



6IN. CUTOFF SAW

OWNER'S MANUAL



WARNING:

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item# 338070

Thank you very much for choosing a NORTHERN Industrial product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.


This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the distributor to determine if it can or should be performed on the product.

For technical questions please call 1-800-222-5381.

INTENDED USE:

This 6in. CUTOFF SAW is designed for cutting metal.

TECHNICAL SPECIFICATIONS:

Motor:	120V ~ 60Hz 780W 6.5AMPS
No Load Speed:	7400 RPM
Blade Type:	6in. Diameter reinforced Cutting Disc
Packed Weight:	11.5 lbs.
CSA Listed:	

GENERAL SAFETY RULES



WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.



CAUTION: Do not allow anyone to operate or assemble this Cutoff Saw until they have read this manual and have developed a thorough understanding of how the Cutoff Saw works.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY CONSIDERATIONS

Make sure the cutoff wheel is securely mounted as described in the assembly instructions, BEFORE connecting the tool to a power supply. Do not tighten wheel excessively, since this can cause cracks.

Check wheel for fissures and cracks, and test for normal operation prior to use.

Use only 6in. cutoff wheel rated for 10,000 RPM or greater and manufactured in compliance with ANSI B7.1. Always store wheels in a dry place with little temperature variation.

Always ease the abrasive wheel against the workpiece when starting to cut. A harsh impact can break the wheel.

Always press the trigger switch and allow the cutoff wheel to reach full speed before cutting.

Because of the downward cutting motion, stay alert to keep hands and fingers away from the path that the blade travels.

Never replace the abrasive wheel with a toothed blade.

CUTOFF SAW USE AND CARE

Do not modify the Cutoff Saw in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the Cutoff Saw was designed.

Always check of damaged or worn out parts before using the Cutoff Saw. Broken parts will affect the Cutoff Saw operation. Replace or repair damaged or worn parts immediately.

Store idle Cutoff Saw. When Cutoff Saw is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before re-use.

ASSEMBLY



WARNING! Do not connect saw to power source until assembly is complete. Failure to comply could result in accidental starting and possible serious injury.

CUTOFF WHEEL REMOVAL

1. Make sure saw is unplugged and in the "OFF" position.
2. Pull out the locking pin (16) and raise the saw to its full open position.
3. Using a Phillips head screwdriver, remove the inner blade guard cover screw (88).
4. Swivel the outer blade guard (91) up to reveal the hex head bolt (66) as shown in Figure 1.
5. Place the pins of the supplied flange wrench into the holes in the outer flange (64) and hold the outer flange steady.
6. Using the supplied blade arbor wrench, remove the hex head bolt by turning it counterclockwise.
7. Remove outer flange washer (65) and outer flange.
8. Remove cutoff wheel (81).



Figure 1

CUTOFF WHEEL INSTALLATION



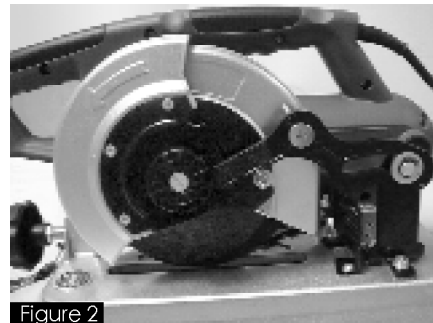
WARNING! Use only reinforced, 6in. cutoff wheels, rated for 10,000 RPM or higher.

1. Disconnect saw from the power source.
2. Inspect the replacement wheel for defects such as cracks, chipping, and correct speed rating. If defects are found or the speed rating is not 10,000 RPM or higher, discard the wheel and choose another wheel that fits the proper specifications.
3. Remove any debris from the inner flange (63).
4. Position the new cutoff wheel against the inner flange.
5. Align the outer flange with the wheel arbor, then slide it onto the arbor until it rests flush against the cutoff wheel.
6. Place the outer flange washer against the cutoff wheel.
7. Insert the hex head bolt into the threaded end of the wheel arbor and hand tighten.
8. Insert the pins of the flange wrench into the holes of the outer flange and hold the outer flange steady.
9. Using the blade arbor wrench, firmly tighten the hex head bolt in place.



