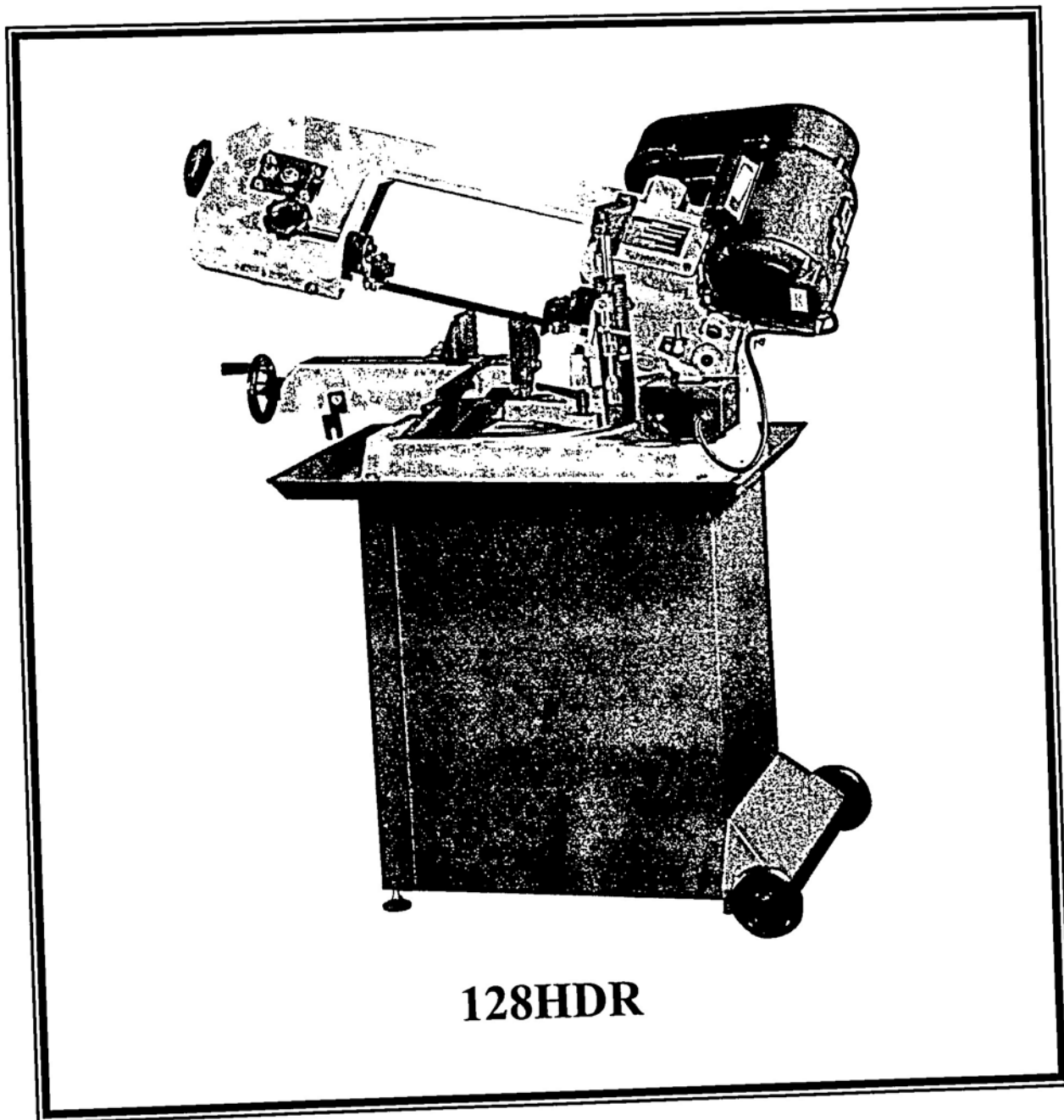


METAL CUTTING BAND SAW MACHINE



128HDR

METAL CUTTING BAND SAW INSTRUCTION MANUAL

128HDR-061025-R3



WARNING !

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemical are:

- Lead from lead-based paints.
- Crystalline silica from bricks, 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 specially designed to filter out microscopic particles.

"THIS MACHINE IS FOR METAL CUTTING ONLY, IT IS NOT APPROVED FOR CUTTING WOOD. THE SUPPLIER ACCEPTS NO RESPONSIBILITY FOR ANY MACHINE WHEN USED FOR CUTTING WOOD. "

A. Average Noise Level = continuous level of airborne noise from machines when running at full speed with no load.

C. Loudest Noise level = the peak noise level recorded from machines when running at full speed with no load.

Based on above two measurements A & C. this hand-saw's equivalent A-weighted sound pressure level at the work station was measured at 70 dB, while its peak C-weighted instantaneous sound pressure value at the work station was measured at 75 dB.

(FOR CE MACHINE ONLY)

CAUTION:

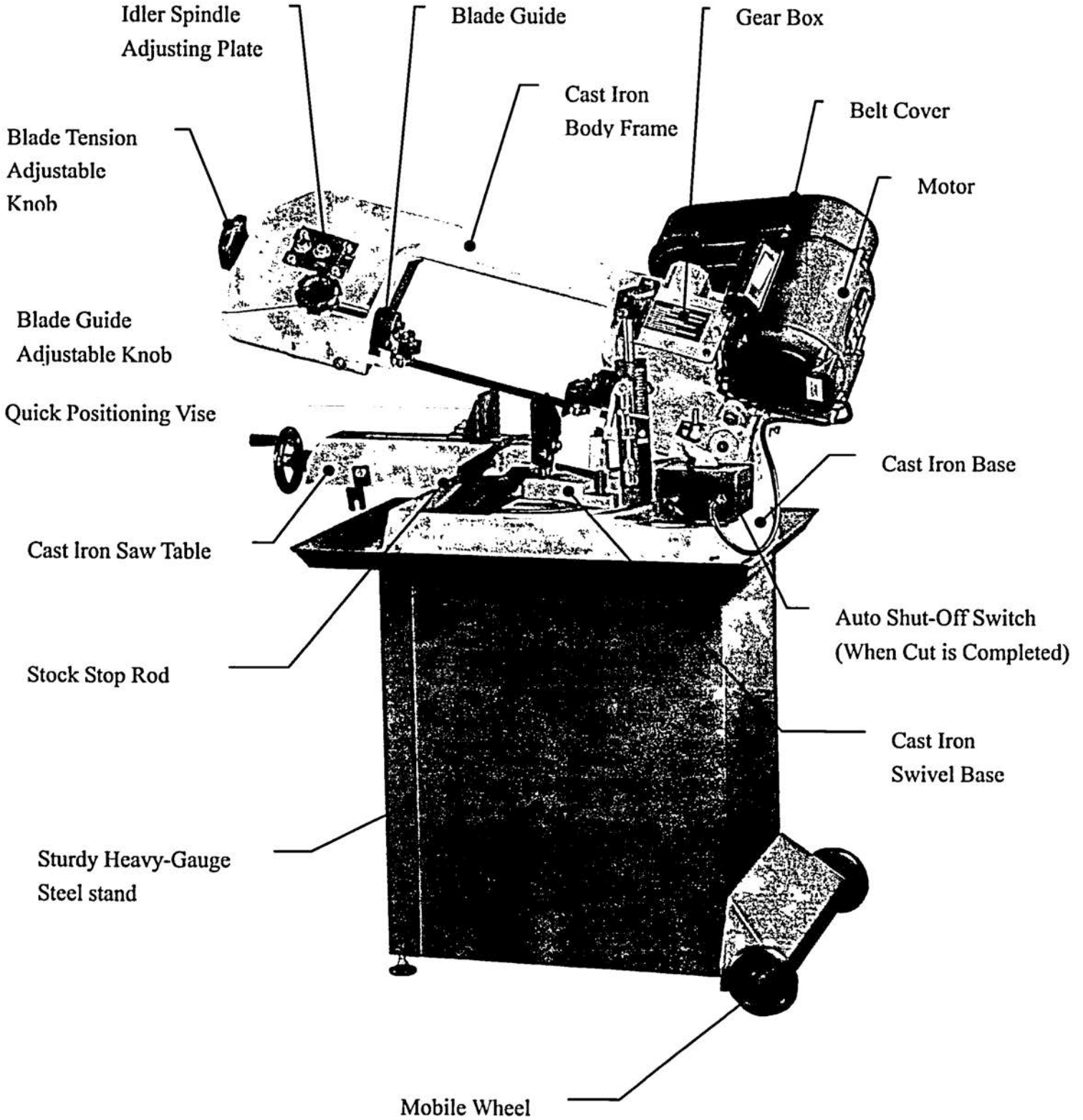
VERTICAL CUTTING IS PROHIBITED IN THE MACHINE. NO VERTICAL CUTTING PLATE PROVIDED, TO PREVENT ANY IMPROPER USE.

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Overall Aspect



**WARNING: FAILURE TO FOLLOW THESE RULES
MAY RESULT IN SERIOUS PERSONAL INJURY**

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. We strongly recommend that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you contact with us and we have advised you.

Your machine might not come with a power socket or plug. Before using this Machine, please do ask your local dealer to install the socket or plug on the Power cable end.

2.SAFETY RULES FOR ALL TOOLS

A. USER:

- (1). **WEAR PROPER APPAREL.** No loose clothing, gloves, rings, bracelets, or other jewelry to get caught in moving parts. Non-slip foot wear is recommended. Wear protective hair covering to contain long hair.
- (2). **ALWAYS WEAR EYE PROTECTION.** Refer to ANSLZ87.1 standard for appropriate recommendations. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses , they Are NOT safety glasses.
- (3). **DON'T OVERREACH.** Keep proper footing and balance at all times.
- (4). **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
- (5). **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
- (6). **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drug, alcohol or any medication.
- (7). **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY.** While motor is being mounted, connected or reconnected.
- (8). **ALWAYS** keep hands and fingers away from the blade.
- (9). **STOP** the machine before removing chips.
- (10). **SHUT- OFF** power and clean the BAND SAW and work area before leaving the machine.

- (11) **KEEP GUARDS IN PLACE and working order.**
- (12) **MAKE WORKSHOP KID PROOF** with padlocks , master switches , or by removing starter keys.

(13) USE PROPER EXTENSION CORD

Make sure your extension cord is in good condition. When using an extension cord , be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 72.1 shows the correct size to use depending on cord length and nameplate ampere rating. if in doubt , use the next heavier gage .The smaller the gage number , the heavier the cord.

- (14) **ON-OFF SWITCH PADLOCK**-To safeguard the band saw from unauthorized operation and to avoid accidental starting by children , the use of padlock is requested. To lock out the on-off switch : open the padlock , insert through the holes of the switch guard , and close the padlock . Place the key in a location that is inaccessible to children and others not qualified to use the tool.

