

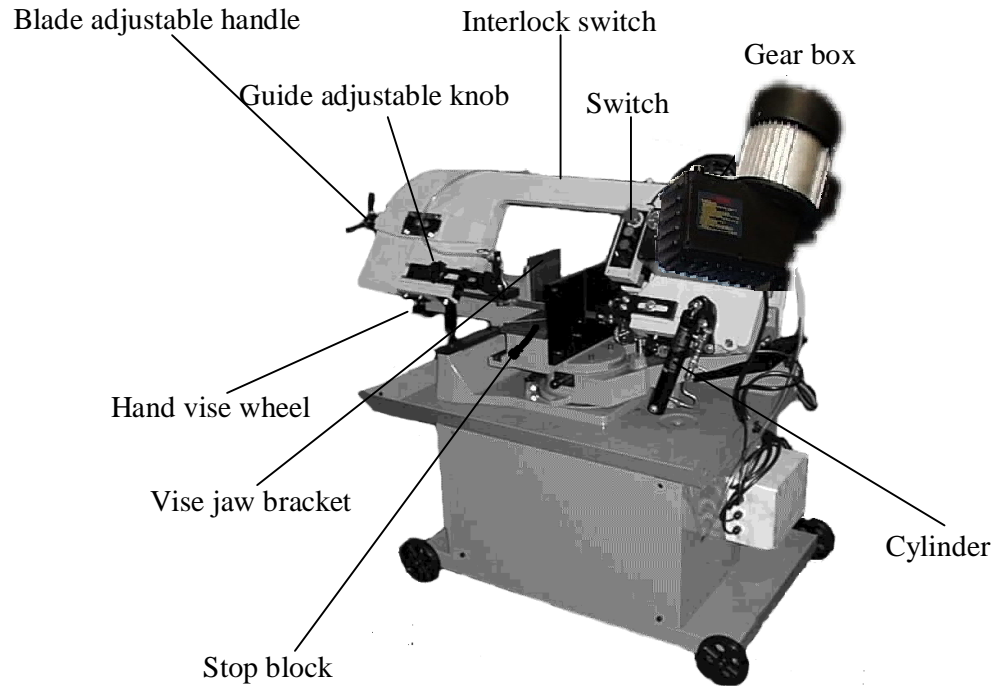
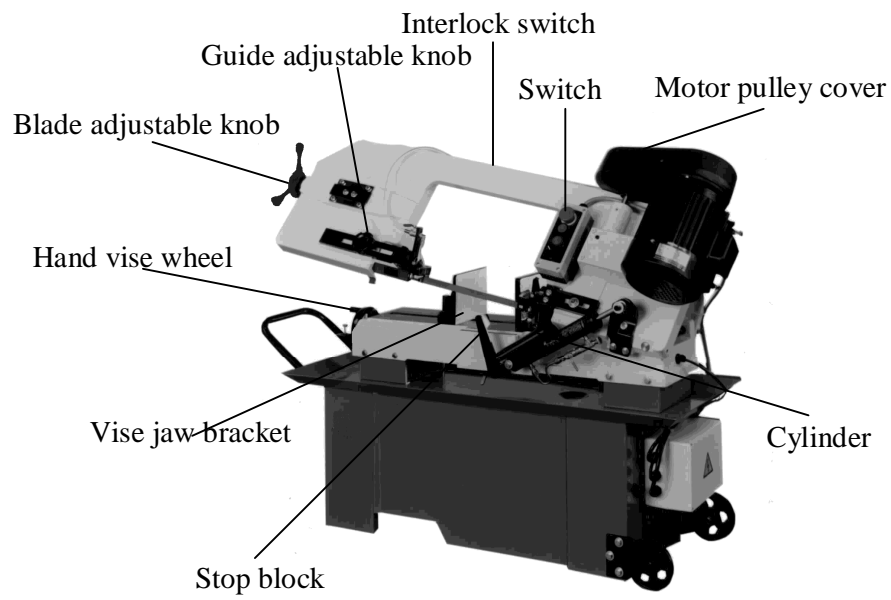


INSTRUCTION MANUAL MODEL SE-912 METAL CUTTING BANDSAW MACHINE



724 Robbins Road
Grand Haven, MI 49417
Phone: 616-842-7110, 800-937-3253
Fax: 616-842-0859, 800-846-3253
Web: www.dakecorp.com
E-mail: customerservice@dakecorp.com
technicalservice@dakecorp.com

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**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.

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.

(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.

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 remove the third prong.

C. ADJUSTMENT:

MAKE all adjustments with the power off. In order to obtain the machine. Precision 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. Cause, 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. NOISE:

A weighted sound pressure level: under 80 dB.

H. SAFETY DEVICE:

By the time the saw arm cover is opened, the interlock switch will function to stop the Machine. Do not remove this switch from machine for any reason, and check its function frequently.

1.SPECIFICATION

MOTOR		3 ¢ 0.75KW(1HP) 1 ¢ 1.1KW(1-1/2HP)				
Saw Blade Speed (FPM)	912G.912GDR	60Hz	158 213 308		50Hz	130 177 255
	912B.912DR	60Hz	98 164 246 328		50Hz	81 135 203 270
Blade Size		19.05x0.8x2655 (Carbon Blade)				
Dimension LxWxH (mm)		1325x630x1050(G) 1380x460x1050(B) 1350x650x1100(DR.GDR)				
N.W / G.W (kgs)		155 / 180(G.DR.GDR) 140/165(B)				
Working Capacity	0°	○(mm)	230(9")			
		□(mm)	178x305(7"x12")(G.B) 127x300(5"x12")(DR.GDR)			
	±45°	○(mm)	150(6")(G.B) 165(6-1/2")(DR.GDR)			
		□(mm)	127x150(5"x6")(G.B) 100x200(4'x8')(DR.GDR)			
Packing Measurement (mm) LxWxH		1420x690x1100(G) 1420x530x1100(B) 1450x740x1140(DR.GDR)				
Overall height (w/o stand)		1600mm(63")				
Noise		80 dB MAX				

2.TRANSPORTATION OF MACHINE:

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.

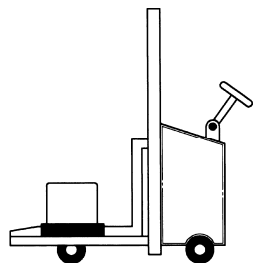


Fig. B

ALLWAYS KEEP PROPER FOOTING & BALANCE WHILE MOVING THIS MACHINE.

Installation:

This machine weighs 155 kg. It is recommended that the machine shall be transported, with help of lifting jack.

Transportation Recommendation:

- (1). Tighten all locks before operation.
- (2). **ALWAYS** Keep proper footing & balance while moving this 155kgs machine, and only use heavy duty fiber belt to lift the machine as Fig. A

- (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 the saw blade is running in Counter-clockwise direction, if not reverse the Wiring per circuit diagram then repeat the running Test.
- (5). **KEEP** machine always out from sun, dust, wet, raining area.

