

ABSTRACT

In the hinge device of the present invention, the right-hand spiral cams formed on the lower portion of the rotational shaft 40 are engaged with the right-hand spiral guide grooves 16, and the left-hand inclined guide protrusions 13 are engaged with the left-hand spiral guide grooves 15 formed on the outer circumference of the elevating pipe 17.

In accordance with such a construction, when the elevating pipe 17 moves upwardly or downwardly, the load produced by hydraulic pressure can be applied uniformly to the shaft 40. Therefore, it is little possible to break out or cut out the spiral cam 15 formed on the shaft 40, the spiral guide grooves 15 and 16 on the elevating pipe 17, the guide protrusion 13 on the stationary pipe 14. As a result, the hinge device of the present invention has relatively longer life-time than prior art. Also, the hinge device of the present invention can reduce or prevent the damage in respect of person life and property.

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