

Safe Work Instruction - Transportation and Planting of Advanced Trees

DO NOT use this plant* unless you have been inducted in its safe use and operation by an Authorised Experienced Operator

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process.

Additional training may be required for high risk plant. Site and task may change required PPE.

PERSONAL PROTECTIVE EQUIPMENT



Eye protection must be worn



Hearing protection must be worn



Protective body clothing must be worn



Foot protection must be worn



Hand protection must be worn



Head protection must be worn



Foot protection and spats must be worn



High visibility clothing must be worn

POTENTIAL HAZARDS AND RISKS

Entanglement

Entanglement in moving parts

Shearing

Body parts sheared between items of plant

Struck by Moving Object

Struck by moving object due to unexpected movement of plant

Exposure to High Pressure Fluid

Injury from exposure to high pressure fluids

Manual Task Injury

Manual task injury from incorrect manual handling techniques

Cutting, Stabbing or Puncturing

Injury from unexpected movement of plant

Slip, Trips, Falls

Slip, trip, fall due to uneven or slippery work surfaces

Electrical Shock or Burn

Electrical shock or burn from plant contact with live electrical conductors

Crushing

Crushing due to being trapped between plant and fixed structure

Other

Injury due to fall from heights

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Complete site specific risk assessment
- ✓ Complete the appropriate pre-operational plant checklist if applicable
- ✓ Ensure you are familiar with plant operations and controls
- ✓ Ensure that guards are fitted, secured and functional in accordance with manufacturers guidelines
- ✓ Seat belt to be worn (use this when applicable)

- Traffic Controller (Blue card) – for worker who is required to control traffic with a Stop/ Slow bat
- First Aid Training where necessary
- Asbestos Awareness
- Working near Overhead Power Lines (certification if machinery is to be used when working within prescribed distances of powerlines)
- Overhead Powerlines – Measuring Clearance to Tipping Trucks
- Traffic Control
- Corporate Induction
- Manual Handling Refresher
- Erosion Protection
- Load Restraint
- Laser awareness
- Roadside reserve conservation
- Sharps awareness
- Trailer Operations

OPERATING PROCEDURES

- General Construction Induction Training (GIT)
- High Risk Work Licences – Forklift
- Front-end loader/backhoe operation or front end loader – skid steer type or front-end loader operation
- C, LR, MR or HR driver's licence by one crew member depending on size of truck / vehicle
- Traffic control set up (Yellow Card) by a least one crew member

- ✓ Wear appropriate PPE including the following:
 - Safety glasses or goggles
 - Safety boots
 - Hardhat when spotting or assisting machinery operations
 - Long sleeves and trousers, if not, use sunscreen in accordance with manufacturer's recommendations.
 - Leather Gloves
- ✓ Conduct risk assessment and induct staff and visitors on site.
- ✓ Load advanced trees at depot, store etc.
Warning: Trees in large pots are not weight stamped so the weight must be assessed before lifting.
 - Lifting equipment should be considered for tree stock **above 75 litres** in size.
 - A minimum of two people required to carry out this task for tree stock **75 litres** in size **and over**.
 - Use a trailer with a fold down tailgate ramp, using 2 employees, one leans the tree over ensuring branches don't stick in eyes while the other slides the hand truck/trolley under the root ball, both lean the hand trolley back then one pushes while the other pulls the hand trolley up the ramp.
 - Once on the trailer one leans the tree over while the other removes the hand truck.
 - If allergic reaction occurs seek medical attention.
 - Ensure load is restrained.
- ✓ Move trees and equipment to site ensuring to park as close as possible to planting site.
- ✓ Unload advanced trees. A bobcat or forklift or Hi-ab may be used to unload trees. Reverse of section 4.4 loading trees if unloading manually.
 - If using machinery to unload, the trees should be slung using soft slings around/under the root ball with adequate soft padding to the trunk. Slings must not be attached to the trunk.
- ✓ Install erosion & sedimentation controls as per Erosion & Sedimentation Plan.
 - No temporary stockpiling of soils on site as materials (soil and mulch) should be moved

directly from the carrier to the hole. If stockpiling is necessary sediment controls would need to be put in place (eg silt fencing to contain piles, straw bales in gutters) to reduce stormwater pollution.

