

# VEHICLE LOADING CRANE

## SAFETY AND LICENCE GUIDE

Training support material for:

**TLILIC0024**

**Licence to operate a  
vehicle loading crane**

(capacity 10 metre tonnes and above)



Produced by:



# CONTENTS

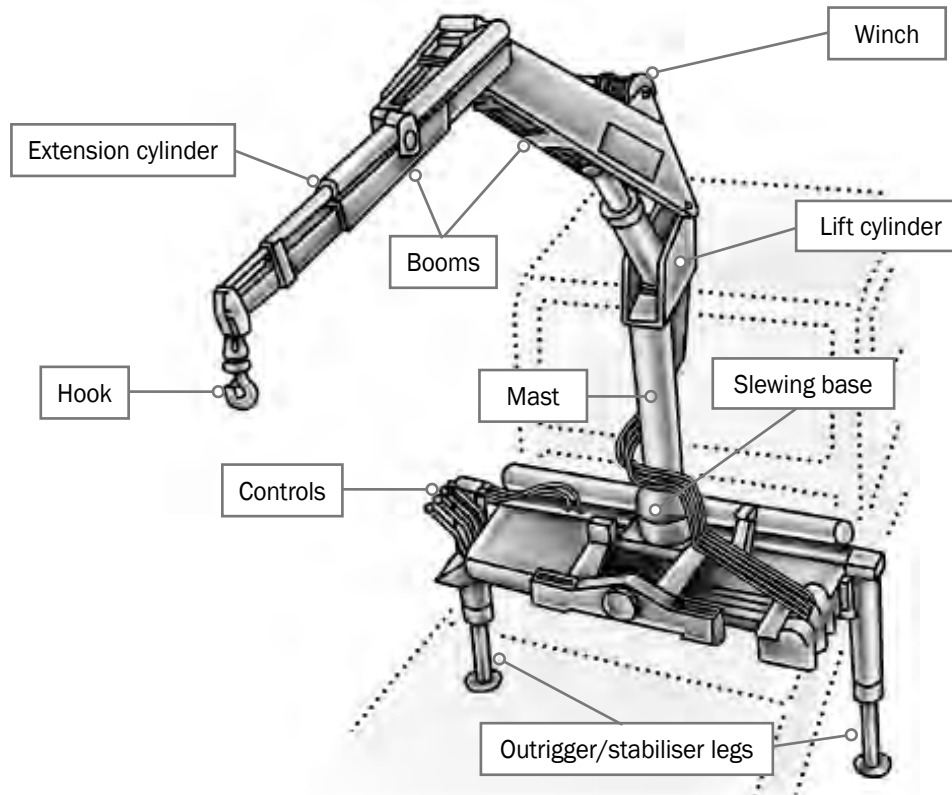
About this guide	4	
Introduction to vehicle loading crane	5	
High risk licensing and the law	11	
Element 1	Plan work / task	15
Element 2	Prepare for work / task	83
Element 3	Perform work / task	219
	Introduction to crane charts	220
Element 4	Pack up	263

# INTRODUCTION TO VEHICLE LOADING CRANE



## What is a vehicle loading crane?

A vehicle loading crane is a crane which is mounted to a vehicle for loading and unloading. Vehicle loading cranes have hydraulic booms with power supplied from the vehicles engine through a PTO (power take off).



## 10 metre tonnes

A High Risk Work licence is needed when the vehicle loading crane has a capacity of 10 metre tonnes or more. The metre tonnage of a vehicle loading crane is a number which is worked out by multiplying the lifting capacity by the working radius of the boom for that lifting capacity.

### To calculate 10 metre tonnes

#### **MULTIPLY THE SWL × THE WORKING RADIUS FOR THAT SWL = METRE TONNES**

from the centre line of slew to the centre line of hook. This calculation must be done for each Safe working load (SWL) on the load chart.

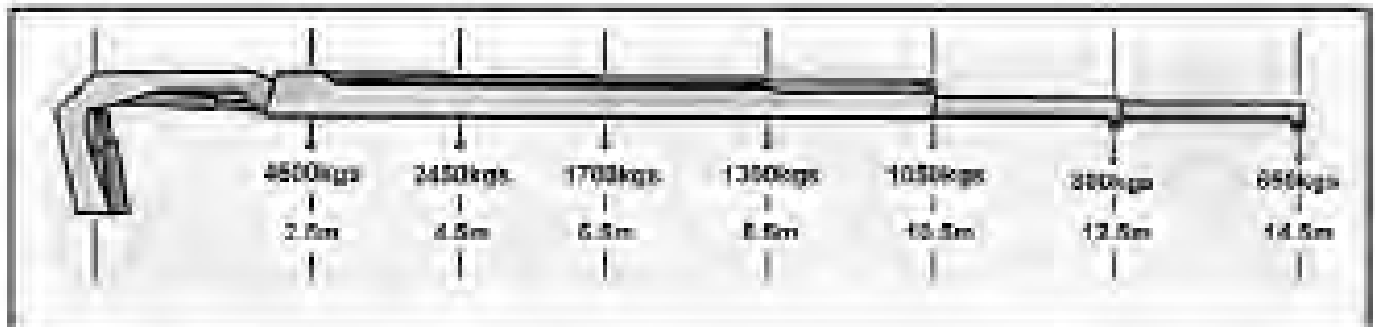
If any one calculation amounts to 10 metre tonnes lifting capacity or greater, the crane operator will require the appropriate High Risk Work Licence.

