

INSTRUCTION MANUAL

K20E



**KALAMAZOO
INDUSTRIES, INC.**

6856 East K Avenue

Kalamazoo, MI 49048

269-382-2050 PH

269-382-0790 FAX

www.kalamazooindustries.com

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

K20E, 15 HP, 3 phase, wet abrasive saw

Air/oil power downfeed, semi-automatic, oscillation.

Hydraulic oil- DTE 24, 1" arbor

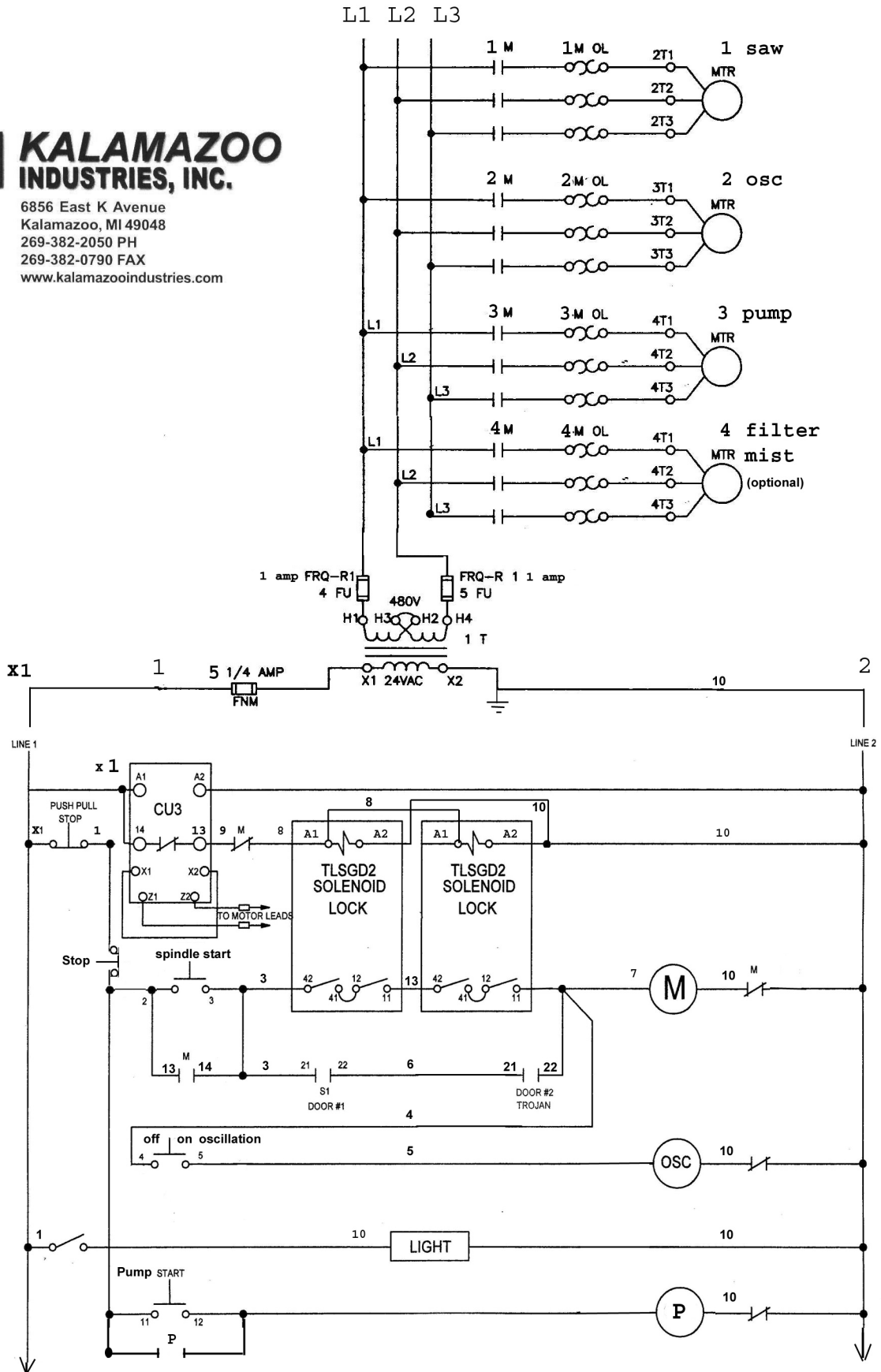
Halogen light bulb- 24 volt Kal.Ind. # 457-002, LED light # 457-004

Air req- 60 PSI MAX, DRY shop air.

