Handling Instructions
DC SERIES PORTABLE REBAR CUTTERS

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READ THESE INSTRUCTIONS CAREFULLY
BEFORE ATTEMPTING TO USE CUTTERS!

Ignorance of proper operating procedures can lead to accidents. If in doubt about any procedure, contact the nearest authorized distributor or agent or call (800) 992-3833 or (928) 684-2813

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GENERAL SAFETY PRECAUTIONS

USAGE

Use portable rebar cutters on concrete reinforcing bars only. These tools are not to be used in cutting other kinds of metal or materials. Do not cut ungraded rebar.

IMPORTANT:

Do not attempt to cut rebar by locking the off/on switch to the on position. This locking procedure is to be used only to warm the tool in cold climates. This is a safety issue and may cause damage to your rebar cutter. Always pull the on/off switch by hand for each individual cut . A foot switch is available if you want to use these cutters as production tools. Contact your local distributor or Benner-Nawman.

RESTRICT USE TO DESIGNATED MATERIALS

There is always a chance that the cut end may shoot out, especially if less than 30cm (1 foot) in length. Exceeding designated material specifications greatly increases this risk and will also damage the tool. Do not attempt to cut rebars that is harder, thicker or thinner than those specified for the specific tool.

USE EYE PROTECTION

Wear safety goggles, safety glasses with side shields or a face shield when using cutter.

PROVIDE SAFETY BARRIERS

Erect safety screens to protect coworkers from possible flying ends. Place a safety screen under the rebar when working in high places.

EXERCISE PROPER CONTROL

Hold cutter firmly and maintain proper footing and balance. Do not overreach. When working in a high place, secure cutter to scaffolding with a safety rope. Check that power cord is not fouled and keep cord away from sharp edges and heat. Check that all adjusting wrenches have been removed before using cutter.

GUARD AGAINST ELECTRIC SHOCK

To avoid possible shock, do not handle cutter with wet hands or use cutter in the rain or damp places. Be aware of all power lines, electric circuits and other hazards that may be contacted, especially those that are below the surface or otherwise hidden from view. Never attempt to pick the tool up by use of the electric cord.

DO NOT CUT UNGRADED REBAR

UNPLUG TOOL

Disconnect cutter from outlet when not in use and before cleaning, adjusting or servicing. Do not disconnect plug from outlet by pulling the cord. Always check that the switch lock is OFF before plugging in.

BEWARE OF ENVIRONMENT

Do not use cutter in the presence of flammable materials (e.g. paint, thinner, petroleum products, adhesives). Do not use cutter in a possibly explosive environment (e.g. an area containing fumes, gas or dust) or poorly ventilated areas.

KEEP WORK AREA TIDY AND WELL LIT

Make sure that work area is properly lighted and clear of obstructions. Operator should have an unobstructed view of the cutter, rebar and surrounding area at all times .

WEAR PROPER APPAREL

Do not wear loose clothes, dangling objects or jewelry. Restrain long hair. The use of a safety-helmet and rubber soled boots is recommended. If safety gloves are worn, be especially careful that glove does not get caught in moving parts.

KEEP VISITORS AWAY

Keep all visitors at a safe distance from the work area for their own protection and to prevent operator distraction .

MAINTAIN CUTTER WITH CARE

Inspect cutter before each application. Faulty or loose cutter blocks could result is personal injury. Keep handle dry, clean and free from oil and/or grease. Keep housing and piston free of dirt and iron filings. Check that no screws or bolts are loose or missing. Follow instructions for maintenance. Inspect switch, cord, plug and any extension cable at regular intervals. It is a good idea to inspect the housing for any cracks before operating.

