

Title (en)
STACKING SYSTEM

Title (de)
STAPELSYSTEM

Title (fr)
SYSTEME D'EMPILEMENT

Publication
EP 1620333 A1 20060201 (EN)

Application
EP 04718691 A 20040309

Priority
• GB 2004001013 W 20040309
• GB 0305767 A 20030313

Abstract (en)
[origin: WO2004080853A1] A stacking system 1 has eleven pairs of right and left uprights (11, 12). They are supported upright by crosspieces (14, 15, 16), there being two straight crosspieces (14) and two cranked crosspieces (15, 16). The straight crosspieces have three pairs of uprights, whilst the crosspiece (15) has two pairs and the crosspiece 16 has three pairs. This particular arrangement allows five differing lengths of tubes T1 - T5 of successively longer length to be stacked. The length of the tubes is parallel to an axis L. The uprights are square section tubular steel with slots (18) in their faces facing each other in their pairs. The slots extend from close above their lower ends to a little short of their upper ends, which are bevelled inwards (19) in the pairs. L-shaped bridge pieces (21) of steel plate are pivoted on one upper cross-pin and one lower cross-pin in each pair of uprights. The long limb (22) of the L is provided at its distal end (23) with a magnet (24) on its face which abuts to the inside face (25) of its upright opposite from the slotted face. The inside face itself is provided with a complementary magnet (26). When the long limb is pivoted up inside its upright, the magnets hold it in position. It can pivot down, when force on the short limb (27) causes the magnetic attraction to be broken. The long limb then bridges the gap between the uprights, with the distal end entering the slot of the opposite upright. It is supported on this upright's cross-bolt at the height of the pivoting cross-bolt on the other upright. In use, with the long limbs or bridge pieces held up by their magnets, a pack of tubes is lowered between the chosen pairs of uprights. As they strike the short limbs, the bridge pieces are released and bridge the gap between the uprights that the tubes have just been lowered into. Thus a second pack can be stacked on the bridge pieces above the first. Where two pivots are provided, a third pack can be stacked on the second bridging pieces. When the packs are unloaded, the bridging pieces are lifted or folded back to be held by their magnets.

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B65G 1/14

IPC 8 full level
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