

# METAL CUTTING BAND SAW

Model: BS-916R BS-916VR

BS-1018R BS-1018VR



Operation Manual

## 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.
- (2). Always wear eye protection. Refer to ANSLZ87.1 standard for appropriate recommendations. Also use face 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). 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 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 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 at prong receptacle, the adapter plug 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 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 at 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 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 tracking are properly adjusted.
- (5). Re-check blade tension after initial cut with a new blade.
- (6). To prolong 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. Cast low cutting rate and permanent blade failure. Dirty coolant can cause the growth of bacteria with ensuring 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 prevent corrosion of machined surfaces where a soluble on is used as coolant, pay particular attention on wiping dry the surfaces where fluid accumulates and does not evaporate quickly, such as between the machine bed and vise.

**F. Specified usage**

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

**G. Noise**

A weighted sound pressure level: 80 dB

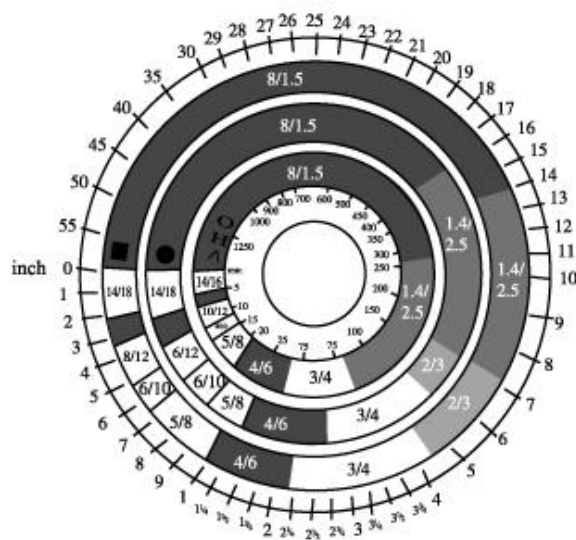
**H. Safety device**

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.

**SPECIFICATION**

Model		BS-916VR	BS-916R	BS-1018R	BS-1018VR
Capacity	Circular @0°	229mm(9")	229mm(9")	254mm(10")	254mm(10")
	Rectangular@0°	127X405mm(5"x16")	127X406mm(5"x16")	160X406mm(6.3"x16")	160X406mm(6.3"x16")
	Circular @45°	150mm(6")	150mm(6")	170mm(6.7")	170mm(6.7")
	Rectangular@45°	150x190mm(6"x7.5")	150x190mm(6"x7.5")	150x190mm(6.3"x7.5")	150x190mm(6.3"x7.5")
Blade speed	@60HZ	22-122MPM 95-402FPM	22-122MPM 95-402FPM	35 60 88 115 MPM 114 196 288 377 FPM	22-122MPM 95-402FPM
Blade size		27X0.9X3200	27X0.9X3200	27X0.9X3280	27X0.9X3280
Motor power		1.5KW 2HP(3PH)	1.5KW 2HP(3PH)	1.5KW 2HP(3PH)	1.5KW 2HP(3PH)
Drive		V-belt	V-belt	V-belt	V-belt
Packing size		180x77x114cm	180x77x114cm	180x77x115cm	180x77x115cm
N.W./G.W.		320/380kg	320/380kg		

**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.

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 workpiece until it leaves the workpiece.

2. The shape of the workpiece.

Square, 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 workpiece 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, Structural (Symbol: OH^)

Determine the average width of cut by dividing the area of the workpiece. Locate the average width of cut on the chart. Select the tooth pitch 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.

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 with your saw blade supplier.

## 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 band speed.



## CONNECTING SAW TO POWER SOURCE

Before connecting your machine to an electrical power system, be sure the motor rating agrees with the electrical system which is to be connected to. We recommend the #14 wire, fused with a 16 amp, dual element, time lag fuse, be used to supply power to all machines regardless of their electrical rating.

Refer to the electrical wiring diagram supplied with your machine for instructions on how to connect saw to power source.

## STARTING AND STOPPING MACHINE

1. Raise the saw frame to the up position.
2. The machine is started by pushing the start button (C) Fig. 1. And it will continue to run until the saw arm is in the down position at the end of the cut, or when the stop button (B) is pushed.
3. When in emergency, push button (B) to stop the machine. After removing the trouble, release emergency button, re-start the machine by pushing the start button (B).
4. When using the coolant turn the select button (E) to the right.
5. To adjust the feeding rate when in cutting, turn the volume valve (F) clockwise for faster feeding, counterclockwise for slower feeding. When volume valve (F) has been properly adjusted, turn the control valve (G) to handle saw arm action.
6. An automatic shut-off limit switches provided to stop the motor when the cut is completed. The limit switch is controlled by a lever (C) Fig. 2, which contacts the top of the hydraulic cylinder (E) shutting off the motor and coolant pump.
7. If the motor stops before the cut is completed or continues to run after the cut is completed, the limit switch can be adjusted up or down by loosening the two screw.

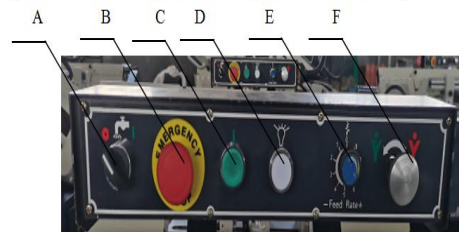


Fig.1

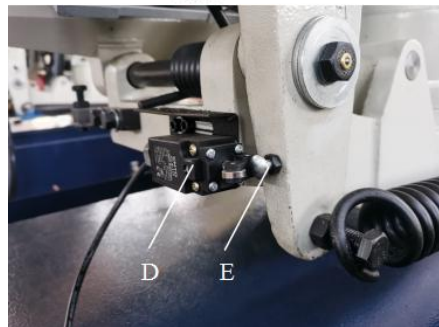


Fig.2

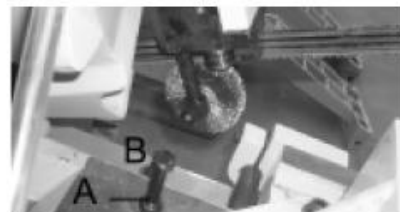


Fig.3

## ADJUSTING DOWNWARD TRAVEL OF SAW ARM

The downward travel of the saw arm should be adjusted so when the saw arm is in the extreme downward position, the teeth of the blade are 1/16" below the table surface. If an adjustment is necessary, loosen lock nut (A) Fig. 3. And turn stop screw (B) in or out until the correct adjustment is made. Then tighten lock nut (A).



## ADJUSTING BLADE TENSION

To tension the blade, turn the blade tension handle (A) Fig.4 Rotate clockwise to A direction to adjust the tightness. Always release blade tension at the end of each work day to prolong blade life.

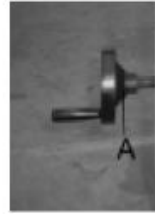


Fig.4

## ADJUSTING BLADE TRACKING

Make sure the blade is tensioned correctly before checking or adjusting tracking. The blade is tracking properly when the back of the blade is just lightly touching the wheel flanges of both wheels while the machine is running. If the blade does not touch the wheel flanges, tighten or loosen screw (A) Fig. 5. until the blade tracks properly.

## ADJUSTING BLADE GUIDE SUPPORT ARM

The blade guide support arm (A) Fig. 6, should be set as close to the workpiece as possible. To move the support arm, first loosen clamp knob (B). Move the support arm (A) into relationship with the workpiece. When you are sure the support arm will not interfere with the workpiece, first tighten clamp knob (B).