- (15) **All grounded , cord-connected tools** : In the event of a malfunction or breakdown , grounding provides a path of least resistance for electric current to reduce the risk of electric shock . This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug . The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided—if it will not fit the outlet , have the proper outlet installed by a qualified electrician. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor .If repair or replacement of the electric cord or plug is necessary , do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood , or if in doubt as to whether the tool is properly grounded. Use only 3-wire extension cords that have 3-prong grounding plug and 3-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cord immediately.

- (16) **Grounded , cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 volts :**

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 72.1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 72.1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 72.1. A temporary adapter , which looks like the adapter illustrated in Sketch B and C , may be used to connect this plug to a 2-pole receptacle as shown in Sketch B

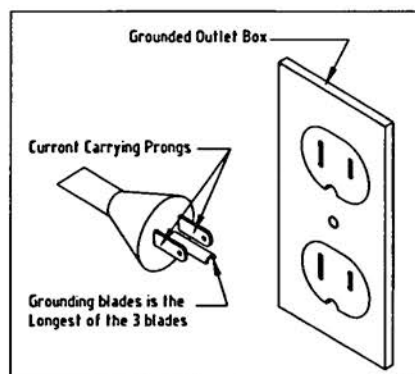
if a properly grounded outlet is not available .The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear , lug and the like , extending from the adapter must be connected to a permanent ground such as properly grounded outlet box.

(17) Grounded , cord-connected tools intended for use on a supply circuit having a nominal rating between 150-250 volts , inclusive :

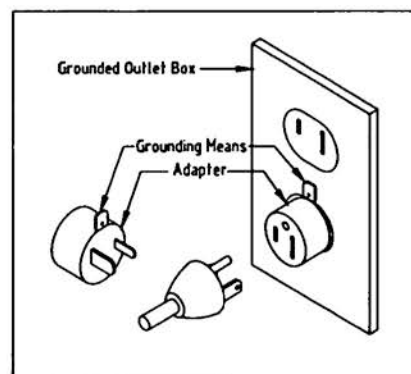
This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D in Figure72.1.The tool has a grounding plug that looks like the plug illustrated in Sketch D in Figure72.1.Make sure the tool is connected to an outlet having the same configuration as the plug , No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit , the reconnection should be made by qualified service personnel , and after reconnection , the tool should comply with all local codes and ordinances.

(18) 115Volt Operation

As received from the factory , your machine is ready to run at 115 Volt operation , when wired for 115Volt , is intended for use on a circuit that has an Outlet and .a plug that looks like the one illustrated in Figure A. A temporary adapter , which looks like the adapter as illustrated in Figure B , may be used to connect this plug to a two-pole receptacle , as shown in Figure B , if a properly grounded outlet is not available. The temporary adapter should only be used until a qualified electrician can install a properly grounded outlet , This adapter is not applicable in Canada. The green colored rigid ear , lug or tab extending from the adapter , must be connected to a permanent ground such as a properly grounded outlet box , as show in Figure B.



Fig(A)



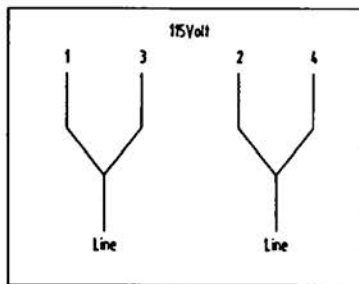
Fig(B)

(19) 230Volt Operation

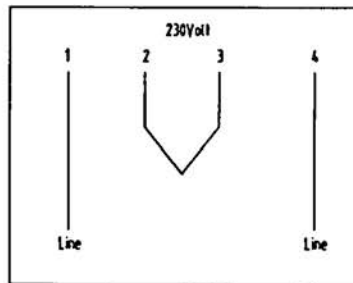
if 230V, single-phase operation is desired, the following instructions must be followed:

1. Disconnect the machine from the power source.
2. this machine is supplied with four motor leads that are connected for 115V operation, as shown in **Figure C**, Reconnect the four motor leads for 230V operation, as shown in **Figure D**.
3. The 115V attachment plug, must be replaced with a UL/CSA listed plug suitable for 230V operation, this plug is illustrated in **Figure E**. contact with qualified electrician for this operation, This machine must comply with all local and national codes after the 230-volt plug is installed.
4. this machine with a 230-volt plug should only be connected to an outlet having the same configuration as illustrated by the grounded Outlet box in **Figure E** No adapter is available or Should be used with the 230-volt plug.

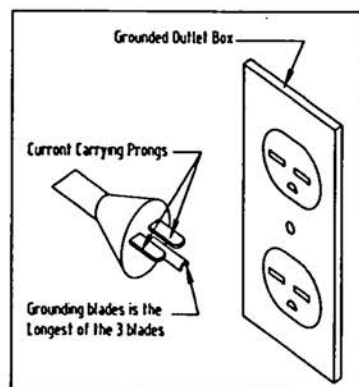
Important : In all cases (115 or 230 volts), make certain the receptacle in question is properly Grounded. If you are not sure , have a licensed electrician check the receptacle.



Fig(C)



Fig(D)



Fig(E)

Figure 72.1
Grounding methods

(This Adapter is not applicable in Canada)

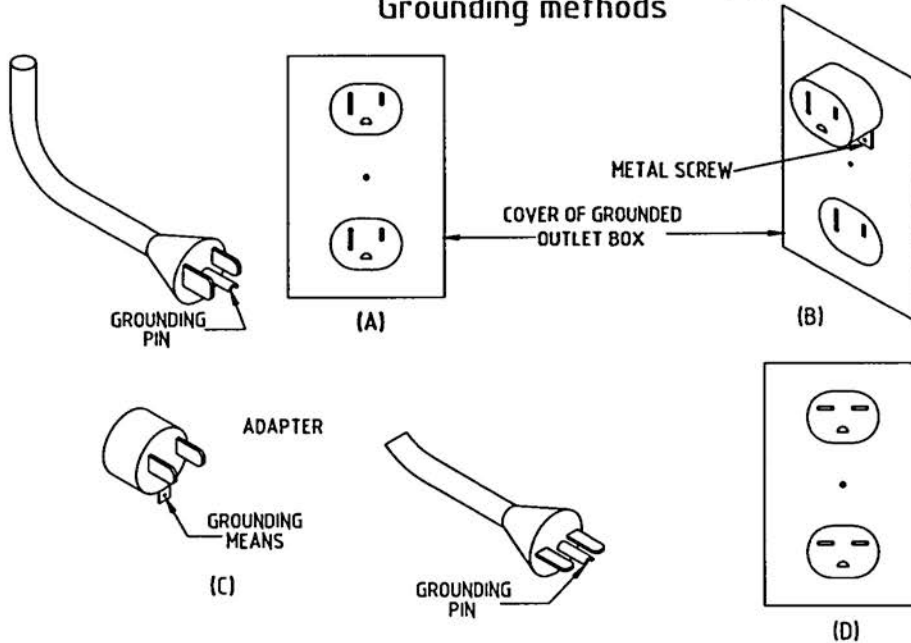


Table 72.1
Minimum gage of Cord

Ampere Rating	Volts		Total Length of cord in feet			
	120V	240V	25ft	50ft	100ft	150ft
			50ft	100ft	200ft	300ft
Not More Than	Not More Than		AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not	Recommended

B. USE OF MACHINE:

- (1). **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on".
- (2). **DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.
- (3). **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

- (4). **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand frees both hands to operate tool.
- (5). **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- (6). **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.
- (7). **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
- (8). **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- (9). **ADJUST AND POSITION** the blade guide arm before starting the cut.
- (10). **KEEP BLADE GUIDE ARM TIGHT,** A loose blade guide arm will affect sawing accuracy .
- (11). **MAKE SURE** blade speed is set correctly for material being cut.
- (12). **CHECK** for proper blade size and type.
- (13). **STOP** the machine before putting material in the vise.
- (14). **ALWAYS** have stock firmly clamped in vise before starting cut.
- (15). **GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never removed the third prong.

C. ADJUSTMENT :

MAKE all adjustments with the power off. In order to obtain precision of the machine, and correct ways of adjustment while assembling, the user should read the detailed instruction in this manual.

D. WORKING ENVIRONMENT:

- (1). **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- (2). **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.
- (3). **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
- (4). **DON'T** install & use this machine in explosive, dangerous environment.

E. MAINTENANCE:

- (1). **DISCONNECT** machine from power source when making repairs.
- (2). **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that

is damaged should be carefully checked to ensure that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

- (3). **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
- (4). **MAKE SURE** that blade tension and blade tacking are properly adjusted.
- (5). **RE-CHECK** blade tension after initial cut with a new blade.
- (6). **TO RPOLONG BLADE LIFE ALWAYS** release blade tension at the end of each work day.
- (7). **CHECK COOLANT DAILY** Low coolant level can cause foaming and high blade temperatures. Dirty or week coolant can clog pump, cause crooked. rust, low cutting rate and permanent blade failure. Dirty coolant can cause the growth of bacteria with ensuing skin irritation.
- (8). **WHEN CUTTING MAGNESIUM NEVER** use soluble oils or emulsions(oil-water mix) as water will greatly intensify any accidental magnesium chip fire. See your industrial coolant supplier for specific coolant recommendations when cutting magnesium.
- (9). **TO PRNMT** corrosion of machined surfaces when a soluble on is used as coolant, pay particular attention to wiping dry the surfaces where fluid accumulates and does not evaporate quickly, such as between the machine bed and vise.

F. SPECTIFIED USAGE:

This machine is used only for general metals cutting within the range of cutting capacity.

G. NOIES:

A weighted sound pressure level : 80 dB.

H. SAFETY DEVICE:

- (1). Interlock switch on pulley cover.

As soon as the pulley cover is open, machine will stop with the function of this switch. Do not remove this switch from machine for any reason, and check it's function frequently.

- (2). Interlock switch on cutting area as soon as the cover of cutting area is open, machine will stop at once witch the function of this switch. Do not remove this switch from machine for any reason, and check it's function frequently.

I. TRANSPORTATION OF MACHINE:

As this machine weights 78kgs(172lbs) it is recommended that the machine be transported with help of lifting jack.

Transportation Recommendation:

1. Tighten all locks before operation.
2. **ALWAYS** Keep proper footing & balance while moving this machine, and only use heavy duty fiber belt to lift the machine.
3. **TURN OFF** the power before wiring & be sure machine is properly grounded.
Overload & circuit breaker are recommended for safety wiring.
4. **CHECK** carefully if main shaft is running in clockwise direction while running test. If not, reverse the wiring per wiring diagram. then, repeat the test until spindle direction is correct.
5. **KEEP** machine always out from sun, dust, wet or raining area.

