

# INSTRUCTION MANUAL

**K12-14MS**



**KALAMAZOO  
INDUSTRIES, INC.**

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## **WARNING!**

### **READ AND UNDERSTAND ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS BEFORE OPERATING UNIT**

#### **OPERATING INSTRUCTIONS**

INSPECT YOUR NEW UNIT CAREFULLY FOR SIGNS OF SHIPPING DAMAGE. IF DAMAGED, PLEASE CONTACT CARRIER AND SUBMIT A CONCEALED DAMAGED REPORT. DO NOT RETURN GOODS TO US WITHOUT OUR RGA NUMBER AND SHIPPING INSTRUCTIONS. SEE BACK PAGE FOR RETURN POLICY AND WARRANTY.

BEFORE STARTING OR CONNECTING ELECTRICALS VERIFY THE PHASE AND VOLTAGE OF THE UNIT.

BE SURE MACHINE IS BALANCED CORRECTLY SO IT WILL NOT TIP OVER.

TO GUARD AGAINST CONCEALED DAMAGE, STAND CLEAR AND OBSERVE UNIT FOR THE FIRST FEW MINUTES OF OPERATION. GUARDS MUST NEVER BE REMOVED.

#### **ABRASIVE SAW SAFETY**

NEVER REMOVE SAFETY GUARDS FROM MACHINE. DISCONNECT POWER SOURCE BEFORE MAKING ANY MACHINE ADJUSTMENTS

DO NOT USE AROUND FLAMMABLE MATERIALS OR LIQUIDS.

MACHINES SHOULD BE OPERATED IN VENTILATED AREAS.

ALWAYS WEAR SAFETY GLASSES OR A FULL FACE SHIELD FOR PROTECTION.

KEEP HANDS CLEAR OF THE CUTTING AREA.

DO NOT WEAR GLOVES OR LOOSE FITTING CLOTHES WHEN OPERATING THIS MACHINE.

ALWAYS KEEP HAIR TIED BACK OR COVERED.

ALWAYS KEEP FLANGES CLEAN AND TIGHT AGAINST CUTTING WHEEL.

ABRASIVE MACHINES ARE FOR ABRASIVE WHEELS NOT STEEL TOOTHED BLADES. DO NOT ATTEMPT TO USE STEEL BLADES UNLESS CORRECTLY GUARDED WITH AN ENCLOSED WHEEL GUARD. KEEP STEEL BLADES FULLY RETRACTED INTO WHEEL GUARD WHEN DONE CUTTING.

ALWAYS KEEP WHEEL GUARD IN DOWN POSITION.

BE SURE WORK PIECE IS CLAMPED SECURELY IN VISE BEFORE CUTTING.

#### **WARNING!!!**

IMPROPER USE MAY CAUSE BREAKAGE AND SERIOUS INJURY.

##### **DO**

1. DO always handle and store wheels in a careful manner.
2. DO visually inspect all wheels before mounting for possible damage.
3. DO check machine speed against the established maximum safe operating speed marked on the wheel.
4. DO check mounting flanges for equal and correct diameter.
5. DO use mounting blotters when supplied with wheels.
6. DO always use a safety guard covering at least one-half of the abrasive wheel.
7. DO allow newly mounted wheels to run at operating speed, with guard in place, for at least one minute before cutting.
8. DO always wear safety glasses or some type of eye protection when cutting.

##### **DON'T**

1. DON'T use a cracked wheel or one that has been dropped or has become damaged.
2. DON'T force a wheel onto the machine or alter the size of the mounting hole-if wheel won't fit the machine, get one that will.
3. DON'T ever exceed maximum operating speed established for the wheel.
4. DON'T use mounting flanges on which the bearing surfaces are not clean, flat and free of burrs.
5. DON'T tighten the mounting nut excessively.
6. DON'T start the machine until the wheel guard is in place.
7. DON'T jam work into wheel.
8. DON'T force cutting so that motor slows noticeably or work gets hot.
9. DON'T wear gloves when operating machine.

## Basic Controls

### K12-14MS

14" blade, 1" arbor, LH thread.

