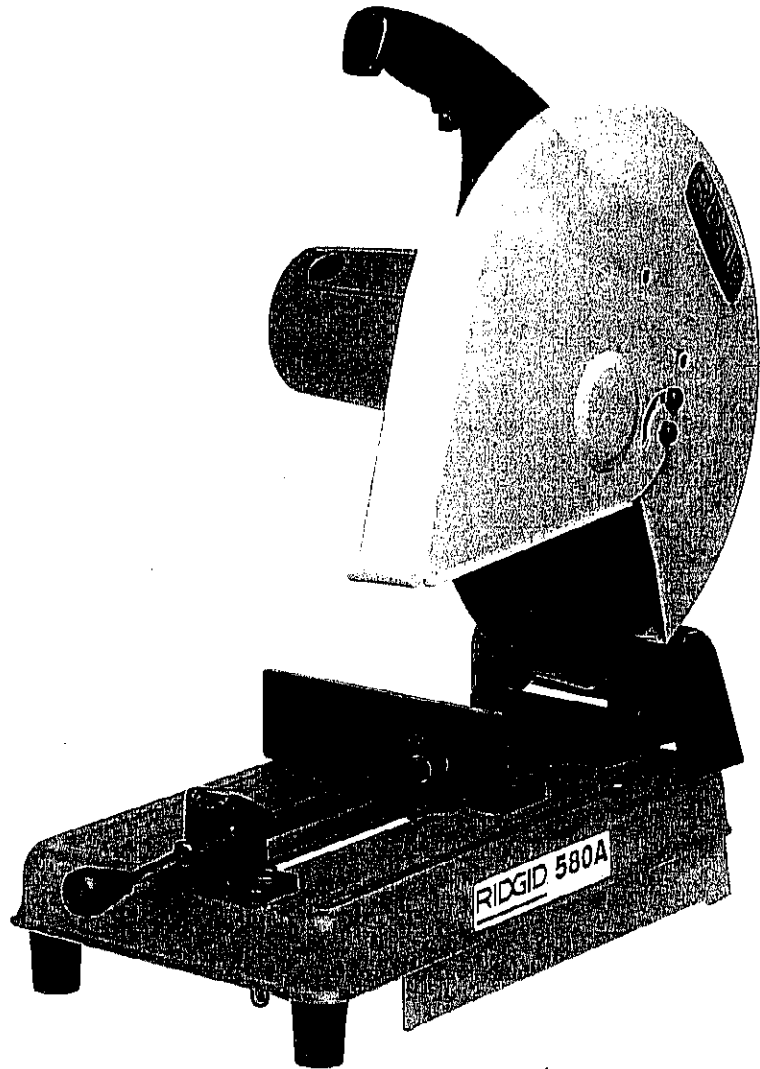


580A

14 INCH HIGH SPEED ABRASIVE CUT-OFF SAW

OPERATOR'S
MANUAL



IMPORTANT

For your own safety, before assembling and operation this unit, read this Operator's Manual carefully and completely. Learn the operation, applications and potential hazards peculiar to this unit.

RIDGID®

Operating Instructions

Technical data.

Type:	580 A
Power input:	2200 Watts
Speed:	3400 / min (220v) 3900 / min (115v)
Blade size:	355 x 25.4 mm
Weight:	17 Kg

Max. capaacity.

90°: 4 1/4" x 6 1/2" (107 mm x 165 mm)

45°: 4 1/4" x 4 (107 mm x 100 mm)

Standard equipment.

Abrasive disc for metal.
Wrench

Safety Instructions.

Warning: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read these and the accompanying safety instructions before attempting to operate this product.

Caution: Before plugging unit into the power socket, check the following:

- ✦ Voltage: The voltage on the rating plate must be the same as that of the supply.
- ✦ Switch: The machine should be switched off (switch lever in position "0").
- ✦ Tool: Use appropriate RIDGID Abrasive Disc for material. Abrasive disc: Inspect the disc before use. Do not use damaged, worn or otherwise defective discs. Ensure the disc is correctly mounted before use and run the tool at no load for 5 to 10 seconds. Stop immediately if there is considerable vibration or an other defect is detected.

