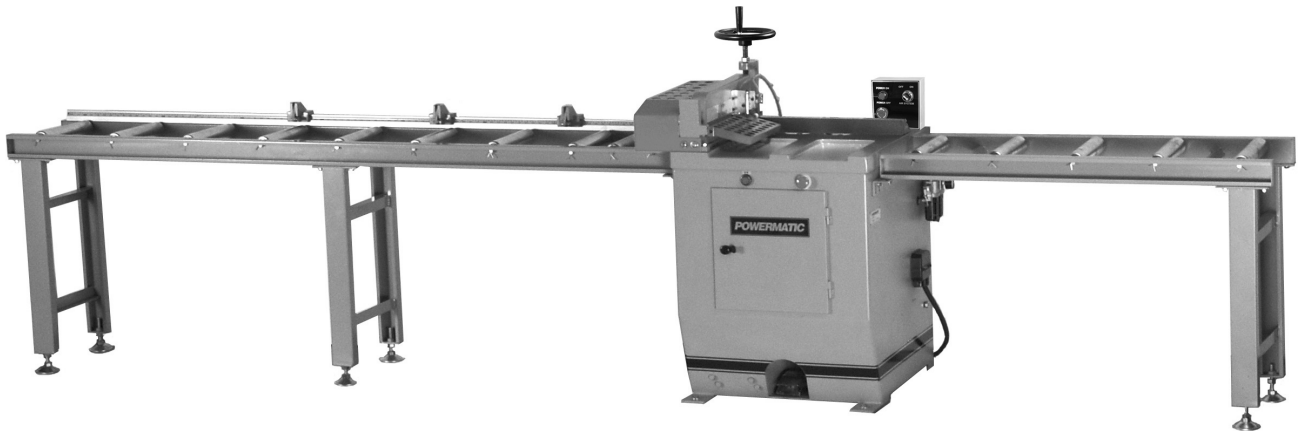


# **POWERMATIC®**

## **OWNER'S MANUAL** Model COS18 Cut-Off Saw



Left-Hand model shown,  
with 8' and 4' optional roller tables

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**M-0460277 10/03 Rev. B**  
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This manual has been prepared for the owner and operators of a Powermatic Model COS18 Cut-Off Saw. Its purpose, aside from proper machine operation, is to promote safety through the use of accepted correct operating and maintenance procedures. Completely read the safety and maintenance instructions before operating or servicing the machine. To obtain maximum life and efficiency from your saw, and to aid in using the machine safely, read this manual thoroughly and follow all instructions carefully.

## **Warranty & Service**

WMH Tool Group warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Repair Stations located throughout the United States can give you quick service.

In most cases, any one of these WMH Tool Group Repair Stations can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET, Performax, Powermatic or Wilton tools.

For the name of an Authorized Repair Station in your area, call 1-800-274-6848.

## **More Information**

WMH Tool Group is consistently adding new products to the line. For complete, up-to-date product information, check with your local WMH Tool Group distributor or visit [wmhtoolgroup.com](http://wmhtoolgroup.com).

## **Limited Warranty**

WMH Tool Group (including JET, Performax, Powermatic and Wilton brands) makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows: 1 YEAR LIMITED WARRANTY ON ALL PRODUCTS UNLESS SPECIFIED OTHERWISE. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, repair or alterations outside our facilities, or to a lack of maintenance.

WMH TOOL GROUP LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD SPECIFIED ABOVE, FROM THE DATE THE PRODUCT WAS PURCHASED AT RETAIL. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. WMH TOOL GROUP SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an Authorized Repair Station designated by our office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, WMH Tool Group will either repair or replace the product, or refund the purchase price if we cannot readily and quickly provide a repair or replacement, if you are willing to accept a refund. WMH Tool Group will return repaired product or replacement at our expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of our warranty, then the user must bear the cost of storing and returning the product. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state.

WMH Tool Group sells through distributors only. WMH Tool Group reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

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## SAFETY RULES

As with all machines, there is a certain amount of hazard involved with the use of this cut-off saw. Use the machine with the respect and caution demanded where safety precautions are concerned. When normal safety precautions are overlooked or ignored, personal injury to the operator can result.

**Read, understand and follow** the safety and operating instructions found in this manual. Know the limitations and hazards associated with this machine.

**Electrical grounding.** Make certain that the machine frame is electrically grounded and that a ground lead is included in the incoming electrical service. In cases where a cord and plug are used, make certain that the grounding plug connects to a suitable ground. Follow the grounding procedure indicated in the National Electrical Code.

**Eye safety.** Wear an approved safety shield, goggles, or glasses to protect eyes. (NOTE: Common eyeglasses are only impact-resistant, they are not safety glasses.)

**Personal protection.** Before operating the machine, remove tie, rings, watch and other jewelry and roll up sleeves above the elbows. Remove all loose outer clothing and confine long hair. Protective type footwear should be used. Where the noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations, use hearing protective devices. Do not wear gloves.

**Guards.** Keep the machine guards in place for every operation for which they can be used. If any guards are removed for maintenance, DO NOT OPERATE the machine until the guards are reinstalled. The blade guard is air actuated; it is also a clamp for stock. Never shut off or disconnect air while operator or bystanders are near guard.

**Work area.** Keep the floor around the machine clean and free of scrap material, saw dust, oil and other liquids to minimize the danger of tripping or slipping. Be sure the table is free of all scrap, foreign material and tools before starting to cut. Make certain the work area is well lighted and that a proper exhaust system is used to minimize dust. Powermatic recommends the use of anti-skid floor strips on the floor area where the operator normally stands and that each machine's work area be marked off. Provide adequate work space around the machine.

**Avoid accidental starting:** Make certain motor switch is in off position before connecting power to the machine.

**Operator position.** Maintain a balanced stance and keep your body under control at all times.

**Housekeeping.** Before turning on machine, remove all extra equipment such as keys, wrenches, scrap, and cleaning rags away from the machine.

**Careless acts.** Give the work you are doing your undivided attention. Looking around, carrying on a conversation, and "horseplay" are careless acts that can result in serious injury.

**Disconnect all power sources** (both air and electric) before performing any service, maintenance, adjustments or when changing blades. When the air line is disconnected or turned off, the guard will immediately drop down to the table. Keep hands clear of guard at all times. A machine under repair should be RED TAGGED to show it should not be used until the maintenance is complete.

**Maintain cutting tools in top condition.** Keep blades sharp and clean for safe and best performance. Dull tools increase noise levels and can cause kickbacks and glazed surfaces. Check the condition and adjustment of the tools before making any cuts.

**Hand safety.** Keep hands outside the machine. Do not clear chips and sawdust with hands; use a brush.

**Job completion.** If the operator leaves the machine area for any reason, the cut-off saw should be turned "off" and the blade should come to a complete stop before his departure. In addition, if the operation is complete, he should clean the saw and the work area. NEVER clean the saw with power "on" and never use the hands to clear sawdust and debris; use a brush.

**Replacement parts.** Use only Powermatic or factory authorized replacement parts and accessories; otherwise the warranty and guarantee is null and void.

**Misuse.** Do not use this Powermatic cut-off saw for other than its intended use. If used for other purposes, Powermatic disclaims any real or implied warranty and holds itself harmless for any injury or damage which may result from that use.

**If you are not** thoroughly familiar with the operation of cut-off saws, obtain advice from your supervisor, instructor or other qualified person.

**Drugs, alcohol, medication.** Do not operate this machine while under the influence of drugs, alcohol, or any medication.

**Health hazards.** 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 paint.
- \* Crystalline silica from bricks and cement and other masonry products.
- \* 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 specifically designed to filter out microscopic particles.

Familiarize yourself with the following safety notices used in this manual:




**CAUTION:** (This means that if precautions are not heeded, it may result in minor or moderate injury and/or possible machine damage)



**WARNING:** (This means that if precautions are not heeded, it could result in serious injury or possibly even death).

# SAFETY


Familiarize yourself with the location and content of these decals on your machine.

** WARNING**

1. Read and understand the instruction manual before operating the machine.
2. Be sure machine is electrically grounded.
3. Always wear eye protection. Use safety face shield, goggles or glasses and other personal safety equipment as required.
4. Remove jewelry, fasten loose articles of clothing, roll up long sleeves and contain long hair.
5. Disconnect machine from power source before performing any maintenance, adjustments or cleaning.
6. Keep work area clean. Clutter invites accidents. Keep floor around machine free from scraps, sawdust, oil or grease to minimize the danger of slipping.
7. Do not operate without all guards and covers in position.
8. Do not operate this machine while under the influence of alcohol or drugs.
9. Failure to comply with these warnings may result in serious personal injury.

**DO NOT REMOVE OR OBSCURE THIS LABEL**

COS18-242

** WARNING**

Disconnect all power sources both air and electric prior to making any adjustments.

Do not attempt to open access door until blade has come to a complete stop.

Do not reconnect power (air or electric) without internal clear panel in place and door securely fastened with screws.

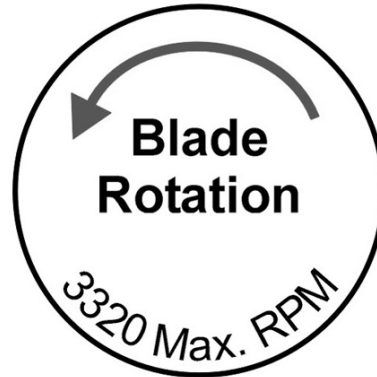
COS18-243

** DANGER**

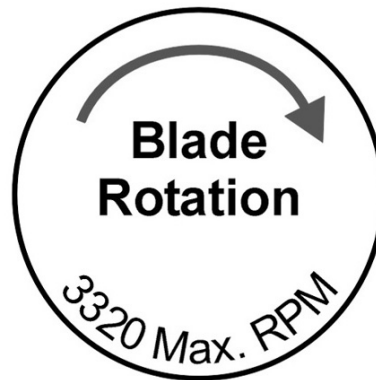
**Keep hands away from path of blade and out from under guards.**

**Keep hands away from clamp area.**

COS18-347



(Left Hand)  
COS18-244



(Right Hand)  
COS18-245

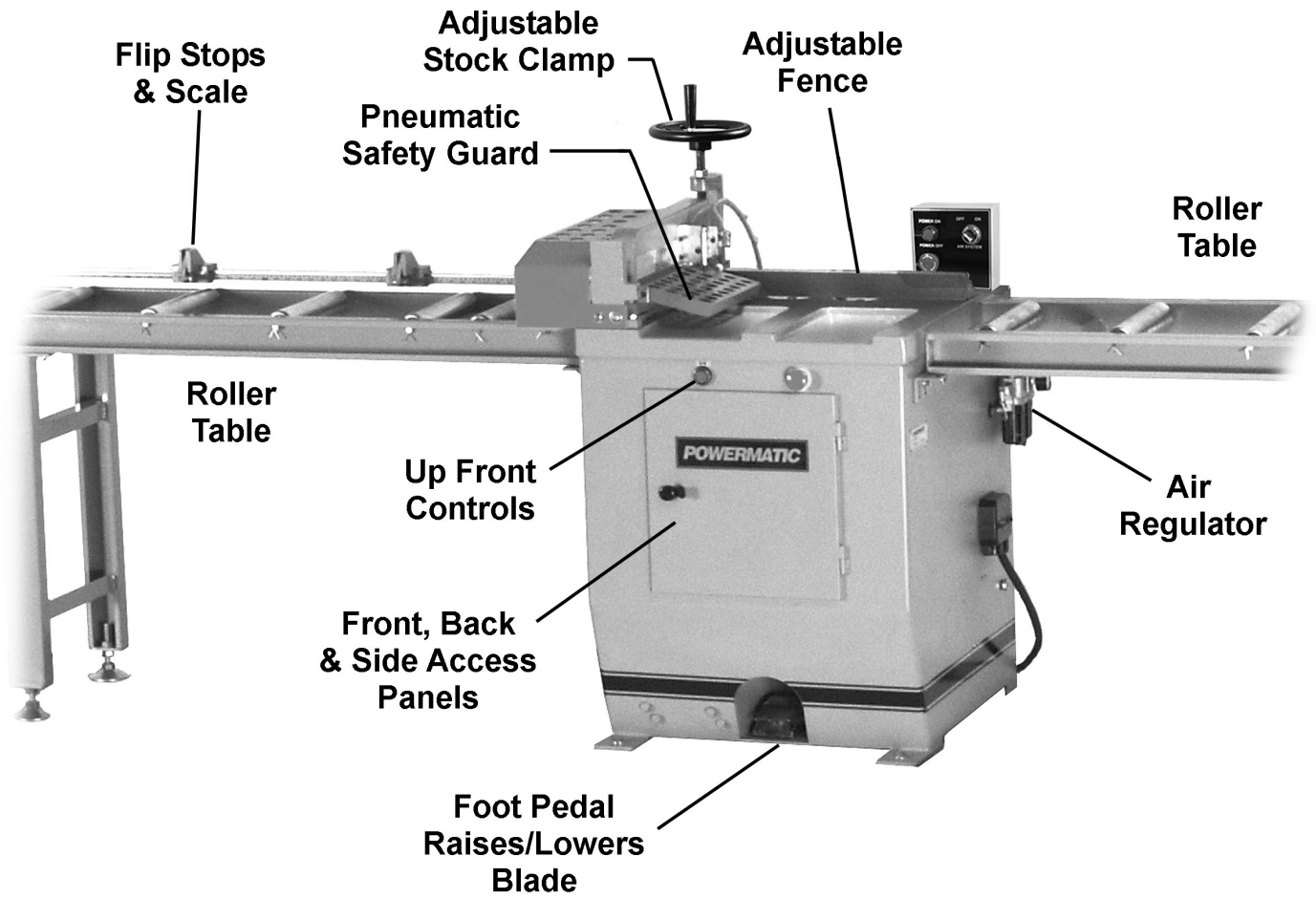
FIGURE 1

## SPECIFICATIONS: COS18 Cut-Off Saw

Stock number (COS18L).....	1791294
Stock number (COS18R).....	1791289
Motor.....	10HP, 3Ph, 230/460V
Blade size.....	18" diameter / 120T
Arbor size.....	1"
Arbor speed.....	3320 RPM
Cutting capacity @ maximum height.....	4-3/8" x 10-1/2"
Cutting capacity @ maximum width.....	1" x 13-3/8"
Table size.....	26-1/2" x 28"
Table height.....	33"
Air supply required.....	15 CFM / 70 PSI
Cycles per minute (maximum).....	70
Dust port.....	4"
Minimum CFM.....	600
Gross weight.....	850 lbs.
Net weight.....	730 lbs.

