



DAWSON **SHEET PILE THREADER**

***FOR RAPID SHEET PILE INTERLOCKING
FOR PITCHING PILES IN SEVERE WEATHER
FOR A SAFE WORKING METHOD
FOR ALL 'Z', 'U' AND STRAIGHT WEB PILES
FOR YOU! - SAVES TIME, MONEY & LIVES***





SHEET PILE THREADER

The DAWSON "Pile Threader" 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.

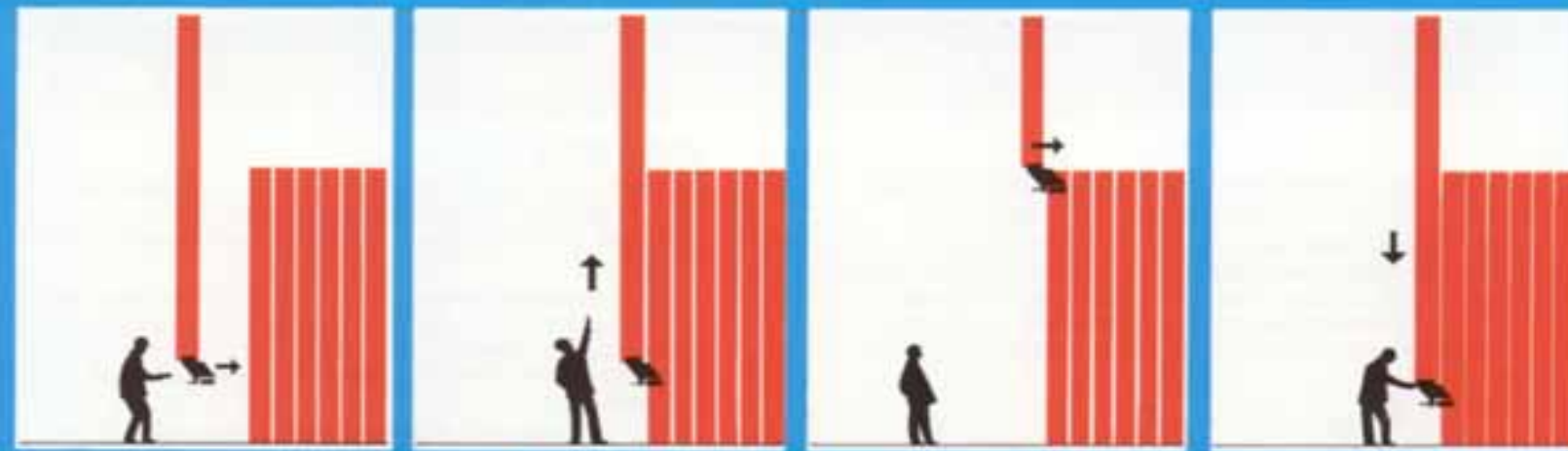
The Pile Threader has two main advantages:

PRODUCTION

- a) Interlocking piles, with the pile threader is faster than any other safe method of working.
- b) Every year several weeks of pitching time is lost due to strong winds. Much of this time is recovered using the pile threader as it will operate in severe weather conditions (e.g. half gale).

SAFETY

Instead of the 'Top Man' climbing or being hoisted up to the top of the piles and interlocking manually in an exposed position, the pile threader can be attached to the pile at top frame level and the threader goes to the top to do the interlocking. This eliminates a most dangerous manual operation.



