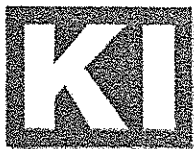
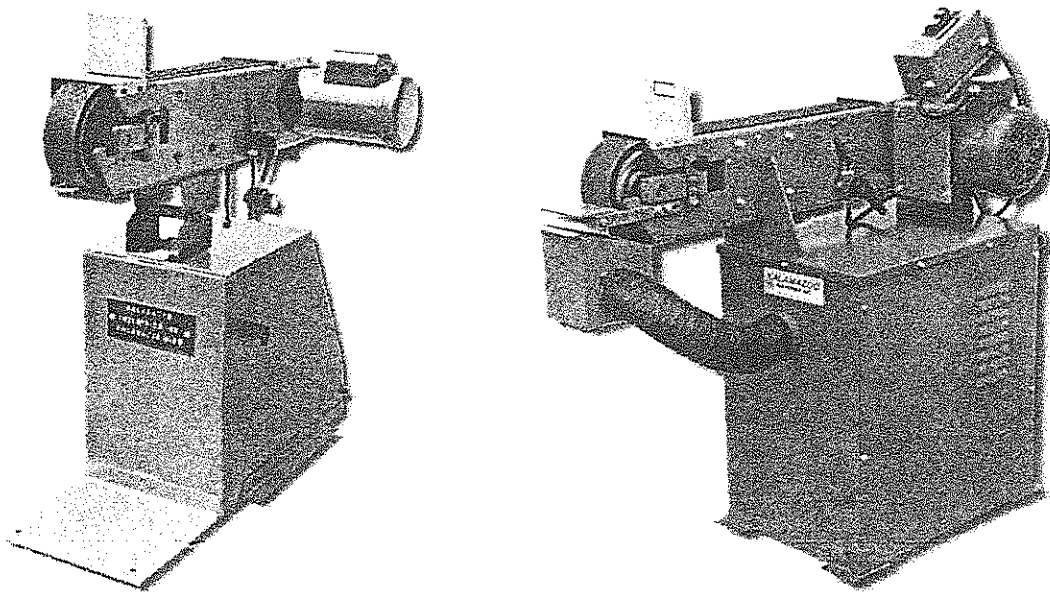


**INSTRUCTION
MANUAL
BELT GRINDER
MODELS KS390 / KS390V /
KS490V / KS490 / KS490HV /
KS690HV**



**KALAMAZOO
INDUSTRIES, INC.**

6856 East K Avenue
Kalamazoo, MI 49048

269-382-2050 PH

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KS390 M 8-02

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 OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS
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. KEEP ALL SAFETY GUARDS, WORK TABLES ETC, IN PROPER ADJUSTMENT. WORK TABLE MUST BE KEPT WITHIN 1/8" FROM THE SANDING BELT.

ABRASIVE BELT TENSION

ABRASIVE BELT TENSION IS CONTROLLED BY AIR PRESSURE. 40-50 PSI INTO CYLINDER #23 TENSIONS THE BELT. INPUT AIR INTO REGULATOR #21. USE VALVE #20 TO RELEASE OR TIGHTEN THE ABRASIVE BELT. TOO MUCH TENSION CAN BREAK THE ABRASIVE BELT. ADJUST THE BELT TENSION TO THE MINIMUM SUFFICIENT TO ENSURE GOOD CONTACT WITH THE DRIVE AND IDLER WHEELS. THEN THE BELT WILL TRACK PROPERLY UNDER BOTH START UP AND GRINDING CONDITIONS. EXAMINE THE ABRASIVE BELT CAREFULLY BEFORE USE. **CAUTION: DO NOT RELEASE BELT TENSION WHEN OPERATING THE MACHINE. DO NOT OVER PRESSURE THE AIR CYLINDER. PRESSURE OVER 50 PSI WILL RESULT IN POOR BELT TRACKING AND BELT BREAKAGE.** USE DRY AIR TO AVOID SEAL CORROSION.