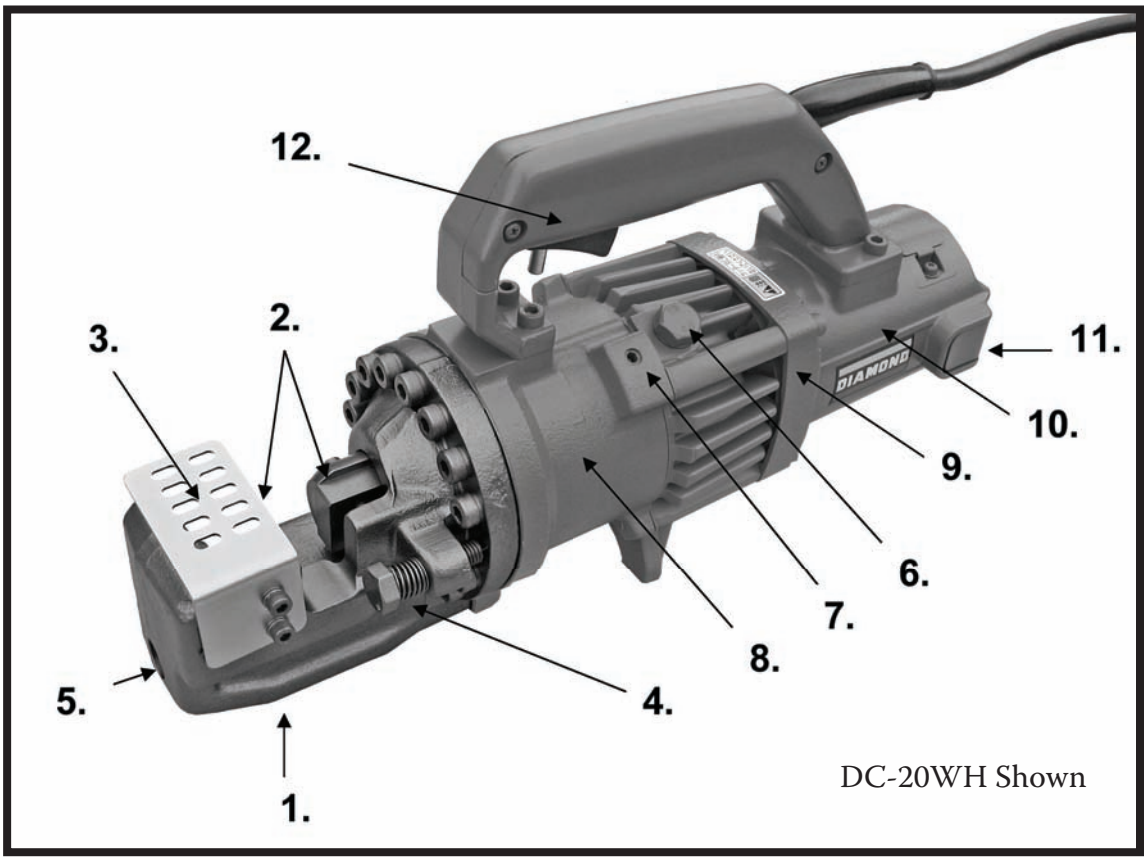
STORE CAREFULLY

When not in use, store cutter and accessories in a dry place where unauthorized persons cannot access the tool.

FINALLY...

DO NOT EXCEED MAXIMUM CUTTING PRESSURE BY ADDING TO OR MODIFYING THE HYDRAULIC PUMP.

PARTS AND SPECIFICATIONS



DC-20WH Shown

1. Housing
2. Cutting Blocks
3. Cutting Guard
4. Adjustable Stopper Bolt
5. Air Bag Access
6. Oil Fill/Drain Plug
7. Pressure Relief Valve
8. Cylinder
9. Pump Case
10. Electric Motor
11. Carbon Brush Cap
12. Locking Trigger Switch

Specification on DC-Series Rebar Cutters

Voltage:	115 Volt 50/60 Hz, 220 Volt motors units available
Max. Rebar Hardness:	Grade 60 or 600Nmm2
Safety Cutting Guards:	Standard on all models in 2007
Cord Strain Relief:	Standard on DC-20WH and DC-25X rebar cutters
Double Insulated Electric Motor:	Standard on DC-16LZ, DC-16W and DC-32WH rebar cutters with high impact resistant plastic casings.
Locking Trigger Switch:	On all cutter models except the DC-32WH
Pressure Relief Valve:	Standard on all cutters by 2007, used to retract the piston if the rebar becomes jammed between the cutter blocks. To retract the piston simply turn/open the Allen head valve a ½ turn with an Allen wrench.

Note: See our product literature for more details or visit our website.
www.bnrebartools.com

BLEEDING YOUR PORTABLE REBAR CUTTER

You may have to bleed the hydraulics on your cutter if the tool runs unusually slow or doesn't have the pressure to cut normally. Do not run tool with low or no oil. For best results please follow these directions:

1.If piston is still moving, run the tool for 2 minutes to warm the oil inside. If the piston is not moving, add oil before warming it up for 2 minutes.

