



## Abaco Tile Saw TS1

# Instruction Manual and Safety Instructions



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# Abaco Tile Saw TS1

## Instruction Manual and Safety Instructions

*READ THIS MANUAL **BEFORE** USING THE SAW.*

### Contents:

<b>Safety</b>	<b>pg. 3</b>
<b>Product Specifications</b>	<b>pg. 7</b>
<b>Unpacking and Assembly</b>	<b>pg. 12</b>
<b>Operation</b>	<b>pg. 15</b>
<b>Clean up</b>	<b>pg. 17</b>
<b>Maintenance</b>	<b>pg. 18</b>
<b>Troubleshooting</b>	<b>pg. 19</b>




## 1. Safety

READ AND UNDERSTAND ALL OF THE OPERATING INSTRUCTIONS, SAFETY PRECAUTIONS AND WARNINGS IN THE INSTRUCTION MANUAL **BEFORE** OPERATING OR MAINTAINING THIS SAW.

Most accidents that result from the operation and maintenance of Wet Saws are caused by the failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing a potentially hazardous situation before it occurs, and by observing appropriate safety procedures.

Safety messages inform the user about potential hazards that could lead to injury, death and/or equipment damage. Each safety message will be preceded by one of the following (3) three words that identify the severity of the message.

### Definitions of Signal Words

-  **DANGER** Not following instructions **WILL** lead to **DEATH** or **SERIOUS INJURY**
-  **WARNING** Not following instructions **COULD** lead to **DEATH** or **SERIOUS INJURY**
-  **CAUTION** Not following instructions **CAN** lead to injury

### Damage Prevention and Important Messages:

A Damage Prevention Message is used to inform the user of important information and/or instructions that could lead to equipment or other property damage if not followed. Information Messages convey information that pertains to the equipment being used. Each message will be preceded by the word NOTE, as in the example below:

#### Note:

Equipment and/or property damage may result if these instructions are not followed.

## Important Safety Precautions:

*Read all instructions **before** use.*

### Always wear eye protection.



- When operating the Saw, always wear eye protection, and make sure others in the work area wear eye protection, too.

### Wear a dust mask.



- A face dust mask or respirator should be worn if the cutting operation is dusty.

### Always wear ear protection.

Always wear ear protection to protect your ears from loud noise.

### Keep guards in place.



- In order to prevent injury, keep guards in place and in working order at all times.

### Keep work area clean.

- Cluttered areas invite injuries. Clear all work areas of unnecessary tools, debris etc.

### Do not use in dangerous environments.

- Do not use the Saw in wet locations or expose it to rain. Always ensure that the work area has plenty of light.

### Keep children and visitors away.

- All visitors and children should be kept a safe distance from the work area.

### Do not force the saw.

- The Saw will do a job better and operate safer at the rate for which it was designed.

### Dress properly.

- Do not wear loose clothing or jewelry as they can be caught in moving parts. Non-slip footwear is recommended.
- Wear protective hair covering to contain long hair.

### **Secure your work.**

- Clamps or a vise should be used to hold work whenever practical. Keeping your hands free to operate the Saw is safer.

### **Do not overreach**

- Keep proper footing and balance at all times by not overreaching.

### **Stay alert.**

- Focus on what you are doing. Use common sense. Do not operate the Saw when you are tired.
- The Saw should never be used by you if you are under the influence of alcohol, drugs or medication that makes you drowsy.

### **Never stand on the saw.**

- Serious injury could occur if a Saw is tipped or if a Saw is unintentionally contacted.

### **Disconnect tools.**

- Power should always be disconnected before servicing or when changing accessories, such as blades, pumps, etc.

### **Check for damaged parts**

- Before using the Saw, check for damaged parts. A guard or any other part that is damaged should be carefully checked to determine if it would operate properly and perform its intended function.
- Always check moving parts for proper alignment or binding. Check for broken parts and mountings and all other conditions that may affect the operation of the Saw. A guard, or any damaged part, should be properly repaired or replaced.

### **Direction of feed**

- Always feed work into a blade **against** the direction of rotation. A blade should always be installed such that rotation is in the direction of the arrow imprinted on the side of the blade.

### **Never leave the Saw running unattended. Turn the power off.**

- Do not leave the Saw until it comes to a complete stop. Always turn the saw **OFF** when leaving the work area, or when a cut is finished.

### **Use the proper extension cord.**

- If using an extension cord, make sure it is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw.
- An undersized cord will cause a drop in line voltage that will result in a loss of power and overheating.

