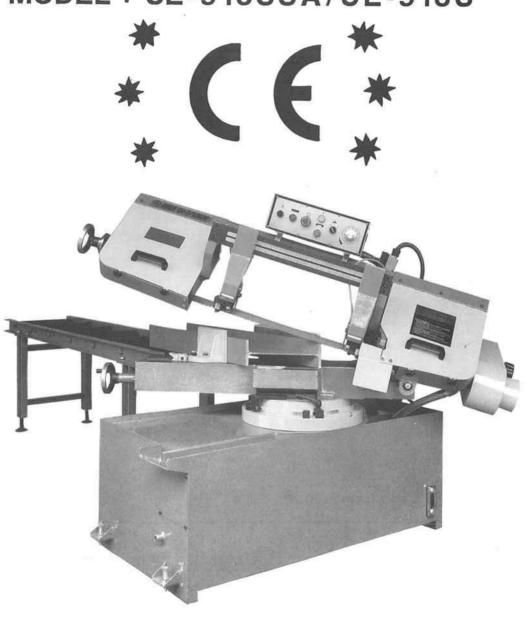
9" SEMI-AUTOMATIC HORIZONTAL BAND SAW

Study Carefully Before Operating

MODEL: UE-918SSA/UE-918S



SPECIFICATIONS

* Speeds: 25MPM~75MPM

(82FPM~247FPM)

* Motor: 50HZ 2HP 1430RPM 3phase

* Cracity: 9" Diameter Pounds

Rectangle 90° 9"x18" (225MMx450MM)

Rectangle45° 9"x12" (225MMx300MM)

* Blade :

1"X0.032"x1313/4"

(27MMX0.95MMx3345MM)

* Dimension:

L72XW30 (1828MMx762MM)

* Blade wheels:

13" (330mm) Diameter

* Shipping Weight: N.W/G.W 480/550kgs (918SSA)

N.W/G.W 430/495kgs (918S)

\triangle

WARNING

- Read and understand the entire instruction manual before operating machine.
- Always wear approved safety glasses I face shields while using this machine.
- Make certain the machine is properly grounded.
- Before operating the machine, remove tie, rings, watches, other jewelry, and roll up sleeves above the elbows. Remove all loose clothing and confine long hair. Do not wear gloves.
- 5. Keep the floor around the machine clean and free of scrap material, oil and grease.
- Keep machine guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
- Do not over reach, Maintain a balanced stance at all times so that you do not fall or lean against blades or other moving parts.
- Make all machine adjustments or maintenance with the machine unplugged from the power source.
- Use the right tool. Don't force a tool or attachment to do a job which it was not designed for.
- Replace warning labels if they become obscured or removed.
- 11. Make certain the motor switch is in the off position before connecting the machine to the power supply.

- 12. Give your work undivided attention. Looking around, carrying on a conversation, and "horse play "are careless acts that can result in serious injury.
- Keep visitors a safe distance from the work area.
- Use recommended accessories; improper accessories may be hazardous.
- 15. Make a habit of checking to see that keys and adjusting wrenches are removed before turning on the machine.
- 16. Always keep hands and fingers away from the blade when the machine is running.
- Never hold the material with the saw in the horizontal position, Always use the vise and clamp it securely.
- Read and understand warnings posted on the machine.
- Keep the belt guard and wheel covers in place and in working order.
- 20. Always provide adequate support for long and heavy material.
- 21. Use a sharp blade and keep machine clean for best and safest performance.
- 22 Failure to comply with all of these warnings may cause serious injury.

VALVE

(SB5)

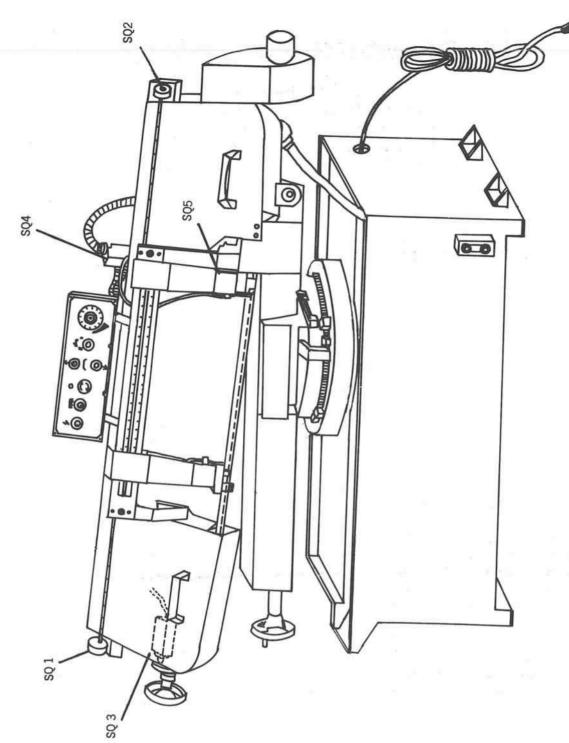
(SB2)

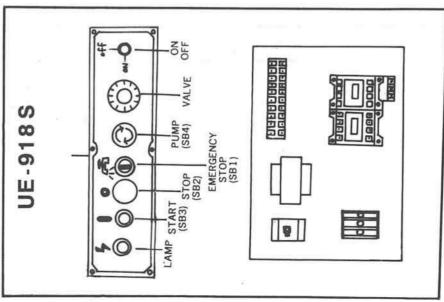
(SB4)

(SB1)