PLATEN ALIGNMENT

USING A STRAIGHT EDGE, SET THE STRAIGHT EDGE ON THE PLATEN (#1) SO IT SPANS ACROSS BOTH DRIVE AND CONTACT WHEEL PULLEY FACES. DRIVE PULLEY CLEARANCE SHOULD BE 1/8" LOWER THAN PLATEN FACE AT THE OUTER EDGES OF THE DRIVE PULLEY. CONTACT WHEEL CLEARANCE SHOULD BE 1/32" LOWER THAN PLATEN FACE. USE BRACKETS (3 & 7) TO LOWER OR RAISE PLATEN HEIGHT.

DRIVE PULLEY

POOR BELT TRACKING CAN RESULT FROM NORMAL WEAR OVER TIME OF THE DRIVE PULLEY. THE DRIVE PULLEY FACE IS CROWNED SLIGHTLY TO HOLD BELT TRACKING. WHEN THE CROWN IS WORN DOWN AND THE DRIVE PULLEY BECOMES FLAT FACED, TRACKING PROBLEMS WILL RESULT. A QUICK FIX WOULD BE TO WRAP A FEW LAYERS OF MASKING TAPE AROUND THE CENTER HIGHER THAN THE OUTER EDGES. IF THIS ALLEVIATES THE PROBLEM, THEN A NEW PULLEY WILL BE NEEDED WITH THE CORRECT CROWN ON IT.

CHANGING BELT

TURN MACHINE POWER OFF, RELEASE BELT TENSION WITH VALVE #20, CHANGE THE BELT (MAKE SURE OF CORRECT ROTATION). RE-TENSION BELT WITH VALVE #20.

TRACKING THE BELT

TRACK OR CENTER THE BELT WITH THE TRACKING KNOB #27. ROTATING TRACKING KNOB MOVES ABRASIVE BELT LEFT OR RIGHT. JOG MACHINE ON AND OFF SEVERAL TIMES TO BE SURE OF TRACKING BEFORE RUNNING. KEEP ABRASIVE BELT CENTERED ON CONTACT WHEEL #4 CAUTION: BE SURE THE ABRASIVE BELT FULLY COVERS THE CONTACT WHEEL. DO NOT SLIP OFF THE ABRASIVE BELT AND RUB THE CONTACT WHEEL WITH WORKPIECE. THIS WILL RADIUS THE CONTACT WHEEL FACE EDGES AND RESULT IN POOR BELT TRACKING.

MACHINE HEAD ANGLE

KS390(V) KS490(V) CAN BE ADJUSTED FROM HORIZONTAL TO VERTICAL. LOOSEN CAP SCREW #16 IN TILT BRACKET #14. SET MACHINE HEAD AT DESIRED ANGLE, ADJUST THE LEVELING STUD #18 TO SUPPORT THE MACHINE HEAD. RE-TIGHTEN CAP SCREW #16 AND STUD #18.

STORE COATED ABRASIVES PRIOR TO USE AT 35% - 50% RELATIVE HUMIDITY AND 60 - 80 F.

SAFETY PRECAUTIONS

NEVER OPERATE WITH SAFETY GUARDS REMOVED FROM THE MACHINE. THE MACHINE SHOULD BE DISCONNECTED FROM THE POWER SOURCE BEFORE MAKING ANY ADJUSTMENTS OR CHANGING THE BELT

ALWAYS WEAR PROPER EYE/FACE PROTECTION WHEN OPERATING MACHINE.

NEVER WEAR LOOSE FITTING CLOTHING WHILE WORKING ON OR NEAR ANY MACHINERY.

KEEP LONG HAIR TIED BACK OR PLACE IT UP AND UNDER A TIGHT FITTING HAT OR CAP.

DUST COLLECTION BAGS SHOULD BE EMPTIED FREQUENTLY DURING USE TO MAINTAIN EFFICIENCY AND PREVENT BUILDUP OF COMBUSTIBLE MATERIAL.

