ACCESS TRAINING CENTRE

Training Manual

TLILIC0003 Licence to Operate a Forklift

Start time: 7.45am

Participants **must read this manual** prior to attending the training program and are required to **bring the manual to the training program.**

It is **strongly recommended** that participants complete the Practice Questions at the back of this Training Manual.

Participants must wear fully enclosed safety foot wear, long pants and long sleeve shirt.

It is a mandatory requirement that participants must bring photo Identification to training session i.e. Australian Drivers licence or passport (must contain photo, date of birth & signature). Failure to provide IDENTIFICATION will result in exclusion from the course.

Contents

Introduction

This training course is based on the Unit of Competency ***TLILIC0003 Licence to operate a forklift*** from the Transport and Logistics Training Package and the National High Risk Work Licence.

Course Overview

During this course, you will learn about:

- Legislative Requirements
- Planning for Forklift Operations
- Routine Inspections of the Forklift
- Loads and Stability
- Forklift Operations
- Operational Issues
- Completion of Forklift Operations

Upon successful completion of this course participants will be eligible to be assessed for a National High Risk Work Licence.

Acronyms that are included in the Training Manual are located in the table below:

Acronym:	Explanation:
WHS	Work Health and Safety
LPG	Liquefied Petroleum
PCBU	Persons Conducting a Business or Undertaking
HRW	High Risk Work
HRWL	High Risk Work Licence
NSA	Notice of Satisfactory Assessment (High Risk Licence Assessment)
PPE	Personal Protective Equipment
SWMS	Safe Work Method Statement
SAPN	South Australia Power Network
UV	Ultraviolet
WLL	Working Load Limit

Forklifts

Forklift Definition

A Forklift Truck is defined in the WHS Regulations 2012 (SA) as:

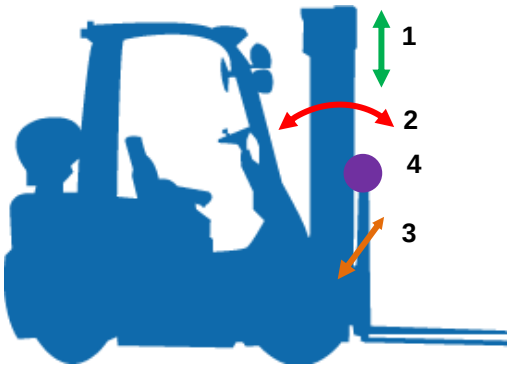
'a powered industrial truck equipped with a mast and an elevating load carriage to which is attached a pair of fork arms or other attachment that can be raised 900mm or more off the ground'

Forklift Truck Components

A	Forks/Tynes
B	Load Backrest
C	Carriage
D	Mast
E	Hydraulic Lift Ram
F	Overhead Guard
G	Lights & Horn
H	Steering and Lever Controls
I	Hydraulic Tilt Ram
J	Drive Wheels
K	Rear/Steering Wheels
L	Counter Balance
M	Operator's Seat

Forklift Characteristics and Capabilities

Forklift movements/ **capabilities** that you may use when shifting loads include:



1. **Hoisting**– the raising and lowering of the mast
2. **Tilting** – the forward and backwards movement of the mast
3. **Side shifting** – the left and right movement of the carriage
4. **Hydraulic** – the ability to function a hydraulic forklift attachment, like tyne/ fork extensions

Characteristics of a Forklift include:

- Will lift heavy loads
- Is used to load and unload trucks and vehicles
- Turns in quickly restricted work areas
- Can be used with a range of attachment
- Can be designed to work on rough terrain.
- Can be powered by LPG. Petrol or battery.

Types of Forklifts

Standard Forklift
Could be powered by battery or fuel

Rough Terrain Forklift

Side Loading Forklift

Reach Truck

Work Health and Safety Requirements

WHS Legislation

Work Health & Safety (WHS) legislation is defined as laws and guidelines to help keep your workplace safe.

Legislation can be broken down into four main types:

Acts	Laws to protect the health, safety and welfare of people at work.
Regulations	Give more details or information on particular parts of the Act.
Codes of Practice	Provide practical instructions on how to meet the terms of the Law.
Australian Standards	Give you the minimum levels of performance or quality for a hazard, work process or product.

South Australia's work health and safety legislation includes the **Work Health and Safety Act 2012 (SA)** and the **Work Health and Safety Regulations 2012 (SA)**, which were adopted on the 1st January 2013.

Sources of Workplace Safety Information - Overview of Legislation

Work Health and Safety Act 2012 (SA)

The main object of the Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces

Work Health and Safety Regulations 2012 (SA)

The Work Health and Safety Regulations 2012 (SA) identifies the control measures that must be applied to specific work activities and hazards that occur in the workplace

Codes of Practice

This legislation is supported by Codes of Practice which provides practical information, or guidance, on how to meet the requirements of the regulations. Codes of practice are not mandatory but provide information to help workplaces achieve safe systems of work.

Australian Standards

Australian Standards set out specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform the way they were intended to. They also act as guidance material to achieve compliance requirements with WHS legislation.

- **AS2359 – Powered Industrial Truck**

Other Codes and Standards that are referred to in this Manual are listed in Appendix A.

Other documented sources of Workplace Safety Information can be:

- WHS policy and procedures
- Safe working, workplace or job procedures
- Management plans

Sources of instructions on how to safely operate a Forklift could include:

- Relevant Australian Standards
- Manufacturer requirements
- Forklift Operator Manual
- Regulatory guidelines for Forklift Operations

High Risk Work (HRW)

High Risk Work applies to licence classes as defined in the WHS Act and Regulations (2012) for specific occupations throughout the workforce. To participate in HRW a person must be licensed and competent to do so.

Persons Conducting a Business or Undertaking (PCBU)

In addition to employers, a **PCBU** can be a corporation, an association, a partnership, or sole trader. A volunteer organisation which employs any person to carry out work is considered a **PCBU.**

Workers

A worker is anyone who carries out work for a PCBU, such as: an employee, a contractor or sub-contractor; an employee of a contractor or sub-contractor, an employee of a labour hire company; an apprentice or trainee, a student gaining work experience; an outworker; or a volunteer.

Duty of Care

Duty of Care means to take all necessary steps to work safely and provide a safe work place for yourself and others. Under the new WHS legislation, PCBU's and workers can be heavily fined or even imprisoned for not acting with Duty of Care.

1. There is a primary duty of care requiring ***persons conducting a business or undertaking (PCBU)*** to ensure, so far as is ***reasonably practicable***, the health and safety of ***workers*** and others who may be affected by the carrying out of work.

2. A requirement that ***officers*** of corporations and unincorporated bodies exercise ***due diligence*** to ensure compliance.

3. ***Workers*** must exercise reasonable care that their acts or omissions do not adversely affect the health and safety of persons at a workplace.

PCBU Duty of Care

Some important responsibilities of the PCBU/employer are to provide and maintain:

- A work environment without risks to health and safety
- Safe plant and structures
- Safe systems of work
- Adequate facilities
- Any information, training, instruction or supervision for the work to be undertaken safely
- Procedures and systems to ensure the safe use, handling and storage of plant, structures and substances

Working on Unfamiliar Forklifts

Forklift manufacturers and makes can vary in operational requirements. Familiarisation on specific forklifts is required for safe operations.

Prior to operating an unfamiliar Forklift, the employer must provide adequate:

- Information
- Training
- Instruction
- Supervision

Worker Duty of Care

Some important responsibilities of the worker include:

- Take reasonable care for your own health and safety
- Take reasonable care for the health and safety of others who may be affected by their own acts or omissions
- Cooperate with anything the employer does to comply with WHS requirements
- Not intentionally or recklessly interfere with or misuse anything provided at the workplace for WHS

The regulator can take action if a worker fails to exercise due diligence when performing High Risk Work (HRW), including:

- Suspend their HRW licence
- Cancel their HRW licence
- Refuse to renew HRW licence
- Direct reassessment to determine competency
- Prosecute (up to $300,000 fine and/or up to 5 years imprisonment)

High Risk Work Training

Employers also must not allow a person to carry out HRW unless they are licensed and competent to do so.

The only exception that allows a person to carry out high risk work is if they under direct supervision of a licensed person as a trainee and enrolled in formal training of that licence class.

A person under training is a person enrolled in a course of HRW and being supervised at a workplace by a person with a current HRW licence for the work. *(WHS Regulation 82)*

Applying for the High Risk Work Licence (HRWL)

On successful completion of the High Risk Licence Assessment, all candidates will receive a **Notice of Satisfactory Assessment (NSA)** which will **act as a licence for 60 days.**

A Tax Invoice will also be issued for payment at the time of application.

You have 60 days from date of issue to lodge the application at Service SA or a participating Australia Post outlet who will process your HRWL

IMPORTANT NOTICE

BEFORE YOU LEAVE YOUR COURSE, PLEASE ENSURE THAT YOUR NAME & ADDRESS DETAILS ARE CORRECT AS THIS IS WHERE YOUR LICENCE WILL BE POSTED TO.

YOUR NAME AND ADDRESS DETAILS MUST MATCH YOUR IDENTIFICATION THAT WILL BE PRESENTED WHEN SUBMITTING YOUR APPLICATION

All applicants for High Risk Work (HRW) licences must provide the following information:

- Tax Invoice (successful course completion)
- 100 Points of identity (e.g. driver's licence, passport)
- Declarations - Provide no false or misleading information
- Passport sized photo taken (photo can be taken at Service SA or participating Post Office outlet)

APPLICATION FOR HIGH RISK WORK LICENCE
NEW LICENCE

Government of South Australia
SafeWork SA

Issued: 10-Feb-2024

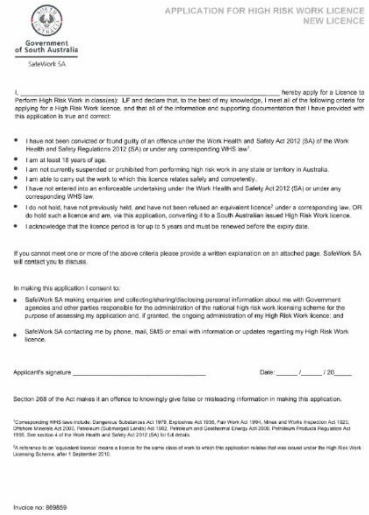
Your personal details
NAME
ADDRESS
DATE OF BIRTH

Your licence details
APPLICATION TYPE
New
EXPIRY DATE
05/02/2025
NEW CLASSES
LF

INVOICE DETAILS
Invoice No
869859
Pay by date
10/04/2024
Amount due
$ 92.00
This fee is exempt from GST
LATE PAYMENTS WILL NOT BE ACCEPTED

HOW TO PAY
Check your licence details are correct before making payment. COMPLETE DECLARATION OVERLEAF.

service SA
Post Billpay



APPLICATION FOR HIGH RISK WORK LICENCE
NEW LICENCE

Government of South Australia
SafeWork SA

I, _____ hereby apply for a Licence to Perform High Risk Work in class(es): LF and declare that, to the best of my knowledge, I meet all of the following criteria for applying for a High Risk Work licence, and that all of the information and supporting documentation that I have provided with this application is true and correct:

- I have not been convicted or found guilty of an offence under the Work Health and Safety Act 2012 (SA) of the Work Health and Safety Regulations 2012 (SA) or under any corresponding WHS law[1].
- I am at least 18 years of age.
- I am not currently suspended or prohibited from performing high risk work in any state or territory in Australia.
- I am able to carry out the work to which this licence relates safely and competently.
- I have not entered into an enforceable undertaking under the Work Health and Safety Act 2012 (SA) or under any corresponding WHS law.
- I do not hold, have not previously held, and have not been refused an equivalent licence[2] under a corresponding law, OR do hold such a licence and am, via this application, converting it to a South Australian issued High Risk Work licence.
- I acknowledge that the licence period is for up to 5 years and must be renewed before the expiry date.

