

User Manual

(Original Instructions)

Rack Handler



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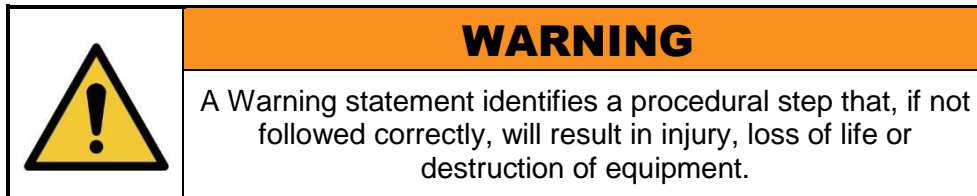
Foreword

This User Manual has been assembled for the Rack Handler, a manual handling aid designed and manufactured by Steplift Ltd.. The Rack Handler is intended to be used to assist operators handling computer server racks within data storage centres.

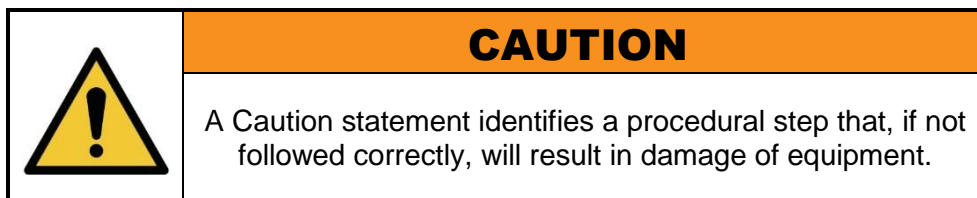
Warnings, Cautions and Notes

Warning, Caution and Note statements appear throughout this manual. Attention must be paid to the statements that follow as they are for the safety of the persons using the Rack Handler.

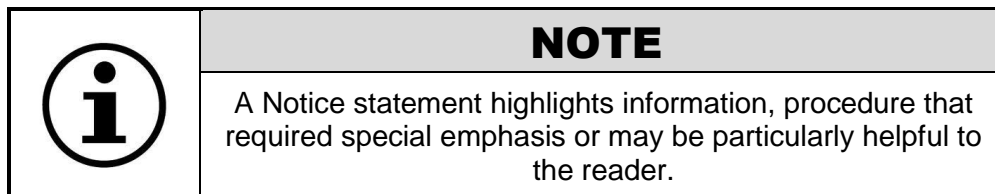
A Warning statement identifies a procedural step that, if not followed correctly, will result in injury, loss of life or destruction of equipment.



A Caution statement identifies a procedural step that, if not followed correctly, will result in damage of equipment.





A Notice statement highlights information, procedure that required special emphasis.





2.0 Safety


2.1 General Safety Notices


The following general safety warnings apply to the Rack Handler.


	WARNING	
	It is extremely important that all personnel using the Rack Handler read and understand this manual before using the equipment.	

	WARNING
	The Rack Handler is intended for handling server racks and similar racks with similar dimensions only! Handling other objects will be considered misuse!

	NOTE
	The Rack Handler is intended for use by persons who have been trained in good manual handling techniques and read and understood this manual.

	WARNING
	Take care when handling racks using the Rack Handler, always follow best manual handling practice. Two persons are required to move loads. Computer Servers/Data Racks can weigh up to 2500 kg.

	WARNING
	Beware of hand crush hazards - use Rack Handler hand grips provided, do not push on the outside of rack/frame.

	WARNING
	Do not modify the Rack Handler, doing so may exposed users to hazards.

2.2 Personal Protective Equipment


The following personal protective equipment (PPE) is required to be worn by Operators;



Safety Boots



Safety Gloves


	WARNING
	<p>Failure to comply with PPE requirement may expose operators and maintenance staff to hazards.</p> <p>Always consult the site safety statements for additional PPE requirements.</p>


2.3 Customer Responsibilities

Steplift Ltd. have made every effort to fulfil their responsibilities as the manufacturer of the product by making the Rack Handler as safe, easy to operate and easy to maintain as possible. The customer (person(s) in charge of the product) has a responsibility to ensure the following:

- All operating personnel have read the Rack Handler User Manual and understand all aspects of safety and operational procedures.
- Operators must have access to the User Manual (or a copy) when using the equipment.
- Fulfil their responsibilities under the relevant workplace health and safety legislation (e.g. Safety Health and Welfare at Work Regulations), including but not limited to, risk assess manual handling activities, provide task specific manual handling training and ensure handling equipment is suitable for the task.

