IMPORTANT

BOOK NO 102/1

It is our policy and that of our suppliers to review constantly the design and quality of our products. With this in mind, we would remind our customers that whilst the dimensions and performance data contained herein are current at the time of going to press, it is possible that, due to the incorporation of latest developments to enhance performance, dimensions may subsequently vary from those illustrated.

PLEASE INSERT SERIAL NUMBER OF MACHINE

Instruction Manual For

EEC

Power Band Resaw

TEMPORARY INSTRUCTION BOOK FOR EEC

FOR REPLACEMENT PARTS, TOOLS AND ACCESSORIES

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WADKIN (CLEVELAND), A DIVISION OF WADKIN PLC.
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HEALTH & SAFETY

SAFETY OF WOODWORKING MACHINES

Woodworking machines can be dangerous if improperly used. The wide range of work of which they are capable, requires adequate safeguarding arrangements against possible hazards.

Many injuries to machinists are caused by carelessness or failure to use the guards provided or to adjust them correctly.

WADKIN LTD., supply machinery designed for maximum safety which they believe, as a result of thorough testing, minimizes the risks inevitable in their use. It is the user's responsibility to see that the following rules are complied with to ensure safety at work:

1. The operation of the machine should conform to the requirements of the Woodworking Machines Regulations 1974. All guards should be used and adjusted correctly.

2. Safe methods of working only should be adopted as given in the Health and Safety Work Booklet No.41, "Safety in the Use of Woodworking Machines", (obtainable from Her Majesty's Stationery Office) and as advised by Wadkin Ltd.

3. Only personnel trained in the safe use of a machine should operate it.

4. Before making adjustments or clearing chips, etc., the machine should be stopped and all movement should have ceased.

5. All tools and cutters must be securely fixed and the speed selected must be appropriate for the tooling.

SAFETY IS OUR WATCHWORD BUT THE USER MUST COMPLY WITH THE ABOVE RULES IN HIS OWN INTEREST. WE WOULD BE PLEASED TO ADVISE ON THE SAFE USE OF OUR PRODUCTS.

Safety

CAREFULLY READ INSTRUCTION MANUAL WITH PARTICULAR REFERENCE TO THE FOLLOWING INSTRUCTIONS:-

1) SLINGING, ie SAFE LIFTING LIMITS FOR SLINGS ETC.

2) INSTALLATION AND FOUNDATION, ie SAFE WORKING AREA OF MACHINE AND BOLT POSITIONS, ETC.

3) WIRING DETAILS, ie WIRING DIAGRAM AND INSTRUCTIONS FOR SAFE WIRING OF MACHINE.

4) MACHINE CONTROLS AND OPERATING INSTRUCTIONS.

