Wadkin

LEICESTER

PAR

FOUR-SIDE PLANER-SIZER

INSTRUCTION MANUAL

PREFACE

IMPORTANT

IT IS OUR POLICY AND THAT OF OUR SUPPLIERS TO CONSTANTLY REVIEW THE DESIGN AND CAPACITY OF OUR PRODUCTS. WITH THIS IN MIND WE WOULD REMIND OUR CUSTOMERS THAT WHILE 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 THE LATEST DEVELOPMENTS TO ENHANCE PERFORMANCE, DIMENSIONS AND SUPPLIERS MAY VARY FROM THOSE ILLUSTRATED

THIS MANUAL IS WRITTEN AS A GENERAL GUIDE. A TYPICAL MACHINE IS SHOWN TO ILLUSTRATE THE MAIN FEATURES.

Failure to comply with instructions in this book may invalidate the guarantee

2.1 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 plc 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 users 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 UK Woodworking Machines Regulations 1974. All guards should be used and adjusted correctly.

2) Safe methods of working only should be adopted as given in BS.6854 Part 1, "Safeguarding Woodworking Machines" (UK only) and subsequent parts for specific machines (obtainable from Her Majesty's Stationery Office) and as advised by Wadkin plc.

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

4) Before making adjustments or clearing chips, etc., electrically isolate machine and ensure all movements have ceased.

5) All tools and cutters must be securely fixed and the correct speed selected.

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.

2.2 SAFETY INSTRUCTIONS

Carefully read instruction manual with particular reference to the following instructions:-

a) Slinging, ie, safe lifting limits for slings, etc.

b) Installation and foundation, ie, safe working area of machine, bolt positions, etc.

c) Wiring details, ie, connection of machine to mains supply, fuse details, etc.

d) Machine controls and operating instructions.

Ensure tooling is of the correct type for use with the machine and cutters are securely fixed in position.

Select correct spindle speed and feed rate relevant to the tooling being used.

Set all guards correctly and ensure they are securely fixed in accordance with the current regulations.

Use suitable jigs, fixtures and feeding devices etc., (push stick, etc.,) where appropriate.

Refer to BS.6854, Part 1, "Safeguarding Woodworking Machines" UK market and subsequent parts for specific machines for safe working practices.

During Machining

Wear suitable protective equipment, where necessary, eg, goggles, ear defenders and dust mask.

Ensure all moving parts of the machine are stationary before setting, cleaning or making any adjustments.

Report immediately to a person in authority any machine malfunction or operator hazard. Do not attempt to repair the machine unless authorised to do so.

Ensure machine is electrically isolated before any maintenance/cleaning work commences.

NOISE LEVELS

This machine, under certain conditions, will emit noise levels in excess of 85dB(a).

Noise levels will be affected by the environment in which the machine operates the timber being machined, tooling, machine setting and dust extraction.

Further information available from Wadkin on request.

As a manufacturer it is Wadkin's policy to reduce the noise level as far as it is practicable.

3.0 SPECIFICATION

	PAR	
Maximum size of squared timber	300 x 100mm	12 x 4 in
Minimum size of squared timber	12 x 12mm	½ x ½ in
Minimum thickness of timber	4mm	5/32 in
Length of infeed surfacing table		
- standard	1500mm	59 in
- optional	2000mm	78 in
Feed speed - 2 speed	4.5 & 9.1m/min	15 & 30 ft/min
Feed speed - infinitely variable	3-18m/min	10-58 ft/min
Cutterblock motors - horizontal	7.5kw	10 hp
Cutterblock motors - vertical	5.5kw	7½ hp
Maximum stock removal each cutterblock	10mm	.39 in

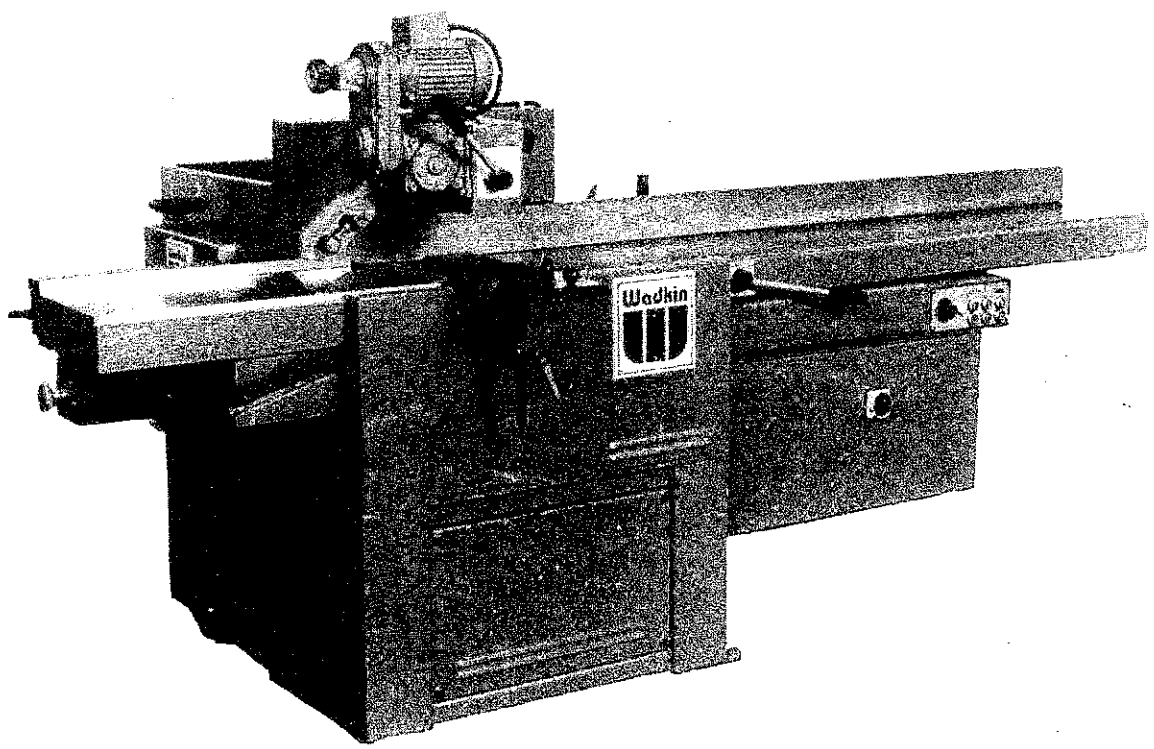
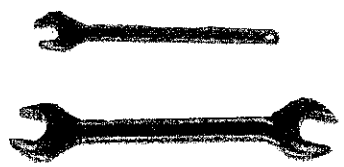


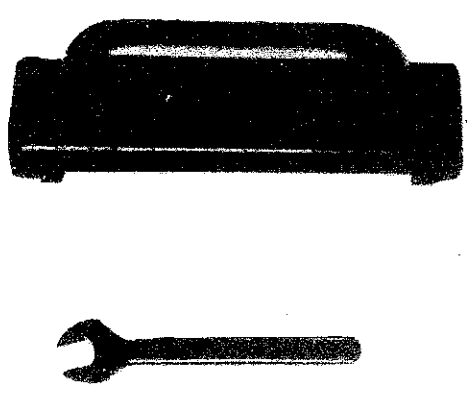
FIG.1

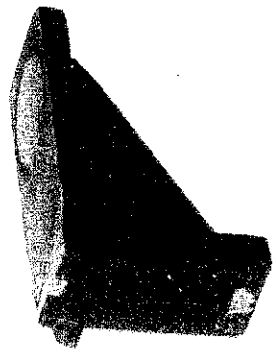
4.1 STANDARD ITEMS DESPATCH WITH MACHINE



1 - 16mm A/F S/E Spanner for Fence and Outfeed Table Adjustment
1 - 17/19mm A/F D/E Spanner for Covers

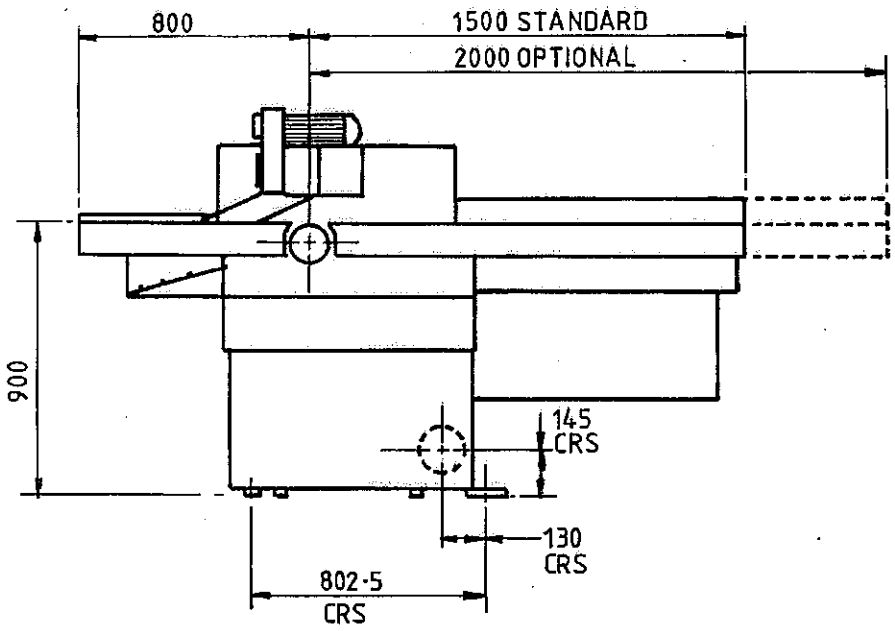
FIG. 2

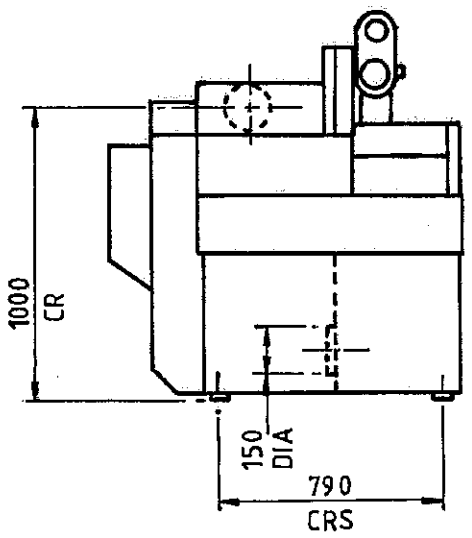


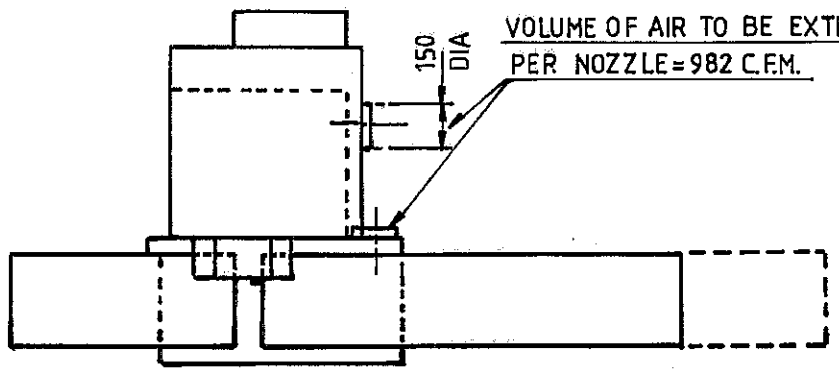


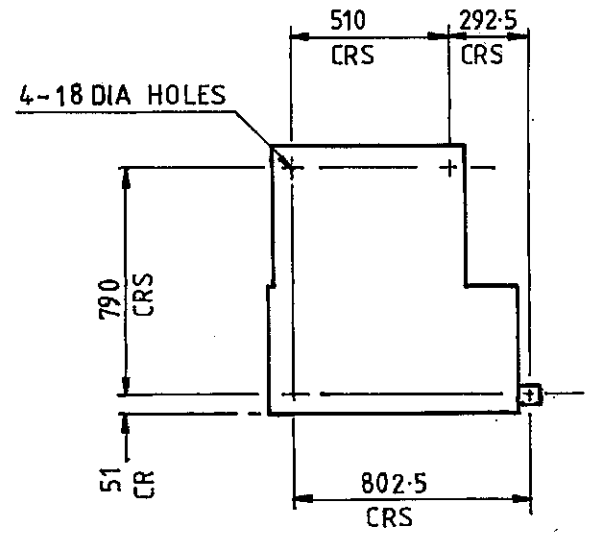
1 - PAR 324 - Main Cutterblock Knife Setting Device
1 - PAR 1070 - Side Head Cutterblock Knife Setting Device
1 - T6/94 - Cutterblock Spanner

FIG. 3









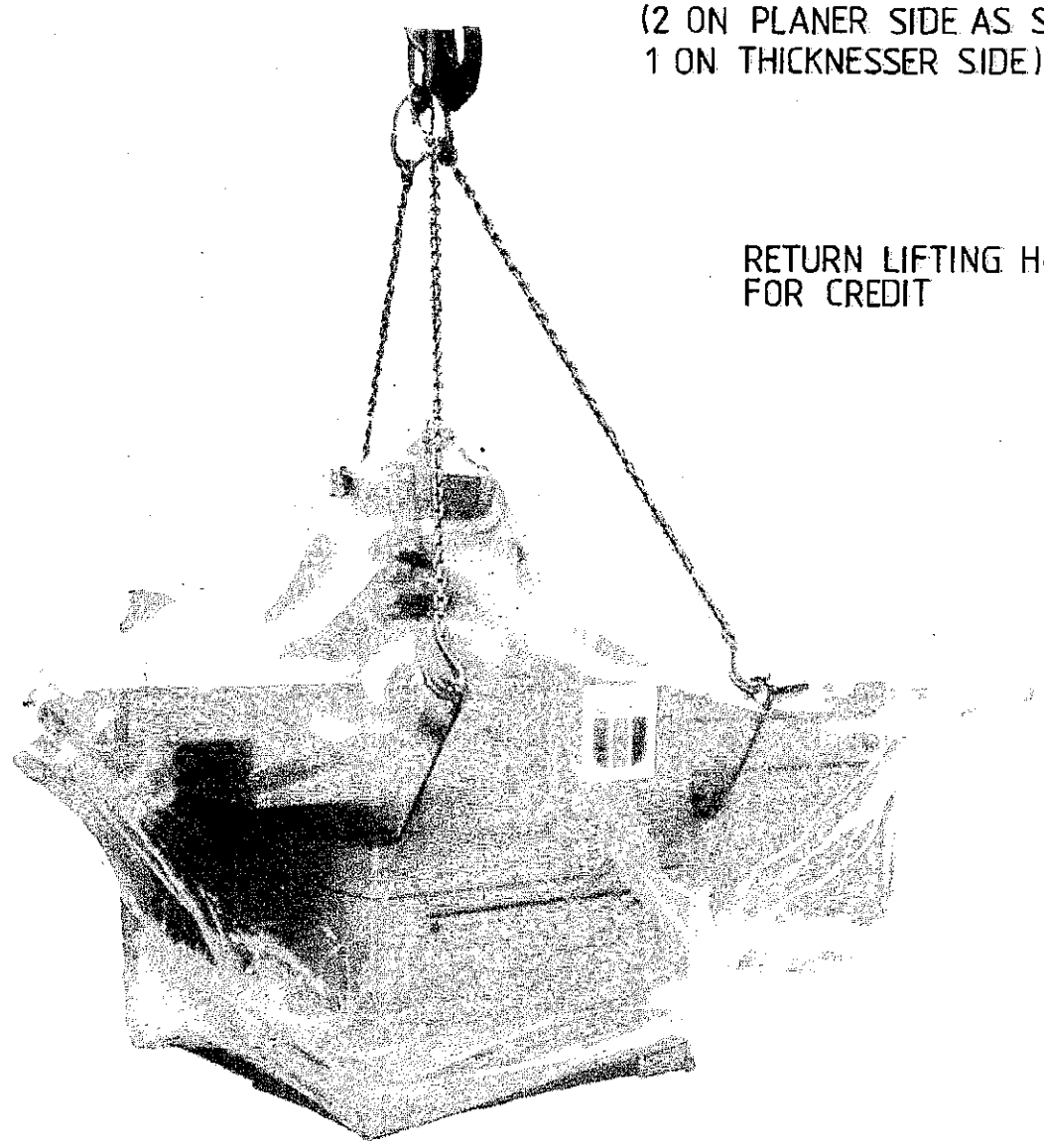
PAR FOUNDATION DRAWING

FIG. 4

SLINGING INSTRUCTIONS

ATTACH SLINGS TO 3 LIFTING HOOKS
(2 ON PLANER SIDE AS SHOWN,
1 ON THICKNESSER SIDE)

RETURN LIFTING HOOKS FOR CREDIT



IMPORTANT: ALWAYS USE A SLING WITHIN SAFE WORKING LOAD OF MACHINE.
DO NOT WALK OR STAND UNDER MACHINE DURING SLINGING OPERATIONS

APPROX NET WEIGHT OF MACHINE-1240 KG (2728 lbs)

APPROX GROSS WEIGHT OF MACHINE POLY PACKED-1270 KG (2794 lbs)

FIG.5

4.0 ASSEMBLY INSTRUCTIONS

4.1 Standard Items Despatched with Machine

A set of operational spanners and setting gauges are despatched with the machine, see FIGS.2 & 3 for details.

NOTE: When tersa blocks are fitted, setting gauges and spanner T6/94 are not supplied.

4.2 Slinging

Always use a sling within safe working load of machine weight.

Approximate net weight of machine	-	1240 KG
Approximate gross weight of machine - poly packed	-	1270 KG
Approximate gross weight of machine - fully boxed	-	1390 KG

Attached slings to machine as shown in FIG.5, to ensure damage will not be caused to machine during slinging operations. (Return lifting hooks to Wadkin Durham for credit)

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

4.3 Foundation

The machine should be so placed that the traffic of men and materials to and from it fits smoothly into the general scheme of traffic. It should also not be necessary for the operator to stand in or near an aisle so as to cause a hazard. The minimum clearance on each working side of the machine should be at least 1 metre greater than the largest material worked on the machine.

Ensure floor is level, then mark to suit 4 - M12 rawlbolts, refer to foundation plan FIG.4. Drill floor to suit rawlbolts. These bolts are not supplied with the machine, but can be supplied at an additional charge. To obtain access to foundation bolts and levelling screw, remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover. Remove 4 - M10 bolts, holding panel in base below surfacing tables. Position machine over rawlbolts and adjust levelling screw until it touches floor FIG.6. Fully tighten rawlbolts. Replace side cover and panel.

4.4 Cleaning

Remove protective coating from bright parts by applying a cloth soaked in paraffin, white spirit or other solvents.

4.5 Electrical

4.5.1 Wiring Connections

The motor and control gear have been wired in before despatch, all that is required is to connect the power supply to the starter or isolating switch when fitted.

DIAGRAM OF LEVELLING SCREW
INSIDE MACHINE BASE.

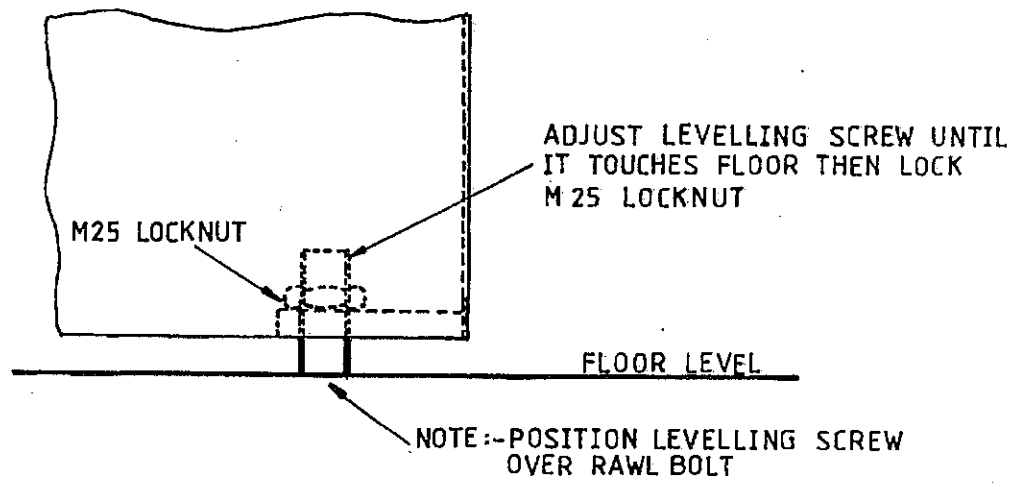


FIG. 6

Points to note when connecting power supply:-

a) Check the voltage, phase and frequency correspond to those on the motor plate.

b) It is important that the correct cable is used to give the correct voltage to the starters, as running on low voltage will damage the motors.

c) Check the main line fuses are of the correct capacity. See fuse list. (Refer to 4.5.2)

d) Connect the line leads to the appropriate terminals. See wiring diagrams. (Refer to 4.5.3).

e) Check all connections are sound.

f) Check rotation of all motors for the correct direction. If these are incorrect, reverse any two of the incoming mains leads connections.

4.5.2 Fuse List

Direct on Line

Voltage	Phase	KW	SWG Tinned Copper Wire	Amps per Phase
220	3	13.5	13	120
380	3	13.5	15	70
415	3	13.5	18	47

Star Delta

Voltage	Phase	KW	SWG Tinned Copper Wire	Amps per Phase
380	3	13.5	21	29
415	3	13.5	23	18

4.5.3 Wiring Diagrams

See wiring diagrams in rear of instruction manual.

4.6 Dust Extraction Details

4.6.1 Planer Extraction

The extraction outlet is situated at the rear of the machine, below thicknesser table. The outlet size is 150mm dia and should be connected to a flexible extraction hose from the main plant. The volume of air to be extracted is 463 LPS (982 CFM) with a velocity of 26 MPS (5,000 ft per min).

4.6.2 Thicknesser Extraction

The extraction outlet is situated at the rear of the machine, above thicknesser table. The outlet size is 150mm dia and should be connected to a flexible extraction hose from the main plant. The volume of air to be extracted is 463 LPS (982 CFM) with a velocity of 26 MPS (5,000 ft per min).

5.0 CONTROLS

5.1 Infeed Planing Table Adjustment

To raise or lower the infeed table, move handle "A" FIG.7, in the direction required, working in conjunction with the depth of cut scale, indicated by pointer.

5.2 Infeed Planing Fence Adjustment

To align infeed planer fence, loosen locking handle "B" FIG.8, move handle "C" in the direction required working in conjunction with scale, indicated by pointed. Relock locking handle "B".

5.2 Outfeed Planing Table Adjustment

IMPORTANT: OUTFEED TABLE TOP MUST ALWAYS BE KEPT IN LINE WITH CUTTING CIRCLE OF CUTTERBLOCK.

To raise or lower outfeed table, use spanner (supplied) FIG.9, turning in direction required until table is level with cutting circle.

NOTE: Always make final adjustment in upward direction.

5.4 Outfeed Planer Fence Alignment to Planer Side Cutterblock

IMPORTANT: OUTFEED FENCE MUST ALWAYS BE KEPT IN LINE WITH CUTTING CIRCLE OF CUTTERBLOCK.

To align outfeed planer fence use spanner (supplied) FIG.10 and turn in direction required.

5.5 Two Speed Feed Drive Units (Standard)

Both planing and thicknessing table feed units have two speeds of 4.5-9 metres per minutes (15-30 feet per minute). To change speed, turn switch to number 1 or 2 depending on speed required.

5.6 Variable Feed Drive Units (Optional)

Both planing and thicknessing table feed units have a combined tachometer and handwheel "D" FIG.11 which operates the feed change mechanism and provides variable feed speeds of 3-18 metres per minute (10-58 feet per minute).

IMPORTANT: SPEED ADJUSTMENT OF THE DRIVE SHOULD ONLY TAKE PLACE WHEN THE DRIVE IS RUNNING, NEVER WHEN IT IS STATIONARY.

5.7 Electrical Controls

The control panel is shown in FIG.12. When isolator "E" is fitted, ensure it is in the "on" position before operating the machine.

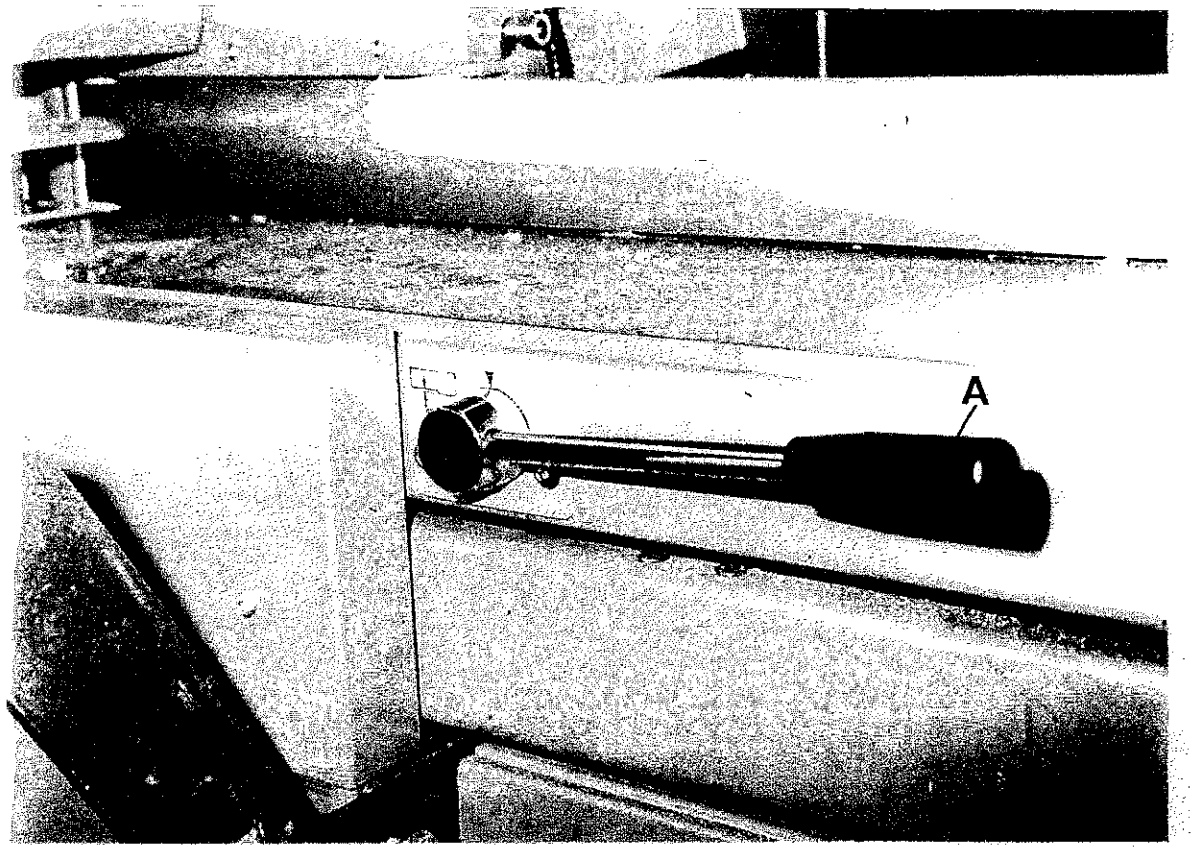


FIG. 7

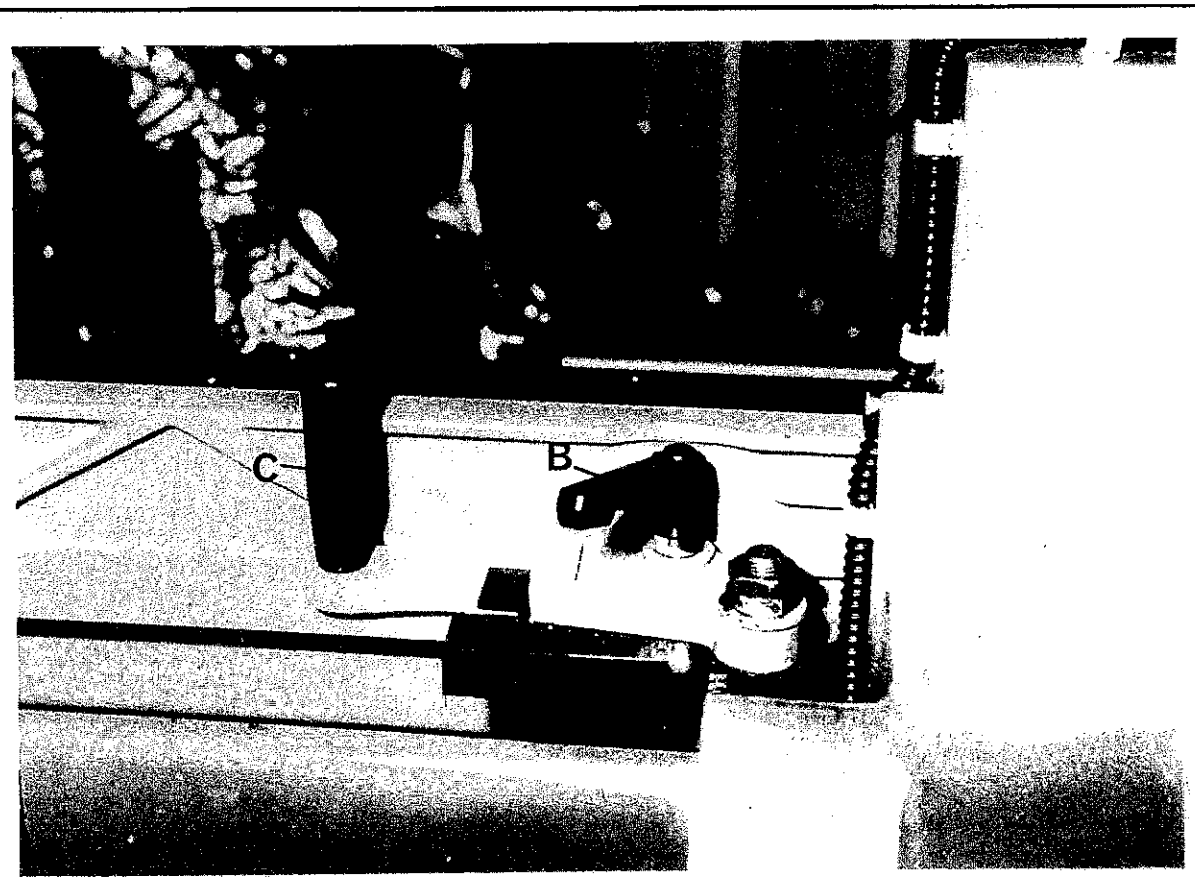


FIG. 8

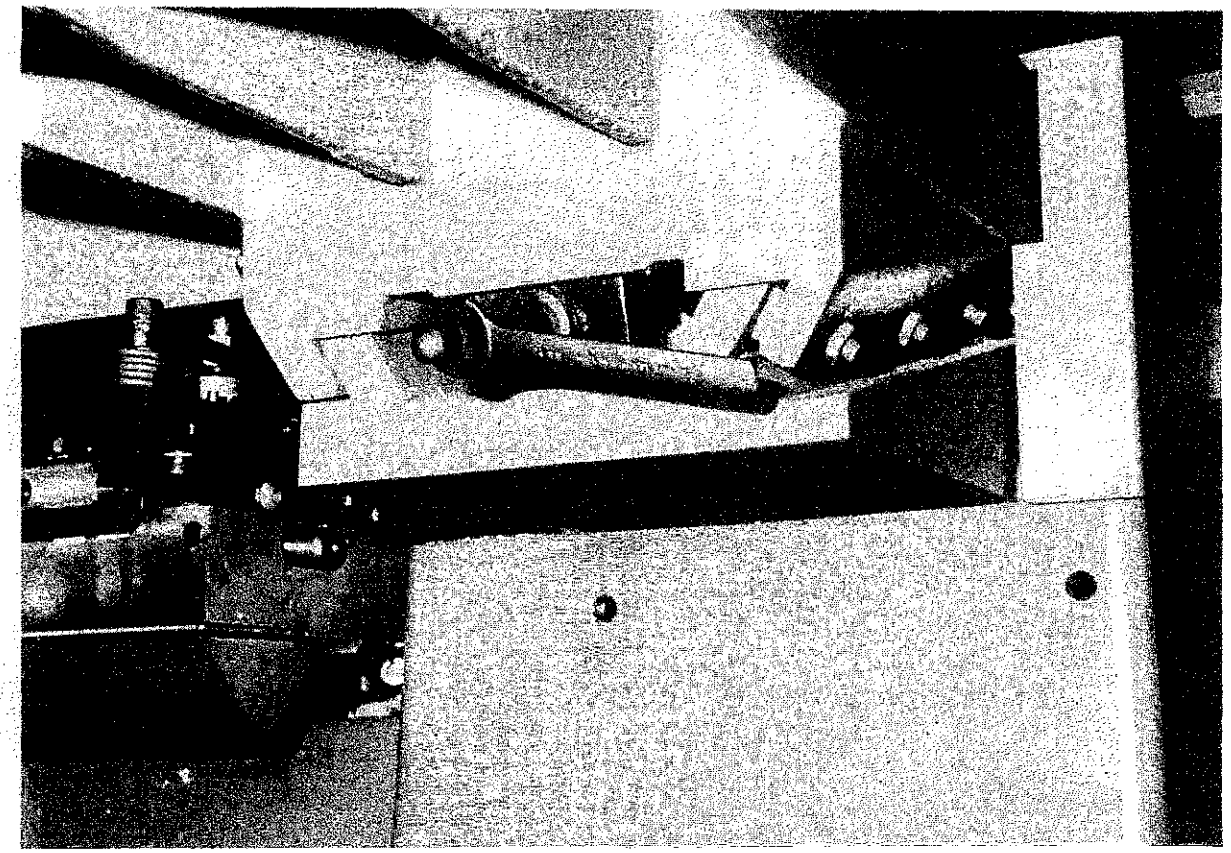


FIG.9

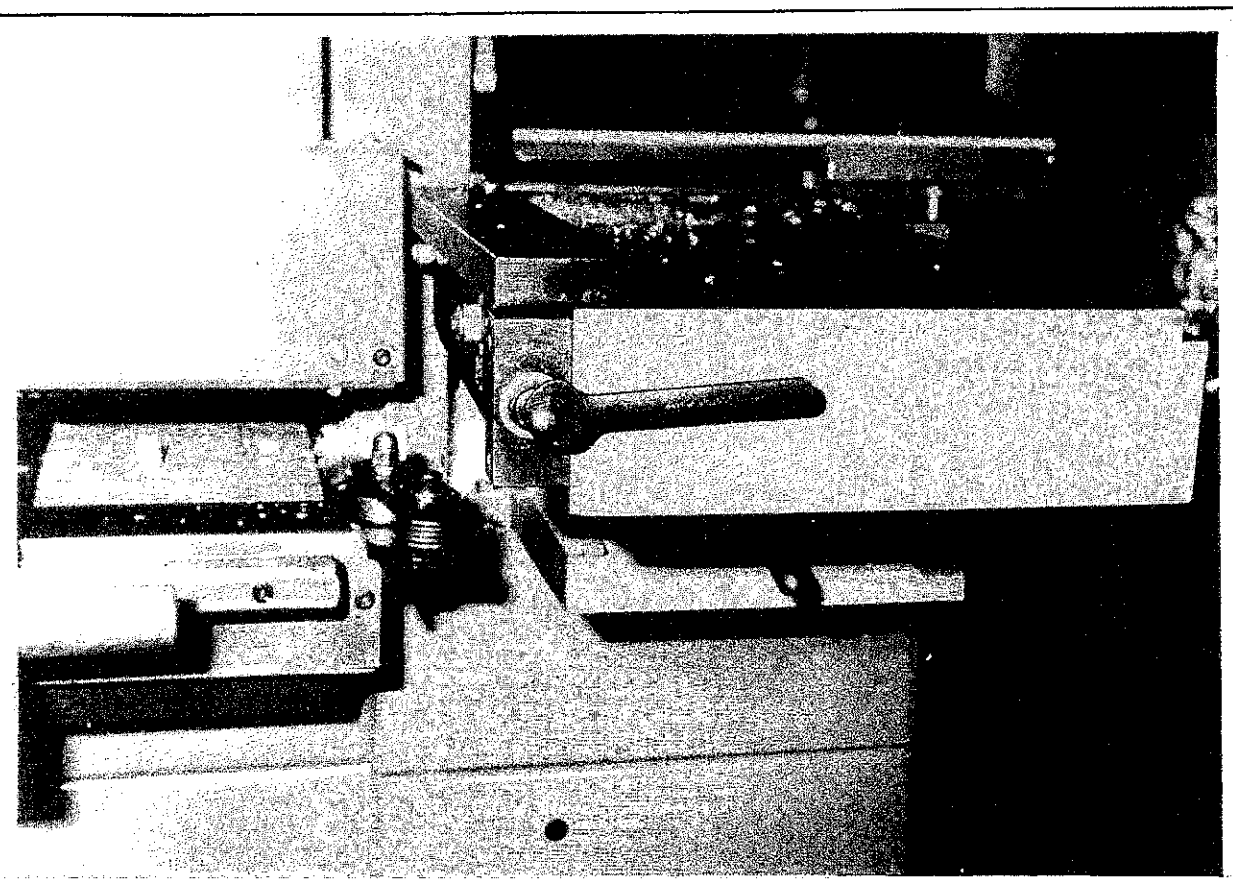


FIG.10

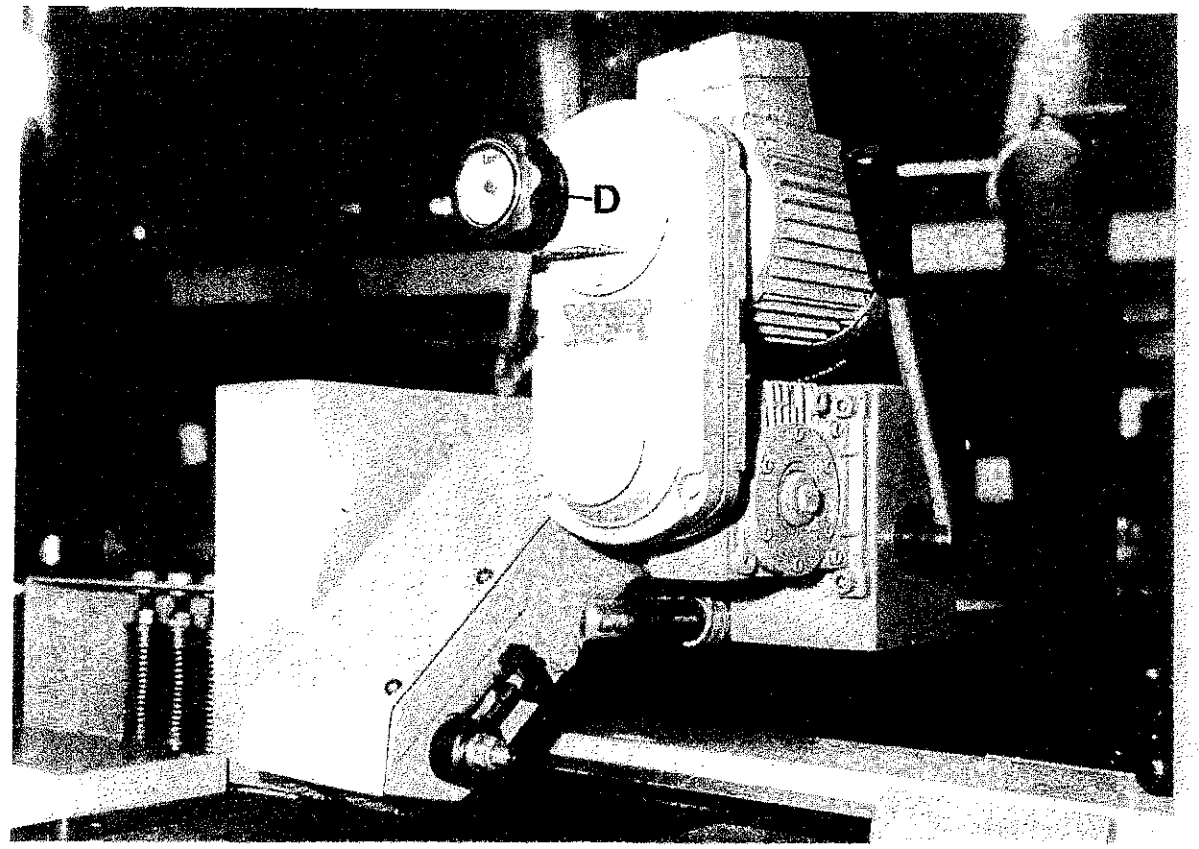


FIG.11

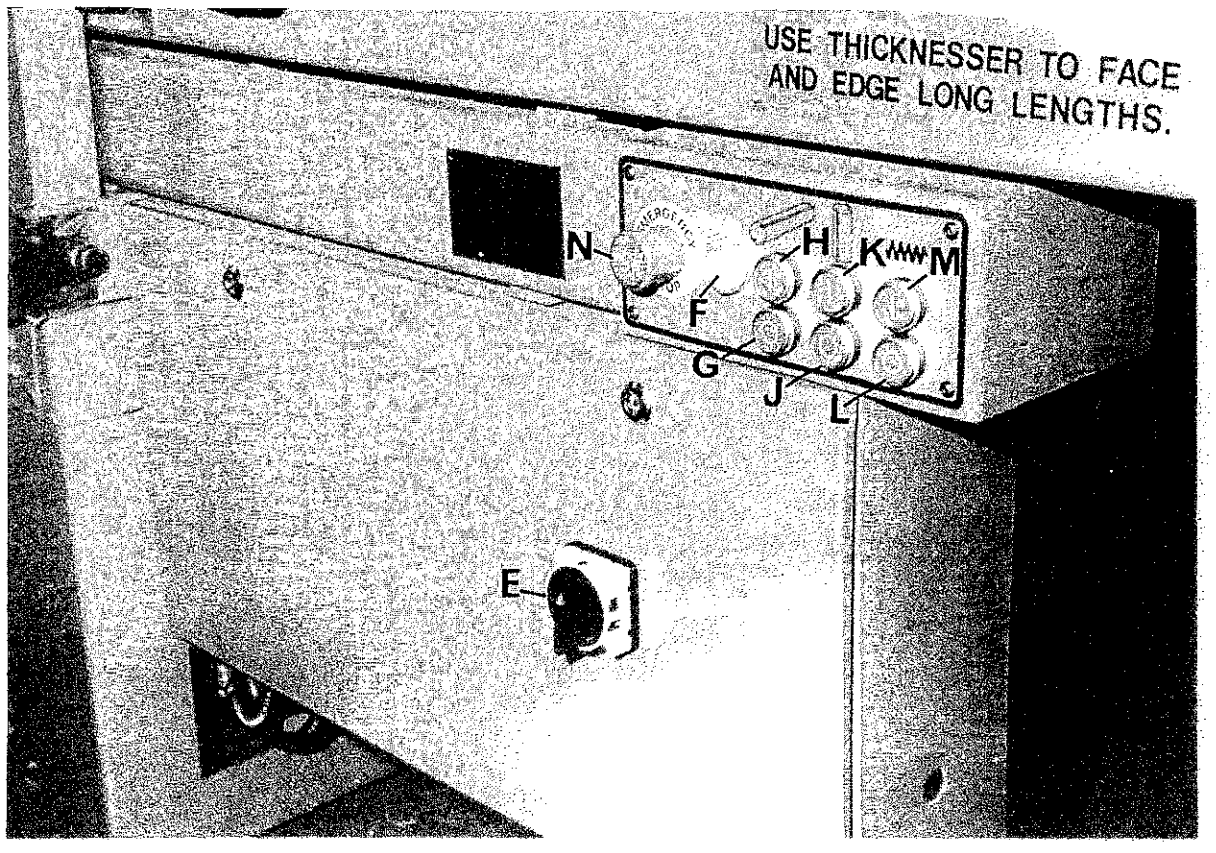


FIG.12

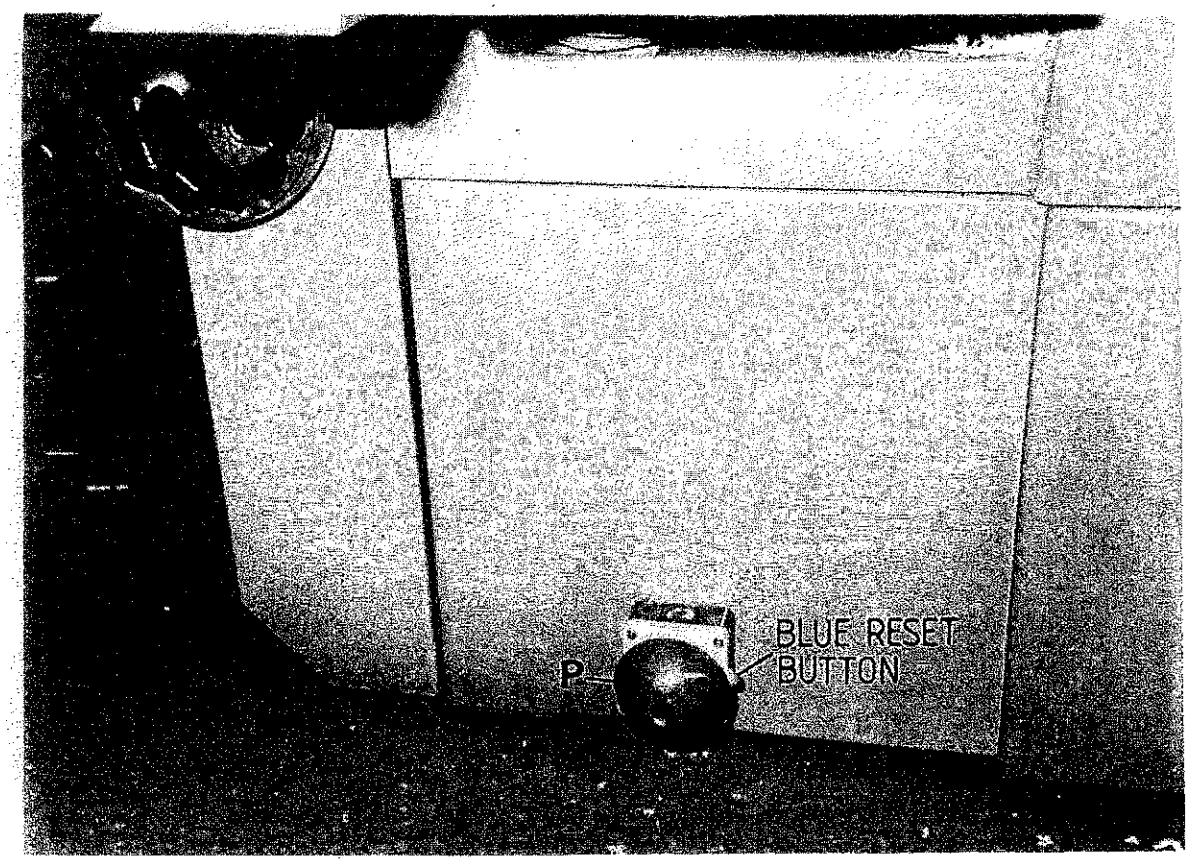


FIG.13

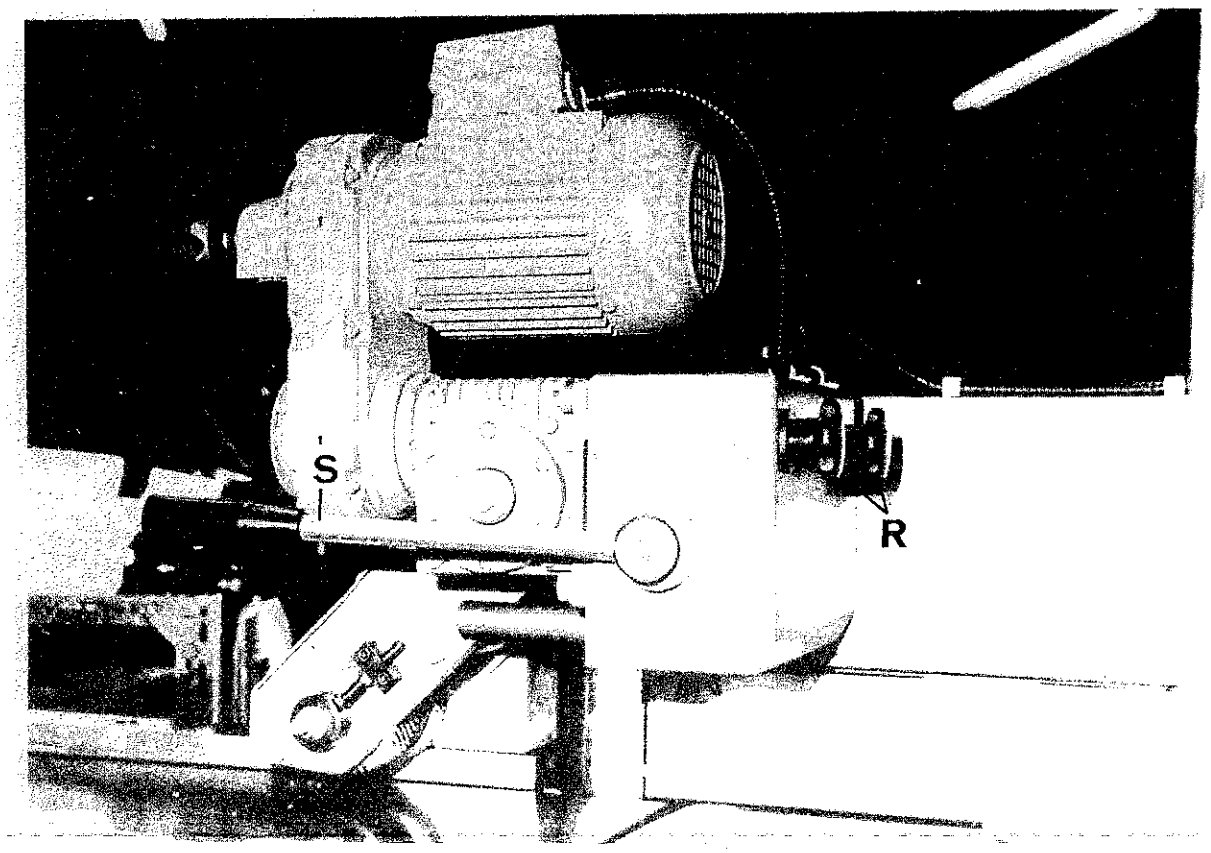


FIG.14

Light "F" indicates that the power is to the machine.

