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ABSTRACT



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An Improved Head Frame

5 A hoist frame (150) for engaging a pair of spreaders in an expanded position and a single spreader in a retracted position comprising, a first and second head frame (65a,b), each for engaging a lifting device; a rigid first frame (160a) fixed to the first head frame and a rigid second frame (160b) fixed to the second head frame; a plurality of assemblies (155a,b) pivotably mounted to each fixed frame so as to be intermediate the
10 head frames, wherein,
each assembly comprises an upper horizontal member (175), a first inclined outer member (165) pivotally mounted to the first fixed frame and pivotally mounted to a first end of the upper horizontal member, a second inclined outer member (185) pivotally mounted to the second fixed frame and pivotally mounted to a second end of
15 the upper horizontal member, a first inclined inner member (170a) pivotally mounted to the first fixed frame and pivotally mounted to a mid-point of the upper horizontal member so as to be parallel to the first outer inclined member in a first position of the hoist frame and a second inclined inner member (180) pivotally mounted to the second fixed frame and pivotally mounted to a mid-point of the upper horizontal member so as
20 to be parallel to the second outer inclined member in a first position of the hoist frame, such that the first members and the first fixed frame define a first parallelogram (217), and the second members and the second fixed frame define a second parallelogram (216).

FIGURE 4