

Mobile Plant and People Interaction

Guide and Critical Risk Standard



SCAN BEFORE YOU BEGIN



MOBILE PLANT

Mobile Plant and People Interaction Guide

Safety is everyone's responsibility





Check before you begin

- ❗ **Is the mobile plant suitable for this work and in a safe condition?** Does it have the right lifting attachments for this task? Is it rated for the zone requirements? Is it fitted with warning devices? Check the manufacturer's handbook if you're not sure
- ❗ **Are you a competent person authorised to do this work?** Do you hold a current High Risk licence for **this** mobile plant? Has a supervisor assessed you to use **these** attachments? Do you know how to calculate a safe load for **this** plant? Do you understand the safe work procedures for its operation, shut down and maintenance?
- ❗ **Is the work area safe to operate in?** Is it clearly marked and sign-posted with speed limits? Is it free of obstructions? Are there solid barriers protecting workers from mobile plant? Does it have separate pedestrian crossings and walkways? Can you see safe loading and unloading zones? Check the Traffic Management Plan for this site. Do you understand the hazards, risks and control measures?
- ❗ **Have you completed the Thales pre-start checklist?** Do a pre-start safety check every time you use different mobile plant and at the beginning of each shift. Make sure previous operators have left the mobile plant in a safe condition.

If the mobile plant is not in proper working order, there are obstacles in the work area or you believe the work area is not safe for you or pedestrians – **DO NOT** begin work. **Report all hazards or unsafe working practices immediately.**





When operating mobile plant

- ✓ Wear a correctly fitted seatbelt (or a harness for EWPs) and appropriate PPE
- ✓ Operate the plant safely and obey all traffic signage, especially speed limits
- ✓ Sound the horn before entering doorways, blind corners or anywhere you can't see ahead
- ✓ Stay inside the boundaries of the Traffic Management Plan and only load and unload in marked exclusion zones
- ✗ **DO NOT** lift people unless the plant is equipped for this purpose
- ✗ **DO NOT** carry passengers unless the plant has a protected passenger seat with restraints
- ✗ **DO NOT** tow or push another vehicle, unless purpose-designed for the task
- ! **ONLY** use a mobile phone or two-way radio when the plant is stopped in a safe location with the handbrake on and the fork arms down
- ✓ Work at a safe distance from overhead or underground electric lines

When you are moving loads with a forklift

- ✗ **DO NOT** drive with a raised load – it should be as low as possible
- ✗ **DO NOT** lift a load over a person unless the plant is designed for this purpose
- ! Only carry loads within the lifting capacity of the mobile equipment and attachments.
Remember: bulk containers reduce your lifting capacity by 20%
- ✓ Secure the load across both fork arms for balance
- ✓ Place the load against the carriage or back-rest with the mast tilted back to stop the load slipping off. If in doubt, restrain the load with straps
- ! Only lift vertically. Do not drag a load off a raised surface
- ! **Check the pallet:** Is it in good condition? Is it the correct pallet for the task?

If in doubt about any load, don't lift it – consult your Supervisor.



When you are parking

- ✓ Park on level ground with the load removed and without blocking traffic
- ✓ Set the wheels straight and leave the drive controls in neutral
- ✓ Apply the park brake
- ✓ Fully lower the mast and tilt forward so most of the fork blade touches the ground
- ✓ Turn the engine off, shut off the fuel line, lock the start control or remove the ignition key
- ✓ Disable parked plant to prevent unauthorised use
- ✓ Park and store any plant powered by LPG engines in well-ventilated areas
- ⚠ Use chocks if you can't avoid parking on a slope.

If you are moving explosive ordnance

- ✓ Limit the number of people in the area according to the sign posts
- ✓ Establish exclusion zones around EO facilities, with setbacks specified for mobile plant operators
- ✓ Assess loads to ensure they are in a safe condition for transport





If you believe mobile plant is unsafe for use

- ✓ Stand down, shut down and lock down the plant immediately
- ✓ Securely attach an 'Out of Service' tag indicating why the plant is unsafe
- ✓ Report the fault to a Supervisor.

If you have an accident or near miss

- ✓ Report the incident to your supervisor immediately.





If you are changing or charging batteries

CHECK BEFORE YOU BEGIN

- ⚠ Have you received the proper training? Do you know how to follow the manufacturer's instructions?
- ⚠ Are you wearing eye protection and other PPE? Have you removed rings and bracelets?
- ⚠ Do you have washing facilities, including eye baths, and fire extinguishers on hand?
- ⚠ Is the area well ventilated?

