



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.

**Sip**  
SIP INDUSTRIAL

**machinery specialists since 1968**

## 8" Swivel Metal Cutting Bandsaw



01593

**FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR,  
OR SIP DIRECTLY ON:  
TEL: 01509500400  
EMAIL: [sales@sip-group.com](mailto:sales@sip-group.com) or [technical@sip-group.com](mailto:technical@sip-group.com)  
[www.sip-group.com](http://www.sip-group.com)**

Ref: 170713

**Please read and fully understand the instructions in this manual before operation. Keep this manual safe for future reference.**

# DECLARATION OF CONFORMITY

## Declaration of Conformity

We

SIP (Industrial Products) Ltd  
Gelders Hall Road  
Shepshed  
Loughborough  
Leicestershire  
LE12 9NH  
England

As the manufacturer's authorised representative within the EC  
declare that the


8" Swivel Metal Cutting Bandsaw 1ph - SIP Pt. No. 01593

**Conforms to the requirements of the following directive(s), as indicated.**

2006/95/EC	Low Voltage Directive
2004/108/EC	EMC Directive
2002/95/EC	RoHS Directive

**And the following harmonised standard(s)**

EN 55014-1:2006  
EN 55014-2:1997+A1:2001  
EN 61000-3-2:2006  
EN 61000-3-3:1995+A1:2001+A2:2005  
EN 60335-1:2002+A11:2004+A12:2006+A2:2006+A13:2008+A14:2010  
EN 60335-2-30:2009  
EN 62233:2008

Signed:  .....

Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd  
Date: 06/05/2014.



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## SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



**Danger / Caution:** Indicates risk of personal injury and/or the possibility of damage.



**Warning:** Risk of electrical injury or damage!



**Note:** Supplementary information.

## SAFETY INSTRUCTIONS



**IMPORTANT:** Please read the following instructions carefully, **failure to do so could lead to serious personal injury and / or damage to the bandsaw.**

When using your bandsaw, basic safety precautions should always be followed to reduce the risk of personal injury and / or damage to the bandsaw.

Read all of these instructions before operating the bandsaw and save this user manual for future reference.

The bandsaw should not be modified or used for any application other than that for which it was designed.

Do not use this bandsaw for anything other than its intended purpose; this bandsaw is designed for metal cutting work in engineering workshops, garages, metal fabricators, etc.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

Before operating the bandsaw always check no parts are broken, and that no parts are missing.

Always operate the bandsaw safely and correctly.

**KNOW YOUR BANDSAW:** Read and understand the owner's manual and labels affixed to the bandsaw. Learn its applications and limitations, as well as the potential hazards specific to it.

**KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA:** All visitors should be kept at a safe distance from the work area; never allow untrained persons to operate the bandsaw.

**STAY ALERT:** Always watch what you are doing and use common sense.

**NEVER LEAVE THE BANDSAW UNATTENDED:** When in use, or connected to the mains

## NOTES

supply.

**KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered work areas and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.

**HAVE YOUR BANDSAW REPAIRED BY A QUALIFIED PERSON:** The bandsaw is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user and void the warranty.

**DANGER!** Check that the bandsaw is in sound condition and good working order before each use; Take immediate action to repair or replace faulty / damaged parts.

**WARNING!** Only operate on a level and stable surface.

**WARNING!** RISK OF ELECTRIC SHOCK. Do not expose the bandsaw to water spray, rain, dripping water or moisture of any kind.

**PROTECT YOURSELF FROM ELECTRIC SHOCK:** When working with power tools, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). It is advisable wherever possible to use an RCD (residual current device) at the supply socket.

**DO NOT ABUSE THE MAINS LEAD:** Never pull the mains lead to remove the plug from the mains socket, or to move the bandsaw from place to place. Keep the mains lead away from heat, oil and sharp edges. If the mains lead is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid unwanted hazards.

**ALWAYS** check that the belt guard and blade guards are in place, adjusted correctly, undamaged and firmly attached.

**NEVER STAND ON THE BANDSAW:** The bandsaw is not designed for this purpose.

**DO NOT** dismantle, tamper with or modify the bandsaw, as this may be dangerous and will invalidate the warranty.

**SECURE THE WORK-PIECE:** Use the vice to hold the work-piece; this frees up both hands to operate the saw.

**REMOVE ADJUSTING KEYS AND WRENCHES:** Form a habit of checking to see that keys and adjusting tools are removed from the bandsaw before every use.

- If a problem with the bandsaw is experienced or suspected stop using the bandsaw *Immediately* and contact your distributor for repair.
- Regularly inspect the bandsaw, ensuring that it is in good working order and condition.
- Always ensure that the work area is clean, tidy and free from unrelated materials.
- Operate away from flammable objects, materials & surfaces.
- Use in a location where accidental contact (particularly by children) is unlikely.
- Ensure on/off switches are switched to off position (0) before connecting the mains lead to the power supply.
- Keep the work area clean and clear of possible tripping hazards.
- Keep children and unauthorised persons away from the bandsaw, as it has a sharp blade!
- Disconnect from the mains before moving or attempting any cleaning or maintenance.

## SAFETY INSTRUCTIONS....cont

nance.

- Keep hands and all other body parts away from the blade.
- Turn the bandsaw off and disconnect it from the mains supply when moving from one location to another.
- Never operate the bandsaw without all guards in place.
- **DO NOT** get the bandsaw wet or use in damp or wet locations or areas where there is condensation.
- **DO NOT** move the bandsaw whilst in operation.
- **DO NOT** remove the blade guard or belt guard whilst the bandsaw is switched on.
- **DO NOT** allow unqualified persons to disassemble the bandsaw for any reason, the bandsaw must be checked and adjusted etc. by qualified personnel only.
- **DO NOT** use the bandsaw without the blade guard and belt guard closed, as this could lead to personal injury to you or others!
- **ALWAYS** ensure a blown fuse is replaced with the correct fuse type and rating.
- **DO NOT** place any objects on the safety guard or on the covers at any time.
- When not in use, store the bandsaw carefully in a safe, dry, childproof location.
- **NEVER** cover the bandsaw during operation or whilst it cools after operation.
- Be aware of moving parts that occur during normal operation of this bandsaw.
- **NEVER** operate the bandsaw with damaged, broken or missing parts, or with any guards or covers removed.
- **DO NOT** operate the bandsaw or any electrical items with wet hands.
- Keep the floor around the machine clean and free of scrap material, oil and grease etc.
- **ALWAYS** keep the machine guards in place at all times when the machine is in operation, if removed for maintenance, use extreme caution, always refit the guards immediately after any maintenance.
- **DO NOT** over reach, always maintain a balanced stance so that you do not fall or lean into any moving parts.
- Keep all visitors at a safe distance.
- **ALWAYS** keep hands and fingers away from the blade when in operation.
- **ALWAYS** use the vice to secure your material, never cut any material without using the vice; this is extremely dangerous!
- **ALWAYS** have the belt guard closed at all times when the machine is in operation, failure to do this can lead to personal injury.
- **ALWAYS** use adequate roller stands for supporting longer and heavier materials.
- **ALWAYS** use the correct blade, using the correct tpi blade for cutting the material will make your job easier, and the blade last longer, using the wrong tpi blade will make a rough cut and will decrease the life of the blade.
- **NEVER** force the blade through the material, this will decrease the life of the blade.
- **ALWAYS** keep the bandsaw as clean as possible and keep blades sharp for best and safest performance.
- **WARNING!** round bar and tubing have a tendency to roll whilst being cut and can