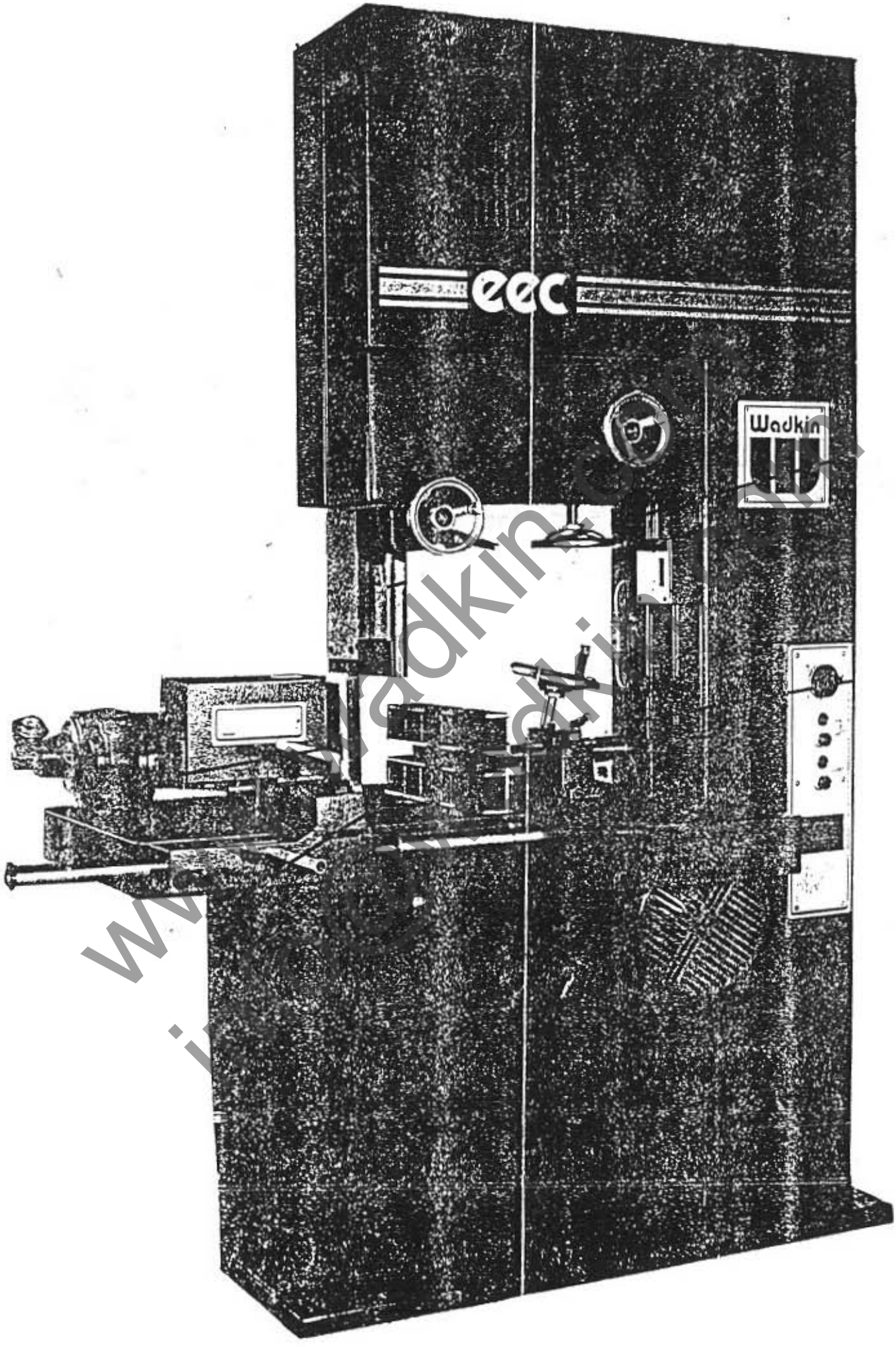
5) SELECT CORRECT SPEED FOR CUTTER EQUIPMENT AND ENSURE CUTTERS ARE SECURELY LOCKED IN POSITION.

6) SET GUARDS CORRECTLY TO COVER CUTTER EQUIPMENT AS MUCH AS POSSIBLE.

7) NOTE START/STOP CONTROL POSITION AND ISOLATOR SWITCH POSITION (IF FITTED) BEFORE OPERATING MACHINE.

8) USE FEEDING DEVICES WHERE POSSIBLE.

9) REFER TO HEALTH AND SAFETY AT WORK BOOKLET No.41 (IN UK) FOR SAFETY IN THE USE OF WOODWORKING MACHINERY.



STANDARD ITEMS DESPATCHED WITH MACHINE.

2 - Instruction Manuals
1 - Grease Gun
1 - 3mm Allen Key
1 - 5mm Allen Key
1 - 8mm Allen Key
1 - 17/19mm Spanner
1 - Slinging instructions
1 - 2mm Allen Key
1 - 4mm Allen Key
1 - 6mm Allen Key
1 - 13mm Spanner
1 - 24mm Spanner

CLEANING

Clean protective coating from all bright parts by applying a cloth soaked in parafin, turpentine or other suitable solvent.

WIRING DETAILS

The motor and control gear have been wired in before despatch. All that is required is to connect the power supply at the mains entry box.

Points to note when connecting power supply:

1) Check the voltage, phase and frequency correspond to those on motor plate, also the correct coils and heaters are fitted to the starter.

2) It is important that the correct cable is used to give the correct voltage to the starter as running on low voltage will damage the motor.

3) Check the main line fuses are correct capacity. See fuse list inside starter cover.

4) Connect the line leads to the appropriate terminals. See wiring diagram, Mains Entry.

5) Check all connections are sound.

6) Check the rotation of the motor for the correct direction, if this is incorrect, reverse any two of the line lead connections at mains entry box.

