Operating and Maintenance Instructions

LBR63 Rail Lifter

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1. ISSUE AND REVISION RECORD

This document will be updated when necessary by the re-issue of the complete document.

Issue	Description	Date	Revised Page No.	Revised By.
07	Updated to latest standards	27/11/2013	All	M.S.

2. INTRODUCTION

Congratulations on the purchase of your new Rail Lifter. This is a high quality product and has a number of unique features to make it the best solution for your permanent way lifting requirements.

The Rail Lifter has been designed with four height settings and can be used for lifting various types of rail - UIC 60 and 113lb flat bottom.

These instructions provide information on the correct assembly and use of the Rail Lifter and must be read and understood by all those required to use it.

3. SAFE AND CORRECT USE

Please keep this User Guide for future reference.

To ensure safe and correct use of the Brake Test Tools the following should be noted:

Wear feet protection when using the Rail Lifter. Additional Personal Protective Equipment (PPE) should be worn according to local regulations.

During transit Rail Lifter should be retained in a tool bag or similar container, and kept away from all electrified lines.

The Rail Lifter must be replaced or parts replaced using Permaquip approved parts if any component becomes damaged.

Store the Rail Lifter in a safe secure position.

Do not use the Rail Lifter for any other purpose than as described in the introduction.

4. TECHNICAL SPECIFICATION

	LBR63 Rail Lifter
Height	1200mm
Width	380 mm
Depth	75 mm
Mass	14 kg
Lifting Capacity	1000kg (max)
Proof Load	2500kg

5. SPECIAL FEATURES

The Rail Lifter can be configured to lift different types of rail by altering the positions of the support legs and connector plates.

The rail is lifted and supported securely when the handle is positioned in the over-centre position.

The Rail Lifter has 4 different height settings that work with increments of 25mm.

Laser cut profiles ensure smooth controlled movement is possible when operating the Rail Lifter.

6. OPERATING INSTRUCTIONS

Before operating the Rail Lifter, the following checks must be carried out:

- Check that the rail lifter is fitted with a valid test date plate.
- Check that the unit is working correctly. Move the handle up and down and ensure that the lifting arms move.
- Check the condition of the lifting arm profile bodies, ensure that there is no excess wear and that it has no cracks or splits in it.
- Check that all the clevis pins have the lynch pins and seloc pins fitted. If there is any missing, replace before use.
- Check for any other visual damage to clevis pins, handle, framework etc. or missing components.
- Report any defects to the site person in charge.

Rail Lifter Operation.

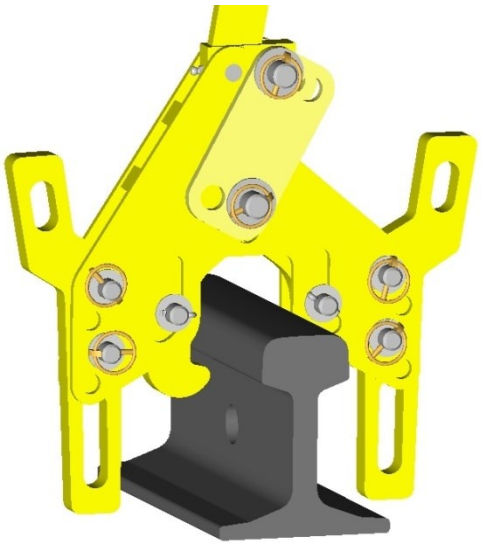
Set the tool to the desired height. See the images below for the most common settings.

113lb Setting (left hand top hole)

UIC60 Setting (right hand top hole)

Ensure that a minimum of 5 sleepers are unclipped on each side of the point being lifted, to prevent the unit from being overloaded. If the unit is being used on wooden sleepers, the condition of the sleepers must be assessed before lifting can commence.

Position the Rail Lifter over the track with the support legs over each side as shown.



Once the Rail Lifter has been positioned over the rail and resting on a sleeper, the rail is ready to be lifted. Rotate the handle across and down until the lifting arms start to contact the rail. Check that the lifting arms are located securely under the rail head before continuing to move the handle. Continue to rotate the handle down towards the ground until it passes its centre position and reaches the end of its stroke.

Note: When the handle is in the lowered position i.e. with the rail raised, it is possible to release the handle and leave the lifter unattended. This is not good practice because if the lifter is subjected to a jolt or is knocked, it is possible for the handle to swing up. This can result in serious injuries. It is up to the operator to ensure that if the lifter is left unattended the handle should be left in the raised position i.e. rail lowered.

Once work is complete the handle can be lifted and rotated in the opposite direction in order to lower the rail back down on to the sleeper. Continue to rotate the handle until the Rail Lifter is released from the rail.

All relevant PPE should be worn and lifting recommendations followed closely to avoid any injuries. Safety boots, gloves, safety goggles and helmet should be worn.

7. MAINTENANCE

It is recommended that the following checks are carried out before using the Rail Lifter:

a) Ensure that the Rail lifter is fitted with a valid, in date test plate. The Rail Lifter should be tested in accordance with the current LOLER regulations. Currently this is on a 6 monthly basis.

b) Before using the rail lifter, operate the unit and check for signs of wear in all of the pivot pins, moving parts and the cam guide slots on the main body. Ensure that it is working correctly and that the play in the pivot pins is not excessive.

c) Before using the rail lifter, check the condition of the lifting arms. (item 2 on exploded view) Ensure that the arms are not broken, cracked or excessively worn.

d) The upper most pivot pins in the assembly must be greased on a weekly basis using EP32 grease or equivalent. Grease nipples (item 11 on exploded view) are fitted to the handle to facilitate the greasing of the pins. It is permissible for the handle to have 2-3mm of vertical travel before it is necessary to fully refurbish the rail lifter.

e) Ensure that the unit has been set correctly for the type of rail/sleepers being used:- i.e G44 concrete / UIC60
G44 concrete / 113lb
(See section 6, for the various configurations.)

f) Ensure that all of the pivot pins are secured and held in position using their retaining pins. These should be seloc pins and lynch pins. If any pivot or retaining pins are missing the tool should not be used under any circumstances.