J. BEWARE THE MACHINE (SAW BOW) BALANCE WHEN DISMOUNTING THE CYLINDER.**3.SPECIFICATIONS:**

	128HDR
Capacity	0°--O =Ø5" (Ø 128mm) --□ = 5" x 6" (128x 150mm)
	45°--O =Ø3-3/4" (Ø 95mm) --□ = 3-3/4" x 2-15/16" (95x 75mm)
	60°--O =Ø1-3/4" (Ø 44mm) --□ = 1-3/4" x 2-3/16" (44x 56mm)
Speeds	60HZ => 80-120-200 FPM 50HZ =>65-95-165 FPM
Motor	1/3HP , 1/2 HP 60HZ=>1725RPM 50HZ=>1420RPM
Blades Size	1/2" x 0.025" x 64 1/2" (12.7 x 0.64x 1635mm)
Dimensions LxWxH	38.5" *20.4" * 41.7" (980x520x1060mm)
Blade Wheels	7-3/8"(187mm) High strength flanged cast iron
Packing	40.2"x 17.5"x18.2" (1020x445x460mm)
N.W./G.W.	78 / 80Kgs
20' Container Q'ty	135 sets

4.FEATURES

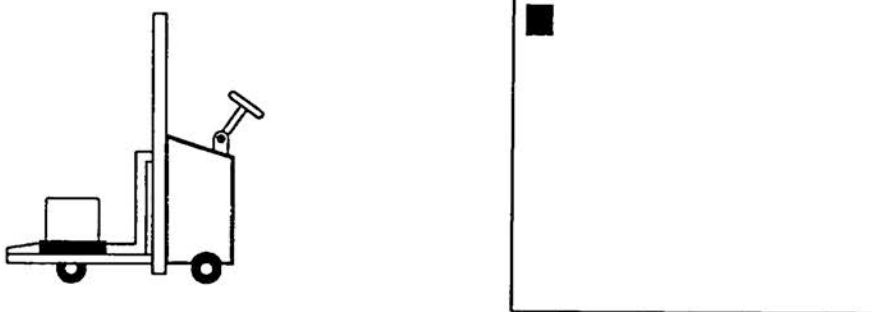
1. Special designed horizontal band saw.
2. Offers three speeds for cutting metal.
3. Shuts off automatically when material is cut.
4. No noise while operating.
5. Casters (optional) quick and easy moving.
6. 2 Way swivel saw arm provides $+60^{\circ}\sim-45^{\circ}$ swivel cutting.
7. Quick positioning vise provides easy clamping on work piece.
8. Built-in shelf for storing tools.
9. Both floor & bench have wheels for easy movement.

5.DELIVERY & INSTALLATION

3-1.Unpacking

1. Transportation to desired location before unpacking, please use lifting jack.(Fig. B)
2. Transportation after unpacking, please use heavy duty fiber belt to lift up the machine.

Fig. B



ALLWAYS KEEP PROPER FOOTING & BALANCE WHILE MOVING THIS MACHINE.

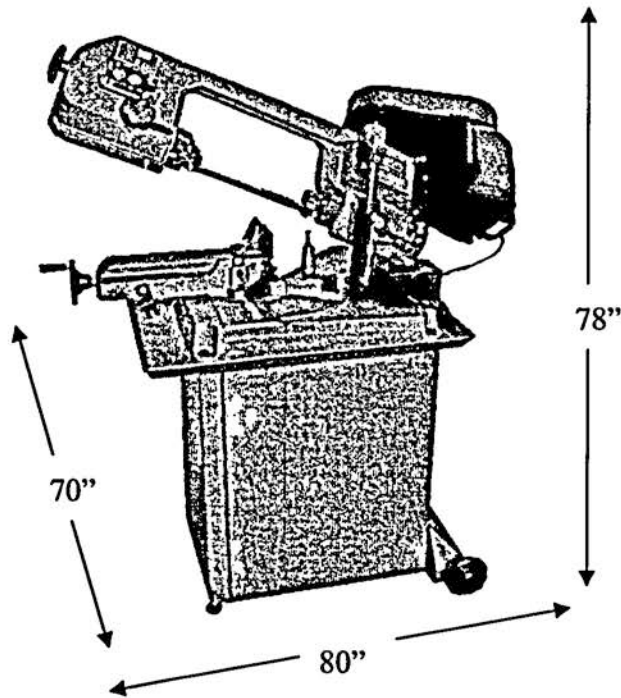
3-2.Installation:

- (1) **BE SURE** all locks of head-stock & column are tighten before operation.
- (2) **KEEP** machine always out from sun, dust, wet, mining area.
- (3) **TURN OFF** the power before wiring & be sure machine in proper grounding. Overload & circuit breaker is recommended for safety wiring.
- (4) **CHECK** carefully if main shaft in clockwise direction while running test. If not, reverse the wiring then, repent the test till spindle direction is correct.
- (5) **Finish** removing this wooden case/crate from the machine. Unbolt the machine from the crate bottom.
- (6) **Carefully** lift the machine to a sturdy stand or work bench. For best performance, through bolt the machine to bench or stand.

(7) Bolt the stand legs to the floor, while using a sturdy stand.

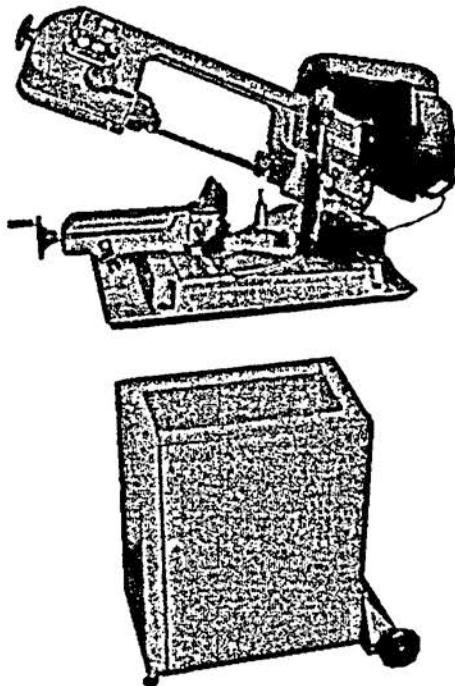
Before Bolting The Machine To A Bench Or Stand Or Floor, The Unit Must Be Level In Both Directions.

6. MINIMUM ROOM SPACE FOR MACHINE OPERATION



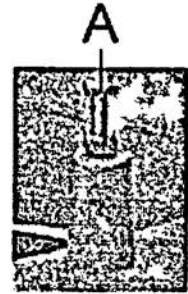
7. Band Saw Installation

Well Mounted the stand and then put on the completed saw on the mounted stand.



8. OPERATION

The Hexagon Head Screw (A) should be adjusted in accurate height when machine in cutting and after finished off cutting then magnetic Switch can be lost.



1. Operation Steps

- (1) Raise the saw head to vertical position.
- (2) Adjust the motor automatic stop key so the motor might stop just while the work-piece is cut off.
- (3) Adjust the stock stop to the desired length position.
- (4) Open vise to accept the work-piece to be cut. If the piece is long, support the end.
- (5) Rotate the hand wheel to tighten the work-piece.
- (6) Turn on the switch, and change the blade speed to best suit the work-piece being cut.
- (7) Let the saw head down slowly to touch the work-piece lest the blade should be broken by excessive pressure.
- (8) Rotate the adjusting rod to obtain the proper pressure.

2. Helpful Cutting Hints

- (1) The harder the materials, the slower the cutting speed should be.
- (2) Use of cutting oil is recommended when the blade speed is higher.
- (3) To increase the feed, turn the feed screw adjustment (at left of base) counter clockwise: to decrease turn clockwise. Do not adjust more than one turn at a time.

3. Blade Speeds

When using your band saw always change the blade speed to best suit the material being cut. The material cutting chart gives suggested setting for several materials.

MATERIAL CUTTING CHART

Material	Speed		Belt Groove Used	
	50Hz	60Hz	Motor Pulley	Saw Pulley
Tool, Stainless or Alloy Steel, Bearing Bronzes	20 MPM	24 MPM	Small	Large
Mild Steel, Hard Brass or Bronze	29 MPM	37MPM	Medium	Medium
Soft Brass, Aluminum, other light materials	50 MPM	61 MPM	Large	Small

4. Blade selection

- (1) A 14-tooth per inch, general-use blade is furnished with this metal cutting band saw. Additional blades in 6, 10, 14 and 18 tooth sizes are available.
- (2) The choice of blade pitch is governed by the thickness of the work to be cut.
- (3) The thinner work-piece. The more teeth advised.
- (4) If the teeth of the blade are too far apart can result in severe damage to the work-piece and to the blade.

5. Changing blades

Raise saw head to vertical position. Loosen blade tension adjustable knob sufficiently to allow the saw blade to slip off the wheels.

Install the new blade as follows:

- (1) Place the blade in between each of guide bearing.
- (2) Slip the blade around the motor pulley (bottom) with the left hand and hold in position.
- (3) Hold the blade taut against the motor pulley by pulling the blade upward with the right hand which be placed at the top of the blade.
- (4) Remove left hand from bottom pulley and place it at the top side of the blade to continue the application on the upward pull on the blade.
- (5) Remove right hand from blade and adjust the position of the top pulley to permit left hand to slip the blade around the pulley using the thumb, index and little finger as guides.
- (6) Adjust the blade tension knob clockwise until it is just right enough, so no blade slippage occurs. Do not tighten excessively.
- (7) Place 2-3 drops of oil on the blade.
- (8) Replace the blade guard.

6. Starting Saw

- (1) Never operate saw without blade guards in place.
- (2) Be sure the blade is not in contact with the work when the motor is started.
- (3) Start the motor, allow the saw to come to full speed.
- (4) Do not drop or force the head provide the cutting force by letting the head down slowly into the work.
- (5) Proper feed is important, excessive pressure can break the blade or stall the saw. Insufficient pressure dulls the blade rapidly.
- (6) Never use a new blade to complete previously started cut.
- (7) Do not start cutting on the sharp corners.

9. BI-METAL SPEEDS AND FEEDS

These figures are a guide to cutting 4"(100mm) material (with a 314 Vari-Tooth) when using a cutting fluid.

