

2. General Health & Safety Guidance

Ensure that you carefully read and fully understand the instructions in this manual before assembly, installation and use of this product. Keep these instructions in a safe place for future reference.

WARNING: for your own safety, do not attempt to operate this machine until it is completely assembled and installed according to these instructions.

WARNING: When using any machine, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

Safe Operation

1. Use Personal Protective Equipment (PPE)

- The operation of any machine can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Protective eyewear or other suitable eye protection or face shield should be used at all times. Everyday spectacles only have impact resistant lenses. They are not protective eyewear and do not give additional lateral protection.
- Use respiratory protective equipment (dust mask etc.) if the machining operation creates dust. Exposure to high levels of dust created by machining hardwoods, softwoods and man made composite boards can result in serious health problems. Some imported hardwoods give off highly irritating dust, which can cause a burning sensation. The use of respiratory protective equipment should not be seen as an alternative to controlling the risk of exposure at source by using adequate dust extraction equipment.
- The use of ear plugs or ear defenders is recommended when the machine is in use, particularly if the noise level exceeds 85 dB.
- Wear suitable protective gloves when handling cutting tools or blades. Gloves should NOT be worn when using the machine as they can be caught in moving parts of the machine.
- Non-slip safety footwear is recommended when using the machine and handling large work pieces.

2. Dress appropriately

- Do not wear loose clothing, neckties or jewellery; they can be caught in moving parts of the machine.
- Roll up long sleeves above the elbow.
- Wear protective hair covering to contain long hair.

3. Safety warnings

- Find and read any warning labels on the machine
- It is important that any labels bearing health and safety warnings are not removed, defaced or covered. Replacement labels can be obtained by contacting our Customer Service Department.

4. Familiarise yourself with the machine

- If you are not thoroughly familiar with the operation of this machine, obtain advice from your supervisor, instructor, or other qualified person or contact your retailer for information on training courses. Do not use this machine until adequate training has been undertaken.

5. Take care when moving or positioning the machine

- Some machines can be very heavy. Ensure the floor of the area in which the machine is to be used is capable of supporting the machine.
- The machine and its various components can be heavy. Always adopt a safe lifting technique and seek assistance when lifting heavy components. In some cases it may be necessary to use mechanical handling equipment to position the machine within the work area.
- Some machines have optional wheel kits available to allow them to be manoeuvred around the workshop as required. Care should be taken to install these according to the instructions provided.
- Due to the nature of the design of some machines the centre of gravity will be high making them unstable when moved. Extreme care should be taken when moving any machine.
- If transportation of the machine is required then all precautions relating to the installation and handling of the machine apply. In addition, ensure that any vehicles or manual handling equipment used for transportation

are of adequate specification.

6. The machine should be level and stable at all times

- When using a leg stand or cabinet base that is designed to be fitted to the machine, always ensure that it is securely fastened to the machine using the fixings provided.
- If the machine is suitable to be used on a workbench, ensure that the workbench is well constructed and capable of withstanding the weight of the machine. The machine should always be securely fastened to the workbench with appropriate fixings.
- Where possible, floor standing machines should always be secured to the floor with fixings appropriate to the structure of the floor.
- The floor surface should be sound and level. All of the feet of the machine should make contact with the floor surface. If they do not, either re-locate the machine to a more suitable position or use packing shims between the feet and the floor surface to ensure the machine is stable.

7. Remove adjusting keys and wrenches

- Ensure that all adjusting wrenches and keys are removed before switching the machine 'ON'. There is a risk of severe personal injury or damage to the machine from airborne objects.

8. Before switching the machine 'ON'

- Clear the machine table of all objects (tools, scrap pieces etc.)
- Make sure there is no debris between the work piece and the table / work support.
- Ensure that the work piece is not pressed against, or touching the saw blade or cutting tool.
- Check all clamps, work holding devices and fences to ensure that they are secure and cannot move during machining operations.
- Plan the way that you will hold and feed the work piece for the entire machining operation.

9. Whilst machining

- Before starting work, watch the machine while it runs. If it makes an unfamiliar noise or vibrates excessively, switch the machine 'OFF' immediately and disconnect it from the power supply. Do not restart until finding and correcting the source of the problem.

10. Keep the work area clear

- Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine and space for auxiliary stands and/or work tables. Also consider the relative position of each machine to one another for efficient material handling. Be sure to allow yourself sufficient room to safely operate your machines in any foreseeable operation.
- Cluttered work areas and benches create the risk of accidents. Keep benches clear and tidy away tools that are not in use.
- Ensure that the floor area is kept clean and clear of any dust and debris that may create trip or slip hazards.

11. Consider the work area environment

- Do not expose the machine to rain or damp conditions.
- Keep the work area well lit and ensure that there is artificial lighting available when there is insufficient natural light to effectively light the work area. Lighting should be bright enough to eliminate shadow and prevent eye strain.
- Do not use the machine in explosive environments eg. in the presence of flammable liquids, gases or dust.
- The presence of high levels of dust created by machining wood can present a risk of fire or explosion. Always use dust extraction equipment to minimise the risk.

12. Keep other persons away (and pets)

- The machine is designed to be used by one person only.
- Do not let persons, especially children, touch the machine or extension cable (if used) and keep visitors away from the work area.
- Never leave the machine running unattended. Turn the power supply off and do not leave the machine unattended until it comes to a

2. General Health & Safety Guidance

complete stop.

- If the work area is to be left unattended, all machinery should be switched 'OFF' and isolated from the mains power supply.

13. Store machines safely when not in use

- When not in use, machines should be stored in a dry place, out of reach of children. Do not allow persons unfamiliar with these instructions or with the machine to operate it.

14. Do not overreach

- Choose a working position that allows your body to remain balanced and feed the work piece in to the machine without overreaching.
- Keep proper footing and balance at all times.

15. Electrical supply

- Electrical circuits should be dedicated to each machine or large enough to handle combined motor amp loads. Power outlets should be located near each machine so that power or extension cables are not obstructing high-traffic areas. Observe local electrical guidelines for proper installation of new lighting, power outlets, or circuits.
- The machine must be connected to an earthed power supply.
- The power supply must be equipped with a circuit breaker that provides short circuit, overload and earth leakage protection.
- The voltage of the machine must correspond to the voltage of the mains power supply.
- The mains plug fitted to the machine should always match the power outlet. Do not modify the plug in any way. If a replacement plug is required it should be fitted by a competent person and of the correct type and rating for the machine.
- If you are unsure about any electrical connections always consult a qualified electrician.

16. Avoid unintentional starting of the machine

- Most machines are fitted with a no-volt release (NVR) switch to prevent unintentional starting. If in doubt always ensure the machine switch is in the 'OFF' position before connecting it to the power supply. This means the machine will not automatically start up after a power cut or switching on of the power supply, unless you first reset the start switch.

17. Outdoor use

- Your machine should not be used outdoors.

18. Extension cables

- Whenever possible, the use of extension cables is not recommended. If the use of an extension cable is unavoidable, then it should have a minimum core cross section of 2.5 mm² and limited to a maximum length of 3 metres.
- Extension cables should be routed away from the direct working area to prevent a trip hazard.

19. Guard against electric shock

- Avoid body contact with earthed or grounded surfaces such as pipes and radiators. There is an increased risk of electric shock if your body is earthed or grounded.

20. Always work within the machine's intended capacities

- Operator safety and machine performance are seriously adversely affected if attempts to make the machine perform beyond its limits are made.

21. Do not abuse the power cable

- Never pull the power cable to disconnect it from the power socket. Always use the plug.
- Keep the power cable away from heat, oil and sharp edges.
- Do not use the power cable for carrying or moving the machine.

22. Secure the work piece

- Ensure that the work piece is securely held before starting to machine it.
- When working within 300 mm of the machining area, always use a push stick to feed the work piece in to the blade or cutting tool. The push stick should have a minimum length of 400 mm. If the push stick becomes damaged, replace it immediately.
- Use extra supports (roller support stands etc.) for any work pieces large enough to tip when not held down to the table top.

- Do not use another person as a substitute for a table extension, or as additional support for a work piece that is longer or wider than the basic table, or to help feed, support, or pull the work piece.

- Do not attempt to machine more than one work piece at a time.

- When feeding the work piece towards the blade or cutting tool never position your hands in direct line of the cutting path. Avoid awkward operations and hand positions where a sudden slip could cause your hand or fingers to move into the machining area.

23. Stay alert

- Safety is a combination of operator common sense and alertness at all times when the machine is being used.
- Use all machines with extreme care and do not use the machine when you are tired or under the influence of drugs, alcohol or medication.

24. Use the correct tool for the job

- Do not use the machine for any purpose other than which it was designed.
- When selecting replacement cutting tools and blades, always ensure that they are designed to cut the material that you intend to use them for. If in any doubt seek further advice from the manufacturer.

25. Connect dust extraction equipment

- Always use dust extraction equipment. The dust extractor should be of suitable size and capacity for the machine that it is connected to and have a filtration level appropriate to the type of waste being collected. Refer to the relevant section of the manual for details of the specific dust extraction requirements for this machine.
- The dust extractor should be switched 'ON' before starting the machine that it is connected to. The dust extractor should be left running for 30 seconds after the last machining operation is complete in order to clear any residual waste from the machine.

26. Ensure that the machine is correctly guarded

- Never use the machine if any of the standard safety guards and equipment are removed or damaged.
- Some machines incorporate safety interlocks to prevent the machine from being used without the guards in place. Never attempt to bypass or modify the interlocks to allow the machine to be used without the guards in place.

27. Maintain your machine with care

- This manual gives clear instructions on installation, set up and operation of the machine and also details any routine and preventative maintenance that should be performed periodically by the user.
- Remember always to switch off and unplug the machine from the power supply before carrying out any setting up or maintenance operations.
- Follow any instructions for the maintenance of accessories and consumables.
- Do not use compressed air to clean the machine. Always use a brush to dislodge dust in places that are awkward to reach and a dust extractor to collect the waste.
- Inspect electric cables periodically and, if damaged, have them replaced by an authorised service facility or qualified electrician.
- Inspect extension cables (if used) periodically and replace if damaged.

28. Keep cutting tools sharp and clean

- Correctly maintained cutting tools are easier to control and less likely to bind.
- Cutting tools and blades can become hot during use. Take extreme care when handling them and always allow them to cool before changing, adjusting or sharpening them.

29. Disconnect the machine from the power supply

- When not in use, before servicing, changing blades etc. always disconnect the machine from the power supply.

30. Check for damaged parts

- Before each use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function.
- Check for alignment of moving parts, binding of moving parts, breakage

2. General Health & Safety Guidance

of parts and any other conditions that may affect the operation of the machine.

- A guard or other part that is damaged should be properly repaired or replaced by a qualified person unless otherwise indicated in this instruction manual.
- Do not use the machine if the switch does not turn the machine 'ON' and 'OFF'.
- Have defective switches replaced by a qualified person.

31. Warning!

- The use of any accessory or attachment, other than those recommended in this instruction manual, or recommended by our Company may present a risk of personal injury or damage to the machine and invalidation of

the warranty.

32. Have your machine repaired by a qualified person

- This machine complies with the relevant safety rules and standards appropriate to its type when used in accordance with these instructions and with all of the standard safety guards and equipment in place. Only qualified persons using original spare parts should carry out repairs. Failure to do this may result in considerable danger to the user and invalidation of warranty.

33. Caution! Motor may become hot during use

- It is normal for motors on some machines to become hot to the touch during use. Avoid touching the motor directly when in use.

3. Additional Health & Safety Guidance for Planer Thicknessers

WARNING: FOR YOUR OWN SAFETY, DO NOT ATTEMPT TO OPERATE YOUR PLANER THICKNESSER UNTIL IT IS COMPLETELY ASSEMBLED AND INSTALLED ACCORDING TO THESE INSTRUCTIONS

Safe Operation

1. The planer thicknesser should be level and stable at all times

- If using an optional wheel kit to position the machine within your workshop, never attempt to move the machine with the surface tables in the raised position as this will raise the centre of gravity and make the machine unstable.