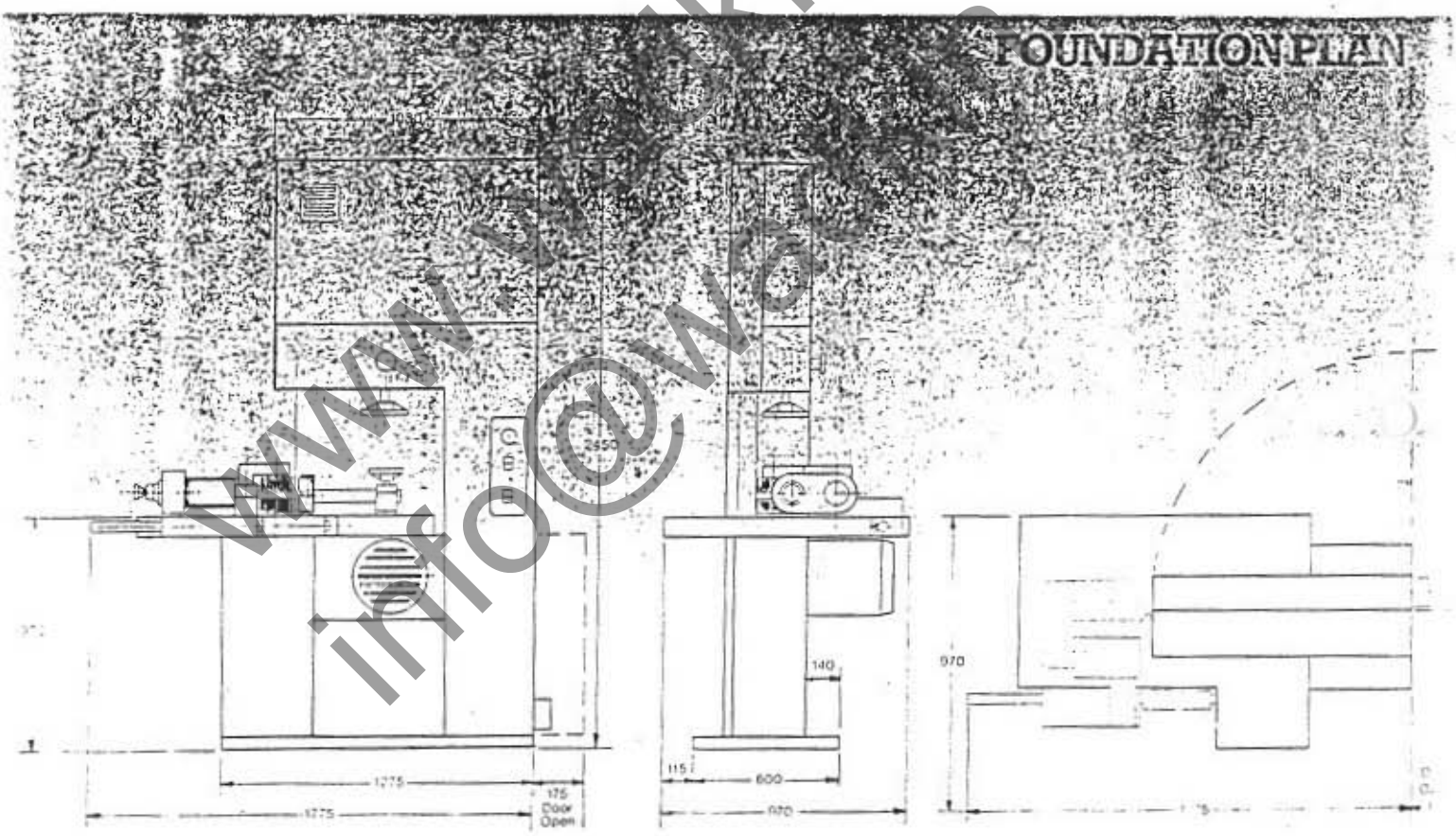
LUBRICATION

All bearings are sealed for life and require no lubrication. Grease Feeder Unit at point indicated weekly.

It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting.

FOUNDATION

The machine is front loading and should be sited to allow working room for all capacities. Refer to foundation plan below and ensure floor is level, then mark floor for hole positions. Drill floor to suit 4-M10 rawbolts. These bolts are not provided with machine but can be supplied at an additional charge.



COMMISSIONING MACHINE.

Machines generally are despatched fully assembled, except for some export markets when they are stripped and packed in cases when the assembly instructions provided inside case should be referred to.

1) Bolt machine to floor (see foundation).

2) Connect machine to power supply (see wiring details).

3) Clean protective coating from all parts (see cleaning).

4) It is recomended to connect machine to dust extraction plant
The built in extraction outlet is 150mm (6"Dia) and requires 600 CFM for best results

FITTING OF RE-SAW BLADES.

1) Open doors fully.

2) Adjust top wheel with handwheel "M" (FIG 13) to allow saw to be positioned on top and bottom wheels and slot saw into guides (see FIGS 13 to 16).
NOTE:-
A) The saw guards are fixed and should not be removed.
B) The saw guides are initially set at the works but may require slight adjustment.

