

Plumbing Power LXT Lithium Ion Tools



We recently visited two plumbers, Glen Pienaar and Gary De Kock, on-site at Rollex in Jet Park, Gauteng. Rollex is responsible for all the packaging for leading food retailers, and recently extended their premises which required installations that Glen and Gary have become well renowned for. They trade under the name Mainstream Plumbing. Restricted by time, the two plumbers always require hard working tools to get the job done.

The power supply on this project was often interrupted by power outages caused by ongoing construction and due to the fact that generators are often too noisy and not environmentally friendly, they needed an alternative solution. That is why they have invested in Makita's entire cordless LXT Lithium-Ion range.



Not only do they comment that the Lithium-Ion tools are more powerful than the current MXT (Metal Extreme Technology) cordless range, but also say that they are able to interchange the 18V 3.0Ah battery with other Makita LXT tools making the work environment efficient. Above, Glen cuts piping with the BJR181ZK Recipro Saw aided by the BML184 Job



Glen says that the BJR181ZK is very powerful, lightweight and compact and he enjoys the fact that vibration is kept to a minimum. The image above shows Gary using the BHR240ZK Rotary Hammer to drill pilot holes through a stainless steel hygienic sink. The rotary hammer has three operation modes, rotation, hammering with rotation and hammering only, and provides a total drilling and chiselling capacity in one machine for the majority of site operations. It has 4,000 impacts per minute available and a no-load maximum speed of 0-1,100 r/min. A BHP451ZK Driver Drill with a bi-metal hole saw attached was used to complete the hole and with the help of a lubricant, heat buildup on the sink was prevented. The finished product was attached by Glen as seen in the image above. Below is Gary posing over another completed sink done with the LXT Driver Drill. Situations where light was at a minimum were overcome with the BML184 which can act as both a fluorescent light and flashlight as depicted below. Most of the tools themselves have built-in lights.





The BGA452ZK Angle Grinder was used to remove unwanted objects that were hindering installations. It has a no-load speed of 10,000 r/min and the 3.0Ah 18v Li-ion battery can power a diamond-cutting blade with ease. The BSS610ZK Circular Saw was used to cut insulation foam for insulation panelling and was enjoyed for its features that include its lightweight and smooth and powerful cutting at a high rotational speed of 3,700 r/min from an enhanced motor. The favoured tool was the BHP451ZK which delivers a massive 80Nm of torque through a 3-speed all-metal gearbox and is capable of drilling 16mm in masonry and 13mm in steel. As you can see by the pictures, the tool was used to drill through a thermal insulated roof to feed through water pipes.



The driver function of the drill was used to insert anchors into thermal insulated walls and together with a bi-metal hole saw, made holes for waste pipes through insulated sandwich walling. The plumbers enjoyed every aspect of the tools and said they used them everyday over the two and a half month project.



DBM230 Diamond Core Drill

New

Heavy duty wet diamond core drill with a powerful 2,500W motor for shock free and accurate drilling of holes up to 230mm.

Specifications

Continuous rating input: 2,500W
Capacity:
Concrete block (with diamond core bit) Low - 230mm
Med - 100mm
Hi - 60mm
Tool Holder: Spindle:M18
No load speed:
Hi - 1,700r/min
Med - 1,040r/min
Low - 390r/min
Net weight: 12.4kg

Double Insulation, Electronic Speed Control, Mechanical 3-Speed, Torque Limiter



①

1. Fault Current Protection Device
For operator safety.



②

2. Water Regulator
To control the water flow.

③

3. Overload Protection
Should the core bit get jammed, a clutch will slip and disengage the bit from the motor.

④

4. Thermal Protection
This protects the motor from continuous overload.

⑤

5. Electronic Protection
The LED light glows red, warning the operator of overload.

Optional Accessories



Mounting base



Option 1: Vacuum secured



Option 2: Dowel secured

Makita KP0810 Planer

Revamped and better than ever

Makita planers are basic machines and liked by many, not least because they give you the option to use resharpenable blades as well as the usual disposable double-edged TCT blades. This is a feature that many are happy to see being retained on the new model.

Another similarity between the KP0810 and its predecessors is the depth of cut: 4mm is a fair whack in some circumstances, but very useful if you have to skim a board to size. The rebating depth of 25mm is equally useful for quickly rebating the bottom of doors for weather bars. A simple rebating fence can also serve as a useful steady to keep the planer square when you're working on the edges of boards.

One improvement over the older models is the dial adjuster. The original had no zero position, so it was tricky to set the front shoe of the plane for finer cuts. Now, the shoe has a click-stop setting with 40 indented positions, allowing you to work from 0 to 4mm in 0.10mm increments - perfect for fine tuning a fit.