If you cannot meet one or more of the above criteria please provide a written explanation on an attached page. SafeWork SA will contact you to discuss.

In making this application I consent to:

- SafeWork SA making enquiries and collecting/sharing/disclosing personal information about me with Government agencies and other parties responsible for the administration of the national high risk work licensing scheme for the purpose of assessing my application and, if granted, the ongoing administration of my High Risk Work licence; and
- SafeWork SA contacting me by phone, mail, SMS or email with information or updates regarding my High Risk Work licence.

Applicant's signature _____ Date: ____/____/ 20____

Section 268 of the Act makes it an offence to knowingly give false or misleading information in making this application.

[1]Corresponding WHS laws include: Dangerous Substances Act 1979, Explosives Act 1936, Fish Work Act 1994, Mines and Works Inspection Act 1920, Offshore Minerals Act 2000, Petroleum (Submerged Lands) Act 1982, Petroleum and Geothermal Energy Act 2000, Petroleum Products Regulation Act 1995. See section 4 of the Work Health and Safety Act 2012 (SA) for full details.

[2]A reference to an 'equivalent licence' means a licence for the same class of work to which this application relates that was issued under the High Risk Work Licensing Scheme, after 1 September 2012.

Invoice no: 869859

Under the requirements of Work Health & Safety (WHS) legislation, all applicants for High Risk Work (HRW) are expected to **make the following declarations**:

- That they do not currently hold an equivalent HRW licence granted under corresponding WHS law by another WHS regulator.
- Any details of convictions or of being found guilty of any offence under the WHS Act or the WHS regulations in any jurisdiction in Australia.
- Whether or not they have ever entered into an enforceable undertaking under the WHS Act or WHS regulations in any jurisdiction in Australia, and providing the details if they have.
- Whether or not they have ever previously had an equivalent HRW licence refused, suspended or cancelled under the WHS Act or the WHS regulations in any jurisdiction in Australia.

SafeWork SA Portal

Applications for renewals for HRW Licences can be completed online for existing HRWL licence holders

https://app.safework.sa.gov.au/indv_client/

High risk work licences will need to be renewed every **5 years.**

Expired HRW licences must be renewed within 12 months of expiry, otherwise it will be cancelled.

Performing High Risk Work

Any person who is undertaking training for a High Risk Work (HRW) licence (Work Health & Safety (WHS) regulation 82 – Exceptions) must be:

- Currently enrolled in a course of HRW training, AND
- Being supervised at the workplace by a person with a current HRW licence for the work.

If a holder of a high risk work licence is no longer competent to carry out the work they hold a licence for they must:

- Stop doing the work
- Retrain to become fully competent, OR
- Return the HRW licence to the WHS regulator.

Plan for Forklift Operations

Workplace Requirements

Careful planning is the first step in completing a task safely. By making sure you are aware of all of the requirements of the job, you need to:

- Follow your instructions
- Follow all workplace rules/ procedures
- Understand the safe operating procedures
- Be aware of Safety Data Sheets for materials you may be moving
- Have the right licence for the plant you are operating
- Make sure all equipment is safe to use
- Carry out your work safely
- Report any problems
- Meet any other relevant state and territory WHS requirements

Work Task Requirements

Task requirements may come in the form of a work order, written instructions (work plan) or verbally.

It is important to clarify this information prior to starting the job to ensure coverage of the task requirements for the relevant work area.

Always refer to workplace procedures for guidance when planning how the task will be done.

Procedures help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations. They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

Your work instructions will tell you the safest way to do the job and the equipment that you will need to use.

Work Instructions and Procedures

Forklift instructions can include:

- Manufacturer's guidelines.
- Industry operating procedures.
- Workplace safe operating procedures.

If you don't know where to get your instructions or you can't understand them, you can ask your boss or supervisor.

You can also speak with your WHS workplace representative for more information about workplace safety.

Consultation

Consultation with these groups of people can inform you of any site-specific hazards and ground conditions and ensure that you adhere to any workplace policies and site-specific procedures. A site induction may be required before starting the job.

Each workplace or worksite has a series of requirements, rules and procedures that need to be followed to help ensure the safety of everyone on and around the site.

Consult with relevant personnel such as:

- Supervisors
- Safety officers
- Other personnel/workers.
- Workplace engineers (if applicable)
- Site or operations managers
- Health and Safety Representatives
- WHS Committee members

Consultation can inform you of:

- Policies and procedures
- Any site-specific hazards
- Ground conditions

It is important to consult with relevant workplace personnel and safety officers before commencing work in order to ensure that workplace policies and or site specific procedures are adhered to.

Emergency Situations

In an emergency you may need to communicate information to particular people.

Other Workers	○ Raise the alarm. ○ Location or unsafe area/s. ○ **Nature** of the emergency
Supervisor/ Safety /Management	
Emergency Services	

You may be required to contact the emergency services (ambulance, fire or police). The Emergency Services will need to know:

- What has happened?
- When it happened?
- What emergency services are required?
- Where the emergency is and how to get their vehicles to the correct location?

Every worker and vehicle gives way to all emergency vehicles at all times

First Aid

Forklift operators work in a high-risk industry. Not only are there many minor injuries but also there are also serious injuries where the injured person will need first aid to restore breathing, heartbeat or to stem blood flow. Know the location of the first aid room and the nearest first aid kit.

Refer to the code of practice in relation to the amount of first aid kits per site. South Australia has approved WH&S standards relating to this.

The standard first aid symbol in Australia is a white cross on a green background. First aid kits on worksites should have a carrying handle.

There must be a notice near to the first aid room with the name(s) of those in the workplace that hold an approved occupational first aid certificate.

It is recommended that Forklift operators take the time to obtain an approved first aid certificate.

Planning Operations

Site Inspection and Forklift Travel Path

A site inspection is an important step in the planning process and may be required before you start operating the Forklift

Consider what other work is happening around the travel path of the forklift and if an exclusion zone is required

Inspect the site and work area for hazards

Consult with other workers for certain information to make sure the work plan is consistent with specific site requirements.

During the planning stage there are things that you need to plan for to ensure safe operation of the forklift.

Certain resources and approvals may take considerable time to be completed and may take a matter of days to months to be organised prior to the job or task starting.

- Location of the work area
- Specific details of the task
- The travel path of the forklift
- Size and type of the forklift
- Capacity of the forklift
- Equipment/ attachments required for the task
- Availability of the equipment
- Method of attachment
- Characteristics (size, weight, shape) of the load
- Pick up and unloading destinations
- Permits required for the task
- Is traffic control/ an exclusion zone required?
- Adequate and safe communications

Work Permits

In some situations, it may be necessary to obtain a work permit before commencing particular tasks in certain areas such as working in a potentially explosive environment. Work permits are required to ensure that adequate safety control measures are in place.

Hazard Identification and Controls

Hazard

A hazard is a thing or situation that has the potential to cause harm to a person or cause damage.

Risk

A risk is the possibility that harm (death, injury or illness) might happen when exposed to a hazard.

It is important to identify all hazards in the work place before work begins

Once the hazards are identified, you need to decide how great the risk is that an injury or damage will be done.

If you can remove or at least control a **HAZARD** you can reduce the **RISK** involved.

Each worksite has its own specific risks and hazards.

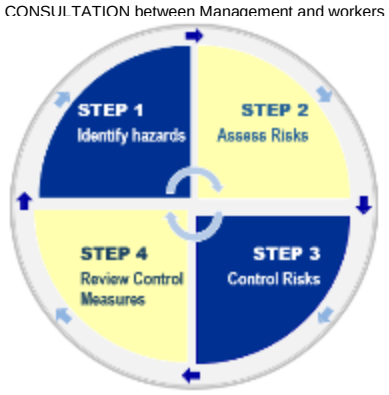
HAZARDS CREATE RISK. CHECK FOR HAZARDS.

Risk Management

Risk management is the process of reducing or managing the risks when working with a hazard or in a hazardous situation and should take into consideration the context of the organisation and worksite.

Risk management is made up of the following stages:

Step 1: Identify the Hazards
A situation or thing that has the potential to harm a person



Step 2: Asses the Risk
The possibility (likelihood) that harm (consequence – death, injury or illness) might occur when exposed to a hazard

Step 3: Control Risks
An action taken to eliminate or minimise health and safety risks so far as is reasonably practicable

Step 4: Review Control Measures

- Control measures are not working
- Change in workplace layout
- New equipment for process
- A new hazard is found

Implement control measures to eliminate or reduce the impact of a hazard. Review the controls are adequate to the hazard identified throughout the task to ensure it reduces the risk involved.

Risk Control measures must be put in place before starting any type of work or as soon as a hazard is identified during Forklift operations.

Risk Assessment

Once the hazards have been identified, a risk assessment will then measure the risk to determine what type of control or action is needed.

An assessment of the risk associated with a particular hazard involves consideration of:

- the nature of the hazard
- how the hazard may affect health and safety (what type of injuries or illness could occur and how serious they may be)
- how the employees are likely to be subjected to the hazard including how long, how much and how often an employee would be exposed
- the work organisation
- the layout and condition of the work environment
- the training and knowledge needed by a person to work safely in that environment
- the degree of risk from the hazard
- the need for control measures

	Consequence				
Likelihood	**1. Insignificant**	**2. Minor**	**3. Moderate**	**4. Major**	**5. Catastrophic**
1. Rare	Low	Low	Moderate	Moderate	Moderate
2. Unlikely	Low	Low	Moderate	Moderate	High
3. Possible	Low	Moderate	High	High	Extreme
4. Likely	Moderate	Moderate	High	High	Extreme
5. Almost Certain	Moderate	High	High	Extreme	Extreme

Hierarchy of Control

After identifying the hazards, implement the controls **prior to starting** and **during the task** as they arise.

Controlling risks involves selecting one or more options to modify a risk and then implementing the selected control option/s. You may need to use a number of control strategies together to reduce the risk level to an acceptable level

The Hierarchy of Control is the name given to a range of control methods used to eliminate or control hazards and risks in the workplace.

Elimination

Elimination completely removes the hazard and is the ideal control solution.

Eg: backfilling holes and trenches promptly), ceasing to use a hazardous substance or changing a process to remove the need for a hazardous action.

Substitution

Substitution is where a hazard is replaced by a less hazardous alternative.

Eg: using scaffolding instead of working from ladders, using electric plant in areas with limited ventilation, etc.

Isolation

Isolation involves separating the hazard from people by the use of physical barriers to contain or enclose the hazard.

Eg: Barricades or fencing, segregating defective equipment

Engineering Control

The next preferred control measure is engineering control, which can include:

- Modification of tools and equipment like guarding
- Local exhaust ventilation or providing adequate fresh air to all workers
- using water to suppress dust on materials and haul roads is a common form of engineering control
- Placing and securing covers to voids

Administrative Control

Administrative control involves the introduction of safe work practices that reduce risk by limiting the exposure to the worker from the hazard. This includes measures such as;

- Reducing the number of workers exposed and the period of exposure to the hazard
- Special procedures to be followed for the use of chemicals
- Using signs and evacuation procedures for workers
- Effective training
- Documentation such as risk assessments and work plans, policies and procedures

PPE - Personal Protective Equipment

Personal protective equipment must be used where all other control measures have not been fully effective. PPE can not fully protect the worker and workers can be required to wear several items of PPE simultaneously which affect comfort and restrict performance.