2. Familiarise yourself with the machine

- Machining operations using planer thicknessers have a history of serious accidents. Most accidents resulted from contact with the cutter block when surface planing due to the guard being incorrectly adjusted or missing from the machine.
- The machine is designed for planing hard and soft woods. It is not designed for planing any other material.
- Do not attempt to perform rebating, moulding, cutting tenons and recessing. The machine is designed to prevent these operations from being performed. Do not modify the machine in order to attempt any of these operations.

3. Before switching the machine 'ON':

- Set and secure safety guards in position before operating the machine. Adjust the guards to suit the size of work piece. Full details of the correct setting of the guards is included within the manual.
- Before starting work, watch the planer while it runs. If it makes an unfamiliar noise or vibrates excessively, switch the machine 'OFF' immediately and disconnect it from the power supply. Do not restart until finding and correcting the problem.
- Regularly check that the blades and lock bars are locked tight in the cutter block.
- Regularly check the anti-kickback fingers of the thicknesser for proper operation.
- Make sure there are no nails, screws or foreign objects in the part of the work piece to be planed.
- Make sure there is no debris between the work piece and the table or fence.
- Check that the fence, guards and work holding devices are secure and that the fixings for them are fully tightened.
- Clear the planing tables of all objects (tools, scrap pieces etc.).
- Plan the way you will hold and feed the work piece from start to finish.

4. Whilst planing:

- Never remove any of the safety guards. Keep guards operational at all times.

- Use extra caution with large, very small or irregularly shaped work pieces.
- Use extra supports (roller support stands etc) for any work pieces large enough to tip when not held down to the table top.
- Do not use another person as a substitute for a table extension, or as additional support for a work piece that is longer than the basic planer table, or to help feed, support, or pull the work piece.
- When planing irregularly shaped work pieces, or chamfering with the fence at 45°, plan your work support so it will not slip and be pulled from your hands.
- When planing short work pieces an additional push block should be used. Never attempt to plane a work piece that is too small to hold by hand.
- Avoid awkward operations and hand positions where a sudden slip could cause fingers or hands to move into the cutter block.
- Never make planing cuts deeper than 3mm / 1/8".
- Plane only one work piece at a time.
- Keep your face and body to one side, out of line with a possible kick back.
- If the work piece binds when thicknessing the machine may stall. If this happens, switch the machine 'OFF' immediately and follow the instructions detailed in the manual for safely removing the work piece. Do not attempt to free the work piece whilst the machine is running.

5. Maintenance:

- Regularly check that all safety guards are present and in full working order.
- Regularly check that the bridge guard moves freely, both horizontally and vertically.
- Keep the guards clean and free from waste material and deposits of resin.
- Regularly clean the planer table and thicknesser bed and apply a suitable lubricant (silicone wax or spray to help the work piece slide easily).
- The planer knives should be sharpened regularly to reduce the risk of snatching and kick back.
- Do not exceed maximum allowable blade projection over cutter block of 1.0mm/ 0.040 inch +10%.

6. This machine falls under the scope of the 'Health & Safety at Work etc. Act 1974', and the 'Provision & Use of Work Equipment Regulations 1998'. In addition the elimination or control of risks from wood dust is included in the above regulations and the 'Control of Substances Hazardous to Health (COSHH) Regulations 2002'. We recommend that you study and follow these regulations.

Further guidance is available from The Health & Safety Executive and their website www.hse.gov.uk.

4. Specifications

Thicknesser feed rate: 7 M/min

Cutter block knives: 3

Cutter block diameter: 70 mm

Maximum thickening height: 200 mm

Maximum thickening width: 310 mm

Maximum thicknesser depth of cut: 3 mm

Maximum planing width: 310 mm

Maximum planer depth of cut: 3 mm

Motor input: 2.75 kW

Motor output: 2.2 kW

Dust port diameter: 100 mm

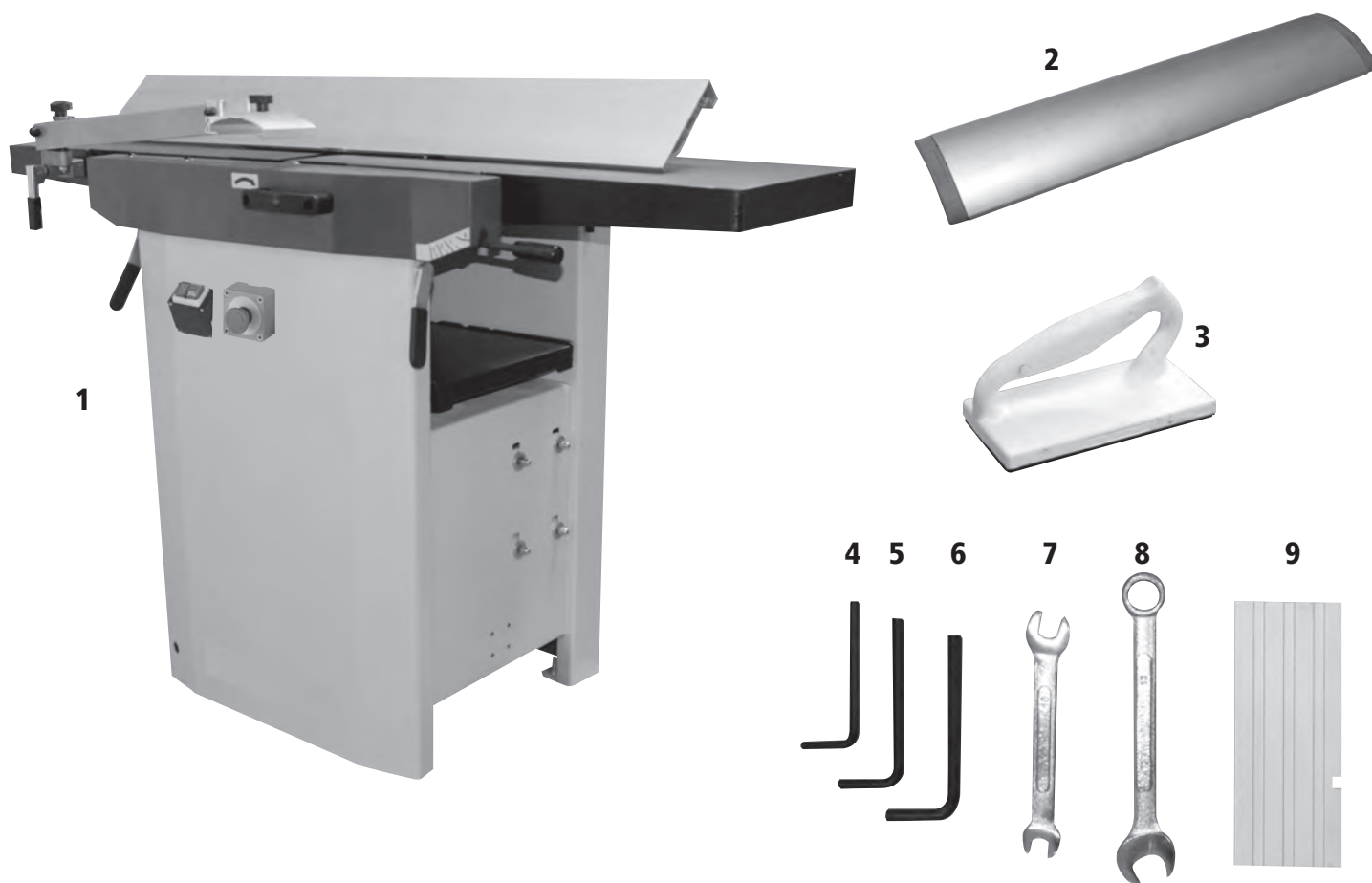
Weight: 202 kg

Size: W1407 x D745 x H1005 mm

Sound power level: no load: 98 dB(a), load: 107 dB(a)

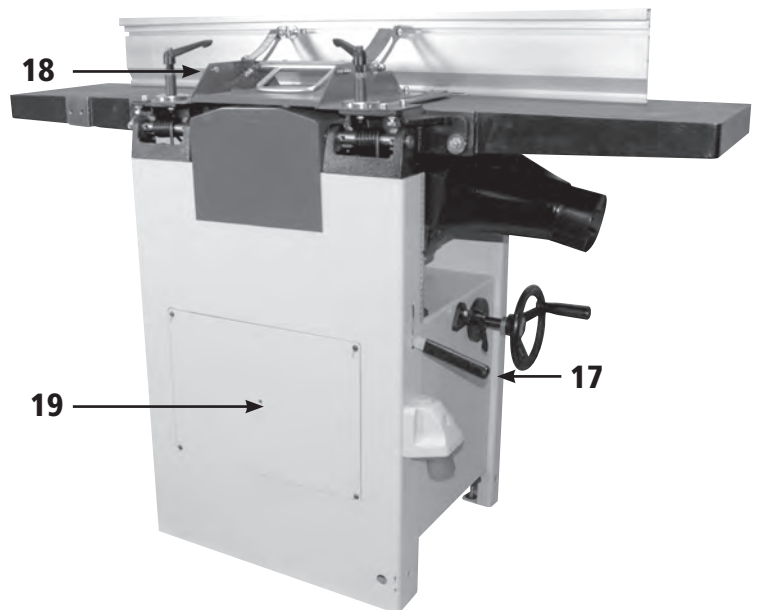
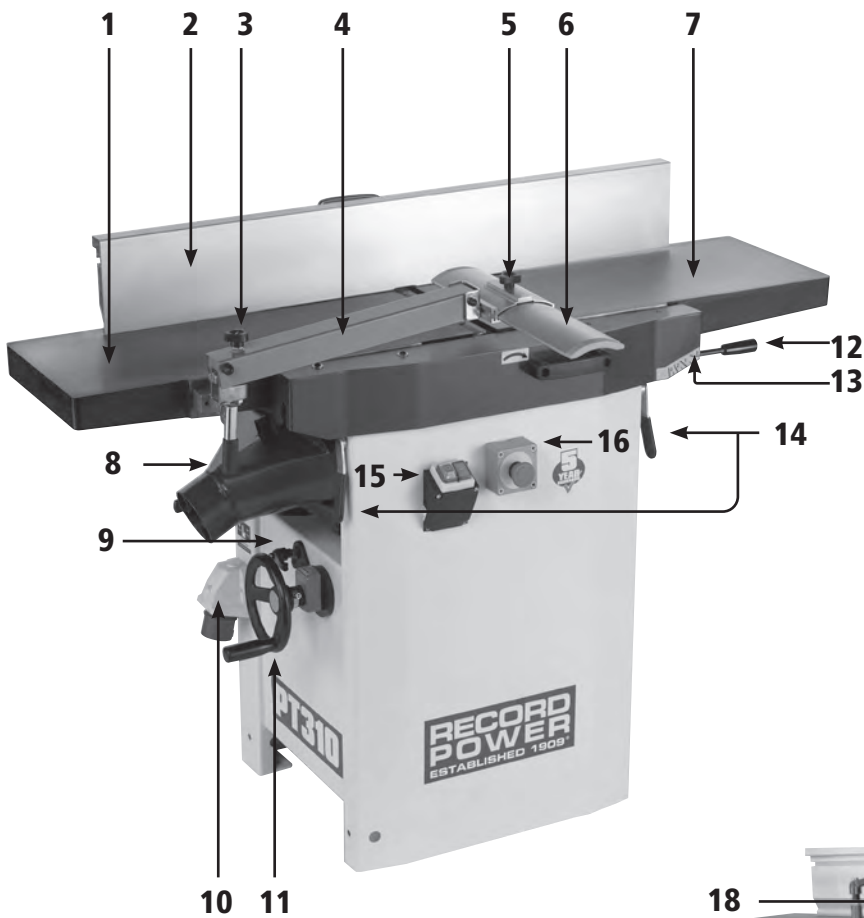
Sound pressure level: no load: 89 dB(a), load: 98 dB(a)

5. Contents of the Package



- 1 **PT310** 12 x 8" Planer
Thicknesser
- 2 Bridge guard
- 3 Push block
- 4 3 mm hex wrench
- 5 4 mm hex wrench
- 6 5 mm hex wrench
- 7 8 / 10 mm wrench
- 8 13 mm wrench
- 9 Blade setting jig

6. Getting to Know Your Planer Thicknesser



- | | |
|---------------------------------------|----------------------------------|
| 1 Outfeed table | 11 Thicknessing table hand wheel |
| 2 Fence | 12 Infeed table adjustment lever |
| 3 Bridge guard height adjustment knob | 13 Planing height scale |
| 4 Bridge guard bracket | 14 Table lock levers |
| 5 Bridge guard securing knob | 15 Power switch |
| 6 Bridge guard | 16 Emergency stop switch |
| 7 Infeed table | 17 Thicknessing clutch lever |
| 8 Dust extraction hood | 18 Fence mount |
| 9 Thicknesser table lock lever | 19 Access hatch |
| 10 Power input | |

7. Assembly

Unpacking



The planer thicknesser is a heavy machine. **DO NOT over-exert yourself while unpacking or moving the machine. You will need assistance and possibly powered equipment to move it. Serious personal injury may occur if safe moving methods are not adhered to.**



Warning: Never lift the machine by the planer tables when unloading as shown in Fig 7.1. Belt and chains may only be attached to the stand.