2. When the oil is warm, run the piston out just before it returns and stop.

3. Remove the oil plug and top it off with oil.

4. Make a seal with your thumb over the oil plug opening.

5. Run the tool so that it makes a complete cycle.

6. When the piston is completely retracted in the open position, gently roll your thumb to let the unwanted air escape.

7. Repeat step #5 and #6 at least three times.

8. Add oil only when the piston is at least halfway out.

9. If you have to add additional oil, repeat #5 and #6.

10. Replace the oil plug and tighten it.

11. Make three or four cuts with rebar. The machine should now be working properly. Make sure that you observe exactly at what point the rebar is actually breaking.

12. Pinch a piece of rebar stopping just before it actually breaks.

13. Remove the oil plug again and top off the reserve one more time.

14. Replace the oil plug and tighten

15. The operation is now complete.

We recommend the following 20-wieght Non-Detergent Hydraulic Oils for use with our tools(anti-foam anti-abrasion): Tellus 68 (Shell), Rando HD 68 (Texaco) or Chevron AW 68 (Chevron). Hydraulic oil can also be ordered in quart containers from your Diamond Tool Distributor.

OPERATING INSTRUCTIONS

CAUTION: Indicates hazard that could result in minor personal injury and/or product damage.

CARE: Indicates hazard that will result in product damage.

PRE-USE CHECKS

1.Check oil level. (See Maintenance)

2. Check condition of cutter blocks and tightness of cutter block bolts. (See Maintenance) - CHECK FOR CRACKS IN HOUSING

CAUTION: Using loose or cracked cutter blocks may result in injury to operator as well as damage to unit.

3. Check that the power source is appropriate to the cutter.

CARE: If voltage is too high, the motor will burn out. If voltage is too low, insufficient power will be generated. Never use DC current.

4. Check that power supply is properly grounded.

CAUTION: Failure to ground power supply may result in electric shock to operator. (DC-32WH has double-insulation and does not require grounding.)

5. Check that cord is undamaged and that plug is not loose.

CAUTION: Cut or abraded covering could result in a short and electric shock to operator.

6. If an extension cable is to be used, make sure that it is undamaged and that it is the proper thickness for the length. See table below.

Length	110/115 50/60 Hz Cable Size (AWG)
Up to 15mm (50 ft.)	14
Up to 30mm (100 ft.)	12
Up to 45mm (150 ft.)	10

7. Before plugging in the tool, make sure that the switch lock is OFF.

CAUTION: If switch lock is ON, cutter will start as soon as it is plugged in. To disengage lock, pull trigger-switch and press lock-button, which will pop out.

WARM-UP

In cold weather you should warm up the tool unit for 30-60 seconds so that the hydraulic oil reaches the proper viscosity. Pull trigger-switch to extend piston and release when it has reached its full stroke. Repeat 15-20 times.

STOPPER BOLT ADJUSTMENT

THE STOPPER BOLT IS PROBABLY THE MOST IMPORTANT PART OF YOUR PORTABLE CUTTER...

The adjustable stopper functions to maintain the rebar in the correct position during cutting and must be properly set for each size of rebar before use.

1. Screw in stopper to provide sufficient clearance for rebar.

2. Insert rebar fully into U-shaped support. Make sure that rebar is resting on the base of the support.

3. Keeping rebar at right angles (90 degrees) to front cutter block, screw out stopper until it is just touching the rebar. Once set, the stopper needs no further adjustment while cutting rebar of the same diameter, but must be reset for a different size rebar.

CAUTION: Failure to correctly set the stopper will result in excessive wear of cutter blocks and may cause cut end to fly out. This may lead to piston and cylinder damage

CUTTING

1. Insert rebar between stopper and front cutter block, making sure that it is properly seated in U-shaped support.

2. Pull trigger-switch and keep depressed while piston advances and rebar is cut. (If switch is released at an intermediate point, piston will stop.)

3. When cut is completed, release switch. Piston retracts automatically.

(Note that switch cannot be reactivated until piston has fully retracted.)

POINTS OF ATTENTION

1. Be especially careful when cutting off short lengths (12” or less) as the cut end tends to fly out.

CAUTION: Flying ends are a hazard to all personnel in the vicinity. Erect safety screens.

