

Modifications are made to these books from time to time and it is important therefore that only the book sent with the machine should be used as a working manual

PLEASE INSERT SERIAL NUMBER OF MACHINE

Instruction Manual

P25 & P32

Panel Sizing and Dimension Saws

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FOR REPLACEMENT PARTS, TOOLS & ACCESSORIES
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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.

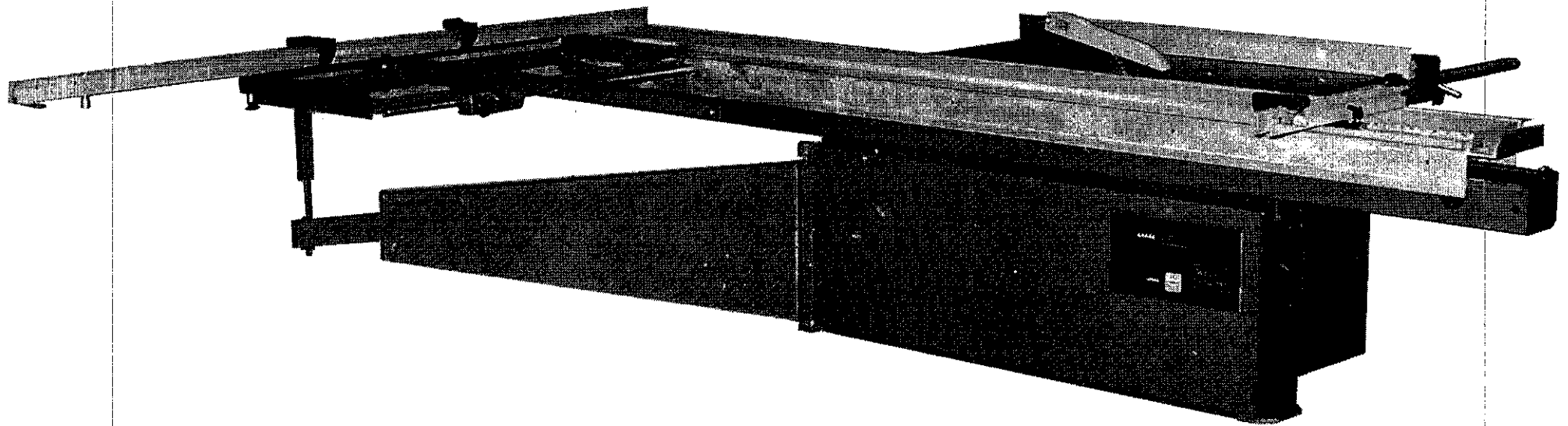
SAFETY IS OUR WATCHWORD BUT THE USER MUST COMPLY WITH THE ABOVE RULES IN HIS OWN INTEREST. WE WOULD BE PLEASED TO ADVISE ON THE SAFE USE OF OUR PRODUCTS.

oOo

Safety

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

1. SLINGING, i.e. SAFE LIFTING LIMITS FOR SLINGS ETC.
2. INSTALLATION AND FOUNDATION, i.e. SAFE WORKING AREA OF MACHINE AND BOLT POSITIONS, ETC.
3. WIRING DETAILS, i.e. 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 U.K.) FOR SAFETY IN THE USE OF WOODWORKING MACHINERY.
10. DO NOT RUN LARGE SAWBLADES AT HIGH SPEED.



Panel Sizing and Dimension Saws Types P25 and P32.

SPECIFICATION	P25		P32	
FIXED TABLE SIZE	650 x 1300mm	25 x 50in	650 x 1300mm	25 x 50in
SLIDING TABLE SIZE	290 x 2500mm	11½ x 98in	290 x 3200mm	11½ x 125in
LENGTH OF CUT USING SLIDING TABLE	2500mm	98in	3200mm	125in
MAX DISTANCE SAW TO STOP ON CROSSCUT FENCE	3200mm	125in	3200mm	125in
MAX DISTANCE SAW TO STOP ON MITRE FENCE	655mm	25½in	655mm	25½in
MAX DISTANCE SAW TO RIP FENCE	870mm	34in	870mm	34in
MAX SAW DIAMETER	400mm	15½in	400mm	15½in
MAX SAW PROJECTION	0.60mm (250 dia) 0 - 2.11/32"		0.60mm (250 dia) 0 - 2.11/32"	
	10-85mm (300 dia) 3/8 - 3.11/32"		10-85mm (300 dia) 3/8 - 3.11/32"	
	35-110mm (350 dia) 1.3/8 - 4.11/32"		35-110mm (350 dia) 1.3/8 - 4.11/32"	
MIN DIA OF SAW BLADE	60-135mm (400 dia) 2.3/8 - 5.11/32"		60-135mm (400 dia) 2.3/8 - 5.11/32"	
SAW SPINDLE SPEEDS				
STANDARD	3000 & 4500 RPM		3000 & 4500 RPM	
OPTIONAL SPINDLE SPEEDS	3000, 4500 & 6000 RPM		3000, 4500 & 6000 RPM	
POWER OF MOTOR STANDARD	4KW	4KW	4KW	4KW
POWER OF MOTOR OPTIONAL	5.5KW	5.5KW	5.5KW	5.5KW
	7.5KW	7.5KW	7.5KW	7.5KW
SAW BORE DIA ON SPIGOT	30MM		30MM	
SAW SPINDLE DIA	25MM		25MM	
MIN FLOOR AREA	6.3 x 4.4m	20 x 13½FT	7 x 4.4M	23 x 13½FT
SCORING SAW DIA	105MM	4in	105MM	4in
SCORING SAW SPINDLE SPEED	8500RPM		8500RPM	
POWER OF SCORING SAW MOTOR	0.55KW	0.55KW	0.55KW	0.55KW
APPROX NET WEIGHT OF M/C	660kg	1452lb	690kg	1496lb
APPROX GROSS WEIGHT OF M/C	860kg	1892lb	890kg	1958lb
SHIPPING DIMENSIONS M/C	1.7 x 1 x 1m	68 x 39 x 39in	1.7 x 1 x 1m	68 x 39 x 39in
TABLE	2.8 x 0.4 x 0.4M	108 x 16 x 16in	3.5 x 0.4 x 0.4M	132 x 16 x 16in

BEARINGS

10-P32/35 SEALED FOR LIFE
 1-SKF 51104
 2-SKF 6206 2RS SEALED FOR LIFE
 4-SKF 6203 2RS SEALED FOR LIFE
 2-P32/101 SEALED FOR LIFE
 2-SKF 6002 2RS SEALED FOR LIFE

SLIDING TABLE
 RISE & FALL
 SAW SPINDLE
 PIVOT ARM
 PIVOT ARM
 SCORER

BELTS

2-SPZ-1060 VEE BELTS (50 & 60 CYCLE) 5 HP
 2-SPZ-1000 VEE BELTS (50 & 60 CYCLE) 7½ & 10 HP
 1-METEOR FLAT BELT 790 x 20mm (STEPHENS BELT)
 1-11m 1060 POLYFLEX BELT (50 & 60 CYCLE) 5 HP
 1-11m 1030 POLYFLEX BELT (50 & 60 CYCLE) 7½ & 10 HP

SLINGING

ALWAYS USE A SLING WITHIN SAFE WORKING LOAD OF MACHINE WEIGHT.

- P25 - Approx. net weight of machine: 660kg (1452lb)
- P25 - Approx. gross weight of machine: 860kg (1892lb)
- P32 - Approx net weight of machine: 690kg (1496lb)
- P32 - Approx gross weight of machine: 890kg (1958lb)

Attach slings to machine as shown in FIG.3. and FIG.4. ensuring damage will not be caused to machine during slinging operation.

IMPORTANT: DO NOT WALK OR STAND UNDER MACHINE DURING SLINGING OPERATION.

CLEANING

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

FOUNDATION

The machine is front loading and should be sited to allow working room for all capacities. Refer to foundation plan. Ensure floor is level then mark floor to suit 3-M16 Rawlbolts. These bolts are not supplied with the machine but can be supplied at an additional charge. Drill floor to suit the 3-M16 rawlbolts.

Loosen M10 bolt "A", FIG.4A, on adjustable foot "B" then secure machine to floor by one rawlbolt through each of the 3 feet.

When machine is bolted to floor move adjustable foot "B" down to make firm contact with floor then tighten M10 bolt "A".

WIRING DETAILS

The motor and control gear have been wired in before despatch. All that is required is to connect the power supply to the isolating switch.

Points to note when connecting power supply:-

1. Check the voltage, phase and frequency correspond to those on the 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 of the correct capacity. See fuse list inside starter cover.
4. Connect the line leads to the appropriate terminals. See wiring diagram, page 7.
5. Check all connections are sound.
6. Check the rotation of both motors for the correct direction. If these are incorrect, reverse any two of the line lead connections.

LUBRICATION

All bearings are sealed for life and require no lubrication. Oil Rise/Fall screw and slides:- once weekly. See foundation drawing. Approved Lubricants, See Foundation drawing. It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting.

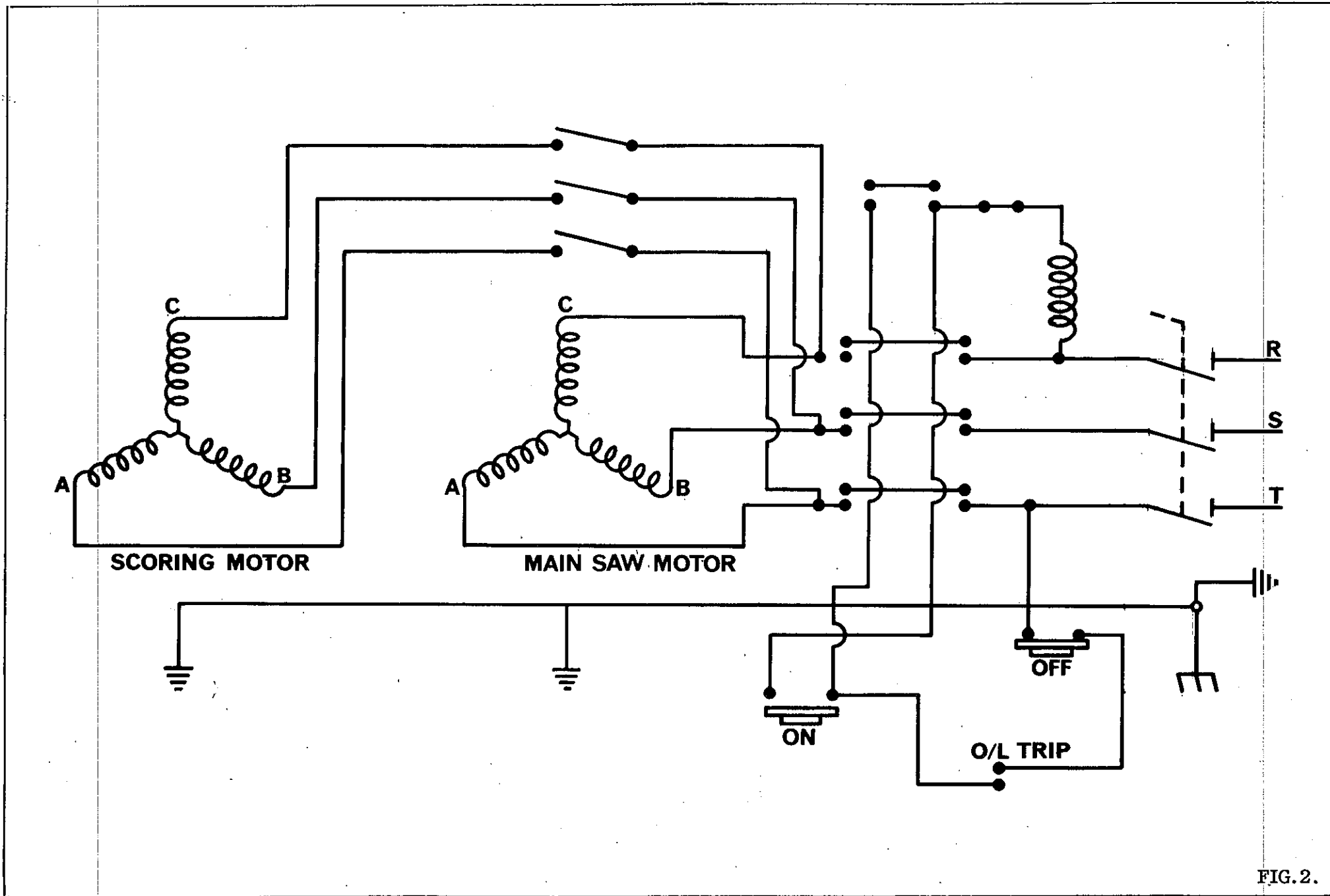


FIG.2.

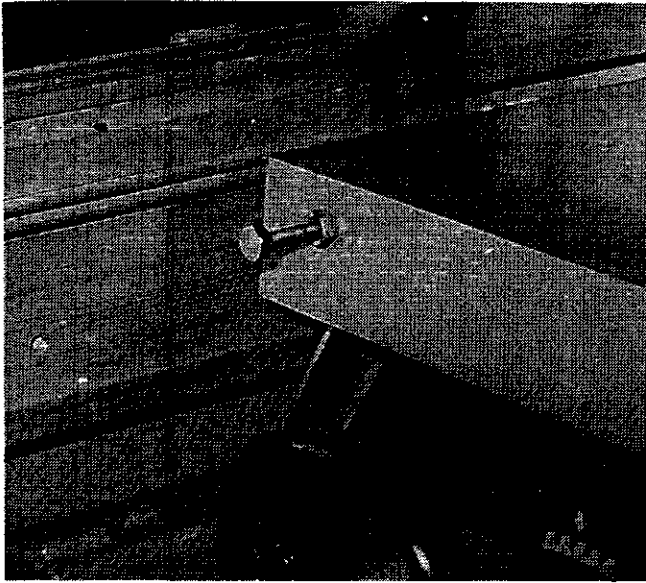


FIG. 3.

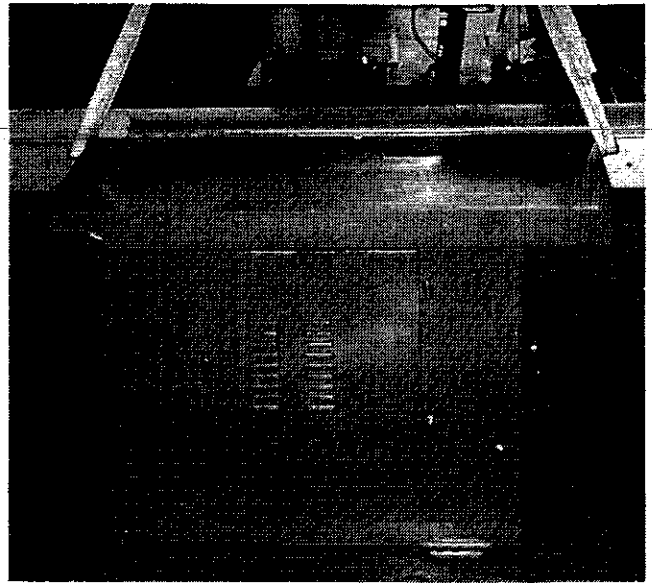


FIG. 4.