Where protective equipment is used, the employer should ensure that it fits the worker correctly, that training is provided on its need and use, its limitations and that it is serviced regularly and properly stored.

The WHS Act requires that an employee shall, so far as is reasonable, use any equipment provided for health and safety purposes

Example:

A petrol powered forklift operating in an enclosed area may present a hazard due to the production of carbon monoxide (CO).

This hazard could be controlled by using exhaust ventilation to remove the carbon monoxide (engineering control), restricting the time people may work in the area (safe work practice), requiring everyone in the area to wear breathing apparatus (personal protective equipment) etc.

The best method would be to eliminate the hazard by using a battery powered forklift or preventing the forklift from entering the area.

Safe Work Method Statements

When completing a site inspection, it is important to record the hazards found and control measures.

A Safe Work Method Statement (SWMS) details how specific hazards and risks, related to the task being completed, will be managed.

- They outline a safe method of work for a specific job.
- They provide an induction document that workers must read and understand before starting the job.
- They assist in meeting legal responsibilities for the risk management process, hazard identification, risk assessment and risk control.
- They assist in effectively coordinating the work, the materials required, the time required and the people involved to achieve a safe and efficient outcome.
- They are a quality assurance tool.

Hazard Identification

Identify hazards before you move the Forklift.

A good tip is to check:

- **Above head height**
- **At eye level**
- **On the ground**

As part of your working shift it is important to check for hazards around your worksite, and also to check which travel path you will use to move the Forklift.

- Overhead services
- Wind and bad weather
- Trees
- Power lines
- Insufficient lighting
- Unsecured loads
- Falling object hazards
- Roller Doors
- Overhead Lighting

- People and Traffic
- Plant and equipment
- Dangerous materials
- Surrounding structures
- Obstructions
- Blind corners
- Crushing/Pinch points
- Faulty equipment

- Underground services
- Recently filled trenches
- Slopes and ramps
- Loading docks
- Wet/ slippery surfaces
- Bridges
- Non-load bearing surfaces
- Causes of Forklift instability

Power Lines

The different states and territories have standards and regulations for working near power lines.

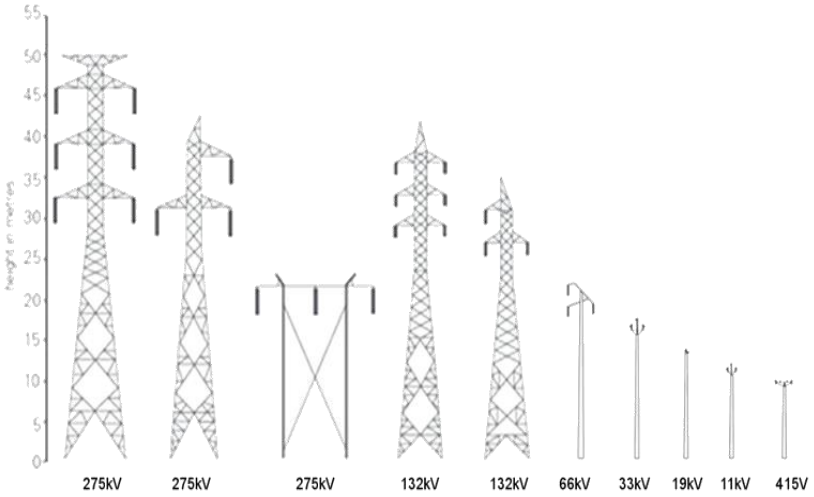
It is important that you identify possible risks when working around power lines and follow relevant safe working power line distances.

All states and territories have standards and regulations for working near electric/power lines. In South Australia equipment must not be closer than the following distance **in accordance with AS2550.1, which is recognised as an approved Code of Practice:**

Electric/Power Line Type	Distance
Distribution lines (poles) up to and including 132kV	**3 m**
Transmission lines (towers) up to and including 500kv	**8 m**

If you need to confirm the voltage of the following overhear electric power lines, consult:

- **The authority responsible for the power lines** – i.e. SA Power Networks (SAPN)
  Or
- **The Office of the Technical Regulator**



Safe Power Line Working Distances

If you are required to work closer than the allowable distances, you need to:

- **Obtain a Network Access permit** from the relevant authority
- Where possible, contact the relevant electrical supply authority to have the **power disconnected** or appropriately insulated
- **Use of a Spotter** / Safety Observer within the exclusion zone

A 'spotter' is a competent person who watches and guides plant and equipment around electric/power lines. Approval from SA Power Networks (SAPN) is required when using a spotter in South Australia.

These distances are quoted in Australian Standard AS 2550.1 Cranes, safe use-general requirements. One precaution is the requirement to have appropriate earthing systems fitted and in contact with the ground.

Power Line Identification

Electrical power lines are often identified by the following:

- Tiger tails
- Power line marker balls
- Electrical safety warning/danger signs
- Painting the lower section of the pole up to 3 metres above the ground

It is important to note that tiger tails **DO NOT** insulate the electric/power lines so exclusion zones and safe operating distances must still be maintained, even when tiger tails are present.

Contact with Power Lines

If the forklift comes into contact with power lines:

- Warn others to stay away
- Attempt to break contact
- Stay in the forklift if safe to do so. If you must leave:
  - Jump clear of the forklift
  - Don't have contact with forklift and ground at the same time,
  - Land with your feet together
  - Hop/shuffle with your feet together until you are at least ten (10) metres clear of the forklift
- Report to management, power company and safety regulator
- Have the machine checked before reuse

Ground Surface Conditions

Different ground surface conditions can affect the stability of the Forklift and the load when travelling. Ground conditions can deteriorate during operations and need to be monitored.

Surface conditions that may create hazardous situations include:

- Backfilled ground
- Bitumen or concrete (cracked or damaged)
- Potholes or speed bumps
- Railway tracks
- Sloping or uneven surfaces
- Soft soils
- Trench or pit covers
- Steel decks and grates

There is a risk that the load could be bumped or fall if driving too fast over uneven surfaces.

Weather Conditions

If you need to operate a forklift on a wet or slippery surface:

- Reduce speed
- Avoid using ramps or inclined pathways
- Avoid sudden braking
- Proceed with caution

Rain could cause:

- Ineffective/non responsive braking
- Slippery fork tynes
- Limited vision

After stopping for heavy rain, re-check the ground conditions before recommencing work

Many sites will have a workplace procedure relating to Environmental conditions. Part of the planning process is to familiarise yourself with the requirements of these procedures.

Keep an eye on the weather conditions.

If a severe electrical storm is approaching:

- Lower the load and stop operations

In snowy and icy conditions:

- Consult manufacturer's recommendations to prevent traction and mechanical issues

Extra care needs to be taken in high and/or gusty winds

- Consider load balance and stability of the forklift when raising or lowering load

Working in extreme heat or high UV (ultraviolet) exposure can cause issues for the operator including:

- Sunburn
- Fatigue
- Reduced visibility from sun glare
- Dizziness
- Dehydration

To protect yourself in these unsafe conditions you should consider:

- Take regular breaks
- Drink lots of water
- Wearing sun protective clothing / sunglasses
- Postpone forklift operations when weather is cooler

If the weather changes quickly and causes the forklift operating surface to be impacted, you should:

- Relocate the task to an undercover area (eg; unloading a truck)
- Reschedule the task for another time

Weather Forecast

Obtaining a weather forecast can assist in your planning by:

- Helping prepare for suitable risk controls
- Helping to plan the work environment
- Helping to schedule work activities

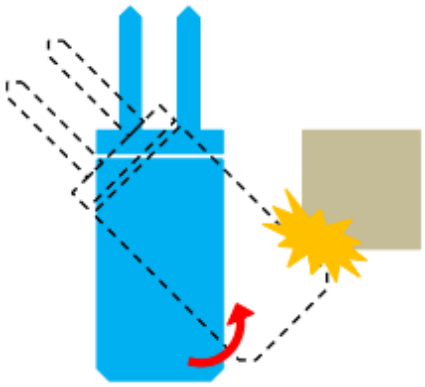
Weather conditions that can impact forklift operations include:

- Wet and/or slippery conditions
- Strong winds
- Heat and sun exposure
- Smoke
- Limited visibility
- Snow and/or ice

Rear End Swing

The rapid sideways movement at the rear end of the forklift truck creates a hazard called rear end swing.

* The rear of the forklift turns up to three and a half times faster than the speed of travel
* You should keep to the inside of every turn to allow enough room for the rear of the forklift to swing around



Rear end swing creates a risk of collision with workers, structures and plant

Pedestrians are also at risk from rear end swing.

Most damage to stock, racking and machinery is caused by the rear of the forklift hitting it.

Be aware of the **dangers of rear end swing** and to **keep pedestrians out of forklift operating areas**, where possible.

Forklifts and People

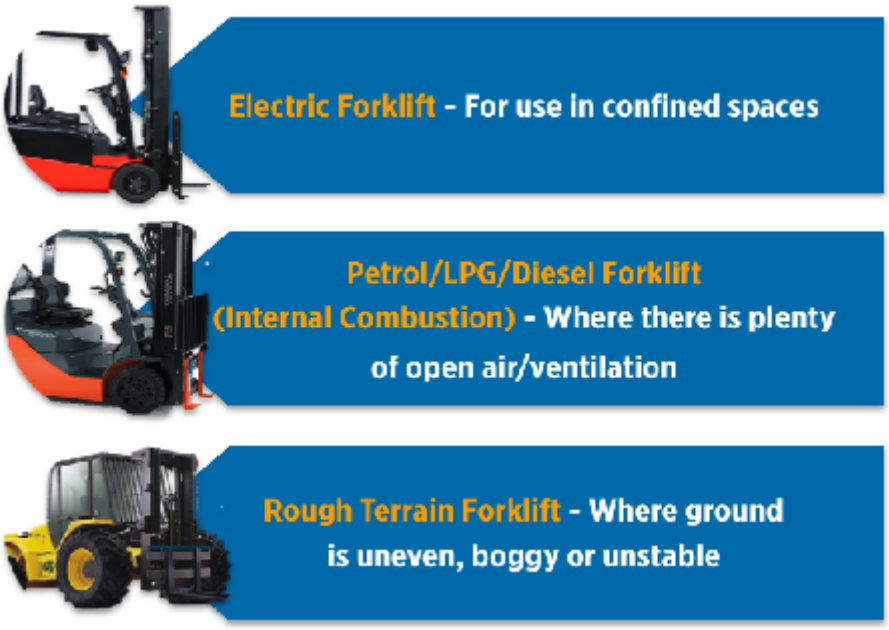
NEVER lift loads over people's heads, as there is a **risk of injury or death** if the load or part of the load falls from the forklift truck.

NEVER let people ride or be lifted on the forks or a pallet!