2. Do not cover air vents or operate the tool on dirt – use a plywood base to keep armature and fan clean

CARE: If the vents are covered, the motor will overheat and may burn out.

3. If hydraulic oil exceeds 70 degrees C (158 degrees F) in temperature, power will drop. Allow unit to cool before resuming operation. (Be particularly careful in summer, when the aluminum pump case heats up quicker.)

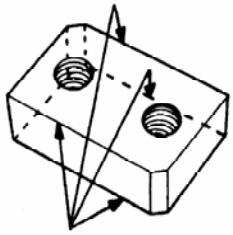
4. If a drop in power is observed and motor is unusually hot, check carbon-brushes. (See maintenance)

5. If piston should ever fail to retract completely, push rear cutter block backwards to manually retract piston or check under piston to remove any debris keeping the piston from retracting.

CAUTION: Use a rebar or flat metal bar for this purpose. Never push cutter block with any part of the hand, even if gloved.

Once piston has been retracted, pull trigger-switch long enough to partially advance piston. Unplug unit. Check piston and housing for accumulated dirt and iron filings that may be jamming the piston. (See Maintenance) If, after cleaning, piston still does not automatically retract when fully extended, the piston itself may be damaged. Return the unit to an authorized agent for repair.

MAINTANANCE ON CUTTER BLOCKS



Before using, always check that the two bolts on each cutter block are properly tightened. Using a loose block will result in damage to block and housing. Also check condition of cutter blocks. If either cutting edge is dull or chipped, remove retaining bolts and rotate both blocks so that two new edges come into use. Replace and tighten bolts. (Each block has four cutting edges.) When all four cutting edges have been used or if either block is cracked or otherwise damaged, replace both blocks.

CAUTION: A loose or cracked block may result in injury to operator.

CLEANING

Clean your tool every day, preferably immediately after use.

NEVER USE YOUR CUTTER TO CUT REBAR IN WET CONCRETE.

CAUTION: Wear gloves to protect hands from metal splinters.

Do not use an air gun: blasting with air can cause metal filings and/or dust to get into eyes and respiratory system.

Disconnect the unit. Wipe or brush away all dirt and metal filings. Pay particular attention to the lower half of the piston, where dirt is more easily accumulated.

OIL-LEVEL CHECK

As the cutters are hydraulically operated, the oil-level must be checked at frequent intervals, preferably every day. Failure to maintain the oil at the proper level results in a drop in pressure and loss of cutting power.

CAUTION: Hydraulic oil is highly flammable. Keep away from sparks and naked flame. Do not smoke.

CAUTION: Hydraulic oil may cause inflammation of the eyes and skin. If ingested, it will cause diarrhea and vomiting. In case of eye contact, rinse in clean water for at least 15 minutes and consult a physician. In case of skin contact, wash thoroughly with soap and water. In case of ingestion, consult a physician immediately. Do not induce vomiting.

1. Oil should be warm but not hot. Warm up unit if cold.

2. Adjust stopper and make three or four cuts, noting exactly at what point the rebar is actually breaking.

3. Pinch a short piece of rebar, stopping just before it breaks off. Unplug unit from power source.

4. With partially severed rebar in place, oil-plug should be straight up. (If unit is hot, allow cooling down.)
5. Remove oil-plug and seal-washer (packing).

CAUTION: Never remove oil-plug when unit is hot or oil will spurt out.

6. Check that oil is level with bottom of plug hole (i.e. that pump case if full to the brim).

If oil level is too low, top up with 20-weight hydraulic oil with anti-foam and anti-abrasion properties (ISO viscosity grade VG46, e.g. Tellus 68 (Shell), Rando HD 68 (Texaco) or Chevron AW 68 (Chevron).

7. After topping off, extract air from system. Gently tilt cutter lengthwise and return it to a level position. Top off again and tilt in the opposite direction. Repeat this process until all air has been extracted.

CARE: Cutter cannot function properly if oil contains air bubbles.

8. Replace seal washer (packing) and oil plug. Connect cutter to power source and completely sever rebar.

OIL-CHANGE

The hydraulic oil should be changed at least once a year, sooner if it appears dirty.

NOTE: Hydraulic oil should be warm before draining

1. Unplug unit from power source. Remove oil-plug and packing. Turn cutter over and drain oil into a suitable receptacle. When oil ceases to drain out, tilt unit to rear so that oil trapped in the piston housing can run out. When housing is empty, tilt unit in the opposite direction to empty the residue in the pump case.