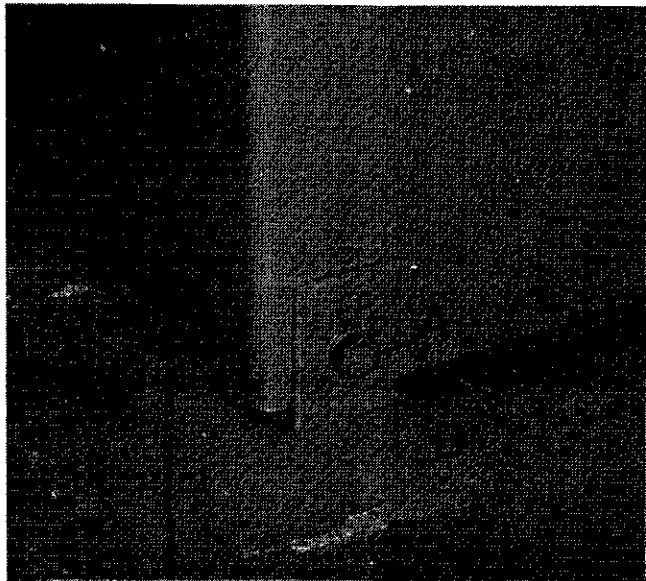


FIG. 4A

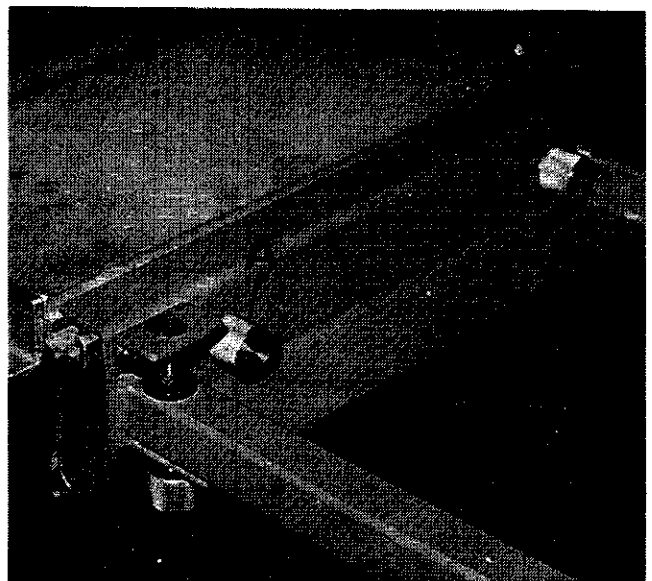


FIG. 5.

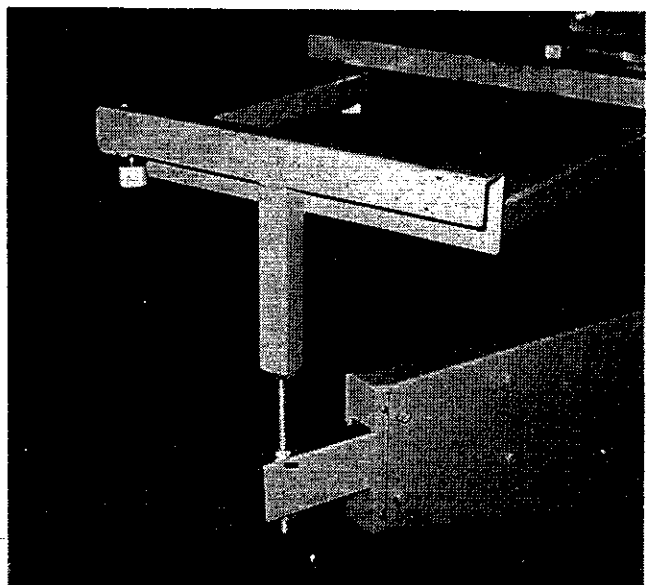


FIG. 6.

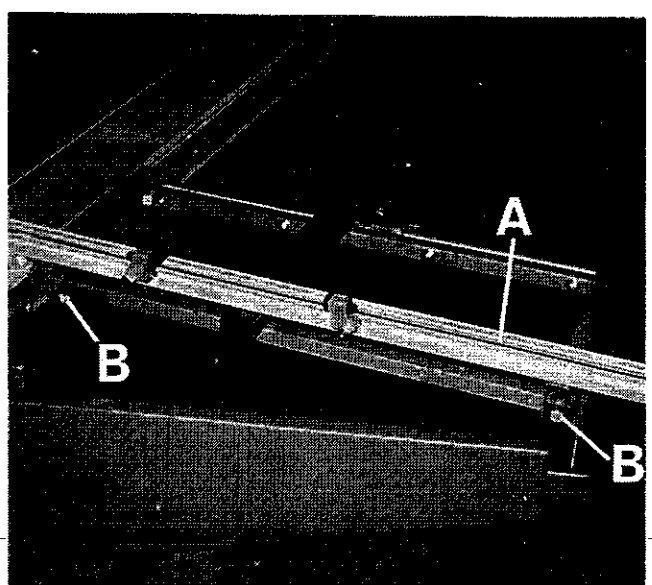


FIG. 7.

ASSEMBLY OF MACHINE

When the machine is for the home market, the extension table and crosscut fence are removed for ease of transportation. These should be assembled as described in SECTION 1.

When the machine is for the export market, the beam and sliding table are packed in a separate case. For re-assembly see SECTION 2 then refer to SECTION 1 for re-assembly of the extension table and crosscut fence.

SECTION 1 To assemble Extension Table to aluminium sliding table, proceed as follows:-

1. Support extension table and locate the 2 extension table mounting blocks in outer slot of aluminium sliding table as shown in FIG.5.
2. Lift outer end of extension table only sufficient to allow swinging arm outer pivot to be located in extension table as shown in FIG.6.
3. Position extension table flush with end of aluminium sliding table as shown in FIG.5. and carefully lock the 2 knurled handwheels "A".

NOTE: Overtightening these handwheels will damage the aluminium table.

The crosscut fence is fitted to the rear of table and is accurately located in hole at inner end and hole at outer end of extension table secured by 2 handwheels as shown in FIG.7.

To fit the crosscut fence, proceed as follows:-

1. Locate spigots on bottom of fence into the 2 holes in extension table and position crosscut fence "A" as shown in FIG.7.
2. Secure fence in position by handwheel "B"

NOTE: Ensure handwheels are securely locked before using crosscut fence.

SECTION 2. To assemble beam and sliding table, proceed as follows:-

1. Lift beam/sliding table assembly and locate over mounting studs "A" and against stops "B", FIG'S 8 and 9.

NOTE: The beam horizontal alignment stops "B" are pre-set before machine leaves the works.

2. Release sliding table lock (See FIG.18) and move sliding table to give access to beam mounting cover plate. Remove cover plate (Plate shown removed in FIG.10).
3. Slide table and remove cover plate at opposite end of beam.
4. Use box spanner supplied to tighten M16 nut and washer "B", FIG.10, then replace cover plate.

Use same procedure to secure beam at opposite end of base.

NOTE: The beam level stops "A", FIG.11, are pre-set before machine leaves the works.

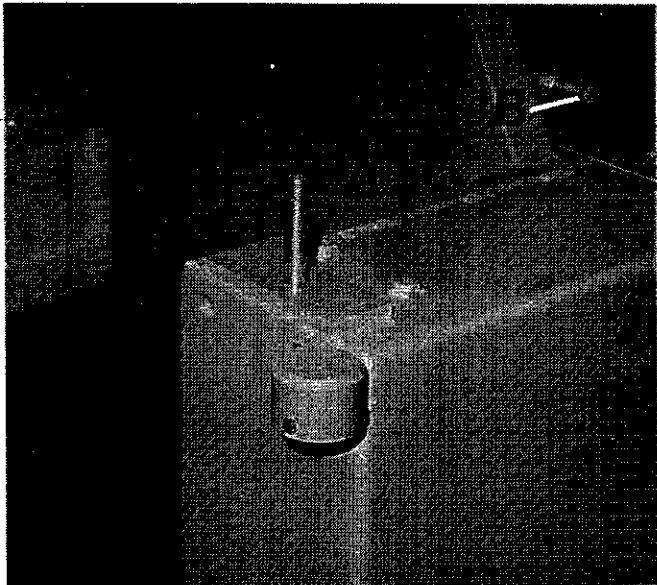


FIG. 8.

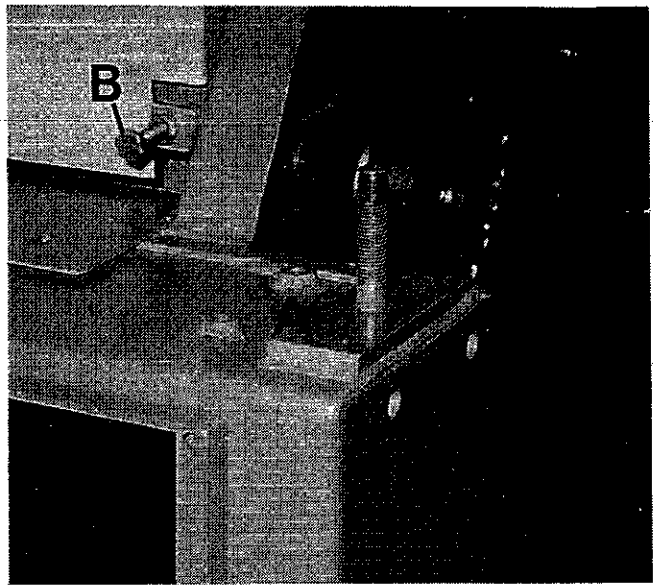


FIG. 9.

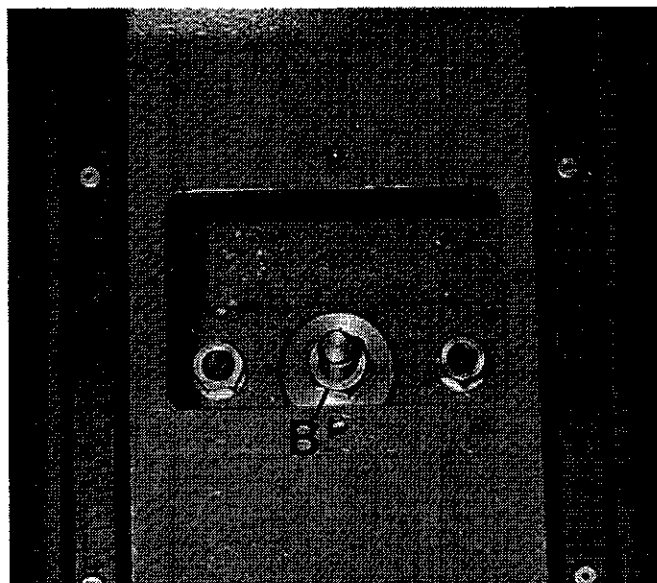


FIG. 10.

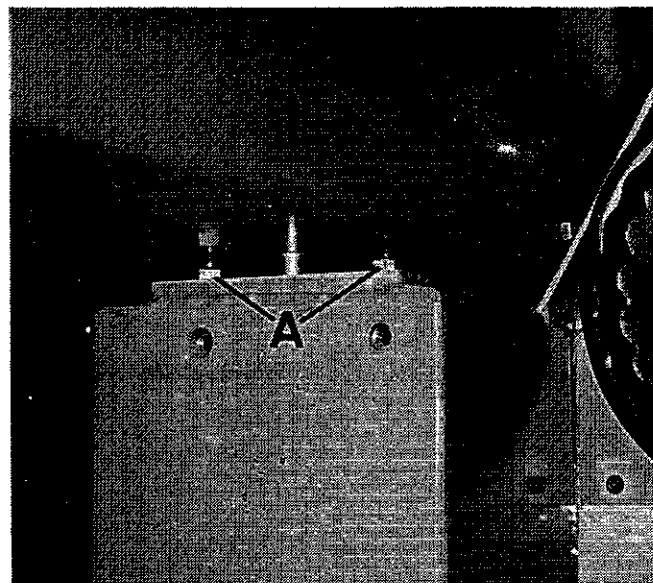


FIG. 11.

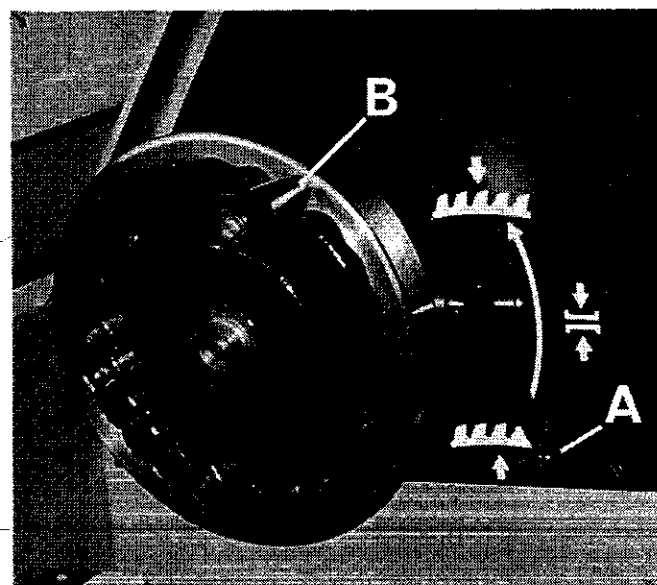


FIG. 12.

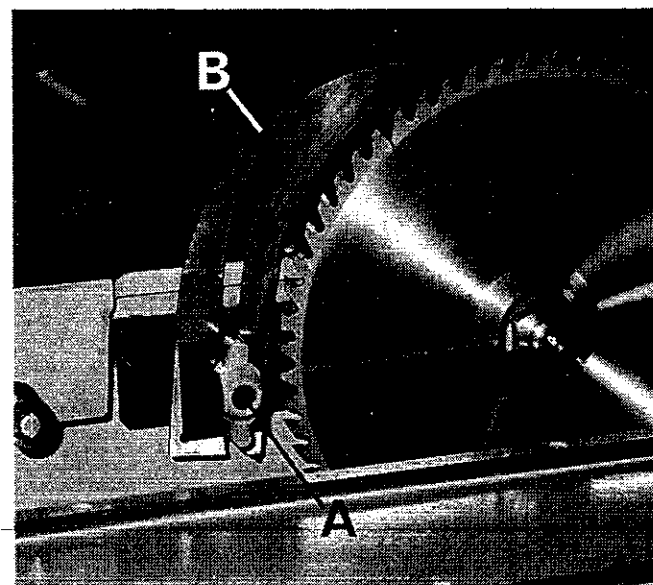


FIG. 13.