Main cutterblock is controlled by stop and start buttons "G" and "H" FIG.12.

Side head cutterblocks are controlled by stop and start buttons "J" and "K" FIG.12.

Feed drive units are controlled by stop and start buttons "L" and "M" FIG.12.

NOTE: Main cutterblock must be started before feed drive units.

A master stop button "N" FIG.12 is situated on control panel and an additional master stop button "P" FIG.13 is situated at floor level below thicknessing table fence bracket.

NOTE: Depression of any of the master stop buttons shuts down all electrics. Master stop buttons automatically stay in the OFF position until released. The master stop button on front panel is released by pulling button and master stop button at floor level is released by pressing blue button on side of master stop unit.

5.8 Planer Feed Unit Adjustment

a) Adjustment of feed unit for different widths of stock, loosen locking handwheels "R" FIG.14.

c) Adjustment of feed unit for different depths of stock, raise or lower hand lever "S" FIG.14.

c) To gain access to surfacer cutterblock, remove locking handwheel "T" FIG.13 and lift planer feed unit.

5.9 Bridge Guard

Bridge guard "U" FIG.16 is fitted to cover cutterblock. Lateral adjustment is by handwheel "V" and vertical adjustment is by locking handle "W".

NOTE: The gaps between fence and bridge guard and timber and bridge guard must not exceed 10mm, FIG.17.

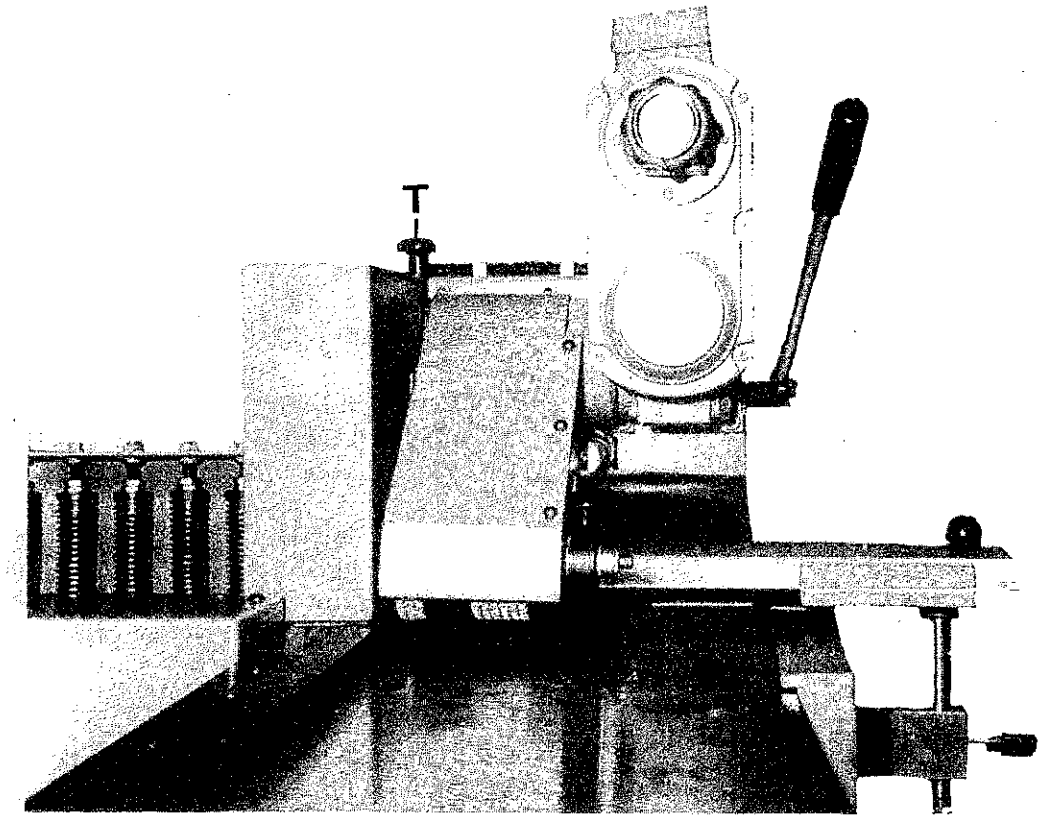
5.10 Thicknessing Table Rise and Fall

Rise and fall of thicknessing table is by handwheel "A" FIG.18 working in conjunction with rise and fall rule indicated by pointer "B".

5.11 Thicknessing Table Fence Adjustment

Release locking handle "C" FIG.18 and position fence where required with handwheel "D" working in conjunction with fence rule indicated by pointer "E". Relock locking handle "C".

NOTE: To thickness timber below 12mm to a minimum of 4mm proceed as follows.



FIG,15

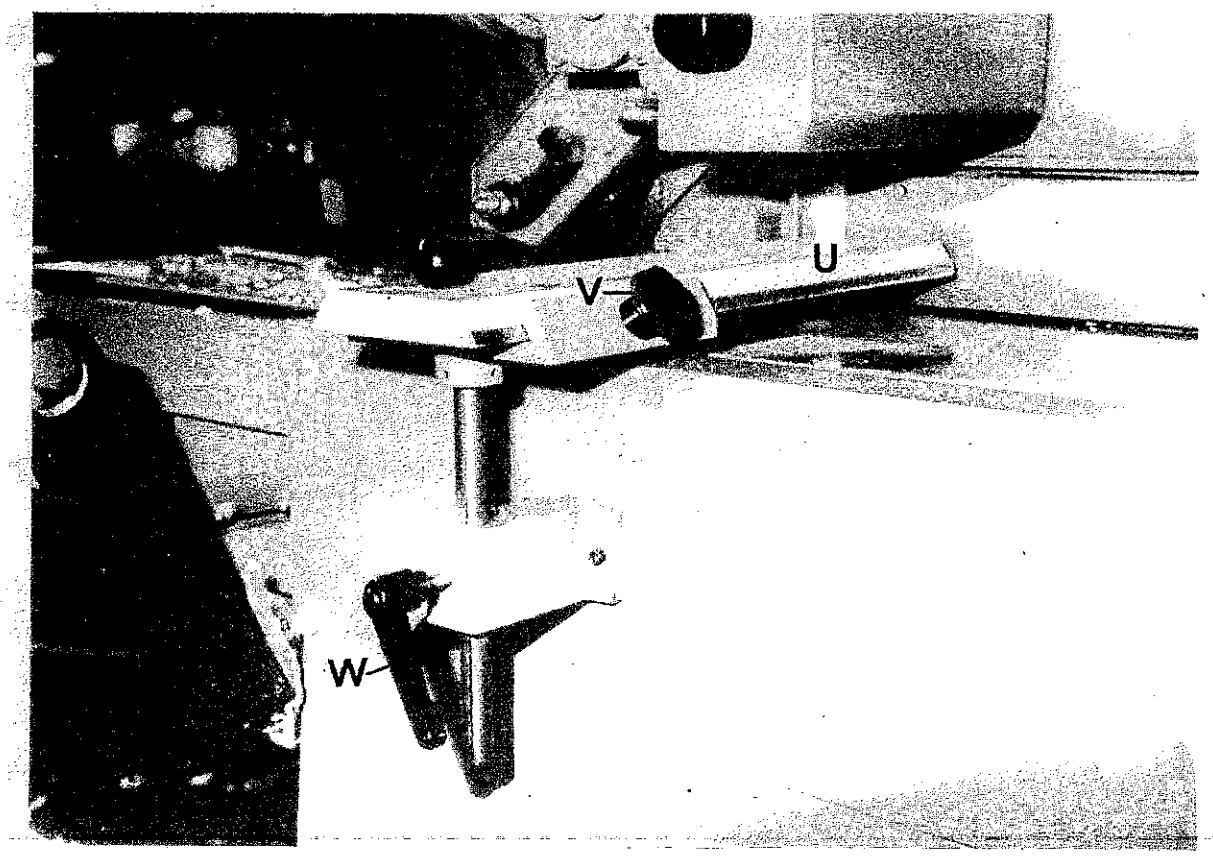


FIG.16

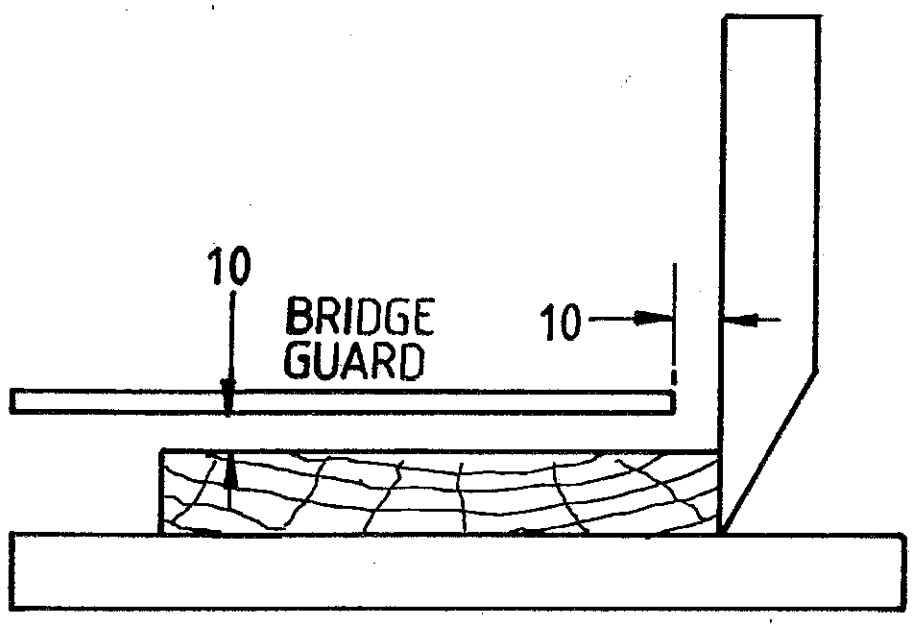


FIG.17

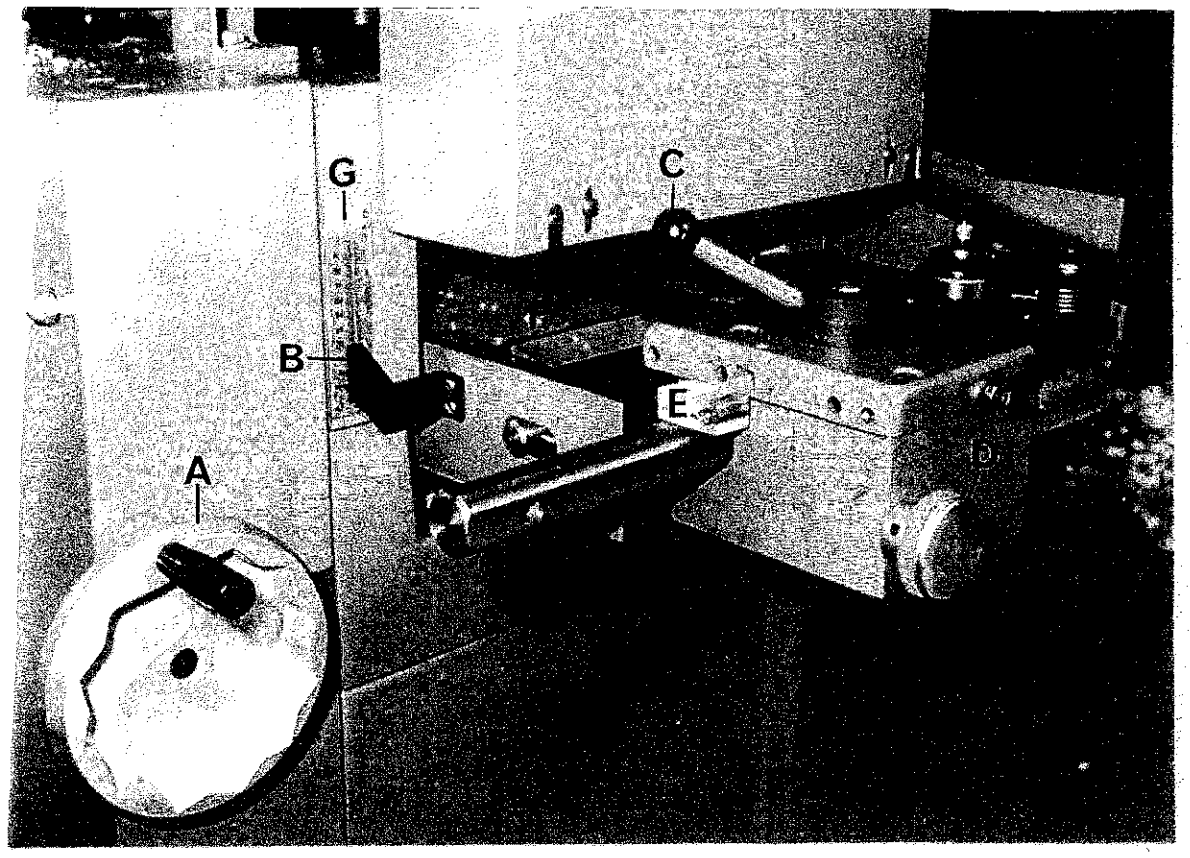


FIG.18

Using rise and fall handwheel "A" raise thicknessing table until it hits top stop, then turn handwheel a half turn back. Move fence to extreme left, ie, until it hits side housing, lock in this position using locking handle "C". Raise thicknessing table to required position. Ensure that timber to be thicknessed does not overhang side of lag bed "F".

TO RETURN TO NORMAL WORKING POSITION (TIMBER 10-100MM THICK).

Lower thicknessing table to a reading of 25mm is on the rise and fall rule "G". Release locking handle "C" and set fence to required position.

6.0 USE OF MACHINE

6.1 General Hints for Surface Planing

a) Use roller stand (available as an optional extra) to support timber at outfeed end of machine.

b) To obtain the best surface finish always ensure that the direction of grain runs with the cutterblock.

c) To obtain a perfectly flat surface, especially with warped stock. Check timber for being hollow or round, always place hollow side against infeed table and infeed fence, see FIG.19 and FIG.20.

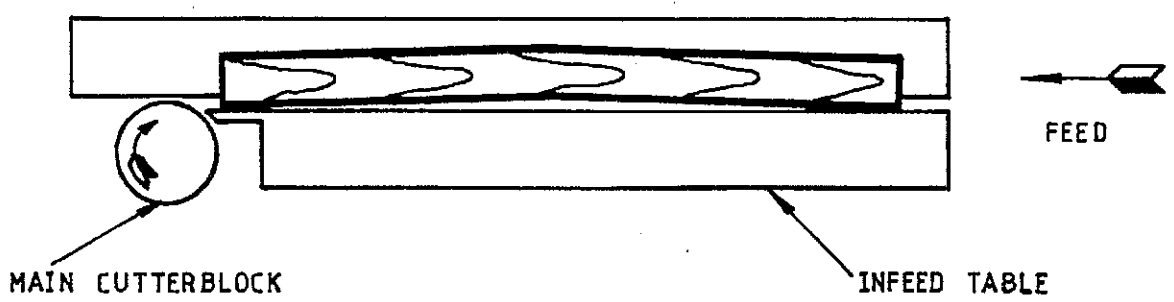
d) Feed timber by hand past cutterblocks until power feed unit takes control.

6.2 General Hints for Thicknessing

a) When thicknessing timber above 2 metres in length, always support before and after the thicknessing table, otherwise a step will appear on either or both ends.

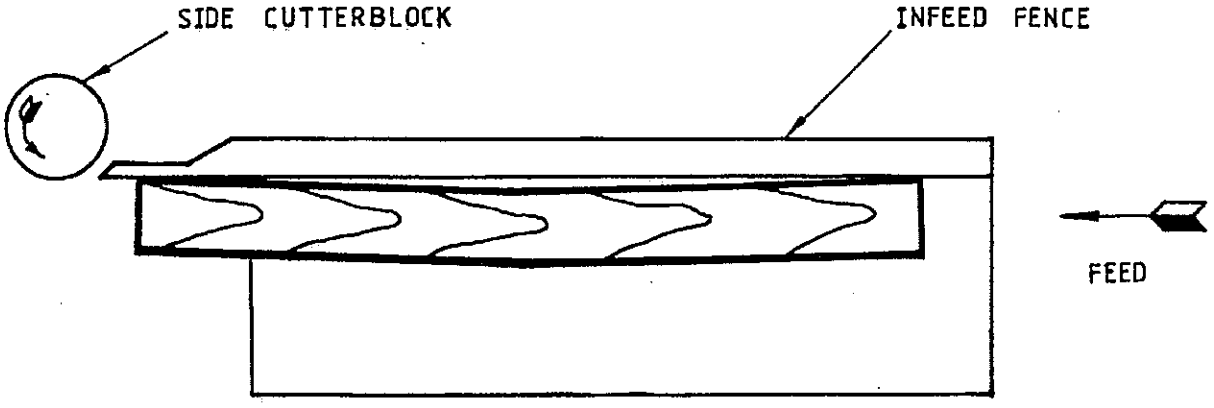
b) Retrieve timber held by power feed unit after surfacing operation and feed back into machine for thicknessing as shown in FIG.21, ie, planed faces against fence and table.

NOTE: Thicknessing side may be used to face and edge long lengths.



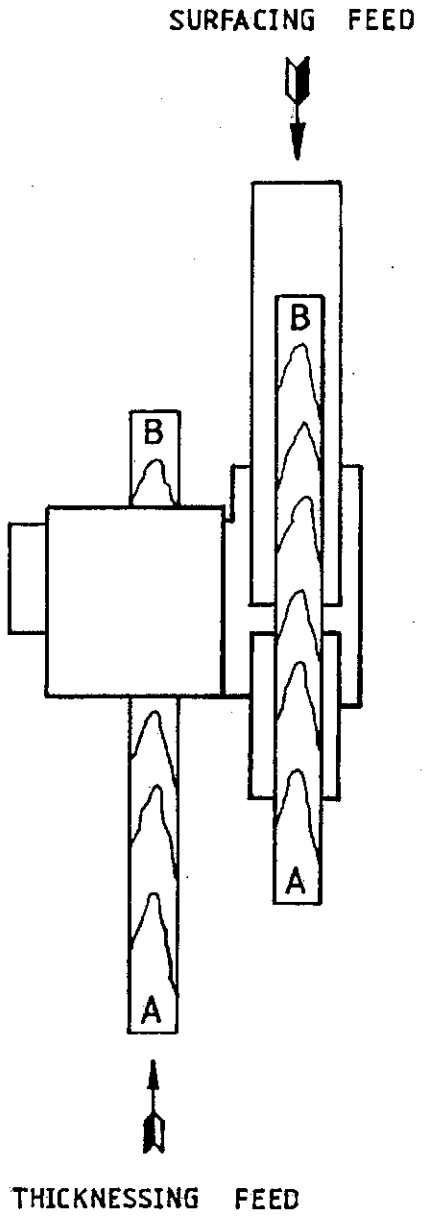
SIDE VIEW

FIG.19



PLAN VIEW

FIG.20



PLAN VIEW

FIG. 21

7.0 MAINTENANCE

7.1 Lubrication

The majority of machine working parts are designed to require no lubrication.

a) Every 3 months release gatters at top of rise and fall screws and apply grease. Replace gatters.

b) Every 3 months oil rise and fall chain and lag bed chain.

c) Remove resin from thicknesser table top stop weekly and lightly cover with a thin film of oil.

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

For approved lubricants see Page 7/20.

7.2 Tension of Planer Feed Unit Belts

a) Isolate machine electrically.

b) Remove 3 - M6 button head screws from cover "A" FIG.22. Remove cover.

c) Loosen M12 aerotight nut "B" FIG.22.

d) Adjust M8 locknut "C" and M8 hexagon head screw "D" FIG.23 to tension belts.

e) Correct tension will have been achieved when belts can be deflected 3mm in centre of span.

f) Relock M12 aerotight nut "B".

g) Replace cover "A".

7.3 Replacement of Planer Feed Unit Belts

a) Isolate machine electrically.

b) Remove 3 - M6 button head screws from cover "A" FIG.22. Remove cover.

c) Loosen M12 aerotight nut "B" FIG.22.

d) Adjust M8 locknut "C" and M8 hexagon head screw "D" FIG.23 to release tension.

e) Lift planer feed unit (Refer to 5.8.c).

f) Relese eccentric "E" FIG.24, by using allen key in end of eccentric "E" and loosening hexagon head bolt "F" FIG.23.

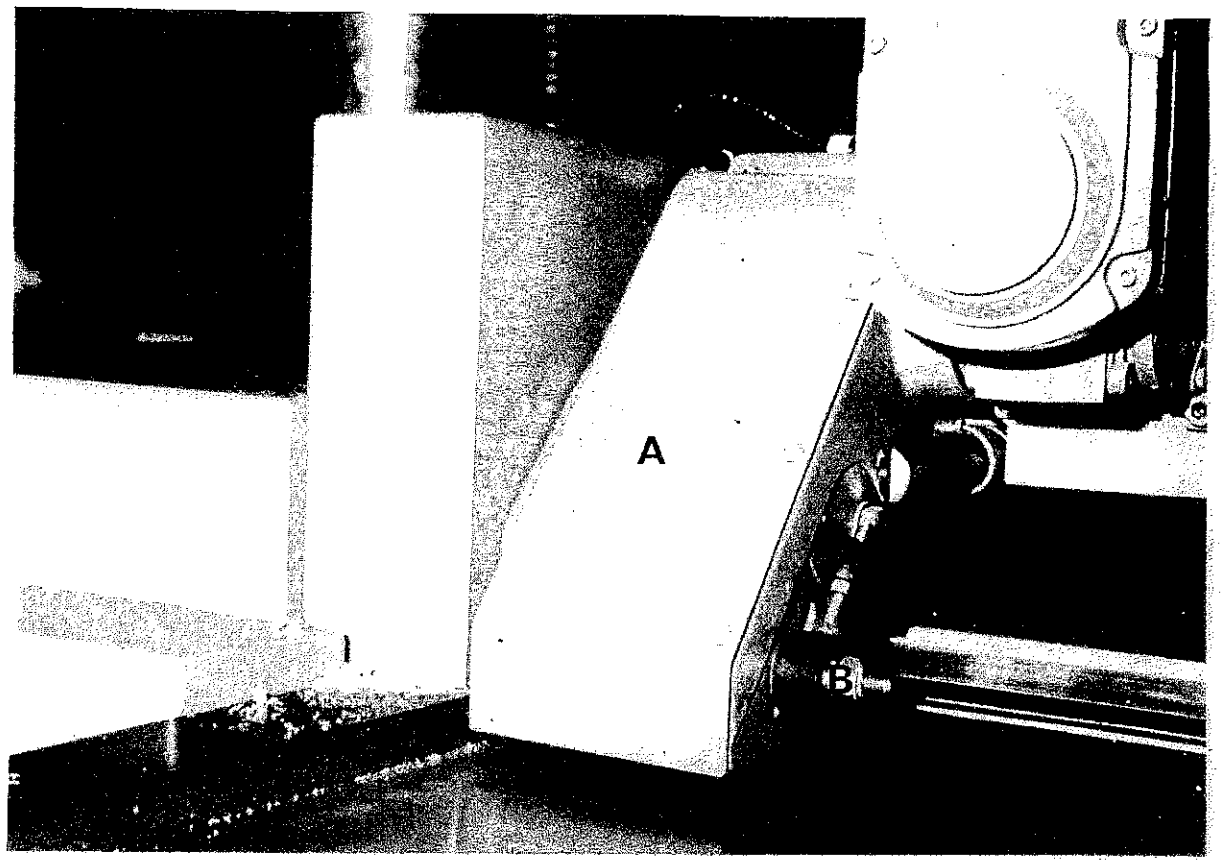


FIG. 22

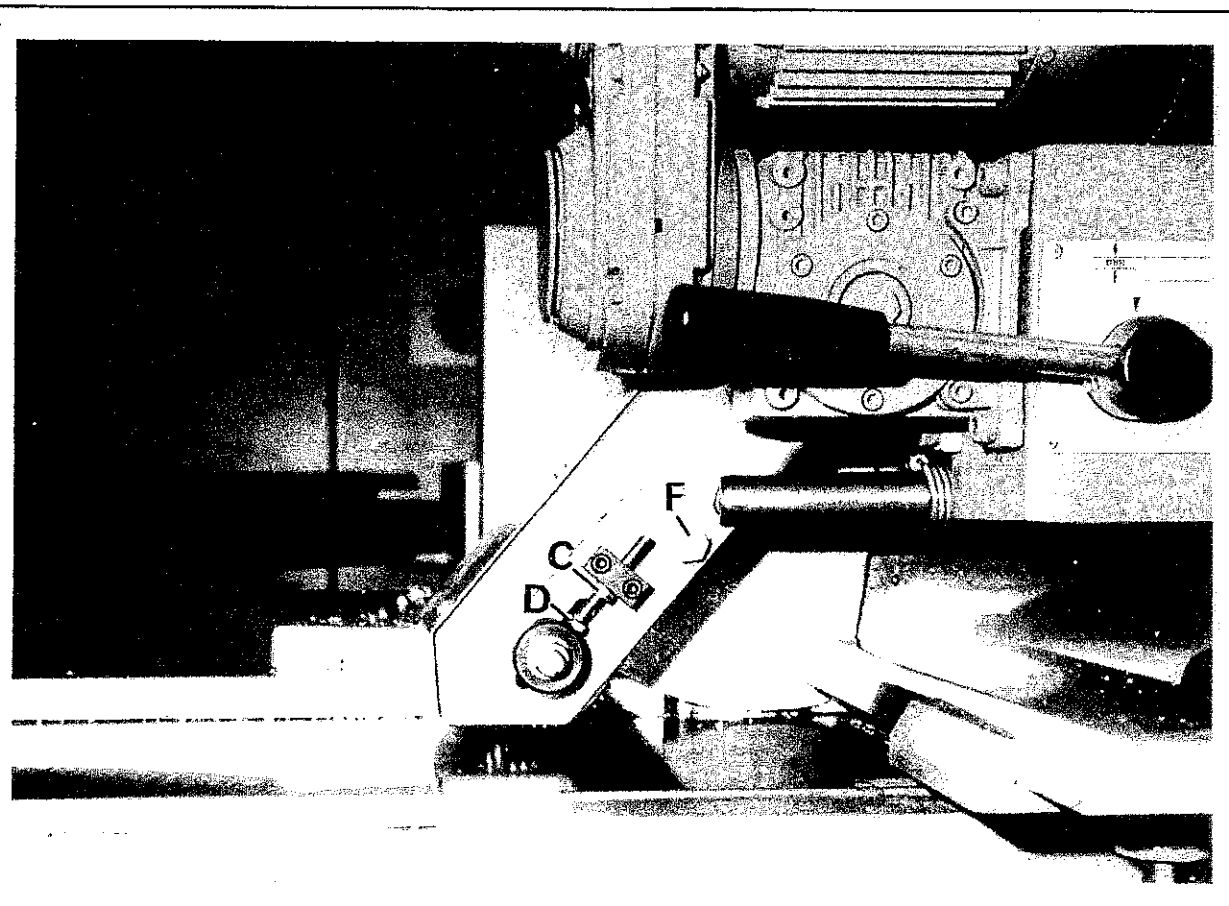


FIG. 23

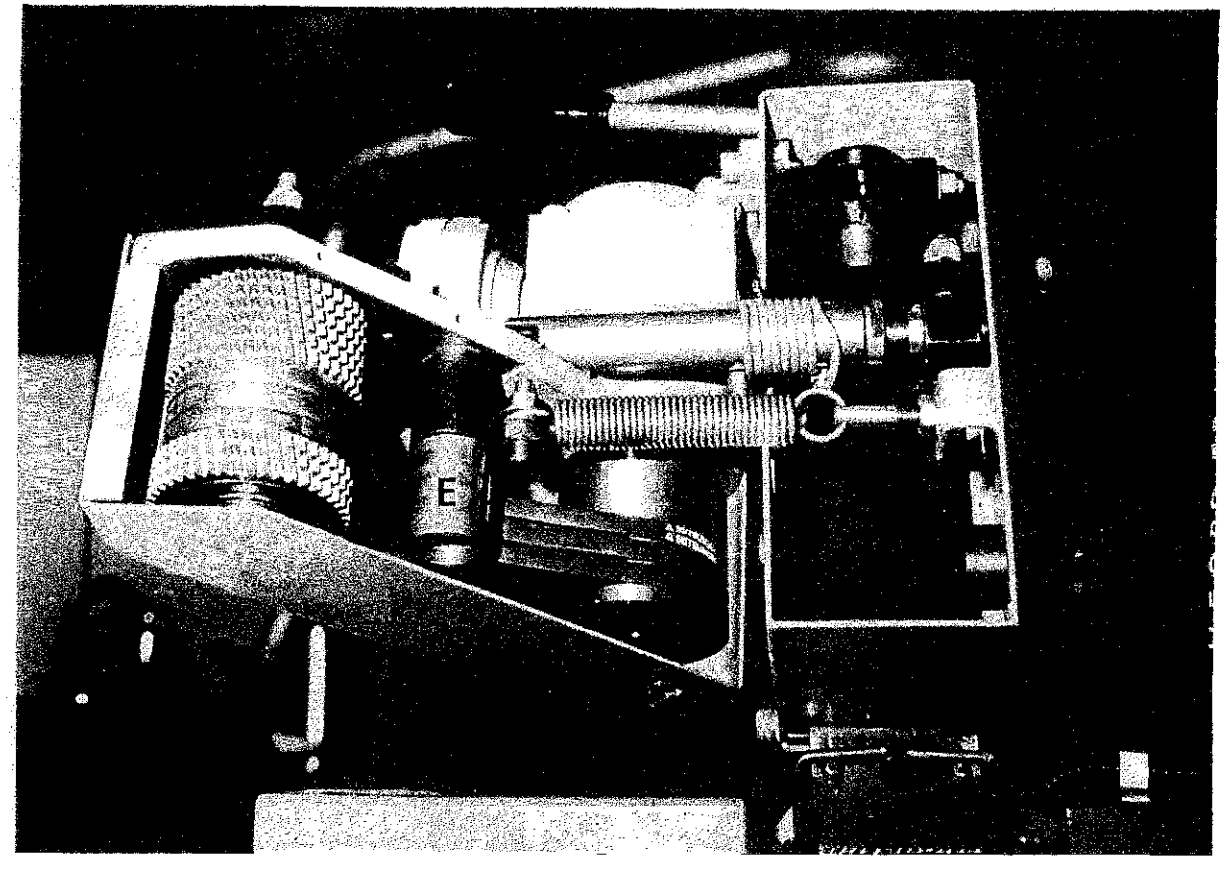


FIG. 24

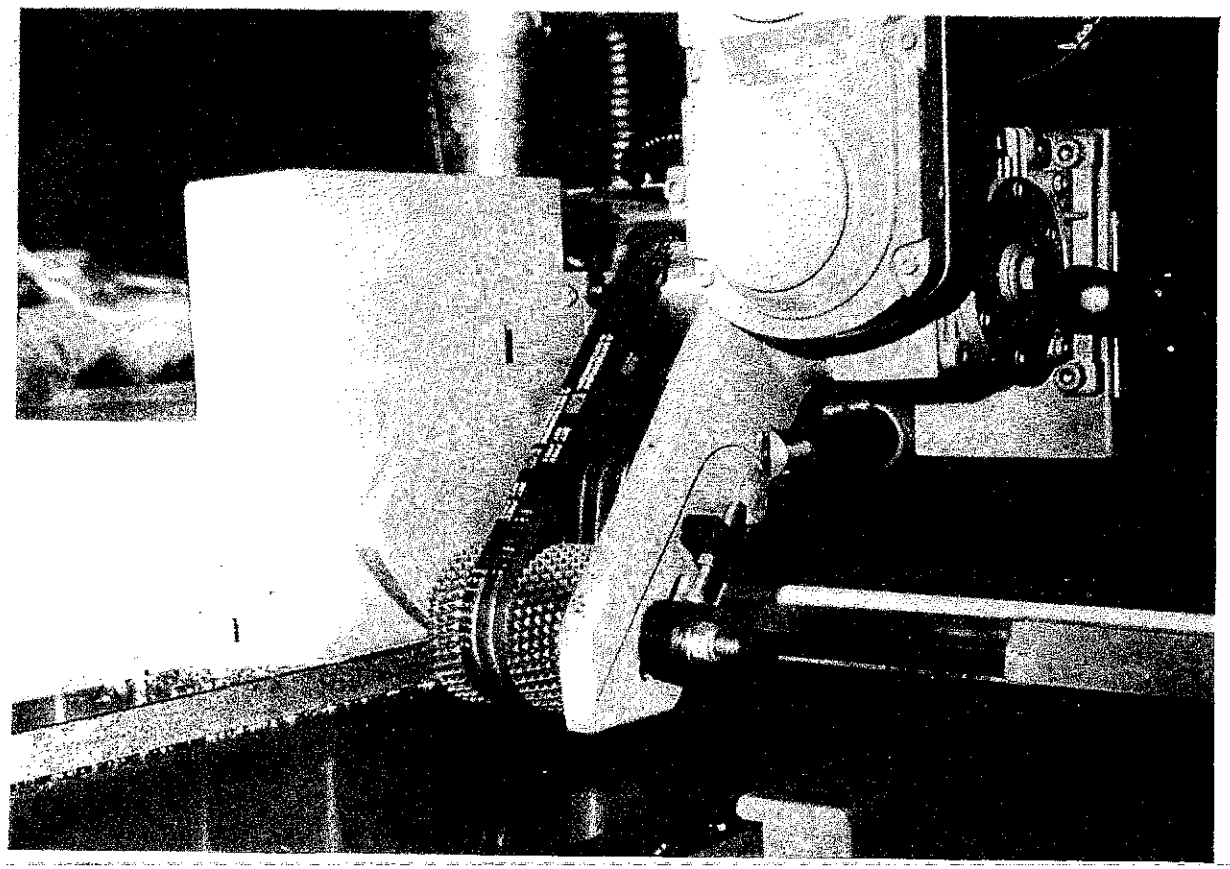


FIG. 25

g) Remove exisiting 3 belts.

h) Replace with 3 new belts FIG.25.

i) Relock eccentric "E" in topmost postion.

j) Reverse procedure of operations (e) to (a).

7.4 Replacement of Thicknesser Rise and Fall Belt

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Raise thicknesser table to top position.

d) Remove 2 - M6 button head screws from cover to give access to rise and fall spindle pulley "G" FIG.26.

e) Loosen M10 nut behind tension bracket "H" until timing belt "J" can be moved from pulley "K" on rise and fall shaft.

f) Remove existing timing belt "J" from pulley "G" on rise and fall spindle.

NOTE: New belt should never be forced or prised over the pulley flange. To ensure smooth operation and prevent premature failure, do not sharply bend or crease the belt.

g) Position new belt over pulley "G" on rise and fall spindle.

h) Turn belt through 90° and locate over pulley "K" on rise and fall shaft.

i) Adjust M10 nuts "L" to tension belt. Correct tension will have been achieved when belt can be deflected to 8mm in centre of span.

j) Lock M10 nuts "L".

k) Replace thicknesser side cover.

7.5 Replacement of Horizontal Cutterblock Belts

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Depress pivot plate "M" FIG.27 to remove thicknesser side head drive belt "N" from drive pulley "S".

d) Remove M10 nut "P" from stud "R".

e) Pivot side head drive motor "T" FIG.28 until clear of stud "R".

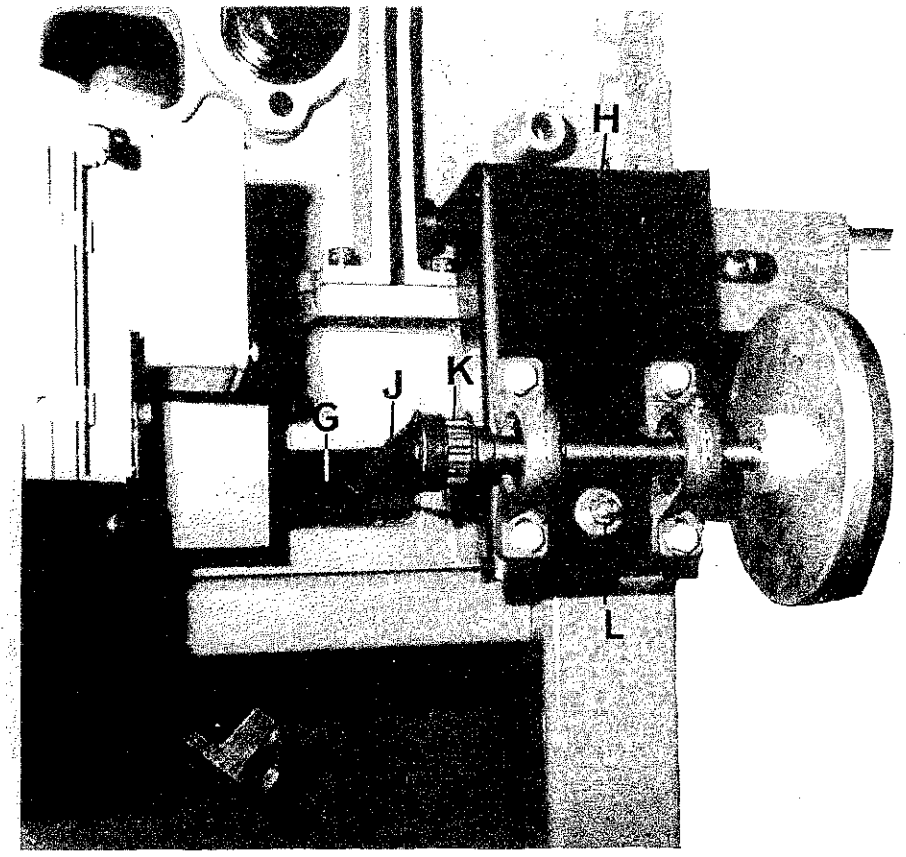


FIG.26

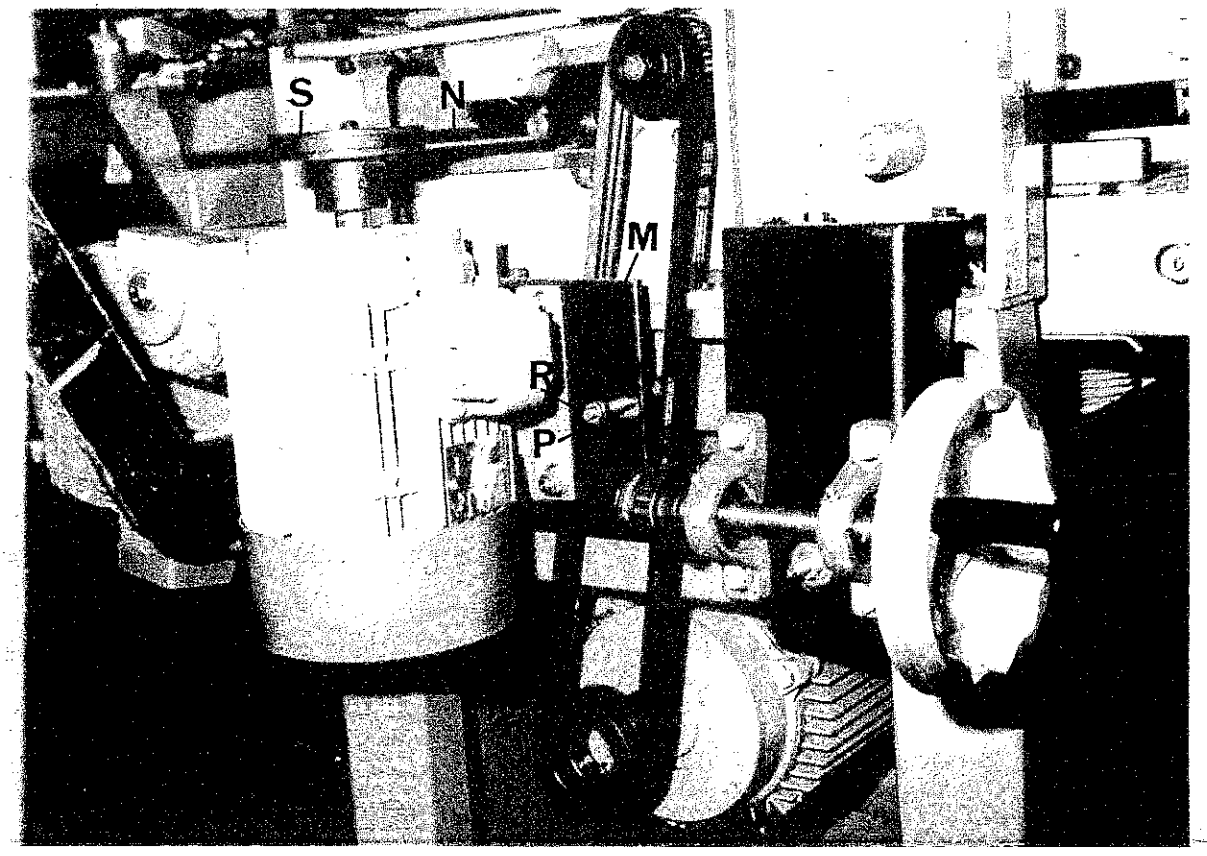


FIG.27

f) Remove existing 3 vee belts.

g) Replace with 3 new vee belts.

h) Reverse procedure of operations (e) to (a).