## PARTS LIST....cont

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
275.	Wave washer M16	WK04-00340	303.	Washer M8	WK04-00014
276.	Washer M16	WK04-00061	304.	Wave washer M8	WK04-00359
277.	Rotating sleeve cap	WK04-00341	305.	Bolt M8x25	WK04-00137
278.	Rotating arm	WK04-00342	306.	Bottom shelf	WK04-00360
279.	Spring	WK04-00343	307.	Nut M8	WK04-00015
280.	Bolt	WK04-00344	308.	Washer	WK04-00361
281.	Nut M10	WK04-00052	309.	Bolt M8x16	WK04-00013
282.	Bolt support	WK04-00345	310.	Wheel	WK04-00006
283.	Bolt M8x20	WK04-00068	311.	Axle	WK04-00362
284.	Lever lock	WK04-00346	312.	Pin 3x25	WK04-00007
285.	Lever lock washer	WK04-00347	313.	Bolt M8x16	WK04-00013
286.	Scale	WK04-00348	314.	Washer M8	WK04-00014
287.	Bolt M10x40	WK04-00056	315.	Shaft for hyd. cylinder	WK04-00064
288.	Nut M10	WK04-00052	316.	Nut M12	WK04-00173
289.	Bolt M6x25	WK04-00349	317.	Bolt M12x60	WK04-00364
290.	Seat	WK04-00350	318.	Coolant tray	WK04-00365
291.	Rotating arm plate	WK04-00351	319.	Bolt M6x12	WK04-00038
292.	Bolt M8x25	WK04-00137	320.	Washer M6	WK04-00011
293.	Disc	WK04-00352	321.	Sleeve	WK04-00366
294.	Upper shelf	WK04-00353	322.	Cut off stop	WK04-00367
295.	Block	WK04-00354	323.	Cut off stop shaft	WK04-00368
296.	Nut M8	WK04-00015	N/A.	QF1 Breaker	WK04-00146
297.	Bolt M8x40	WK04-00132	N/A.	QF2 Breaker	WK04-00148
298.	Fixed seat shaft	WK04-00355	N/A.	QF3 Breaker	WK04-00149
299.	Fixed seat	WK04-00356	N/A.	Contactora CN6	WK04-00150
300.	Bolt M8x25	WK04-00137	N/A.	Thermal relay 5.5-8.5A	WK04-00151
301.	Washer M8	WK04-00014	N/A.	Transformer	WK04-00153
302.	Base	WK04-00357	N/A.	Blade guard microswitch	WK04-00154
302.1.	Base	WK04-00358			

## PARTS LIST....cont

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
181.	Motor plate holder	WK04-00131	246.	Bolt M8x30	WK04-00018
182.	Bolt M8x40	WK04-00132	247.	Washer M8	WK04-00014
183.	Washer M8	WK04-00014	248.	Bearing 51101	WK04-00320
184.	Washer M8	WK04-00014	249.	Bearing cover	WK04-00321
185.	Bolt M8x20	WK04-00068	250.	Spring	WK04-00322
186.	Bolt M8x50	WK04-00133	251.	Vice handle	WK04-00323
187.	Nut M8	WK04-00015	252.	Handle knob	WK04-00324
188.	Motor plate	WK04-00134	253.	Lead screw	WK04-00325
189.	Motor	WK04-00135	254.	Acme nut	WK04-00326
190.	Bolt M8x25	WK04-00137	255.	Vice bed	WK04-00327
191.	Washer M8	WK04-00014	256.	Moving vice jaw	WK04-00328
192.	Nut M8	WK04-00015	257.	Washer M10	WK04-00046
193.	Motor key	WK04-00138	258.	Lever lock	WK04-00329
194.	Belt guard screw	WK04-00139	259.	Bolt M10x35	WK04-00045
195.	Belt guard	WK04-00140	260.	Fixed vice jaw	WK04-00330
196.	Pulley screw M8x10	WK04-00141	261.	Washer M8	WK04-00014
197.	Worm pulley	WK04-00142	262.	Bolt M8x30	WK04-00018
198.	Pulley screw M8x10	WK04-00141	263.	Bolt M10x30	WK04-00331
199.	Motor pulley	WK04-00143	264.	Washer M10	WK04-00046
200.	Belt	WK04-00144	265.	Bolt M8x16	WK04-00013
201.	Washer M6	WK04-00011	266.	Key 8x100	WK04-00332
202.	Bolt M6x12	WK04-00038	267.	Bolt M8x25	WK04-00137
239.	Handle	WK04-00315	268.	Roller	WK04-00333
240.	Nut M10	WK04-00052	269.	Rotating disc	WK04-00334
241.	Handle bracket	WK04-00316	270.	Bolt M16x65	WK04-00335
242.	Bolt M6x12	WK04-00038	271.	Bolt M12x16	WK04-00336
243.	Pin 5x25	WK04-00317	272.	Spring	WK04-00337
244.	Speed fix block	WK04-00318	273.	Shaft	WK04-00338
245.	Speed moving block	WK04-00319	274.	Rotating sleeve	WK04-00339

## SAFETY INSTRUCTIONS....cont

cause the blade to slip, **DO NOT** cut such items without clamping or blocking the material.

- **DO NOT** start the bandsaw until the material is secure and the blade has been lowered to just above the material.
- **NEVER** use damaged or deformed bandsaw blades.
- **ALWAYS** secure the material that is to be cut in the vice.
- **NEVER** use the bandsaw with the blade guard or wheel cover removed.
- **DO NOT** use whilst under the influence of drugs, alcohol or other intoxicating medication.
- **NEVER** start the bandsaw with the blade in contact with the work-piece.
- **ALWAYS** allow the bandsaw to reach full speed before commencing the cutting operation.
- **NEVER** use this bandsaw for any application other than that specified by the manufacturer.
- Never operate this bandsaw under conditions not approved by the manufacturer.
- Before using or servicing your bandsaw, read and understand all instructions. Failure to follow safety precautions or instructions can cause equipment damage and/or serious personal injury.
- **WEAR THE CORRECT CLOTHING.** Do not wear loose clothing, neckties, rings, bracelets, or other jewellery, which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves up above the elbow.
- If the bandsaw is used in a place of work all rules and laws etc. relating to the use of portable electrical appliances should be followed.
- Failure to follow the warnings in this manual, may result in personal injury and/or property damage.



When using the saw, particularly during extended periods; ensure the operator as well as those in the area wear ear protection.



When using the saw always ensure the operator as well as those in the area wear eye protection.



Some materials have the potential to be highly toxic; always wear a face mask when operating the saw.



**CAUTION:** The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.



## ELECTRICAL CONNECTION

**WARNING!** It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

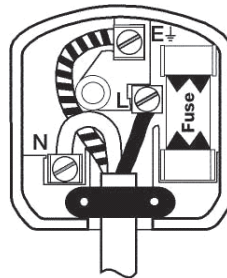
You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

### Connecting to the power supply:

This SIP bandsaw is fitted with a standard 230v ~ 13 amp type plug. Before using the bandsaw, inspect the mains lead and plug to ensure that neither are damaged. If any damage is visible have the bandsaw inspected / repaired by a suitably qualified person. If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

### The wires for the plug are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live



As the colours of the wires may not correspond with the markings in your plug, proceed as follows: The wire which is coloured blue, must be connected to the terminal marked with N or coloured black. The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red. The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked



Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.

## PARTS LIST...cont

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
126.1.	Washer M10	WK04-00046	152.	Gearbox housing	WK04-00110
127.	Pin	WK04-00088	152.1.	Bolt M8x16	WK04-00013
129.	Bearing 608ZZ	WK04-00090	153.	Bearing 6005ZZ	WK04-00111
130.	Fixed bearing shaft	WK04-00091	154.	Circlip	WK04-00112
131.	Eccentric bearing shaft	WK04-00092	155.	Oil seal 47x25x7	WK04-00113
132.	Bearing 608ZZ	WK04-00090	156.	Seal	WK04-00114
133.	Washer M8	WK04-00014	157.	Worm gear shaft	WK04-00115
134.	Bolt M5x12	WK04-00093	157.1.	Key 6x25	WK04-00116
135.	Front plate	WK04-00094	158.	Circlip	WK04-00117
136.	Bolt M8x30	WK04-00018	159.	Worm gear	WK04-00118
137.	Right guide holder	WK04-00095	160.	Gearbox cover gasket	WK04-00119
137.1.	Left guide holder	WK04-00096	161.	Gearbox cover	WK04-00120
138.	Right guide bracket	WK04-00097	162.	Washer M6	WK04-00011
139.	Large washer M10	WK04-00098	163.	Bolt M6x20	WK04-00016
140.	Bolt M10x40	WK04-00056	164.	Oil drain bolt	WK04-00121
141.	Bolt M5x10	WK04-00099	168.	Upper support hydraulic cylinder	WK04-00122
142.	Brush holder	WK04-00100	169.	Washer M8	WK04-00014
143.	Brush	WK04-00101	170.	Bolt M8x30	WK04-00018
144-1.	Sleeve A	WK04-00102	171.	Bolt M4x12	WK04-00123
144-2.	Sleeve B	WK04-00103	172.	Bearing cover	WK04-00124
144-3.	Sleeve C	WK04-00104	173.	Circlip	WK04-00125
145.	Spring	WK04-00105	174.	Bearing 6003ZZ	WK04-00126
146.	Bolt M6x6	WK04-00010	175.	Oil seal 35x17x7	WK04-00127
147.	Switch c/w emergency stop button	WK04-00106	176.	Worm sleeve	WK04-00128
148.	Bolt M10x25	WK04-00107	177.	Worm shaft	WK04-00129
149.	Washer M10	WK04-00046	178.	Side support	WK04-00130
150.	Key 6x25	WK04-00108	179.	Washer M6	WK04-00011
151.	Bushing	WK04-00109	180.	Bolt M6x12	WK04-00038



