# "WHIRLWIND"

MODEL 212 CUT-OFF SAW

OWNER'S MANUAL

#### Owners Manual For Whirlwind Model 212 Cut-Off Saw

#### Table of Contents

Cover Page	Page	1
Set-Up Instructions	Page	2
Trouble Shooting Guide	Page	4
Adjustment of Valves	Page	8
Instructions for Changing Vee Belts	Page	9
Routine Maintenance	Page	9
Pneumatic Operation		
Recommended Spare Parts	Page	11
Warranty	Page	12
Pneumatic Diagram	Page	13
Assembly Drawing		
Parts List	Page	16
Diagram of Mosier Cylinder		
Final Assembly Checklist		
Sales Brochure for Model 212 Saw	Page	20
Sales Flyer for Material Handling Equipment	Page	21
Safety Guide for Carbide Tipped Blades	Page	22
Square-D Service Bulletin on Magnetic Starters	Page	23
Norgren Specifications on Compressed Air Regulators		
Norgren Specifications on Lubricators		
Norgren Specifications on Filters	Page	26
Norgren Specifications on Miniature Regulators	Page :	27

#### General Safety Rules for Operating Whirlwind Saws

- 1) READ AND UNDERSTAND THE OPERATING INSTRUCTIONS BEFORE OPERATING SAW.
- 2) IF YOU ARE NOT thoroughly familiar with the operation of the equipment assigned to you, obtain advice from your supervisor, instructor or other qualified person.
- 3) DO NOT operate any piece of equipment while under the influence of any type of medication, alcohol or drugs.
- 4) ALWAYS wear eye protection. (Safety glasses or a face shield.)
- 5) REMOVE loose clothing, tie, rings, watch and other jewelry, and roll up shirt sleeves.
- 6) GUARDS and other safety devices should be in place and used at all times.
- 7) KEEP HANDS OUT OF PATH OF SAW BLADE. NEVER PUT HANDS UNDER YELLOW GUARD/ CLAMP.
- 8) ALWAYS use a "push stick" or air "blow-gun" to clear away chips and sawdust.
- 9) AVOID awkward positions and hand operations where a sudden slip could cause your hand to move into the blade area.
- 10) DO NOT WORK with material that is too large or too small to handle safely.
- 11) MAKE all adjustments with the power off. (Air and electricity.)
- 12) DISCONNECT the machine from all power sources (air & electricity) and wait for blade to come to a COMPLETE STOP before making repairs or performing maintenance.
- 13) NEVER attempt to free a stalled saw blade without first turning the saw off.
- 14) SHUT OFF all power sources (air & electricity) and clean the machine before you leave it.
- 15) CHECK SAW for damaged parts before using it. REPORT any problems to your supervisor.
- 16) NEVER LEAVE TOOL RUNNING UNATTENDED. TURN OFF POWER (air & electricity). Don't leave saw until blade comes to a complete stop.
- 17) IF IN DOUBT as to what you should do, call WHIRLWIND INC. The telephone number is located on the Caution Label on the air cut-off valve.

#### Set-Up and Maintenance Instructions for

#### Whirlwind Model 212 Cut-Off Saws

Before we get started, a word of thanks is in order for your purchase of a Whirlwind Model 212 cut-off saw. We have a lot of competition in this field and we certainly appreciate you choosing our products.

In preparing this manual we've tried to provide the answers to most problems that might arise. However, if we've missed something, please give us a call. You should also be aware of the fact that an Operator's Manual has been provided with this machine. We urge you to have each and every operator spend a little time becoming familiar with it. We also have an Instructional Video available for those firms who use audio-visual training devices.

This machine, like every Whirlwind, was tested under power for 4-5 hours prior to shipment. Nothing but the best components and raw materials were used in its construction. Like any quality tool, it must be properly maintained to give peak performance. The Operator's Manual addresses a few pre-operational tests which should be performed regularly. Any malfunctions should be corrected immediately.

A number of safety devices including our patented "Work Presence Sensor" are on this machine. These devices are for the protection of the operator. THESE DEVICES MUST NOT BE REMOVED OR TAMPERED WITH. The "work Presence Sensor" will prevent the saw from cycling unless material is in place and the guard/clamp is adjusted properly. This device prevents the operator from inadvertently getting his fingers between the lumber and the guard/clamp.