5 hp, 3 phase, oscillation., PH-14 air/oil power down feed. Use DTE 24 hyd. Oil.

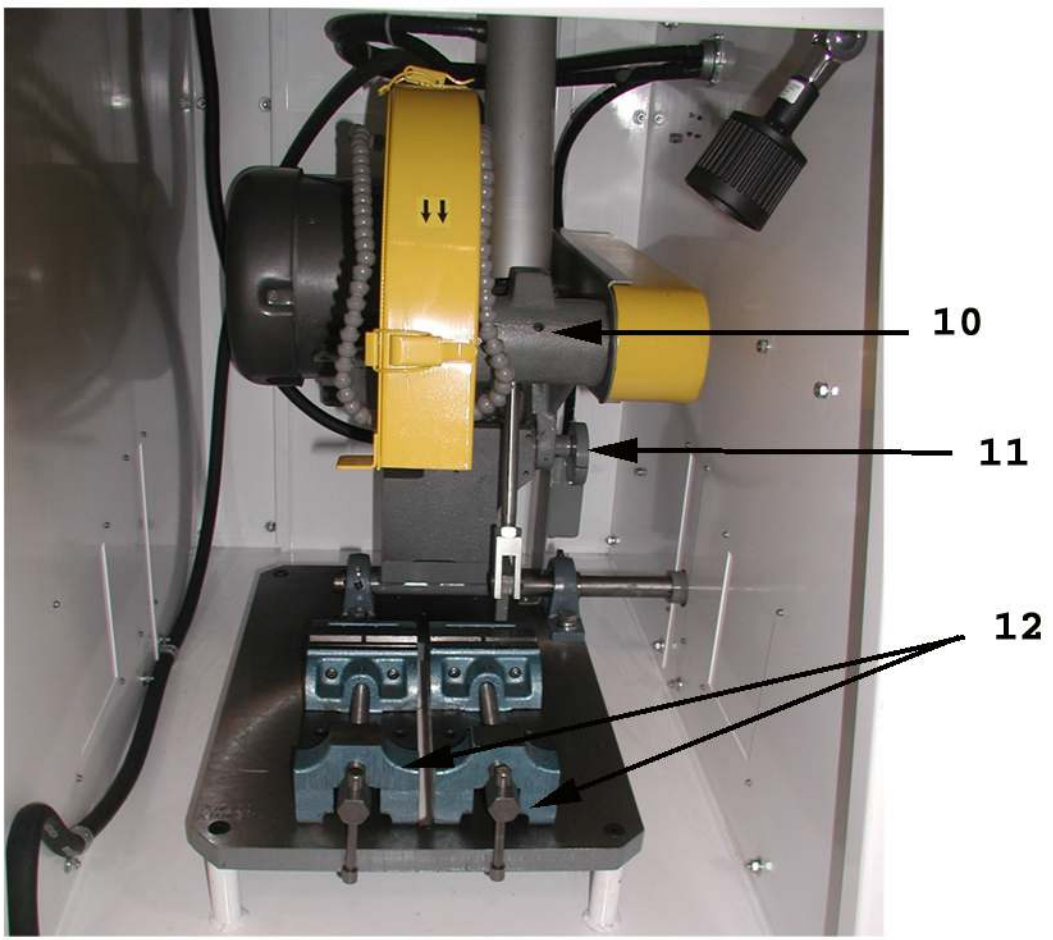
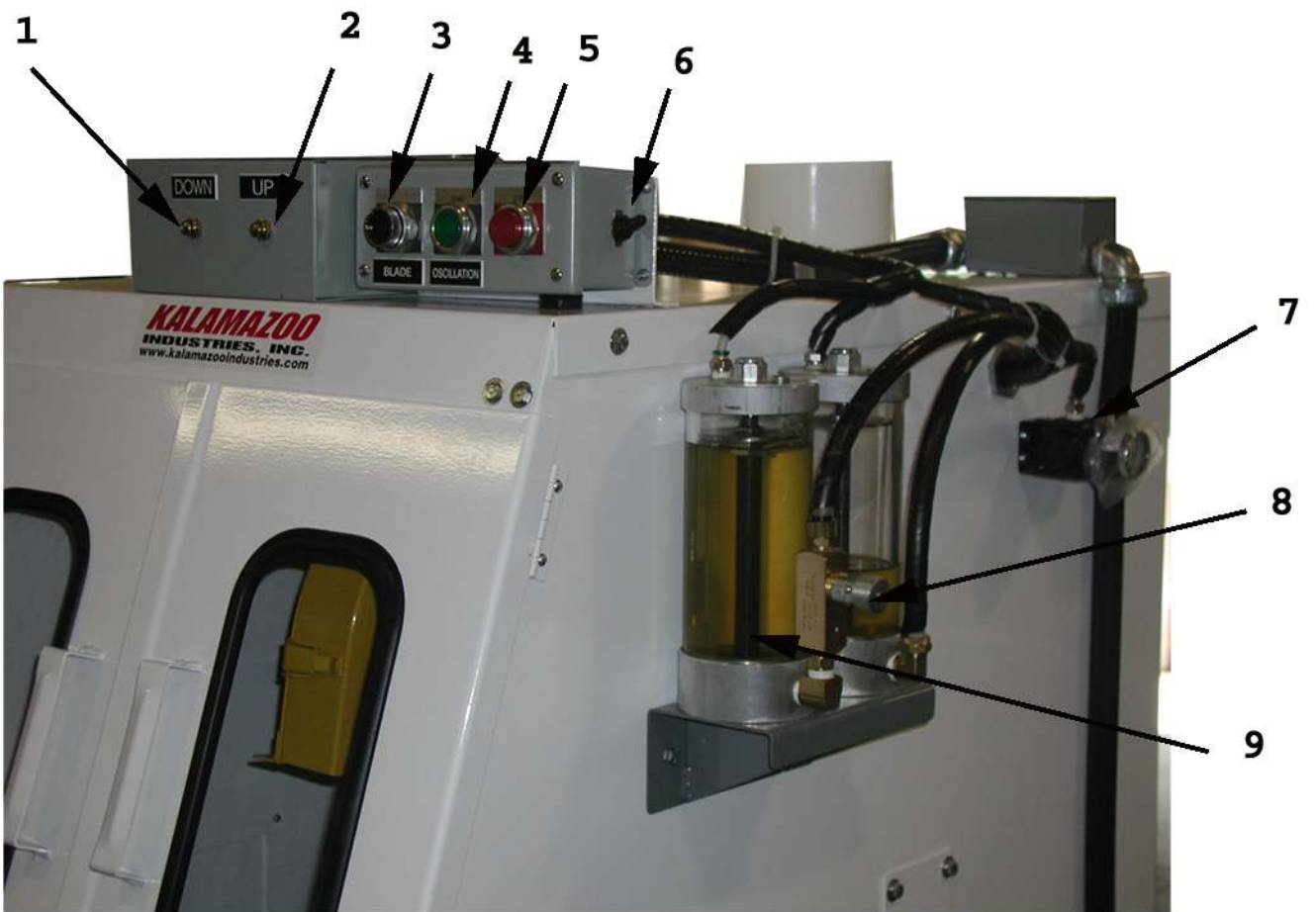
Initial set up- Be sure of incoming AC power . Drill/punch NEMA enclosure for a seal tite fitting. Input AC power into L1, L2, L3. on the contactor. If unsure of electricians consult an electrician.