NOTE: Weight of motor tensions belt.

7.6 Replacement of Bottom Side Head Cutterblock Belt

a) Isolate machine electrically.

b) Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

c) Lower thicknesser table to bottom position.

d) Depress pivot plate "M" FIG.27 to remove thicknesser side head drive belt "N" from drive pulley "S".

e) Replace with new drive belt.

f) Reverse procedure of operations (d) to (a)

7.7 Tension of Top Side Head Cutterblock Belt

Tension of belt can be checked through hole under planer feed unit FIG.30. To gain access to hole and covers, loosen locking handwheel "U" FIG.29 and lift planer feed unit clear. If tensioning is required, proceed as follows:-

a) Isolate machine electrically.

b) Remove stop "V" from rear cover "W" FIG.30.

c) Remove planer feed unit cable clips from rear cover "W" FIG.31.

d) Remove 2 - M8 button head screws and 1 - M8 countersunk screw from rear cover "W" FIG.30 (Countersunk screw situated at thicknesser side).

e) Lift and withdraw rear cover.

f) Loosen grubscrew "A" FIG.32 on planer side only, 1 full turn.

g) Loosen 1 - M12 nut "B", 2 - M10 hexagon head bolts "C" FIG.32 (1 either side of housing) and using allen key, adjust caphead screw "D" to tension belt.

h) Correct tension will have been achieved when 200mm can be measured between points "E" and "F" FIG.32 on belt.

i) Relock 2 - M10 hexagon headbolts "C" and M12 nut "B".

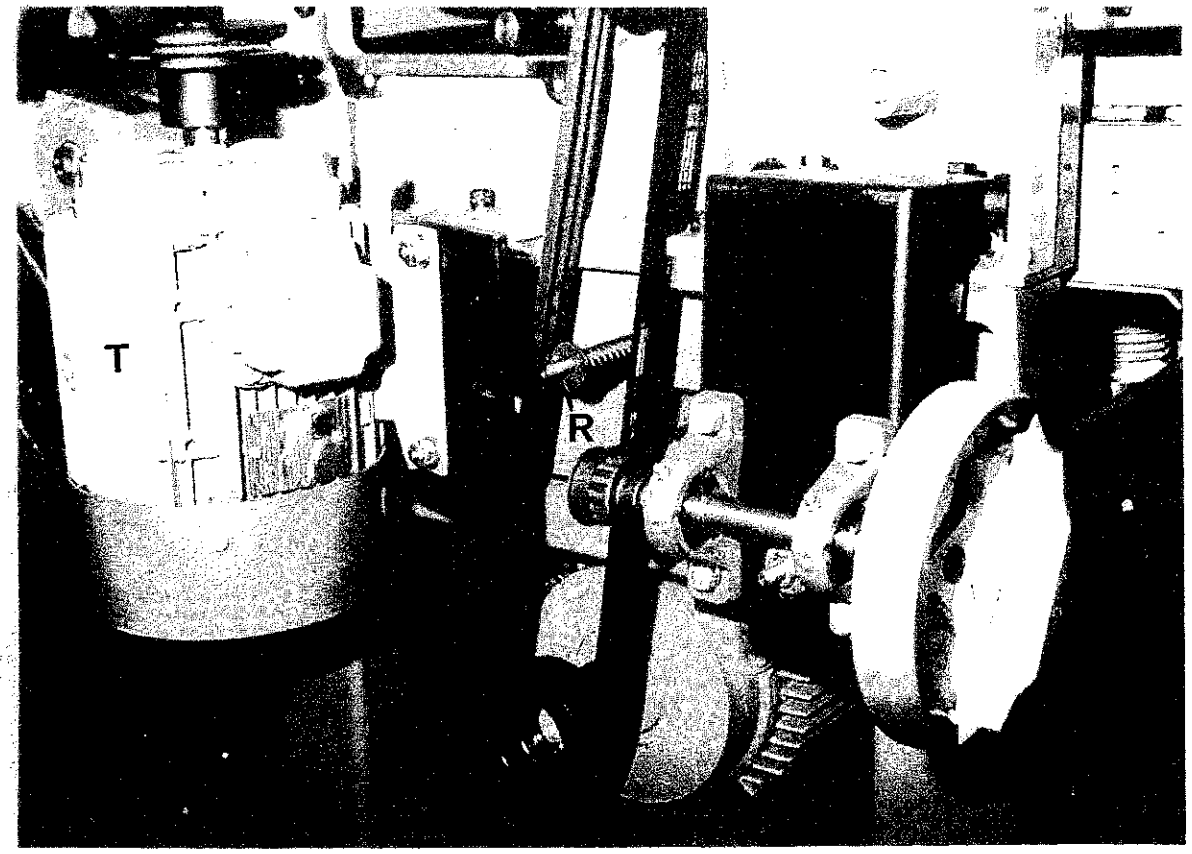


FIG.28

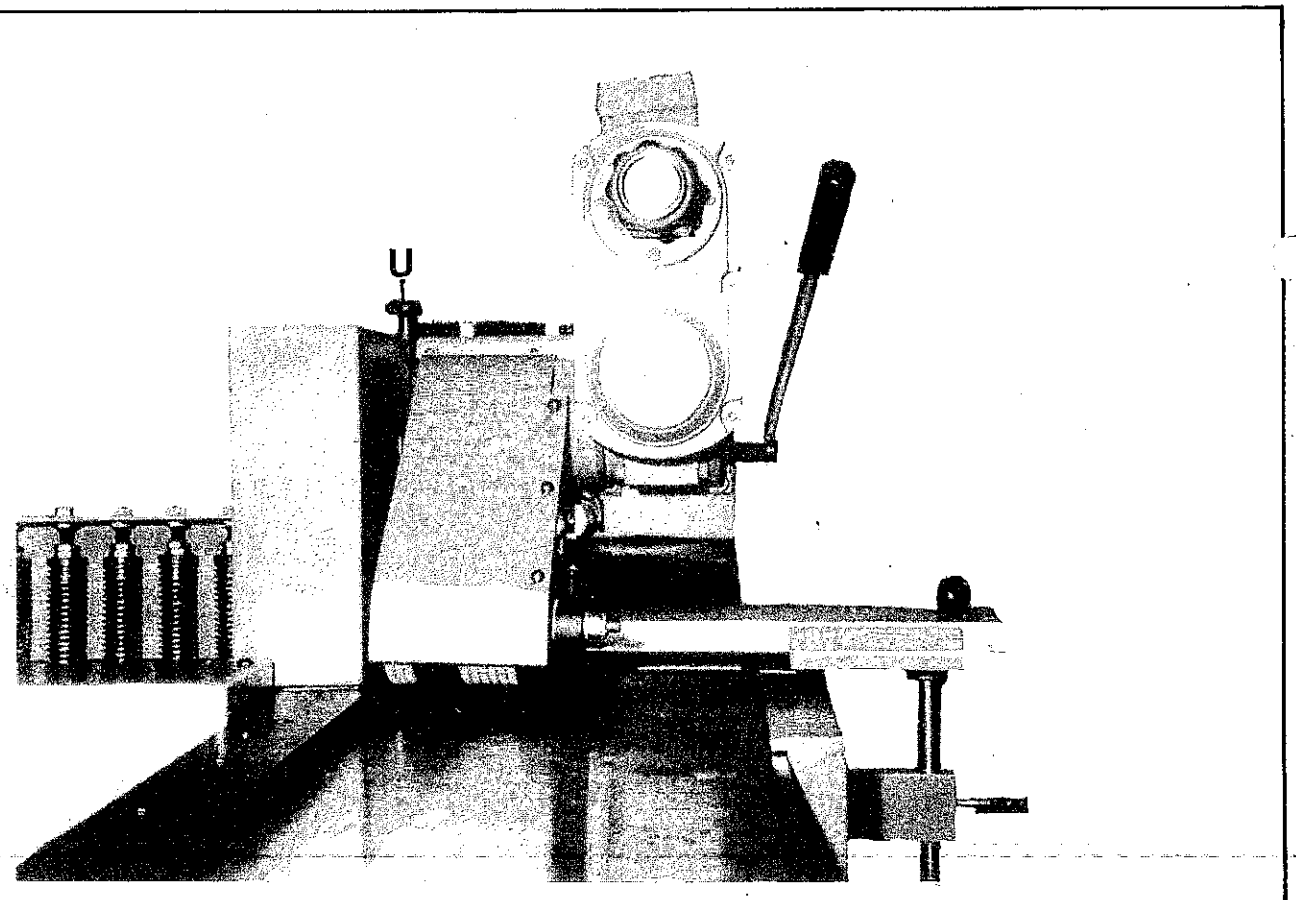


FIG.29

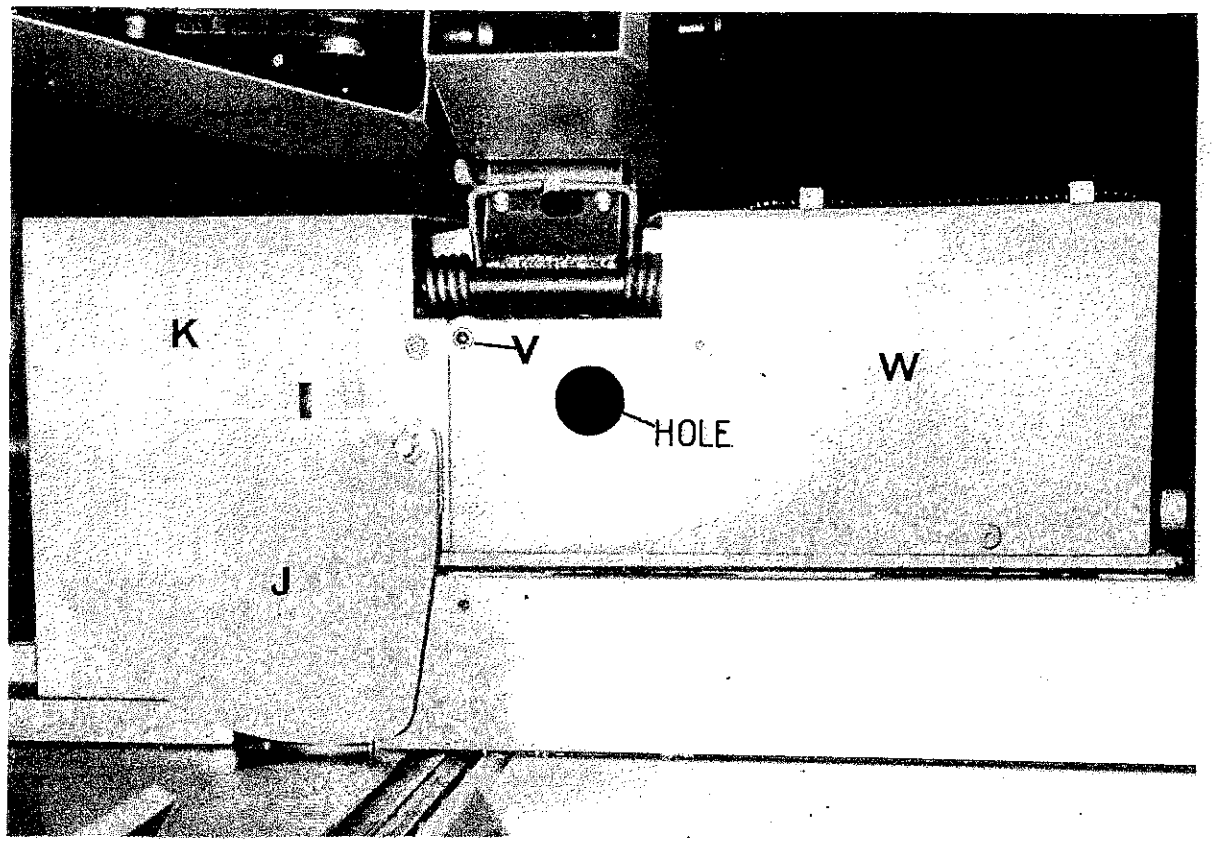


FIG.30

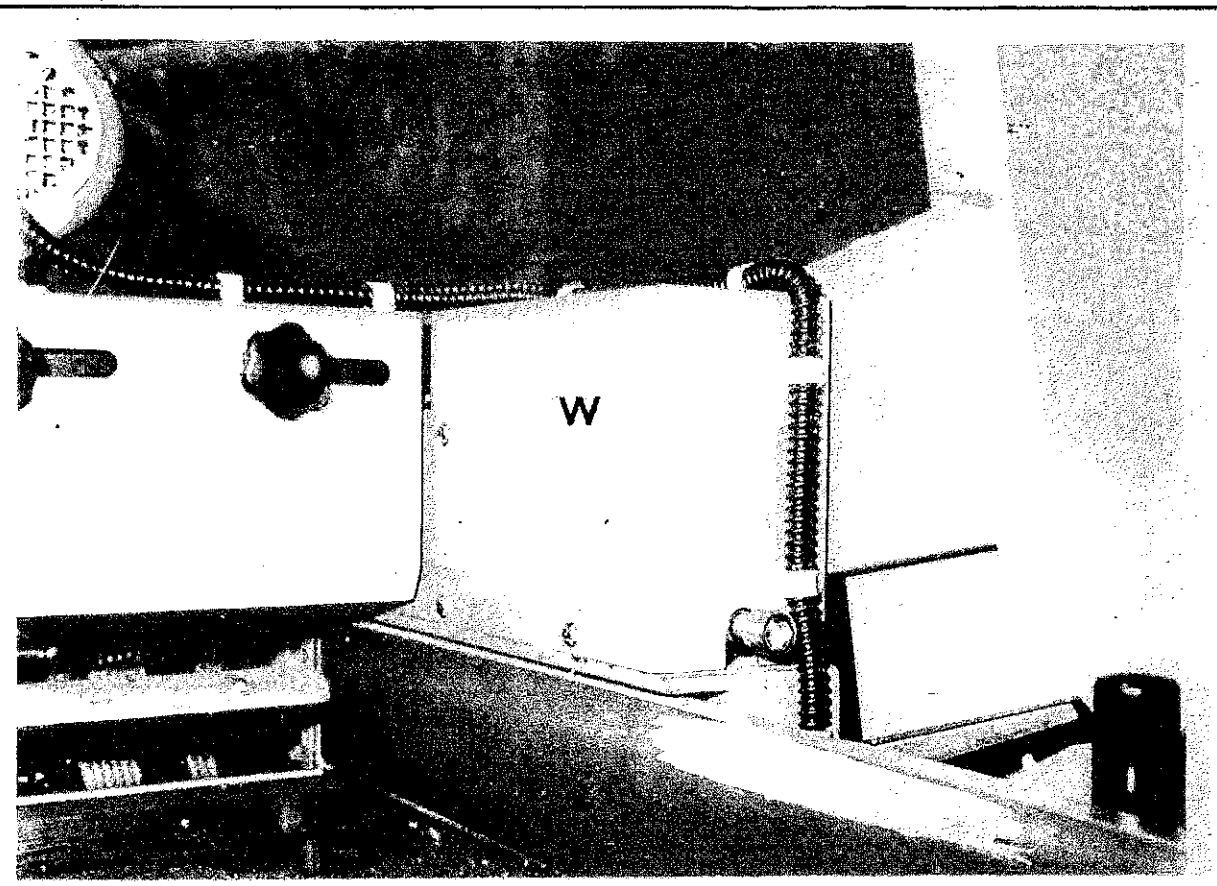


FIG. 31

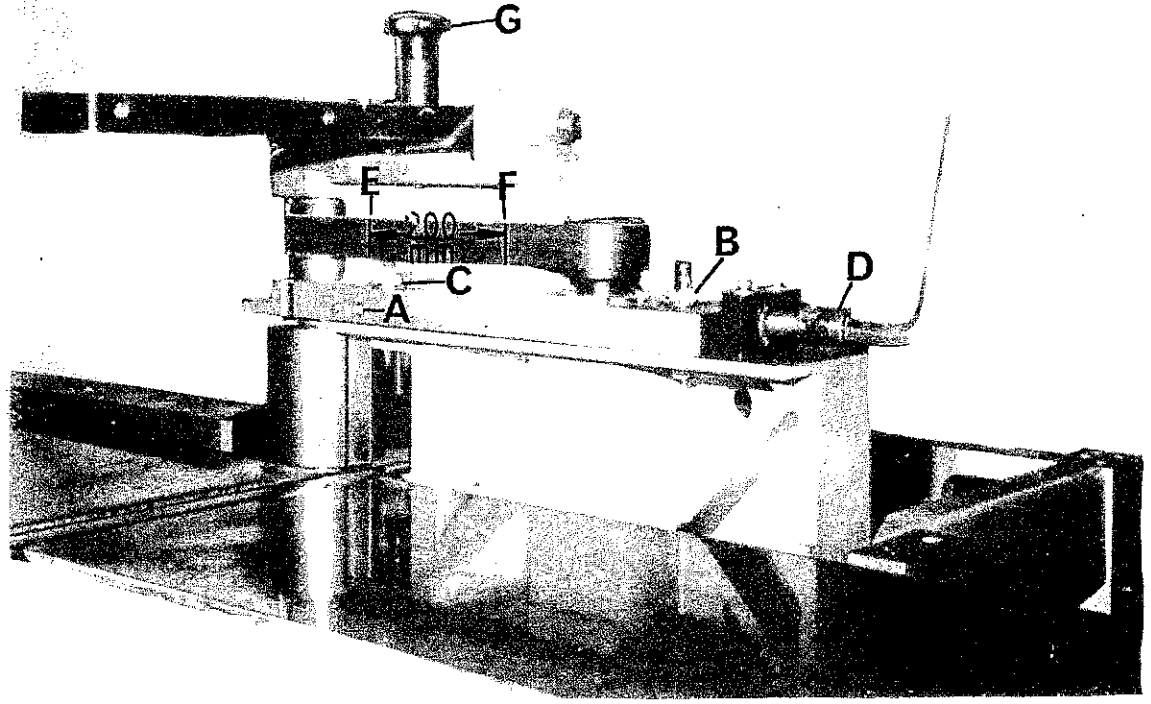


FIG.32

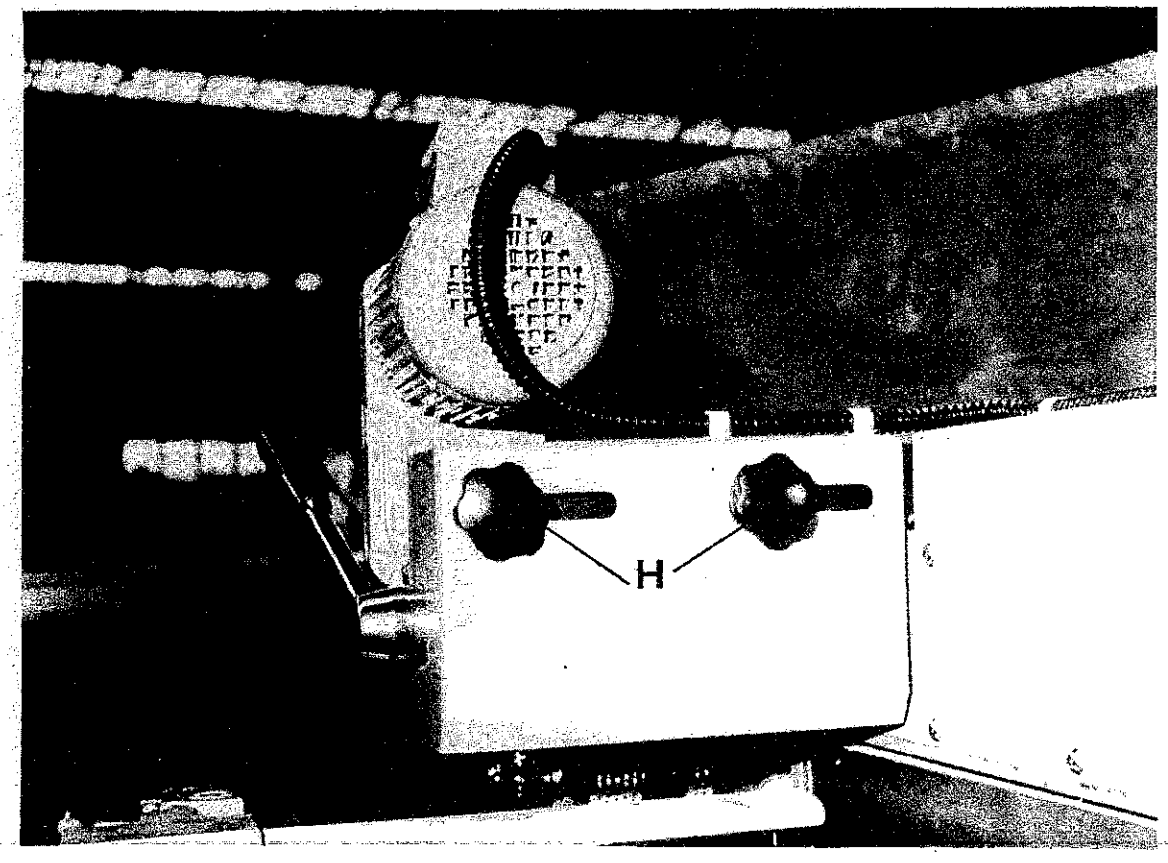


FIG.33

j) Reverse procedure of operations (f) to (a).

7.8 Replacement of Top Side Head Cutterblock Belt

a) Isolate machine electrically.

b) Remove locking handwheels "H" and washers FIG.33 in planer feed unit.

c) Remove studs ensuring spacers inside feed unit are removed.

NOTE: Spacers must be fitted to correct studs when re-assembling.

d) Remove planer feed unit cable clips from rear cover "W" FIG.31.

e) Withdraw feed unit, carefully place on outfeed table.

IMPORTANT: DO NOT REMOVE LOCKING HANDWHEEL "G" FIG.32 WHEN FEED UNIT IS REMOVED.

f) Remove planer feed unit stop "V" FIG.30.

g) Remove side head pivot guard "J" FIG.30 and stop behind guard.

h) Remove 4 - M8 button head screws and 2 - M8 countersunk screws from covers "K" and "W" FIG.30 (2 - M8 countersunk screws are situated at thicknesser side) and remove both covers.

i) Loosen grubscrew "A" FIG.32 on planer side only, 1 full turn.

j) Loosen 1 - M12 nut "B", 2 - M10 hexagon headbolts "C" FIG.32 (1 either side of housing) and using allen key "D" release tension.

k) Replace belt.

l) Tension belt by caphead screw "D" FIG.32. Correct tension will have been achieved when 200mm can be measured between points "E" and "F" FIG.32 on belt.

m) Relock 2 - M10 hexagon headbolts "C" and M12 nut "B".

n) Reverse procedure of operations (i) to (a).

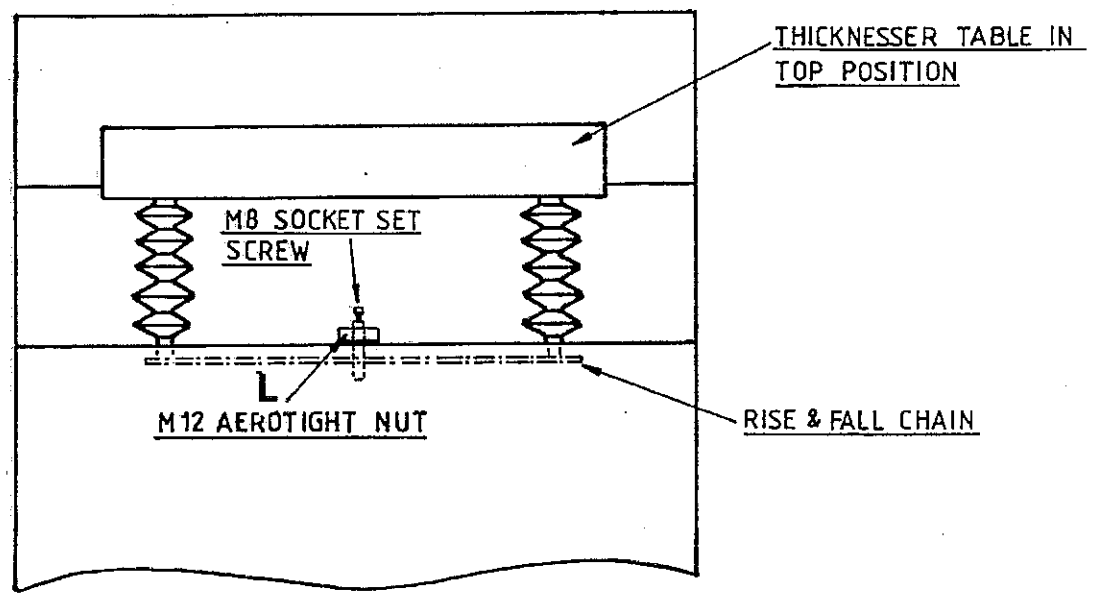
7.9 Rise and Fall Chain Tension

a) Isolate machine electrically.

b) Raise thicknesser table to top position.

c) Loosen M12 aerotight nut "L" FIG.34 and turn M8 grubscrew until correct tension is achieved.

d) Re-tighten M12 aerotight nut "L".



REAR VIEW OF MACHINE

FIG.34

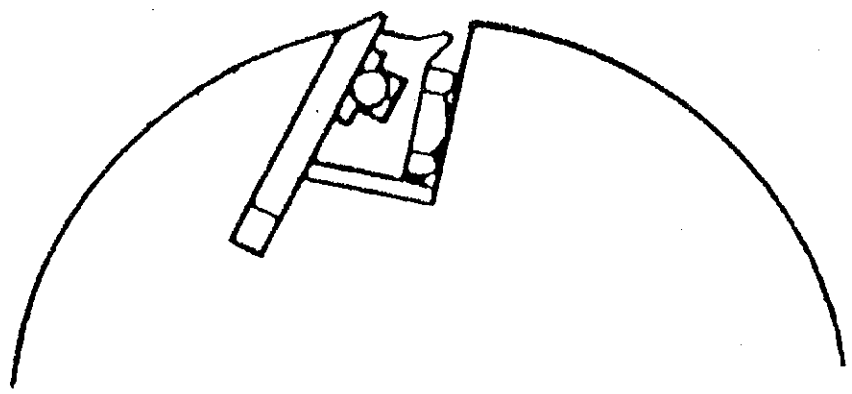


FIG.35

7.10 Cutter Settings

7.10.1 Settings for Re-grindable Knives on Main and Side Head Cutterblocks

The knife is held in the cutterblock by a wedge, into which is fitted spring loaded balls FIG.35. These balls hold the knife finger tight, whilst the M12 hexagon head screws are loose. This allows both hands to be free to adjust the blade and ensure that it will not slip back during setting or move whilst the wedge screws are tightened up. Should any other method of cutter setting be employed, the amount of cutter projection must correspond exactly with that given by the setting gauge supplied and failure to observe this instruction will result in bad feeding and poor finish.

IMPORTANT: Use knives of 28mm maximum to 15mm minimum width.

7.10.1a Planer Main Cutterblock

a) Isolate machine electrically.

b) Lift planer feed unit clear (refer to 5.8c)

c) Remove bridge guard (refer to 5.9)

d) Loosen the 5 - M12 hexagon head screws on each wedge, carefully remove the knives from cutterblock.

NOTE: When regrinding, it is most important that the knives are ground perfectly straight and balanced in sets.

An efficient re-grinding service is available, charges are moderate and service prompt. To avail yourself with this service, return knives to: WADKIN DURHAM, FENCE HOUSES, HOUGHTON LE SPRING, TYNE & WEAR, DH4 5RQ.

e) To reset the knives, place the knife in between wedges and cutterblock, with the blade having approximately 3mm projection.

f) Place setting device over knife FIG.36, press setting device down until feet on setting device locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 5 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace bridge guard and planer feed unit.

7.10.1b Planer Side Head Cutterblock

a) Isolate machine electrically.

b) Life planer feed unit clear (Refer to 5.8c)

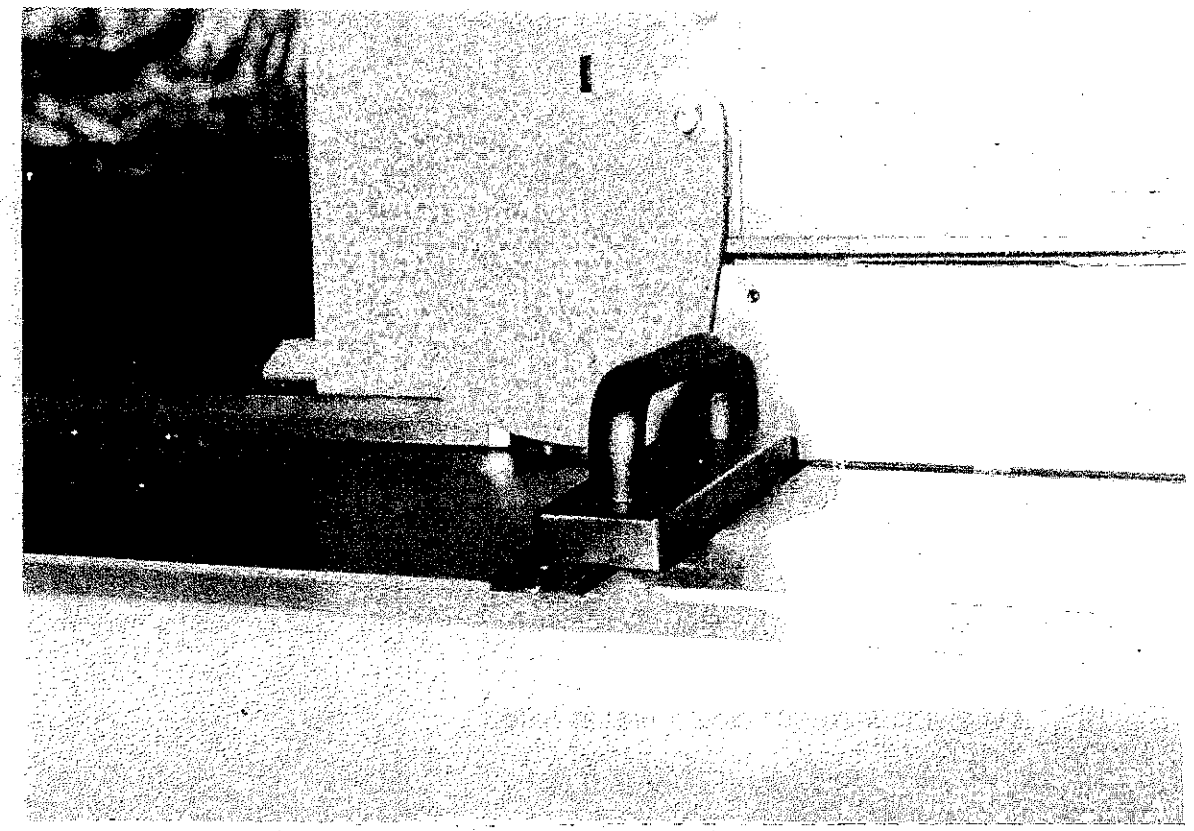


FIG. 36

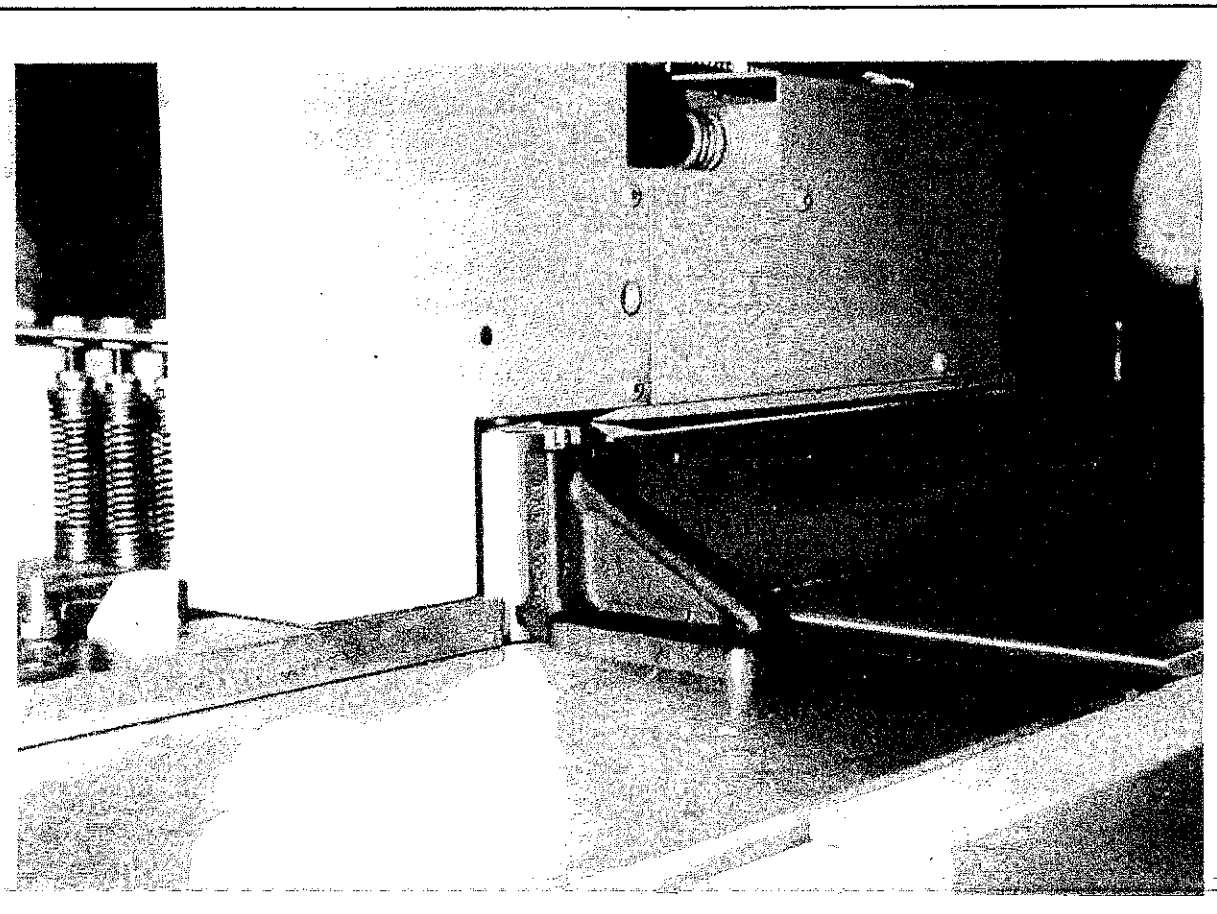


FIG. 37

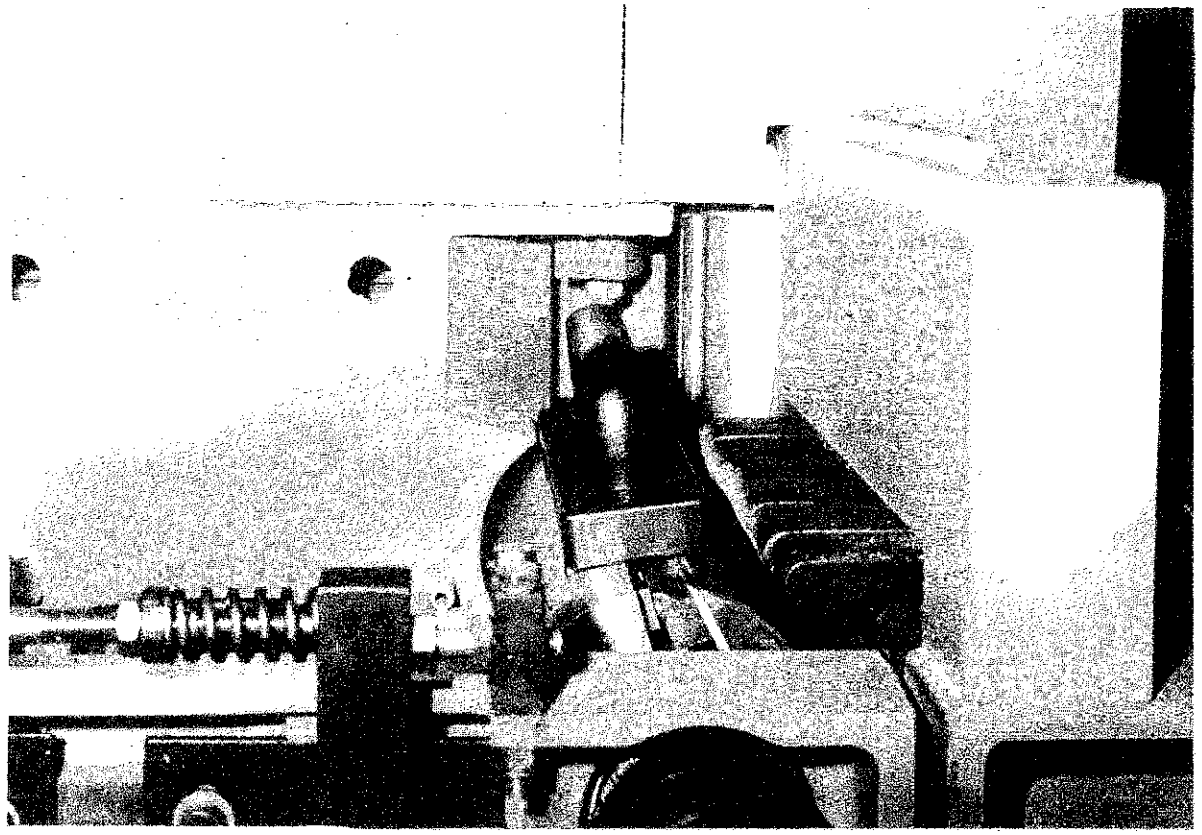


FIG. 38

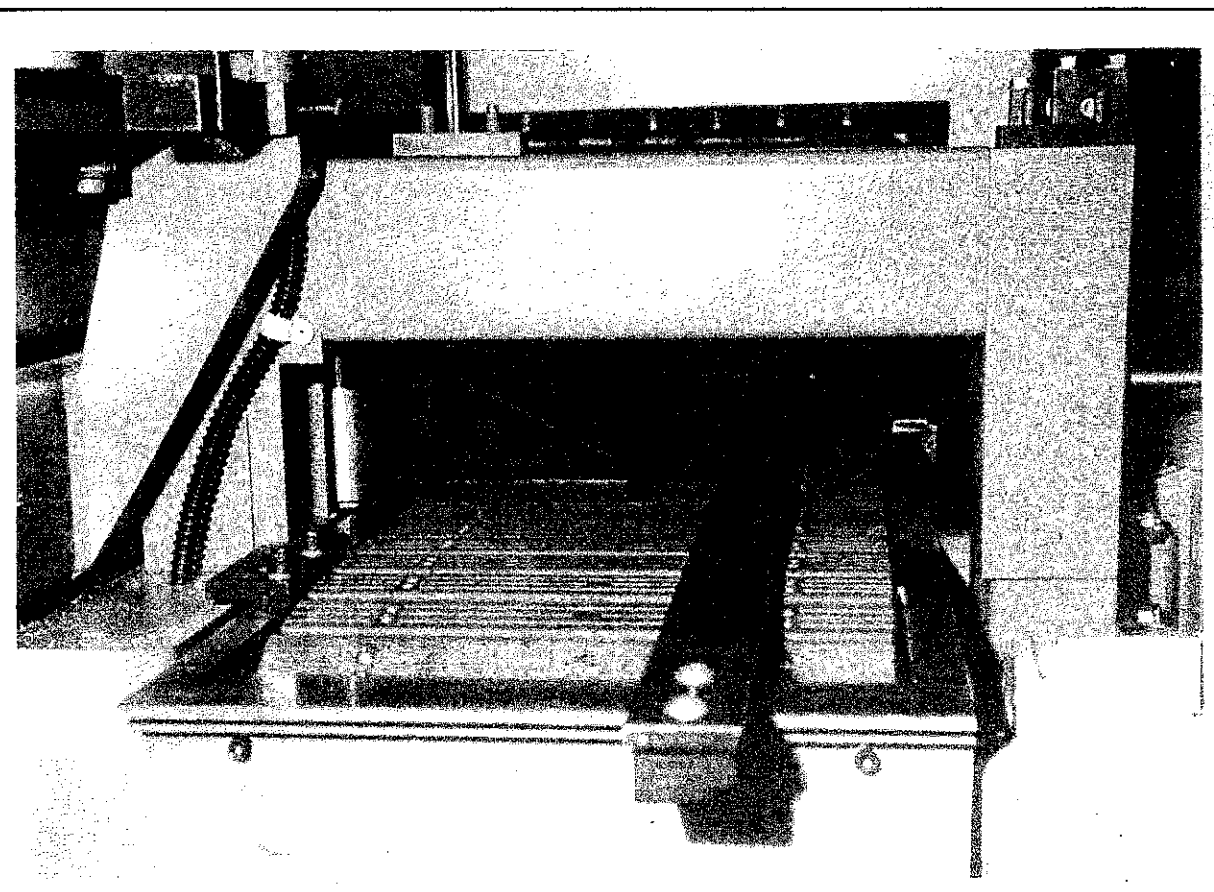


FIG. 39

c) Remove M10 aerotight nut and side head pivot guard.

d) Loosen the 2 - M12 hexagon head screws in each wedge, carefully remove the knives from cutterblock.

e) Replace all knives in the cutterblock and fasten wedge screws, leaving knives protruding 3mm from cutterblock.

f) Place setting device over knife FIG.37. Press setting device firmly against planing table and move setting device until feet locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 2 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace planer feed unit.

7.10.1c Thicknesser Main Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Loosen the 5 - M12 hexagon head screws on each wedge, carefully remove the knives from cutterblock.

d) To reset the knives, place the knife in between wedges and cutterblock, with the blade having approximately 3mm projection.

e) Place setting device over knife FIG.38, press setting device down until feet on setting device locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

g) When knife is set correctly, remove knife setting device then securely lock the 5 - M12 hexagon head screws on wedge.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

i) Replace thicknesser top hood.