(PL2) (SB3) * (SB5) DOWN * (SB5) UP * (SA1) PUMP

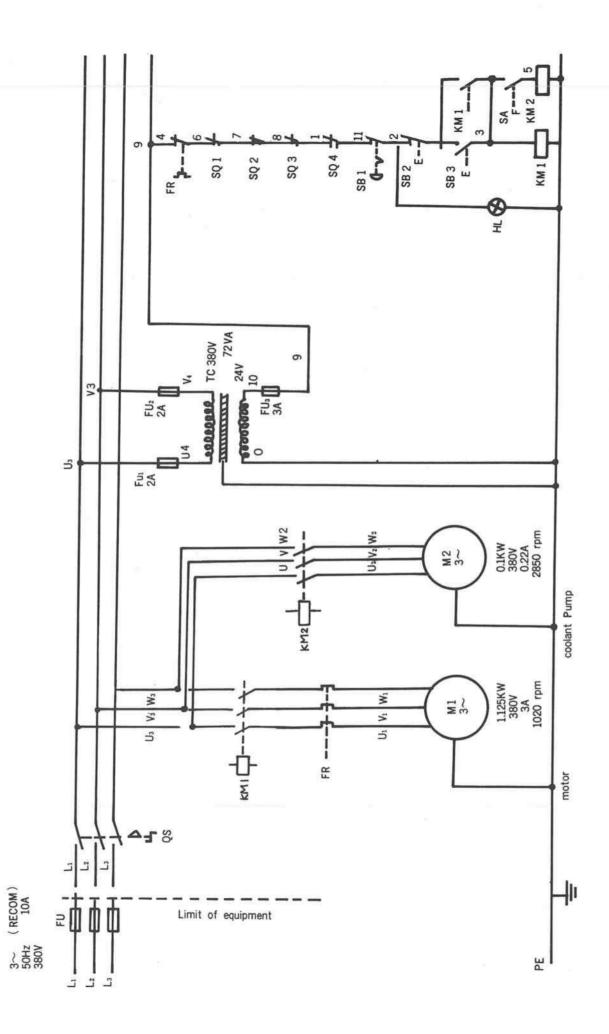
* (PL1) LAMP * (PL2) START * (PL3) EMERGENCY STOP * (PL4) STOP

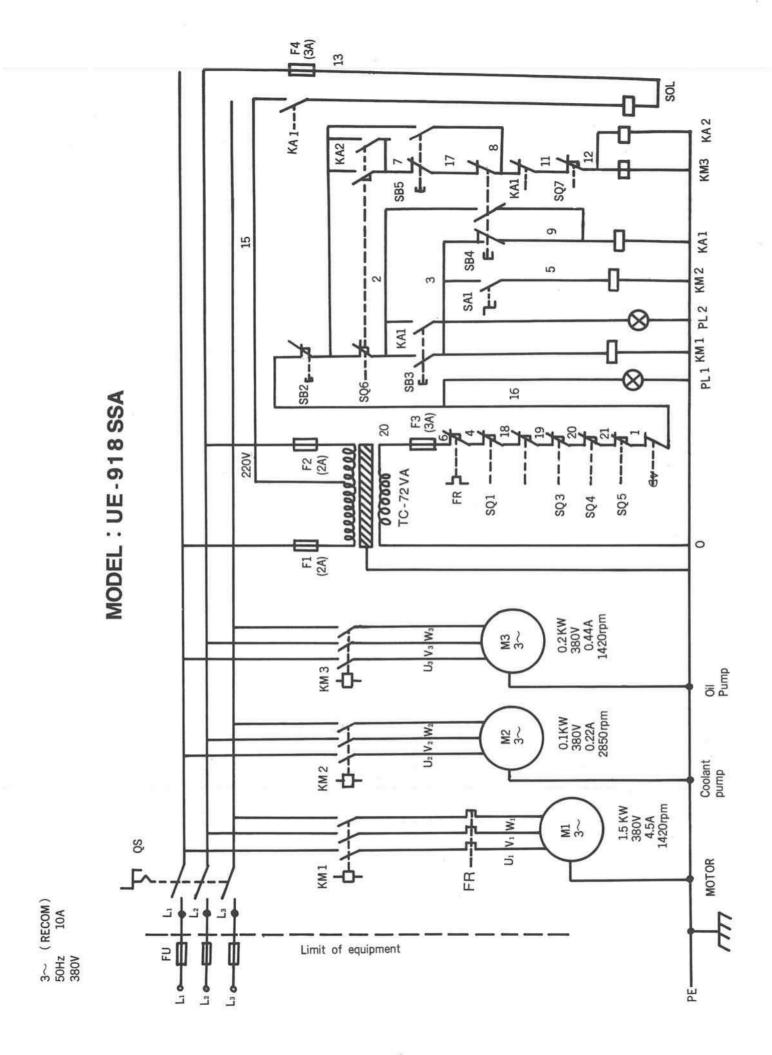




POWER

INSTALLATION DRAWING

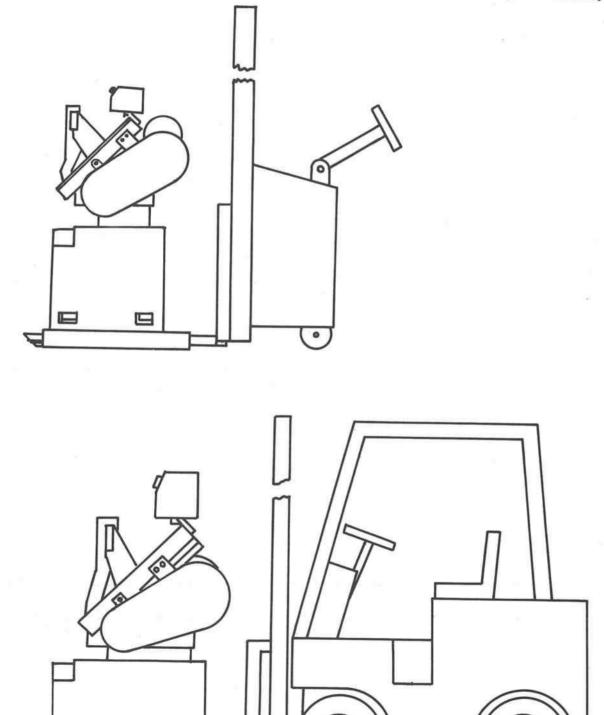




Transportation Methods

⚠ WARNING

- 1. Always keep balance of the wachine in teansportation. Watch the gravity!
- 2. Drive folklift slowly and carefully.