Increase Band Speed: 15% When cutting 1/4"(6.4mm) material (10/14 Vari-Tooth)
 12% When cutting 3/4"(19 mm) material (6/10 Vari-Tooth)
 10% When cutting 1-1/4"(32 mm) material(5/8 Vari-Tooth)
 5% When cutting 2-1/2" (64 mm) material(4/6 Vari-Tooth)

Decrease Band Speed: 12% When cutting 8"(200mm) material(2/3 Vari-Tooth)

MATERIAL	ALLOY ASTM NO.	BAND SPEED	
		FT./MIN	M/MIN
Copper Alloy	173,932	314	96
	330,365	284	87
	623,624	264	81
	230,260,272	244	74
	280,264,632,655	244	74
	101,102,110,122,172	234	71
	1751,182,220,510	234	71
	625,706,715,934	234	71
	630	229	70
	811	214	65
Carbon Steel	1117	339	103
	1137	289	88
	1141,1144	279	85
	1141 HI STRESS	279	85
	1030	329	100
	1008,1015,1020,1025	319	97
	1035	309	94
	1018,1021,1022	299	91
	1026,1513	299	91
	A36(SHAPES),1040	269	82
	1042,1541	249	76
	1044,1045	219	67
	1060	199	61
	1095	184	56
Ni-Cr-Mo Alloy Steel	8615,8620,8622	239	73
	4340,E4340,8630	219	67

	8640,	199	61
	E9310	174	53
Tool Steel	A-6	199	61
	A-2	179	55
	A-10	159	49
	D-2	90	27
	H-11,H-12,H-13	189	58
Stainless Steel	420	189	58
	430	149	46
	410,502	140	43
	414	115	35
	431	95	29
	440C	80	24
	304,324	120	36
	304L	115	35
	347	110	33
	316,316L	100	30
	416	189	58

TELLTALE CHIPS

Chips are the best indicator of correct feed force. Monitor chip information and adjust feed accordingly.

Thin or powdered chips – increase feed rate or reduce band speed.



Burned heavy chips – reduce feed rate and/or band speed.



Curly silvery and warm chips – optimum feed rate and band speed.



10. MACHINE ELEMENTS ADJUSTMENT

10-1. Vertical Adjustment of the Blade Wheels

- (1) Remove the blade guards.
- (2) Turn the blade tension adjustable knob counterclockwise so that the blade might loosen a little.

- (3) Adjust the hex-hole screw in the hole of slide block until the front blade wheel rises backward a little so that the blade will be kept in position.
- (4) Tighten the blade tension adjustable knob until the blade obtains the proper tension.
- (5) Check the tracking by turning on the machine. If the blade slides forward, go back to step 4 until the rear blade touches the flange of blade wheel.
- (6) Turn off power to the machine.
- (7) Replace the blade guards.

10-2. Blade Guide Bearing Adjustment

Attention: This is the most important adjustment on your saw. It is impossible to get satisfactory work from your saw if the blade guides are not properly adjusted.

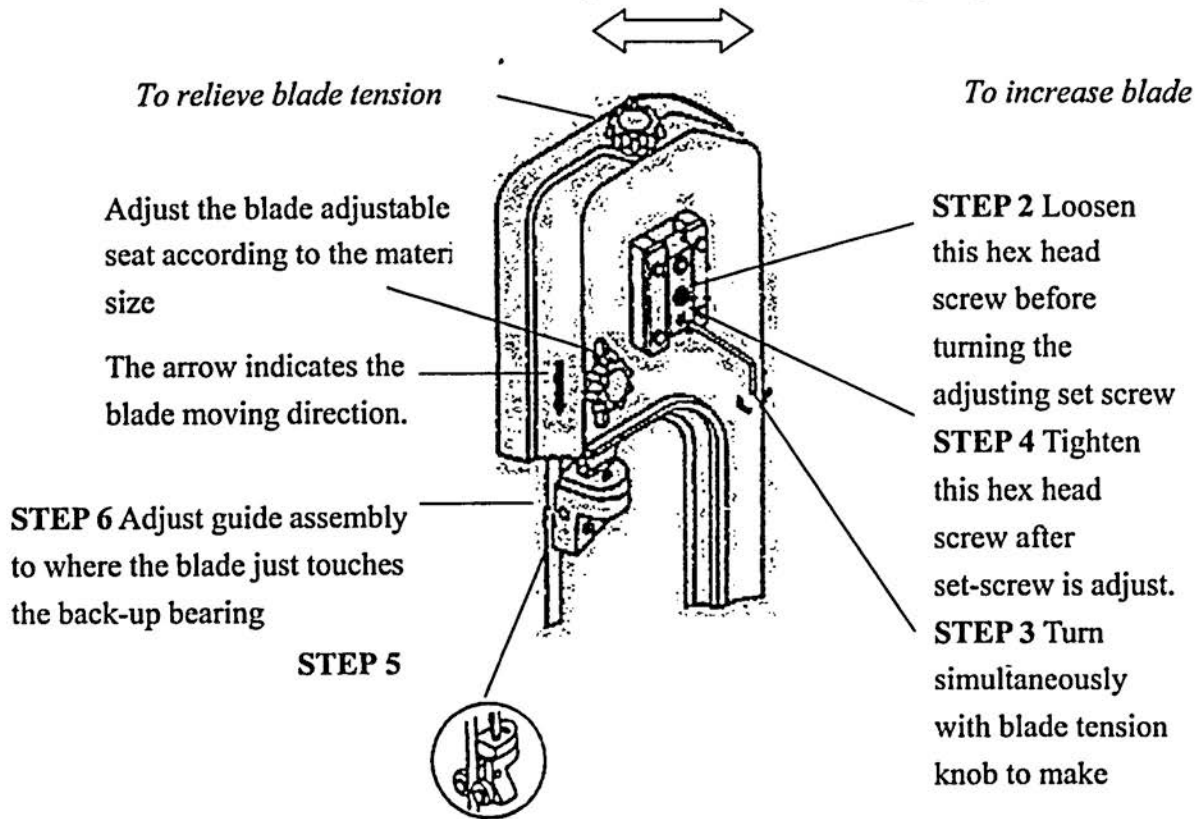
Note: There should be from .000 (just touching) .001 clearance between the blade and guide bearing. To obtain this clearance adjust as follows:

- (1) Each of two guide bearing is mounted to an eccentric bushing and can be adjusted.
- (2) Loosen the nut while holding the bolt with an alien wrench.
- (3) Position the eccentric by turning the bolt to the desired position of clearance. (The blade will be just completely vertical while it is cutting.)
- (4) Tighten the nut, and the adjustable shaft of the guide bearing is fixed.
- (5) Adjust the second blade guide bearing in the same manner.

10-3. Blade Tension Adjustment:

- (1) Make sure the motor is shut off.
- (2) Press the blade lightly with the left hand, make the rear blade against the flange of blade wheel and feel the blade tension that the blade does not come off from the wheel.
- (3) Adjust the blade tension adjustable knob with the right hand until the blade obtains the proper tension.

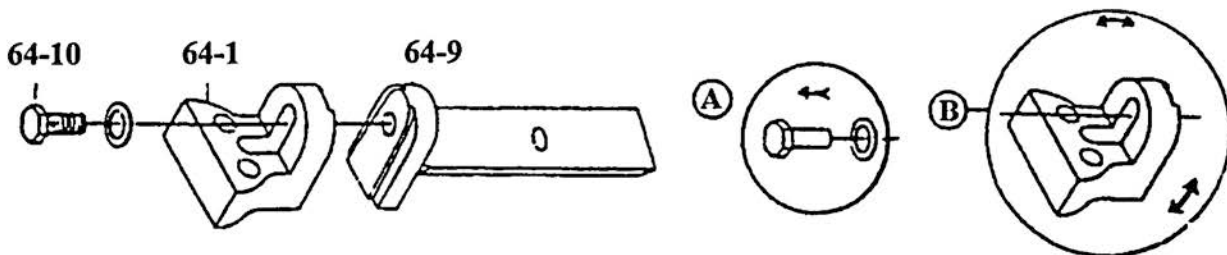
STEP 1 Turn simultaneously with adjusting set screw to make the blade track against the shoulder of the pulley



Note: Please, refer to the instruction manual when you meet troubles while operating.

10-4. Method of adjusting blade:

- A. Loosen the screw # 64-10.
- B. Adjust the blade adjustable seat # 64-1 to make the blade vertical to bed.
- C. Place the square on the bed to check if the blade is vertical, if not, repeat the process A to C.
- D. Tighten the screw # 64-10.



10-5. Hydraulic Feed Adjustment

- (1) To adjust the feeding rate when in cutting, Turn the volume valve (A) clockwise for faster feeding, counterclockwise for slower feeding.
- (2) When cutting feed is too fast, raise the saw arm, then slower the feed rate to prevent blade damage.

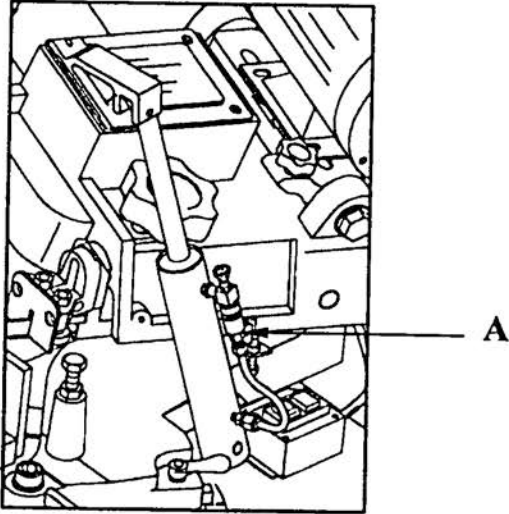
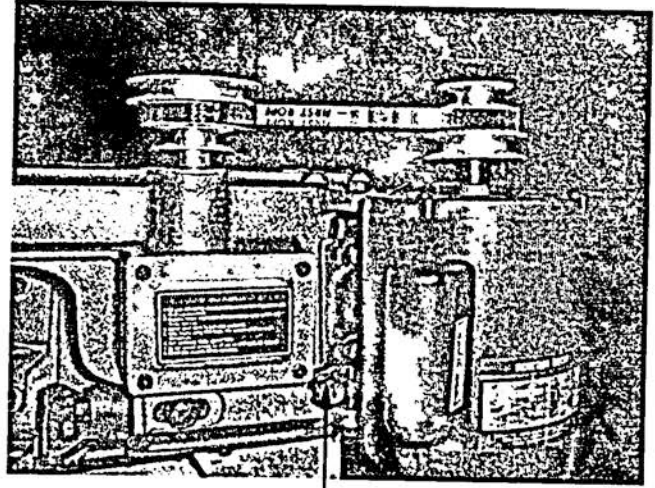


FIG4-1



A

10-6. BELL INSTALLATION

- (1) After installation of the bell onto pulley, be sure to lock the screws firmly, to prevent the shaking of motor, and the losing of bell.