3) Proceed to tension saw via saw tension handwheel "M" (FIG 13) until pointer on scale reads 'T'.

4) Track blade by rotating top wheel by hand in a clockwise direction, the gullet of the saw tooth should project the rim of the wheel by approx. 2mm (see FIGS 12 and 14).
Should the blade require tracking loosen small handwheel then turn handwheel until saw is tracking correctly.
Then tighten small handwheel
IMPORTANT:-DO NOT TRACK BLADE WITH MOTOR RUNNING.

BOTTOM WHEELS BEARINGS
2- 6308 2RS

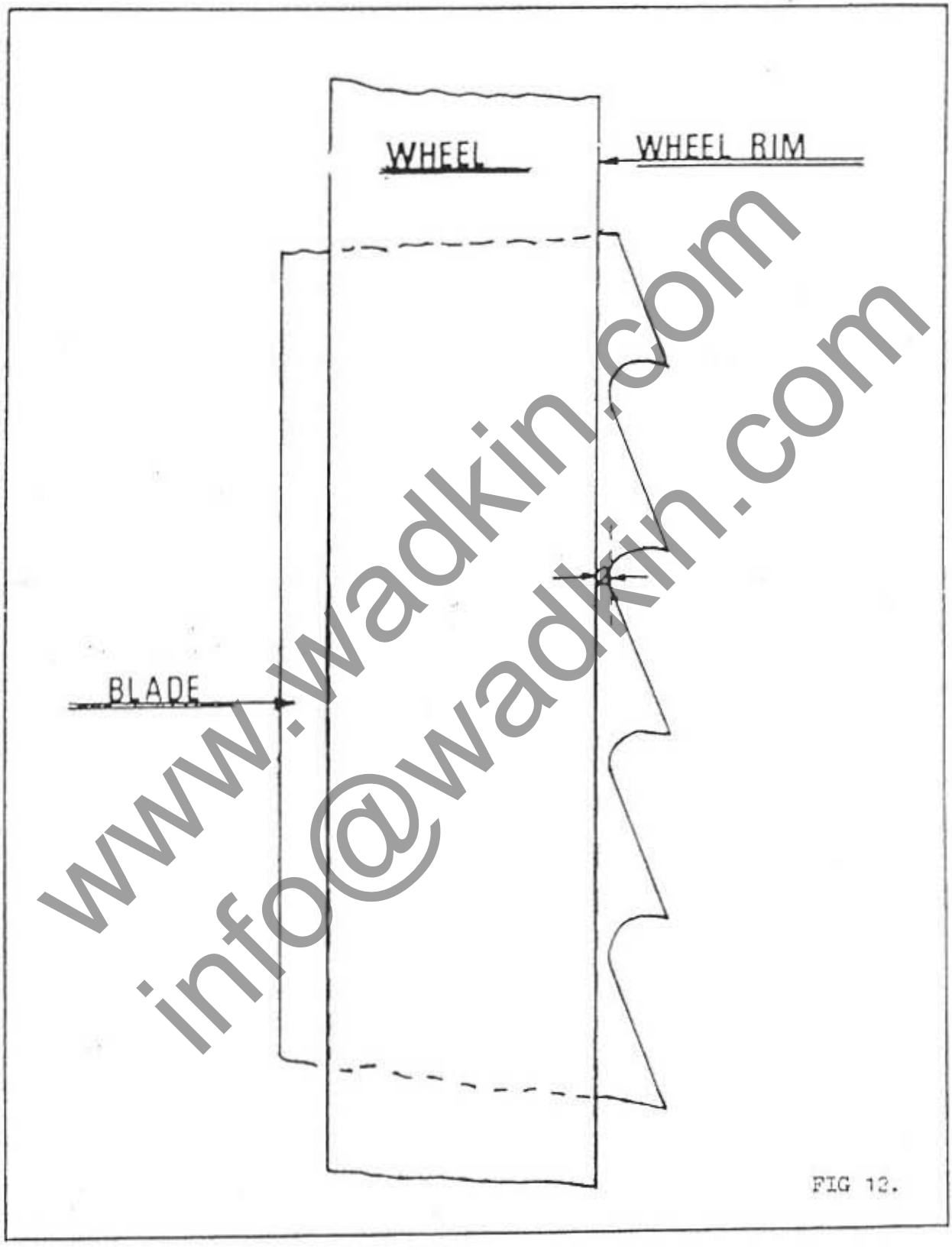


FIG 12.

BELT TENSION ADJUSTMENT.