### **Maintain the Saw with care.**

- Keep the Saw clean for the best and safest performance. Always follow maintenance instructions for lubricating and when changing accessories.

### **Keep clear of rotating or moving parts.**

- Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate a Saw with covers, shrouds, or guards removed.

### **Avoid electrical shock.**

- Never touch electrical wires or components while the motor is running. Exposed, frayed, or worn electrical motor wiring can be sources of electrical shock that could cause severe injury or burns.

## **Electrical Requirements and Grounding Instructions**

*In order to prevent potential electrical shock and injury, the following electrical safety precautions should be followed at **all** times.*

- In case of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This Saw is equipped with an electrical cord having a grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Do not modify the plug provided if it will not fit the outlet. Have the proper outlet installed by a qualified electrician.
- Improper connection of the grounding conductor can result in a risk of electric shock.
- The grounding conductor is the insulated conductor that has an outer surface that is green, with or without yellow stripes.
- If a repair or replacement of the electric cord or plug is necessary, do not connect the grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood or if in doubt as to whether the Saw is properly grounded.

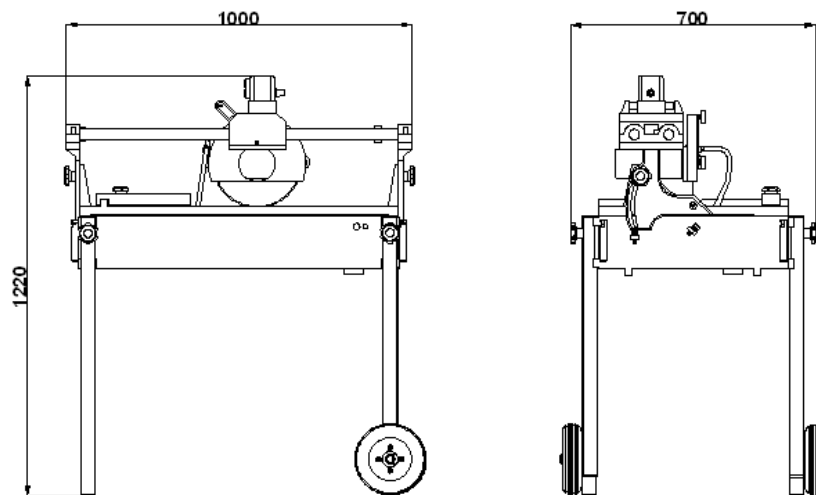
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the Saw's plug.
- Repair or replace a damaged or worn cord immediately.
- To reduce the risk of electrocution, keep all connections dry and off the ground.

## 2. Product Specifications

The Abaco Tile Saw TS1 is a Precision Saw designed to cut all types of materials, including but not limited to, granite, pavers, porcelain, terracotta, marble, quarry, sandstone and slate, and almost any other non-ferrous material.