11. MAINTAINING

That's easier to keep machine in good condition or best performance by means of maintaining it at any time than remedy it after it is out of order.

(1) Daily Maintenance (by operator)

- (a) Fill the lubricant before starting machine everyday.
- (b) If the temperature of spindle caused over-heating or strange noise, stop machine immediately to check it for keeping accurate performance.
- (c) Keep work area clean; release vise, cutter, work-piece from table; switch off power source; take chip or dust away from machine and follow instructions lubrication or coating rust proof oil before leaving.

(2) Weekly Maintenance

- (a) Clean and coat the cross leading screw with oil.
- (b) Check to see if sliding surface and turning parts lack of lubricant. If the lubricant is insufficient, fill it.

(3) Monthly Maintenance

(a) Adjust the accurate gap of slide both on cross and longitudinal feed.

(b) Lubricate bearing, worm, and worm shaft to avoid wear.

(4) Yearly Maintenance

(a) Adjust table to horizontal position for maintenance of accuracy.

(b) Check electric cord, plug, switches, to avoid loosening or wearing at least once a year.

12.CLEANING & LUBRICATING

(1) Your machine has been coated heavy grease to protect it in shipping. This coating should be completely removed before operating the machine. Commercial degreaser, kerosene or similar solvent may be used to remove the grease from the machine, but avoid getting solvent on belts or other rubber parts.

(2) Be sure to clean. The band saw after operation. And coat this machine with rust-less oil.

(3) Using SAE-30 oil to lubricate the components.

(4) Lubricate the vise lead screw as heeded.

(5) The drive gears will not require a lubricant change more often than once a year, unless a leak or over-hot occur.

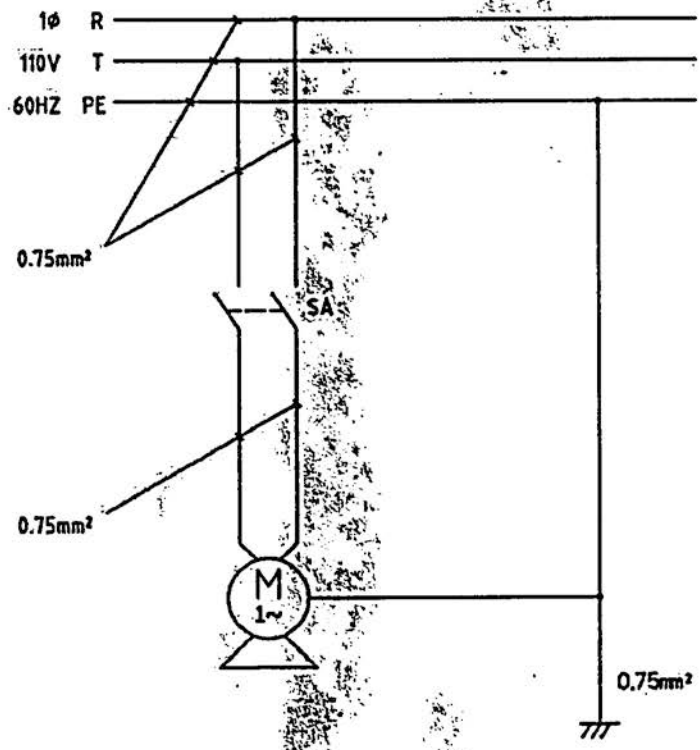
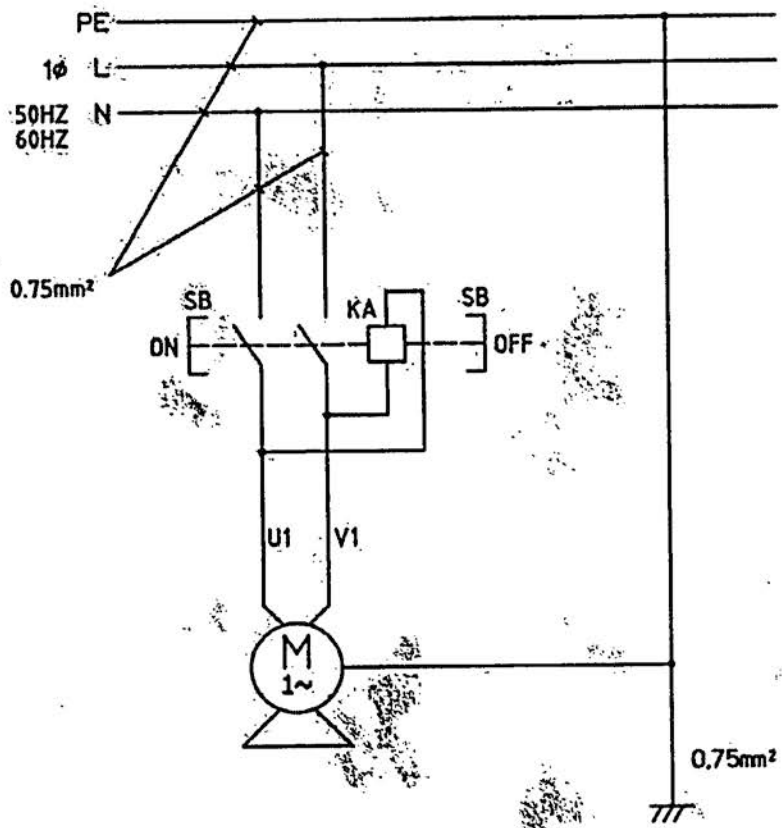
13.TROUBLE SHOOTING

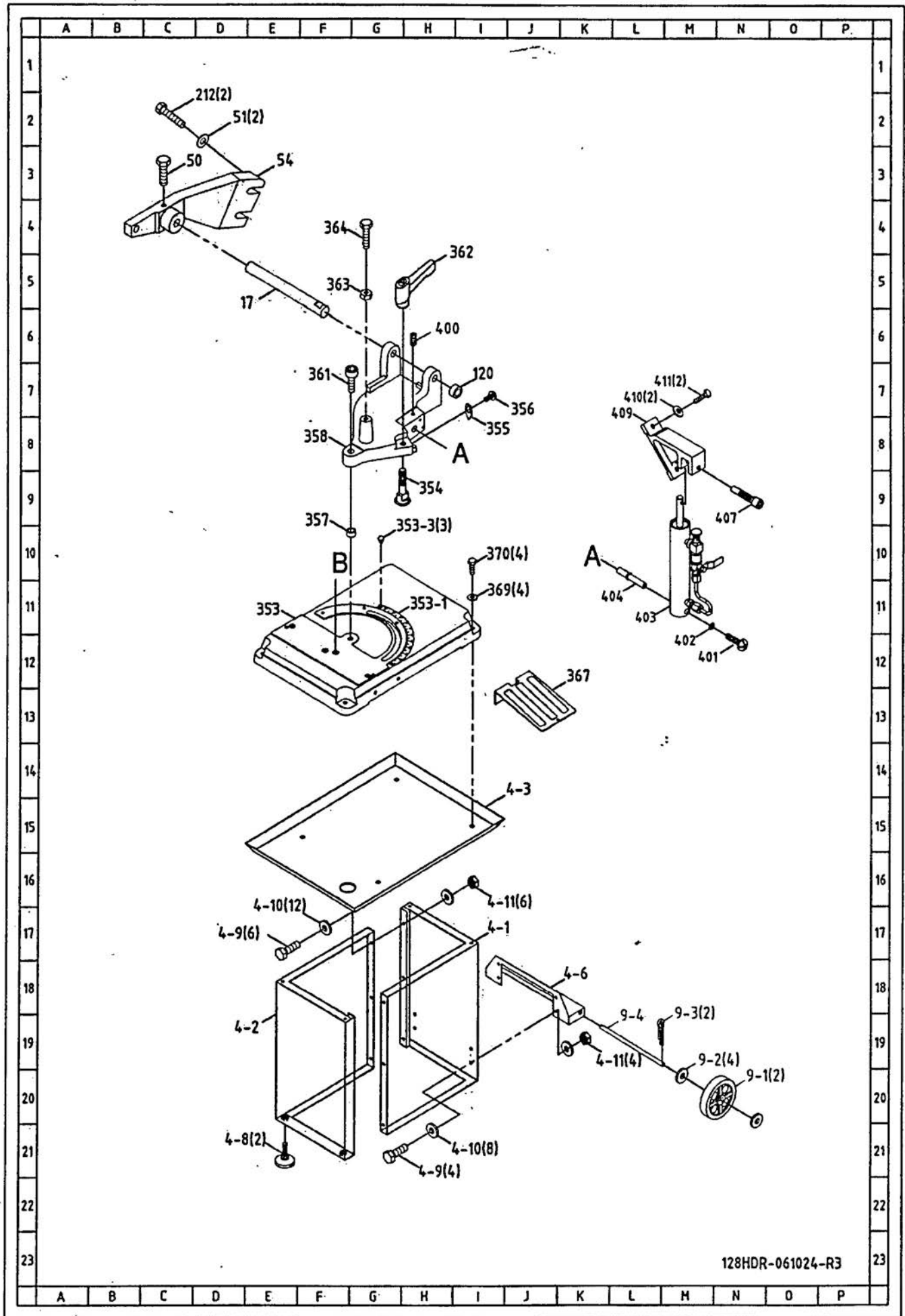
Symptom	Possible Cause(s)	Corrective Action
Excessive Blade Breakage	1. Materials loosen in vise. 2. Incorrect speed or feed 3. Blade teeth spacing too large 4. Material too coarse 5. Incorrect blade tension 6.Teeth in contact with material before saw is started 7. Blade rubs on wheel flange 8. Miss-aligned guide bearings 9. Blade too thick 10 Cracking at weld	1. Clamp work securely 2. Adjust speed or feed 3. Replace with a small teeth spacing blade 4. Use a blade of slow speed and small teeth spacing 5. Adjust to where blade just does not slip on wheel 6. Place blade in contact with work after motor is starred 7. Adjust wheel alignment 8. Adjust guide bearings 9. Use thinner blade 10. Weld again, note the weld skill.
Premature Blade Dulling	1. Teeth too coarse 2. Too much speed	1. Use finer teeth 2. Decrease speed