RISE AND FALL CONTROLS

For rise and fall of saw arbor proceed as follows:-

Release locking handle "A" in FIG.12, and raise or lower the saw arbor by the handwheel "B" to the required position then relock handle "A".

GUARD AND RIVING KNIFE ADJUSTMENT

The riving knife and guard rise and falls with the saw.

The riving knife should be adjusted to the closest practicable distance from the saw teeth.

To adjust the riving knife to this position proceed as follows:-

1. Isolate machine electrically.
2. Move sliding table for access to riving knife adjustment, FIG.13.
3. Loosen M16 socket head screw "A", and move riving knife "B" to correct position.
4. Tighten securely socket head screw "A".

The sawguard should then be adjusted to cover as much of the saw as possible.

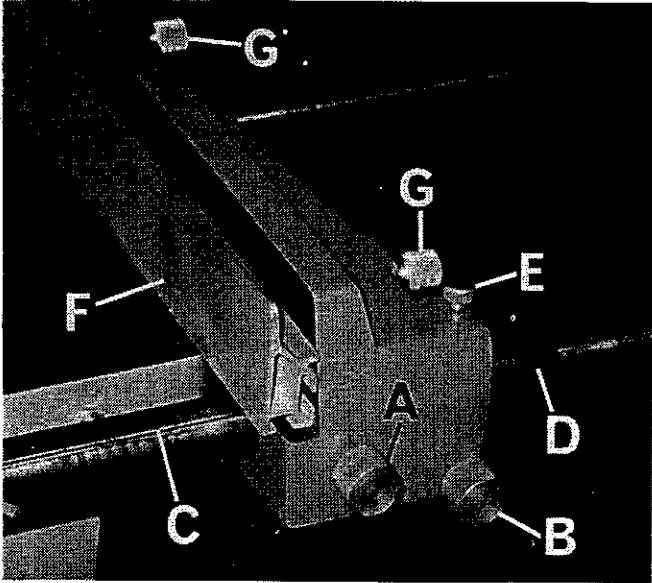


FIG. 14.

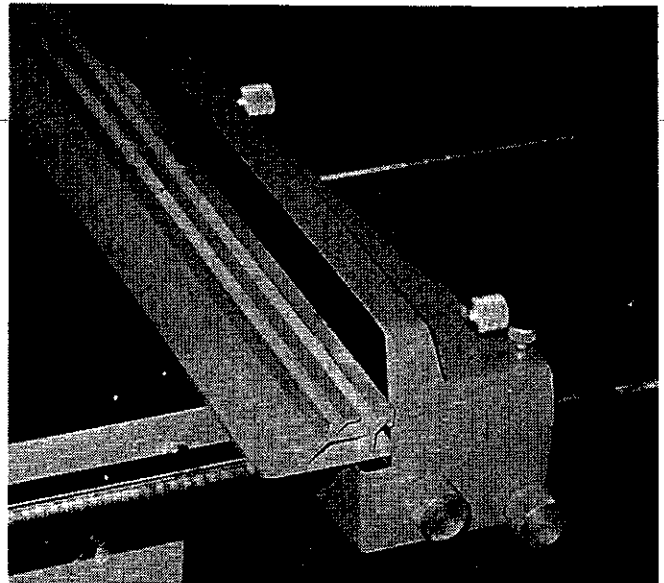
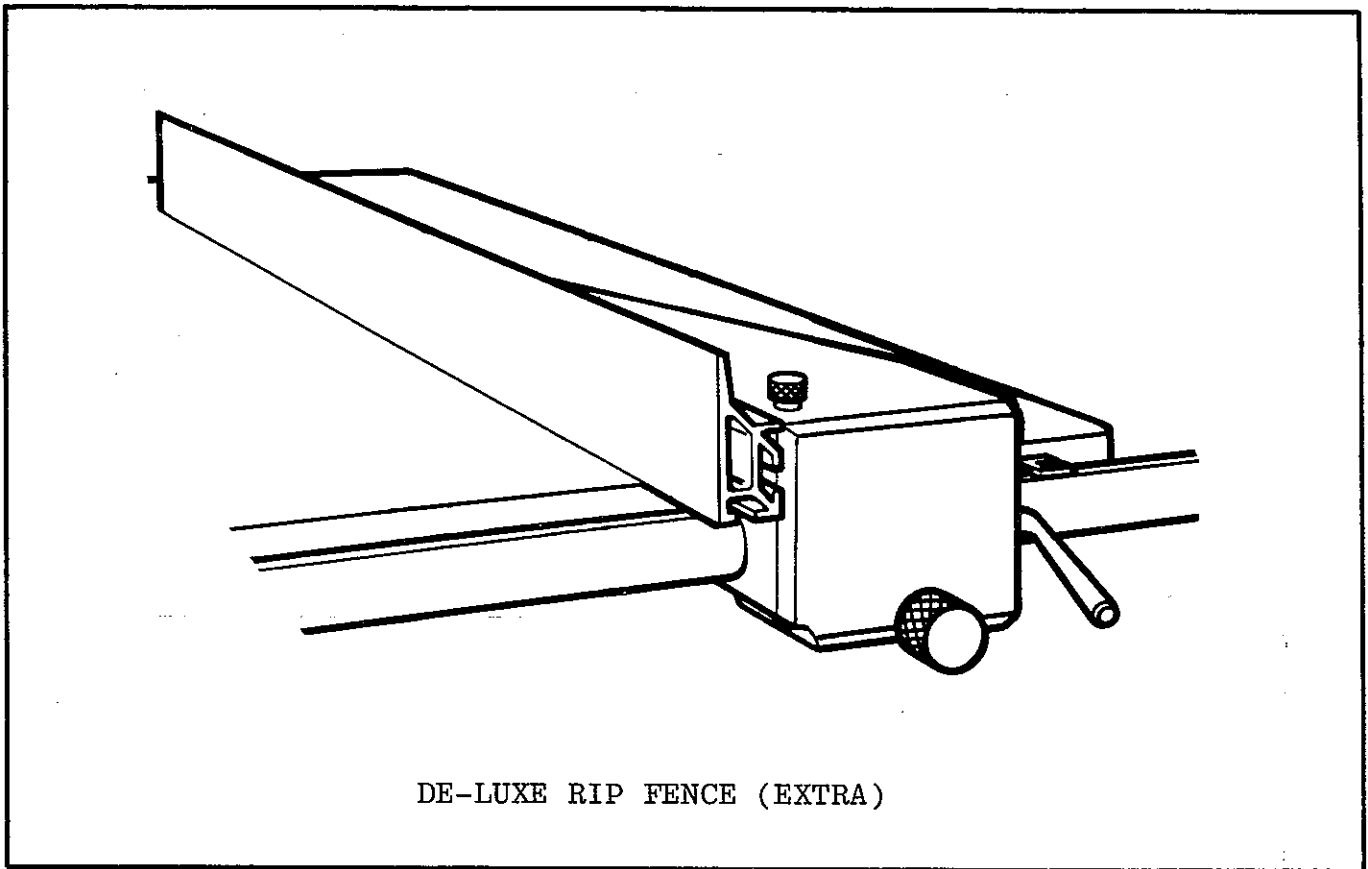


FIG. 15.



DE-LUXE RIP FENCE (EXTRA)

FIG. 16.

RIP FENCE CONTROLS.

~~The rip fence slides on a round bar fitted to front of table.~~
Rapid fence adjustment and micro-adjustment are provided with an effective lock.

For rapid fence adjustment, proceed as follows:

1. Loosen knurled handwheel "A", FIG.14, then disengage pinion from front racked fence bar by pulling knurled handwheel "B" out of fence front bracket.
2. Position fence where required then turn handwheel "A" to lock fence in position. A ripping capacity scale on fence slide bar "C" is indicated by an adjustable pointer "D" located in the fence body and secured by knurled knob "E".
3. For micro-adjustment, the pinion should be engaged in the racked fence slide bar, i.e. handwheel "B" pushed into the fence front bracket.

Fence Plate Positions.

The fence plate "F" in FIG.14, has two positions

Position shown in FIG.14, is for use with deep stock.

Position shown in FIG.15, is for use with faced panels, melamine, veneer, etc.

To Change the Fence Plate Position, Proceed as Follows:

1. Loosen knurled handwheels "G" in FIG.14, then slide fence plate "F" from fence body.
2. Slide fence plate over the two locking plates to position shown in FIG.15, then relock handwheels "G".

Fence Pointer Adjustment.

When the fence plate position has been changed as previously described, the pointer "D" in FIG.14, must be reset accordingly.

To Reset Pointer Proceed as Follows:-

1. Loosen handwheel "A", FIG.14, then move fence to a position which would allow a reasonable cut to be taken. Turn handwheel "A" to lock fence in position.
2. Start machine, then feed a piece of timber past the sawblade keeping timber firmly against the fence. Stop machine.
3. Accurately measure the width of timber after then loosen knurled screw "E" and set rule pointer "D" accordingly. Relock knurled screw "E".

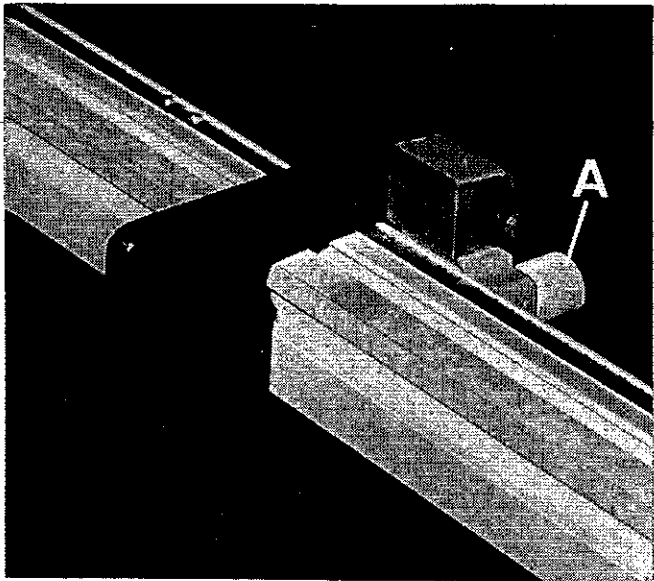


FIG. 17.

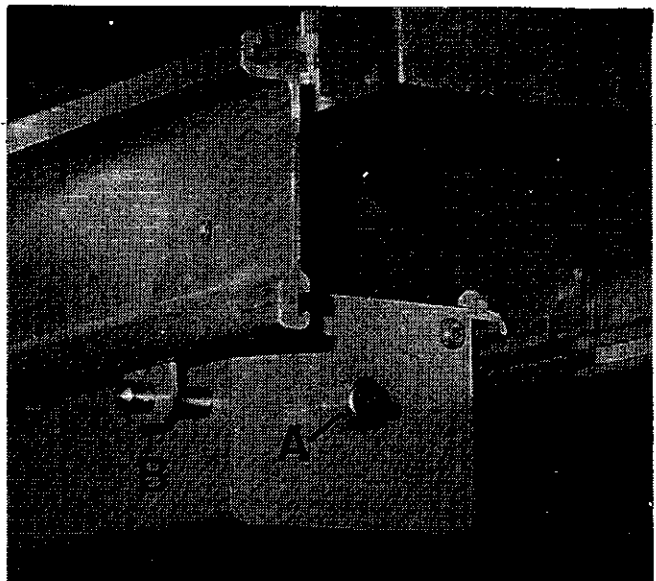


FIG. 18.

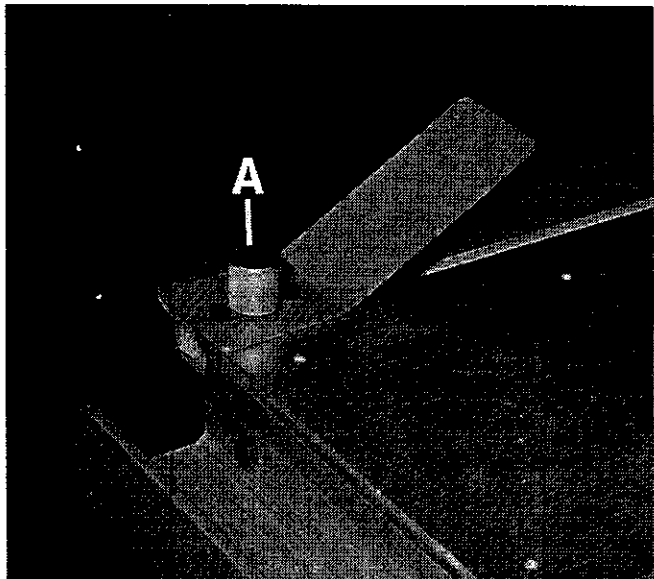


FIG. 19.

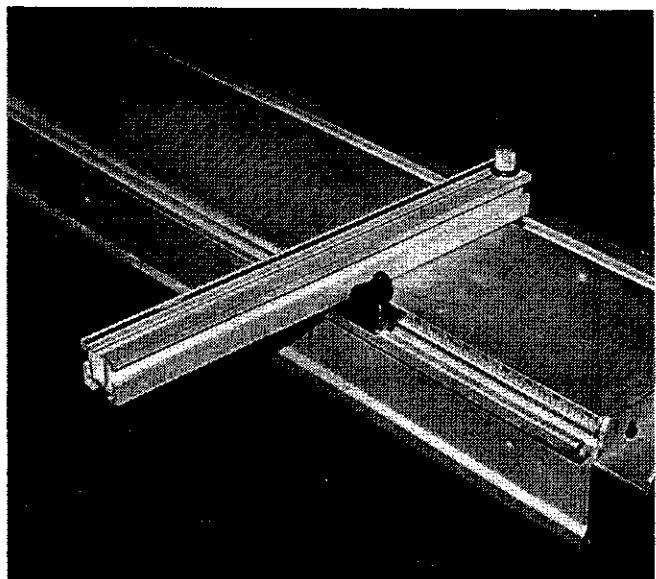


FIG. 20.

