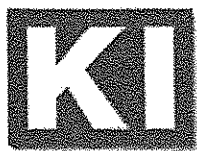
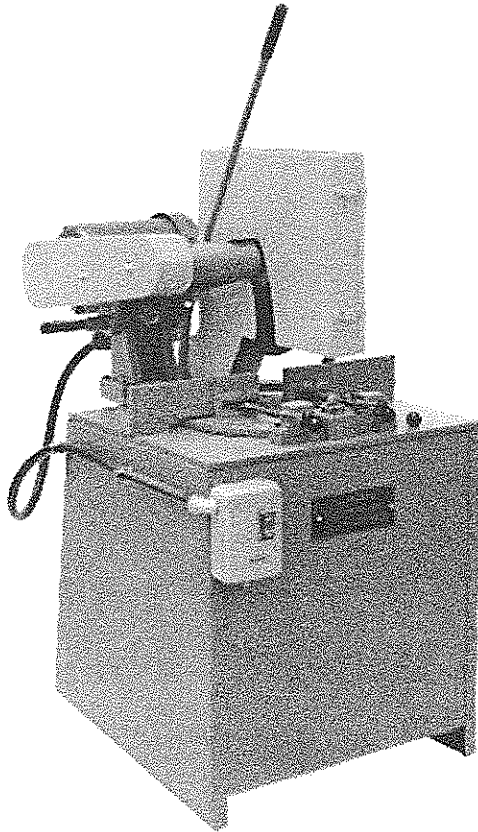


# **INSTRUCTION MANUAL KM16 - 18**



**KALAMAZOO  
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## **WARNING!**

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD,  
DO NOT EXPOSE THIS EQUIPMENT TO RAIN, ANY LIQUID OR MOISTURE.

### **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

ELECTRIC MACHINES ARE NOT INTENDED FOR USE IN OR NEAR WATER. THIS INCLUDES AN OPERATOR STANDING ON A WET FLOOR.

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.

## ***MODEL KM16-18 ABRASIVE SAW***

### **GENERAL INFORMATION**

The KM16-18 abrasive saw is a mitre cut machine. 45deg. cuts left or right is achieved by swiveling the saw head to the desired angle. To swivel the saw head pull the index pin on mitre base plate, loosen table lock handle and swivel saw head to angle desired. Re-lock table lock handle to lock saw head in place.

Two vises are provided for either left or right cuts. Use only one vise during cutting. Be sure work piece is secure and cannot move in vise before cutting. Use enough pull down force to ensure good wheel wear. Too little cutting force will result in the abrasive wheel edge glazing over impeding the cut. Too much cutting pressure will stall the wheel in the cut; burn drive belts and gives inferior cuts. Good cuts are bright (not blue, black or yellow). Discoloration of cut path indicates over or under feeding saw head and/or wrong abrasive wheel selection. Abrasive wheels have different grains, bonds and reinforcements for different materials and structures. Select the proper wheel for the job.

### **TROUBLESHOOTING/MAINTENANCE**

The most common problem in abrasive cutting is wheel selection. Discolored parts indicate too much heat. Usually obtaining the correct wheel will stop the problem. There are abrasive wheels designed for tubing, solids and structures, low power machines and various exotic materials. Contact your abrasive wheel specialist for recommended grits, grains and reinforcements.

Always check drive belt tightness for positive drive.

Always check incoming power for correct phase and voltage.

Part location can sometimes result in cutting problems. **DO NOT CLIMB CUT.** Be sure work piece is ahead of wheel center. Keep work piece toward operator in vise. If work piece is behind wheel center, use a shim or spacer to bring work piece out toward operator. Work piece need only be very slightly ahead of center in vise.

Keep wheel flanges clean and flat to ensure true running of the wheel.

## Basic Operation

KM16-18 , 16 or 18"abrasive blade

1" arbor

10 hp, 3 ph/220 or 440 volt.