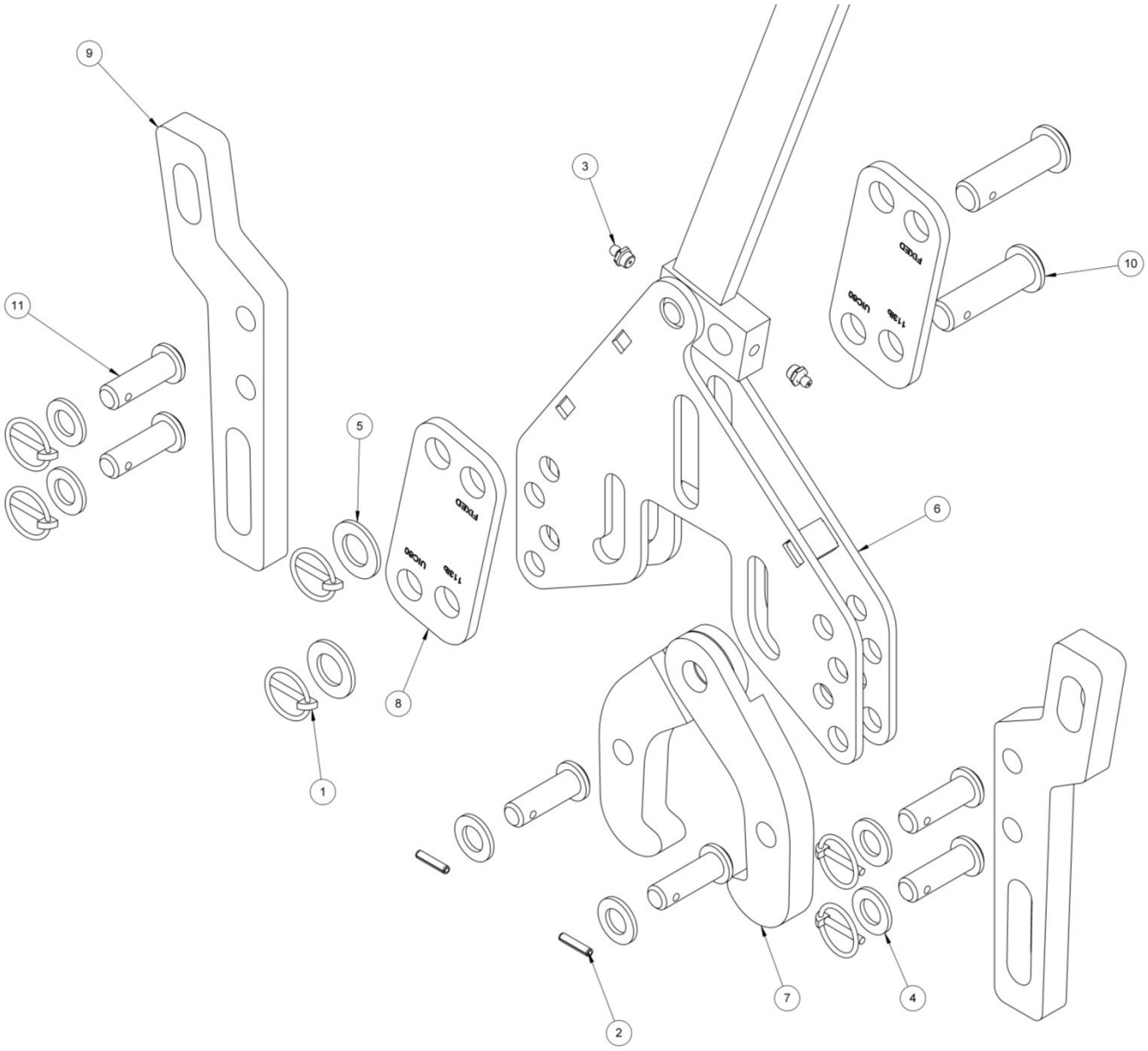
g) Check the condition of all of the pivot pins on a weekly basis. It is permissible for the pins to wear to a minimum diameter of Ø14mm.

h) Ensure that all of the parts are fitted and are in good condition.

i) Ensure that all moving parts are greased on a weekly basis. Use EP32 grease.

All maintenance or adjustments carried out on this lifting equipment should only be done by suitably qualified and trained personnel.

8. EXPLODED VIEW



9. PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	040170000	Ø5 x 30 Lynch Pin	6
2	040222409	Ø5 x 25 Seloc Pin	2
3	040270006	1/8" BSP Straight Grease Nipple	2
4	040285108	M16 Form A Washer Zinc	6
5	040285110	M20 Form A Washer Zinc	2
6	RRL1-1	Rail Lifter Main Assembly	1
7	RRL1-2	Lifting Arm	2
8	RRL1-3	Rail Lifter Connection Plate	2
9	RRL1-4	Rail Lifter Leg	2
10	RRL1-5	Large Clevis Pin	2
11	RRL1-6	Small Clevis Pin	6

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