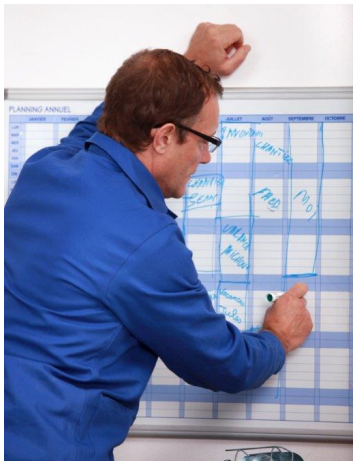
Table of Contents

1.1 Introduction

This course is based on the National High Risk Unit of Competency **TLILIC0011 - Licence to operate a reach stacker (greater than 3 tonnes capacity)**.

1.1.2 High Risk Work Licence Requirements

Once you pass your assessment **you will have 60 days to apply for your licence**.



You must renew your licence within 12 months of its expiry otherwise:

- Your licence can't be renewed.
- You need to repeat the course and re-apply for your licence.
- You need to enrol in the course again and be supervised by somebody who has a current licence for the same class.

You can still do high risk work without a licence as long as you are:

- Enrolled in a high risk course for the class, and
- **Being directly supervised by somebody who has a licence for the same class.**

Any licensed worker must take reasonable steps to make sure the way they work does not impact on the safety of themselves or any other worker. This is their legal duty of care.

Failing to work safely can result in the health and safety regulator:

- **Suspending your licence.**
- **Cancelling your licence.**
- **Refusing to renew your licence.**
- **Ordering that you are reassessed to ensure you are competent.**
- **Prosecuting you.**

1.2.1 Work Health & Safety Rules

The **main types of WHS/OHS legislation, requirements and guidelines (which are sources of OHS information**) include:

- **OHS Acts**
- **OHS Regulations**
- **Australian Standards**
- **Codes of Practice/Compliance Codes**
- **Management plans**
- **Workplace OHS policy and procedures**
- **Manufacturer's instructions**
- **Logbook**
- **Data plate**
- **Load charts**
- **Operations manual**

1.2.3 How to Keep Everyone Safe

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care. **Your duty of care when at work include:**

- Make sure that workers **take reasonable care of their own health and safety**
- **Do not put others in any danger through their (workers') acts or omissions**
- You must **comply with workplace occupational health and safety requirements (safe practice guidelines / workplace policies and procedures)**
- **Do not intentionally or recklessly interfere with or misuse resources, infrastructure and/or services provided by the employer** at workplace for occupational health and safety.

Key responsibilities of an employer to ensure the health and safety of employees in the workplace include:

- **Provide and maintain a safe workplace**
- **Provide and maintain safe plant, equipment and structures (including basic firefighting equipment, first aid)**
- **Provide and maintain safe systems/procedures for work** (e.g. emergency procedures, housekeeping to ensure a clean, tidy and safe work area, measures to prevent bullying and harassment, safe waste disposal areas)
- **Provide facilities that are adequate for the employees and others on site** (site amenities, such as drinking water and toilets)
- **Provide instruction, training, supervision and information for work to be undertaken safely,** including any time you are required to use unfamiliar or new equipment
- Take action or make arrangements to **ensure all equipment, structures, plant and substances used on site are handled and stored in a safe way**

1.4.2 Control Hazards

The best way to control hazards is to use the Hierarchy of Hazard Control. The hierarchy of hazard control is a range of options that can eliminate, or reduce the risk of hazards.