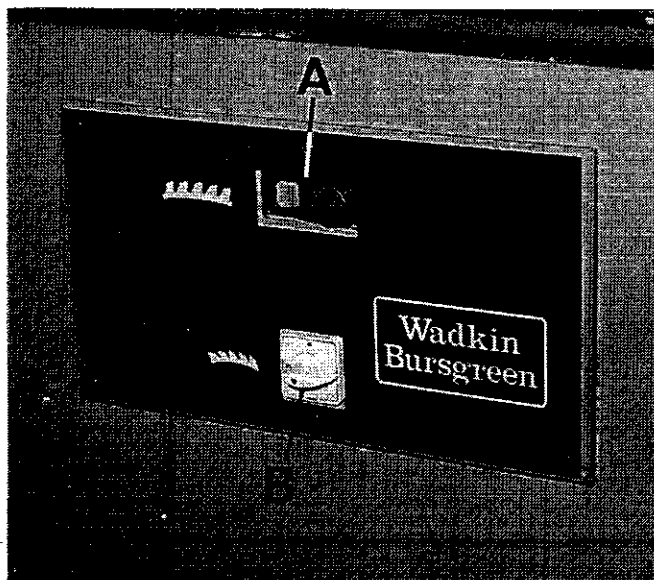


FIG. 21.

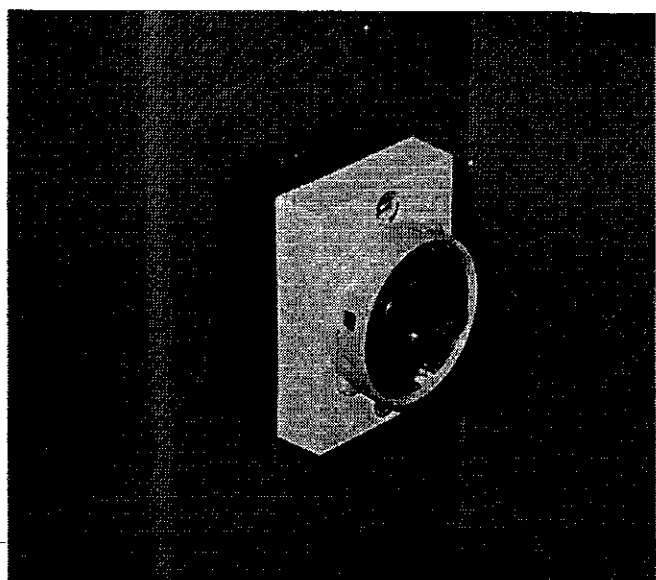


FIG. 22.

TURN OVER STOPS

~~2-Turn-Over-Stops are supplied with machine and are fitted to the crosscut fence as shown in FIG.17.~~

These stops are fitted to enable timber to be positioned in correct relation to sawblade and for repeat cuts on same size timber.

To move each stop, loosen handwheel "A", position stop as required then relock handwheel "A".

POSITIONING OF SLIDING TABLE CARRIAGE.

At the start of each working day push sliding table to maximum forward position then to maximum rear position to ensure sliding table carriage is correctly positioned in relation to table stops. This will avoid "shuffling" of table and carriage.

SLIDING TABLE LOCK

When the machine is used for ripping operations the sliding table can be locked by locating the locking bar "A" in the bracket "B" as shown in FIG.18.

WANNEY EDGE BOARD SUPPORT

The Wanney Edge Board Support is shown in FIG.19, and is locked in the sliding table "tee" slot by handwheel "A". This attachment is used to support boards or planks when no square edge is available, to give a straight edge from which future operations can be carried out.

MITRE FENCE (EXTRA)

A Mitre Fence as shown in FIG.20, can be supplied for angle cutting or for cutting packs of thin material up to 3 ft square.

MAIN SAW START-STOP

Main saw start-stop buttons "A", FIG.21, are conveniently situated on control plate as shown.

SCORING SAW START-STOP SWITCH

The scoring saw start-stop switch "B", FIG.21, is conveniently situated on control plate as shown.

ISOLATOR SWITCH (Optional Extra)

A lockable isolator switch is fitted on the side frame of base below rise and fall handwheel as shown in FIG.22.

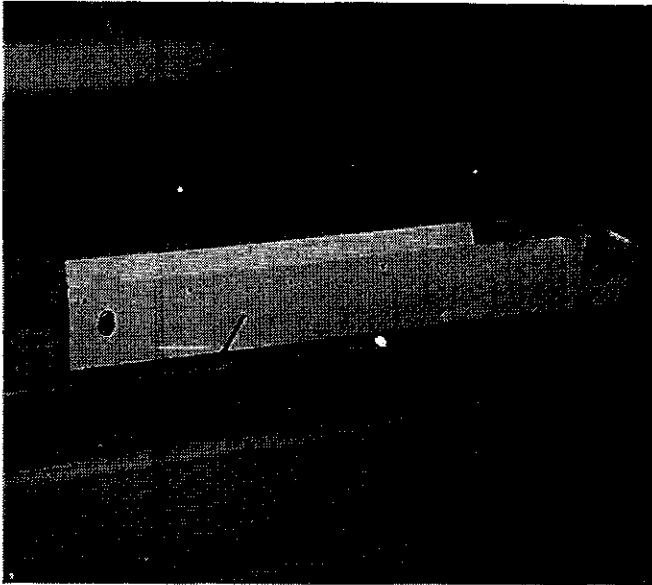


FIG. 23.

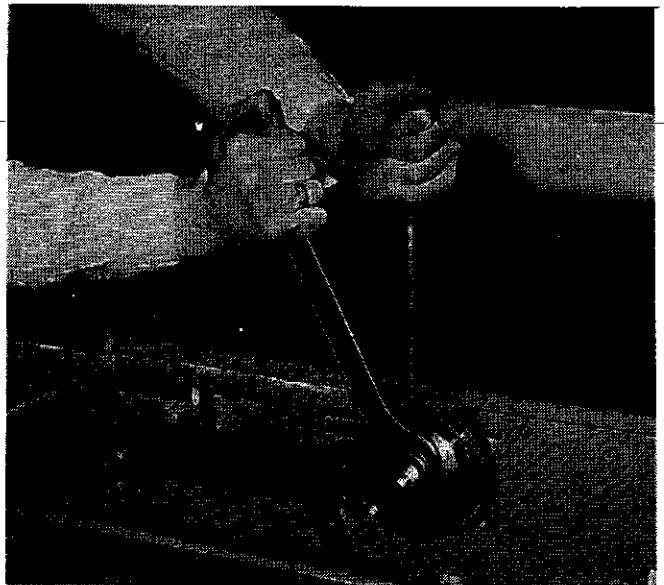


FIG. 24.



FIG. 25.

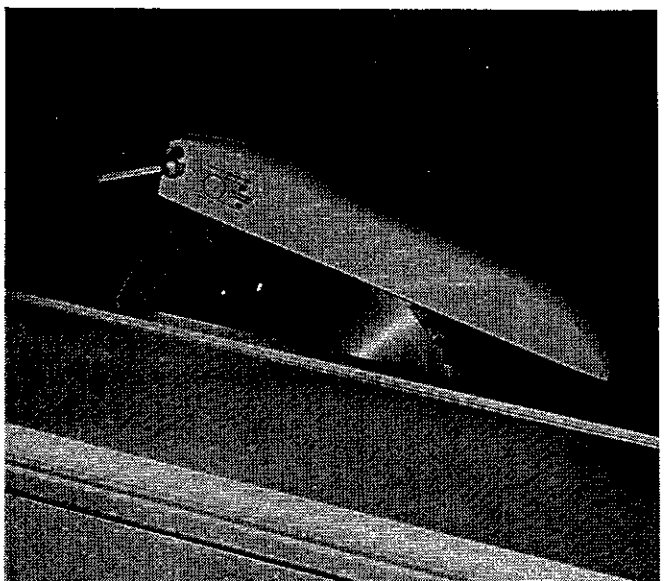


FIG. 26.

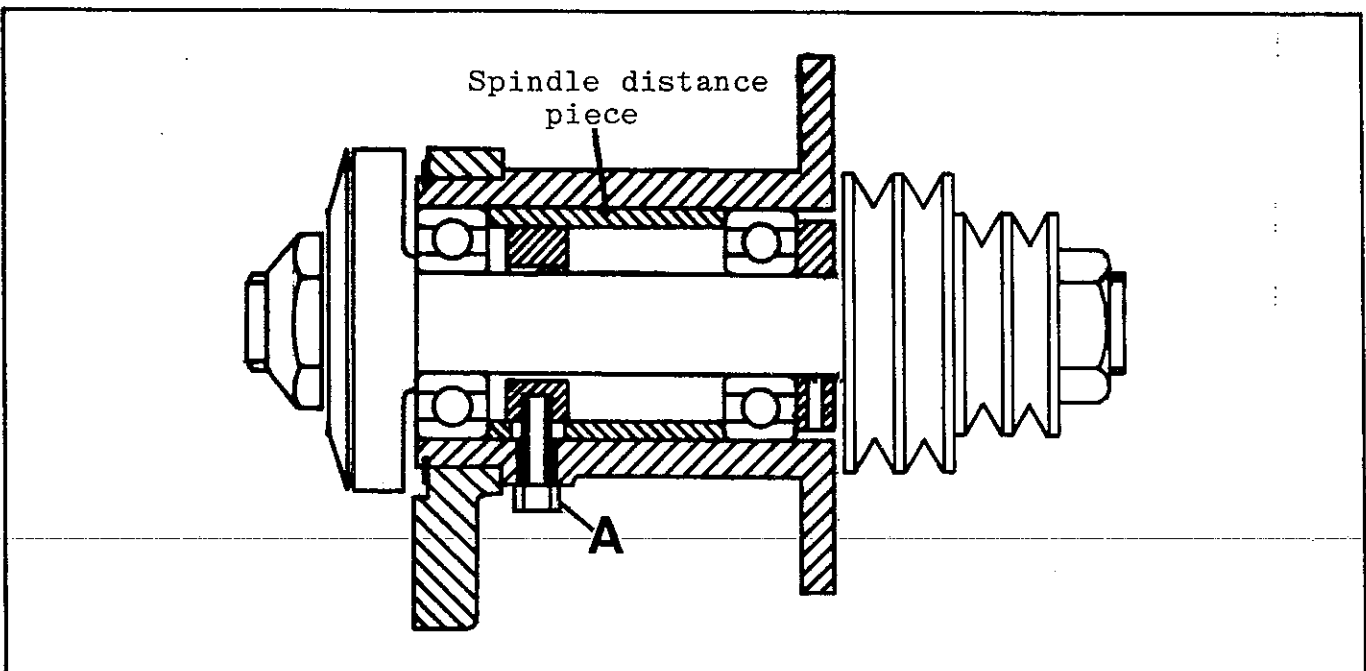


FIG. 27.

MOUNTING MAIN SAW BLADE.

To mount the main sawblade, proceed as follows:

1. Isolate machine electrically.
2. Move saw spindle to uppermost position
3. Move sliding table for access to main sawblade.
4. Lift and remove under table sawguard "A", FIG.23.
5. Locate 10mm toggle bar in rear of spindle housing as shown in FIG.24, then remove arbor nut (left hand thread) and front saw flange.
6. Select required blade and check blade is free from dirt, gum or sawdust especially where it will be gripped by saw flanges. Check rear saw flange is clean and fit saw on arbor.
NOTE: Saw teeth must point towards front of machine. Check front saw flange is clean and fit on arbor.
NOTE: If flanges and saw are not clean, the saw will run out of true causing vibration.
7. Lock saw securely in position with arbor nut (left hand thread) as shown in FIG.25.
8. Replace under table sawguard "A", FIG.23,
9. Position sawguard depending on thickness of timber to be worked
NOTE: Sawguard must cover blade as much as is practicable. Clearance between sawguard and timber should be as small as is practicable and at no time should it be possible to pass fingers between guard and timber.

SETTING SAW TO RIVING KNIFE

It is most important that the saw and riving knife are in line. To re-set if spindle bearings have been changed or saw is cutting out of line proceed as follows:-

1. Loosen the hexagon head adjuster bolt "A" in FIG.27, and tap spindle (with hide-face hammer) as required, taking care not to damage the threads on spindle ends. Place a steel rule along both sides of riving knife to check that saw is central.
2. When set re-tighten the hexagon head bolt "A".
3. To check this setting, feed a short piece of timber from the rear, along both sides of the riving knife. If riving knife is set correctly the blade will cut equal shoulders as shown in FIG.28A. (A) and when set incorrectly, unequal shoulders as shown in FIG.28B

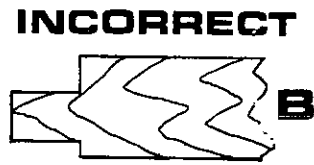


FIG.28.



FIG.29.



FIG.30.



FIG.31.

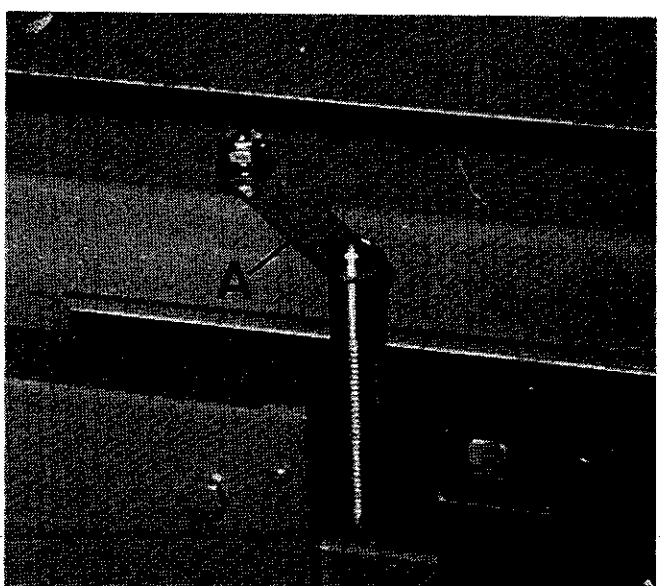


FIG.32.

SCORING SAW

is designed to prevent splitching of all materials including plywood, fibreboard, chipboard, thicker solid plastics and materials having two face layers of veneer, etc.

A twin blade scoring saw is supplied with 3 shims of 0.010", 0.005" and 0.003" thick. These shims can be positioned between the blades as required to ensure the scoring saw kerf is identical to the main saw kerf.

Scoring saw lateral and vertical adjustments are provided to ensure accurate alignment to thickness of main saw blade so that brittle materials can be cut with perfect finish on upper and lower edges at both sides of cut.