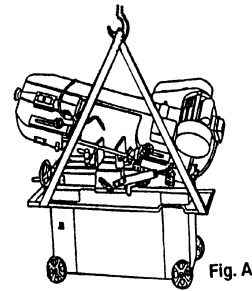
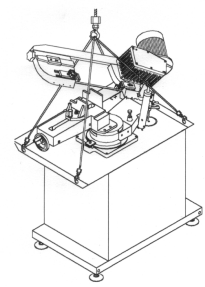


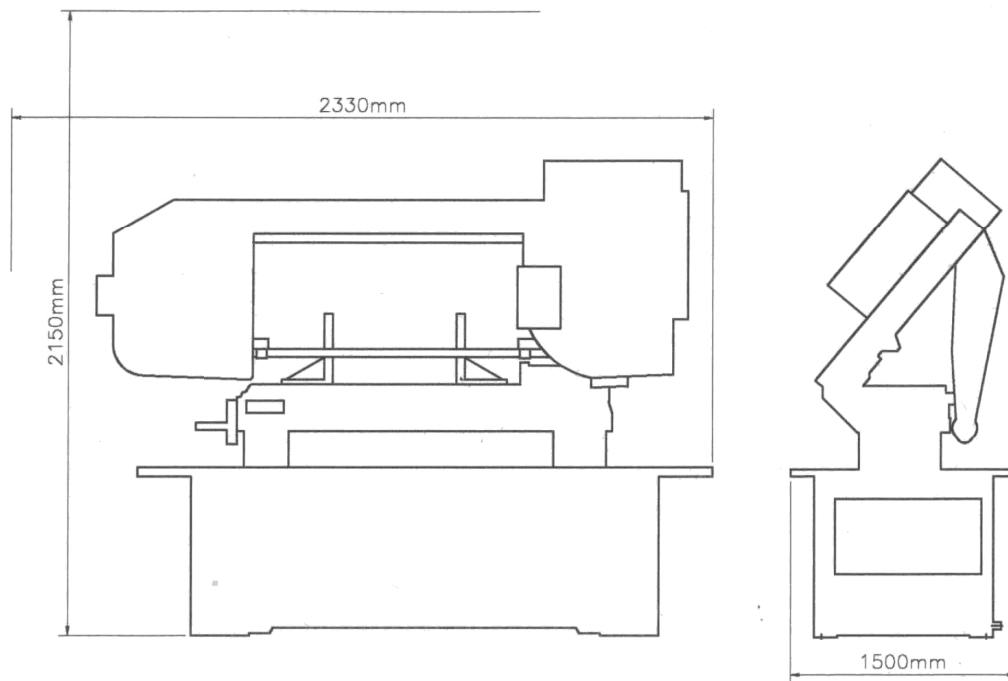
Fig. A

912(B.G)



912(DR.GDR)

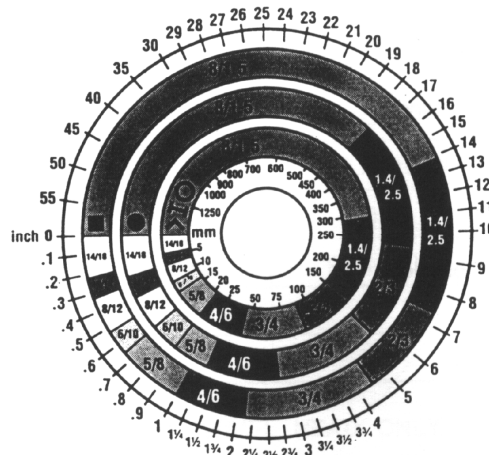
3. MINIMUM ROOM SPACE FOR MACHINE OPERATION



4. MAKE PROPER TOOTH SELECTION

For maximum cutting efficiency and lowest cost per cut, it is important to select the blade with the right number of teeth per inch (TPI) for the material being cut. The material size and shape dictate tooth selection.

TOOTH SELECTION



You need to consider:

1. The width of the cut. That is, the distance in the cut that each tooth must travel from the point it enters the work piece until it leaves the work piece, and
2. The shape of the work piece.

- **Squares, Rectangles, Flats (Symbol : ■)**

Locate the width of cut on the chart. (Inches on the outer circle and millimeters on the inner circle.) Select the tooth pitch on the ring marked with the square shape which aligns with the width of cut.

EXAMPLE: 6" (150mm) square, use a 2/3 Vari-Tooth.

- **Round Solids (Symbol : ●)**

Locate the diameter of your work piece on the chart. Select the tooth pitch on the ring marked with the round shape which aligns with the size of stock you are cutting.

EXAMPLE: 4" (100mm) round, use a 3/4 Vari-Tooth.

- **Tubing, Pipe, Structurals(Symbol : O H ^)**

Determine the average width of cut by dividing the area of the work piece by the distance the saw blade must travel to finish the cut. Locate the average width of cut on the chart. Select the tooth Ditch on the ring marked with the tubing and structural shape which aligns with the average width you are cutting.

EXAMPLE: 4"(100mm) outside diameter, 3"(75mm) inside diameter tubing.

$$\begin{array}{r}
 4"(100\text{mm}) \text{ OD} = 12.5 \text{ sq.in. } (79\text{cm}^2) \\
 3"(75 \text{ mm}) \text{ ID} = 7.0 \text{ sq.in. } (44\text{cm}^2) \\
 \hline
 \text{Area} = 5.5 \text{ sq.in. } (35\text{cm}^2)
 \end{array}$$

$5.5 \text{ sq.in. } (35\text{cm}^2) / 4" (100\text{mm}) \text{ distance} = 1.38(35\text{mm}) \text{ average width}$

1.38" (35mm), use a 4/6 Vari-Tooth

NOTE: The band speed and cutting rate recommendations presented on this chart are approximations and are to be used as a starting point for most applications. For exact sawing parameters' consult your saw blade supplier.

5. 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

Ni-Cr-Mo Alloy Steel	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.



6. ASSEMBLY

A 1 HP, motor, split phase or capacitor-start is recommended for best economical performance. Counterclockwise rotation is required. Note that rotation can be reversed by allowing directions Given on terminal or nameplate.

- (1). Assemble the motor Mounting plate to the head using the long bolt. Note that the flat side of the plate faces up.
- (2). Assemble the guard plate to the head using the screw and Lock Washer and the Carriage Bolt. Washer and Wing Nut are used to secure the motor mounting plate to the Guard plate through the slotted hole in the Guard plate. These components also serve to position and lock the motor in place for proper speed/ belt adjustment.
- (3). Place the spacer over the long Bolt and secure it with the nut.
- (4). Secure the Motor to the Motor Mounting plate with the four bolts and nuts. Note; the motor shaft is placed through the large opening in the Guard plate and must be parallel with the drive Shaft.
- (5). Assemble the Motor Pulley, the smaller of the two provided, to the motor shaft. Note, the larger diameter must be closest to the motor.

Do not tighten the set screw.

- (6). Assemble the Driven Pulley, the larger of the two provided, to the protruding drive Shaft. Note the small diameter must be closest to the bearing.

Do not tighten the set screw.

- (7). Place the belt into one of the pulley grooves and the other end into the respective grooves of the second pulley.
- (8). Line up the belt and both pulleys such that the belt is running parallel in the pulley grooves.
- (9). Tighten the set screws of both pulleys in this position.
- (10). Place the belt into proper pulley combination for proper blade speed. See material cutting Chart.
- (11). Adjust the position of the Motor to obtain approximately 1/2" depression in the belt when applying pressure with your thumb.
- (12). Tighten the head screw Holding the Motor Mounting plate to the Guard plate.
- (13). Connect the Electrical Harness to the motor terminal box. The motor should be protected with a time delay fuse or circuit breaker with rated amperage slightly greater than the full load amperage of the motor.