## PARTS LIST

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
14.	Hydraulic cylinder	WK04-00009	100.	Bolt M8x20	WK04-00068
25.	Filter	WK04-00017	101.	Large washer M8	WK04-00069
31.	Coolant tank	WK04-00020	102.	Bearing 6203ZZ	WK04-00070
32.	Hose	WK04-00021	103.	Idle blade wheel	WK04-00071
33.	Coolant pump	WK04-00022	103.1.	Drive blade wheel	WK04-00072
34.	Bolt M6x16	WK04-00010	104.	Blade	07730
35.	Hose fitting	WK04-00023	105.	Idle wheel sleeve	WK04-00073
36.	Hose clamp	WK04-00024	106.	Saw bow	WK04-00074
37.	Hose	WK04-00025	107.	Blade tension screw	WK04-00075
50.	End stop microswitch	WK04-00037	108.	Spring	WK04-00076
53.	Thumb screw for cut off stop	WK04-00039	109.	Plate	WK04-00077
75.	Bolt M10x40	WK04-00056	110.	Washer M6	WK04-00011
76.	Nut M10	WK04-00052	111.	Bolt M6x16	WK04-00010
77.	Bolt M10x35	WK04-00045	112.	Idle wheel shaft	WK04-00078
78.	Pivot arm plate	WK04-00057	113.	Idle wheel shaft seat	WK04-00079
79.	Pivot arm	WK04-00058	114.	Pin 4x20	WK04-00080
80.	Bed shaft	WK04-00059	115.	Moving plate	WK04-00081
82.	Washer M16	WK04-00061	116.	Bolt M8x16	WK04-00013
83.	Nut M10	WK04-00052	117.	Bolt M8x35	WK04-00082
93.	Bolt M10x45	WK04-00065	118.	Washer M8	WK04-00014
94.	Washer M10	WK04-00046	119.	Adjustable bracket	WK04-00083
94.1.	Nut M10	WK04-00052	120.	Adjustable bracket screw	WK04-00084
95.	Bolt M8x16	WK04-00013	121.	Copper pipe	WK04-00085
96.	Washer M8	WK04-00014	122.	Bolt M6x6	WK04-00010
97.	Blade guard	WK04-00066	123.	Copper pipe support	WK04-00086
97.1.	Wheel cover	WK04-00067	124.	Coolant tap	WK04-00087
98.	Bolt M8x16	WK04-00013	125.	Bolt M8x30	WK04-00018
99.	Washer M8	WK04-00014	126.	Nut M10	WK04-00052

## ELECTRICAL CONNECTION...cont



**Warning:** Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.



**Note:** Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



**Note:** If an extension lead is necessary in order to reach the mains supply; The cross section should be checked so that it is of sufficient size so as to reduce the chances of voltage drops. Always fully unwind the lead during use.

## GUARANTEE

This SIP bandsaw is covered by a 12 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the bandsaw outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

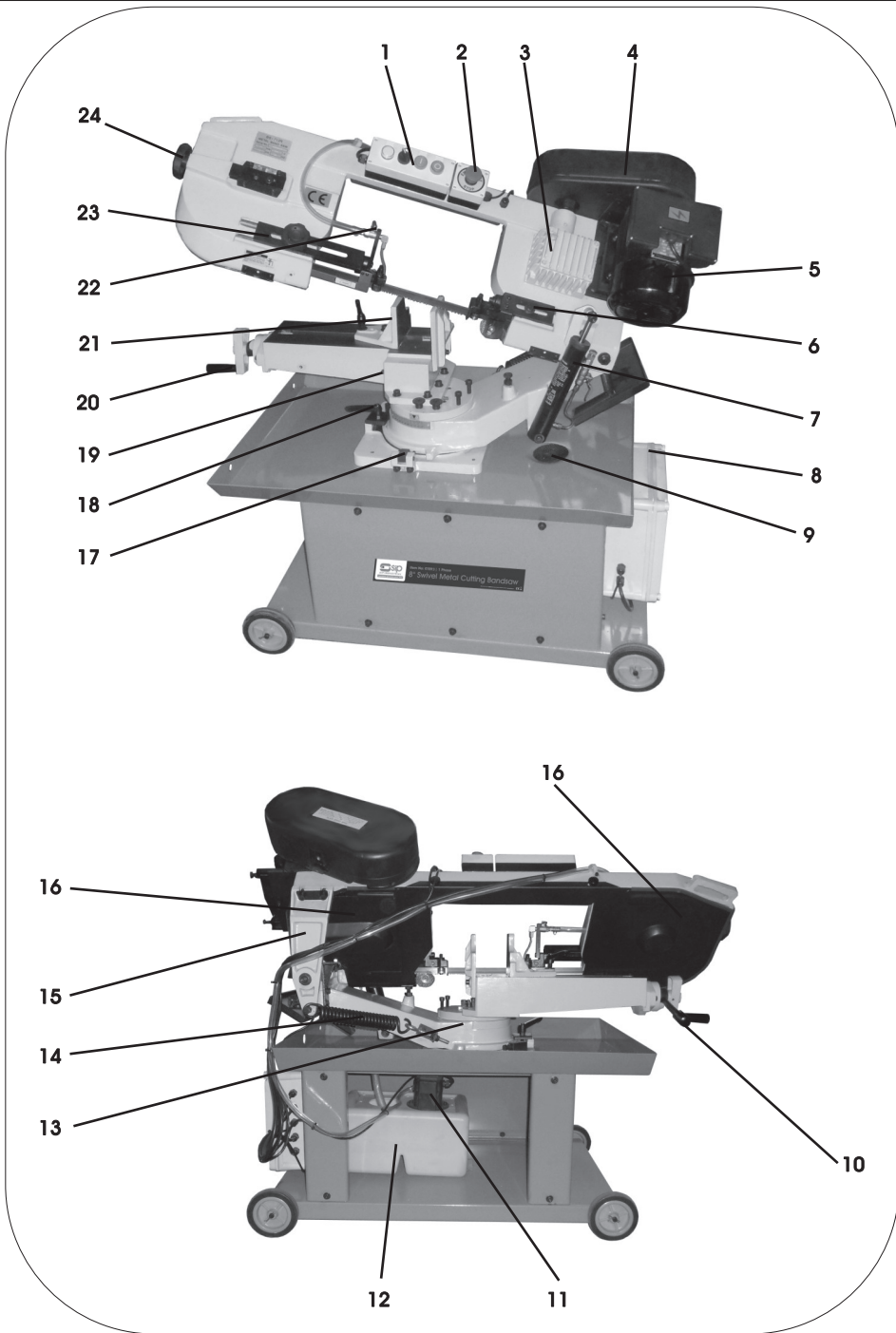
This guarantee does not cover consumables such as bearings, oil, blade, etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible. Proof of purchase will be required before any warranty can be honoured.



