

BASIC TECHNIQUES

SWL to Length chart

Position	SWL	Length of Jib (cm)
1	500kg	100
2	350kg	110
3	250kg	120
4	150kg	130

Disconnect the engine, remove all ancillary components and fit suitable slings to the engine's sling points. Ideally, use slings designed for your particular engine.

Next, **position the crane's hook directly over the load** and **attach the slings**, lowering the jib if required by opening the hydraulic release valve. Make sure the slings are secure and properly seated within the hook and that the hook's catch is closed.

Next, **operate the pump handle** to take up any slack and remove the engine mounting bolts.

You should now resume pumping to **raise the engine just a fraction while you double-check that everything is secure and balanced**. If the load is unbalanced or the slings begin to slip, lower the load and adjust the slings until the load is balanced.

When safe to do so, **slowly raise the jib**, making sure the engine is clear of the vehicles body work and any protruding fittings, **until the engine is lifted clear**.

Once sufficiently raised, **move the vehicle away**. If this is not practical, **move the crane and engine back and clear**.

If moving the crane with the engine attached, do so slowly. The engine will swing like a pendulum and could cause personal injury or damage the cars bodywork.

Once clear of the car, slowly lower the engine as far as possible **before moving the crane any further**. **Avoid moving the crane with jib raised as the crane can become unstable**.

Always lower the engine onto suitable permanent supports before working on it or leaving it. Do not lower the engine at speed, always take the time to lower it slowly.

Whether raising or lowering, **stand clear of the crane and warn others to do the same**. In particular, do not move the load over anybody.

If you have to steady the load at any stage, **position yourself so that you and your hands will not be hurt if the load drops or swings to one side**.

EQUIPMENT CARE

Never push the equipment beyond its design limits. If it will not do what you want with reasonable ease and speed, assume you have the wrong tool for the job. Contact your local HSS Hire for advice.

Keep the equipment clean - you will find this less of a chore if you clean it regularly, rather than wait until the end of the hire period.

When not in use, **store the equipment somewhere clean, dry and safe** from thieves.

FINISHING OFF

With the engine removed from the crane, **set the jib length to the 500kg position** making sure the pin and clip are correctly replaced.

Lower the jib as far as it will go and secure the pump handle with its Velcro strap.

Deploy the assembly support feet then fold the legs into the stowed position. Remove the 'R' clip, extract the lock pin and raise the leg. Reinsert the lock pin and refit the 'R' clip.

You should now **lower the folded crane and reset the assembly support feet into the stowed position**. All that remains is to **give the unit a final clean up ready for return**, to your local HSS Hire

... have you been trained

The law requires that personnel using this type of equipment must be competent and qualified to do so. Training is available at HSS Training Solutions
0845 766 7799



...any comments?

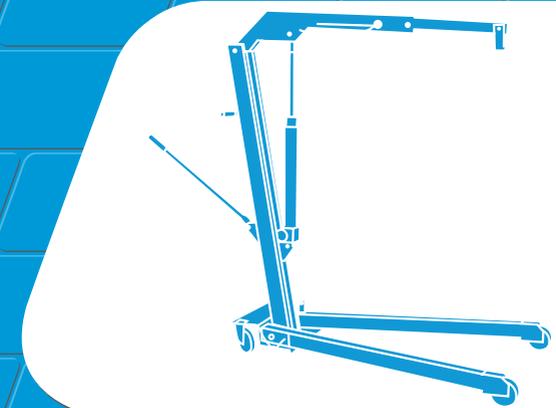
If you have any suggestions to enable us to improve the information within this guide please e-mail your comments or write to the Safety Guide Manager at the address below
e-mail: safety@hss.com

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HSS Hire



Folding Engine Crane

A folding professional engine crane with a maximum safe working load of 500kg



Code 67715

GENERAL SAFETY

For advice on the safety and suitability of this equipment contact your local HSS Hire.

There is a serious risk of personal injury if you do not follow all instructions laid down in this guide.

The hirer has a responsibility to ensure that all necessary risk assessments have been completed prior to the use of this equipment.

This equipment should only be used by an operator who has been deemed competent to do so by his/her employer.

This equipment should be used by an able bodied, competent adult who has read and understood these instructions. Anyone with either a temporary or permanent disability, should seek expert advice before using it.

Keep children, animals and bystanders away from the work area. Cordon off a NO GO area using either cones, barriers or tape, available for hire from your local HSS Hire.

 Never use this equipment if you are ill, feeling tired, or under the influence of alcohol or drugs.

 Wear practical, protective clothing, gloves and footwear suitable for the task you are performing. Avoid loose garments and jewellery that could catch in moving parts, tie back long hair.

This equipment is heavy, never attempt to lift it on your own, always get help.

Ensure the work area is well lit and ventilated, if in doubt, ask about lighting and ventilation equipment at your local HSS Hire.

Ensure the work area is clear of any trip hazards and the work surface is strong enough to support the crane and its load.

Ensure the work surface is smooth enough for the crane to be manoeuvred when fully loaded. Small stones and ruts/bumps will jam the wheels and could cause the load to swing.

Never exceed the equipment's maximum safe working load of 500kg. The maximum safe working load decreases down to 150kg and is dependent on how far the jib is extended. Check your owner's manual or workshop manual for the exact weight. Remember to combine the weights if the engine and gearbox have to be removed as one unit.

Engine cranes are designed to lift, not support. Never leave them loaded for longer than necessary, and never leave them loaded and unattended.

Working on a load, which is merely supported by an engine crane, can be extremely dangerous. Always

lower the load onto supports.

Make sure that everyone in the work area is warned of what you are doing.

Check the condition of the equipment before use. If it shows signs of damage or excessive wear, return it to your local HSS Hire.

GETTING STARTED

It is essential to familiarise yourself with the workings of this equipment before starting.

Make sure that the engine can be lifted out, as some vehicles only allow for the engines removal from below. In this situation, **DO NOT use this crane to raise the car body.**

Before unfolding the crane, **deploy the assembly support feet.** These feet will raise the front of the crane

enough to keep the legs clear of the ground and must only be used when unfolding and refolding the crane. Lower the folded crane onto the floor, **remove the snap clamp lock pin, turn the feet face down** then replace the pin. Raise the folded crane and **deploy the two legs.** Remove the 'R' clip, extract the lock pin and lower the leg. Reinsert the lock pin (see illustration) and refit the 'R' clip.

Now, with help, tilt back the crane and reset the support feet into the stowed position.

To raise the jib, release the Velcro strap and move the pump handle back and forth. To lower the jib, turn the hydraulic release valve anti-clockwise, the valve is spring loaded and will return to the closed position when released.

The jib is adjustable for length and can be set to suit the required reach. However, the crane's **Safe Working Load (SWL) capacity is reduced as the jib is extended** (see chart)

Before adjusting the jib it must be raised until horizontal. Next, **remove the 'R' clip and extract the lock pin.** You can now **slide the jib in or out to the required length** and reinsert the lock pin followed by the 'R' clip.

Double-check that everything is secure and free from damage. If the crane is damaged or is missing any pins or clips do not use it, contact your local HSS Hire for advice.

