

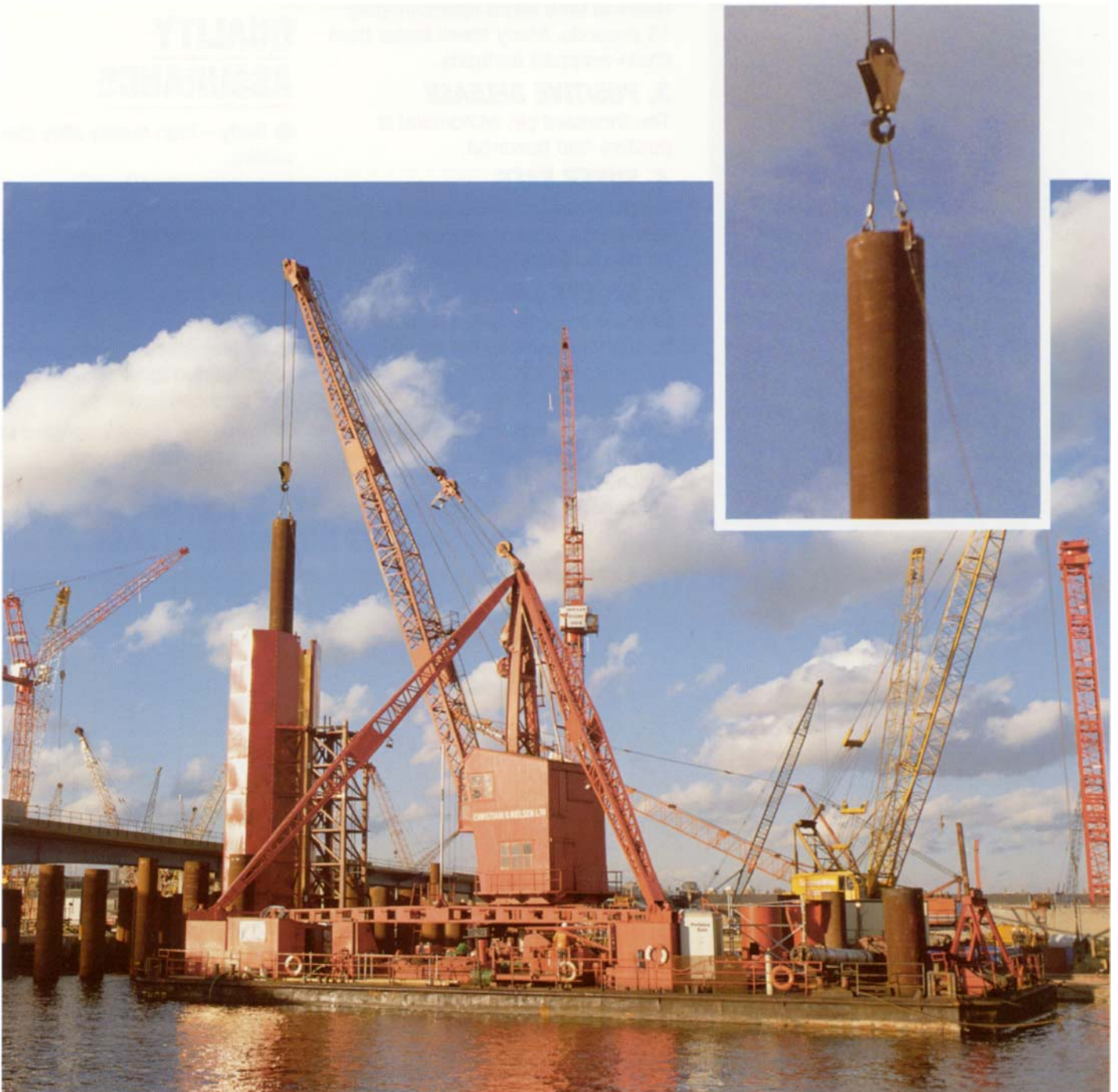
EURO



R.R.S.