Method of operation

- 1 The Threader is pre-loaded by pulling the pull wires and vice block against spring pressure and locking.
- 2 The pile to be pitched is fixed until the bottom end is about 1 metre above ground level. The threader is then clamped onto the pile with the vice. The relative position of the pile is governed by a stop plate to suit the pile sections being used.
- 3 The pile with threader attached is then lifted by the crane to the last pile in the panel. By means of rollers the lower part of the threader is then clamped to the last pile of the panel so that the interlocks are

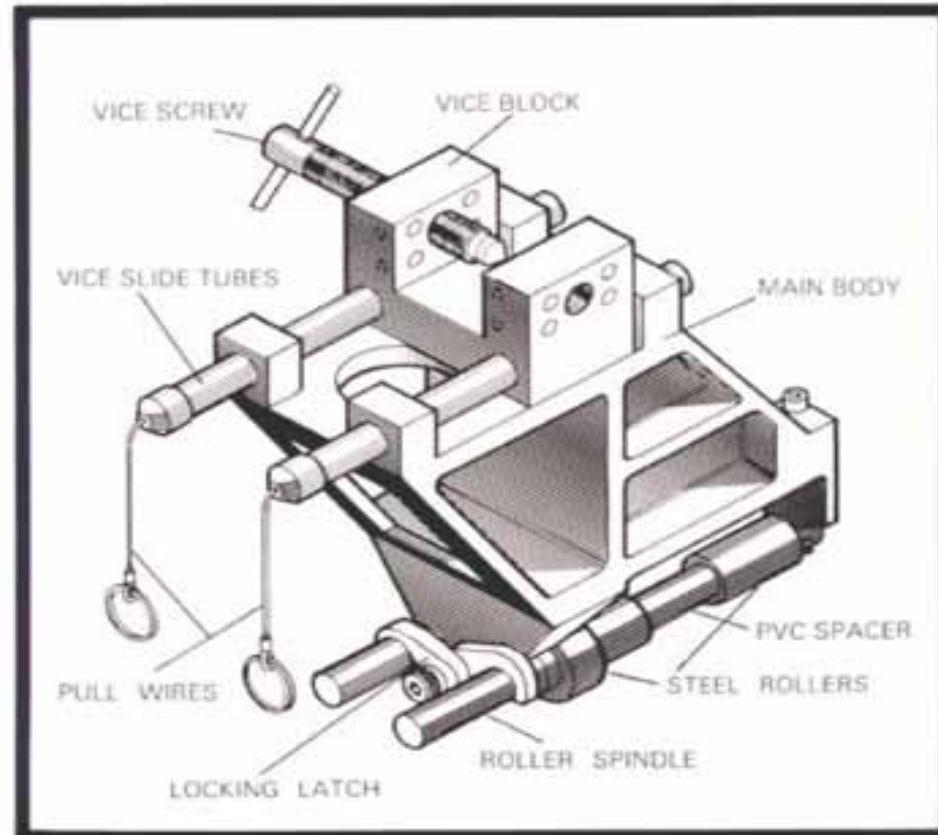
- adjacent to each other. The clamping operation is designed to permit free movement of pile and threader in a vertical direction but prevent movement in any other direction. This attachment is normally done at top frame level.
- 4 The cocking device inside the vice slide tubes are then released.
- 5 The crane lifts the pile to be pitched until its bottom edge is above the previous pile in the panel. The spring pressure on the vice block forces the pile across into the locking position. As the pile is lowered it interlocks. The threader is then unclamped at top frame level.

(left) Attaching the Pile Threader during a piling operation at Namur on the River Meuse in Southern Belgium. (right) Construction of a new quay at Inverness, Scotland. 1600 tonnes of Larsen B sheet piling were driven with the aid of the Pile Threader.