### General Description

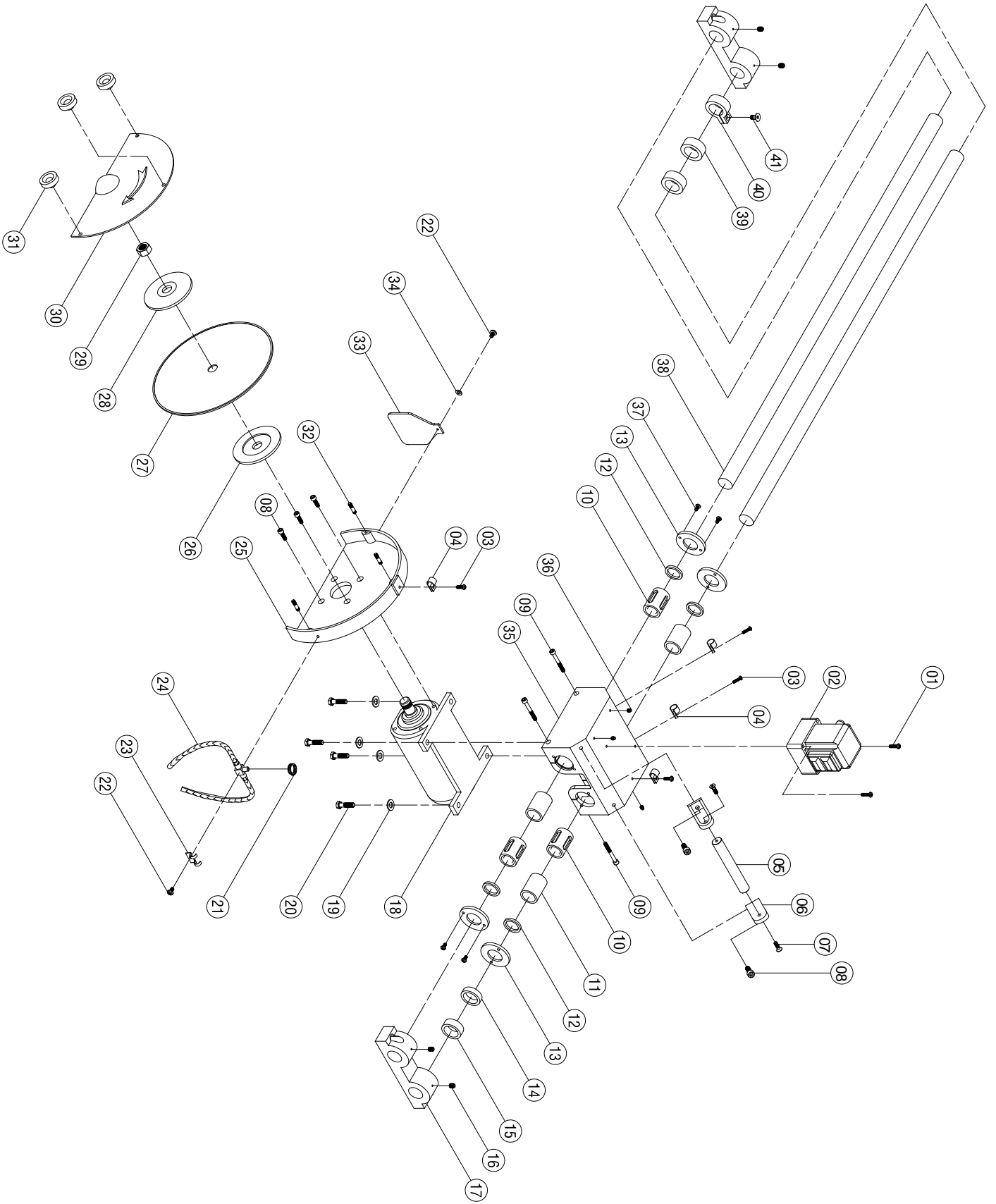
The Abaco Tile Saw TS1 has a "cast aluminum machined working table" guided by dual linear bearings on induction hardened chrome bar (Rust Free). The Saw includes a powerful 1.5 HP motor with a thermal protective overload.