Before attempting to remove the machine from the pallet, remove the four mounting bolts from the base of the machine, positioned on the insides of each corner, **Fig 7.2**. If required, the machine can be attached to the workshop floor using these bolt holes once in position.

Ensure that lifting gear used has an adequate capacity and the load is secured against lateral slipping.

Unloading can be performed using a forklift, pallet jack or crane.

Manual unloading can also be carried out using sufficiently strong wooden battens placed beneath the thicknessing table as shown in **Fig 7.3**. These should protrude far enough from the machine to be comfortably held by four people, one at each end of each batten.



Warning: Some metal parts may have sharp edges on them. Please examine the edges of all metal parts before handling them. Failure to do so could result in injury.

Cleaning

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during transport. Remove this protective coating with a solvent cleaner, de-greaser or white spirit. For optimum performance of the machine, make sure to clean all moving parts or sliding contact surfaces that are coated. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact with them.

After cleaning it is recommended that Record Power **CWA195** Silicone Spray or wax be applied to the tables to give smooth movement of timber.



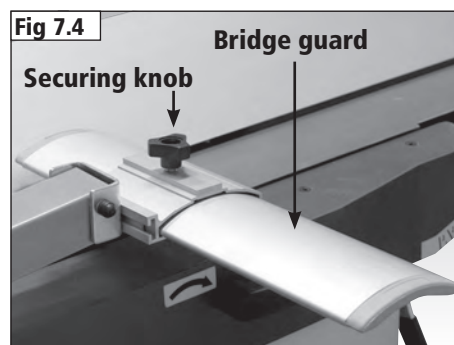
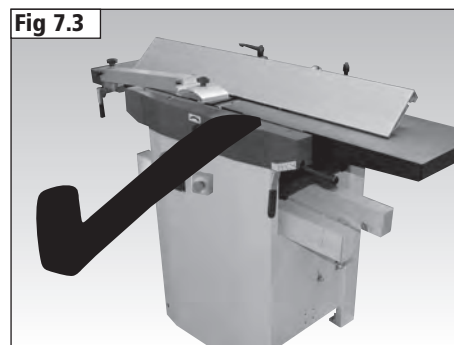
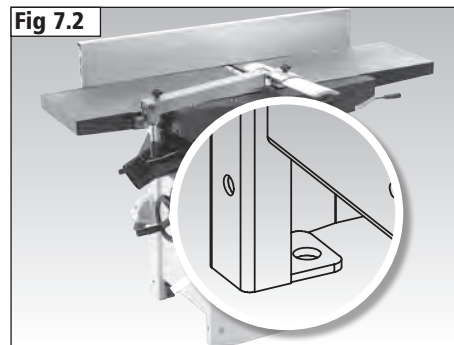
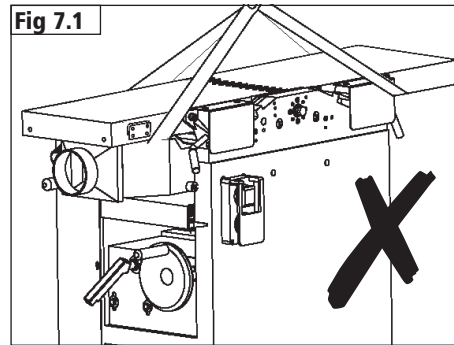
Warning: Do not use gasoline or other petroleum-based solvents to clean with. They have low flash points which make them extremely flammable. A risk of explosion and burning exists if these products are used.



Warning: Do not smoke while using solvents. A risk of explosion or fire exists and may result in serious personal injury.

The **PT310** is supplied almost fully assembled. Only the bridge guard must be installed prior to use.

Raise the guard securing knob to allow the guard to be passed through the fence bracket as shown in **Fig 7.4** and tighten to secure the guard in place.



8. Assembly of the Optional PT310-W Wheel Kit

The **PT310-W** Wheel Kit comprises a jockey bar, jockey bar bracket and pair of wheels.

Tools needed for assembly: 13 and 16 mm wrenches, 6 mm hex wrench and pliers.

To assemble the wheel kit, follow the diagram below. Use the pliers to prise open the split cotter pins to secure the wheels to the shafts.

To use the wheel kit, insert the notch of the jockey bar into the hole of the support bracket as shown in **Fig 8.2**. Press the jockey bar handle downwards to lift the machine from the ground and pull or push the machine into position using the jockey bar.

Fig 8.1

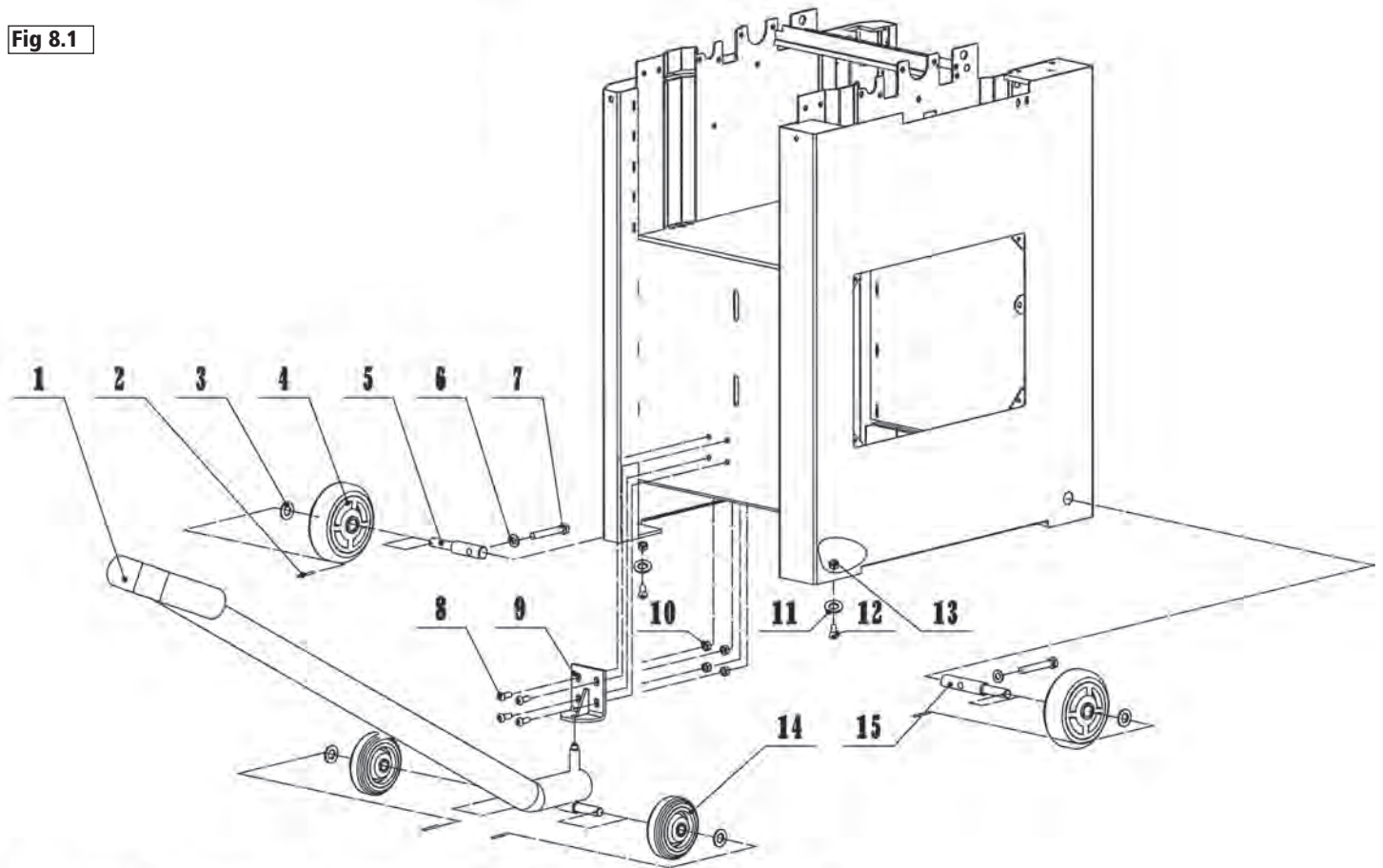
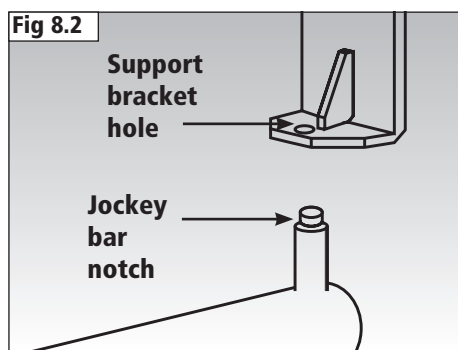


Fig 8.2



No.	Description	Part Number	Quantity	No.	Description	Part Number	Quantity
1	Jockey bar	JL26092000	1	9	Support bracket	JL43100007	1
2	Split cotter pin (3 x 35)	PIN3X35GB91Z	4	10	Flange plate nut	M8GB6177D1Z	4
3	Large washer	WSH16GB96Z	4	11	Base plate	JL43100006	2
4	Wheel	JL26090003	2	12	Screw	M10X25GB70D3Z	2
5	Short wheel shaft	JL43100003	1	13	Flange plate nut	M10GB6177D1Z	2
6	Flat washer	WSH14GB97D1Z	2	14	Wheel	JL43100001	2
7	Screw	M10X40GB70D2B	2	15	Long wheel shaft	JL43100002	1
8	Screw	M8X20GB70D2B	4				

9. Assembly of the Optional **PT310-DR** Digital Readout

If the **PT310-DR** Digital Readout is not pre-installed to the machine, follow the instructions below.

Before installing the digital readout to the machine, it must be set to the same height as the thickening table, shown here at 99 mm.

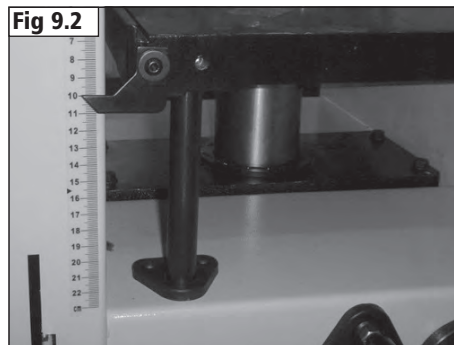
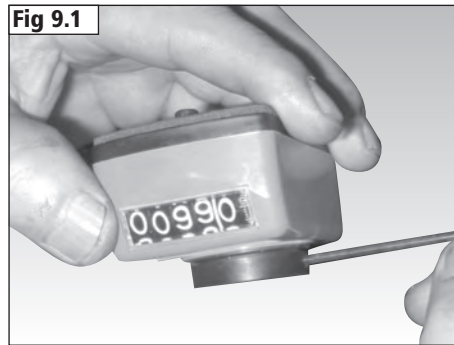
Using a 2.5 mm hex wrench, adjust the digital readout to show the value 99, **Fig 9.1**.

