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0501 Safety Guidance
110/230V v:032017

Percussion Drill

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 Percussion Drill

1. Electricity is dangerous and must always be used with great care.
2. Percussion drills are designed for drilling in concrete, masonry or brickwork. They are not designed for any other purpose.
3. The action of this percussion drill can cause injury or damage if the machine is not used in a careful and controlled way.
4. If you have not used a percussion drill before, familiarise yourself with the machine on some straightforward work before you start on the main task.
5. Plan your work and think ahead to make sure you will always be working safely.
6. You must have at least the following items of personal protective equipment: goggles: EN166 or BS2092; dust mask - a minimum of EN149 FFP3(s) protection; Safety boots to EN345 or BS1870/4972; industrial quality gloves; residual-current device (RCD) if using a 230 volt (mains) supply.
7. A personal first-aid kit should be available.
8. A percussion drill must not be used by minors, or by anyone under the influence of drugs or alcohol.
9. A percussion drill is designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using it.
10. Although percussion drills are designed for one person operation you should always be careful you do not lift beyond your own capabilities.

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Using the Percussion Drill

1. Wear your protective equipment including ear defenders and goggles.
2. Never attempt to enlarge a hole that you have already drilled - the bit will jam.
3. Check on the biggest drill that your machine can use - if you overload it, the bit may jam, causing the drill to start to rotate. This can cause serious hand or wrist injury.
4. Watch out for signs that vibration may be affecting your hands. If your fingers start to tingle or feel numb, take a short break from using the drill. Exercise your fingers to encourage blood circulation. Find out more about vibration. **Ask the hire company for a copy of the HAE leaflet no. 2150 – Hand-arm vibration or visit www.hse.gov.uk/vibration**
5. To help prevent vibration affecting your hands, operate the machine for shorter periods. Keep your hands warm - wearing gloves may help do this.
6. Keep the cable clear of the tool bit and any sharp edges on your work.
7. If you think the cable may be cut or damaged in any way, switch off and unplug at the mains before inspecting it. If the cable attached to the percussion drill is damaged, stop using the machine. Contact the hire company. If an extension cable has been damaged, do not use it again.
8. Take care not to accidentally pull the plug from the socket.
9. Switch off and remove the plug from the socket before leaving the percussion drill unattended.
10. If your equipment does not work properly do not attempt to repair it. Contact the hire company.
11. You may want to read this leaflet again. Please keep it until you finish work.

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Before Starting Work...

WORK AREA

1. Do not use a percussion drill 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 dust. Set up an exclusion zone around the area where the percussion drill is being used with physical barriers, barrier tape and signs. Keep children and animals away when using this equipment.
4. Work should stop immediately should anyone, other than those directly assisting with the work, enter the exclusion zone.
5. Clear the area of trip hazards such as rubble, rubbish etc.
6. Do not use a percussion drill in the rain or where it might get wet.
7. Any work that is not part of a fixture should be securely clamped or held in a vice.
8. Drilling certain materials makes a large amount of dust - cover any surfaces or objects that may be damaged, or difficult to clean.

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 will need to wear an appropriate dust mask (with a minimum of EN149:2001FFP3 protection) when you are in contact with material that causes dust.
3. You must wear safety boots (EN345 or BS1870/4972).
4. You must wear industrial quality gloves.
5. Anybody who is working near to you will also need to wear identical personal protective equipment.

PERCUSSION DRILL

1. Check your machine, chuck and key, cables and plugs. If anything is found damaged, do not use the percussion drill - 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 an 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 directly from 230v mains will have either a normal square pin plug fitted, or a blue industrial plug.
4. Always use the side handle provided. Adjust it to the best position.
5. Vibration from using a percussion drill can be hazardous. Warm your hands up before you start work, and wear gloves to keep your hands warm while you are working. **Ask the hire company for a copy of the HAE leaflet no. 2150 – Hand-arm vibration or visit www.hse.gov.uk/vibration**
6. Check on how the on/off switch operates - before you switch the percussion drill on, you must know how to stop it.

DRILL BITS

1. Switch the percussion drill off, and unplug it before changing the drill bit.
2. Use only the right drill bits for the machine. They will have straight shanks with no slots or tapers.
3. Always use the chuck key provided to tighten the chuck. Do not force the chuck with anything else.
4. Switch off the hammer action if you are going to drill wood or metal. Make sure that the right drill bit is fitted.

ELECTRICAL SAFETY

Your machine will only operate on one voltage: it will be 110v or 230v.

110v machines will have a yellow industrial plug fitted. 230v machines will have either a normal square pin plug fitted, or a blue industrial plug. Read the instructions below for your machine.

110 VOLT MACHINES (YELLOW PLUG)

1. If you are using a portable transformer, plug the transformer directly into the 230 volt socket. Do not use any 230v extension cables.
2. If you need to use an extension able, follow any special instructions given by the hire company. If the hire company has not given any special instructions, you should only use a suitably rated heavy duty 110v extension cable, not longer than 50 metres (160 feet).
3. If you need to use an extension cable, follow any special instructions given by the hire company. If the hire company has 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 it 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 cable connections are dry and safe.

Summary:

110V: Wall socket > transformer > any necessary extension cable > percussion drill.

230v: Wall socket > RCD > any necessary extension cable > percussion drill.

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 cable 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 230volt socket. Plug your machine into the RCD. This will help to protect you against electric shock if the cable or machine 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 to use an extension cable, follow any special instructions given by the hire company. If the hire company has 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 it 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 cable connections are dry and safe.

Summary:

110V: Wall socket > transformer > any necessary extension cable > percussion drill.

230v: Wall socket > RCD > any necessary extension cable > percussion drill.

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