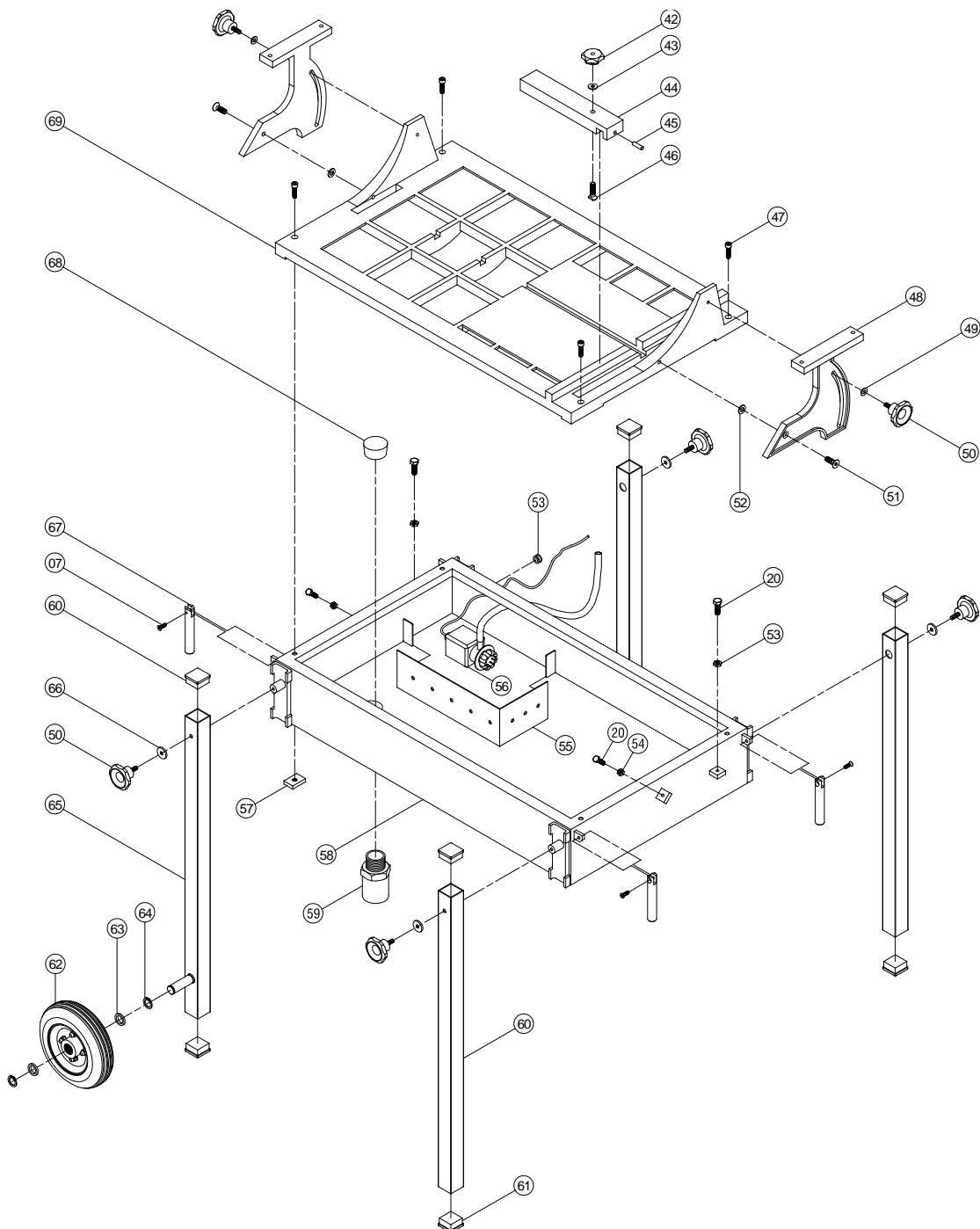
Model Number	MOD-TS1 (USA Model)	MOD-TS1 (Australia Model)
Power HP	1.5 HP	1.1 KW
Voltage	110V	240V
Hertz (Cycle)	60	50
Full Load Amps	14.4	7.2
Blade/Motor RPM	3400	2800
Switch	Contains Thermal Circuit Breaker	
	Inches	Millimeters
Blade Capacity	10	254
Arbor Size	1	25.4
Depth of Cut at 90°	2	55
Depth of cut at 45°	1.2	30
Length of Cut	24	600
Working Table	31 x 22	800 x 550
Saw Weight (uncrated)	123 lbs	55kg
Saw Weight (crated)	165 lbs	75kg
Saw Dimensions L x W x H	36 x 22 x 48	920 x 550 x 1200
Crated Dimensions	44 x 28 x 26	1100 x 700 x 650
Water Tray	36 x 22 x 6	920 x 550 x 150
Water Tray Capacity	18G	70L