Set the height of the thickener table to 99 mm, **Fig 9.2**.

Remove the thickening table hand wheel using a 5 mm hex wrench to loosen the hex head socket bolt on the side of the hand wheel, **Fig 9.3**.

Install the digital readout over the hand wheel shaft as shown in **Fig 9.4**.

Re-fit the hand wheel as shown in **Fig 9.5**.



10. Operation

Prescribed Use of the Machine

This machine is intended for surface planing and thickness planing of solid woods. The permissible workpiece dimensions must be observed (see technical specifications).

Any other use is not as permitted. Improper use, modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage.

Working techniques

Permitted working techniques.

All uses deviating from those described below are considered improper uses and are therefore not permitted.

- Planing the wide side of a workpiece.
- Planing the narrow side of a workpiece.
- Bevelling the edges of a workpiece.

Prohibited Working Techniques

The following work techniques are prohibited on the machine. This list is not exhaustive.

- Down-cut jointing (direction of cutter block rotation same as feed direction).
- Insertion cuts (workpiece is not worked along its entire length).
- Planing of excessively warped timber.
- Thickness planing of multiple workpieces of different thicknesses.

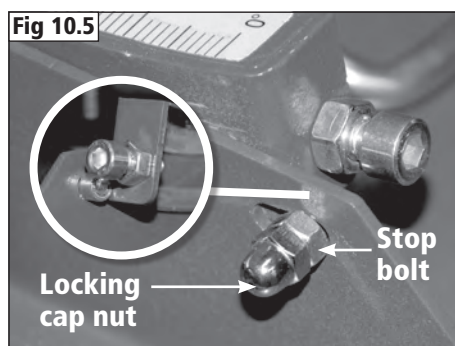
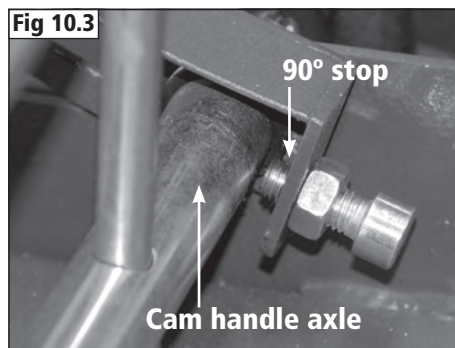
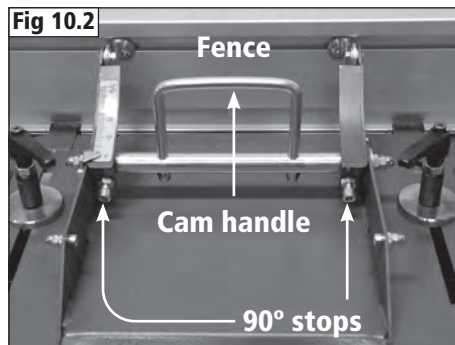
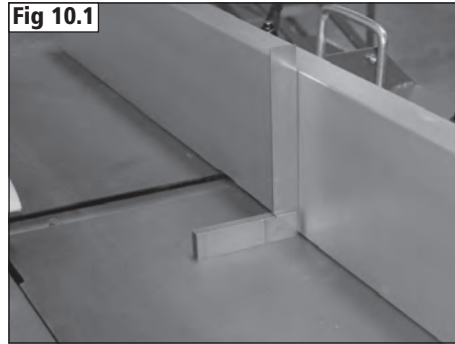


Before first use of the machine check that the fence is at 90° to the table to ensure accurate results. Use a set square as shown in Fig 10.1.

To adjust the fence, release the cam handle on the fence mount, **Fig 10.2**, and position the fence at 90° to the table. Lower the cam handle to secure the fence in place and adjust the 90° angle stops to be touching the cam handle axle as shown in **Fig 10.3**.

If necessary, reset the angle pointer to 0° as shown in **Fig 10.4**, using a 3 mm hex wrench to loosen the hex head socket bolts.

The Fence mount also features 2 stops, one on each side, for registering the fence at 45° to the table, **Fig 10.5**. To set these, ensure the fence is positioned at 45°, loosen the locking cap nut with a 10 mm wrench and adjust the position of the stop bolt using a 5 mm hex wrench until it touches the moving part of the fence mount as shown in **Fig 10.5**.



10. Operation

Setting the Infeed Table

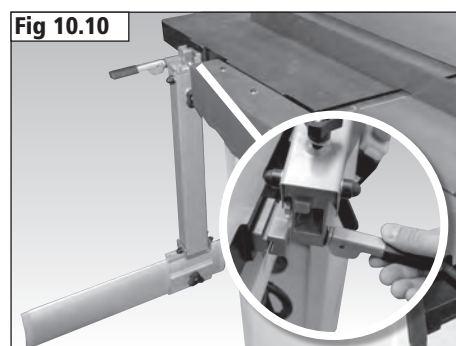
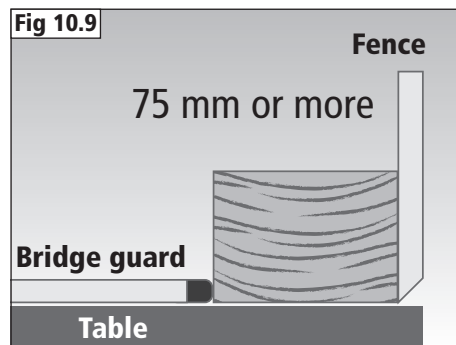
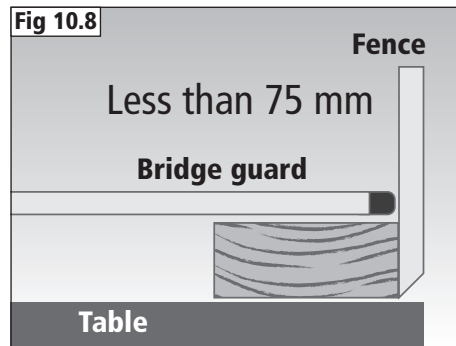
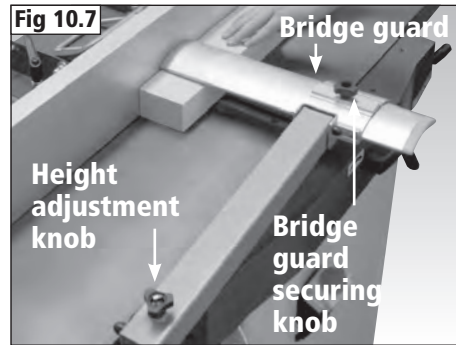
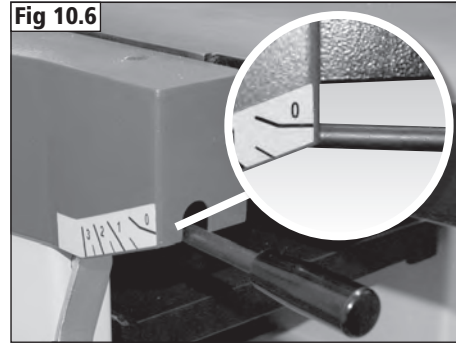
The infeed table features a lever on the side as shown in **Fig 10.6**. When at 0 mm, the table is aligned with the outfeed table and the upper edge of the lever is aligned with 0 on the scale. To set the depth of planing cut, simply position the lever so the upper edge is aligned with the required depth of cut.

Positioning the Bridge Guard

Place the timber on the tables and position the bridge guard to be as close as possible to the timber without touching it, **Fig 10.7**. To set the height of the bridge guard use the height adjustment knob on the bracket, **Fig 10.7**. Ensure the bridge guard is covering as much of the cutter block as possible by loosening the bridge guard securing knob, sliding the guard as far towards the fence as possible and re-tightening the knob.

The guard should always be used above the workpiece when planing timber below 75 mm in height, **Fig 10.8**. For timber greater in height than 75 mm, move the bridge guard up to the side of work-piece and let it rest on the planing table, covering as much of the cutter block as possible, **Fig 10.9**.

The guard can be used when planing timbers up to approximately 140 mm in height. When planing larger timber the guard can be moved away by lifting the bracket lever as shown in **Fig 10.10** and swinging the guard assembly anti-clockwise. This will leave the cutter block unguarded so extreme care must be taken. For additional protection, position the fence as far over the cutter block as possible.



10. Operation

The fence assembly features a rear guard as shown in **Fig 10.11**. When planing narrow workpieces, this guard covers the area of the cutter block which may otherwise be accessible from behind the fence.

To move the fence, release the cam handle by pulling it upwards as shown in **Fig 10.12** and slide the whole fence assembly to the required position before locking in place by pushing the cam handle down.

Surface Planing



Caution: Minimise positioning hands above the cutter block. It is not necessary to exert feeding pressure directly over the cutter block.



When surface planing, always feed the workpiece at a slow and consistent rate. Feeding the workpiece too quickly will reduce the quality of finish of the planed surface. Fine ridges or marks across the width of the workpiece are an indication that the feed rate is too fast.

Before switching the machine on, ensure the feed clutch is in the lower position as shown in **Fig 10.13**.

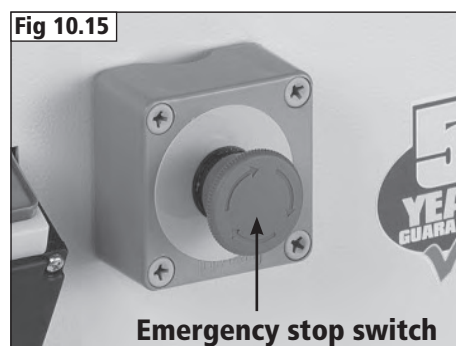
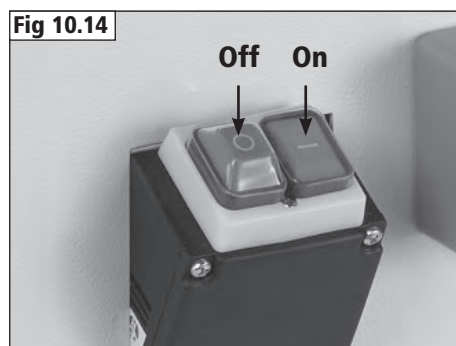
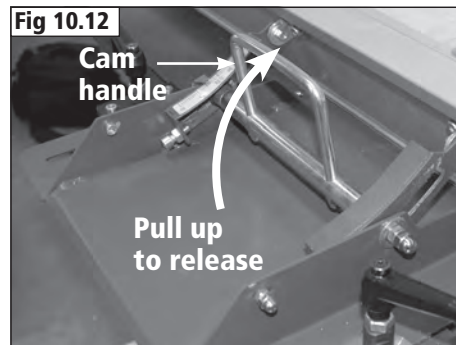
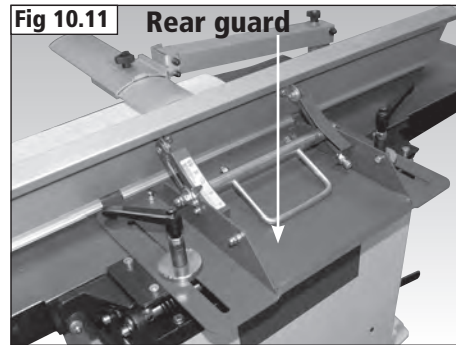
Power Switch

To switch the planer on press the green button marked 'I' on the On/ Off switch, **Fig 10.14**.

To switch the machine off press the red off button on the On/ Off switch marked 'O', **Fig 10.14**.

Emergency Switch

Pressing the emergency stop switch shown in **Fig 10.15** will turn the machine off and cut the power supply to it. The machine cannot be restarted until the emergency stop switch has been reset. To reset the switch turn it clockwise until the red button protrudes.