7.10.1d Thicknesser Side Head Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Lower thicknesser table to bottom position (refer to 5.10).

d) Set fence to maximum position (Refer to 5.11).

e) Loosen the 2 - M12 hexagon head screws in each wedge, carefully remove the knives from the cutterblock.

f) Replace all knives in the cutterblock and fasten wedge screws, leaving knives protruding 3mm from cutterblock.

g) Place setting device over knife FIG.39. Press setting device firmly down onto thicknesser lag bed and move device until feet locate on cutterblock. Knife is now correctly set at 1mm cutter projection.

h) Rotate cutterblock until the next knife is in position and repeat the above procedure until all the knives have been set.

j) Replace thicknesser top hood.

NOTE: When changing knives it is advisable to check that all wedge screws are adequately lubricated and quite free. Periodically examine for damage or cracks. Any doubtful screws should be replaced and all screws well lubricated with "Molyslip" or similar oil, before replacing.

7.10.2 Settings for 'Tersa' Type Main and Side Head Cutterblocks

7.10.2a 'Tersa' Type Planer Main Cutterblock

To remove double sided knives from cutterblock, proceed as follows:

a) Isolate machine electrically.

b) Lift planer feed unit clear (Refer to 5.8c)

c) Remove bridge guard (Refer to 5.9)

d) Using a wood block and hammer, remove knife by tapping wedge as shown in FIG.40.

e) Withdraw double sided knife and either turn or replace.

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

7.10.2b 'Tersa' Type Planer Side Head Cutterblock

a) Isolate machine electrically.

b) Lift planer feed unit clear. (Refer to 5.8c)

c) Remove M10 aerotight nut and side head pivot guard.

d) Using a wood block and hammer, remove knife by tapping wedge as shown in FIG.41.

e) Withdraw double sided knife and either turn or replace.

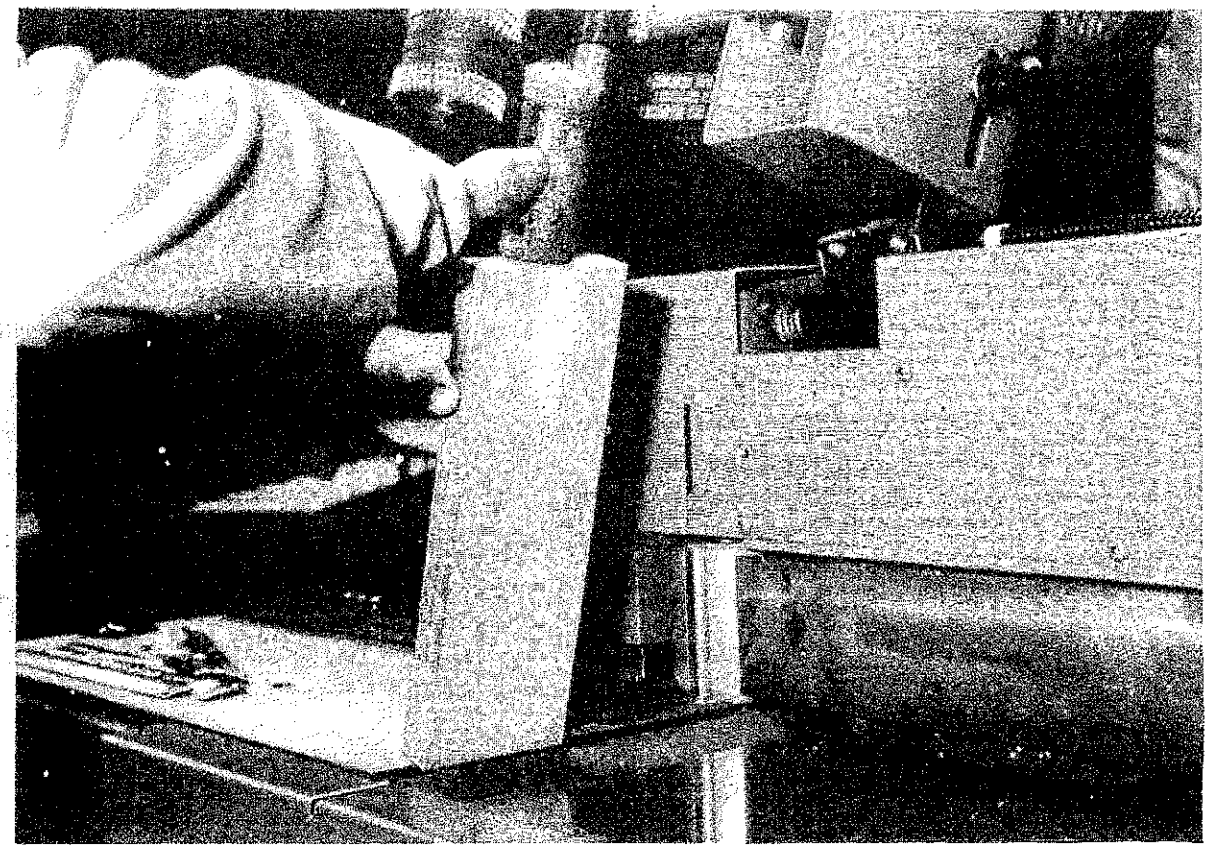


FIG.40

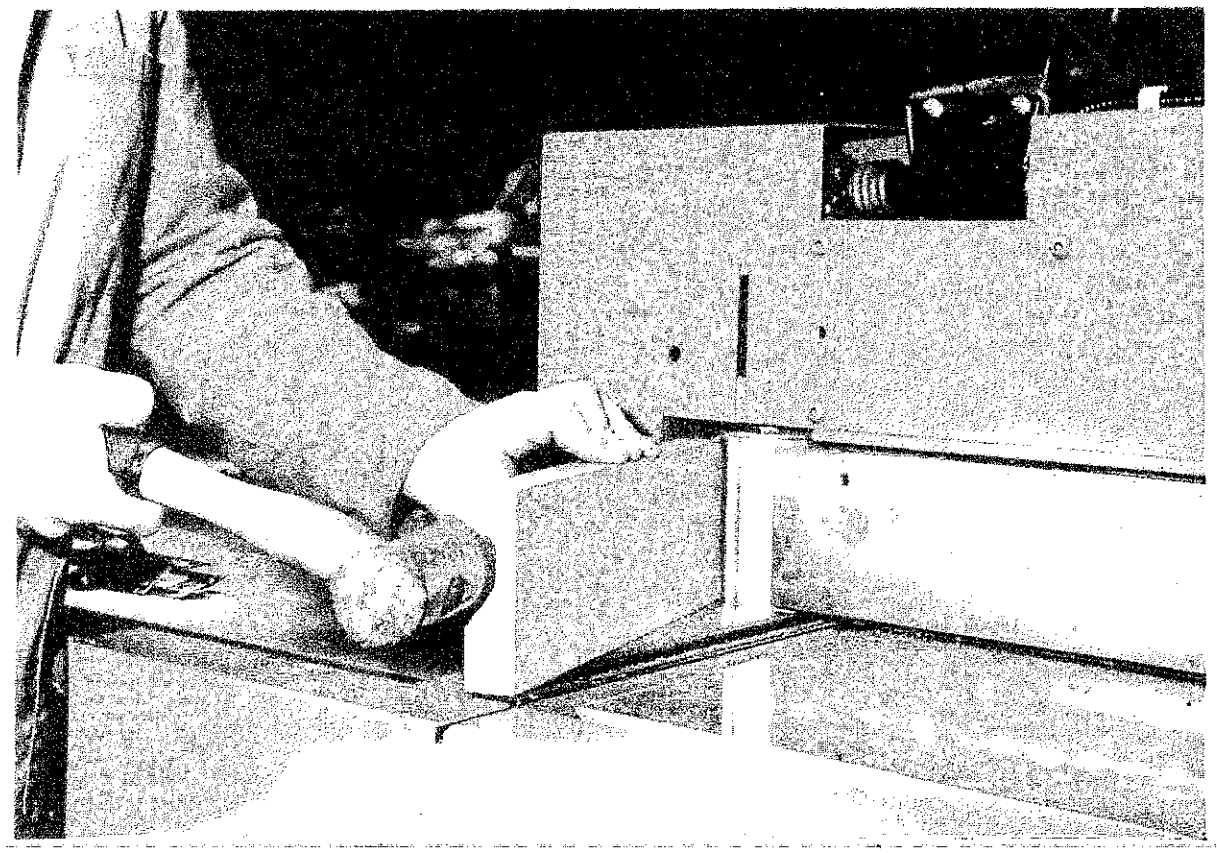


FIG.41

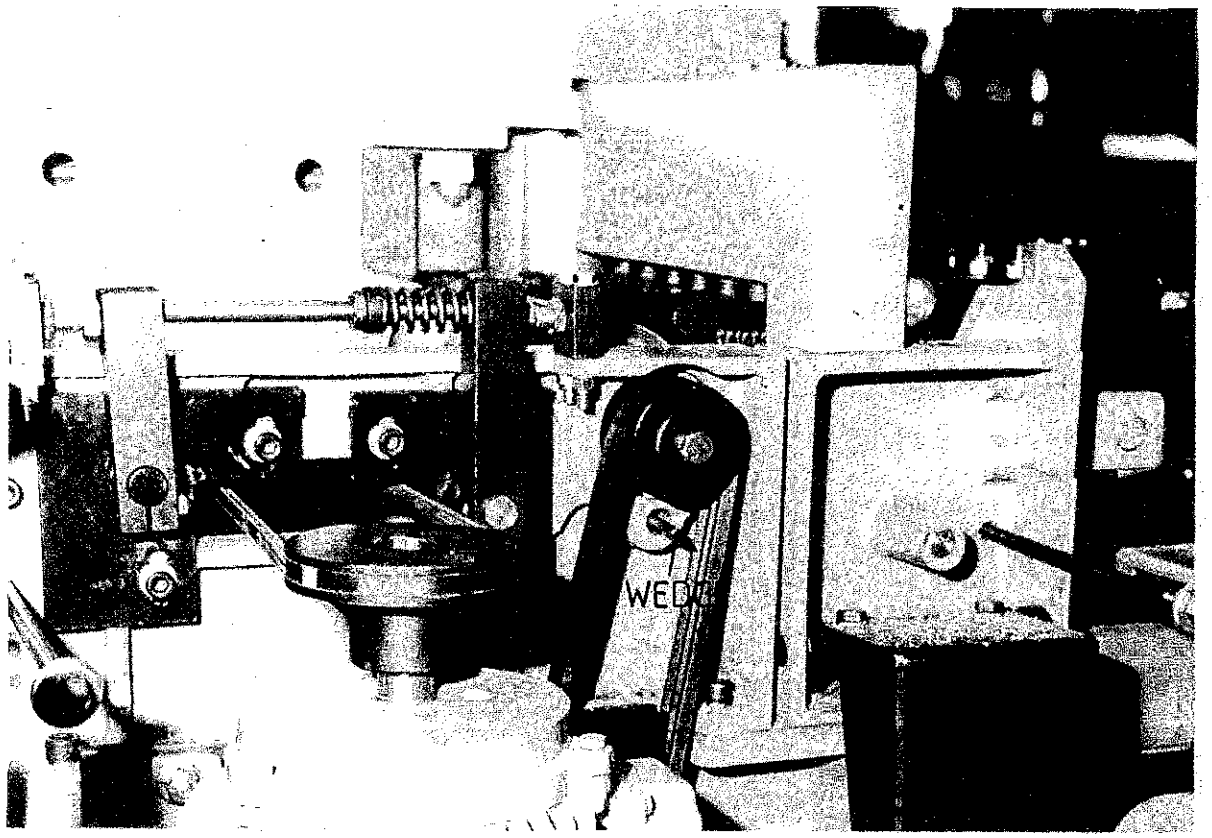


FIG.42

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

Use same procedure as above for 'Tersa' Thicknesser and Side Head cutterblocks.

7.10.2c 'Tersa' Type Thicknesser Main Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Using a wood block and hammer, remove knife by tapping wedge.

d) Withdraw double sided knife and either turn or replace.

e) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge. Remove side cover. Rotate cutterblock until wedge aligns with hole in side frame as shown in FIG.42.

7.10.2d 'Tersa' Type Thicknesser Side Head Cutterblock

a) Isolate machine electrically.

b) Lift thicknesser top hood.

c) Lower thicknesser table to bottom position (Refer to 5.10).

d) Using a wood block and hammer, remove knife by tapping wedge.

e) Withdraw double sided knife and either turn or replace.

f) Rotate cutterblock until next knife is in position and repeat above procedure.

NOTE: If wedge is to be removed, tap brass washer with a wood block and hammer until aperture on washer is in line with wedge.

Application	APPROVED LUBRICANTS					
	Castrol	B.P.	Shell	Esso	Texaco	Century
Worm Boxes	Alpha SP220	Energol XP220	Omala 220	Spartan EP220	Meropa 220	F76
General Lubrication	Magna 68	Maccurat 68	Tonna T68	Febis K68	Way Lube 68	WLC
Pneumatic Lubricators	Hyspin AWS32	Energol HL32	Tellus 37	Nuto H32	Rando Oil HD32	AF32
Grease	Spheerol AP3	Energrease L53	Alvania R3	Beacon 3	Multifak EP3	Lupas A3
Brake Cables	Brake Cable Grease	Energrease L21M	Alvania R3	Multi-Purpose Grease		Molycent MP

8.0 SPARES

8.1 Instructions When Ordering Spare/Replacement Parts

The undermentioned information should be given with all orders requesting spare/replacement parts.

a) Machine type.

b) Machine serial number.

c) If no manual available, give as full a description as possible of the required part, including location within the machine.

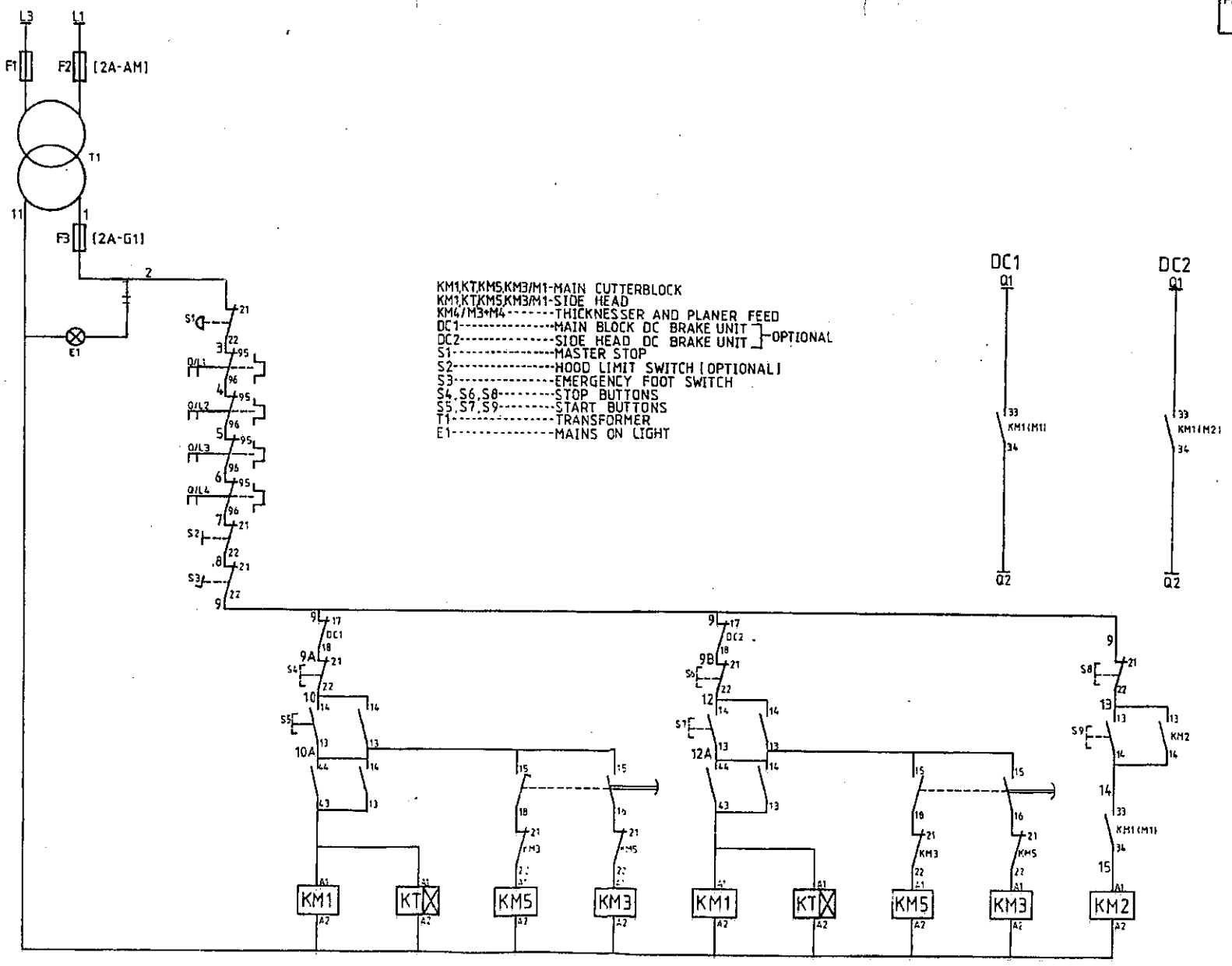
d) Order number and full company name and address.

e) Company account number, with **Wadkin**, if known.

f) All telephone orders must be followed by an official order, clearly marked "Confirmation Order".

NOTE: The company operate a **'Minimum Order Charge'** on all spare/replacement part orders.

PART No.
PAR-28-WD



KM1,KT,KM5,KM3/M1-MAIN CUTTERBLOCK
KM1,KT,KM5,KM3/M1-SIDE HEAD
KM4/M3+M4-------THICKNESSER AND PLANER FEED
DC1-------MAIN BLOCK DC BRAKE UNIT ┐
DC2-------SIDE HEAD DC BRAKE UNIT ┘ OPTIONAL
S1-------MASTER STOP
S2-------HOOD LIMIT SWITCH (OPTIONAL)
S3-------EMERGENCY FOOT SWITCH
S4,S6,S8-------STOP BUTTONS
S5,S7,S9-------START BUTTONS
T1-------TRANSFORMER
E1-------MAINS ON LIGHT

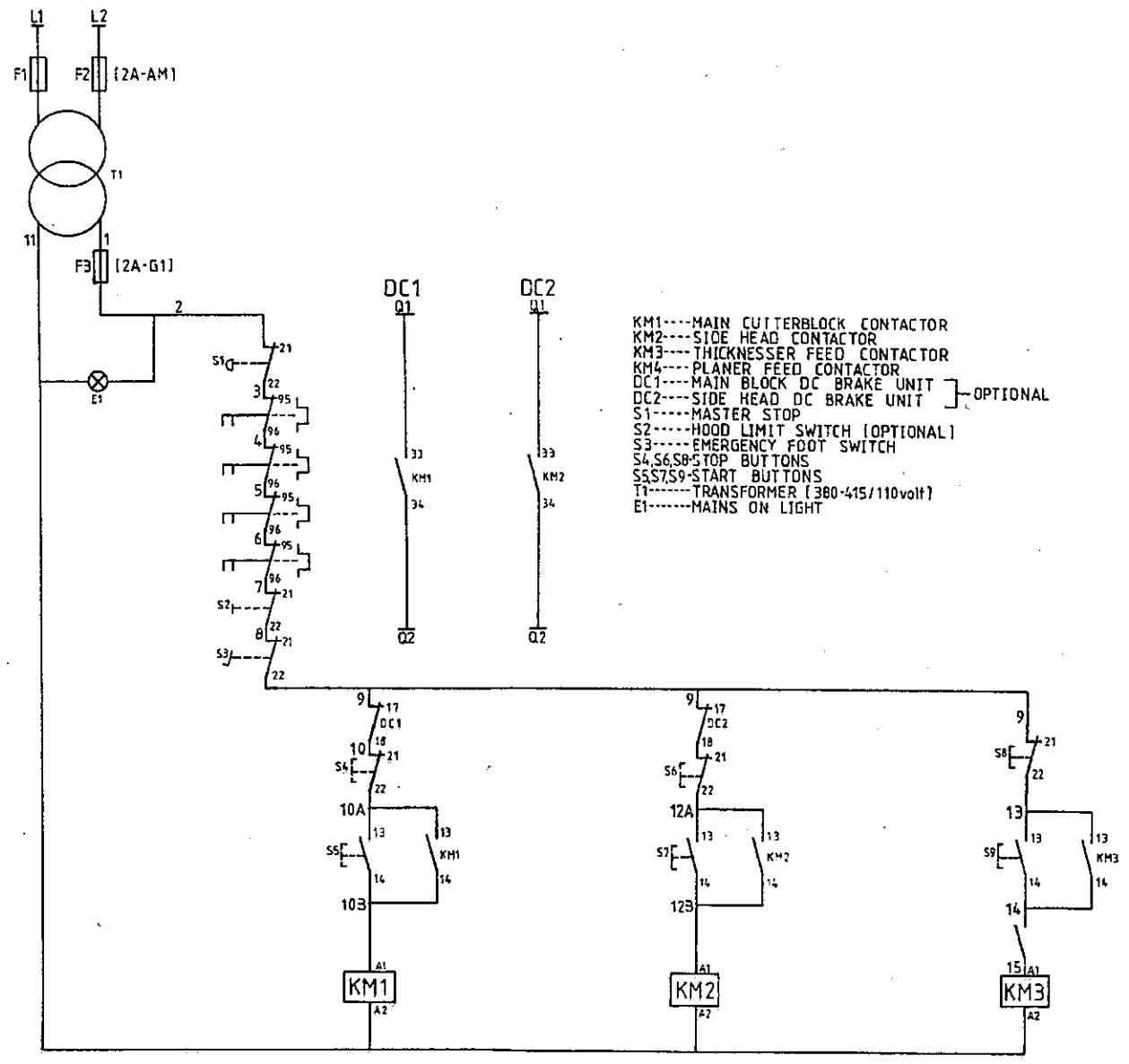
GENERAL TOLERANCES UNLESS
SURFACE FINISH UNLESS STATED

ALL DIMENSIONS IN MILLIMETRES
UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY PA		Wadkin Durham Fence Houses Tyne & Wear		QTY.	MATERIAL
CHECKED BY E W					
ISSUE DATE 6.7.90		DESCRIPTION CONTROL DIAGRAM STAR/DELTA WITH RALEIGH DC BRAKE UNITS		SCALE	PART No. PAR-28-WD
E C N NO 01311					

PART No.
PAR-26-WD

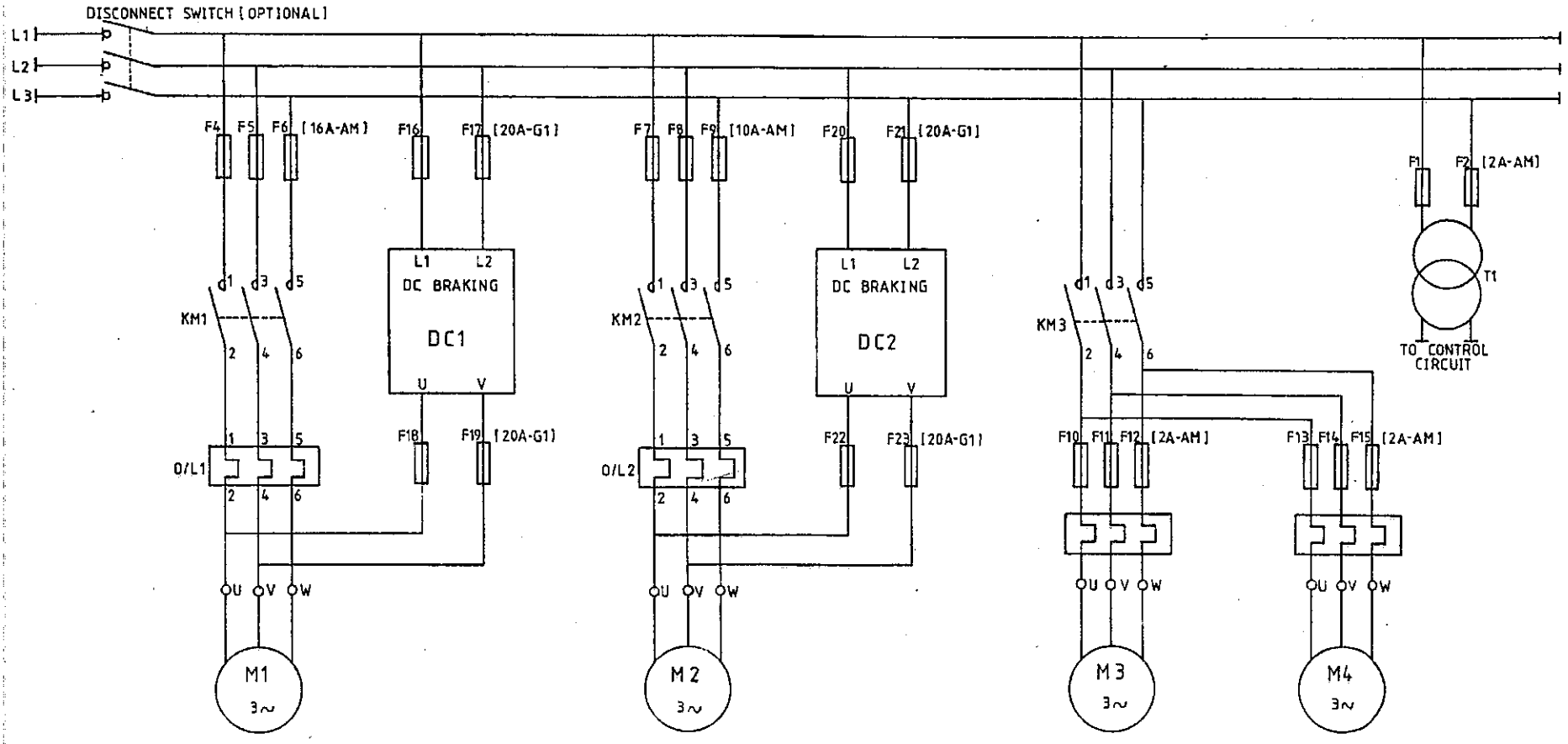


GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

FIRST ANGLE PROJECTION

DRAWN BY	PA	Wadkin Durham Fence Houses Tyne & Wear	QTY.	MATERIAL
CHECKED BY	EW	DESCRIPTION CONTROL DIAGRAM D.O.L. WITH RALEIGH DC BRAKING UNITS	SCALE	PART No. PAR-26-W
ISSUE DATE	6-7-90			
E.C.N. NO	01311			

PART No.
PAR-25-WD



KM1/M1-MAIN CUTTERBLOCK
KM2/M2-SIDE HEAD
KM3/M3-THICKNESSER FEED
KM3/M4-PLANER FEED
DC1----MAIN BLOCK DC BRAKE UNIT]-OPTIONAL
DC2----SIDE HEAD DC BRAKE UNIT]
O/L1-O/L4-OVERLOADS
F4-F15--INDIVIDUAL FUSING [OPTIONAL]

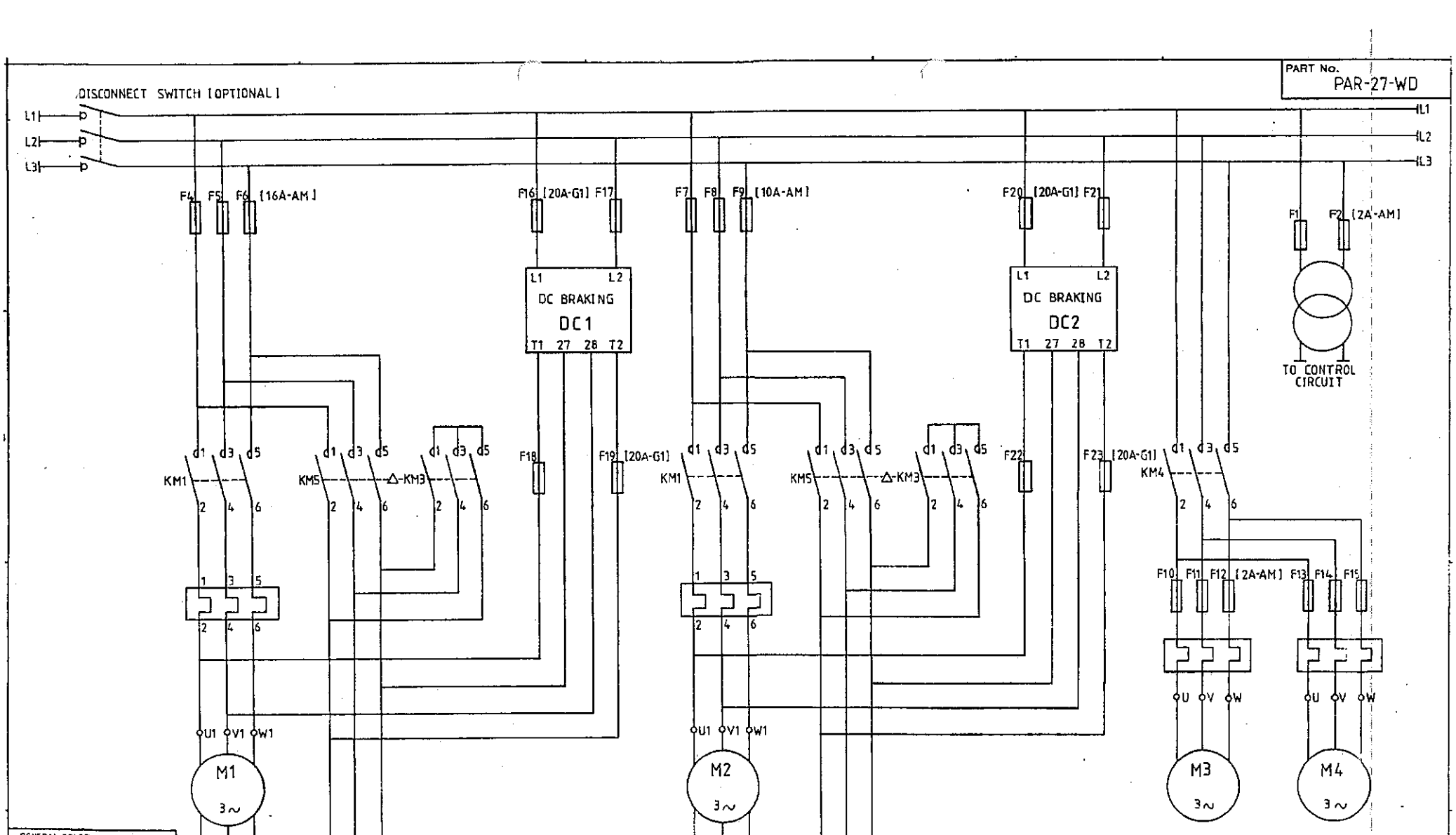
GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

			DRAWN BY	P A	Wadkin Durham Fence Houses Tyne & Wear	QTY.	MATERIAL
			CHECKED BY	E W			
			ISSUE DATE	6-90	DESCRIPTION SCHEMATIC DIAGRAM DOL WITH RALEIGH DC BRAKING UNITS	SCALE	PART No PAR-25-WD
			E C N NO	01311			

PART No.
PAR-27-WD



KM1,KM5,KM3/M1 - MAIN CUTTERBLOCK
KM1,KM5,KM3/M2 - SIDE HEAD
KM3/M3 ------- THICKNESSER FEED
KM3/M4 ------- PLANER FEED
DC1 ---------- MAIN BLOCK DC BRAKE UNIT] OPTIONAL
DC2 ---------- SIDE HEAD DC BRAKE UNIT]
O/L1-O/L4 ---- OVERLOADS
F4-F15 ------- INDIVIDUAL FUSING [OPTIONAL]

GENERAL TOLERANCES LIMITS & SURFACE FINISH UNLESS STATED

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

FIRST ANGLE PROJECTION

DRAWN BY PA CHECKED BY EW ISSUE DATE 6-7-90 E C N NO : 01311	Wadkin Durham Fence Houses Tyne & Wear		QTY	MATERIAL	
	DESCRIPTION SCHEMATIC DIAGRAM : STAR / DELTA WITH RALEIGH DC BRAKING UNITS		SCALE	PART No. PAR-27-WD	

INSTRUCTIONS WHEN ORDERING SPARE/REPLACEMENT PARTS

The undermentioned information should be given with all orders requesting spare/replacement parts.

1) Machine Type.
2) Machine serial number.
3) Part number of required parts, as stated in the instruction manual.
4) If no manual available, as full a description as possible of the required part, including location within the machine.
5) Order number and full company name and address.
6) Company account number, with WADKIN, if known.
7) All telephone orders **must** be followed by an official order, clearly marked **"Confirmation order".**

NOTE:
The company operates a "Minimum order charge" on all spare/replacement part orders.

BOOK NO. B882

IMPORTANT

It is our policy and that of our suppliers to review constantly the design and capacity 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 and supplies may vary from those illustrated.

PLEASE INSERT SERIAL NUMBER OF MACHINE

Instruction Manual For

PAR

4-Side Planer-Sizer

FOR REPLACEMENT PARTS, TOOLS AND ACCESSORIES

CONTACT: DURHAM (091) 385 2385 (5 lines) Spares Dept:
TELEX 53441 (BURDRM G) FAX: (091) 385 3311
Wadkin Durham, Fence Houses, Houghton-le-Spring, Tyne & Wear, DH4 5RQ, England.

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 plc 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 users 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 plc.

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.

Wadkin (Durham) Division of Wadkin plc, Fence Houses, Houghton-le-Spring, Tyne & Wear, DH4 5RQ.
Telephone: (091) 385 2385. Telex: 53441 (Burdrm G).

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 U.K.) FOR SAFETY IN THE USE OF WOODWORKING MACHINERY.

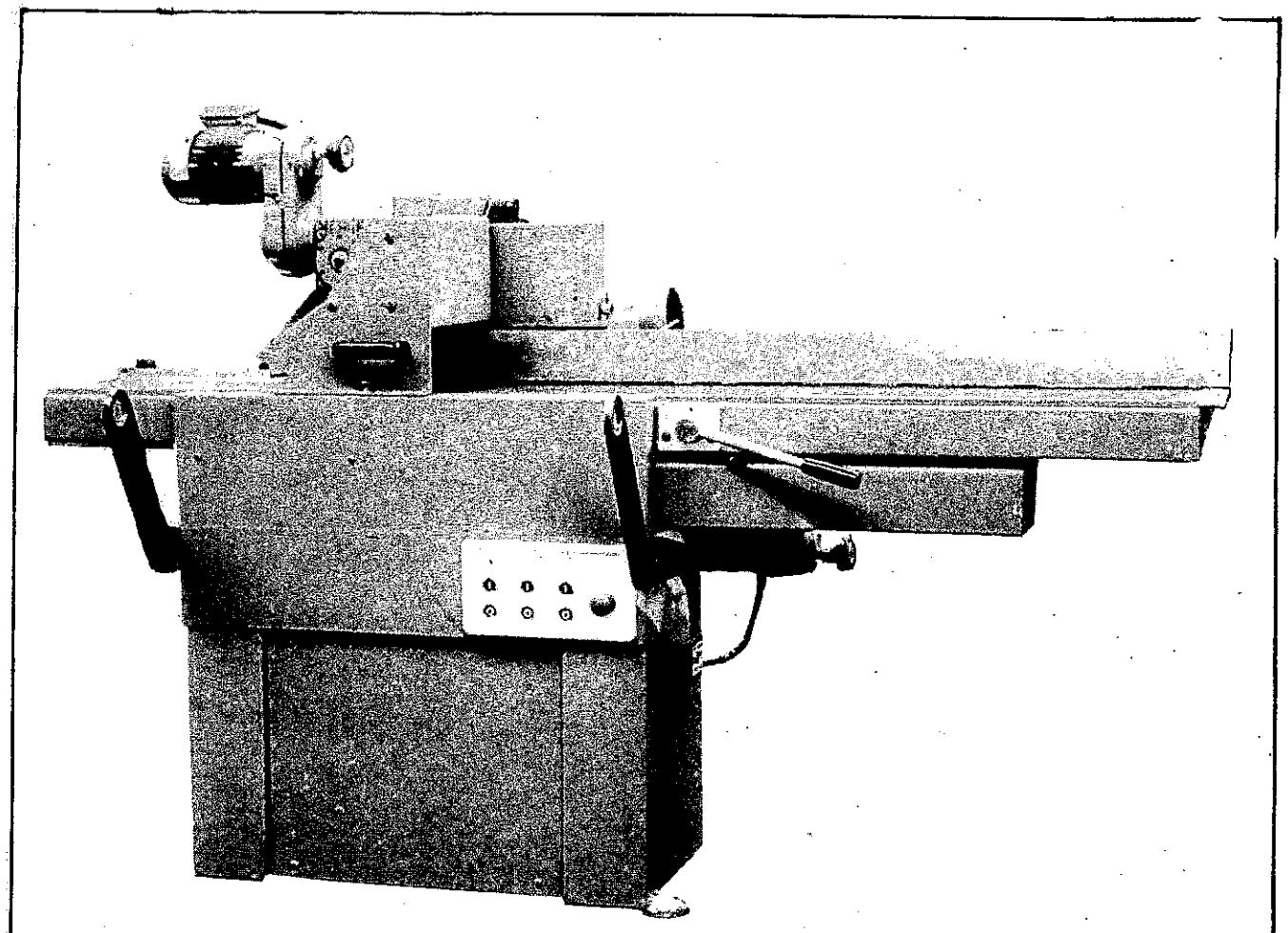
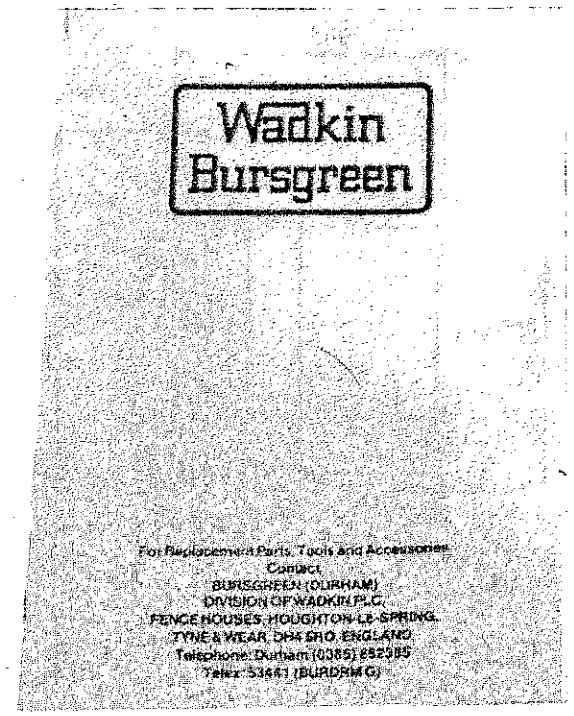


Fig 1

SPECIFICATION

Maximum size of squared timber	300 x 100mm	12 x 4 in
Minimum size of squared timber	10 x 10mm	⅜ x ⅜ in
Minimum thickness of timber	4mm	5/32 in
Length of infeed planing table - standard	1.5m	59 in
- optional	2m	79 in
Feed speeds - standard	4.5 & 9 m/min	15 & 30 ft/min
- optional, fully variable	3 - 18 m/min	10 - 58 ft/min
Cutterblock motor - horizontal	7.5kw	10hp
- vertical	5.5kw	7½hp
Maximum stock removal - each cutterblock	10mm	⅜ in
Floor space - standard	2100 x 1250mm	83 x 49 in
- optional	2600 x 1250mm	102 x 49 in
Approx. net weight of machine	905kg	1991 lbs
Approx. gross weight of machine	1104kg	2428 lbs
Shipping dimension	2.32 x 1.48 x 1.44m	92 x 58 x 56 in