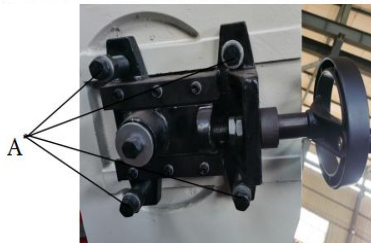


Fig.5



Fig.6



Fig.7

## ADJUSTING FEED RATE

When the feed rate control knob is turned clockwise as far as it will go, the saw frame will not move down, but it can be raised to the up position. By turning the feed rate control knob counterclockwise, the flow of oil from the cylinder is regulated and determines the speed at which the saw frame will

lower and the blade will feed through the work. Too many factors are involved to make tabulated data practical on feed rates. As a general rule, an even downward pressure without forcing the blade gives best results. Avoid forcing the blade at the start as this may shorten blade life and produce a bad cut. By inspecting the chips while the cut is being made will indicate whether the feed rate is correct or not. Fine powdery chips indicate the feed rate is too light; the teeth are rubbing over the surface instead of cutting. Burned chips indicates excessive feed, which causes the teeth to break off as the blade overheats. The ideal feed rate is indicated by chips that have a free curl and this will give the fastest cutting time and longest blade life.

## ADJUSTING CUTTING PRESSURE OF SAW ARM

The cutting pressure of the saw arm has been set at the factory and should not need further adjustment. If adjustment should ever become necessary, lower the saw arm to the horizontal position. Loosen locknut(A) Fig.7. until the pressure is increased or decreased.

## OPERATING AND ADJUSTING VISE

The workpiece 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) Fig.8. Simply turn hand wheel (A) counterclockwise 1/2 turn and move the vise jaw (B) to the desired position. Then tighten the vise jaw (B) against the workpiece by turning hand wheel clockwise. The vise can be adjusted to cut any angle from a straight 90 degree cut-off to a 45 degree angle by

Loosening the spring-loaded clamp handles. TO check and adjust the positive stops, proceed as follows;

- 1、 Loosen spring loaded clamp handle(D) Fig.9;
- 2、 Pull out the locating pin(E)Fig.10; the locating pin can be rotated, use as required.
- 3、 Turn the saw bow(C)Fig.10; adjust the desired Angle according to the scale.Fig.10;
- 4、 After adjusting the required Angle pay attention to locking loaded clamp handle(D).

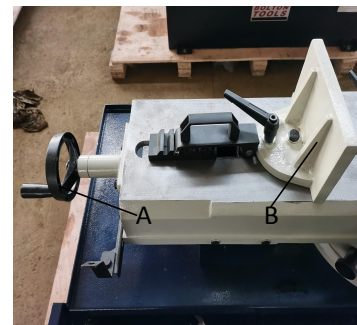


Fig.8

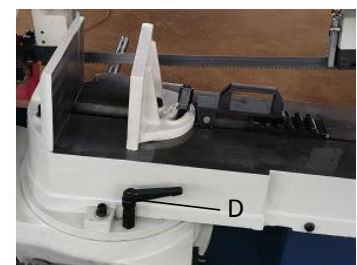


Fig.9

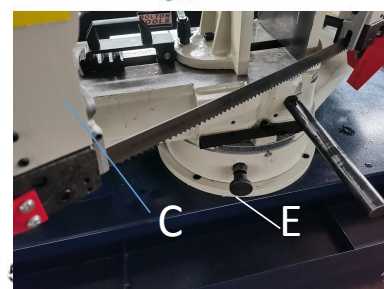


Fig.10



NOTE: end of screw should contact stud of clamp handle when vise jaw is 45 degrees to the blade. Then tighten set screw.

5. Pivot the right vise jaw (C) all the way to the left, as shown in Fig. 11, and lock spring loaded clamp handle (D).
6. Using a combination square, place one end of the square against the vise jaw and the other end against the blade, as shown in Fig. 11. And check to see if the vise jaw is at 45 degrees to the blade or not.

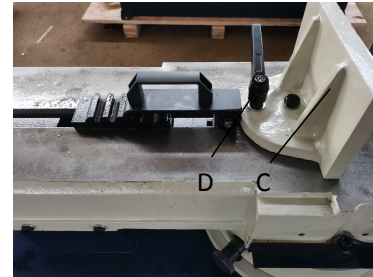


Fig.11

## COOLANT

The use of proper cutting fluid is essential to obtain maximum efficiency from a band saw blade. The main cause of tooth failure is excessive heat build-up. This is the reason that cutting fluid is necessary for long blade life and high cutting rates. Cutting area and blade wheels should be kept clean at all time. The rate of coolant flow is controlled by the stop valve lever Fig. 12 which directs the coolant onto the blade. The lever is shown in the off position.

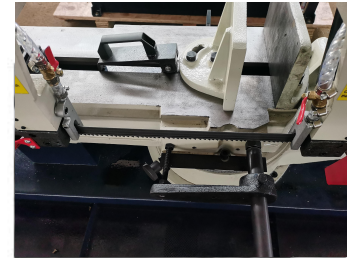


Fig.12

## SETTING UP THE MACHINE FOR OPERATION

1. Select the proper speed and blade for the type of material you are cutting.
2. Make sure the blade tension is adjusted properly.
3. Raise the saw frame and close the feed on/off knob.
4. Place the stock, between the vise jaws. Adjust the stock for the desired length of cut and tighten the vise clamping hand wheel.

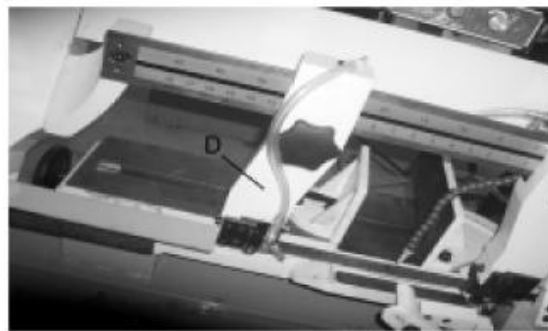


Fig.13

5. Make sure the blade guide arm (D) Fig. 13 is adjusted as close as possible to the workpiece.
6. Turn the machine on and adjust the coolant flow.
7. Turn the feed rate control knob, counterclockwise until the saw blade begins to lower at the desired rate of speed.
8. Proceed to cut through the workpiece. The motor and coolant pump will shut off upon completion of

the cut.

9. After adjusting the down speed, saw frame position and down movement are controlled by on/off knob.

## REMOVING AND INSTALLING THE BLADE



Fig.14

When it becomes necessary to replace the blade. Proceed as follows:

1. Disconnect the machine from the power source.
2. Raise the saw frame about 6" and close the feed on-off knob, by turning it clockwise as far as it will go.
3. Move the blade guide arm to the right, as shown in Fig. 14.
4. Loosen two screws and open upper blade guard.
5. Open both wheel covers, and clean the swarf out of the machine.
6. Release blade tension by turning the blade tension handwheel anticlockwise.
7. Remove the blade from both wheels and out of each blade guide.
8. Make sure the teeth of the new blade are pointing in the right direction. If necessary, turn the inside out.
9. Place the new blade on the wheels, in the blade guide and adjust blade tension and blade guides.

## LUBRICATION HYDRAULIC SYSTEM

The hydraulic system on this machine consists of a hydraulic cylinder which is operated by a needle valve. The saw frame is raised by hand, and as this is done, oil passes to the underside of the piston. The restricted flow is regulated by the feed rate control knob and governs the speed that the saw frame lowers. If it ever becomes necessary to fill the hydraulic cylinder with oil, proceed as follows:

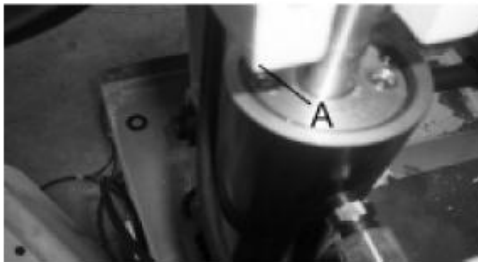


Fig.15



Fig.16

1. Place the saw frame in the down position.
2. Remove plug (A) Fig. 15. from the top of the hydraulic system

- and replace with a suitable hose fitting (B) Fig. 16. connect a clear hose (C) to the fitting, as shown.
- Put approximately one quart of Mobil-DTE (light) oil, available in one-quart cans into a container (D) Fig. 16 place hose (C) in the container (D) making sure end of hose is submerged in the oil. Raise and lower saw arm until the bubbles disappear from inside the clear hose (C).
  - Remove hose fitting (B) Fig. 16. and replace plug (A) Fig. 15. 1/3 volume in the oil window. Then replace oil breather nut (B).