Incorrect tension is the major cause of premature belt failure, some of its effects are as follows:

1) Under-tensioning results in incorrect driven speed caused by belt slip and also causes screeching on start up. This can be corrected by increasing tension.

2) Over-tensioning can be more serious. Apart from obvious damage to the belt, it can cause overheated, damaged or burned out motor front end bearings. This is usually preceded by excessive stretch or too many take ups.

The POLY-V drive belt is correctly tensioned before the machine leaves the works.

After a period of time, the belt may start to slip due to run-in stretch and should be retensioned correctly as in "Belt Tension Adjustment".

BELT TENSION ADJUSTMENT

TO TENSION POLY-V-BELT, PROCEED AS FOLLOWS:-

1) Isolate machine electrically.

2) Open bottom door of machine.

3) Loosen 2 - M12 nuts. Securing motor to machine.

4) Attached to one of the motor mounting bolts is a vertical adjuster. Adjust M12 nut one turn at a time until screeching on start up is eliminated then tighten motor belts.

NOTE:-DO NOT OVER TENSION BELT.

5) Close bottom door.

FOOTBRAKE.

A footbrake "D" is situated in the base of the machine as shown in FIG 13.

NOTE:-

Always press main motor "stop" button before depressing footbrake unless an electrically interlocked footbrake is fitted.

SPLIT LEVEL ROLLER BED FENCE.

This unit has a blade to fence capacity of 310mm (12") and is adjusted by hand wheel "A" (FIG 25) then locked in position by lock "B" (FIG 25).

The roller bed is split by slackening 2 handles "D" (FIG 25) and removing top section "C" (FIG 25), this allows top guide to be as close as practical to the stock when ripping small sections for increased accuracy.

The unit has a scale and adjustable pointer "E" (FIG 25) for setting fence to desired stock size.

The bed rollers are made from a dry bearing nylon which requires no lubrication.

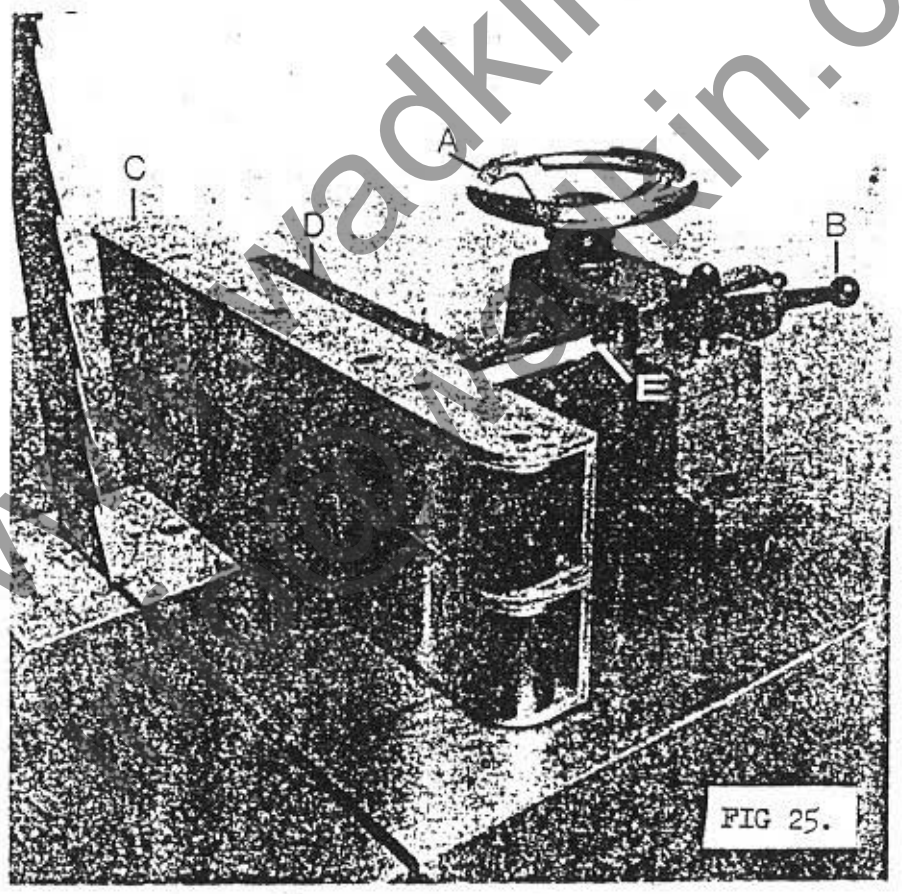


FIG 25.

