

Prepared by:-	Matthew Hughes	Approved by:-	Mark Dalley	Date: 16/11/12
REV NO:-	002			
ECO:-	3957			

## **DESCRIPTION**

The HMJ range of hydraulic machine lifting jacks are designed specifically for lifting heavy equipment and machinery where a minimum low height lifting access point is available. The low height lifting toe is precision guided throughout its lifting stroke to reduce friction and prevent the hydraulic cylinder from potential side loading. Both models are 700 bar maximum working pressure and incorporate a 150mm hydraulic lift with a lifting toe, which can be preset at three different initial lifting positions.

The jack is fitted with a Hi-Force single acting spring return cylinder rated for 700Bar maximum working pressure. Refer to cylinder operating instructions for details of operation.

Jacks are manufactured to the highest standards of workmanship and materials and will give years of satisfactory service with the minimum of attention if the following information is adhered to.

<b>MODEL NUMBER</b>	<b>HEAD CAPACITY (tonne)</b>	<b>TOE CAPACITY (tonne)</b>
HMJ10	10	8.5
HMJ25	25	20

Capacities on head and toe are both achieved at 700Bar operating pressure. The difference is due to friction from offset loading.

## **SAFETY INFORMATION**

- Do not attempt to exceed the rated load of the jack on the head or toe.
- In operation, never drop loads onto the jack. Always raise the head/toe to the load.
- Always ensure the full base area of the jack is supported when in use.
- Always ensure that loads are applied centrally to the head, or to the full extent of the toe.
- DO NOT allow any persons to work under the load, when it is only supported by hydraulic jacks.
- Always retract jack after use.
- Always disconnect from hydraulic pump for transport or when not in use.
- Do not use if there is evidence of oil leakage.
- Never extend the ram by any means other than pumping the jack.
- Inspect and clean the jack after every use, but if subjected to abnormal or shock loading inspect for damage immediately.

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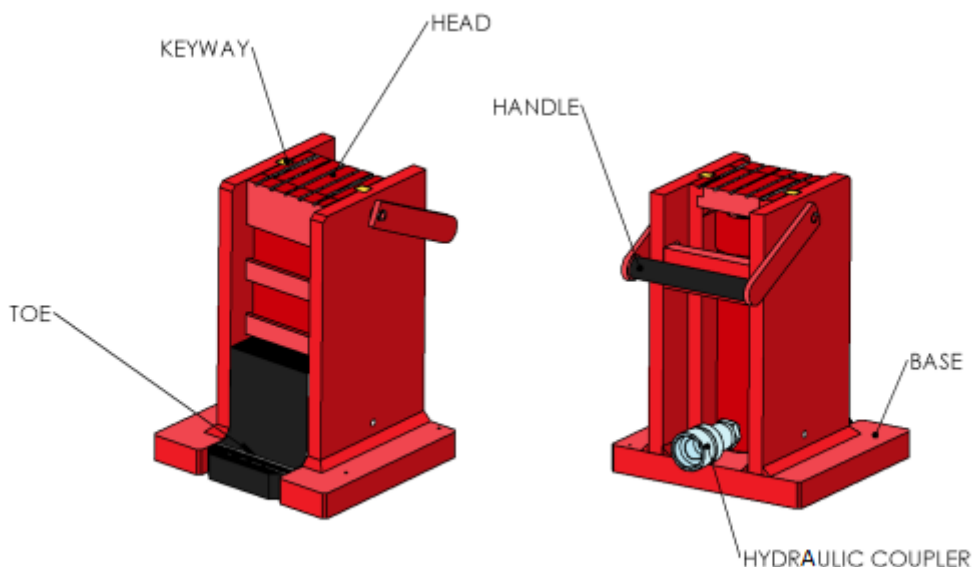
### **CONNECTING TO HYDRAULIC PUMP**

The jacks are supplied fitted with a hydraulic cylinder which has a female half coupling (Hi-Force type CF1) fitted. Ensure that the hose used to connect the jack to the pump is fitted with the appropriate male half coupling type CM1. Check that the pump and the hose are rated for 700Bar operating pressure, are in good condition and are filled with oil.

Remove the dust cap on the cylinder. Push in the hose coupler and tighten the locking collar by hand, ensuring it is fully engaged. Do not use tools to tighten.

Power operated or hand operated pumps are suitable for use with HMJ jacks. Refer to the pump operating instructions for details of operation. Ensure that the pump control valves are suitable for single acting cylinders.

It is recommended that a pressure gauge is used.



### **POSITIONING THE JACK**

The jack can be positioned by means of the handle, but always ensure that the handle is folded back into the position shown to prevent damage during use.

Before use always ensure the jack base is fully supported, on a flat, firm surface, with due regard to the load to be lifted.

Position the jack so that the load bears centrally on the top of the ram, or on the full extent of the claw, ensuring the load cannot touch any static part of the jack during lifting.

Ensure that the hose will not become trapped by the load during lifting.

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**LIFTING**

Operate the pump to supply oil to the jack. The jack will rise until the maximum lifting height is reached and will then come against a positive stop. Stop the pump when this point is reached.

**LOWERING**

Return oil to the pump reservoir by operating the pump valve and the jack will retract under the action of the load or by its own integral return spring. Take care as the load may descend faster than expected if the pump valve is opened fully. With some powered pumps the extent of opening cannot be controlled.

**NORMAL MAINTENANCE**

In the normal course of service, no routine maintenance should be required, but attention to the following will assist in obtaining satisfactory service.

Lightly grease the jack keyways occasionally and wipe clean in the event of dust/dirt contamination.

**MULTIPLE USE**

By means of suitable manifolds and tee pieces it is possible to operate more than one jack from the same pump unit when lifting large loads. It is important to note that if the load is unevenly distributed the jacks will not all lift equally under these conditions. The lowest loaded jack will lift first. This will lead to tilting of the load. For further information or advice contact your Hi-Force distributor.

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