DAWSON RATCHET RELEASE SHACKLE

FOR *FASTER & SAFER* PILE PITCHING



The Ratchet Release Shackle is designed to enable steel, timber or concrete elements to be lifted into position, any height above ground level and for the shackle to be disconnected safely and efficiently from a remote position. The purpose is to save the time taken and avoid the material costs of providing access for a man to disconnect the shackle. Achieving this result makes the work faster, more economical and inherently safe.

ADVANTAGES

1. FAST HOOK UP

Shackles straight on to holes or lugs provided. No need to get underneath to wrap chains.

2. FAST RELEASE

Release time takes approximately 15 seconds. Many times faster than chain-wrapped methods.

3. POSITIVE RELEASE

The threaded pin withdrawal is positive and powerful.

4. SUPER SAFE

Ratchet mechanism ensures a fail-safe mode. Release action cannot be simulated by accident.

5. SAFETY CHECK

Shackle threaded pin is extended through the back of the shackle as an 'indicator bar'. This gives a tell-tale indication of the pin position.

- Stiff web section gives high strength/weight ratio on main steel casting.

- Top ring provides two dimensional flexible joint.

- Ratchet mechanism ensures failsafe mode.

- Minimum components for reliability and ease of maintenance.

QUALITY ASSURANCE

- Body – high quality alloy steel casting.

Inspection procedures:

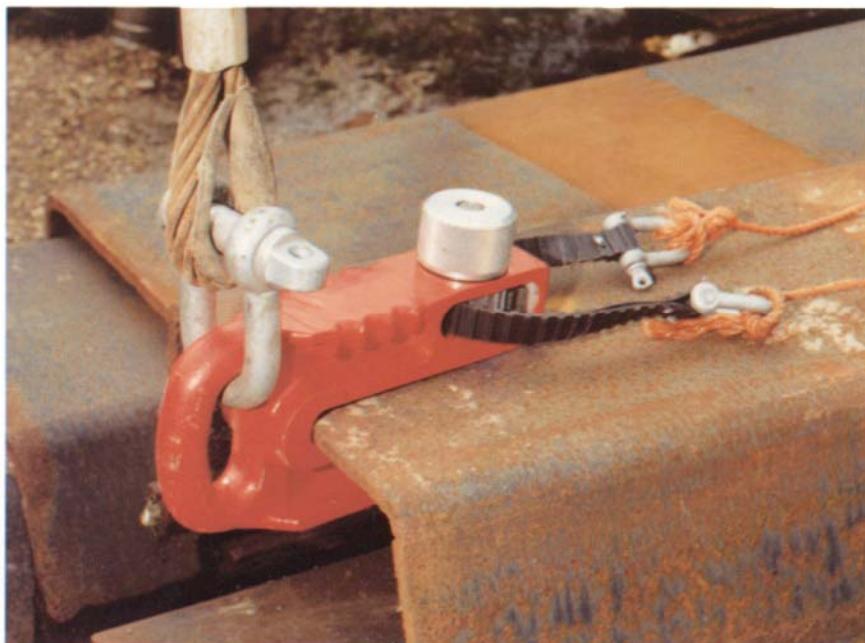
- 20% batch x-ray
- 100% ultrasonic inspection
- 100% MPI

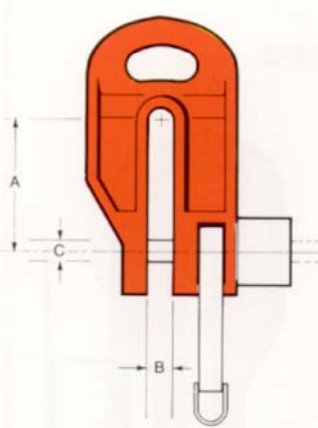
- Shear pin – high quality alloy steel.

- All shackles are independently proof loaded to twice safe working load and certified.

- Prototype shackles tested to five times safe working load.