#### CAUTION: DO NOT PUT FINGERS UNDER GUARD/CLAMP OR SENSOR.

Again, I would like to thank you for choosing Whirlwind and for buying an American product! I'm confident you will be impressed with our products and with our service. With proper care, your Whirlwind model 212 cut-off saw should give your company many years of service.

For your records, please fill in the following information:

Date machine	purchased	
Serial number		
Model number		

#### Set-Up Instructions for Model 212 Cut-Off Saws

- 1. Position machine and bolt to floor. If infeed and outfeed tables are to be used, these should be aligned with saw top and fence. After alignment is satisfactory, bolt table legs to floor.
- 2. Have a certified electrician bring in power, connect machine and check voltage level. Rotation of motor should be checked while electrician is present. This should be done prior to blade installation. An arrow indicating proper rotation is affixed to the arbor access cover. All wiring must conform to the National Electrical Code, state laws and O.S.H.A.

#### Power Requirements

Voltage	230	OR	460
Phase	3		3
Service Current (Amps)	50		25
Motor Running Current (Amps)	26		13

3. Connect air line to the air cut-off valve on the machine table top (1/4 inch female pipe thread). Pressure gauge on the regulator should indicate 90 PSI. Adjust as required.

#### CAUTION: DO NOT OPERATE SAW WITH LESS THAN 60 P.S.I.

The air cut-off valve is provided so the air supply to the machine can be turned off when the saw is not in use. This valve also bleeds the system and allows the guard/clamp to lower. This is a worthwhile safety feature and its use should be encouraged by supervisors.

## Safety Note: An air supply lock-out has been provided with this saw. This should be used when machine is being serviced.

- 4. A 4 inch dia. dust chute has been provided at the back of the saw. This outlet makes it easy to hook your saw up to a dust collection system. We suggest a minimum of 400 C.F.M. for dust collection. Adequate hose must be provided to allow for the movement of the guard while the saw is cycling.
- 5. Install blade on saw. The mode! 212 uses an 18" X 1" blade. Loosen bottom bolt and remove top bolt from blade cover on front of saw. Loosen bolt on arbor access cover and swing cover clear. Slide blade through blade access slot. Verify that tips will be turning in the proper direction for cutting. Tighten arbor bolt through the arbor access cover. Left hand saws use right hand threads on arbor bolt. Right hand saws use left hand threads on arbor bolt. Replace arbor access and blade access covers.

Page 2 R030195

 Check work area to be sure it is clear. Turn air cut-off valve to the on position. The guard/clamp should come up quickly.

#### CAUTION: DO NOT PUT FINGERS UNDER GUARD/CLAMP OR SENSOR.

Now depress the start button on the start/stop switch to turn on the motor. With both hands in the recessed area of the table top, depress the foot valve. Nothing should happen. Now, place a piece of material under the guard/clamp. Turn the air cut-off valve to the off position. The guard/clamp should lower onto the material. Adjust the guard so it will clear the material by approximately 1/4" when air pressure is restored. This is done by turning the large hand knob at the rear of the guard/clamp. Clockwise rotation lowers the guard/clamp. Counter clockwise rotation raises the guard/clamp.

#### CAUTION: DO NOT PUT FOOT INTO FOOT VALVE AREA UNTIL YOU ARE READY TO CUT.

- 7. After adjusting the guard/clamp height, turn the air cut-off valve to the on position. With both hands in the recessed area of the table top, depress the foot valve and hold it down. Saw should clamp material, blade should come up and make cut, blade should lower back into base and the guard/clamp should release material. If this cycle does not take place, call us. The automatic retract feature should also be checked at this time. Again, with the guard/clamp adjusted and with material in place, depress foot valve and then quickly release it. The saw should immediately return to the at rest position.
- 8. Installation of your Whirlwind model 212 cut-off saw is now complete. Prior to putting the saw into production, have every operator read and understand the Operator's Manual. It is suggested that you document this training and have all operators sign a statement that they have read and understand the instructions. Should you have any questions or comments on this machine, please feel free to give us a call. Our phone number is located on the air cut-off valve caution tag.