SANDING AND GRINDING GENERATES DUST. EXCESSIVE INHALATION OF DUST MAY AFFECT YOUR BREATHING EFFICIENCY. ALWAYS USE DUST CONTROL EQUIPMENT APPROPRIATE FOR THE MATERIAL BEING SANDED.

NEVER USE AN ABRASIVE BELT WITH A NICKED OR CUT EDGE, A CREASE OR HANDLING DAMAGE.

ALWAYS USE AN UPWARD STROKE TO PRESENT THE WORKPIECE TO THE ABRASIVE BELT. THIS METHOD IMPROVES THE SANDING AND INCREASES SAFETY BY DRAWING HANDS AWAY FROM THE ABRASIVE BELT.

SPARKS CREATED BY GRINDING OR SANDING SHOULD BE DIRECTED DOWNWARD AND AWAY FROM THE FACE AND BODY.

DO NOT GRIND NEAR FLAMMABLE MATERIAL. SPARKS SCREENS OF NON-FLAMMABLE MATERIAL SHOULD ALWAYS BE USED.

ELECTRIC PORTABLE MACHINES ARE NOT INTENDED FOR USE IN OR NEAR WATER. THIS INCLUDES AN OPERATOR STANDING ON A WET FLOOR OR WORKING AROUND CONTAINERS OF WATER OR OTHER CONDUCTIVE LIQUIDS.

ALL GRINDING MACHINES AND POWER TOOLS SHOULD BE OPERATED IN A WELL VENTILATED AREA. THE DUST CREATED WHEN SOME MATERIALS ARE GROUND OR SANDED CAN BE HARMFUL. DUST MASKS ARE RECOMMENDED AS A PRACTICAL MEANS OF MINIMIZING DUST INHALATION. THE FUMES FROM OTHER SOURCES CAN ALSO CAUSE FIRES WHEN IN CONTACT WITH GRINDING SPARKS. E.G. FUMES FROM SOLVENTS, ETC.

WARRANTY

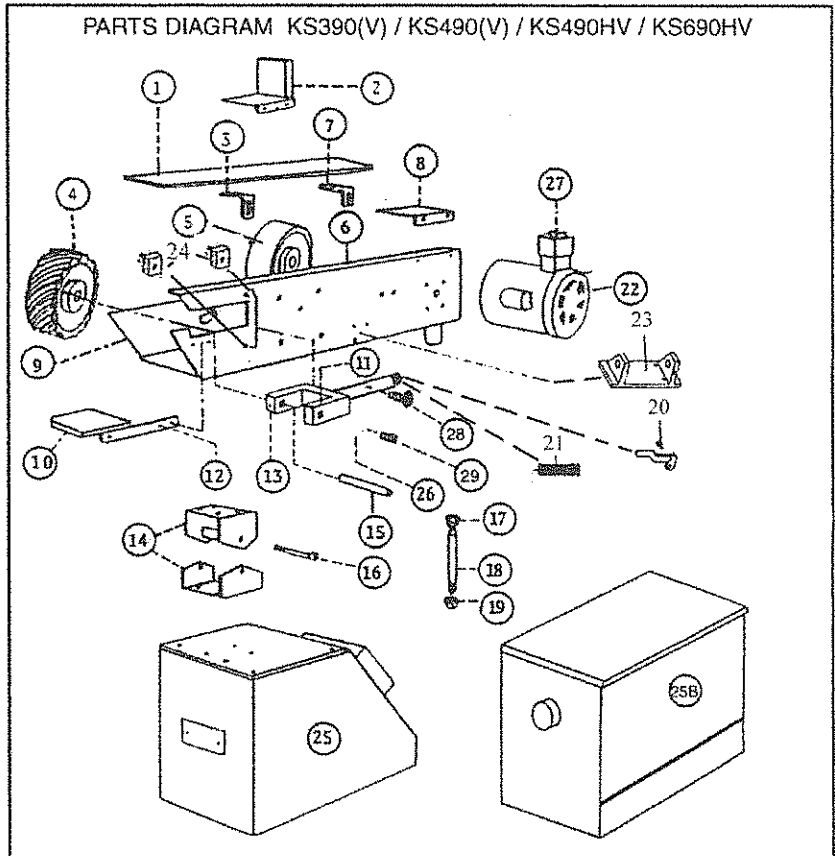
All products are guaranteed for a period of one year to the original purchaser, against defects in material workmanship under normal use. Electric motors are warranted by the motor manufacturer and will be repaired by the nearest motor repair station. If non-repairable, they will be replaced by Kalamazoo Industries. Please call for instructions 269-382-2050.