The use of incorrect abrasive discs will reduce the cutting capacity and may cause serious accidents or damage to the machine.

Additional safety precautions for the abrasive saw.

1. Always clamp the work firmly against the fence.
2. Raise the disc from the cut before releasing the trigger switch.
3. Allow motor to reach full speed before cutting.
4. Verify that the electric power outlet socket has a ground connection and that it is protected by a 10 A fuse and by a residual current circuit breaker with a trip current of 30 mA.
5. Use only RIDGID abrasive saw discs with a speed rating at least as high as the R. P. M. specified on the nameplate.
6. Carry the tool by the handle for transport.
7. Keep the power cord away from the cutter blade at all times to avoid damage and the risk of electrical shock.
8. Wear eye protection.
9. Wear respiratory protection.
10. Check that guard operates correctly before plugging in the unit. Never operate the machine without the guard in place.

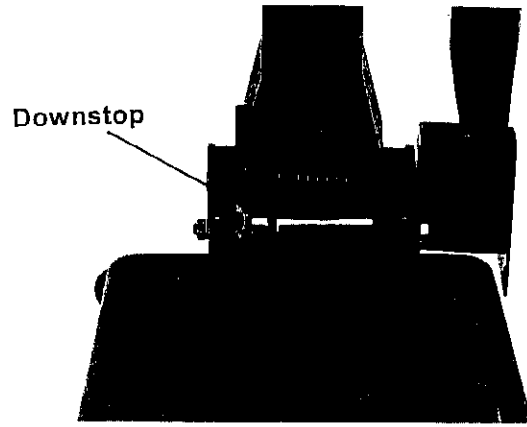
Alignment (Adjustments)

WARNING: Cut material can be thrown. Eyes can be permanently damaged. Wear your safety goggles.

Downstop Adjustment: The downstop should be adjusted so that maximum cutting capacity is maintained and so that the cut off wheel does not hit the sawbase or the surface which the tool is mounted to.

1. Lower cutter head until the arm hits the downstop.
2. Verify maximum cutting capacity and that there is no contact between cut off wheel and base or mounting surface.
3. If contact occurs, adjust downstop screw and jam nut until problem is corrected.

NOTE: All other adjustments are described in the "Basic Saw Operations" section.



Assembly

Installing or Removing the Cut-Off Wheel

WARNING: For your own safety, never connect plug to power source outlet until all assembly steps are complete, and you have read and understood the safety and operational instructions.

WARNING: To avoid injury from a thrown workpiece or thrown pieces of wheel, do not use a new cut-off wheel larger or smaller than 14" diameter.

WARNING: To avoid injury from unexpected starting, unplug the saw whenever you are removing or installing the blade.

1. Get arbor wrench.
2. Lift the lower guard up and tilt the lower guard assembly back so the arbor screw is exposed.
3. Find the arbor lock under the cut-off saw handle.
4. Press the arbor lock and hold it in firmly while turning the arbor wrench clockwise. The arbor lock will engage after some turning of the wrench.

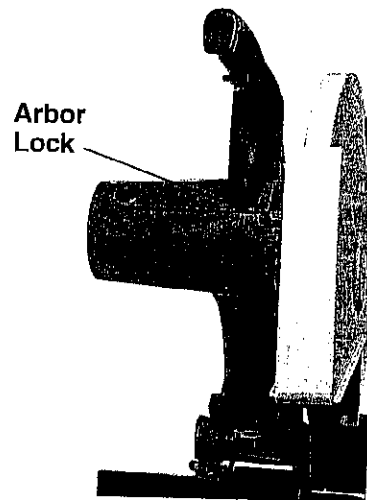
NOTE: The arbor screw has a left hand thread. This helps prevent unwanted loosening of the arbor screw during normal operation.

5. Remove the arbor screw, lockwasher, arbor washer and outer blade collar.

NOTE: Pay attention to pieces removed, noting their position and direction they face (see illustration). Wipe the blade collars clean of any debris before installing the new cut off wheel.

See cautions in "Safety Section" concerning inspection, use, and selection of cutting wheels for this tool.