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## Troubleshooting Guide for Whirlwind Model 212 Cut-Off Saw

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CUT OFF B	LECTRICITY AND LOCK OUT DISCONN	ECT BOX BEFORE WORKING ON SAW
PROBLEM	CAUSE	CHECK
Air on, But guard does not move up.	A. Air pressure too low. B. If pilot valve has been rebuilt, piston may be in wrong. C. Guard binding at table top or cylinder pin.	A. Must be full regulated pressure at inlet of cylinder. (90 P.S.I.)  B. Remove cap on top of pilot valve. Push piston all the way down and replace cap.  C. Apply lubricating oil. Check movement of guard with air off. Should be firm, but free.
Guard is up, foot valve is depressed, guard or blade does not move.	A. Guard out of adjust- ment. B. Foot valve faulty (212-46)  C. One shot valve faulty	A. Adjust guard to within 1/4" of lumber.  B. Break joint at one shot (212-39) depress foot valve & check for air flow. If no air flows to valve, Foot valve is faulty.  C. Break joint at one-shot out- let "Cyl", then depress foot valve & check air flow. The one shot valve should give a short blast of air. If flow is constant, restrict it slightly with a piece of cardboard. Air flow should then shut off. If not, one shot valve is defective. If no air flows, one shot is defective.
	D. Amplifier faulty  E. Pilot valve faulty. (212-143) indicated by constant air flow	D. Break joint "3" on amplifier with board under sensor depress foot valve. If no air Sensor or amp are bad. Then break joint "1" on amplifier If sensor sends very light signal, sensor is OK.  E. Remove pilot valve & inspect rebuild or replace.
	out of pilot valve muffler.	

### Troubleshooting Guide for Whirlwind Model 212 Cut-Off Saw

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CUT OFF ELEC	CTRICITY AND LOCK OUT DISCONN	ECT BOX BEFORE WORKING ON SAW
PROBLEM	CAUSE	CHECK
Guard is up. Foot valve is pressed. Guard comes down, but blade doesn't	A. Shock absorber is locked up.	A. Disconnect lower end of shock absorber. Check for freedom of movement.
come up.	B. Mechanical binding.	B. Check for foreign matter lodged between clevis and yoke or hinge bracket and lower end of cylinder.
	C. Pilot valve malfunction.	C. Check for constant air flow at pilot valve mufflers.
All other valves	A. Pilot valve	A. Remove, clean & inspect. Piston must move freely in housing. Housing shouldn't show excessive wear.
	B. Cylinder	B. Remove pilot valve & apply air pressure to cylinder ports. Cylinder should expand & contract freely. If not, disassemble & inspect piston & bore. Replace seals & apply pneumatic grease.
Slow cycle	A. Clogged muffler on pilot valve. B. Dust in top of	A. Remove muffler. Clean with solvent or replace muffler. B. Remove cap, clean & inspect
	pilot valve.  C. Water in cylinder.  D. Speed adjustment screws have backed out.	<ul><li>C. Clean and inspect.</li><li>D. Re-adjust speed adjustment screws and secure locknuts.</li></ul>
Air on, machine will cycle one time only when foot valve is depressed.	A. Air not exhausting at foot valve.	A. Clean with solvent or replace foot valve.  (Contact block can be replaced on Linemaster foot valve.)

## Troubleshooting Guide for Whirlwind Model 212 Cut-Off Saw

CUT OFF EL	ECTRICITY AND LOCK OUT DISCON	NECT BOX BEFORE WORKING ON SAW.
PROBLEM	CAUSE	CHECK
Blade goes up, but does not return.	A. One shot valve is faulty.	A. Break joint at one-shot outlet "Cyl", then depress foot valve and check air flow. Should get a short blast of air. If flow is constant, restrict it with cardboard. Airflow should then stop. If air still flows, or if one-shot does not flow any air, one-shot is defective.
	B. Roller valve out of adjustment.	B. Depress lever by hand, if blade moves down & guard moves up, roller valve needs adjustment. Do not overtravel valve.
	C. Mechanical binding  D. Roller valve not exhausting.	<ul> <li>C. Check and lubricate clevis, yoke and guard.</li> <li>D. Feel for air from muffler on roller valve. If no air, remove roller valve, check for air flow, if no air flow roller valve is clogged.</li> </ul>
Blade goes up and hits top, then returns	A. Blast from one shot valve is too long.	A. Replace one shot valve. (Crouzet is adjustable.)
	B. Roller valve not exhausting properly.	B. Adjust valve.
	C. Roller valve and/or muffler clogged.	C. Clean valve and muffler. Failing that, replace valve.
	D. Cycle speed is too fast.	D. Adjust speed controls on pilot valve. Make sure locknuts are tight after making adjustment.