NOTE: The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Powermatic reserves the right to change specifications without notice and without incurring obligations.

**FEATURES: COS18 Cut-Off Saw**



**FIGURE 2**



## RECEIVING

Open shipping crate and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Before using the cut-off saw, read the instruction manual thoroughly for assembly, maintenance and safety instructions.

### Contents of crate:

- 1 Cut-off saw
- 1 Handwheel
- 1 Toolbox containing:
  - 1 hex wrench set
  - 1 socket wrench
  - 1 open-end wrench set
- 1 Manual
- 1 Warranty card

## INSTALLATION & ASSEMBLY

1. Lift the machine with a hoist or forklift, using a sling through the lifting eye on top the machine, shown in Figure 3. Make sure the capacity of the lifting unit is sufficient to safely lift this size machine.
2. The cut-off saw (with any roller table extensions) should be located in an area that is well-lit, with enough room around it for loading and off-loading stock and general servicing of the machine.
3. The saw cabinet should be bolted to the floor through the holes at the four corners, using high quality lag screws.

Unpainted surfaces, such as the table and fence, have been given a protective coating at the factory. This should be removed with a soft rag moistened with a good commercial solvent. Do not use acetone, lacquer thinner, gasoline or any flammable solvents. Do not use an abrasive pad.

## HANDWHEEL

Install the handwheel onto the threaded rod as shown (Fig. 3).

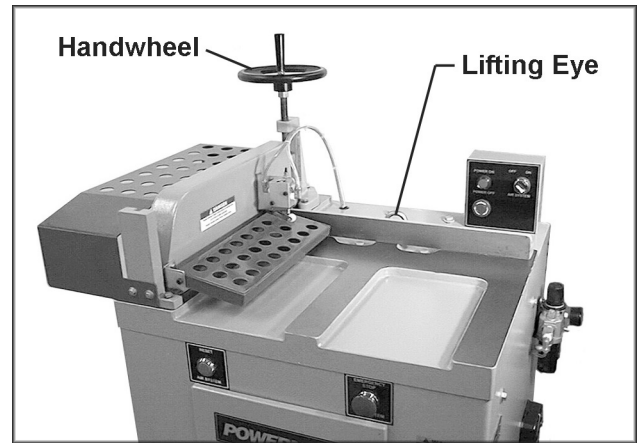



FIGURE 3

## ELECTRICAL CONNECTIONS

 **WARNING: Electrical connections must be made by a qualified electrician in compliance with all relevant codes. The machine must be properly grounded to help prevent electrical shock and possible death.**

A power plug is not provided with the COS18. You may either connect one, or "hard-wire" the machine directly to your electrical panel provided there is a disconnect near the machine.

Consult electrical schematic on page 34 for further clarification of wiring setup.

This machine must be grounded. Grounding provides a path of least resistance to help divert current away from the operator in case of electrical malfunction.

Make sure the voltage of your power supply matches the specifications on the motor plate of the machine.

After wiring, **disconnect machine from power source**, open the blade access door, remove the internal clear panel, and remove the blade (see "Installing/Changing Blade"). Re-connect the power and turn on the saw motor (see "Operating Controls"). Observe the rotation of the arbor – it should rotate counterclockwise on the LH model, clockwise on the RH model. If it does not, turn off the machine, disconnect power, and switch any two of the three electrical leads.

NOTE: A label is affixed to the internal clear panel to help identify proper rotation.

## EXTENSION CORDS

If an extension cord is necessary, make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

The chart in Figure 4 shows the correct size cord to use based on cord length and nameplate amp rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Rated amps	Length of cord		
	25 ft.	50 ft.	100 ft.
0-6	18	16	16
7-10	18	16	14
11-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	Not recommended

FIGURE 4

## DUST COLLECTION

Powermatic recommends the use of a dust collection system with this cut-off saw. The collector should have sufficient capacity (600 CFM) for this size machine.

Mount the dust collector via a 4" hose to the outlet on the blade access door.

## OPERATING CONTROLS

Control buttons are in two locations on the saw, and are shown in Figure 5. A main start and stop button is located at the back of the table top. An emergency stop button is also found on the front. The air-control switch, in both locations, starts the flow of air to the cylinder.

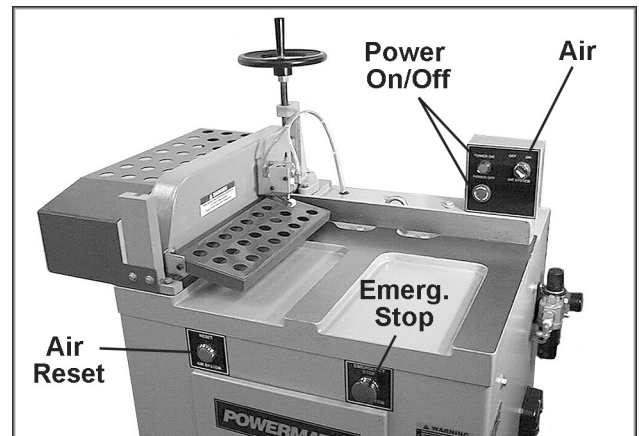


FIGURE 5

## INSTALLING / CHANGING BLADE

1. Disconnect machine from power source.

**⚠ WARNING: Never attempt to open blade access door until blade has come to a complete stop.**

2. Open the saw blade access door by loosening the screws.
3. Remove the clear panel guarding the blade (Fig. 6) by loosening the screws and lifting up on the panel.
4. Lock the arbor by pulling the lever (Fig. 8).
4. Loosen hex screw (Fig. 7) on the arbor. (counterclockwise to loosen on the LH model; clockwise on RH model). Remove hex screw and outer flange from the arbor.
5. Mount the blade on the arbor as shown, making sure the teeth are pointed in the proper direction – the teeth at top of blade should point toward rear of machine.
6. Re-install outer flange and screw, and tighten securely.

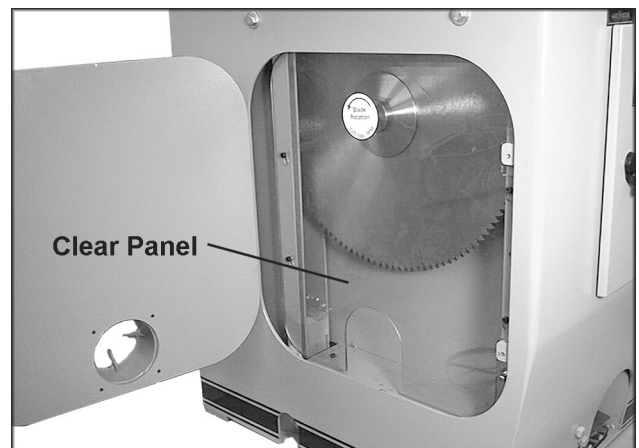


FIGURE 6

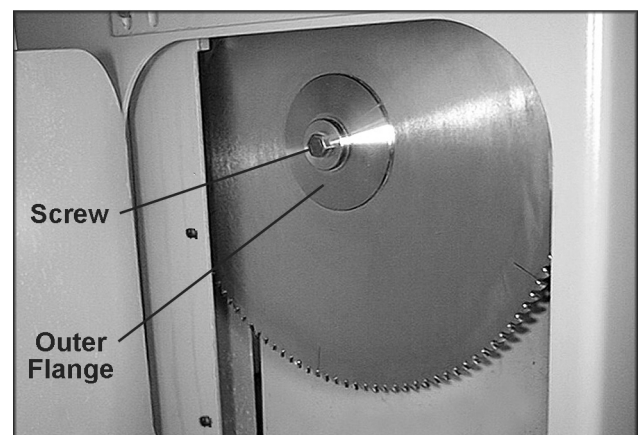


FIGURE 7

7. Re-install clear panel and close blade access door, fastening it securely. NOTE: A sensor switch on the door will automatically shut down the saw if the door is opened while the blade is moving.

**⚠ WARNING: Do not reconnect power, air or electric, without internal clear panel in place and door securely fastened with screws.**

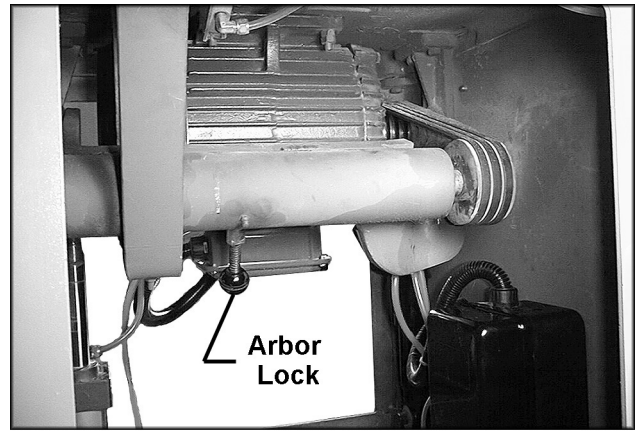


FIGURE 8

## AIR SUPPLY

The correct air pressure for the COS18 saw is 70 PSI. Attach the hose from your air source to the machine's air valve as shown in Figure 9.

## SQUARING THE FENCE

The best way to square the fence is to make sample cuts. Using a square, check the end of a board after it has been chopped. If the cut is not square, proceed as follows:

1. Loosen one of the bolts on the fence and lightly tap the fence with a block or mallet.
2. Retighten the bolt, and make another cut. Repeat as necessary until fence is square.

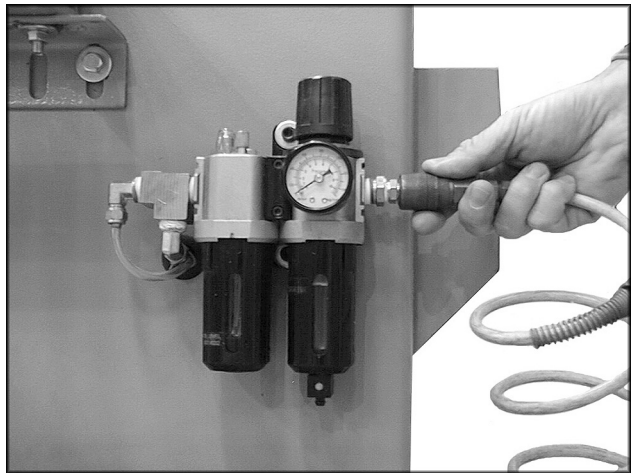


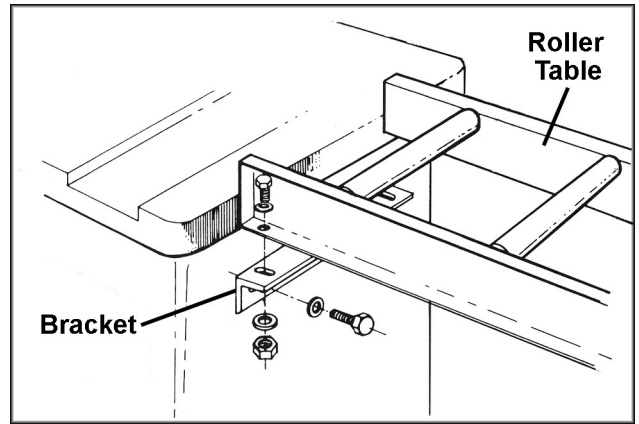
FIGURE 9

## INSTALLING ROLLER TABLES (OPTIONAL)

Four-foot and 8-foot roller tables are available as accessories to your cut-off saw. The roller tables can be used as infeed or outfeed tables and mounted to either side of the saw. The terms "Right Hand" and "Left Hand" Model are determined by the location of the blade in reference to the main table. (The cover of this manual shows a left-hand model.)