2. With drain-hole uppermost, slowly fill the unit with fresh oil. Replace plug and lightly tighten. Connect unit to power source and advance piston two or three times. Unplug unit and remove oil-plug. Top off oil-level and replace plug.

3. Finally, follow procedure for oil-level check. (Steps 2-8)

NOTE: Dispose of hydraulic oil in accordance with local regulations. Do not pour into the sea, a river, a lake or drains.

BOLT TIGHTNESS

Once a week, or after every 500 cuts, check the tightness of all bolts. Especially those bolts securing the housing to the cylinder. Loose bolts will result in a loss of power. Make sure that the bolts holding both cutter blocks are also tight

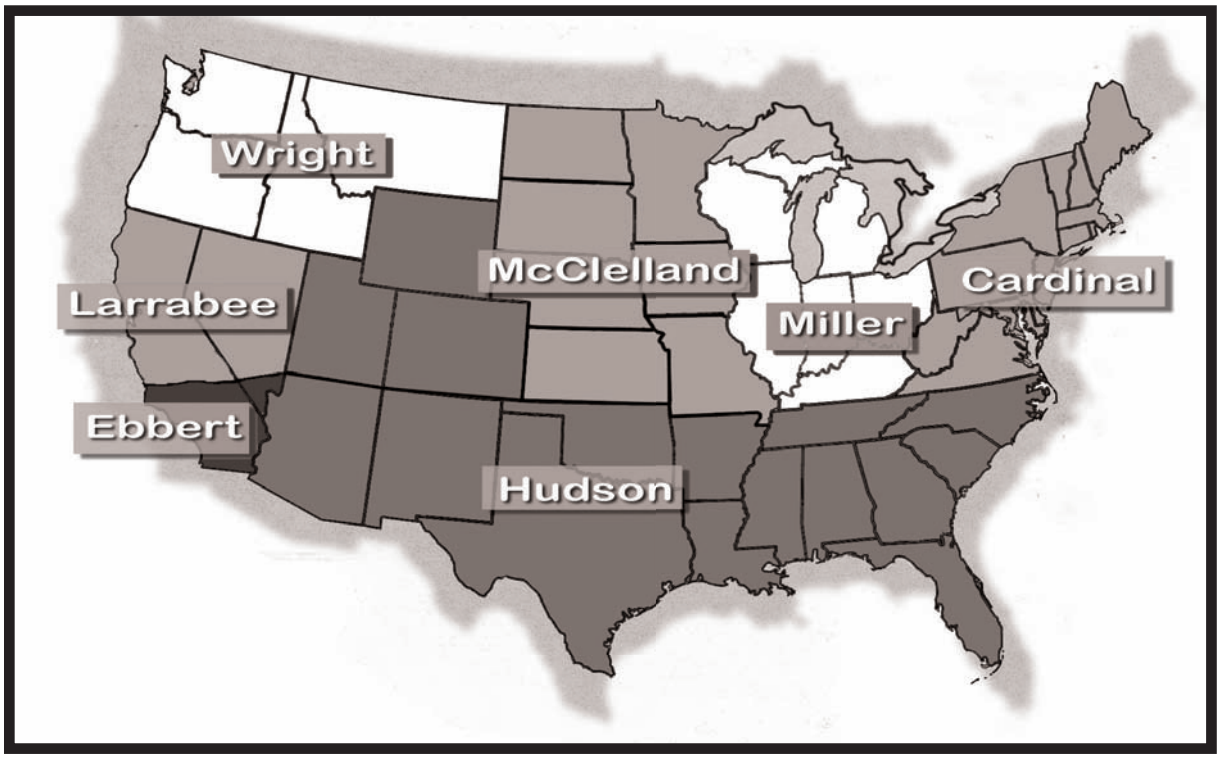
CARBON BRUSHES

Inspect the two carbon brushes at least once every two months. (Nominal brush life is 200 hours).
CARE: Worn brushes will result in power loss, cause the motor to run hot and irreparably damage the armature.

1. Disconnect unit from electrical outlet.
2. Unscrew both brush caps and pull out carbon brushes.
3. Replace brushes if less than 6mm or1/4” in length.

OVERHAUL

Return the unit to an authorized agent for overhaul at least once every two years, sooner if subjected to heavy use. Call (800) 992-3833 or (928) 684-2813



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