10. Operation

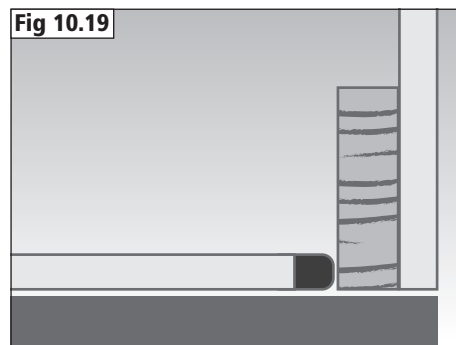
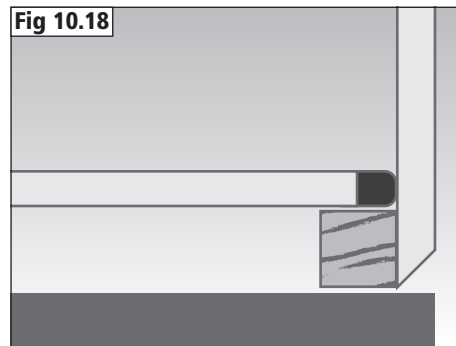
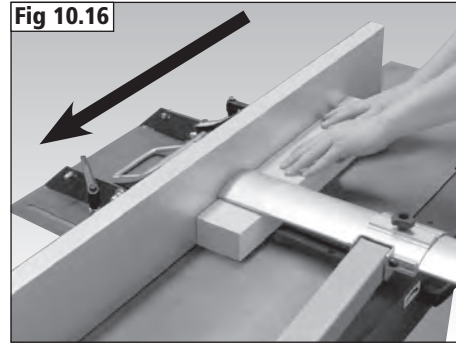
The minimum thickness of timber that can be planed is 5 mm and the maximum depth of cut is 3 mm. Always be careful when planing thin timber as hands will be in close proximity to the cutter block.

Correct hand placement when surface planing is important for good results and safe operation. Stand at the front of the machine, at approximately 45° to the table. Hold the timber down on the infeed table with the left hand and apply feed pressure with the right hand, **Fig 10.16**. As soon as there is enough timber on the outfeed table to accommodate the left hand, it should be moved over the bridge guard and onto the timber. Feed pressure should then be applied with the left hand onto the timber on the outfeed table, with the right hand following to complete the feeding operation, **Fig 10.17**.

Edge planing

When edge planing small stock as shown in **Fig 10.18** the bridge guard should be positioned above the work piece to guard as much of the cutter block as possible. When edge planing larger or tall pieces the bridge guard should be positioned against the table as shown in **Fig 10.19**. In this instance, if the guard was above the timber the gap left between the cutter block and guard would be too large and therefore not offer enough protection. There is no specific rule as to the position of the bridge guard when edge planing and user discretion must be exercised to ensure the safest possible position based on these guidelines.

Feed the workpiece across the cutter block as described for surface planing, taking extra care to not let the hands pass over the cutter block. Pressure should be applied sideways to keep the timber against the fence, ensuring an accurate cut.



10. Operation

Tapering & Edge Beveling

During this procedure the longitudinal edges of a work-piece are bevelled or tapered to the required angle.

To adjust the angle of the fence, loosen the cam handle of the fence mount, **Fig 10.20**, and position the fence to the required angle before re-engaging the cam handle by pushing it downwards.

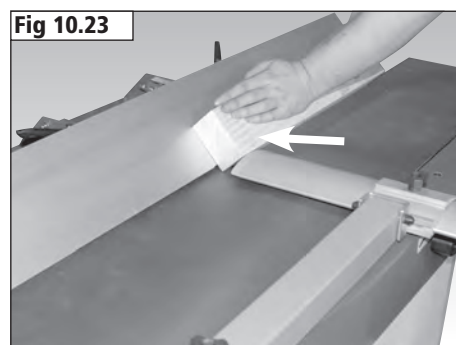
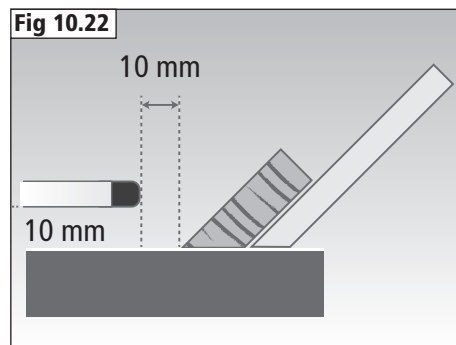
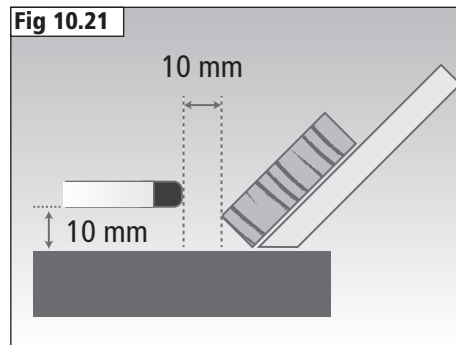
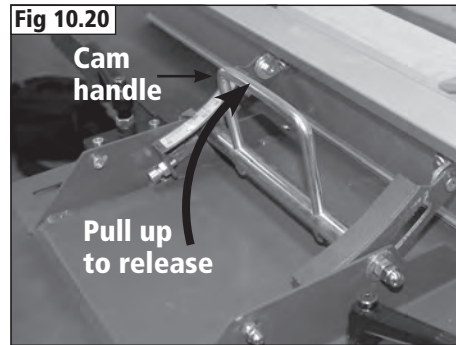
When beveling, set the bridge guard as shown in **Fig 10.21** and when tapering as shown in **Fig 10.22**. Due to the nature of the cuts to be made, the guard cannot be placed as close to the timber and cutter block as when surface planing. However, ensure that the guard is a maximum of 10 mm from the timber and cutter block.

Adjust the fence to required angle and press the work piece against the fence and guide evenly over the cutterblock, **Fig 10.23**.

To ensure an accurate cut and help prevent the timber slipping, press the workpiece mainly against the fence and only lightly against the planing table.

Using Additional Support

When surfacing planing small workpieces, extra care must be taken to keep the hands a safe distance from the cutter block. If a workpiece is too small to be held with both hands, the supplied push block can be used to hold the timber as shown in **Fig 10.24**, providing the timber is large enough to allow the push block to sit fully upon it.



10. Operation

Changeover from Planing to Thicknessing

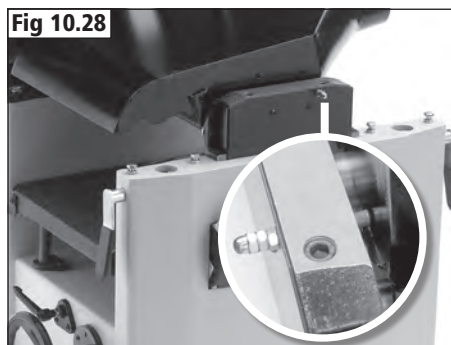
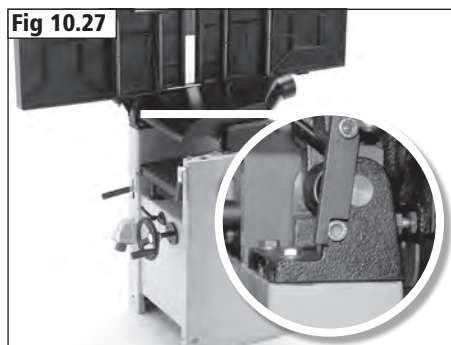
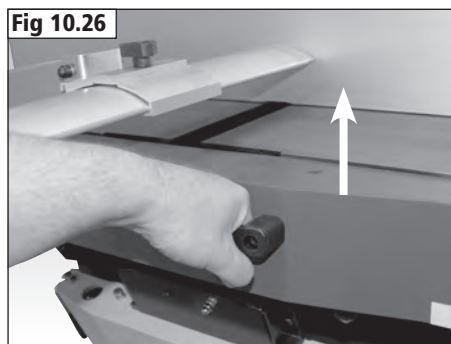
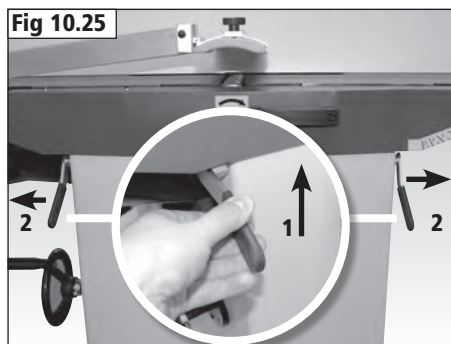


Before lifting the tables ensure the fence and bridge guard are secure. Personal injury could occur if loose parts come away from the machine when the tables are lifted.

Release the table lock levers on both sides of the machine by lifting and pushing outwards, **Fig 10.25**.

Carefully lift the tables using the handle as shown in **Fig 10.26** until they are fully opened and at 90° to their original position, **Fig 10.27**. Ensure the table stop is engaged as shown in **Fig 10.27** to stop the tables falling back to their original position during thicknessing. When returning the machine to planing mode always ensure the stop is retracted to allow the tables to move down.

Raise the extraction hood to cover the cutter block, **Fig 10.28** and ensure the stop is engaged as shown. The stop is retractable by hand and must always be disengaged to allow the dust extraction hood to return to its previous position when required. The thicknessing table may need to be lowered to allow the extraction hood to rotate into position.



10. Operation

Adjusting the Height for Thicknessing

Loosen the lock lever that clamps the thicknessing table, **Fig 10.29**.

Now adjust the thicknessing table to the required height using the hand wheel, **Fig 10.29**. The depth scale and pointer to the left of the hand wheel indicate the table height, **Fig 10.30**.

Re-tighten the lock lever to clamp the table in place.



Attention: The depth of cut should be minimised under the following circumstances:

- The timber is very wide.
- The timber is hard wood.
- The timber is damp.
- The planer blades are in need of sharpening.

Thicknessing

The minimum depth of timber that can be thicknessed is 6 mm. The maximum depth of cut is 3 mm.

Adjust the thicknessing table height to that of the workpiece height, minus the depth of cut required.

Ensure the feed clutch is in the upper position as shown in **Fig 10.31**.

Turn the machine on and carefully slide the work-piece onto the thicknesser table until it is drawn in by the feed rollers, **Fig 10.32**. Keep hands as far away from the cutter block as possible.



Warning: If the workpiece becomes trapped when feeding into the thicknesser, immediately switch the machine off and disconnect from the power source before attempting to free the workpiece. To release the workpiece, lower the thicknessing table.

Restarting

In the Event of a Blockage or if the Machine Stalls

If the machine stalls due to the work piece becoming trapped in the cutter block, switch it off immediately by pressing the emergency stop button (Red button marked 'O') and wait for the machine to come to a complete stop before proceeding further.

If the work piece is trapped between the cutter block and thicknessing table, it may be necessary to lower the thicknessing table in order to free the blockage.

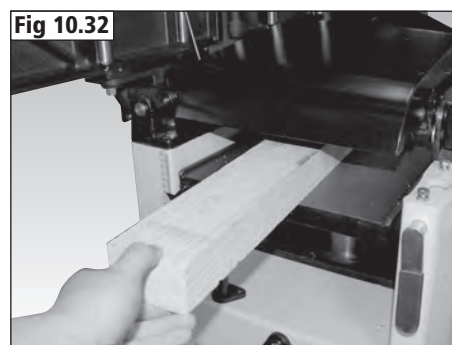
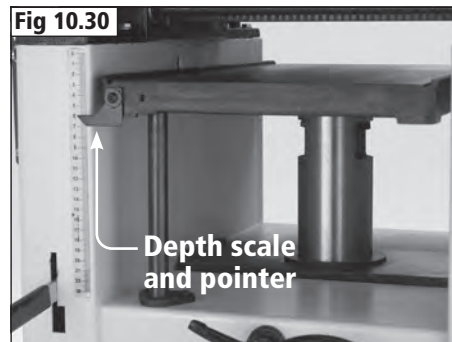
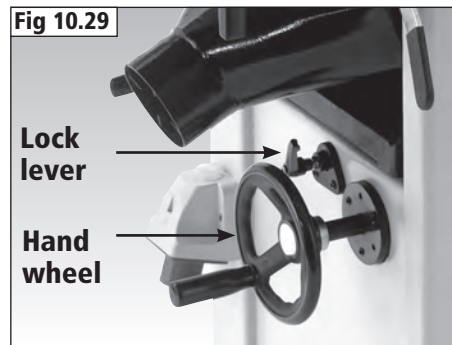
To re-start the machine, press the green button marked 'I' on the switch.