A worker must apply the risk control measures:

- **Before commencing any work; and**
- **As soon as the worker identifies any hazard while performing the job.**

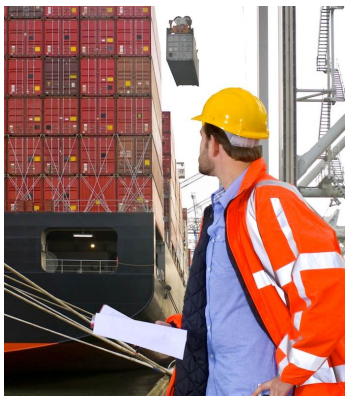
This table shows you the 6 different types of controls in order from best to worst:

Hierarchy Level	Explanation
1. Elimination	Completely remove the hazard. This is the best kind of hazard control.
2. Substitution	Swap a dangerous work method or situation for one that is less dangerous.
3. Isolation	Isolate or restrict access to the hazard.
4. Engineering Controls	Use equipment to lower the risk level.
5. Administrative Controls	Site rules and policies attempt to control a hazard.
6. Personal Protective Equipment	The least effective control. Use PPE while you carry out your work.

2.1 Assess the Load

A person holding a reach stacker high risk licence is responsible for finding out the weight of the load that is to be lifted.

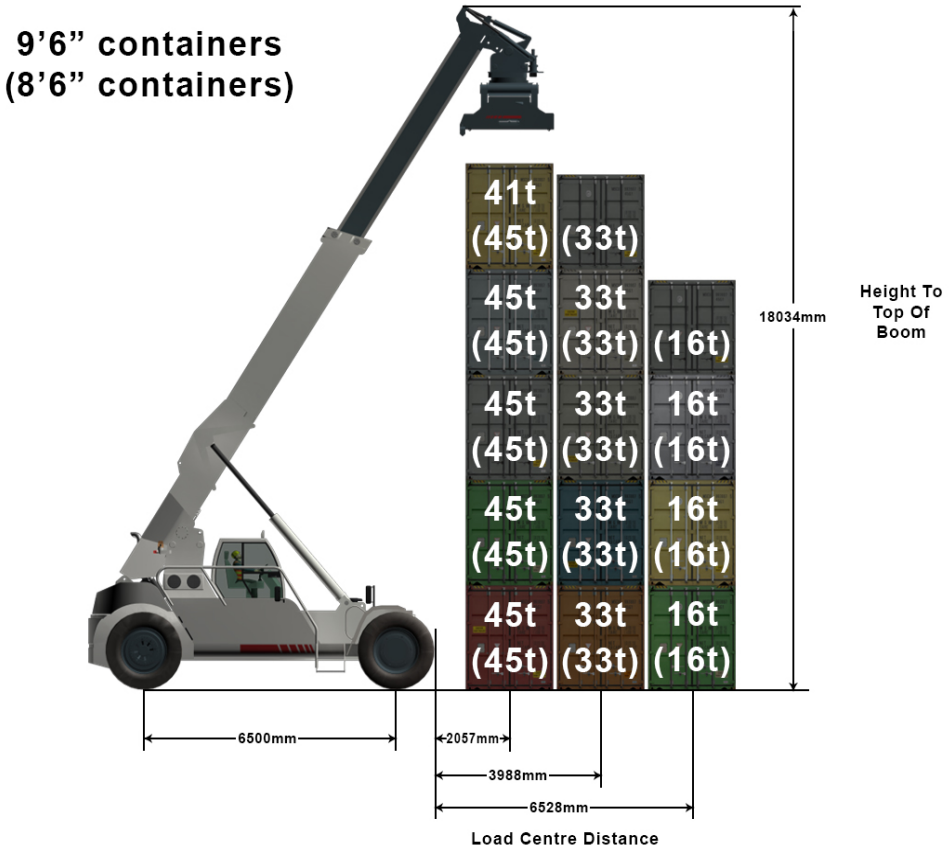
2.2.1 Range Diagrams



You should refer to the range diagram or load chart for the reach stacker. This will include information about how much the reach stacker can safely lift in different configurations and situations (this is the capacity or WLL). The range diagram should include information about:

- Height of container stack.
- Maximum reach.
- Container dimensions.
- Maximum weight at a particular load centre distance.