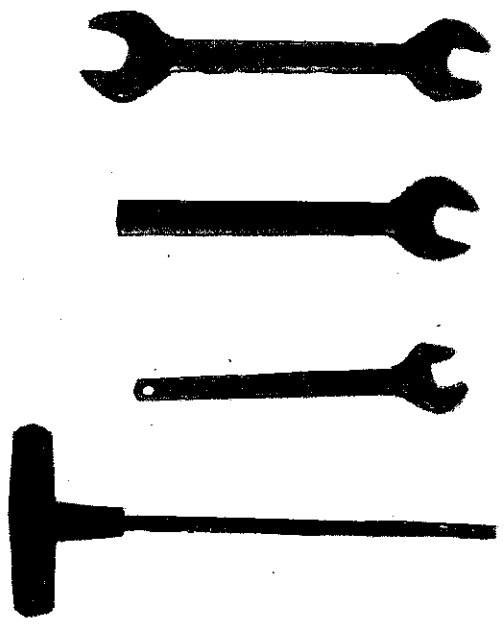


Fig 2

STANDARD ITEMS DESPATCHED WITH MACHINE

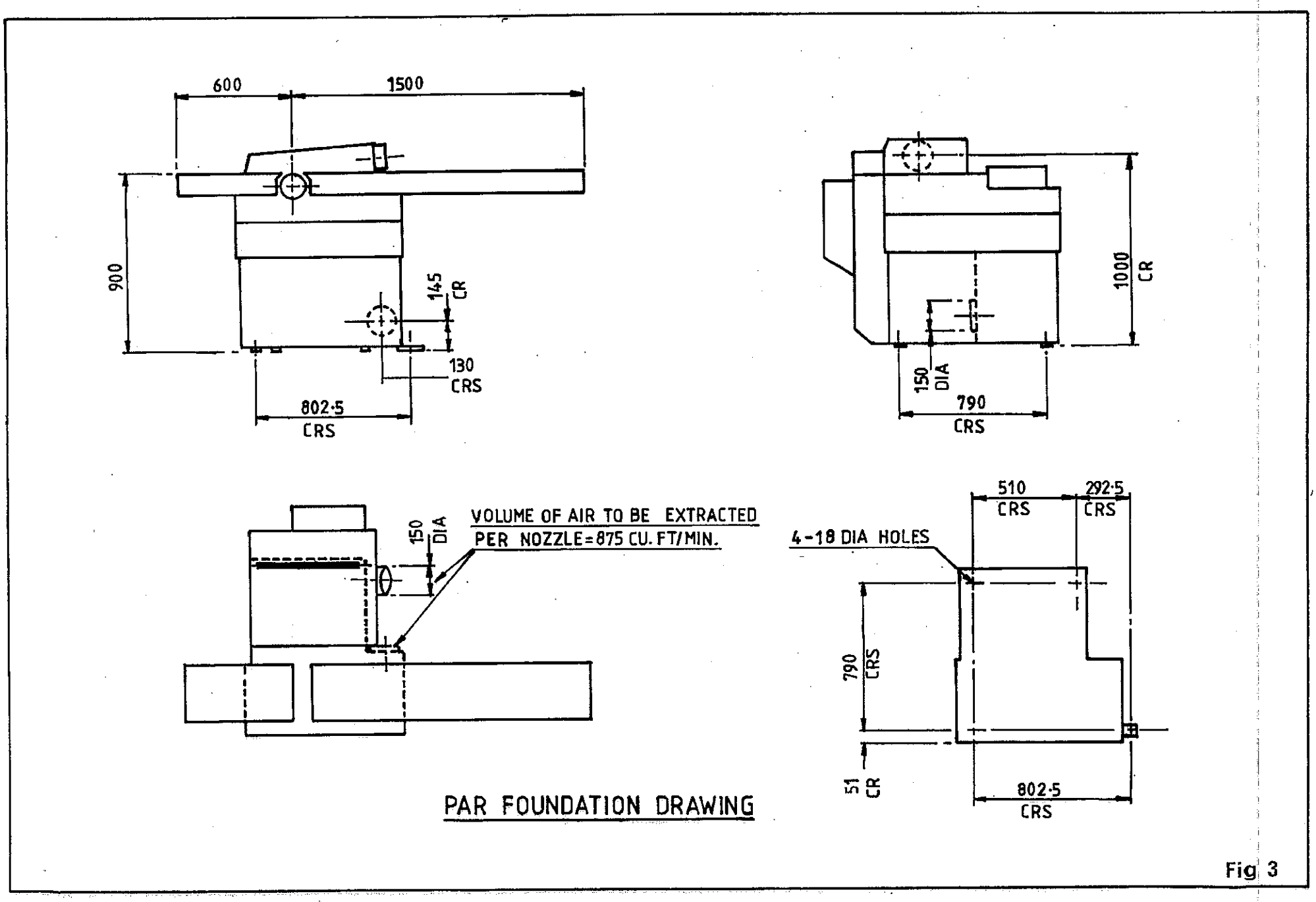
1 - Instruction Manual

1 - 17/19 A/F Spanner

1 - Cutterblock Spanner T6/94

1 - 13 A/F Spanner

1 - 6mm Long Tee Wrench



PAR FOUNDATION DRAWING

Fig 3

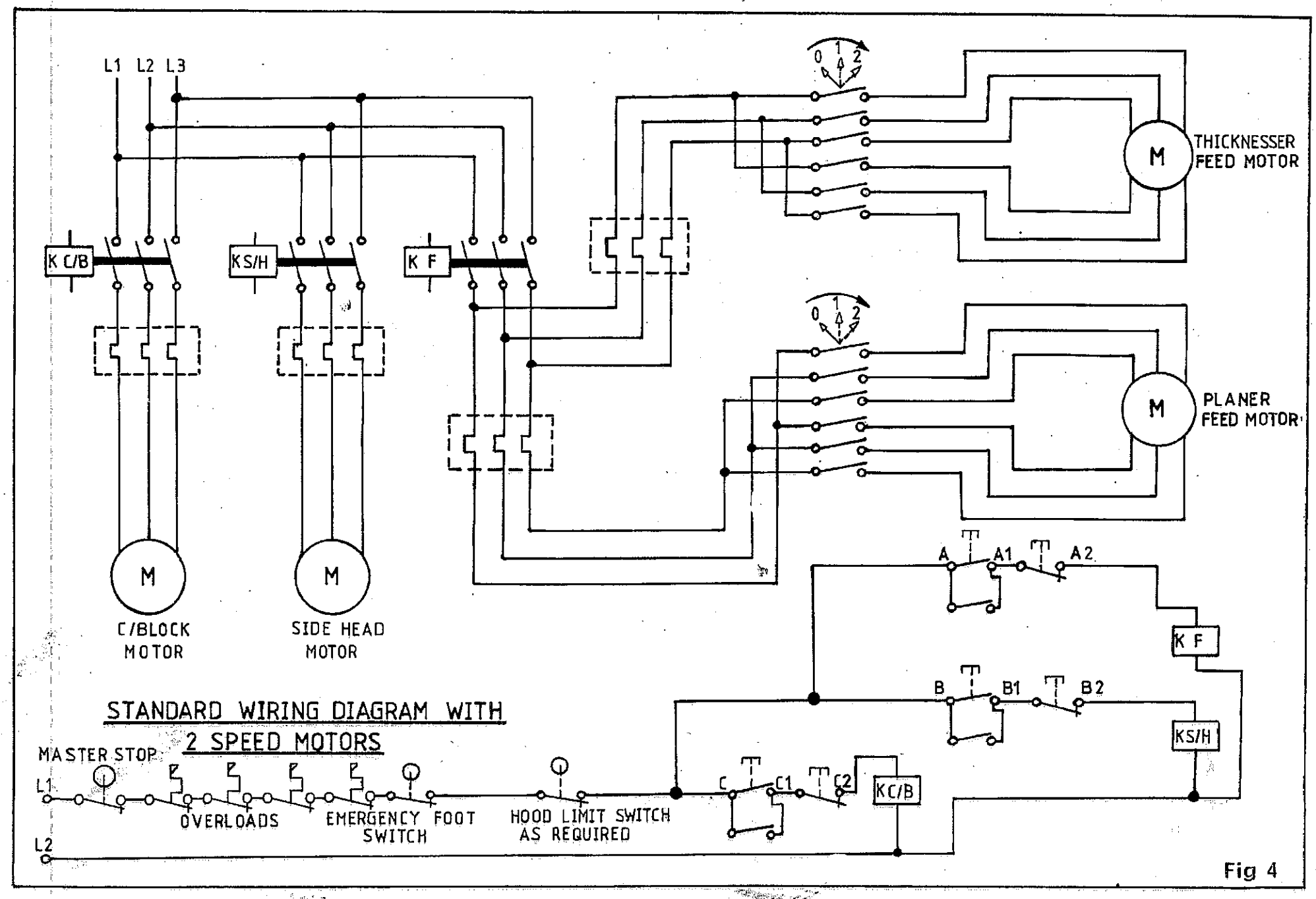
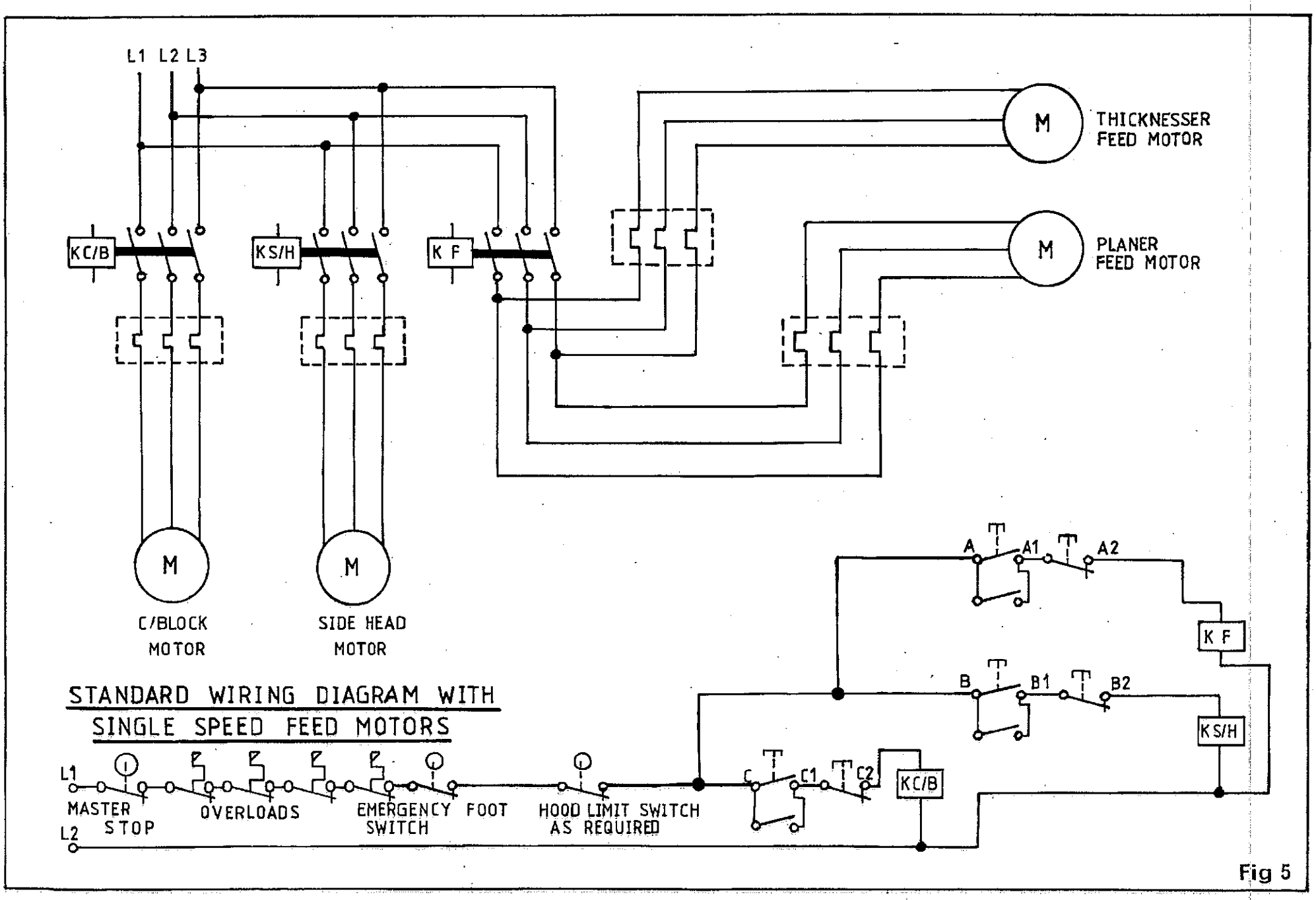
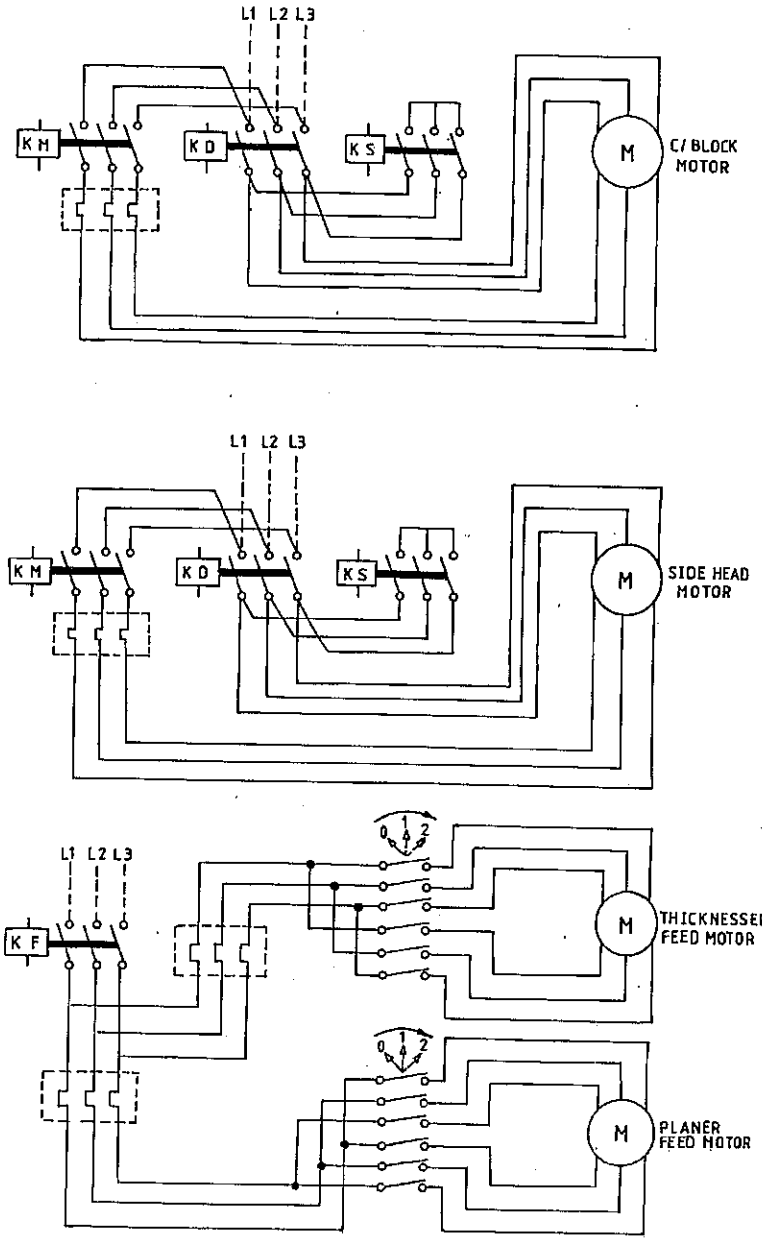

L1 L2 L3
K C/B
KS/H
K F
M
C/BLOCK MOTOR
M
SIDE HEAD MOTOR
0 1 2
THICKNESSER FEED MOTOR
PLANER FEED MOTOR
A A1 A2
B B1 B2
C C1 C2
KC/B
KS/H
K F
STANDARD WIRING DIAGRAM WITH 2 SPEED MOTORS
MASTER STOP
L1
L2
OVERLOADS
EMERGENCY FOOT SWITCH
HOOD LIMIT SWITCH AS REQUIRED

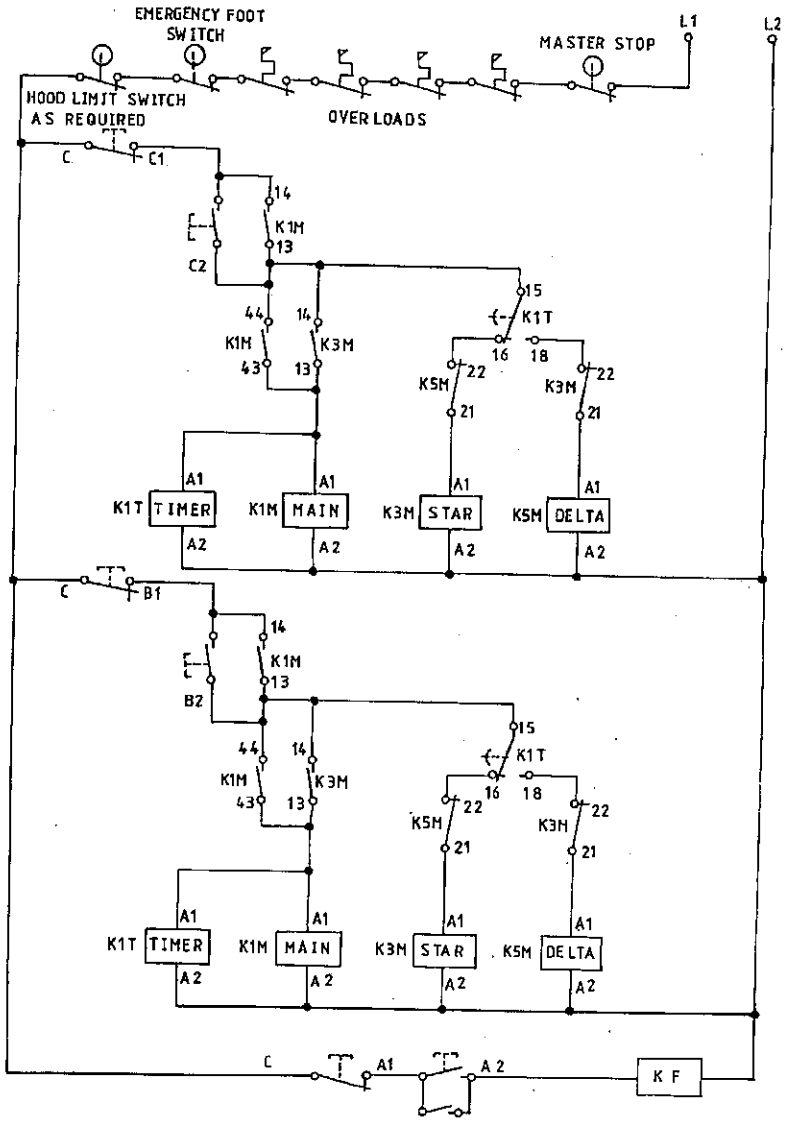
Fig 4



STANDARD WIRING DIAGRAM WITH SINGLE SPEED FEED MOTORS

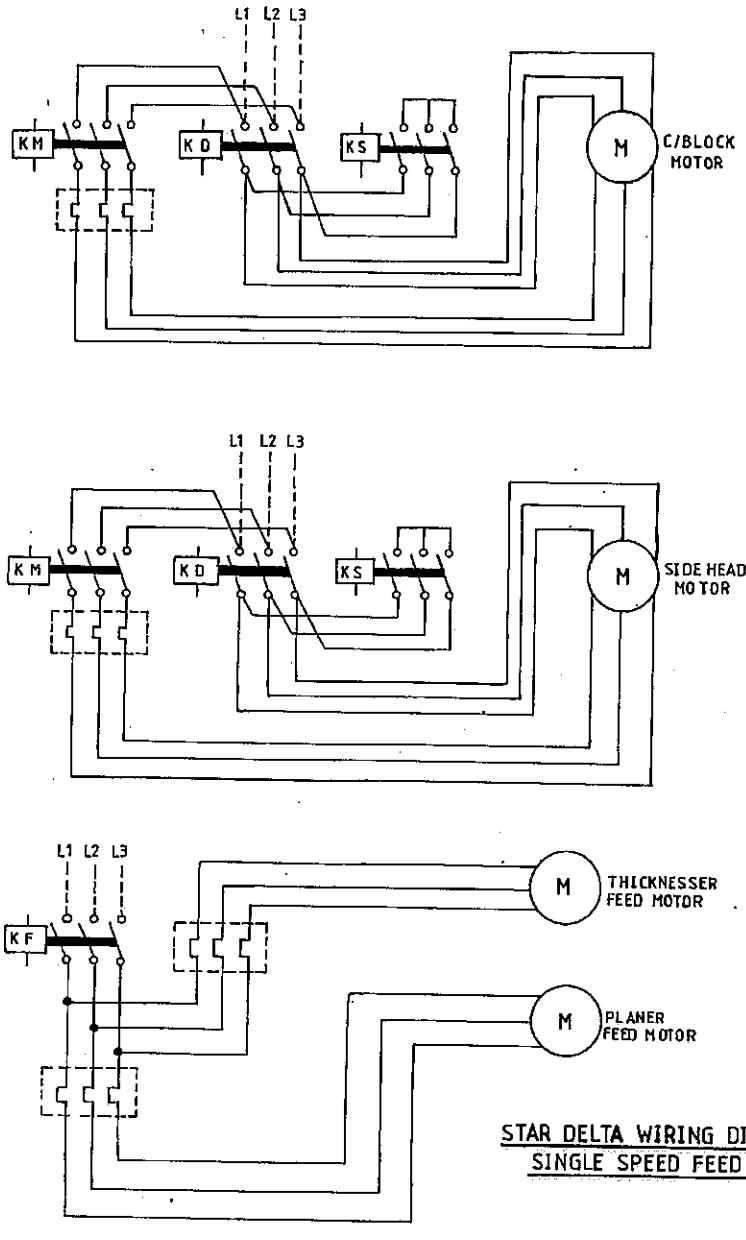
Fig 5





STAR DELTA WIRING DIAGRAM WITH 2 SPEED FEED MOTORS

Fig 6



STAR DELTA WIRING DIAGRAM WITH SINGLE SPEED FEED MOTORS

Fig 7

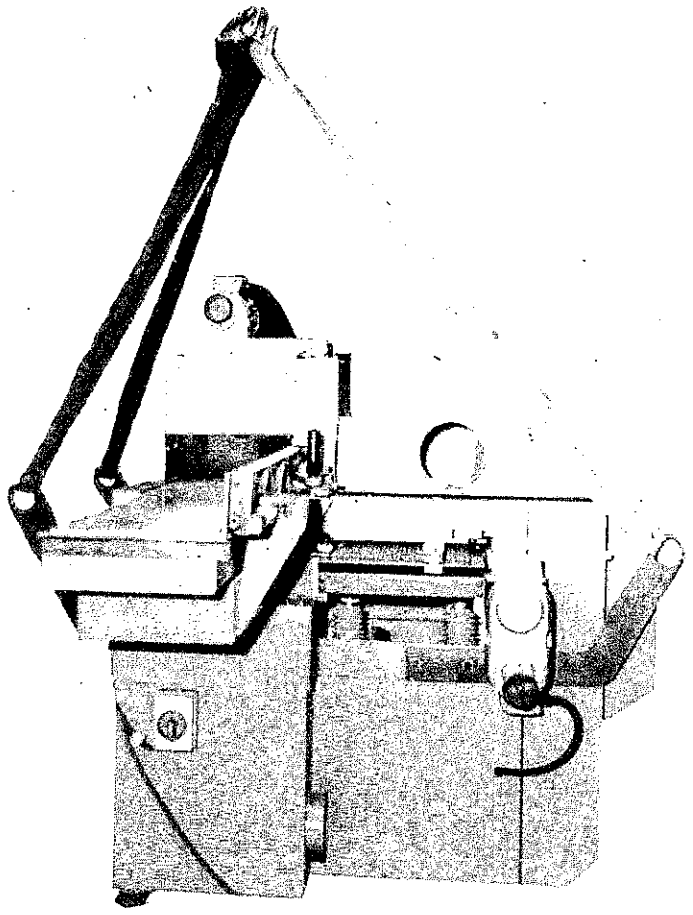


Fig 8

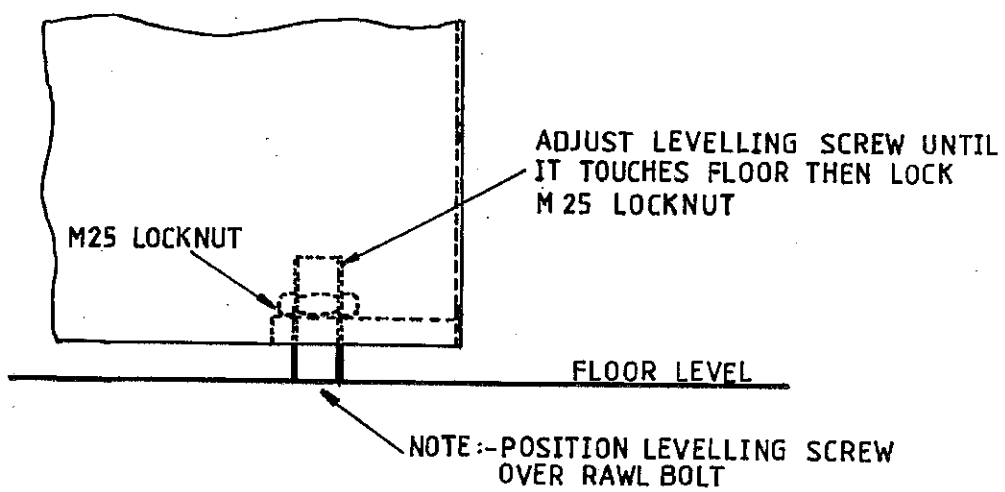


DIAGRAM OF LEVELLING SCREW
INSIDE MACHINE BASE.
ADJUST LEVELLING SCREW UNTIL
IT TOUCHES FLOOR THEN LOCK
M 25 LOCKNUT
M25 LOCKNUT
FLOOR LEVEL
NOTE:-POSITION LEVELLING SCREW
OVER RAWL BOLT

Fig 9

SLINGING

Always use a sling within safe working load of machine weight.

Approximate net weight of machine - 905 KG
Approximate gross weight of machine - 1105 KG

Attach slings to lifting hooks in FIG.8 (return lifting hooks to BURSGREEN (DURHAM) for credit) to ensure damage will not be caused to machine during slinging operations.

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

INSTALLATION

Remove protective coating from bright parts by applying a cloth soaked in paraffin, turpentine or other solvent. Machine should be so placed that the traffic of men and materials to and from it fits smoothly into the general scheme of traffic. Machine should be so placed that it will not be necessary for the operator to stand in or near an aisle as to cause a hazard. The minimum clearance on each working side of machine should be at least 750mm greater than the length of the largest material worked on the machine.

FOUNDATION

Ensure floor is level, then mark to suit 4 - M12 rawl bolts, refer to the foundation plan FIG.3. Drill floor to suit rawl bolts. These bolts are not supplied with the machine, but can be supplied at an additional charge. To obtain access to foundation bolts and levelling screw, lift thicknessing table top hood and carefully support it whilst removing 4 - M8 nuts holding hinges. Remove top hood. Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover. Open door in base below surfacing tables. Position machine over rawl bolts and adjust levelling screw until it touches floor FIG.9. Fully tighten rawl bolts. Replace thicknesser side cover, top hood and close door.

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 starter or isolating switch when fitted.

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 front cover of instruction manual.

4) Connect the line leads to the apppropriate terminals. See wiring diagrams FIGS.4, 5, 6 & 7.

5) Check all connections are sound.

6) Check the rotation of all motors for the correct direction, if these are incorrect, reverse any two of the line lead connections.

LUBRICATION

The majority of machine working parts are designed to require no lubrication. All that is required is to periodically fill the four domed collars at the top of the shrouds on the thicknessing table rise and fall screws with oil.

It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting. Approved lubricants, see page 37.

ASSEMBLY OF MACHINE

When machine is fitted with extension planing table and fence (optional). These are removed for ease of transportation. To refit extension table, locate dowels into holes in planing table and lock in position with bolts provided. To refit extension fence, locate dowels into holes in planing fence and lock in position with bolts provided.

When the machine is for export market, the thicknessing table support is removed. To refit, locate support over dowels in thicknessing table and lock in position with bolts provided. See FIG.34 Page 33.

START/STOP CONTROL

Before starting machine ensure cutter blades are locked in place and all guards are closed or in position. Individual cutterblock start/stop buttons FIG.10, are situated on front panel below infeed planing table.

When isolator (optional), which is situated below infeed planing table, is fitted, proceed as follows:-

For machines fitted with two speed feed drive units (standard), ensure that switch on drive units is turned to required feed speed. To start, turn isolator to "1", then press green buttons "A" FIG.10, on front panel to start cutterblocks and feed. To stop, press the red button "B". To isolate machine, turn isolator to "O" position. Where no isolator is fitted, control is simply via the panel start/stop buttons.

MASTER STOP CONTROL

A Master Stop button "C" FIG.10, is situated on front panel below infeed planing table and an additional Master Stop button "D". FIG.11 is situated at floor level below thicknessing table fence bracket.

NOTE: Depression of any of the Master Stop buttons shuts down all electrics. Master Stop buttons automatically stay in the OFF position until released. The Master Stop button on front panel is released by pulling button, and Master Stop button at floor level is released by pressing blue button on Master Stop unit.

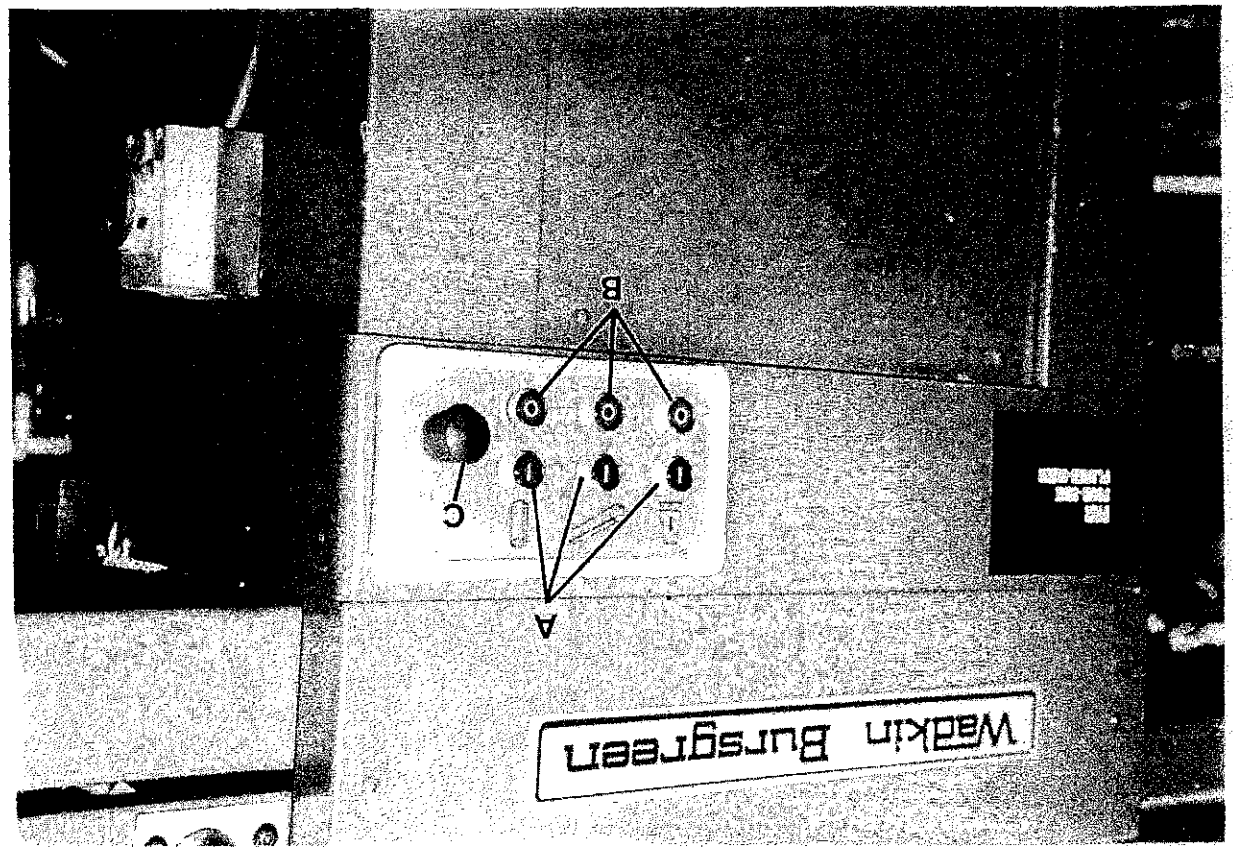


Fig 10

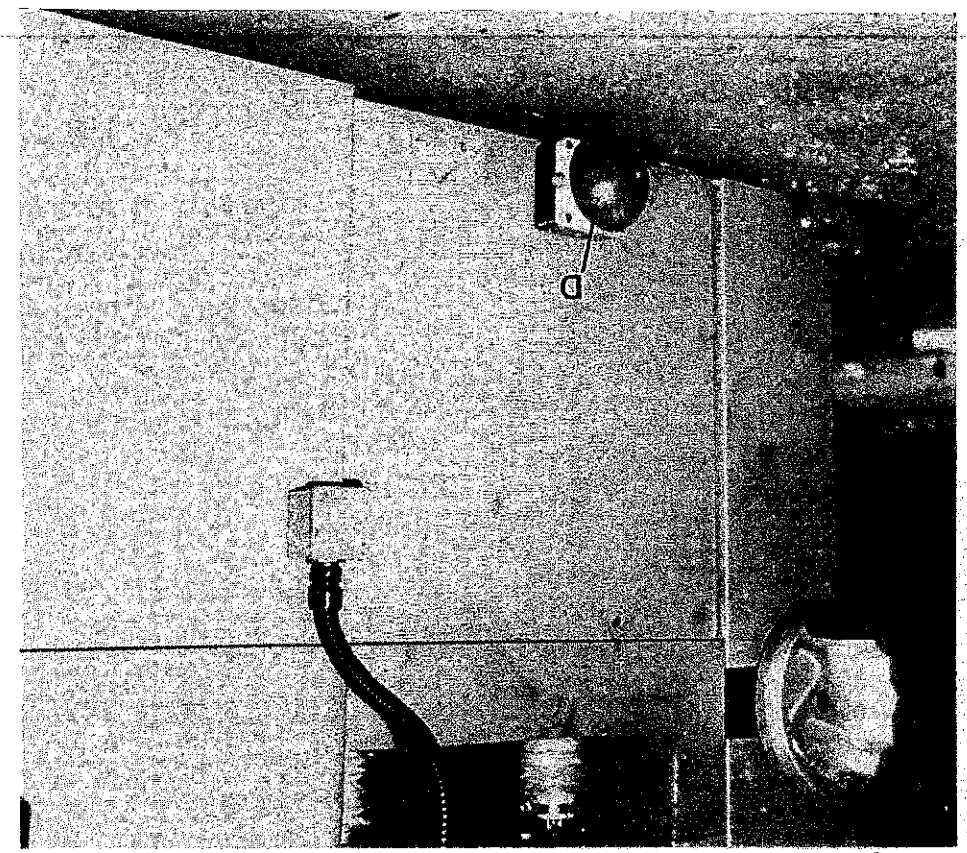
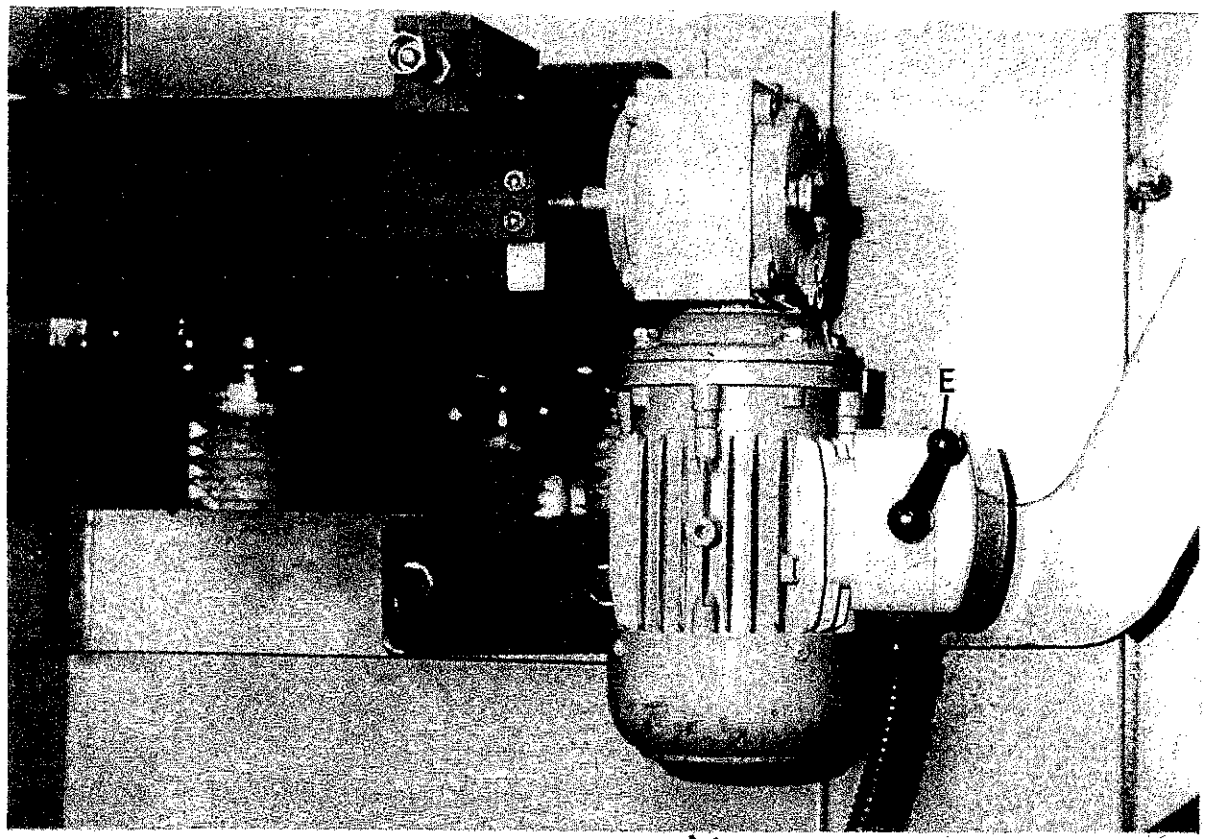


Fig 11



KS1-15-587

Fig 12

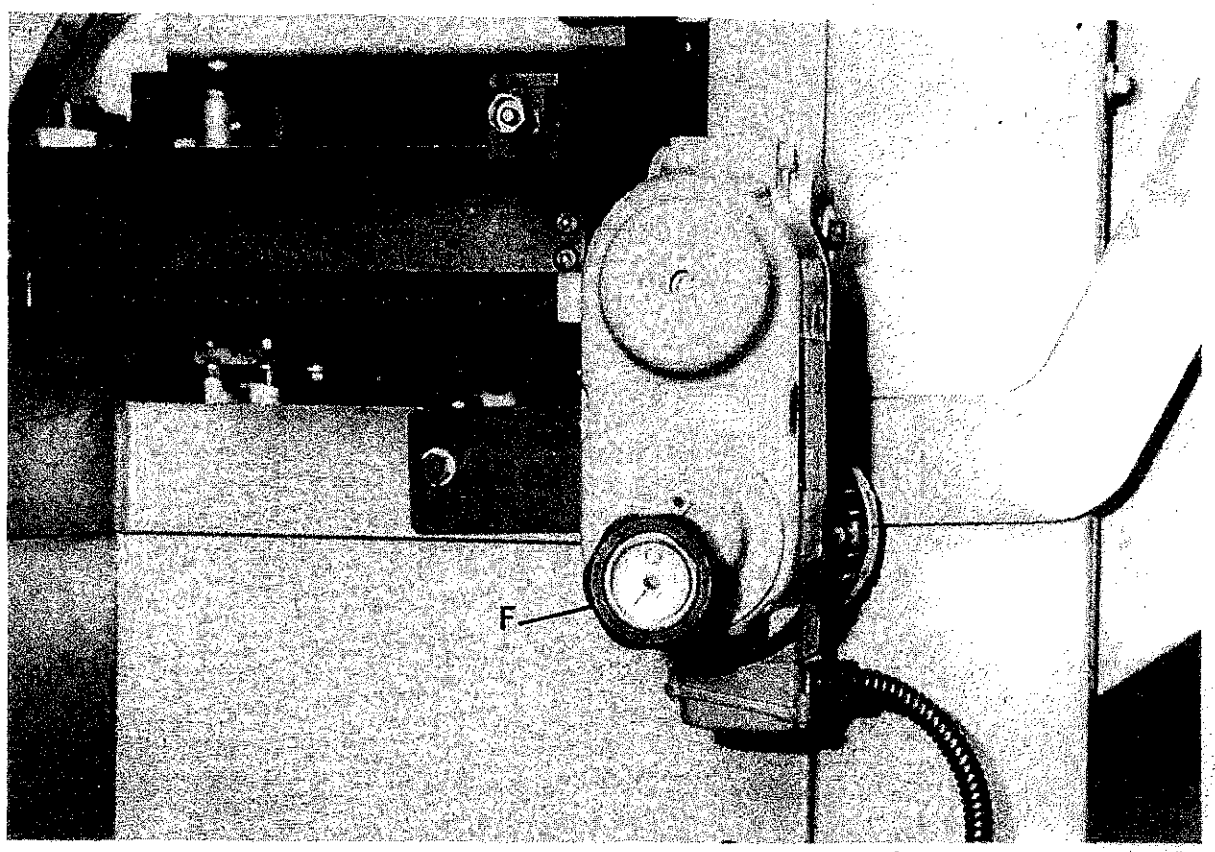


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Fig 13

TWO SPEED FEED DRIVE UNITS (STANDARD)

Both planing and thicknessing table units have two speeds of 4.5-9 metres per minute (15-30 feet per minute). To change speed, turn switch "E" FIG.12 to number 1 or 2 depending on speed required.

VARIABLE FEED DRIVE UNITS (OPTIONAL)

Both planing and thicknessing table units have a combined tachometer and handwheel "F" FIG.13 which operates the feed change mechanism and provides variable feed speeds of 3-18 metres per minute (10-58 feet per minute).

IMPORTANT: SPEED ADJUSTMENT OF THE DRIVE SHOULD ONLY TAKE PLACE WHEN THE DRIVE IS RUNNING, NEVER WHEN IT IS STATIONARY.

INFEED PLANING TABLE ADJUSTMENT

To raise or lower the infeed table, move handle "G" FIG.14 in the direction required, working in conjunction with the depth of cut scale "H", indicated by pointer "I".

OUTFEED PLANING TABLE ADJUSTMENT

IMPORTANT: OUTFEED TABLE TOP MUST ALWAYS BE KEPT IN LINE WITH CUTTING CIRCLE OF CUTTERBLOCK.

To raise or lower outfeed table, release locking handle "J" FIG.15. Turn handle "K" in direction required until table is level with cutting circle. Relock locking handle "J".

NOTE: TO ELIMINATE BACKLASH, ALWAYS MAKE FINAL ADJUSTMENT IN UPWARD DIRECTION.

ALIGNMENT OF PLANER SIDE CUTTERBLOCK WITH OUTFEED FENCE

Outfeed planing fence "L" FIG.16 is preset before despatch at our works and should not require further adjustment. It is however, important that the cutting circle of planing side cutterblock is always kept in line with outfeed planing fence.

To align cutting circle of planer side cutterblock with outfeed fence, proceed as follows:-

1) Lift thicknesser hood.

2) Remove locking knob "M" FIG.16 and lift power feed unit "N".

3) Loosen nut "O" FIG.17.

4) To move cutterblock towards fence, loosen grubscrew "P" FIG.17 with 'T' wrench provided and turn grubscrew "R" FIG.18 clockwise until cutting circle of cutterblock is level with fence.

5) To move cutterblock away from fence, reverse procedure of operation 4.

6) Relock grubscrew "P" FIG.17.

7) Relock nut "O" FIG.17.

8) Lower power feed unit and thicknesser hood, lock in position.

