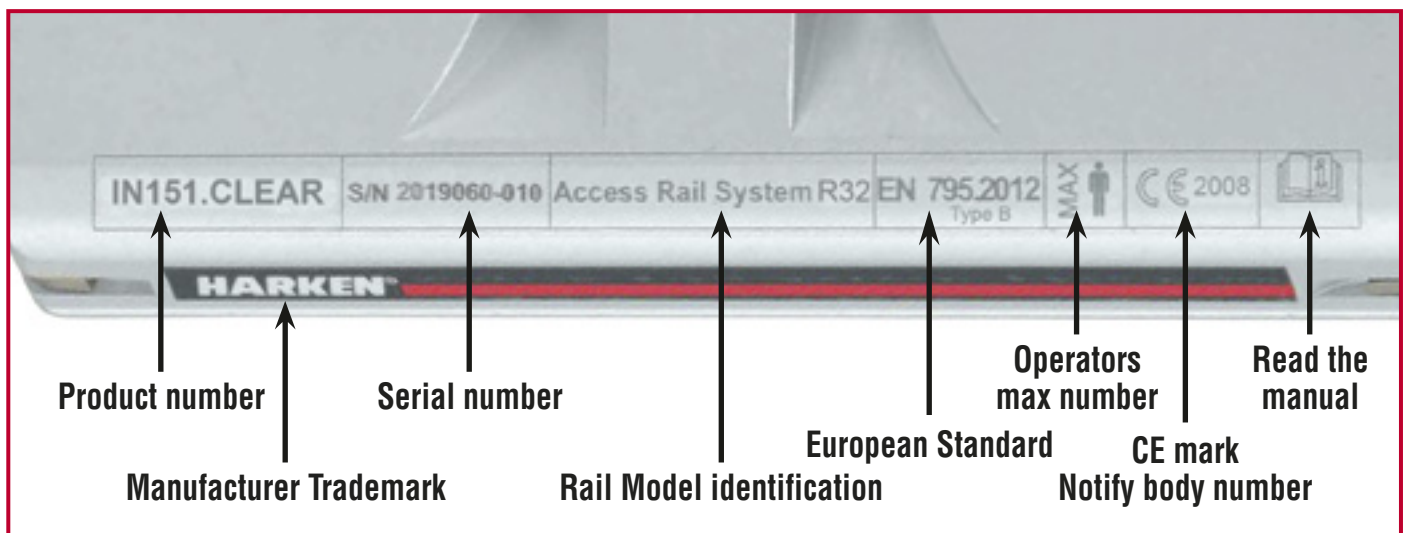
CERTIFICATIONS

The R32 trolleys (IN150, IN150.CLEAR, IN151, IN151.CLEAR, IN10448, IN10448.CLEAR) are EU certified according to the Regulation (UE) 2016/425 and the EN795:2012 Type B. The EU type examination certificate and the production control phase has been carried out by Dolomitcert S.C.A.R.L. EU notified body (N.B. 2008) (Dolomitcert S.C.A.R.L., Villanova zona industriale 7/A, 32013 Longarone (BL) - Italy - Tel +39 0437 573407.

The EU Declaration of Conformity is available on the website <http://www.harkenindustrial.com>

LABELING

Shown below the labeling on the trolley:



WARRANTY

For the warranty, refer to Harken Worldwide Limited Warranty on the website <http://www.harkenindustrial.com>.

EU DECLARATION OF CONFORMITY

The undersigned

Manufacturer

Harken Inc. USA
One Harken Way
N15W24983 Bluemound Road,
Pewaukee, Wisconsin 53072 USA
Telephone: (262) 691-3320 • Fax: (262) 701-5780
Web: www.harken.com • www.harkenindustrial.com
Email: harken@harken.com

Authorised EU Representative established in the Community

Harken Italy S.p.A.
Via Marco Biagi 14, 22070 Limido Comasco (CO), Italy
Tel +39.031.3523511 • Fax +39.031.3520031
Web: www.harken.it
Email: info@harken.it

Hereby declares that this product:

R32 Trolley

Model

IN150, IN150.CLEAR, IN151, IN151.CLEAR, IN10448, IN10448.CLEAR

Is in conformity with the essential requirements defined by the following directives:

- ⇒ Regulation (EU) 2016:425 of the European Parliament and Council of 9th March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC
- ⇒ Standard EN795:2012 Type B Protection against falls from a height – Anchor Devices

and is identical to the product which is the subject of the EU Type Certificate N° EC 19-0332

issued by the Notified Body:

Dolomiticert s.c.a.r.l. – Villanova Zona Industriale 7/A, 32013 Longarone (BL) – Italy

**and is subjected to the procedures set out in Annex VII of Regulation (EU) 2016:425
under the supervision of the Notified Body:**

Dolomiticert s.c.a.r.l. – Villanova Zona Industriale 7/A, 32013 Longarone (BL) – Italy

Limido Comasco

.....
(Place)

22/11/2019

.....
(Date)

HARKEN ITALY S.p.A.



.....
Legal representative

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Manufacturer

Harken Inc. USA

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