7. OPERATION

WORK SET UP

- (1). Raise the saw head to the highest position.
- (2). Open vise to accept the Piece to be cut by rotating the wheel at the end the base.
- (3). Place work piece on saw bed. If the piece is long, support the end.
- (4). Clamp work pieced securely in vise.

WORK STOP ADJUSTMENT

- (1). Loosen the thumb screw holding the work stop casting to the shaft.
- (2). Adjust the work stop casting to the desired length position.
- (3). Rotate the work stop to as close to the bottom of the cut as possible.
- (4). Tighten thumbscrew.
- (5). DO NOT ALLOW the blade to rest on the work while the motor is shut off.

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 settings for several materials.

Material	Speed F.P.M				Belt Groove Used	
	912(G.GDR)		912(B.DR)			
	60Hz	50Hz	60Hz	50Hz	Motor Pulley	Saw Pulley
Tool, Stainless Alloy Steels Bearing Bronze	158	130	98	81	Small	Largest
Medium to High Carbon Steels Hard Brass or Bronze	213	177	164	135	Medium	Large
Low to Medium Carbon Steel Soft Brass			246	203	Large	Medium
Aluminum Plastic	308	255	328	270	Largest	Small

MANUAL OF GEAR TYPE SPEED CHANGING

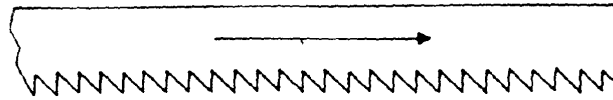
- (1) Select the proper cutting speed according to the material of work-pieces
And blade select chart.
- (2) Turn the speed-changing handle directly for the necessary speed.
- (3) Changing speed during cutting is prohibited.
- (4) But changing speed when machine is stopped and running (before cutting)
Is available.



BLADE DIRECTION OF TRAVEL

Be sure the blade is assembled to the pulleys such that the vertical edge engages the work piece first.

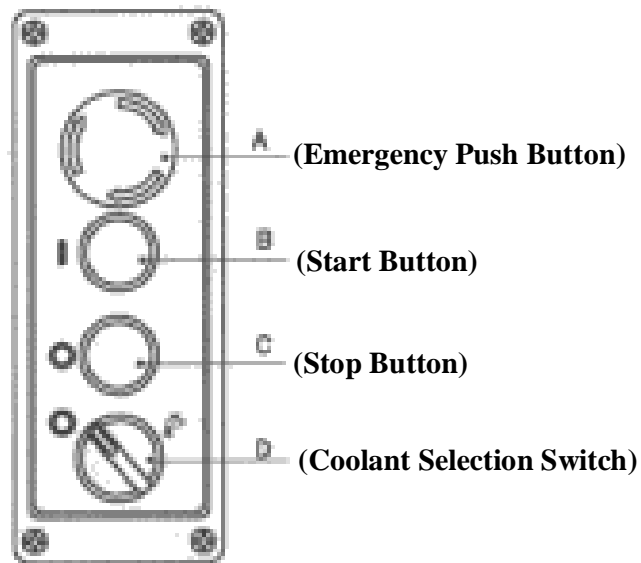
BLADE MOVEMENT



Blade Direction

STARTING SAW

Switch button function description



CAUTION: NEVER OPERATE SAW WITHOUT BLADE GUARDS IN PLACE.

Be sure the blade is not in contact with the work when the motor is started. Start the motor, allow the saw to come to full speed, and then begin the cut by letting the head down slowly onto the work. **DO NOT DROP OR FORCE.** Let the weight of the saw head provide the cutting force. The saw automatically shuts off at the end of the cut.

BLADE SELECTION

An 8-tooth per inch, general-use blade is furnished with this metal Cutting Band Saw. Additional blades in 4, 6, 8, and 10 tooth sizes are available. The choice of blade pitch is governed by the thinness of the work to be cut: the thinner the work piece, the more teeth advised. A minimum of three (3) teeth should engage the work piece at all times for proper cutting if the teeth of the Blade

are so far apart that they straddle the work, severe damage to the work piece and to the Made can result.

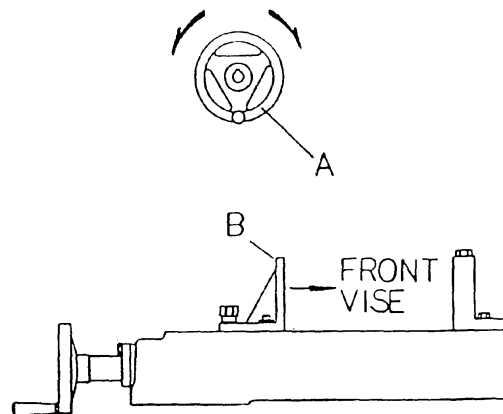
CHANGING BLADE

Raise saw head to the highest position and open the blade guards. Loosen tension screw knob sufficiently to allow the saw blade to slip off the wheels. Install the new blade with teeth slanting toward the motor as follows:

- (1). Place the blade in between each of the guide bearings.
- (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 is placed at the top of the Made?
- (4). Remove left hand from. Bottom pulley and place is at the top aide of the Made 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). Replace the blade guards.
- (8). Place 2-3 drops of oil on the blade.

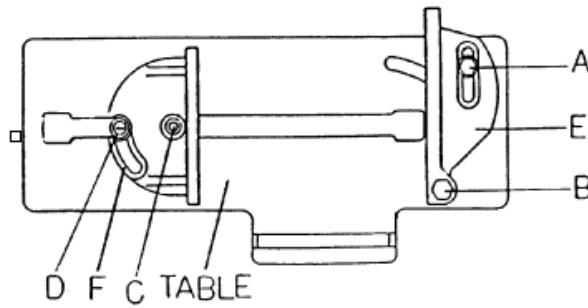
USAGE OF THE QUICK VISE

The work piece is placed between the vise jaws with the amount to be cut-off extending out past the blade. Your machine is equipped with a "quick action" vise jaw which allows you to instantly position the moveable vise jaw (B). Simply turn Handwheel (A) counterclockwise 1/2 turn and move the vise jaw (B) to the desired position. Then tighten the vise jaw (B) against the work-piece by turning hand-wheel clockwise.



QUICK VISE ADJUSTMENT FOR ANGLE CUT (912B.912G)

- (1). Loosen the A. B. C. D. Screw.
- (2). Adjust rear vise to the threaded hole position. (E)
- (3). Set the scale to the desired angle.
- (4). Adjust the front vise (F) to parallel the rear vise (E)
- (5). Tighten the A. B. C. D. Screw.

