



**NATIONAL**  
**TRENCH SAFETY UK**



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safety lifting equipment

SRGRS  
**NTS**



owners manual  
operators instructions  
spare parts list  
safety precautions  
maintenance

**slide rail ground release shackle**

Rev01

# **preface**

**Do not use this shackle for pulling or extracting!**

This manual is used to familiarise you with safety, operation, troubleshooting, and maintenance. Read and follow the recommendations in this manual to ensure safe and efficient operation.

We want you to be completely satisfied with your new product, feel free to contact your local authorized service dealer for help with service, replacement parts, or any other information you may require. If you need assistance in locating a dealer, visit our web site at [www.ntsafety.co.uk](http://www.ntsafety.co.uk) or call 03332 076 007

Whenever you contact your authorised service dealer, always have the model number and serial number of your product available. These numbers will help provide exact information about your specific product. You will find the model and serial numbers on an ID plate located on the product.

The descriptions and specifications in this manual are subject to change without notice. National Trench Safety reserves the right to improve products. Some product improvements may have taken place after this manual was printed.

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## introduction

This robust pile lifting shackle was contractor designed and developed over many years of site use and abuse. The use of these shackles compliments the "Feet on the Ground" approach

### FEATURES

Robust High Strength cast steel body. High alloy steel plunger.

Plunger mechanism concealed for maximum protection.

Plunger mechanism easily detachable for maintenance.

Lifting ring at top of shackle to enable lifting from a variety of angles.

Proof loading to twice the safe working load.

Indicator bar to give clear visual indication that plunger has engaged pile lifting hole completely.

Quick coupling and release of shackle from slide rail corners

'Safety ring' to protect against accidental plunger release caused by poor working practices.

# method of operation

Tie a length of soft rope to the pull ring on the pull wire. The rope should be 1 metre (3 feet) longer than the corner section. Do not use a continuous loop as this will become snagged.

Before positioning the lifting shackles, it is necessary to retract the plunger. Pull the pull wire until the trip mechanism holds the plunger in its retracted position.

With the plunger over the lifting hole, firmly tap the indicator bar end. If the plunger does not locate directly through the hole, move the shackle body until the plunger goes through the pile hole and into the shackle body on the underside. The indicator bar should be flush with the plunger tube assembly.

Install the safety ring over the plunger tube assembly as shown in the installation diagram.

With the plunger properly located, the safety ring engaged, the corner can then be lifted into position

To release the shackles after install is complete, the safety ring must first be unhitched by 'flicking' the release rope, then simply pull on the release rope. If there is a tendency to jam, then take the weight of the shackle on the crane and pull again.

Unauthorised alterations invalidate the test certificate.

# safety check list



## Do not use this shackle for pulling or extracting!

Prior to installing a shackle onto any steelwork, check the following:

Establish the weight of the lift involved and ensure a shackle with appropriate Safe Working Load is being used.

The Safe Working Load rating of any shackle is based on a purely tensile (axial) load. When lifting steelwork from horizontal to vertical or the reverse, remember that the shackle becomes de-rated by 50%

Ensure that the pin has gone through both sides of the shackle body - check indicator bar position prior to lifting.

Visually check the shackle is in good condition and good working order.

Do not modify the lifting shackles or any part of the lifting apparatus. Keep the burning torch well clear!

Keep the plunger mechanism well lubricated.

Care should be taken to avoid the pull ropes getting snagged.

Ensure that all appropriate laws, bylaws and regulations are complied with.

Always use the safety ring to prevent accidental release.  
- it only takes an extra second or two!

## continued - safety check list



KEEP FINGERS OUT OF THE SHACKLE THROAT AT ALL TIMES. (GLOVES SHOULD BE WORN.)



DO NOT USE SHACKLE IN TEMPERATURES BELOW -15°C (5°F)  
CONSULT MANUFACTURE FOR FURTHER INFORMATION ON LOW TEMPERATURE SOLUTIONS.



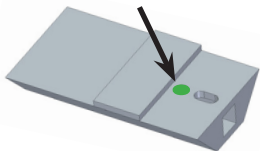
SHACKLES MUST NOT BE SUBJECTED TO EXCESS VIBRATION FROM PLANT EQUIPMENT.

### TRAINING

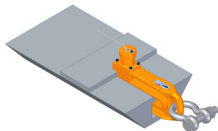
Before allowing operators to use the Shackle, it is important to ensure they have received basic training in lifting and control of heavy loads.

