For guidance on managing construction health risks go to
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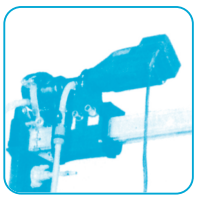
0515 Safety Guidance
110/230V v:032017

Banner Plant
PART OF HENRY BOOT

Diamond Drill Rig

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 this entire leaflet BEFORE using the Diamond Drill Rig

1. Electricity is dangerous and must always be used with great care.
2. Water and electricity are a hazardous combination. Keep water away from electrical parts.
3. This diamond drill rig is designed to drill large diameter holes in floors, walls and ceilings through reinforced concrete, masonry or stone.
4. The action of this drill can cause injury or damage if the machine is not used in a careful and controlled way.
5. If you have not used a diamond drill rig before, familiarise yourself with the machine first. Practice on some straightforward job before you start on the main task.
6. Plan your work and think ahead to make sure you will always be working safely.
7. You must have at least the following items of personal protective equipment:
   impact resistant goggles: EN166 - B or BS2092 grade 1;
   dust mask - a minimum of EN149 FFP3(s) protection;
   ear muffs or plugs giving protection for levels up to 86 dB(A);
   gloves;
   rcd if using a 230 volt (mains) supply.
8. This machine must not be used by minors, or by anyone under the influence of drugs or alcohol.
9. This diamond drill rig is designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using it.

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WORK AREA

1. Do not use this diamond drill rig where there is a danger of explosion. It will ignite fumes from petrol, or gas cylinders.
2. Make sure that the area is clear and safe and that no-one is near to you or could distract you.
3. Protect other people from the noise, and debris. Warn others to keep away. Put barriers around your work area.
4. Check that there are no hidden electric cables, gas or water pipes where you are drilling.
5. Check you have an adequate, clean water supply either from the mains or from a water tank.
6. Make sure the waste water will not cause damage. Check if the water can drain away safely. If the hire company supplied water collection equipment, use it.

OPERATORS

1. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever you use this machine. Particular jobs or environments may require a higher level of protection.
2. You must wear impact resistant goggles (EN166 - B or BS2092 grade 1) when you are working with this machine.
3. This equipment is likely to cause noise levels up to 86 dB(A) - wear appropriate ear muffs or plugs giving hearing protection for this level as a minimum.
4. You will need to wear an appropriate dustmask (with a minimum of EN149 FFP3(s) protection) to protect yourself from spray, mist or dust.
5. Anybody who is working near to you will also need to wear appropriate personal protective equipment.

DIAMOND DRILL RIG

1. Check your machine, cables and plugs and all other equipment. If anything is found damaged, do not use the diamond drill rig - contact the hire company.
2. Check that the plug on your machine matches your supply. Do not try to force connections or improvise them.
3. Machines with a cylindrical yellow industrial plug fitted are designed to run off a special 110v supply. The hire company will have provided a portable transformer if you need to power the machine from a normal mains 230v supply. If a portable transformer has been supplied, take care not to injure yourself when moving it about - it may be heavier than you think. Machines designed to run direct from 230v mains will have either a normal square pin plug fitted, or a blue industrial plug.
4. Your machine may operate at more than one speed and you may be able to set the core drill to rotate clockwise or anticlockwise. Ensure you have the right settings before you start work.
5. Make sure you understand all of the controls. Before you switch the diamond drill rig on, you must know how to stop it.

CORE DRILLS

1. Switch the diamond drill rig off, and unplug it before changing the core drill.
2. Use only the correct grade core drills as recommended by the hire company for the material being cut.
3. Make sure that your core drill is long enough to go right through the wall or floor or the core drill will 'bottom' and will not drill any further.

4. Make sure that people on the other side of the wall or floor you are drilling are safe from the core, or any fragments falling onto them when you break through.
5. Stop the machine and unplug before removing the core, or any rubble, from the core drill.

BRACING AND ANCHORING

1. If you are core drilling straight into a smooth floor, the vacuum clamp on the machine will normally be strong enough to hold the rig firm.
2. If you are core drilling the floor at an angle, then your rig will need to be further secured by bracing or anchoring.
3. If you are core drilling into walls or ceiling, then you must additionally brace or anchor the rig.

ELECTRICAL SAFETY

Your machine will only operate on one voltage: it will be 110v or 230v. 110v evaporative air coolers will have a yellow industrial plug fitted. 230v evaporative air coolers will have either a normal square pin plug fitted, or a blue industrial plug. Read the instructions below for your evaporative air cooler.

110 VOLT MACHINES (YELLOW PLUG)

1. If you are using a portable transformer, plug the transformer directly into the 230v socket. Do not use any 230v extension cables.
2. If you need to use an extension cable, follow any special instructions given by the hire company. If the hire company have not given any special instructions, you should only use a suitably rated heavy duty 110v extension cable, not longer than 50 metres (160 feet). You must only use an extension cable between the transformer and the machine.
3. Lay the extension cable out carefully avoiding liquids, sharp edges, doorways or windows where it might be trapped, and places where vehicles might run over it. Unroll it fully or it will overheat and could catch fire.
4. Make sure that any extension connections are dry and safe.

230 VOLT MACHINES (SQUARE PIN OR BLUE PLUG)

1. Use a residual current device ("rcd") plugged directly in to the 230 volt socket. Plug your heater into the rcd. This will help to protect you against electric shock if the cable or heater gets damaged.

2. Use the "TEST" button to check that the rcd is working each time you use it. Reset the rcd according to the instructions supplied with it.
3. If you need an extension cable, follow any special instructions given by the hire company. If the hire company have not given any special instructions, you should only use a suitably rated heavy duty one, not longer than 50 metres (160 feet). Plug it directly into the rcd.
4. Lay the extension cable out carefully avoiding liquids, sharp edges, doorways or windows where it might be trapped, and places where vehicles might run over it. Unroll it fully or it will overheat and could catch fire.

5. Make sure that any extension connections are dry and safe.

Before Starting Work...

Useful Reference Points • www.hae.org.uk/businessguard