## Troubleshooting Guide for Whirlwind Model 212 Cut-Off Saw CUT OFF ELECTRICITY AND LOCK OUT DISCONNECT BOX BEFORE WORKING ON SAW.

PROBLEM CAUSE CHECK

Blade retracts before roller valve is

depressed.

A. Air leak in system.

B. One-shot valve is faulty.

- A. Spray every air connector with soapy water. Check for air escaping.
- B. Break joint at one-shot outlet "Cyl", then depress foot valve. You should get a short blast of air. If airflow is constant, restrict it slightly with cardboard. Airflow should then stop. If air still flows or if one-shot does not flow any air, one shot valve is bad.

#### Electrical Problems

- 1. If reset button must be depressed to re-start machine:
  - A. Check wire connections on magnetic starter.
  - B. Check wires to motor.
  - C. Check incoming wire, connections and voltage.
  - D. Verify correct heaters for voltage are installed.
- If machine re-starts by depressing start/stop button:
  - A. Check wire connections on start/stop switch.
  - B. Check connections on door interlock switch.
  - C. Follow these wires to box and check connections at box.

#### Notes:

- 1. Closely examine rubber seals for damage.
- 2. Repair kits available for cylinder and some valves. Please call us for availability and pricing.
- 3. Do not allow sawdust or any foreign matter to enter valves or hoses while the machine is being serviced.
- 4. DO NOT REMOVE OR TAMPER WITH ANY SAFETY DEVICES.

The Whirlwind model 212 saw will give many years of useful service with a minimum of maintenance. There are some adjustments which should be checked periodically to assure trouble free operation. No electrical power is needed to check these pneumatic systems.

CAUTION: CUT OFF ELECTRICITY & LOCK OUT DISCONNECT BOX BEFORE ADJUSTING VALVES.

#### Roller Valve

The roller valve (212-38) exhausts air captured between the one shot valve and the pilot valve which allows the cylinder to close. It is triggered by the spindle housing (212-5). The roller valve on the model 212 saw is mounted on a bracket. Adjustment is accomplished by sliding the valve in the slots in this bracket. There should be 1/4" clearance between the table top and the spindle housing when the spindle housing is at the top of its stroke. If the spindle housing is hitting the cast portion of the roller valve, the top bracket can be adjusted by loosening the two 1/4-20 bolts which mount it to the table top.

NOTE: THE SPINDLE HOUSING SHOULD NEVER STRIKE THE TOP DURING NORMAL OPERATION.

#### Pilot Valve

The speed of the cycle is controlled by two allen cap screws in the pilot valve. The upper screw adjusts the speed of the cylinder expanding and the lower screw adjusts contraction. The speed of expansion and contraction should be equal. The model 212 should be adjusted to 30 cycles per minute with no material under the guard. When the saw has material in place, the cutting speed will increase. Maximum cycle time while cutting is approximately 45 cuts per minute. Excessive cycle speed may reduce the life of the machine.

#### One Shot Valve

The one shot valve is constructed so that when air is admitted into the inlet port, it initially allows flow through the valve which then closes preventing further flow. Once closed, the one shot valve will remain closed until inlet pressure has been exhausted. Should you suspect this valve is not working properly, it should be tested as follows:

- 1. Apply 80 PSI to inlet port. With outlet open, valve should allow flow briefly and then close. The valve should remain closed until inlet pressure is exhausted. (It may be necessary to restrict outlet slightly to cause valve to close.)
- 2. Apply pressure to outlet port. With inlet open, air should pass freely through the valve.

Page 8

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#### CUT OFF ELECTRICITY AND LOCK OUT DISCONNECT BOX BEFORE WORKING ON SAW

- 1. Loosen four bolts which mount the motor to the table top and slide the motor forward.
- 2. Remove clevis (212-42) from yoke (212-4).
- 3. Slide V-belts around yoke to opposite side of motor.
- 4. Remove two bolts which mount the left hand bearing hanger (1000-3) to the table top. Note: On a right hand saw, remove right hand bearing hanger bolts.
- 5. Loosen two bolts which mount the right hand bearing hanger. Note: On a right hand saw, loosen left hand bearing hanger bolts.
- 6. Swing left hand bearing hanger down and remove V-belts.
- 7. Install new V-belts and reassemble. If desired, an extra set of V-belts can be looped around the yoke and tied out of the way. This will make the next belt change much easier.
- 8. Pulleys must be parallel within 1/32 of an inch.
- 9. V-belt tightness should be 5/32 inch deflection with three (3) pounds of pressure.
- 10. Note: Improper alignment or tension will result in excessive wear on V-belts or bearings.