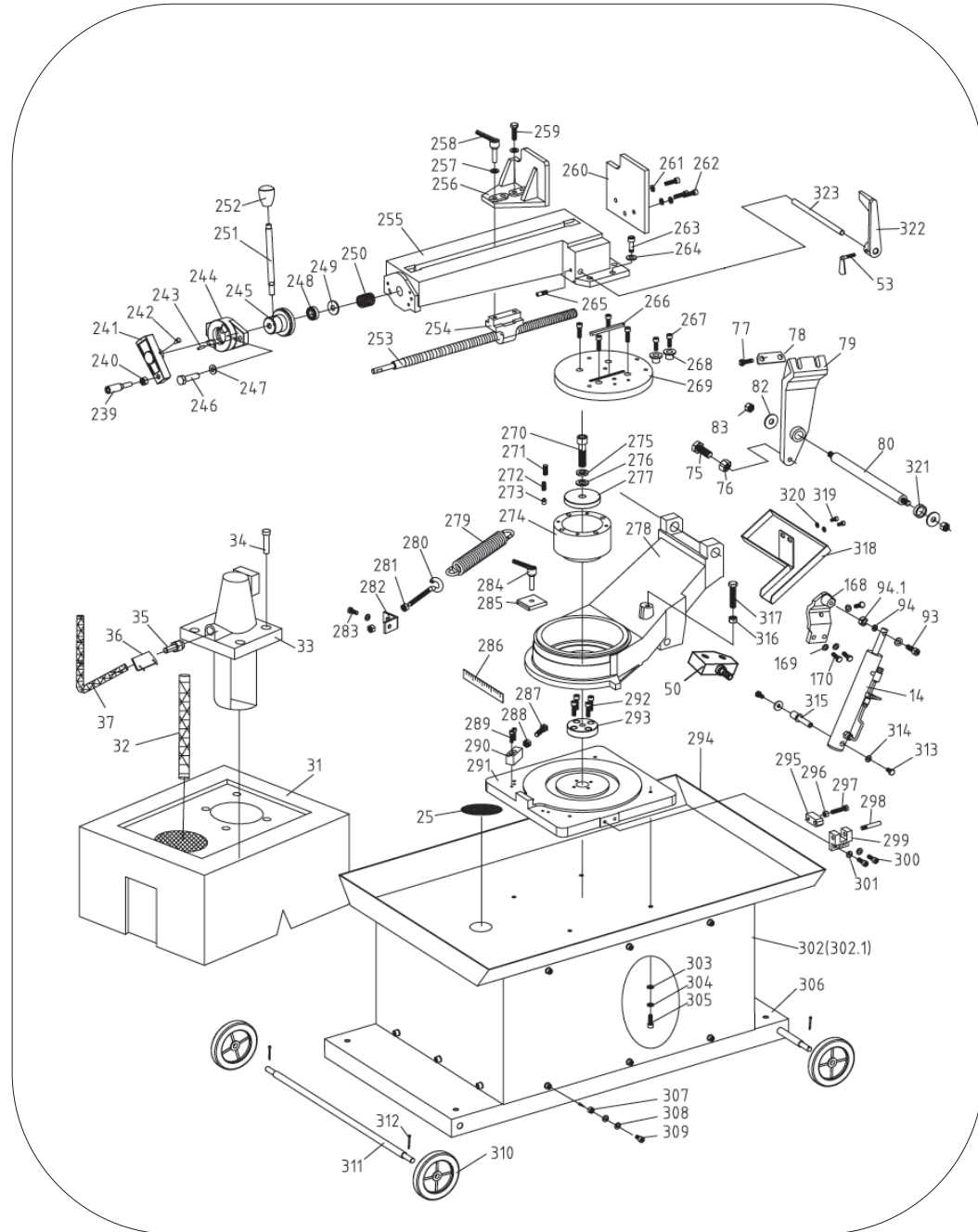
**Note:** Proof of purchase will be required before any warranty can be honoured.

# GETTING TO KNOW YOUR BANDSAW



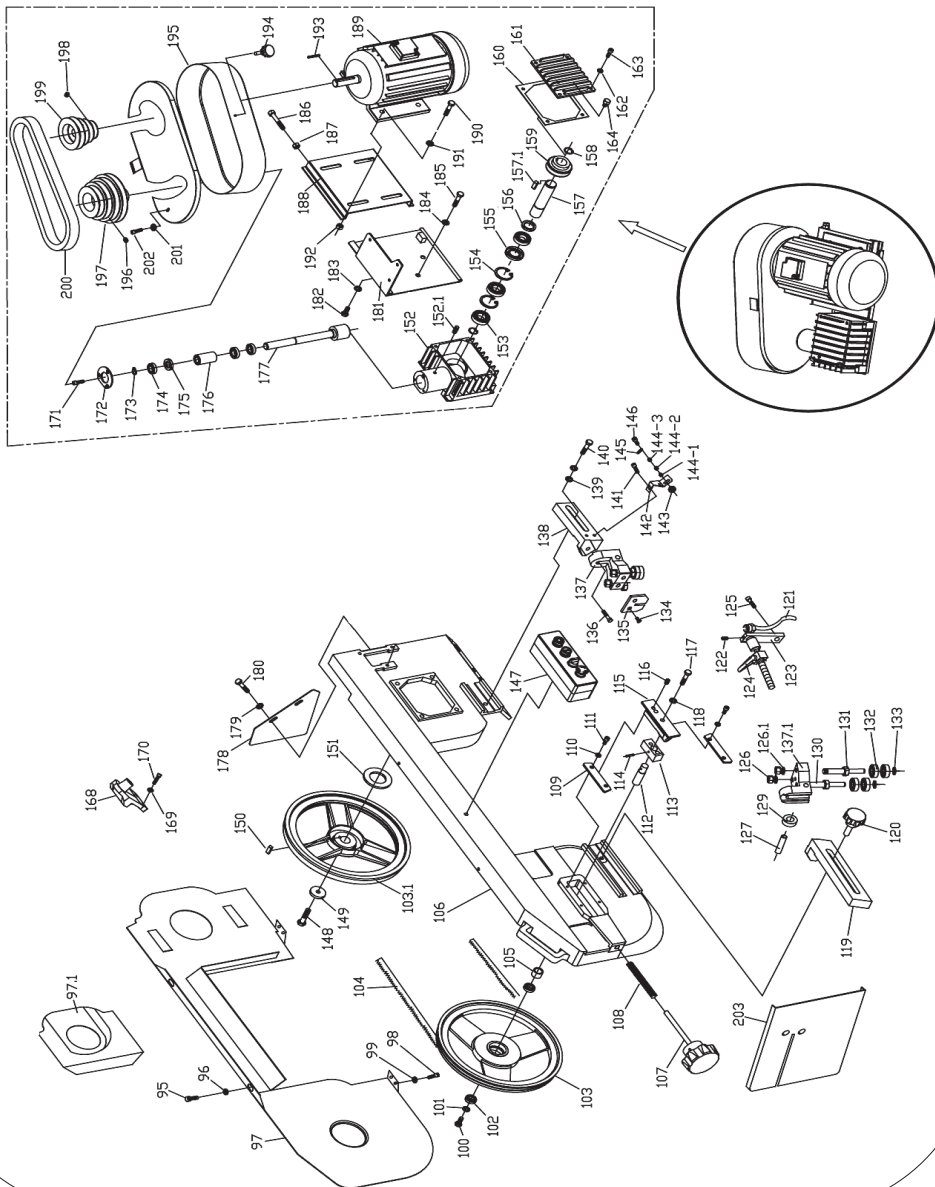
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## SAW BASE



# EXPLODED DIAGRAM

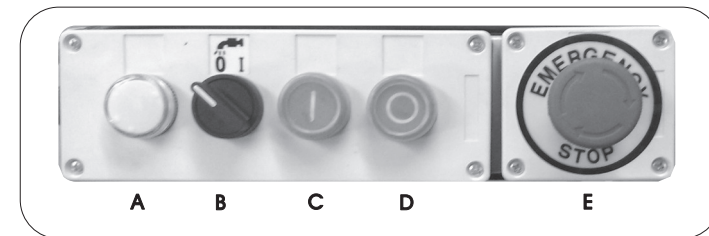
## SAW BOW



# GETTING TO KNOW YOUR BANDSAW...cont

Ref.	Description	Ref.	Description
1.	Switch	13.	Vice base
2.	Emergency stop button	14.	Tension spring
3.	Gearbox	15.	Pivot arm
4.	Belt / Pulley guard	16.	Blade cover
5.	Motor	17.	Vice stop
6.	Right adjustable guide bracket	18.	Lever lock
7.	Hydraulic Ram	19.	Cut off stop (hole)
8.	Electrical box	20.	Vice hand-wheel
9.	Filter	21.	Vice assembly
10.	Quick vice handle	22.	Coolant tap
11.	Coolant pump	23.	Left adjustable guide bracket
12.	Coolant tank	24.	Blade tensioning knob