AS YOU WORK

- ✅ Check the vent caps in the batteries are functioning correctly
- ✅ Hold open the battery cover while on charge to allow any gases to escape
- ❌ **DO NOT** smoke or use open flames
- ❌ **DO NOT** use metal objects that make strike a spark
- ❌ **DO NOT** use mobile phones or other electronic devices.

IF YOU SPILL ELECTROLYTE

- ✅ Contain the spill
- ✅ Dispose of the spill and contaminated materials safely.

If you are using a forklift on a slope

For example when driving it onto another vehicle

CHECK BEFORE YOU BEGIN

- ⚠ Are the brakes on the trailer being unloaded set and the wheels chocked?
- ⚠ Will a disconnected trailer be able to carry the combined weight of the forklift truck and the load along its whole length?
- ⚠ Does the trailer floor have any defects?
- ⚠ Will the floor support the mass of the forklift truck and its load?
- ⚠ Are the ramps are wide enough and well-maintained? If the loading dock or ramp does not have buffers or raised edges, do not drive on it if you think a wheel may drive over an edge.

AS YOU WORK

When travelling up or down a slope:

- ✅ **With a load** – Put the load on the uphill side. Tilt the mast so the load can't fall off
- ✅ **Without a load** – Put the forks on the downhill side (reverse up; drive down)
- ❌ **NEVER** drive mobile plant across the face of a slope.

Mobile Plant and People Interaction Critical Risk Standard

Safety is everyone's responsibility



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Introduction

The Thales Australia Critical Risk Standards describe the minimum requirements for controlling each of the critical work health and safety risks that are common to our operations and workplaces. The Critical Risk Standards provide a high level framework for managing health and safety hazards.

Scope

This Critical Risk Standard describes the Critical Controls for “Mobile Plant and People Interaction” and applies to all Thales sites and operations. **Every effort must be made to eliminate the need for personnel to work in and around an area of operating mobile plant.**

The intent is to eliminate or minimise the risk of fatalities and serious injuries arising from the operation of forklifts and other mobile equipment, including the interactions with pedestrians.

The aim is to prevent harm to persons resulting from:

- Being struck by a moving load,
- Being struck by mobile equipment;
- Loss of load containment;
- Being involved with unstable equipment or ground; and/or
- Being involved in a collision with mobile equipment.

The following aspects are within the scope of these Critical Risk Standards:

- Interaction of people with forklifts, mobile cranes, EWP's and other mobile plant.
- When operating or maintaining the plant.
- Interaction of people with loads being shifted/transported by mobile plant.
- Forklift and other plant roll-over when being operated.

The following activities are not within this scope:

- Light motor vehicles
- Truck operations
- Fuel handling, storage and refuelling of plant
- Plant operating in close proximity to overhead electrical cables
- Gantry cranes
- Falls from trucks and mobile plant
- Mobile plant striking structures
- Use of work boxes or platforms on forklifts for work at heights.

Where Thales Australia does not have control of the worksite or is working under a client's safety management system, then:

- The client's standards shall be applied if they are equal or higher, and
- The Thales Australia Standard shall be applied for aspects where the client's system is “silent”.
- If the client's standards are lower and this presents a material risk then this must be escalated with the Thales Australia Contract Manager.

What if a Critical Control Cannot Be Applied?

If for any reason there are circumstances where the Minimum Requirement for a Critical Control cannot be met, then a formal Control Standard variation is required.

Deviation from the requirements set out in each Control Standards shall be formally approved by a variation which involves:

- A documented and detailed risk assessment of the situation;
- A documented recommendation supported by the Business Safety Manager;
- A documented recommendation from a Technical Expert where appropriate; and
- Formal approval from the Business General Manager or Business Vice President that the level of risk as a result of the alternate control measures is understood, and considered acceptable to the organisation.

Contracted Mobile Plant Work

Contracted Mobile Plant workers and their Supervision must be inducted in this Critical Risk Standard.

Contractors are required to meet or exceed this Standard when undertaking work for Thales Australia where there is a risk of mobile plant and people interaction.

Definitions

The following terms are used in this Risk Standard. Additional definitions can be found in the reference documents.

