

## LIFTING RIG OPERATING AND SAFETY INSTRUCTIONS

### **WARNING!**

- Any alterations to this hire equipment may prove dangerous to the operator and will be in breach of the Equipment Hire Agreement. Service must only be performed by an authorised Geofabrics service organisation or representative.
- Please contact Geofabrics (0800 60 60 20) for return of this equipment or servicing if it is found to be faulty.
- All hire related documentation, operating and safety instructions are available on our website ([www.geofabrics.co.nz](http://www.geofabrics.co.nz)).



Figure 1

The Lifting Rig is designed to be used as an attachment to suitable earthmoving equipment for the installation of various rolled Geosynthetic products in suitable construction areas (please refer to Geofabrics sales staff for information on suitability of the Lifting Rig for a specific product application).

This document is intended to provide an outline for the safe use of the Lifting Rig. Refer to the specific product Installation Guidelines for a comprehensive explanation of the recommended installation process.

### **PRE-OPERATIONAL CONSIDERATIONS**

- Before operating the Lifting Rig, it is important that you read and understand the Lifting Rig's Installation Guidelines and maintenance and safety precautions outlined below and in the Equipment Hire Agreement document (Use and Maintenance).
- Contact Geofabrics (0800 60 60 20) if you do not understand any of the instructions in this document.
- To operate the Lifting Rig, operators must be in good physical and mental condition. Do not operate if on medication or under the influence of alcohol or drugs. Seek medical advice if unsure.
- As the installation of Geofabrics' rolled materials is considered a construction activity, the contractor using the hire equipment must prepare and implement a site safety plan that incorporates the safe work methods for high risk work involving the Lifting Rig.

### **SAFETY PRECAUTIONS AND WORKING TECHNIQUES**

- Because the Lifting Rig is suspended/slung from excavators, cranes and other pieces of mobile plant, site specific safety precautions must be observed to reduce the risk of people being hit/struck by the mobile apparatus.
- Steel capped safety boots must always be worn while operating or working near the Lifting Rig. Keep all body parts clear of the equipment at all times when the equipment is in use.
- Always use appropriate personal protective equipment such as riggers gloves, high visibility clothing (shirt or tabard), hard hats and safety eye wear with side protectors.
- Establish an exclusion zone of at least three metres around the equipment when it is in use.
- Do not use the Lifting Rig for any application other than its intended purpose.
- Do not abuse the Lifting Rig in any way which may result in personal injury and/or damage to the equipment.

- Check the condition of the Lifting Rig (including D shackles and chains) before each use for any damage. If the behaviour of the Lifting Rig changes, check it immediately and return it to Geofabrics for service if necessary.
- Never modify the equipment in any way.
- Do not allow workers to walk on geosynthetic product within 10 metres of the roll and equipment in consideration of the possibility of the roll detaching from the equipment or mobile plant.
- When deploying the Lifting Rig down slopes, ensure that the excavator or controlling plant is positioned to minimise the possibility of rolls dislodging and rolling towards people who would otherwise be positioned in an exposed area below the roll.
- Ensure the Safe Working Loads specified on the lifting equipment are not exceeded.

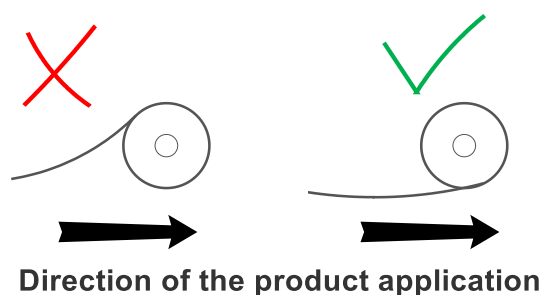
## FINAL SAFETY CHECK BEFORE DEPLOYING THE PRODUCT

- Ensure the product roll is balanced and secure on the lifting rig before deploying product.
- Site Conditions
- The Lifting Rig is designed for the application of Geofabrics' rolled products to suitable construction site areas (refer to Geofabrics' sales staff for suitability of the Lifting Rig for a specific product application). The Lifting Rig should not be operated in conditions which could endanger the operator or other site personnel.

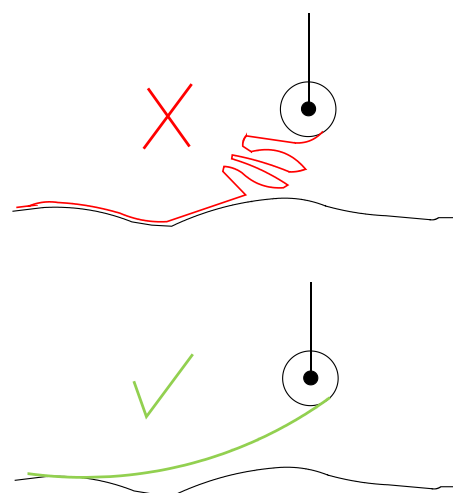
## LIFTING RIG INFORMATION

Safe Working Load (SWL)	1,700 kg
Weight	618 kg
Length	7.2 m
Height (from main lifting hook to the lifting prongs)	2.6 m

## POSITION OF THE FABRIC ON THE LIFTING RIG



- **WARNING!** When deploying geosynthetic rolls from a lifting frame, the roll end should be first fixed in place and the lifting frame then moved in a slow and even manner to ensure that no overspinning of the roll occurs on the central steel bar (as picture below). Rolls should be deployed from just above ground level so they can be lowered down quickly to minimise over spooling.



## LIFTING RIG COMPONENTS

To ensure no parts are lost, all components should be stored and transported as a set, in such a way as not to cause damage to the equipment.

### MAIN LIFTING BEAM (FIG 2)

- Check the main beam is not bent or has major dents.



Figure 2

### LIFTING PRONGS (FIG 3), PRONG HOLDERS (FIG 4), LOCKING PINS WITH SAFETY LOCKS (FIG 5)

- Position prong holders equal distance from the ends of the main lifting beam, relative to the roll width, to ensure the product is balanced when lifted.
- Check that the locking pins and safety locks work and are not damaged.
- Secure locking pins with safety locks once lifting prongs have been inserted into prong holders to secure them inside the prong holders to prevent them from sliding out.
- All corresponding components must stay together as complete sets.



Figure 3



Figure 4



Figure 5

## MAIN LIFTING HOOK, CHAINS, SWIVELS, “D” SHACKLES AND PINS (FIG 6 AND 7)

- All chains are connected with swivels, “D” shackles and pins.
- Check pins are secure, chains are not damaged and correct bolts are in shackles.
- Each chain must have a metal service tag indicating the safe working load and test date.
- The service tag should not be more than one year old.



Figure 6



Figure 7

## SIDE PLATES (FIG 8)

- Check the side plates are securely fixed with nuts, bolts and washers to the main beam to prevent prong holders from sliding off.



Figure 8

## MAIN BEAM'S MIDDLE JOINT (FIG 9)

- Check the middle joint is securely fixed with nuts, bolts and washers to prevent it from splitting, potentially damaging the product and equipment or endangering personnel.
- Torque wrench must be used to tighten the bolts. For M16 (8.8 grade) bolt torque setting should be 260 N.m (190 ft. lbs.)





## FORKLIFT BRACKETS (FIG 10)

**WARNING:** Forklift brackets are designed for easy handling. Do not use for suspending a loaded frame.



Figure 10

## PARTS MAINTENANCE

**Chains** – should be dipped in diesel when rusty to keep them well oiled.

**Pins and Prong Holders' railing** – use heavy duty grease to lubricate the inside of the Prong Holders, Prong Holder's railing as well as Pins to ensure easier handling.



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