

A Composite Lifting Stage

ABSTRACT

A composite lifting stage comprises a main stage, sub-stages and a main control system. The main stage comprises a base structure, fixed guiding means for the main stage and driving means for the main stage, wherein the base structure is a steelwork. The fixed guiding means for the main stage are arranged at the both ends of the base structure, and the driving means for the main stage comprise symmetrically arranged hydraulic cylinders and hydraulic drivers. The top end of the hydraulic cylinders are secured to a primary truss under the base structure, the base structure is supported and driven to move vertically using hydraulic jacking, such as to avoid large deformations in the lifting platforms. The hoistable sub-stages are fixed on platform surface of the main stage. While the main stage moves vertically, the sub-stages move relatively in the vertical direction, or, otherwise, the sub-stages move independently.

Figure: 1