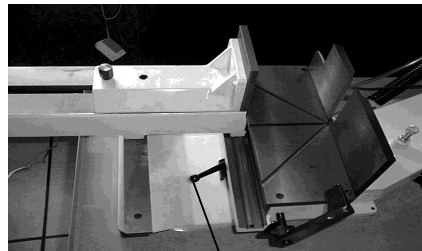


QUICK VISE ADJUSTMENT FOR ANGLE CUT (912DR,912GDR)

- (1). Pull out plastic knob (A), turn and lock the plastic knob.
- (2). Loosen grip (B). Then rotate the Body Frame for the desired angle. Be aware the blade position is higher than the Vise Table by pulling up the Body Frame when counter-clockwise
 Rotation for miter cutting. And for clockwise rotation for angle cutting higher the Body Frame and keep the blade position higher than the vise. Then pull forward the vise Jaw Bracket (Front) to a proper location.
- (4). Fasten the grip (B) when the cutting angle is reached.
- (5). There is angle set-screw for $\pm 45^\circ$ rotation



A



B

8. 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. The blade guide bearings on your metal. Cutting Band Saw are adjusted and power tested with several test cuts before leaving the factory to insure proper setting. The need for adjustment should rarely occur when the saw is used properly. If the guides do get out of adjustment though, it is extremely important to readjust immediately. If improper adjustment is maintained, the blade will not cut straight, and if the situation is not corrected it will cause serious blade damage. Because guide adjustment is a critical factor in the performance of your saw, it is always best to try a new blade to see if this will correct poor cutting before beginning to adjust. If a blade becomes dull on one side sooner than the other, for example, it will begin cutting crooked. A blade change will correct this problem the guide adjustment will not. If a new blade does not correct the problem, check the blade

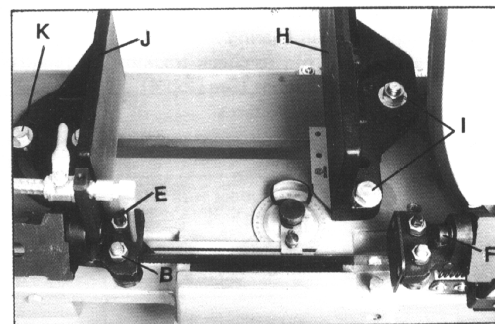
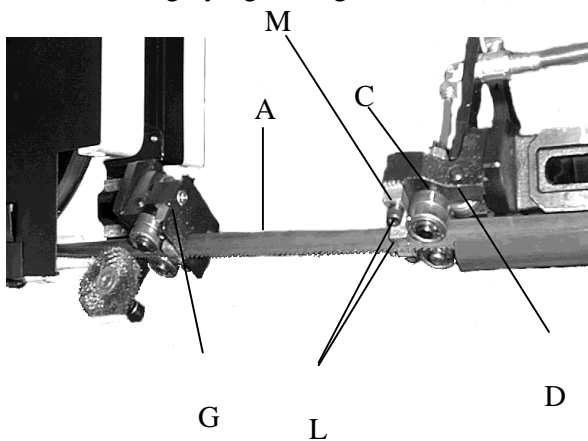
guides for proper spacing.

NOTE: There should be from 000 (just touching) 001 clearance between the blade and guide bearings to obtain this clearance adjust as follows:

1. The inner guide bearing is fixed and cannot be adjusted.
2. The outer guide bearing is mounted to an eccentric bushing and can be adjusted.
3. Loosen the nut while holding the bolt with an Alien wrench.
4. Position the eccentric by turning the bolt to the desired position of clearance.
5. Tighten the nut.
6. Adjust the second blade guide bearing in the same manner.

REMARK:

1. Adjust the tension of blade until the back of the blade (A) against the blade wheel (front) lightly.
2. Be sure the nut (E) is tightened.
3. Turn the eccentric shaft (B) counterclockwise, when the bearing (D) touches the saw blade properly; tighten the nut (E).
4. To adjust, loosen set screw(F) and move the blade adjustable up or down until it lightly Touches the back of the blade (A).
5. The carbide blade guides(L)Fig.1,should also be adjusted so they lightly touch the blade by loosening screws (M).
6. Repeat 1. 2, 3, 4and 5 steps to adjust the other side's blade guide bearings (G).
7. Correct the base and blade to be a vertical position with a scale. If necessary, loosen set screw (F).
8. Set down the blade frame, correct the jaw vise (H) and blade to be a vertical position with a Scale then tighten the set screws (I).
9. Loosen set screw (K), move front jaw vise (J) to against rear jaw vise (H) tightly. Finish Correcting by tightening set screw (K)



9. BLADE TRACK ADJUSTMENT

- (1). Open the blade guard.
- (2). Remove the blade guide assemblies (top and bottom)
- (3). Loosen the hex head screw in the tilting mechanism to a point where it is loose but snug.
- (4). with the machine running, adjust both the set crew and blade tension knob simultaneously to keep constant tension on the blade. The set screw and blade tension knob are always turned in opposite directions, i.e., when one is turned clockwise the other is turned counterclockwise. The blade is tracking properly when the back side just touches the shoulder of pulley or a slight gap appears near the center line of the pulley. Care should be taken not to over-tighten the saw blade since this will give a false adjustment and limit life of the blade.
- (5). Tighten the hex head screw in tilting mechanism. **IMPORTANT:** Sometimes in trying to make this critical adjustment it is possible to cause the basic setting to be misaligned. Should this occur, proceed as follows:
 - a. Loosen the set screw and back it out as far as it can go and still remain in the threaded hole.
 - b. Turn the hex head screw clockwise until it stops (do not tighten).
 - c. Turn the set screw clockwise until it bottoms, then continue for half a turn and check the tracking by turning on the machine.
 - d. If further adjustment is required, go back to step 4.
- (6). Turn off power to the machine.
- (7). Replace the clad guide assemblies--it may be necessary to loosen the blade tension lightly.
- (8). Adjust the vertical position of blade guide bearing assemblies so that the back side of the blade just touches the ball bearing.
- (9). Make a final run to check tracking. If required, touch up adjustment (See step 4)
- (10). Replace the blade guards.

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.

10. MAINTENANCE

CAUTION: MAKE CERTAIN THAT THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE OR REMOVE ANY COMPONENT.

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 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) Check if the fixed portion have been loose.
- (b) Lubricate bearing, worm, and worm shaft to avoid the wearing.

(4) Yearly Maintenance

- (a) Adjust table to horizontal position for maintenance of accuracy.
- (b) Check electric cord, plugs, switches at least once a year to avoid loosening or wearing.

LUBRICATION

Lubricate the following components using SAE-30 oil as noted.

- (1). Ball-bearing none.
- (2). Driven pulley bearing 6-8 drops a week.
- (3). Vise lead screw as needed.
- (4). the drive gears run in an oil bath and will not require a lubricant change more often than once a year, unless the lubricant is accidentally contaminated or a leak occurs because of improper Replacement of the gear box covers. During the first few days of operation, the worm gear drive will run hot. Unless the temperature exceeds 200F. there is no cause for alarm.