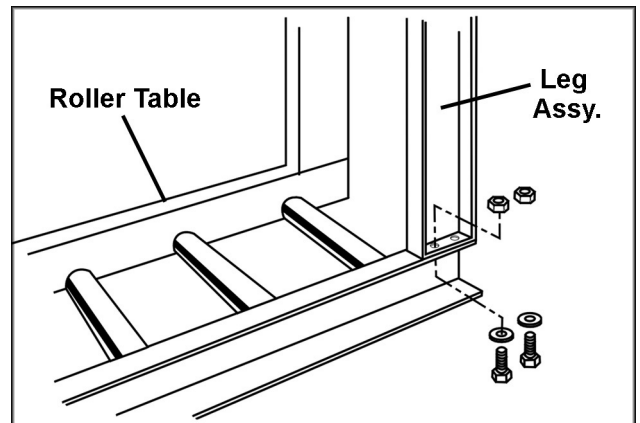
**To mount roller tables to saw:**

1. Mount an angle bracket to the pre-drilled holes in the side of the saw cabinet with four M8 x 20 hex cap screws and four M8 flat washers (Fig. 10). Do not fully tighten yet.



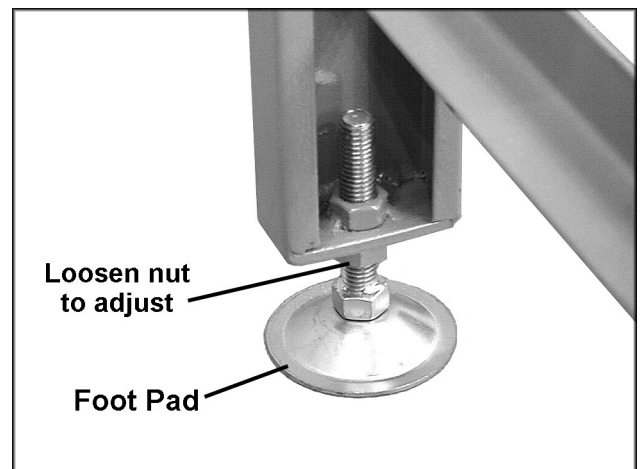
**FIGURE 10**

2. Place the roller table upside down on a flat surface and attach the leg assemblies with four M8 x 25 hex cap screws, eight M8 flat washers, and four M8 hex nuts per leg assembly (Fig. 11).



**FIGURE 11**

3. Screw an adjustable foot pad into each leg as shown in Figure 12.



**FIGURE 12**

4. Flip the roller table right-side up and mount it to the angle bracket on the cabinet as shown in Figure 10. Use two M8 x 25 screws, four M8 flat washers and two M8 hex nuts. Do not fully tighten yet.

## 8-FOOT TABLE GUIDE

1. The 8-foot table comes with a guide and scale. The guide should be mounted to the edge of the table with six M8 x 27 square head bolts, six M8 flat washers and six M8 hex nuts (Fig. 13).

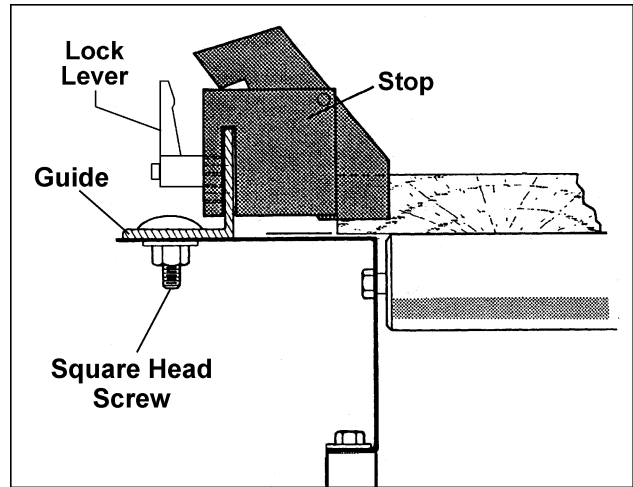


FIGURE 13

2. Attach the three stops to the 8-foot table guide (Fig. 13). These stops can be slid to any point along the guide and secured by tightening the lock levers.

## LEVELING & ALIGNING ROLLER TABLES

Each roller table must now be leveled with the main saw table and aligned with the fence. (The fence must be square with blade – see "Squaring the Fence", page 11.)

**⚠ WARNING: Disconnect saw from both air and electric power sources.**

1. Select a piece of scrap board with a good straight edge, 4 to 6 feet in length.
2. Raise the blade guard and keep it raised. Place the board, straight edge down, on the saw table surface and allow it to extend to the second or third roller of the roller table (Fig. 14).
3. Level the roller table by loosening the hex nut on the foot pad and screw the foot pad in or out. (see Fig. 12).
4. When roller table and main table are level, tighten the nuts on the foot pads.

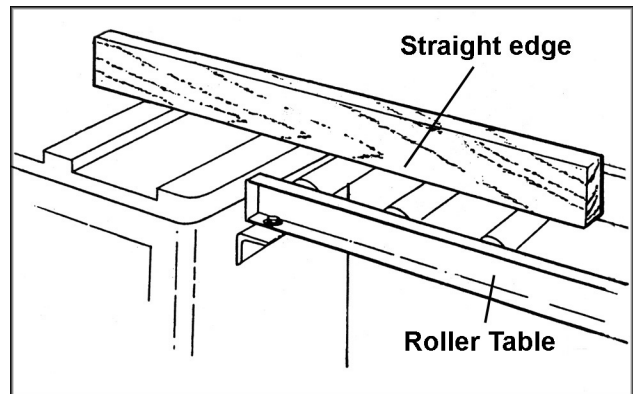


FIGURE 14

5. Now place the board flush against the fence and against the rail of the roller table(s). If necessary, shift a roller table horizontally to bring it in line with the fence.
6. When final adjustments have been made and re-checked on the roller tables, tighten all screws/nuts connecting the roller tables to the angle brackets.

**⚠ CAUTION:** Never adjust the outfeed table level higher than the level of the machine table surface.

## ADJUSTMENTS

**⚠ WARNING:** Disconnect all power sources, both air and electric, prior to making adjustments.

### BLADE TRAVEL

To adjust the speed by which the saw blade (and the clamp) travel up and down, open the cabinet door and locate the upper and lower pressure regulating valves which are attached to the air cylinder (Fig. 15). Turning these will regulate the travel speed of the blade and clamp. The clamp will lower during the blade's upstroke, and rise during the blade's downstroke.

The top valve (shown in Fig. 15) adjusts the speed of the blade's downstroke (and the speed of the clamp as it rises back up). Turn the knob counterclockwise to increase the speed, clockwise to decrease. When the speed is satisfactory, lock the setting by tightening the knurled nut.

Repeat for the lower valve, which adjusts the speed of the blade's upstroke (and the lowering of the clamp).

### CLAMP HEIGHT ADJUSTMENT

The distance between the stock clamp and the workpiece can be adjusted by turning the handwheel (Fig. 16). Line up the red indicator plate with the measurement on the scale. Ideally, there should be a space of 1/8" between the clamp and the workpiece. After setting the clamp height, move the hex nut downward and tighten against the casting as shown – this will prevent your setting being altered by machine vibrations.

**IMPORTANT:** The clamp height adjustment must be made each time the workpiece size changes.

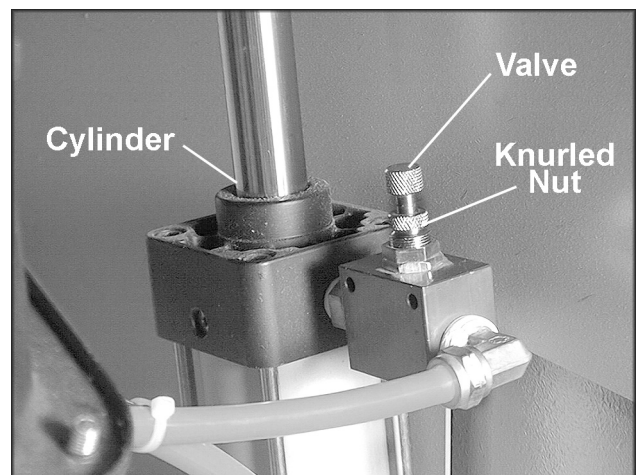


FIGURE 15

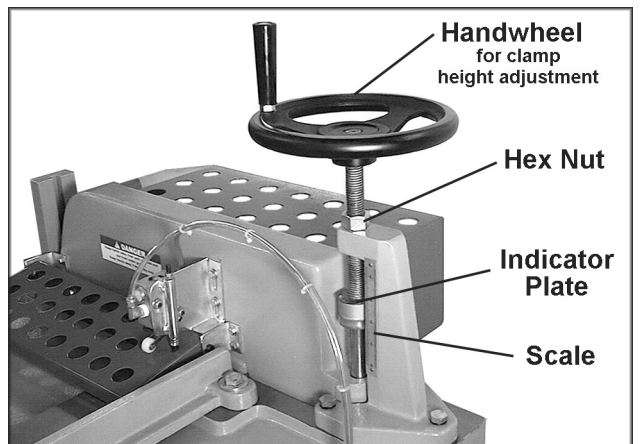


FIGURE 16

## BELT REPLACEMENT

1. Release tension on the v-belt and remove old belt.
2. Make sure the new belt is properly situated into the v-grooves of the pulley.
3. Tension new belt.

## OPERATION

**⚠ WARNING:** Do not place your hands close to the guard/clamp at any time during operations. All guards must be installed before using the machine.

1. Start the motor and the air supply.
2. Adjust height of clamp so it clears the workpiece by about 1/8".
3. Set the appropriate stop(s) on the roller table and load the stock on to the machine from the infeed side.
4. When the stock is situated, press the foot pedal to make the cut.

**⚠ WARNING:** If the motor is shut off, but the air is still on, the clamp will still be in raised position. Turning off the air will cause the clamp to lower suddenly. Keep hands clear! Re-starting the air will cause the clamp to rise suddenly.

## MAINTENANCE

Frequently drain any water out of the pneumatic valve.

The exposed metal areas on the table and fence should be kept clean and free from rust. Apply a coat of paste wax as needed. Another option is to briskly rub talcum powder into the surface with a clean blackboard eraser.

Bearings should be greased through the fitting on the center of the arbor housing (Fig. 18).

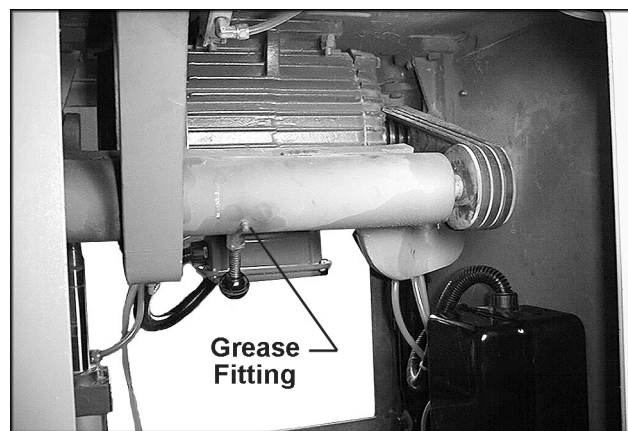


FIGURE 18



## OPTIONAL ACCESSORIES - COS18 Cut-Off Saw

<b>Part No.</b>	<b>Description</b>
6827037 .....	8' Roller Table
6827038 .....	4' RollerTable
6080157 .....	Blade, 18" 120T, 1" Bore
6080158 .....	Premium Blade, 18", 120T, 1" Bore