#### Suggested Maintenance:

1. Check filter, regulator and coalescing filter daily for moisture in bowl. Drain as needed. If your air is fairly moist, an air dryer is highly recommended. Valves that fail due to excessive moisture are not covered under warranty.

#### Note: DO NOT attempt to add any lubricants to air system.

- 2. Lubricate external moving parts with lubricating oil.
- 3. Check V-belts and tighten if necessary. (See item 9 above.)
- 4. Keep inside of machine free of excessive sawdust. Special attention should be given to keeping magnetic switch box and foot valve areas clean.
- 5. Keep saw blades properly sharpened. Carbide tipped blades are highly recommended. Whirlwind Inc. maintains these blades in stock at very reasonable prices.

Page 9 R030195

The Whirlwind model 212 cut-off saw is a semi-automatic cut-off saw using a pneumatic cylinder and valves to operate each cycle. Incoming air is first cleaned and dried in the filter, regulated from line pressure to 90 PSI and then sent through a coalescing filter. Regulated pressure is then taken to two locations: The foot valve (1000-46) and the pilot valve (212-37A) which is the inlet of the cylinder.

#### Note: No lubrication is required for the air system.

With air pressure on and the saw "idle" the cylinder is closed. The guard is up and the blade is down. When the foot valve is depressed and held down. (open) air passes to the one shot valve (212-39) and to the proximity sensor (212-158). The one shot valve allows air to pass through initially, then closes to prevent further air flow. The one shot will remain closed as long as the foot valve is depressed (pressure is on the inlet port). This air then goes to the amplifier (212-129) which is normally closed. The amplifier will be opened if the guard/clamp is adjusted to within 1/4" of the material by the proximity sensor. If the guard/clamp is not adjusted to within 1/4" of the material, the sensor will not allow the saw to cycle.

#### CAUTION: Blocking the sensor is dangerous and may damage other valves.

The saw will return to "idle" i.e. guard up, blade down if the foot valve is released. Air from the amplifier goes to two valves: The roller valve (1000-44) and the pilot valve (located on the main air cylinder).

The pilot valve does two things. First it directs the regulated air pressure to either end of the cylinder, depending on its position. Second, it exhausts the opposite end of the cylinder. The speed of the cylinders actuation is determined by the rate of exhaust flow. This flow is adjusted by a separate bleeder screw for each direction. These adjustment screws are located on the pilot valve housing. Air pressure from the one shot valve pushes the pilot valve piston upward which allows regulated air to flow to the bottom of the cylinder. It also allows the upper end of the cylinder to exhaust. The cylinder then begins to extend. The guard/clamp moves down and the blade moves up. The duration of this half cycle is adjusted by the upper bleed screw.

The cylinder will extend until the spindle trips the roller valve. This exhausts the air from the one shot valve to the pilot valve. The pilot valve piston shifts and exhausts the air on the bottom of the cylinder. It also directs regulated pressure on the top of the cylinder. The blade moves down and the guard/clamp moves up. The lower bleed screw on the pilot valve determines the duration of this half cycle.

When the saw is not in use, the air cut-off valve (212-126) must be turned to the "Air Off" position to bleed the system for safety.

Page 10 R030195

15 February 1995

Recommended Spare Parts for Whirlwind Model 212 Cut-Off Saw

Part Number	Qty.	Description	Price Each
0212-037P	1	Repair Kit.for Cylinder (Nu-Matics Cylinder)	\$39.50
0212-037N	1	Repair Kit for Pilot Valve (Nu-Matics Pilot Valve)	\$49.75
1000-046A	1.	Contact Block (Linemaster Foot Valve)	\$24.50
0212-0029	Set	Three (3) Matched Vee Belts	\$22.50 Set
1000-0036	2	Bearings for Spindle	\$16.50 Each
1000-009A	6	Rubber Cushions	\$2.50 Each

Prices are F.O.B. Dallas, Texas and are subject to change without notice.