MOUNTING SCORING SAWBLADE

To mount the scoring sawblade, proceed as follows:

1. Isolate machine electrically.
2. Move sliding table for access to scoring saw.
3. Lift and remove under table sawguard "A", FIG.29.
4. Locate 5mm allenkey (supplied) in scoring saw spindle as shown in FIG.30, and remove scoring saw nut (right hand thread) with spanner supplied.
5. Fit scoring saw with teeth pointing towards rear of machine, FIG.31. NOTE: See FIG.33, for use of shims as fitted between scoring saw blades for correct kerf alignment.
6. Replace under table sawguard

SCORING SAW ALIGNMENT TO MAIN SAWBLADE

1. Isolate machine electrically.
2. Place a steel rule or similar straight edge across main blade and scoring blade to check approximate lateral alignment.
3. Lateral adjustment to scoring blade is by knurled handwheel "A", FIG.34.
4. Locate 8mm allenkey (supplied) in vertical adjustment screw as shown in FIG.34, and adjust scoring saw vertically. Correct vertical adjustment is attained when the scoring saw scores the full underside length of panel. NOTE: Some panels may be badly bowed in which case the scoring saw should be vertically adjusted to suit.
5. Proceed to take trial cuts to establish the accuracy of your approximate alignment of the scoring blade with main blade. The correct alignment is shown in FIG.33.

PIVOT ARM SECURING LATCH

The extension table pivot arm, when not in use can be secured to base by pivot arm securing latch "A", FIG.32.

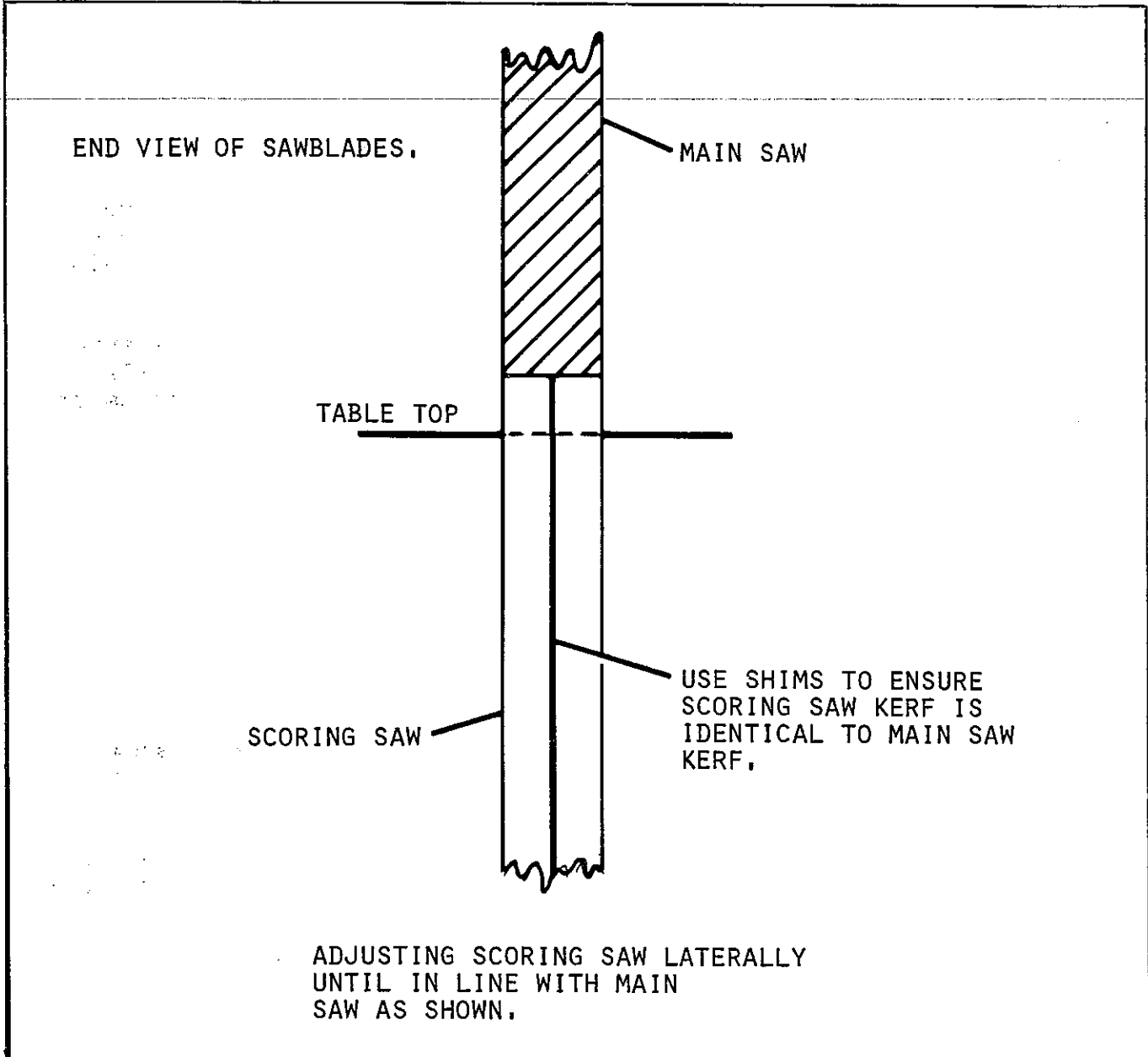


FIG.33.

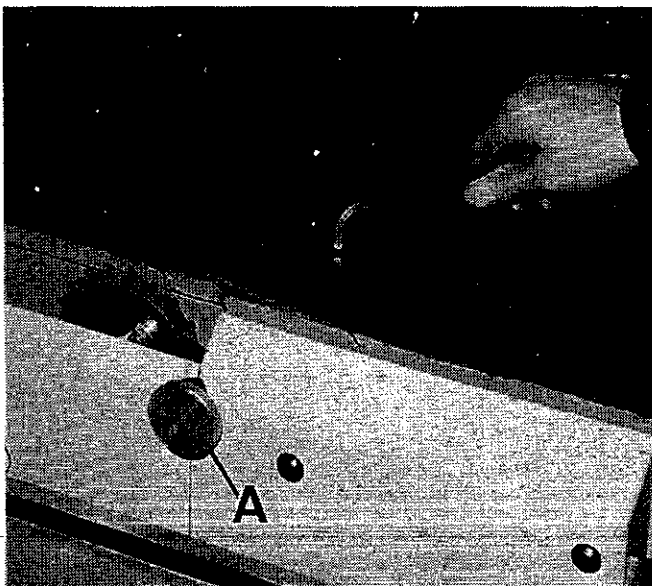


FIG.34.

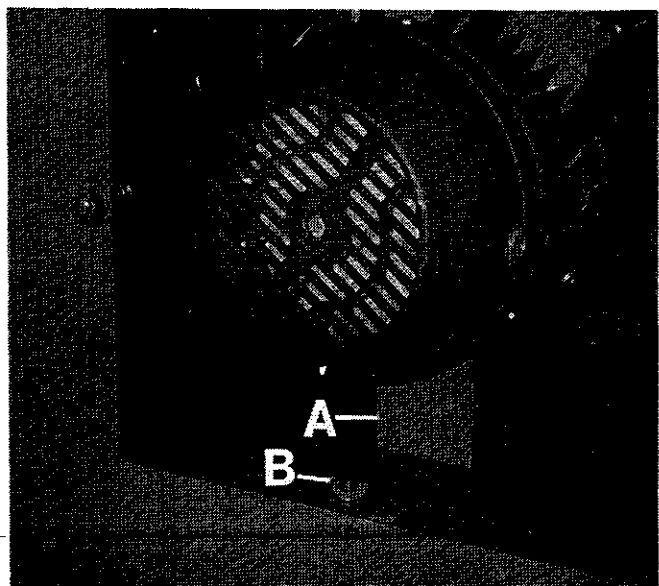


FIG.35.

SAW SPINDLE SPEED CHANGING OR BELT CHANGING

The saw spindle is driven by 2 vee belts on a 2 step pulley from the main motor giving speeds of 3000 RPM or 4500RPM.

To change belts for required speed, proceed as follows:-

1. Isolate machine electrically.
2. Open access door at rear of machine.
3. Move main saw spindle to uppermost position.
4. Move motor support bracket "A", FIG.35 to position shown then lower motor by rise and fall handwheel until motor rests on bracket "A" as shown.
5. Change belts to required pulley on spindle pulley and motor pulley.
See pulley diagram FIG.36, for required spindle speed.
6. When belts are on required pulleys, left motor by rise and fall handwheel then swing motor support bracket "A", FIG.35, round clear from motor and secure in position against door frame by wingnut "B".

NOTE: Weight of motor tensions belts.

7. Close access door at rear of machine.

IMPORTANT : DO NOT RUN LARGE SAWBLADES AT HIGH SPEED.

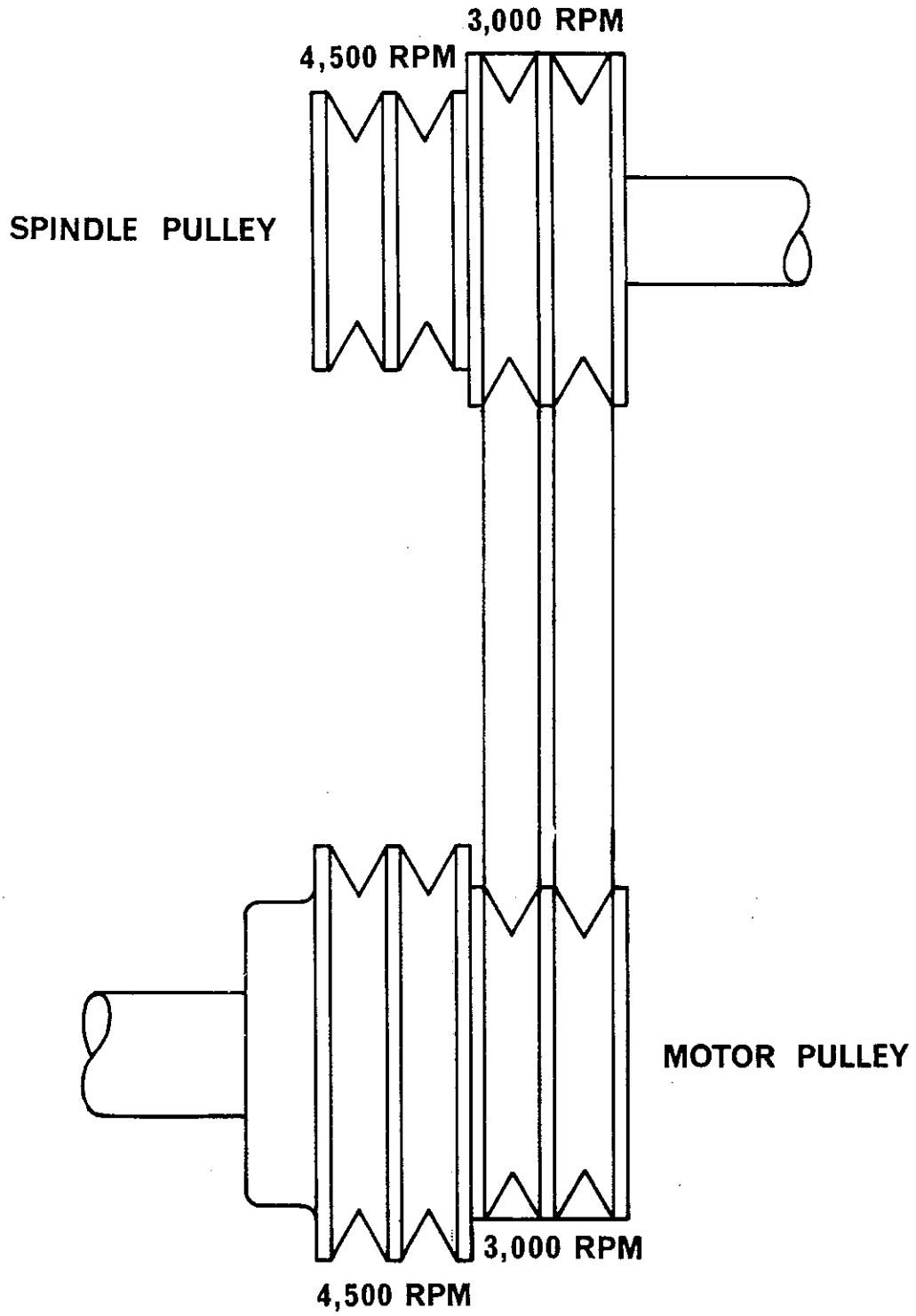


FIG. 36.

SCORING SAW DRIVE BELT REPLACEMENT

Should the scoring saw drive belt need replacing proceed as follows:-

1. Isolate machine electrically.
2. Move sliding table for access to saw blades.
3. Lift and remove under table sawguard "A", FIG.37.
4. Loosen 2-M8 screws "A", FIG.38, and remove guard "B".
5. Remove main saw blade and scoring saw blade.
6. Turn scoring saw lateral adjustment handwheel "C", FIG.38, anticlockwise, removing handwheel and screw.
7. Remove the 3-M6 button head screws "A", FIG.39, and rear guard "B".
8. Open access door at rear of machine.
9. Loosen the 4-M6 scoring motor mounting screws "A", FIG.40, and move motor to remove belt "B".
10. Replace belt then loosen M12 nut "A", FIG.41, and turn eccentric spindle with 19mm spanner supplied until minimum centre distance is achieved between motor pulley and spindle pulley.
Re-lock M12 nut "A".
11. Move motor to tension belt.
NOTE: Belt tensioned too tight will cause bearing failure.
Belt tensioned too slack will cause belt slip.
12. When belt is correctly tensioned, re-tighten the 4-M6 motor mounting screws "A", FIG.40.
13. To re-assemble parts, reverse procedures 1 to 8.

SCORING SAW DRIVE BELT TENSION

Should the scoring saw drive belt need re-tensioning proceed as follows:-

1. Isolate machine electrically.
2. Open access door at rear of machine.
3. Loosen M12 nut "A", FIG.41, and turn eccentric spindle with 19mm spanner supplied until belt is correctly tensioned.
NOTE: Belt tensioned too tight will cause bearing failure.
Belt tensioned too slack will cause belt slip.
4. When belt is correctly tensioned relock M12 nut "A".
5. Close access door at rear of machine.

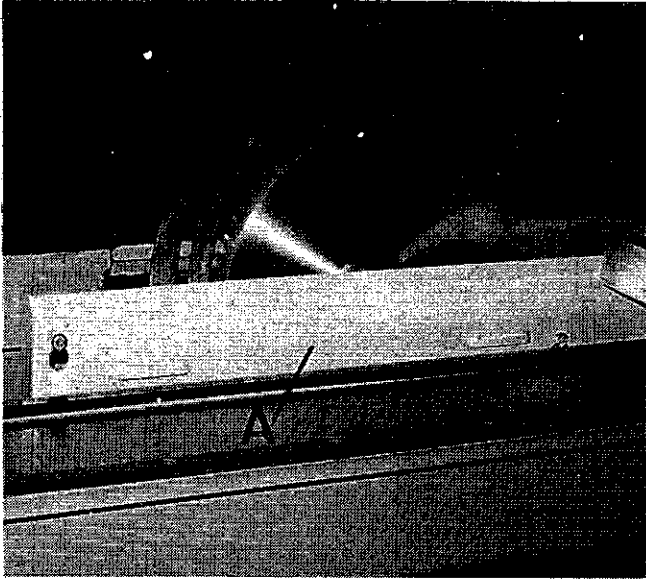


FIG. 37.