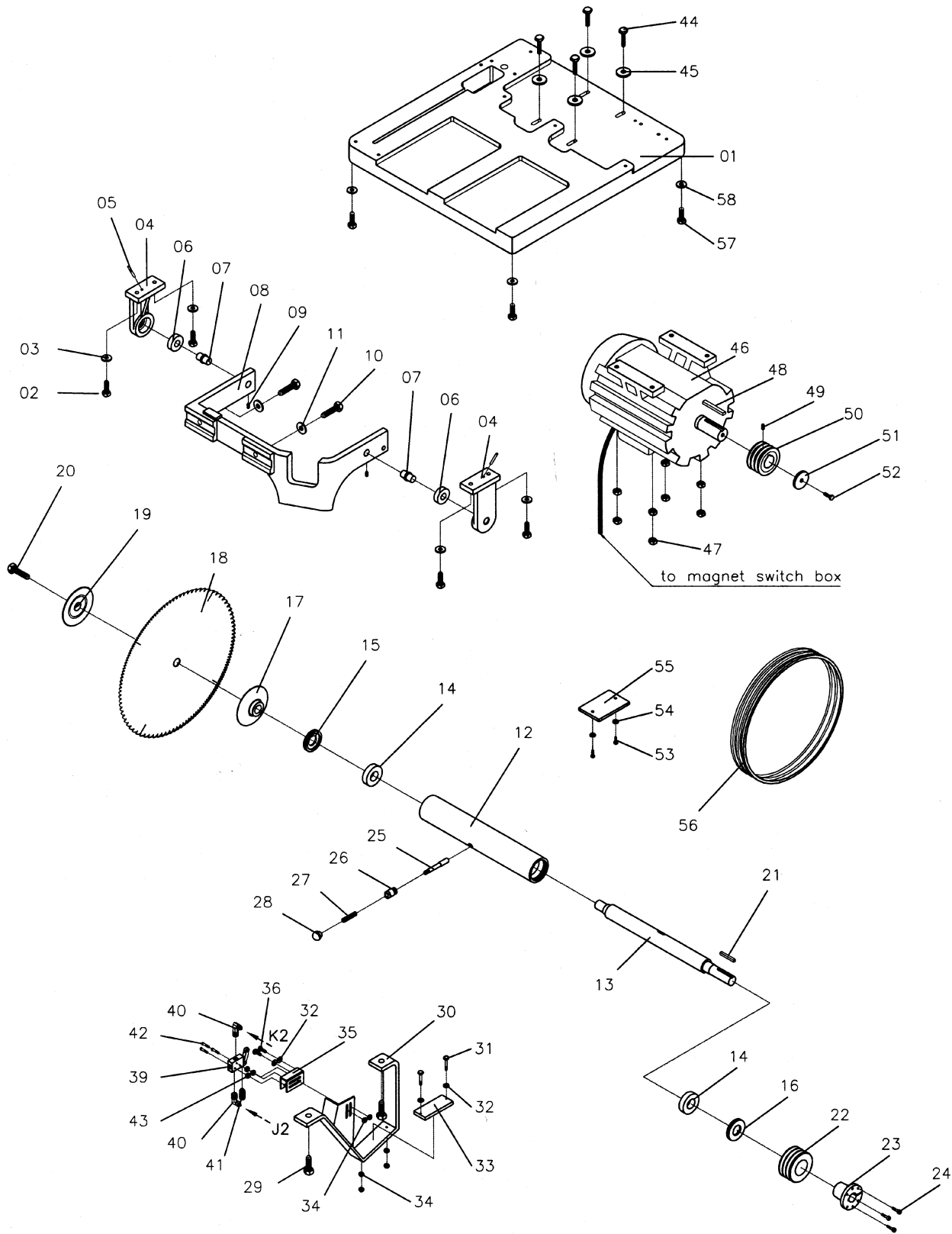
## PARTS LIST: Table & Motor Assembly (COS18 Cut-Off Saw)

Index No.	Part No.	Description	Size	Qty.
1	COS18-101L	Casting Table (Left Hand)		1
1	COS18-101R	Casting Table (Right Hand)		1
2	TS-1505051	Socket Head Cap Screw	M10x35	4
3	TS-2361101	Lock Washer	M10	4
4	COS18-104	Bracket		2
5	COS18-105	Pin	Φ6x30	2
6	BB-6204ZZ	Ball Bearing	6204ZZ	2
7	COS18-107	Spindle		2
8	COS18-108L	Spindle Frame (Left Hand)		1
8	COS18-108R	Spindle Frame (Right Hand)		1
9	TS-1523031	Socket Set Screw	M6x10	2
10	TS-2211451	Hex Cap Screw	M12x45	2
11	TS-2360121	Flat Washer	M12	2
	COS18-109L	Spindle Assembly (Left Hand) (Items 12 thru 17 & 19 thru 28)		1
	COS18-109R	Spindle Assembly (Right Hand) (Items 12 thru 17 & 19 thru 28)		1
12	COS18-112	Main Shaft Housing		1
13	COS18-113L	Main Shaft		1
13	COS18-113R	Main Shaft		1
14	BB-6206Z	Ball Bearing	6206Z	2
15	COS18-115L	Spacer (Left Hand)		1
15	COS18-115R	Spacer (Right Hand)		1
16	COS18-116L	Spacer (Left Hand)		1
16	COS18-116R	Spacer (Right Hand)		1
17	COS18-117	Spindle Collar		1
18	6080157	Saw Blade	Φ18"x25.4x120T	1
19	COS18-119	Spindle Collar		1
20	COS18-120L	Socket Head Cap Screw	M12x30 (L.H.)	1
20	TS-1506031	Socket Head Cap Screw	M12x30 (R.H.)	1
21	COS18-121	Key	7x7x50	1
22	COS18-122	Pulley		1
23	COS18-123	Adapter		1
24	TS-1503061	Socket Head Cap Screw	M6x25	3
25	COS18-125	Special Pin		1
26	COS18-126	Locker		1
27	COS18-127	Spring		1
28	COS18-128	Knob	W3/8"x30	1
29	TS-1492031	Hex Cap Screw	M12x35	2
30	COS18-130L	Bracket (Left Hand)		1
30	COS18-130R	Bracket (Right Hand)		1
31	TS-1503091	Socket Head Cap Screw	M6x40	2
32	TS-1550041	Flat Washer	M6	6
33	COS18-133	Fix Plate		1
34	TS-1540041	Hex Nut	M6x1P	6
35	COS18-135	Limited Switch Seat		1
36	TS-1503041	Socket Head Cap Screw	M6x16	2
39	COS18-139	Limit Switch		1
40	COS18-140	Tube Fittings (L type)	1/8"xΦ6	2
41	COS18-141	Silencer	1/8"	1
42	TS-2284252	Pan Head Machine Screw	M4x25	3

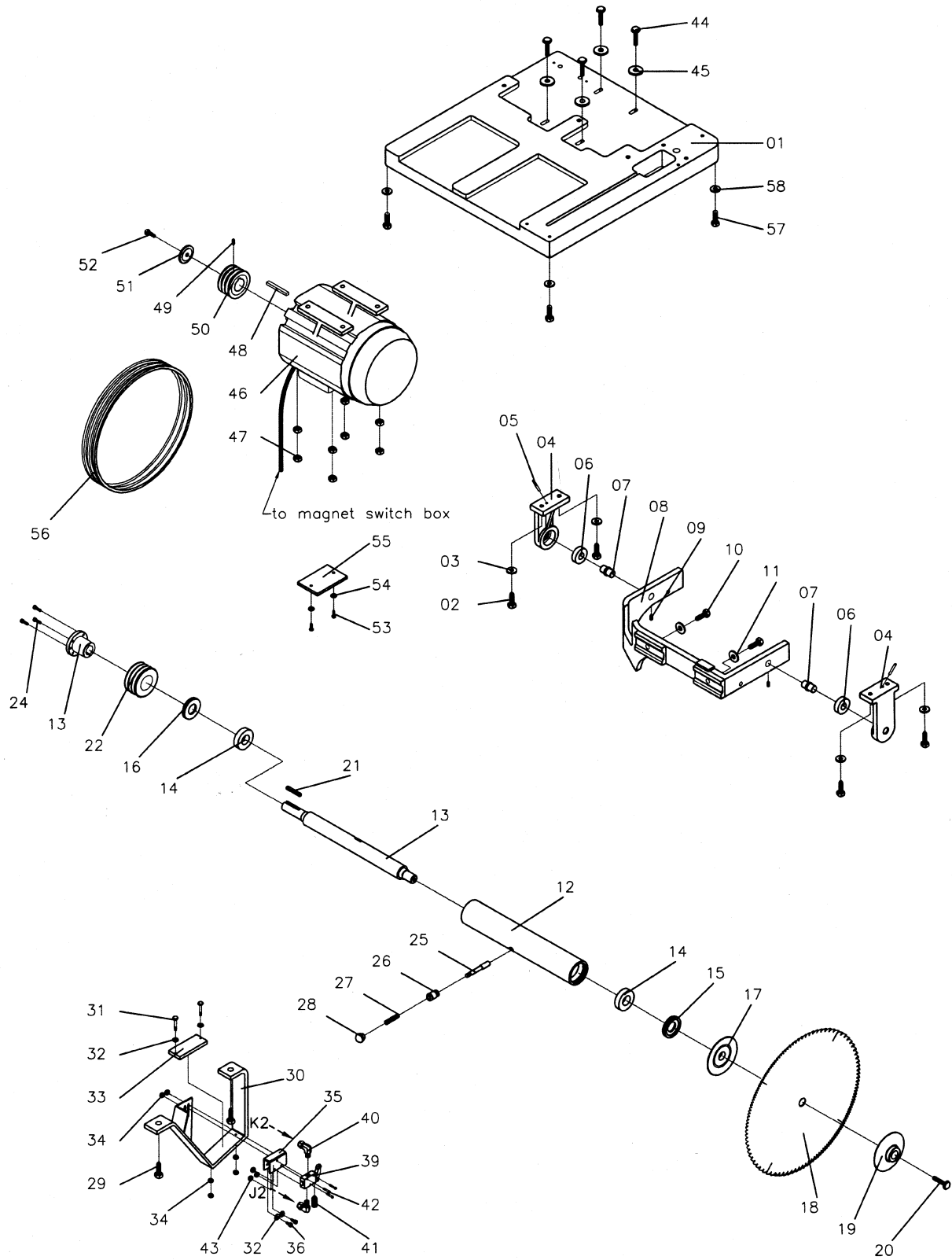
**PARTS LIST: Table & Motor Assembly (COS18 Cut-Off Saw) continued**

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty.</b>
43.....	TS-1540021 .....	Hex Nut .....	M4x0.7P.....	3
44.....	TS-1491101 .....	Hex Cap Screw.....	M10x60 .....	4
45.....	TS-1550071 .....	Flat Washer .....	M10 .....	4
46.....	COS18-146L.....	Motor, 10HP, 3PH, 230/460V, 60Hz (LH) ...		1
46.....	COS18-146R .....	Motor, 10HP, 3PH, 230/460V, 60Hz, (RH) .....		1
47.....	TS-1540071 .....	Hex Nut .....	M10x1.5P.....	8
48.....	COS18-148.....	Key .....	10x8x75 .....	1
49.....	TS-1523031 .....	Socket Set Screw.....	M6x10 .....	1
50.....	COS18-150.....	Pulley .....		1
51.....	COS18-151.....	Special Flat Washer.....		1
52.....	COS18-152L.....	Socket Head Cap Screw .....	M10x30 (L.H).....	1
52.....	TS-1505041 .....	Socket Head Cap Screw .....	M10x30 (R.H).....	1
53.....	COS18-153.....	Socket Head Cap Screw .....	M6x16 .....	2
55.....	COS18-155.....	Fix Plate .....		1
56.....	COS18-156.....	V-Belt .....	3V-1310.....	3
57.....	TS-1506051 .....	Socket Head Cap Screw .....	M12x40 .....	4
58.....	TS-2361121 .....	Lock Washer.....	M12 .....	4

# Table & Motor Assembly – Left Hand (COS18 Cut-Off Saw)



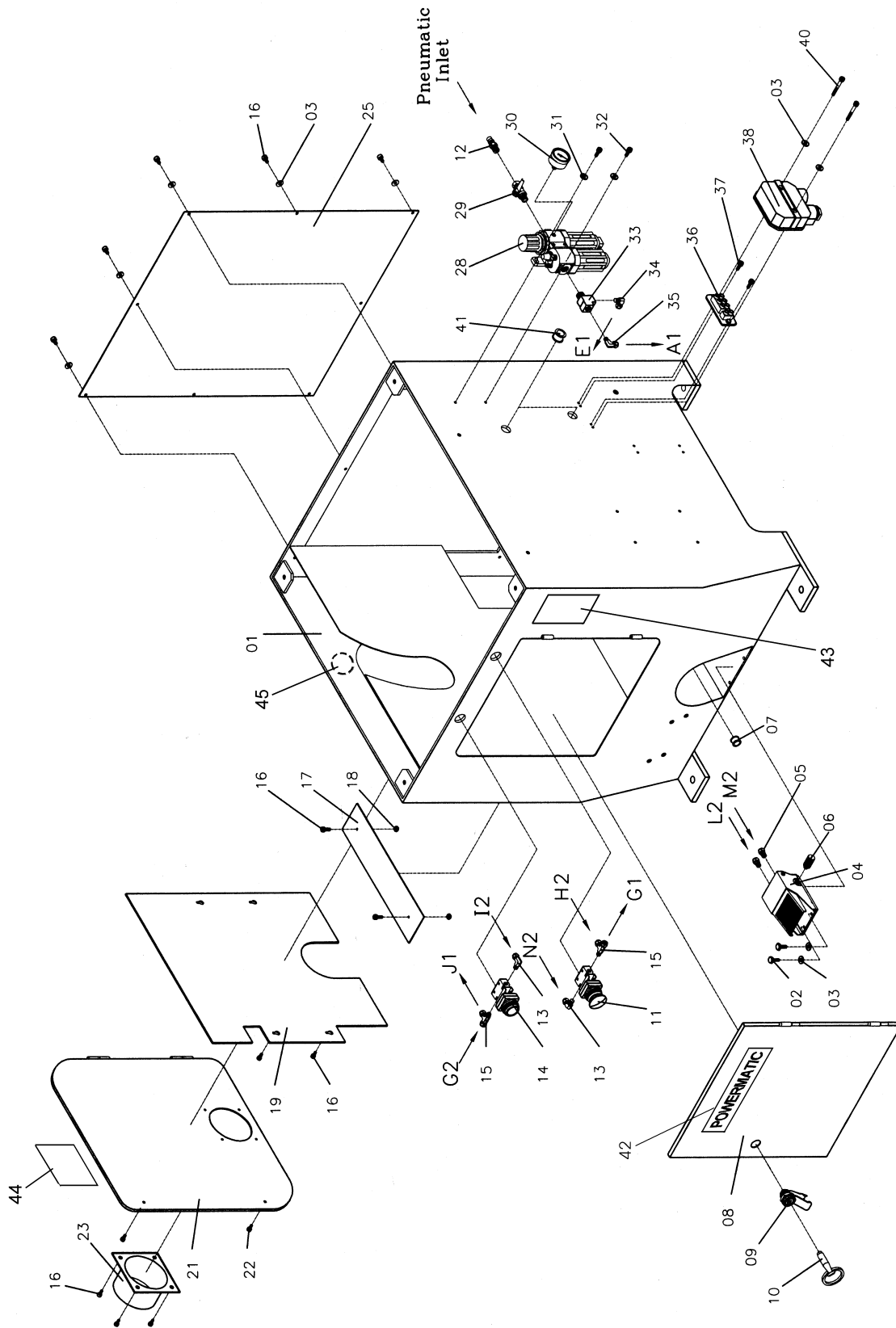
# Table & Motor Assembly – Right Hand (COS18 Cut-Off Saw)