Passengers may only be carried on the forklift if it has been designed and equipped to carry more than one person.
(eg: with an extra seat and seatbelt)

Forklift Selection

There are a few kinds of forklift trucks that you might use. These include:

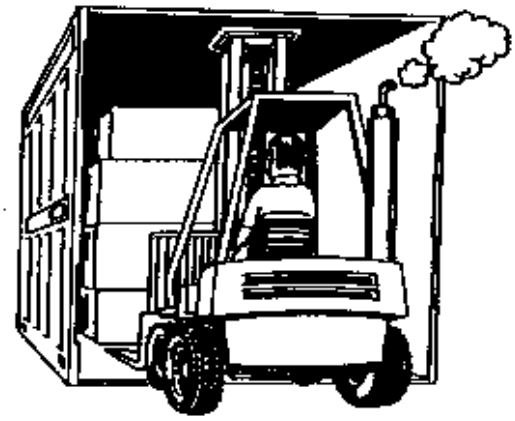


Using Forklifts in Enclosed Spaces

Your job may involve you using a forklift in a small area. This may be in a small room, a shipping container, on a ship or in an underground mine. There is a risk of hitting obstructions and damaging the forklift or the load.

A petrol or LPG gas operated forklift will produce fumes of carbon monoxide. When working in an enclosed area, these fumes build up and reduce the amount of oxygen in the area.

The best method to eliminate this hazard is to **use an electric powered forklift** or to provide enough ventilation for the fumes to escape.



Beware of Exhaust Fumes in Enclosed or Confined Spaces

Risk Controls

Risk Control measures must be implemented before starting any type of work or as soon as a hazard is identified during Forklift operations.

Traffic Management

AS2359.2:2013 states a traffic management plan that includes truck operation shall be in place for the site.

Different control measures can be implemented to prevent interaction of pedestrians, workers and other traffic in the work area. As part of the procedure for creating a Traffic Management Plan, you would need to consider including:

- Exclusion zones
- Warning signs
- Barriers / Hoardings
- Flashing hazards lights
- Traffic management plan
- Flag person

Lighting in the Work Area

When working in darkened areas, adequate lighting across the entire working area must be sufficient to allow the forklift to safely conduct its operations.

Situation:

Operating in a darkened area or night time

Hazard:

- Poor Lighting and vision
- Crushing
- Collisions

Risk:

Serious injury or death

Control/s:

Adequate lighting to provide sufficient lighting across work area

Communications

Communication is an important component in carrying out safe operations of Forklifts. Communicating information amongst all workers directly and indirectly affected by the work is important and required by law. Safe work procedures are required and must be available to all that are involved.

Choose communications methods while **planning** for forklift operations.

When selecting communication methods, you will need to consider:

- What type of work is carried out?
- What type of Forklift is used?
- What hazards arise from the work?

Communication methods could include:

Verbal/ Questioning Techniques /Listening	When you need to clarify an instruction that has been given or find out more information
Written instructions	Can be used to explain what work needs to be done. Eg. Work Plan, Forklift operator manual
Signage	To alert or warn people that there is moving plant or to isolate a work area. Can be used to provide information, such as required PPE to be used in the work area
Hand signals	When you need to communicate with a Spotter in a noisy environment or when the Forklift operator's view of the travel path is obstructed
Two way radio	Can be used to communicate with workers or Forklift operators when they are not in sight. Provides instant communication
Audible warning device	To alert other workers that the Forklift is moving forward or reversing
Visual warning devices	Flashing lights or visual proximity alert systems installed on the Forklift
Traffic warning system	Technology designed to prevent the risk of Forklifts colliding with other plant or pedestrians

Inspect and check communications equipment and procedures **prior to starting the task**.

During operations, if you are given a signal by a co-worker which is unclear, stop all motions and clarify their last signal

Personal Protective Equipment

PPE should be **selected** during **the Planning Stage.** Refer to work instructions or workplace safety instructions for PPE requirements for the task and work area.

Inspect/ check all PPE **prior to starting** the task.

Make sure all PPE you are wearing is in a safe working condition and is suitable for the job.

Report unserviceable or damaged PPE to your supervisor and obtain a replacement.

Inspection of the Forklift

It is the operator's responsibility to inspect the Forklift before operating **to make sure that it is safe to use and suitable for the task.**

Refer to the manufacturer's manual and workplace requirements for routine machine checking procedures and documents.

PRE-START – VISUAL INSPECTION

OPERATIONAL CHECKS

Pre Start checks should be recorded in the logbook or on a separate document as per workplace procedures and should be kept for 12 months, or a longer period if needed, as per AS2359.2:2013.

Forklift Logbook

Ensure the forklift logbook is available and up-to-date. This logbook should be read to make sure any previous problems have been identified and fixed and you become aware of all relevant information about your forklift before use.


FORKLIFT OPERATOR'S DAILY CHECKLIST

(Complete Before The Start of Each Shift)

DATE	TRUCK NO.	BUILDING NO.	SHIFT
☐ INTERNAL COMBUSTION ☐ ELECTRIC		HOUR METER START ____ END ____	TOTAL HRS.
OPERATOR'S SIGNATURE		SUPERVISOR'S SIGNATURE	

CHECK ANY DEFECTIVE ITEM WITH AN X AND GIVE DETAILS BELOW.

	ACCELERATOR		HOUR METER
	ALARMS		HYDRAULIC CONTROLS
	BATTERY CONNECTOR		LIGHTS - HEAD AND TAIL
	BATTERY - DISCHARGE INDICATOR		LIGHTS - WARNING
	BELTS		MAST
	BRAKES - PARKING		OIL LEAKS
	BRAKES - SERVICE		OIL PRESSURE
	CABLES		OVERHEAD GUARD
	ENGINE OIL LEVEL		RADIATOR LEVEL
	FORKS		SAFETY EQUIPMENT
	FUEL LEVEL		STEERING
	GAUGES		TIRES
	HORN		UNUSUAL NOISES
	HOSES		OTHER

DETAILS:

Logbooks contain the follow information:

- Forklift operations – dates, hours, operators
- Daily safety checks
- Faults recorded and fixed

Important checks that should be made:

1. The logbook is correct for forklift
2. All defects have been fixed
3. Service up to date

Tag the forklift out of service if these checks are invalid

Operator Manual

The Operator Manual should be kept on the Forklift.

Different brands/ models of forklifts may operate differently or have different requirements.

It is important for the operator to refer to the Operator Manual / Manufacturer requirements before operating the Forklift.

The Operator Manual will also be required for a maintenance person top access relevant and operational safety procedure information.

Checking Signage, Labels and Data Plate

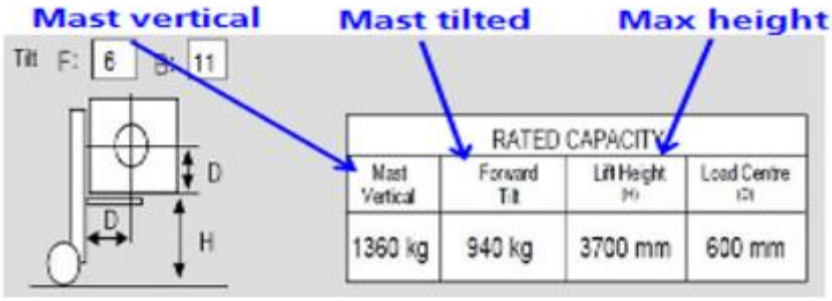
Signs, labels and load charts state the **capacity and capabilities** of the forklift.

The rated capacity of a forklift is found on the data plate and includes:

- Load limit @
- Load centre @
- Lift height

The data plate will show the maximum weight / load that can be lifted at the specified Load Centre distance when:

- The mast is vertical
- The mast is tilted forward
- The mast is at maximum height (also noted on data plate)



The data plate on the forklift **must be readable**.

Do not use the forklift if the data plate is damaged or illegible. Tag the Forklift and report it as per workplace procedures.

Pre Start Checks – Visual

Routine Forklift inspections should be carried out according to procedures including:

- The manufacturer's guidelines – these may include a range of instructions and specifications, including the operator's manual or appropriate checklists.
- Industry operating procedures.
- Workplace procedures, instructions, operating procedures and checklists

Pre-operational checks include:

- Data plate *(in place and readable)*
- Log Book and Operator Manual
- Controls *(identified and in good working order)*
- Forks/ Tynes *(fitting secure, no damage)*
- Attachments *(if applicable)*
- Locking Pins
- Load guard
- Mast, chains, rollers *(any obvious damage)*
- Hydraulic rams and hoses
- Structural weaknesses
- Tyres
- Fluid Levels
- Overhead Guard
- Wheels
- Decals/ Signage/ Labels
- Mirrors
- Seat and seatbelt
- Battery is secured
- Gas bottle security *(if applicable)*
- Fuel lines
- No danger or out of service tag attached

Guards

Inspect all guards and panels for damage that may be the result of impacts or collisions including cracks, damaged welds of distortion of the structure.

Overhead Guard

- Overhead guard protects the operator from falling objects

Load Backrest (Load Guard)

- Stops the load from hitting the mast
- Protects the operator
- Helps to keep the load stable

Tyres

Check that all tyres are in good condition and are inflated to the correct pressure. The tyres on the forklift may be air filled or solid.

The **stability and capacity** of a forklift with pneumatic (air filled) tyres depends on the tyres being correctly inflated as stated on the load plate. To **maintain stability of the forklift, keep the tyres at their right operating pressure.**

Defects when checking wheels and tyres include:

- Large pieces of **rubber missing**
- **Uneven tyre wear**
- **Worn down** to wear limit line
- The tyres and wheels **insecurely fitted**
- **Damaged sidewall**
- **Flat/Underinflated** tyre

The wear limit line is defined under AS2359.2:2013 clause 1.5.1. 60J-line. The pronounced line above the tyre supplier name on the side of the tyre to indicate the maximum wear limit on resilient (puncture proof) or pneumatic tyres.

Consult the tyre supplier for specific information for wear limits, especially of urethane and cushion tyres. Note: the 60J-line may also be referred to as the “safety line”.

Safely Accessing the Forklift

Access the forklift safely using any ladders, steps, footholds or grab rails provided. Always face the forklift when accessing and egressing.

Climb into the cabin safely using three points of contact at all times. This means having two hands and one foot or two feet and one hand in contact with the forklift at all times.

Make sure all points of contact are free from slipping or tripping hazards (e.g. grease or debris).

Avoid grabbing controls to gain leverage to access the cabin, use the bar grips where possible.

Do not stretch or twist your body when accessing the forklift.

Never jump from the forklift.

Seatbelt

A Seatbelt will **stop you falling out** if the forklift tips over and **prevents you from being propelled into the forklift structure or out of the forklift** in the event of a collision.

Forklifts manufactured after February 2014 require sequential seatbelts fitted. “Where seatbelts are fitted they shall be interlocked to prevent the truck from travel motion”

The weight of the operator on the seat shall be detected prior to the seatbelt switch being engaged.

Locate and Identify Controls

Before starting up the forklift, familiarise yourself with the location of various controls and their functions. Make sure all control labels are present and legible.

Check that you can find and identify the forklift controls. Check the operator’s manual if you are unsure.

Controls may include:

- Raise/Lower mast
- Tilt forward/backwards
- Side shift and attachments control
- Throttle control
- Park, Travel & Clutch brakes
- Transmission selector
- Lights and indicators

Some forklifts will have the control levers fitted either on the “dash board” or on the bonnet to the side on the driver. Generally, to the operators right hand side.

Some forklifts will only have 2 levers, the first to operate the mast, and the second to operate the tilt of the mast.

Other forklifts will have additional levers for “side shift” and “fork spreaders” and for other attachments fitted to the machine. Side shift should be used to keep the load centered, as uneven load can affect load balance.

