

USER INSTRUCTIONS – FR1 & FR2 FLAT RAIL EXTENSION BEAMS

This document is issued in accordance with the requirements of Section 6 of the Health & Safety at Work Act 1974, amended March 1988 & the Essential Health & Safety Requirements of the EC Machinery Directive 2006/42/EC.

It outlines the care & safe use of LIFTING BEAMS & SPREADERS and is based on Section 20 of the Lifting Equipment Engineers Association Code of Practice for the Safe Use of Lifting Equipment. It should be read in conjunction with the requirements for general purpose slinging practice.

ALWAYS:

- Store and handle correctly.
- Refer to the safe use instructions for slings & attachments used with the Flatrail.
- Include the self-weight of the Flatrail lifting beams, flat rack and attachments when calculating the load imposed on the crane.
- Ensure the load will remain stable when lifted.
- Use tag line to control long loads.
- Flatrail has been manufactured to be lifted with a corresponding sized container lifting spreader. When lifting a 40ft flatrack a 40ft spreader must be used, when lifting a 20ft flatrack a 20ft spreader must be used. The end lifting sling angle must not exceed 32 degrees to the vertical.
- Ensure appropriately rated lifting slings and shackles are used, taking into consideration the lifting sling angle.
- Ensure that all four twistlocks are in the locked position before lifting.
- Check the twistlock handles are locked and secured in place before lifting.

NEVER:

- Use Flatrail to handle loads other than those for which they are designed. Flatrail is designed to lift 20ft & 40ft ISO flatracks or similar loads with ISO corner casting lifting points from a container lifting spreader.
- Fit lifting equipment to a crane hook other than those for which they are designed.
- Use damaged or distorted lifting equipment and attachments.
- Unevenly load lifting beams.
- Allow lifting beams to alter attitude during use.
- Allow lifting beams or loads to foul the underside of the crane or any other obstruction in the area.
- Exceed the marked SWL.

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LOAD SOLUTIONS

- Shorten the drop slings to less than 3mtr effective working length; the sling angle to vertical should not exceed 32 degrees.

ASSEMBLY PROCEDURE

- Attach suitable lifting slings and shackles to each end lifting point on the Flatrail.
- Connect the lifting slings to the container spreader corner lifting lugs ensuring that the sling angle to vertical does not exceed 32 degrees. Refer to the container spreader instruction document for guidance on lifting points and capacity.
- Ensure that the lifting twistlocks are secured in the open position.
- Complete pre-use check and inspection to include reference to lift plan and tare weights of flatrack and load to be lifted.

OPERATION

- Lift the Flatrail over the flatrack ensuring that the Flatrail twistlocks are open.
- Lower the Flatrail ensuring that it is always clear of the load to avoid damage.
- Locate the Flatrail twistlocks in the flatrack corner casting's top apertures. Ensure that each twistlock is fully engaged and is central in the casting aperture.
- Lock each twistlock and secure the locking handle.
- Ensure the locking handle is secured behind the bolt with nyloc nut to prevent movement
- Initiate lift to apply load on the twistlocks, visually check that each twistlock is locked, secured and has not shifted in the corner casting aperture.
- Assess the load and complete lift in accordance with the lift plan and or crane procedures.

The Flatrail lifting beam assembly has been designed in accordance with BS EN 13155:2003+A2:2009 (Cranes Safety, Non-Fixed Load Lifting Attachments) which assumes that the structural elements will not be subject to more than 20,000 lifting cycles (for example four lifts per day for 14 years).

IN-SERVICE INSPECTION & MAINTENANCE

The assembled Flatrail and lifting accessories should be inspected by a responsible trained person prior to each use.

In the event of the following defects, refer to a Competent Person for thorough examination:

beam distorted, damage or corroded; worn, loose or missing bolts; cracked welds; twistlock or attachments points worn, damaged or distorted, holes & eyes worn or elongated; any other visible defects.

Ensure that locking pins are in place and have not worked loose

The twistlock mechanism should be greased and an operation test completed regularly to ensure free and correct movement. It is important to check that the twistlocks can fully lock and unlock. The twistlock head should be checked for wear caused by dragging on the ground when not in use. It is recommended that the Flatrail is stored in a manner to protect the twistlocks during transit and storage.

Periodic thorough examination should be completed to comply with applicable regulations and laws in country of use. We recommend that six monthly examinations are completed but examination period should never exceed 12 months.

Refer to individual maintenance requirements for associated loose gear (slings & shackles).

WARNING!

- **PERSONNEL USING AND ASSEMBLING THIS LIFTING EQUIPMENT SHOULD BE ADEQUATELY TRAINED, COMPETENT AND HAVE A CLEAR UNDERSTANDING OF SAFE SLINGING PROCEDURES.**
- **ALL LIFTING OPERATIONS MUST BE PLANNED AND ALL LIFTING EQUIPMENT USED IN ACCORDANCE WITH THE RELEVANT PROCEDURES.**
- **FURTHER GUIDANCE FOR LIFTING OPERATION PLANNING CAN BE FOUND IN BS 7121.**
- **NEVER EXCEED SWL.**
- **KNOW THE TARE WEIGHTS OF WHAT IS BEING LIFTED. THIS INCLUDES THE LIFTING EQUIPMENT AND ATTACHMENTS.**
- **THE SLING ANGLE AND LENGTH OF SLING IS CRITICAL TO THE SAFE USE OF THE FLATRAIL.**
- **THE SLINGS MUST BE IN THE VERTICAL IN THE TRANSVERSE SECTION AND MUST NEVER BE CONNECTED TO A SINGLE HOOK, RAM HORNS OR TOP TERMINAL FITTING THAT PUTS THE SLINGS AT LESS THAN 2.5 DEGREES FROM THE VERTICAL.**
- **NEVER USE A SLING SHORTER THAN 3MTR EWL.**
- **ENSURE MECHANISM IS FREE TO ROTATE AND ENSURE TWISTLOCKS ARE LOCKED AND SECURED WHEN LIFTING.**
- **NEVER USE WITH AN ANGLED FOUR LEG SLING.**

Review Date: 3rd December 2018