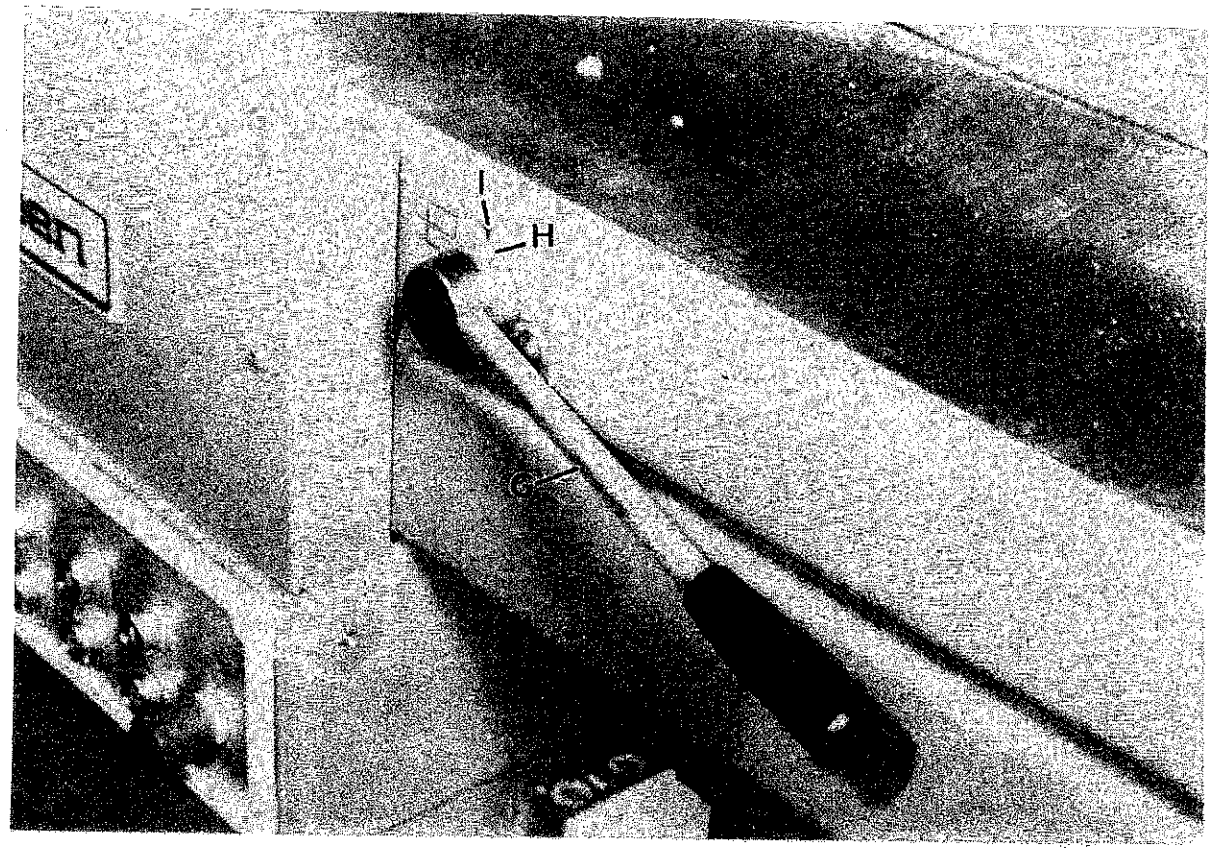


Fig 14

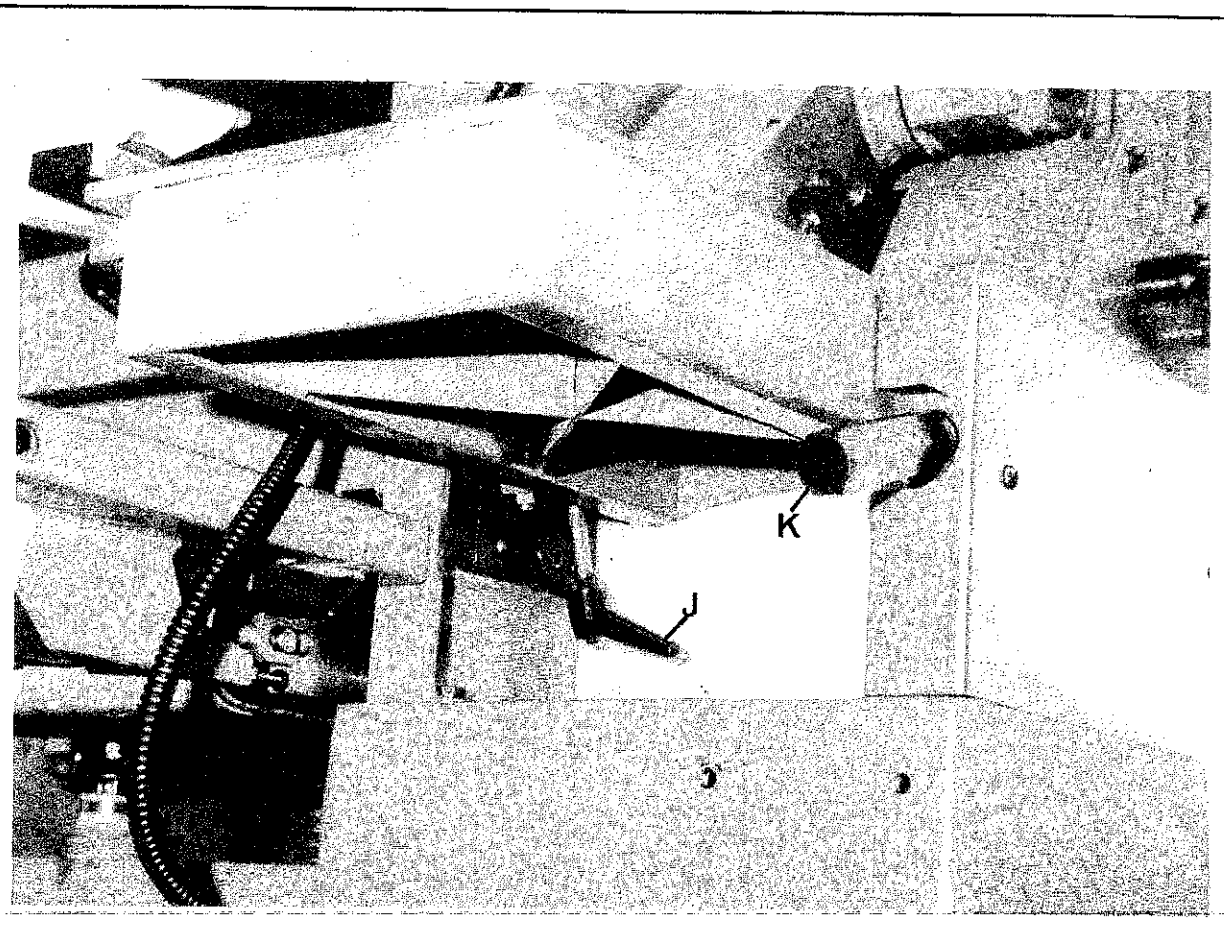


Fig 15

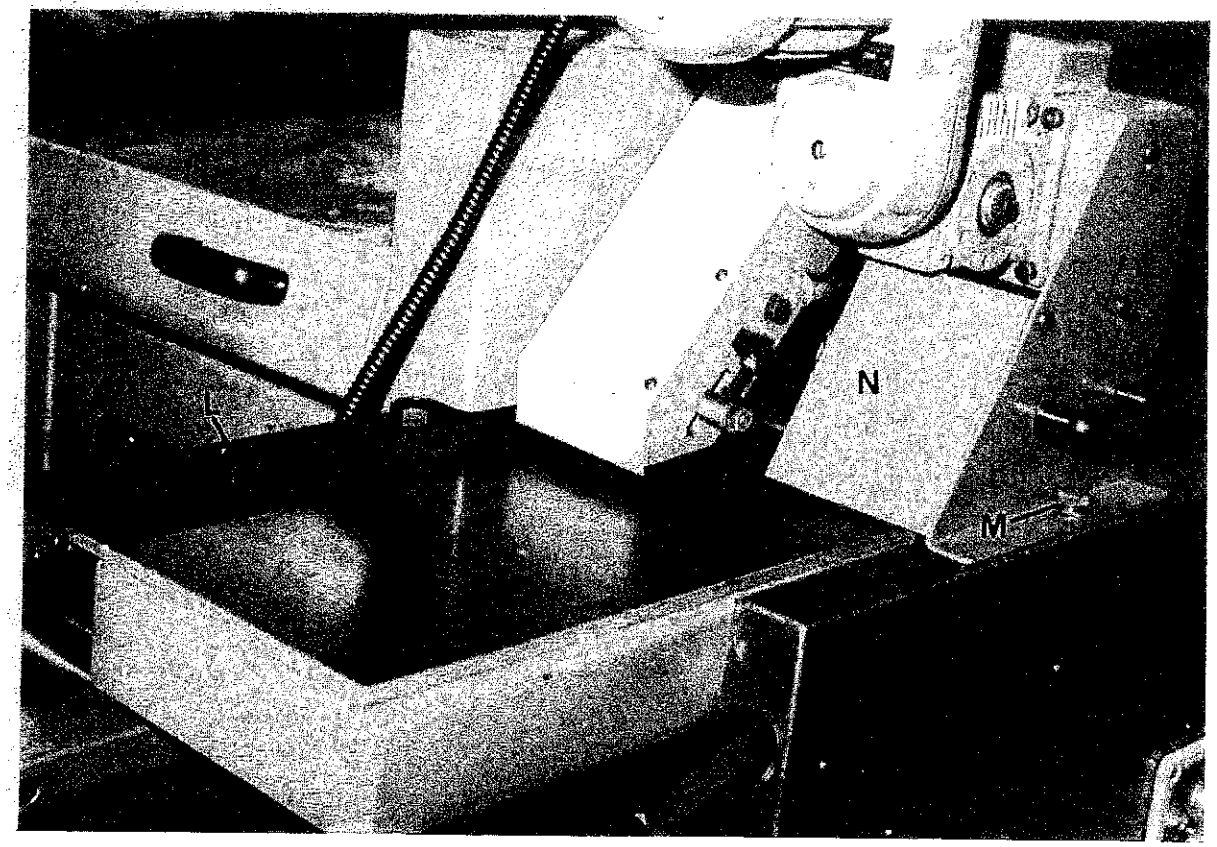


Fig 16

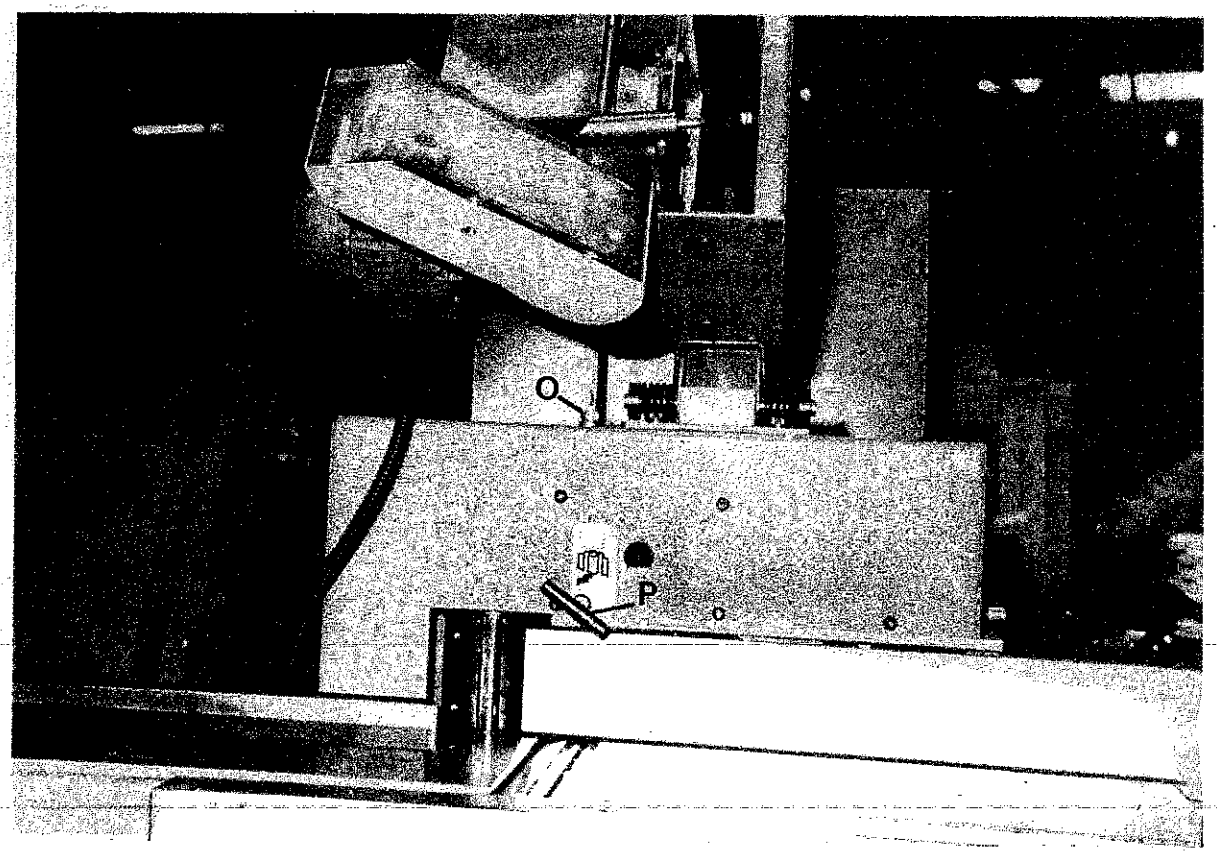


Fig 17

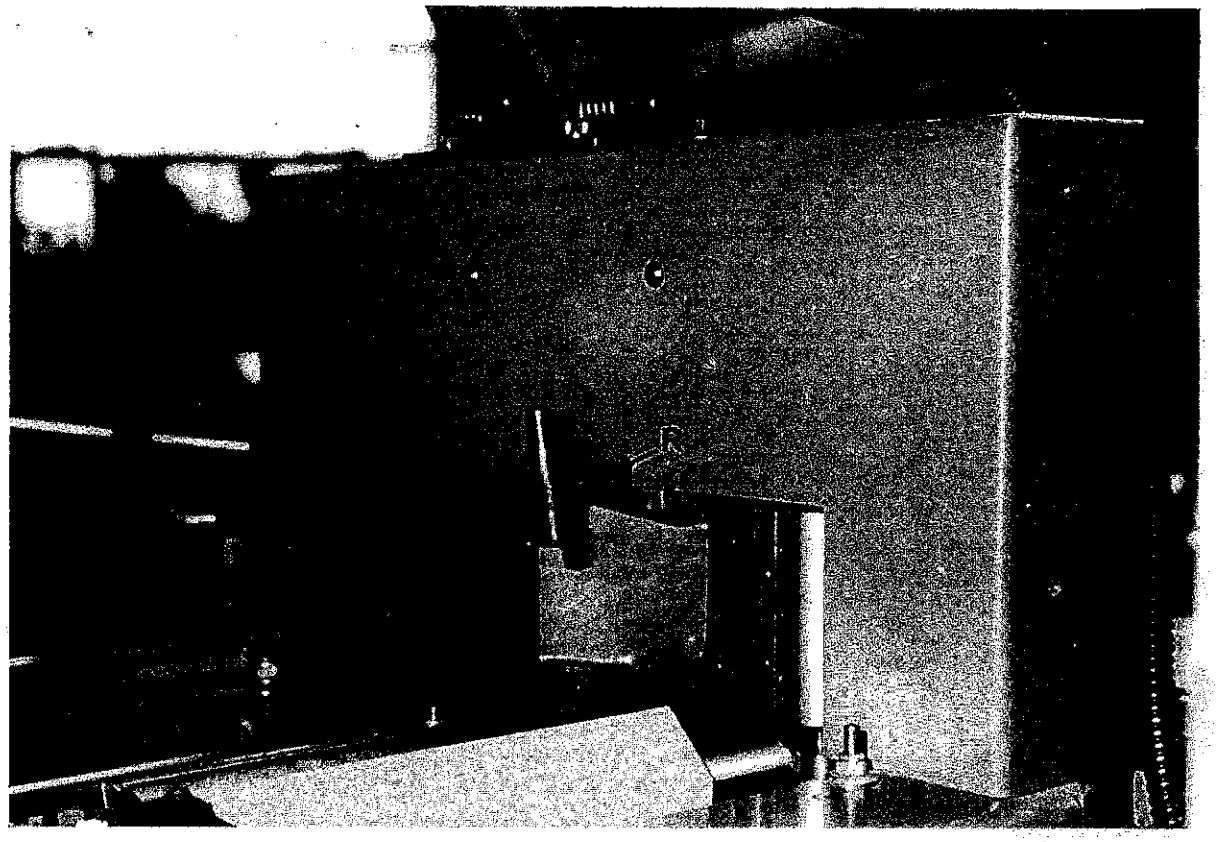


Fig 18

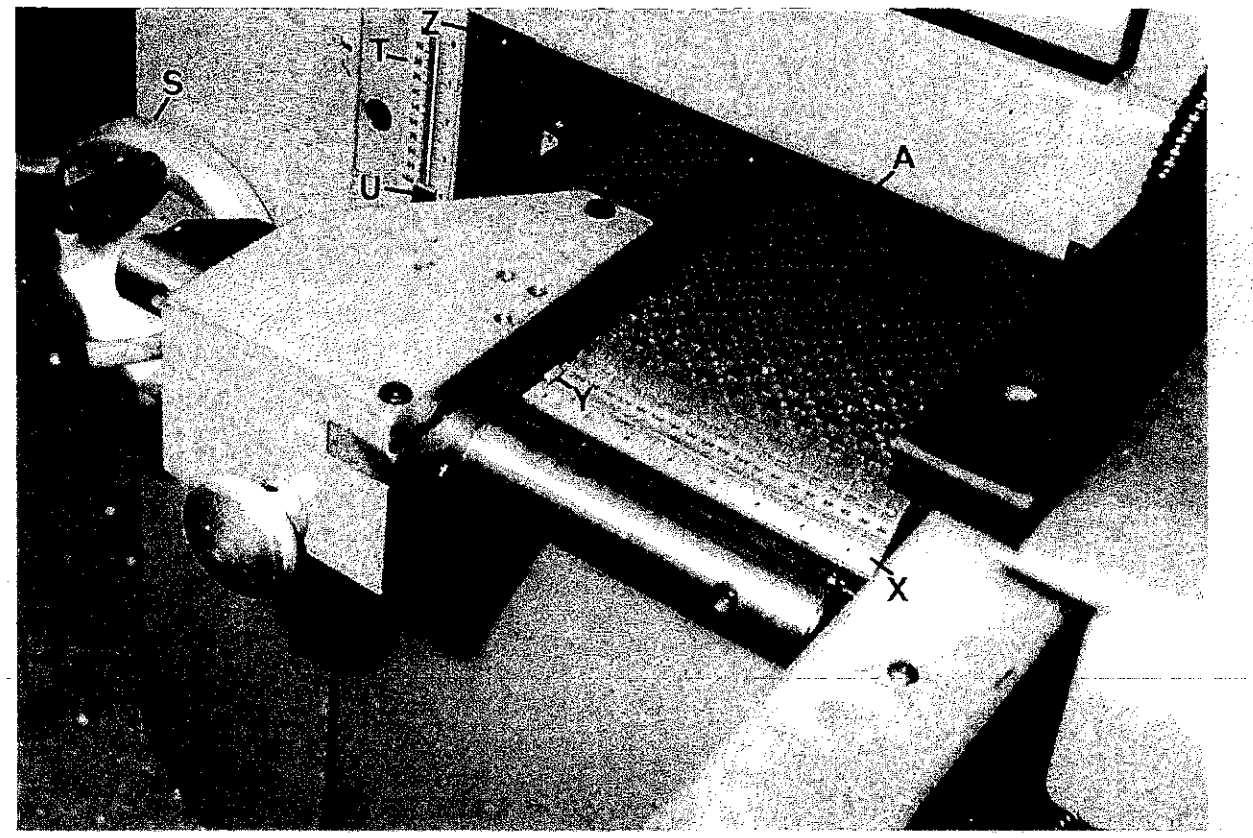


Fig 19

THICKNESSING TABLE RISE AND FALL

Rise and fall of thicknessing table is by handwheel "S" FIG.19 working in conjunction with rise and fall rule "T" indicated by pointer "U".

THICKNESSING TABLE FENCE ADJUSTMENT

Release locking handle "V" FIG.19 and position fence where required with handwheel "W" working in conjunction with fence rule "X" indicated by pointer "Y". Relock locking handle "V".

NOTE: TO THICKNESS TIMBER BELOW 10MM TO A MINIMUM OF 4MM PROCEED AS FOLLOWS:

Using rise and fall handwheel "S" raise thicknessing table until it hits top stop, then turn handwheel a half turn back. Move fence to extreme left, ie, until it hits side housing "Z", lock in this position using locking handle "V". Raise thicknessing table to required positon. Ensure that timber to be thicknessed does not overhang sides of feed belt "A".

TO RETURN TO NORMAL WORKING POSITION (TIMBER 10-100MM THICK).

Lower thicknessing table until a click is heard at which a reading of 25mm is approached on the rise and fall rule "T". Release locking handle "V" and set fence to required position.

GENERAL HINTS FOR SURFACE PLANING

1) Use roller stand (available as an optional extra) to support timber at outfeed end of machine.

2) To obtain the best surface finish always ensure that the direction of grain runs with the cutterblock.

3) To obtain a perfectly flat surface, especially with warped stock. Check timber for being hollow or round, always place hollow side against infeed table and infeed fence, see FIG.20 and FIG.21.

4) Feed timber by hand past cutterblocks until power feed unit takes control.

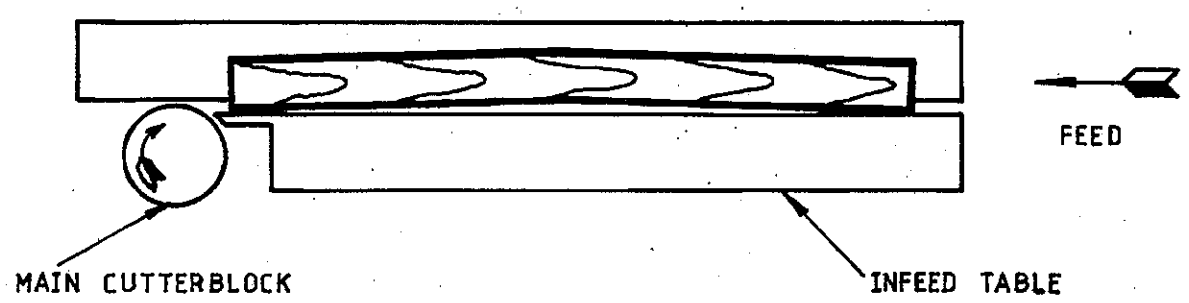
5) Make full use of rules on infeed table and fence as these rules indicate finished size of timber being planed.

GENERAL HINTS FOR THICKNESSING

1) When thicknessing timber above 2 metres in length, always support before and after the thicknessing table, otherwise a step will appear on either or both ends.

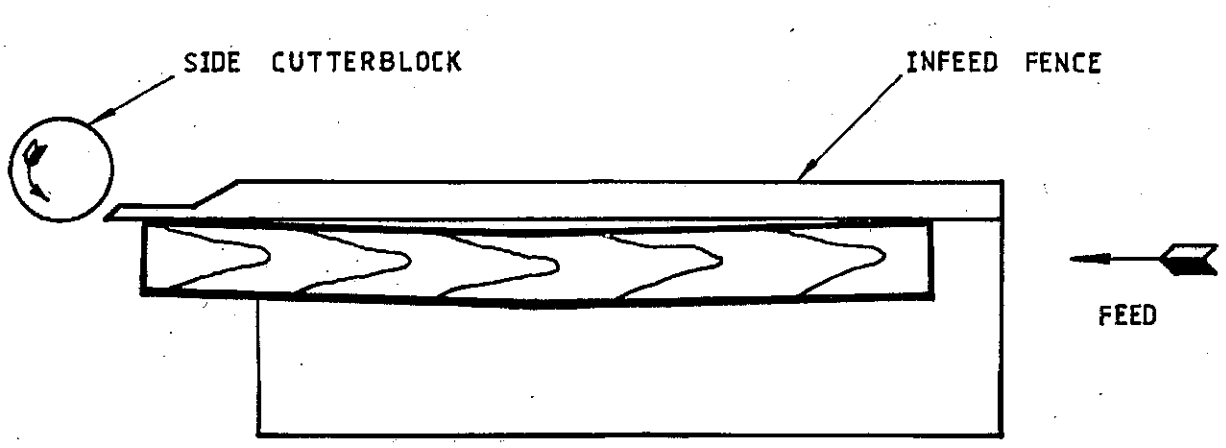
2) Retrieve timber held by power feed unit after surfacing operation and feed back into machine for thicknessing as shown in FIG.22, ie, planed faces against fence and table.

   NOTE: THICKNESSING SIDE MAY BE USED TO FACE AND EDGE LONG LENGTHS.



SIDE VIEW

Fig 20



PLAN VIEW

Fig 21

Fig 22

REPLACEMENT OF RISE AND FALL TIMING BELT

1) Isolate machine electrically.

2) Lift thicknessing table top hood and carefully support it whilst removing 4 - M8 nuts holding hinges. Remove top hood. Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

3) Raise thicknesser table to top position.

4) Remove 2 - M6 buttons from cover for access to rise and fall spindle pulley "F".

5) Loosen M10 nut behind tension bracket "C" FIG.24 until timing belt "D" can be removed from pulley "E" on rise and fall shaft.

6) Remove existing timing belt "D" from pulley "F" on Rise and Fall spindle FIG.25.

NOTE: New belt should never be forced or prised over the pulley flange. To ensure smooth operation and prevent premature failure, do not sharply bend or crease the belt.

7) Position new belt over pulley "F" on Rise and Fall spindle.

8) Turn belt through 90° and locate over pulley "E" on Rise and Fall shaft, FIG.25.

9) Adjust M10 nuts "B" FIG.24 to tension belt. Correct tension will have been achieved when belt can be deflected to 8mm in centre of span.

10) Lock M10 nuts "B"

11) Replace thicknesser side cover and top hood.

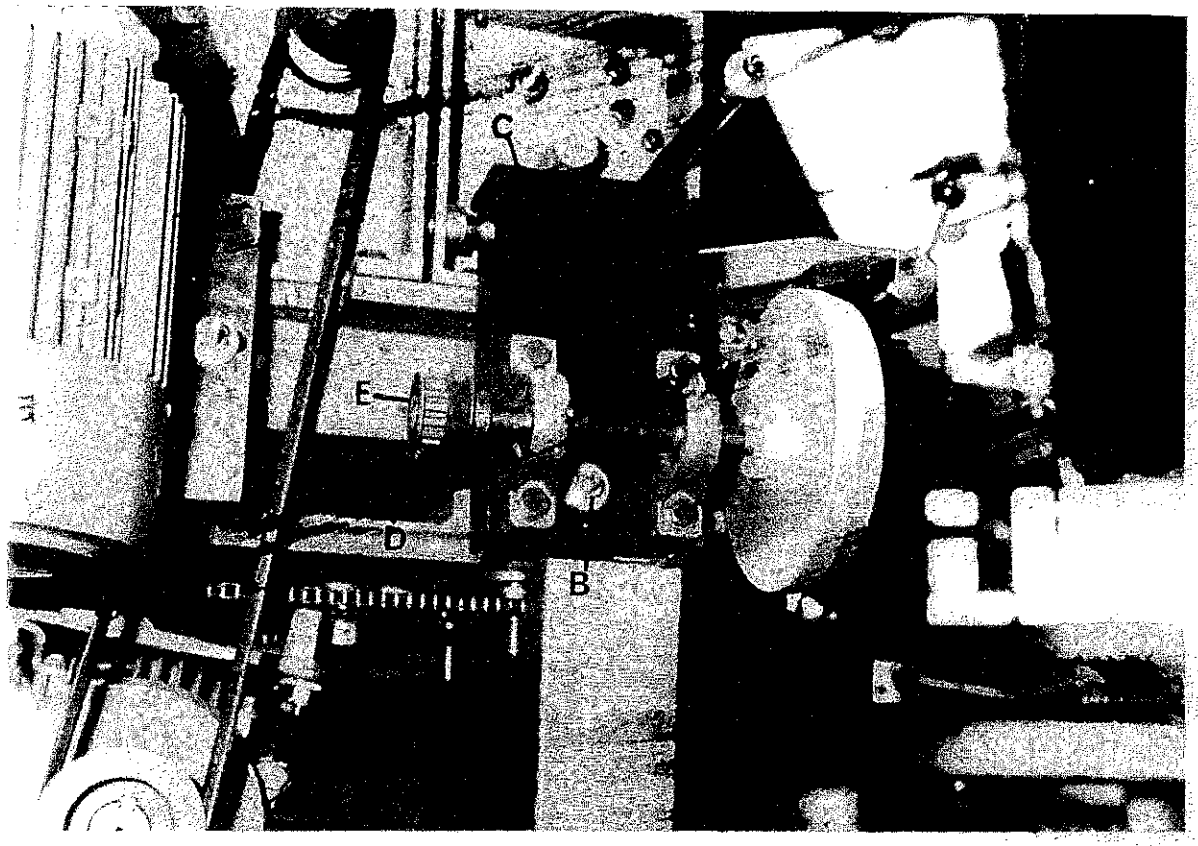
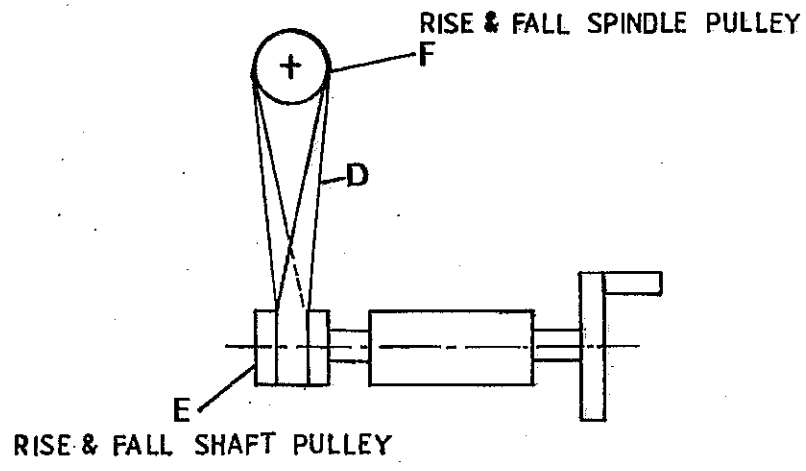


Fig 24



PLAN VIEW

Fig 25

REPLACEMENT OF HORIZONTAL CUTTERBLOCK BELTS

1) Isolate machine electrically.

2) Lift thicknessing table top hood and carefully support it whilst removing 4 - M8 nuts holding hinges. Remove top hood. Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

3) Release tension on M10 nut behind M10 nut "G" on pivot plate "I" FIG.26.

4) Remove thicknesser side head drive belt "J" from drive pulley "K" FIG.27.

5) Remove M10 nut and washer "G" from stud "L" FIG.26.

6) Pivot side head drive motor "M" FIG.27 until clear of stud "L"

7) Remove existing three vee belts.

8) Replace with three new vee belts.

9) Reverse procedure of operations 1-6

NOTE: Weight of motor tensions belts.

REPLACEMENT OF BOTTOM SIDE HEAD CUTTERBLOCK BELT

1) Isolate machine electrically.

2) Lift thicknessing table top hood and carefully support it whilst removing 4 - M8 nuts holding hinges. Remove top hood. Remove 2 - M10 dome nuts holding thicknesser side cover. Remove side cover.

3) Lower thicknessing table to bottom position.

4) Release tension on M10 nut behind M10 nut "G" on pivot plate "H" FIG.26.

5) Remove thicknesser side head drive belt "J" from drive pulley "K" FIG.27.

6) Replace with new drive belt.

7) Adjust M10 nut behind pivot plate "H" to tension belt. Correct tension will have been achieved when belt can be deflected to 13mm in centre of span.

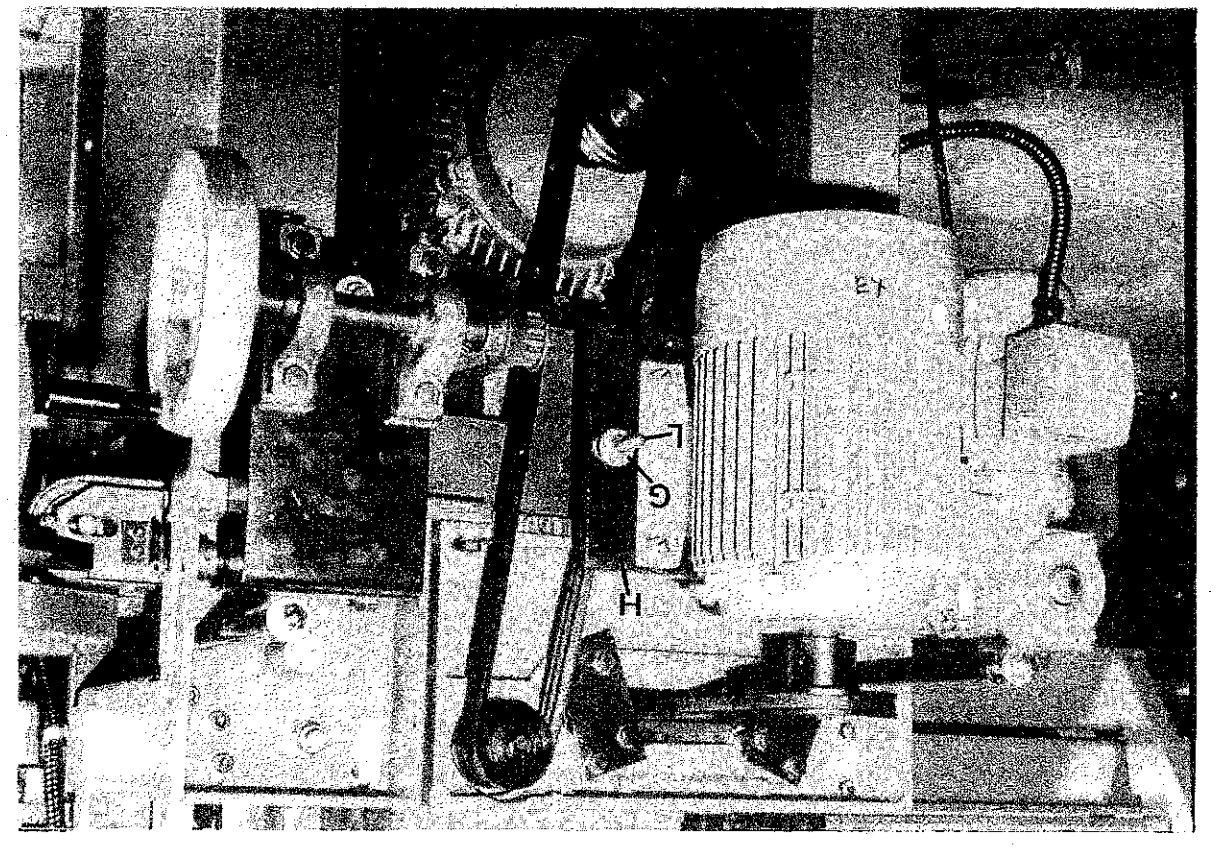


Fig 26

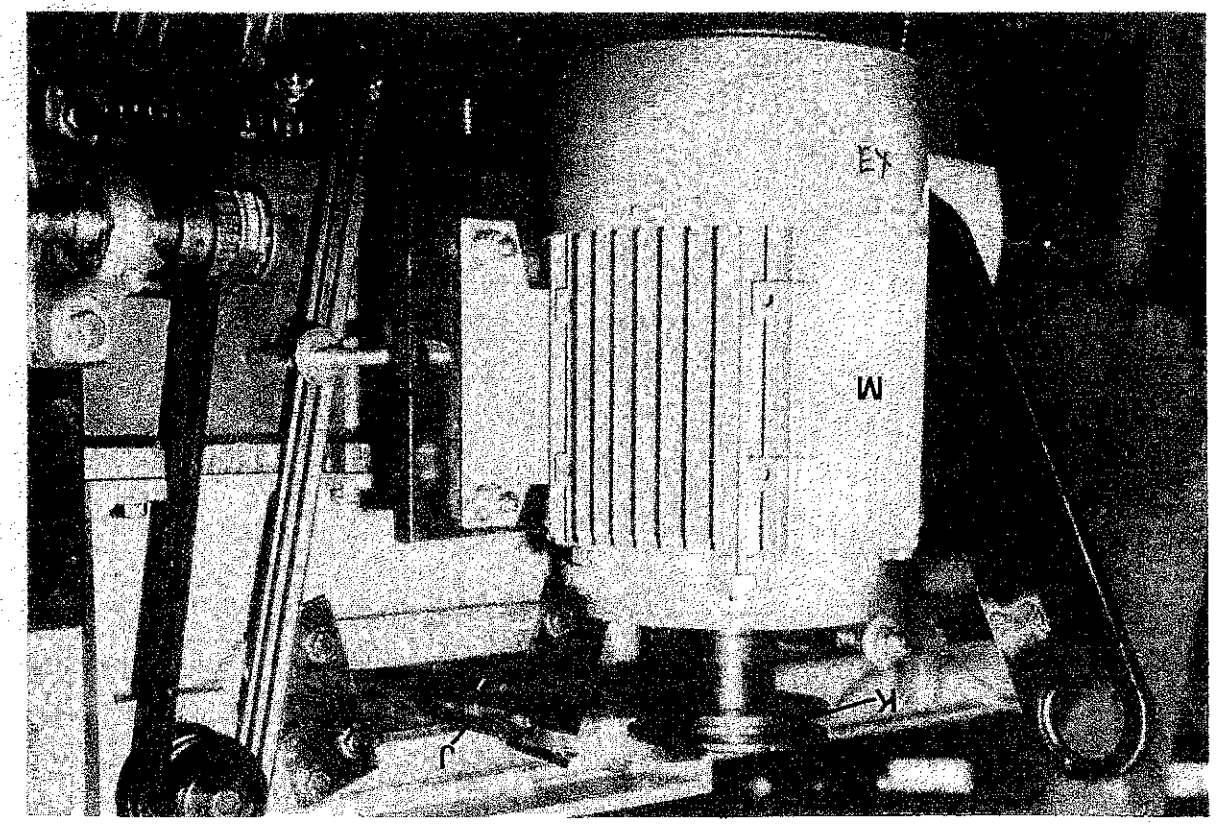


Fig 27

REPLACEMENT OF TOP SIDE HEAD CUTTERBLOCK BELT

1) Isolate machine electrically.

2) Remove 1 - M10 socket capscrew "M" FIG.29 from planer feed unit "O" and screw into top of planer feed unit.

3) Remove 3 remaining M10 socket capscrews and carefully lift planer feed unit from machine.

4) Remove 7 - M8 button head screws "P" FIG.30. Remove top side head guard "Q". (5 are located at Surfacer side and 2 at thicknesser side).

5) Loosen M12 nut "R" FIG.31.

6) Release tension on pulley by belt adjuster "S" FIG.31. Remove existing belt.

7) Position new belt over pulleys and tension belt with belt adjuster "S". Correct tension will have been achieved when belt can be pulled 6mm in centre span.

8) Reverse procedure of operations 1 - 5.

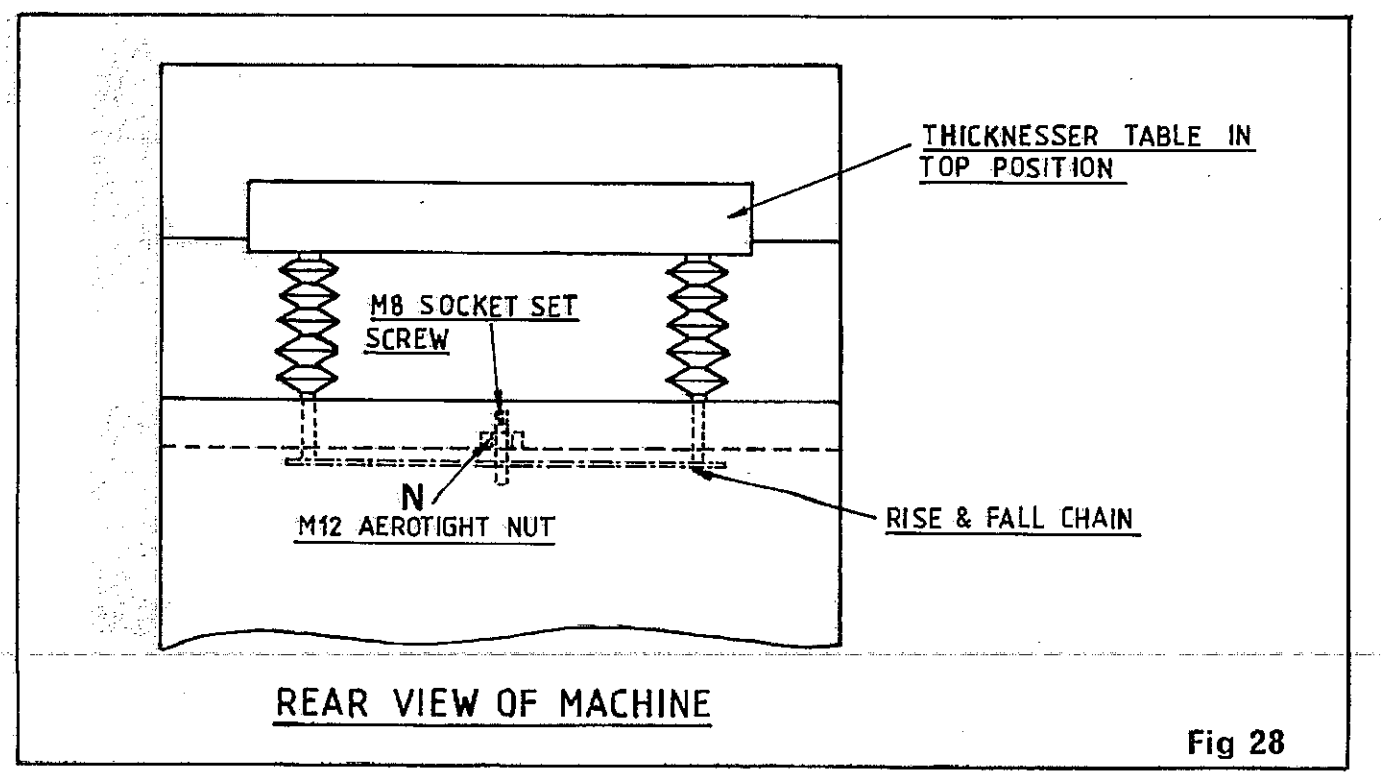
RISE AND FALL CHAIN TENSION

1) Isolate machine electrically.

2) Raise thicknessing table to top position.

3) Loosen M12 aerotight nut "N" FIG.28 and turn M8 grubscrew.

4) Retighten M12 Aerotight nut "N".



REAR VIEW OF MACHINE

Fig 28

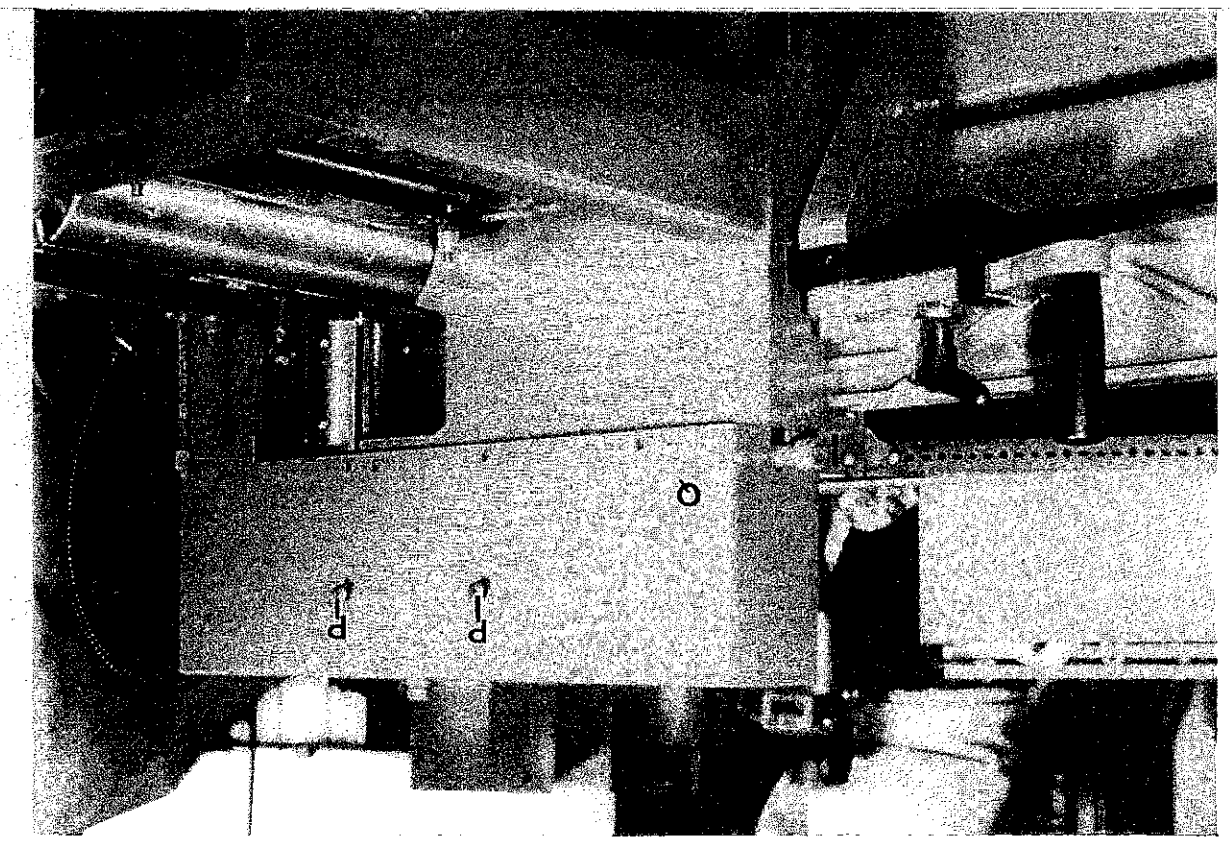


Fig 29

Fig 30

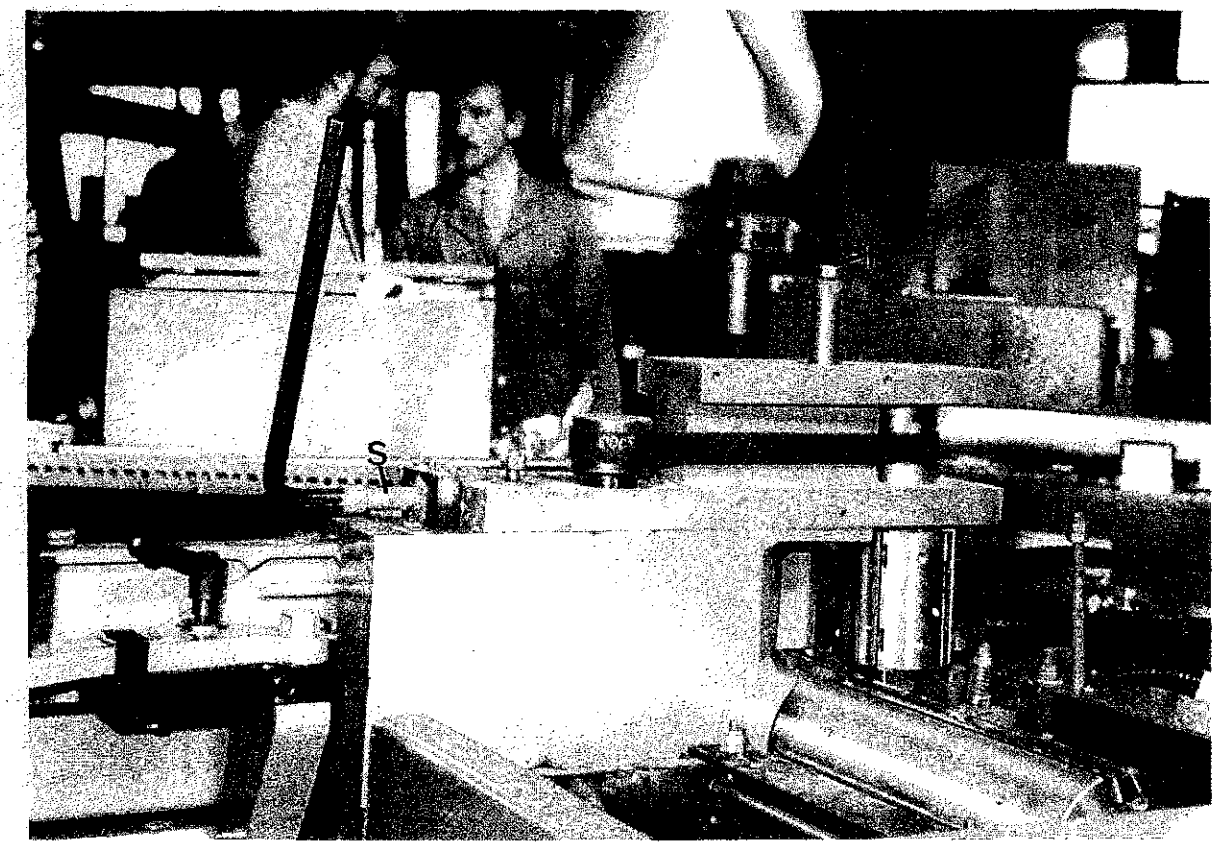


Fig 31

REPLACEMENT OF THICKNESSING TABLE BELT

1) Isolate machine electrically.
2) Remove 3 - M8 cap head screws "T" FIG.32.
3) Withdraw front fence side bar "U" FIG.32.
4) Lift thicknesser "V" fence and remove from machine FIG.32.
5) Remove 2 - M6 cap head screws "W" and thicknesser pointer "X " FIG.33.
6) Remove 2 - plastic plugs "Y" and 2 - M8 cap head screws "Z" FIG.34.
7) Remove thicknessing table support "A" complete FIG.34.
8) Remove 2 - M10 cap head screws "B" and rule support "C" complete FIG.35.
9) Remove M10 hexagon bolt and washer "D" FIG.36 (Rear of thicknesser table).
10) Remove M10 nut and washer "E" FIG.36 (Rear of thicknesser table).
11) Carefully withdraw feed drive unit "F" from thicknesser table rear roller.
12) Remove 2 - M10 hexagon bolts "G" and remove outfeed side pressure "H" FIG.37.
13) Remove 4 - M8 caphead screws "J" and rear fence slide bar "K" complete with guard FIG.38.
14) Raise thicknessing table to top position.
15) Remove 4 - M10 hexagon bolts "L" FIG.39.
16) Lower thicknessing table to bottom position.
17) Carefully lift and withdraw thicknessing table from rear of machine.
18) Loosen 2 - M8 aerotight nuts "M" to release belt tension FIG.40.
19) Remove 2 - M10 hexagon bolts "N" and side bearing plate "O" FIG.41.
20) Remove existing belt.
21) Replace with new belt.
22) Replace side bearing plate "O" and bolt in position using 2 - M10 bolts "N".
23) Adjust 2 - M8 aerotight nuts "M" giving a equal number of turns on each nut until belt is initially tensioned (ie no slack), then give further 10mm on each nut to obtain correct tension.
24) Reverse procedure of operations 1 to 17.