6. Install the new 14" wheel (see recommended accessory list).
7. Install the outer collar, blade washer, lockwasher and arbor screw. Press the arbor lock and turn the arbor wrench counter clockwise to secure the wheel. Tighten arbor screw securely, but do not overtighten.



8. Lower the lower blade guard.
9. Be sure the arbor lock is released so the wheel turns freely.

NOTE: The arbor lock can be damaged by improper use. If the arbor lock will not hold, lower the wheel down on to a scrap piece of wood positioned against the fence. This will serve as an alternate locking means.

WARNING: Make sure the collars are clean and properly arranged. Lower the wheel into the table slot and check for any contact with the base. If blade contacts base, adjust the downstop.

Operations

General Cutting Instructions

WARNING: Always securely fix the material to be cut by using the vise.

WARNING: Always wear safety glasses and protective gloves when operating the cut-off saw.

WARNING: Always disconnect the tool from power source before making any adjustment.

Familiarize yourself with the following functions of the Emerson cut-off saw before connecting it to a power source and using it.

1. When starting this cut-off saw for the first time or after it has been idle for awhile, always let the machine run for one full minute with the wheel completely recessed into the guard before making any cuts. If there are any unknown defects in the wheel that could cause breakage they usually would do so within the first minute of operation. If the wheel wobbles or vibrates, discard and replace immediately.
2. When beginning a cut with the saw, care should be exercised not to bump or slam the wheel into the work; once it has entered, continue the cut with an even smooth stroke. The faster a cut is made the less heat is created in the workpiece, preventing discoloring, and wheel life is prolonged. Cut with maximum force without overloading the motor.
3. Use an outboard support when cutting long, heavy pieces to prevent them from tipping the saw or falling down after they are cut.
4. When transporting the saw secure the motor mount to the base to prevent damage.
5. When cut-off wheel comes up to full speed, push the handle to begin cutting. It is important to cut with steady and even pressure (Do Not Force) in order to obtain a uniform cut.



WARNING: To avoid injury from unexpected saw movement:

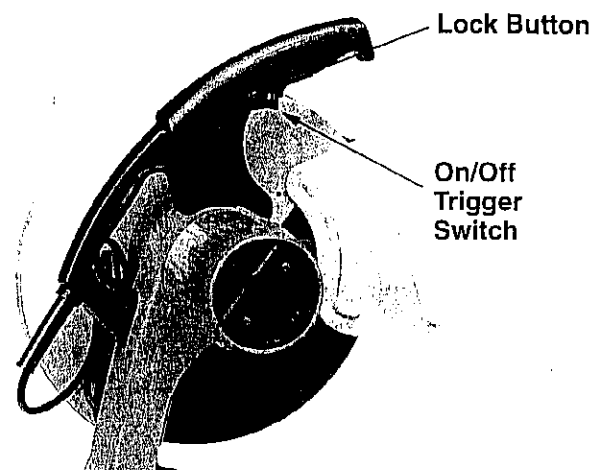
- a. Before moving the saw, lock the power head in the lower position. Unplug electric cord.
- b. To avoid back injury, hold the tool close to your body when lifting. Bend your knees so you can lift with your legs, not your back. Lift by using the hand-hold areas at each side of the bottom of the base or by the carrying handle.
- c. Never carry saw by the power cord or the trigger grip of the plastic handle. Carrying the tool by the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.
- d. Place the saw so other people cannot stand behind it. Thrown debris could injure people in its path.
- e. Place the saw on a firm, level surface where there is plenty of room for handling and properly supporting the workpiece.
- f. Support the saw so the table is level and the saw does not rock.
- g. Bolt or clamp the saw to its support.