#### **For example**

The load chart below indicates the crane can lift 1300 kilograms at 8.5 metres.

$$1300 \text{ kg} \times 8.5 \text{ m} = 11,050$$

– as this is greater than 10,000 a HRW Licence is required to operate the crane.



### Lifting load types

When lifting different load types you can configure the sling in different ways, such as the following;

#### A concrete piping load

- *SLING Type: FSWR, 2 choked legged sling*



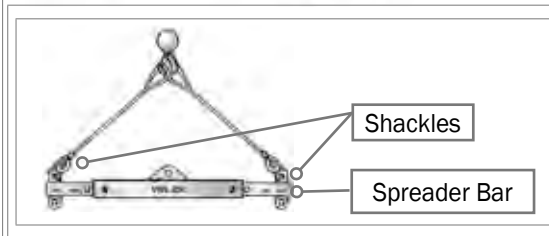
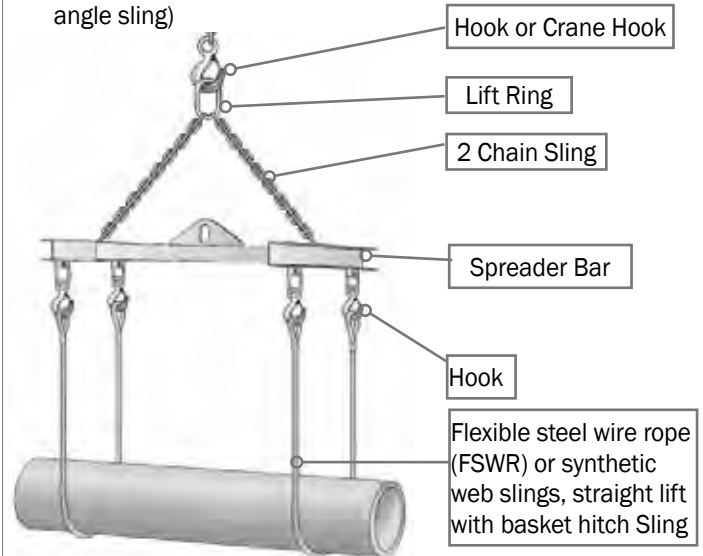
- *SLING Type: FSWR, 1 choked legged sling*



- *SLING Type: 2 legged vertical load choked chain sling attached to a spread beam with 2 anchor points*



- *SLING Type: FSWR or synthetic web slings, straight basket hitch sling with spread beam and (angle chain sling or FSWR angle sling)*



**QUESTION 177**

You are using your crane.  
You have moved and  
landed the load.

What must you do before  
you remove the slings?

- Make sure the weight is off the slings.
- Make sure the crane doesn't operate while the load is being un-slung.



## QUESTION 193

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You are operating a crane and one of these two things happens

- a) Your crane contacts overhead powerlines

or

- b) The dogger touches the hook and jumps like they are getting a shock.

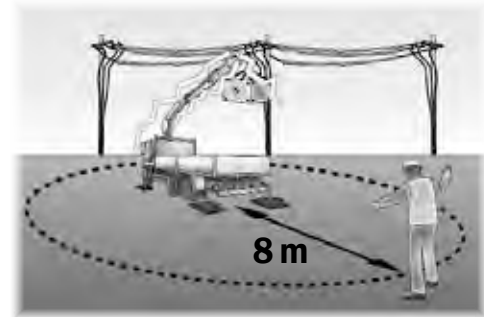
What must you do?

When you get to the ground, move away from the crane by **hopping** or by **shuffling** with both feet together.

**Do not** run or walk because the ground might be electrified. Get to at least 8 metres away.



When you get clear of the crane, warn everyone else to stay at least **8 metres** away from it.



Do all the incident reporting that you should.  
Do any first aid you need to.



**Do not** use the crane until it has been checked out.





# PACK UP

Element 4

**OFF**



**ON**

**QUESTION 204**

You have finished a job.

What post-operational checks must be carried out on the crane?

All checks that the manufacturer says should be carried out (for example, in the crane's manual). These checks might include:

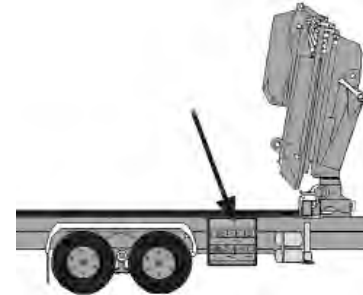


Check for obvious signs of damage on the boom / jib or crane. Stow the boom according to manufacturer's specifications.



Check all fluid levels (oil, water, fuel, hydraulic fluid). Check for leaks.

Make sure that loose items are securely stowed away.



Make sure outriggers / stabilisers are retracted and stowed. Use load restraints where needed.



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