Critical Risk	A risk where there is potential for a fatality or life-altering injury.
Critical Control	A control that is crucial to preventing the event or mitigating the consequences of the event. The absence or failure of a critical control would significantly increase the risk despite the existence of the other controls.
Minimum Requirements	Aspects of the Critical Control that must be applied in all Thales Australia controlled operations.
Additional Requirements	Aspects of the Critical Control that may be applied based on a site-specific or task-specific risk assessment.
Like for like	Replacement of part with the same or equivalent manufacturer's part number or an OEM approved alternative.
SWMS	Safe Work Method Statement
JSEA	Job Safety and Environment Analysis
Reasonably Practicable	'Reasonably practicable', in relation to a duty to ensure health and safety, means that which is, or was at a particular time, reasonably able to be done to ensure health and safety, taking into account and weighing up all relevant matters including:

	<ul style="list-style-type: none"> a. the likelihood of the hazard or the risk concerned occurring; and b. the degree of harm that might result from the hazard or the risk; and c. what the person concerned knows, or ought reasonably to know, about the hazard or risk, and about the ways of eliminating or minimising the risk; and d. the availability and suitability of ways to eliminate or minimise the risk; and e. after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimizing <p>https://www.safeworkaustralia.gov.au/doc/how-determine-what-reasonably-practicable-meet-health-and-safety-duty</p>
Spotters	Someone on the job site to make sure that people, equipment and the site don't come together in the wrong way.

Mobile Plant Critical Controls

The minimum requirements for preventing an incident with mobile plant and people interaction and associated work are:

- | | |
|------------|--|
| MP1 | Plant and people are separated, defined exclusion zones are maintained, and entry to work areas is controlled. |
| MP2 | Operators must be trained, assessed as competent and authorized to operate the specific item of mobile equipment. |
| MP3 | Mobile Plant is inspected before mobilization and before use (including suitability for task). |
| MP4 | Fitted safety devices (i.e. seat belts) must be worn. |
| MP5 | Loads are safely secured |
| MP6 | Mobile phones (on sites that allow use) and two-way radios may be used provided the mobile plant is stopped in a safe location with the handbrake applied. |

MP1 Exclusion Zones

Plant and people are separated, defined exclusion zones are maintained, and entry to work areas is controlled.

MINIMUM REQUIREMENTS

- Every effort must be made to eliminate the need for personnel to work in and around an area of operating mobile plant.
- Loading and unloading zones are identified which ensure appropriate swing space is available to complete the task. If a safe loading or unloading area cannot be established, the task must not proceed.
- Mobile plant and truck routes are planned to minimise pedestrian, plant and vehicle interactions, blind spots and reversing.
- A Traffic Management Plan must be developed for all sites where pedestrians and vehicles/mobile plant operate.
- Exclusion zones are clearly identified through painted markings and signage.
- Technology is used to speed-limit mobile plant based on location/zone.
- Positive communication instructions implemented for mobile plant operations on site.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- where possible, restrict site access to people who are directly involved with the work activities and minimise the movement of people and mobile plant in the working area.
- when there are other types of mobile plant or traffic in the workplace, use traffic controllers to ensure the mobile plant does not collide with any plant, structure or person.
- Spotters may also operate from a safe zone or elevated position adjacent to the exclusion zone. The spotter's role is to communicate with the mobile plant operator and alert them of their proximity to surrounding structures, trees and electrical lines.
- The use of spotters and guides must be minimised and a clear Standard Operating Procedure must be in place to manage the interaction of the Guide and mobile plant such that plant movement cannot occur when the guide is within the operating arc of the plant or load.

NOTES AND REFERENCES

For further information, refer to:

- 83392463 Forklift Operation Guideline
- 83392435 Traffic Management Guideline

MP2 Verification of Competency

Operators must be trained, assessed as competent and authorized to operate the specific item of mobile equipment

MINIMUM REQUIREMENTS

- Operators are assessed for competency in operating under different conditions, including:
 - Use of different types/models of mobile plant.
 - Use of different attachments or other ancillary equipment.
 - Operating on sloping or uneven ground.
 - Operating with awkward loads or where loads obstruct vision.
 - Operating in restricted spaces.
- Competency assessment is conducted initially and refreshed every 2 years.
- “Smart” technologies like proximity card devices is used to restrict the operation of specific mobile plant to authorised operators only.
- The qualifications of mobile plant contractors operating mobile plant shall be verified upon site induction and recorded in the contractor management system. The qualifications of workers providing ad hoc services may be randomly checked, for example, at visitor sign-in or during site safety walks.

ADDITIONAL REQUIREMENTS

The following additional requirements shall be considered in the risk assessment:

- During the induction process, employees and contractors shall receive awareness training appropriate to the mobile equipment hazards on the site

NOTES AND REFERENCES

There are standard forms and guidance material to ensure a consistently high standard of competency assessment is conducted across the range of Thales operations, including the handling of explosive ordnance.

For further information, refer to:

- 83392531 HSE Verification of Competency Instruction
- 83392435 Traffic Management Guideline

MP3 Inspection and Maintenance

Mobile Plant is inspected before mobilization and before use (including suitability for task).

