



# PROCEDURE

## Machinery and equipment safety



Issued with the authority of the Chief Commissioner  
and Chief Executive Officer of Scouts Australia NSW

Chief Commissioner signature		Chief Executive Officer signature	
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# Machinery and equipment safety

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# 1 Purpose and scope

Scouts Australia NSW is a volunteer organisation that has paid workers and subsequently, has responsibilities under WHS laws. Our volunteers are called workers under WHS laws and they have the same WHS obligations as a paid worker. Therefore, Scouts Australia NSW WHS Procedures apply to workers, members and volunteer supporters (which are all described collectively in the WHS Procedures as *workers*).

Machinery and equipment ranges from high risk machinery such as forklifts, to small manually powered tools such as knives. All have the capacity to cause harm when the risks are not adequately controlled. This document describes the approach taken by Scouts NSW to comply with its duty of care associated with the health and safety risks of all types of machinery and equipment.

## 2 What is machinery and equipment?

In this procedure, the term machinery and equipment is used to describe *plant* which is a term used in the WHS legislation to describe any machinery, equipment, appliance, container, implement and tool, and includes any component or anything fitted or connected to any of those things. Plant includes items as diverse as lifts, cranes, computers, machinery, conveyors, forklifts, vehicles, power tools and amusement devices. Certain kinds of plant, such as forklifts, cranes and some pressure equipment, require a licence from the WHS regulator to operate and some high-risk plant must also be registered with the WHS regulator. Plant that relies exclusively on manual power for its operation and is designed to be primarily supported by hand, for example a screw driver, is not covered by specific regulation however the general duty of care under the WHS Act applies to this type of plant.

At Scouts Australia NSW, common items of machinery and equipment includes, but is not limited to:

- Vehicles and trailers
- ride-on forklifts
- walk-behind forklifts
- LPG tanks
- scissor lifts
- pallet jacks
- ladders and step ladders
- trolleys
- hoists
- electrical motorised equipment
- stand-by generators
- mobile climbing walls
- activity structures
- watercraft
- pumps, motors



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- ride-on mowers
- walk-behind mowers
- kitchen and office appliances
- camping equipment such as tents, knives, stoves

## 3 Acquisition of machinery and equipment

### New purchases and modifications

Prior to selecting or modifying an item of machinery or equipment, the site manager shall consult with workers as appropriate in order to make an appropriate safe product selection which satisfies the needs of the users. For significant purchases such as items of motorised equipment that have the capacity to cause serious injury, the site manager (or other leader in charge) should also conduct safety evaluation using *Hazard Checklist appearing in the Managing-risks-of-plant-in-the-workplace-Code-of-practice*. Ideally this evaluation will be conducted prior to purchase and the result taken into consideration when selecting the preferred make/model. However where this is not practicable, the *Hazard Checklist appearing in the Managing-risks-of-plant-in-the-workplace-Code-of-practice* and/or a *18.1 Risk assessment* is to be done as early as possible, prior to first use.

At the time of purchase, commercial suppliers, hirers and leasers of plant and equipment will provide technical specifications and a risk assessment where legislation requires. This information, along with the findings of any risk assessment and evaluation, shall be used to develop the Standard Operating Procedure or induction briefing material for users.

### Second hand acquisitions

For 'second-hand' machinery and equipment, a competent person should inspect the item(s) prior to acceptance and ideally, complete a documented safety evaluation such as the *Hazard Checklist appearing in the Managing-risks-of-plant-in-the-workplace-Code-of-practice*. Purchased or donated second hand items can present greater risk due to unknown modifications, damage, wear and tear and possible sub-optimal suitability for Scouts use. In addition to performing the evaluation, request the person who is offering the equipment about any known safety hazards. They also should be requested to supply any maintenance/modifications history and operator manuals. If hazards are identified and cannot reasonably be addressed or repaired prior to first use, the item should not be purchased/ accepted by Scouts NSW. Offers of second hand items that present health and safety risks that cannot feasibly be resolved should be declined, on the grounds that health and safety of workers and youth members is a priority.

Plant requiring external registration of design is not to be supplied or acquired unless the design has been registered.



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## Installation, assembly and commissioning

Where installation, assembly or commissioning is required by Scouts NSW, this should be done by a competent person(s). If a structure has been designed specifically for Scouts NSW, the person supplying the design or the item must provide evidence that potential risks have been considered and eliminated or mitigated. Designers can be held responsible for health and safety incidents that occur as a result of their design, at any time of the life cycle of the item they designed.

Prior to first use, any hazards associated with the use of the machinery and equipment to perform the anticipated task must be identified, assessed and risk mitigation solutions implemented.