Model and serial number are required when ordering parts.

#### August 23, 1982

## Whirlwind Inc. Limited Warranty

Whirlwind Inc. hereby warrants, subject to the conditions set forth below, that it will repair or replace without charge for parts or labor, F.O.B. our factory, any part of the product accompanied by this warranty which proves defective by reason of improper workmanship and/or material within ninety (90) days from the date of the original purchase at retail.

#### Conditions:

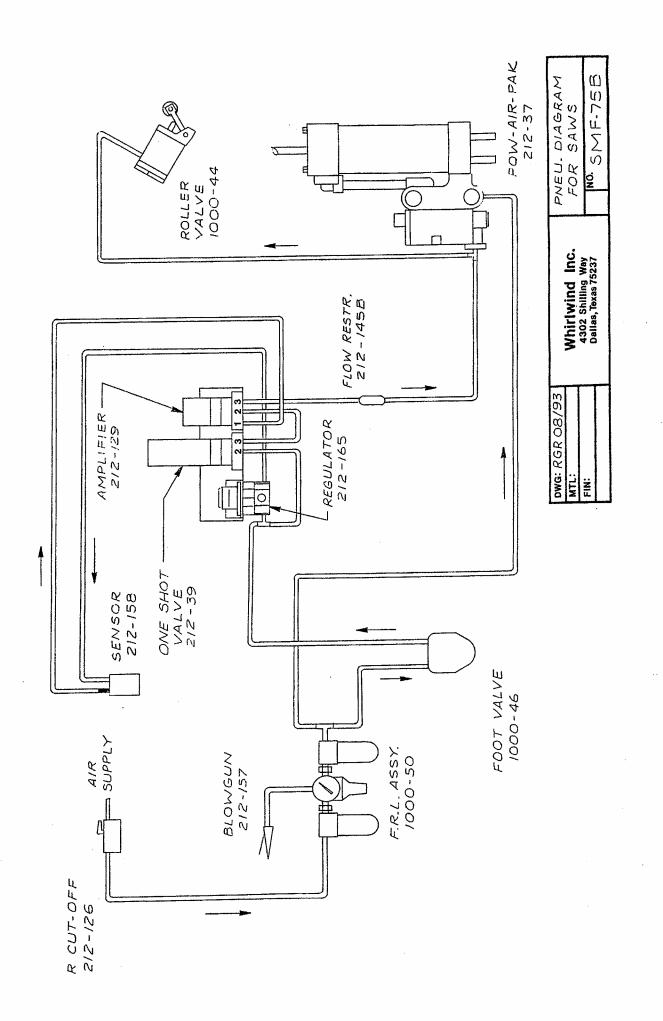
- (a) This warranty is extended to the original purchaser only.
- (b) This warranty shall not apply to any defects or other malfunctions caused by accident, neglect, misuse, abuse, alteration, modification, unusual physical, environmental or electrical stress, or use contrary to instructions accompanying this product.
- (c) This warranty applies only where the purchaser establishes that the product was properly installed, maintained and operated within the limits of normal usage. Any defective part shall be returned promptly to Whirlwind Inc. upon discovery of a defect.