The following lubricants may be used for- the gear box:

Atlantic Refinery Co. Mogul Cyl. Oil

Cities Service Gptimus No. 6



Gulf Refinery Co Medium Gear Oil

11. TROUBLE SHOOTING

Symptom	Possible Cause(s)	Corrective Action
Excessive Blade Breakage	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 started 7. Adjust wheel alignment 8. Adjust guide bearings 9. Use thinner blade 10. Weld again, note the weld skill.
Premature Blade Dulling	<ol style="list-style-type: none"> 1. Teeth too coarse 2. Too much speed 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 	<ol style="list-style-type: none"> 1. Use finer teeth 2. Decrease speed 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	<ol style="list-style-type: none"> 1. Blade guides worn. 2. Blade guide bearings not adjust properly 3. Blade guide bearing bracket is loose 	<ol style="list-style-type: none"> 1. Replace. 2. Adjust as per operators manual 3. Tighten.
Teeth Ripping from Blade.	<ol style="list-style-type: none"> 1. Tooth too coarse for work 2. Too heavy pressure; too slow 	<ol style="list-style-type: none"> 1. Use finer tooth blade. 2. Decrease pressure, increase

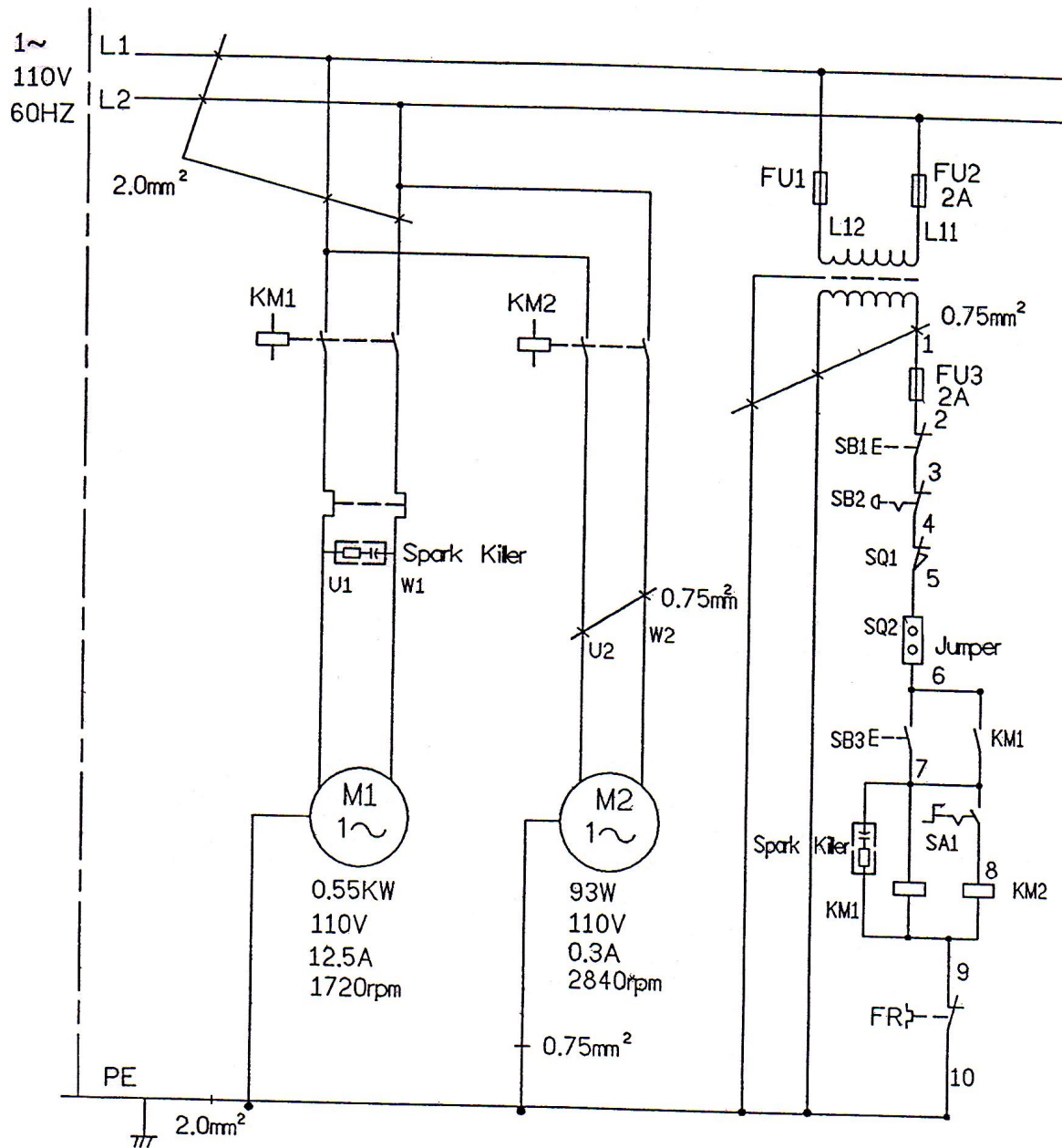
	speed. 3. Vibrating work-piece. 4. Gullets loading	speed 3. Clamp work piece securely 4. Use coarser tooth blade or brush to remove chips.
Motor running too hot	1. Blade tension too high. 2. Drive belt tension too high. 3. Blade is too coarse for work 4. Blade is too fine for work 5. Gears aligned improperly 6. Gears need lubrication 7. Cut is binding blade	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)	1. Feed pressure too great. 2. Guide bearings not adjusted properly 3. Inadequate blade tension. 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	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 4. Replace blade 5. Adjust speed 6. Adjust guides space. 7. Tighten 8. Re-track blade according to operating instructions.
Bad Cuts (Rough)	1. Too much speed or feed 2. Blade is too coarse 3. Blade tension loose	1. Decrease speed or feed. 2. Replace with finer blade. 3. Adjust blade tension.
Blade is twisting	1. Cut is binding blade. 2. Too much blade tension.	1. Decrease reed pressure. 2. Decrease blade tension.

