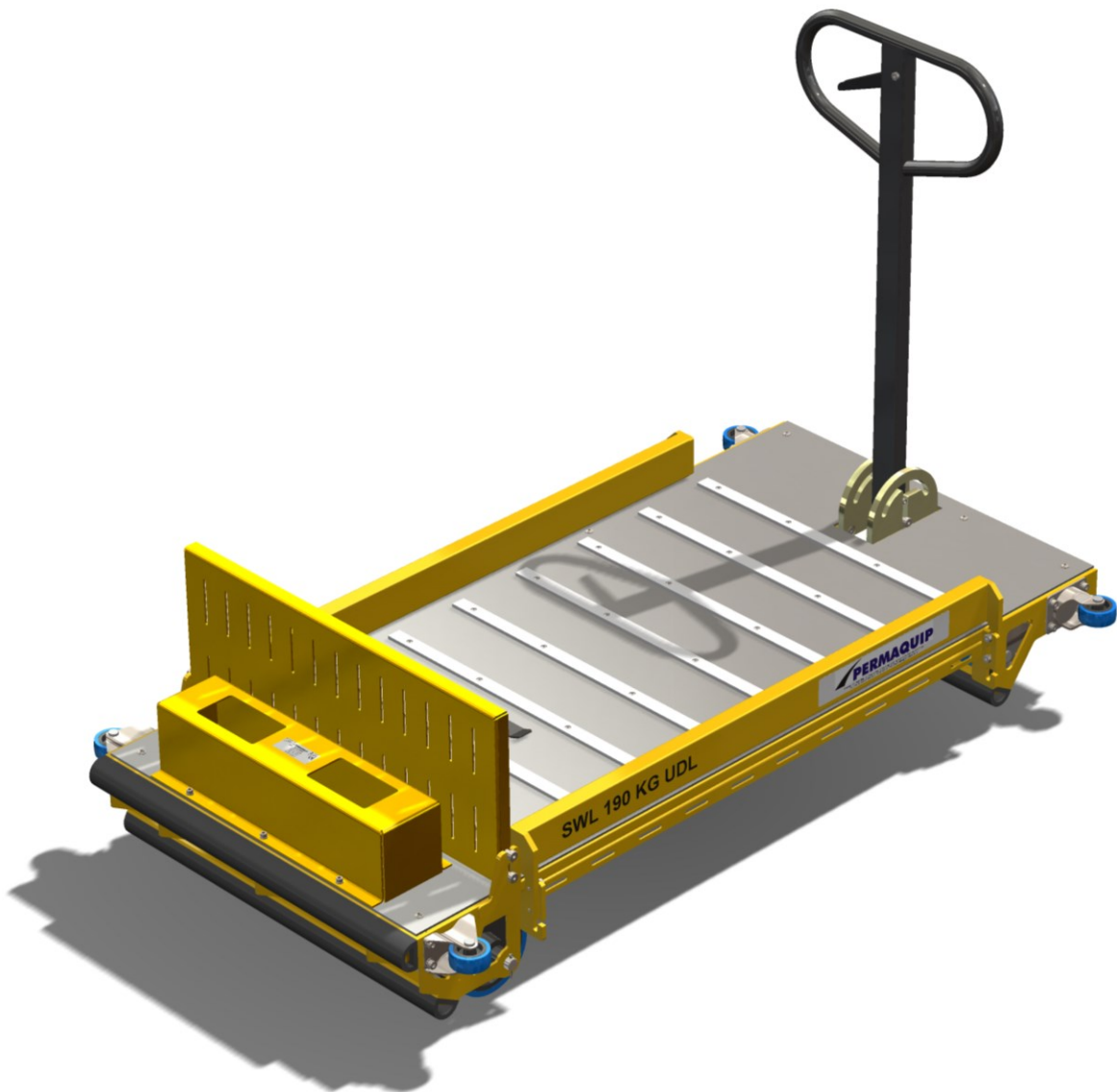




## Operating & Maintenance Manual



# ESC01-MK2 Escalator Trolley

Permaquip Ltd  
Brierley Industrial Park, Stanton Hill,  
Sutton-In-Ashfield, Nottinghamshire, NG17 3JZ  
Tel: +44 (0) 1623 513349  
Fax: +44 (0) 1623 517742  
E-mail: [sales@permaquip.co.uk](mailto:sales@permaquip.co.uk)  
[www.permaquip.co.uk](http://www.permaquip.co.uk)

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## **Please note**

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All information, illustrations and specifications in this User Guide are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

Equipment operators and installers shall be responsible for ensuring that a safe working environment and safe systems of work are in place and in certain circumstances advice and permission from the controlling authority must be sought before any operation, installation or surveying work is carried out.

