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| Site / Area: |       | Date of Assessment |       | Risk Assessment # | 090RA |
| Completed by (name) |       | Signature |      Template only MUST modify to site conditions |
| In Consultation with: |       | Signature |       |
| Identify / describe activity, equipment, area or event you are assessing: | Forklifts (electrical and gas) |
| Authorised by: |       | Signature: |       | Date: |       |
| **In conjunction with this risk assessment, training / education and development of a relevant SOP may be required.** |
| **Step 1:** **Identify the hazard/s / Impact:**What do you believe are the hazards?What could happen? | **Step 2: Assess the potential risks:**What do you believe are the risks?How could this happen? | **Step 3: Reducing the risk:**What do you believe can be done to reduce the risk?Controls |
| **Operators – not licensed*** Operators not operating forklifts currently causing accidents
 | * Cause accidents through not knowing how to use forklift correctly
* Death
* Serious injury
 | * Operators must be 18 years of age or older to hold a licence to perform high risk work. [HRW classes, training and assessment | SafeWork SA](https://safework.sa.gov.au/licence-and-registration/apply-renew/high-risk-work-licences/hrw-classes)
 |
| **Hazardous Manual Task*** Sustained or awkward postures
* Leaning out of forklift due to poor visibility
* Twisting when reversing
 | * Sprains & strain
 | * Task Rotation
* Limit height of loads
* Alternate looking over left and right shoulders
 |
| **Electricity (battery operate forklifts)*** Electric short
* Faulty equipment
* Not isolating equipment prior to maintenance
* Incorrect charging for batteries
 | * Electric shock
* Chemical Burn
* Fire
* explosion
 | * Completion of pre-start checklist
* Schedule of maintenance
* Only trained competent persons to conduct maintenance on equipment
* Battery charging area
* Remove any jewellery that could conduct electricity and be ware of any other metals int eh area that may increase the risk of explosion
* Lead-acid batteries contain sulphuric acid. Extra precautions to be taken when removing and replacing batteries. Use appropriate handling equipment for lifting and moving heavy batteries
* Hydrogen fumes can be produced during charging, particularly under boost and where overcharging occurs. Charge in a well ventilated area
* First aid kits available
* Emergency shower/eye wash available
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| **Chemical (gas operated forklifts)*** Not wearing PPE
* Incorrect changing of gas cylinder
* Gas Cylinder out of date
* Refuelling
 | * Burns
* Explosion
* Overcome by fumes (asphyxiation in enclosed spaces)
 | * Work Instruction
* PPE – rubber gloves, full length clothing, safety glasses
* Gas cylinders changed by a competent person
* Gas cylinders stored upright and chained
* Gas cylinder less than 10 years old
* Forklift to operated in a well ventilated area
* Engine is turned off before changing LPG tanks
* No smoking, open flames, sparks or other ignition sources to be in area
 |
| **Machinery & Equipment – forklift instability and overturning*** Roll sideways, tip forwards or tip backwards.
* Occur on uneven surfaces, up or down slopes or ramps or on a gradient
* Titled load
* With an unstable load such as liquid loads, loads suspended from chains or slings from a jib attachment, where the load can swing, fall or move
* Load exceeds the safe working load limit capacity of the forklift and attachments
* Carrying wide or long loads
 | * Serious Injury
* Death
 | * Operators seat is designed to prevent the operator from being ejected.
* Restraints such as seat belt warn at all times (where fitted). Are maintained.
* Protective devices are fitted or maintained to prevent the operator from being ejected.
* Adhere to SWL capacity of forklift
* Ensure tines are at the correct height (e.g. low to the ground with back tilts when travelling with the load)
* Preventative maintenance plan in place
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| **Traffic Management – collision with pedestrians*** Pedestrians hit by moving vehicles
* No physical barriers
* Blind spots
* Corners with limited visibility
* Speeding
* Forklifts operating in areas with low lighting
 | * Serious Injury
* Death
 | * Traffic management risk assessment completed
* Traffic management plan developed and implemented
* Segregated pedestrian walkways (where practicable, physical barriers installed)
* Pedestrian or forklift exclusion zones
* Fork speed limits implemented
* Pre- and post-operations checking of forklifts and the workplace (using attachments, carrying loads).
 |
| **Traffic Management – collision with other powered mobile plant (e.g. cars)*** hit by moving vehicles
* No physical barriers
* Blind spots
* Corners with limited visibility
* Speeding
* Forklifts operating in areas with low lighting
* No vehicle segregation (safe unloading zones)
 | * Serious Injury
* Death
 | * Traffic management risk assessment completed
* Traffic management plan developed and implemented
* Segregated pedestrian walkways (where practicable, physical barriers installed)
* Pedestrian or forklift exclusion zones
* Fork speed limits implemented
* Floor and road markings
* Blind spot mirrors, eg convex mirrors
* Signs displayed throughout.
* Where forklifts go on public roads, must be registered. Go to [SA.GOV.AU - Special purpose vehicle registration](https://www.sa.gov.au/topics/driving-and-transport/registration/conditional-registration/special-purpose-vehicles)
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| **Gravity*** Slip trip fall getting on and off forklift
* Falling or unexpected movement of plant
* Pedestrian moving between load / structure or forklift
 | * Slip Trip Falls
* Sprain / Strain
* Bruising
* Laceration
* Fracture
* Crush
 | * Licenced trained operators
* Three points of contact when getting on / off forklift
* Seatbelts
* High visibility clothing worn in area
* Speed restrictions
* Safe working loads
* Restricted access area
* Operating on flat surfaces
* Forklift signage
 |
| **Extreme Weather*** Stopping times are increased
* Workers exposed to wet environments
* Working in extreme heat
 | * Vehicle collisions
* Operator becomes unwell from wet weather exposure
* Heat exhaustion
* Heat strain / stoke
 | * Operators to reduce speed in wet weather
* Ensure forklifts are equipped with rain protection
* Drink plenty of fluids throughout the shift
* Take regular breaks in extreme heat
 |
| **Other:** |  | * Further information can be found at

[A guide to forklift safety](https://www.safework.sa.gov.au/__data/assets/pdf_file/0018/144513/A-guide-to-forklift-safety.pdf) |
| **Review hazard / risk assessment if task or circumstances change & at intervals appropriate to the level of risk (minimum 5 years)** |
| **Step 4: Monitor & Review:** |
| Were the controls effective? | Were there any unforeseen hazards / incidents? | New controls |
| Yes | [ ]  | No | [ ]  | Yes | [ ]  | No | [ ]  |
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