NOTE - WHEN REPLACING TABLE, ENSURE TABLES GUIDES ARE UP AGAINST MACHINED FACE ON BEARING HOUSING.

PERIODICALLY CHECK TRACKING OF BELT AND ADJUST ACCORDINGLY.
NOTE - BELT SHOULD BE TRACKED WHILE RUNNING

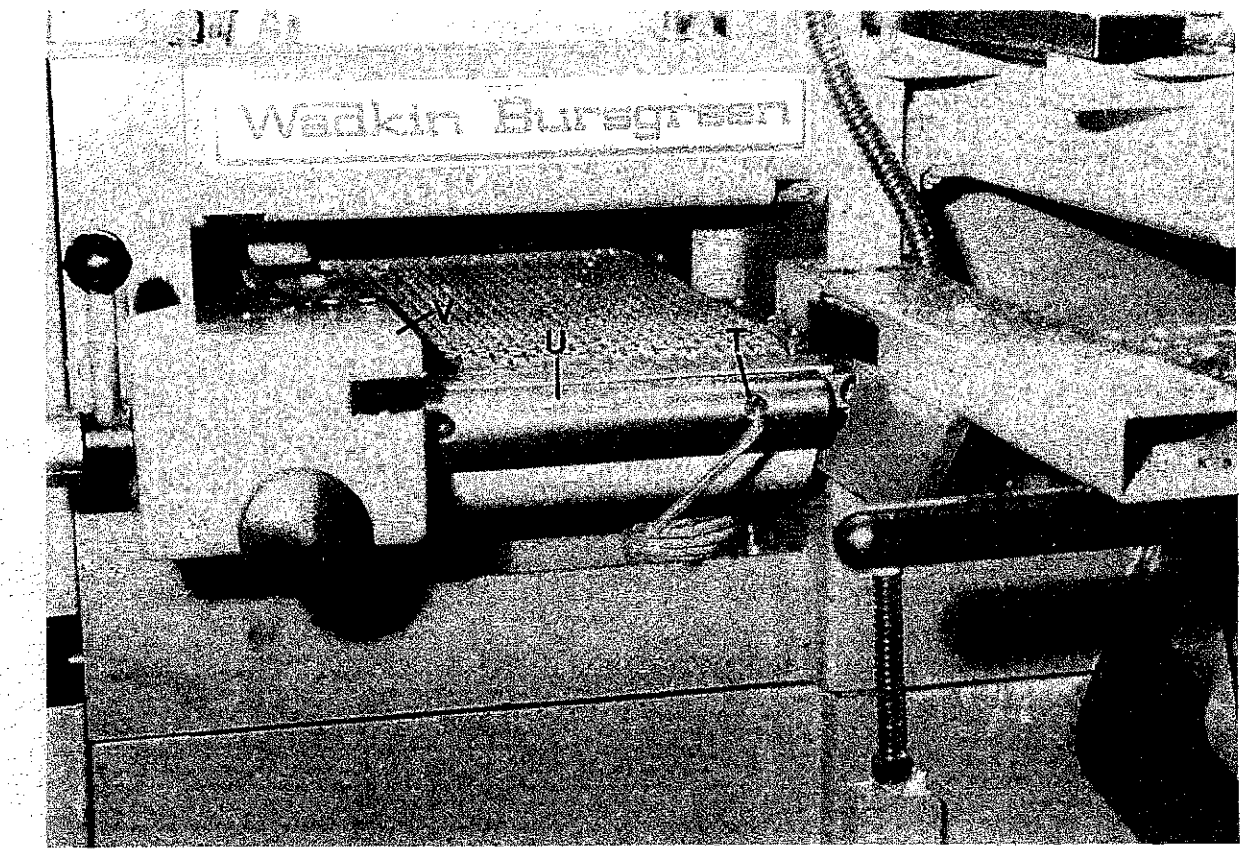


Fig 32

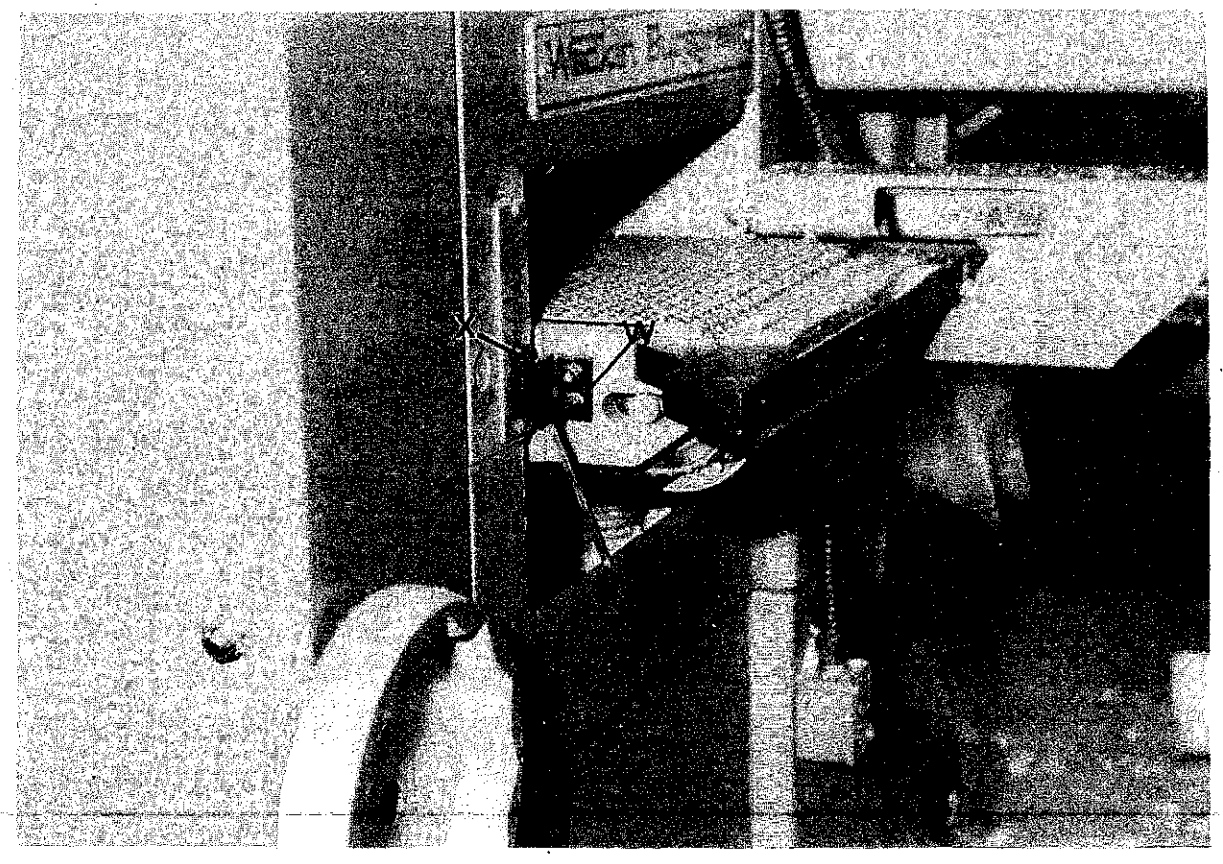


Fig 33

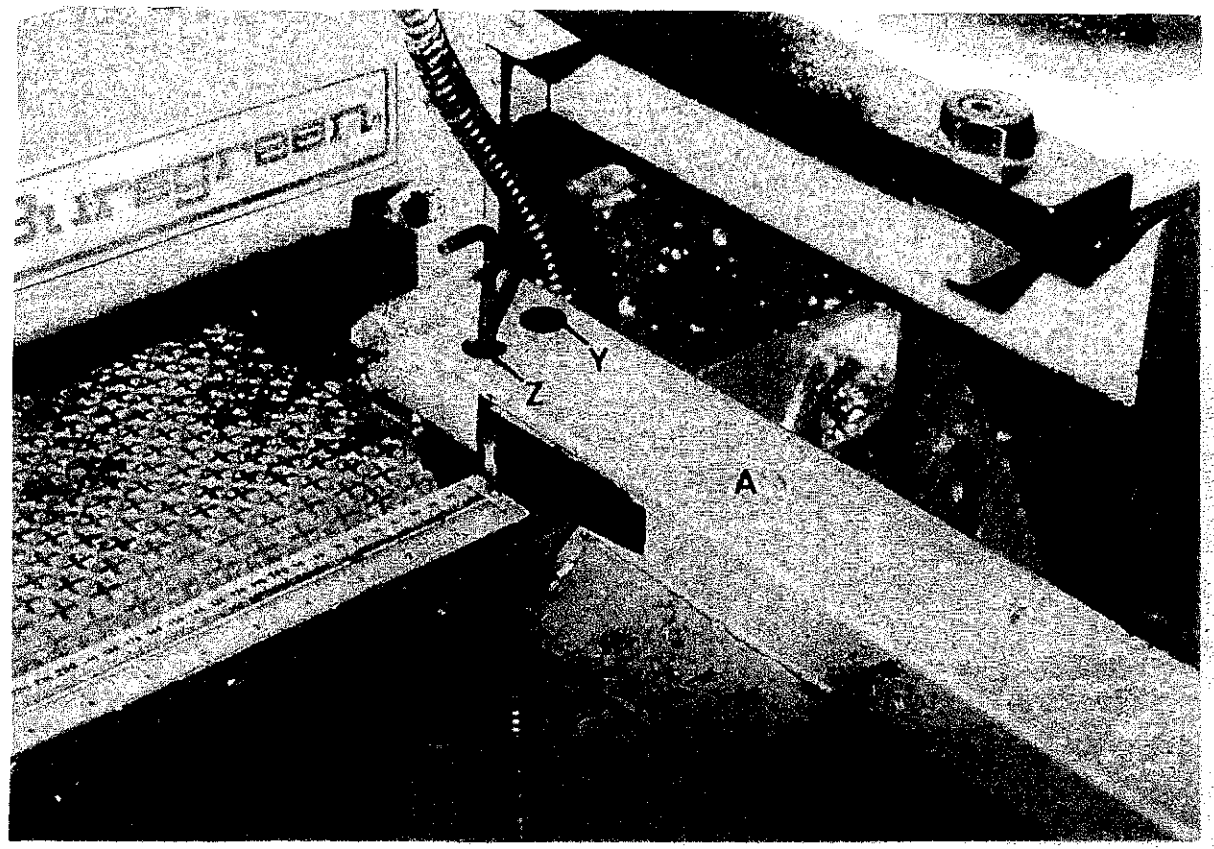


Fig 34

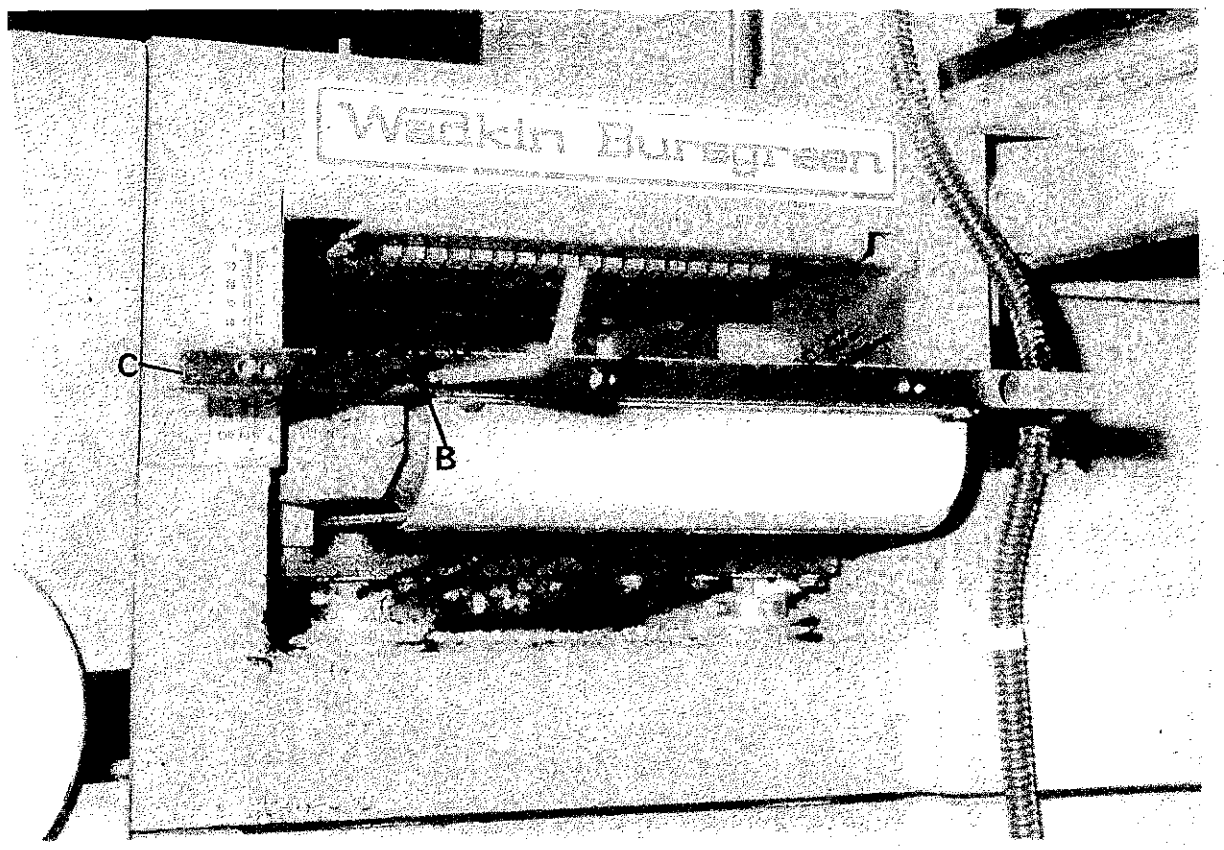


Fig 35

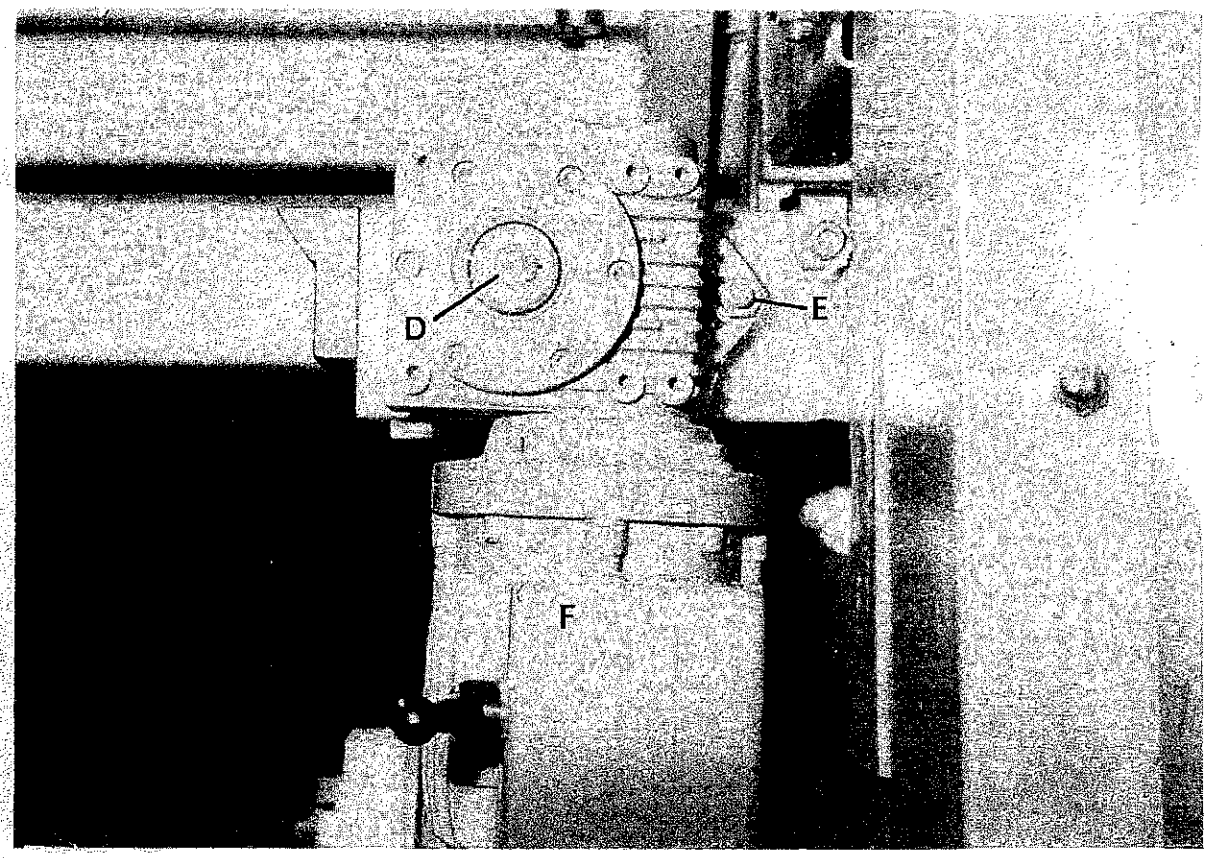


Fig 36

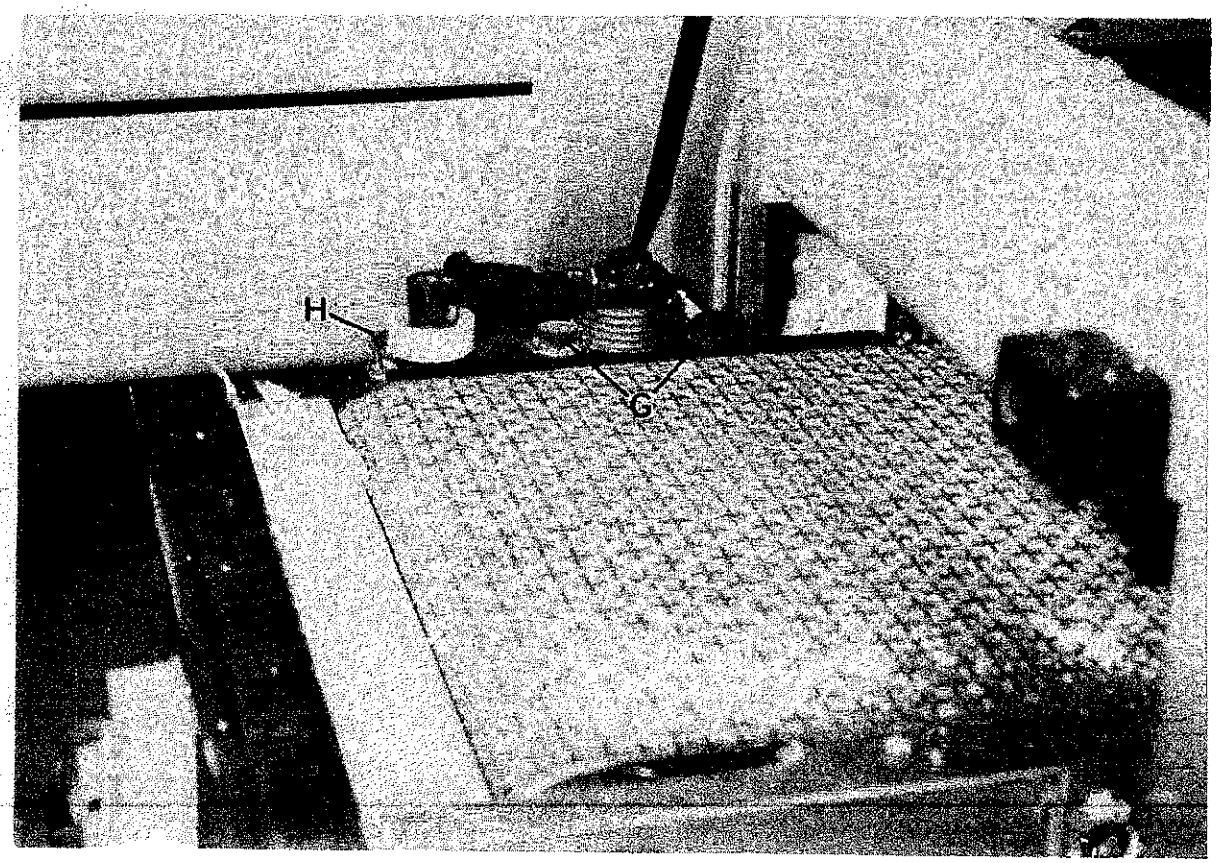


Fig 37

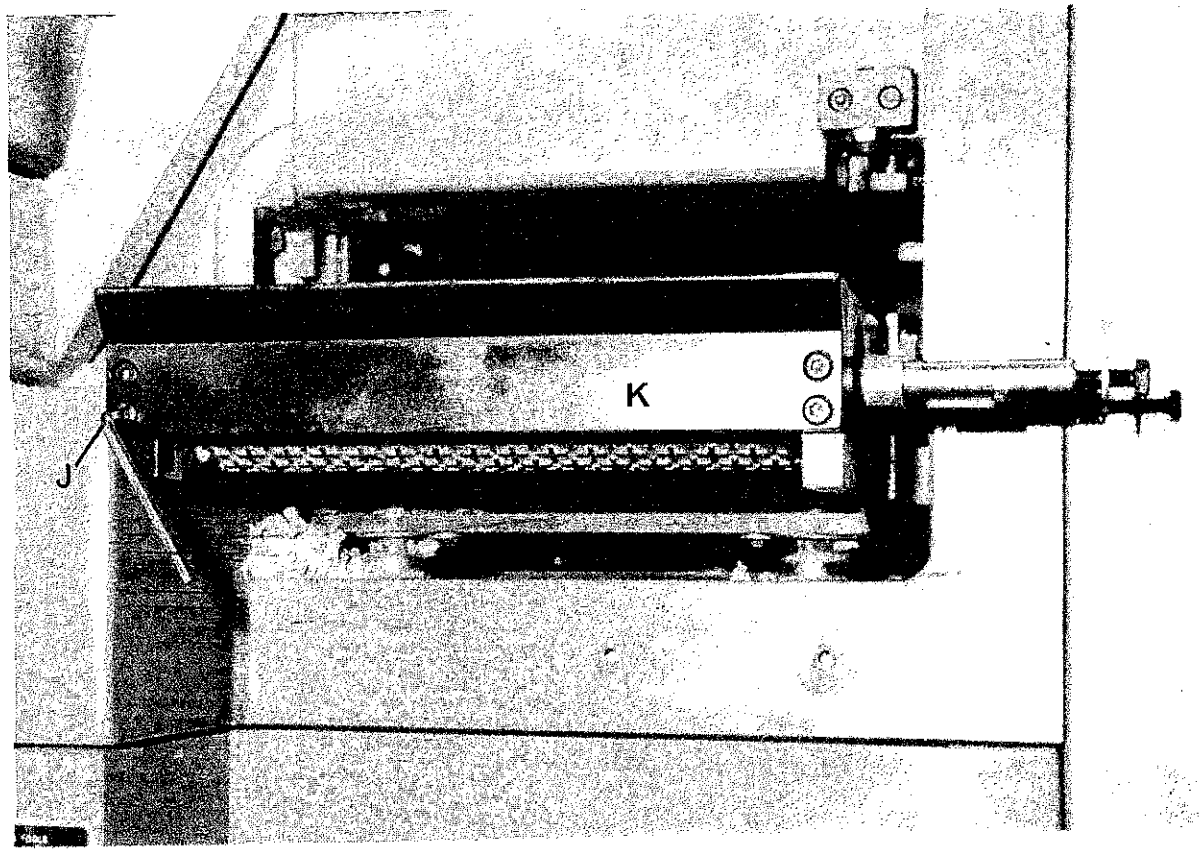


Fig 38

Fig 39

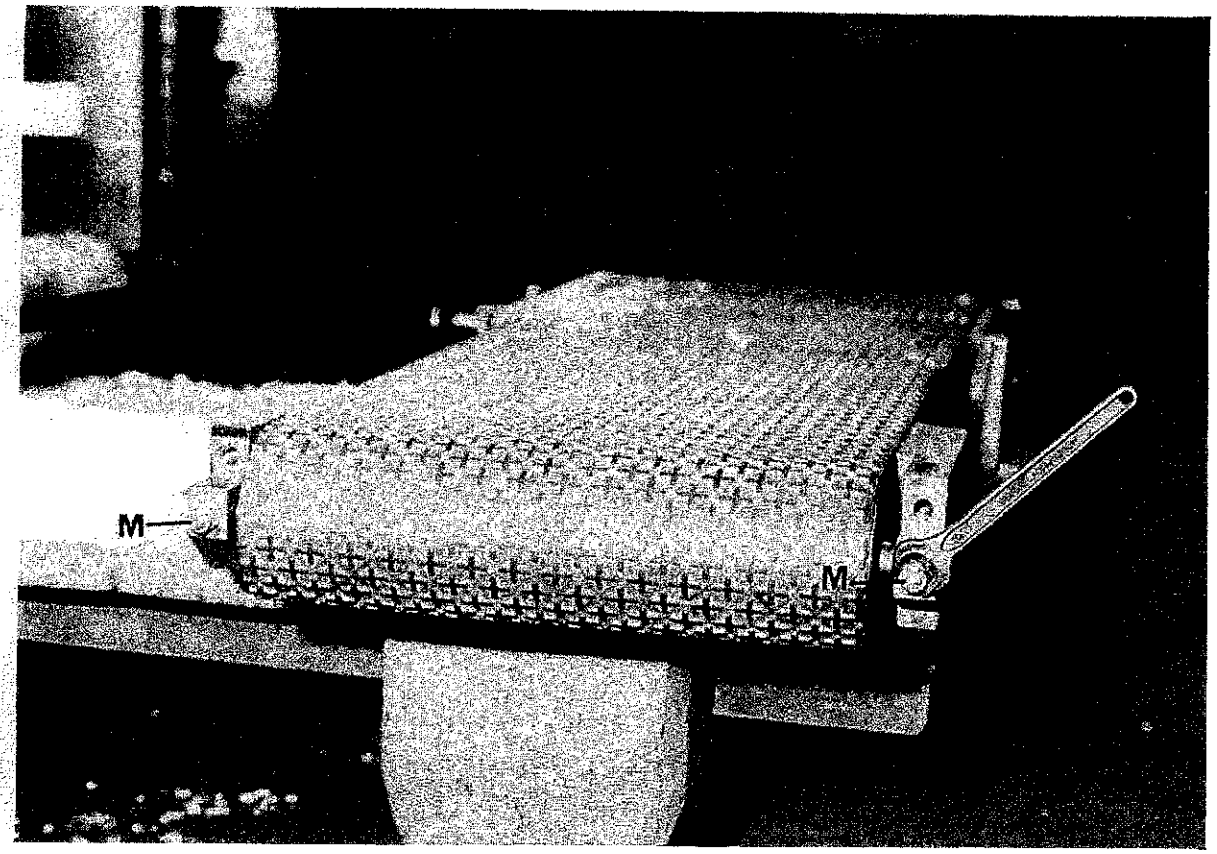


Fig 40

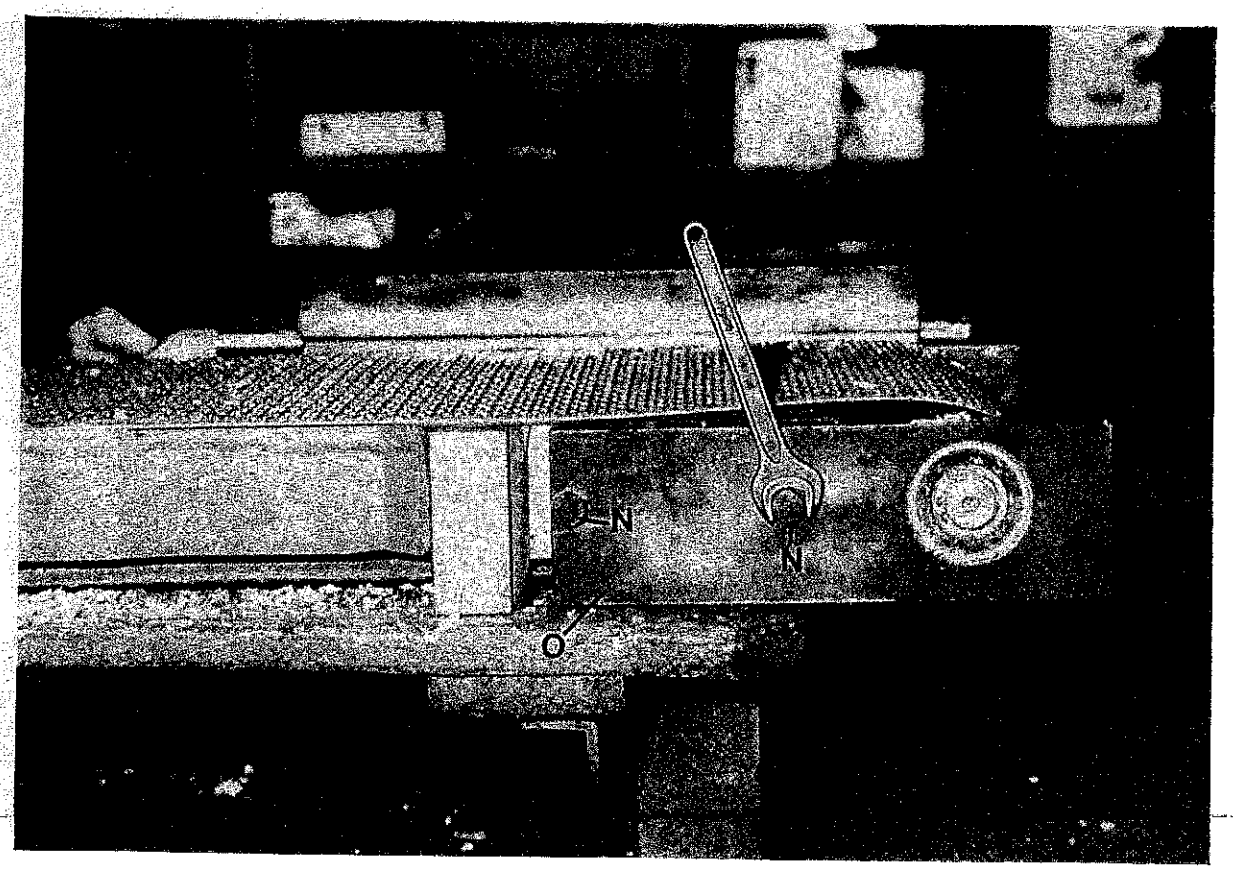


Fig 41

Application	APPROVED LUBRICANTS					
	Castrol	B.P.	Shell	Esso	Texaco/Caltex	Wadkin
Worm Boxes	ZN220	Energol CS320	Vitrea 320	Spartan EP220	Regal Oil 320	L2
General Lubrication	Magna 68	Energol HP68	Vitrea 68	Nuray	Ursa Oil P68	L4
Pneumatic Lubricators	Hyspin AWS32	Energol HL32	Tellus 37	Nuto H32	Rando Oil HD32	
Grease	Spheerol AP3	Energrease L53	Alvania R3	Beacon 3	Regal Starfalk Premium 3	L6
Brake Cables	Brake Cable grease	Energrease L21M	Alvania R3	Esso Multi-purpose grease		

INDEX

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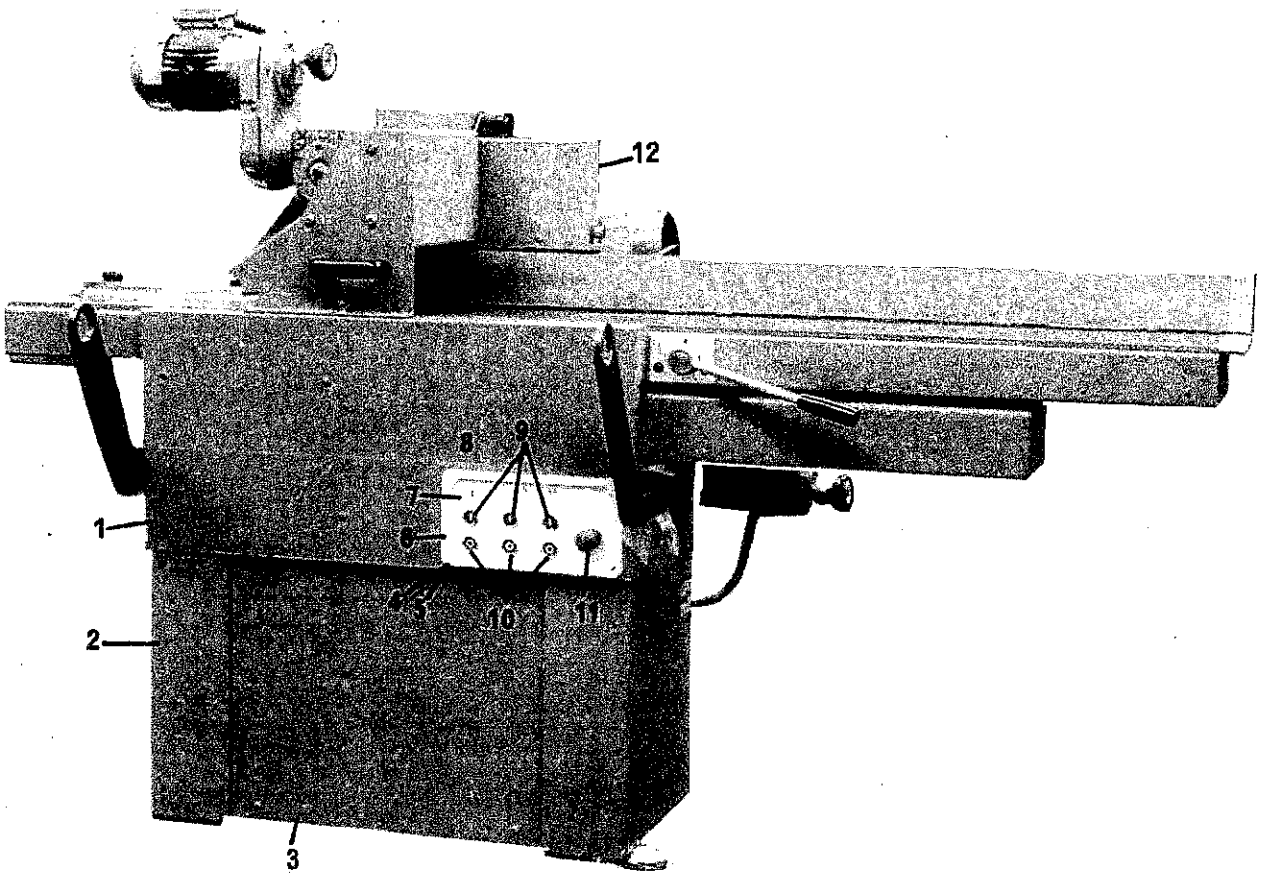
ILLUSTRATED PARTS LIST

ASSEMBLY:-	BASE		
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
1	PAR 1	1	Plinth
2	PAR 216	1	Base
3	PAR 215	1	Electrical Box
4	BEL 51	4	Corner Mouldings
5	BEL 52	4	Cap for Corner Moudlings
6	PAR 212	2	Horizontal Extrusions for Nameplate
7	PAR 148	1	Starter Plate
8	PAR 213	2	Vertical Extrusions for Nameplate
9	K51.17.301	3	Start Buttons
10	K51.17.307	3	Stop Buttons
11	K51.17.305	1	Master Stop Button
12	PAR 141	1	Centre Housing Cover

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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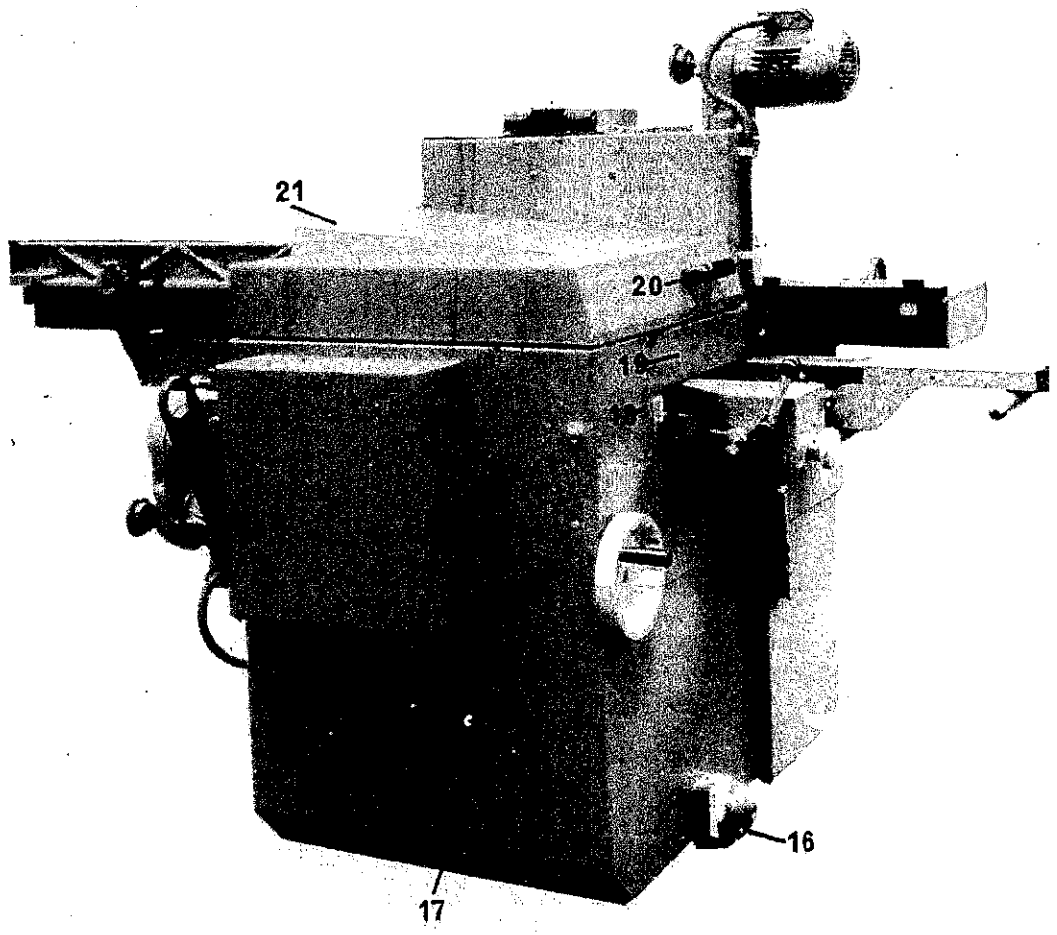
ILLUSTRATED PARTS LIST

ASSEMBLY:-	BASE		
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
16	K51.17.124	1	Foot-Palm Switch
17	PAR 139	1	Side Cover
18	PAR 61	1	Pressure Bar Bracket
19	PAR 62	1	Infeed Tie Plate
20	K51.27.210	1	M243/143 Handle
21	PAR 140	1	Top Hood

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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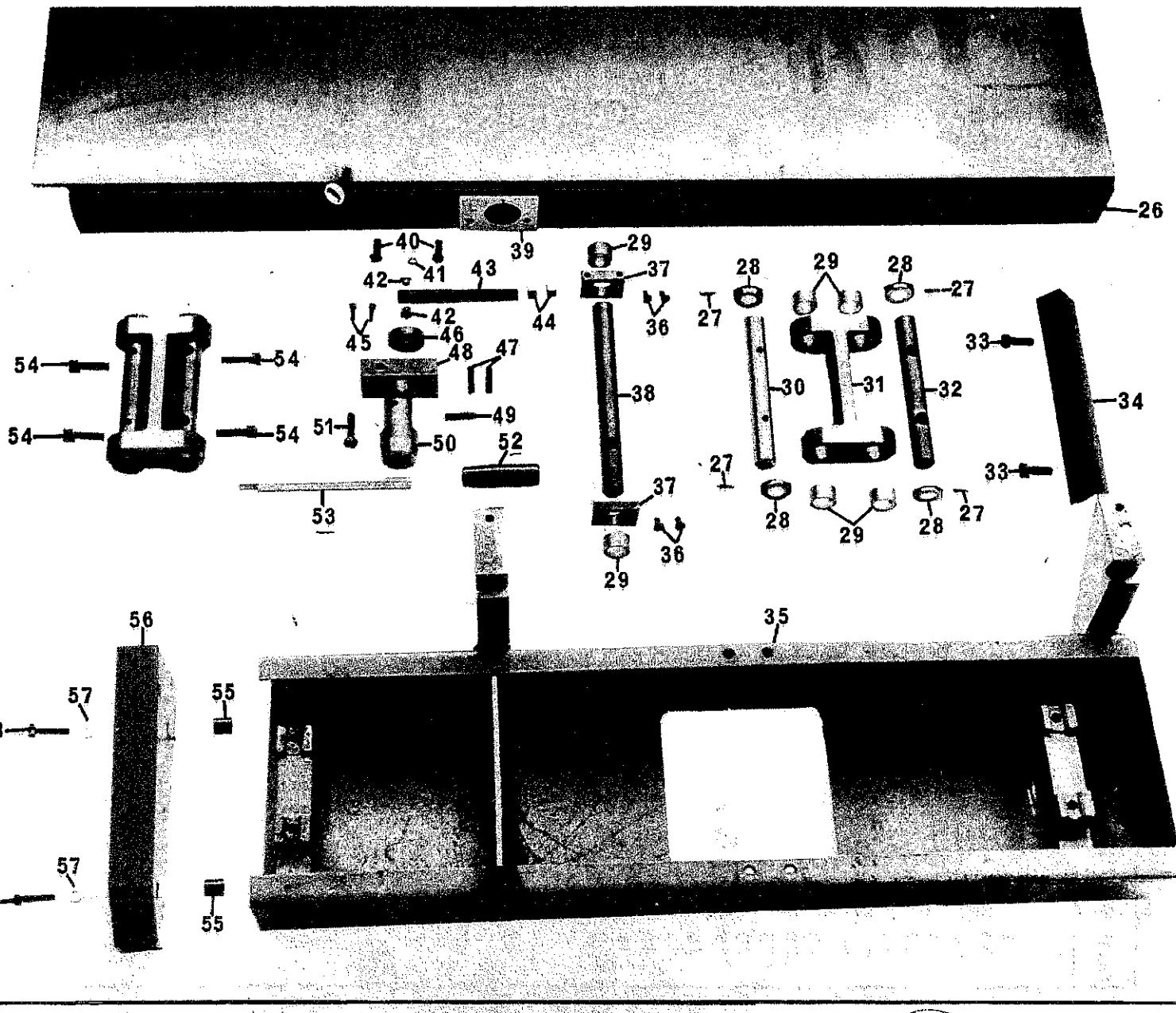
ILLUSTRATED PARTS LIST