ELECTRICAL SPECIFICATION

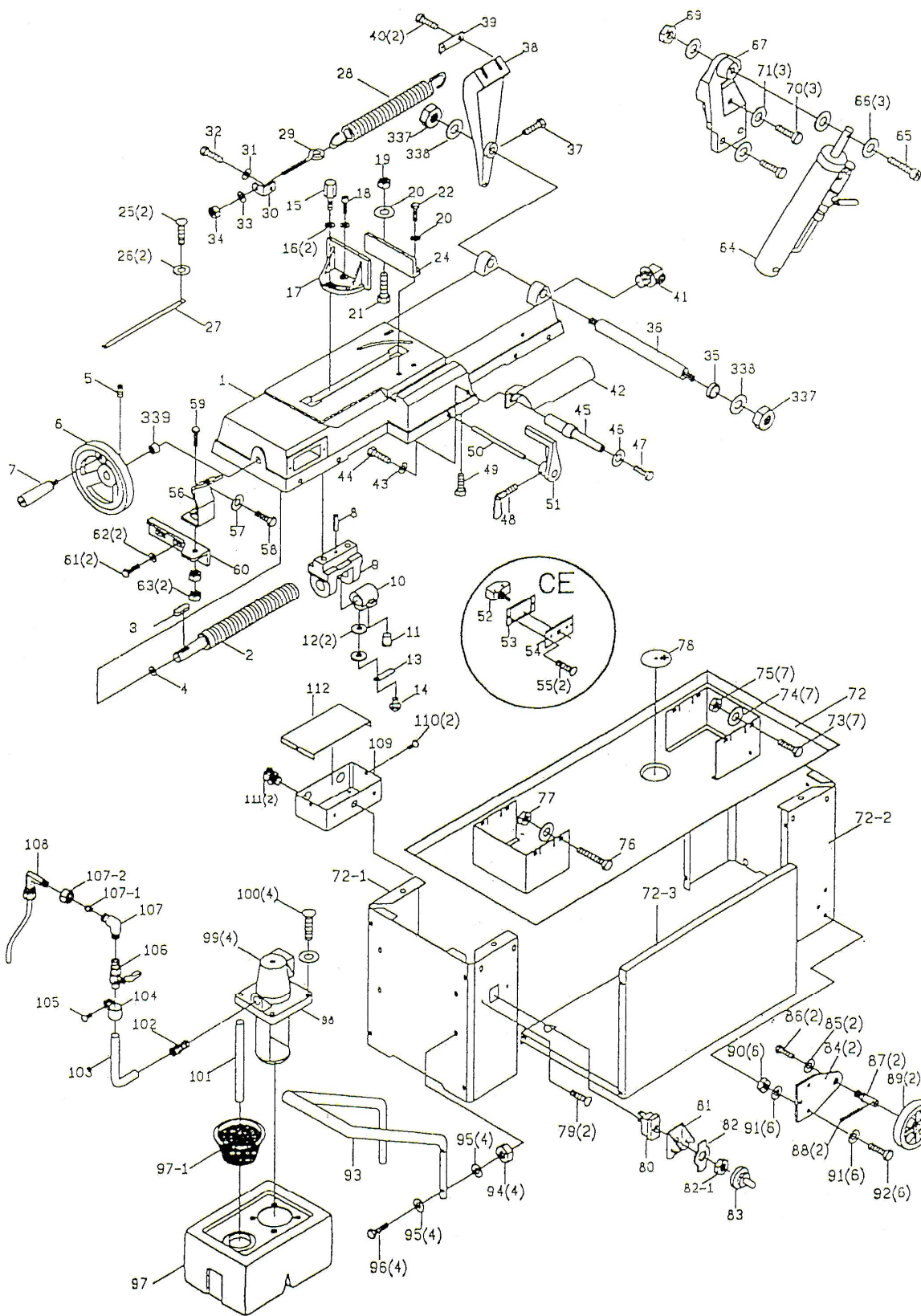
RONG FU INDUSTRIAL CO.,LTD.		SCHEDULE OF ELECTRICAL EQUIPMENT			Sheet:	
RF-912						
Item	Designation and function	Technical data	QTY	Supplier	Supplier's reference	REMARK
SQ1	LIMIT SWITCH	AC15 2A/400V	1	TELEMECA- NIQUE OMRON	D4D-1532N	IEC947-5-1
SQ2	LIMIT SWITCH	AC15 2A/400V	1	TELEMECA- NIQUE OMRON	D4D-1562N	IEC947-5-1
SB1	EMERGENCY STOP	TE XB2-ES542	1	TE		
SB2	POWER OFF	TE XB2-EA142R	1	TE		
SB3	POWER ON	TE XB2-EA131G	1	TE		
SB4	PUMP POWER ON	TE XB2-E021	1	TE		
KM1	CONTACTOR	Ith=20A V1690V	1	TELEMECA- NIQUE	LC1 K0910B7	IEC NF C VDE BS 947 63110 0660 5424
KM2	RELAY	12A 300VAC	1	SCHRACH		
FR	OVERLOAD RELAY	1.8~2.6A	1	TELEMECA- NIQUE	LR2	IEC947-4-1
FU1	FUSE	3A	2	WAGO		
FU2	FUSE	3A	1	WAGO		
TC	TRANSFORMER	400V/24V 20VA	1	WAGO	SC-TRA	
M1	MOTOR	0.75KW 400V 1.8A 1420rpm	1	CHU TA	JEF-H	
M2	PUMP	0.093KW 400V 0.2A 2840rpm	1	CHU TA	JEF-VPP	
	CABLE FOR MAIN MOTOR	H05VV-F 4x1.5mm ²	1	I-SHENG	H05VV-F	
	CABLE FOR COOLANT PUMP MOTOR	H05VV-F 4x0.75mm ²	1	I-SHENG	H05VV-F	
	BOX		1	RONG FU		

Part name	Part number
Coolant switch	716558
Green start button	716540
Red stop button	716539
E-stop button	716538

ELECTRICAL SPECIFICATION

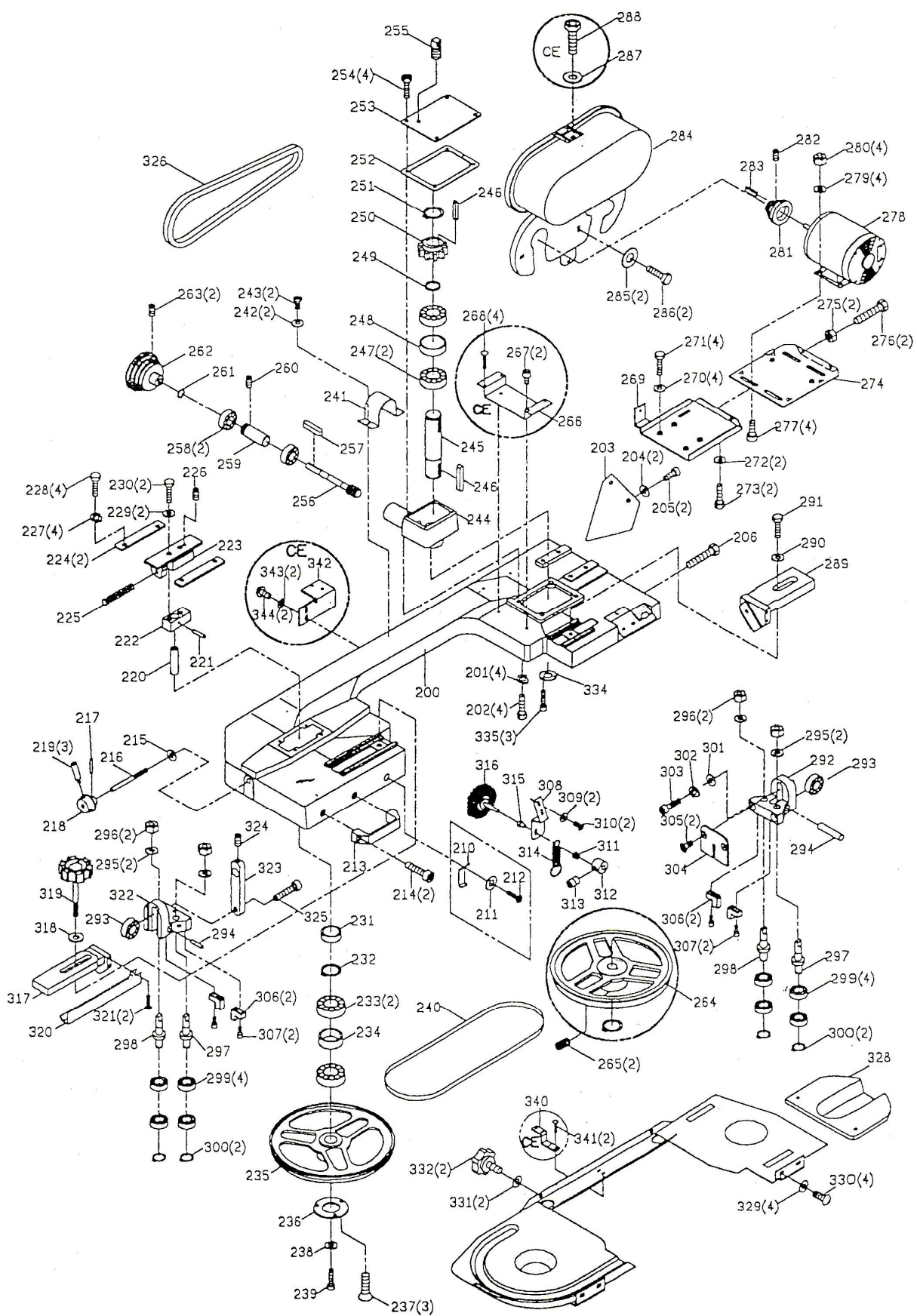


Part number	Part name	Qty	Part number	Part name	Qty.
301461	Electrical box complete	1	716558	Coolant on/off button	1
301462	Contactor 24volt	1	716540	Green start button	1
301795	Overload	1	716539	Red stop button	1
300828	Relay orange	1	7165387	E-stop button	1
302409	Motor reset button	1	300733	Limit switch end of cut	1
73326011	Transformer	1			