## PIVOT BEARINGS

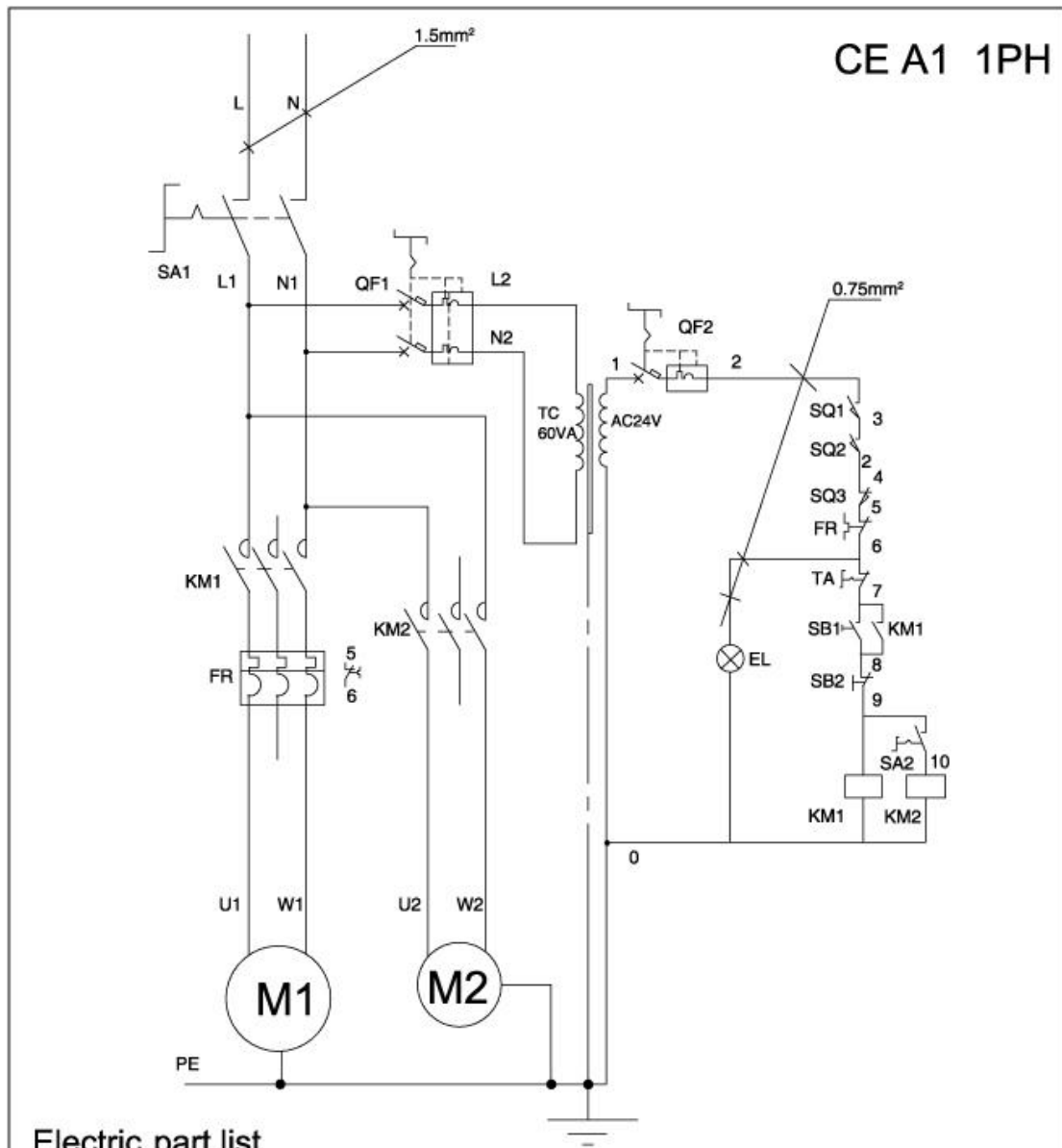
Occasionally lubricate the pivot bearings using a waterproof grease at the two zerk fittings.

## TROUBLE SHOOTING

<b>Symptom</b>	<b>Possible Cause (s)</b>	<b>Corrective Action</b>
Excessive Blade Breakage	<ol style="list-style-type: none"> <li>1. Material loose in vise</li> <li>2. Incorrect speed or feed</li> <li>3. Blade teeth spacing too large</li> <li>4. Material too coarse</li> <li>5. Incorrect blade tension</li> <li>6. Teeth in contact with material before saw is started</li> <li>7. Blade rubs on wheel flange</li> <li>8. Misaligned guide bearings</li> <li>9. Cracking at weld</li> </ol>	<ol style="list-style-type: none"> <li>1. Clamp work securely</li> <li>2. Adjust speed or feed</li> <li>3. Replace with a small teeth spacing blade</li> <li>4. Use a blade of slow speed and small teeth spacing</li> <li>5. Adjust where blade just does not slip on wheel</li> <li>6. Place blade in correct with work after motor is started</li> <li>7. Adjust wheel alignment</li> <li>8. Adjust guide bearings</li> <li>9. Weld again, note the weld skill</li> </ol>
Premature Blade Dulling	<ol style="list-style-type: none"> <li>1. Teeth too coarse</li> <li>2. Too much speed</li> <li>3. Inadequate feed pressure</li> <li>4. Hard spots or scale on material</li> <li>5. Work hardening of material</li> <li>6. Blade twist</li> <li>7. Insufficient blade</li> </ol>	<ol style="list-style-type: none"> <li>1. Use finer teeth</li> <li>2. Decrease speed</li> <li>3. Decrease spring tension on side of saw</li> <li>4. Reduce speed, increase feed pressure</li> <li>5. Increase feed pressure by reducing spring tension</li> <li>6. Replace with a new blade, and adjust blade tension</li> <li>7. Tighten blade tension adjustable knob</li> </ol>
Unusual Wear on Side/Back of Blade	<ol style="list-style-type: none"> <li>1. Blade guides worn</li> <li>2. Blade guide bearings not adjusted properly</li> <li>3. Blade guide bearing bracket is loose</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace</li> <li>2. Adjust as per operators manual</li> <li>3. Tighten</li> </ol>

<b>Symptom</b>	<b>Possible Cause (s)</b>	<b>Corrective Action</b>
Teeth Ripping from Blade	<ol style="list-style-type: none"> <li>1.Tooth too coarse for work</li> <li>2.Too heavy pressure, too slow speed</li> <li>3.Vibrating work piece</li> <li>4.Gullets loading</li> </ol>	<ol style="list-style-type: none"> <li>1.Use finer tooth blade</li> <li>2.Decrease pressure, increase speed</li> <li>3.Clamp work piece securely</li> <li>4.Use coarse tooth blade or brush to remove chips</li> </ol>
Motor running too hot	<ol style="list-style-type: none"> <li>1.Blade tension too high</li> <li>2.Drive belt tension too high</li> <li>3.Gears need lubrication</li> <li>4.Cut is binding blade</li> <li>5.Gears aligned improperly</li> </ol>	<ol style="list-style-type: none"> <li>1.Reduce tension on blade</li> <li>2.Reduce tension on drive belt</li> <li>3.Check oil bath</li> <li>4.Decrease feed and speed</li> <li>5.Adjust gears so that worm is in center of gear</li> </ol>
Bad Cuts (Crooked)	<ol style="list-style-type: none"> <li>1.Feed pressure too great</li> <li>2.Guide bearing not adjusted properly</li> <li>3.Inadequate blade tension</li> <li>4.Dull blade</li> <li>5.Speed incorrect</li> <li>6.Blade guide spaced out too much</li> <li>7.Blade guide assembly loose</li> <li>8.Blade truck too far away from wheel flanges</li> </ol>	<ol style="list-style-type: none"> <li>1.Reduce pressure by increasing spring tension on side of saw</li> <li>2.Adjust guide bearing, the clearance can not be greater than 0.001mm</li> <li>3.Increase blade tension by adjust blade tension</li> <li>4.Replace blade</li> <li>5.Adjust speed</li> <li>6.Adjust guides space</li> <li>7.Tighten</li> <li>8.Re-track blade according to operating instructions</li> </ol>
Bad Cuts (Rough)	<ol style="list-style-type: none"> <li>1.Too much speed or feed</li> <li>2.Blade is too coarse</li> <li>3.Blade tension loose</li> </ol>	<ol style="list-style-type: none"> <li>1.Decrease speed or feed</li> <li>2.Replace with finer blade</li> <li>3.Adjust blade tension</li> </ol>
Blade is twisting	<ol style="list-style-type: none"> <li>1.Cut is binding blade</li> <li>2.Too much blade tension</li> </ol>	<ol style="list-style-type: none"> <li>1.Decrease feed pressure</li> <li>2.Decrease blade tension</li> </ol>