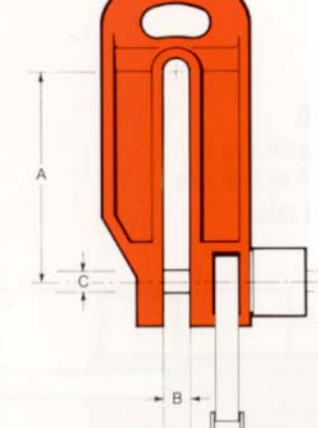
**EVERY SHACKLE IS TESTED
TO DOUBLE ITS SAFE WORKING LOAD**





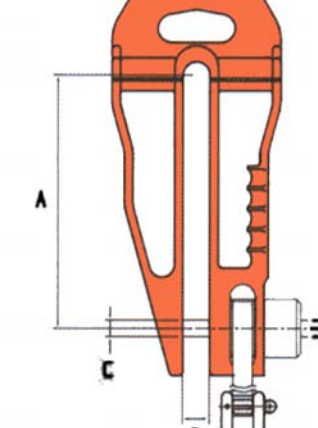
MODEL 150

Ref	Dimensions			S.W.L. tonnes U.S. short T	Weight k.g. lbs
	A	B	C		
150/3.5T	150	30	20	3.5	14
inch units	5.9	1.18	0.79	3.87	31
150/5.0T	150	30	24	5.0	14
inch units	5.9	1.18	0.94	5.51	31
150/7.5T	150	30	27	7.5	14
inch units	5.9	1.18	1.06	8.26	31
150/10T	150	30	35	10.0	15
inch units	5.9	1.18	1.38	11.02	33



MODEL 250

Ref	Dimensions			S.W.L. tonnes U.S. short T	Weight k.g. lbs
	A	B	C		
250/3.5T	250	30	20	3.5	18
inch units	9.84	1.18	0.79	3.87	40
250/5.0T	250	30	24	5.0	18
inch units	9.84	1.18	0.94	5.51	40
250/7.5T	250	30	27	7.5	18
inch units	9.84	1.18	1.06	8.26	40
250/10T	250	30	35	10.0	18
inch units	9.84	1.18	1.38	11.02	40
250/40T	250	50	60	40	67
inch units	9.84	1.97	2.39	44.08	148

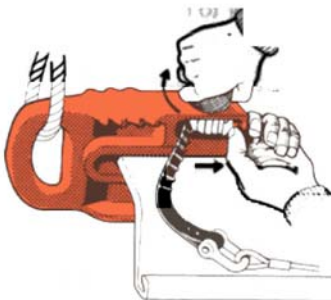


MODEL 300

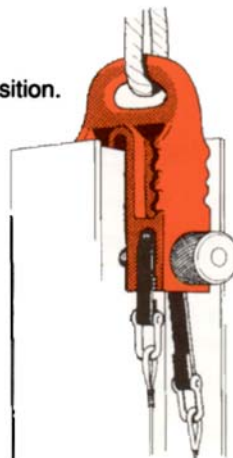
Ref	Dimensions			S.W.L. tonnes U.S. short T	Weight k.g. lbs
	A	B	C		
300/7.5T	250	30	27	7.5	23
inch units	12	1.18	1.06	8.26	51
300/10T	300	30	35	10.0	23
inch units	12	1.18	1.38	11.02	51

METHOD OF OPERATION

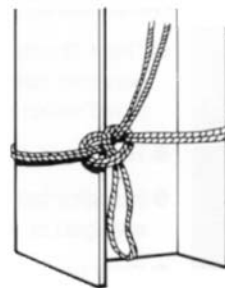
1. Insert pin.



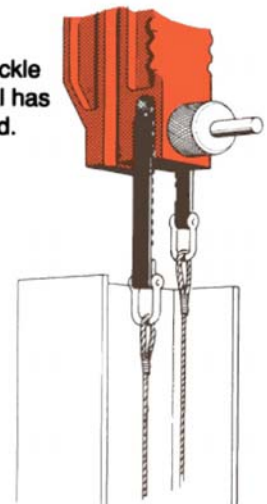
2. Hoist to position.