Start the Forklift

All of the controls should be tested to their full capacity. This will ensure that the **forklift is safe and functioning correctly**.

Check that you have a clear view from the operating position across all work zones. This will ensure that your view is not obscured when carrying out operations.

Start the forklift according to the manufacturer's start-up procedure.

If you hear any abnormal noises after starting up:

- **Shutdown** the forklift.
- **Tag** out the forklift
- **Report** to appropriate person

All hazard controls should be in place before operational checks are carried out.

Post Start Checks – Operational

Electrical checks are important because the working conditions and environment can change quickly particularly with weather and lighting around the work sites.

The amount of checks will depend largely on the equipment being used. It is important for the operator to refer to the operator's manual for a detailed list of checks to be made.

Operational checks include:

- Indicators and Lights
- All gauges are functioning correctly - i.e.fuel levels and battery charge
- Raise/lower mast
- Mast tilt
- Side shift and attachment function
- Steering
- All brakes (park, travel, clutch)
- Transmission in forward, neutral and reverse
- All movements are smooth, no abnormal noises
- Communication systems are working
- Safety devices – flashing lights, reverse buzzer, interlocks

If indicators or side lights are fitted, then they have to be operational regardless of whether you intend to use them.

Fault Reporting

If any damage or defects are detected, for example a damaged data plate, flat tyre, abnormal noises:

- Do not operate
- Isolate, remove key so forklift can not be used.
- **Tag out** of service
- **Record** the fault.
- **Report** to an authorised person

By removing the key, you are eliminating the chance of someone else using the faulty equipment.

Report any evidence of tampering or interference with the forklift to your supervisor.

You may make minor repairs to the forklift only if you are competent and authorised to do so.

Check the procedure on your site so you are aware of it should it be required. Remember to ensure any leaks are cleaned up.

Safety/ Warning Tags

To 'Tag Out' the Forklift means to attach a safety warning tag to the controls of the Forklift where it will be visible to all operators.

A Danger Tag is used to tag equipment that, if operated, would put a person at risk of serious injury or death. The power source should be isolated to prevent use.

The only person that can remove a Danger Tag is the person that put the tag on, or a person authorized in the work place procedures.

An Out of Service Tag is used to advise that a fault has been identified with the Forklift and it is waiting for repair.

An Out of Service Tag can only be removed by an authorised person (qualified person) once the repairs or schedule maintenance have been completed or the Forklift has been deemed safe to use.

Stability of the Forklift

Forklift Stability

Stability is an important part in the safe operation of forklifts.

Factors that affect the stability of the forklift are:

- Centre of gravity
- Stability triangle
- Load centre distance
- Forklift rated capacity

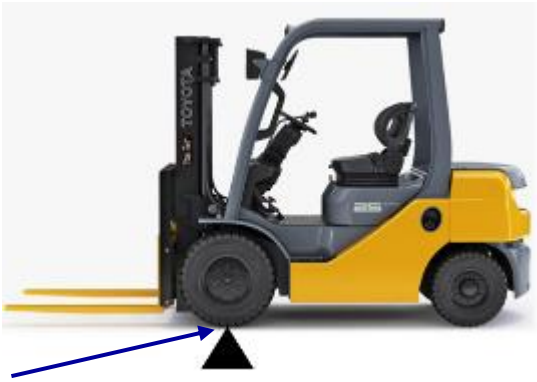
Point of Balance

The point of balance (also referred to as the fulcrum), is located **where the front wheels meet the ground.**

The front wheels of the Forklift act as a fulcrum, with the forks on one side and the machine body on the other. If the weight at the fork end is heavier than the counterweight it will cause longitudinal instability (the fork will tip up).

The counterweight is always every part of the forklift that is behind the point of balance.

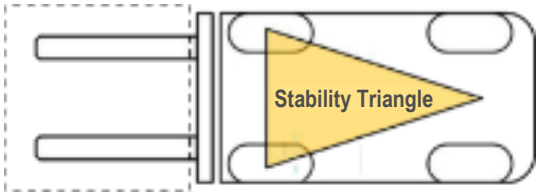
Do not ever add additional counterweights to the forklift truck without referring to the forklift manufacturer instructions first.

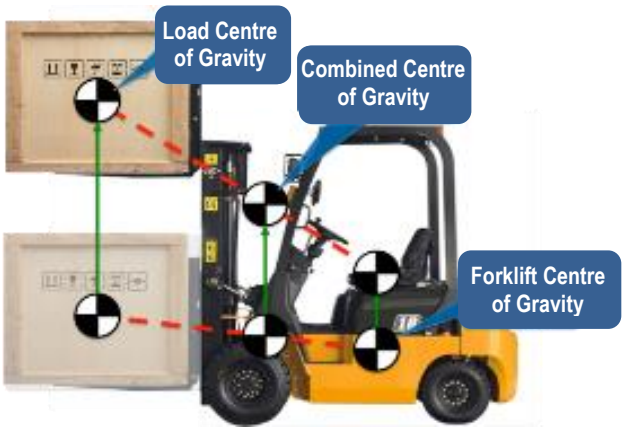


Centre of Gravity

The forklift's centre of gravity changes as the mast is raised and/or tilted. A load has a static centre of gravity until it is lifted. Fluid loads centre of gravity changes dynamically when being lifted.

When a load is lifted, the combined centre of gravity of the forklift must remain in the stability triangle of the forklift.





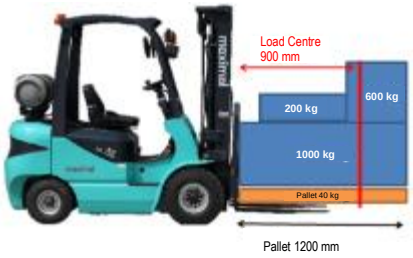
Load Position

If you have multiple objects on a pallet the load centre distance will change depending on how they are stacked.

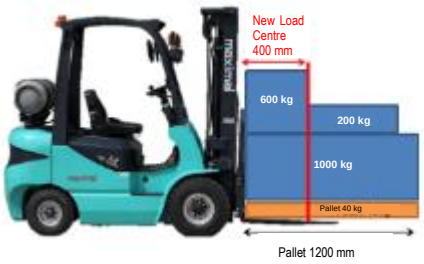
If the heavier weight is nearest to the outer edge of the pallet, the load centre will increase and this will reduce the amount of weight that the forklift can lift.

You would need to rearrange the objects closer to the backrest to safely lift the load.

Load Centre of the Forklift below = 600 mm



The forklift cannot move the load when stacked this way



Same load on the forklift with the load restacked. Heaviest items are closest to the backrest.

You may need to secure the load using shrink wrap or strapping/banding.

Check the pallet that the load is sitting on. If it is too damaged to lift, re-stack the load onto a new pallet.

General Forklift Operations

Check Risk Controls are in Place

Before starting forklift operations, check all risk controls are in place.

- Barricades in place to separate forklift operations from other workers and vehicles.
- Required signage is in place
- There is adequate lighting in the work area
- Forklift travel path is clear
- Operator is aware of fixed hazards in the operating area
- There is enough clearance for the size and shape of loads to be moved
- Safety observer is available if needed
- Appropriate PPE is worn
- Missing risk control measures are reported to relevant personnel

Safe Forklift Operating Procedures

Always operate the forklift truck in adherence to safe operating procedures, these may include:

- Using your horn when approaching blind corners
- Maintain signposted speed limits
- Always staying in forklift operating zones
- Follow the manufacturer's recommendations
- Operate within the rated capacity of the forklift
- Travel 45 degree angle over:
    - Speed bumps
    - Spoon drains
    - Rail lines

Picking up a Load

When picking up a load with the forklift ensure that you:

1. Approach the load from front on
2. Insert the forks all the way into the pallet
3. A test lift may be required for uneven loads
4. Raise the forks and tilt the load back slightly for stability
5. Position the load at axle height or as low to the operating surface as practicable for safe travel
6. **Centralise side shift to maintain stability of the forklift and load**

DO NOT carry the load on only one fork arm, as:

1. **Stability** of the forklift and/or load may be affected
2. **Damage** potential to the fork tyne and/or mast/carriage

Forklift Travel Speed

Forklifts are not designed for fast erratic driving styles. Therefore, a “brisk” walking pace is considered an appropriate speed for general operation. Some sites can control the actual speed you can travel with the forklift via computer or engine settings.

You should always check the site procedures for speed limits before using the forklift.

Safe Travelling Height

Keep the load at **about axle height, or low as practicable** to the operating surface while traveling and tilt the mast backwards for stability.

Tilt the mast backwards for stability.

Do not travel or turn the forklift with the load raised up in the air.

The load height can **affect the stability** of the forklift while travelling, braking or turning that could result in **the forklift tipping over,** rolling over or losing the load.

Travelling with a Load in Reverse

If the load blocks your view:

- **Travel in reverse**
- Get **somebody to direct you** and keep an eye out for other people or equipment in the area
- Repack the load if possible

Before reversing:

- Check your **mirrors**
- Look over **both shoulders**
- **Sound horn,** make sure the warning devices are working correctly

You need to **constantly monitor the load** movement to ensure:

- **Personnel/workers in the area are safe**
- **Load and forklift are stable**

If loading onto a truck from a loading dock make sure there are secured **dock plates** or **bridge plates in place.**

Travelling on Ramps

When travelling on a ramp ensure that you do not turn on it or travel across it. Always be sure to travel up or down.

Turning or travelling across a ramp could:

- Increase the **chance of tipping** or rolling the forklift over
- Cause the **load to fall**

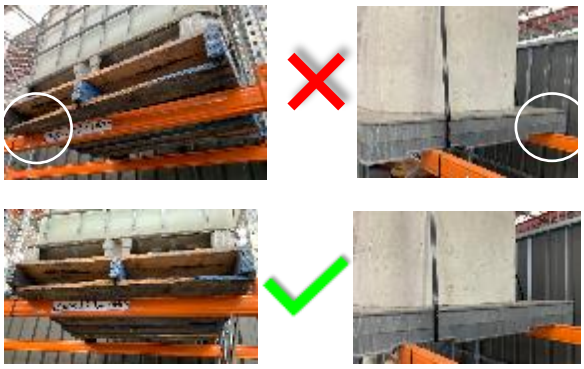
When traveling with a load on a ramp (either up or down), **always face the load uphill (forks pointing up the ramp).**

Placing a Load in Racking

When placing a load using a forklift truck:

1. Approach the load destination square on and slowly.
2. **Tilt forward to level out the mast**
3. Raise the load (where required) to ensure clearance
4. Lower the load onto the rack, stack or ground

Securing a Load in to Racking



- The load needs to be placed square to the racking.
- No part of the front or rear lower pallet boards may be resting on the racking.
- Both the front and rear lower pallet boards must be fitted down below the beams.

Stacking Loads

When placing loads without the support of racking or secured on a pallet, make sure

- Loads are **stacked on a firm level site**
- **Heavy goods are placed at the bottom**
- The stack does not become **unstable due to height**
- The load below can **support loads above**

When raising the load

- Carry loads as low as possible at all times and no higher than axle height
- Operating with the forks raised either loaded or unloaded can affect the stability of the forklift and cause it to overturn
- Hydraulic controls should be ‘eased in’. If the controls are plugged or pushed quickly the operation will be jerky and loads could be dropped or damaged
- Make sure that the forks are centered when they are entering a pallet
- Load movement must be constantly monitored to ensure the safety of personnel and to ensure load and structural stability
- If the operators view is obstructed a spotter must be used

If the forklift is travelling with the load too high, the forklift is more likely to tip over.