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# 1 INTRODUCTION

The Permaquip™ Escalator Trolley is designed to be used as a manual propelled, stand-alone load-bearing rolling platform for use on the LUL infrastructure that has the ability to mount escalators.

Each Escalator Trolley is equipped with a fail-safe braking system and is supplied with strap storage.

## 2 SAFE AND CORRECT USE

**Please keep this User Guide for future reference.**

To ensure safe and correct use of the Escalator Trolley the following should be noted:



Wear feet and hand protection when using the Link Trolley. Additional Personal Protective Equipment (PPE) should be worn according to local regulations.



During transit the Escalator Trolley should be secured, and kept away from all electrified lines.



The Escalator Trolley, or parts of, must be replaced if damage occurs. Do not use the Escalator Trolley if any components are damaged.



Store the Escalator Trolley in a secure position.



Before using, undertake a Manual Handling Risk Assessment and follow the assessment guidelines at all times. Do not exceed walking pace, noting underfoot conditions.



Do not use the Escalator Trolley for any other purpose than as described in the introduction.



Do not hold off the Brake Lever using mechanical means.



Do not allow any load protrusions to face outwards such that they could interfere with the infrastructure.



Do not ride on or tow the Escalator Trolley.



Stopping distances will greatly increase by icy or wet conditions; gradients; an increase in load; an increase in speed.

### 3 TECHNICAL SPECIFICATION

#### 3.1 Physical Data for the Escalator Trolley

	<b>Trolley Assembly</b>
<b>Width</b>	875 mm
<b>Length</b>	1540 mm
<b>Height</b>	335 mm (handle and end stop flat) 1105 mm (handle vertical)
<b>Total Mass</b>	60 kg
<b>Centre of mass</b>	Central