## CONTROL PANEL



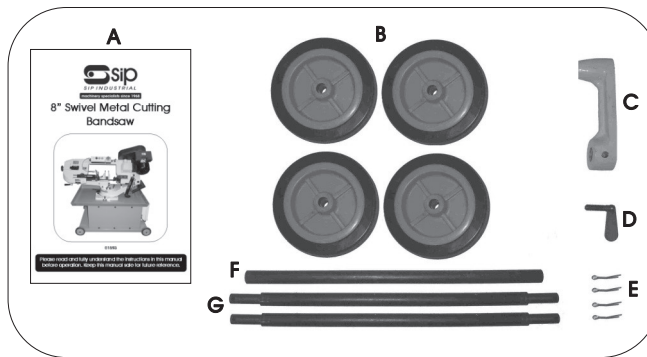
A.	Power on light	When lit the machine is ready for operation.
B.	Coolant pump switch	Turns the coolant pump on / off.
C.	Start button	Turns the machine on.
D.	Stop button	Turns the machine off.
E.	Emergency stop button	Interrupts power to the system and stops the motor, twist the button until it pops out to bring power back to the machine.

## TECHNICAL SPECIFICATION

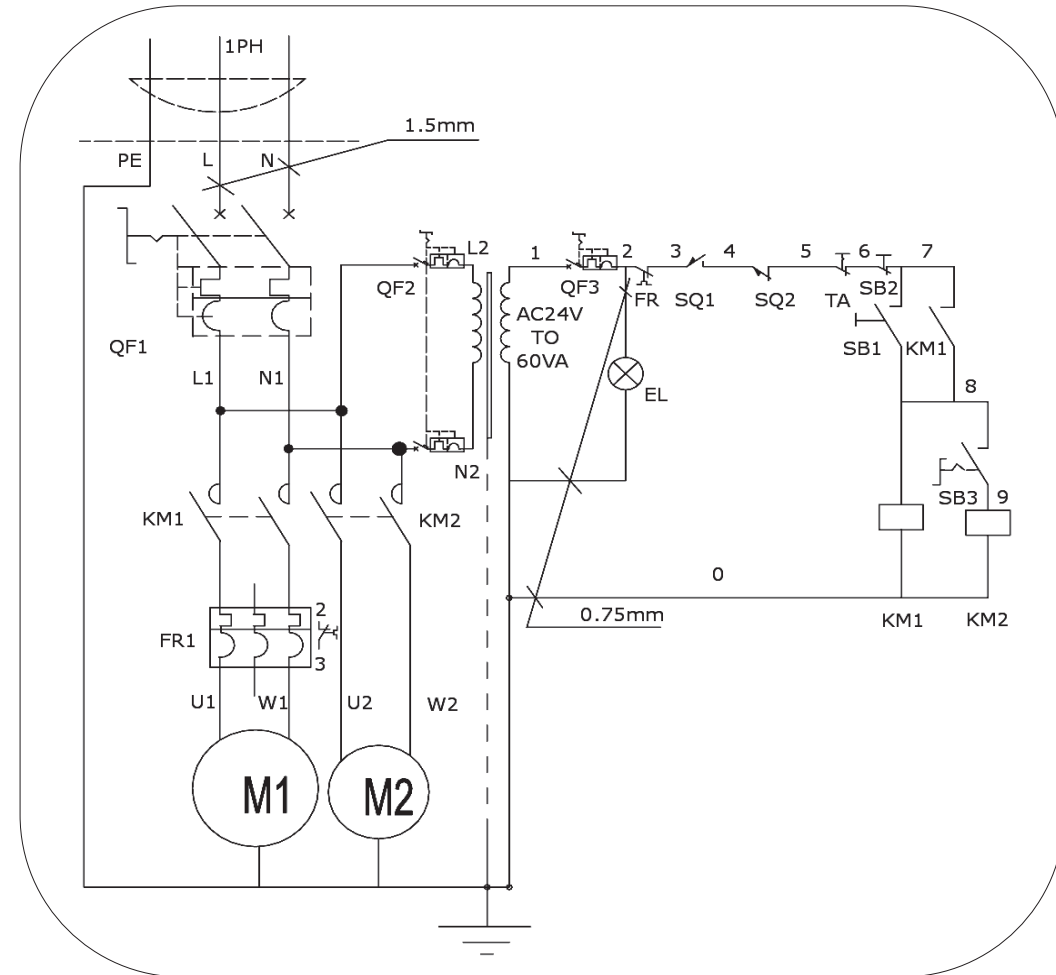
Name	8" Swivel Metal Cutting Bandsaw
Part Number	01593
Input Voltage	230v ~ 50Hz
Circular 45°	127mm
Circular 0°	178mm
Rectangle 45°	85 x 140mm
Rectangle 0°	178 x 210mm
Blade Speed	22, 33, 45 & 65 mtr/min
Blade Size	2362 x 0.9 x 19mm
Motor Power	1.5HP (1.1kw)
Drive	V-belt
Packed Dimensions	1290 x 730 x 1150mm
Net Weight	170kgs
Gross Weight	192kgs

## CONTENTS & ACCESORIES

A.	Manual
B.	Wheel
C.	Cut off stop
D.	Cut off stop thumb screw
E.	Split pin
F.	Cut off stop shaft
G.	Axle



## WIRING DIAGRAM



Reference	Description	Specification	Reference	Description	Specification
M1	Main motor	50Hz 1ph	KM	Contactor	CN6 AC24v 50Hz
M2	Coolant pump	230/400v 50Hz 40w	FR	Heat relay	RHM-5N 5.5-8.5A
TC	Transformer	AC400,230 24v	SQ1	Limit switch	QKS7 250V 10A
QF1	Current breaker	DZ47-63 3P 5A	SQ2	Interlocking switch	QKS8 250V 10A
QF2	Current breaker	DZ47-63 2P 2A	SB	Start	XB2-BE101
QF3	Current breaker	DZ47-63 1P 1A	SA1	Stop	XB2-BE102
TA	Switch	XB2-BX542	SA2	Start	XB2-ED21
EL	Indicator light	XB2-BVD3			



