

**KEYPOINTS**

# **HAND TROLLEY CONTROLLER**

Issue two valid from January 2011

**CERTIFICATION REQUIRED: CURRENT SENTINEL CARD  
ENDORSED WITH PTS AND HTC COMPETENCIES**

A decorative graphic in the bottom right corner of the page, featuring a solid black background with two parallel white diagonal lines that sweep upwards and to the right, mirroring the Network Rail logo.

Keypoint Cards have been produced for many competencies as a reminder of the main duties, rules and requirements.

Further copies are available from Willsons Group Services.

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## INTRODUCTION

This booklet is to remind you of your safety and operational responsibilities where your duties require you to use a hand trolley on Network Rail managed infrastructure.

The content has been developed in association with the national “Hand Trolley Controller” training course, and It is recommended that staff should attend the course before using any type of hand trolley.

NOTE: Hand Trolley Controller training and competence has been amended to include all items of railbourne portable plant that have 3 wheels or more. These have been added to bring the competence in line with the pre use brake testing requirements called up in M & EE code of practise 0018 and not just hand trolleys as covered in the previous version of the course

It is mandatory for a Hand Trolley Controller to be with the hand trolley at ALL times whilst on-tracked from 1st January 2010

### **This booklet briefly covers:**

- The types of currently approved hand trolleys
- Restrictions on the use of hand trolleys
- Personal protective equipment to be worn when using a hand trolley.
- Protection of the line
- Pre-use checks you must carry out
- Safe loading
- Safe operation
- Securing when not in use

## TYPES OF APPROVED HAND TROLLEYS

The following hand trolleys are approved for use on Network Rail managed Infrastructure.

- **Harsco**
  - Type A/B Trolley
  - Scaffold Trolley
  - Link Trolley
- **Permaquip**
  - Type A/B Trolley
  - Link Trolley
- **Rotamag**
  - Split Trolley
  - Link Trolley
- **Other items of railbourne portable plant that have 3 wheels or more. This list is not exhaustive.**
  - Rail Jacking Trolley
  - Rail Joint Straightener
  - Rail Sleeper Squarer
  - Rail Grinders
  - Geismar TB2
  - Ironmen
  - Rail Jacking Trolley
  - Cembre Support Trolley
  - Measuring Trolleys
  - Clip Extraction/Insertion Tools

All trolleys must have been certificated and have a valid, in date label showing the maximum uniformly distributed load (UDL).

**Harsco / Permaquip type A**



**Harsco / Permaquip type B**



**Harsco Scaffold Trolleys**



**Rotamag Split**

**Rotamag Link**



## Harsco / Permaquip Link



- All hand trolleys used on Network Rail managed Infrastructure must be fitted with operational brakes (a “fail safe” braking system”) and the correct brake handle must be used when operating the hand trolley.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

- The following approved PPE must always be worn when working with hand trolleys.
  - Safety Helmet
  - Safety Footwear
  - High visibility Clothing
- In some circumstances you may also be required to wear safety gloves if there is a specific requirement to do so.

## MANUAL HANDLING

- There is the potential for musculoskeletal injuries (back injury, sprained ankle etc) and it is important that you use the correct manual handling techniques when lifting or carrying the Hand Trolley and also the equipment that you will be loading on the trolley.
- Numbers and experience of staff required to load and push the trolley should always be taken into account when planning work.
- Site conditions such as uneven ballast, rails, switches and crossings are all potential hazards that need to be carefully considered.
- Be mindful of other conditions that may cause you to slip or trip e.g. oil / frost on sleepers.

## PROTECTION OF THE LINE

You **MUST NOT** place a hand trolley on to the track until the COSS has confirmed that the line is properly protected and it is safe to do so.

Remember that although a line is under protection, there may be train or On Track Plant Movements. The COSS must inform you about the safe system of work and the limits of where the trolley can be used.

On 3rd Rail DC electrified lines you need to check with the COSS that an isolation has been taken covering the area you are working in. You may need an isolation in areas where there are Overhead Electrified Lines

If you are unsure of the safe system of work, or the limits of where you may use the trolley you must **STOP** work immediately and check with the COSS.

## PRE USE CHECKS

Pre-use checks of the hand trolley must always be carried out prior to use.

This must be done by a person who is competent to do so and they must ensure that the hand trolley is in good working order.

Each Hand Trolley must have the following labels clearly displayed:

- Unique identification
- Maximum uniformly distributed load (UDL) where applicable
- Date of next maintenance brake test
- Owners name and contact details

A check that the maintenance brake test has not expired must be made prior to each use.

Hand Trolley's must be properly assembled in accordance with the manufacturer's Instructions

A visual check of the brakes must be made before placing the Hand Trolley on the line, and its brakes must be tested by a push test before it is loaded or used.

Only the Braking lever supplied by manufacturer may be used to operate the brakes. No other lever, bar, or tool may be used. If the manufacturers braking lever is not available the Trolley **MUST NOT** be used.

Where Push bars, Side boards and End boards are required they must be the correct type supplied from the manufacturer.

If the Trolley fails the pre-use or in-use check it MUST NOT be used and must be withdrawn from service immediately and clearly labelled 'DO NOT USE' - it must then be placed in quarantine.