2a. Tie release ropes



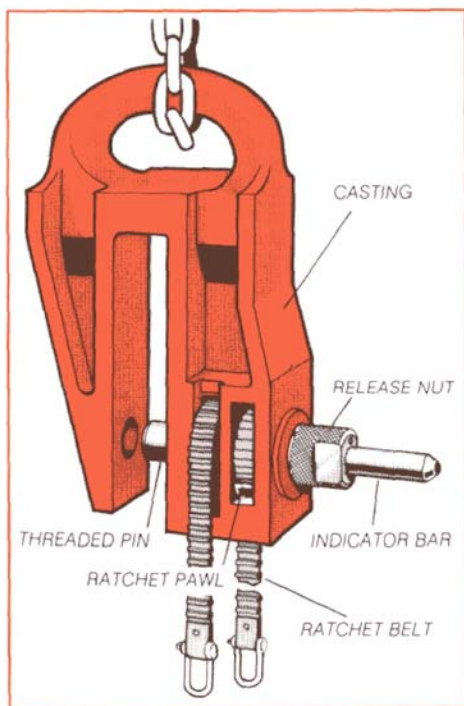
3. Release shackle after material has been secured.



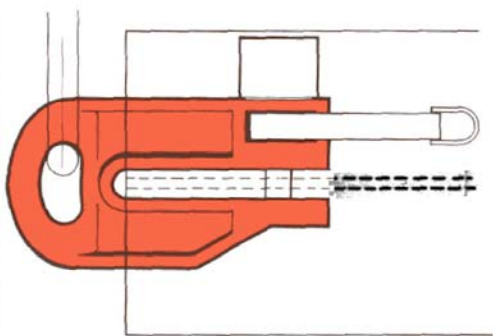
1. With the pin retracted, slide the shackle over the material to be lifted until the pin is approximately over the lifting hole. Press the ratchet pawl down with thumb of one hand and turn the release nut of the shackle with the other hand. Continue turning in a clockwise direction until the pin has gone through the hole in the member to be lifted and into the opposite side of the shackle. The indicator bar should not protrude from the face of the release nut.

2. Two soft ropes should be attached to the 'D' shackles at each end of the toothed belt. The material may then be lifted. It is prudent to tie the ends of the shackle release ropes to the bottom of the member (2a) to prevent the ropes from becoming snagged or being caught in the wind and becoming inaccessible.

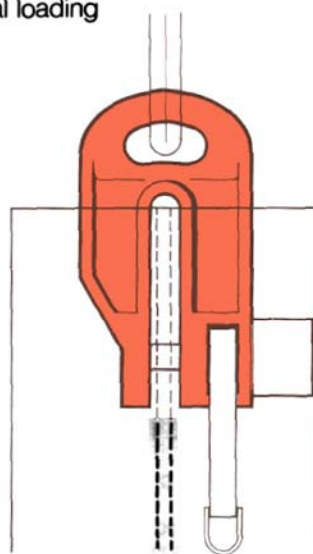
3. After lifting the material, the shackle is released by pulling the release ropes first one way and then the other, five or six times. The ratchet action withdraws the pin. The stroke of the pull is limited by the 'D' shackles at each end of the toothed belt (450mm maximum length).



SAFE
Lifting off stack
at 90° to the axis
of the pile.



SAFE
Axial loading



This product complies with 89/392 EEC Machinery Directive



DAWSON CONSTRUCTION PLANT LTD

Chesney Wold, Bleak Hall, Milton Keynes MK6 1NE, England.

Tel: (01908) 240300 Fax: (01908) 240222 Int Tel: +44 1908 240300 Int Fax: +44 1908 240222

E-mail address: dawson@dcpuk.com Web address: www.dcpuk.com

EURO



G.R.S.