#### 3.2 Load specification

- Maximum load capacity for one Escalator Trolley 190 kg UDL

#### 3.3 Escalator Trolley Operational Limits

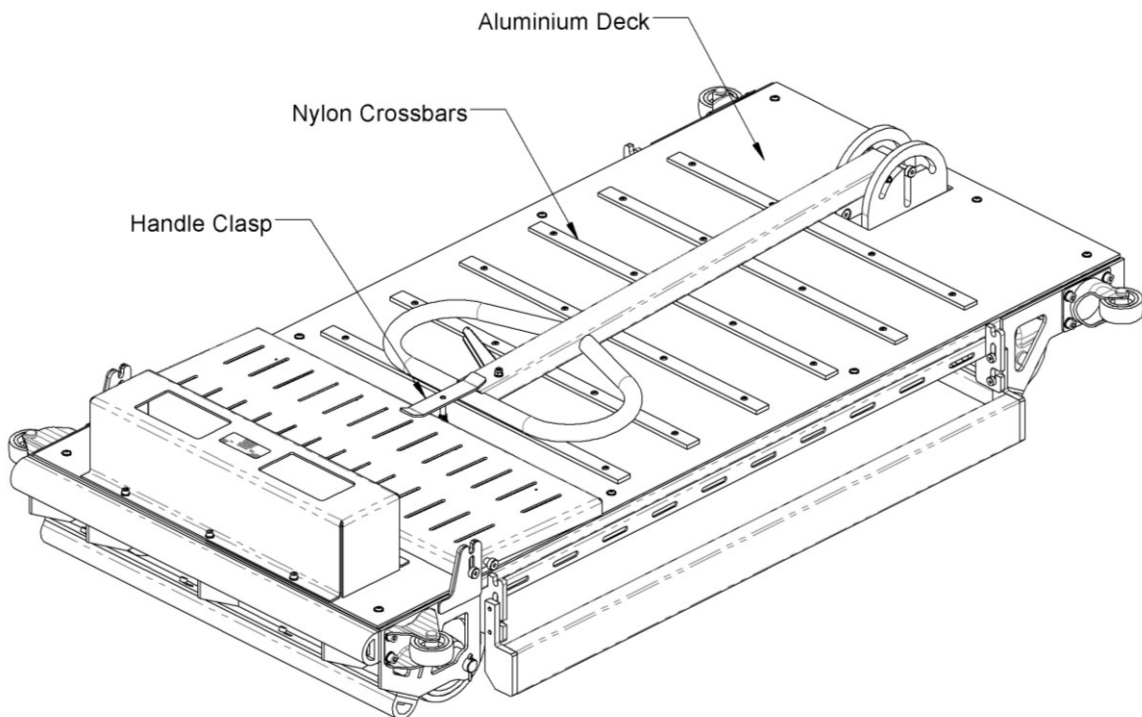
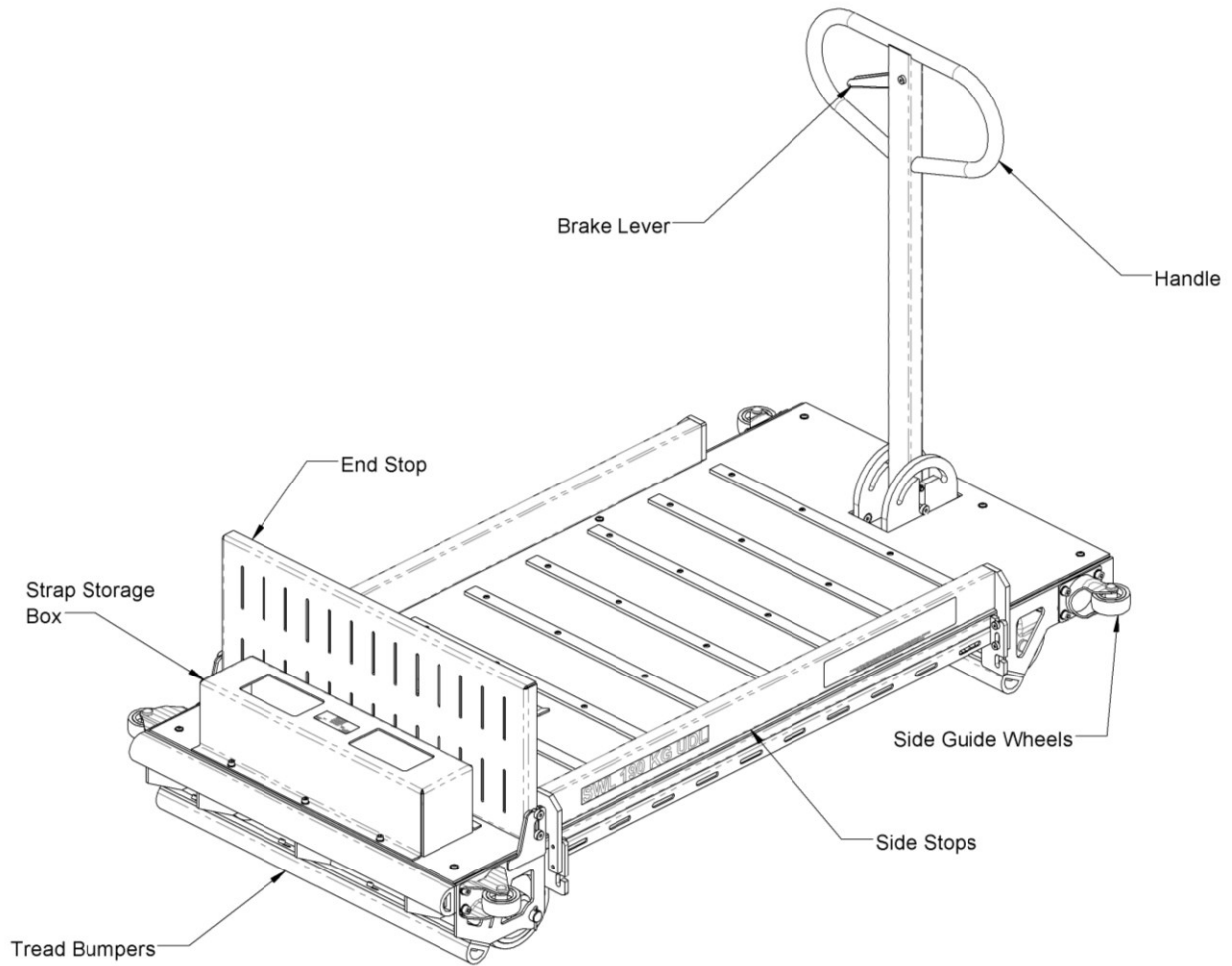
The Escalator Trolley cannot be used in the following areas unless indicated by the infrastructure manager:

<b>Northern Line</b>	
Angel	1 - 6
Balham	1 & 3
Camden Town	1 & 2
Clapham Common	1 & 3
Clapham North	1 & 2
Clapham South	1 & 3
Colliers Wood	1 & 3
Old Street	1 & 2
Oval	1 & 2
South Wimbledon	1 & 3
Stockwell	1 & 2
Tooting Bec	1 & 3
Tooting Broadway	1, 2 & 3
Tottenham Court Road	1,2, 3, 4 & 5
<b>District</b>	
Embankment	5, 6, 7 & 8
Earl's Court	1 & 2

<b>Central</b>	
Bond Street	1 & 2
Oxford Circus	1,2, 3, 4 & 5
Shepherds Bush	1 & 2
<b>Bakerloo</b>	
Charring Cross	1 & 3
Piccadilly Circus	1 to 11 inc.
Waterloo	1, 2 & 3
Kilburn Park	1 & 2
Maida Vale	1 & 2
Warwick Avenue	1 & 2
<b>Metropolitan</b>	
Moorgate	1 & 2
Baker Street	1 & 2
Liverpool Street	1, 2 & 3
<b>Hammer City</b>	
Paddington	1 & 2

## 4 GENERAL LAYOUT

The following shows the main components of the Escalator Trolley.



## 5 OPERATING INSTRUCTIONS

The following procedure outlines the correct method for operation.



Always push the Escalator Trolley onto the escalator at the top. Always pull the Escalator Trolley onto the escalator at the bottom.



All work should only be performed by competent personnel.



Always follow local regulations.



Observe Manual Handling Regulations.

### 5.1 Pre-use Checks

1. Ensure that the intended escalator use is agreed by the relevant Line Service Escalator Centre.
2. Ensure that the license to use the escalator is correct and current.
3. Check that the Escalator Trolley Test Date is current.
4. Check that the serial number is legible.
5. Check that the Escalator Trolley chassis is free from damage. Check that the Rubber Tread Bumpers are not damaged or perished.
6. Check the brakes are working correctly – they are fail-safe so should be on when the Escalator Trolley is stationary.
7. Check that the working site is clear of hazards.

### 5.2 Loading the Escalator Trolley

1. Twist the handle clasp 90° to release the Handle and End Stop.
2. Raise the End Stop to a vertical orientation and lower into the slot to secure.
3. Raise the handle into the vertical position.
4. Lift the End Stops and rotate around to a vertical orientation then lower into the slots to secure.
5. Ensure that the SWL is not exceeded.
6. Ensure that the load is stable and is uniformly distributed over the Escalator Trolley loading area.
7. Ensure that the load does not overhang the Escalator Trolley sides and is secured using Load Straps.

### 5.3 Operating the Escalator Trolley

1. Ensure that the escalator emergency stop is manned prior and during operation.
2. Ensure that only one operator is on the escalator at any one time.
3. Manoeuvre the Escalator Trolley to the escalator - always push the Escalator Trolley onto the escalator at the top. Always pull the Escalator Trolley onto the escalator at the bottom.
4. Place the Escalator Trolley Wheel centres onto the escalator tread centres, releasing the brakes whilst moving on and off the escalator.