1. Down- Push Down to bring saw head down. Adjust feed rate with #8 flow control. Total closing (CW ) of flow control will stop down feed and saw head at a position.
2. UP- Push UP to bring saw head back to top. NOTE: UP may be engaged anytime during cutting cycle.
3. Blade- Starts saw blade.
4. Oscillation- Push to start oscillation. Lower side gear box runs oscillation arm.
5. STOP- All stop. Stops , spindle, oscillation.
6. Light- On/off for internal light. ( bulb # 457-002 24 volt.)
7. Air regulator- Input dry shop air 0-55 psi max. NOTE: Do not over pressure.
8. Down Feed speed- Flow control controls down feed speed. CW rotation slows feed rate, CCW rotation speeds up down feed rate.
9. Oil reservoirs- Maintain Oil levels of  $\frac{1}{4}$  full,  $\frac{3}{4}$  full, DTE24 hydraulic oil. Oil levels will change with cycle.
10. Spindle stop- Use  $\frac{1}{4}$ " rod to lock blade spindle to change wheel. Rotate spindle until  $\frac{1}{4}$ " rod drops into hole in spindle. Threads are LEFT HAND. Do not over tighten.
11. Down feed saw head return cam- Leave cam "snug" enough not to loose adjustment but be able to rotate by hand to adjust saw head return. As the abrasive wheel wears rotate cam to adjust when the saw head returns back to top.
12. Vises- Dual 4" vises are bolted down. Several bolt patterns are available to move vises forward or backward depending on where you need to locate the material. NOTE: Centerline of material needs to be out towards operator or "ahead of center" so as not to climb cut.