WARNING! Do not overtighten the hex head bolt. Overtightening can cause the new wheel to crack, resulting in premature failure and serious personal injury.

10. Swivel the outer blade guard back to its original position, making sure that the guard cover pivot (74) slides back into the guide arm (79). (See Figure 2)
11. Align the hole in the inner blade guard cover with the hole in the inner blade guard.
12. Insert the inner blade guard cover screw through the inner blade guard cover, into the inner blade guard.
13. Using a Phillips head screwdriver, firmly tighten the inner blade guard cover screw.



ADJUSTMENTS



WARNING! Always make sure the tool is switched off and unplug the saw from power source before making adjustments or performing routine maintenance. Failure to heed this warning can result in serious personal injury.

ADJUSTABLE STATIONARY VISE

The adjustable stationary vise is located on the base of your cutoff saw. This vise can be adjusted for cutting angles from 0 to 45 degrees.

CUTTING ANGLE ADJUSTMENT

To adjust the angle of cut:

1. Using the supplied allen wrench, loosen screws (26) behind the vise fence (23).
2. Rotate the vise fence until the desired angle of cut is aligned with the indicator arrow in the saw base (14).
3. Check the angle of the vise fence to the cutoff wheel using a protractor, bevel square, or similar device.
4. Using the supplied allen wrench, securely tighten the bolts holding the vise to the saw base.

QUICK LOCK/RELEASE VISE

The cutoff saw is equipped with a quick lock/release vise system as standard equipment. With this feature you are able to open and close the vise quickly without excessive turning of the vise adjustment handle.

USING THE QUICK LOCK/RELEASE VISE

To loosen:

1. Slightly release tension on the Vise (06) by rotating the vise adjustment handle (01) counterclockwise 1/2 to 1 turn.
2. Lift up the quick Lock/release lever (13) and pull back on vise adjustment handle to slide open the vise.

To tighten:

1. Push the vise adjustment handle forward to slide the vise against the workpiece.
2. Push down on the quick Lock/release lever to engage its threads with the vise adjusting screw (03).
3. Rotate the vise adjustment handle clockwise to tighten the vise against the workpiece.

OPERATION:

To start the saw

1. Press the safety on/off button located on the left side of the saw housing (38).
2. While holding the safety on/off button, pull the trigger (49).

To stop the saw

1. Release the trigger completely.

CUTTING



WARNING! Do not attempt to cut wood or masonry with this saw. Never cut magnesium or magnesium alloy with this tool. Failure to comply with this warning could result in serious personal injury.



WARNING! If wheel stops during operation, makes an odd noise or begins to vibrate, switch off the tool immediately.



WARNING! Large, circular, or irregularly shaped material may require additional means of clamping to be secured in place adequately for cutting. Use C-clamps and blocks to hold material securely. Failure to comply could result in serious personal injury.

1. Firmly secure the material to be cut using the saw's vise.
2. Start the saw by pressing safety on/off button and pulling the trigger.

Note: Allow the cutoff wheel to come up to full speed before contacting wheel to material.

3. Slowly push down on the saw arm handle until the cutoff wheel contacts the material being cut. Use a steady and even pressure to obtain a uniform cut. Never force the wheel into the material.

4. When the cut is complete, release the trigger switch and allow the wheel to stop completely before raising it to the full open position.



DANGER! Do not touch the cut material until it cools or you will be burned. Failure to heed this warning will result in serious personal injury.

MAINTENANCE

- **Maintain your Cutoff Saw.** It is recommended that the general condition of any Cutoff Saw be examined before it is used. Keep your Cutoff Saw in good repair by adopting a program of conscientious repair and maintenance. Have necessary repairs made by qualified service personnel.



WARNING! Make sure this saw is turned off and disconnected from its power source before attempting any maintenance, cleaning, or inspection.

- **Maintain your tools.** It is recommended that the general condition of any tool be examined before it is used. Keep your tools in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual. If any abnormal vibrations or noise occurs, turn the tool off immediately and have the problem corrected before further use. Have necessary repairs made by qualified service personnel.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control. Keep handles dry, clean, and free from oil and grease.

