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Using a Breaker With Care

There are five types of hammer classes : -Three kilogram scrappers , Five kilogram chippers (Makita HM0870C), Ten kilogram demolition hammers (Makita HM1203C), Fifteen kilogram demolition hammers (Makita HM1307C) and Thirty kilogram paving breakers (Makita HM1801 and HM1810). The hire industry deals mostly with the demolition hammers and breakers. The breaker you choose is primarily defined by your work area and the available power sources on site. For example, if your demolition job involves rehabbing rooms in an existing building, the available power source and tight space confines would generally dictate an electric breaker. Electric breakers are great for remote indoor applications.

10 Kilogram Class

15 Kilogram Class

30 Kilogram Class

Application is important

Part of the application consideration is whether or not you should use a hand-held breaker at all. Here are some questions you should expect to answer before deciding on a hand-held breaker:

What is the thickness of the material you will be breaking up? As noted, certain breakers work better in different thicknesses of material.

Does the material contain any steel? If so, this would point you in the direction of a pneumatic or hydraulic breaker.

Will you be using it vertically or horizontally? If you're working on a wall, creating an area to run pipe through, you're going to want a chipping hammer that works horizontally. Some breakers can be positioned both ways.

How big are your operators? What size hammer you can expect them to lift and reposition will depend on their strength, which in turn relates directly to productivity. Bigger is not necessarily better when you're creating wear and tear on the operator. Weight factors more into horizontal applications, such as breaking up walls, since the operator is bearing the total weight of the tool.

Are you dealing with any noise issues? There may be special noise abatement requirements due to local codes.

A bit about bits

Your application also will direct the type of accessory (also called steel tools and bits) you use. For example, on cured concrete, you'll want a narrower chisel to get all of the force hitting in a certain area.

Inadequate or dull bits: You probably shouldn't use a hammer without coming away with three bits. Ask your rental dealer to inspect the bits they give you for sharpness. The energy required using a dull bit is so much greater and puts so much fatigue on the operator and so much more stress on the hammers, it just causes a great deal of grief. And remember to make sure you have the right bit for the type of material being removed.

Correct use: In addition, the longest you should hammer on a single spot is 15 seconds. If you put a bit on a piece of concrete, load the hammer, put your feed pressure on it and pull the trigger, if that material doesn't move in 15 seconds, stop and take another bite someplace else. Many bits come back from customers where the ends are melted over, which means they created enough heat to take the temper out of the steel.

Basic bits include:

Moil points: Sharp points for hard concrete.

Flat chisels: These come in different widths and configurations. Moil points or flat chisels make up the majority of the tools used.

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Spades: The wider ones are used to break up softer materials such as asphalt. There are shovel blades for frozen or extremely hard soil.

There are three basic types of shanks: SDS-max (industry standard), hex collar or a spline. If you have spline bits and rent a hex breaker you won't be able to use the bits with the tool.

The hazards of the job

Hand-held breakers require you to pay attention to safety. The units create noise and vibration, and generate airborne dust.

Noise: This includes the sound generated by the steel hitting the surface. Ear plugs should be worn while operating all breakers.

Model	Noise Directive Limit Value	Makita product Guaranteed value
HM1801	110 dB(A)	106 dB(A)
HM1810	111 dB(A)	107 dB(A)

Here is an example to show how Makita models conform to the "European Noise Directive for Outdoor Equipment" which has been in effect since 2006.

Vibration: Most manufacturers build vibration-reduced handles to combat white-hand syndrome. The Makita HM1810 reduces vibration to 7m/s2 (70% cut from its predecessor model) with its revolutionary Anti Vibration Technology.

Dust: Airborne silica particles are also a health concern, especially in indoor spaces. Use a face shield instead of just eye goggles. You're going to be busting up concrete and goggles leave a lot of areas of the face open.

Operator fatigue: All of this adds up to wear and tear on the operator. Anytime you're talking about a 27- to 40-kilogram tool, it's going to hit hard. So the amount of time the operator should stay on the tool should be monitored. A person is just not going to be able to operate it an entire eight-hour shift.

Other hammer abuses include:

• Using the breaker as a pry bar to heave material out of the way instead of breaking it up as the tool is intended.

• Beginning the job at the center of the slab instead of at the edge of the material being removed.

• Allowing the breaker to "face hit" against the work surface by powering up the unit without having the bit touching the material being removed.

Improperly lodging stuck bits: And if a moil point gets stuck, don't rock the hammer back and forth or back hammer. Instead, simply disconnect the bit from the hammer, get a second bit and go back in and break out your first bit.

Not paying attention to your power sources: When running an electric breaker, make sure your power source is located fairly close to the breaker. The longer the extension cord, the more power you lose.