In the Event of a Power Failure

The machine is fitted with a no volt release (NVR) switch to protect the user against automatic starting of the machine when power is restored after a power failure.

In the event of a power failure, first locate and rectify the source of the failure. If the fault is within the power circuit of the workshop, there may be an underlying cause (circuit overload etc.) that should be investigated by a qualified electrician, before attempting to restore the power source. If a cutting operation was taking place when the power supply was interrupted, then it may be necessary to free the work piece from the cutter before attempting to re-start the machine.

Once the power is restored, the machine can be re-started by pressing the 'on' switch.



10. Operation

Using a Planer Thicknesser to Achieve 90° to All Adjacent Sides of the Timber

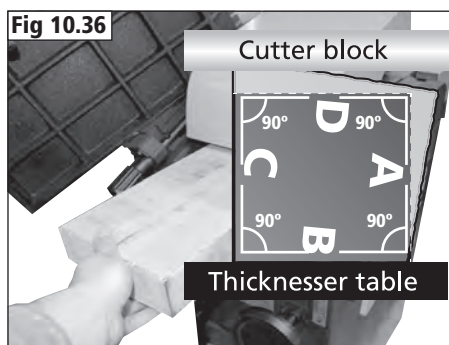
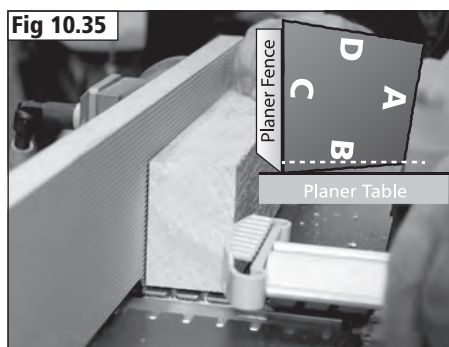
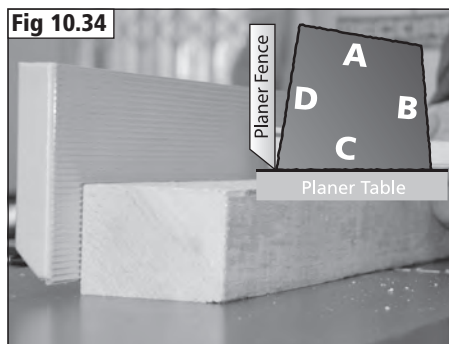
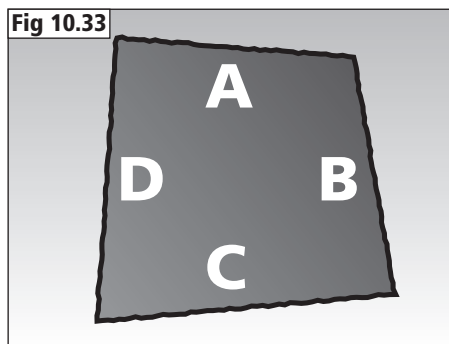
The most common use of a planer thicknesser is to plane timbers to accurate sizes and with all adjacent sides at 90° to one another. Using the methods already described in this manual and following the process below, any number of pieces can be planed and dimensioned to exact sizes. This preparation gives the best base possible for carrying out projects successfully.

Fig 10.33 shows an exaggerated cross section of a typical rough-sawn piece of timber before being machined.

Plane surface **C** to be flat using the machine in the planing mode, **Fig 10.34**.

Place surface **C** against the fence, which is set to 90°, and plane surface **B** until it is at 90° to surface **C**, **Fig 10.35**.

Once these two adjacent faces are at 90° to each other, the remaining opposite faces can be thickened parallel by using them as a reference, **Fig 10.36**.



11. Adjustments & Maintenance

Outfeed Table Adjustment



Please note: The height of outfeed table is factory set. It should only require adjustment in cases where other normal adjustments to the planer knives have not rectified any alignment issues.



Please note: Before carrying out any of the adjustments below, ensure that the machine is switched off and that the power cord is disconnected from the mains supply.



CAUTION! This procedure involves close contact with the planer blades. Ensure that protective gloves are worn at all times to prevent injury to hands.

Aligning the Outfeed Table

Lift the tables, ensuring the table retention stop is engaged. To raise or lower the table, loosen the 3 nuts shown in **Fig 11.1** with a 13 mm wrench then adjust the blind set screws (circled in **Fig 11.1**) using a 4 mm hex wrench until the table is in the correct position. To find the correct position, follow the instructions below:

Rotate the cutter block so that one of the knives is at top dead centre. A knife is at top dead centre when it is at its highest point during the rotation as shown in **Fig 11.2**.

Place a straight edge on the outfeed table and check its position relative to the blade. The outfeed table should be 0.1 mm (or as close as possible to 0.1 mm) lower than the blade at its highest point, **Fig 11.3**.

If necessary, adjust the height of the table using the blind set screws and re-tighten the 3 nuts, **Fig 11.1**.

Adjusting the Infeed Table

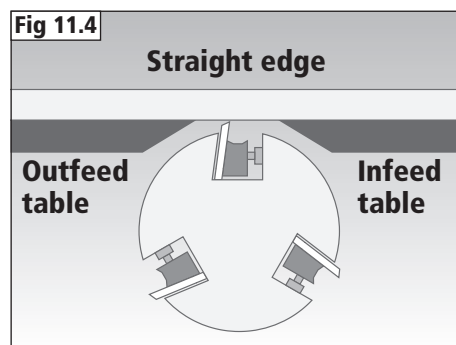
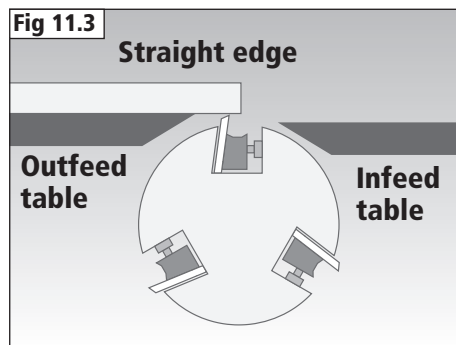
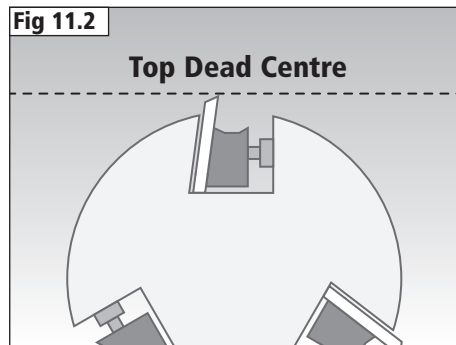
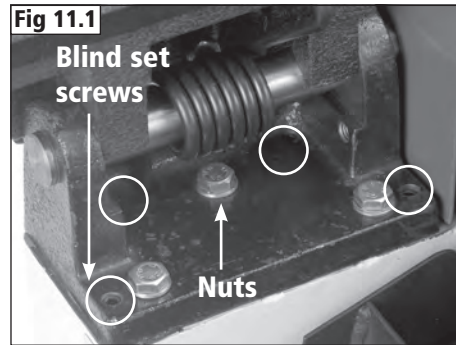
Before making any adjustments to the infeed table, ensure the outfeed table is in the correct position as described above.

Place a straight edge across the outfeed table and the infeed table, **Fig 11.4**.



Note: The straight edge used must be long enough to span the full length of both tables.

Using the same method as for the outfeed table, adjust the infeed table until it is at the same height as the outfeed table, **Fig 11.4**, ensuring the infeed table adjustment lever is aligned with '0' on the table scale as shown in **Fig 10.6**.



11. Adjustments & Maintenance

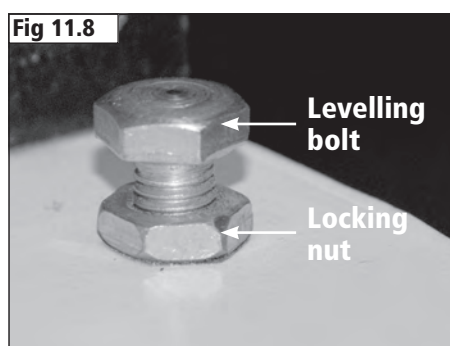
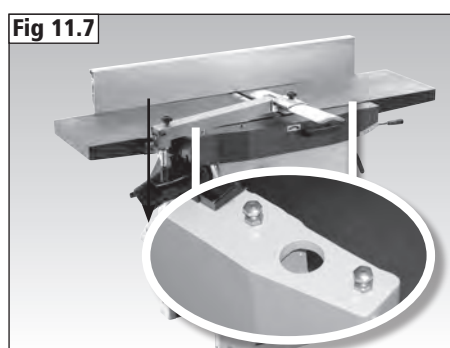
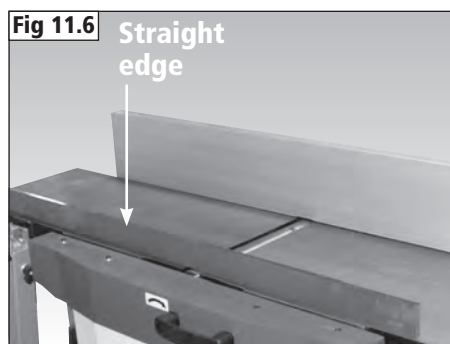
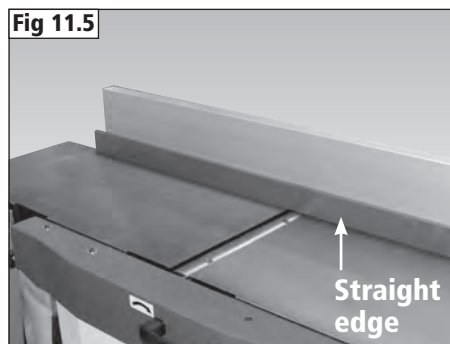
Aligning the Tables with the Cutter Block

To ensure accurate results when planing and thickening, the infeed and outfeed tables must both be aligned parallel to the cutter block. This alignment is carried out during assembly and manufacture and no adjustment should be needed. If the tables become misaligned due to damage in transit or misuse (e.g. moving the machine around the workshop by the tables) then follow the instructions below to realign them.

Place a straight edge on the outfeed table at the end of the cutter block nearest the fence mount, **Fig 11.5**, and position the table to be 0.1 mm (or as close as possible to 0.1 mm) below the blade, as previously described.

Place the straight edge on the outfeed table at the opposite end of the cutter block as shown in **Fig 11.6** and check that the table is at the same height in relation to the cutter block as at the other end.

Each table is supported at the opposite end to its hinges by 2 levelling bolts as shown in **Fig 11.7**. If the tables require adjustment to make them parallel to the cutterblock, loosen the locking nuts, **Fig 11.8**, and adjust the bolts until the table sits parallel then secure the bolts in place by re-tightening the locking nuts.



11. Adjustments & Maintenance

Adjusting the Table Cam Locking Mechanisms

Both the infeed and outfeed tables feature adjustable cam lock mechanisms to ensure they can be secured in position when the machine is being used in planing mode.