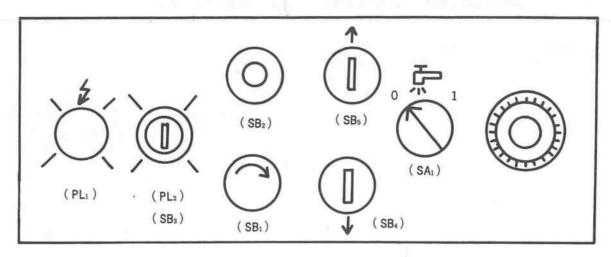
SCHEDULE OF ELECTRICAL EQUIPMENT METAL BAND SAW

Item dealgnation	Circuit	Description and function	Technical data	Quintity	Resmarks
QS		MAIN POWER & FUSE SWITCH	AC 21 32 A 500 V	1	VDE 0660 IEC 408 BS 5419
FU 1 2 FU 2 FU 3		AC FUSE TO TRANSFORMER AC LOW VOLTAGE TO TRANSFORMER	AC 600V 30 mm 2A AC 600 V 30 mm 3 A	1 1 1	UL 198 G CSA C22.2 NO. 59.2
KM1		CONTACTORS	SPIa Ri=660 V Rt=25 A AC 3 220 V 2.2 kw 380 V 4.0 kw	1	IEC 158-1 BS 5424-1 VDE 0660 JIS 8325
FR		OVERLOAD RELAY	2.8-4.2 3-5 A Ui=660 V Ith * 10 A	1	IEC 292 VDE 0660 JIS 8325 BS 5424-1
TC		TRANSFORMER	AC 0-220-380 V 24 V 72VA	1	IEC 76-5 EN 60742 IP 2X
SQ 1 SQ 2		SAFE - DOOR LIMIT SWITCH	AC 500V 5A	1	IEC 947 EN 60947 IP 65
SQ3		CUT-LIMIT SWITCH	AC 125V 10A 250V 10A	1	ULE 100182
SQ 4		CUT-LIMIT SWITCH	AC 600V 10 A 125, 250V 0.1 A 600VDC	1	UL-66C7 IP 54
SB 1		EMERGENCY STOP	AC 600V 10A	1	
SB 2 SB 3 SB 4		STOP-OFF START-ON PUMP- (0-1)	1 NO + 1 NC AC 250 V 10 A 380 V 7.5 A	1 1 1	IEC 144 IP 65
ТВ		CASSET TERMINAL BLOCK	AC 600 V 15 A	19	UL 9987 IP 2X
PL		DIRECT SUPPLY	22 AC 24 V 1.2 W	1	IEC 144 IP 65

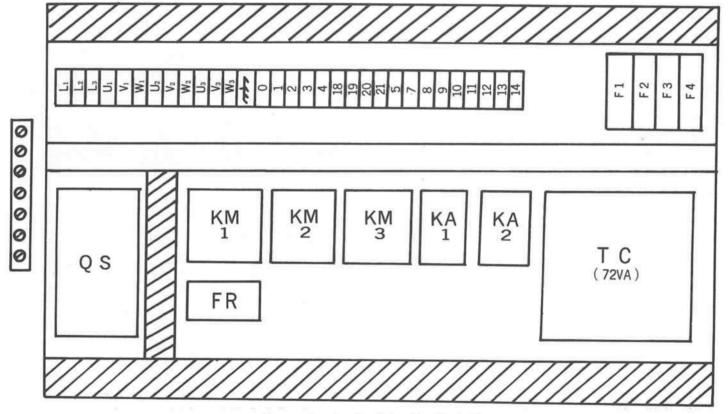
SCHEDULE OF ELECTRICAL EQUIPMENT

METAL BAND SAW TYPE UE-918 SSA

Item dealgnation	Description and function	Technical data	Quintity	Resmarks
QS	Main Power (Door Lock) Switch	AC 500V/50HZ 3P 16 A		IEC 408
FU1	AC Fuse	AC 600V		
FU2	To Transformer	30mm 2A	1	
FU3	Ac Low Voltage	AC 600V		
103	To Transformer	30mm 3A		
FU4	AC SOL Voltage			
104		AV 600V		
1454.3	To Transformer	30mm 3A		
KM 1	Contactors	3Pla Ri = AC 660V		
KM 2		Rt= 25A		VDE 0660
KM 3		AC3 220V 2.2kw		BS 5424 - 1
		380V 4.0kw		JIS 8325
FR	Over - Load	4.5~6.5A		IEC 292
	(Relays)	4.5A		VDE 0660
	The second secon	Ui = AC 600 v		
		Ith=10A		
KA1	Contactors - Relay	Coil= AC 24V 2C (ab)		
KA2		AC 250V 5A 1.2VA		
		DC 125V 5A 0.9W		
TC	Transformer	AC/Input Hi= 380V		
3.03		Output Hi= 220V		
ТВ	Casset Terminal - Block	Lo=24V		
SQ1		AC 600V MAX. 15A		
	Safe-Door Limit-Switch	AC 15.2A MAX. 400V		
SQ2		1NO+1NC		
002	Cut-Limit Switch			
SQ3		AC 125V 10A		UL E100182
SQ4	Up-Stop Limit-Switch	AC 125V 10A		UL E100182
SQ5	Motor-Stop Limit-Switch	250V 10A		
	(UP - Start)	DC 115V 4A		
PL1	Piolt - Lamps AC Power Lamp	AC 24V 1.5W		IEC 144
PL2		22 ¢		
SB1	Emergency - Stop	AC 250V 10A MAX.600V		
SB2	Main-Motor Stop	380V 7.5V		
SB3	Main - Motor Start	22φ 1NO+1NC		11 03
SB4	Down-Push -Botton	22 4 1110 1 1110		
SB5	UP - Push - Botton	2NO+2NC	-	
SA1	Pump - Switch	AC 250V 10A MAX.600V		IEC 144
J/ 1.2	1 strip owiton	130 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		380V 7.5A		12 00
LINE	Control - Line	22 φ 1NO+1NC		010 670
LINE	Control-Line	0.75m ² MAX. 300V		
		(30/0.18) -7A		JIS C3307
		Ambient Temp		
CARLE	DVO O-11 MI	(35°C~60°C)		IEC 408 IP 54 CSA. C22. 2 NO. 59. 2 CSA. C22. 2 NO. 59. 2 CSA. C22. 2 NO. 59. 2 IEC 158 - 1 VDE 0660 BS 5424 - 1 JIS 8325 IEC 292 VDE 0660 JIS 8325 BS 5424 - 1 IEC 292 UL CSA IEC 76 - 5 EN 60742 IEC IP - 2 UL E121562 IEC 947 - 5 - 1 EN 60947 - 5 - 1 IP 67 UL E100182
CABLE	PVC Cable - Wire	1.0m ² * 4C 10A		
		Ambient Temp	1	
		(35°C~60°C)		
2.20		MAX. 600V		
M 1	Main - Motor	AC 380V 3~		
		2 HP 1.5KW 4.5A		
		1420 rpm		
M 2	Coolant - Pump	AC 380V 3~		
	Andrewsking Specialists of the State	1/8 HP 0.1KW 0.22A		
		2850 rpm		
M 3	Oil - Pump	AC 380V 3~		
5	Sa Tump			
		1/4 HP 0.2KW 0.44A 1420 rpm		
		1.71.71.1 199.00		



