



# **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.

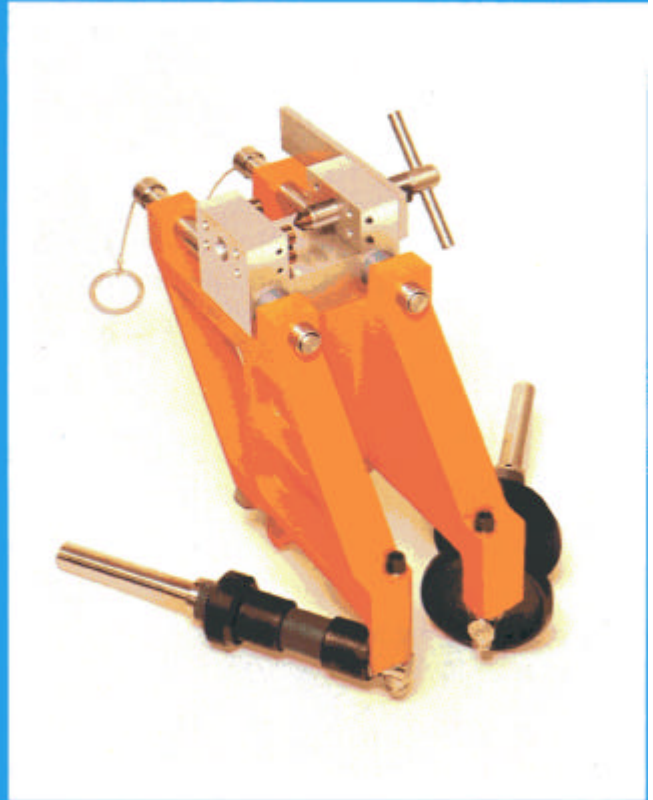
The Pile Threader has two main advantages:

### PRODUCTION

- Interlocking piles, with the pile threader is faster than any other safe method of working.
- 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

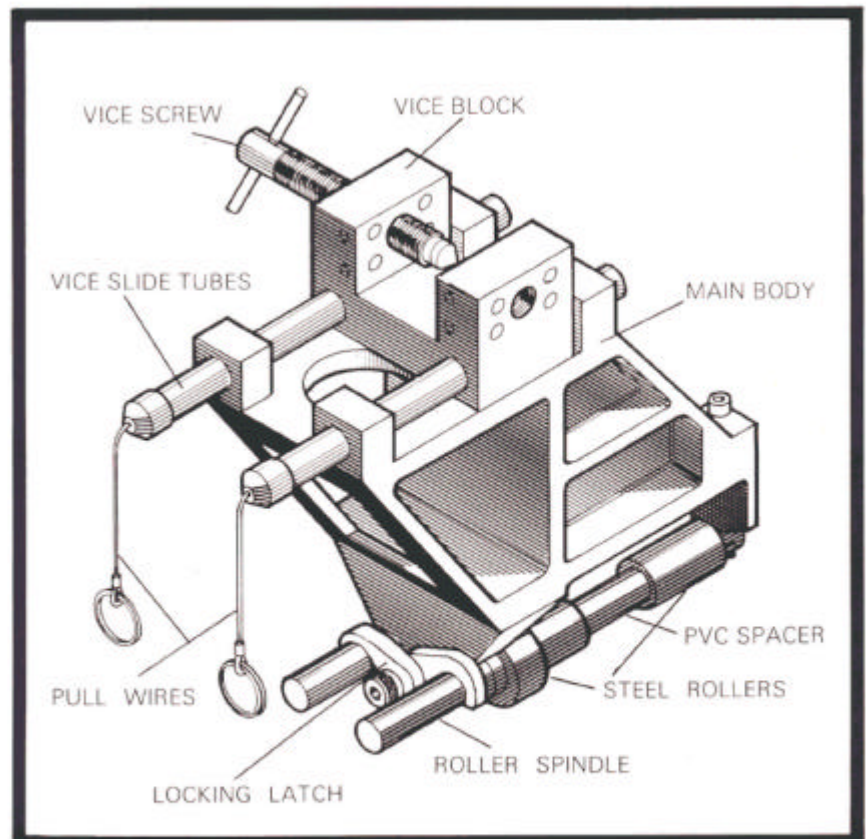
Instead of the 'Top Man' climbing or being hoisted up to the top of the piles and interlocking manually in an exposed position, the pile threader can be attached to the pile at top frame level and the threader goes to the top to do the interlocking. This eliminates a most dangerous manual operation.