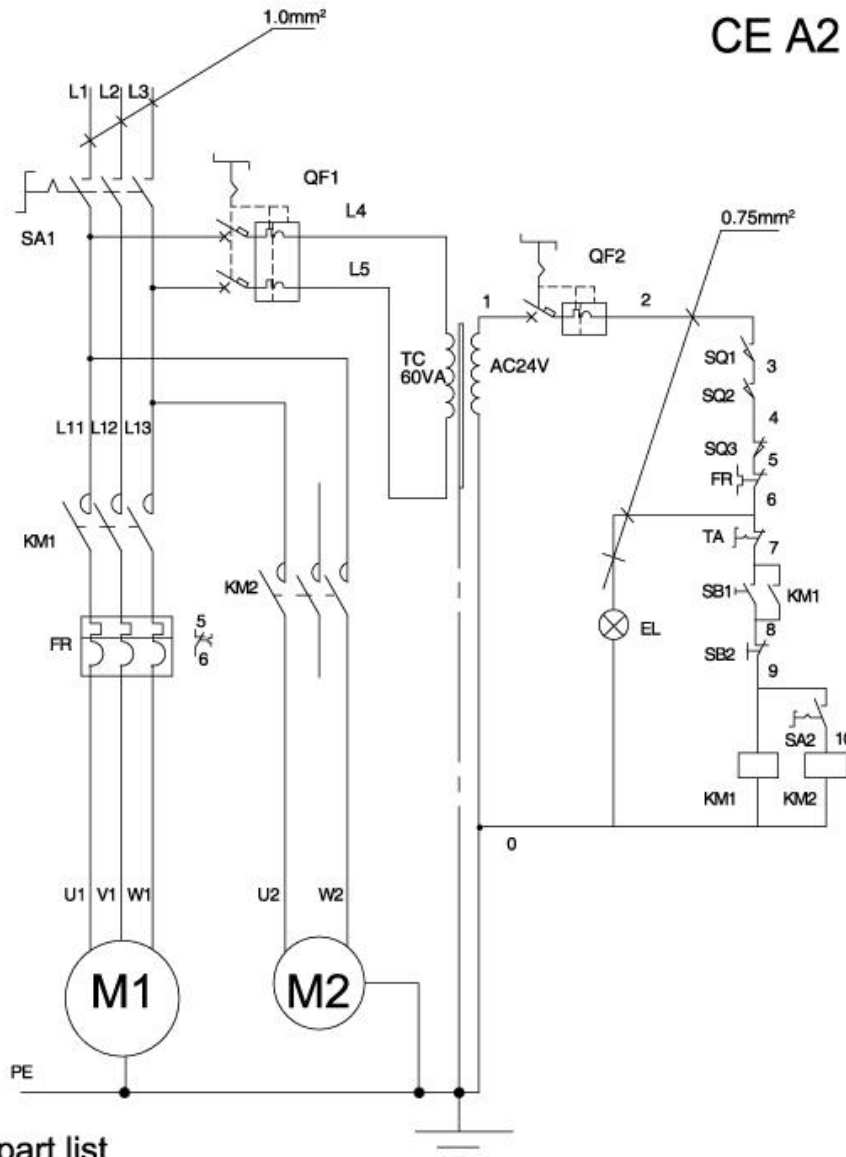




Electric part list

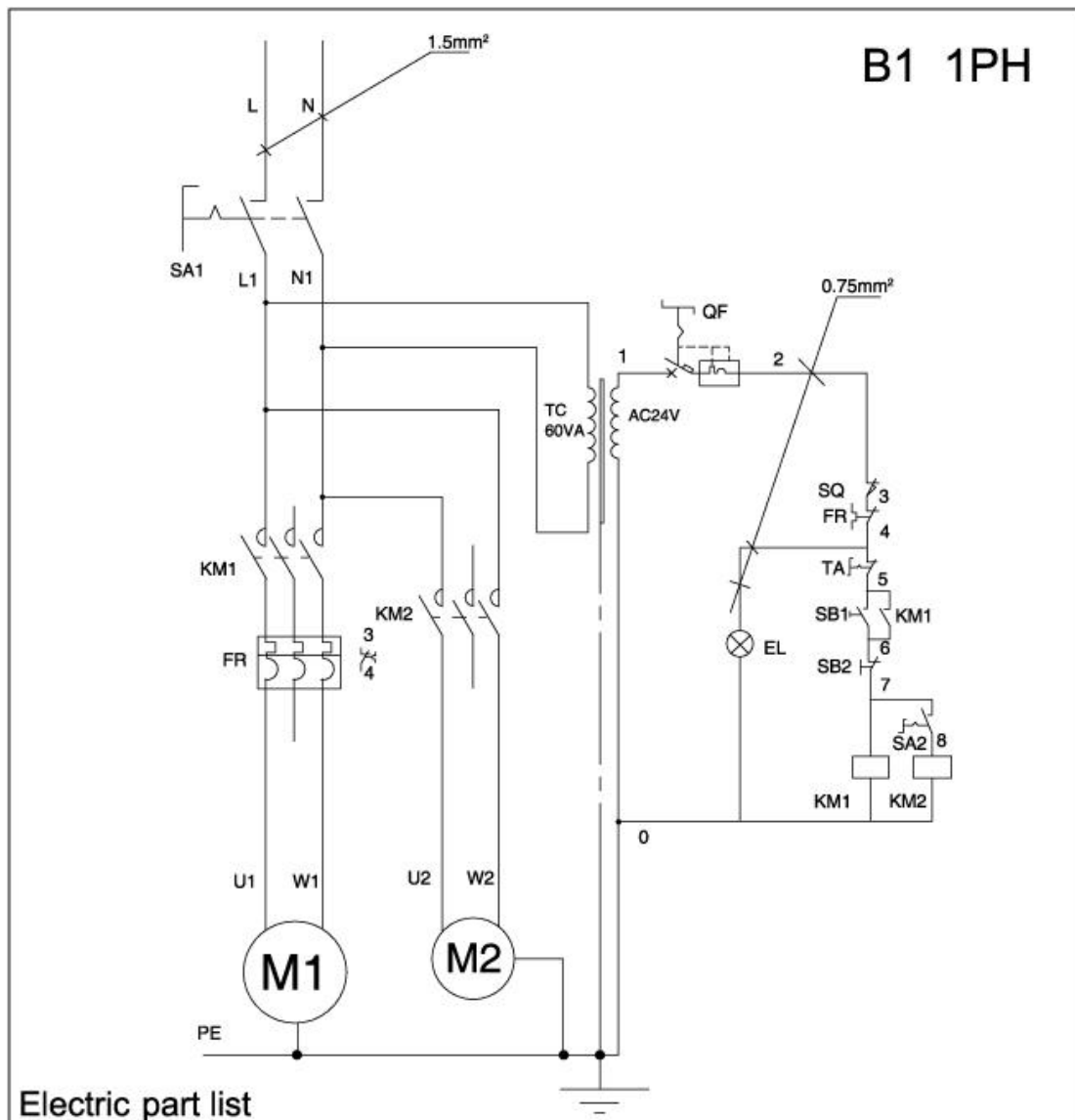
No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	230V 50Hz 1420r/min 1.5kW 1PH	1
2	Coolant pump	M2	230V 50Hz 45W	1
3	Current breaker	QF	DZ47-63	2
4	Power switch	SA1	JDF11-25	1
5	Contactora	KM	CN-6 AC24V	2
6	Heat relay	FR	RHN-5M	1
7	E.S.P	TA	XB2-ES542	1
8	Transformer	TC	AC 230V/24V	1
9	Limit switch	SQ	QKS7 250V 10A/VS	3
10	Start	SB1	SB2-BE101	1
11	Stop	SB2	SB2-BE102	1
12	Select switch	SA2	SB2-ED21	1
13	Lamp	EL	XB2-BVD3	1