Maintenance- Use the wash out hose after operation to clean out the grit. Always clean out the cabinet and leave the doors open to dry out the unit. Keep V belts tight with  $\frac{1}{2}$ " of squeeze. Rear panels and front panels remove for access to the unit.

Always follow safety procedures. See safety sheet.

Coolant- Use a rust inhibiting grinding type fluid. DO NOT USE STRAIGHT WATER!!!. CONSULT YOUR DEALER FOR CORRECT COOLANT.

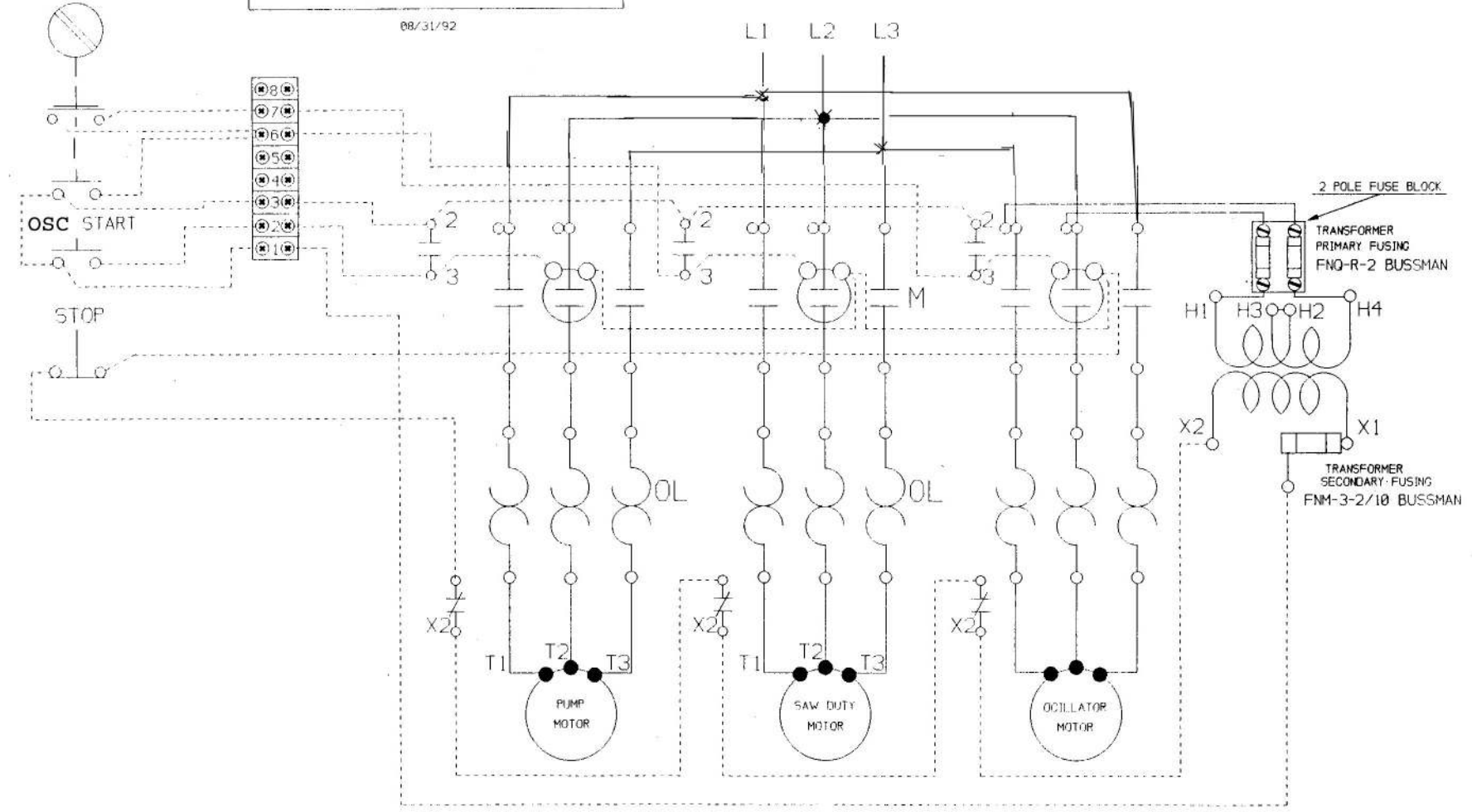


ALAMAZOO  
INDUSTRIES FILE#

MODEL K12-14MS

08/31/92

Saw Pump

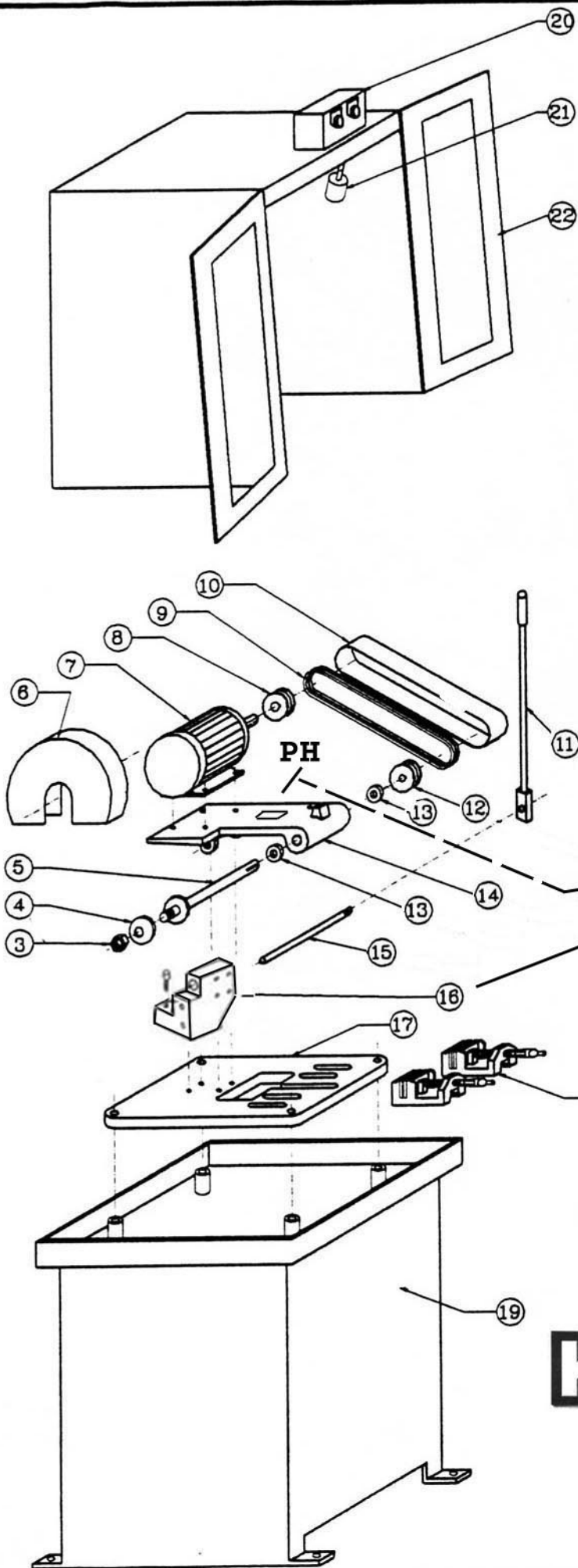


optional oscillation

K12-14  
5 hp, 1ph/3ph  
1" arbor, LH thd.