Shown here is an example of a range diagram:



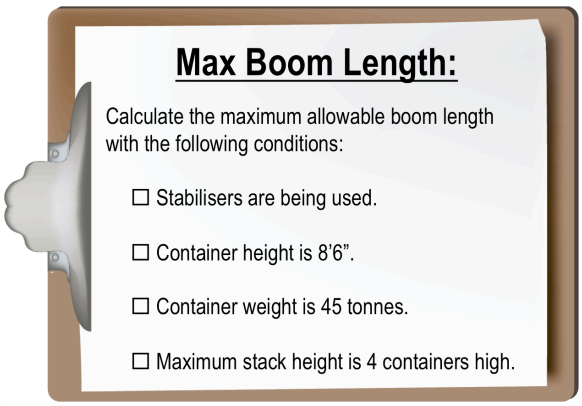
The range diagram is used to find the maximum allowable boom reach, stack height or container weight for the reach stacker you are operating.

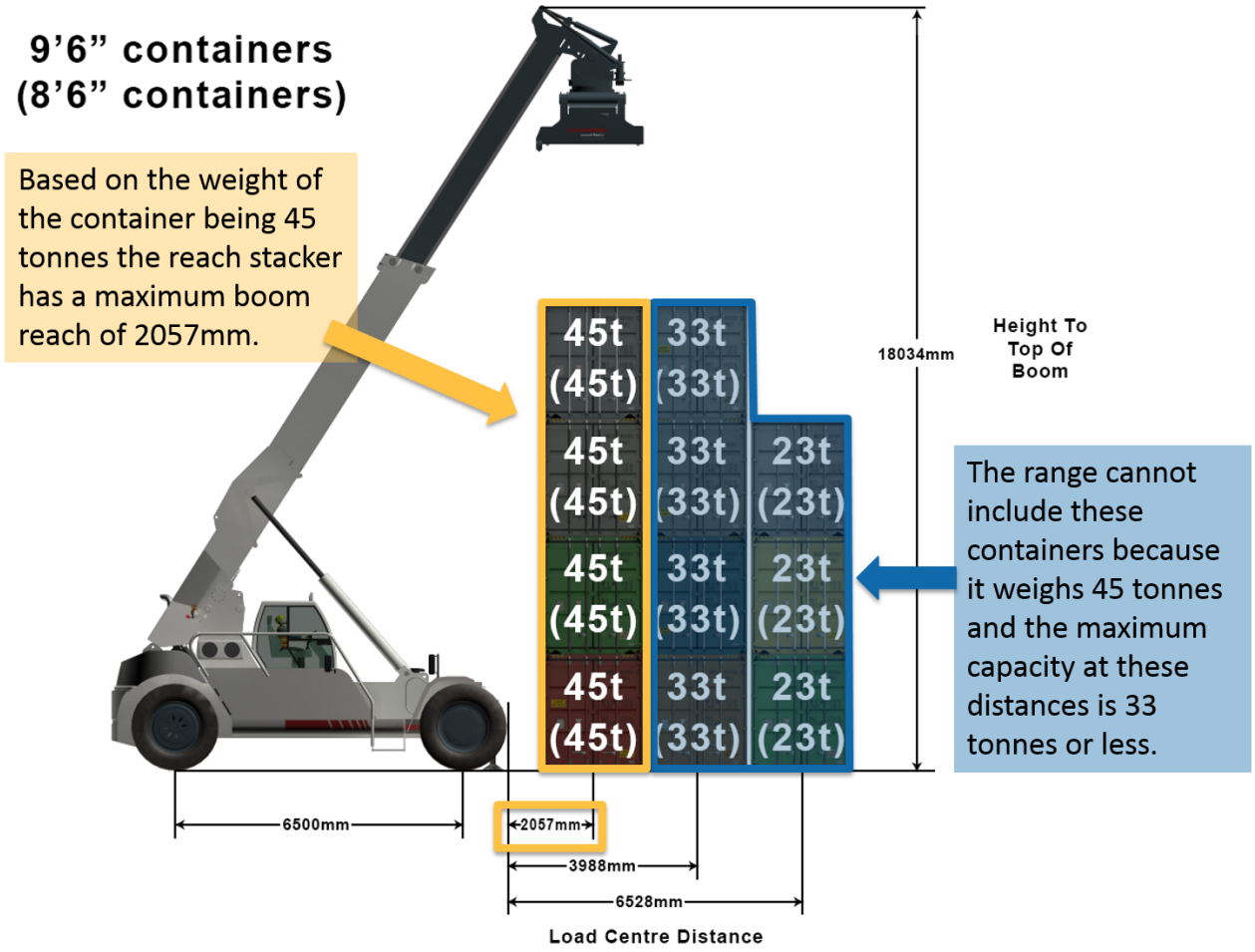
To find the maximum allowable capacity or container configuration you need to consider:

- If the reach stacker is using stabilisers.
- The container height.
- The container weight.
- The boom reach.
- The stack height.

Example 1 – Working Out the Maximum Boom Length

Using the example range diagram shown here we can see that the maximum allowable boom reach is 2057mm based on the following conditions:



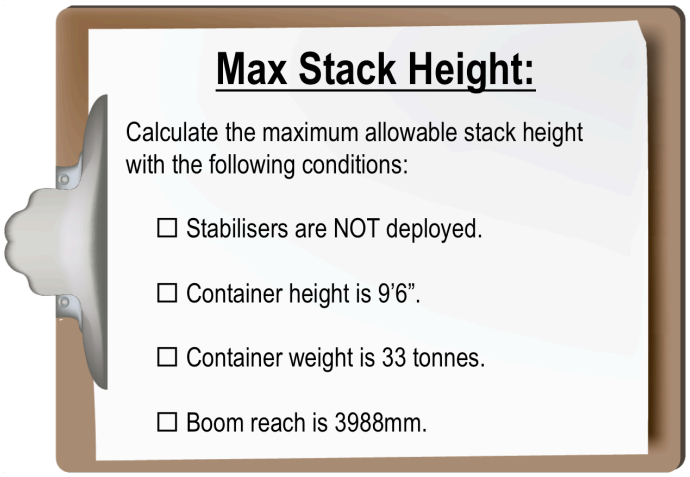


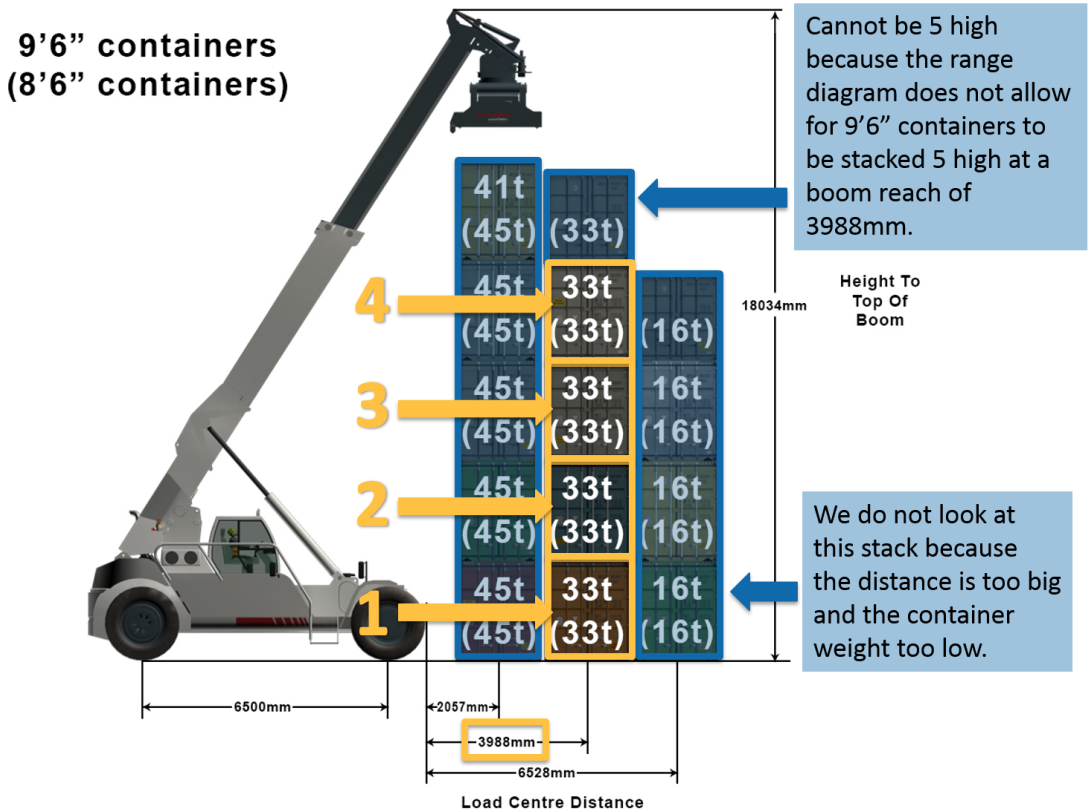
Example 2 – Working Out the Maximum Stack Height