	<ul style="list-style-type: none"> 3. Inadequate feed pressure 4. Hard spots or scale on material 5. Work hardening of material. 6. Blade twist 7. Insufficient blade 8. Blade slide 	<ul style="list-style-type: none"> 3. Decrease spring tension on side of saw 4. Reduce speed, increase feed pressure 5. Increase feed pressure by reducing spring tension 6. Replace with a new blade, and adjust blade tension 7. Tighten blade tension adjustable knob 8. Tighten blade tension
Unusual Wear on Side/Back of Blade	<ul style="list-style-type: none"> 1. Blade guides worn. 2. Blade guide bearings not adjust properly 3. Blade guide bearing bracket is loose 	<ul style="list-style-type: none"> 1. Replace. 2. Adjust as per operators manual 3. Tighten.
Teeth Ripping from Blade.	<ul style="list-style-type: none"> 1. Tooth too coarse for work 2. Too heavy pressure; too slow speed. 3. Vibrating work-piece. 4. Gullets loading 	<ul style="list-style-type: none"> 1. Use finer tooth blade. 2. Decrease pressure, increase speed 3. Clamp work piece securely 4. Use coarser tooth blade or brush to remove chips.
Motor running too hot	<ul style="list-style-type: none"> 1. Blade tension too high. 2. Drive belt tension too high. 3. Blade is too coarse for work 4. Blade is too fine for work 5. Gears aligned improperly 6. Gears need lubrication 7. Cut is binding blade 	<ul style="list-style-type: none"> 1. Reduce tension on blade. 2. Reduce tension on drive belt. 3. Use finer blade. 4. Use coarse blade. 5. Adjust gears so that worm is in center of gear. 6. Check oil path. 7. Decrease reed anti speed
Bad Cuts (Crooked)	<ul style="list-style-type: none"> 1. Feed pressure too great. 2. Guide bearings not adjusted properly 3. Inadequate blade tension. 	<ul style="list-style-type: none"> 1. Reduce pressure by increasing spring tension on side of saw 2. Adjust guide bearing, the clearance can not greater than 0.001. 3. Increase blade tension by adjust blade tension

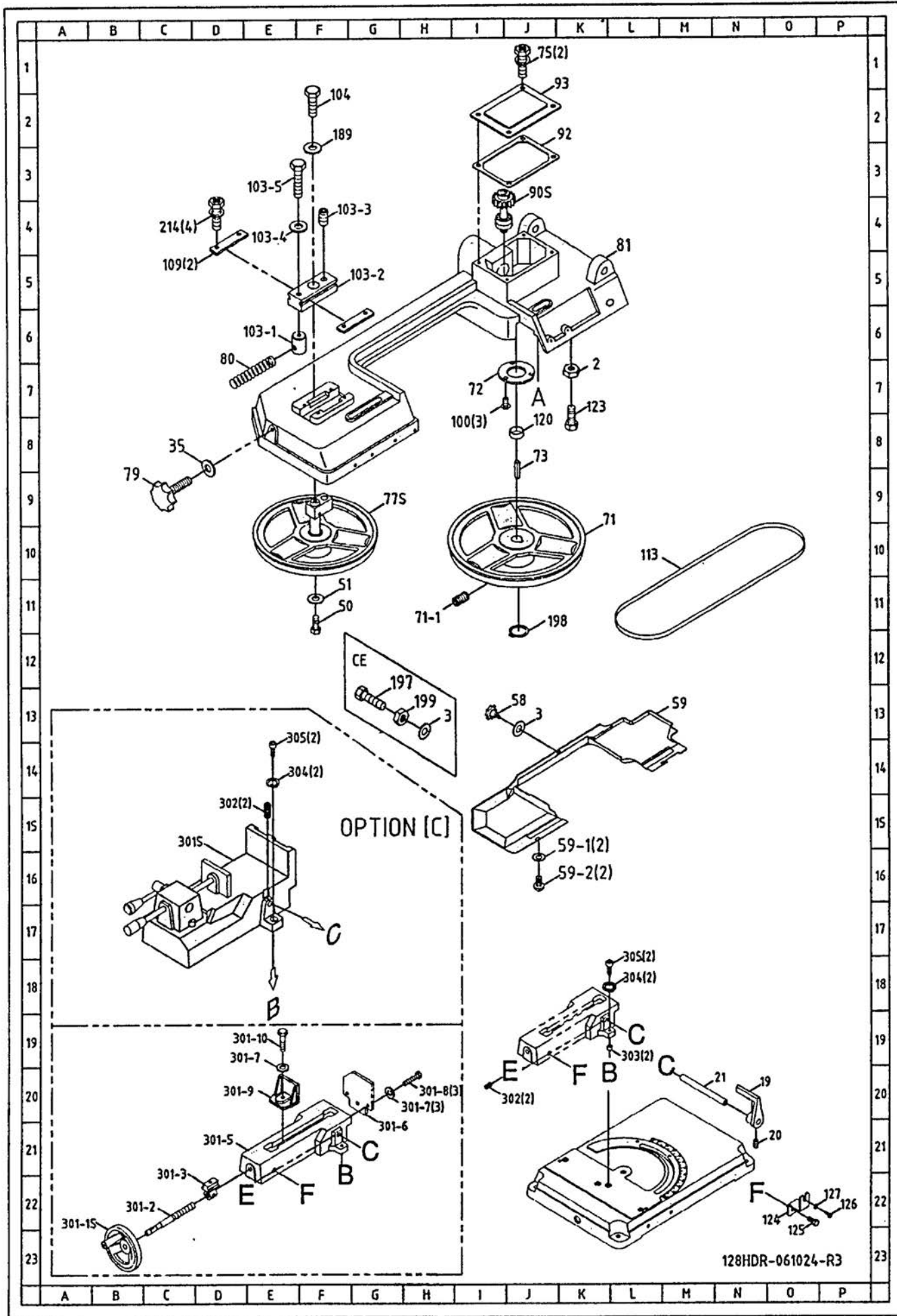
	<ul style="list-style-type: none"> 4. Dull blade. 5. Speed incorrect. 6. Blade guides spaced out too much 7. Blade guide assembly loose 8. Blade truck too far away from wheel flanges 	<ul style="list-style-type: none"> 4. Replace blade 5. Adjust speed 6. Adjust guides space. 7. Tighten 8. Re-track blade according to operating instructions.
Bad Cuts (Rough)	<ul style="list-style-type: none"> 1. Too much speed or feed 2. Blade is too coarse 3. Blade tension loose 	<ul style="list-style-type: none"> 1. Decrease speed or feed. 2. Replace with finer blade. 3. Adjust blade tension.
Blade is twisting	<ul style="list-style-type: none"> 1. Cut is binding blade. 2. Too much blade tension. 	<ul style="list-style-type: none"> 1. Decrease reed pressure. 2. Decrease blade tension.