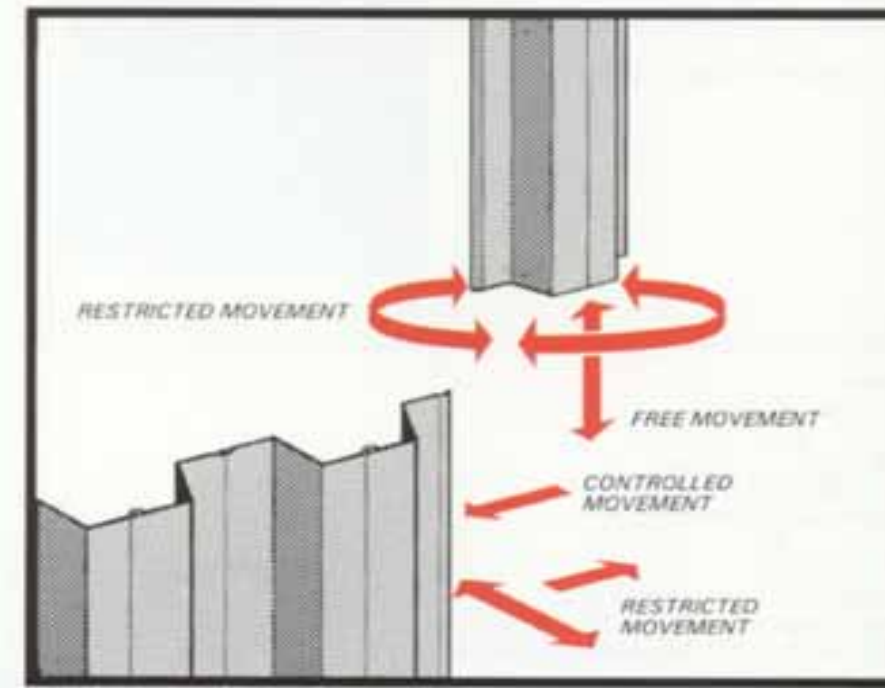
The wrong way...



and the right



Basic design requirements of the Pile Threader



The one basic guide frame is standard for ALL "Z" and "U" section piles and ALL straight web piles.

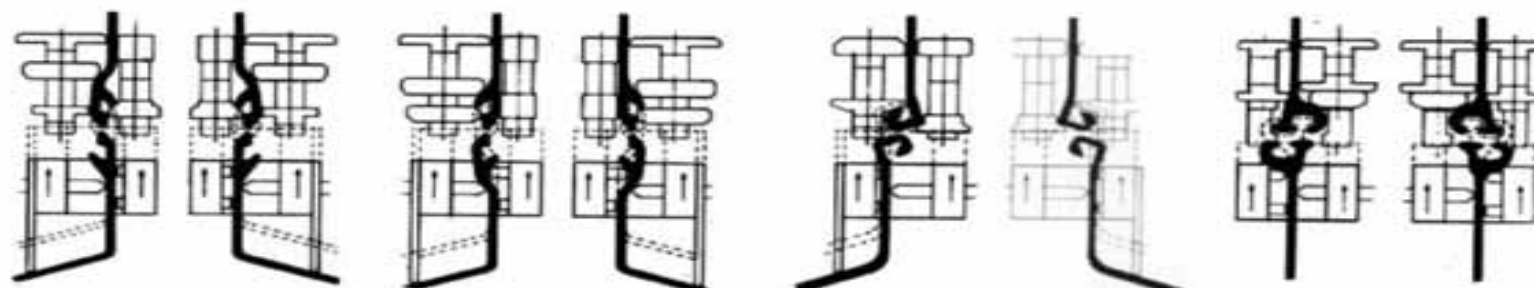
The different sections are accommodated simply by inserting appropriate rollers onto the lower spindles which form part of the lower clamp. These rollers fit the pile profile to give positive and accurate location. Different stop plates are attached to the top grip to suit different pile sections.

VARIATIONS

Within one pile section there may be several variations. On "Z" sections the interlocks are usually different at each end. The leading end can also be left hand or right hand.

The pile threader can accommodate these variations by swapping the rollers round on the lower grip spindles to accommodate changes in handling and by replacing some elements of the rollers to accommodate the different interlock.

On "U" sections the interlocks are identical and the only variations are on handling.



TO COMPLETE OUR APPROACH TO 'FEET ON THE GROUND PILING'

Piling Shackles



These robust pile lifting shackles were contractor designed and developed over many years of site use and abuse. The use of these shackles compliments the "Feet on the ground" approach to piling. When used in conjunction with the DCP Sheet Pile Threader there is no need for site operatives to go above the safety of top frame level for interlocking sheet piles or releasing the lifting shackles. DCP shackles are suitable for lifting all steel piles up to 30mm thick and within the safe working load of the shackle. The shackles are designed to withstand a measure of unavoidable misuse. Larsen piles when stacked in singles tend to jamb together. The DCP shackle is stiffened to resist spreading of the forks under such overload conditions at 90° to the axis of the pile. A version of the Ratchet shackle is available for steel erection work.