RETURN POLICY

Authorization must be obtained before returning merchandise. Please call our customer service department for a return authorization number at 269-382-2050. Please include with your return a copy of your invoice or packing slip. Materials must be sent back prepaid. (Unless otherwise indicated). All returns will be subject to a 10% restocking charge. No returns will be accepted after one year of invoice date.

PARTS DIAGRAM KS390(V) / KS490(V) / KS490HV / KS690HV

ITEM	PART NO.	DESCRIPTION
1	563-009	PLATEN-KS390/490/HV
1	563-036	PLATEN-KS690HV
3,7	041-029	BRACKET, PLATEN-KS390,KS490
3,7	041-061	BRACKET, PLATEN-KS690HV
2	829-025	TABLE GUARD
4	936-009	CONTACT WHEEL-KS390-KS390HV
4	936-010	CONTACT WHEEL-KS490-KS490HV
4	936-022	CONTACT WHEEL-KS690HV
5	560-042	DRIVE PULLEY
5	560-056	DRIVE PULLEY-KS390/490/HV
5	560-062	DRIVE PULLEY-KS690HV
6	291-016	MAIN FRAME-KS390/490/HV
6	291-045	MAIN FRAME-KS690HV
8		REAR GUARD
9		DOOR
10	829-026	WORK TABLE-KS390/490/HV
10	829-042	WORK TABLE-KS690HV
11		S.S.S.
12		H.H.C.S.
13	960-012	YOKE/SHAFT ASSY-KS390/490/HV
13	960-021	YOKE/SHAFT ASSY-KS690HV
14	572-002	TILT BRACKET
15	701-032	IDLER SPINDLE-KS390/490/HV
15	701-054	IDLER SPINDLE-KS690HV
16		ALLEN CAP SCREW
17		JAM NUT
18	709-012	LEVELING STUD
19		5/8" NUT
20	455-003	Tension Lever
21	697-024	Tension Spring
22	486-001	5HP, 3PH MOTOR FOR KS490/690HV
22	486-003	2HP, 1PH MOTOR FOR KS390/490
22	486-007A	3HP, 3PH MOTOR FOR KS390/490
23	291-018	Frame
24	053-009	Tracking Block (2 required)
25	716-015W	BASE & STAND ASSY-KS390/490
25	716-016W	BASE & STAND ASSY W/VACUUM KS390/490
25B	DCV-6	VACUUM BASE KS490/690HV
		Vacuum Mtr. #486-008
		Vac. Mtr. cover # 342-037



26	831-015	IDLER ADJUSTING BAR
27	710-009	MANUAL SWITCH-1PH KS390-KS490
27	710-010	MANUAL SWITCH-3PH KS390-KS490
27	710-012	MANUAL SWITCH/OVERLOAD-KS490, HV-KS690HV
28	441-017	TRACKING Screw
29	568-002	SPRING PLUNGER
30	699-041	TUBE SPACER-KS690HV