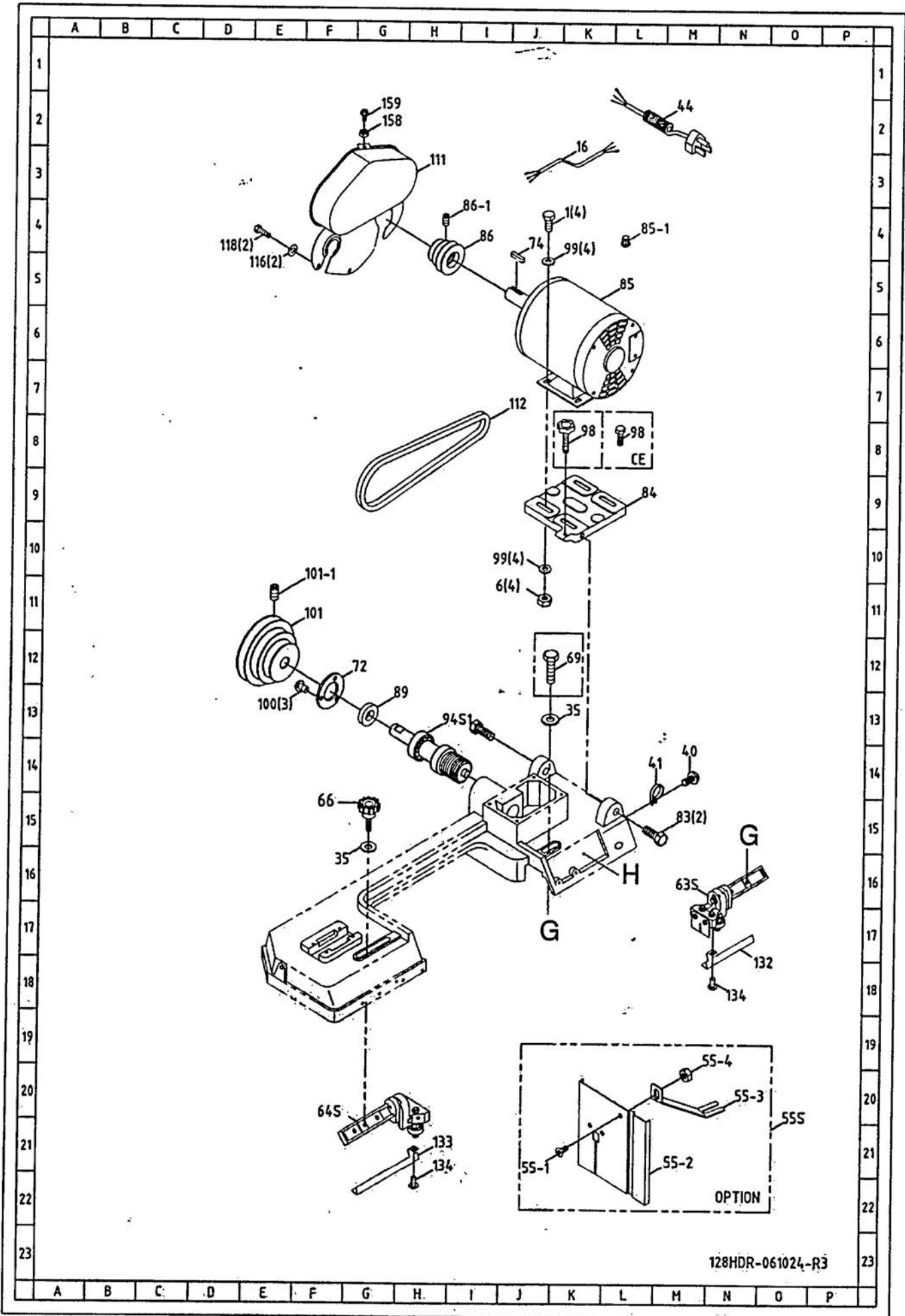
14.CIRCUIT DIAGRAM



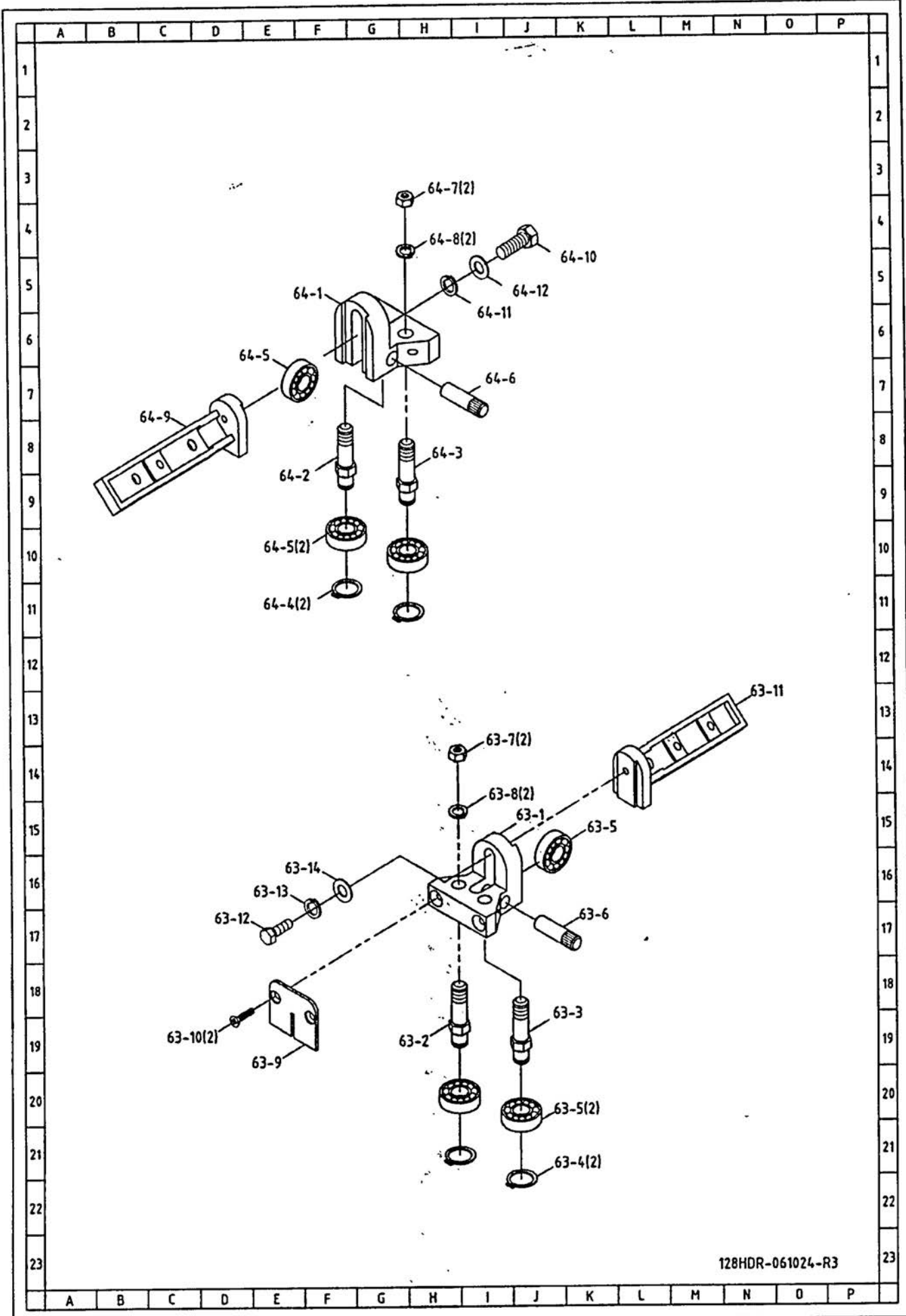


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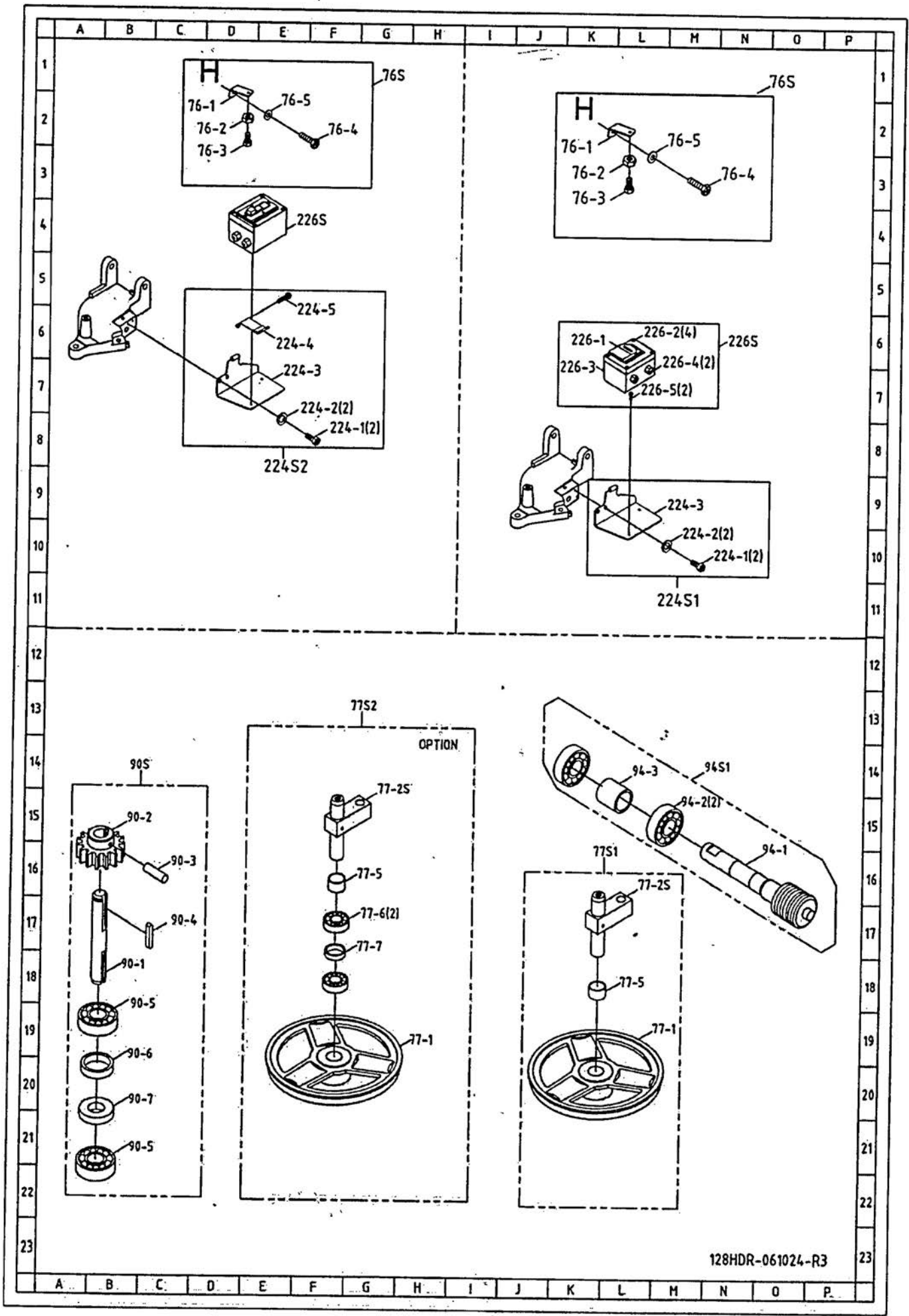




128HDR-061024-R3



128HDR-061024-R3



PARTS LIST

MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
1	S022	Hex. Head Screw	5/16"x3/4"L	4	
2	N003	Hexagon nut	1/4"	1	
3	W005	Washer	1/4"x16xt1.5	1	
4S1	32421ES	Stand Complete Assembly		1	
4-1	32421E-1	Side Plate		1	
4-2	32421E-1A	Side Plate		1	
4-3	32421E-2	Chip Pan		1	
4-6	32421E-4	Wheel Base		1	
4-8	32421E-3	Rubber head screw		2	
4-9	S063	Hex. Head Screw	5/16"x3/4"L	10	
4-10	W016	Washer	5/16"x 7/8"xt2mm	20	
4-11	N007	Hex. Head Screw	5/16"-18	10	
9S1	3009AS	Wheel Complete Assembly		1	
9-1	3009A	Wheel		2	
9-2	HW024	Washer	M16X30X3t	4	
9-3	P201	Cotter Pin	1/8"x1"L	2	
9-4	32343	Wheel Rod		1	
6	N007	Hex. Nut	5/16"	4	
16		Motor Cable		1	
17	3017	Pivoting Rod		1	
19	3019	Distance Set Bracket		1	
20	S610	Hex. Socker Headless Screw	5/16"x5/16"L	1	
21	3021	Stock Stop Rod	1/2"x216L	1	
35	W008	Washer	3/8"x 1"xt2mm	3	
40	S708	Cross Round Head Screw	3/16"X3/8L	1	
41	HE201	Wire Ring	1/2"	1	
44		Power cable		1	
50	S022	Hex. Head Screw	5/16"x3/4"L	2	
51	W018	Washer	5/16"x23xt3mm	3	
54	3054B	Pivot		1	
55S	3055AS	Vertical Saw Table (Optional)		1	OPTION
55-1	S302	Flat Cross Head Screw	1/4"x3/8"L	1	OPTION
55-2	3055A	Vertical Saw Table (Optional)		1	OPTION
55-3	3056-2	Table Supporting Plate		1	OPTION
55-4	N003	Hexagon nut	1/4"	1	OPTION
58	3058	Plum handle		1	
59	3059B	Blade Back Safety Cover		1	
59-1	W005	Washer	1/4"x16tx1.5	2	
59-2	S704	Cross Round Head Screw	1/4"x3/8"L	2	
63S	3064SA2	Blade Adjustable Assembly (Drive)		1	