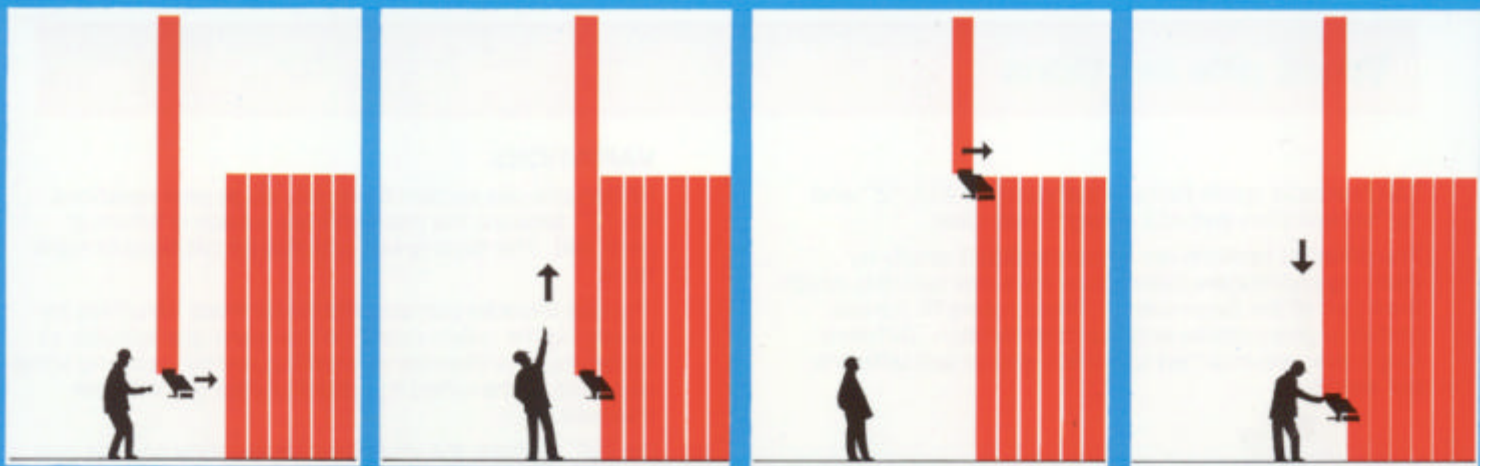


### *The wrong way...*



### *and the right*





### Method of operation

- 1 The Threader is pre-loaded by pulling the pull wires and vice block against spring pressure and cocking.
- 2 The pile to be pitched is lifted 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.

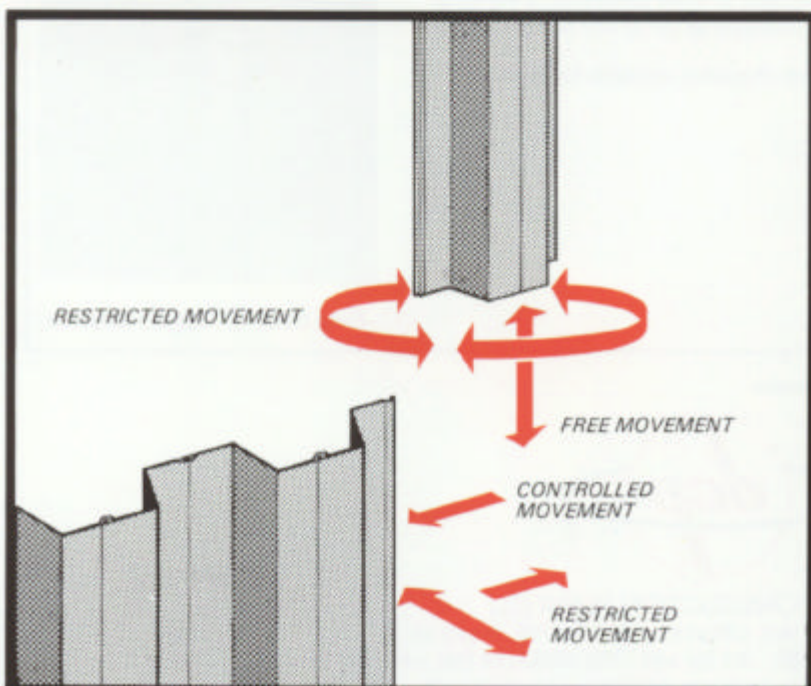
- 4 The cocking device inside the the vice slide tubes are then released.
- 5 The crane lifts the pile to be pitched until its bottom edge is above the previous pile in the panel. The spring pressure on the vice block forces the pile across into the locking position. As the pile is lowered it interlocks. 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 6 sheet piling were driven with the aid of the Pile Threader.



### Basic design requirements of the Pile Threader



## What pile sections

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

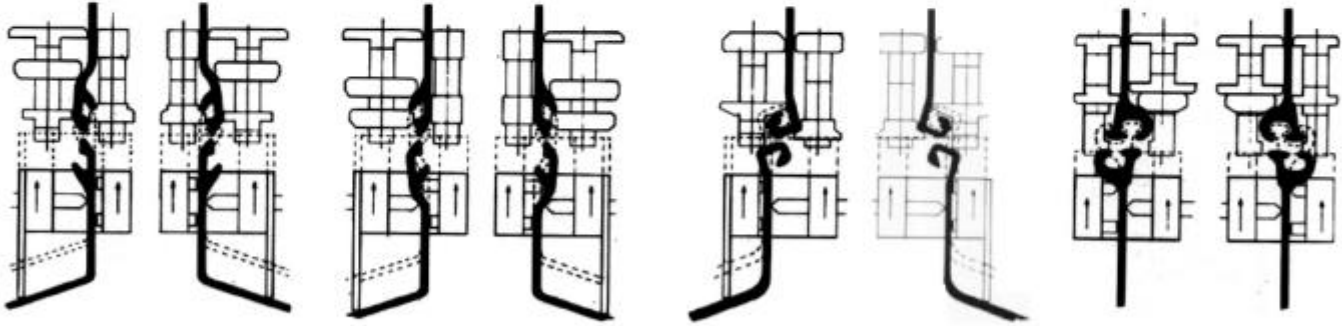
The different sections are accommodated simply by inserting appropriate rollers onto the lower spindles which form part of the lower clamp. These rollers fit the pile profile to give positive and accurate location. Different stop plates are attached to the top grip to suit different pile sections.

### 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

 This product complies with 89/392 EEC Machinery Directive



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