1. Feedrate control- Controls downfeed rate. Rotate CW to slow/shut off or CCW to increase feedrate. Rotate CW until knob stops to set heights and stroke limiter. Manually adjust feed control when beginning cutting to select correct feedrate.
2. Sawhead Down- Push to begin downfeed.
3. Sawhead UP- Push to bring sawhead UP. May be engaged anytime during cycle.
4. Rapid- Push to rapid saw head down. **DO NOT RAPID INTO WORKPIECE.**
5. Spindle Start- Push to start saw head.
6. Pump- Starts coolant pump. May be used independently without saw blade running with wash out hose. Use rust-inhibiting coolant **ONLY!** Consult dealer for correct coolant type.
7. Oscillation- Rotate to start/stop oscillation. (optional)
8. STOP- All stop. Stops all motors, pumps.
9. Light- Light switch for Halogen light.
10. E stop- Stops all AC power. Pull to re-set.
11. Coolant valve- Controls coolant flow.
12. Vise- Opens/closes air chain vise
13. DTE24 hyd oil- Dual reservoirs use DTE24 hydraulic oil. Maintain oil levels , one reservoir $\frac{1}{4}$ full the other $\frac{3}{4}$ full. Oil levels alternate with cycle. Cloudy oil indicates water in the oil. Re-fill reservoirs at the top by removing set screw plug and filling back to above levels. After filling reservoirs cycle downfeed many times to remove air in lines.
14. Saw head return valve- Adjust as wheel wears to control when saw head returns.
15. Up stroke limiter- Controls saw head up position. To adjust: engage downfeed, bring sawhead down slowly using feedrate control, Stop cylinder at rod detent required, tighten knob into rod detent. Up position of wheel will now be limited to rod detent location selected. This allows more cut time with the wheel being closer to the workpiece and less "air cut time" as wheel wears.
16. Shop air IN- Input shop air 0-60 PSI max..Set pressure using regulator. Use **DRY** shop air. Wet air corrodes air valves and internal cylinder parts causing failure.
17. Vise pressure regulator- Adjust air chain vise pressure. 40 psi max.
18. Saw head down feed pressure- Adjust to 0-60 PSI. 60 PSI max.
19. AC in- Input AC power to L1, L2,L3 on the fuse block. Be sure incoming voltage matches machine voltage. If not familiar with electricians consult an electrician. Electrical component failures due to incorrect wiring changes are not warranted.