## 4 General risk controls for plant and equipment

Potential hazards associated with use of plant and equipment (both new and existing), and their surrounding areas shall be identified through consultation, hazards reporting, monitoring of workplace incidents and direct observation of activities involving plant and equipment. Risk assessments shall be conducted. A single risk assessment may cover several identical items of plant in the same work area as long as all circumstances particular to individual items are also identical. Existing risk assessments shall be reviewed when there is a change to the machinery or equipment.

The degree of formality of the risk assessment conducted will vary depending on the nature of the task being performed. Not all risk assessment must be documented, however it is important that the site manager consults with users to consider potential risks and implement mitigation strategies based on the hierarchy of controls, as described in *Scouts NSW Procedure 18 Risk Management*.

The effective functioning of any engineering controls, including machine guarding, shall be monitored via periodic workplace inspections and maintenance.

The risk assessment and risk mitigation measures must cover hazards that the operator of the plant and equipment is exposed to, in addition to hazards relating to:

- storage of the plant and equipment while not in use.
- unauthorised use of the plant and equipment (eg by untrained personnel, helpers or members of the public).
- unauthorised modifications being performed (eg removal of guards, disconnection of warning signals)
- misuse of the plant and equipment (ie for a purpose other than which it is intended)
- bystanders who do not operate the plant and equipment, but may be exposed to risks while the plant and equipment is being used
- Changing conditions of operation eg weather conditions, temperature
- other reasonably foreseeable hazards



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The outcome of the risk assessment shall be incorporated into actions such as: training, inductions, SOP's, inspections, competency requirements etc.

When using plant and equipment on a temporary basis (eg when setting up a major event or performing a one- off task), only competent operators and safe equipment may be used. Whilst Scouts Australia NSW is unlikely to use cranes on a regular basis, in preparation for or during major events, a mobile crane may be used to erect structures or transport demountable buildings or containers. The site manager should ensure that any mobile crane on site has been inspected by a competent person and Safe Work Method Statement has been prepared. Operators must be suitably qualified and insured. Information on the plant should be documented for the period that it is in use on Scouts Australia NSW sites.

No person is authorised to operate plant and equipment on a Scouts site without the prior knowledge and approval of the site manager / supervisor. Plant and equipment brought on site temporally that poses any health and safety risk is subject to the requirements of this procedure.

The design, construction and operation of mobile plant and equipment is likely to be deemed work by SafeWork NSW. Where used for work, documented records of the following activities must be kept by the site manager.

## Standard Operating Procedures (SOPs)

SOP's should be prepared by site manager (or delegate) to cover use of plant and equipment that presents a health & safety risk. The SOP's are prepared in consultation with competent persons and should take into consideration the following information:

- Operating manual, instructions and risk assessment and other information provided by the supplier.
- Findings from the [Hazard Checklist appearing in the Managing-risks-of-plant-in-the-workplace-Code-of-practice..](#)
- Findings from the risk assessment.
- Knowledge experience and skills of persons consulted.
- Code of Practice, if applicable (for Codes of Practice, visit the Safe Work NSW website).
- Any relevant existing requirements of the Scout NSW WHSMS (eg pre-start checklists)
- Consideration of the particular site in question eg exclusion zones, fire risks, gradient etc
- Any PPE requirements
- Required user competencies
- warning devices, emergency procedures, specification limitations

All workers and other persons who may be exposed to risk from the presence or use of plant must be provided with relevant information, training and instruction before operating the plant. Induction to the plant should be recorded on the worker's training record.

Emergency procedures related to the plant should be developed and displayed so it is readily seen



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by those affected by the operation of the plant.

## Operator competency

Safety information and/or training must be provided to any person operating plant and equipment that poses a health and safety hazard. Even where operators are experienced in operating the plant and equipment they must be informed of hazards that are specific to the location or the task, as identified in a formal (documented) or informal(not documented) risk assessment.

The site manager is responsible to ensure that operators of plant and equipment receives such information or training prior to performing the task, or whenever conditions change. The information, instruction and training (including on SOP's) on plant documented on relevant workers' files.

Fork truck require high risk licences in order to operate. Therefore, sites that have fork trucks must take steps to prevent unauthorised use (such as signage and locking procedures).

Evidence of forklift operator competency must be maintained by the site manager. Records include:

- name of licenced operator
- licence number, issue date and expiry date
- date description of forklift specific induction (including make, model)
- date and description of site-specific inductions completed
- operator signature

## Personal Protective Equipment (PPE)

Specific requirements for PPE whilst operating plant or working near plant and equipment, should be identified during the risk assessment, codes of practice etc. PPE requirements are to be communicated to workers via provision of training and information. Common PPE for plant equipment can include:

- hearing protection
- eye protection
- safety boots
- long sleeve shirts and long pants
- high visibility vests
- sun protection

High visibility vests must be worn by licensed ride on fork lift operators and staff/contractors /visitors entering signed hi-vis PPE required areas.



