

SAFE WORK PROCEDURES EXCAVATOR

SPECIAL INSTRUCTIONS:			
<p>1. Only persons who hold the appropriate National Certificate of Competency and who have been authorised to do so are to operate an excavator (except mini-skid steer).</p> <p>2. This restriction does not apply to a person who is authorised to carry out maintenance or repairs to a tractor or an attachment.</p>			
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Roll-over protection Fuel and fluids Tyres (rubber tyred units) 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 to determine correct sag range). Inspect for worn or missing teeth or worn cutting edges. Check pins, bushes and connections for excessive wear. Check rams, hoses and connections for splits, leaks or fractures.	Wear eye and hand protection . Wear gloves .
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. Lock separated brake pedals together if travelling. Test all hydraulic operations before loading bucket.	
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.	Slow down to turn.
6. Maintenance	Burns Over-exertion/strain injury Crush injury from falling object	Allow engine to cool before removing radiator cap. Rear tyres may be water-filled as ballast – always have valve stem at top position to check pressure or inflate tyre. Place valve at bottom position to drain water from tyre. Use mechanical aid to remove or replace counterweights.	Hand protection should be worn. Use mechanical aids to remove or replace wheel and tyre assembly. Wear type 1 footwear .

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7. 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>Outriggers must be extended and in contact with firm surface before commencing to dig.</p> <p>Exercise care to not cause trench collapse when using outriggers.</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 load close to machine when swinging.</p> <p>Wear high-visibility garment.</p> <p>NOTE: Wet materials will weigh more per unit than dry material.</p> <p>Wear head, eye and hearing and foot protection as necessary.</p>
8. Repairs, etc, to buckets	Replacement of teeth	<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 eye protection when washing or using compressed air.</p> <p>Wear eye protection when using hand tools such as hammers, cold chisels, etc.</p>
9. Transport of buckets	Moving objects	<p>Ensure that buckets are carried in manner which will prevent them moving or falling during transport.</p> <p>If loaded loose on truck, ensure that buckets are strapped down firmly.</p> <p>Use machine to load or unload buckets from truck or trailer.</p>	<p>Carry in raked loader bucket if fitted.</p> <p>Buckets should be carried “upside down” to prevent movement.</p>

PRECAUTIONS:

The following precautions are to be observed in areas where these procedures are carried out.

