Jack Hammer

Introduction
Demolition hammers are tools which are designed to be utilized in demolition. They are typically heavy and powerful so that they can be used to break up a variety of substances, from wooden walls to concrete pads, and they are an important part of the tool arsenal for a construction crew. There are a number of types of demolition hammer on the market, ranging from simple models used in do-it-yourself projects to more heavy-duty versions for industrial demolition. This module discusses about electric and portable jack hammers (petrol type).

Risk and Hazards
- Wear ear protectors. Exposure to noise can cause hearing loss.
- Wear a hard hat (safety helmet), safety glasses and/or face shield. It is also highly recommended that you wear a dust mask, ear protectors and thickly padded gloves.
- Keep hands away from moving parts.
- When chipping into walls, floors or wherever “live” electrical wires may be encountered, do not touch any metal part of the tool.
- Hold the tool by the insulated grasping surfaces to prevent electric shock if you chip into a “live” wire.
- High temperature of moving parts after operation; this could cause skin burns if touched.
- Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

Location Considerations
Keep work area clean and well lit. Cluttered and dark areas invite accidents. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Pre Operational Safety
Before starting your work at your chosen area, you should do a hazard identification and risk control precautions. Inspect your work place.
- Know the best way to do the job. Follow the procedures.
- Review the Safe work information supplied with the equipment.
• Wear the appropriate and close fitting clothing. Long hair must be tied.
• Ensure to wear the proper PPE: safety goggles, ear muffs, safety boots, helmet, etc.
• Ensure all guards are properly in place.
• Due to normal operation, the tool is designed to create vibrations. The screws can come loose easily, causing a breakdown or an accident. Check tightness of screws carefully before starting to operate the tool.
• Ensure that your power outlet is protected by an RCD (Residual Current Device) safety switch.
• Use of the demolition hammer will cause collapse of structure in some applications. Installation of approved shoring or suitable controls is required.

Operating Safety
• When using any tool or equipment, do not over reach.
• Ensure that you have firm footing and are always ready to handle any reaction the equipment may make.
• Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
• Do not touch the bit or parts close to the bit immediately after operation; they may be extremely hot and could burn your skin.
• Do check controls and any safety device for proper response.
• Do not operate the tool if you are tired or suffering any medical condition.
• Do not hurry and take risks.
• For the petrol type:
  • Use extreme care when filling fuel tanks-vapours ca be explosive.
  • Ensure that the motor is switched off when filling.
  • Keep fuel containers at least 3 meters away from where you will be starting the equipment.
  • Ensure that fuel cannot come in contact with the hot engine parts such as the exhaust.
  • Keep sources of sparks away from any flammable liquid.
  • Where possible, keep appropriate fire extinguishers nearby during operations utilizing flammable liquids.

For the electric type:
• Ensure that any electric equipment or extension lead that you are using has been electrically tested, tagged, and dated by a competent person within the last 3 months.
• If you are to use electrical extension leads, make sure that it is no longer than 15 meters as it causes a significant voltage drop, potentially compromising personal safety and leading to possible equipment damage.

Maintenance
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.
• Replacement of carbon brushes
  Whenever carbon brushes must be replaced, they cut out the tool automatically. When this occurs, remove the holder cap plates and then replace both carbon brushes at the same time. Use only identical carbon brushes.
• Lubrication
  Lubricate the tool every time the carbon brushes are replaced.

Operating Procedures
• Always be sure that the unit is switched off and unplugged before installing or removing the bit.
• Do not leave the tool running. Operate the tool only when hand-held.
• Do not operate the tool at no-load unnecessarily.
• Install the grips securely with the bolts using the proper tool which is a hex wrench.
• Before plugging in the tool, always check to see that the switch returns to the “OFF” position when released.
• Do not tape, tie or fix the switch lever in the “On” position. To start the tool, simply squeeze the lever. Release the switch to stop.
• For chipping/scaling or demolition, hold the tool firmly with both hands. Turn the tool on and apply slight pressure on the tool so that it will not bounce around uncontrolled. Pressing very hard will not increase efficiency.