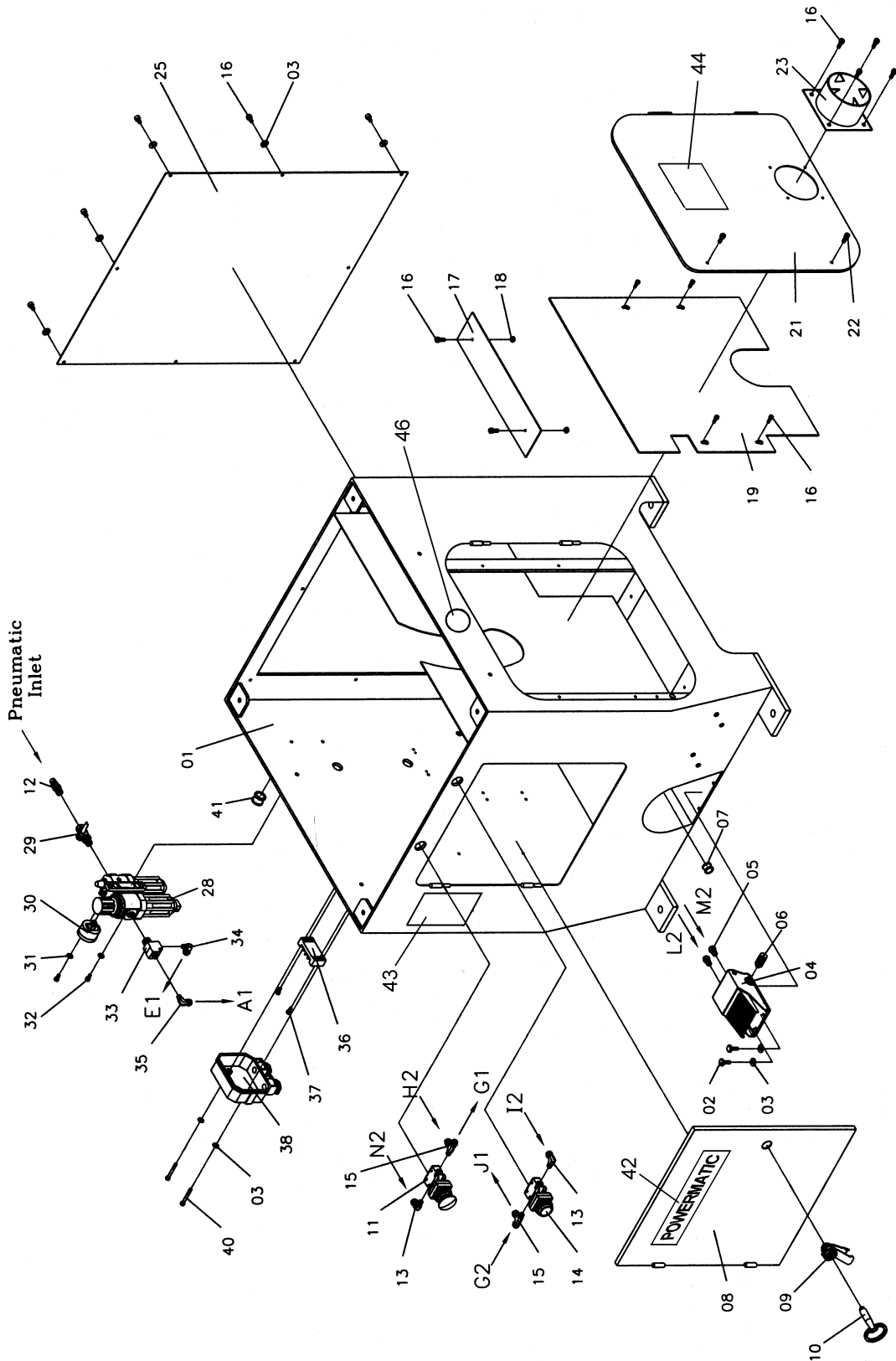
## PARTS LIST: **Stand Assembly** (COS18 Cut-Off Saw)

Index No.	Part No.	Description	Size	Qty.
1	COS18-201L	Stand (Left Hand)		1
1	COS18-201R	Stand (Right Hand)		1
2	TS-1481041	Hex Cap Screw	M5x16	12
3	TS-1550031	Flat Washer	M5	2
4	COS18-204	Pedal Switch	230-8A	1
5	COS18-205	Tube Fittings (I type)	1/4"xφ6	2
6	COS18-206	Silencer	1/4"	2
7	COS18-207	Rubber Sleeve		1
8	COS18-208L	Front Door (Left Hand)		1
8	COS18-208R	Front Door (Right Hand)		1
9	COS18-209	Lock		1
10	COS18-210	Key		1
11	COS18-211	Emergency Button		1
12	COS18-212	Quick Fittings	1/4"	1
13	COS18-140	Tube Fittings (L type)	1/8"xφ6	2
14	COS18-214	Air Pressure Start Button		1
15	COS18-215	Tube Fittings (T type)	1/8"xφ6	2
16	TS-1502021	Socket Head Cap Screw	M5x10	18
17	COS18-217	Plate		1
18	TS-2310051	Hex Nut	M5x0.8P	2
19	COS18-219	Safety Cover, P.V.C		1
21	COS18-221L	Side Door (Left Hand)		1
21	COS18-221R	Side Door (Right Hand)		1
22	TS-1502061	Socket Head Cap Screw	M5x25	2
23	COS18-223	Exhaust Hood		1
25	COS18-225	Cover		1
28	COS18-228L	Air Filter (Oil Type) (Left Hand)	MACP300-10A	1
28	COS18-228R	Air Filter (Oil Type) (Right Hand)	MACP300-10A	1
29	COS18-229	Ball valve	1/4"	1
30	COS18-230	Pressure Gauge		1
31	TS-1550041	Flat Washer	M6	2
32	TS-1503041	Socket Head Cap Screw	M6x16	2
33	COS18-233	Connection Block	3/8"	1
34	COS18-234	Tube Fittings (L type)	3/8"xφ10	1
35	COS18-235	Tube Fittings (L type)	3/8"xφ6	1
36	COS18-236	Connection Board		1
37	TS-1532052	Pan Head Machine Screw	M4x15	2
38	COS18-238	Connection Box		1
40	TS-1502101	Socket Head Cap Screw	M5x45	2
41	COS18-241	Rubber Sleeve		2
42	3312341	Powermatic Logo Label		1
43	COS18-242	Warning Label		1
44	COS18-243	Warning Label		1
45	COS18-244	Rotation Blade L.H. Label		1
46	COS18-245	Rotation Blade R.H. Label		1