DRIP FEED UNIT, WHEEL AND BLADE BRUSHES.

The purpose of this unit is to keep the wheels and blade clean. The mixture of fluid (i.e. Diesel, Parafin, Oil) required will vary depending on the stock being sawn and a general guide is listed below.

A) Dry resin free material - generally no fluid required.

B) Average material - 1-1 Diesel or Parafin and Oil.

C) Dry Resinous material - 2-1 Diesel or Parafin and Oil.

D) Wet material - 1-2 Diesel or Parafin and Oil.

The Oil bottle is turned On or Off by lever on top of the Oil bottle, and the flow adjusted by knurled screw . Generally the flow should be adjusted to 1 Drip/Sec.

NOTE:-
Turn off fluid feed when not in use.

CONTROLS

1) The isolator "A" (FIG 27) is shown in the "ON" position, the isolator should be switched to the "OFF" position before making any adjustments to machine, carrying out any maintenance and while changing blades.

2) The "STOP / START" button "B" (FIG 27) controls the saw motor and will not function unless the isolator is switched on.

3) The "STOP / START" button "C" (FIG 27) controls the feed motor and will not operate unless the saw motor is running. After saw motor is switched on several seconds will elapse before feed control will function to allow main motor to switch automatically from STAR into DELTA windings.

4) Should either motor trip out there are 2 reset buttons provided on the contactor box on the front of machine. If the machine trips out frequently the cause should be investigated and the main fuse rating checked or the overload settings adjusted.

FIG 27.

FEEDING UNIT.

This unique feed unit has many features.

1) The variable drive unit "C" (FIG 26) gives feed speeds ranging from 6-30m/min (18-100ft/min) and speed adjustment is by handwheel "D" (FIG 26) , a dial is fitted to indicate feed speed.

   "DO NOT ADJUST WHILE DRIVE IS STATIONARY"

2) Feed rollers "A" (FIG 26) are mounted on a swinging arm "B" (FIG 26) to cater for up to 100mm (4") variance in stock width this affords for example -:

   A) Fast and easy positioning of feeder.
   B) Random feeding of varying stock widths.
   C) Refeeding wide stock when producing narrow boards.
   D) Feeding tapered stock and waney edge boards.

   The feeder to fence capacity is 310 (12") and slide on bar "H" (FIG 26) in axis "X" then locked in desired position by handles "F" (FIG 26).

3) The feeder is also adjustable in axis "Y" to enable top guide to be lowered close to stock when ripping shallow material with out fouling feed roller and to cater for part of feed roller swing, particularly when table is canted for ripping angled stock.

   IMPORTANT CHECK SWINGING ARM WILL NOT FOUL BLADE "J" (FIG 26) OR TOP SAW GUARD "K" (FIG 25) AFTER RE-POSITIONING FEED UNIT BEFORE OPERATING MACHINE.

4) A plate "E" (FIG 26) is fitted to feeder as a guide to feed speeds relative to stock depth to be sawn, however the feed speed selected should take into consideration the type of stock to be sawn and the condition of the blade.

5) A grease point "G" (FIG 26) is provided, this point should be greased on a weekly basis depending on usage of machine.