# CE A2 3PH



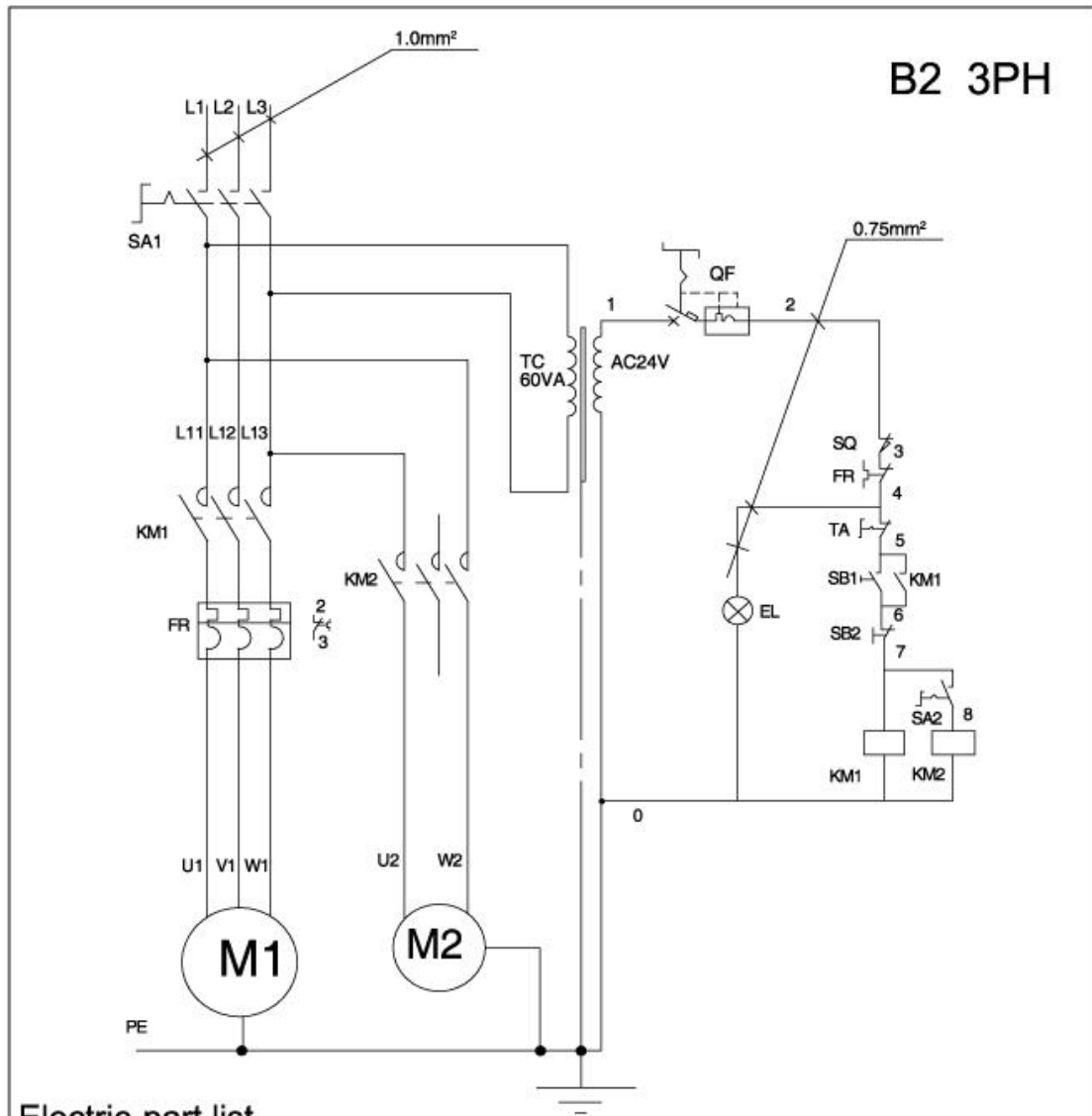
## Electric part list

No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	400V 50Hz 1420r/min 1.5kW 3PH	1
2	Coolant pump	M2	400V 50Hz 45W	1
3	Current breaker	QF	DZ47-63	2
4	Power switch	SA1	JDF11-25	1
5	Contactor	KM	CN-6 AC24V	2
6	Heat relay	FR	RHN-5M	1
7	E.S.P	TA	XB2-ES542	1
8	Transformer	TC	AC400,230V/24V	1
9	Limit switch	SQ	QKS7 250V 10A/VS	3
10	Start	SB1	SB2-BE101	1
11	Stop	SB2	SB2-BE102	1
12	Select switch	SA2	SB2-ED21	1
13	Lamp	EL	XB2-BVD3	1



**Electric part list**

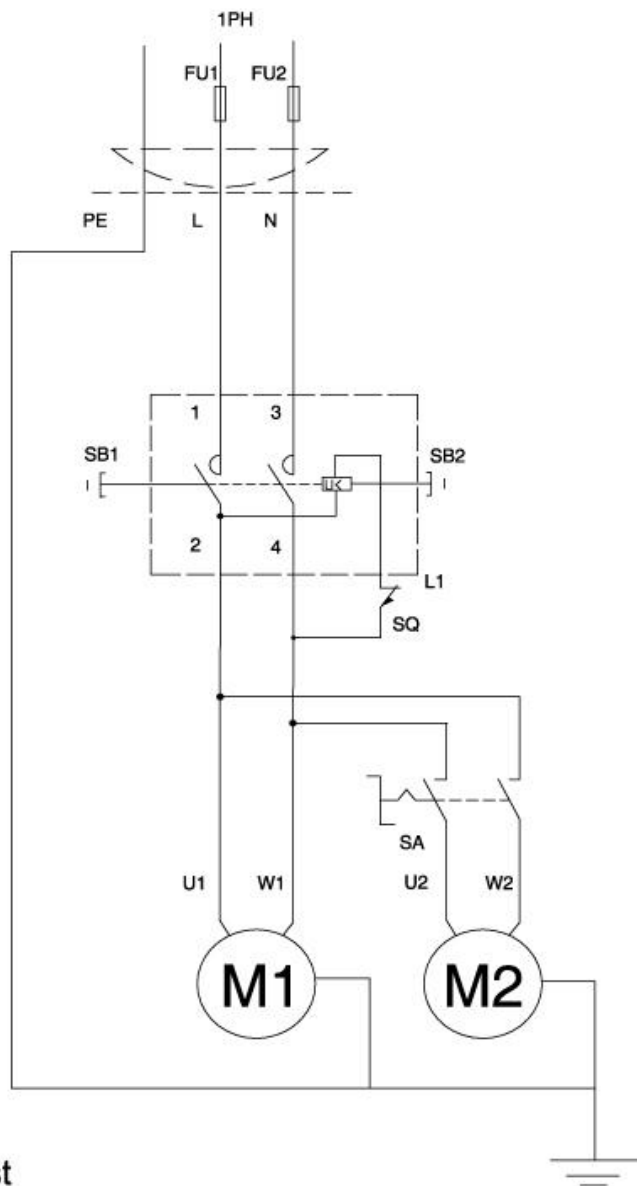
No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	230V 50Hz 1420r/min 1.5kW 1PH 220V 50Hz 1420r/min 1.5kW 1PH 110V 60Hz 1720r/min 1.5kW 1PH	1
2	Coolant pump	M2	230V 50Hz 45W / 220V 50Hz 45W / 110V 60Hz 45W	1
3	Current breaker	QF	DZ47-63	1
4	Power switch	SA1	JDF11-25	1
5	Contactor	KM	CN-6 AC24V	2
6	Heat relay	FR	RHN-5M	1
7	E.S.P	TA	XB2-ES542	1
8	Transformer	TC	AC230V/24V / AC220V/24 / AC110V/24V	1
9	Limit switch	SQ	QKS7 250V 10A	1
10	Start	SB1	SB2-BE101	1
11	Stop	SB2	SB2-BE102	1
12	Select switch	SA2	SB2-ED21	1
13	Lamp	EL	XB2-BVD3	1