2.4 Environmental Requirements

	WARNING
	This Rack Handler has been designed to move racks on smooth level hard surfaces.

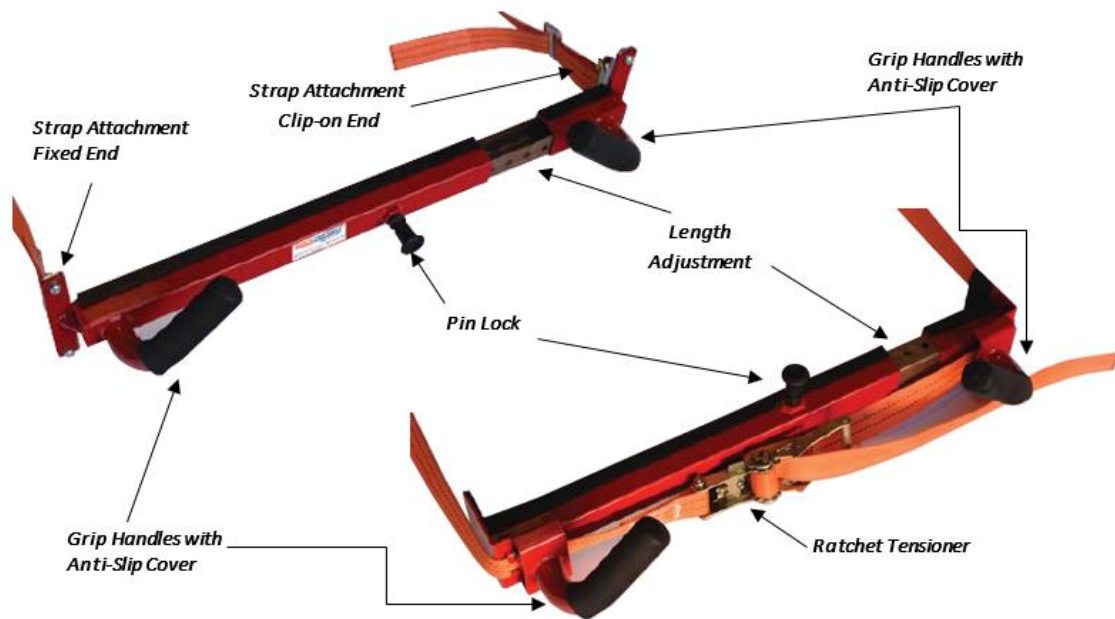
	NOTE
	The Rack Handler is intended to operate in a well-lit environment. Operator must have a clear view of the Rack Handler and its surroundings during Normal Operation.

3.0 Technical Description

The Rack Handler was developed in response to the large number of soft tissue injuries which have occurred during the handling of data/ computer server racks which can weigh up to 2500 kg. The Rack Handler allows the operators grip the load without their hands being exposed to crush/impact injuries with obstacles such as door frames or other racks.


The Rack Handler consist of:

- 1) Adjustable length end bar with grip handles with fixed end and clip-on strap attachments.
- 2) Adjustable length end handle bar with ratchet strap tensioner.
- 3) Textile web strap.



3.1 Intended Use of the Product

Manual handling equipment intended to increase operator safety and comfort when handling computer server racks and similar racks within data storage centres and similar environments.

	WARNING
	The Rack Handler is intended to handle server racks or similar racks, e.g. power supply units with similar dimensions. Handling other objects will be considered misuse!

4.0 Transport Information

4.1 Transport

The Rack Handler should be transported via a van or similar method of transport, it is enclosed in standard packaged to prevent transport damage.

4.2 Weight

The weight of the Rack Handler is as listed in the table below.

Weight	
Rack Handler (2 pieces)	6.5 kg
Grip Bar with ratchet	3.5 kg
Grip Bar with strap	3.0 kg

4.3 Dimensions


The outline dimensions of the Rack Handler are provided below;


Outline Dimensions	662 -960 mm Long (Adjustable) 122 mm Wide
Maximum Server Rack Size	1500mm Long 980mm Wide


5.0 Assembly of Rack Handler


The Rack Handler is supplied to the customer fully assembled.



6.0 Normal Operation



	CAUTION
	<ul style="list-style-type: none"> • The Rack Handler is intended for moving racks short distances. • A minimum of 2 persons are required to move racks using the Rack Handler. • When using the Rack Handler ALWAYS use good manual handling technique and practices.