#### Basic Operation/ Installation

1. Before installation be sure of machine voltage and phase. Machines are pre-wired to customer specifications before shipment. Voltage changes require re-wiring of motor leads. If not familiar with electrics consult an electrician.
2. Hold workpiece securely in vise. Do not allow workpiece movement during cutting. Workpiece movement results in broken wheels.
3. Abrasive wheels – Wheels vary in grit, bond, wet, dry, etc.. Not all abrasive wheels are created equal. Choose the correct wheel for the material being cut. Consult your dealer for the proper abrasive wheel for the job. Good cuts are not black/blue/green but brite like the OD of the material. Try another wheel grade to get good cuts. When you find the wheel that works the best stay with that grade.
4. Position the workpiece slightly ahead of wheel center. ( towards operator). The back fence is positioned slightly behind wheel center to handle large parts. Small parts positioned to far behind wheel center will cause wheel bounce. Position a shim of some material at the fence first , then clamp your part to bring it out towards the operator to eliminate bouncing of the wheel. Pull on the saw handle hard enough to cause the wheel to “breakdown” or cut .
5. Safety- Follow all safety procedures. Wear safety glasses at all times. DO NOT wear gloves, long hair, loose clothing that can get caught in the V belts and wheel. Abrasive saws are designed for abrasive wheels NOT steel carbide tipped blades. Full OSHA clam guards are required for steel blades.
6. Maintenance- Keep V belts tight with ½” of “ squeeze”. Keep machine clean.



PART #:	DESCRIPTION
3	L.H. NUT
4	292-020MS LOOSE FLANGE
5	701-002 MS SPINDLE W/ FLANGE
6	342-003 12" WHEEL GUARD
7	5 H.P. MOTOR
8	560.002 MOTOR PULLEY
9	051-008 V-BELT 3V375 (2)
10	342-004 BELT GUARD
11	381-022 HANDLE W/ GRIP
12	560-001 SPINDLE PULLEY
13	044-001 K-12 BEARING
14	002-034 ARM, PH ONLY
14	002-002M SAW ARM, Manual
15	562-034 TRUNION PIN PH
15	562-035 TRUNION PIN manual
16	831-022 TRUNION
17	556-067 TOP PLATE
18	912-019 4" vise
19	BASE
20	SWITCH
21	457-004 SPOTLIGHT
22	CABINET