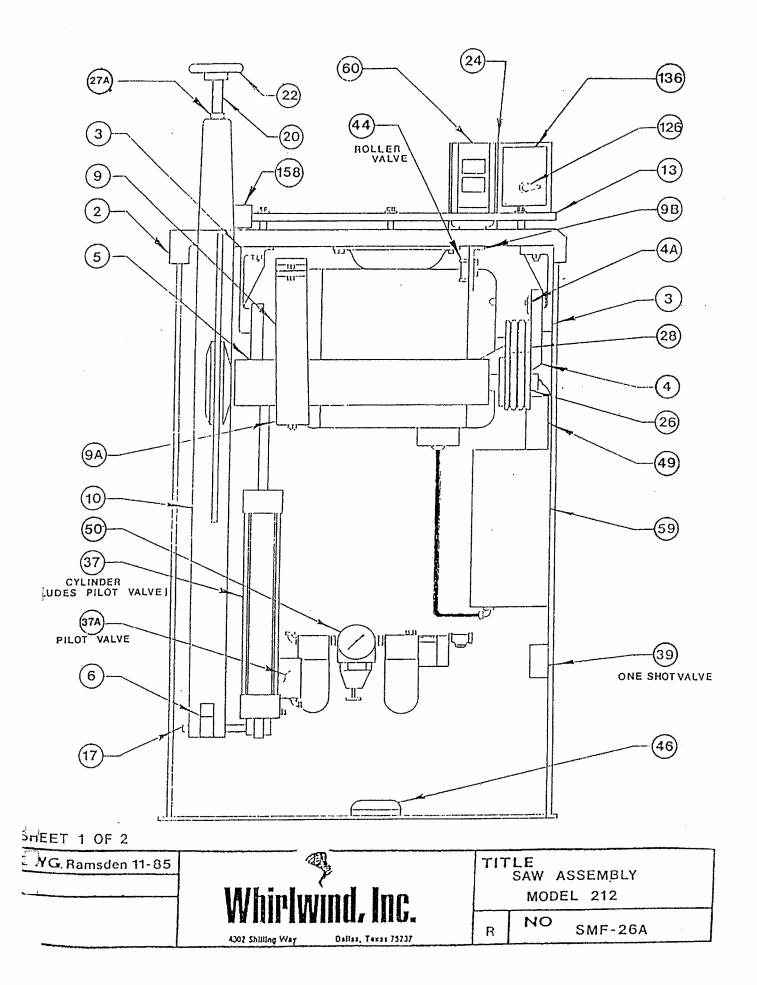
#### Disclaimer:

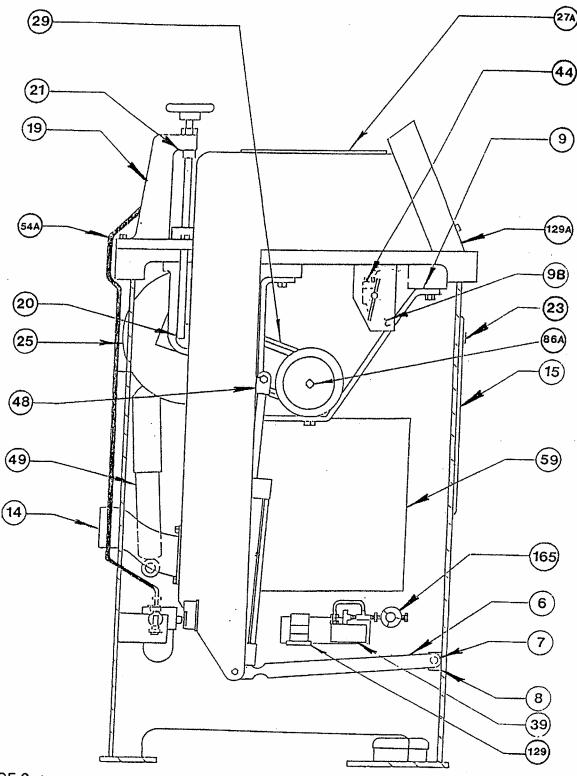
This warranty is in lieu of all other warranties of any kind and any other representations or warranties, whether expressed or implied, including any implied warranties of merchantability or fitness for any particular purpose shall not apply, and are disclaimed with respect to the goods sold.

Whirlwind Inc. shall not have any responsibility for loss of use of the product, loss of time, inconvenience, incidental or consequential damages. The liability of Whirlwind Inc. is limited to the cost of repair or replacement of defective parts.

For information concerning warranty service, please contact the distributor from whom the machine was purchased or Whirlwind Inc., 4302 Shilling Way, Dallas, Tx. 75237 Phone (214) 330-9141 FAX (214) 337-9572.







SHEET 2 OF 2

DWG. Ramsden 11-85		TIT		
APPD	18/Linkers III			ASSEMBLY EL 212
TOL	Whirlwind, Inc.	-	NO	
	4302 Shilling Way Dallas, Texas 75237	R		SMF-26A