# Stand Assembly – Left Hand (COS18 Cut-Off Saw)



# Stand Assembly – Right Hand (COS18 Cut-Off Saw)

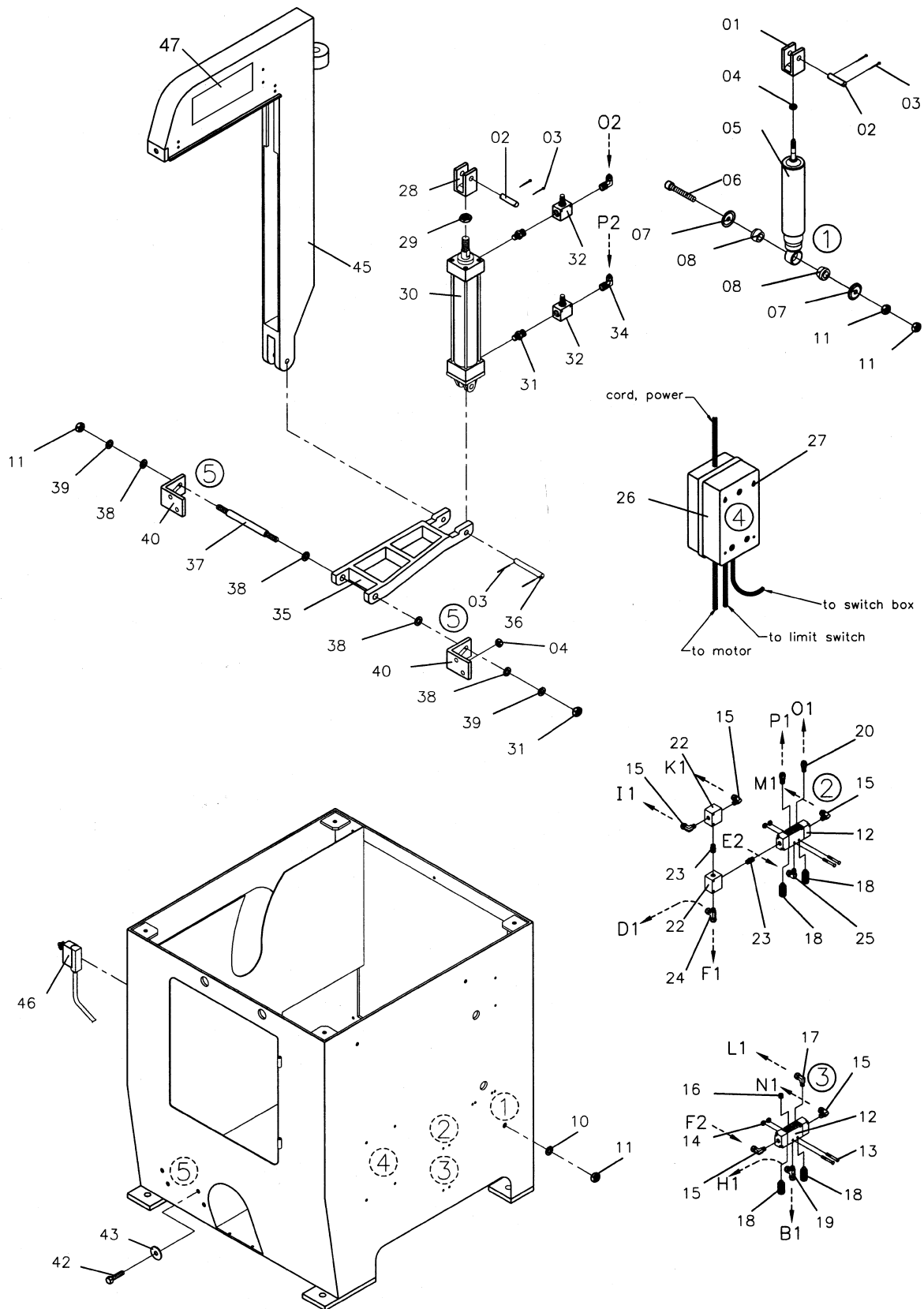




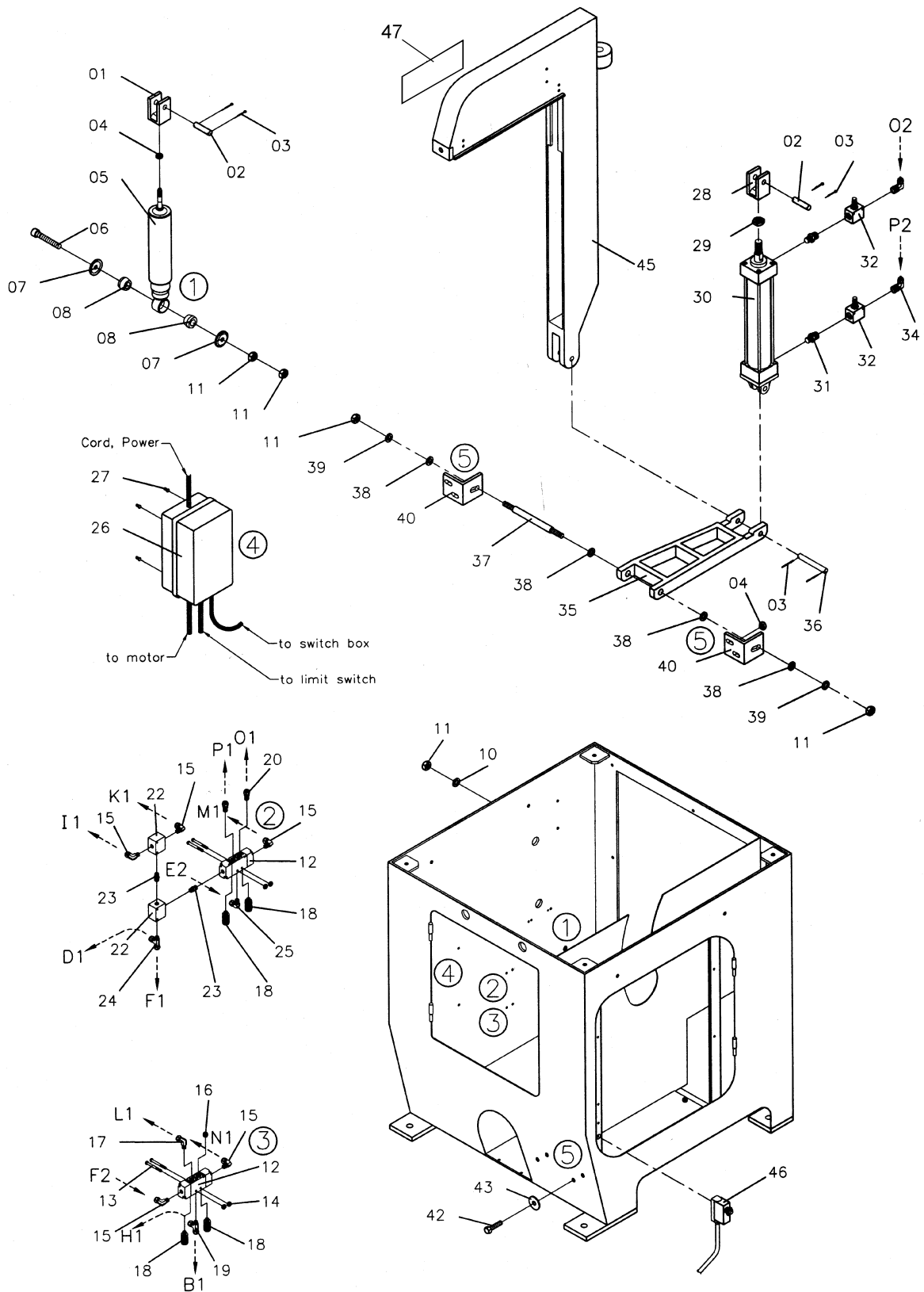
## PARTS LIST: Air Control Assembly (COS18 Cut-Off Saw)

Index No.	Part No.	Description	Size	Qty.
1	COS18-301	Toggle Joint		1
2	COS18-302	Shaft		2
3	COS18-303	Cotter Pin	SSP-12	6
4	TS-1540071	Hex Nut	M10x1.5P	5
5	COS18-305	Shock Absorber	Tokico3243	1
6	TS-1506131	Socket Head Cap Screw	M12x80	1
7	COS18-307	Ring	M12	2
8	COS18-308	Nylon Ring	M12	2
10	TS-155108	Lock Washer	M12	1
11	TS-1540081	Hex Nut	M12x1.75P	5
12	COS18-312	Valve		2
13	TS-2284352	Pan Head Machine Screw	M4x35	4
14	TS-1540021	Hex Nut	M4x0.7P	4
15	COS18-140	Tube Fittings (L type)	1/8"xφ6	5
16	COS18-316	Plug	1/4"x10	1
17	COS18-317	Tube Fittings (L type)	1/4"xφ6	1
18	COS18-141	Silencer	1/8"	4
19	COS18-319	Tube Fittings (T type)	1/4"xφ6	1
20	COS18-320	Tube Fittings (I type)	1/4"xφ10	2
22	COS18-322	Connector Block	1/8"	2
23	COS18-323	Nipple	1/8"x1/8"	2
24	COS18-215	Tube Fittings (T type)	1/8"xφ6	1
25	COS18-325	Tube Fittings (L type)	1/4"xφ10	1
26	COS18-326	Switch Control Box	MS-P35	1
27	TS-1533032	Pan Head Machine Screw	M5x10	4
28	COS18-328	Toggle Joint		1
29	TS-2310162	Hex Nut	M16x1.5P	1
30	COS18-330	Cylinder	CB-50*230	1
31	COS18-331	Jointer	1/4"x3/8"	2
32	COS18-332	Air Regulator	3/8"	2
34	COS18-234	Tube Fittings (L type)	3/8"xφ10	2
35	COS18-335L	Swaying Arm (Left Hand)		1
35	COS18-335R	Swaying Arm (Right Hand)		1
36	COS18-336	Special Pin		1
37	COS18-337	Shaft		1
38	TS-2360121	Flat Washer	M12	4
39	TS-0720111	Lock Washer	1/2"	3
40	COS18-340L	Bracket (Left Hand)		2
40	COS18-340R	Bracket (Right Hand)		2
42	TS-1491031	Hex Cap Screw	M10x25	4
43	TS-1551071	Lock Washer	M10	8
45	COS18-345L	Clamp Arm (Left Hand)		1
45	COS18-345R	Clamp Arm (Right Hand)		1
46	COS18-346	Limit Switch		1
47	COS18-347	Danger Label		1

# Air Control Assembly – Left Hand (COS18 Cut-Off Saw)



# Air Control Assembly – Right Hand (COS18 Cut-Off Saw)



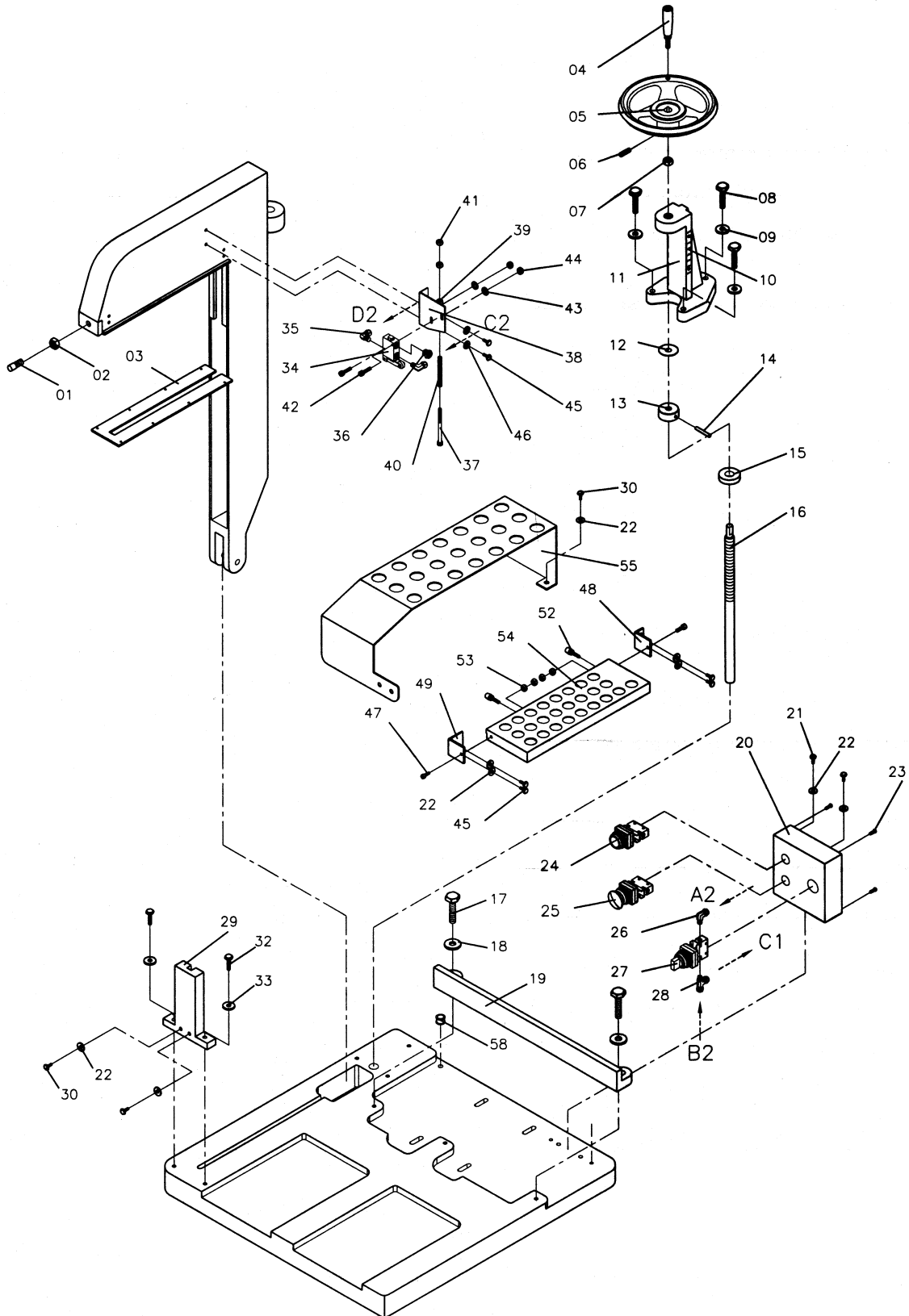
## PARTS LIST: Safety Guard Assembly (COS18 Cut-Off Saw)

Index No.	Part No.	Description	Size	Qty.
1	COS18-401	Special Fixed Pin, guider		1
2	TS-0561051	Hex Nut	1/2"-13	1
3	COS18-403	Rubber Cushion		1
4	COS18-404	Knob		1
5	COS18-405	Handwheel		1
6	TS-1524021	Socket Set Screw	M8x10	1
7	TS-0561081	Hex Nut	3/4"-10	1
8	TS-1491061	Hex Cap Screw	M10x40	3
9	TS-2361101	Lock Washer	M10	3
10	COS18-410	Depth scale		1
11	COS18-411	Support Seat		1
12	COS18-412	Donut, Red sign		1
13	COS18-413	Stopper		1
14	COS18-414	Pin	Φ6x40	1
15	COS18-415	Ring		1
16	COS18-416	Lead Screw		1
17	TS-1492041	Hex Cap Screw	M12x40	2
18	TS-2360121	Flat Washer	M12	2
19	COS18-419	Fence		1
20	COS18-420	Control Box		1
21	TS-1482011	Hex Cap Screw	M6x10	2
22	TS-1550041	Flat Washer	M6	9
23	TS-1533042	Pan Head Machine Screw	M5x12	4
24	COS18-424	Power On Button		1
25	COS18-425	Power Off Button		1
26	COS18-140	Tube Fittings (L type)	1/8"xφ6	1
27	COS18-427	On/Off Air Control Switch	VM104	1
28	COS18-215	Tube Fittings (T type)	1/8"xφ6	1
29	COS18-429	Guider Seat		1
30	TS-1482031	Hex Cap Screw	M6x16	3
32	TS-1490051	Hex Cap Screw	M8x30	2
33	TS-2361081	Lock Washer	M8	2
34	COS18-434	Limit Switch		1
35	COS18-317	Tube Fittings (L type)	1/4"xφ6	2
36	COS18-436	Silencer	1/4"	1
37	TS-2235991	Socket Head Cap Screw	M5x100	1
38	COS18-438L	Bracket (Left Hand)		1
38	COS18-438R	Bracket (Right Hand)		1
39	COS18-439	Spring Housing		1
40	COS18-440	Spring		1
41	TS-1540031	Hex Nut	M5x0.8P	2
42	TS-1501091	Socket Head Cap Screw	M4x35	2
43	TS-1550021	Flat Washer	M4	2
44	TS-1540021	Hex Nut	M4x0.7P	2
45	TS-1481021	Hex Cap Screw	M5x10	6
46	TS-1550031	Flat Washer	M5	2
47	TS-1503041	Socket Head Cap Screw	M6x16	2
48	COS18-448	Bracket		1
49	COS18-449	Bracket		1
52	COS18-452	Special Rubber Head Screw	W1/4"x25	2

