



0510 Safety Guidance



Using the Broaching Machine

- Wear protective equipment including goggles and helmet.
- This machine is heavy take care when fixing it to overhead surfaces.
- Ensure the surface of the location for the machine base is clear of dirt, oil and swarf as these will affect the grip of the magnetic base.
- The guard must cover all rotating parts whenever the machine is in operation.
- Do not try to change the rotation when the broaching machine is running.
- Withdraw the cutting tool from the workpiece periodically to clear the accumulated swarf
- Use cutting oil when drilling metal to lubricate and cool the drill bit. Ensure the oil does not spill and prevent the magnetic base gripping where the drilling will take place next.
- If the cutting tool jams, switch off the machine. Ensure the safety chain is secure, switch off the magnetic base and remove the plug. Free the cutting tool by hand, but be careful - it will be hot
- Before changing the cutter or making adjustments, stop the cutter. Make sure the machine is safe and cannot fall. Switch off the magnetic base and unplug the machine.
- 10. Keep the cable clear of the cutting tool and sharp edges on the work.
- 11. If the cable appears to be cut or damaged in any way, switch off and unplug at the mains before inspecting it. If the cable attached to the broaching machine is damaged, stop using the machine. Contact the hire company. If an extension cable has been damaged, do not use it again.
- 12. Take care not to accidentally pull the plug from the socket.
- 13. Before leaving the broaching machine unattended, switch off and remove the plug from the socket. The machine should be left in a safe place or with the safety chain still securing it.
- 14. If the equipment does not work properly, do not attempt to repair it. Contact the hire company.

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

















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are safe and dry 2. Ensure the extension cable connections

and catch fire. Unroll the cable fully or it may overheat and places where vehicles may run over it. or windows where it may become trapped avoiding liquids, sharp edges, doorways

4. Lay out the extension cable carefully

The HCD. 50 metres (160 feet). Plug it directly into instructions use only a suitably rated heavy dute extension cable no longer than



special sul rue une company nas nor by the hire company. If special instructions given 3. If an extension cable is any street to sollow any supplied with it.

according to the instructions working each time it is used. Reset the 2. Use the "TEST" button to check the RCD is

electric shock it the cable or machine is into the RCD - this will help protect against socket. Plug the machine

device ("RCD") plugged directly into the 230v TITEL 团 1. Use a residual current (SQUARE PIN OR BLUE PLUG)

230 VOLT MACHINES any and sale.

4. Ensure any extension cable connections are

Unroll it fully or it may overheat and catch or windows where it might be trapped and places where vehicles may run over it. avoiding liquids, sharp edges, doorw

3. Lay the extension cable out carefully between the transformer and the machine. The extension cable must only be used cable no longer than 50 metres (160 feet).

a suitably heavy duty 110v extension as not given any special instructions, use by the hire company. If the hire company used, follow any special instructions given 2. If an extension cable is required to be



any 230v extension into the 230v socket. Do not bing the transformer directly r. it using a portable transformer,

110 NOLT MACHINES (YELLOW PLUG)

industrial one. Read the instructions below

normal square pin plug fitted or a blue fitted. 230v machines will have either a machines will have a yellow industrial plug voltage: it will be either 110v or 230v. 110v the machine will only operate on one

ELECTRICAL SAFETY

material being drilled is being used. the size of cutting tool and the type of than one speed, check the right speed for 3. If the broaching machine operates at more

slots and other holes. to special rial borromed currers for curring these may range from ordinary twist drills 2. Use only the right type of drill or cutter for the machine and for the task in hand; the machine and for the task in hand;

macnine oir and unplug before changing by the safety chain, then switch the 1. Ensure the broaching machine is secured Cutting Tool Bits







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 Broaching Machine**

- 1. Always plan the job and envisage any problems in order that they may be dealt with safely.
- 2. Electricity can be hazardous and must always be used with great care.
- The broaching machine is designed to clamp itself magnetically. in any position, to steel surfaces and then to cut holes in the
- 4. The action of the broaching machine can cause injury or damage if the machine is not used in a careful and controlled way.
- If you have not used a broaching machine before, familiarise yourself with the machine on me straightforward work before commencing on the main task

Broaching Machine

The rules and procedures in force where people are at work

- The following items of personal protective equipment are the minimum that is required: Impact resistant Goggles, Safety Helmet, rcd if using a 230 volt (mains) supply.
- This machine must not be used minors or by anyone under the influence of drugs or alcohol. The broaching machine is designed for operation by an able bodied adult. Anyone with either a
- temporary or permanent disability must see expert advice before using the machine.

WORK AREA 1. Do not use the broaching machine where there is a danger of explosion. It will ignite fumes

- from petrol or gas cylinders.
- Ensure the work area is clear and safe and no-one is closeby who could cause distraction. Protect other people from the noise and dust. Warn others to keep away and erect barriers
- around the work area If working above ground level, ensure no one can stand beneath you. Erect warning signs,
- use a banksman to warn people of the dangers. Check the area to be drilled does not have hidden electric cables or gas pipes or similar













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affect the grip to the magnetic bas electric currents from the welding can camed out on the same structure. Stray 5. Do not use the drill when welding is being tall, resulting in injury or damage or both.

will lose its grip causing the machine to broaching machine, the magnetic base on a substantial steel structure - if the mains power fails when using the if the machine is safety clamped upright 4. Always use the safety chain or strap, even

work on other metals, like aluminium. (1/2") thick. The magnetic clamp will not steel surface to grip onto, at least 12mm 3. The magnetic base needs a flat, clean

magnetised.

cannot be switched on until the base is while the power is switched on. The drill 2. The magnetic base is only magnetised

to switch the magnetic base on or ott. 1. I nere is a seperate switch on the machine

Electro-Magnetic Clamp

machine - know how to stop the it. 5. Know how the on/off switch operates.

Before switching on the broaching

right settings are set before starting work. clockwise or anit-clockwise. Ensure the control knob allowing the bit to rotate more than one speed and it may have a 4. The broaching machine may operate at

ednare pin plug fitted or a blue industrial

from 230v mains will have either a normal to move. Machines designed to run directly as it may be too heavy for a single operator when moving it about - ask for assistance transformer has been supplied take care If a portable mains 230v supply machine is to be powered from a normal provided a portable transformer if the 110v supply. The hire company will have plug fitted are designed to run off a special 3. Machines with a cylindrical yellow industrial

connections or improvise them. the supply being used. Do not try to torce 2. Ensure the plug on the machine matches

damaged - contact the hire company. correctly. Do not use anything round to be spindle. Ensure it is in place and works Check the guard enclosing the cutter and 1. Check the machine, and all equipment.

BROACHING MACHINE

macnine. Ensure long nair is tied back. jewellery that could be caught in 5. Ensure there is no loose clothing or protective equipment.

to wear appropriate personal t. Any one who is working close by will also

safety helmet must be worn at all times. drill is being operated at or above shoulder height. On a construction site a work at height is taking place or when the 3. A Safety Helmet must be worn whenever

be worn when working with the machine. Impact resistant goggles should always

equipment (PPE) are the minimum that

1. The following items of personal protective

brotection. environment may require a higher level of should be worn whenever using the broaching machine. Particular jobs or

SHOTAHAYO