# installation/release illustration

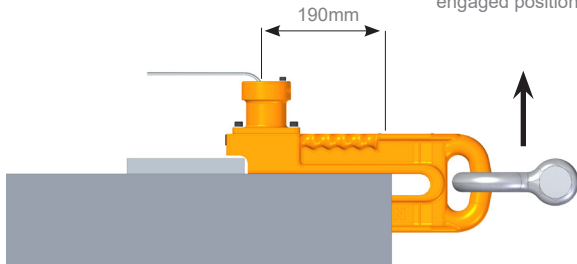
Identify the lifting hole in the Slide Rail Corner



Slide throat of shackle over top of Slide Rail Corner. Align shackle pin with hole and engage fully



Indicator bar is now in - flush with the barrel Safety pin in engaged position



Place safety ring (the largest diameter ring) over the assembly barrel.

## Release the shackle

When the Slide Rail Corner is in the correct location and the shackle bears no weight

Whip the release rope away from the shackle

A firm pull on the release rope will retract the pin of the shackle

Shackle is now ready to be released from the Slide Rail Corner Section

# maintenance

The Shackle is manufactured from high quality material and assembled in a manner designed to offer long service with a minimum of maintenance.

In order to preserve the product in this state, it is necessary to ensure that it is not mis-used or used for purposes outside its recommended use and to carry out regular inspection and servicing.

The shackle body should be checked regularly for distortion arising from overload

The pin should be checked for smooth travel and light oiling applied at moving surfaces.

If the product does not operate perfectly, contact the manufacturer for advice, or return for immediate attention.

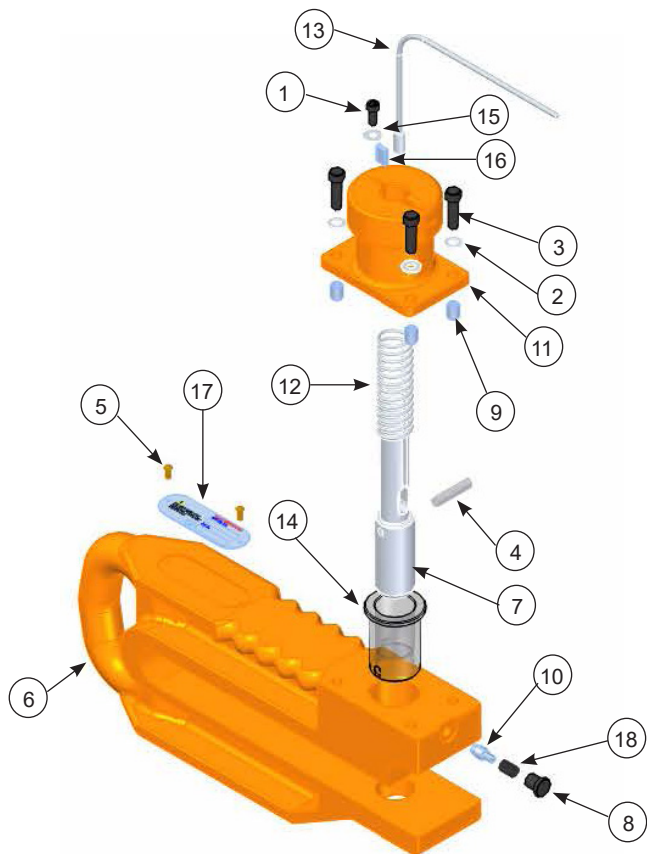
Each unit is issued with a test certificate.

If any parts of the shackle are replaced with nonstandard parts or in a non approved manner, the certificate is no longer valid.

Replacement of any load bearing components requires a re-test to twice safe working load.



## GENERAL ASSEMBLY



# parts list

Item No.	Qty	Part Name	Part Number
1	1	Socket Head Cap Screw	0M06.016.02
2	4	Socket Head Cap Screw	0M08-030-02
3	4	Washer	0M08.000.20
4	1	Coiled Spring Pin	0M08.040.36
5	2	No6 x 1/2" Rivet	1-204-00-01
6	1	N/A	Casting N/A
7	1	Plunger	5913
8	1	M12 X 1.5 Plug	5915
9	4	Dowel Bushing	5916
10	1	Detent Pin	5919
11	1	Tube Assembly	5922A-B
12	1	Compression Spring	5926
13	1	Safety Pull Wire Assy	5930A
14	1	Sleeve	5931
15	1	M6 x Ø19 Washer	5936
16	1	Guide Key	5937
17	1	Shackle ID Plate	5938NTS
18	1	Compression Spring	6935

notes

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