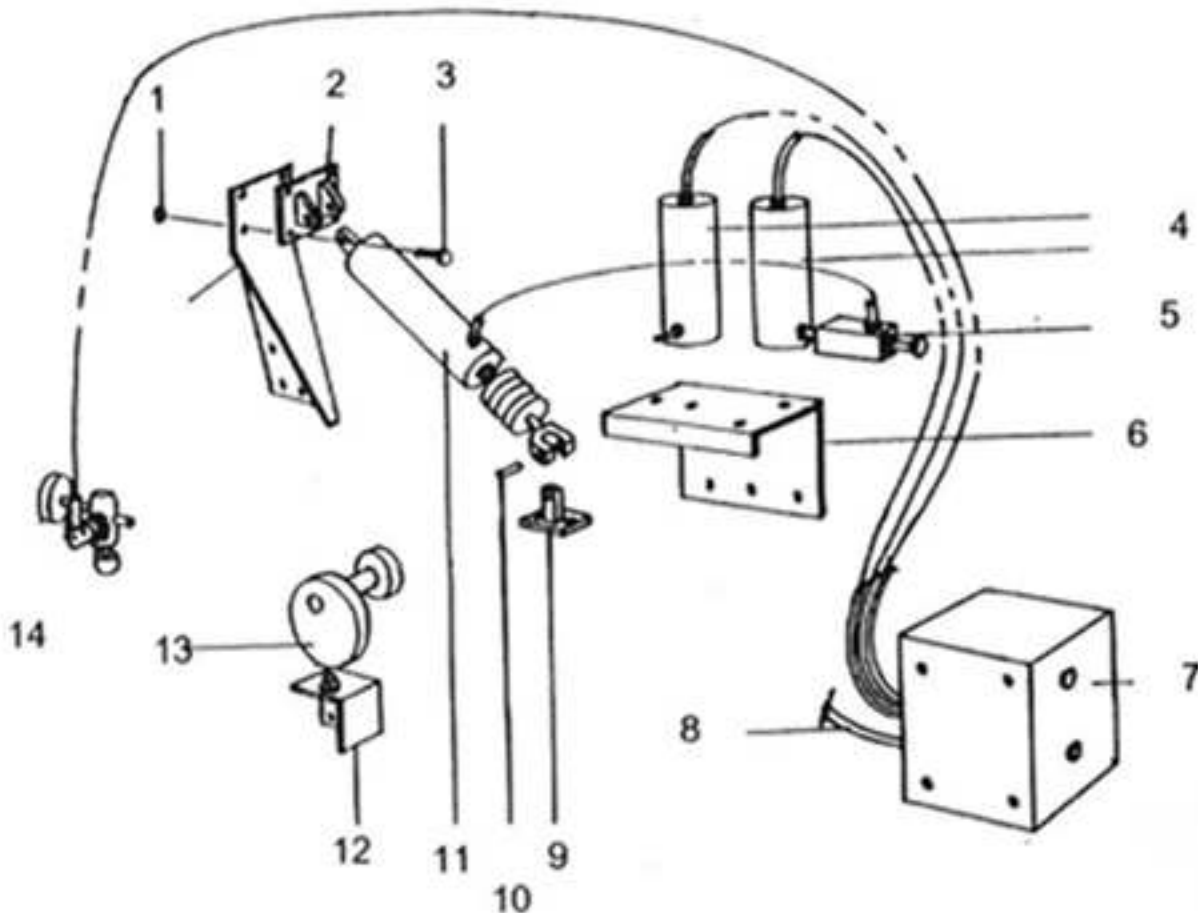
Optional PH power feed parts  
 041-037 ( 2 reqd) mtg. block  
 053-030A cyl. mtg. ( 1 reqd)  
 041-040 bracket for trunion

K12-14MS  
 12-14" blade  
 1" arbor, 5 hp.

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## POWER DOWN FEED SYSTEM



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NO.	PART NO.	DESCRIPTION	QTY
1		3/8-16 NUT	4
2	041-033	BRACKET-SWIVEL	1
3		3/8-16 H.H.C.S. 1-1/2	4
4	641-010	OIL RESERVOIR	2
5	294-016	FLOW CONTROL	1
6	041-036	BRACKET-RESERVOIR	1
7		HYDRO CRONTOL BOX	1
8		POWER SUPPLY	1
9	041-034	BRACKET-TRUNNION	1
10	645-023	ROD, CLEVIS	1
11	131-006	CYLINDER	1
12	041-035	BRACKET-CAM	1
13	129-005	CAM	1
14	1000-37	AIR REGULATOR ASSY	1
15	041-024	BRACKET-CYLINDER	1

Oil: DTE 24 Hyd. Oil, (1 reservoir 3/4 full,  
 Air Req'd: 0-60 PSI 1 reservoir 1/4 full)  
 Feed Rate: 0-12 FPM

Operation: Input air into regulator. Set gage PSI to 55-60 Max.. (Over pressure will cause leaking reservoirs). Initially adjust saw downfeed WITHOUT workpiece to get used to the system. Use Flowcontrol valve (5) to set the downfeed speed. START button begins downfeed. At end of stroke cam (13) contacts bracket (12) and returns sawhead. NOTE: STOP button returns sawhead anytime during cutting cycle. Adjust Cam (13) as wheel wears. Leave cam (13) snug on shaft for easy adjustment. CAUTION: DO NOT ALLOW WHEEL TO CUT INTO SAW TOP. RE-ADJUST CAM WHEN A NEW WHEEL IS INSTALLED