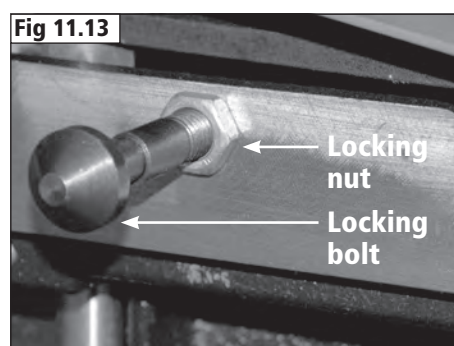
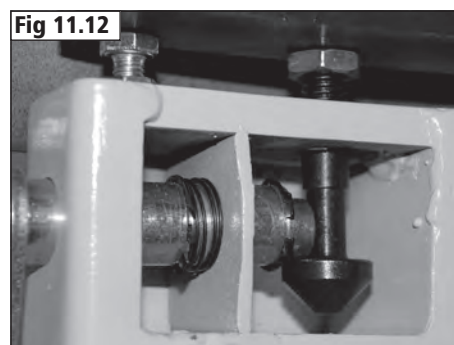
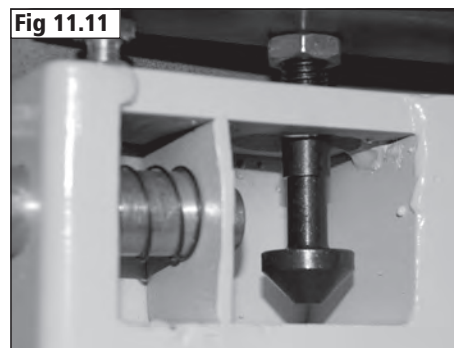
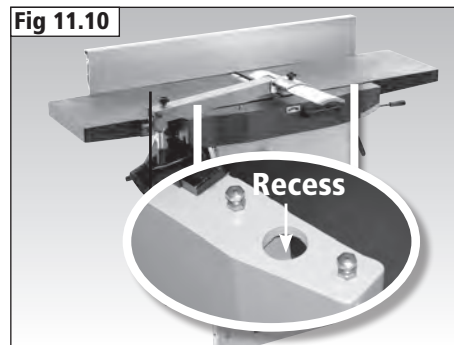
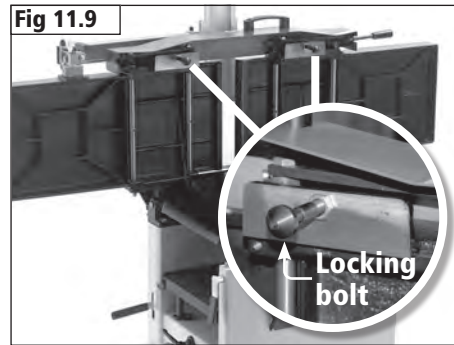
Beneath each table is a locking bolt as shown in **Fig 11.9**. When the tables are closed and in their horizontal position, this bolt passes through the machine body and into a recess as shown in **Fig 11.10**.

When the table locks are disengaged, the shafts of the levers are withdrawn from the locking bolts as shown in **Fig 11.11**.

When the table locks are engaged the shafts of the levers are positioned over the flanges of the locking bolts as shown in **Fig 11.12**, securing the tables in position.

If the locking levers are unable to be pushed in, the locking bolts must be lowered. If the locking levers can be pushed in but the tables can be still be lifted a short distance, then the locking bolts must be raised until there is the smallest gap possible between their flanges and the lever shafts as shown in **Fig 11.12**.

To adjust the locking bolts, loosen the locking nut shown in **Fig 11.13**, adjust the bolt to the desired position and re-tighten the locking nut.



11. Adjustments & Maintenance



The cutter block in this machine is designed to hold three blades. Never attempt to use the machine if any of the blades are missing or damaged. Replacement blades must conform to BS EN 847-1.

Adjusting the Planer Blades



CAUTION! This procedure involves close contact with the planer blades. Ensure that protective gloves are worn at all times to prevent injury to hands.

To make setting the blades an easier and faster operation, Record Power offer the RPPSJ Planer Blade Setting Jig. Please see online for full details.

Checking the height of the Blades

The blades should be periodically checked for sharpness and position. Adjustments should be as precise as possible to a tolerance within 1- 1.1 mm to prolong the sharpness of the blades.

Improperly adjusted blades can unbalance the cutterblock and shorten bearing life as well as producing substandard results.

The planer blades fitted to this machines are made from high speed steel and can be sharpened to maintain their cutting edge and optimise performance of the machine. The process of sharpening blades will remove a small amount of material from the blade's edge and will therefore reduce the overall width of the blade. Never attempt to use blades that have been reduced by more than 25% of their original width. Always ensure that the blade can be held securely by the blade holder. Replace defective blades immediately.



Caution: Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

Place the blade setting jig at one end of the cutter block as shown in **Fig 11.14**. The recess of the jig should be fully on the outfeed table, with the right hand edge of the recess being in line with the edge of the outfeed table. The cutter block should be positioned so that no blades are positioned to protrude from the gap between the tables.

Wearing protective gloves, carefully rotate the cutter block towards the infeed table. If the blade is at the correct height, the jig will be moved towards the infeed table by a distance of 4 mm and the left hand side of the recess will now be in line with the edge of the outfeed table as shown in **Fig 11.15**.

If the blade is set too high, the jig will be moved forwards by more than 4 mm. If the blade is too low, the jig will be moved forwards by less than 4 mm.

Adjusting the Height of the Blades

Each blade is held in the cutter block by a blade holder which runs the full length of the cutter block. The blade holder is secured in place by 5 square headed blade holder screws which are spread across the length of the holder as shown in **Fig 11.16**.

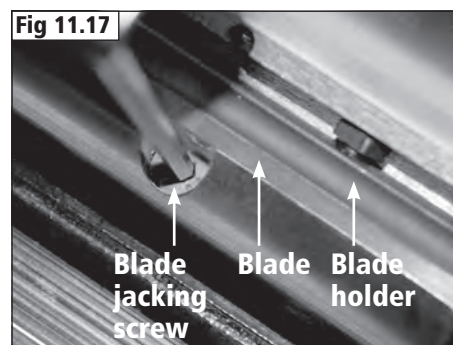
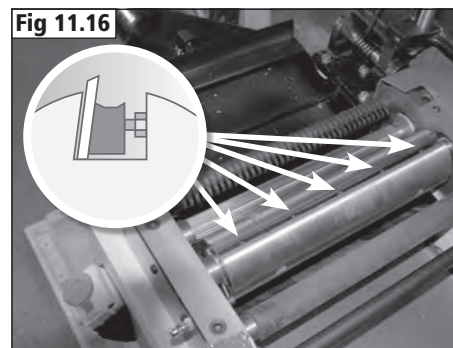
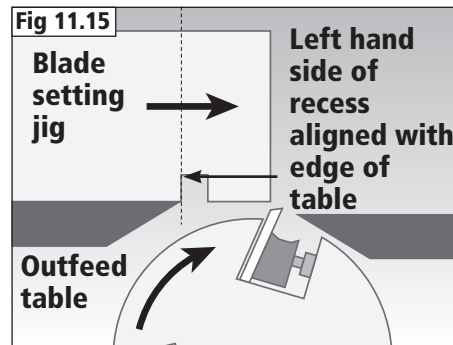
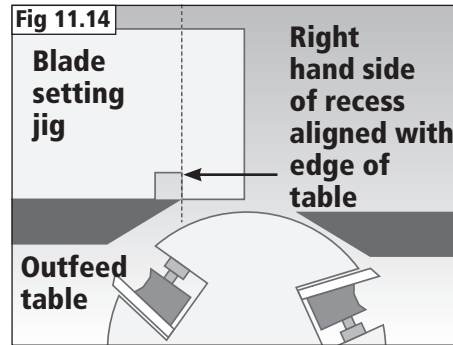
Carefully turn the cutter block until the first blade is at top dead centre.

Loosen each blade holder screw with an 8 mm wrench enough to allow the blade to move.

Using a 4 mm hex wrench, adjust the jacking screws as shown in **Fig 11.17** until the blade is at the correct height then tighten the blade holder with the screw just enough to keep it in place but allow movement at the other end.

Repeat this process at the opposite end of the cutter block then fully tighten all blade holder screws.

Repeat the above process on the remaining 2 blades.



11. Adjustments & Maintenance

Changing the Planer Blades



CAUTION! This procedure involves close contact with the planer blades. Ensure that protective gloves are worn at all times to prevent injury to hands.

To remove the planer blades, unscrew the square headed screws of the blade holder and carefully remove each blade. Replace the blades as shown in **Fig 11.18**, with the highest edge of the blade profile nearest to the infeed table. Using either the blade setting jig supplied with the machine or the **RPPSJ** Planer Blade Setting Jig, ensure the blades are parallel to the table.

Checking Drive belt Tension

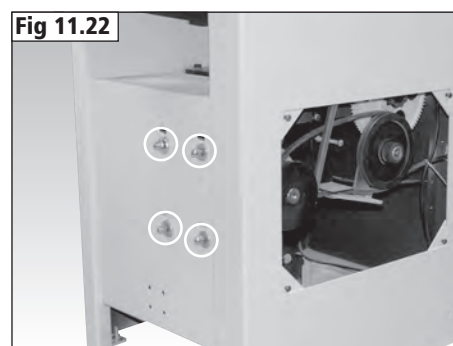
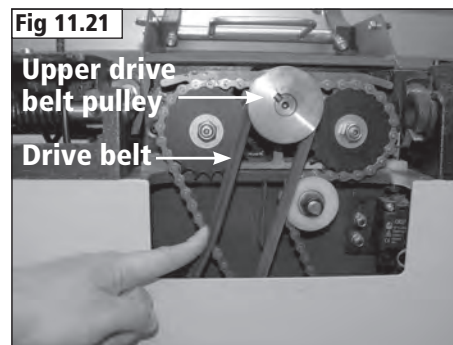
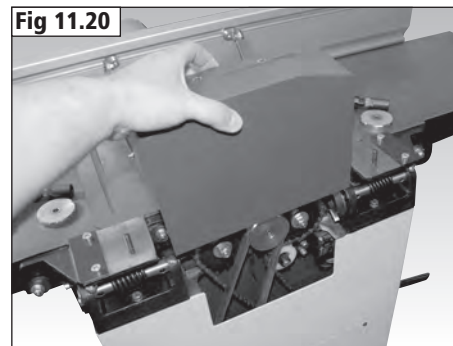
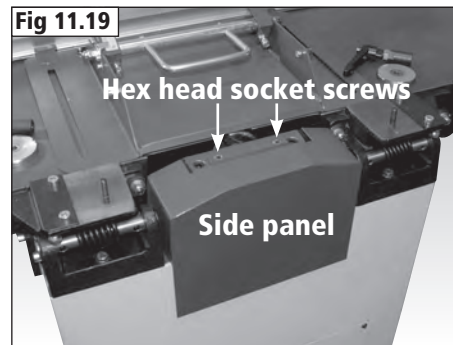
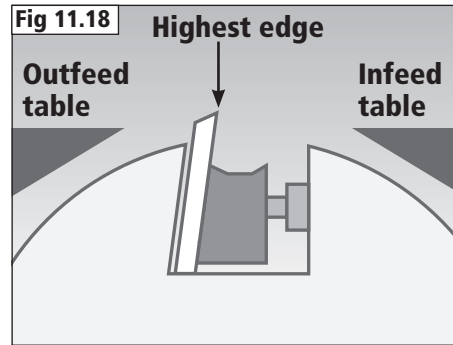
Over time the drive belt may loosen slightly. In this case, the belt must either be tightened or replaced. Check the belt regularly for cracks or lateral tears and replace if necessary.

To access the interior of the machine, remove the 2 hex head screws from the side plate using a 4 mm hex wrench as shown in **Fig 11.19**. To access these, the fence mount must be removed as seen in **Fig 11.19**.

The side panel can now be removed by lifting upwards, **Fig 11.20**.

Check the tension of the drive belt as shown in **Fig 11.21**. There should be no more than 10 mm of movement when reasonable pressure is applied by hand.

If the belt needs to be tightened, loosen the motor mounting bolts on the side of the machine, beneath the infeed table, **Fig 11.22**.



11. Adjustments & Maintenance

To access the motor remove the access panel from the side of the machine by loosening the screws with a 4 mm hex wrench and lifting the panel away, **Fig 11.23**.