**Note:** If any of the above are missing or damaged, contact your distributor immediately.

## TROUBLESHOOTING

Symptom	Possible cause	Solution
Unusual wear on side or back of blade.	<ol style="list-style-type: none"> <li>1. Blade guides are worn.</li> <li>2. Blade guides not properly adjusted.</li> <li>3. Blade guide brackets are loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade guides.</li> <li>2. Adjust blade guides.</li> <li>3. Tighten blade guide brackets.</li> </ol>
Excessive blade breakage and teeth ripping from the blade.	<ol style="list-style-type: none"> <li>1. Material is loose in the vice.</li> <li>2. Incorrect speed or feed.</li> <li>3. Blade is too coarse.</li> <li>4. Incorrect blade tension.</li> <li>5. Blade is in contact with material before bandsaw is started.</li> <li>6. Blade is rubbing on the wheel flange.</li> <li>7. Blade guides are misaligned.</li> <li>8. Blade is too thick.</li> <li>9. Bad weld on blade</li> </ol>	<ol style="list-style-type: none"> <li>1. Clamp the material securely.</li> <li>2. Adjust speed or feed.</li> <li>3. Use correct blade for material.</li> <li>4. Adjust blade tension so that it does not slip on the wheel.</li> <li>5. Place the blade in contact with the material only after the saw has started.</li> <li>6. Adjust the blade tracking.</li> <li>7. Adjust blade guide alignment.</li> <li>8. Use correct thickness blade.</li> <li>9. Re-weld or replace blade.</li> </ol>
Motor overheating.	<ol style="list-style-type: none"> <li>1. Blade tension too high.</li> <li>2. Drive belt tension too high.</li> <li>3. Blade too coarse or too fine.</li> <li>4. Gears need lubrication.</li> <li>5. Blade is binding in the cut.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce blade tension.</li> <li>2. Reduce belt tension.</li> <li>3. Use a blade designed for the material.</li> <li>4. Lubricate the gears.</li> <li>5. Decrease feed and speed.</li> </ol>
Blade is twisting.	<ol style="list-style-type: none"> <li>1. Blade tension is too high.</li> <li>2. Blade is binding in the cut.</li> </ol>	<ol style="list-style-type: none"> <li>1. Decrease blade tension.</li> <li>2. Decrease feed pressure.</li> </ol>
Bad, rough or crooked cuts.	<ol style="list-style-type: none"> <li>1. Blade is too coarse.</li> <li>2. Blade guide assembly is loose.</li> <li>3. Blade guides are spaced out too far.</li> <li>4. Incorrect speed.</li> <li>5. Blade is blunt.</li> <li>6. Inadequate blade tension.</li> <li>7. Blade guide bearings not properly adjusted.</li> <li>8. Feed pressure too much.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use a finer blade.</li> <li>2. Tighten the guide assembly.</li> <li>3. Move guides closer to the material.</li> <li>4. Adjust speed.</li> <li>5. Replace the blade.</li> <li>6. Increase blade tension a little at a time.</li> <li>7. Adjust blade guide bearings.</li> <li>8. Reduce feed pressure by increasing the spring tension on the arm.</li> </ol>
Premature blade dulling.	<ol style="list-style-type: none"> <li>1. Blade tpi is too high.</li> <li>2. Incorrect speed - too fast.</li> <li>3. Inadequate feed pressure.</li> <li>4. Hard spots or scale on the material.</li> <li>5. Blade installed backwards.</li> <li>6. Insufficient blade tension.</li> <li>7. Work hardened material especially stainless.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace with a lower tpi blade.</li> <li>2. Reduce speed.</li> <li>3. Increase feed pressure by unscrewing tension bar. This will decrease the spring tension on the arm.</li> <li>4. Reduce speed, increase feed pressure.</li> <li>5. Remove blade, twist inside out and reinstall.</li> <li>6. Increase blade tension.</li> <li>7. Increase feed pressure by reducing spring pressure.</li> </ol>

## ASSEMBLY INSTRUCTIONS

### UNPACKING

1. Remove the bandsaw from the packaging, check the bandsaw for any signs of damage or missing items prior to assembling.



**Note:** If any items are missing or damaged, **DO NOT** use the machine, contact your distributor immediately.

2. Unbolt the bandsaw from the wooden base.
3. Put two pieces of sturdy wood on the floor, so that the bandsaw can be lowered onto it as a temporary measure.



**Danger / Caution:** At least 2 persons are required to remove this bandsaw from its packaging it is extremely heavy! Failing to follow this can have serious consequences and could lead to personal injury and/or the possibility of damage.

4. Use proper lifting equipment to move the bandsaw from the wooden base and onto the blocks of wood.

### FITTING THE WHEELS

1. Slide one wheel (B) onto the axle (G), secure with a split pin (E).
2. Now push the axle through the pre-drilled holes at the corner of the stand.
3. Fit the other wheel onto the opposite end of the axle and secure with the split pin.
4. Repeat process for the opposite end.
5. Use the lifting equipment to raise the bandsaw slightly, so you can remove the wooden blocks.
6. Lower the bandsaw onto the ground, you are now ready to move the bandsaw into your desired location.

### FITTING THE CUT OFF STOP

1. Slide the cut off stop shaft (F) through the cut off stop hole (page 10, ref.19) on the front of the casting.
2. Slide the cut off stop (C) onto the shaft (F), secure using the thumb screw (D).
3. The cut off stop is now ready to be used.

### CLEANING THE SURFACES PRIOR TO OPERATION

Before using the bandsaw it is best to clean the rust protected surfaces using kerosene (paraffin), diesel oil or mild solvent. Never use cellulose based solvents such as paint

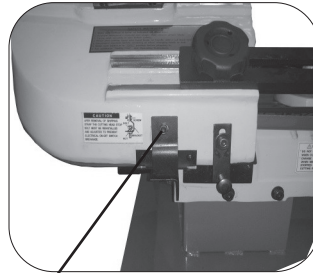


## ASSEMBLY INSTRUCTIONS...cont

thinner or lacquer thinner as these will damage the painted surfaces.

### REMOVING THE TRANSIT BOLT

Before the bandsaw can be used the transit bolt and bracket must be removed; this is situated at the end of the saw bow and bed (see right picture). Once the bracket is removed refit the head stop bolt and adjust it's height so as to prevent excessive pressure on the end of cut microswitch.



Remove

## OPERATING INSTRUCTIONS

### SETTING THE BLADE SPEED

1. Prior to changing the blade speed ensure the mains lead is disconnected.
2. Unscrew and remove the belt guard screw and lift up the cover, this will allow access to the belt so it can be adjusted.
3. Loosen the motor plate lock bolt (Fig.1,A).
4. Loosen the motor slide bolts (Fig.1,B), you should now be able to push the motor inwards to slacken the belt.
5. Move the belt to the desired speed (Fig.2).

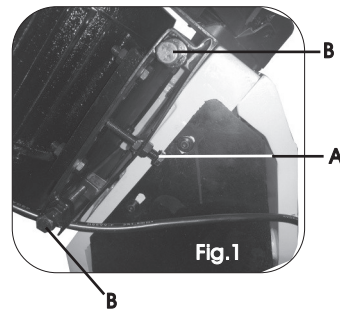


Fig.1

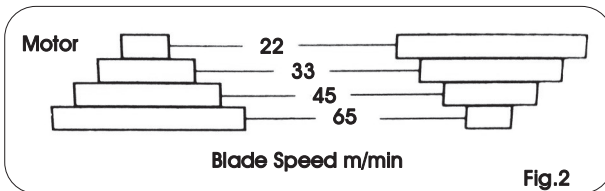


Fig.2

6. Once the belt has been set to the desired speed, re-tension the belt by tightening the bolts.
7. Close the belt guard and secure with the screw.

See the table on page 15 for a guide to approximate blade speed for different materials.

## MAINTENANCE INSTRUCTIONS...cont



**Note:** The outer bearing shaft is eccentric and is the one to adjust, the inner bearing shaft is fixed and can not be adjusted.



**Note:** Never attempt to adjust the blade guide bearings whilst the machine is running, **ALWAYS** disconnect from the mains supply before proceeding.

1. Raise the saw bow to the vertical position and lock it by turning the hydraulic cylinder tap to the off position.
2. Remove the two screws holding the bearing guard plate onto the lower eccentric shaft.
3. Loosen the nut (Fig.15,A) holding the eccentric shaft in position.
4. With a spanner turn the eccentric shaft (Fig.15,B) until there is a gap of about 0.03mm (0.001"), you should just be able to slide a piece of paper between the gap.

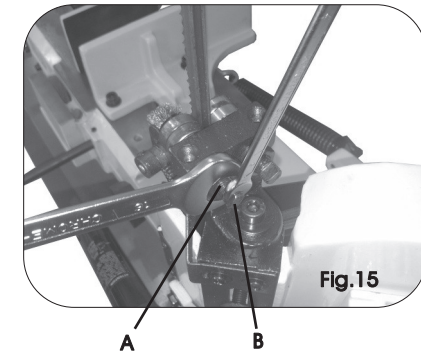


Fig.15

5. Once the eccentric shaft has been adjusted, retighten the nut (A) and screw the plate back on.
6. Repeat steps 3-5 for the upper eccentric shaft.