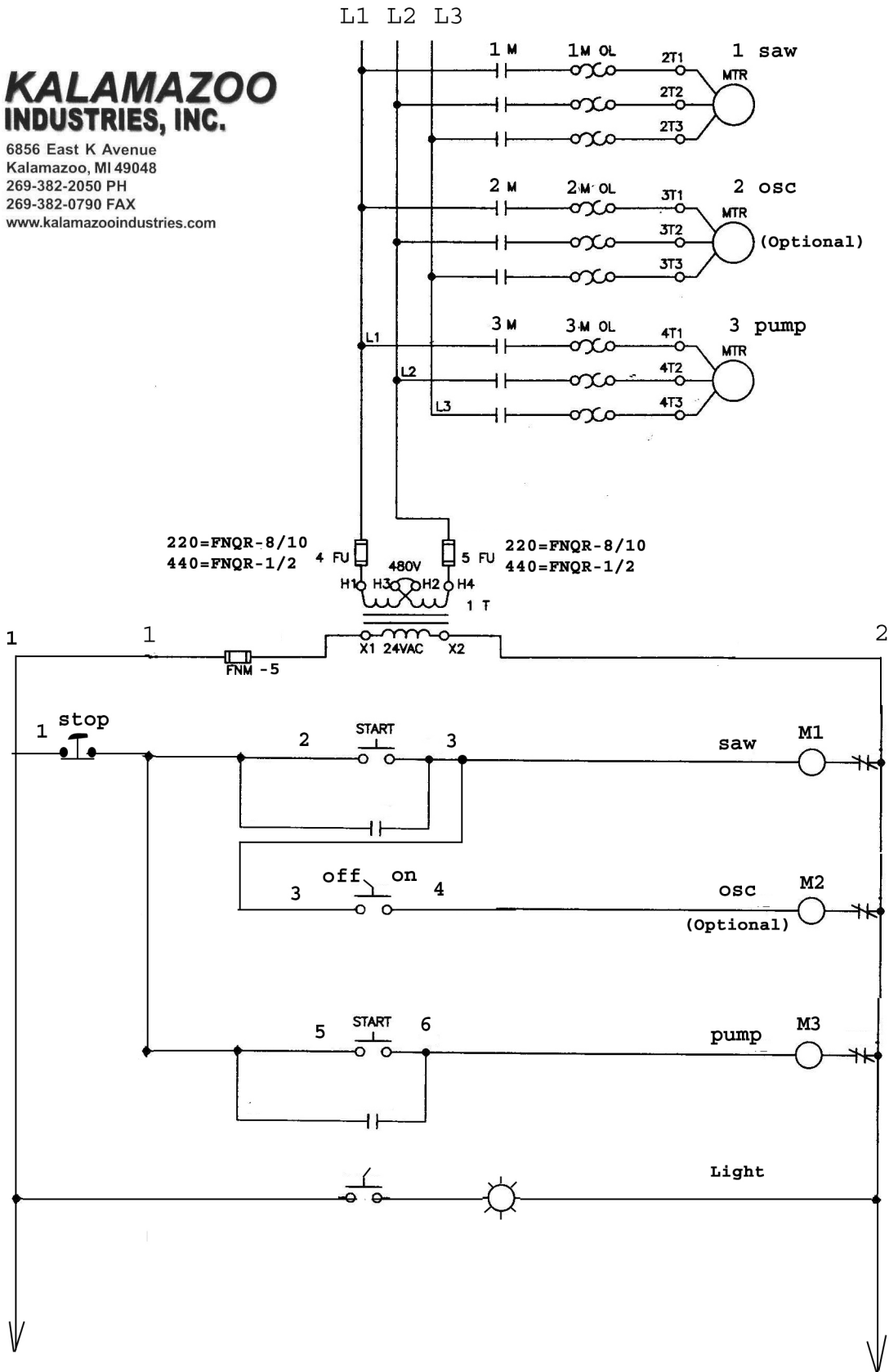


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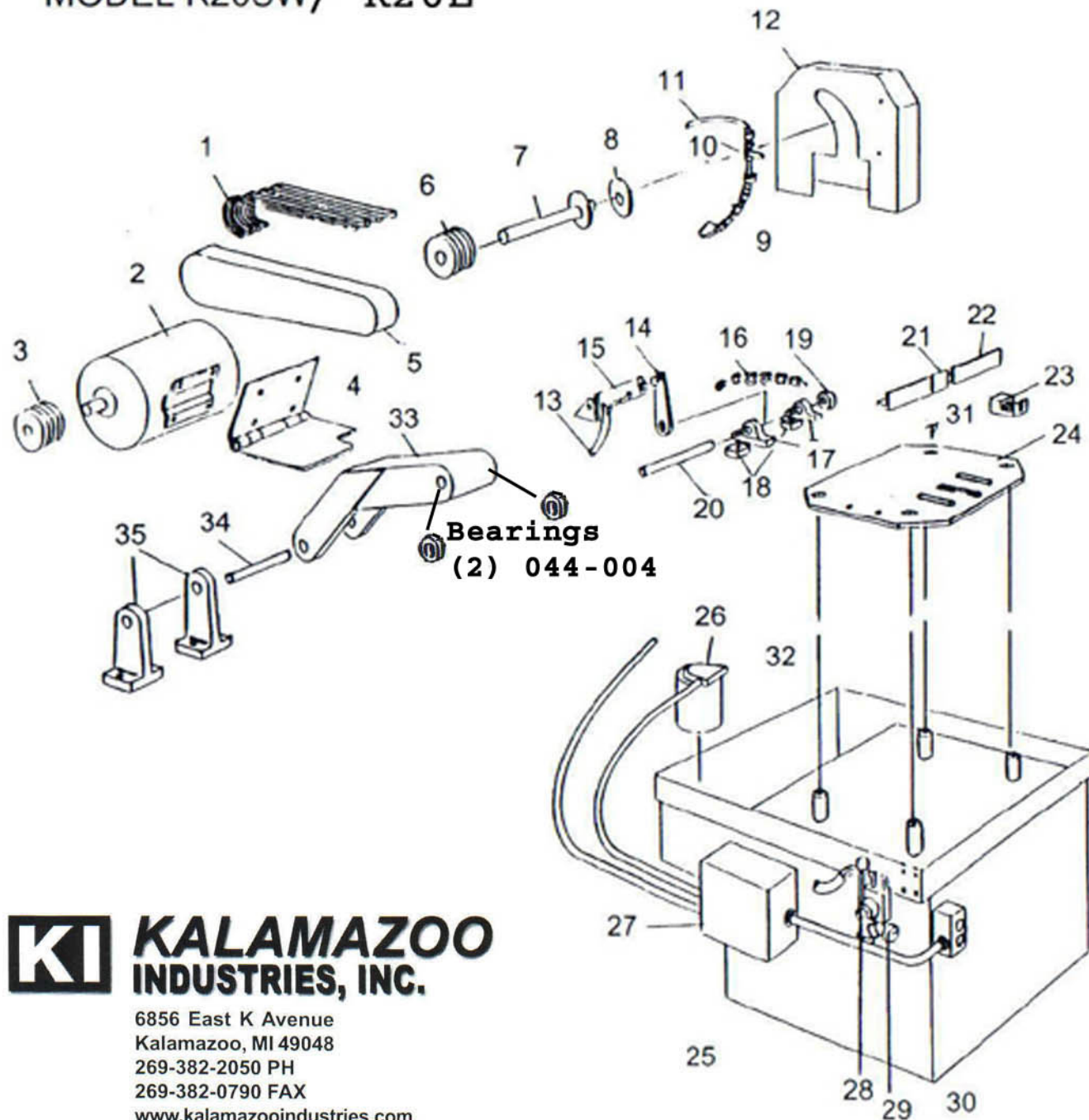