Using Two Forklifts to Pick Up a Load

Some situations may call for two forklifts to be used to lift a load. It may be because of the size, shape or length of the load.

When using two forklifts for the same load:

- Use only experienced operators
- Have a third person who is responsible and experienced control the operation
- Ensure that the load applied to each forklift truck is no more than 75% of its rated capacity

Forklift Attachments

Before connecting any attachment to the forklift, check:

- The forklift has been designed for the attachment
- Data plate on forklift and attachment matches, so it can be used within the rated capacity
- WLL (Working Load Limit) of attachment is suitable for the load
- Refer to manufacturer's specifications

Refer to the manufacturer's instructions to find the information on the correct way of securing an attachment to the forklift. The attachment is secured properly and tested before trying to lift a load with it

In all cases, the Forklift must be approved to use attachments. **The Forklift data plate will show the rated capacity for the forklift and any attachment to be used.**

Working Load Limits will be stamped on the data plate for each approved attachment.

Adding an attachment will potentially:

- Reduce the load capacity
- Increase the load centre distance

Types of Attachments

Jib Attachment

The jib attachment provides a hook for the forklift to operate like a mini crane to lift and shift the load into place.

Considerations when using a jib attachment include:

- Checking the rated capacity at the lift point on the jib
- Checking the hook is fitted with a safety latch
- Keeping the mast in a vertical position; do not tilt forwards under load
- Positioning the hook over the load centre before lifting
- The jib should be kept as low as possible

The effect of using a jib attachment could result in:

- Reduced load capacity
- Changed centre of gravity
- Reduced stability due to the effect on the change to centre of gravity
- Swinging load

Jib attachments are more unstable than forks because they have a higher centre of gravity.

Carpet Spike

A Carpet spike is a pole with a tapered tip which allows it to easily lift materials in a tightly rolled format such as:

- Fabric
- Carpet
- Vinyl
- Cable

When using a carpet spike the length of the spike causes the longitudinal stability and load capacity of the forklift to be reduced.

Be careful when turning the forklift and make sure you have enough room to move properly.

Rotating Attachments

Rotating attachments are designed for the forks/ tynes to complete 180º or 360º rotations.

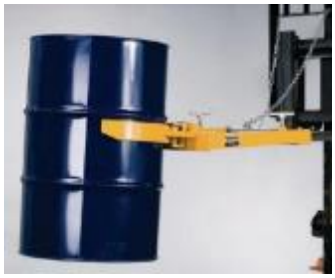
Loads can be easily lifted and inverted where there is need to:

- Efficiently dump
- Transfer loads
- Rotate contents of loads

While travelling, a revolving attachment must never be used to rotate the load. It can impact on the forklift's stability.

Drum Clamps

Drums can be carried safely using a drum clamp (single or tandem).



When using:

- Engage against the drum centre, grip around the drum and lock under the rolling hoop (when the drum is raised)
- The heavier a load, the tighter the grip will adjust to
- To release the drum from the attachment, lower the load and reverse the forklift backwards

Some drum clamps include a band or beak that secures the drum with high clamping force for travelling over rough terrain

Some may be able to tip to allow the emptying of the drum.

Work Platforms/ Boxes

Work platforms/ boxes may be used for short term tasks where other access equipment is not available.

Ensure:

- If there is a risk of falling from height, personnel should wear a fall arrest harness and lanyard connected to the designated anchor point
- The operator must remain seated at the controls at all times while personnel are elevated in the work platform
- Under no circumstances should the forklift be moved while the platform is elevated
- The platform meets the Australian Standard and have a clearly labelled data plate
- Attached securely to the forklift

Bale Clamp

Bale clamps are used for the movement of non-palletised loads into bales, such as paper, recycled materials, wool and textiles.

The load arms are adjusted horizontally by hydraulic cylinders.

Considerations for use include:

- More complex to fit than other slip attachments, follow the manufacturer's instructions
- Clamping pressures and synchronisations can be adjusted for "Close load arms" or "Engage clamp" functions.

Use with caution, as persons can be seriously injured by crushing or shearing if caught between the load arms and in other moving parts.

Blades

A scraper blade attachment allows a forklift to be used for:

- Sweeping
- Handling and collecting materials
- Remove sand, gravel, grain, coal and other loose materials from floors
- Scrape up tape, paint, light adhesive, and other spills from concrete surfaces

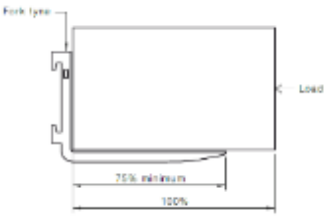
Paper Roll Clamp

These clamps are used for handling large rolls of paper i.e newspaper industry. Typically, they not only clamp the paper roll but also rotate it so it can be stacked upright or lying the roll on its side.

- Pre use checks must be conducted
- Rotating loads are potentially unstable
- Use with caution - persons can be seriously injured by crushing or shearing if caught between the load arms and in other moving parts.
- Paper roll clamps should not be used for any other task.
- Specific training should be given for using these devices.

Tynes and Fork Extension

Fork tynes must support at least 75% of the load, as per AS2359. Where this is not possible, the use of tyne extensions/slippers can be used to temporarily lengthen the fork tynes.



When using fork extensions, ensure:

- Slippers are secured in place with a pin
- 60% of the slipper length must be on fork arm
- The load length should not exceed the fork extension length
- Slipper forks can alter the load centre

When Using an Attachment

- Do not revolve the load while moving if a load revolve mechanism is fitted.
- The Forklift should be operated as if it is partially loaded even if there is no load on the jib attachment.
- Do not lift a load with a jib attachment if the mast is tilted forward.
- Do not tilt the mast forward when a loaded jib is attached.
- The load should be kept as low as possible.
- Travel at low speeds and make turns slowly.
- Slings should be inspected before and after being used for lifting.

The Working Load Limit must be displayed on all jib attachments above the lifting points where a lifting hook is attached.

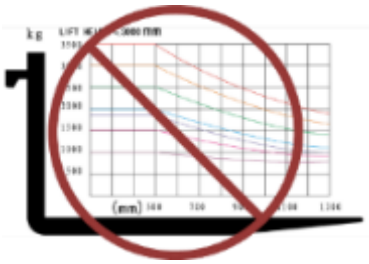
Forklift Loads

Check the Load Weight with the Data Plate.

Before you try to lift a load, check that the forklift will be able to shift it safely.

Is the load within the safe working load of the forklift?

AS2359.1-2015 states derate graphs are no longer allowed. Plates shall list the capacity at the maximum lift height, and any alternative capacity.



The weight, shape, size and composition of a load can change the way it can be lifted safely. Every industrial lift truck should have a manufacturer's data plate and load chart attached in clear view. These two items may be combined on one plate.

Assess the Load

AS2359.2:2013 states operators shall assess load weight, load centre, load height and compare it with the actual load capacity of the truck and any attachment fitted, before lifting the load.

The weight of a load can be determined a number of ways. These include:

- Check **Documentation (**weighbridge/consignment notes)
- Checking the weight **marked on the load** itself
- Estimating through **calculations**
- **Weighing** the load using scales
- Check **inventory systems**

Consignment Notes

Consignment notes or "con notes" will display all the required information on it. This is because all freight is moved and charged on weight due to the nature of the transport system in Australia.

If you have been asked to sign for freight being delivered onto your site, then a possible solution would be to mark the pallet load weight on the boxes or freight on the pallet.

When using an attachment, always make sure you have factored in the weight of the attachment with your calculations.

Pallets

The weight of the pallet must be included when calculating the total weight of the load to be lifted.

Do not lift a load on a pallet that is damaged.

Calculating the Load Weight

Example 1:

You need to move a load of cartons that have been stacked on a pallet.

- There are 4 cartons per layer and 6 layers on the pallet
- Each carton weighs 35kg
- The pallet is standard size and weighs 40kg

To work out how much this load weighs you need to add the total weight of all of the cartons to the weight of the pallet:

Weight = (cartons per layer) x (layers) x (carton weight) + Pallet

= 4 x 6 x 35kg + 40kg

= 880kg

Example 2:

You need to move a pallet loaded with 4 barrels of liquid.

- Each barrel weighs 220kg
- The pallet weighs 40kg

Weight = (drums) x (drum weight) + Pallet

= 220 x 4 + 40kg

= 920kg

Example 3:

You need to move a load on a pallet that is made up of:

- 70 bricks per layer
- Each brick weights 2kg
- 6 layers of bricks on the pallet
- The pallet is standard size and weighs 40kg

Weight = bricks per layer) x (layers) x (brick weight) + Pallet

= 70 x 6 x 2 + 40kg

= 880kg

Load Centre Distance

A measurement made from the centre of gravity of the load to the face of the fork tynes horizontally and vertically is called the **Load Centre Distance.**

The most common Load Centre distance is 600mm.

As load centre distance increases, the forklift capacity decreases.

The use of special attachments instead of forks will also decrease the regular capacity of the forklift truck.

If the load is not hard up against the backrest:

- The forklift truck's capacity is reduced
- The forklift truck's stability may be affected

A load centre of 600mm is commonly found on forklifts within Australia.

Standard pallet sizes in Australia are 1200mm x 1200mm and have an approximate safe working load of 2000kg.

Often additional rated capacities for different load centre distances or heights are added to the data plate to provide specific ratings for restricted mast heights or different dimension pallets.

The forklift trucks below are rated at **4200kg at 600mm load centre**.

Of these forklifts, only forklift B has a load that is within the rated capacity of the forklift.

The load centre distance for **B is 500mm** (within the 600mm limit for 4200kg).

A and C have a load centre distance beyond the 600mm limit of 700mm and 650mm.

Load Weight:

You need to move a container.

- The load placed inside the container weighs 4500kg
- The tare weight of the container itself is 1500kg

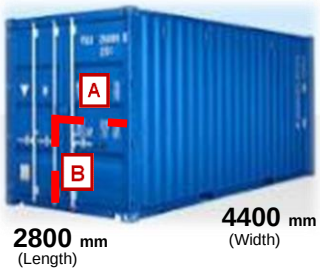
Calculation:

Weight = load + container
= 4500 + 1500
= 6000kg

Load Centre:

The container dimensions are:

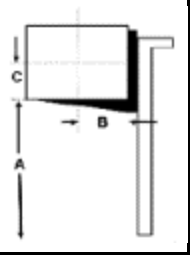
- Width 4400 mm
- Height 3000 mm
- Length 2800 mm



Load centre distances

A. Horizontal = 1400 mm
B. Vertical= 1500 mm

WARNING **Trained operators only** **Read operating manual located on seat or in operator's compartment** **Failure to follow operating, inspection and maintenance procedures can cause serious or fatal injury.** **CAPACITY WITH MAST VERTICAL AND AS EQUIPPED AS SHOWN.**		**Lift truck model** **ABC 123** **Serial number** **10 EFB XY234**		
	Attachment	1961mm Carriage + sides-shifting fork positioner 1830mm Forks		
	Fork Truck Weight	9750kg		
	Tread width	1844mm		
	Back tilt	10 Degrees		
	Tyres	**Front**	**Rear**	
	Tyre Size	8.25/14 ply Dual Pneu	8.25/14 ply Dual Pneu	
	Pressure	800KPA (116psi)	800KPA (116psi)	

MAXIMUM RATED CAPACITY	**Lift Height Dimension A**	**Load Centre**		
		Dimension B	Dimension C	
6130 kg	4400 mm	915 mm	915 mm	
0 kg	0 mm	0 mm	0 mm	

Using the Forklift Load Plate above, required questions and calculations determine whether the load is safe to lift.