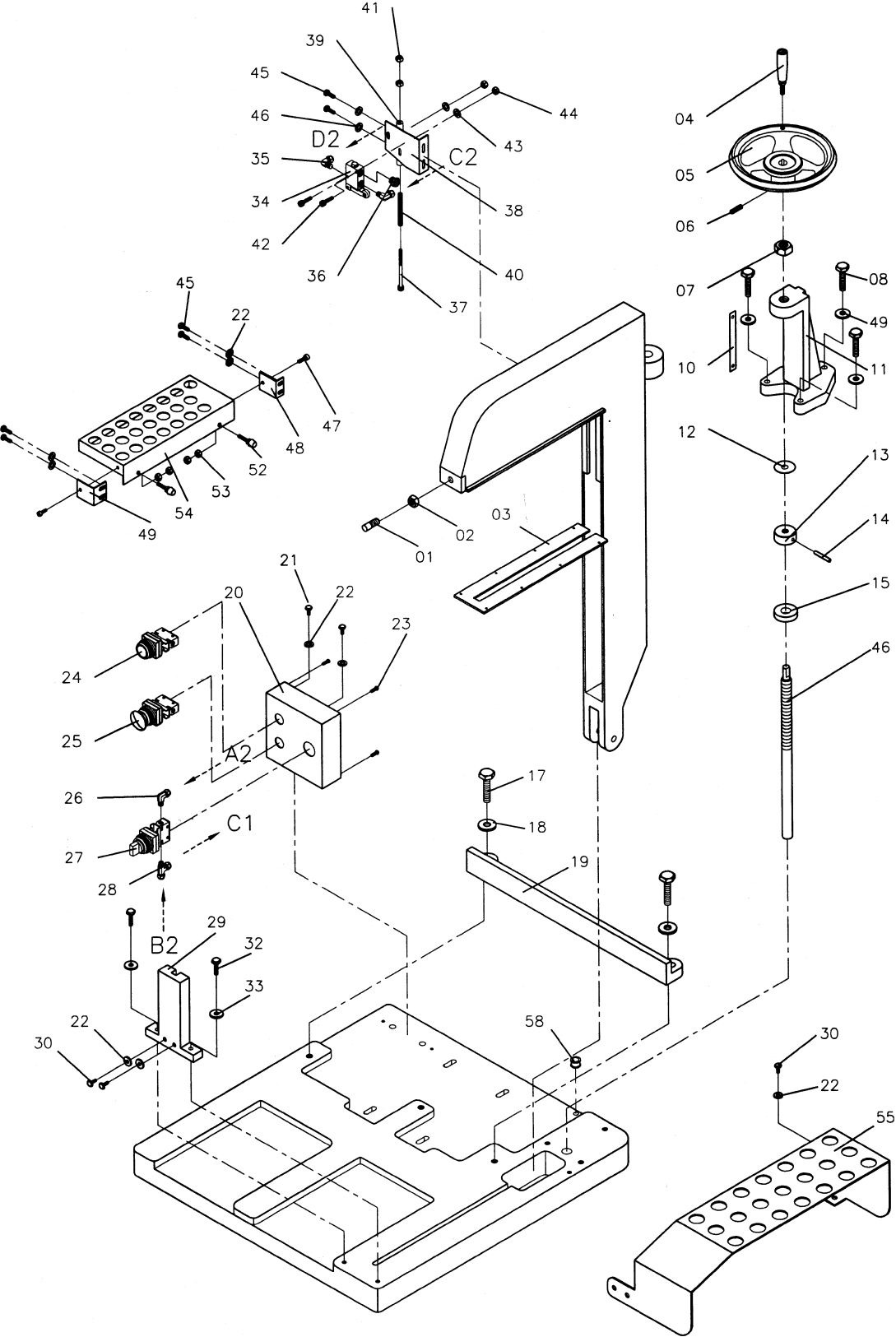
**PARTS LIST: Safety Guard Assembly (COS18 Cut-Off Saw) continued**

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty.</b>
53.....	TS-1540041 .....	Hex Nut.....	M6x1P.....	4
54.....	COS18-454L .....	Pneumatic Guard (Left Hand).....		1
54.....	COS18-454R .....	Pneumatic Guard (Right Hand) .....		1
55.....	COS18-455L .....	Safety Cover (Left Hand) .....		1
55.....	COS18-455R .....	Safety Cover (Right Hand) .....		1
58.....	COS18-207 .....	Rubber Sleeve .....		1

# Safety Guard Assembly – Left Hand (COS18 Cut-Off Saw)



# Safety Guard Assembly – Right Hand (COS18 Cut-Off Saw)

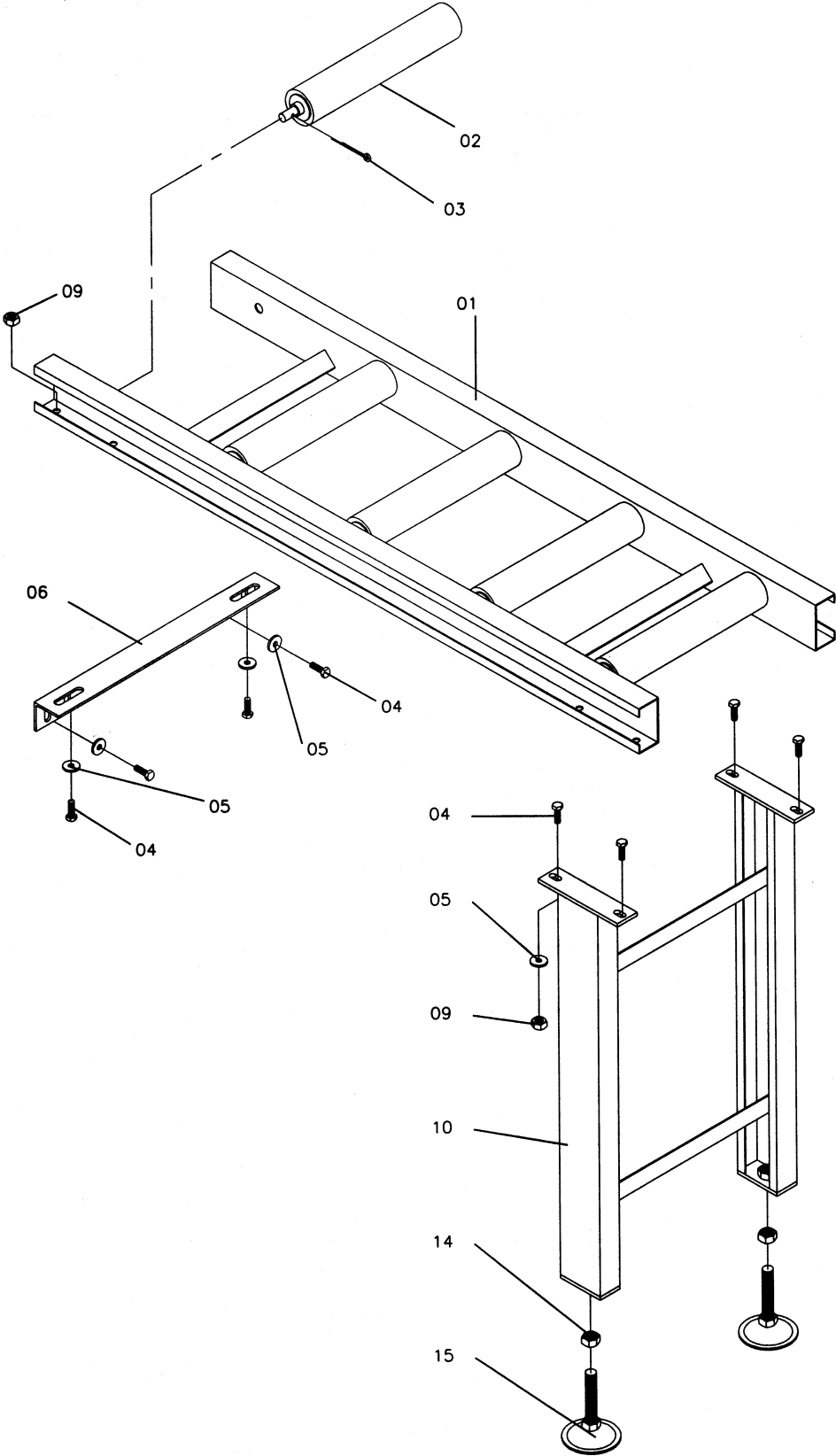


**PARTS LIST: 4' Roller Table Assembly (COS18 Cut-Off Saw) #6827038**  
**Optional Accessory**

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty.</b>
1	COS18-501	Roller Table	4'	1
2	COS18-502	Roller		5
3	COS18-503	Split Pin		10
4	TS-1490021	Hex Cap Screw	M8x16	8
5	TS-1550051	Flat Washer	M8	8
6	COS18-506	Bracket		1
9	TS-1540061	Hex Nut	M8x1.25P	6
10	COS18-510	Leg		1
14	TS-0561071	Hex Nut	5/8"-11	2
15	COS18-515	Adjusting Foot	5/8"	2



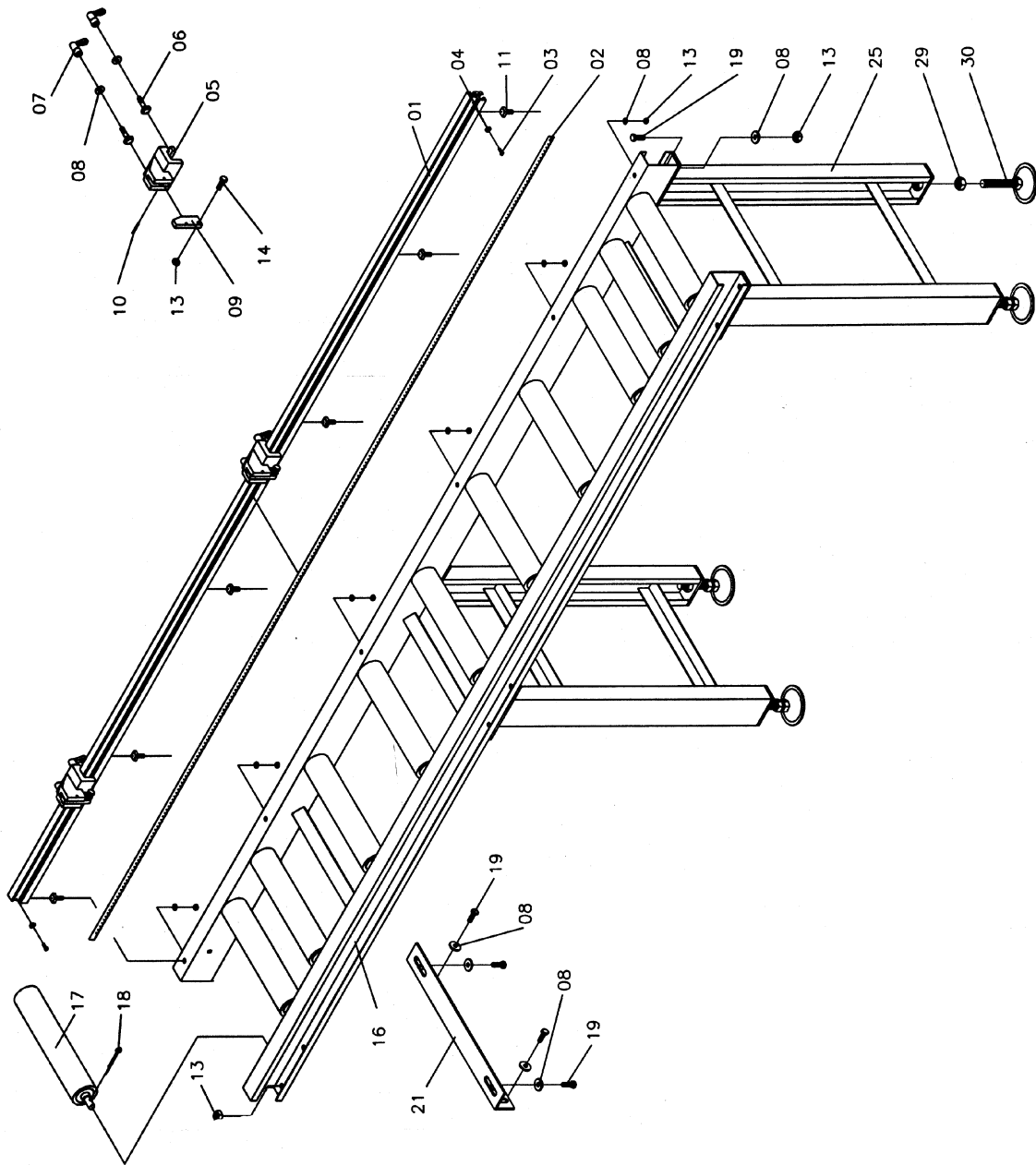
**4' Roller Table Assembly (COS18 Cut-Off Saw) #6827038 Optional Accessory**



**PARTS LIST: 8' Roller Table Assembly (COS18 Cut-Off Saw) #6827037**  
Optional Accessory

<b>Index No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Size</b>	<b>Qty.</b>
1	COS18-601	Guide Rail	8'	1
2	COS18-602	Scale	2400mm	1
3	COS18-603	Pan Head Machine Screw	M5x5	2
4	TS-1550031	Flat Washer	M5	2
5	COS18-605	Guide Body		3
6	COS18-606	Square Head Bolt	M8x40	6
7	COS18-607	Lock Handle		6
8	TS-1550051	Flat Washer	M8	24
9	COS18-609	Guide Stopper		3
10	COS18-610	Spring Pin	Φ3x30	3
11	COS18-611	Square Head Bolt	M8x27	6
13	TS-1540061	Hex Nut	M8x1.25P	19
14	TS-1490041	Hex Cap Screw	M8x25	3
16	COS18-616	Roller Table	8'	1
17	COS18-502	Roller		11
18	COS18-503	Split Pin		22
19	TS-1490021	Hex Cap Screw	M8x16	12
21	COS18-506	Bracket		1
25	COS18-510	Leg		2
29	TS-0561071	Hex Nut	5/8"-11	4
30	COS18-515	Adjusting Foot	5/8"	4