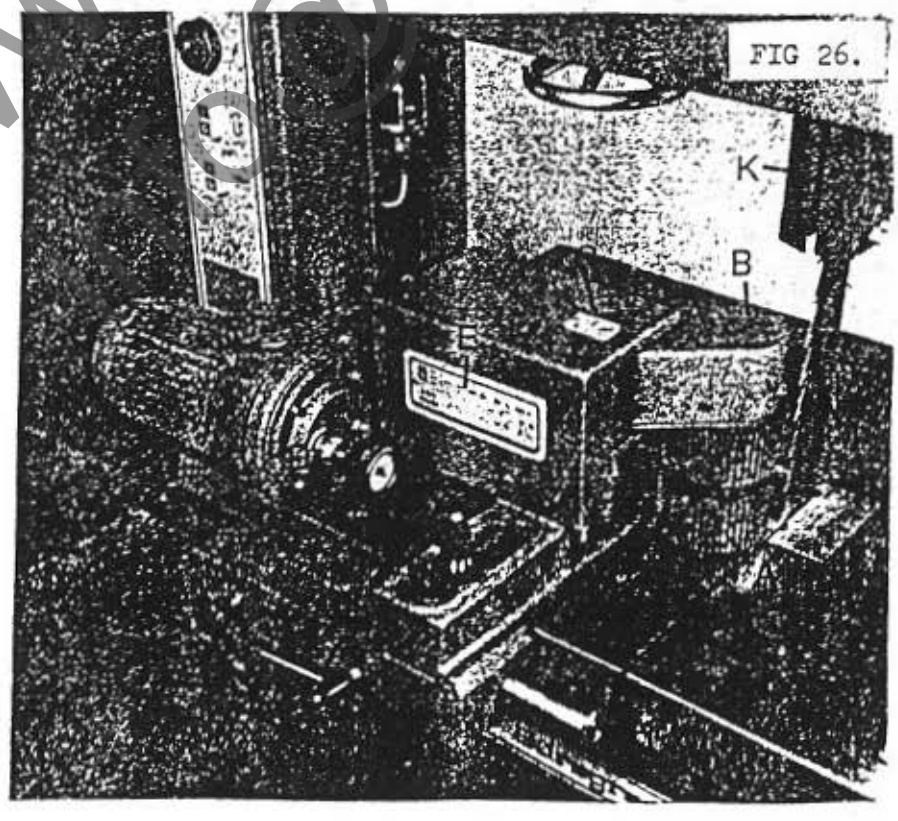


FIG 26.

THE RE-SAW BLADE

For the best results it is recommended to use blades manufactured from "UDDEHOLM SWEDISH STEEL" to the following specification -:

1) 20 gauge x 78mm (3") wide x 45mm (1.75") pitch swage or stelite tipped.

2) Approximate length of blade 5486mm (18ft)

3) Blade should be pretensioned across width see A: (FIG 29).

4) The blades should be "SWAGE TOOTH" for "SOFT WOODS" or "STELITE TIPPED" for "HARDWOODS".

5) Service and doctor re-saw blades regularly.

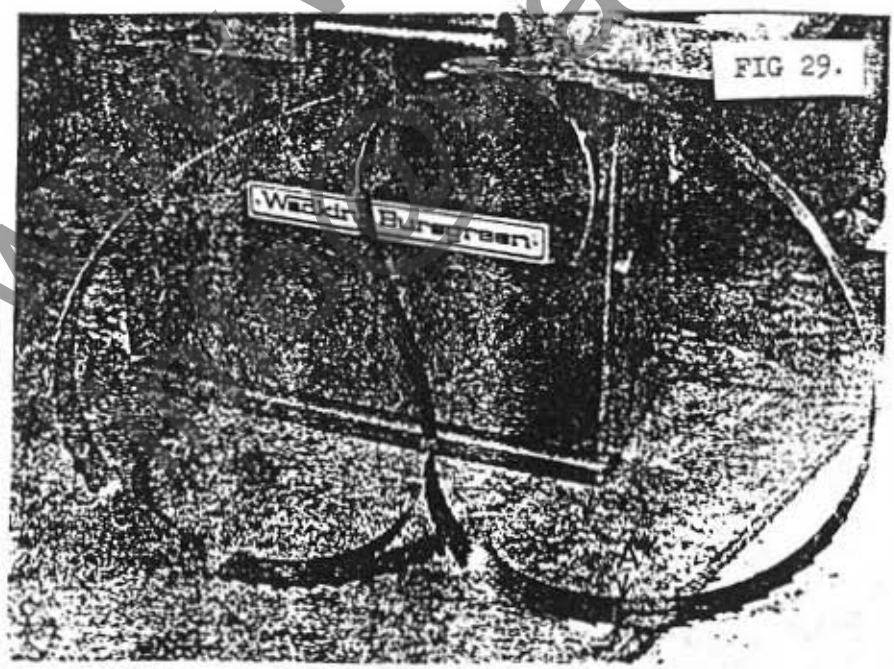


FIG 29.

A
CUTTING WITH THE POWER BAND RESAW.
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Feed roller spring pressure.

This pressure is pre-set at the works for the average type of work, however it may be desirable to adjust this to suit individual needs as follows-:

1) Short light stock (decrease spring pressure)
2) Long heavy stock (increase spring pressure)

