

## Using the Mini Excavator

1. Be aware of your work environment at all times. Do not assume that other persons or obstacles will move out of the way.
2. Stay within the cab until parked up properly. Do not lean out to move obstacles or give assistance.
3. Avoid hazardous areas such as soft or frozen ground, trenches or overhead obstacles.
4. Be careful on slopes – avoid turning on them if possible.
5. If there is any possibility of a power cable or gas pipe in the area where digging is to occur, do not dig with the excavator.
6. Use a cable avoidance tool to locate metal pipes and cables. Contact the hire company if you require such a tool.
7. If any pipe or cable is damaged you may be liable for cost of damage and/or replacement.
8. If a trench is going to be more than 1m deep it should be properly supported with trench props to prevent it collapsing. Contact the hire company who will be able to supply any additional equipment required.
9. Never move the excavator adjacent to any trench/area where workers are operating.
10. All open trenches and excavations must be cordoned off and warning signs erected.
11. Take care not to drive forward over a trench; always move back and away from the trench.
12. Use the dozer blade, not the side of the bucket, to fill trenches.
13. Do not force the excavator to do more than it is capable of. This can cause it to become unstable.
14. At night in public places, the work area must be lit. The hire company will be able to supply any additional equipment required.
15. Always stop on firm level ground away from the work area and other traffic.
16. In freezing conditions, park the excavator on a suitable and stable dry surface to prevent the tracks becoming frozen.
17. Lower the bucket and dozer blade, stop the machine, apply the parking brake and remove the key before leaving the excavator unattended.
18. If the equipment does not work properly, do not attempt to repair it. Contact the hire company.
19. Additional safety devices (such as cameras, reversing alarm, lights) must be used if fitted.

**Please keep this leaflet safely as it may be required for future reference**

## Mini Excavator

**The rules and procedures in force where people are at work may require the person responsible for this equipment to carry out a specific risk assessment.**

### It is important to read all of this leaflet BEFORE you use the Mini Excavator

1. Plan work and think ahead to ensure work will always be carried out safely.
2. Diesel fuel is flammable. Take care not to cause a fire or explosion.
3. The mini excavator is designed for digging trenches and larger excavations. It is also used for loading earth-moving vehicles.
4. The action of the mini excavator can cause injury or damage if the equipment is not used in a careful and controlled way.
5. Do not drive the excavator unless you have previous experience or have had a course of instruction from a responsible body. Drivers of this vehicle should have at least a current site safety awareness certificate.
6. Recognised training is available via CPCS (Construction Plant Competence Scheme) and/or NPORS/ CSCS (National Plant Operators Registration Scheme) or equivalent.
7. Do not attempt to load or unload the machine from a truck or trailer unless fully experienced in doing so.
8. The following items of personal protective equipment are the minimum required: ear defenders or plugs giving protection at the ear of levels up to 93dB(A); safety helmet; safety boots; high visibility vest or similar reflective garment.
9. The excavator must not be used by a young person or by anyone under the influence of drugs or alcohol.
10. The excavator is designed for operation by an able-bodied adult. Anyone with either a temporary or permanent disability must seek expert advice before using the machine.



## Before Starting Work

### WORK AREA

1. Do not use the mini digger where there is a risk of explosion. It may ignite fumes from petrol or gas cylinders.
2. Using this equipment indoors or in confined spaces could cause fatal carbon monoxide poisoning. Only use it in indoor situations if its suitability and ventilation requirements have been fully assessed. Suitable mechanical extraction ventilation will almost always be required for any indoor use, and/or with an appropriate approved exhaust particulate filtration system fitted to the equipment. The use of fully electric battery powered machines should be considered for indoor applications.
3. Never operate on any public road or highway unless the machine is insured and complies with road traffic regulations. In addition, the operator must have an appropriate driving licence.
4. Check there are no underground power cables, gas or water pipes or other services in the area where the dig is to take place.
5. Check the work area for soft or frozen ground, slopes, holes, trenches or objects that may damage the tracks.
6. Ensure there are no tree branches, scaffolding or anything else that may cause a hazard.
7. Keep well away from any overhead power lines unless they are at least 5m (16ft) above the highest part of the mini excavator. Do not forget that high-voltage electricity can jump across large gaps.
8. If the work area is complex or noisy, always work with a banksman (person to marshal & direct movement such as loading/unloading tasks).

### OPERATORS

1. The following items of personal protective equipment (PPE) are the minimum that should be worn when using the Mini Excavator. Particular jobs or environment may require a higher level of protection.
2. This equipment is likely to cause noise levels up to 97 dB(A) – Wear appropriate ear defenders or ear plugs (EN352). You should pick ear defenders or ear plugs that can be shown to give enough protection to limit the risk of hearing loss. You may need to check that the ear defenders you pick are appropriate and do not make things too quiet. When ear defenders or ear plugs are too good, they make it hard to hear important orders or alarms.
3. A safety helmet must be worn when using the machine on a construction site.
4. Safety boots must be worn when working with the mini excavator.