Question 1:

Load Dimensions	**Question**
Weighs 2000kg Length 1255mm Width 1255mm Height 1700mm	Is this load safe to lift with this Forklift? Yes / No Provide calculations or reasons for your answer **2000 kg is under the maximum Rated Capacity** **L: 1255 ÷ 2 = 627.5mm** **H: 1700 ÷ 2 = 850mm**

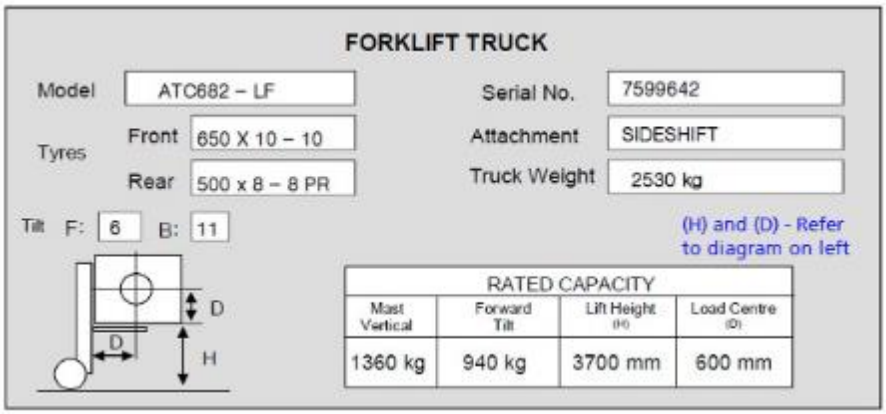
Question 2:

Load Dimensions	**Question**
A shipping container containing a 4800kg load The container is - 2200mm long - 2000mm wide - 2400mm high The tare weight of the container is 3000kg	Is this load safe to lift with this Forklift? Yes / No Provide calculations or reasons for your answer **Tare weight 3000kg** **+ Load weight 4800kg** **= 7800kg** **7800 kg is over the maximum Rated Capacity**

Rated Capacity

The Rated Capacity of a Forklift is the maximum weight that a forklift is able to safely carry at a specified load centre. This weight will change when the mast is tilted forwards or backwards.

You cannot safely operate the forklift without knowing this information. **Do not use a Forklift that does not have a data plate.**



Mast Vertical
The maximum weight that can be lifted with the mast vertical

Forward Tilt
The maximum weight that can be lifted if the mast is tilted forward

Lift Height
The maximum height that a load can be lifted

Load Centre
The forklift cannot be used to lift a load with a greater load centre than 600mm

Most Forklifts have 2 Working Load Limits (WLL) stamped on the load rating plate (Data Plate).

They are the:

- Mast vertical WLL
- Mast forward tilt WLL

The data plate is usually found next to the driver's seat or steering wheel.

If attachments are fitted a separate load rating notice needs to be displayed.

FORKLIFT LOAD CHART (example only)							
MODEL: XTQ300a **SERIAL NO:** ACLF-011 **ATTACHMENT:** Forks	**MAX HEIGHT**	**MAX BACK TILT**	**WARNING** **1. DO NOT LIFT LOAD UNLESS PLACED EVENLY ON FORKS.** **2. DO NOT TRANSPORT OR MANOEUVRE WITH LOAD RAISED EXCEPT TO CLEAR OBSTRUCTION AND THEN ONLY WITH MAST TILTED BACK TOWARD DRIVER.**				
	3855mm	10 degrees					
MAST VERTICAL				**MAST FORWARD TILT 10 DEGREES**			
LENGTH mm	**FORK HEIGHT mm**	**LOAD CENTRE mm**	**RATED CAPACITY kg**	**LENGTH mm**	**FORK HEIGHT mm**	**LOAD CENTRE mm**	**RATED CAPACITY kg**
1065	**3855**	**600**	**2010**	**1065**	**3855**	**600**	**1755**

1. What is the Rated Capacity with the mast in the tilted forward position? **1755 kg**
2. What is the Rated Capacity with a load centre of 600mm and mast in a vertical position? **2010 kg**
3. Can a load weighing 1850kg with a load centre of 900mm be lifted? **No**
4. Can a load weighing 2230kg with a load centre of 500mm be lifted? **No**

Operational Issues

Forklifts are unstable by design. The 2 rear wheels are attached in the center to the main body of the machine allowing the rear to hinge **sideways affecting the lateral (sideways) stability** of the machine. All Forklifts have a high center of gravity and a narrow wheelbase, which adds to their **lateral instability**.

Sideways (Lateral) Instability

Conditions that may **cause a forklift truck to tip over sideways** (Lateral Instability) include:

- Driving too fast (loaded or unloaded)
- Operating on a sloping surface
- Unevenly distributed load / incorrect stacking of load
- Driving over uneven surfaces / deteriorated ground
- Turning with the load raised
- Turning at an unsafe speed
- Side shift not centred not aligning forks/ tynes correctly
- Driving with a flat or underinflated tyre

Forwards/Backwards (Longitudinal) Stability

Conditions that may cause a **forklift truck to tip forwards or backwards lengthways** (Longitudinal Instability) include:

- Driving too fast (loaded or unloaded), including reversing
- Driving with the load in the elevated position
- Operating on sloping surface
- Unevenly distributed load
- Driving over uneven surfaces / deteriorated ground
- Overloading
- Severe braking
- Incorrect use of the mast tilt
- Load not against the heel of the fork arms
- Colliding with overhead structure
- Incorrect pick up or placement of loads
- Incorrect alignment of the forks for irregular loads

Side-shift Attachment

Some forklifts are fitted with a side shift feature which allows you to move the forks to the side to pick up a load.

When the forks are moved over to the side, this affects the stability of the forklift and load by changing the point of balance, affecting the stability with a risk of tipping over.

The side-shift attachment must be returned to the central position before moving the forklift to maintain stability of the Forklift and the load.

Forklift Roll Over Procedure

If you lose control of the forklift and it begins to tip sideways,

- **Remain** in the forklift
- **Brace** yourself (arms and feet)
- **Lean away** from point of impact

DO NOT try to jump from the forklift while it is tipping over

AS2359-1:2015 states a forklift must be fitted with this information on an advisory notice (eg. a decal).

Unplanned and Unsafe Situations

Unplanned or unsafe situations can occur while you are operating a forklift, such as:

- Failure/loss of control (e.g. brakes, steering)
- Failure of equipment (e.g. hydraulic system)
- Environmental conditions (e.g. wind, lightning, storms)

The impact of losing brakes and steering if the forklift when moving or shifting a load could be:

- The forklift collides with an object or obstruction
- Potential injury to pedestrians or other workers
- Loss of the load

In case of mechanical failure (loss of brakes and/or steering, or failure of hydraulic system):

- **Stop** the forklift where possible
- **Activate the emergency stop** procedure as per operator's manual
- **Lower fork tyne** position using applicable procedure
- '**Lock out' and 'Tag out'** the forklift
- **Report** to management
- **Have the machine checked** and repaired before reuse

Complete Forklift Operations

Parking the Forklift

Always park the forklift on a flat surface out the way of traffic.

DO NOT park the forklift:

- On sloping surfaces
- Near First Aid Stations
- Near fire fighting appliances
- Near doorways
- On or near pedestrian walkways
- Emergency exits
- Where it is obstructing other traffic
- Next to train tracks (no closer than 2m)
- Under overhead electric/power lines

When parking the forklift, normal parking procedures are:

- Make sure the fork arms are correctly positioned
  - Top the forks down, tilted forward. and lowered to ground
- Select an appropriate transmission/gear (neutral)
- Apply the hand/parking brake
- Turn the engine off and remove key from the ignition
- Shut off the LPG gas cylinder valve (if applicable)
- Any other site-specific procedures as required
- Chock wheels on inclines

The key should always be removed from the forklift when not in use or after shutdown to prevent unauthorised use.

Post Operational Checks

After completing shutdown, conduct all post checks to ensure forklift is ready for the next operator.

Post Operational checks could include:

- Check the forklift to the full extent of its movement ability(Unloaded)
- Check steering
- Check brakes
- Check warning devices
- Check lights (if fitted)
- Check all gauges

Remember

If a Fault or defect is present:

- Tag out of Service
- Record in Logbook
- Report to Supervisor

Refueling / Recharging Forklift

Check the forklift after you have finished using it to make sure it is ready for the next operator.

- **Do not smoke around a charging battery.**
- **Do not smoke when refuelling a petrol powered forklift.**
- **Do not smoke when changing LPG cylinders.**
- If you need to refuel the forklift **make sure the engine is switched off.**

If you attempt to refuel the Forklift while the engine is running, the fuel or fuel vapours could ignite. Always follow manufacturer's instructions.

Eye and hand protection to be worn when recharging and refueling Forklifts

Battery Operated Forklift

The batteries on an electric operated forklift will need to be charged between use.

Always charge batteries in a well **ventilated area**. When charging, batteries give off Hydrogen gas and could **cause an explosion.**

Attach batteries to a charger if applicable.

Battery water is always added last after charging

Changing LP Gas Cylinders

LP gas is a highly volatile explosive. **Change gas cylinders in a well-ventilated area** well clear of a naked flame or source of ignition.

Only those trained and authorised to do so must change LP gas cylinders. Some employers do NOT change over LPG cylinders, rather they re-fill them. Check with your employer before changing/filling these cylinders.

Beware of cold burns from escaping gas. Always wear appropriate gloves and safety glasses and do not smoke while changing LP gas cylinders

LP gas cylinders must be inspected and stamped by a competent person every 10 years. **All LP gas Forklifts must have an installers compliance plate**

Take the following steps in the order below when changing LP gas cylinders:

1. Switch off engine
2. Turn off cylinder valve
3. Use correct PPE i.e. gloves, goggles etc
4. Disconnect take off hose
5. Remove safety straps
6. Change the cylinder
7. Connect the safety straps
8. Re-connect take off hose
9. Turn on cylinder valve
10. Check for leaks - look, listen and smell

Appendix A – Legislative Framework

Work Health and Safety Act 2012 (SA)

- 18-What is reasonably in ensuring health & safety
- 19-Primary duty of care
- 20-Duty of persons conducting businesses or undertaking involving management or control of
- work places
- 28-Duties of workers
- 29-Duties of other persons at the work place
- 30-Health & safety duty
- 31-Reckless conduct
- 33-Failure to comply with health & safety

Work Health and Safety Regulations 2012 (SA)

- 34-Duty to identify hazards
- 35-Managing risks to health & safety
- 36-Hierarchy of control measures
- 44-Provision to workers & use of personal protective equipment
- 46-Duties of worker
- Part 4.5 High Risk Work
- 81-Exceptions
- 166-Duty of person conducting a business or undertaking
- 214-Powered mobile plant-general control of risk
- 215-Powered mobile plant-specific control measures
- 218-Industrial lift trucks
- 219-Plant that lifts or suspends loads
- 220-Exeption-plant not specifically designed to lift or suspend a person
- 224- Pressure equipment
- 299-Safe work method statement required for high risk construction work
- 300-Compliance with safe work method statement

Codes of Practice

N/A

Australian Standards

- 2030.1 Gas Cylinders Code
- 2210.1 Safety, protective and Occupational footwear
- 2359.1 Powered industrial trucks
- 2359[1].2-1985 Industrial trucks (Known as the SAA industrial truck code) - Operation
- 4602.1 High visibility safety garments (Garments for high risk applications)
- 2550.1 Cranes, safe use-general requirements

Unit of competence

- TLILIC0003 Licence to operate a forklift

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FORKLIFT PRACTICE QUESTIONS

Name:	Date:
Signature:	

1. What are **three (3)** sources you could refer to for workplace safety information?

1.
2.
3.