Electrics: Punch/drill switch for seal tite fitting. Bring AC power into switch. Connect to L1, L2, L3 on the top of the switch. CAUTION: Be sure of correct voltage. Wiring changes from factory settings are done at the motor junction box and overloads at switch. Consult an electrician if not familiar with electrics. Wiring changes/failures are not covered under factory warranty. KNOW WHAT YOU ARE DOING !!!

Model: KM 16-18 abrasive saw is designed for straight cutting or mitre cutting with an abrasive blade. DO NOT USE STEEL/CARBIDE TIPPED BLADES!! ABRASIVE BLADES ONLY!! MACHINE IS NOT GUARDED CORRECTLY FOR STEEL BLADES !!! KALAMAZOO INDUSTRIES MFGS. OTHER MACHINES DESIGNED FOR STEEL/CARBIDE BLADES. SEE MODELS: HS14,KM14HS,KM14SC,HSM14 FOR NON FERROUS MATERIALS.

Abrasive blades- Abrasive blades come in many grits, bonds, hardnesses, etc.. Use the correct blade for the material being cut. Good abrasive cuts should be bright and the same color as the outside of the material. Discoloration, burning, bogging down in the cut , etc. points to the WRONG wheel. Consult your dealer for the correct wheel grade.

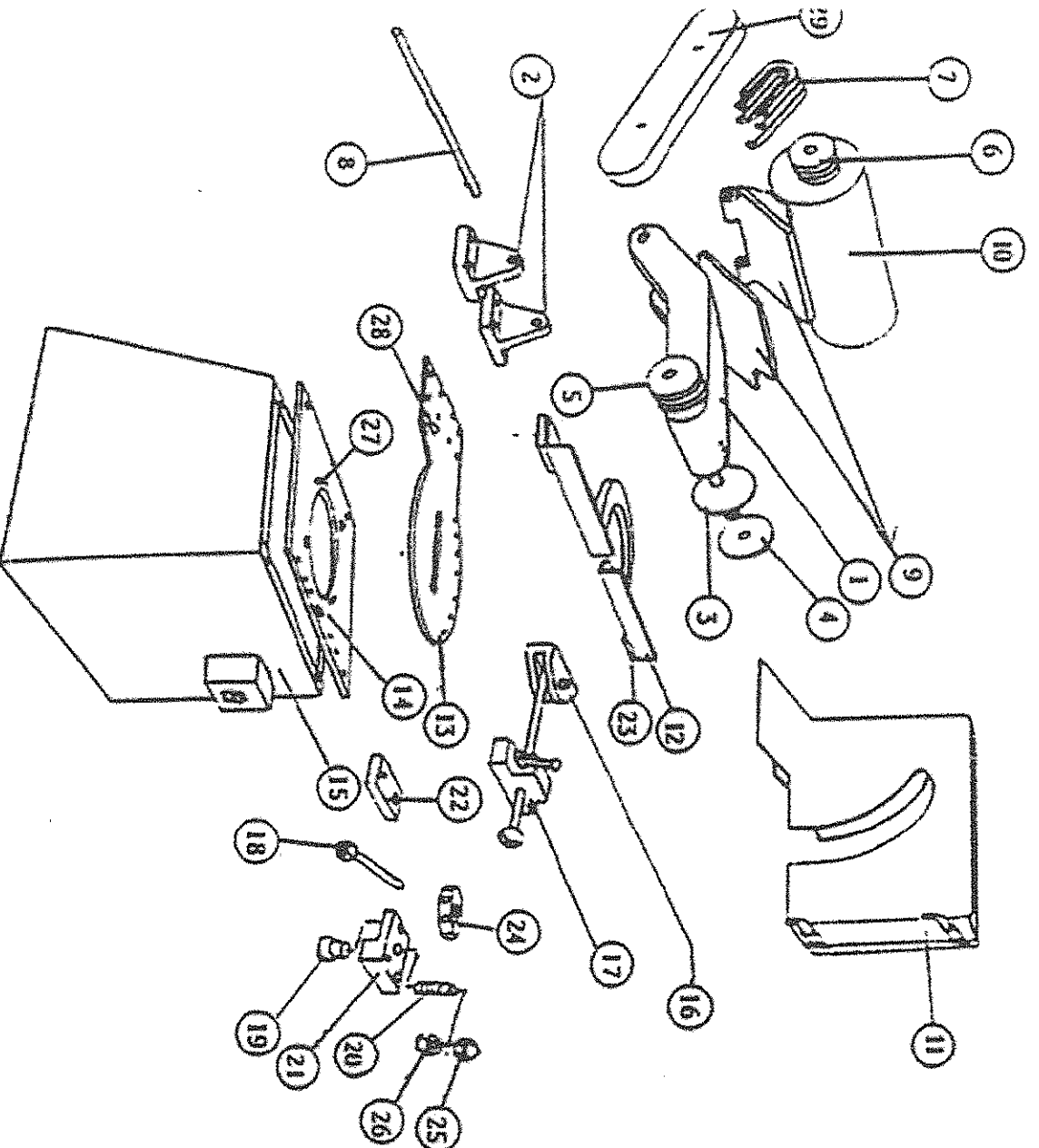
Mitre cutting: Lock handle (18) on front of saw releases the table lock so the saw table can be rotated. Steel pin on the side of the mitre plate base (28) is pre-set at 45 deg. Left or right and 90 degrees. Pull this pin , release lock handle and the sawhead will rotate using trunnion pin (8) as a handle. Establish desired cutting angle and re-lock handle (18).