Use the weight of the motor to tension the drive belt. When the correct tension is achieved, tighten the motor mounting bolts.



When re-positioning the motor to apply tension, ensure it is kept level in the horizontal plane. Also ensure the upper drive belt pulley and the motor pulley are aligned.

The thickener drive belt as shown in **Fig 11.24** is self-tensioning and requires no adjustment. It should, however, be inspected regularly for signs of wear and replaced if necessary.

Adjustment of the Fence Tilt Cam Lock Mechanism

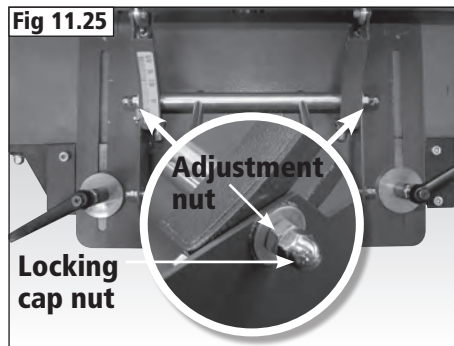
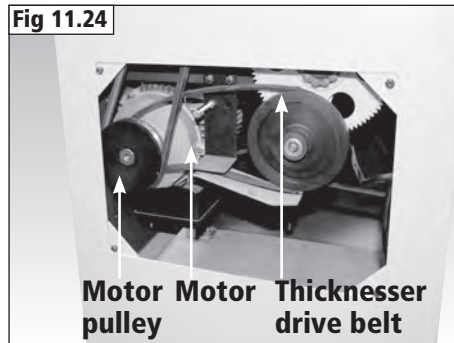
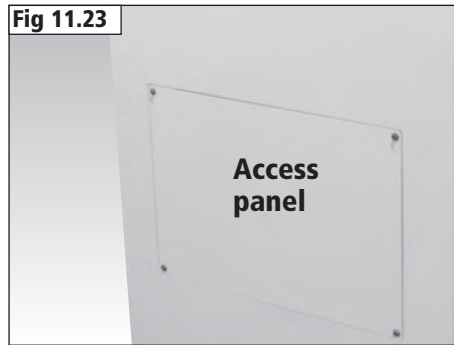
If the fence locking handle is either too loose and does not lock the fence securely or too tight, not allowing the fence to be moved, then adjustment is required.

To adjust the handle, loosen the 2 locking cap nuts as shown in **Fig 11.25** with a 13 mm wrench. If the handle is too loose, tighten each of the cam adjustment nuts until the fence moves freely when unlocked and is also sufficiently secure when the handle is locked.

If the handle is too tight, loosen each of the cam adjustment nuts until the fence can move freely when unlocked and is also sufficiently secure when the handle is locked.

Always adjust each adjustment nut equally to ensure optimum performance of the fence locking mechanism.

Once set correctly, re-tighten the locking cap nuts using a second 13 mm wrench to prevent the adjustment nuts from moving during tightening, **Fig 11.26**.



11. Adjustments & Maintenance

Cleaning



Caution: Before carrying out any adjustments or maintenance ensure that the machine is isolated and disconnected from the electricity supply.

To avoid a build-up of wood dust, regularly clean the thicknesser drive gear using a brush, **Fig 11.27**.

Ensure that all moving parts and the chain are sufficiently lubricated with standard machine grease.

Clean the thickening bed rise and fall lead screw periodically and lubricate with standard machine grease, **Fig 11.28**. The screw is situated behind the thicknesser table support column. For maximum access to the lead screw, raise the thicknesser table as high as possible.

Clean the thickening bed support column, **Fig 11.29**, on a regular basis to prevent the build-up of wood chips and dust and lubricate with silicone spray. Do not use ordinary oil as this will attract dust.

Keep the infeed and outfeed tables and thickening bed free of resin. Clean regularly with white spirit, then coat lightly with silicone spray to enhance passage of workpiece, **Fig 11.30**.

Kickback Guards

Remove traces of resin as required. When lifted, the guards must drop back into position by their own weight. Test their function before each use. See **Fig 11.31**.

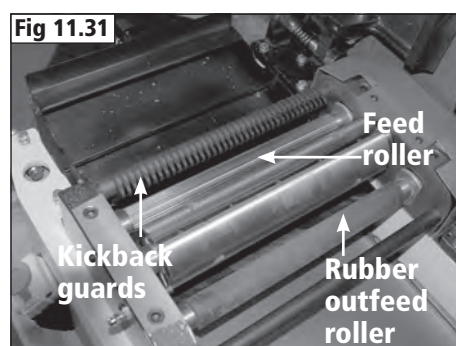
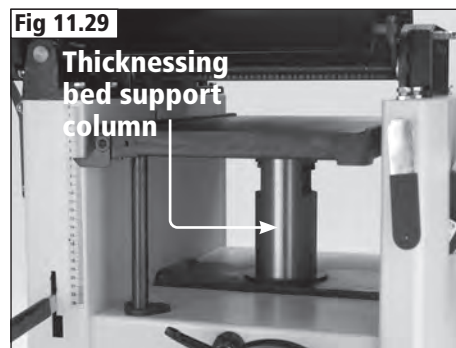
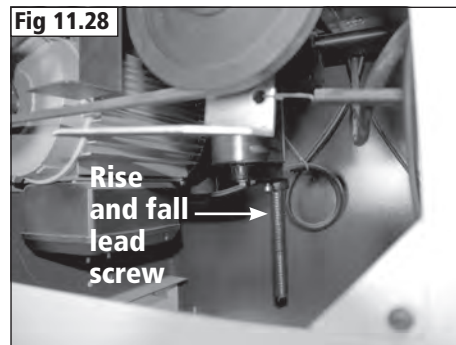
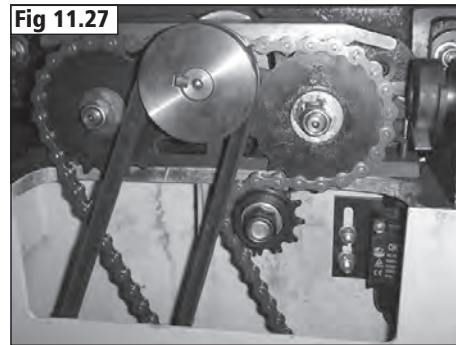
Feed Roller and Rubber Outfeed Roller

Remove traces of resin regularly, when marks appear in the timber or in the event of poor feed. See **Fig 11.31**.

This machine will perform in conformity with the description contained in this manual when installed, operated, maintained and repaired in accordance with the instructions provided.

This machine must be checked periodically. Defective equipment (including power cable) should not be used. Parts that are broken, missing, worn, distorted or contaminated should be replaced immediately. Should such repair or replacement become necessary, it is recommended that such repairs be carried out by qualified persons.

Neither the machine nor any of its parts should be altered or changed from standard specifications. The user of this machine shall have the sole responsibility for any malfunction which results from improper use or unauthorised modification from standard specification, faulty maintenance, damage or improper repair.



11. Adjustments & Maintenance

Cutter Block & Blades



CAUTION! This procedure involves close contact with the planer blades. Ensure that protective gloves are worn at all times to prevent injury to hands.

Clean the blades, blade holders and cutter block to remove any traces of resin, waste and debris as often as necessary.

Each blade is held in the cutter block by a blade holder which runs the full length of the cutter block. The blade holder is secured in place by 5 square headed blade holder screws which are spread across the length of the holder as shown in **Fig 11.32**.

Carefully turn the cutter block until the first blade is at top dead centre.

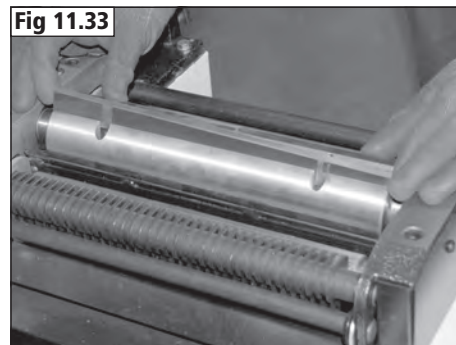
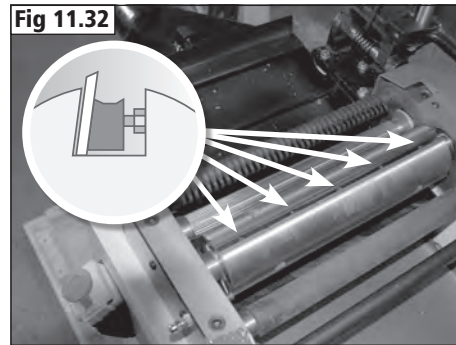
Loosen each blade holder screw with an 8 mm wrench enough to allow the blade to move.

Ensuring protective gloves are worn, carefully lift the blade from the cutter block holding at each end as shown in **Fig 11.33**.

Carefully clean the blade, blade holder and also the recess that houses them.

Refit the blade to the correct height as described in the **Adjusting the Height of the Blades** section of the manual.

Repeat the above process on the remaining 2 blades.



12. Dust Extraction

The Importance of Dust Extraction

Suitable dust extraction is essential to avoid the possibility of serious health problems related to wood dust. It is also necessary in order to ensure the waste producing machine performs safely and effectively. Some woods are extremely toxic and in addition to suitable dust extraction machines it is recommended that PPE such as respirators are also used.

Record Power Dust Extraction Machines

Below is a summary of the Record Power range. Please visit your local stockist or go online for full details.

DX1000 Fine Filter 45 Litre Extractor

45 litre capacity, 1 kW motor, 0.5 micron filtration. Includes hose.

RSDE1 Fine Filter 45 Litre Extractor

45 litre capacity, 1 kW motor, 0.5 micron filtration. Includes hose.

RSDE/2 Fine Filter 50 Litre Extractor with Accessories

50 litre capacity, 1 kW motor, 0.5 micron filtration, includes wheel kit, hose cuff power tool adaptor hose and spare filter bags. Includes hose.

RSDE/2A Fine Filter Auto-Switching 50 Litre Extractor with Accessories

50 litre capacity, 1 kW motor, 0.5 micron filtration, includes wheel kit, hose cuff power tool adaptor hose and spare filter bags. Includes hose.

DX4000 Fine Filter Twin Motor 80 Litre Extractor

80 litre capacity, 2 x 1 kW motors, 0.5 micron filtration. Includes hose.

DX5000 Fine Filter Twin Motor 200 Litre Extractor

200 litre capacity, 2 x 1 kW motors, 0.5 micron filtration. Includes hose.

CGV286 CamVac Series Compact Extractor

36 litre capacity, 1 kW motor single or twin, 0.5 micron filtration.

CGV286-WALL CamVac Series Wall Mounted Extractor

150 litre capacity, 1 kW motor single or twin, 0.5 micron filtration.

CGV336 CamVac Series Medium Extractor

55 litre capacity, 1 kW motor single or twin, 0.5 micron filtration.

CGV386 CamVac Series Large Extractor

90 litre capacity, 1 kW motor twin or triple, 0.5 micron filtration.

CGV486 CamVac Series Heavy Duty Extractor

200 litre capacity, 1 kW triple motor, 0.5 micron filtration.

CX2000 Compact Chip Collector

54 litre capacity, 0.56 kW motor. Includes hose.

CX2500 80 Litre Chip Collector

80 litre capacity, 0.55 kW motor. Includes hose.

CX3000 Heavy Duty Chip Collector

128 litre capacity, 0.56 kW motor. Includes hose.

AC400 2 Stage Air filter with Remote, 3 speeds and Time Delay

Collects airborne dust, 1 micron filtration.

 Recommended for heavy use
  Recommended for light / intermittent use
  Can be used

	Bandsaws	Table Saws	Planer Thicknessers	Lathes	Sanding Machines	Dust Extraction Systems	Airborne Dust Collection
DX1000							
RSDE1							
RSDE/2							
RSDE/2A							
DX4000							
DX5000							
CGV286							
CGV286-WALL							
CGV336							
CGV386							
CGV486							
CX2000							
CX2500							
CX3000							
AC400							