2. What are **three (3)** actions an employer should take to ensure the health and safety of a worker?

1.
2.
3.

3. After successfully obtaining your High Risk Work Licence, list **two (2)** things your employer must provide prior to you operating an unfamiliar forklift.

1.
2.

4. What does the Duty of Care as a worker involve?

5. What are **two (2)** things the work health and safety regulator could do if it is found that you were not working safely as a High Risk Work Licence holder?

1.
2.

6. List **three (3)** people you should talk to about workplace hazards before starting work.

1.
2.
3.

7. Why is it important to consult with others about workplace hazards?

8. When planning for safe Forklift operations, identify **six (6)** things you need to consider.

1.	4.
2.	5.
3.	6.

9. What is the definition of:

a Risk	
a Hazard	

10. Complete the order of the Hierarchy of Controls below.

1. **E**limination
2. **S**
3. **I**
4. **E**ngineering Controls
5. **A**
6. **P**

11. List **ten (10)** hazards that relate to forklift operations that could be identified prior to operating.

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

12. How can you find out information about the voltage of the power lines?

13. What are the minimum safe distances you must maintain near overhead electric power lines?

In your answers **you must specify:**

- The relevant voltages for Distribution lines (poles) and Transmission Lines (towers)

14. List **two (2)** visual indicators that can identify overhead electric powerlines.

1.
2.

15. What procedure should be followed if contact is made with power conductors?

    List five (5) steps.

1.
2.
3.
4.
5.

16. What are **three (3)** safe ways to operate a forklift on wet slippery surfaces?

1.
2.
3.

17. List **three (3)** types of weather hazards that could affect forklift operations outdoors.

1.
2.
3.

18. How could obtaining a weather forecast assist in planning forklift operations in an outdoor area?

19. What is the danger caused by ‘rear end’ swing?

20. What could happen if a load is raised or lowered above people?

21. Are forklifts designed to carry passengers? Explain your answer.

22. What is the danger of operating a fuel powered forklift in a confined space?

23. If you were working in a restricted space with poor ventilation (e.g. cold room), what type of powered forklift would you use?

24. List **three (3)** control measures to reduce the interaction of traffic and people in the work area?

1.
2.
3.

25. What must be provided if you are working at night or in a darkened area?

26. How do we communicate with other site personnel? List at least **three (3)** methods.

1.
2.
3.

27. If a co-worker gives you a signal that you do not understand, what should you do?

28. If the data plate on the forklift is damaged or unreadable, what should you do?

29. List **eight (8)** pre-operational (visual) checks prior to starting the forklift.

1.	5.
2.	6.
3.	7.
4.	8.

30. List **two (2)** safety guards on a forklift and what they do.

Guard	*Safety feature*

31. What can happen to a forklift if air-filled tyres are not inflated to the correct pressures indicated on the data plate?

32. What defects may be found when inspecting the forklift wheels and tyres? **List four (4) defects.**

1.	3.
2.	4.

33. List **two (2)** ways a seat belt can protect the operator when worn.

1.
2.

34. What are **four (4)** operational or electrical checks you should complete after you have started the forklift?

1.	3.
2.	4.

35. Where is the point of balance (fulcrum) on a forklift?

36. What effect does the side shift have if it is moved all to one side?

37. What could happen if a load was carried on just one fork tyne? List **two (2)** things.

1.
2.

38. What is the correct height for the forks when travelling with a load?

39. What could happen if the forklift travelled with the load raised high?

40. What could you do if your view was obstructed by the load when operating the forklift?
List two (2) actions.

1.
2.

41. Why should the forklift operator always monitor the movement of the load?

42. What can be placed to cover the gap between the truck and the loading bay?

43. What can happen if you turn or travel sideways with a load on a sloped surface?
List two (2).

1.
2.

44. Which direction should the load face when travelling up a slope / ramp?

45. What do you need to consider when stacking loads on top of an another? List **three (3)** things.

1.
2.
3.

46. List **three (3)** attachments that can be fitted to a forklift other than fork tynes.

1.
2.
3.

47. Where would you find the instructions about how to correctly fit an attachment to the forklift?

48. How could the use of an attachment affect the load capacity of the forklift?

49. How can using a jib attachment affect the stability of the forklift?

50. List **four (4)** ways to determine the weight of a load to be lifted.

1.	3.
2.	4.

51. Calculate the weight of the following load including the pallet.

 **3 layers of boxes** **9 boxes on each layer** **Each box weighs 10kg** **Pallet weighs 40 kg**	

52. Calculate the weight of the following load including the pallet.

 **6 drums on a pallet** **Each drum weighs 110 kg** **Pallet weighs 40 kg**	

53. Calculate the weight of the following load including the pallet.

30 bags on pallet
Each bag weighs 25 kg
The pallet weighs 40 kg

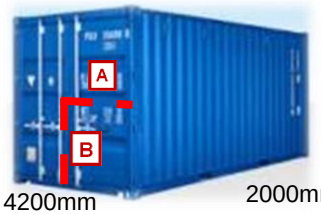
54. What would be the effect to the forklift capacity if the load is not rested up against the back rest?

55. What is the most common load centre distance?

56. Complete the Load Centre Distances for the included image.

Horizontal Load Centre:	mm
Vertical Load Centre:	mm
Mark the centre of gravity on the load	

57. The following questions relate to moving a container the container with details as below.



Forklift Data Plate	
Maximum Capacity	Load Centre
5800kg	**900 mm**

The container weighs *(tare weight)* 2000 kg
The contents of the container weighs 3900 kg
The dimensions of the container are:

- Height 3000mm
- Width 2000mm
- Length 4200mm

a) What is the total weight of the load?

b) Can this Forklift safely lift this container?

WARNING

Trained operators only

Read operating manual located on seat or in operator's compartment

Failure to follow operating, inspection and maintenance procedures can cause serious or fatal injury.

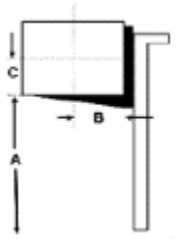
CAPACITY WITH MAST VERTICAL AND AS EQUIPPED AS SHOWN.

Lift truck model **ABC 123**
Serial number **10 EFB XY234**

Attachment	1961mm Carriage + sides-shifting fork positioner 1830mm Forks
Fork Truck Weight	9750kg
Tread width	1844mm
Back tilt	10 Degrees

Tyres	**Front**	**Rear**
Tyre Size	8.25/14 ply Dual Pneu	8.25/14 ply Dual Pneu
Pressure	800KPA (116psi)	800KPA (116psi)

MAXIMUM RATED CAPACITY	**Lift Height Dimension A**	**Load Centre**	
		Dimension B	Dimension C
6850 kg	4400 mm	915 mm	915 mm
0 kg	0 mm	0 mm	0 mm



58. Using the Forklift Load Plate above, **complete the required questions and calculations to determine whether the load is safe to lift.**

Question 1:

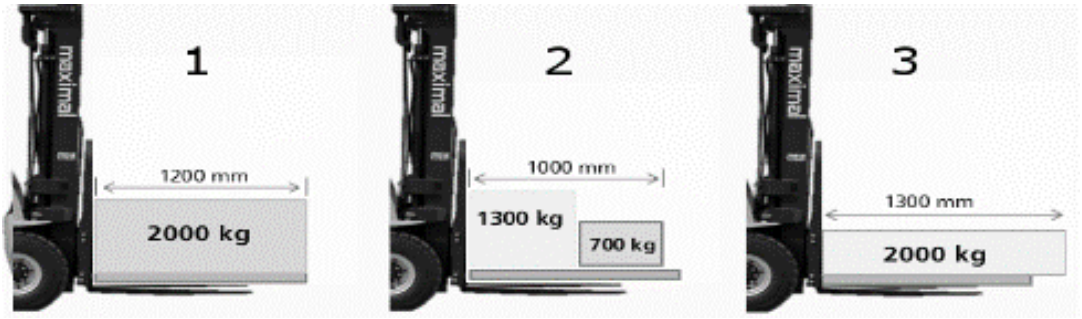
Load Dimensions	**Question**
Weighs 4000kg Length 1255mm Width 1255mm Height 1700mm	Is this load safe to lift with this Forklift? Yes / No Provide calculations or reasons for your answer

Question 2:

Load Dimensions	**Question**
A shipping container containing a 4000kg load The container is - 2000mm long - 1650mm wide - 1800mm high The tare weight of the container is 3000kg	Is this load safe to lift with this Forklift? Yes / No Provide calculations or reasons for your answer

59. Where would you find the rated capacity for a forklift?

60. A forklift has a rated capacity of 2000kg at a load centre of 600mm, Circle which of the following loads that can be safely lifted?



61. The following questions relate to the load plate below

	What is the maximum weight that can be raised with the mast tilted forwards?
	Can a load weighing 1400kg be lifted?
	Can a load weighing 1200kg at a load centre of 650mm be lifted?

62. Complete the following questions relating to the Data Plate

FORKLIFT DATA PLATE (example only)			
MODEL: XTQ300a **SERIAL NO:** ACLF-011 **ATTACHMENT:** Forks	**MAX HEIGHT**	**MAX BACK TILT**	**WARNING** **1. DO NOT LIFT LOAD UNLESS PLACED EVENLY ON FORKS.** **2. DO NOT TRANSPORT OR MANOEUVRE WITH LOAD RAISED EXCEPT TO CLEAR OBSTRUCTION AND THEN ONLY WITH MAST TILTED BACK TOWARD DRIVER.**
	3855 mm	10 degrees	

MAST VERTICAL				**MAST FORWARD TILT 10 DEGREES**			
LENGTH mm	FORK HEIGHT mm	LOAD CENTRE mm	WORKING LOAD LIMIT kg	LENGTH mm	FORK HEIGHT mm	LOAD CENTRE mm	WORKING LOAD LIMIT kg
1065	3855	600	2020	1065	3855	600	1795

a) How far can the mast safely tilt forwards?

b) Can a load weighing 1750kg be lifted with the mast tilted forward?

c) What is the rated capacity of the Forklift if the mast is vertical?

d) Can a load weighing 2000 kg with a load centre distance of 650mm be lifted safely by this Forklift?

63. List **four (4)** things that could tip the forklift over sideways.

1.
2.
3.
4.

64. List **four (4)** things that could cause you to tip the forklift forwards or backwards.

1.
2.
3.
4.

65. What should you do if you are in the forklift when it tips over sideways? List **two (2)** actions.

1.
2.

66. What steps would you take if you lost control of the brakes or steering when operating the forklift? List **three (3)** steps.

1.
2.
3.

67. List **four (4)** places **not** to park your forklift on shutdown.

1.
2.
3.
4.

68. List **three (3)** steps for parking a forklift.

1.
2.
3.

69. Why would you remove the key from the ignition after shutdown?

70. Does refueling with the engine running create a risk? Why?

71. Why must batteries be charged in a well ventilated area?

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