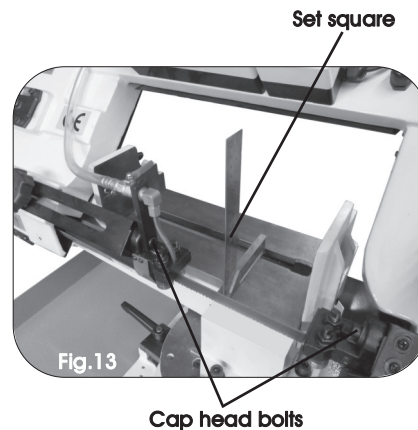
### GENERAL MAINTENANCE

- Do not use compressed air to clean the bandsaw, this can cause metal fillings to go into the guide bearings and other parts of the bandsaw.
- Always remove the metal fillings from the blade guides after use.
- Wipe the bandsaw down with a dry cloth.
- Check the guide bearings regularly making sure they are clean and correctly adjusted.
- Always check to make sure the wire brush properly adjusted and cleaned.
- Always disconnect from the mains supply before carrying out any maintenance.

## MAINTENANCE INSTRUCTIONS...cont

### SETTING THE BLADE SQUARE TO THE BED AT 0°

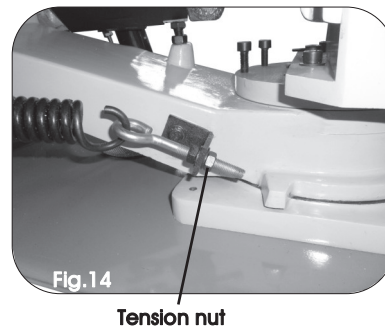
1. Ensure the bow is at its lowest position.
2. Disconnect from the mains supply.
3. Place an engineer's set square onto the bed and touching the blade (Fig.13).
4. If any adjustment is needed then loosen the two cap head bolts (Fig.13).
5. Rotate both blade guides in the required direction until the blade makes contact with the set square along the entire width of the blade.
6. Once set correctly, retighten both cap head bolts.
7. The blade guide bearings may need to adjusted.



### ADJUSTING THE BOW WEIGHT

The bow weight is one of the most important adjustments on the saw. If the bow weight is set incorrectly then expect poor performance, crooked cuts, teeth stripping from the blade, stalling and the blade coming off the blade wheels. The hydraulic cylinder feed rate will not compensate for improper bow weight. A new machine will have the bow weight pre-set, if you need to adjust the bow weight then follow the steps below.

1. Disconnect the mains from the supply.
2. Ensure the bow is at its lowest position.
3. Turn the hydraulic cylinder knob anti-clockwise until it stops.
4. Place a scale on the Blade tensioning knob, lift the saw bow up, the scale should read between 5-6kgs.
5. If it doesn't then adjust the tension nut (Fig.14) until it reaches between 5-6kgs.



### BLADE GUIDE BEARING ADJUSTMENT



**Note:** The correct guide bearing adjustment is very important, this will make the blade run smoother and evenly without any snagging or twisting whilst the blade is running. It will also prolong the blade life.

## OPERATING INSTRUCTIONS...cont

Material	Speed M/Min (FPM)	Material	Speed M/Min (FPM)	Material	Speed M/Min (FPM)	Material	Speed M/Min (FPM)
<b>Carbon steel</b>	60 - 108 (196 - 354)	<b>Tool steel</b>	62 (203)	<b>Alloy steel</b>	34 - 98 (111 - 321)	<b>Free machining stainless steel</b>	46 - 62 (150 - 203)
<b>Steel section</b>	54 - 67 (180 - 220)	<b>High speed tool steel</b>	23 - 36 (75 - 118)	<b>Mild steel</b>	75 (246)	<b>Gray cast iron</b>	33 - 75 (108 - 255)
<b>Thin tube</b>	54 - 67 (180 - 220)	<b>Cold work tool steel</b>	95 - 213 (29 - 65)	<b>Water hard tool steel</b>	242 (74)	<b>Ductile austenitic cast iron</b>	65 - 85 (20 - 26)
<b>Aluminium alloy</b>	67 - 163 (220 - 534)	<b>Hot work tool steel</b>	62 (203)	<b>Stainless steel</b>	26 (85)	<b>Malleable cast iron</b>	98 (321)
<b>Copper alloy</b>	70 - 147 (229 - 482)	<b>Oil hardening tool steel</b>	62 - 65 (203 - 213)	<b>Cold rolled stainless Steel</b>	26 - 62 (85 - 203)		



**Note:** The above table is an approximate guide reference only, various factors mean some materials may require different speeds to the ones quoted.

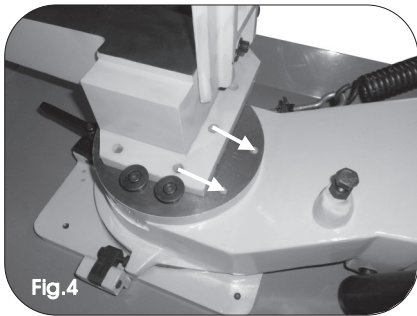
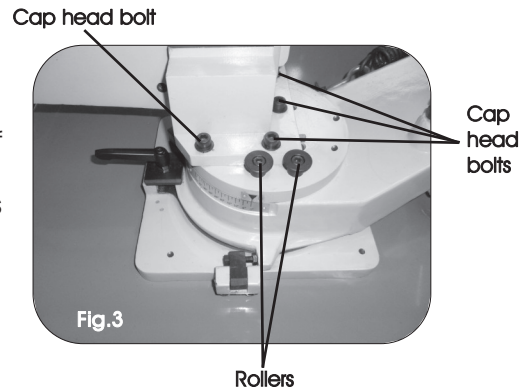


## OPERATING INSTRUCTIONS...cont

### OPERATING THE VICE

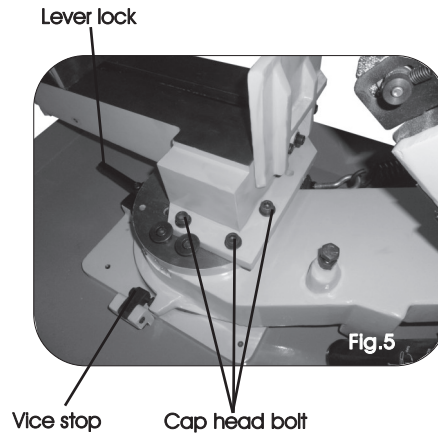
#### Setting The Vice For Maximum Width Cutting at 0°:

1. Raise the saw bow so it is clear of the vice assembly.
2. Remove the 4 cap head bolts (Fig.3), and loosen both rollers.



3. Slide the vice assembly forward, so that the two holes on the vice sit over the two threaded holes on the vice base (Fig.4).

4. Re-fit only 3 cap head bolts (Fig.5) re-tighten the rollers.
5. Loosen the lever lock and put the vice stop into position (Fig.5).
6. Move the saw bow to 0° on the vice scale.
7. Tighten the lever lock.
8. Slide the right adjustable guide bracket to the left of the vice jaw.
9. The vice is now set up for maximum width cutting at 0°, please note that on this position you can not do angled cuts.



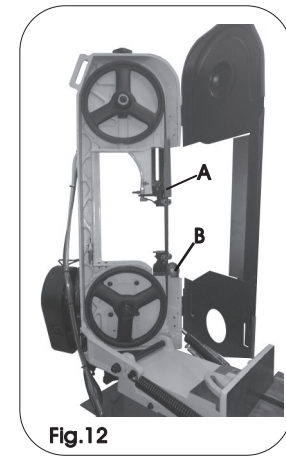
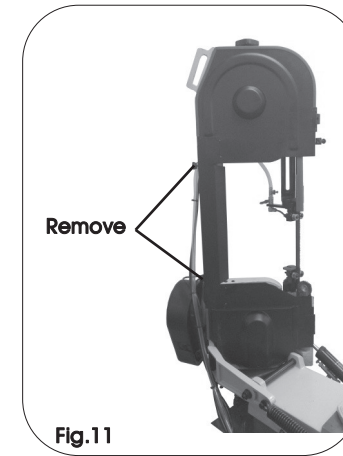
**Note:** The angle is set by moving the saw bow, you can not set the angle by the vice assembly.

## MAINTENANCE INSTRUCTIONS...cont

Blade tension is important for the correct operation of the bandsaw; the blade tension should be set between 700-900kgs.

To set the blade correctly without using a blade tension gauge, take the following steps.