Your cutoff saw is designed to perform with little or no maintenance required from you. To help prolong the life of your tool, follow the simple maintenance routine below:

1. Keep your tool clean. Periodically wipe your tool down with a damp rag and blow out air vents with compressed air.

Note: Do not allow moisture inside the saw when cleaning.

2. Regularly check screws and bolts to make sure they are properly tightened.

3. Apply dry lubricant monthly to the points listed below to extend saw service life.

Lubrication points:

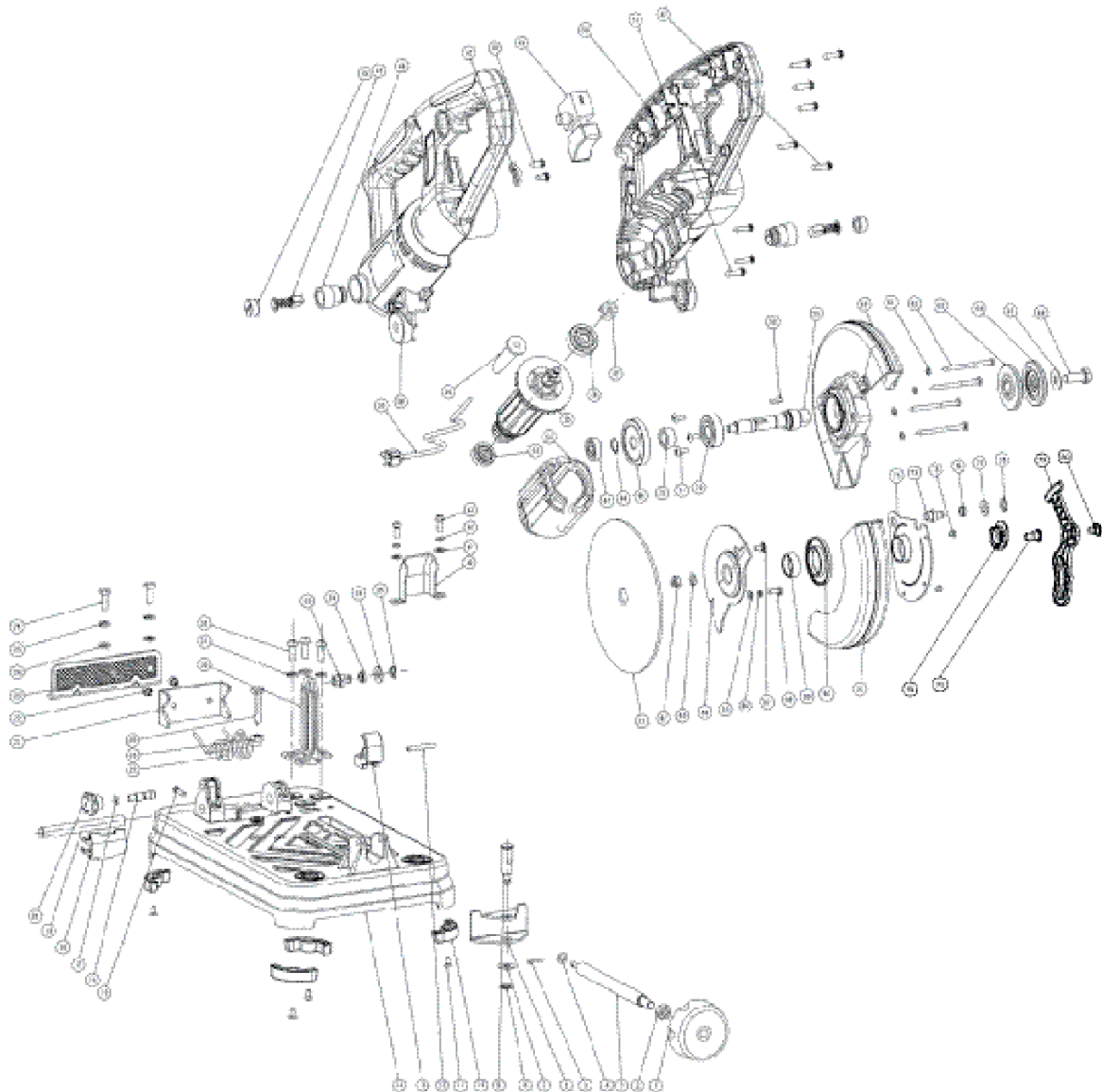
- Vise Adjusting Screw
 - Vise Swivel Pin
4. Remove the brush caps at regular intervals to check the carbon brushes. When the brushes are worn, replace them. (see below two images)



This cutoff saw has a quick brush change system.