PARTS LIST

MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
63-1	3064-2	Blade Adjustable(Drive)		1	
63-2	3062	Bearing Shaft		1	
63-3	3062-1	Guide Pivot (Right)		1	
63-4	C100	C-Retainer Ring		2	
63-5	CA6000ZZ	Bearing	6000ZZ	3	
63-6	3063	Bearing Pin	§ 10x36L	1	
63-7	N006	Hex. Nut	3/8"UNF	2	
63-8	W204	Spring Washer	§ 3/8"	2	
63-9	3069	Deflector Plate		1	
63-10	P802	Flat Cross Head Screw	1/4"x3/8"L	2	
63-11	32405	Adjustable Bracket (Drive)		1	
63-12	S020	Hex. Head Screw	5/16"x1"L	1	
63-13	W205	Spring Washer	§ 5/16"	1	
63-14	W016	Washer	5/16"x23xt2	1	
64S4	3064ES	Blade Adjustable Seat Set (Idler)		1	
64-1	3064-4	Blade Adjustable Seat (Idler)		1	
64-2	3062	Bearing Shaft		1	
64-3	3062-1	Guide Pivot (Right)		1	
64-4	C100	C-Retainer Ring		2	
64-5	CA6000ZZ	Bearing	6000ZZ	3	
64-6	3063	Bearing Pin	§ 10x36L	1	
64-7	N006	Hex. Nut	3/8"UNF	2	
64-8	W204	Spring Washer	§ 3/8"	2	
64-9	32406	Adjustable Bracket (Idler)		1	
64-10	S020	Hex. Head Screw	5/16"x1"L	2	
64-11	W205	Spring Washer	§ 5/16"	1	
64-12	W016	Washer	5/16"x23xt2	1	
66	3066-3	Blade Adjustable Knob	3/8"-16UNCx31L	1	
69	S013	Hex. Head Screw	3/8"x1-1/4"L	1	
71	3071	Blade Wheel (Drive)		1	
71-1	S610	Hex. Socker Headless Screw	5/16"x5/16"L	1	
72	3072-2	Bearing Cover		2	
73	K006	Key	5x5x25L	1	
74	K008	Key	5x5x30L	1	
75	S202	Cross Socker Hex. Head Screw	1/4"x5/8"L	2	
76S1	32339S	Switch Cut Off base		1	
76-1	32339	Switch Cut Off base		1	
76-2	N003	Hex. Nut	1/4"	1	
76-3	S017	Hex. Head Screw	5/16"-18x1"L	1	
76-4	S202	Cross Socker Hex. Head Screw	1/4"x5/8"L	1	

PARTS LIST
 MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
76-5	W005	Washer	1/4"x16tx1.5	1	
76S2	32339AS	Switch Cut Off base		1	
76-1	32339A	Switch Cut Off base		1	
76-2	N003	Hex. Nut	1/4"	1	
76-3	32429	Hex. Head Screw	5/16"x1"L	1	
76-4	S202	Cross Socker Hex. Head Screw	1/4"x5/8"L	1	
76-5	W005	Washer	1/4"x16tx1.5	1	
77S1	3077S	Blade Wheel Assembly (Rear)		1	
77-2S	3106S	Blade Wheel Shaft Assembly		1	
77-5	3099	Bushing		1	
77-6	S022	Hex. Head Screw	5/16"x3/4"L	1	
77-7	W016	Washer	5/16"x23xt2	1	
77S2	3077S-1	Blade Wheel Assembly (Rear)		1	OPTION
77-1	3077-1	Blade Wheel (Rear)		1	OPTION
77-2S	3106S	Blade Wheel Shaft Assembly		1	OPTION
77-5	3119-1	Blade Wheel Bushing		1	OPTION
77-6	CA620ZZZ	Bearing	620ZZZ	2	OPTION
77-7	3126	Bushing		1	OPTION
77-8	S022	Hex. Head Screw	5/16"x3/4"L	1	OPTION
77-9	W016	Washer	5/16"x23xt2	1	OPTION
79	3079E	Blade tension adjustable knob	3/8"-16UNCx94L	1	
80	3080	Spring		1	
81	3081D	Body Frame		1	
83	S002	Hex. Head Screw	1/2"x1-1/2"L	2	
84	3084-1	Motor Mount Plate		1	
85		Motor		1	
85-1	3170	Wire Guard	Y2	1	
86	3086A	Motor Pulley		1	
86-1	S610	Hex. Socker Headless Screw	5/16"x5/16"L	1	
89	3089	Oil Seal	TC15x35x7	1	
90S	3091JS	Transmission Gear Assembly		1	
90-1	3090	Transmission Wheel Shaft		1	
90-2	3091J	Transmission Gear		1	
90-3	P005	Pin	§ 4x22L	1	
90-4	K006	Key	5x5x25L	1	
90-5	CA620ZZZ	Ball Bearing (620ZZZ)	620ZZZ	2	
90-6	3088	Bushing		2	
90-7	3089	Oil Seal	TC15x35x7	1	
92	3092	Gear Box Gasket		1	
93	3093	Gear Box Cover		1	

PARTS LIST

MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
94S1	3094S-1	Worm Gear Shaft Assembly		1	
94-1	3094-1	Worm Gear Shaft		1	
94-2	CA6202ZZ	Ball Bearing (6202ZZ)	6202ZZ	2	
94-3	3096-1	Bushing		1	
98	3098	Plum Screw	5/16"-18UNCx45L	1	
98	S019	Hex. Head Screw	5/16"x1-1/2"L	1	FOR CE ONLY
99	W016	Washer	5/16"x 7/8"xt2mm	8	
100	P801	Flat head cross screw	5/32"x3/8"L	6	
101	3101-2A	Worm Gear Pulley		1	
101-1	S603	Headless hexagon screw	5/16"x3/4"L	1	
103S	3103S	Blade Tension Sliding Plate Assembly		1	
103-1	3108	Shaft Block		1	
103-2	3103	Blade Tension Sliding Plate		1	
103-3	S609	Headless hexagon screw	5/16"x5/8"L	1	
103-4	W018	Washer	5/16"x23xt3	1	
103-5	S023	Hex. Head Screw	5/16"x1-1/4"L	1	
104	S020	Hex. Head Screw	5/16"x1"L	1	
109	3109	Blade Tension Sliding Guides		2	
111	3111S-1	Motor Pulley Cover Assembly		1	
112	3112B	Belt		1	
113		Blade		1	
116	W005	Washer	1/4"x 1/2"xt0.7mm	2	
118	S327	Cross Tablet Head Screw	1/4"x3/8"L	2	
120	3120	Bushing	5/16"x 17x7	2	
123	S052	Hex. Head Screw	1/4"x1"L	1	
124	32345	Fixed Plate		1	
125	S022	Hex. Head Screw	5/16"x3/4"L	1	
126	S327	Cross Tablet Head Screw	1/4"x3/8"L	1	
127	W022	Washer	1/4"x20xt1.5	1	
132	3132	Safety Guard(Drive)		1	
133	3132-1	Safety Guard (Idler)		1	
134	S711	Cross Round Head Screw	5/32"x1/4"L	2	
158	N004	Hex. Nut	3/16"	1	
159	S706	Cross Round Head Screw	3/16"x1/2"L	1	
189	W407	Washer	5/16"x23xt3mm	1	
197	S009	Hex. Head Screw	1/4"x3/4"L	1	
198	HCS04	C-Retainer Ring	S15	1	
199	32429	Hex. Head Screw	5/16"x1"L	1	
212	S017	Hex. Head Screw	5/16"x1"L	2	
214	S202	Cross Socket Hex. Head Screw	1/4"x5/8"L	4	

PARTS LIST

MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
224S1	32408AS1	Switch Base		1	
224-1	S203	Cross Socker Hex. Head Screw	1/4"x3/8"L	2	
224-2	W202	Star Washer	3/16"	2	
224-3	32408A	Switch base		1	
224S2	32408AS2	Switch Base		1	
224-1	S203	Cross Socker Hex. Head Screw	1/4"x3/8"L	2	
224-2	W202	Star Washer	3/16"	2	
224-3	32408A	Switch Base		1	
224-4	32408C	Switch Base		1	
224-5	HS514	Cross Round Head Screw	M4x35L	1	
226S	ET1134S	Push Switch		1	
226-1	ET1134	Push Switch		1	
226-2	HS808	Screw	M4x20L	4	
226-3	ET1921	Electrical Box	1108	1	
226-3A	ET1935	Electrical Box	110V		
226-4	ET2110	Cable Setting Nut	PG11	2	
226-5	S805	Screw	3/16"5/8"L	2	
301S	32301BS	Working table		1	OPTION
301S1	32301AS	Working table		2	
301-1S	3028B	Handwheel Assembly		1	
301-2	32308	Acme Screw		1	
301-3	32306A	Bracket		1	
301-5	32301A	Working table		1	
301-6	32304	Wall plate		1	
301-7	W205	Washer	5/16"	4	
301-8	S022	Hex. Head Screw	5/16"x3/4"L	3	
301-9	32303A	Movable vise plate		1	
301-10	S416	Hex. Socket Head Screw	5/16"x 1 1/4"L	1	
301S2	32301CS	Working table		1	
301-1	32301C	Working table		1	
301-2S	32418S	Quick Fixture Vice Assembly		1	
301-3	W205	Spring Washer	5/16"	4	
301-4	S020	Hex. Head Screw	5/16"x1"L	4	
301-5	32329	Movable vise plate		1	
301-6	S308	Flat Cross Head Screw	5/16"x1/2"L	1	
301-7	32304	Wall plate		1	
301-8	W016	Washer	5/16"	3	
301-9	S022	Hex. Head Screw	5/16"x3/4"L	3	
302	S604	Hex. Socker Headless Screw	1/4"x3/8"L	2	
303	32314	Bushing		2	

PARTS LIST

MODEL NO. 128HDR

CODE NO	PART NO	DESCRIPTION	SPECIFICATION	QTY	NOTE
304	W205	Washer	5/16"	2	
305	S469	Hexagon screw	5/16"x 1 1/2"L	2	
353	32305C	Stand Top		1	
353-1	32321	Scale		1	
353-3	HH001	Rivet	ϕ 2X5L	3	
354	32427	Carriage Screw	3/8"	1	
355	112060	Indicating Washer		1	
356	P703	Cross Round Head Screw	3/16"x1/2"L	1	
357	32313	Positioning Ring		1	
358	32302B	Swivel Base(Upper)		1	
361	S468	Hexagon screw	1/2"x 2 1/2"L	1	
362	32425	Handle		1	
363	N005	Hex. Nut	3/8"	1	
364	P415	Hexagon head screw	3/8"x2"L	1	
367	32318	Protect Plate		1	
369	W009	Washer	3/8"x25x3mm	4	
370	S013	Hex. Head Screw	3/8"-16x1-1/4"L	4	
400	S605	Hex. Socket Headless Screw	1/4"x5/16"L	1	
401	S708	Cross Round Head Screw	3/16"x3/8"L	1	
402	W007	Washer	3/16"	1	
403	32419BS	Cylinder Assembly		1	
404	32409	Support Rod		1	
407	32407B	Hexagon screw		1	
409	32410	Cylinder Upper Support		1	
410	W502	Spring Washer	ϕ 1/4"	2	
411	P413	Hex. Head Screw	1/4"x1"L	2	



MANUFACTURER:

ADDRESS:

SERIAL No.:

PLEASE WRITE DOWN THE SERIAL NO. ON THIS BLOCK FROM THE NAME
PLATE AFTER YOU RECEIVE THIS MACHINE.