MINIMUM REQUIREMENTS

- Any attachments must have the necessary certificates to ensure compatibility and suitability for use before being used.
- Inspections and maintenance are conducted to relevant standards by approved providers.
- Defective mobile plant is tagged or locked out and quarantined.
- Before you operate any mobile plant, both the plant and any attachments shall be checked to identify faults or conditions that may lead to a failure. A Pre-Start Check shall be done every time you use different mobile plant and at the beginning of each shift.
- Where new plant is brought to site the MOC process has been followed and all engineering controls as per AS 2359 are mandatory.
- Reference is made to compliance plates and operating manuals.
- All new mobile plant must have Pre-Start technology fitted.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- There shall be a system in place to manage and coordinate the Thales owned and leased mobile plant fleet.
- Processes for Pre-Purchase Risk Assessment and Management of Change are reviewed to identify improvements when applied to the selection, purchase or hire of mobile plant.
- Mobile plant and attachments must meet a set of preferred safety attributes for all mobile plants. For example, crush protection on EWPs, seat belt interlocking on forklifts, reversing cameras on specific vehicles etc. It is also recommended that this interface is identified in the Forklift Operating Guideline.

NOTES AND REFERENCES

For further information, refer to:

- 83392463 Forklift Operation Guideline
- 83392435 Traffic Management Guideline

AS 2359 Engineering controls – may be dependent on individual forklift specific requirements:

- Handbrake with push button release & buzzer

- Seatbelt Interlocked with a Seat Pressure Switch'
- Flashing light
- Reverse Alarm
- Brake, Tail & Reverse Lights
- Mirrors
- Forward tilt capacity rating plate
- Speed limiting - Speed limiting on class 1 and class 2 reach trucks where the forks are lifted higher than the mast sections beginning to elevate.

2024 Location Specific Options.

The additional controls below can be included in any forklift procurement / uplift activity and can be fitted as per Business Line / site requirements.

- Emission reduction / control
- GSP tracking – fencing and gating
- Load weight scales
- Tyne side shifting
- Pedestrian controls – remote from forklift
- Slope or uneven ground movement control
- Panoramic mirrors
- Larger / weather protected cabins
- Airconditioned cabins

MP4 Seatbelts and other restraints

Fitted safety devices (i.e. seat belts) must be worn.

MINIMUM REQUIREMENTS

- Technology shall be used to prevent the operation of forklifts without a seat belt being fitted.
- Harnesses must be worn in boom type Elevating Work Platforms (EWP) except when operating over water where special conditions apply.
- Defective mobile plant is tagged or locked out and quarantined.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Where there are EWPs owned by Thales, check current inspection and maintenance schedules for compliance against Safe Work Australia Guidance Material for Inspecting and Maintaining Elevating Work Platforms. <https://www.safeworkaustralia.gov.au/doc/guide-inspecting-and-maintaining-elevating-work-platforms>

NOTES AND REFERENCES

For further information, refer to:

- 83392463 Forklift Operation Guideline
- 83392435 Traffic Management Guideline

Current version of AS2359 (must comply)

- Engineering controls – may be dependent on individual forklift and location specific requirements:
- Front & rear facing cameras
- Electronic access system – operator lockout and maintenance control system e.g. Infolink
- G force, impact sensors & alert system
- Pedestrian avoidance / interaction capability
- Speed governing capability

MP5 Packaging and Loads

Loads are safely secured

MINIMUM REQUIREMENTS

- Mobile equipment operators shall only carry loads within the lifting capacity of the mobile equipment and attachments.
- Mobile equipment operators shall only use approved and registered attachments.
- All explosive products being moved by forklift are designed and tested to not trigger an explosion if the product, under foreseeable circumstances is mishandled, for example being dropped or vibrated.

ADDITIONAL REQUIREMENTS

NOTES AND REFERENCES

- For further information, refer to:
- 83392463 Forklift Operation Guideline

MP6 Mobile Devices

Mobile phones (on sites that allow use) and two-way radios may be used provided the mobile plant is stopped in a safe location with the handbrake applied.

MINIMUM REQUIREMENTS

- Mobile phones (on sites that allow use) and two-way radios may be used provided the mobile plant is stopped in a safe location with the handbrake applied.

ADDITIONAL REQUIREMENTS

The following additional requirements should be considered in the risk assessment:

- Considerations may include stopping mobile plant "with the ignition off" and "with the tyres/bucket lowered".

NOTES AND REFERENCES

For further information, refer to:

- 83392435 Traffic Management Guideline

THALES

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