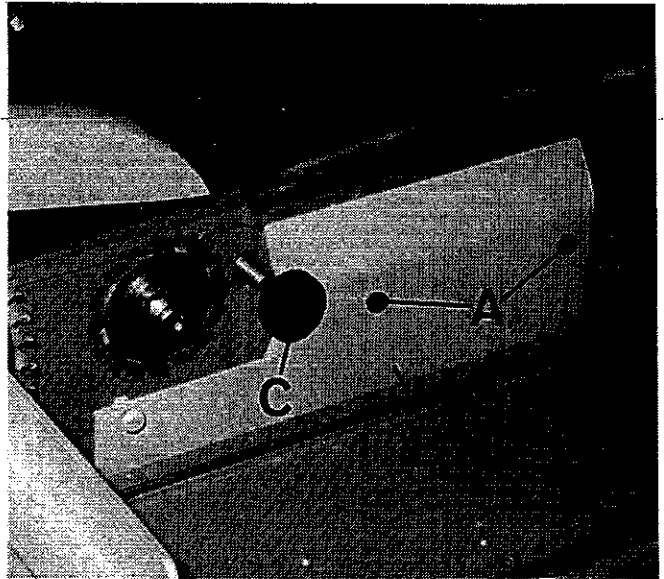


FIG. 38.

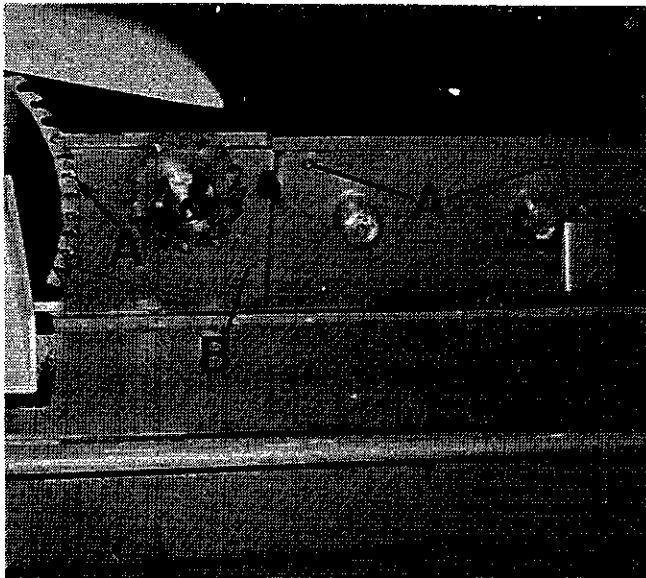


FIG. 39.

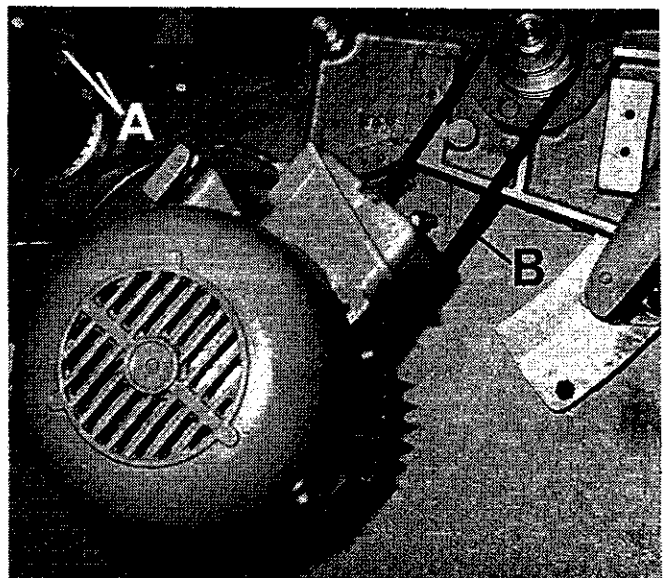


FIG. 40.

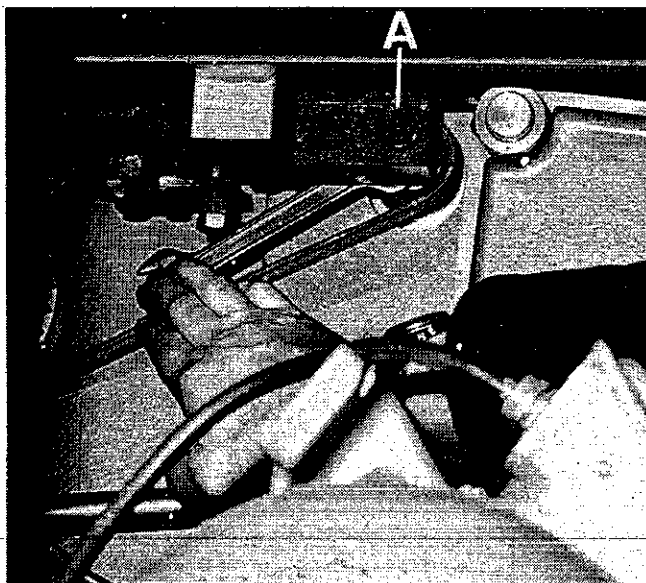


FIG. 41.

SAFETY SECTION

All safety precautions should be taken to comply with relevant safety regulations i.e. Woodworking Machines Safety Regulations 1974 - No 903 (Great Britain) Always adjust the riving knife and guard to protect as much of the saw as is possible. These adjustments have been previously described.

Do not use sawblades at higher than recommended speed. When changing sawblades, belts or any other maintenance or lubrication etc, always isolate the machine electrically. Use a wood push stick as much as practicable when feeding timber, to avoid accidents.

SAW MAINTENANCE

Efficient operation of a circular saw depends on the true running of the saw spindle and the collars being perfectly square on the faces with the axis of the spindle, it must run at the correct peripheral speed to ensure straight cutting.

All Bursgreen circular saw benches embody these requirements and provided the sawblade is maintained in a sharp condition with the teeth correctly sharpened and set efficient service will be given.

Carbide tipped saws can be returned to Bursgreen to be resharpened for a nominal charge.

SAW SHARPENING (ALLOY STEEL SAWS)

Do not run a saw when blunt, remove and re-sharpen. To sharpen by hand, hold the saw rigid in a vice as shown in FIG.42, then proceed to sharpen the saw. With Rip Saw Teeth chisel edges and square faces are required, see FIG.43. Sharpen by giving each tooth an equal number of strokes with a flat face saw file with rounded edges. At the same time file the gullet, taking care to keep the gullet well rounded.

With a Crosscut Saw, points are needed with back and front bevels as FIG.44 In the case of repeated filing the teeth lose the original shape and the gullets shallow. To restore the shape of each tooth essential for satisfactory performance it is necessary to grind the saw on a sharpening machine. These machines are usually of the automatic type and feed each tooth giving equal spacing or pitch.

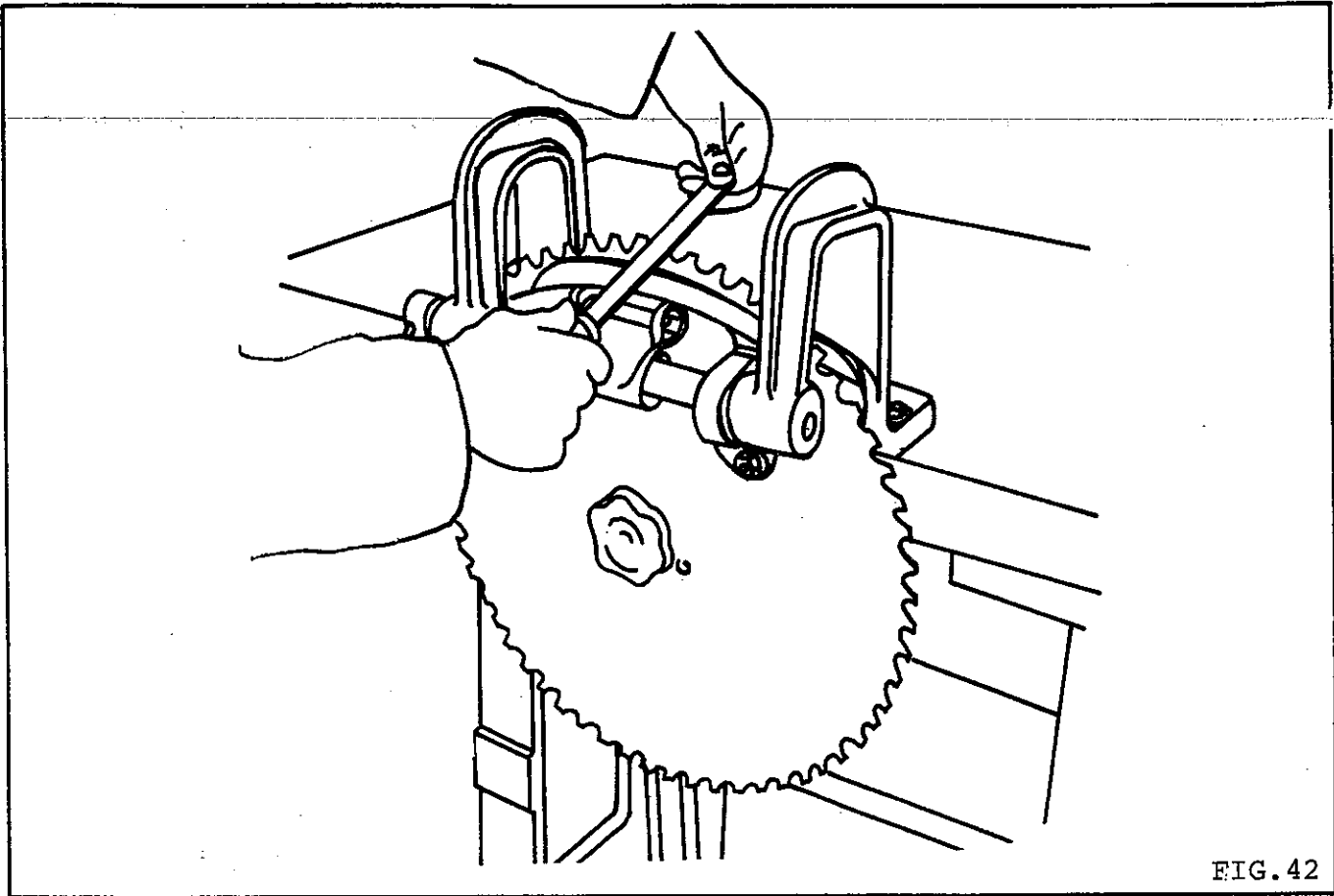


FIG. 42

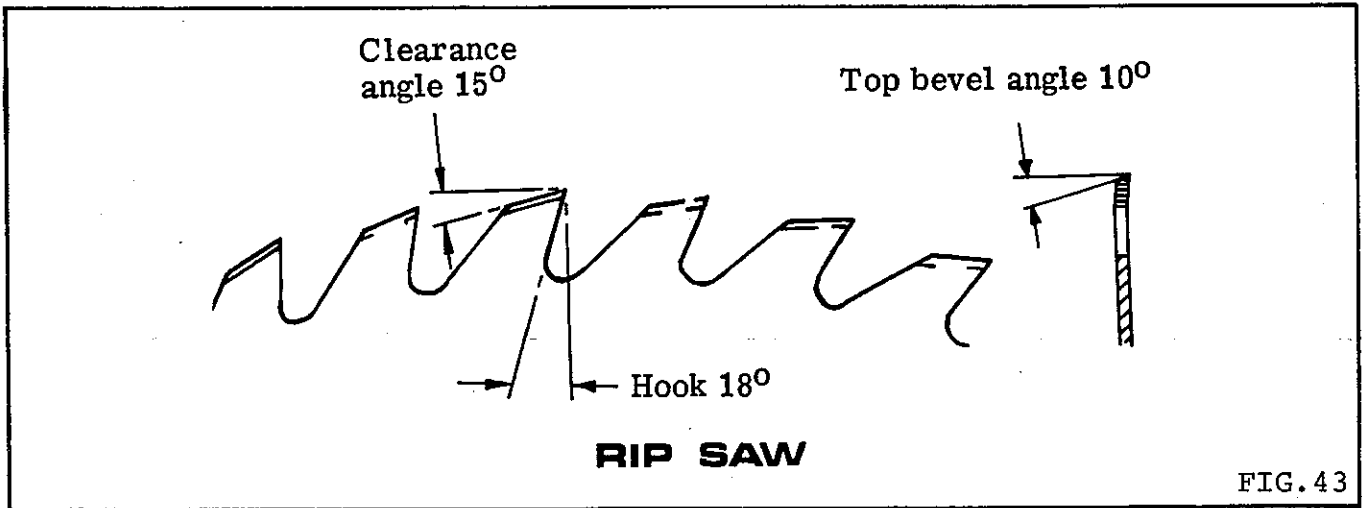


FIG. 43

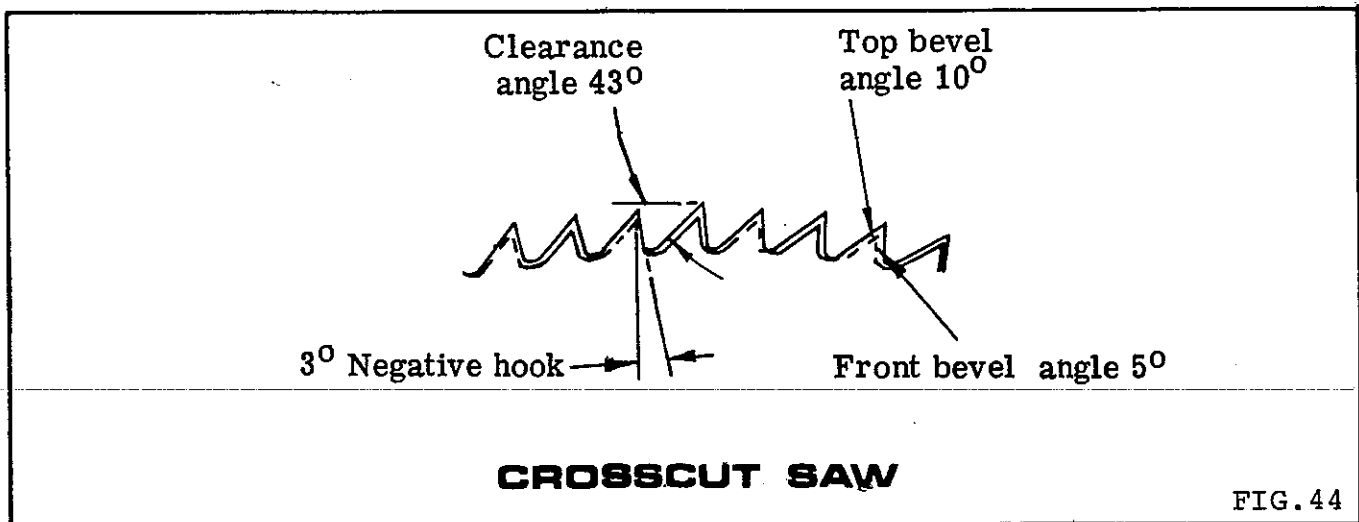


FIG. 44

SETTING

The amount of set to the teeth should be sufficient to give clearance to the body of the saw, so that there is freedom from friction between saw and timber. It is generally accepted that the teeth are "spring set" i.e. tips of alternate teeth are bent to the right and left, as shown in FIG.45. For good sawing the amount of set on each side of the saw must be identical, otherwise the saw will run to one side. To check the set, cut into a piece of wood a few inches when a small even triangle should be cut, as in FIG.46.