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For procedures on acquiring, issuing and maintaining PPE etc, refer to Scouts NSW Procedure *PRO28 Personal protective equipment (PPE)*.

## Pre-start-up checklists

Pre-start up checklists are used to prompt operators to check certain items prior to start up. When faults are identified, operators must not proceed and they instead must take appropriate action depending on the specific issue.

The following start-up checklists are available and must be completed and retained where operation of such equipment is deemed work ie. used by professional employed staff, or used by any workers for the purposes of site maintenance or working bees.

*30.1 Fork lift / tractor pre-start checklist*

*30.2 Mower pre-start checklist*

## 5 Maintenance, repair and inspection

Maintenance frequencies are to be taken from the manufacturer's operating manual, or where manufacturer's information is not available, seek advice from a competent person. Scout sites that are in control of machinery and equipment are responsible for arranging the maintenance at the required frequencies. Maintenance, repair or alteration of any item of machinery, equipment or buildings must be performed only by persons who have the appropriate competencies, licences and certificates to perform the task. Appropriate records of the work should be kept.

Machinery and equipment maintenance schedules should be documented for all machinery/equipment items (or groups of items) and retained at the site. Manager of State Activity centres will record preventative maintenance frequencies using the *Appendix 1 Plant & equipment register & Maintenance Schedule* or equivalent template. When an item requires repair (other than preventative maintenance), the option to conduct more frequent preventative maintenance should be considered. If additional preventative maintenance is implemented, the *Appendix 1 Plant & equipment register & Maintenance Schedule* must be revised to include the change.

A *pre-start checklist* is to be completed by the operator of a ride-on forklift, walk-behind tractor and ride-on mower before they are used each shift.

## 6 Registrable plant

Certain plant items and specific structural designs are subject to registration and or inspection by regulatory bodies such as Safe Work NSW or Roads and Maritime Services RMS.



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Items that are registered and inspected through RMS include passenger vehicles and trailers (including trailers connected to mobile climbing walls). The site manager or other leader in charge is responsible for ascertaining the registration requirements for the particular item.

Items that require design registration or item registration through the regulator SafeWork NSW include certain gas cylinders, lifts, certain amusement devices. A more informative list appears in the *Managing-risks-of-machinery-in-the-workplace-Code-of-practice* (available freely on the internet). The site manager or other leader in charge is responsible for ascertaining the registration requirements for the particular item.

The site manager is responsible for ensuring compliance with relevant registrations and inspections/certifications. Manager of State Activity centres will generate a register of all machinery and equipment then enter registration/certification requirements into [Appendix 1 Plant & equipment register & Maintenance Schedule](#).

Scouts NSW may opt to have plant and equipment regularly inspected by a competent person due to the expertise required and potential for serious injury eg high ropes courses at Baden Powell Scout Centre (BPSC) and Cataract Scout Park). (CSP)

## 7 Defective machinery and equipment

Where a worker/contractor identifies an item of equipment that appears unsafe, they should turn off the equipment (if safe to do so), tag out the item and immediately notify the relevant Supervisor /Manager. So that corrective actions are taken. Repairs or maintenance must be carried out by a competent person. The tag must only be removed by the approved maintenance personnel or the person who applied the tag when it is determined that the equipment is safe to use again.

Incidents arising from machinery and equipment shall be reported using [Incident report form](#). Note that any serious injury associated with machinery and equipment sustained during the course of 'work' (paid or unpaid) is notifiable to the regulator and the scene must not be disturbed. Refer to Scouts NSW [Procedure PRO15 Incident Reporting & Analysis](#).

## 8 Decommissioning and disposal

Risk control measures must be implemented to ensure that risks arising from the decommissioning, dismantling and disposal of machinery are controlled.

Machinery and equipment that is unsafe and cannot be feasibly repaired, must be removed from site completely, disposed of and unrepairable equipment must not be 'given away'. Whenever equipment is given away, Scouts NSW must notify the recipient of any known faults that could impact health and safety.



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## 9 Record keeping

The site manager is responsible for keeping records of all tests, inspections, maintenance, commissioning, decommissioning, dismantling and alterations to registered plant at a Scouts Australia NSW workplace.

Records are to be made available upon request to Scouts NSW management for the purposes of monitoring compliance.