1. Disconnect the bandsaw from the mains supply.
2. Open the blade guard by sliding up and removing the removable cover (Fig.10)
3. Remove the two thumbscrews screws on the blade guard (Fig.11).
4. Tension the blade slightly to take any slack off the blade.
5. Turn the Blade tensioning knob in a clockwise direction, one and a half turns or two full turns, this will equal approximately 800kgs of blade tension.
6. Close the blade guard etc. and connect to the mains supply.
7. Run the bandsaw between 2-3 minutes so the blade can seat correctly.
8. Stop the bandsaw and disconnect from the mains supply.
9. Open the blade guard and loosen the blade until it just begins to slacken.
10. Tighten the blade so it becomes straight between the blade wheels, and all the slackness has gone.
11. Turn the Blade tensioning knob approximately two full turns, this should now be tensioned correctly.



## MAINTENANCE INSTRUCTIONS

### CHANGING THE BLADE



**Caution:** Before carrying out any maintenance always disconnect the bandsaw from the mains supply.



**Caution:** We strongly advise wearing gloves for protection when changing blades, blades are sharp and dangerous and can cause personal injury.



**Note:** The bandsaw was designed to use a 2362 x 0.9 x 19mm size blade, always use this size blade.

1. Disconnect from the mains supply.
2. Raise the saw bow into a vertical position.
3. Open the blade guard by sliding up and removing the removable cover (Fig.10).
4. Remove the two thumbscrews on the blade guard (Fig.11)
5. Take the tension off the blade by turning the Blade tensioning knob anti-clockwise.
6. Remove the wire brush and the upper blade guard (Fig.12, A & B).
7. Ease the blade from the lower wheel first and then from the top wheel, carefully remove it from the blade guide bearings.
8. Fit the new blade through the blade guide bearings first, then ease it onto the lower wheel then onto the top wheel.
9. Use both hands to work the blade onto both wheels.
10. Put a small amount of tension on the blade (see tensioning the blade).
11. Once done reattach the blade guards etc.
12. The blade will need to be fully tensioned see below on how to do this.

### TENSIONING THE BLADE



**Caution:** *DO NOT* over tension the blade as this will warp and stretch the blade.



**Danger / Caution:** Blades are sharp use extra care when removing, installing or handling.

## OPERATING INSTRUCTIONS...cont

### Setting The Vice For Angled Cuts:



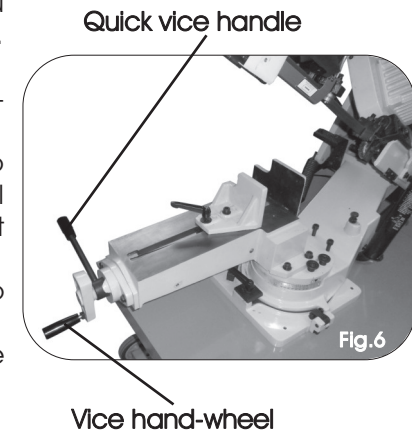
**Note:** When the vice assembly is set at the angle cutting position you will lose the maximum width cutting capacity.

The bandsaw should be set up ready for angle cutting, if not use the below steps to set it up correctly.

1. Raise the saw bow so it is clear of the vice assembly.
2. Remove the 3 cap head bolts (Fig.5) and loosen both rollers (Fig.3).
3. Slide the vice assembly backwards, so that all 4 holes on the vice and the vice base sit over each other.
4. Fit the 4 cap head bolts and tighten (Fig.3).
5. Retighten both rollers.
6. The bandsaw is now ready to cut your material at different angles.

### Using The Vice:

1. Select the desired position and angle you wish to cut at and adjust the vice accordingly.
2. Ensure the lever lock (Fig.5) is tightened.
3. Loosen the vice by turning the vice hand-wheel (Fig.6) anti-clockwise.
4. Place the material to be cut between the two vice jaws, and retighten the vice hand-wheel by turning it clockwise, so the vice jaws sit against the material.
5. Push the quick vice handle (Fig.6) down to secure the vice jaws.
6. The material is now secure and ready to be cut.



## OPERATING INSTRUCTIONS...cont

### USING THE COOLANT PUMP



**Note:** We recommend the use of water soluble coolant, this will prolong the blade life and make the cut more efficient.

1. Slide the coolant tank out from the rear of the bandsaw (Fig.7).
2. Make sure the filter is fitted and fill with fresh coolant.
3. Slide the coolant tank back onto the bandsaw panel, making sure that the coolant hose is situated over the filter.
4. Open the coolant tap (Page 10, ref. 22).
5. Turn the coolant switch on the control panel to on (I).
6. The coolant will start to pump once the start button is pressed and the saw starts to run.

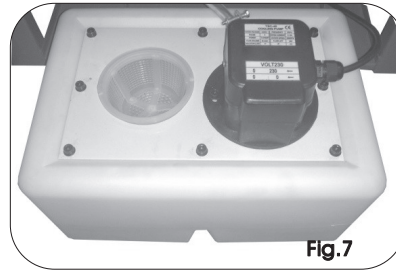


Fig.7

### ADJUSTING THE BLADE GUIDES

1. Disconnect from the mains supply.
2. Loosen the knob (Fig.8,A), so that the left adjustable guide bracket (Fig.8,B) can be moved closer to your material.
3. Loosen the bolt (Fig.8,D) and slide the right adjustable guide bracket (Fig.8,C) closer to your material.
4. Once adjusted retighten the knob (A) and bolt (D).

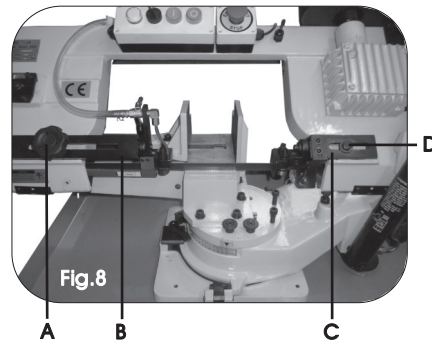


Fig.8

### HYDRAULIC CYLINDER ADJUSTMENT

The hydraulic cylinder has an adjustable rate of descent; it can be adjusted by turning the knob (Fig.9,A) clockwise to slow down the rate, or anti-clockwise to speed up the rate of descent. The bow can be stopped in any position by turning the tap (Fig.9,B). When the tap is at 90° to the cylinder the flow will stop and the bow will stop descending.

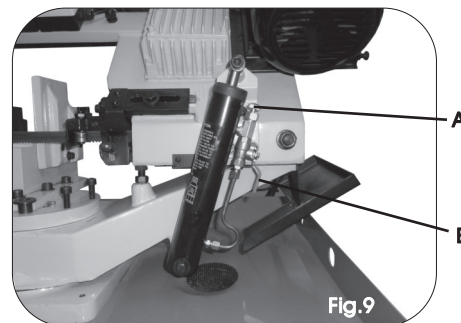


Fig.9

## OPERATING INSTRUCTIONS...cont

### CUTTING WITH THE BANDSAW



**Danger:** Before attempting to cut always make sure all covers are on and secure.



**Note:** The harder the material to be cut the slower the speed should be.

1. Disconnect the bandsaw from the mains supply.
2. Set the blade speed to suit the material that is to be cut (see page 14 setting the blade speed).
3. Raise the saw bow to a vertical position.
4. Adjust the cut length stop to your desired position (if required).
5. Set the vice angle to your desired position.
6. Open the vice and insert the material to be cut then close the vice to secure.
7. Move the two adjustable blade guides closer to the material, but make sure they don't foul against it or the saw.
8. Adjust the rate of descent of the arm as described on page 18 so that it is creeping slowly down towards the material, shut off the hydraulic cylinder when the blade gets close to the material; do not start cutting on a sharp edge file it off first.



**Danger:** Do not turn the machine on until the material is secured and the blade has been lowered just above the material.

9. Plug in to the mains supply and turn the coolant pump on.
10. Start the saw.
11. To bring the blade in to contact with the material to be cut, open the tap on the hydraulic cylinder, if the blade jams then immediately turn the bandsaw off and refer to the troubleshooting guide on page 24.
12. Once the cut is complete, the saw should automatically stop.



**Caution:** Never remove the material when the bandsaw is still running, always switch the machine off before attempting to remove the material, failure to do this could lead to serious personal injury.



**Caution:** Never start the bandsaw with the blade in contact with the work-piece. Allow the saw to reach full speed before commencing cut.