Euro Ground Release Shackle

Euro Ratchet Release Shackle

CE This product complies with 89/392 EEC Machinery Directive



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ONE SIZE FITS ALL!



ALL NEW!

DAWSON

UNIVERSAL SHEET PILE THREADER

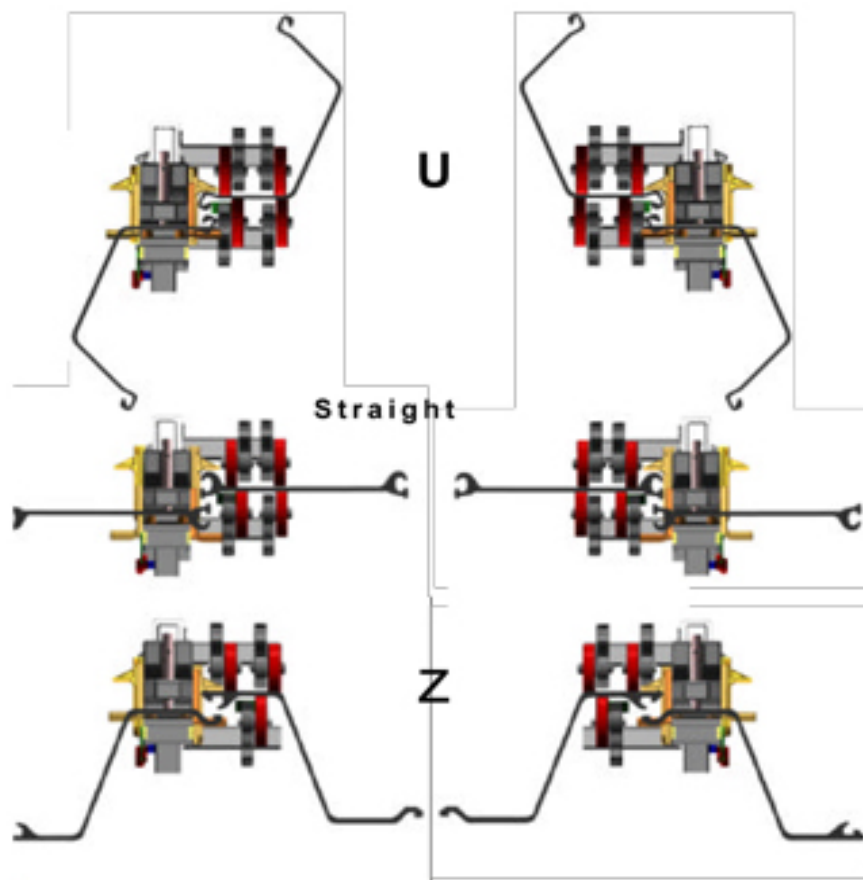
- > FOR RAPID SHEET PILE INTERLOCKING
- > WORKS IN ALL WEATHER CONDITIONS, EVEN POOR!
- > AN EXCEPTIONALLY PRODUCTIVE AND SAFE WORKING METHOD
- > SAVES TIME, MONEY AND LIVES

FULLY ADJUSTABLE - PRACTICALLY ANY 'Z', 'U' OR STRAIGHT WEB PILES CAN BE THREADED WITH NO ADDITIONAL PARTS.

ONE UNIT QUICKLY THREADS LEFT OR RIGHT HANDED PILES



What Pile Sections ?



Variations

Within one pile section there may be several variations. On a "Z" section interlocks are usually different at each end. The leading can also be left or right hand.

The Universal Sheet Pile Threader can accommodate these variations with the simple adjustment of roller positions. This can be accomplished on site by offering the Sheet Pile Threader up to a pile and adjusting the rollers to the correct position. They are now set for a left or right hand threading.