Layout of operating switches panel PANEL MODEL: UE-918SSA



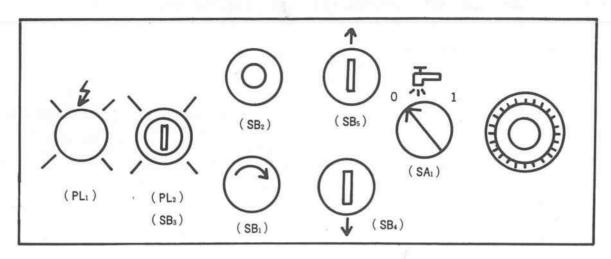
Layout of electric Control Box.

SINGLE PHASE

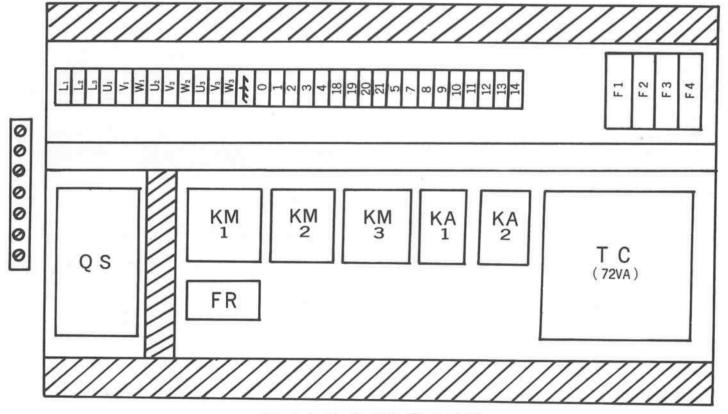
Refer to the electrical (schematic) drawing inside the electrical box and above for proper motor and transformer connections, heater selection and wiring connections from the motor to the power source for the voltage you are using. Important: Immediately after wiring the machine, remove the drie belt, turn on the power and make sure the motor is running in the right direction (counter-clockwise when looking at the motor shaft.) If it is not, disconnect the machine from the power source and interchange motor leads T5 and T8.

THREE PHASE

Refer to the electrical (schematic) drawing inside the electrical box and above for proper motor and transformer connections, heater selection and wiring connections from the motor to the power source for the voltage you are using. Important: Immediately after wiring the machine, remove the drive belt, turn on the power and make sure the motor is running in the right direction (counter-clockwise when looking at the motor shaft.) If it is not, disconnect the machine from the power source and interchange any two lead lines.



Layout of operating switches panel PANEL MODEL: UE-918SSA



Layout of electric Control Box.

SINGLE PHASE

Refer to the electrical (schematic) drawing inside the electrical box and above for proper motor and transformer connections, heater selection and wiring connections from the motor to the power source for the voltage you are using. Important: Immediately after wiring the machine, remove the dri e belt, turn on the power and make sure the motor is running in the right direction (counter-clockwise when looking at the motor shaft.) If it is not, disconnect the machine from the power source and interchange motor leads T5 and T8.

THREE PHASE

Refer to the electrical (schematic) drawing inside the electrical box and above for proper motor and transformer connections, heater selection and wiring connections from the motor to the power source for the voltage you are using. Important: Immediately after wiring the machine, remove the drive belt, turn on the power and make sure the motor is running in the right direction (counter-clockwise when looking at the motor shaft.) If it is not, disconnect the machine from the power source and interchange any two lead lines.