Be sure workpiece is slightly ahead of wheel center. (Toward operator) Climb cutting will result if workpiece is behind wheel center (toward back of machine). Use a shim or spacer to bring small workpieces out toward the operator. The vise opening is set for the largest workpiece. Small workpieces will be to far back....move them out towards the front of the machine with a spacer/shim . Bouncing of saw head may result with wrong part location. Work piece should be ahead of wheel & part center towards the operator. Use enough pressure to make the wheel breakdown but not so much as to stall the unit.

Vises- Use both vises for straight cutting if work piece is straight. Trying to straighten bent/ crooked work pieces in both vises will cause binding of the part and wheel breakage. DO NOT USE 2 VISES FOR MITRE CUTTING, PULL ONE VISE AWAY DEPENDING ON THE MITRE ANGLE.

Maintenance- Keep V belts tight with approx. ½" of squeeze when properly tensioned.

# MODEL KM16-18 ABRASIVE MITRE SAW

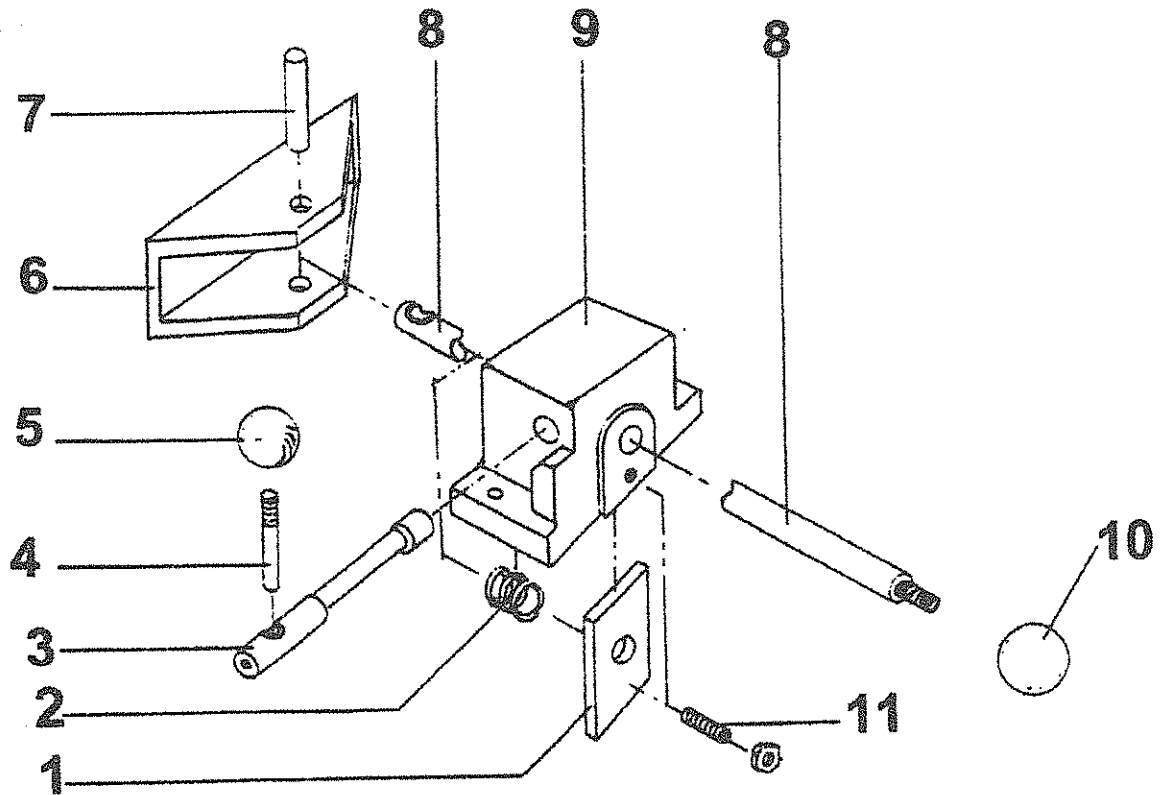


NO.	PART NO.	DESCRIPTION	QTY
1.	002-005	SAW ARM	1
2.	831-021	FEEDRION	1
3.	701-010	SPINDLE W/LIGHT FLANGE	1
4.	292-011	LOOSE FLANGE	1