How many times do you get to a job site and find the piles are not exactly as expected, 'old style', outside of manufacturing tolerance, or a different type altogether. With the all new Universal Sheet Pile Threader – no problem!!



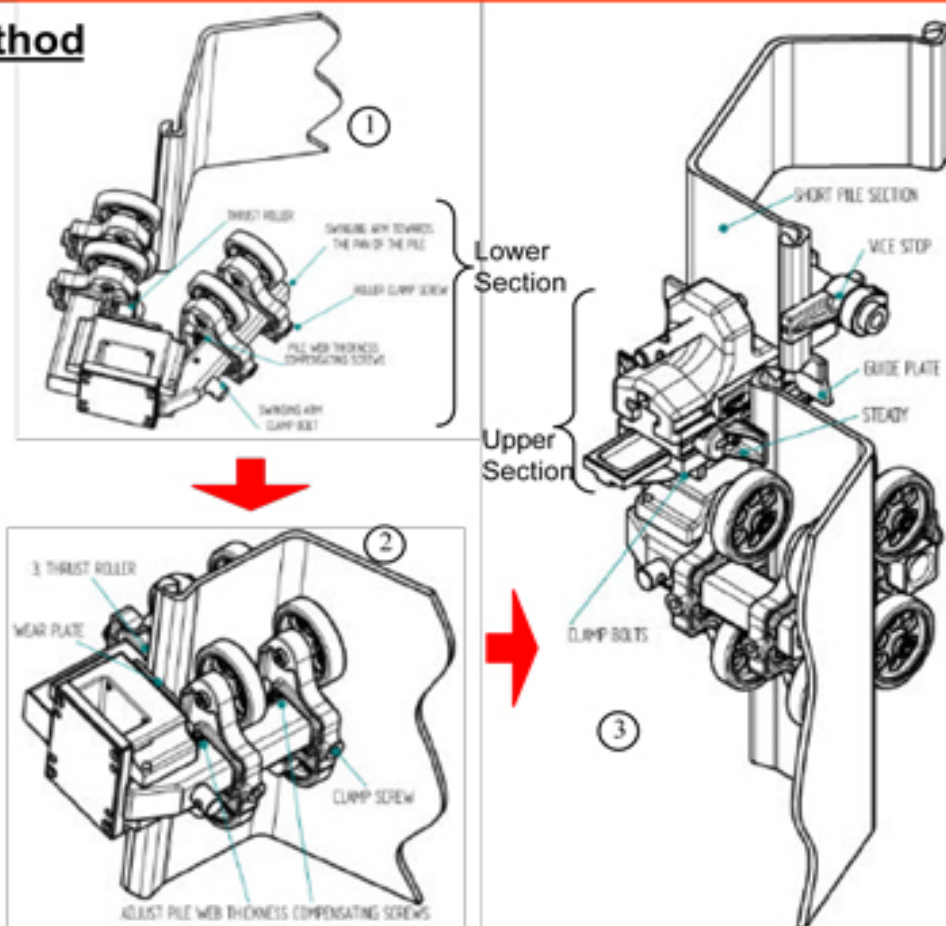
Summary of operation method

After the Sheet Pile Threader has been offered up to a pile section and the roller positions adjusted to suit, the threading operation can begin.

1. The lower section of the threader is taken on to the last pile in the panel
2. The arms are then locked in position via the swing arm clamp bolt
3. The spigot of the upper section is then lowered in to the socket of the lower section. This section contains a sliding and spring loaded vice-block which is cocked into the 'loaded' position. The pile to be threaded is clamped into the vice block.

The crane now lifts the pile to be threaded until its bottom edge is just above the previous pile in the panel. The spring pressure on the vice block forces the pile across to its engagement position. As the pile is lowered it interlocks. The threader is then released at top frame level ready for the next pile.

If threading single piles the next pile will be an opposite hand. To accommodate this the lower section can be rotated through 180° on the previously threaded pile then the top section attached as usual.



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