






**SPECIAL INSTRUCTIONS:**

1. A licence for high risk work is not required to operate earthmoving plant; however, operators should be trained and assessed as competent by a RTO and be authorised to do so before they are to operate the plant.  
**Note:** This restriction does not apply to a person who is authorised to carry out maintenance or repairs to a tractor or an attachment.
2. Refer to SWP *Excavator – Use as Crane* for competency requirements and precautions to be followed when using earthmoving plant for loadshifting purposes.
3. Refer to SWP *Backhoe* and SWP *Front end loader* for competency requirements and precautions to be followed when using combination units.

Sequence	Identified hazards	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Roll-over protection  Fuel and fluids Tyres Tracks (tracked units) Buckets  Hydraulics	Tractors must be fitted with an approved roll-over protective structure (ROPS) unless specifically exempted by the appropriate statutory authority. Check fuel, hydraulic oil, engine oil, transmission oil, coolant and battery. Check tyre condition and pressures; remove any mud lumps from treads. Check condition and tension of tracks (refer to operator’s manual correct sag). Inspect for worn or missing teeth or worn cutting edges. Check pins, bushes and connections for excessive wear. Check hydraulic rams, hoses and connections for splits, leaks or fractures.	<b>Wear eye and hand protection.</b>  Wear <b>gloves</b> when handling rough or sharp objects.  <b>Wear eye and hand protection.</b>
2. Entry and exit	Slipping and falls	Steps and ladders should be of a non-slip type. Hand holds must be provided to assist operator to maintain 3 points of contact at all times while mounting or dismounting tractor.	Safe means of access must be provided and used for machines when being transported or used.
3. Operator position	Seating  Controls  Cabin (if fitted)	Seat should be well-sprung and adjustable to allow operator to maintain a comfortable operating position. All levers and gauges must be clearly identified, within easy reach and be easily read. Preferred orientation should be such that all needles are in vertical position during correct operating conditions. Exhaust must be placed so as to not allow fumes to enter cabin.	Maintain proper ergonomic principles when setting up seat for operating position.  Adequate ventilation must be provided.
4. Controls	Lights and alarms Steering and brakes Hydraulic controls	Test all lights, indicators, horn and reversing alarm. Test steering both ways. Check braking and park brake operation. Test all hydraulic operations before loading bucket.	All lights and signals must operate. Lock separated brake pedals together if travelling.
5. Travel	Loss of control    Overturning	Do not travel at speeds which may cause control to be lost over bumps, etc. Carry bucket as close to machine as possible and racked back for visibility. Avoid driving over obstacles, ditches, drains, etc. which could affect control. Avoid sharp turns and travel across slope on a steep incline.	Avoid sharp turns and obstacles. Items in front bucket must be secured form movement when travelling. Slow down to turn.

Sequence	Identified hazards	Key processes to be followed	Precautions / PPE required
6. Operation	<p>Buried services</p> <p>Overturning</p> <p>Moving machinery, crush injury</p> <p>Overstressing of parts</p> <p>Dust, falling objects, noise</p>	<p>Ensure that all underground services have been identified and located before commencing to dig.</p> <p>Avoid swinging loaded bucket with booms extended.</p> <p>Prevent entry to swing area of boom and bucket when excavating.</p> <p>Ensure that all persons are clear of boom before swinging.</p> <p>Persons working near machinery in operation or areas where traffic may be a hazard should wear high-visibility garments.</p> <p>Do not load bucket in excess of working load limit.</p> <p>Avoid stressing of parts when excavating rock, shale or other tight material.</p> <p>Appropriate protective equipment should be used where hazards may be encountered during operation.</p>	<p>Have representative on site if unsure of actual location.</p> <p>Use packing where ground surface is uneven or unable to support weight of machine.</p> <p>Keep swinging load close to machine.</p> <p>Wear <b>high-visibility garment</b>.</p> <p>NOTE: Wet materials will weigh more per unit than dry material.</p> <p>Wear <b>head, eye and hearing and foot protection</b> as necessary.</p>
7. Repairs, etc., to buckets	<p>Replacement of teeth</p>	<p>Place bucket on firm, stable, level surface to carry out work.</p> <p>Ensure that engine is switched off and hydraulic pressure is relieved before replacing teeth on bucket attached to excavator.</p> <p>Clean excess mud and soil from bucket before replacing teeth.</p> <p>Ensure that replacement teeth are compatible with the bucket.</p> <p>Check that hand tools to remove damaged or worn teeth are in good condition.</p> <p>Ensure that replacement teeth are firmly locked in position before digging.</p>	<p>Ensure that bucket is stable and cannot fall during work.</p> <p>Wear <b>eye protection</b> when washing or using compressed air. Wear <b>eye protection</b> when using hand tools such as hammers, cold chisels, etc.</p>
8. Transport of buckets	<p>Moving/falling objects</p>	<p>Ensure that buckets are carried in manner which will prevent them moving or falling during transport.</p> <p>Ensure that buckets are secured down firmly if loaded loose on tray of truck.</p> <p>Use machine to load or unload buckets from truck or trailer.</p>	<p>Carry smaller buckets in in raked bucket.</p> <p>Secure loose items against movement.</p> <p>Buckets should be carried “upside down” to reduce risk of movement.</p>

<p><b>PRECAUTIONS:</b></p> <p>The following precautions are to be observed in areas where these procedures are carried out.</p>						
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