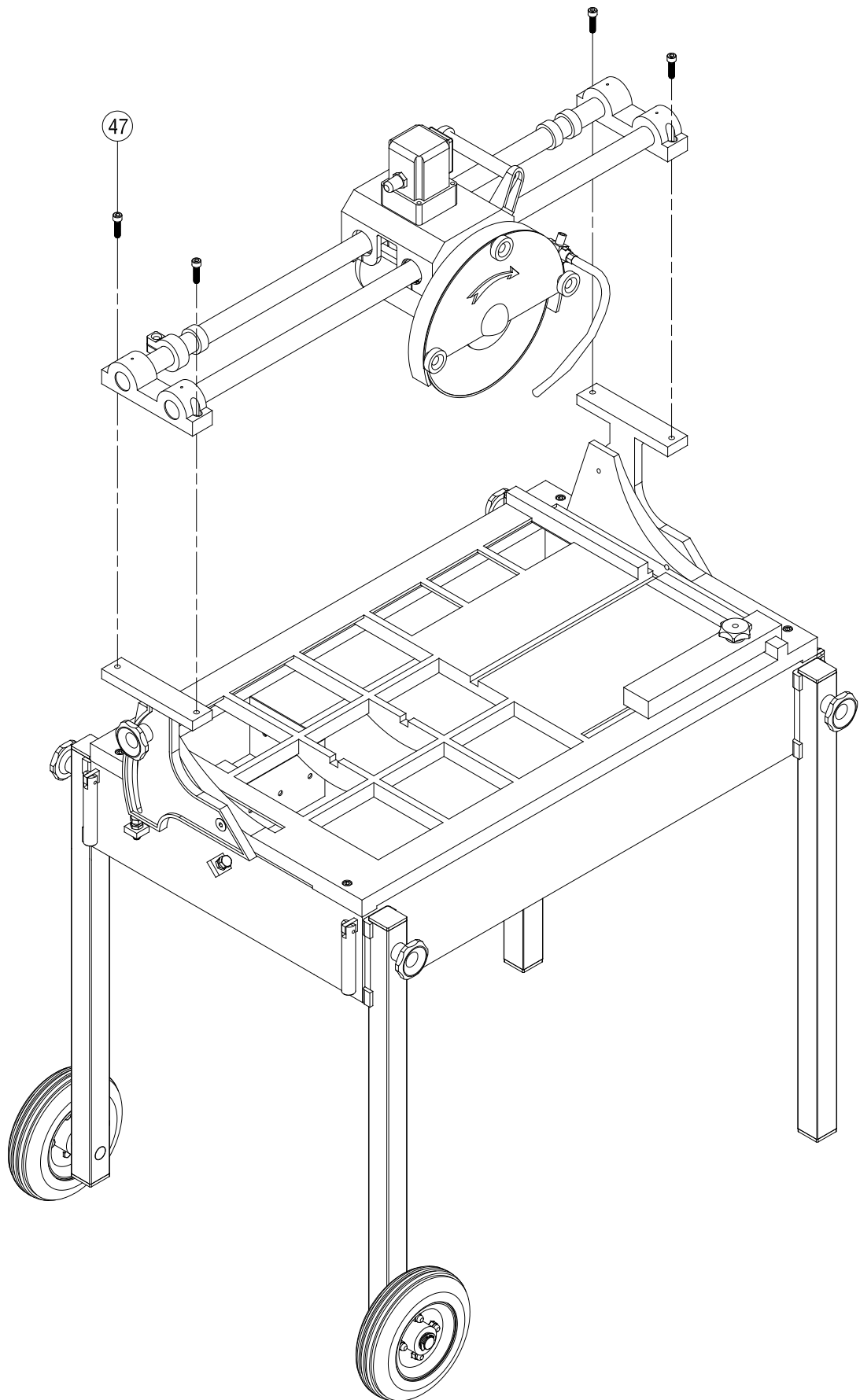
Number	Description	Qty.	Number	Description	Qty.
1	Screw M5 x 50	2	22	M6 x 15 Screw	2
2	Switch	1	23	Nozzle Holder	1
3	Screw M4 x 15	4	24	Nozzle	1
4	Nylon P Clip	4	25	Blade Guard	1
5	Handle	1	26	Motor Flange (inside)	1
6	Handle Bracket	2	27	Blade	1
7	Counter Sunk Cap Screw M6 x 20	6	28	Motor Flange (outside)	1
8	Cap Screw M8 x 20	6	29	M20 Nut	1
9	Cap Screw M6 x 50	4	30	Blade Cover	1
10	Linear Bearing LBB 30	3	31	M6 Knob	3
11	Al. Protector Tube	3	32		3
12	Linear Bearing Seal	4	33	Rubber Pieces	1
13	Bearing Cover	4	34	Washer ø6 x ø12 x 1	1
14	Rubber Absorber ø30 x 10	1	35	Housing	1
15	Al. Stopper	1	36	M6 x 5 Grease Screw	3
16	Cup Point Screw M8 x 10	4	37	M5 x 15 Screw	8
17	Chrome Bar Holder	2	38	Induction Hard Chrome Bar 030	2
18	Motor 1.1 KW	1	39	Rubber Absorber ø30 x 20	2
19	Washer ø8 x ø19 x 1.5	4	40	Head Stopper	1
20	Hex Bolt M8 x 30	8	41	M18x20 Counter Sunk Cap Screw	1
21	Hose Clamp	2			





Number	Description	Qty.	Number	Description	Qty.
42	Mid Knob	1	56	Water Pump	1
43	Washer $\phi 10 \times \phi 23 \times 1$	1	57	Aluminum Table Lock M8	4
44	Stop Guide	1	58	Water Tray	1
45	Stop Guide Pin	1	59	PVC Connector Male	1
46	M10 x 35 Counter Sunk Cap Screw	1	60	Tray Leg	2
47	M8x 40 Cap Screw	8	61	Rubber Cap 40 x 40	8
48	Swing Arm	2	62	Solid Rubber Wheel $\phi 25$	2
49	Washer $\phi 19 \times \phi 8 \times 0.8$	2	63	Copper Washer $\phi 20 \times \phi 24 \times 1$	4
50	M8 Knob	6	64	Circlip $\phi 18$	4
51	M10 x 35 Counter Sunk Cap Screw	2	65	Tray Leg With Wheel Shaft	2
52	Washer $\phi 10 \times \phi 20 \times 1$	2	66	Washer $\phi 8 \times \phi 7 \times 2$	4
53	Rubber Grommet	1	67	Tray Handle	4
54	M8 Nut	4	68	Rubber Plug	1
55	Water Pump Protector	1	69	Saw Table	1





### **3. Unpacking and Assembly of the Abaco Tile Saw TS1**

#### **UNPACKING**

Your Saw has been shipped from our factory thoroughly inspected. The Saw has been aligned, adjusted, and ready for work.