**Electric part list**

No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	400V 50Hz 1420r/min 1.5kW 3PH 380V 50Hz 1420r/min 1.5kW 3PH 220V 60Hz 1720r/min 1.5kW 3PH	1
2	Coolant pump	M2	400V 50Hz 45W / 380V 50Hz 45W / 220V 60Hz 45W	1
3	Current breaker	QF	DZ47-63	1
4	Power switch	SA1	JDF11-25	1
5	Contactors	KM	CN-6 AC24V	2
6	Heat relay	FR	RHN-5M	1
7	E.S.P	TA	XB2-ES542	1
8	Transformer	TC	AC400V/24V / AC380V/24V / AC220V/24V	1
9	Limit switch	SQ	QKS7 250V 10A	1
10	Start	SB1	SB2-BE101	1
11	Stop	SB2	SB2-BE102	1
12	Select switch	SA2	SB2-ED21	1
13	Lamp	EL	XB2-BVD3	1

# C 1PH

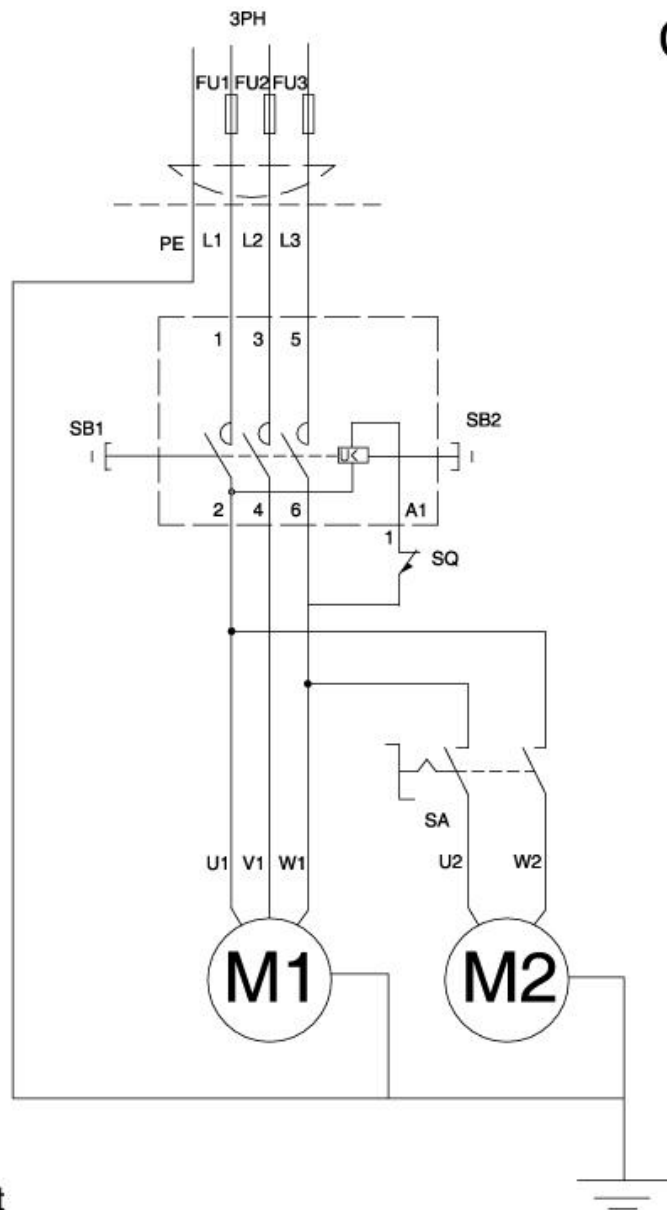


## Electric part list

No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	230V 50Hz 1420r/min 1.5kW 1PH 220V 50Hz 1420r/min 1.5kW 1PH 110V 60Hz 1720r/min 1.5kW 1PH	1
2	Coolant pump	M2	230V 50Hz 45W 220V 50Hz 45W 110V 60Hz 45W	1
3	Electro magnetic switch	SB	KJD12 230V 50Hz 1PH 220V 50Hz 1PH 110V 60Hz 1PH	1
4	Select switch	SA	SB2-ED21	1
5	Limit switch	SQ	QKS7 250V 10A	1



# C 3PH



## Electric part list

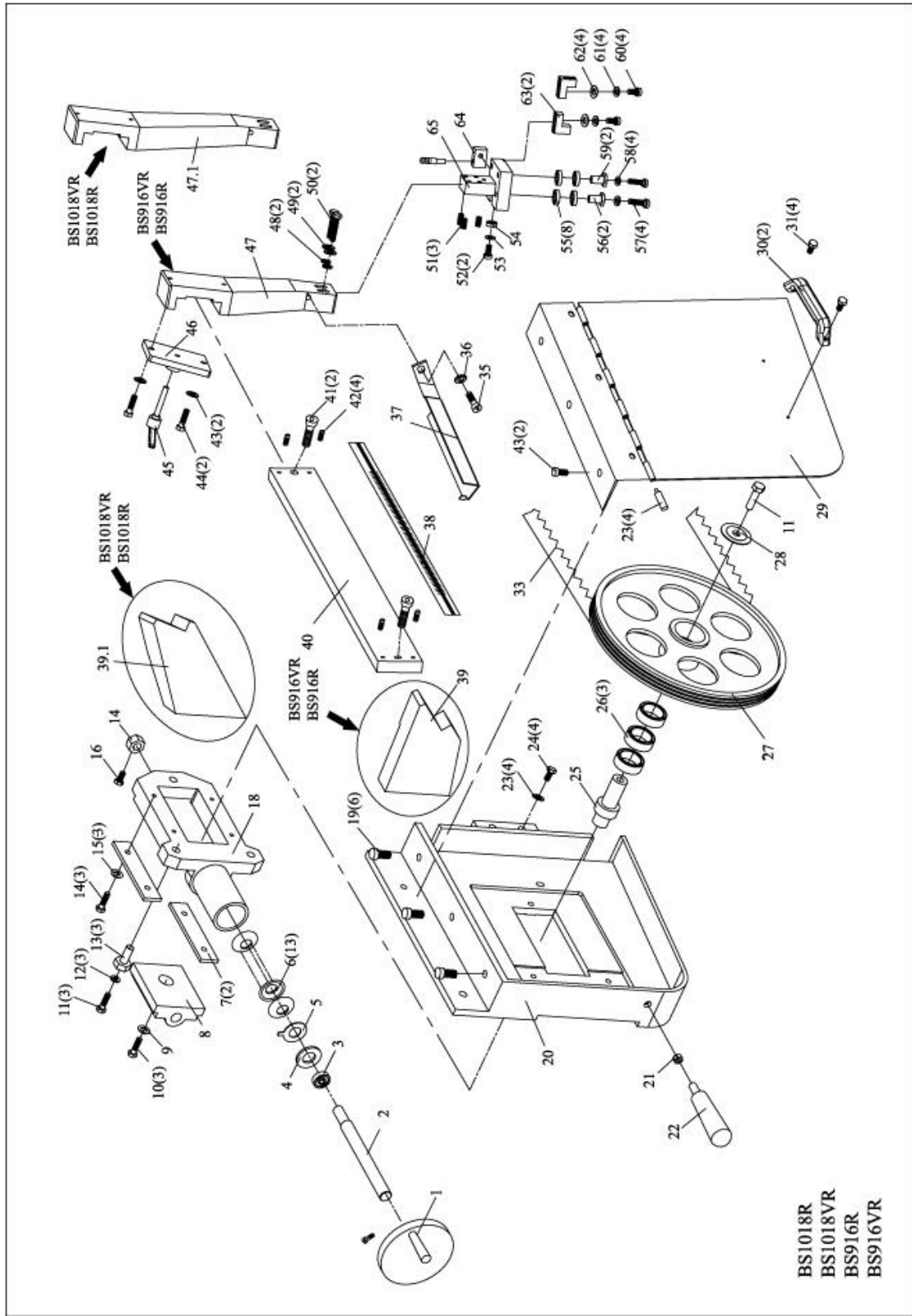
No.	Name	Designation	Type&Specifications	Quantity
1	Main motor	M1	400V 50Hz 1420r/min 1.5kW 3PH 380V 50Hz 1420r/min 1.5kW 3PH 220V 60Hz 1720r/min 1.5kW 3PH	1
2	Coolant pump	M2	400V 50Hz 45W 380V 50Hz 45W 220V 60Hz 45W	1
3	Electro magnetic switch	SB	KJD18 400V 50Hz 3PH 380V 50Hz 3PH 220V 60Hz 3PH	1
4	Select switch	SA	SB2-ED21	1
5	Limit switch	SQ	QKS7 250V 10A	1