DAWSON GROUND RELEASE SHACKLE



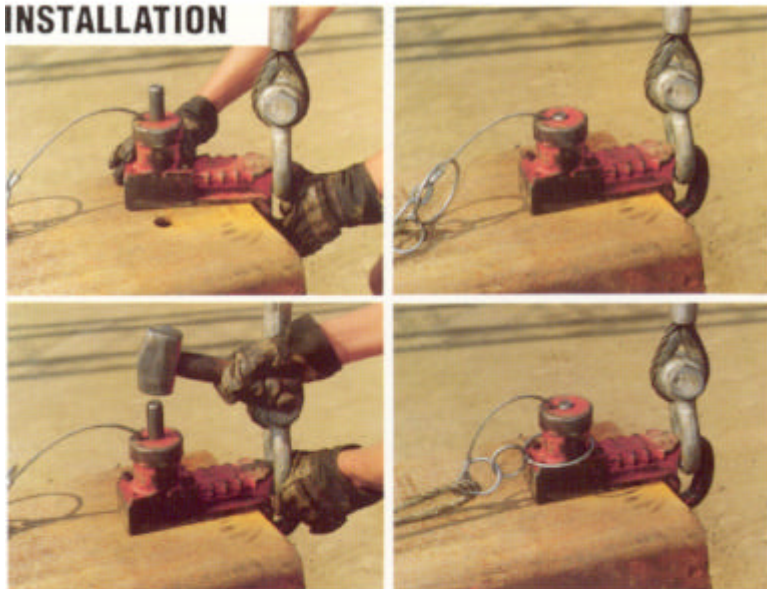


EURO GROUND RELEASE SHACKLE

FOR FAST, SAFE LIFT & RELEASE

The Euro GRS has been developed specially for steel sheet piling. Its purpose is to enable steel piles to be lifted into position and when held securely in temporary guides the shackle can be released quickly and safely. It avoids the costly delay and inherent hazards of putting a man up to the release position.

INSTALLATION



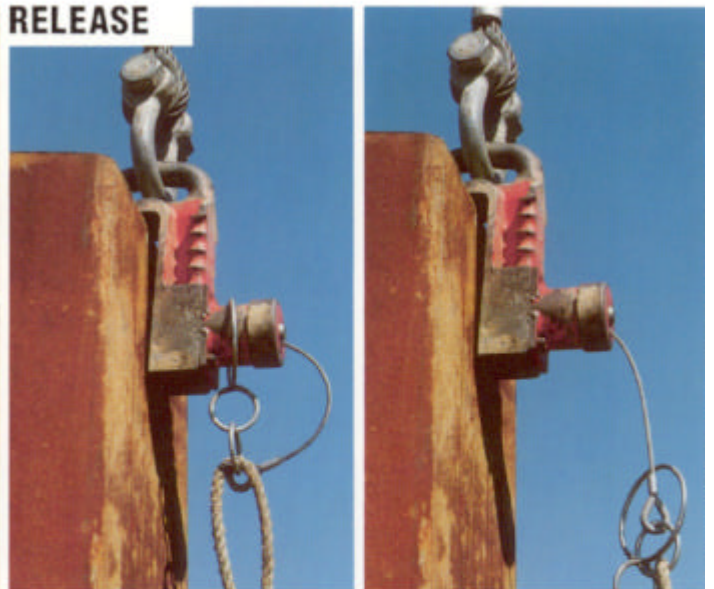
At all times keep fingers out of the Shackle throat.

With the pin in the retracted position (i.e. indicator bar protruding) slide the throat of the Shackle over the top of the sheet pile. Align the Shackle pin over the lifting hole. When you are ready to insert the pin, strike the indicator bar. This action should release the retaining mechanism and project the pin through the lifting hole. The indicator bar should be flush with the barrel. No part of it should protrude. Do not lift the pile if the bar is protruding.

With the pin properly inserted, place the safety ring (the largest diameter ring) over the barrel assembly. This should ensure that no pull on the release wire can be achieved without removing the ring first. Now lay out the release rope along the pile so that it does not become snagged during lifting. You are ready to lift.

At this stage it is good practice for all personnel to stand clear and not turn their backs to the

RELEASE



lifting operation (it may be a legal requirement). When the pile is in the vertical position the release rope should be secured (e.g. to the Pile Threader).

The pile can now be pitched.

Note: Hole position must suit the 'A' dimension on the enclosed charts.

RELEASE

When the pile is correctly positioned the safety ring should first be released. This is

ADVANTAGES

1. FAST HOOK UP

Shackles straight on to the lifting hole.

2. FAST RELEASE

Release time takes approximately 10 seconds.

3. SAFETY FEATURE

An additional 'security' ring provides duplicate safety against accidental release.

4. SAFETY CHECK

Shackle pin is extended through the back of the barrel assembly as an 'indicator bar'. This gives a tell-tale indication of the pin position.