General Operating Instructions

REMOVING AND INSTALLING THE BLADE

When your machine was shipped, a blade was supplied and assembled to the saw. When selecting a new blade refer to page 2 or 3 for information on SAW BLADE SELECTION. The machine requires a blade 1" \times 1313/4" (27MM \times 3345MM) 10mg

- 1. Disconnect the machine from the power source.
- 2. Raise the saw frame about 6" and close the feed control valve by turning it clock wise as far as it will go. (Do Not Overtighten.)
- Open both wheel covers and clean the chips out of the machine.
- 4. Release blade tension by turning the blade tension handwheel (C) Fig. 4 counter clockwise.
- Slide left blade guide arm to the right as far as possible.
- 6. Remove the blade from both wheels and out of each blade guide.
- Make sure the teeth of the new blade are pointing in the direction of travel. If necessary, turn the blade inside out.
- 8. Place the blade in place on the wheels (A) and through the upper blade guard. (B) Fig. 4.
- Work the blade all the way up between the blade guide bearings with the back of the blade against the back-up bearing, as shown in Fig. 5.
 NOTE: If bearings need adjustment, refer to the section ADJUSTING BLADE GUIDE ROLLER BEARINGS.
- 10. Put light tension on the blade and work it on both wheels, as shown in Fig. 6. MAKE SURE THAT THE BACK OF THE BLADE IS AGAINST THE WHEEL FLANGES OF BOTH WHEELS. THIS IS VERY IMPORTANT.
- 11. When you are sure the back of the blade is against the wheel flanges of both wheels and properly inserted into the guides, finish putting tension on the blade.
 - Proper tension is achieved when the pointer is on the left mark of the blade tension scale behind the idler wheel.
- 12. Jog the power "on" and "off" to be sure the blade is in place and tracking properly. If blade is not tracking properly refer to the section TRACKING THE BLADE.

STARTING AND STOPPING THE MACHINE

The saw frame must be in the raised position before starting the machine. The machine is started by pushing the start button (A) Fig. 7, and will continue to run until the saw frame is in the down position at the end of the cut, or when the stop button (B) is pushed. Pushing the stop button (B) will stop the motor at any time.

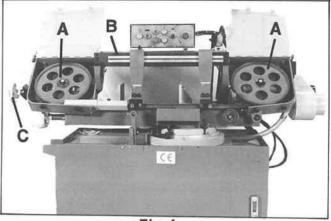


Fig 4

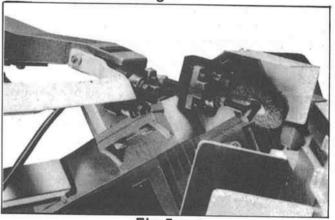


Fig 5

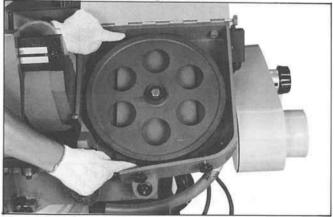


Fig 6



Fig 7

BLADE TRACKING ADJUSTMENT

The blade is tracking properly when the back of the blade is against the wheel flanges of both wheels. If the back of the blade is not against the wheel flanges, tighten or loosen screw (A) Fig. 8, until the blade is tracking properly.

ADJUSTING FEED RATE

When the feed control valve (A) Fig. 9 is turned clockwise as far as it will go, the saw frame will not move down. By turning the feed control vale counter - clock wise, you regulate the flow of oil from the cylinder and determine 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 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 begin made will indicate whether the feed rate is correct. Fine powdery chips indicate a feed rate which is too light. The teeth are rubbing over the surface instead of cutting Burned chips indicate 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 BLADE GUIDE BRACKETS

The blade guides should be set as close to the vise jaws as possible. The right blade guide bracket (A) Fig. 10 is not adjustable and is set at the factory to clear the right hand vise jaw. The left blade guide bracket can be moved to the left or right depending on the position of the left hand vise jaw. To move the left blade guide bracket, loosen the hand knob (B), position blade guide bracket and tighten hand knob (B).

ADJUSTING BLADE GUIDE BALL BEARINGS

The back of the blade Fig. 11, should ride against the back- up support bearing which is positioned at an angle so as to provide greater bearing support, eliminating bearing wear and extending blade life. The saw blade should also ride between the two roller bearings (A) and (B) Fig. 11. The rear bearing (B) on the left hand blade guide can be easily adjusted to suit blade thickness by loosening screw (C). The bearing (B) is on an eccentric which enables it to be adjusted for the thickness of the blade. The roller bearings on the right blade guide bracket are adjusted for blade thickness in the same manner with the exception that the adjustable bearing is in the forward position. Clearance between blade and rollers should be no more than. 001".

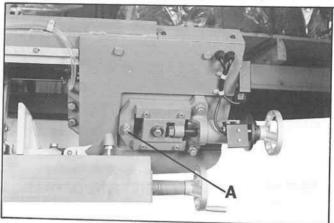


Fig 8



Fig 9

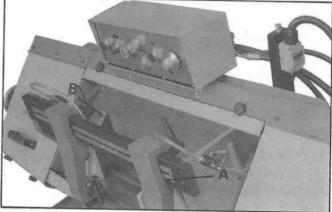


Fig 10

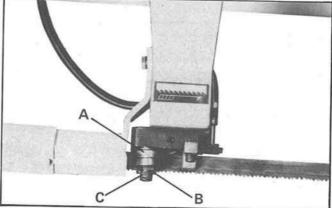


Fig 11

OPERATING VISE

DESIRE TO MOVING VISE, YOU MUST PULL (A). THE FIXING PANEL OF RACK GEAR BY HAND. IT MAY ARRIVE TO DESIRED POSITION QUICKLY. THEN TURNING (B) HANDWHEEL TO CLOSE WORKING PIECE TIGHTLY.

IF YOU WILL CUT BIG SIZE'S BLOCK PLEASE MOVE FIXING VISE TO (D), THEN TIGHT IT.

SETTING UP THE MACHINE FOR OPERATION

- Select the proper speed and blade for the type o' material you are cutting.
- 2. Make sure blade tension is adjusted properly.
- Lift the saw frame up and close the feed control valve.
- Place the stock between the vise jaws, set the stock for the desired width of cut and tighten the vise.
- Make sure the left blade guide bracket (A) is adjusted as close as possible to the left vise jaw (B) Fig. 13.
- Turn the feed control valve (C) Fig. 13, counterclockwise until the saw blade begins to lower the desired rate of speed.
- Proceed to cut through the workpiece, as shown in Fig. 13. The machine will shut off upon completion of cut.