The thick aluminium sole plates are milled flat; the front shoe has three grooves for fast and consistent chamfering; the rear sole plate has a small hinged parking shoe so you can set it down on a surface while the cutters are turning without the risk of them striking. Keeping the machine clear of chippings is important because it would enhance the overall finish of the cut. As with any planer, if it clogs the chips eject back through the block, but using the machine in conjunction with a Makita M440 Dust Collector would solve this problem.

When it comes to finish, this machine is the equal of most. It certainly leaves a clean surface, and a steady drive rate will give better results every time. So while planers aren't the most exciting tools to own, this one has some nice touches that make it stand out: the fine depth control is good, the fact that it still takes the resharpenable blades is even better.



Adjustments as fine as 0.10mm can be made with the click-stop knob.



The supplied hex wrench means it's very simple to remove the cutters.



This plug can be fitted on either side of the plane to deflect shavings into the bag.



A spring-loaded parking shoe protects the cutters when you put the planer down.

LXT Newcomers

The Makita BHR202ZK 18V LXT Lithium-Ion is a new shorter SDS Rotary Hammer from Makita, 330mm long rather than 410mm long on the BHR240ZK. It has the following features: 1) 3-Mode Switch for rotation only, hammering with rotation, or hammering only. 2) 2x faster drilling with synchronized r/min and b/min for more efficient drilling. 3) Built-in torque limiter clutch disengages if bit jams when hitting rebar. 4) Chisel rotates 360° with 40 different positions. 5) More compact design at only 330mm long and weighs only 3.2 kgs for less operator fatigue. 6) Ergonomic shape fits like a glove with even pressure and easy control.

The Makita BTW450ZK 18V Impact Wrench delivers **440Nm** of fastening torque and has a compact 266mm length with a weight of 3.4kg. It has a large bumper to protect the workpiece from scratches. The unique rubber joint construction on the tool suppresses the transmission of vibration to battery terminals, minimizing battery failures such as terminal breakage or poor electrical contact.

BHR202ZK



BTW450ZK

3

Do I use a Nibbler or a Shear?

Shears can cut slight curves and straight cuts in both flat sheet metal and also round stove pipe. If these shears are used for welded pipe, you must waste the cut-off part since the wide base does not allow starts from a drilled hole or other hole knocked into the centre of the pipe. This is a great shear for the pro to have in their toolbox for regular use.

A nibbler "nibbles" the sheet metal by removing small round pieces as it is moved forward. It can cut very thick sheet metal in any direction. It is usually reserved for heavier sheet metal although it will make a fine addition to any tool collection. A nibbler is typically slower than a square-blade shear and it is actually removing materials as opposed to simply shearing it.

There are two types of cuts when you use a nibbler; an outside cut which will be around the outer perimeter or an inside cut which would mean putting a circle or a square or a shape inside. This is accomplished by punching a hole with a drill in the desired location and making the cut. With nibblers, you can cut 360 degrees. You can cut letters out; it's great for letter cutting or sign making.

TIPS FOR USING A NIBBLER:



JS1660 Shear

- **Either clamp the material and move the nibbler, or clamp the nibbler and move the material.** Good nibblers can be used either way, the choice depending on the size of the material piece. The width of the cut made by a nibbler is much greater than a cut from a jigsaw or hacksaw, so always mark the side of the line on which you'll be cutting.

- **Be careful not to overload the tool.** If the die and cutter are to have a long life, you don't want to feed a heap of material like stainless steel through a nibbler. Yes it will cut it, but the cost of the replacement bits will be much higher than that of a jigsaw blade.

- **Use lubricant.**

- **Nibblers are safer than both jigsaws and hacksaws - but still wear eye protection.**

Sheet Metal Working



JN3200 Nibbler

Ask the Expert

Ask the Expert - Please email a power tool question through to us and we will answer your questions in the next edition of the MaktimesSA. The best question of the month, sent through via email, will win a Makita hamper consisting of a few items such as those pictured to the right.

Email: robert@rutherford.co.za Closing Dates: 15 August 2008

WIN Makita Hamper



Question of the Month

Congratulations to Cedric Jenkinson from Knysna who sent in the best question last month and as a result, won for himself a Makita Hamper as pictured above.

Question: Please tell us the best way to charge cordless power tool batteries?

Answer: Firstly, it is important to know that charging a battery with a battery charger on a generator is not recommended unless the generator is fitted with a U.P.S (uninterrupted power supply) or A.V.R (automatic voltage regulator). If not, your charger will be damaged or blown and will not be covered by the manufacturer's guarantee.

The amount of chargers you get from your battery - If the battery is properly maintained and used and charged under the correct conditions which are stated in this manual, you will get around 500 charges from the battery. **Hint for long life:** Charge timing - Insure battery charges for correct duration. Cool down before charging.