The exact amount of set each side varies with the timber being cut, usually .010" to .015" (.3mm to .4mm). For clean cutting, just sufficient set should be allowed to prevent bending and heating. More set is required for wet woolly timber than for dry close grained timber and the amount of set is greater for crosscutting saws than for ripping.

MACHINE SETTING

We can supply a small machine for efficiently setting the teeth, as illustrated in FIG.47 and will deal with saws 8" to 36" (202mm to 910mm) diameter. The micrometer dial indicates accurate reading of the amount of set in thousandths of an inch.

HAND SETTING

Where the number of saws does not warrant a machine being installed, the saws can be set by hand, using a tool, as shown in FIG.48. This tool is provided with six notches to take saws 8 to 14 gauges thick. For this process of setting, the saw should be securely clamped in a vice.

SAWBLADES

For best results we recommend the purchase of sawblades from Bursgreen (Durham). All blades have a kerf of 3.2mm.

Sawblades over 300mm dia should be run at 3,000 r.p.m. and blades 300mm dia and less should be run at 4,500 rpm.

Sawblades available:-

400mm diameter x 30mm bore alloy rip sawblade B-S-239

400mm diameter x 30mm bore alloy crosscut sawblade B-S-240

300mm diameter x 30mm bore T.C.T. sawblade B-S-242

105mm diameter x 20mm bore T.C.T. split scoring sawblade B-S-230

Do not use sawblades at higher than recommended speed.

The material should be fed past the sawblade at a reasonable speed otherwise overheating of the blade will occur causing cracks. The machine is available with a range of 3 speeds up to 6,000 rpm as an optional extra. The additional speeds are for use with smaller diameter sawblades at the customers discretion. As a guide, the normal peripheral speed for alloy sawblades is approximately 10,000 rpm and for T.C.T. sawblades approximately 12,000 rpm.