## 10 Records & references

- WHS Volunteers Guide (Safe Work Australia)
- Plant and Equipment Registers
- Plant and Equipment and Maintenance Schedule
- Plant and equipment evaluation checklist and Risk Assessment
- Training records
- Mobile plant Pre-Start Check lists
- WHS Act (2011) s26, WHS Regulation Clause 39, 43,198-199, 201-219, 221,222,224,225,232,233,235,263, 237
- Scouts NSW Procedure - WHS Risk Management
- PRO28 Personal Protective Equipment
- Leader Support guide - LPG and your responsibility as a leader

## 11 Associated forms

- 30.1 Fork lift / tractor pre-start checklist
- 30.2 Mower pre-start checklist

*Whenever this procedure is revised, the sponsor of this procedure will review the above forms, to determine whether the changes made to the procedure impact the forms. If changes are required, the sponsor must also make the appropriate revisions to the forms.*

## 12 Appendices

- Appendix 1 – Template for plant and equipment register and maintenance schedule
- Appendix 2 – Example of 30.1 Mower Pre-Start Checklist
- Appendix 3 – Example of 30.2 Forklift / Tractor Pre-start Checklist



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## Appendix 2 – Example of 30.1 Forklift / tractor pre-start checklist



### 30.1 WHS FORM – Fork lift /tractor pre-start checklist

Use this checklist prior to starting forklifts or tractor. Only authorised and trained staff are allowed to operate this equipment.

SITE: \_\_\_\_\_

<b>SAFETY CHECK</b> (Items marked * also apply to walk behind fork lifts)	Date:	Date:	Date:
	Name:	Name:	Name:
	Sign:	Sign:	Sign:
Before boarding the forklift, check the following daily. Ensure you have adequate training to operate the equipment. Tick if OK. Cross X item if action is required and record below. Enter 'NA' if the items is not relevant.			
1. Radiator			
2. Tyres/Wheels*			
3. Tynes*			
4. Chains*			
5. Bucket			
6. Batteries*			
7. Guards*			
8. Fluids			
Mount the vehicle and before driving check:			
9. Seat/Seat belt			
10. Lights / Indicators			
11. Mirrors			
12. Handbrake			
13. Horn*			
14. Warning lights			
Whilst moving, but before commencing work:			
15. Brakes			
16. Steering*			
17. Gears*			
18. Master Tilt*			
19. Tynes up/down*			
20. Slide Shift*			
21. PTO Controls			
22. Bucket controls			
Remove keys when unattended or stored			
<b>ACTION REQUIRED</b>	<b>BY WHOM</b>	<b>BY WHEN</b>	<b>Action required. Site Manager to sign</b>

SAMPLE FORM ONLY – DO NOT USE  
Actual form is posted on Scouts website



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## Appendix 3 – Example of 30.2 Mower pre-start checklist



### 30.2 WHS FORM – Mower pre-start checklist

Use this checklist (or similar) prior to starting ride-on or walk-behind mowers.

#### GENERAL

- Mowing for Scouts may be deemed 'work' so is subject to the Work Health and Safety laws. If a serious injury occurs, after obtaining medical assistance, cease work, preserve the scene. Contact your leader and site office urgently.
- Never interfere with safety guards or safety devices.
- Never carry passengers.
- Slow speed only. Keep clear of moving parts
- Observe manufacturer's gradient limitations.
- For **ride on mowers**, travel up/down slopes rather than across to avoid roll-over.
- For **push mowers**, travel across slopes rather than up/down to avoid the mower rolling back on you.
- Prevent fuel spills, especially onto hot machine surfaces. Use an appropriate funnel. Do not allow fuel to enter drains.

#### YOUR PRE-START SAFETY CHECK – NO SMOKING!

Perform your pre-start safety check, including the following items. Tick if okay, or else note any issues spotted below:

<b>Site:</b>	<b>Date:</b>
<b>Your name: (print)</b>	<b>Initials:</b>
Weather conditions suitable. Avoid mowing on very hot, dry days (risk of starting fire/heat stroke)	
PPE – enclosed boots, eye and hearing protection, sunscreen, hat and appropriate clothing.	
Safety devices and guards are fitted, blades appear secure and functional	
Operator is aware of specific hazards and no-go zones	
Operator is aware of manufacturer's safe operating instructions such as maximum gradient	
Operator has conducted a 'walk over' before mowing to remove (or avoid) any hazardous debris, deep ruts etc	
Operator is aware of the refueling procedure and storage of fuel. Operator has appropriate funnel for pouring fuel.	
Before starting, look around for animals or people.	
Keep a look out while mowing, for people and animals entering the area. Keep a safe distance or temporarily cease mowing until they pass.	
For <b>ride on mowers</b> - seat belt, if fitted, is in sound condition. Use it!	
Check for people and animals before start up and throughout mowing.	
<b>Note any issues here and inform the site manager for action. Keep this record on site.</b>	



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