	WARNING
	<p>Take care when handling racks using the Rack Handler Computer Server/Data Racks can weigh up to 2500 kg. ALWAYS wear PPE and keep feet clear of rolling castors.</p>


	WARNING
	<p>No not handle faulty or damaged racks, racks with damaged castors/bearings can significantly increase push/pull loads.</p>


	WARNING
	<p>Beware of hand crush hazards - use Rack Handler hand grips provided, do not push on the outside of rack/frame.</p>


	WARNING	
	<p>The operator must remain alert looking out for any possible dangers and warn others to vacate path ahead.</p>	

	WARNING	
	<p>NEVER use the Rack Handler if there is evidence of loose, damaged or missing parts. If further assistance is required contact Steplift for further advice and guidance.</p>	

	WARNING
	<p>Do not use Rack Handler to move racks on rough surfaces, the Rack Handler is intended for use on smooth level surfaces. Do not move loads up/down inclines.</p>

	WARNING
	<p>Before handling the server rack ensure it has been disconnected from data and power cables.</p>

	WARNING
	<p>Check stability of load before moving. Top heavy or unbalance loads may cause the load to become unstable.</p>




	WARNING
	<p>Do not leave a load unattended. Do not park Rack Handler/Load on inclined surfaces.</p>





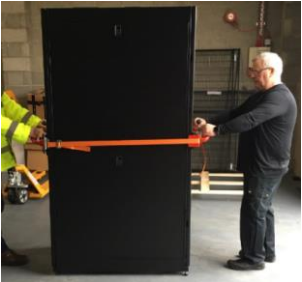


6.1 Pre-Operation Checks

Before commencing operation of the Rack Handler the operator must carry out pre-operation checks which are both essential to the performance of the machine and the safety of the operator. If faults are found in the pre-operation checks, do not use the Rack Handler. Take the Rack Handler out of service and report faults to your supervisor.

No.	Check
1.	Inspect the Rack Handler for damage.
2.	Check the textile strap, ratchet or end clip to ensure they are in good condition.
3.	Ensure all nuts, bolts and pin lock are in place and secure.

6.2 Operation – Loading/Unloading Server Rack

Step 1	Adjust strap length to suit rack dimensions.	
Step 2	Adjust end bar/handle grip length to suit rack width.	
Step 3	Present end bar/handle grips to rack.	

<p>Step 4</p>	<p>Connect the free end /clip-on attachment of the strap into the matching slot.</p>	  
<p>Step 5</p>	<p>Tighten the strap with the ratchet tensioner. Tuck in the excess textile strap to avoid trip hazards and/or damage to the strap.</p>	
<p>Step 6</p>	<p>Move the rack to the required location. The grip handles are located within the width of the rack and angled at 45 Deg for operator safety and comfort. Beware of impact/crush hazards - DO NOT push or place your hands on the outside of the rack.</p>	
<p>Step 7</p>	<p>Unloading - releases strap tension via the ratchet tensioner.</p>	
<p>Step 8</p>	<p>Unloading - unclip strap clip-on end attachment.</p>	


Step 9

When handling the Rack Handler bring the end attachments together and gripping the opposing handles in the one hand allow it to hang out to the side, ensure that straps are not trailing/potential tripping hazards.



7.0 Maintenance Instructions

The Rack Handler does not require maintenance, replace damaged or worn parts as required.

	NOTE
	Please contact Steplift Ltd. for information regarding spare parts. Only spare parts approved by Steplift Ltd. should be used!

7.1 Maintenance Checks

To be carried out by the machine operator.

Maintenance Checks Required:

Inspect for signs of damage or wear. Replace if necessary.

7.2 Cleaning

It is recommended that the Rack Handler is cleaned, occasionally wiping down with a damp cloth.

8.0 Technical Information

Technical Information	
Product Make	Steplift Ltd.
Product Model	Rack Handler
Manufacturer	Steplift Ltd.
Year of Manufacture	2018
Construction	Welded & Bolted
Material	Mild Steel
Weight	6.5 kg
Rack Handler Dimensions	662 – 960 mm Long (Adjustable) x 122 mm Wide
Maximum Load	2500 kg
Maximum Load Dimensions	1500mm Long x 980mm Wide

9.0 End of Life

When the product has reached the end of its useful life cycle please consult your local waste authorities for advice on disposal.

Appendix 1 – Drawings & Parts List