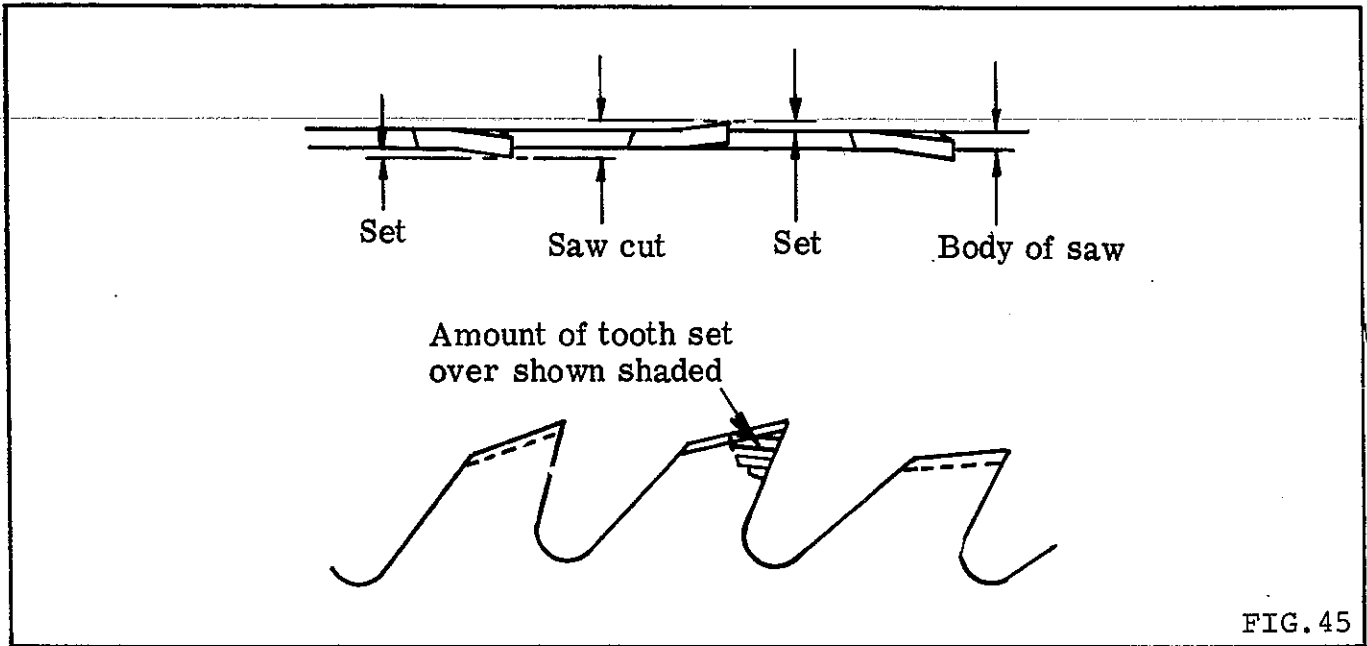


FIG. 45

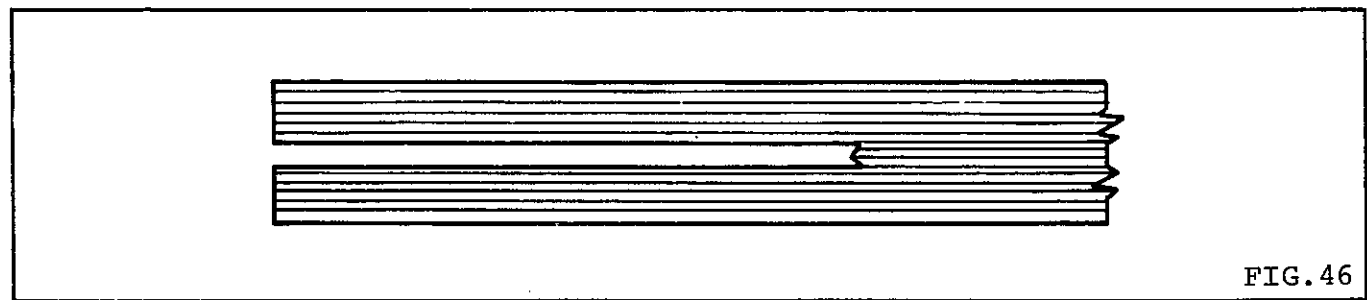


FIG. 46

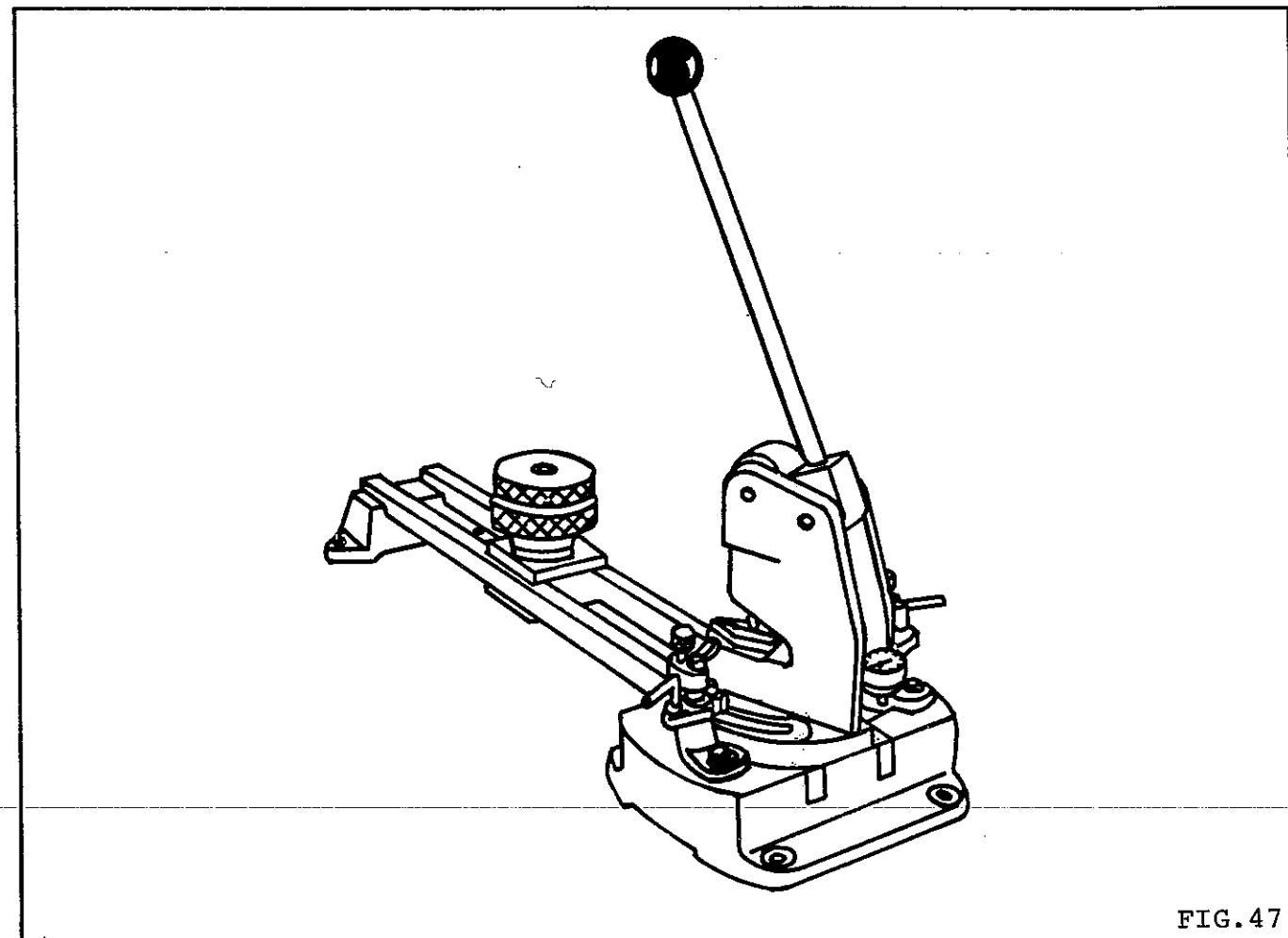


FIG. 47

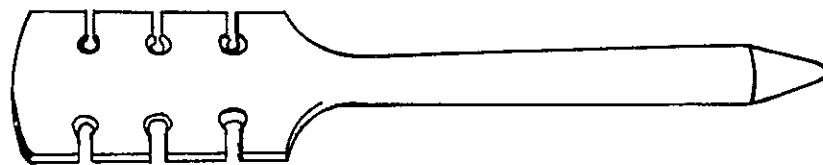


FIG. 48

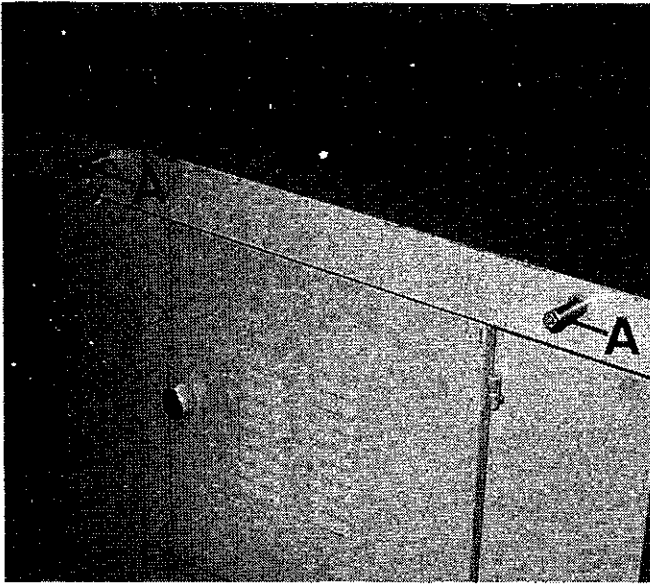


PHOTO 1

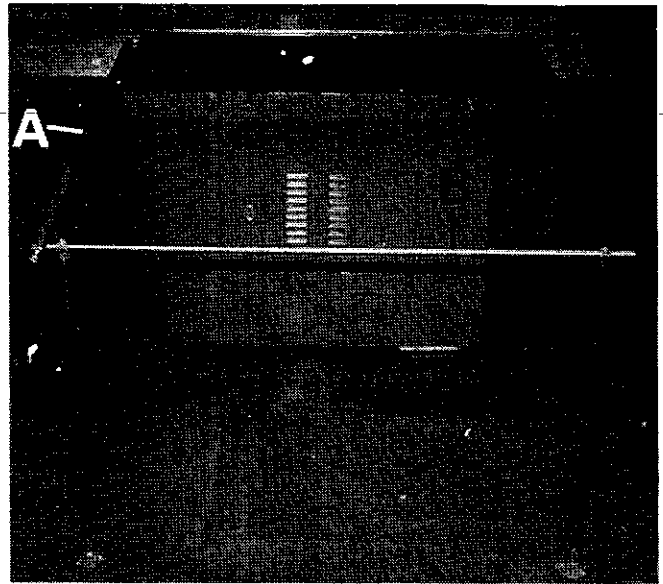


PHOTO 2

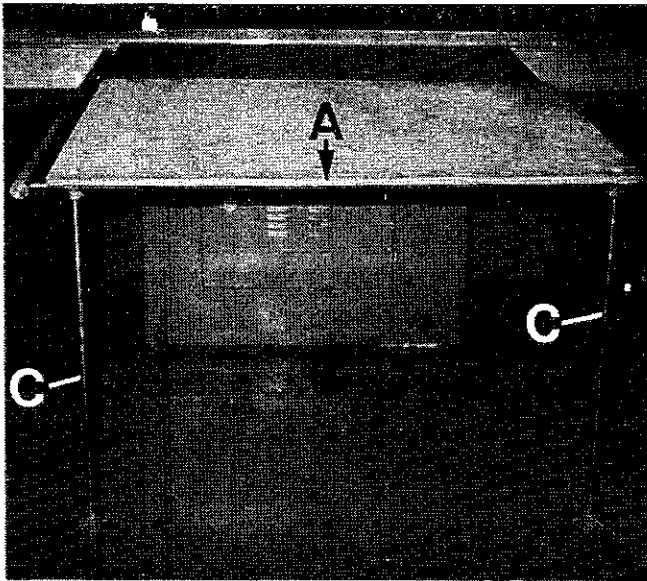


PHOTO 3

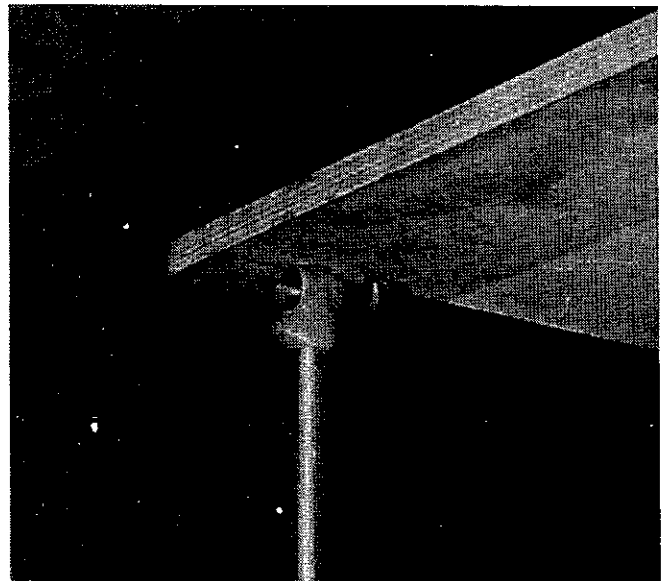


PHOTO 4

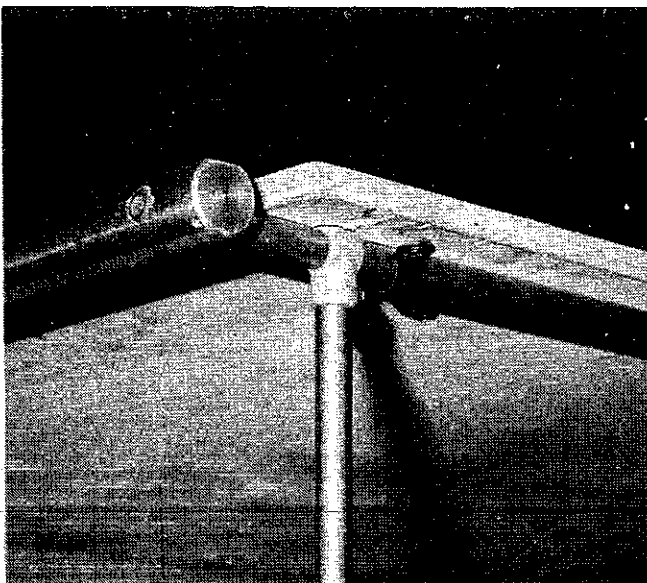


PHOTO 5

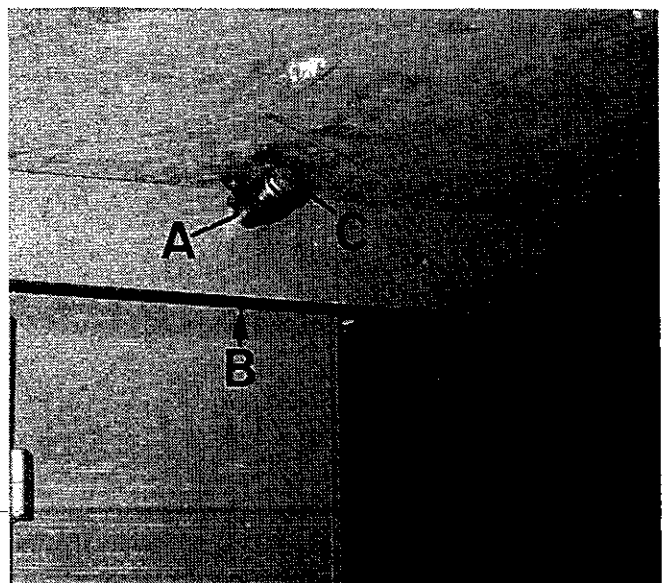


PHOTO 6

EXTENSION TABLE (OPTIONAL EXTRA) FOR P.32 PANEL SAW

Parts supplied for extension table are as follows:-

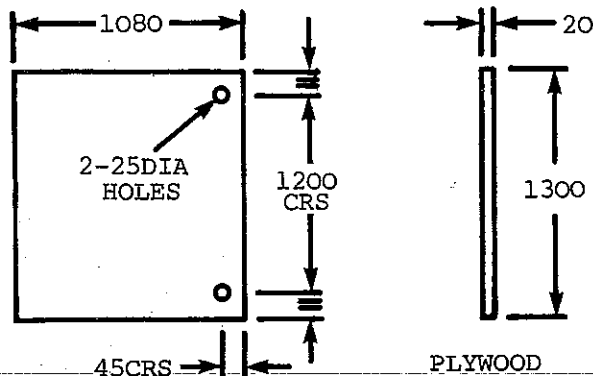
1 - Extension fence slide bar	No. B-1041/170
1 - Tie bar	No. P32/121
2 - Extension table support bar	No. P32/120
2 - Tee filboe for extension table	No. S25/99
2 - Extension table support leg	No. S25/84
2 - Extension table support foot	No. S25/85
4 - 20 mm conduit clamps	
4 - M10 x 25 long hexagon head bolt	
1 - M10 locknut	
2 - M10 x 10 long hexagon head bolt	

To fit extension table proceed as follows:-

- A. Secure 2 support bars "A", Photo 1, to main table as shown.
- B. Secure fence bar "A", Photo 2, to main table as shown.
- C. Secure tie bar "B", Photo 2, to fence bar "A" with support legs in position shown.
- D. Make extension table from plywood to sizes shown on drawing below.
- E. Position table as shown in Photo 3, and secure with clips provided as shown in Photo's 4, 5 and 6.

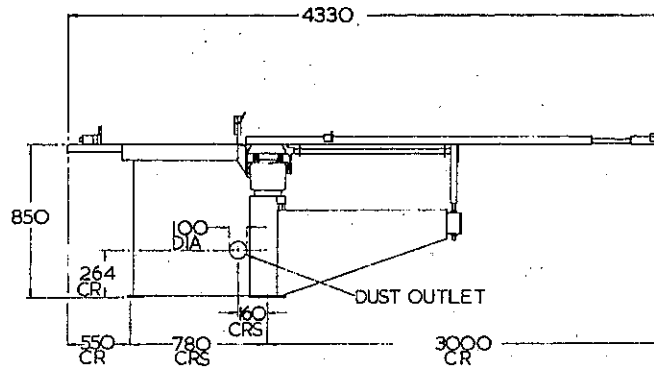
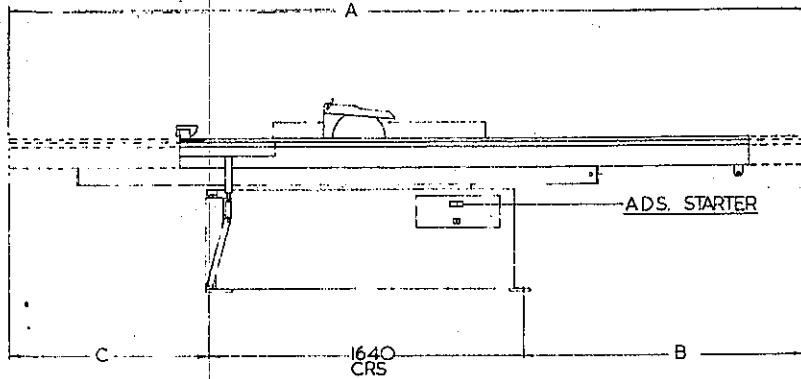
NOTE: Ensure that the 2 holes in outer end of wood table are located over the tee filboes as shown in Photo's 4 and 5.

- F. Loosen clip screws on the 2 support bars "A", Photo 6, then loosen support bar securing nuts "B" and turn support bar eccentric adjusting nuts "C" until wood table is level with main table.
Re-lock clip screws and securing nuts "B".
- G. Set outer end of wood table "A", Photo 3, level with machine table by loosening bolts in feet "B", moving height of legs "C" as required then relocking bolts in feet "B".
- H. When set, secure all bolts and screws.



APPROVED LUBRICANTS

Application	Approved Lubricant					
	Castrol	B. P.	Shell	Esso	Texaco/ Caltex	Wadkin
Worm Boxes	Alpha 617	Energol CS425	Vitrea 75	Pen-O-Led E. P.3	Regal Oil J	L. 2.
General Lubrication	Magna ED	Energol HP. 20	Vitrea 33	Esstic 50	Ursa Oil P. 20	L. 4.
Pneumatic Lubricators	Hyspin AWS 32	Energol HL 65	Tellus 27	Nuto H 44	Rando Oil HDA	
Grease	Spheerol AP. 3	Energrease LS. 3	Alvania 3	Beacon 3 Starfak Premium 3	Regal	L. 6.
Brake Cables	Brake cable grease	Energrease L21M	Alvania 3	Multi-purpose grease H		



SPECIFICATION	P25	P32
FIXED TABLE SIZE	650 x 1300MM 25 x 50 IN	650 x 1300MM 25
SLIDING TABLE SIZE	290 x 2500MM 11 1/2 x 98 IN	290 x 3200MM 11 1/2
LENGTH OF CUT USING SLIDING TABLE	2500MM 98 IN	3200MM 125
MAX DISTANCE SAW TO STOP ON CROSSCUT FENCE	3200MM 125 IN	3200MM 125
MAX DISTANCE SAW TO STOP ON MITRE FENCE	655MM 25 3/4 IN	655MM 25
MAX DISTANCE SAW TO RP FENCE	870MM 34 IN	870MM 34
MAX SAW DIAMETER	400MM 15 3/4 IN	400MM 15
MAX SAW PROJECTION	0-90MM (300MM DIA) 0-3 1/2 IN 25-115MM (350MM DIA) 1-4 1/2 IN 50-140MM (400MM DIA) 2-5 1/2 IN	0-90MM (300MM DIA) 25-115MM (350MM DIA) 50-140MM (400MM DIA)
MIN DIA OF SAW BLADE	250MM 10 IN	250MM 10
SAW SPINDLE SPEEDS STANDARD	3000 & 4500 RPM	3000 & 4500 RPM
OPTIONAL SPINDLE SPEEDS	3000, 4500 & 6000 RPM	3000, 4500 & 6000 RPM
POWER OF MOTOR STANDARD	4KW 5.5 HP	4KW 5.5
POWER OF MOTOR OPTIONAL	5.5KW 7.5 HP 7.5KW 10 HP	5.5KW 7.5 7.5KW 10
SAW BORE DIA (ON SPIGOT)	30MM	30MM
SAW SPINDLE DIA	25MM	25MM
MIN FLOOR AREA	6.3 x 4.4M 20 x 13 1/2 FT	7 x 4.4M 23
SCORING SAW DIA	105MM 4 IN	105MM 4 IN
SCORING SAW SPINDLE SPEED	8500 RPM	8500 RPM
POWER OF SCORING SAW MOTOR	5.5KW 3/4 HP	5.5KW 3/4 HP
APPROX NET WEIGHT OF M/C	660 kg 1452 lb	690 kg 1511 lb
APPROX GROSS WEIGHT OF M/C	860 kg 1892 lb	890 kg 1960 lb
SHIPPING DIMENSIONS M/C	1.7 x 1 x 1M 68 x 39 x 39 IN	1.7 x 1 x 1M 68
TABLE	2.8 x 0.4 x 0.4M 108 x 16 x 16 IN	3.5 x 0.4 x 0.4M 132

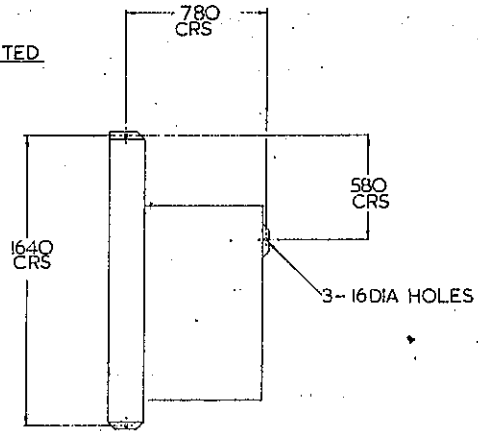
BROOK MOTOR FRAME
D112M FOOT MOUNTED
TEFC 5.5HP 4KW 3000RPM
TERMINAL BOX AT 3 O'CLOCK
STAR DELTA WOUND

BROOK MOTOR FRAME
FRAME D71 FOOT MOUNTED
TEFC 5.5KW 3000 RPM
TERMINAL BOX AT
12 O'CLOCK

GREASE MOTOR AT BOTH
ENDS 2 TURNS PER YEAR

OIL R & F SLIDES
WEEKLY

OIL R & F WORM
WEEKLY

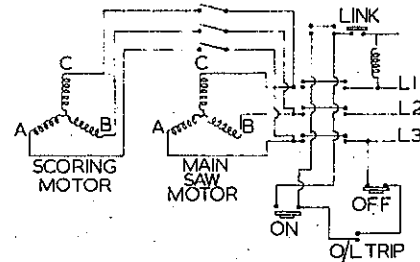


BASE PLAN

CAPACITY	A	B	C
2500			
3200	6940	2850	2450

TYPE OF GREASE RECOMMENDED :- SHELL ALVANIA 3

TYPE OF OIL RECOMMENDED :- POWER EM 125



WIRING DIAGRAM

BEARINGS USED

- 10-UNDERTABLE ROLLERS P32/35.....SLIDING TABLE
- 1-SKF. 51104.....RISE & FALL
- 2-SKF. 6206 2RS SEALED FOR LIFE.....SAW SPINDLE
- 4-SKF. 6203 2RS SEALED FOR LIFE.....PIVOT ARM
- 2-GUIDE ROLLERS P32/101.....PIVOT ARM
- 2-SKF. 6002 2RS SEALED FOR LIFE.....SCORER

BELTS USED

- 2-SPZ-1060 VEE BELTS (50 & 60 CYCLE).....3000 & 4500 RPM
- 1-METEOR FLAT BELT 800 x 20MM (STEPHENS BELT).....SCORER
- 1-11M 1030 POLYFLEX BELT (50 & 60 CYCLE).....3000 4500 RPM

BURSGREEN (DURHAM) LTD FENCE HOUSES		SCALE	
DESCRIPTION	FOUNDATION DRAWING	OFF	DRN BY Z
APPLICATION	SLIDING TABLE PANEL SAW	MATERIAL	DATE
			20-11-8