#### **Package Contents**

Packed into your container you will find:

- 1 x Abaco TILE SAW TS1
- 1 x Water Recycling Pump (installed)
- 1 x Pump Guard/ Water Filter (installed)
- 1 x Cutting Guide
- 1 x Spanner
- 1 x Allen Key 6mm
- 2 x Legs With Wheels
- 2 x Legs
- 4 x Knob Screws for Legs
- 1 x Water Tray Drain Plug
- 1 x Overflow Drain Valve

#### **Assembly**

*THE TILE SAW TS1 COMES STANDARD WITH THE EUROPEAN POWER PLUG.*

1. Alternately this power plug has been removed. Ensure that the correct plug is fitted to the power cable. Check with your local authorized service center for more information.
2. Ensure that the Saw is placed on level ground.
3. Screw the 4 legs onto the water tray of the Saw using the 4 knob screws provided, ensuring that the legs with wheels are at the motor's beginning (closest to the water pump).
4. Loosen the 'Travel Lock' on the chrome bars before use.

Your Abaco TILE SAW TS1 comes standard with a 'Travel Lock' located on the induction hardened chrome bar.

1. Before transporting the Saw, ensure that the 'Travel Lock' is in position and tighten using the 6mm Allen Key supplied.
2. Return the Saw's head to first position.
3. Slide the 'Travel Lock' against the Saw's head.
4. Tighten using the 6mm Allen Key supplied.

### **Diamond Blade Installation**

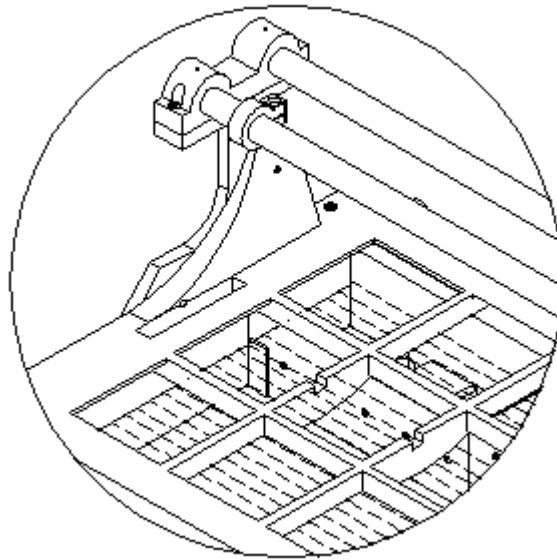
**Important** - Do **not** "cross thread" and do **not** over tighten the retaining-nut.  
*The Abaco TILE SAW TS1 can only be fitted with a 10" diamond blade.*

1. Use the spanner and 6mm Allen Key provided.
2. Ensure the power is **OFF** and the power cable is disconnected.
3. Remove the blade cover by unscrewing the 3 black knobs.
4. Insert the 6mm Allen Key into the middle of the motor shaft behind the motor fan. This will lock the shaft.
5. While holding the Allen Key, remove the retaining-nut (left hand thread) and outer flange using the spanner provided.
6. Install the diamond blade onto the blade shaft.
7. Make sure that the direction of rotation is correct.
8. Verify that the arrow on the blade cover and arrow on the blade are rotating in the same direction.
9. Reinstall the outer flange and retaining-nut (left hand thread) holding the shaft locked with the Allen Key. Tighten the retaining-nut.
10. Reinstall the blade cover by screwing back on the 3 black knobs.

## Water Pump Operation

The water pump is designed for water recirculation.

