14” Portable Cut-off

INSTRUCTION MANUAL

SPECIFICATIONS:
120V AC 60Hz 15Amps
Wheel diameter : 355mm (14”) Hole diameter : 25.4mm (1”)
No-load speed: 3800 rpm Net weight: 16.3kg (35.9lbs)
Dimensions (L x W x H): 50cm x 28cm x 60cm (19-11/16” x 11” x 23-5/8”)

• Manufacturer reserves the right to change specifications without notice.
WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.
Power supply
The machine should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

SAFETY INSTRUCTIONS
Warning! When using electric machines, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following. Read all these instructions before attempting to operate this product and save these instructions.

For safe operation:
1. keep work area clean
   Cluttered areas and benches invite injuries.
2. Consider work area environment
   Don't expose power machines to rain. Don't use power machines in damp or wet locations. Keep work area well lit. Don't use power machines in presence of flammable liquids or gases.
3. Guard against electric shock
   Prevent body contact with grounded surfaces (e. g. pipes, radiators, ranges refrigerators).
4. Keep children away
   Do not let visitors contact machine or extension cord. All visitors should be kept away from work area.
5. Store idle machines
   When not in use, machines should be stored in dry, high, or locked-up place, out of the reach of children.
6. Don't force machine
   It will do the job better and safer at the rate for which it was intended.
7. Use right machine
   Don't force small machines or attachments to do the job of a heavy duty machine. Don't use machines for purposes not intended; for example don't use circular saw for cutting tree limbs or logs.
8. Dress properly
   Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. Use safety glasses
   Also use face or dust mask if cutting operation is dusty.
10. Don't abuse cord
    Never carry machine by cord or yank it to disconnect it from receptacle. Keep cord from heat, oil and sharp edges.
11. Secure work
   Use clamps or a vise to hold work. It's safer than using your hand and
   it frees both hands to operate machine.
12. Don't overreach
   Keep proper footing and balance at all times.
13. Maintain machines with care
   Keep machines sharp and clean for better and safer performance. Follow
   instructions for lubricating and changing accessories. Inspect machine
   cords periodically and, if damaged, have repaired by, authorized service
   facility. Inspect extension cords periodically and replace if damaged. Keep
   handles dry, clean and free from oil and grease.
14. Disconnect machines
   When not in use, before servicing, and when changing accessories such
   as blades, bits and cutters.
15. Remove adjusting keys and wrenches
   Form the habit of checking to see that keys and adjusting wrenches are
   removed from machine before turning it on.
16. Avoid unintentional starting
   Don't carry plugged-in machine with finger on switch. Be sure switch is
   off when plugging in.
17. Outdoor use extension cords
   When machine is used outdoors, use only extension cords intended for
   use outdoors and so marked
18. Stay alert
   Watch what you are doing. Use common sense. Do not operate machine
   when you are tired.
19. Check damaged parts
   Before further use of the machine, a guard or other part that is damaged
   should be carefully checked to determine that it will operate properly
   and perform its intended function. Check for alignment of moving parts,
   binding of moving parts, breakage of parts, mounting, and any other
   conditions that may affect its operation. A guard or other part that is
   damaged should be properly repaired or replaced by an authorized service
   center unless otherwise indicated elsewhere in this instruction manual.
   Have defective switches replaced by an authorized service center. Do not
   use machine if switch does not turn it on and off.
20. Warning
   The use of any other accessory or attachment other than recommended
   in this operating instruction or the catalog may present a risk of personal
   injury.
21. Have your machine repaired by an expert
   This electric appliance is in accordance with the relevant safety rules.
   Repairing of electric appliances may be carried out only by experts other
   wise it may cause considerable danger for the user.
ADDITIONAL SAFETY RULES

1. Wear hearing protection during extended periods of operation.
2. Use only wheels having maximum operating speed at least as high as "No Load RPM" marked on the tool's nameplate. Use only fiberglass - reinforced cut-off wheels.
3. Check the wheel carefully for cracks or damage before operation. Replace cracked or damaged wheel immediately.
4. Secure the wheel carefully.
5. Use only flanges specified for this tool.
6. Be careful not to damage the spindle, flanges (especially the installing surface) or bolt, or the wheel itself might break.
7. Keep guards in place and in working order.
8. Hold the handle firmly.
9. Keep hands away from rotating parts.
10. Make sure the wheel is not contacting the workpiece before the switch is turned on.
11. Before using the tool on an actual workpiece, let it simply run for several minutes first. Watch for flutter or excessive vibration that might be caused by poor installation or a poorly balanced wheel.
12. Watch out for flying sparks when operating. They can cause injury or ignite combustible materials.
13. Remove material or debris from the area that might be ignited by sparks. Be sure that others are not in the path of the sparks. Keep a proper, charged fire extinguisher closely available.
14. Use the cutting edge of the wheel only. Never use side surface.
15. If the wheel stops during the operation, makes an odd noise or begins to vibrate, switch off the tool immediately.
16. Always switch off and wait for the wheel to come to a complete stop before removing, securing workpiece, working vise, changing work position, angle or the wheel itself.
17. Do not touch the workpiece immediately after operation; it is extremely hot and could burn your skin.
18. Store wheels in a dry location only.

SAVE THESE INSTRUCTIONS.
Removing or Installing cut-off wheel

CAUTION
Always be sure that the tool is switched off and unplugged before removing or installing the wheel.