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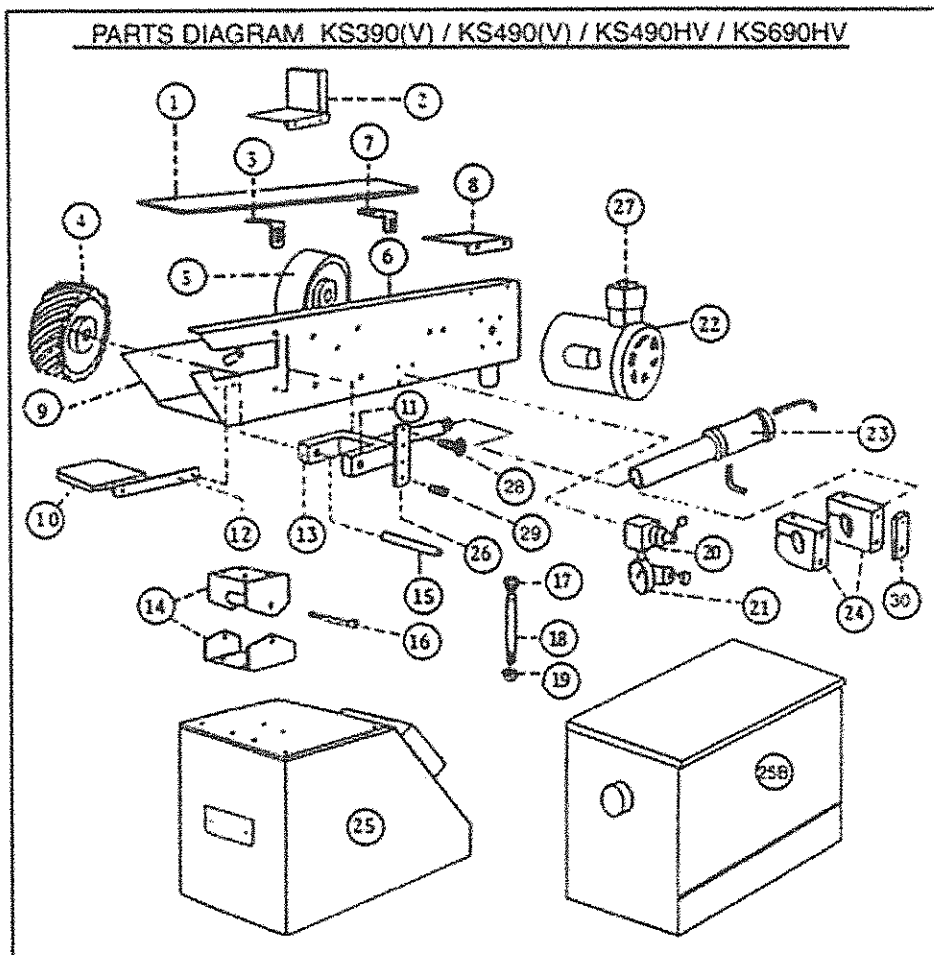
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17		JAM NUT
18	709-012	LEVELING STUD
19		5/8" NUT
20	912-014	4-WAY AIR VALVE
21	912-006	AIR GAGE & REGULATOR
22	486-001	5HP, 3PH MOTOR FOR KS490/690HV
22	486-003	2HP, 1PH MOTOR FOR KS390/490
22	486-007A	3HP, 3PH MOTOR FOR KS390/490
23	1000-34	CYLINDER ASSEMBLY
24	053-017	TUBE SUPPORT (2)
25	716-015W	BASE & STAND ASSY-KS390/490
25	716-016W	BASE & STAND ASSY W/VACUUM KS390/490
25B	DCV-6	VACUUM BASE KS490/690HV
		vacuum mtr. # 486-008
		Vac. mtr cover # 342-037
26	053-009	Idler Adjusting Blocks (Two Required)
26	831-015	IDLER ADJUSTING BAR (Old Style)
27	710-009	MANUAL SWITCH-1PH KS390-KS490
27	710-010	MANUAL SWITCH-3PH KS390-KS490
27	710-012	MANUAL SWITCH/OVERLOAD-KS490, HV-KS690HV
28	441-017	TRACKING KNOB
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