## PART LIST

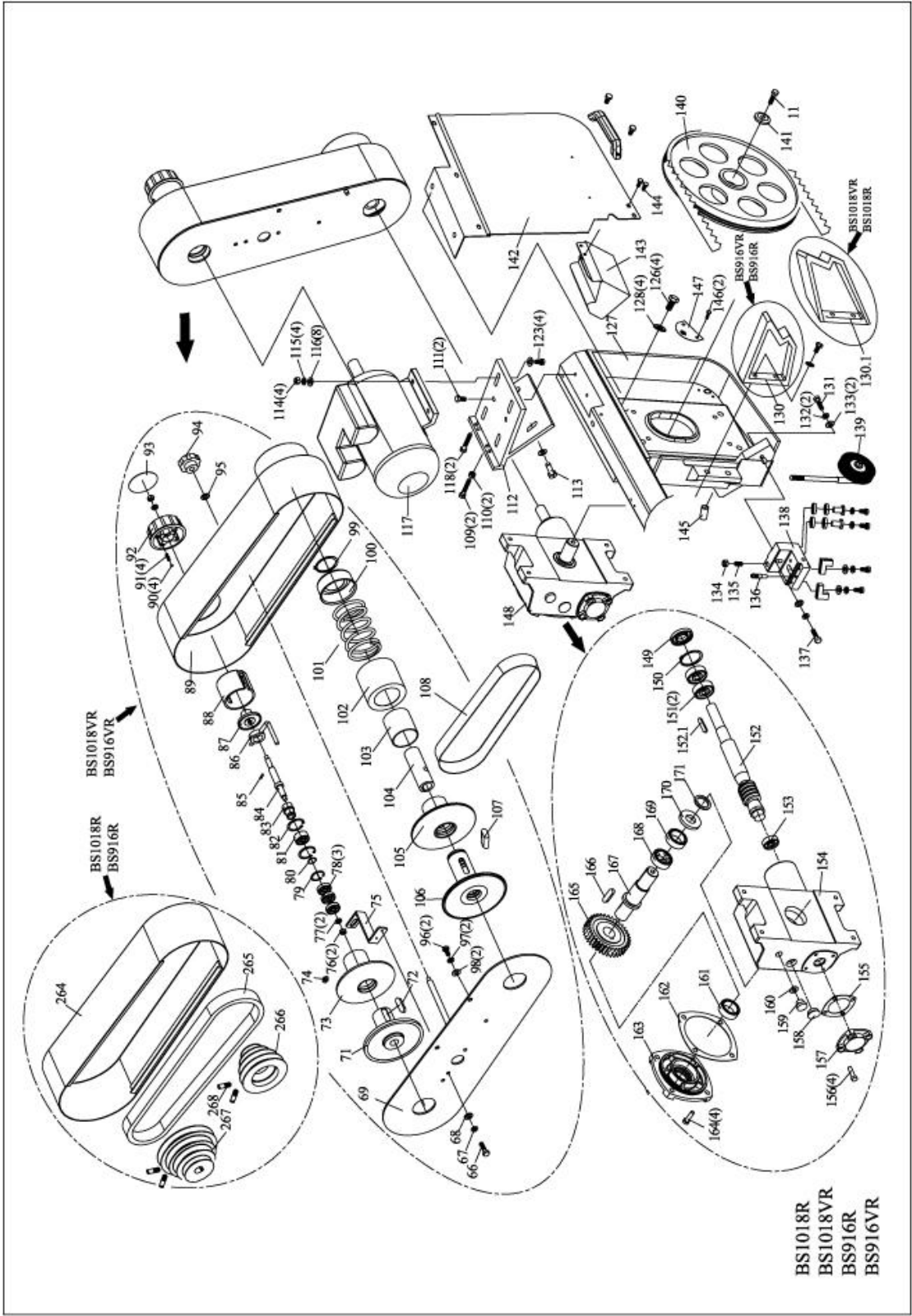
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
1	Hand wheel	1	45	Adjustable fasten handle	1
2	Adjusting shaft	1	46	Tighten locking base	1
3	Thrust bearing	1	47	Sliding stand	1
4	Gasket	1	48	Bushing	2
5	Ring pointer	1	49	Washer	2
6	Butterfly spring	13	50	Screw	2
7	Press plate	2	51	Screw	3
8	Slide block	1	52	Screw	1
9	Big washer	1	53	Washer	1
10	Bolt	1	54	Bearing	1
11	Bolt	3	55	Bearing	8
12	Washer	3	56	Sleeve	2
13	Adjusting bolt	3	57	Screw	4
14	Bolt	3	58	Washer	4
15	Washer	3	59	Eccentric bushing	2
16	Screw	1	60	Screw	4
17	Screw	1	61	Washer	4
18	Big slide stand	1	62	Washer	4
19	Screw	6	63	Nip block	4
20	Rear saw bow	1	64	Pipe fastening block	1
21	Nut	1	65	Left adjustable base	1
22	Handle	1	66	Screw	2
23	Washer	4	67	Washer	2
24	Bolt	4	68	Washer	2
25	Rear band axle	1	69	Belt cover	1
26	Bearing	3	71	Variable speed mechanism III	1
27	Driven wheel	1	72	Flat key	1
28	Big washer	1	73	Variable speed mechanism IV	1
29	Safety guard for rear wheel	1	74	Oil cup	1
30	Square handle	2	75	Limited support	1
31	Screw	2	76	Nut	2
32	Pin shaft	2	77	Washer	2
33	Blade	1	78	Bearing	3
34	Screw	12	79	Circlip for hole	1
35	Screw	1	80	Ring	1
36	Washer	1	81	Bearing	1
37	Safety guard	1	82	Ring	1
38	Ruler	1	83	Adjustable nut	1
39	Left support	1	84	Adjustable shaft	1
40	Sliding beam	1	85	Pin	1
41	Screw	2	86	Limited support	1
42	Screw	4	87	Base	1
43	Washer	2	88	Sleeve	1
44	Screw	2	89	Belt protection	1