Switch

On/Off Trigger Switch and Lock Button -

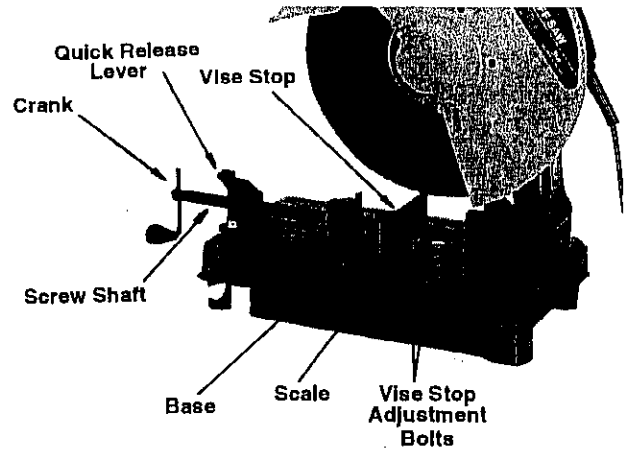
For intermittent operation - To turn the saw "ON", depress switch trigger. To turn the saw "OFF", release switch trigger.

For continuous operation - Depress switch trigger and push The lock button in. The saw will remain "ON" until the switch trigger is depressed.



Adjusting the Stationary Vise

The stationary vise can be repositioned by loosening the adjustment bolts, sliding the fence to the desired position and retightening the bolts. The maximum width capacity is approximately 8-1/4" at 90° and 5" at 45°.

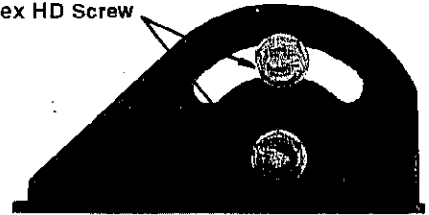


Changing the Cutting Angle

The vise can be adjusted from 0° to 45° left and right.

1. Using the arbor wrench loosen the two bolts on the vise, then set the working surface on the vise at the desired angle.
2. Tighten the two bolts.

M10 x 25mm Hex HD Screw



Quick Lock-Release Vise

This tool is equipped with a lock-release vise for easy and fast clamping of the material. Raise lever for fast movement of vise. Lower lever and turn crank for work-piece clamping.

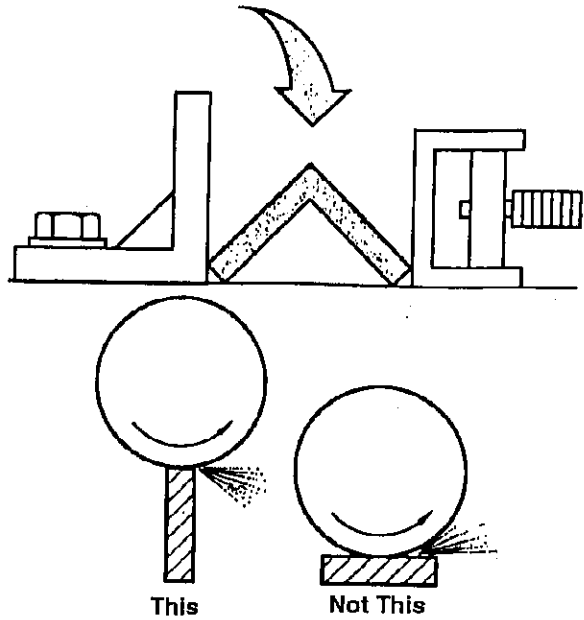


Workpiece Clamping

Position work in vise so that if jam occurs, the wheel will not tend to move the workpiece in the vise. Clamp it securely.

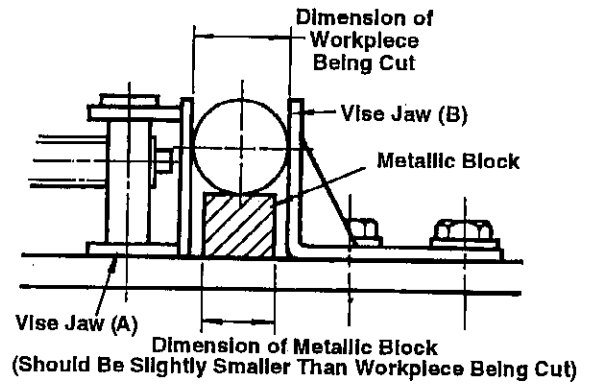
Angles should be in an inverted position as shown.