1. Use slotted screwdriver to remove the the brush caps.
2. Take out the worn brush and insert the new one.

DIAGRAM & PARTS LIST



Part No.	Description	Qty
1	Vise Adjustment Handle	1
2	Nut M8	1
3	Vise adjusting Screw	1
4	Flat Washer	1
5	Coller Pin	1
6	Vise	1
7	Washer	1
8	Circlip	1
9	Vise Swivel Pin	1
10	Rubber Foot	4
11	Screw	4
12	Spring Pin	1
13	Quick Lock/Release Lever	1
14	Saw Base	1
15	Screw	1
16	Locking Pin	1
17	O-ring	1
18	Dustproof Cover	1
19	Pivot Axle	1
20	Locking Pin Grip	1
21	Vise Board	1
22	Rivet	2
23	Vise Fence	1
24	Washer	2
25	Spring Washer	2
26	Allen Head Bolt	2
27	Spring	1
28	Nut	1
29	Bolt	1
30	Support France	1
31	Spring Washer	3
32	Screw	3
33	Guide Arm Pivot	1
34	Gasket	1
35	Washer	1
36	Circlip	1
37	Power Cord	1
38	Housing, Left	1
39	Cord Sleeve	1
40	Spark Guard	1
41	Flat Washer	2
42	Spring Washer	2
43	Screw	2
44	Carbon Brush Cover	2
45	Carbon Brush	2
46	Carbon Brush Holder	2
47	Cord Clamp	1

Part No.	Description	Qty
48	Screw	2
49	Trigger (Swith)	1
50	Housing, Right	1
51	Screw	2
52	Screw	7
53	Bearing 627	1
54	Stator	1
55	Rotor	1
56	Bearing 6200	1
57	Small Gear	1
58	Key 3*5*13	1
59	Arbor Shaft	1
60	Inner Blade Guard	1
61	Flat Washer	4
62	Screw	4
63	Inner Flange	1
64	Outer Flange	1
65	Outer Flange Washer	1
66	Hex Head Bolt	1
67	Bearing 627	1
68	Spring D12	1
69	Large Bearing	1
70	Sleeve	1
71	Screw	3
72	Bearing 6201	1
73	Outer Blade Guard Cover	1
74	Guard Cover Pivot	1
75	Blade Guard Cover Screw	3
76	Gasket	1
77	Washer D7	1
78	Circlip	1
79	Guide Arm	1
80	Guide Arm Screw	1
81	Cutoff Wheel	1
82	Nut	1
83	Flat Washer	1
84	Inner Blade Guard Cover	1
85	Flat Washer D4	1
86	Spring Washer D4	1
87	Inner Blade Guard Cover	1
88	Inner Blade Guard Cover	1
89	Inner Ring	1
90	Outer Ring	1
91	Outer Blade Guard	1
92	Washer D8	1
93	Axle Pin	1

For replacement parts and technical questions, please call **1-800-222-5381**.

WARRANTY

THIS WARRANTY FORM SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

PURCHASED FROM: _____

DATE PURCHASED: _____

The warranty is only made available by returning the tool to the place of purchase with a confirmed register receipt.

12-MONTH REPLACEMENT WARRANTY

Your NORTHERN tool is covered by a 12-month replacement warranty from the date of purchase. Industrial or high-frequency use will void this warranty. The warranty covers faulty parts or workmanship.

WARNING

The following actions will result in the warranty being void.

- If the tool has been operated on a supply voltage other than that specified on the unit.
- If the tool shows signs of damage or defects caused by or resulting from abuse accidents or alterations.
- If the tool has been disassembled or tampered with in any way.

Warranty excludes consumable parts such as brushes, batteries, sanding pads, blades, discs and drill bits.



WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California 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.



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