To adjust spring pressure on feed roller "A" (FIG 30)
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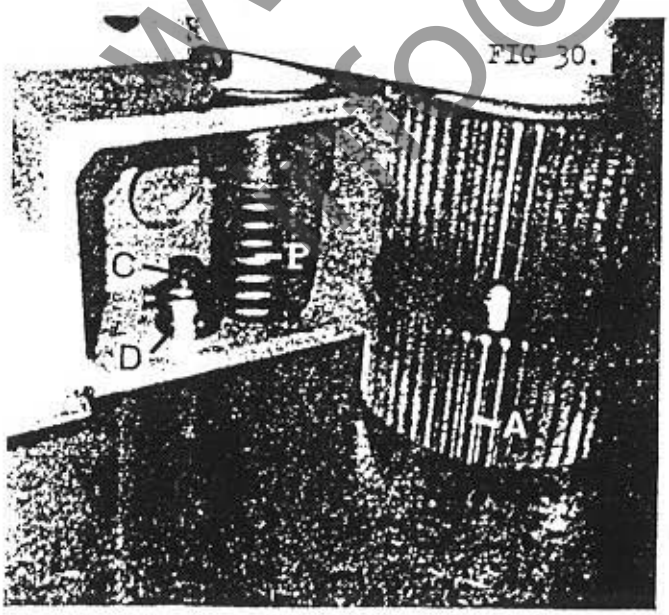
1) Loosen caphead "C" (FIG 30).
2) Rotate cam "D" (FIG 30) to increase or decrease tension on spring "B" (FIG 30).
3) Tighten caphead "C" (FIG 30).
4) Check tension by pushing feed roller "A" (FIG 30) back by hand.

NOTE-: See options.

FIG 30.



"IMPORTANT" RE-SAW BLADE MAINTENANCE.

Failure to maintain re-saw blades will result in inaccurate ripping and very short blade life.

It is important that the blades are regulary maintained that is resharpened and retentioned by a saw doctor and that the tension is released from the saw blade when not in use.

It is usual practice for a re-saw blade to require maintenance after 4 hours running, the frequency at which maintenance will be required will depend to some extent on the following factors :-

1) Correct type of blade for ripping stock (i.e. soft or hard wood, swage or stelite tipped blade).
2) Correct feed speeds relative to depth of stock.
3) Correct tention applied to saw.

The following chart will assist you in fault finding.

FAULT.	CAUSE.	REMEDY.
Blades unstable	Tension run out of blade	Return to saw doctor for re-tensioning
	Build up of resin on wheels or blade	Clean wheels, blade and check wheel and blade brushes
Inaccuate ripping	Dull blade	Re-sharpen blade
	Insufficient tension applied to saw	Check saw tension gauge
	Guides set incorrectly	Re-set top and bottom saw guides
Blades fracturing	Tension run out of blade	Return blades to saw doctor for re-tensioning
	Overloading of saw	Check feed speeds
	Over running saw blade	Check running time
	Dirty blades and wheels	Clean wheels, blade and check brushes
	Sawdust trapping between bottom wheel and blade	Check condition and position of chip deflector plate

Setting up to Rip.

The versitility of the fence, feeder and guides provide many options when setting up to suit a wide variety of needs -:

A) Wide shallow stock
B) Deep thin stock
C) Small sections
D) Waney edge or tapered stock
E) Feathered or angled stock (with table canted).
F) Random feeding of stock with up to 100mm (4") variance in width.
G) Re-feeding wide stock to produce thin boards without constantly re-positioning feed unit.

Procedure for setting up.

1) Isolate machine.
2) Check blade is in good condition (change if necassary).
3) Check blade is correctly tensioned and tracked.
4) Set fence to finished stock width required
5) Adjust top guide as close as practical to suit stock depth, remove top fence section if necassary

6) Slide feed unit into position to suit stock being ripped so that the distance between the fence and the feed roller is smaller than the stock width, or the distance between the fence and the feeder body is greater than the stock width, Note -: Maximum variance 100mm (4").
7) Check the feed arm and rollers will swing clear of the top guide and guard, adjust if necassary with locking handle

8) Switch on machine, check and re-select feed speed

NOTE -: Use the higher range of speeds for softwoods and the lower range for hardwoods relative to stock depth.

"IMPORTANT" -: DO NOT ADJUST FEED SPEEDS WHILE UNIT IS STATIONARY.

9) Aligne stock with fence and push into feeder, check finished stock width, adjust fence if required, proceed to rip.

REMEMBER TO -:

1) Switch on extraction plant if fitted.
2) Turn on drip feed unit if required.

SIMPLABELT VARIABLE SPEED DRIVES

BELT. CHANGING INSTRUCTIONS

Simplatroll (Leeds) Ltd.
59A MAIN STREET. GARFORTH. LEEDS LS25 1AF
Telephone. (0532) 860360/860450

FIG 5L.

1) Run Simplabelt unit to fastest speed.

2) Switch machine off.

3) Screw adjustment handle (item 21 on drawing below), until minimum setting is achieved.

4) Remove outer cover (item 18 on drawing below).

5) Rotate pulley, by hand, and ease belt off gearbox pulley.

6) Refit new belt and reverse belt removal procedure