# Before Starting Work...



5. A reflective vest or similar high visibility garment must be worn when working with the mini excavator.
6. The fitted lap-belt must always be used when operating the mini excavator unless working by water and a risk assessment states differently.
7. Anyone who is working near the mini excavator will also need to wear the appropriate personal protective equipment.
8. When using the machine the operator should take into account environmental conditions such as weather (heat/cold/rain), dust, light.

### MINI EXCAVATOR

If fitted with ROP's (roll over protection system) or canopy this must not be removed

1. Check the machine, engine, tracks, bucket and all accessories. Do not use anything found to be damaged – contact the hire company.
2. Check the excavator each time it is used. It will have been supplied in good condition and ready to use by the hire company – ensure it has not been damaged or altered in any way since then.
3. Most excavators have control locks which disable the hydraulic controls. The control lock must be released to commence work and reengaged when leaving the machine.
4. When working on or near a public highway, inside industrial premises or construction sites, the flashing amber beacon on the excavator must be used.
5. Do not use the excavator as a crane.
6. Do not use the bucket as a temporary work platform.
7. Never carry passengers on any part of the excavator.
8. Never tow anything with this machine.
9. The operator must familiarise themselves with the controls and refer to the safety decals fitted on the equipment & any additional instructions supplied with the machine. Control functions may vary dependent on model/make.
10. Before starting work let the engine run at part throttle, drive into a clear area and carefully practice all control movements and machine actions until familiar with them.



11. Remember when moving with the cab rotated 180° the effect of the travel controls will appear to be reversed.
12. Care must be taken not to exceed the slope capacity stated on the machine when working on uneven ground (gradients).
13. The maximum weight loading stated on the machine must not be exceeded.
14. Some machines are available with expanding tracks (retracting undercarriage). This feature is for restricted access only (e.g. doorways/narrow entrances) and the tracks are designed to be expanded before operation/work commences. Use with retractable tracks in the widest position where possible. Only retract where required to go through width restrictions. When raising the machine up to move tracks either in or out ensure this is done on firm level ground. Where available use the widest bucket or ditching bucket to aid stability. Raise only by approximately 100mm (4").

### INSURANCE

1. Under the terms of hire, you are responsible for the safe custody of the machine. The hire company must be indemnified against loss or unreasonable damage such as vandalism. The best way to achieve this is by insurance.
2. The machine must always be secured against theft or vandalism.
3. Some hire companies will offer insurance cover at an extra charge.
4. In addition, be aware that if damage is caused to property belonging to a third party or if involved in a highway accident, it is unlikely that normal insurance policies will give any protection.
5. If in any doubt regarding the insurance cover, check with the hire company or insurer immediately.

NOTE: In the event of the machine going over, DO NOT attempt to restart the engine, contact the hire company.

### REFUELLING

1. No smoking, naked flames or other sources of ignition (e.g. vaping)
2. If possible, drive the mini excavator to a safe place away from the work area.

3. Stop the engine and let it cool down.
4. Clean the filler cap and the area around it to prevent dirt falling into the diesel tank.
5. Use clean diesel when refuelling. If there is not a fuel pump available use a funnel. Do not spill any diesel on yourself or the excavator.
6. Wipe any spilt fuel off the machine. Dispose of the diesel soaked cloth carefully.
7. If any fuel is spilt on the ground this should be controlled with appropriate absorbent material and disposed of correctly. Care should be taken to avoid any spills entering storm drains, waterways or sewers
8. If any diesel is spilt on clothes, change them immediately.
9. Replace all fuel caps correctly and leave the fuel container in a safe, cool place.
10. It is good practice to refill the fuel tank at the end of the day, not at the start. This will prevent condensation build up in the fuel system.

### STARTING THE MACHINE

1. Ensure no one is within the work area of the excavator.
2. Fasten the lap belt.
3. Set all hydraulic controls to neutral position, move the throttle to its middle setting and insert the ignition key.
4. For a cold start, turn the key to the preheat position for 10 seconds, then turn to the start position to engage the starter motor for about 5 seconds.
5. If the engine fails to start, turn the key off for a few seconds then repeat the preheat cycle.
6. In warm temperatures, or if the engine is warm, turn the key to the start position.

### STOPPING THE ENGINE

1. Set the bucket and dozer blade on the ground.
2. If the excavator has been under heavy load, do not switch off engine immediately. Reduce the throttle and allow the engine to tick over for a few minutes to cool down.
3. Close the throttle fully and turn the ignition key to the off position.
4. Remember to remove the key. Where fitted the battery isolator key may also be removed.

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