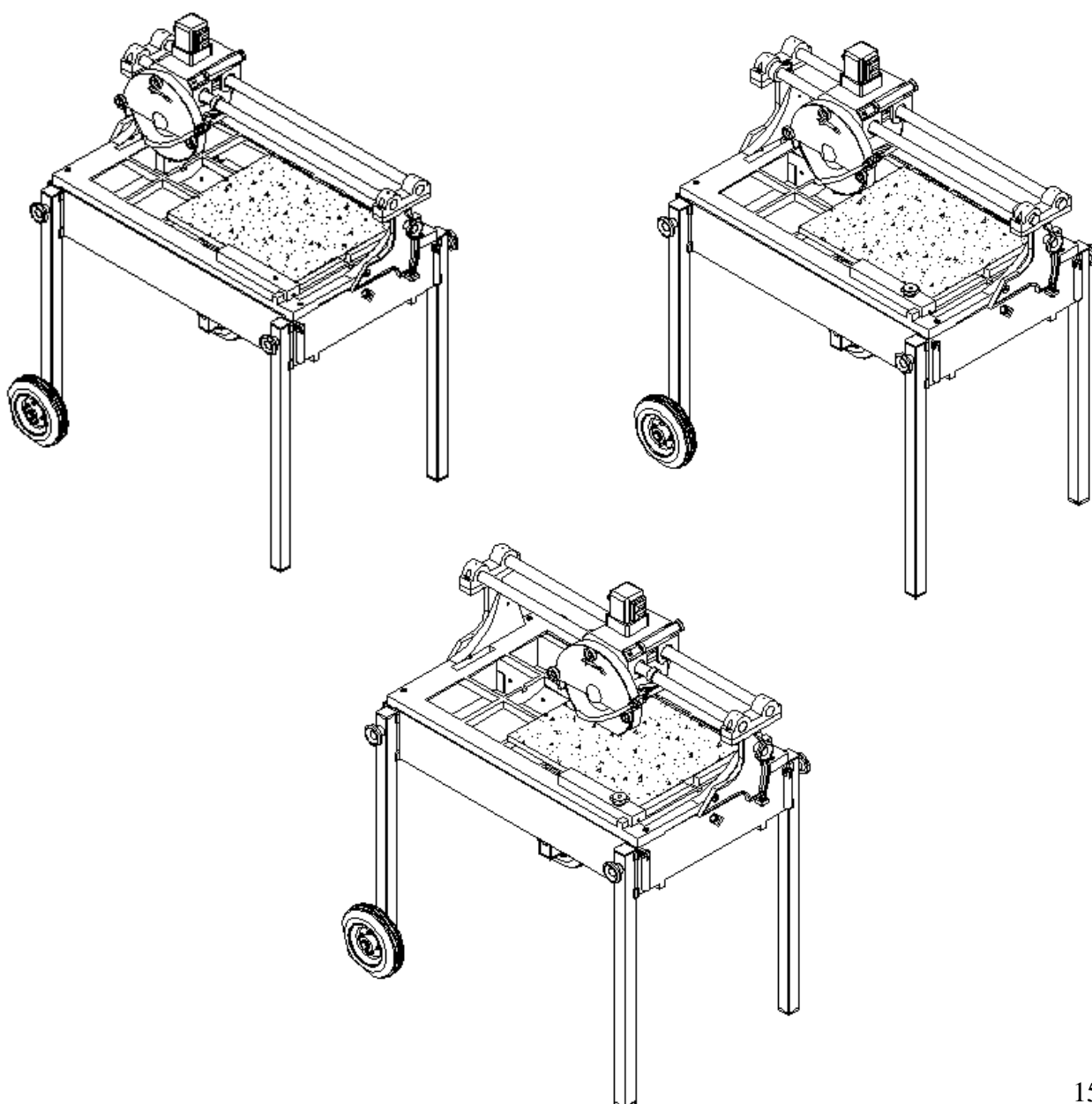
1. Ensure that the drain plug is installed into the water tray.
2. Ensure that the water pump guard is installed.
3. Fill the water tray until the water completely covers the water pump.
4. The overflow drain valve is supplied for use of the Saw when indoors or a place that the water in the water tray cannot simply be let out.
5. Screw the overflow drain valve to the under side of the drain hole.
6. Connect a hose to the overflow drain valve to run water to the desired location.
7. Remove the drain plug in the water tray to start water removal.