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MODEL SE 912B (After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF NO.	DESCRIPTION	SPECIFICATION
1	301266	192012A	Swivel Base	
2	301267	192009A	Acme Screw or 300756	
3	300906	K03	Key	
4	300907	W002	Washer	
5	300908	S607	Hex. Socket Headless	
6	300751	191202	Wheel	
7	300752	3027-1	Handle Knob	
9	301268	181138B	Acme Nut	
10	300755	181604	Acme Nut	
11	300989	181605	Button	
12	300910	W203	Spring Washer	
13	300911	191206	Retainer	
14	78833	S721	Cross Round Head Srew	
15	301269	181266	Fixed Bolt	
16	301270	W008	Spring Washer	3/8"x25xt2
17	301271	192015	Vise Jaw Bracket(Front)	
18	43331	S410	Hex. Socket Head Screw	3/8"x1-1/2"L
19	43916	N001	Hex. Nut	1/2"
20	300907	W002	Spring Washer	1/2"x28xt2
21		S501	Carriage Screw	1/2"x2"L
22		S003	Hex. Head Screw	1/2"x2"L
24	301288	192008	Vise Jaw Bracket(Rear)	
25	43881	S708	Cross Round Head Screw	3/16"x3/8"L
26		W007	Spring Washer	3/16"x12xt0.8
27	301289	192044	Scale	
28	301290	181117-1	Spring or 300943	
29	301291	181118	Spring Adjusting Screw	
30	301292	192040	Spring Handle Bracket	
31		W016	Spring Washer	5/16"x23xt2
32		S022	Hex. Head Screw	5/16"x3/4"L
33		W014	Spring Washer	3/8"x23xt2
34		N005	Hex. Nut	3/8"

MODEL SE 912B (After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
35	301293	192051	Bushing	
36	301294	192042A	Support Rod	36
37		S022	Hex. Head Screw	5/16"x3/4"L
38	301295	192003	Pivot Bracket	
39	301296	181270	Washer	
40		S012	Hex. Head Screw	3/8"x1-1/2"L
41	301297	ET2108	Wire Nipple	5/8"
42	301298	192033	Cylinder Protector	
43		W018	Spring Washer	5/16"x23x3
44		S022	Hex. Head Screw	5/16"x3/4"L
45	301299	181301-2	Cylinder Lower Support	
46		W016	Spring Washer	5/16"x19x1.5
47		S018	Hex. Head Screw	5/16"x1/2"L
48	301688	191224	Thumb Screw	
49		S022	Hex. Head Screw	5/16"x3/4"L
50	301300	3021	Stock Stop Rod	
51	300945	181125	Distance Set Bracket	
52	300733	ET1624	Limit Switch	
53		181431	Gear Box Gasket	
54	301690	181420	Cover	
55	43881	S708	Cross Round Head Screw	3/16"x3/8"L
56		192011	Fixed Plate	
57		W005	Spring Washer	1/4"x16x1.5
58		S019	Hex. Head Screw	5/16"x1-1/2"L
59		S014	Hex. Head Screw	3/8"x1-3/4"L
60		181112A	Support Plate	
61		S022	Hex. Head Screw	5/16"x3/4"L
62		W017	Spring Washer	5/16"x18x1.5
63		N005	Hex. Nut	3/8"
64	300730	181304-2	Cylinder Complete Set or 300750	RF-712N
65		S412	Hex. Socket Head Screw	3/8"x2-1/4"L
66		W013	Spring Washer	3/8"x20x2

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
67	301191	181302-2	Cylinder Upper Support	
69		N005	Hex. Nut	3/8"
70		S017	Hex. Head Screw	5/16"x1"L
72		192045S	Stand Complete Assembly	
73		S017	Hex. Head Screw	5/16"x1"L
74		W017	Spring Washer	5/16"x18xt1.5
75		N007	Hex. Nut	5/16"
76		S013	Hex. Head Screw	3/8"x1-1/4"L
77		N005	Hex. Nut	3/8"
78	301404	191106A	Filter	
79		S708	Cross Round Head Screw	3/16"x3/8"L
80	301284	ET1401	Toggle Switch	
81	301285	3131	Switch Cover	
82	301286	181932	Toggle Switch Cover	
84		192019	Wheel Setting Bracket	
85		W019	Spring Washer	5/8"x40xt3
86		S016	Hex. Head Screw	3/8"x3/4"L
87		192022	Wheel Rod	
88		P202	Cotter Pin	§ 3x25L
89	300742	181129	Wheel	
90		N007	Hex. Nut	5/16"
91		W015	Spring Washer	5/16"x12xt2
92		S022	Hex. Head Screw	5/16"x3/4"L
93	300953	192039	Knob W/Shaft	
94		N005	Hex. Nut	3/8"
95		W014	Spring Washer	3/8"x23xt2
96		S013	Hex. Head Screw	3/8"x1-1/4"L
97	300962	181256	Coolant Tank	
97-1	300961		Filter	
98	300754	MB13103	Pump	1/8HP/ 110/220V/60HZ/1PH
99		W004	Spring Washer	1/4"x19xt1.5
100		S701	Cross Round Head Screw	1/4"x1/2"L

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
101	301454	181854	Hose	OD16mmxID13mmx260m
102	301694	181852	Coupler	3/8"PT
103	301456		Hose	
105	43881	S708	Cross Round Head Screw	3/16"x3/8"L
106	301455	181856	Valve 1/8" NTP	
109	300343	181401	Electrical Box	
110	43881	S708	Cross Round Head Screw	3/16"x3/8"L
111		ET2107	Wire Nipple	1/2"
112		181402	Cover	
190		101073	3 Way Valve	
191		1341089	Hose Fitting	1/4PTx1/4"
192		192056	Hose	OD8xID6x1100L
193		S475	Hex. Socket Head Screw	1/4"x1-1/4"L
194		192053	Valve	1/4"PTx5/16"
195		192058	Hose	OD12xID8x14000L
196		192057	Hose	OD8xID6x400L
197		101079	Hose Bib	
200	301172	192001	Body Frame	
201		W204	Spring Washer	3/8"
202		S013	Hex. Head Screw	3/8"x1-1/4"L
203		192041	Support Plate	
204		W005	Spring Washer	1/4"x16xt1.5
205		S201	Cross Round Head Screw	1/4"x1/2"L
206		S608	Hex. Socket Headless Screw	5/16"x3/4"L
208	43881	S708	Cross Round Head Screw (For CE Only)	3/16"x3/8"L
209		W007	Spring Washer (For CE Only)	3/16"x12xt0.8
210	301287	192023A	Switch Cut Off Tip	
211		W005	Spring Washer	1/4"x16xt1.5
212		S201	Cross Round Head Screw	1/4"x1/2"L
213	301826	1965052	Knob	
214		S414	Hex. Socket Head Screw	5/16"x1"L
215		W008	Spring Washer	3/8"x25xt2