ADJUSTING THE VARIABLE SPEED

TO ADJUST THE CUTTING SPEED, PLEASE REFER TO FIG. 14 (B) IS THE SPEEDS' DIRECTOR (FORM 25M-75M). AND TURNING (A) HANDLE KNOB TO YOUR DESIRED SPEED. (NOTE: ADJUSTMENT MUST BE DONE DURING THE MACHINE RUNNING.)

GEAR BOX

AFTER THE FIRST 3 MONTHE OF USE THE GEAR BOX SHOULD BE DRAINED AND REFILLED. THEN, CHANGING THE OIL ONCE A YEAR. REFER TO FIG. 15, (A) IS OIL GAUGE, (B) IS OIL INLET.

THE DRAINED PLUG IS AT THE BOTTOM OF GEAR BOX. SUGGEST OIL NUMBERIS MOBIL 634.
AND REFILLIT BY 3/4 FULL.

ABOVE SUGGESTIONS ARE MAKING FOR THE GEAR'S DURABLE.

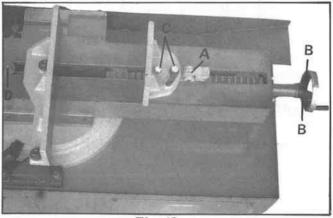


Fig 12

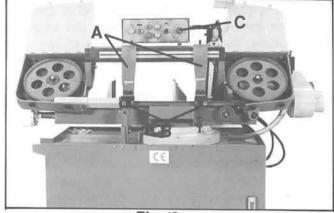


Fig 13

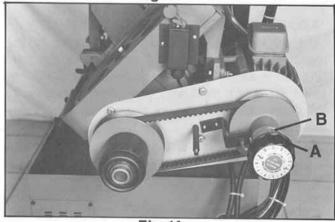


Fig 14

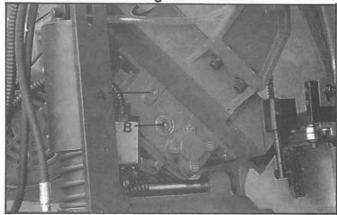


Fig 15

HYDRAULIC SYSTEM

IT IS SIMPLE STRUCTURE OF HYBRAULIC SYSTEM. THE BLADE ARM WILL BE NOT GOING DOWN IF (A) MAGNETIC VALVE HAVING THE SEDIMENT. SO YOU MUST OPEN (A) TO CLEAN THE SEDIMENT AWAY FROM THE FILTERING NET.

(B) IS OIL GAUGE, (C) IS OIL INLET. THE OIL NUMBER IS MOBIL 1405 OR HYDRAN LG10. (MODEL: UE-918SSA)

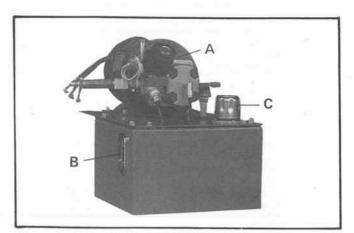


Fig 16

BLADE ARM UP-DOWN ADJUSTEMENT

ACCORDING TO THE WORKING PIECE'S SIZE TO ADJUST (B) MICRO SWITCH.

THE PROCESS IS FOLLOWING: FIRSTLY, TO RISE THE ARM TO YOUR DESIRED POSITION BY HAND TO PUSH BUTTON "UP" THEN LOOSE (A) SET SCREW, AND MOVE (B) MICRO SWITCH TO THE FIXED POINT. FINALLY RESET (A).

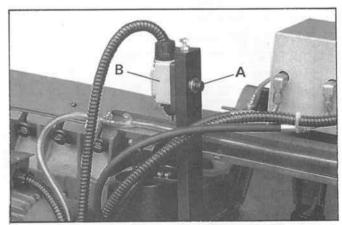


Fig 17

CUTTING ANGLES ADJUSTMENT

TO LOOSE THE HANDLE KNOBS WHITCH ARE PLACED ON BO H SIDE OF DISC. AND TURN (B) ANGLE GAUGE TO THE DESIRED POSITION (0-45).

THENLOCK (A) HANDLEKNOB.

(C): IT MAY MOVE FORWARDS OR BACKWARDS BY WORKING PIECE'S SIZE. AFTER ADJUSTING THE ANGLE ALREADY FOR FIXING VISE, IT SHOULD LOOSE (D)SCREW TO LET THE ADJUSTING VISE TO BE PALLET WITH FIXING VISE.

THE RESET (D). IT IS IN ORDER TO CUT EXACTLY. VISE ADJUSTMENT.