Generally the saw will cut most efficiently if the wheel is cutting the thinnest section at any time.



Using A Metallic Block

When the cut-off wheel is worn and the outer diameter is reduced, insert a metallic block slightly smaller than the dimension of workpiece under the workpiece. Do not cut the metallic block.



Recommended Cutting Capacity

WARNING: Use of tool for greater than recommended capacities may lead to motor burn-out and possible electric shock.

NOTE: Cutting through any cross sectional area of material thicker than 1/2" tends to load up the abrasive wheel, and this will cause your tool to work harder.

Applicable Wheel Dimensions	355mm (14") Outer Diameter x Less Than 4.5mm (3/16") Thickness x 25.4mm (1") Hole diameter					
Workpiece Configuration (Cross-Section)						
Maximum Cutting Capacity	1/2"	2" Square or Round	4-3/4"	4-1/4"	1/2" Solid	5"

Maintenance and Lubrication

Maintenance

DANGER: Never put lubricants on the blade while it is spinning.

WARNING: To avoid injury from unexpected starting or electrical shock, unplug the power cord before working on the saw.

Keep the tool clean. Remove accumulated dust from working parts.

Make sure that the tool operates properly. Periodically check screws and bolts for tightness.

Feed oil at the oiling points once a month for extending machine service life (machine oil is suitable for the saw).

Oiling points

- Rotary part of shaft
- Rotary part of vise
- Slide way of vise

Replacing Carbon Brushes

The carbon brushes furnished will last approximately 50 hours of running time or 10,000 on/off cycles. Replace both carbon brushes when either has less than 1/4" length of carbon remaining. To inspect or replace brushes, first unplug the saw. Then remove the black plastic cap on the side of the motor (caution, this cap is spring loaded by the brush assembly). Then pull out the brush. Repeat for the other side. To reassemble reverse the procedure. The ears on the metal end of the brush assembly go in the same hole the carbon part fits into. Tighten the cap snugly but do not overtighten.

NOTE: To reinstall the same brushes, first make sure the brushes go back in the way they came out. Otherwise a break-in period will occur that will reduce motor performance and increase brush wear.

It is recommended that, at least once a year, you take the tool to an Authorized Service Center for a thorough cleaning and lubrication.

WARNING: To ensure safety and reliability, all repairs, with the exception of externally accessible brushes, should be performed at an Emerson Authorized Service Center. Use only Emerson replacement parts.

Lubrication

All the motor bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions, therefore, no further lubrication is required (see below).

Infrequent Lubrication as Required:

Chop pivot: Light machine oil or aerosol will penetrate from ends and junction points. Qualified service technician can remove pivot upstop to relieve spring tension in order to drive shaft about 3/4" right. Exposed surfaces are lubricated with automotive type oil

Central pivot of guard: Use light household oil (sewing machine oil) on metal-to-metal guard contact areas as as required for smooth, quiet operation. Avoid excess oil, to which cutting debris will cling and a fire hazard from sparks could be caused.

Changing Abrasive Discs.

1. Remove the power cord plug from the socket.
2. Push the safety cover to the rear position and lock in position.
3. Press the spindle lock and place the wrench on the arbor bolt. Unscrew the bolt and remove the disc carefully.
4. Slide the new disc onto the arbor shaft.
5. Replace the outer flange and arbor bolt and tighten it securely.

IMPORTANT

The RIDGID abrasive disc will give long life if certain fundamental rules are followed:

- ✦ Do not force the disc into the material to be cut.
- ✦ Only cut material within the specified capacity for the disc.
- ✦ Let the machine reach full speed before starting to cut.
- ✦ NEVER stop and restart with the disc in contact with the material.
- ✦ Clamp the material correctly and ensure that it is centred relative to the disc.

- ✦ Clamp the material to give the smallest cutting area to reduce heating of the disc.

Damage to the disc caused by a failure to follow these rules is not covered by the Ridgid warranty.

Inspection.

Periodically inspect the tightness of all screws and re-tighten any that are loose. Loose screws may damage the tool or cause serious accidents.

Any other adjustments or repairs should only be made by RIDGID authorised service centres.