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
216		192038A	Blade Tension Bar	
217	302329	P003	Pin	§ 3x20L
218	301372	192037A	Handle Body	
219	301373	3027-1	Knob	
220	301606	193050	Blade Wheel Shaft	
221	301606	P005	Pin	§ 4x22L
222	301606	193052	Sliding Plate Draw Block	
223	301433	192052	Blade Tension Sliding Block	
224	300934	181210	Sliding Plate or 300737	
225		192026	Spring	
226	43314	S608	Hex. Socket Headless Screw	5/16"x3/4"L
227	302330	W205	Spring Washer	5/16"
228	43315	S020	Hex. Head Screw	5/16"x1"L
229	302331	W015	Spring Washer	5/16"x12xt2
230	43317	S019	Hex. Head Screw	5/16"x1-1/2"L
231	301705	193051	Bushing	
232	302324	HCR06	C-Retainer Ring	R52
233	300734	CA6205	Ball Bearing (6202LLB)	6205
235	301841	192016A	Idler Wheel	
238		W017	Spring Washer	5/16"x18xt1.5
239		S022	Hex. Head Screw	5/16"x3/4"L
240		192050A	Blade	27x0.9x2655x5-8T
241		192014	Gear Box Protector(For CE Only)	
242		W005	Spring Washer (For CE Only)	1/4"x16xt1.5
243		S704	Cross Round Head Screw (For CE Only)	1/4"x3/8"L
244		181216-1AS	Gear Box Casting	
244-261	300748	181216-1	Gear Box Assembly	
	300748R		Gear box rebuilt	
245	301467	181219-1	Transmission Wheel shaft	
246	301468	K015	Key	6 x 6 x 20mm
247	300693	6205-FRS	Bearing, Sealed	25 x 52 x 15mm
248	301699	181217-1	Bushing	

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
249	301471	181218-1	Bushing	
250	301683	181220-1	Worm gear	
251	76827	C110	Retaining ring 25mm	
254	43412	S201	Hex Head Screw	1/4 x 1/2
256	301839	192010	Worm shaft	
258	300853	6003	Bearing, Sealed	17 x 35mm
259	301476	181224	Bearing bushing	
260	43574	S607	Set Screw 43562	
261	300495	C002	Retaining Ring	17mm
262	300958	181226B	Spindle Pulley gear box input	
263	42323	S604	Hex. Socket Headless Screw 301451	1/4"x3/8"L
264	301470	192017A	Drive Wheel	
265		S604	Hex. Socket Headless Screw	1/4"x3/8"L
266		181991	Emergency Switch Bracket(For CE Only)	
267		S449	Hex. Socket Head Screw (For CE Only)	M6x15L
268	43881	S708	Cross Round Head Screw (For CE Only)	3/16"x3/8"L
269		192034	Motor Mount Bracket	
270		W016	Spring Washer	5/16"x23xt2
271		S022	Hex. Head Screw	5/16"x3/4"L
272		S022	Hex. Head Screw	5/16"x3/4"L
273		W018	Spring Washer	5/16"x23xt3
274	301708	181234A	Motor Mount Plate	
275		N007	Hex. Nut	5/16"
276		S021	Hex. Head Screw	5/16"x2"L
277		S503	Carriage Screw	5/16"x1"L
278	300740	M301-1	Motor 12.5 amps	1HP/110V/60HZ/1PH
	301374		Motor Fan	
	301375		Motor Cover	
279		W016	Spring Washer	5/16"x23xt2
280		N007	Hex. Nut	5/16"
281	300878	181235B	Motor Pulley	
282		S604	Hex. Socket Headless Screw	1/4"x3/8"L

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
283	300877	K008	Key	5x5x30L
284		181237I	Motor Pulley Cover	
285		W202	Spring Washer	1/4"
286		S006	Hex. Head Screw	1/4"x1/2"L
288		3058	Plum Screw	
289	301873	192004S	Adjustable Bracket Assembly (Rear)	
290		W008	Spring Washer	3/8"x25xt2
291		S013	Hex. Head Screw	3/8"x1-1/4"L
293	300744	CA6000ZZ	Bearing	
295	43645	W208	Spring Washer	3/8"
296	300504	N006	Hex. Nut	3/8"UNF
297	300745	181244	Guide Pivot (Right) holds two bearings	
297A	302216		New style holds three bearings for 1" blade	This is a set eccentric and concentric
298	300746	181243	Bearing Shaft holds two bearings for 3/4" blade	
299	300744	CA600ZZ	Bearing 8mm for 1" blade new style	
299A	10026-01		Bearing 10mm for 3/4" blade old style	
300	300477		Clip 301447	
N/A	301684		Complete guide assembly left side	For 1" blade
N/A	301873		Complete guide assembly right side	For 1" blade
301		W017	Spring Washer	5/16"x18xt1.5
302		W205	Spring Washer	5/16"
303		S416	Hex. Socket Head Screw	5/16"x1-1/4"L
306	300743	191331	Carbide Guide	
307	43412	S401	Screw 1/4"-20 – 1/2"	
308	301619	192027S	Brush Assembly Items 308-316	
316	300735	181241A	Brush only brass	
316A	302073		Brush only Steel	
317		192005S	Adjustable Bracket Assembly (Front)	
318		W008	Spring Washer	3/8"x25xt2
319		3066-3	Blade Adjustable Knob	
320	301605	181231A	Blade Cover(Front)	
321		S711	Cross Round Head Screw	5/32"x1/4"L
326	300747	181874	Belt	3Vx270
327	300738	192002B	Blade Back Cover	
329		W005	Spring Washer	1/4"x16xt1.5

MODEL SE 912B

(After S/N 172344 or 02/2001)

ITEM	DAKE NO.	REF. NO.	DESCRIPTION	SPECIFICATION
330		S701	Cross Round Head Screw	1/4"x1/2"L
331		W005	Spring Washer	1/4"x16xt1.5
332	301534	181202	Knob	
334	301700	181246	Bearing Cover	
335		S712	Screw	5/32 x 3/8
337		N016	Nut	1/2"
338	300907	W002	Spring Washer	1/2"x28xt2
339	301748	192049	Bushing	
340		181306	Bracket	
341		S720	Cross Round Head Screw	M4x5L
342		181305	Switch base	
342		181305A	Switch base	For Special Request
343		W023	Spring Washer	M5
344		S721	Cross Round Head Screw	M5x10L
364		3027-1	Knob	
365	301272	193057	Knob	
366		S601	Hex. Socket Headless Screw	1/4"x1/2"L
367	301273	193055	Pressure Lump	
368	301274	HW007	Spring Washer	M12xt2
369	43450	S013	Hex. Head Screw	3/8"x1-1/4"L
370	301275	W013	Spring Washer	3/8"x20xt2
371	301276	HP018	Pin	⌀ 5X20L
372	300973	193056	Pressure Shaft	
373	300972	193059	Knob W/Shaft	
374	301277	290086	Plastic Round Knob	
375	301278	CA51101	Bearing	
376	301279	193063	Washer	
377	301280	193058	Spring	