To work out the maximum stack height you need to know:

- If stabilisers are being used.
- The height and weight of the container.
- The boom reach.

In the example below we can see that the maximum stack height for a container is 4 based on the following conditions:





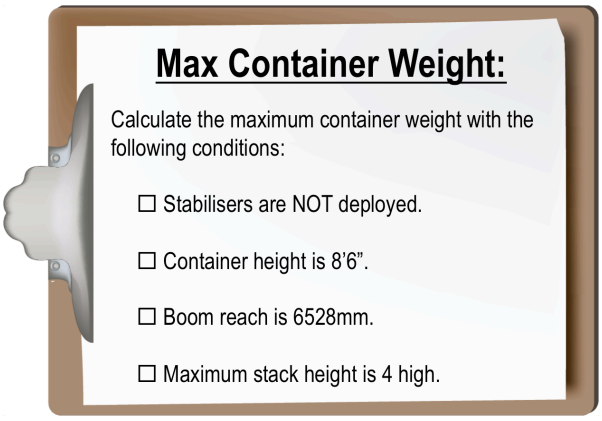
Example 3 – Working Out the Maximum Container Weight

You can use the range diagram to find out the maximum capacity (maximum container weight) in a particular stack configuration.

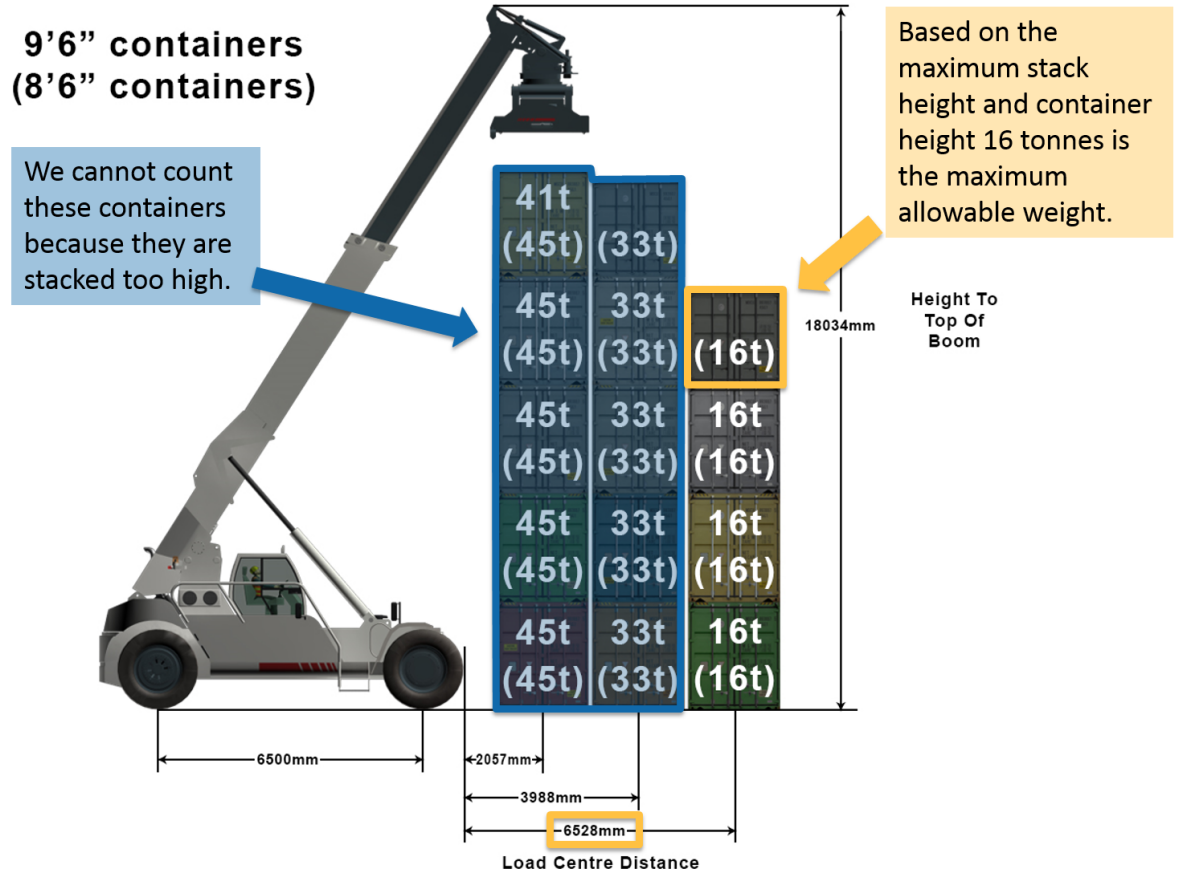
To work this out you need to know:

- If stabilisers are being used.
- The container height.
- The boom reach.
- The maximum stack height.

In the example below the following information is provided:



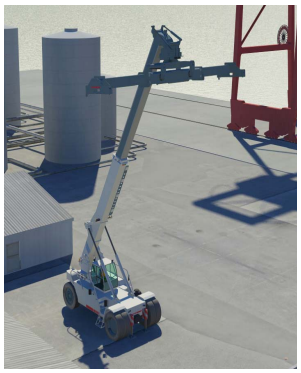
Using this information we can see that the maximum container weight is 16 tonnes as shown below:



2.4.1 Conduct Post-Start Checks

Make sure you have plenty of room to test out the reach stacker before starting it up.

It is important that all of the controls are tested to their full capacity to ensure that the reach stacker is safe and functioning correctly. All hazard controls should be in place before operational checks are carried out.



Post-start checks include:

- Making sure all applicable hazards controls are in place.
- Check that you have a clear view from the operating position across all work zones, ensuring your view is not obscured when carrying out work.
- Safety/warning devices, lights and systems on the reach stacker, including:
  - **Audible warning devices.**
  - **Weight limit sensor.**
  - **Reverse alarm.**
  - **Lights or other alarms.**
  - **Seatbelt.**
  - **E-stops.**
  - **Reverse camera.**
  - **Warning lights.**
- **Testing all reach stacker movements and controls to the full extent of their capacity to make sure that the reach stacker is working correctly and is safe to use**. Movements and controls to test include:
  - Boom in and out.
  - Luff.
  - Hoist.
  - Slew/articulation.
  - Raise and lower.
- Inspect limit switches.
- Communications.
- The brakes are working correctly.
- All controls and motions are functioning correctly and to full capacity.
- Inputting data into the reach stacker's computer and ensuring that it is accurate (if applicable).

3.4 Operate the Reach Stacker

Before attempting to lift or mobile any containers make sure you have thought about:

- Ground conditions.
- The size and weight of the container/s.
- Obstructions or hazards in the path of travel.
- The height of the stack.
- The position of the container on the stack.
- The capacity of the reach stacker.

Hold/ Inching brakes can be used during reach stacker operations:

- **To stop the reach stacker moving during lifting.**
- **To remain motionless with a load.**