# 8' Roller Table Assembly (COS18 Cut-Off Saw) #6827037 Optional Accessory

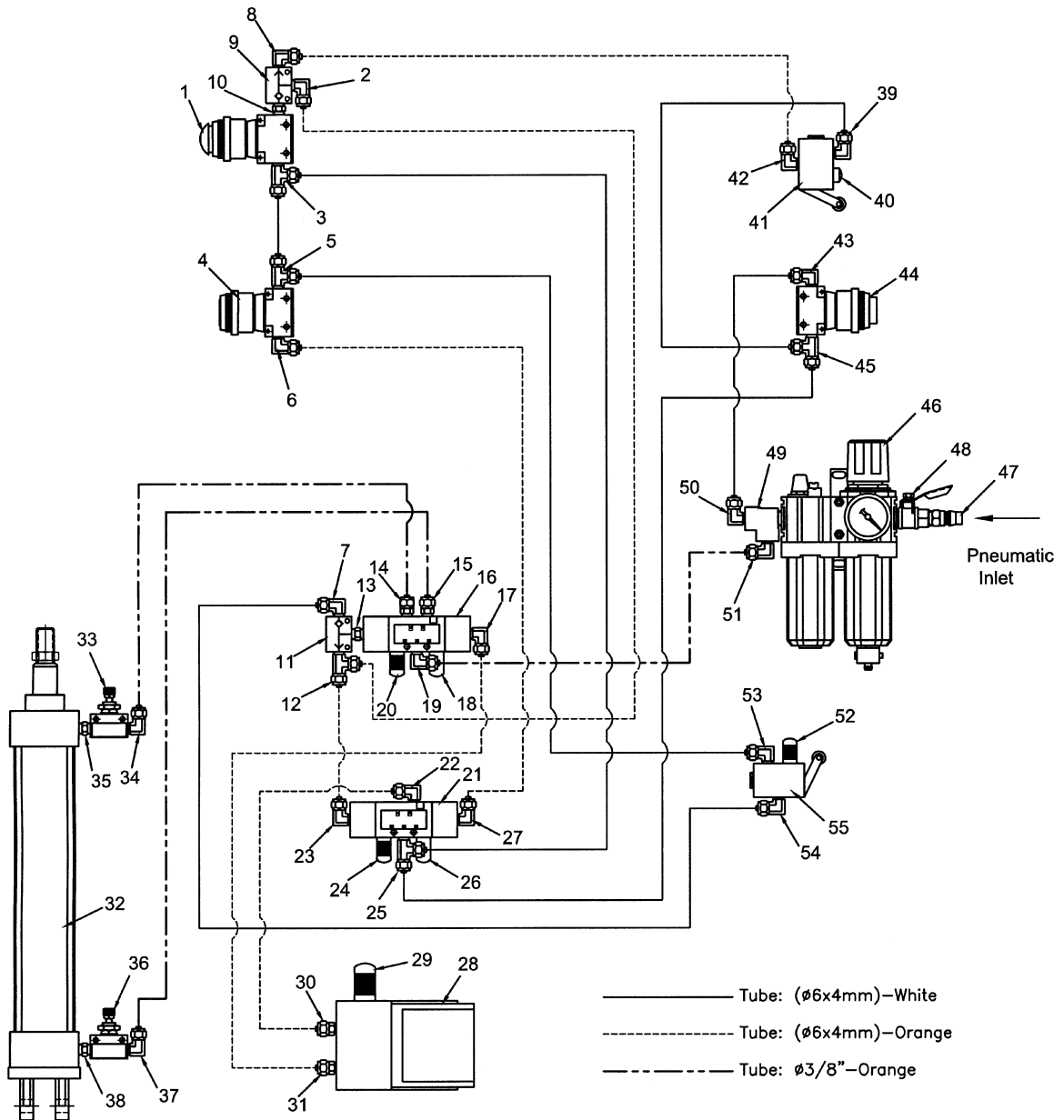


## PARTS LIST: Pneumatic Diagram (COS18 Cut-Off Saw)

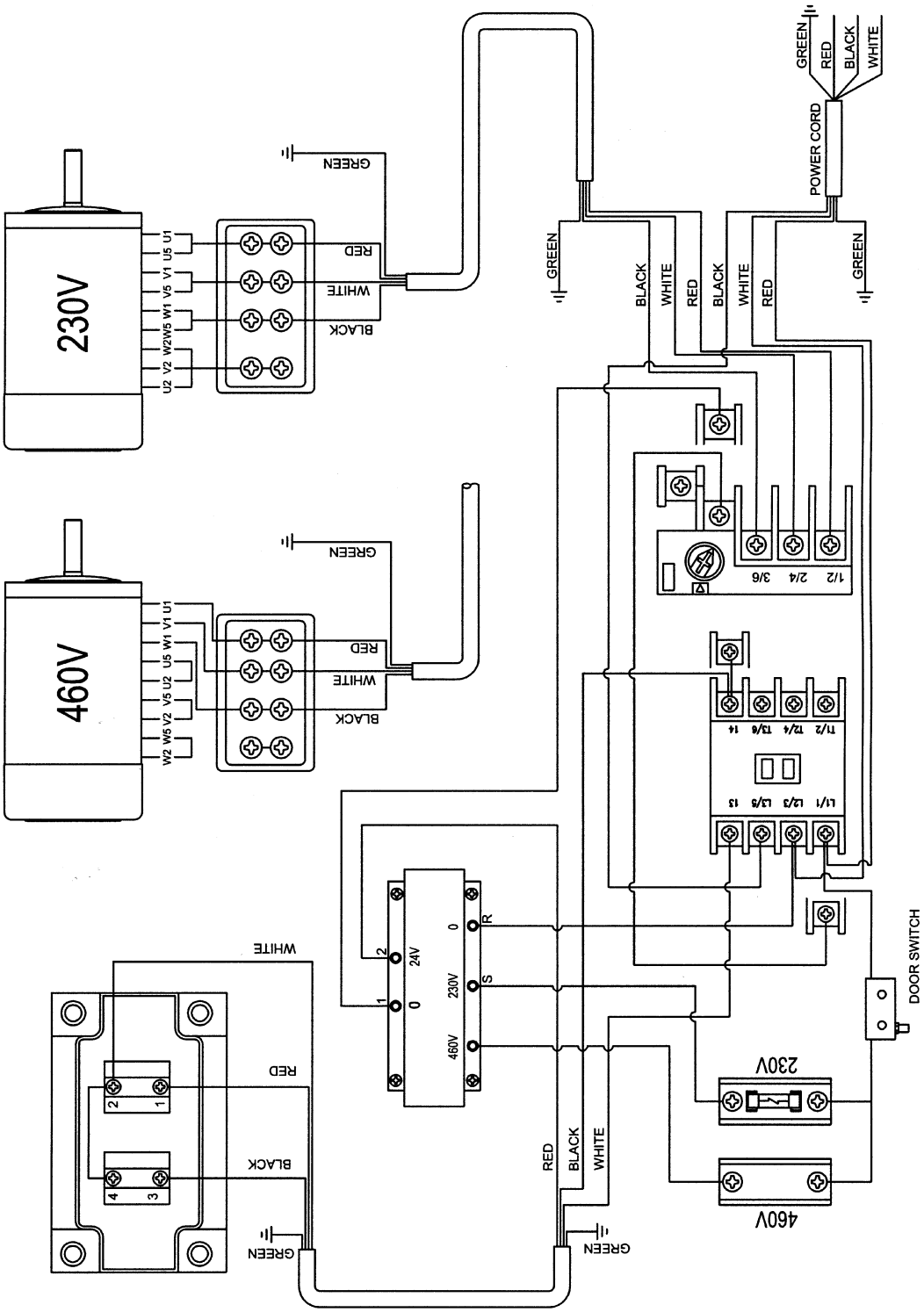
Index No.	Part No.	Description	Size
1	COS18-211	Emergency Button	
2	COS18-140	Tube Fittings (L type)	1/8"xφ6
3	COS18-215	Tube Fittings (T type)	1/8"xφ6
4	COS18-214	Air Pressure Start Button	
5	COS18-215	Tube Fittings (T type)	1/8"xφ6
6	COS18-140	Tube Fittings (L type)	1/8"xφ6
7	COS18-140	Tube Fittings (L type)	1/8"xφ6
8	COS18-140	Tube Fittings (L type)	1/8"xφ6
9	COS18-322	Jointer Block	1/8"
10	COS18-323	Jointer	1/8"x1/8"
11	COS18-322	Jointer Block	1/8"
12	COS18-215	Tube Fittings (T type)	1/8"xφ6
13	COS18-323	Jointer	1/8"x1/8"
14	COS18-320	Tube Fittings (I type)	1/4"xφ10
15	COS18-320	Tube Fittings (I type)	1/4"xφ10
16	COS18-312	Connector	
17	COS18-140	Tube Fittings (L type)	1/8"xφ6
18	COS18-141	Silencer	1/8"
19	COS18-325	Tube Fittings (L type)	1/4"xφ10
20	COS18-141	Silencer	1/8"
21	COS18-312	Connector	
22	COS18-317	Tube Fittings (L type)	1/4"xφ6
23	COS18-140	Tube Fittings (L type)	1/8"xφ6
24	COS18-141	Silencer	1/8"
25	COS18-319	Tube Fittings (T type)	1/4"xφ6
26	COS18-141	Silencer	1/8"
27	COS18-140	Tube Fittings (L type)	1/8"xφ6
28	COS18-204	Pedal Switch	230-8A
29	COS18-206	Silencer	1/4"
30	COS18-205	Tube Fittings (I type)	1/4"xφ6
31	COS18-205	Tube Fittings (I type)	1/4"xφ6
32	COS18-330	Cylinder	CB-50*230
33	COS18-332	Air Regulator	3/8"
34	COS18-234	Tube Fittings (L type)	3/8"xφ10
35	COS18-331	Jointer	1/4"x3/8"
36	COS18-332	Air Regulator	3/8"
37	COS18-234	Tube Fittings (L type)	3/8"xφ10
38	COS18-331	Jointer	1/4"x3/8"
39	COS18-317	Tube Fittings (L type)	1/4"xφ6
40	COS18-436	Silencer	1/4"
41	COS18-434	Limit Switch	
42	COS18-317	Tube Fittings (L type)	1/4"xφ6
43	COS18-140	Tube Fittings (L type)	1/8"xφ6
44	COS18-427	On/Off Air Control Switch	
45	COS18-215	Tube Fittings (T type)	1/8"xφ6
46	COS18-228(R/L)	Air Filter (Oil Type)	MACP300-10A
47	COS18-212	Quick Fittings	1/4"
48	COS18-229	Ball valve	1/4"
49	COS18-233	Connection Block	3/8"

# PARTS LIST: Pneumatic Diagram (COS18 Cut-Off Saw) continued

Index No.	Part No.	Description	Size
50	COS18-235	Tube Fittings (L type)	3/8"xφ6
51	COS18-234	Tube Fittings (L type)	3/8"xφ10
52	COS18-141	Silencer	1/8"
53	COS18-140	Tube Fittings (L type)	1/8"xφ6
54	COS18-140	Tube Fittings (L type)	1/8"xφ6
55	COS18-139	Limit Switch	



# ELECTRICAL SCHEMATIC (COS18 Cut-Off Saw)



## **Preventive Maintenance**

### Checklist for Model COS18 Cut-Off Saw

- [ ] Work area around machine marked off clearly.
- [ ] Non-skid floor strips in area where operator normally stands.
- [ ] Inspect entire machine for loose bolts, nuts, screws. Tighten and replace as necessary.
- [ ] Clean table area, removing sawdust and chips with a soft bristle brush. Remove gum and pitch with oven cleaner.
- [ ] Lubricate appropriate places with a good grade non-hardening grease.
- [ ] Clean table and fence surface. If rusted, use paste mixture of household ammonia, a good commercial detergent and 000 steel wool. Wash surface down with hot, soapy water, rinse and dry thoroughly. Coat surface with talcum powder, rubbing briskly into surface with a clean blackboard eraser.
- [ ] Check blade condition; should be sharp and free of nicks or grooves.
- [ ] Check belt condition. Replace as needed. Dress with belt dressing. Check belt tension.
- [ ] Check motor for loose wiring and sawdust congestion, pulleys tight and in line.
- [ ] Check bearings. Replace any bad or suspect bearings immediately.
- [ ] Fence properly aligned and square.
- [ ] Foot pedal has proper adjustment.
- [ ] Check electrical controls function and pneumatic guard operation.
- [ ] Check alignment of roller tables with main table.

To order parts or reach our service department, please call our toll-free number between 8:00 a.m. and 4:30 p.m. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately. Locating the stock number of the part(s) required from your parts manual will also expedite your order.

Phone No.: (800) 248-0144

Fax No. (800) 274-6840

If you are calling from Canada, please call 800-238-4746

E-mail: [powermatic@wmhtoolgroup.com](mailto:powermatic@wmhtoolgroup.com)

Website: [www.powermatic.com](http://www.powermatic.com)

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