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MODEL K20SW/ K20E



NO.	PART NO.	DESCRIPTION	QTY
1	051-005	V-BELT	4
2	486-020	15HP SD MOTOR	1
	486-009	20HP MOTOR	1
3	560-019	MOTOR PULLEY-15HP	1
	560-021	MOTOR PULLEY-20HP	1
4		MOTOR MOUNT	1
5	342-039	BELT GUARD	1
6	560-020	SPINDLE PULLEY-15HP	1
	560-022	SPINDLE PULLEY-20HP	1
7	701-010	SPINDLE W/TIGHT FLANGE	1
8	292-011	LOOSE FLANGE	1
9		FLEXIBLE HOSE W/NOZZLE	1
10		COOLANT VALVE	1
11		COOLANT HOSE	1
12	342-013	WHEEL GUARD	1
13		AIR LINE	2
14	002-015	ARM PIVOT	1
15		CYLINDER	1
16		24" LONG CHAIN	1
17		PILLOW BLOCK	2
18	699-027	SPACER	2
19	560-036	PULLEY, FOR CHAIN	1
20	700-015	SHAFT, FOR CHAIN	1
21	293-013	FENCE L.H.	1
22	293-014	FENCE R.H.	1
23	053-011	BLOCK, CHAIN ANCHOR	1
24	556-037	PLATE, TOP	1
25	716-019W	STAND ASSEMBLY	1
26	716-011	COOLANT PACKAGE	1
27	710-006	MAGNETIC SWITCH	1
28	912-014	4-WAY VALVE	1
29	912-006	AIR GAGE & REGULATOR	1
30		PUSH BUTTON SWITCH	1
31		1/2x13x1-5/8 FHSS	4
32	576-005	PAN COOLANT	1
33	002-005	ARM PIVOT	1
34	700-002	TRUNNION PIN	1
35	831-002	TRUNION	2

