

Universal Restraining Chains



Important Notes

All excavation work must be thoroughly planned before work commences on site to identify hazards and assess risk.

Under no circumstances must Restraining Chains be used for lifting operations.

These instructions form guidance for Universal Restraining Chains. Non-standard applications should be approved by a suitably qualified engineer.

Ensure all personnel engaged in excavation operations are properly briefed and adequately supervised by a competent person.

THIS USER GUIDE IS NOT CONTROLLED WHEN PRINTED

You can also access this User Guide to [download as a pdf](#) from the Groundforce Technical Library.

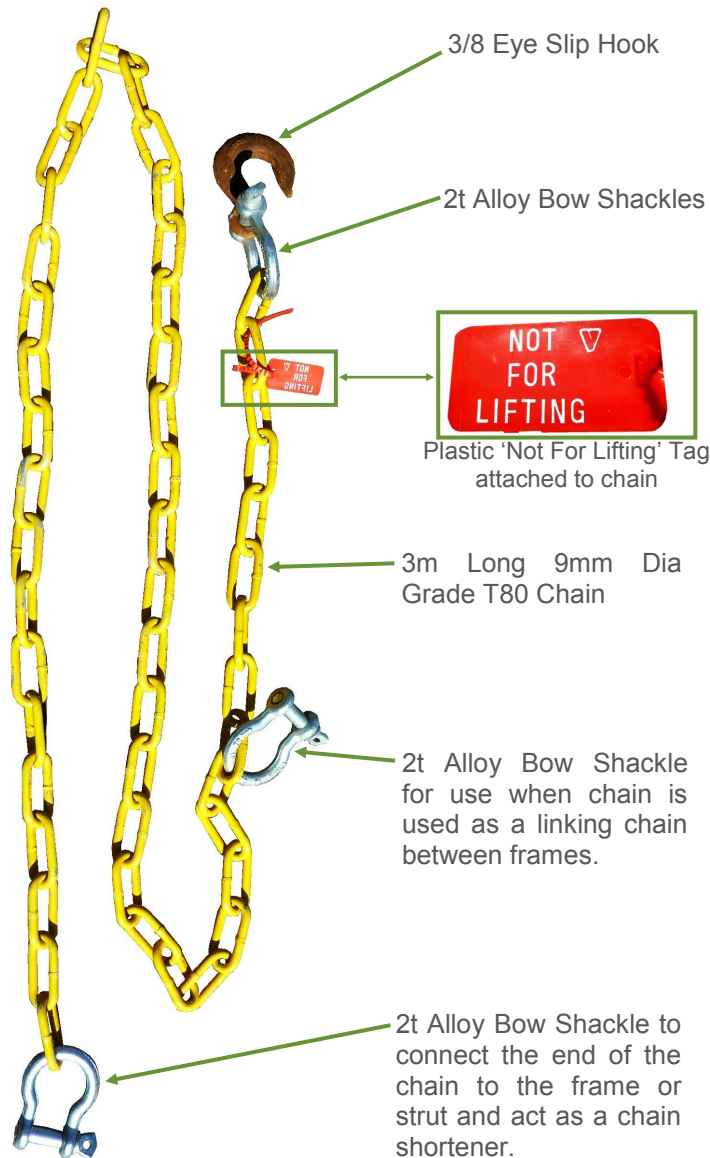
**IF IN ANY DOUBT SEEK FURTHER ADVICE:
ON FREEPHONE - 0800 000 345**

Rev	Date	Comments	Initial
1.4	03/10/18	Weight added	DSW

Introduction

Restraining chains are used to support shoring equipment within an excavation generally from the tops of trench sheets or sheet piles so as to prevent downward movement induced by self-weight or accidental striking by plant. Groundforce supply a universal chain that can be used for either hanging of the upper frame from the sheet tops or linking subsequent frames together.

Equipment Specification



Safety Notes:

Restraining Chain assemblies and individual components are not certified as 'lifting equipment' under LOLER and should not be used as such.

The purpose of restraining chain assemblies is to provide secondary support to a frame or strut in the event of mechanical or hydraulic failure, or to prevent dislodgement by accidental striking of plant.

It is essential that certified lifting chains are used to take the weight of equipment before retracting the hydraulic rams.

Restraining Chain Assembly	
Item Code	Weight (kg)
MG.REST	7.0

General Notes

All restraining chains will have been inspected prior to arriving on site. They will have a "NOT FOR LIFTING" tag attached to signify this. However it is strongly recommended that before use they are further visually inspected as follows:

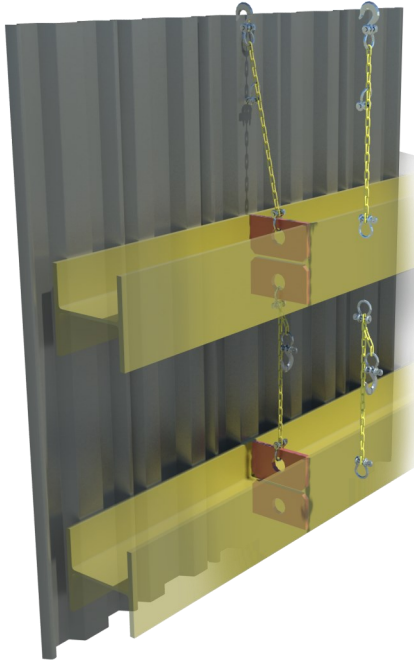
- Ensure all components are attached to the chain as shown in the diagram above and they there are no obvious signs of damage to the shackles and hook.
- Ensure that the shackle pins are present and that they turn freely within the shackle body.
- Non-conforming components must not be used, they must be quarantined and Groundforce notified to supply replacements.

Frame to Sheet and Frame to Frame Connection



Safety Note:

Extreme care and adequate precautions must be taken to prevent trapping fingers during chain connection.



The left image illustrates a typical configuration using the Universal Restraining Chain with sheets and frames.

The chain can be used to either hang the frame from sheet top using the Eye Slip Hook, or as an interlink between frames using both shackles, the hook being redundant.

Note: Always use the red hanging points provided.

Excess slack in the chain must be removed by inserting the bottom bow shackle in the appropriate chain link.

Note

The angle between the chain and the sheet must not be greater than 30 degrees

Strut to Frame Connection



The left image illustrates a typical arrangement whereby the strut is secured to a waling beam.

Depending on the strut type, the chain can either be attached to an appropriate securing point or wrapped around the swivel as illustrated. **Note:** Always use the red hanging points provided.

Excess slack in the chain must be removed by inserting the lower bow shackle in the appropriate chain link.

Do

- ✓ Ensure that personnel who are to use the equipment have received the appropriate instruction and training
- ✓ Check all components before use
- ✓ Locate the chains as per the scheme drawing (if available) **Note:** smaller frames only require a chain in each corner
- ✓ Remove excess slack in the chain.
- ✓ Ensure that the shackle pins are screwed fully home
- ✓ Inspect the chains regularly for signs of excessive overloading
- ✓ Take care to avoid trapping fingers

Do Not

- ✗ Use the chain or shackles for lifting operations
- ✗ Twist or knot the chain
- ✗ Load the chain significantly
- ✗ Hang chains at an angle of greater than 30 degrees to the sheets
- ✗ Use non-standard components
- ✗ Use damaged or non-conforming components