The performance of the battery - A new battery will take 5 to 7 charges before reaching peak run times. Chemical energy is converted into electrical energy. At first, the chemical action is not active, that is why we need the specified amount of charging and discharging. **The correct time to charge the battery** - Only charge the battery when power is not sufficient to complete the task. Avoid partial charging and do not over discharge. When the sudden power drop occurs, it is time to charge your battery. Over discharging the battery will result in short battery operation times and you will get much less than 500 charges. Memory effect for example is when your 12V battery only gives the power of 11 Volts. **Overcharging batteries** - when the battery has been fully charged and removed from the charger but not in use, it still has a large amount of power in it. People have a tendency to put it back on charge to fill it up, this is the perfect example of over charging. Over charging batteries causes short life.

Do not expose to high temperature



Do not force cool



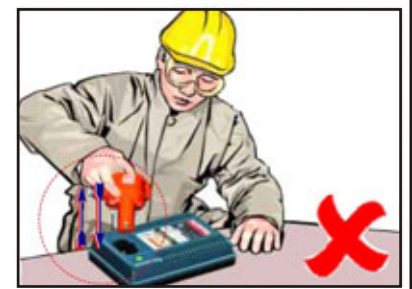
How to charge a battery when it is hot - Always allow the battery to cool before charging. Please cool down naturally. Don't force cool the battery. The thermistor on the upper frame of the battery may judge wrong, even if the battery is cold from the outside, but from the inside, it is still hot. When the battery is still hot, charging would cause permanent damage and the memory effect will occur. It is the same as partial charging. Do not force cool a battery by placing it in the refrigerator. If you want to speed the cooling process up, put the battery in a cool room for a while. **The perfect charging temperature** - The perfect temperature would be around room temperature (23-25°C), but the battery can be charged between 10 to 40 degrees centigrade. **Battery Sensitivity** - Do not leave batteries exposed to excessive heat, like on roofs and tool lockers on the back of vehicles. You can use Makita batteries from -20 to 60 °C. Often the batteries will exceed these temperatures when in practical use.

The correct way to charge batteries that are not in use for longer than 3 months - For Ni-Cd batteries it is advised to store them once they have run empty and don't have much power left in them, for Ni-Mh batteries it is best to store with a full charge in them. **Battery power loss when not in use** - natural self discharge is around 10% in the first 24hours thereafter 30% per month.

Battery Fully Charged



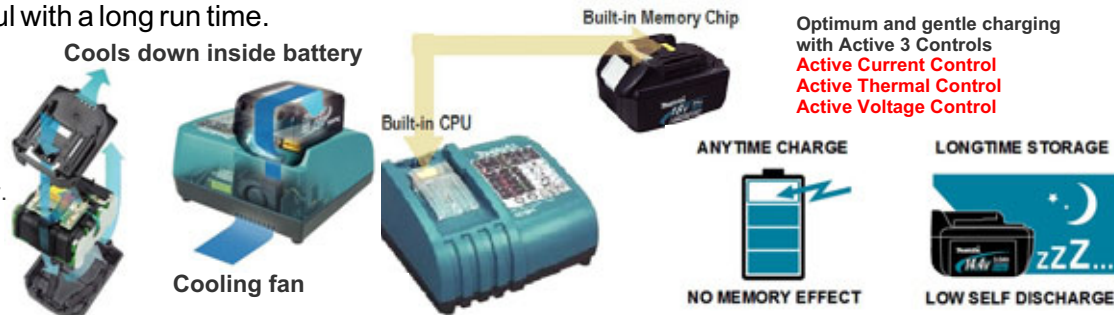
Overcharging the charged battery



Most of the above problems are now solved with the new Lithium Ion (Li-Ion) Batteries which were introduced by Makita after extensive market research determined that professional end-users wanted cordless tools that were lightweight, compact and powerful with a long run time.

Li-Ion Optimum Charging System makes battery life longer because this charging system takes care of the battery with the following functions:

- Communicates with individual battery.
- Recognizes ID of battery and its history.
- Analyses the battery's condition; it may have been abused by heat or over-discharging, or weakened by cycle age.
- Knows how to look after each MAKSTAR battery to maximize cycle life and work volume.



Editors Notes

In this edition of the MakTimesSA, we introduce the DBM230 Diamond Core Drill. Makita also has a smaller Diamond Core Drill available, the DBM131, which has a continuous rating input of 1,700W, able to drill accurate holes up to 132mm and it has a net weight of 6.1kg. In previous editions we have discussed Steel Frame Housing as a new technique being implemented for home construction which is reducing the price of building costs for all income levels in South Africa, as well as taking an active role in making provision for affordable housing. You can read more about this subject, by purchasing the book "SAW" from leading news agents.

Best Regards

Makita SA Marketing Department

To unsubscribe from this monthly newsletter click here>>