- If you are in any doubt that the trolley is not in good working order it must not be used until it has been checked by a competent person.
- If any trolley fails the pre-use check it must be withdrawn from service immediately and clearly labelled 'DO NOT USE' - it must then be placed in quarantine

### **Operator conducting brake function test**



## SAFE LOADING AND OPERATION

The maximum uniformly distributed load (UDL) on a hand trolley is 1 Tonne.

The load MUST NOT interfere with the correct operation of the brake handle.

The Load MUST NOT overhang the sides of the trolley *unless a risk assessment has been completed and any necessary protection of an adjacent line has been arranged.*

Hand trolleys must be correctly and carefully loaded and unloaded.

The load should be distributed evenly and unstable or tall loads should be secured if necessary

When lifting, carrying, loading or unloading the Hand Trolley you must use the correct manual handling techniques and consider the numbers and experience of staff required to load, unload and push the trolley when planning work.

You must consider site conditions such uneven ballast, rails, switches and crossings and of other conditions that may cause you to slip or trip e.g. oil / frost on sleepers

You should consider the height needed to lift the load onto or off the trolley. For example sleeper nips used to lift a sleeper at ground level may not be suitable to safely lift a sleeper onto a trolley.

### Correctly loaded

These two loads are stable and unlikely to shift during transit



### Incorrectly loaded

These two loads are poorly arranged and at risk of shifting during transit



### Incorrectly loaded

This load may tip during transit



This load is stable but is likely to foul the adjacent line



## **GRADIENTS AND CANTED TRACK**

- When using hand trolleys on gradients the method statement must consider the manpower requirements.
- Hand trolleys under Line Blockage protection arrangements must not be used on a gradient steeper than 1:50 unless this can be found in the Network Rail Hazard Directory.
- Track cant must also be considered to ensure the stability of the load.

## **SECURING OF HAND TROLLEYS**

On completion of work the COSS must be informed and the Hand Trolley must be removed from the line.

Once removed from the line the trolley should be taken away from site.

If the trolley cannot be taken away it must be properly secured in position of safety clear of the track.

## THE GOLDEN RULES FOR USING HAND TROLLEYS

### Always:

- Wear the required PPE
- Use the right manual handling techniques
- Have the correct number of staff to lift, load and use the hand trolley
- Consider the site conditions
- Carry out the pre-use checks
- Check with the COSS that the line is protected, including any required AC / DC isolations before placing the trolley on the track
- Use the trolley in accordance with the manufacturers instructions
- Load the trolley evenly and don't overload it
- Work within the limits as set out by the COSS
- Unload it safely and in the correct sequence
- Secure it if you have to leave trackside

### Never:

- Sit or ride on the hand trolley
- Use a hand trolley if you don't think its safe to do so
- Use hand trolleys on a gradient steeper than 1:50 – unless you have been specially authorised.
- Use a trolley on track with a Cant higher than 150mm
- Interfere with the braking system
- Push at more than walking pace

## GENERIC WEIGHTS

Approximate weights for track components	
113A Rail 15ft Length x 4	1 Tonne
Sleepers	1 Tonne
Concrete (E1) x 4	1 Tonne
Hardwood (250 x 130 x 2600) x 10	1 Tonne
Softwood (250 x 130 x 2600) x 15	1 Tonne
Steel Corus 500 x 10	1 Tonne
AS chairscrew x 1000	1 Tonne

Approximate weights for Welding Kits	
MP12 Rail Grinder	71.4 Kg
Tripod Light	6.6 Kg
Weld Trimmer	64 Kg
Hilti gun	6.2 Kg
2.4 KVA Generator	48.4 Kg
Petrol Can (full)	6 Kg
Straight Edge	7 Kg
8 Large & 8 Small Wedges	15 Kg
Fire Extinguisher	5.2 Kg
Pinch bar	8.5 Kg
2 x Oxygen Cylinder	119 Kg
Propane (23KG)	48.5 Kg

<b>Approximate weights for Welding Kits</b>	
Steel Work	27.1 Kg
Grinding Stone	2.5 Kg
Hammer	4.8 Kg
Shovel	2.6 Kg
Sand tray	8.5 Kg
Gas Kit	37 Kg
Small Tools	4.8 Kg
Angle Grinder	5.1 Kg
<b>TOTAL WEIGHT</b>	<b>498.2 Kg</b>

<b>Approximate weight for S&amp;T HW Point machine</b>	
Points machines HW 1000/2000	220 Kg

NOTE: When Loading rails onto hand trolleys, the stability of the load and trolley must be considered

**TABLE 1 –ESTIMATION OF MANPOWER REQUIREMENT**

Gradient	Load			
	2000 kg	1500 kg	1000 kg	500 kg
Up to 1 in 250	(3)	(3)	2	1
1 in 250 to 1 in 150	(4)	(3)	2	1
1 in 150 to 1 in 70	(5)	(4)	3	1
1 in 70 to 1 in 50	(6)	(5)	(4)	2
1 in 50 to 1 in 30*	(6)	(5)	(4)	2

**\*Where authorised by local instructions**

**( ) Theoretical figures – NOT RECOMMENDED FOR USE**







The purpose of this Keypoint Card is to act as a reminder only. If you are unsure about any issue relating to the information given here, you must refer to the appropriate module of the Rule Book GE/RT 8000 Series and current issue of M&EE Networking Group COP 18.

In supplying this document, Network Rail makes no warranties, express or implied, that compliance with all or any documents it issues is sufficient on its own to ensure safe systems of work or operation.

Users are reminded of their own duties under health and safety legislation.

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