#### 4. Operating the Abaco Tile Saw TS1

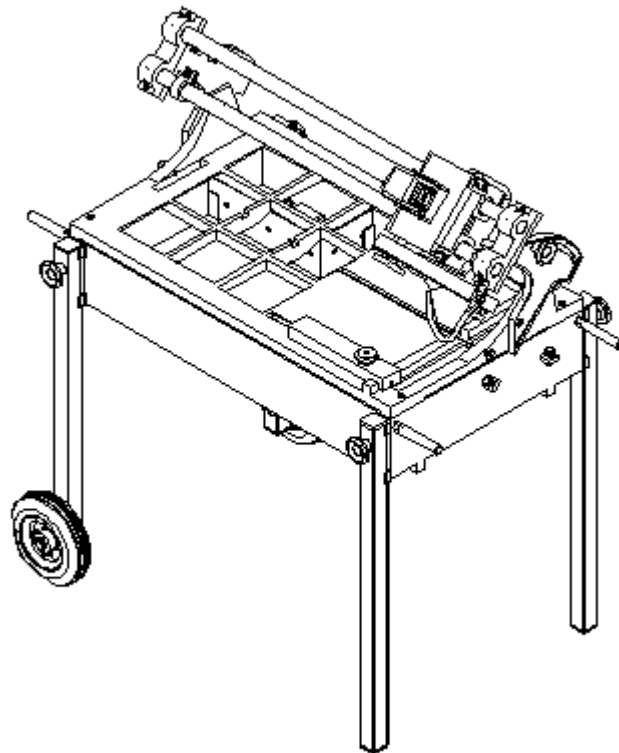
##### Cutting Straight Edges

1. Ensure the Saw is turned **OFF**.
2. Tighten the cutting guide to the desired location using the ruler on the working table.
3. Place the tile against the ruler and the cutting guide.
4. Turn the motor **ON**.
5. Make sure water is flowing through the nozzles before cutting.
6. Perform the cut.
7. Turn the motor **OFF** when complete.



### Cutting 45° Miter

1. Ensure the Saw is turned **OFF**.
2. Loosen both knobs on the swing arms of the Saw.
3. Swing the tile saw's head over to 45°.
4. Tighten both knobs on the swing arms of the Saw.
5. Tighten the cutting guide to the desired location using the ruler on the working table.
6. Place the tile against the ruler and the cutting guide.
7. Turn the motor **ON**.
8. Make sure the water is flowing through the nozzles before cutting.
9. Perform the cut.
10. Turn the motor **OFF** when complete.





### **Cutting Step Treads**

1. Ensure the Saw is turned **OFF**.
2. Turn the hand wheel on the top of the Saw to the desired height.
3. Once the desired height has been reached, lock the wheel with the locking lever located next to the hand wheel lever.
4. Tighten the cutting guide to the desired location using the ruler on the working table.
5. Place the tile against the ruler and the cutting guide.
6. Turn the motor **ON**.
7. Make sure the water is flowing through the nozzles before cutting.
8. Perform the cut.
9. Turn the motor off when the cut is complete.
10. Repeat steps 4, 5, 6, 7, 8, 9.
11. Turn the motor **OFF** when complete.

### **5. Clean Up**

To ensure long life of the water pump, it is should be cleaned after **every** job.

1. Ensure the Saw is turned **OFF**.
2. Drain water from the water tray.
3. The water pump comes apart for easy cleaning.
4. Clean the water pump.
5. Clean the water tray.
6. Clean the Tile Saw with clean water.

## 6. Maintenance

To ensure long life of the Saw, maintenance should be performed after **each** use.

1. Ensure the Saw is turned **OFF**.
2. Unplug the Saw at the wall socket.
3. Wipe the induction hardened chrome bars after every use with a clean cloth.
4. Remove the diamond blade and lubricate the retaining-nut, outer flange and inner flange with light oil such as WD-40.
5. Periodically lubricate the leg screw threads and the blade cover knobs with light oil such as WD-40.

## 7. Troubleshooting

### Blade Dressing

Diamond blades perform best when they are dressed. Over time and use, diamonds on the outer edge of the blade will become smoothed or “glazed over”.

This will reduce cutting efficiency and may cause the blade to wander or bend giving the illusion of an alignment problem. When this occurs the blade will need to be “dressed”. You can dress your blade using a dressing block.

1. Ensure the Saw is turned **OFF**.
2. Tighten the cutting guide to the desired location using the ruler on the working table.
3. Place the dressing block against the ruler and the cutting guide.
4. Turn the motor **ON**.
5. Make sure the water is flowing through the nozzles before cutting.
6. Cut the dressing block 5 – 10 times to dress the blade.
7. Turn the motor **OFF** when complete.

### Blade Will Not Cut Properly

1. Check for smoothness or “glazing”. Dress blade (see above) if required.
2. Check that rotation direction is correct. Verify that the arrow on the blade cover and arrow on the blade are rotating in the same direction.
3. Ensure that there is tension in the blade. If bent, change the blade.
4. Ensure that you use the correct blade for the material being cut.
5. Contact your distributor for repair details.

### Water Pump Problems

1. Disassemble the pump casing and check for debris/restrictions.
2. Check the pump's impeller for damage.
3. Check the hose line and nozzles for debris/restrictions.
4. Contact your distributor for repair details.