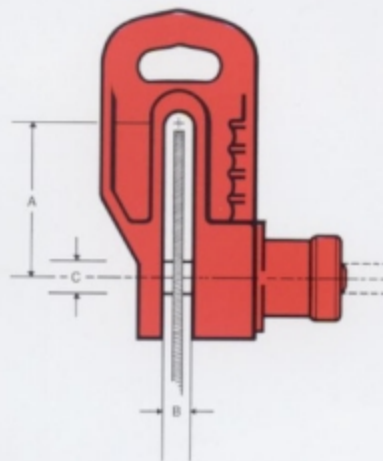
- Stiff web section gives high strength/weight ratio on the steel casting.

- Top ring provides two dimensional flexible joint.
- Mechanism is enclosed for maximum protection against site conditions.
- Minimum components for reliability and ease of maintenance.

QUALITY ASSURANCE

- Body – high quality alloy steel casting.
- Inspection procedures:
- 20% batch x-ray
 - 100% ultrasonic inspection
 - 100% MPI
 - Shear pin – high quality alloy steel.
 - All shackles are independently proof loaded to twice safe working load and certified.
 - Prototype shackles tested to five times safe working load.

**EVERY SHACKLE IS TESTED
TO DOUBLE ITS SAFE WORKING LOAD**

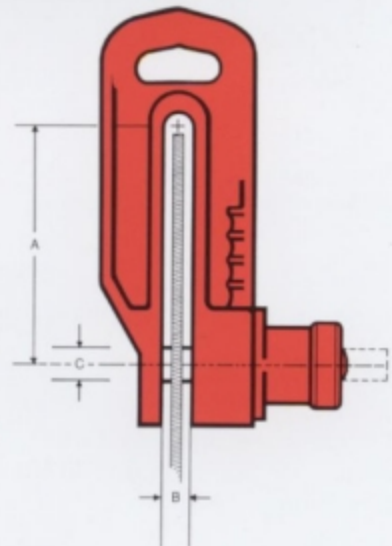


Type 150 / 4.0, 7.5, 10 Tonnes

Type	Dimensions mm (in)			SWL Tonnes (ton)	Weight kg (lbs)
	A	B	C		
150/4.0T	150 (6)	30 (1.18)	22 (0.87)	4.0 (4.4)	18 (40)
150/7.5T	150 (6)	30 (1.18)	28 (1.10)	7.5 (8.2)	18 (40)
150/10T	150 (6)	30 (1.18)	35 (1.38)	10 (11)	18 (40)

Units () are Imperial US

Note: Pile must fill throat depth – hole in pile should suit Dimension 'A'



Type 250 / 7.5, 10 Tonnes

Type	Dimensions mm (in)			SWL Tonnes (ton)	Weight kg (lbs)
	A	B	C		
250/7.5T	250 (10)	30 (1.18)	28 (1.10)	7.5 (8.2)	22 (48)
250/10T	250 (10)	30 (1.18)	35 (1.38)	10 (11)	22 (48)

Units () are Imperial US

Note: Pile must fill throat depth – hole in pile should suit Dimension 'A'

done by whipping the release rope away from the pile. The safety ring should come off the barrel assembly. If it does not come off first time, then repeat until it does. A firm pull on the release rope should then retract the pin. The locking mechanism will hold it in the retracted position. This is confirmed by the indicator bar protruding from the barrel assembly. Release is now complete ready for the next lift.