To remove the wheel, loosen the screw and raise the center cover (center cap). Press the shaft lock so that the wheel cannot revolve and use the socket wrench to loosen the hex bolt by turning it counterclockwise. Then remove the hex bolt, outer flange and wheel (Note. Do not remove the inner flange, ring and O-ring.)
To install the wheel, follow the removal procedures in reverse.

CAUTION:
• Be sure to tighten the hex bolt securely. Insufficient tightening of the hex bolt may result in severe injury. Use the socket wrench provided to help assure proper tightening.
• Always use only the proper inner and outer flanges which are provided with this tool
• Always secure the center cover (center cap) firmly after replacing the wheel.

Spark guard
The spark guard is factory-installed with its lower edge contacting the base. Before operation, loosen the screw and raise the spark guard so that its lower edge will be positioned approx. 45mm (1-3/4") above the workbench or floor surface. Otherwise sparks may fly around operation area.
Stopper plate
The stopper plate prevents the wheel from contacting the workbench or floor surface. When a new wheel is installed, set the stopper plate to the position (A). When the wheel wears down to below 330mm (13") in diameter, set the stopper plate to the position (B) to allow an increased cutting capacity with the worn down wheel.

Interval between vise and guide plate
The original spacing or interval between the vise and the guide plate is 0—170mm (0—6 11/16") If your work requires wider spacing or interval, proceed as follows to change the spacing or interval.
Remove the two hex bolts which secure the guide plate. Move the guide plate as shown in the figure and secure it using the hex bolts. The following interval settings are possible:
35—205 mm (1—3/8"—8—1/16")
70—240 mm (2—3/4"—9—7/16")

CAUTION:
Remember that narrow workpieces may not be secured safely when using the two, wider interval settings.
Setting for desired cutting angle
To change the cutting angle, loosen the top hex bolts which secure the guide plate. Move the guide plate to the desired angle (0° - 45°) and tighten the hex bolts securely.

CAUTION
Never perform miter cuts when the guide plate is set at the 35-205 mm (1 - 3/8" - 8 - 1/16") or 70-240 mm (2 - 3/4" - 9 - 7/16") position.

Securing workpieces
By turning the vise handle counterclockwise and then flipping the vise nut to the left, the vise is released from the shaft threads and can be moved rapidly in and out. To grip workpieces, push the vise handle until the vise plate contacts the workpiece. Flip the vise nut to the right and then turn the vise handle clockwise to securely retain the workpiece.

CAUTION
Always set the vise nut to the right fully when securing the workpiece. Failure to do so may result in insufficient securing of the workpiece. This could cause the workpiece to be ejected or cause a dangerous breakage of the wheel.

When the cut-off wheel has worn down considerably, use a spacer block of sturdy, non-flammable material behind the workpiece as shown in the figure. You can more efficiently utilize the worn wheel by using the mid point on the periphery of the wheel to cut the workpiece.
If you use a spacer block which is slightly narrower than the workpiece as shown in the figure, you can also utilize the wheel economically.

Long workpieces must be supported by blocks of non-flammable material on either side so that it will be level with the base top.

**Switch action**
To start the saw hold down the safety button and then pull the trigger. The saw will not start unless the safety button is pressed.

**CAUTION**
Before plugging in the tool, always check to see that the trigger switch actuates properly and returns to the "OFF" position when released.
Operation
Hold the handle firmly. Switch on the tool and wait until the wheel attains full speed before lowering gently into the cut. When the wheel contacts the workpiece, gradually bear down on the handle to perform the cut. When the cut is completed, switch off the tool and WAIT UNTIL THE WHEEL HAS COME TO A COMPLETE STOP before returning the handle to the fully elevated position.

CAUTION
Proper handle pressure during cutting and maximum cutting efficiency can be determined by the amount of sparks that is produced while cutting. Your pressure in the handle should be adjusted to produce the maximum amount of sparks. Do not force the cut by applying excessive pressure on the handle. Reduced cutting efficiency, premature wheel wear as well as possible damage to the tool cut-off wheel or workpiece may result.

Cutting capacity
Max cutting capacity varies depending upon the cutting angle and workpiece shape.

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<tr>
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<tr>
<td>90°</td>
<td>115 mm (4 × 1/2&quot;)</td>
<td>120 mm (4 × 23/32&quot;)</td>
<td>155 mm × 142 mm (4 × 1/2&quot; × 5 × 5/8&quot;)</td>
<td>102 mm × 197 mm (4&quot; × 7/8&quot;)</td>
<td>70 mm × 240 mm (2 × 3/4&quot; × 9 × 7/16&quot;)</td>
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<tr>
<td>45°</td>
<td>115 mm (4 × 1/2&quot;)</td>
<td>105 mm (4 × 3/16&quot;)</td>
<td>115 mm × 102 mm (4 × 1/2 × 4&quot;)</td>
<td>100 mm (3 × 15/16&quot;)</td>
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Tool head slide system
The tool head slides back toward you approx. 17mm (21/32") when you pull the handle. This system is convenient for the following applications.

1. When cutting thick pipes or bars.
   Move the handle back and forth to slide the tool head. This will help increase cutting efficiency and prevent wheel loading.

2. When cutting channels or angles
   If a portion or the workpiece near you is left uncut, pull the handle. The tool head slides back and the wheel cuts the remaining uncut portion. If the uncut portion cannot be cut even by using this method, use a spacer block as explained above.

Carrying the tool
Fold down the tool head to the position where you can attach the chain to the hook on the handle.
ACCESSORIES

Socket wrench 17
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