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2517 Safety Guidance

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Hilti DX450 Cartridge Hammer

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 Cartridge Hammer

1. Plan your work and think ahead to make sure you will always be working safely.
2. Powder actuated hammers can be hazardous if misused. They should be used carefully and only by trained personnel.
3. The noise levels produced by this equipment can damage your hearing.
4. You should have attended a recognised training course before you can use the cartridge hammer.
5. The Hilti DX450 is designed to fix a variety of materials to concrete, masonry and steel using the appropriate fasteners.
6. The action of the Hilti DX450 can cause injury or damage if not used in a careful and controlled way.
7. If it has been some time since you have used the Hilti DX450, familiarise yourself with it again and with the safety requirements before you start work.
8. You should wear the following items of personal protective equipment: ear muffs or plugs giving protection for levels up to 140 dB; impact resistant goggles: EN166 – B or B52092 grade 1; dust mask – a minimum of EN149 FFP3(s) protection; safety boots (EN345 or BS1870/4972); safety helmet – EN397 or BS5240; gloves.
9. This Hilti DX450 must not be used by minors, or by anyone under the influence of drugs or alcohol.
10. Cartridge hammers are designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using them.

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UNLOADING

1. The tool must always be unloaded: when a misfire occurs; when you have finished work even if only for a short time; before changing, adjusting or cleaning the cartridge hammer.
2. To unload, pull the cartridge magazine out from the top of the magazine housing.
3. To unload a fresh magazine that is not visible through the top of the magazine housing, carefully and safely rotate the cocking lever once or twice.
4. Each operation of the coking lever will advance the magazine by one cartridge.
5. When the Hilti DX450 is not in use it must be stored securely and safely in its box.

USING THE CARTRIDGE HAMMER

1. Wear your protective equipment including ear defenders and goggles.
2. Use both hands to hold and fire the cartridge hammer.
3. Do not indulge in any horseplay or irresponsible behavior while using, or working near, the cartridge hammer.
4. Never carry cartridges loose in a pocket. Do not carry them loose in a box with metal fasteners.
5. Do not carry a loaded hammer from place to place.
6. Do not use the cartridge hammer on brittle surfaces, like glass, plastics, glazed tiles or cast steel, they will crack or shatter.
7. Do not use this hammer on plasterboard or partitioning. Use it only on a structural steel, masonry or similar material. Do not use it on modern house bricks, they will shatter.
8. Do not try to use on an existing hole in the material you are fastening. Always move to a new position.
9. Do not try to use on top of old, or broken, fastenings. It could cause distortion or mislocation. It could be dangerous.
10. As a safety measure the hammer will not fire until the muzzle is pressed home against the work piece before pulling the trigger.
11. Clean and lubricate this hammer regularly.
12. After approximately 3000 fixings the Hilti DX450 should be returned to the hire company for thorough cleaning and servicing.
13. When you have finished work, unload and clean the cartridge hammer and store it and the cartridges securely.
14. If your equipment is faulty, 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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Before Starting Work...

SAFETY REQUIREMENTS

Before you can use the Hilti DX450:
You should be over eighteen years old;
You must have attended a recognised training course;
You need normal colour vision to recognise the different colour and strength of cartridges;
You must be aware that the Hilti DX450 can produce noise levels up to 140 dB, which can seriously damage your hearing.

WORK AREA

1. Only essential people should work in the area when the cartridge hammer is being used.
2. Do not use this cartridge hammer where there is a danger of explosion. It will ignite fumes from petrol or gas cylinders.
3. Make sure that your work area is clear and safe and that no-one is near to you or could distract you.
4. Protect other people from the noise and danger. Warn others to keep away. Put barriers around your work area.

OPERATORS

1. The following items of personal protective equipment (ppe) are the minimum that should be worn whenever you use this hydraulic breaker. 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 hydraulic breaker.
3. This hydraulic breaker is likely to cause noise levels up to 110 dB(A) – wear appropriate ear muffs or plugs giving hearing protection for this level as a minimum.
4. You must wear safety boots (EN345 or BS1870/4972).
5. Anybody who is working near to you will also need to wear appropriate personal protective equipment.
6. Anybody who is working near to you will also need to wear appropriate personal protective equipment.
7. Anybody who is working near to you will also need to wear appropriate personal protective equipment.

CARTRIDGE HAMMER

1. Check your cartridge hammer, cartridges, and fasteners. Do not use anything found damaged – contact the hire company.
2. To guard against accidental firing, the Hilti DX450 will not fire until the muzzle is depressed against the work piece before pulling the trigger.
3. Do not load the cartridge hammer until it is required for immediate use. It should remain unloaded when not in use.
4. Cartridges must be stored in a locked metal box.
5. Do not point the cartridge hammer at anyone, even when it is not loaded. Get into the habit of not pointing it at people. Never point the barrel at any part of your body at any time.
6. You must always unload the cartridge hammer before cleaning or changing parts or when finished work.
7. The cartridge hammer is supplied with different pistons for different fasteners. Do not use a different fastener until you check with the hire company.
8. Before you start work, make sure you understand how to use the cartridge hammer safely with no danger to yourself or others.

CARTRIDGE HAMMER SAFETY

1. Always, before use and after use, check there is no cartridge in the tool.
2. Always ensure that your cartridges and fasteners are suitable for the tool and the job.
3. Always use the tool at right angles to the work surface.
4. Always check to see there is a fastener in the hammer before loading the cartridge.
5. Always use eye protection.
6. Always keep the tool pointed away from yourself and others.
7. Always keep the hammer in the case when not in use.
8. Always use the weakest cartridge that is suitable – see your hire company. See also the colour code below.
9. Wear your safety equipment.
10. Keep your fingers away from the trigger, especially when loading or unloading, until you intend to fire.
11. Manufacturers follow a basic colour code to denote cartridge strength. Not all manufacturers produce the whole range, red and black are the most used cartridges.
Tey are:
Green – low
Blue – Medium
Black – High.
Yellow – Medium low
Red – Medium high

OPERATION

LOADING AND FIRING

1. Hold the tool with the muzzle pointing upwards.
2. Insert your selected fastener; point first into the cocking lever, the fastener will slide to the rear of the cocking lever until it is held in position by a magnet.
3. Fixings with metal or plastic washers will not slide to the rear but the same loading action should be used.
4. Hold the loading grip (on top of the DX450) and use it to rotate the cocking lever forward through 180 degrees.
5. Slide back the loading grip on the cocking lever as far as it will go, then slide it forward to its original position.
6. Rotate the cocking lever, back through 180 degrees to its original rest position. The fixing is now in position.
7. Insert the cartridge magazine into the bottom of the rear tool grip (handle).
8. Set the power regulator to the minimum setting by rotating the knurled wheel, located at the butt of the cartridge tool.
9. For the minimum setting the indicator will be to the front (minus).
10. For the maximum setting the indicator will be to the rear (plus).
11. Use both hands to hold the tool in position against the work surface to overcome the contact pressure, then pull the trigger.
12. For each subsequent fixing proceed as far as for paragraphs 1-10 until the magazine is spent. Each subsequent movement of the cocking lever advances the magazine by one cartridge.

MISFIRE

1. If a cartridge misfires, keep the hammer pressed up against the work piece for a further 30 seconds.
2. If the cartridge still has not fired, carefully point the barrel at a safe area and wait for a further two minutes before attempting to eject the cartridge.
3. Keep hands and body away from the muzzle.
4. Keep the failed cartridges secure in a separate box to unused cartridges. Return them to the hire company.

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