5.	560-047	SPINDLE PULLEY	1
6.	560-046	MOTOR PULLEY	1
7.	051-005	V-BELT	3
8.	562-023	FRUITION PIN	1
9.	486-010	MOTOR MOUNT PLATE	1
10.	M37101	10HP SAW DUTY MOTOR	1
11.	542-052	WHEEL GUARD	1
12.	293-009	MITRE FENCE	1
13.	050-031	MITRE BASE TOP	1
14.	829-029	MITRE PLATE TABLE	1
15.	716-018	STAND & BASE ASSY	1
16.	431-011	FRONT VISE JAW	2
17.	912-017	VISE ASSEMBLY	2
18.	381-011	HANDLE (HOLD DOWN)	1
19.	696-020	TENSION SCREW	1
20.		LOCKING SCREW	1
21.	053-020	BLOCK, HOLD DOWN	1
22.	699-025	VISE SPACER	2
23.	699-024	FENCE SPACER	2
24.	454-006	LOCK NUT	1
25.		ACORN NUT	1
26.		JAW NUT	1
27.	700-016	BEARING (BASE)	4
28.	700-020	BEARING (TOP)	1
29.	342-039	BELT GUARD	1

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# VISE ASSEMBLY FOR KM16-18 ABRASIVE MITRE SAWS



NO.	PART NO.	DESCRIPTION
1	454-001	LOCK, VISE
2	697-001	SPRING, VISE ROD
3	129-001	CAM, VISE LOCK
4	381-001	HANDLE, VISE LOCK
5	441-002	KNOB, VISE LOCK HANDLE
6	431-011	FRONT VISE JAW
		(NO 6. NOT INCLUDED IN VISE ASSY)
7	562-001	PIN, VISE JAW
8	645-001	ROD, VISE
9	386-001	VISE HOUSING
10	441-001	KNOB, VISE ROD
11	696-001	SCREW, VISE CAM
	912-017	COMPLETE VISE ASSY LESS JAW