#### Model 212 Cut-Off Saw Parts Identification List

Qty	Description	Part No.	Item
1	Base Assembly - Left Hand Saw (SMP-04B-L)	0212-0001-1-000	0001
1	Base Assembly - Right Hand Saw (SMF-04B-R)	0212-0001-2-000	
1	Table Top Left Hand Saw (SMF-02B-L)	0212-0002-1-000	0002
1	Table Top Right Hand Saw (SMF-02B-R)	0212-0002-2-000	
2	Bearing Hanger (SMA-25A)	1000-0003-0-000	0003
1	Yoke Assy Left Hand Saw (SMF-23B)	0212-0004-1-000	0004
1	Yoke Assy Right Hand Saw (SMF-23B)	0212-0004-2-000	
2	Pivot Pin (SMA-12A)	1000-004A-0-000	004A
1	Spindle Assy Left Hand Saw (SMF-15B-1)	0212-0005-1-000	0005
1	Spindle Assy Right Hand Saw (SMF-15B-2)	0212-0005-2-000	
1	Rear Washer (SMP-06A) - Casting	0212-005C-0-000	005C
1	Front Washer - Left Hand Saw (SMF-07B-2)	0212-005D-1-000	005D
1	Front Washer - Right Hand Saw (SMF-07B-2)	0212-005D-2-000	
1	Hinge Bracket - Left Hand Saw (SMA-29A)	0212-0006-1-000	0006
1	Hinge Bracket - Right Hand Saw (SMA-29A)	0212-0006-2-000	
1	Anchor Pin (SMA-21A)	1000-0007-0-000	0007
2	Anchor Bracket (SMA-09A)	1000-0008-0-000	8000
1	Stop Bracket Assy. (SMF-22B)	0212-0009-0-000	2009
2	Rubber Cushion	1000-009A-0-000	009A
1	Valve Bracket for Left Hand Saw (SMF-43A-L)	0212-009B-1-000	009B
1	Valve Bracket for Right Hand Saw (SMF-43A-R)	0212-009B-2-000	
. 1	Guard / Clamp Assy. (SMF-03B)	0212-0010-0-000	010
1	Fence (SMA-38A-1)	0212-0013-0-000	0013
1	Dust Chute (SMF-10B)	1000-0014-0-000	014
1	Front Door Assy. (SMA-18B)	1000-0015-0-000	015
1	Cylinder Pin (SMA-20A)	0212-0017-0-000	017
1	Guide Bracket (SMP-05B)	0212-0019-0-000	019
1	Height Adjustment Screw (SMF-19B)	0212-0020-0-000	020
1	Adjustment Nut (SMA-16A)	1000-0021-0-000	021
1	Height Adjustment Knob (SMA-28A)	1000-0022-0-000	022
1	Front Blade Access Cover (SMF-09A-3)	1000-0023-0-000	023
1	Switch Bracket (SMF-08B)	0212-0024-0-000	024
1	10 HP Motor ODP Baldor 3450 RPM	0212-0025-0-000	025
1	Pulley - 3.65" O.D. x 1" I.D (Spindle)	0212-0026-0-000	026
1	Caution Tag for Blade Guard	0212-027A-0-000	27A
1	Pulley - 3.35" O.D. x 1 3/8 I.D (Motor)	0212-0028-0-000	028
3	Vee Belts (3 Per Set)	0212-0029-0-000	029

## Model 212 Cut-Off Saw Parts Identification List (Cont'd.)

Item	Part No.	Description	Qty
0037	0212-0037-0-000	Pow-Air-Pak (Main Cylinder w. Pilot Valve)	1
037A	0212-037A-0-000	Pilot Valve Only (Mosier)	1
0039	0212-0039-0-000	One-Shot Valve	1
0044	1000-0044-0-000	Roller Valve	ī
0046	1000-0046-0-000	3 Way Foot Valve	1
0048	0212-0048-0-000	Clevis Assy. for Cylinder (SMF-31A-2)	1
0049	1000-0049-0-000	Shock Absorber	1
0050	1000-0050-0-000	F.R.L. Assy.	1
054A	1000-054A-0-000	1/4 PVC Hose 36" for Air Cut-Off Valve	1
0059	0212-0059-0-460	Magnetic Starter	1
0060	0212-0060-0-000	Start / Stop Switch	1
086A	1000-086A-1-000	Spindle Bolt	1
0126	0212-0126-0-000	Air Cut-Off Valve	1
0129	0212-0129-0-000	Amplifier Only for Work Presence Sensor	1
129A	0212-129A-0-000	Front Shield	1
0136	0212-0136-0-000	Caution Tag for Air Cut-Off Valve	1
0158	0212-0158-0-000	Sensor Only for Work Presence Sensor	1
0165	0212-0165-0-000	Regulator Only for Work Presence	1