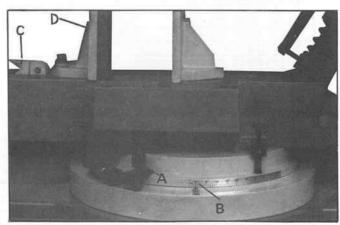


Fig 18

PART LIST

PART LIST								
Part No.	Description	Size No.	Q'ty	Part No.	Description	Size No.	Q'ty	
1	Base		1 -	48	C" Snap Ring	S-20	1	
1-1	Washer		2	49	C" Snap Ring	S0-25	2	
1-2	Spring Washer		2	50	Cotter Pin		1	
1-3	Hex. Cap Bolt		2	51	Hydraulic Cylinder Assembly		1	
2	Screw	M12x65	4	52	Cylinder Pin-Top		1	
3	Nut	M12	4	53	Hydraulic Mounting Plate-Top		1	
4	Coolant Pump		1	54	Screw	M12x50	3	
4-1	Coolant Pump Bracket		1	55 -	Spring Washer	M12	3	
4-2	Hex. Cap Bolt	M6x16	2	56	Washer	M12	3	
4-3	Spring Washer	M6	2	57	Hex. Cap Bolt	M6x12	2	
4-4	Washer	M6	2	58	Spring Washer	M6	2	
5	Screw	M16x15	2	58-1	Washer	M6	2	
6	Spring Washer	M16	2	59	Metal Sheet Small	- 71	2	
7	Fixed shaft of vise		1	60	Spring		1	
8	Pump Connection Head		1	61	Angle Scale	1	1	
9	Oil Gauge		1	61-1	Round Head Screw		2	
10	Screw	M10x30	2	62	Screw	M12x35	2	
11	Washer	M10	2	63	Spring Washer	M12	2	
12	Nut	M10	2	63-1	Washer	M12	1	
13	Adjustable Handle		2	64	Vise Jaw-Left	7	1	
14	Fixed Block for Disc		2	64-1	Auxiliary Plate		1	
15	Spring		2	64-2	Hex. Soc. Screw	M10x25	2	
16	Work Stop Bracket		1	65	Hex. Head Screw	M12x40	1	
17	Work Stop Bracket Work Stop Rod		1	66	Spring Washer	M12	1	
18	Handle		1	66-1	Washer	M12	1	
19	Handle Bolt		1	66-2	Washer	10112	1	
20	Handle		1	67	Vise Jaw-Right		1	
21	Hand Wheel Assembly		1	68	Active Washer		1	
22	Lead Screw Seat		1	69	Screw	M16x8	4	
10.00	Screw Seat	M8x30	2	70	Electric Cabinet Box	WITOAG	-1	
23	Vise Lead Screw	IVIOXOU	1	70-1	Knob		1	
24	Lead Screw Bracket		1	71	Fuse		1	
25	Nut Block		1	72	Magnetic Switch	+	1	
26				72-1	Relay	-	2	
27	Rack Block	M6x10	1	73	Transformer		1	
28	Screw	MOXIU	1	74	Terminal Strip		1	
29	Fixed Pin	UV05 22 46	2	75	Handle	1	2	
30	Needle Bearing	HK25 32 16	1	76	Screw	M6x15	4	
30-1	Bushing			76-1	And the state of t	M6	4	
31	Torsion Spring		1	0.852/2	Spring Washer Screw	M6x12	2	
32	Pivot Shaft		1	77	1364 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	M6	2	
33	Pivot Bracket		1	77-1	Spring Washer		2	
34	Rack		1	77-2	Washer	M6		
35	Spring Cover	1440	1	78	Wire Brush Guard	1400	1	
36	Washer	M12	2	79	Screw	M6x8	6	
37	Torsion Spring Shaft		1	80	Blade Wheel Cover-Right	-	1	
38	Ring	S-22	1	82	Bushing		1	
39	Screw	M12x20	2	83	Washer		1	
40	Mouth of Grease		2	83-1	Hex. Cap Bolt	-	1	
41	Limit Switch Plate		1	84	Drive Wheel	-	1	
42	Washer	M8	2	85	Blade	-	1	
42-1	Spring Washer	M8	2	86	Connection Tube		1	
43	Screw	M8x20	2	86-1	Hose Clamp	14MM	4	
44	Hex. Cap Bolt	M6x12	4	86-2	Hose		1	
45	Limit Switch		1	86-3	Hose		1	
46	Nut	M6	4	86-4	Hose		1	
47	Cylinder Pin	6 6	1	87	Screw	M5x10	93022	

930223

PART LIST

Part No.	Description	Size No.	Q'ty	Part No.	Description	Size No.	Q'ty
88	Filter Screen		1	127	Eccentric Sleeve		2
89	Screw	M12x35	4	127-1	Centric Sleeve		2
89-1	Spring Washer	7	4	128	Spring Washer	M8	4
90	Knob		4	129	Screw	M8x45	4
92	Blade Wheel Box-Right		1	130	Screw	M6x30	4
92-1	Set Screw		1	130-1	Spring Washer	M6	4
93	Connector		1	130-2	Washer	M6	8
93-1	Hose		1	131	Tungsten Carbide blade Guide	-	4
93-2	Connector		* 1	132	Screw	M8x40	4
93-3	Hose		1	133	Spring Washer	M8	4
94	Gear Box Assembly		1	133-1	Washer	M8	4
94-1	Key		1	134	Adjustable Bracket Mount-Front		1
95	Key	7mm	1	135	Angle Scale		- 1
96	Pulley Cover	101.000000	1	135-1	Round Head Screw	0	4
96-1	Pulley Cover Plate		1	136	Screw	M10x25	2
96-2	Knob	3/8"	1	137	Steel	77.707.00	1
96-3	Washer	M10	2	138	Blade Bracket-Left		1
96-4	Support Shaft		1	139	Screw	M12x30	4
96-5	Support Shart		1	140	Screw	M8x25	4
96-6	Spring Washer		1	140-1	Spring Washer	M8	4
96-7	Nut	5/16"	1	141	Adjustable Handle	1410	2
							2
96-8	Hex. Cap Bolt	M6x12	2	142	Stationary Plate	M8x10	4
96-9	Spring Washer	M6	2	143	Screw	M8X10	_
96-10	Washer	M6	2	144	Blade Bracket-Right	1440 40	1
96-11	Washer	M8	3	145	Screw	M16x12	1
96-12	Spring Washer	M8	3	145-1	Spring Washer	M16	1
96-13	Hex. Cap Bolt	M8x20	3	146	Washer	M16	1
97	Gear Box Pulley		1	147	Wire Brush		1
98	Belt	1422V360	1	148	Wire Brush Rod		1
99	Variable Speed Adjustable		1	149	Hex. Cap Bolt		1
100	Pin		2	149-1	Spring Washer		-1
101	Adjustable Bracket Mount-Rear	V	1	149-2	Washer		1
102	General Switch		1	150	Set Screw	M6x10	1
103	Guide Bracket-Right		1	151	Spring		1
105	Column		1	152	Nut	M10	1
106	Screw	M12x20	6	153	Screw	M8x35	1
108	Screw	M8x45	4	154	Wire Brush Bracket		1
109	Washer	M8	4	155	Nut	M12	1
111	Motor		1	155-1	Hex. Cap Bolt		4
112	Spring Washer	M8	4	155-2	Spring Washer		4
112-1	Washer	M8	4	155-3	Washer		4
113	Nut	M8	4	156	Screw	M12x55	1
114	Key	7mm	1	157	Blade Guide	M. Zao	1
115	Washer	7111111	1	157-1	Blade Guide-Down		1
116			2	157-1	Washer	1 40	2
-	Screw Riada Whael Cover Left		-				2
117	Blade Wheel Cover-Left	60077	1	157-3	Spring Washer		2
118	Bearing	608ZZ	2	157-4	Hex. Cap Bolt		2
118-1	Washer	M40 00	2	158	Knob		_
119	Screw	M12x20	2	159	Hose		1
120	Washer	M12	2	160	Adjusting Valve	10.3	2
121	Bearing	6205Z	3	160-1	Hose	2)	1
122	Idler Wheel		1	160-2	Hose Clamp		2
123	Blade Guard		1	160-3	Brace		2
123-1	Hex. Cap Bolt		1	160-4	Spring Washer		4
123-2	Washer		1	160-5	Hex. Cap Bolt		4
124	Guide Bracket-Left		1	161	Electric Lamp		1
124-1	Set Screw		6	162	Start Switch		1
125	Washer	M8	4	163	Stop Switch		1
	Bearing	6201LBZZ	8	163-1	Emergency Stop Switch		1