- ✓ Movement of trees on site.
 - Tree stock above 75 litres will be offloaded next to the planting hole with the use of machinery to avoid manual lifting.
 - 75 litre tree stock will be offloaded next to the planting hole where possible. If unpractical use a 2 person lift using correct manual handling technique or consider using a hand trolley to transport the tree next to the planting hole.
 - Tree stock below 75 litres should be offloaded so as to minimise carrying distance.
- ✓ Hole digging.
 - Before any digging commences the location of underground services should be ascertained by contacting Dial Before You Dig to confirm service locations. Any excavation within 300mm of services should be carried out by hand.
 - Trees will need to be located where they avoid potential damage to infrastructure such as kerb and guttering and power poles and least impact such things as pedestrians and driveway sight lines.
 - Root barrier installation is required where protection to infrastructure is needed. The root barrier should be placed along the structure normally 1 to 2 metres outside the drip line of the tree or as directed by the Tree Management Team. Dig a trench to the required depth, usually 600mm, insert root barrier and leave 50mm above ground height to allow for settlement and trim off at a later date ensuring the 50mm above ground height is not left where it is a potential trip hazard.
 - Prepare the planting hole cutting a clear weed and grass free area of at least one metre in diameter.
 - The planting pit must be 2 to 3 times the width of the root ball and down to the depth of the root ball so that it sits level with or up to 5cm below the surrounding surface.
- ✓ Planting of advanced trees.
 - Use correct lifting techniques when planting without the use of machinery. Position body close to the tree and ensure a firm grip is placed

- on the trunk, lean the tree over while the other removes the container/bag from the root ball.
 - Root prune the sides of the root ball using a sharp spade, saw or serrated knife
 - Lean the tree over and root prune the bottom of the root ball with a clean sharp spade, saw or serrated knife
 - Prune off any non-conforming woody roots with a sharp pair of clean secateurs.
 - Orient the plant using a north point marker if one is marked on the container/bag.
 - Place the tree in the centre of the planting pit by positioning body close to the tree and ensuring a firm grip is placed on the lower part of the trunk to place into the hole.
 - Ensure that the top of the root ball is about 5cm below ground surface in a free draining soil and that the stem is in a vertical alignment.
 - Backfill the planting pit with sandy loam and tamp lightly to ensure roots are in contact with the soil.
 - Create a swale using the sandy loam around the inside edge of the root ball.
 - Apply a 75mm thick layer of coarse textured organic mulch over the surface of the planting pit. Mulch will be kept 10cm clear of the tree trunk collar to prevent collar-rot.
 - Apply adequate water to the inside of the swale down through the root ball.
- ✓ Staking.
- Install a minimum of two hardwood stakes (36 x 36 x 1800mm) using a post rammer on either side and outside of the tree pit to provide protection from machinery (it is not recommended that the tree itself is staked as the tree should be self supporting).
 - If the tree does require support, stakes will be faced to the prevailing wind.
- ✓ Tying.
- If required to support the tree between the stakes use jute webbing (hessian tie) secured to the stakes using a tacker gun and run the webbing around the tree in a figure of 8 pattern and once back to the stake secure to the stake. The tie should be loose enough to allow for some trunk movement.
- ✓ Task Completion
- The site will be left in a clean and tidy manner safe for pedestrians and road users. All debris

and soil is to be removed from site and all pathways, kerbs, and road swept clean of soil.

ENDING OPERATIONS

- ✓ Allow plant to cool before performing any maintenance, refuelling or cleaning
- ✓ Refuel plant at least 3 metres from combustibles
- ✓ Ensure plant is in good working order and stored in the appropriate location

DO NOT

- ✗ Do not use if plant is faulty. Attach a DO NOT OPERATE tag and report fault to your supervisor
- ✗ Do not leave plant running unattended
- ✗ Do not leave keys in machinery whilst unattended
- ✗ Do not wear loose jewellery
- ✗ Do not use mobile phone while operating plant

*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.