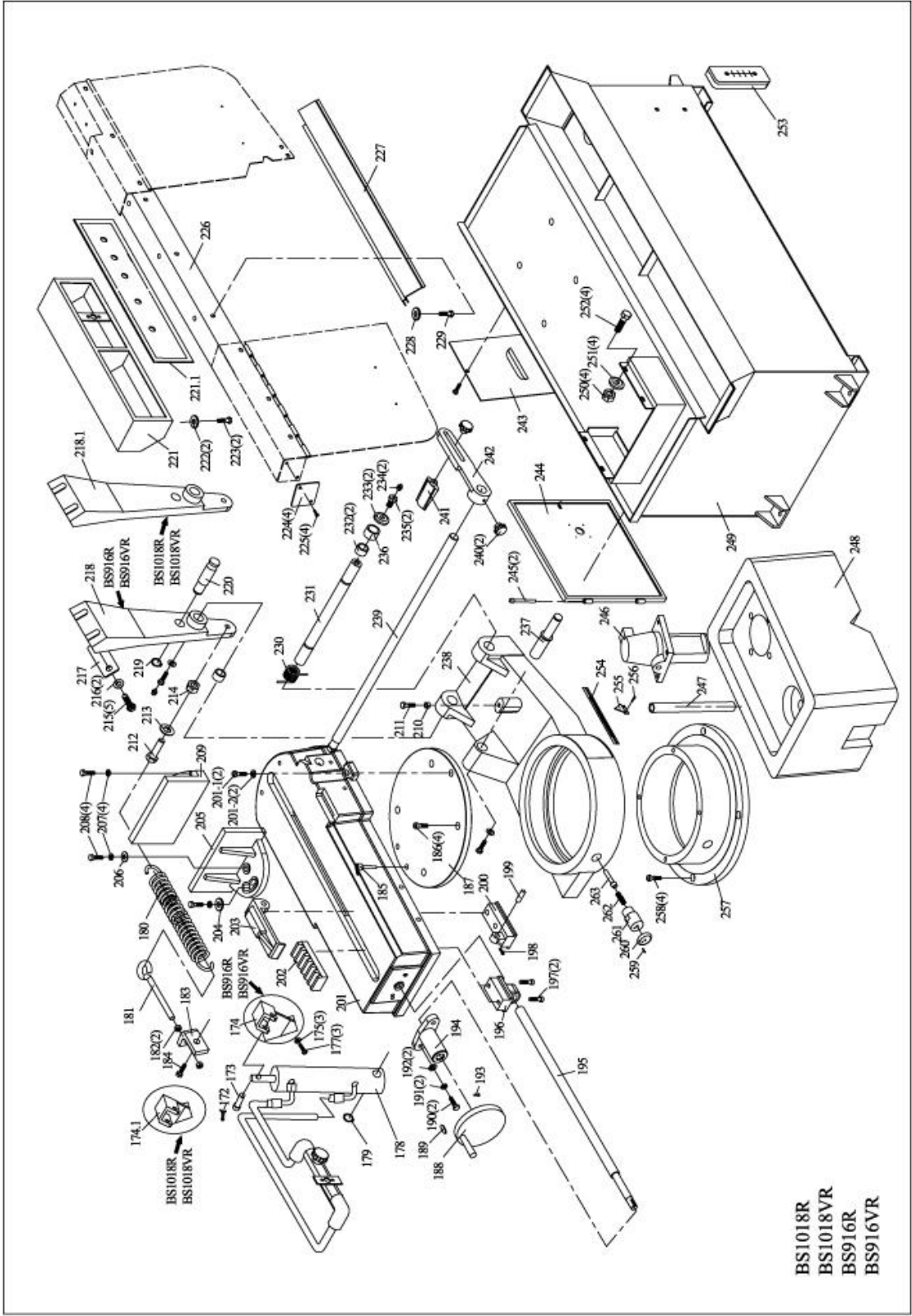
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
90	Steel ball	4	141	Washer	1
91	Small spring	4	142	Front wheel guard	1
92	Speed-changeable lid	1	143	Brush safety guard stand	1
93	Speed-changeable label	1	144	Screw	2
94	Pentacle handle	1	145	Water pipe	1
95	Washer	1	146	Screw	2
96	Bolt	2	147	Sift net	1
97	Flexible washer	2	148	Gear box assembly	1
98	Washer	2	149	Lip-shape sealing ring	1
99	Ring	1	150	Ring	1
100	Inner sleeve	1	151	Bearing	2
101	Press spring	1	152	Worm shaft	1
102	Outer sleeve	1	152.1	Flat key	1
103	Plastic sleeve	1	153	Bearing	1
104	Shaft	1	154	Gear box	1
105	Variable speed mechanism II	1	155	Asbestos pad	1
106	Variable speed mechanism II	1	156	Screw	4
107	Abnormity pin	1	157	Lid	1
108	Belt	1	158	Oil level gauge	1
109	Bolt	2	159	Screw	1
110	Screw	2	160	O-sealing ring	1
111	Screw	2	161	Bearing	1
112	Motor stand	1	162	Asbestos pad	1
113	Bolt	2	163	Gear box lid	1
114	Nut	4	164	Screw	4
115	Flexible Ring	4	165	Worm wheel	1
116	Flat washer	8	166	Flat key	1
117	Motor	1	167	Output shaft	1
118	Bolt	2	168	Bearing	1
123	Bolt	4	169	Bearing	1
127	Front saw bow	1	170	Lip-shape sealing ring	1
128	Washer	4	171	Ring	1
129	Bolt	4	172	Pin	1
130	Right support	1	173	Pin shaft	1
131	Screw	1	174	Stand for hydraulic cylinder	1
132	Flexible Ring	2	175	Flat washer	3
133	Flat washer	2	177	Bolt	3
134	Nut	1	178	Hydraulic cylinder	1
135	Small spring	1	179	Ring	1
136	Bolt	1	180	Big spring	1
137	Screw	1	181	Spring screw	1
138	Right adjustable stand	1	182	Nut	2
139	Steel brush	1	183	Spring fixed stand	1
140	Steering wheel	1	184	Bolt	1

<b>Part No.</b>	<b>Description</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
185	Adjustable fasten handle	1	226	Contact beam	1
186	Screw	4	227	Blade protector	1
187	Fixed tray	1	228	Flat washer	2
188	Hand wheel	1	229	Bolt	2
189	Flat key	1	230	Wring spring	1
190	Bolt	2	231	Turning shaft	1
191	Flexible washer	2	232	Sleeve	2
192	Flat washer	2	233	Washer	2
193	Fixed screw	1	234	Oil cup	2
194	T-stand	1	235	Bolt	2
195	Screw rod	1	236	Sleeve	1
196	Nut	1	237	Fixed shaft for hydraulic cylinder	1
197	Screw	2	238	Turning body	1
198	Fixed screw	1	239	Block shaft	1
199	Column pin	1	240	Pentacle handle	2
200	Sliding block	1	241	Abnormity spindle	1
201	Vice	1	242	Handle stop	1
201-1	Screw	2	243	Block board	1
201-2	Flat washer	2	244	Electrical box door	1
202	Toothed rack	1	245	Pin	2
203	Grab block	1	246	Water pump	1
204	Washer	2	247	Water pipe	1
205	Sliding vice	1	248	Water box	1
206	Flat washer		249	Base support	1
207	Flexible washer	4	250	Nut	8
208	Bolt	4	251	Flat washer	8
209	Fixed vice	1	252	Bolt	8
210	Nut	1	253	Long oil scale	1
211	Bolt	1	254	Indicate ruler	1
212	Bolt	1	255	Pointer	1
213	Flat washer	1	256	Rivet	2
214	Nut	1	257	Fixed seat	1
215	Bolt	2	258	Bolt	4
216	Flexible washer	2	259	Spring pin	1
217	Press plate	1	260	Fixed handle	1
218	Slant stand	1	261	Fixed cover	1
219	Ring	1	262	Spring	1
220	Shaft	1	263	Locating rod	1
221	Operator Station	1	264	Belt cover	1
221.1	Operation panel	1	265	Triangular belt	1
222	Flat washer	2	266	Belt pulley	1
223	Bolt	2	267	Belt pulley	1
224	End plate	1	268	Bolt	4
225	Screw	4			









BS1018R  
 BS1018VR  
 BS916R  
 BS916VR