## 6 MAINTENANCE



All work should only be performed by competent personnel.



Always follow local regulations.



Observe Manual Handling Regulations.

### 6.1 Wheels

1. With the brakes released using the Brake Lever, check the wheels rotate freely.
2. Resistance to rotation or rocking of the wheel on the axle indicates either a worn axle or a cracked bearing. The wheel bearings are sealed for life and do not require lubrication. There should be no more than 1.0mm end float of the wheels.
3. Check the wheel face for wear or damage. Replace damaged or worn wheels.

### 6.2 Brakes

1. Check the brake plates and remove any dirt or oil from the working surfaces.
2. Check the operation of the brake to ensure that the brake rod cable, clevis and adjusters are in good condition.
3. Lubricate all brake pivot pins, brakes cables and adjusters with a general purpose lubricant.
4. Check that both brake shoes apply and release simultaneously.

### 6.3 Escalator Trolley Assembly

1. Check that the frame structure is free from deformation and that all welds are in good condition.
2. Check that all four wheels make contact with level ground when in an unladen condition.
3. Check that the aluminium deck and nylon crossbars are not loose, damaged or deformed.
4. Check that the Side and End Stops are free to move and can be locked in position.
5. Check that the Handle can be moved across the working range and that the Brake Cable cannot be trapped.

## 7 TEST SPECIFICATION

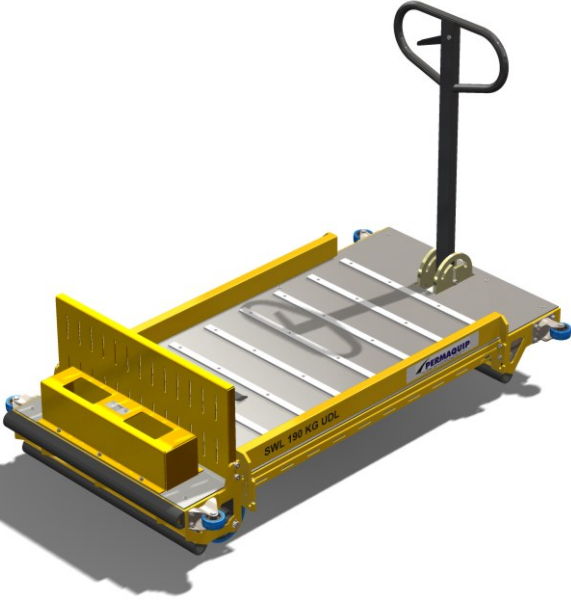
The Escalator Trolley should be tested to the following specification after any structural repairs have been carried out, or when the Escalator Trolley has been damaged

1. Note the Serial Number of the Escalator Trolley.
2. Mount the Escalator Trolley onto a secure, flat surface and ensure the brakes are on.
3. Measure the height between the surface and the centre position of the Escalator Trolley frame on all four sides.
4. Lower a 237.5kg calibrated test mass onto the trolley (1.25 x SWL).
5. Leave for 1 minutes.
6. Remove the test mass.
7. Measure the heights again. There should be no more than 1.5mm difference in the two measurements.
8. Check the frame has no deformation or weld damage.
9. Lower a 190kg calibrated test mass onto the trolley (1.0 x SWL).
10. Apply a horizontal force via a calibrated load cell to the trolley. Ensure that a force of 17.5kg can be achieved before the wheels start to rotate.

Permaquip Ltd offer a testing and maintenance service – please contact us for further details.

## 8 ORDERING

### 8.1 Main Components and Assemblies

	DESCRIPTION	PADS Cat. No.	PART NO
Escalator Trolley MK2			34013

For spare parts not shown please contact Permaquip Ltd for further information and support.

Our contact details are shown on the front of this Manual.

In order to avoid delay and to have your orders fulfilled promptly,

**Please telephone, e-mail, fax or write giving the following information:**

- 1. Company name.**
- 2. Contact details.**
- 3. Invoicing and delivery details.**
- 4. Purchase order number.**
- 5. Method of delivery.**
- 6. Part number, description and quantity for each item.**