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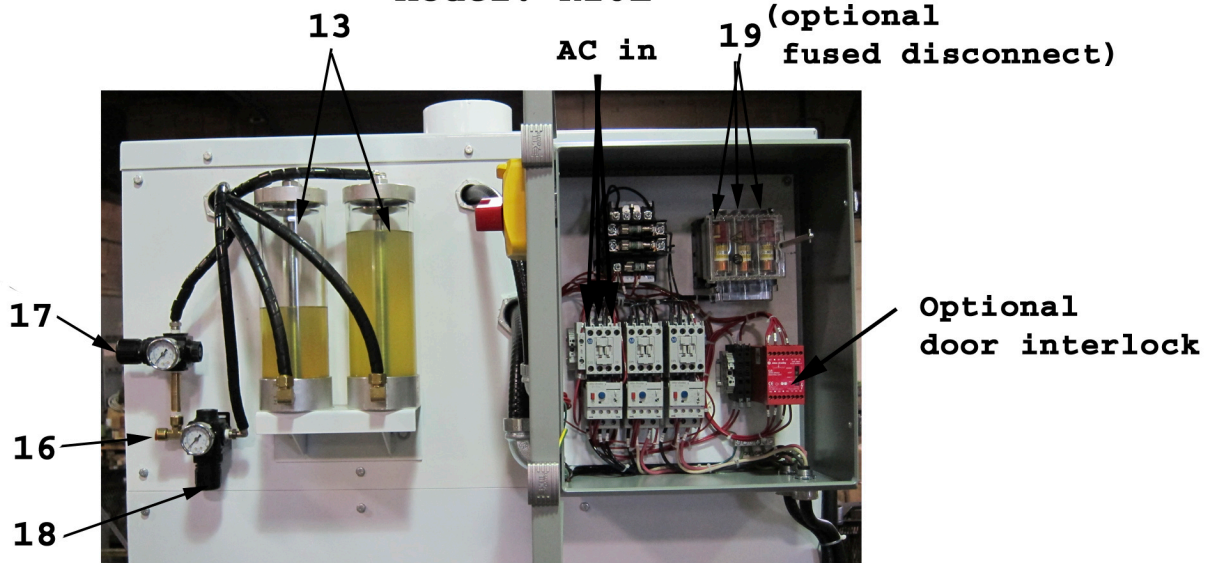
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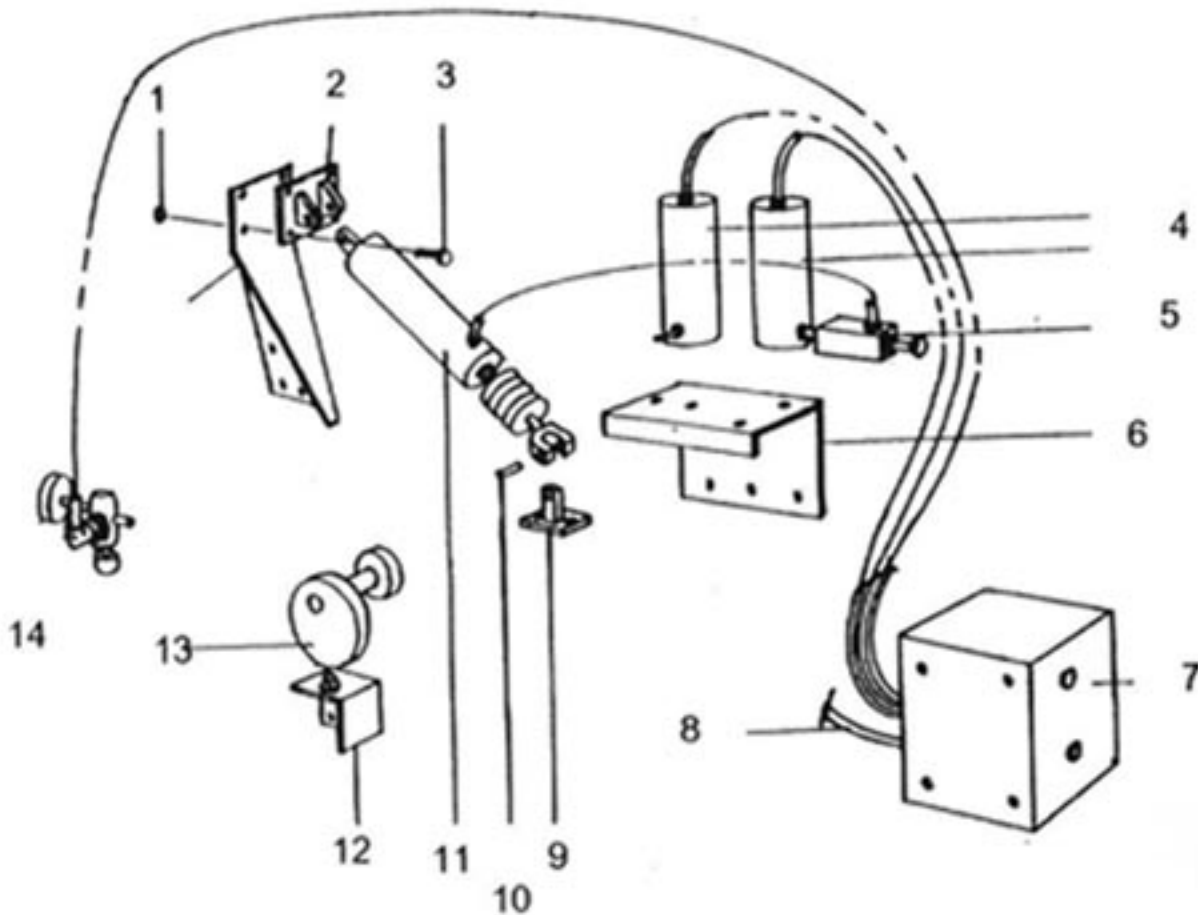
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POWER DOWN FEED SYSTEM



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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 CONTROL 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