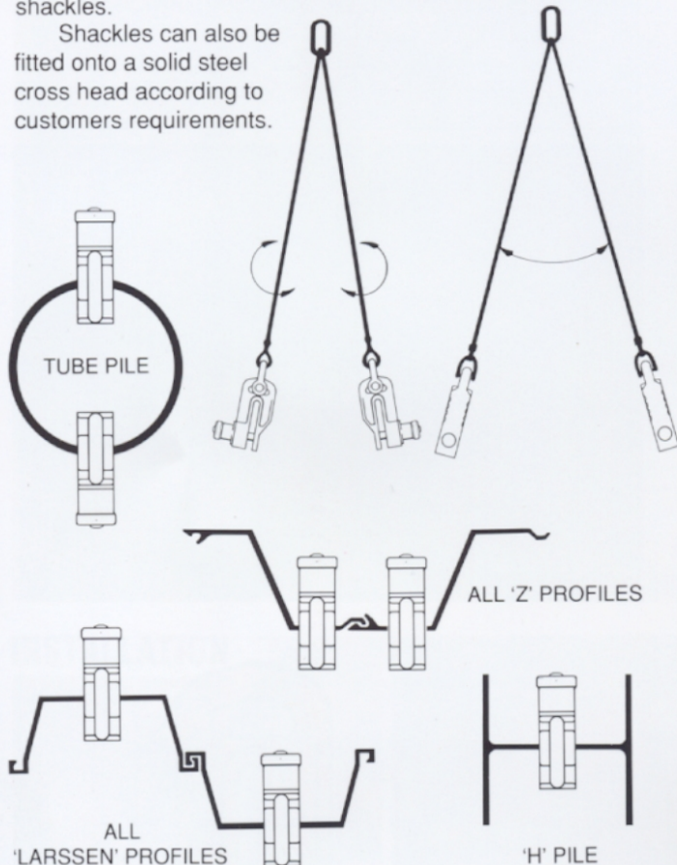
LIFTING PAIRS OF PILES

When lifting sheet piles in pairs it is necessary to use a pair of shackles.

We supply pairs of shackles mounted on a two legged steel wire rope sling. The advantage being that the standard pair of shackles with lifting sling can be fitted to any pair of Larssen piles where the lifting hole centres are different with every change of width and depth of section. No additional parts or change of components is necessary.

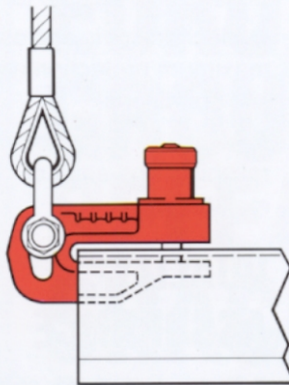
The ring at the top of the sling can be hooked directly onto a standard crane hook block, D shackle or fork anchor. The sling also enables the shackles to be turned to fit opposite faces of box or tube piles using the standard sling and shackles.

Shackles can also be fitted onto a solid steel cross head according to customers requirements.



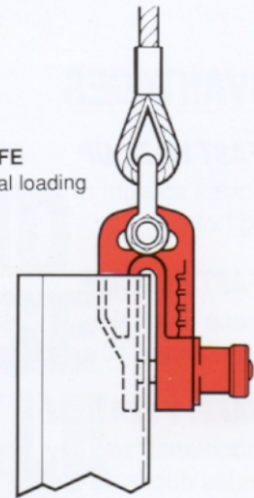
SAFE

Lifting off a stack at 90° to the axis of the pile



SAFE

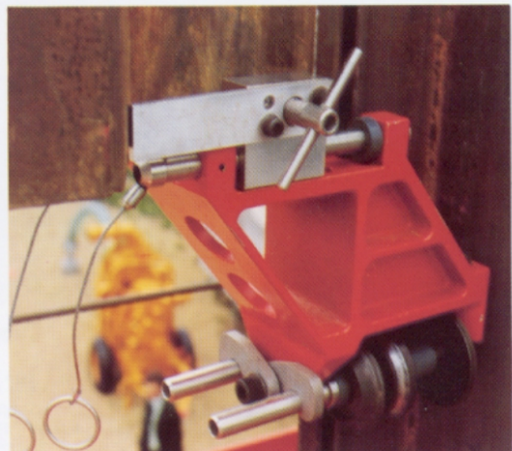
Axial loading



DAWSON SHEET PILE THREADER

To complete the 'feet on the ground' approach to sheet piling we offer the Dawson Sheet Pile Threader. This is a mechanical device which interlocks sheet piles when sheet piles are being pitched in panels. It replaces the 'Top Man' or 'Pile Monkey' who normally carries out the interlocking by hand.

The one basic threader is standard for ALL 'Z' section piles, ALL straight web piles and 'U' piles above size No. 1. Below this size the 'Mini' Pile Threader is available.



This product complies with 89/392 EEC Machinery Directive



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Chesney Wold, Bleak Hall, Milton Keynes MK6 1NE, England.

Tel: (01908) 240300 Fax: (01908) 240222 Int Tel: +44 1908 240300 Int Fax: +44 1908 240222

E-mail address: dawson@dcpuk.com Web address: www.dcpuk.com

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