PART LIST

	PART LIST								
Part No.	Description	Size No.	Q'ty	Part No.	Description	Size No.	Q'ty		
164	Down Switch		1	210	Screw	M6x20	3		
165	Up Switch		1	211	Spring Washer	M6	3		
166	Pump Switch		1	212	Washer	M6	3		
167	Relief Valve		1	213	Rod Frame of Length		1		
168	Control Box		1	214	Hex. Head Screw	M10x20	1		
168-1	Screw		2	215	Hex. Head Screw	M10x35	2		
168-2	Spring Washer		2	216	Spring Washer	M10	2		
168-3	Washer		2	217	Washer	M10	2		
169	Control Panel		1	218	Triangle Block-Left		1		
170	Screw	M5x8	8	219	Base Block of Fixed Vise-Left		1		
171	Wheel Box-Left		1	220	Hex. Cap Bolt	M12x35	2		
171-1	Lock Plate		1	220-1	Spring Washer		2		
171-2	Spring Washer		2	220-2	Washer		2		
171-3	Hex. Cap Bolt		2	222	Hex. Cap Bolt	M12x35	2		
172	Screw	M12x20	1	223	Upper of Disc		1		
173	Screw	M16x35	3	224	Spring Washer	M12	6		
174	Screw	M10x50	3	225	Hex. Cap Bolt	M12x35	6		
174-1	Spring Washer	M10	3	226	Low Base of Disc		1		
175	Screw	M5x10	2	226-1	Set Screw	M12x20	4		
176	Scale		1	228	Washer	M12	2		
177	Slide		1	229	Hex. Cap Bolt	M12x35	2		
178	Tension Shaft		1	229-1	Spring Washer	M12	1		
179	Key	5mm	1	230	Hex. Cap Bolt	M8x30	2		
180	Hand Wheel		1	231	Fixed Block (0 *-45 *)	- Moxes	2		
181	Special Spring Washer		13	232	Hex. Cap Bolt	M8x30	2		
182	Flat Steel Washer		1	232-1	Spring Washer	M8	2		
183	Tension Indicator		1	232-2	Washer	M8	2		
184	Bearing	51104NJk	1	233	Hex. Cap Bolt	M12x50	4		
185	Eccentric	0110414010	2	234	Spring Washer	M12	4		
186	Screw		4	235	Hex. Cap Bolt	M8x30	2		
187	Slide Bracket		1	236	Nut	M8	2		
188	Set Screw	5/16x3/8	1	237	Adjustable Rod (0 *-45 *)	IVIO	1		
189	Extension Bar	3/10/3/0	1	238	Screw	Mevio	2		
189-1	Stop Flange			239	Bed	M6x12	_		
189-2	Set Screw		1	239-1	Nut		1		
190	Blade Wheel Bracket Shaft		1	239-1	100 C-500	-			
191	Nut	M16		240	Hex. Cap Bolt Cushion	!	1		
191-1	Set Screw	IVITO	1	241		M6	1		
192	Screw	Movoe		7.5-22.007	Spring Washer	Ulcarren .	1		
193	Gib	M8x25	4	242 243	Screw	M6x25	1		
194	Limit Switch		2		Screw	M8x30	2		
195	Limit Switch		2	244	Spring Washer	M8	2		
195-1			1	245	Washer	M8	2		
195-1	Round Head Screw Washer		1	252	Hex. Head Screw	M12x40	1		
	Rubber Cover		1	253	Spring Washer	M12	1		
195-3			1	254	Washer	M12	1		
196	Limit Switch Guard	110 10	1	255	Spring Washer	M10	2		
197	Screw Spring Weeker	M6x12	2	256	Screw	M10x30	2		
197-1	Spring Washer	M6	2	257	Hydraulic Pump Set		1		
197-2	Washer	M6	2	258	Door		1		
200	Cleaning Lid	140.0	1	259	Mouth of Grease		2		
201	Screw Water Plus	M6x8	4	260	Hex. Soc. Screw		2		
202	Water Plug		1	261	Spring Washer		2		
203	Cleaning Lid	140 0	1	262	Knob Screw		1		
204	Screw	M6x8	4	263	Stop Lock		1		
205	Stretching Plate of Length		1	264	Spring		1		
206	Hex. Cap Bolt	M12x30	1	265	Shaft		1		
207	Spring Washer	M12	1	266	Spring Pin		1		
208	Washer	M12	1	267	Chip Grate		1		