ASSEMBLY:-			INFEED PLANING TABLE
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
26	PAR 3	1	Infeed Planer Table
27		8	5 Dia x 40 Long Groverlok Dowels
28	PAR 18	8	Pivot Bar Collar
29	K51.05.130	10	30 x 35 x 25 Oilite Bushes
30	PAR 17	2	Bottom Link Pivot Bar
31	PAR 8	2	Rise and Fall Link
32	PAR 16	2	Top Link Pivot Bar
33		2	M10 x 25 Long Hexagon Set Screws
34	PAR 71	1	Rule Support
35	PAR 4	1	Beam
36		4	M8 x 16 Long Countersunk Socket Head Screws
37	PAR 14	2	Pivot Block
38	PAR 13	1	Rise and Fall Pivot Bar
39	PAR 39	1	Rise and Fall Pointer Plate
40		2	M10 x 30 Long Socket Button Head Screw
41	K51.10.401	1	7100-008 Internal Circlip
42	K51.05.102	2	8 x 12 x 10 Flanged Oilite Bushes
43	PAR 31	1	Rise and Fall Stud
44		2	M16 Nuts
45		2	M6 x 20 Long Socket Capscrews
46	PAR 22	1	Rise and Fall Eccentric
47		2	8 Dia x 30 Long Groverlok Dowel
48	PAR 15	1	Rise and Fall Shaft Housing
49		1	10 Dia x 30 Long Spiral Pin
50	PAR 12	1	Rise and Fall Shaft
51		1	M10 x 25 Long Hexagon Set Screw
52	K51.27.211	1	M12 Handle
53	PAR 21	1	Stud for Rise and Fall Handle
54		8	M10 x 40 Long Socket Capscrews
55	SP12-55	2	Spacers
56	PAR 149	1	Rear Chip Deflector
57		2	10mm Washers
58		2	M10 x 50 Long Studs
—	PAR 72	1	Rule for Infeed Table (PAR 71)
—	PAR 35	1	Rise and Fall Scale (PAR 12)

— ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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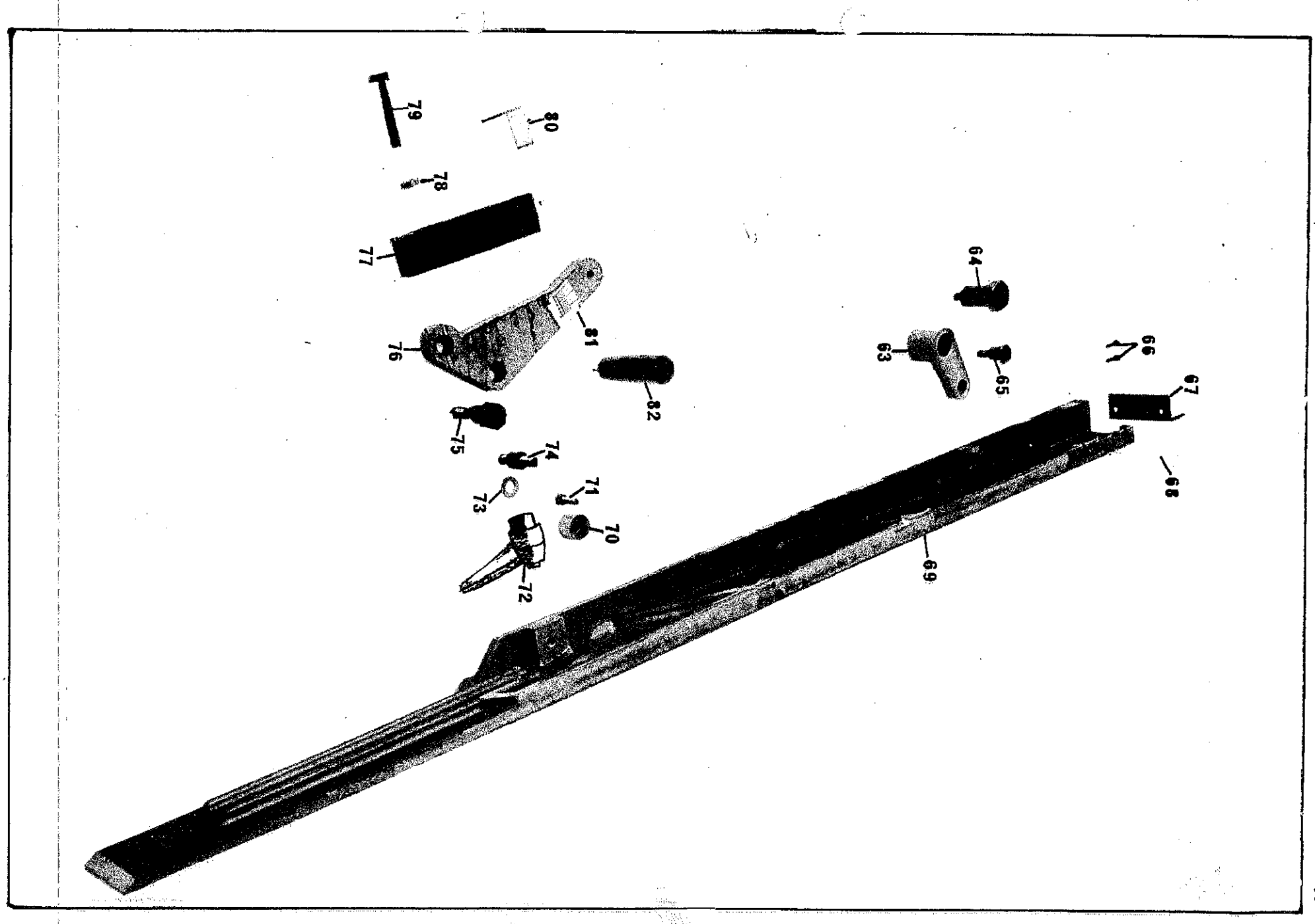
ILLUSTRATED PARTS LIST

ASSEMBLY:-			INFEED PLANER FENCE
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
63	PAR 64	1	Infeed Fence Pivot Link
64	PAR 66	1	Infeed Fence Pivot Link Pin
65	PAR 23	1	Infeed Fence Pivot Pin
66		2	M6 x 16 Long Socket Capscrews
67	PAR 56	1	Vertical Rule Support
68	PAR 118	1	Rule for Infeed Fence
69	PAR 73	1	Infeed Planer Fence
70	PAR 167	1	Stop for Infeed Fence
71		1	M8 x 30 Long Socket Capscrew
72	K51.27.190	1	M12 Locking Handle
73		1	12mm Washer
74	PAR 24	1	Infeed Fence Locking Pin
75	PAR 65	1	Hand Lever Pivot Pin
76	PAR 62	1	Hand Lever for Infeed Fence
77	PAR 67	1	Pointer Mounting Block
78		1	M10 Nut
79		1	M10 x 50 Long Socket Grubscrew
80	PAR 159	1	Pointer for Infeed Fence
81	PAR 157	1	Scale for Infeed Fence
82	K51.27.212	1	M10 Handle

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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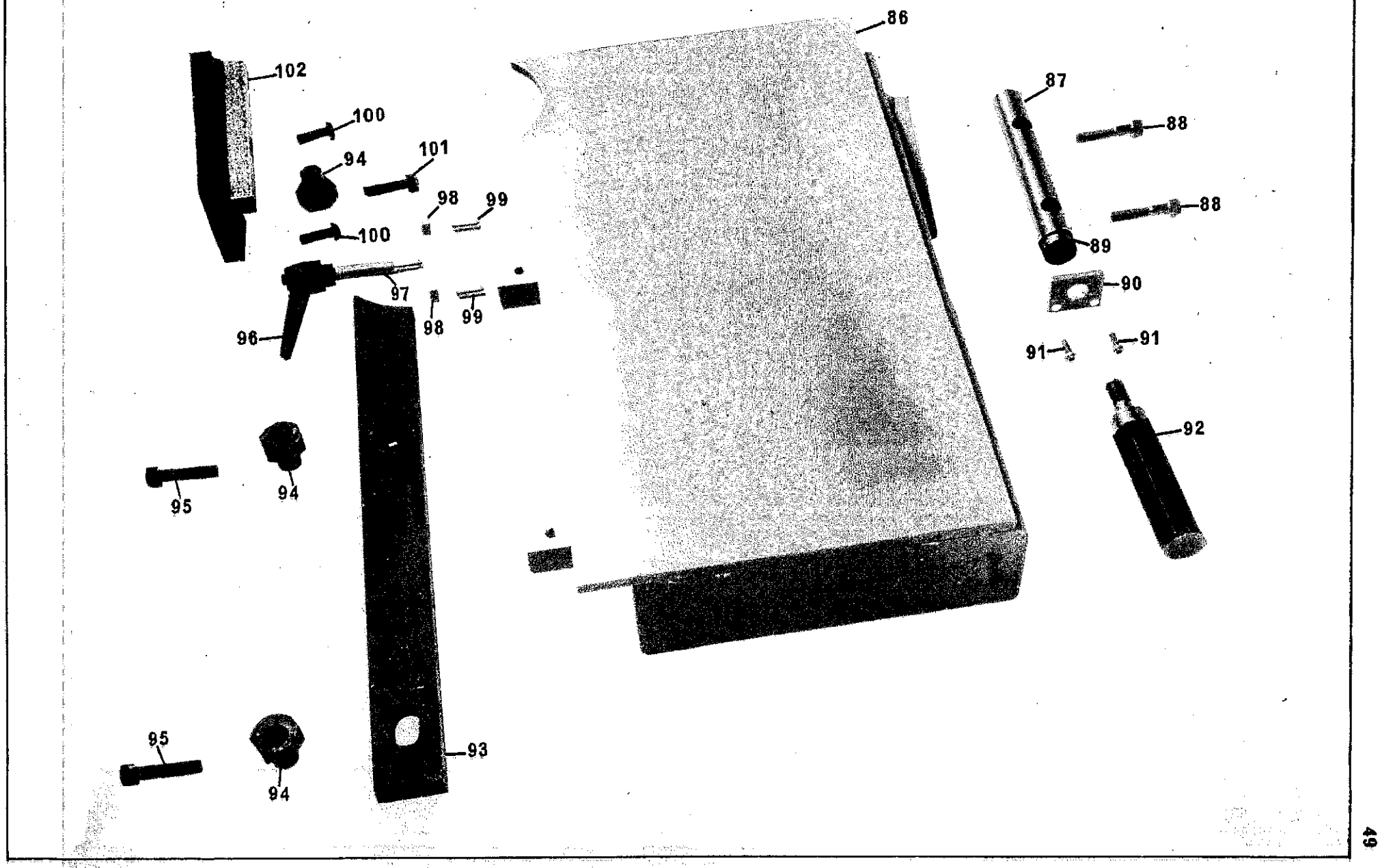
ILLUSTRATED PARTS LIST

ASSEMBLY:- OUTFEED PLANING TABLE AND FENCE

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
86	PAR 7	1	Outfeed Planing Table
87	PAR 20	1	Outfeed Table Slide Bar
88		2	M10 x 30 Long Socket Capscrews
89	PAR 42	1	Slide Bar Collar
90	PAR 44	1	Keep Plate
91		2	M8 x 20 Long Socket Capscrews
92	PAR 43	1	Outfeed Adjusting Handle
93	PAR 59	1	Outfeed Fence
94	PAR 45	3	Outfeed Fence Adjuster
95		2	M10 x 40 Long Socket Capscrews
96	K51.27.191	1	M10 Locking Handle
97	PAR 181	1	Locking Stud
98		2	M10 Locknuts
99		2	M10 x 16 Long Brass Studs
100		2	M10 x 30 Long Socket Button Head Screws
101		1	M10 x 45 Long Socket Capscrews
102	PAR 50	1	Outfeed Table Guide

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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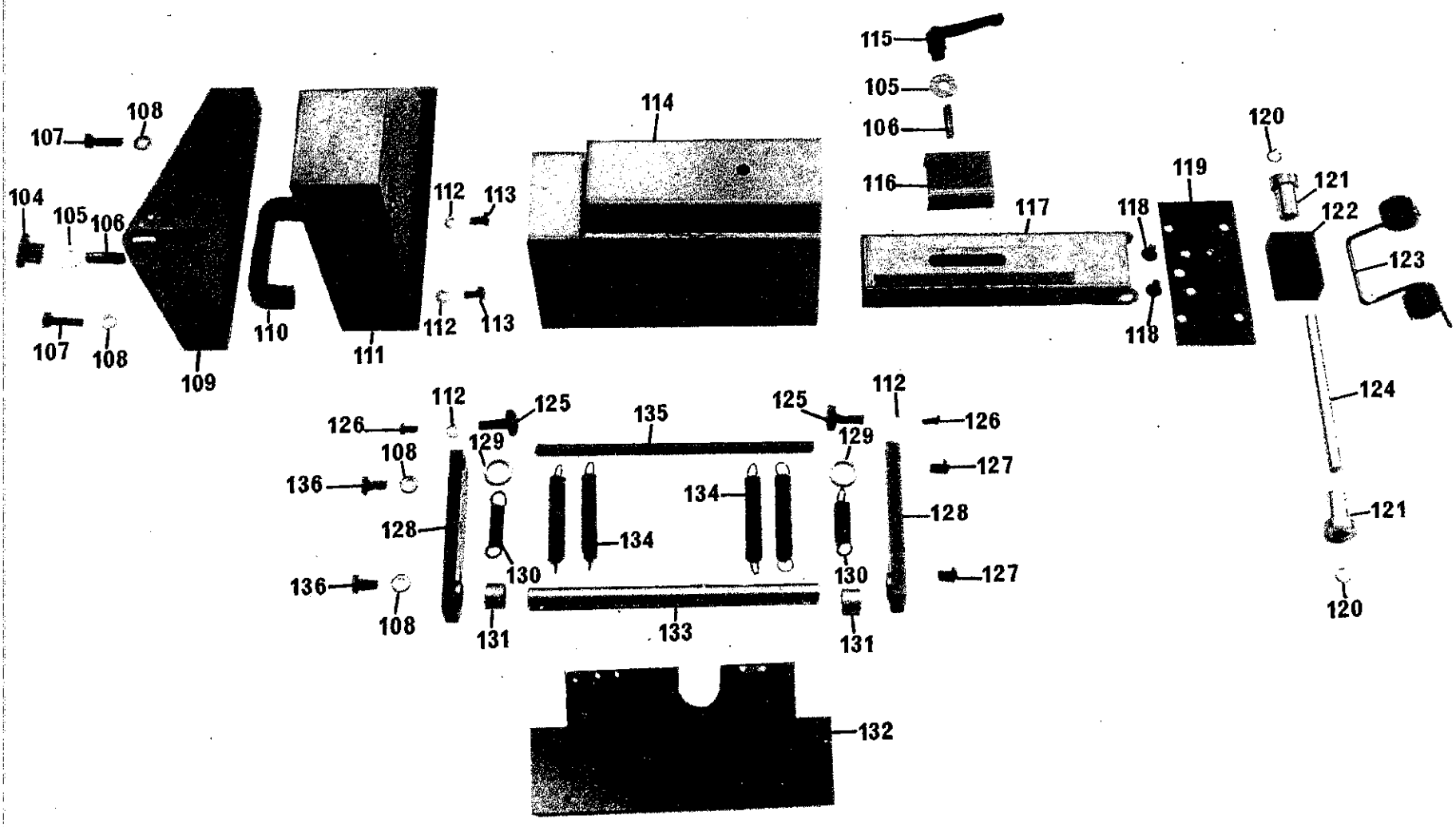
ILLUSTRATED PARTS LIST

ASSEMBLY:-			PLANER FEED
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
104	K51.27.141	1	M12 Handwheel
105	1026-22	2	Washers
106		2	12 x 50 Studs
107		2	M10 x 25 Long Hexagon Set Screws
108		4	10mm Washers
109	PAR 225	1	Slide Bracket
110	K51.27.210	1	M243/143 Handle
111	PAR 220	1	Feed Unit Support Bracket–
112		4	8mm Washers
113		2	M8 x 16 Long Hexagon Set Screws
114	PAR 217	1	Feed Unit Mount Bracket
115	K51.27.190	1	M12 Locking Handle
116	PAR 205	1	Clamp Piece
117	PAR 218	1	Slide Arm
118		2	M10 x 25 Long Countersunk Socket Head Screws
119	PAR 191	1	Mounting Plate
120	K51.10.405	2	7100-016 External Circlip
121	PAR 195	2	Collars for Springs
122	PAR 120	1	Hinge Block
123	PAR 192	1	Counter Balance Spring
124	PAR 121	1	Hinge Pin
125	PAR 226	2	Spring Retainers
126		2	M8 x 16 Long Socket Button Head Screws
127		2	M10 x 20 Long Socket Button Head Screws
128	PAR 131	2	Pivot Bar Blocks
129	CP32-106	2	Bushes for Springs
130	K51.73.131	2	ETS 589 Springs
131	K51.05.118	2	25 x 30 x 20 Long Oilite Bushes
132	PAR 235	1	Pressure Plate
133	PAR 117	1	Pressure Pivot Bar
134	K51.73.149	4	ETS 583 Springs
135	PAR 116	1	Spring Retaining Shaft
136		2	M10 x 20 Long Hexagon Set Screws

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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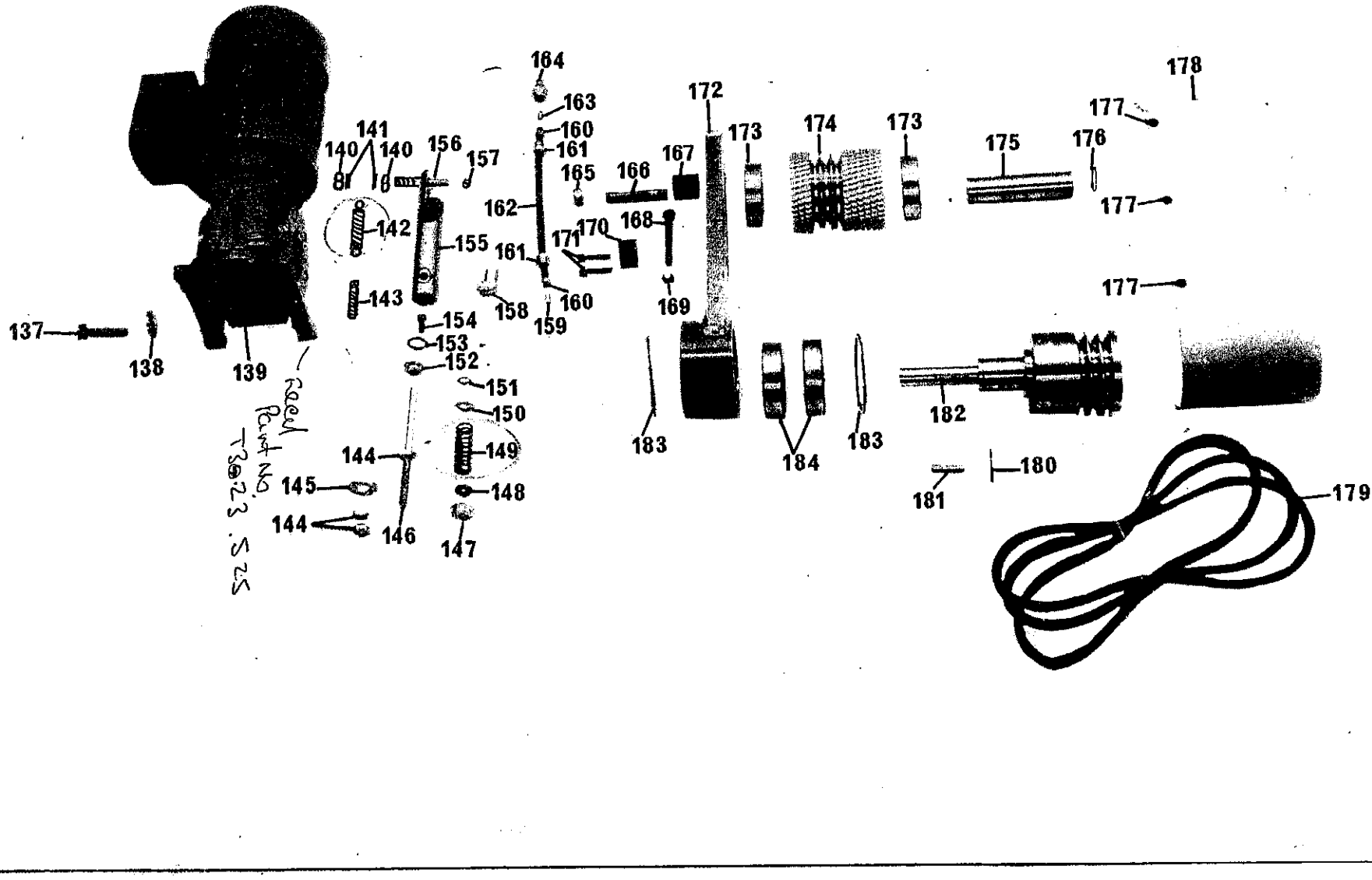
ILLUSTRATED PARTS LIST

ASSEMBLY:-	PLANER FEED		
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
137		1	M10 x 35 Hexagon Head
138	EM 172	1	Washer
139	K51.15.587	1	2 Speed Planer Drive Unit 415-3-50
	K51.15.588	1	Variable Speed Planer Drive Unit 415-3-50
140		2	M10 Binks Nuts
141		2	M10 Washers
142	PAR 228	1	Spring for Feed Unit
143	PAR 229	1	Spring Adjusting Screw
144		3	M10 Locknuts
145	1032-64	1	Washer
146	PAR 36	1	Damper Rod
147	PAR 38	1	End Cap for Damper
148	K51.55.178	1	AB SMIM 10185 Oil Seal
149	K51.73.147	1	ETS 137 Spring
150		1	10mm Washer
151		1	10mm Fibre Washer
152	PAR 37	1	Piston for Damper
153	K51.55.147	1	'O' Ring
154		1	M6 x 20 Long Socket Capscrew
155	PAR 58	1	Damper Housing
156	PAR 232	1	Damper Pivot Pin
157	K51.10.402	1	7100-010 External Circlip
158	K51.60.165	1	36-0005-05 Elbow Adaptor
159	PAR 194	1	Pipe Retainer
160	K51.60.149	2	36-0501-05 Tubing Sleeves
161	K51.60.142	2	36-0500-05 Tubing Nuts
162	K51.18.355	1	¼" Duratube
163		1	6 Dia x 12 Long Ground Dowel
164	K51.60.154	1	36-0530-11 Male Adaptor
165		1	M12 Nut
166		1	M12 x 70 Stud
167	PAR 198	1	Adjuster Collar
168		1	M8 x 55 Hexagon Head
169		1	M8 Nut
170	PAR 115	1	Belt Tension Block
171		2	M6 x 30 Cap Heads
172	PAR 237	1	Arm for Feed Unit
173	K06.01.347	2	6306-2RS Bearings
174	PAR 234	1	Planer Feed Roller
175	PAR 231	1	Feed Roller Shaft
176	K51.10.408	1	7100-030 External Circlip
177		3	M8 x 12 Button Heads
178	PAR 127	1	Feed Belt Cover
179	K51.04.202	3	SPZ 710 Belts
180	K51.10.409	1	7100-035 External Circlip
181		1	6 x 7 x 35 Feather Key
182	PAR 236	1	Feed Drive Pulley
183	K51.10.209	2	7000-080 Internal Circlip
184	K06.01.354	2	6307-2RS Bearings

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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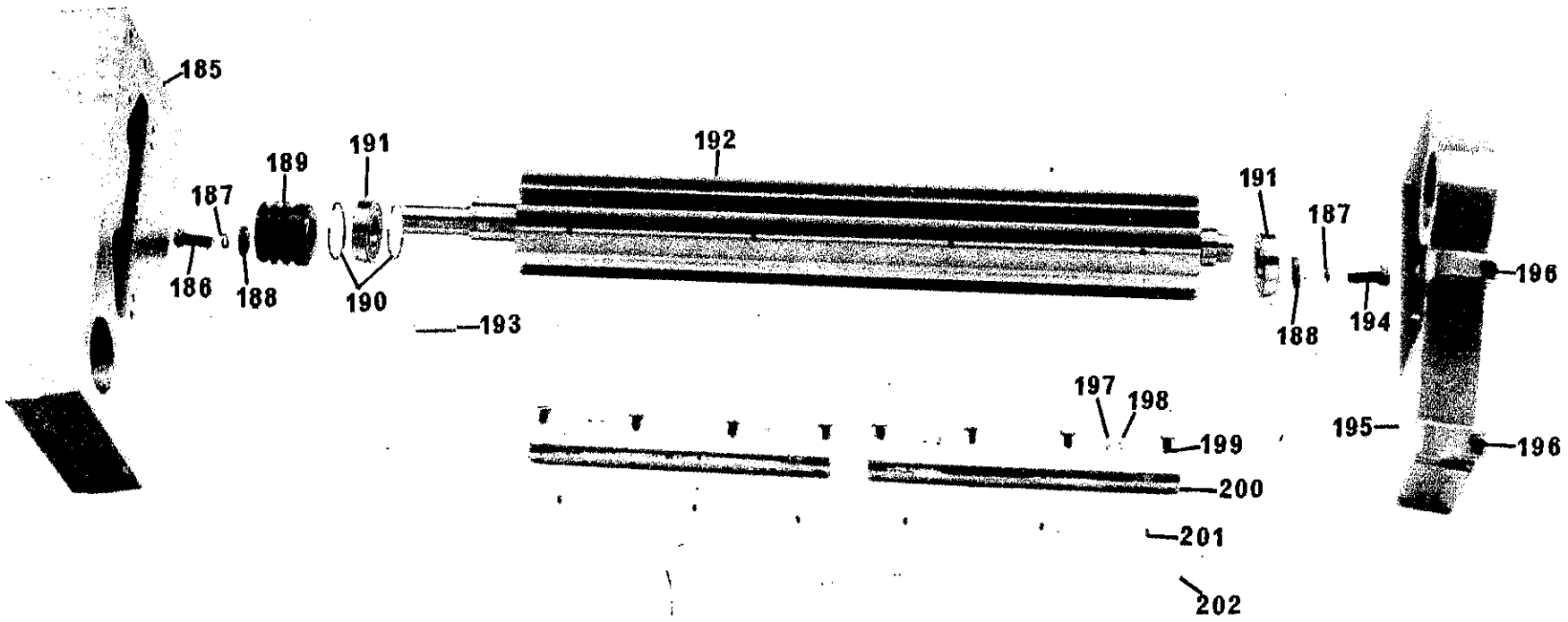
ILLUSTRATED PARTS LIST

ASSEMBLY:- MAIN CUTTERBLOCK

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
185	PAR 29	1	Thicknesser Side Bearing Housing
186		1	M12 x 40 Long Hexagon Set Screw
187		2	12mm Dia Spring Washers
188	EM-172	2	Washers
189	PAR 10	1	Main Cutterblock Pulley
190	K51.10.209	2	7000-080 Internal Circlips
191	K06.01.354	2	6307-2RS Bearings
192	PAR 41	1	Main Cutterblock
193	K51.20.115	1	10 x 8 x 55 Long Key
194		1	M12 x 30 Long Hexagon Set Screw
195	PAR 5	1	Planer Side Bearing Housing
196		2	M8 x 35 Long Socket Capscrews
197	K51.47.101	16	Magnets
198	PAR 197	16	Location Screws
199	1069-424	40	Screws for Cutterblock Wedge
200	PAR 75	8	Main Cutterblock Wedges
201		20	M6 x 12 Long Nylok Socket Set Screws
202	BAR-320K	8	Knives

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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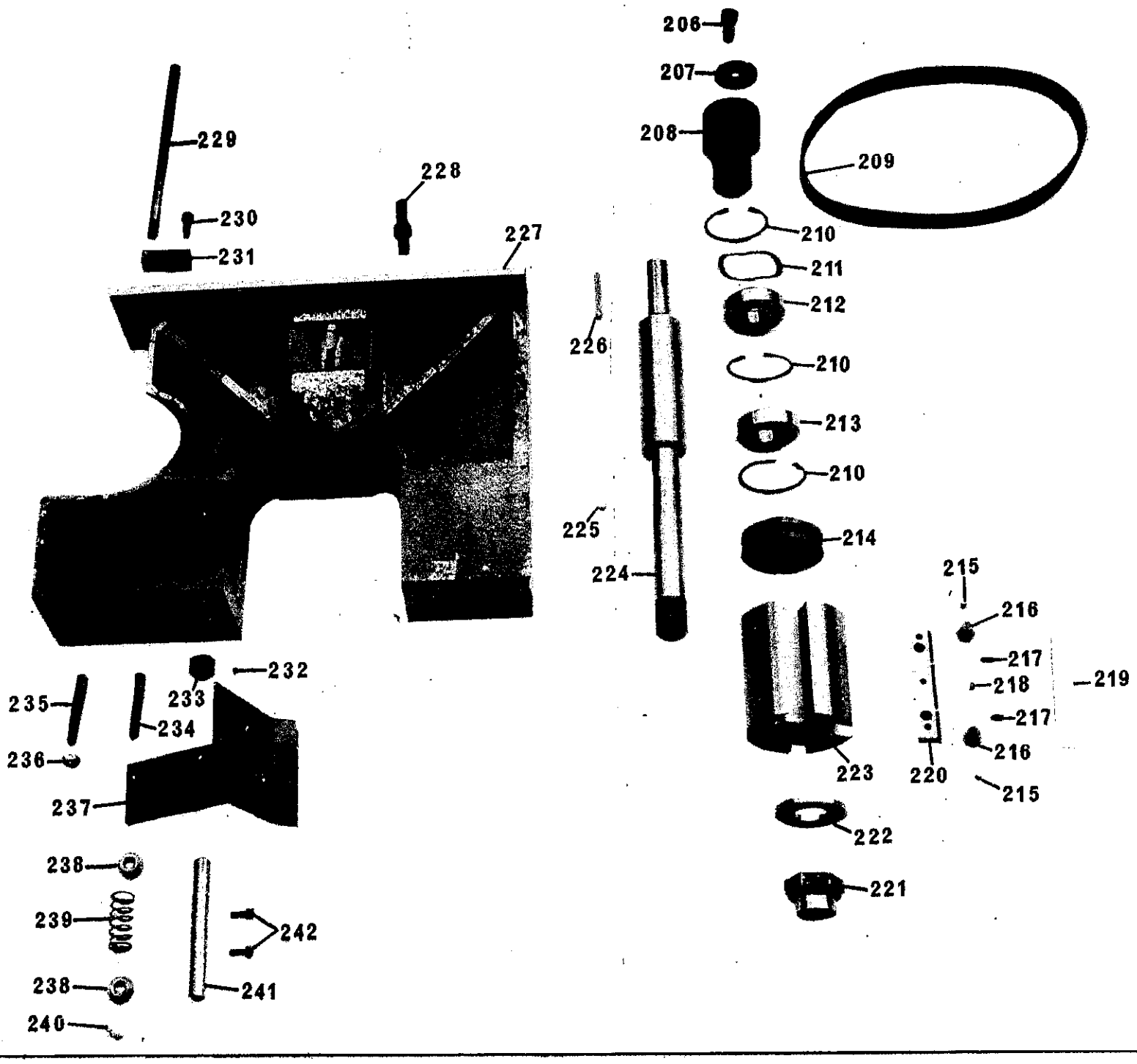
ILLUSTRATED PARTS LIST

ASSEMBLY:-			BOTTOM SIDE HEAD
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
206		1	M12 x 30 Long Socket Capscrew
207	EM-172	1	Washer
208	PAR 28	1	Top Head Drive Pulley
209	K51.04.404	1	765 x 30 Flat Belt
210	K51.10.207	3	7000-062 Internal Circlips
211	K51.88.806	1	EPL 48 Pre-Load Washer
212	K06.01.340	1	6305-2RS Bearing
213	K06.01.214	1	6206-2RS Bearing
214	PAR 26	1	Side Head Driven Pulley
215		8	M6 x 12 Long Socket Set Screws
216	1069-424	8	Screws for Cutterblock Wedges
217	PAR 197	8	Location Screws
218	K51.47.101	4	Magnets
219	BAR-110K	4	Knives
220	PAR 74	4	Side Cutterblock Wedges
221	PAR 25	1	Side Head Nut
222	PAR 83	1	Wedge Retaining Collar
223	PAR 96	1	Side Cutterblock
224	PAR 63	1	Spindle Thicknesser Side Head
225		1	8 x 7 25 Long Feather Key
226		1	8 x 7 x 50 Long Feather Key
227	PAR 30	1	Centre Bearing Housing
228	PAR 80	1	Top Housing Locking Pin
229	PAR 187	1	Top Head Locking Stud
230		1	M8 x 20 Long Socket Capscrew
231	PAR 46	1	Clamping Block
232		1	M5 x 5 Long Socket Grubscrew
233	PAR 84	1	Locking Collar
234		1	M10 x 90 Long Stud
235		1	M10 x 70 Long Hexagon Set Screw
236		1	M10 Nut
237	PAR 98	1	Front Chipbreaker
238	1069-106	2	Pressure Retainers
239	K51.73.118	1	ETS 156 Spring
240		1	M10 Aerotight
241	PAR 82	1	Pivot Bar
242		2	M6 x 16 Long Socket Capscrew

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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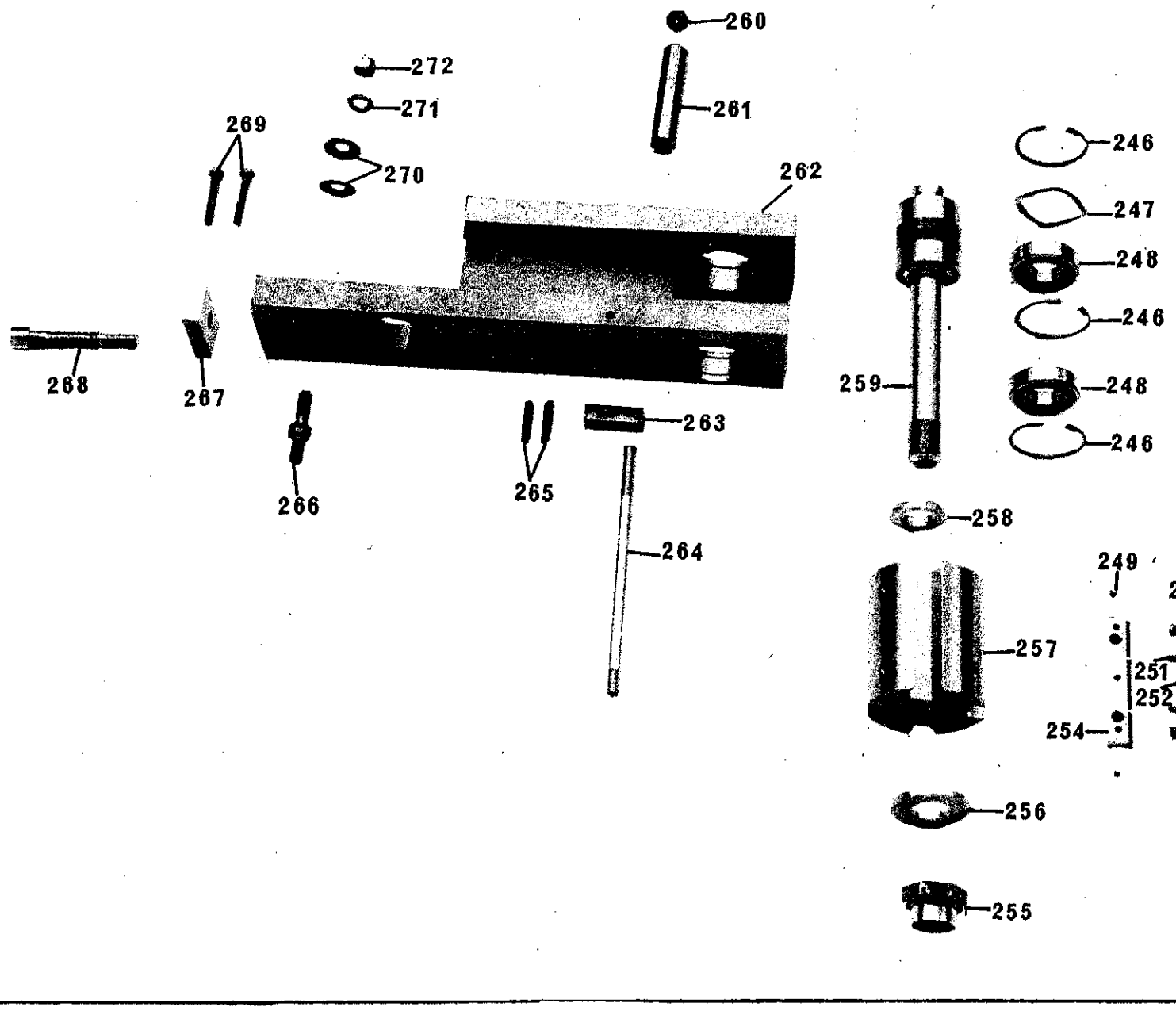
ILLUSTRATED PARTS LIST

ASSEMBLY:- TOP SIDE HEAD

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
246	K51.10.207	3	7000-062 Internal Circlips
247	K51.88.806	1	EPL 48 Pre-load Washer
248	K06.01.214	2	6206-2RS Bearings
249		8	M6 x 12 Long Nylok Socket Set Screws
250	1069-424	8	Screws for Cutterblock Wedges
251	PAR 197	8	Jacking Screws
252	K51.47.101	4	Magnets
253	BAR-110K	4	Knives
254	PAR 74	4	Side Cutterblock Wedges
255	PAR 25	1	Side Head Nut
256	PAR 83	1	Wedge Retaining Collar
257	PAR 96	1	Side Cutterblock
258	PAR 81	1	Top Cutterblock Spacer
259	PAR 70	1	Spindle Planer Side Head
260		1	M12 Nut
261	PAR 188	1	Spacer for Top Head
262	PAR 54	1	Top Head Bearing Housing
263	PAR 46	1	Clamping Block
264	PAR 187	1	Top Head Locking Stud
265		2	M8 x 50 Long Hexagon Set Screws
266	PAR 80	1	Top Housing Locking Pin
267	PAR 184	1	Top Belt Tension Block
268	PAR 185	1	Belt Adjuster
269		2	M12 x 30 Long Socket Set Screws
270	K51.73.255	2	No. 10 Belleville Washers
271		1	12mm Washer
272		1	M12 Aerotight Nut

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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ILLUSTRATED PARTS LIST

ASSEMBLY:-			THICKNESSER TABLE
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
276	K51.04.658	1	Thicknesser Belt
277	K51.15.590	1	2 Speed Thicknesser Drive Unit 415-3-50
	K51.15.589	1	Variable Speed Thicknesser Drive Unit 415-3-50
278		1	M10 Nut
279		4	10mm Washers
280		2	M10 Locknuts
281		1	M10 x 65 Long Stud
282		3	M10 x 30 Long Hexagon Set Screws
283	1026-22	1	Washer
284	K51.10.407	2	7100-025 External Circlips
285	K06.01.340	4	6305-2RS Bearings
286	K51.20.106	1	6 x 6 x 35 Long Key
287	PAR 242	1	Drive Roller
288		4	M8 x 16 Long Socket Button Head Screws
289	PAR 154	1	Rear Belt Guard
290	PAR 129	1	Rear Guide Strip
291		4	M8 x 25 Long Socket Capscrews
292	PAR 79	1	Side Plate
293	PAR 68	1	Thicknesser Table
294	PAR 93	2	Under Table Brushes
295	PAR 86	2	Bearing Collars
296		2	M6 x 10 Long Socket Set Screws
297	PAR 100	1	Driven Roller
298	PAR 85	1	Tension Bar
299		2	M8 x 40 Long Studs
300		2	8mm Washers
301		2	M8 Aerotight Nuts
302	PAR 153	1	Front Belt Guard
303	PAR 126	1	Fence Bar Bracket
304		2	M10 x 75 Long Socket Capscrews

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES

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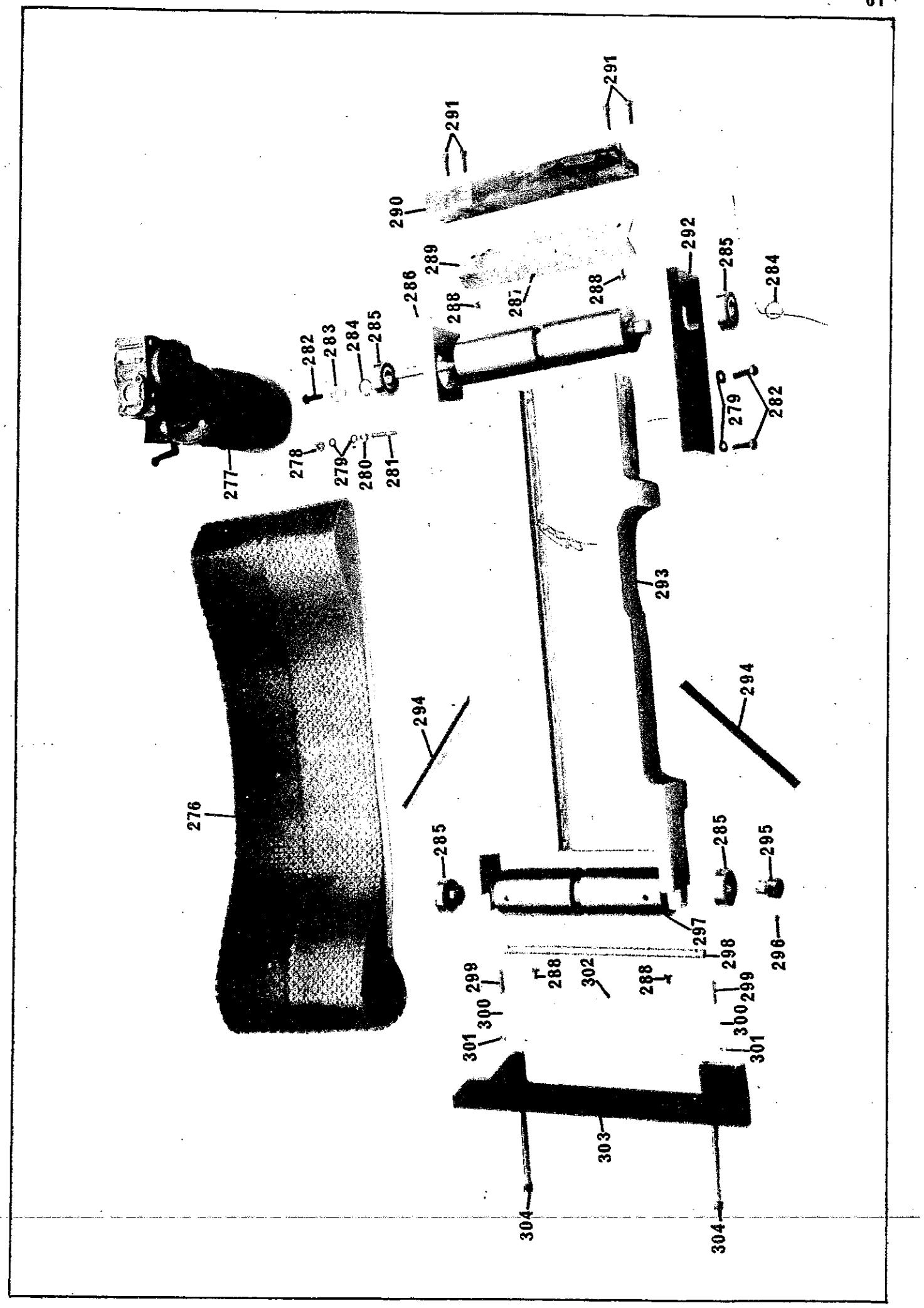

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ILLUSTRATED PARTS LIST

ASSEMBLY:- THICKNESSER FENCE

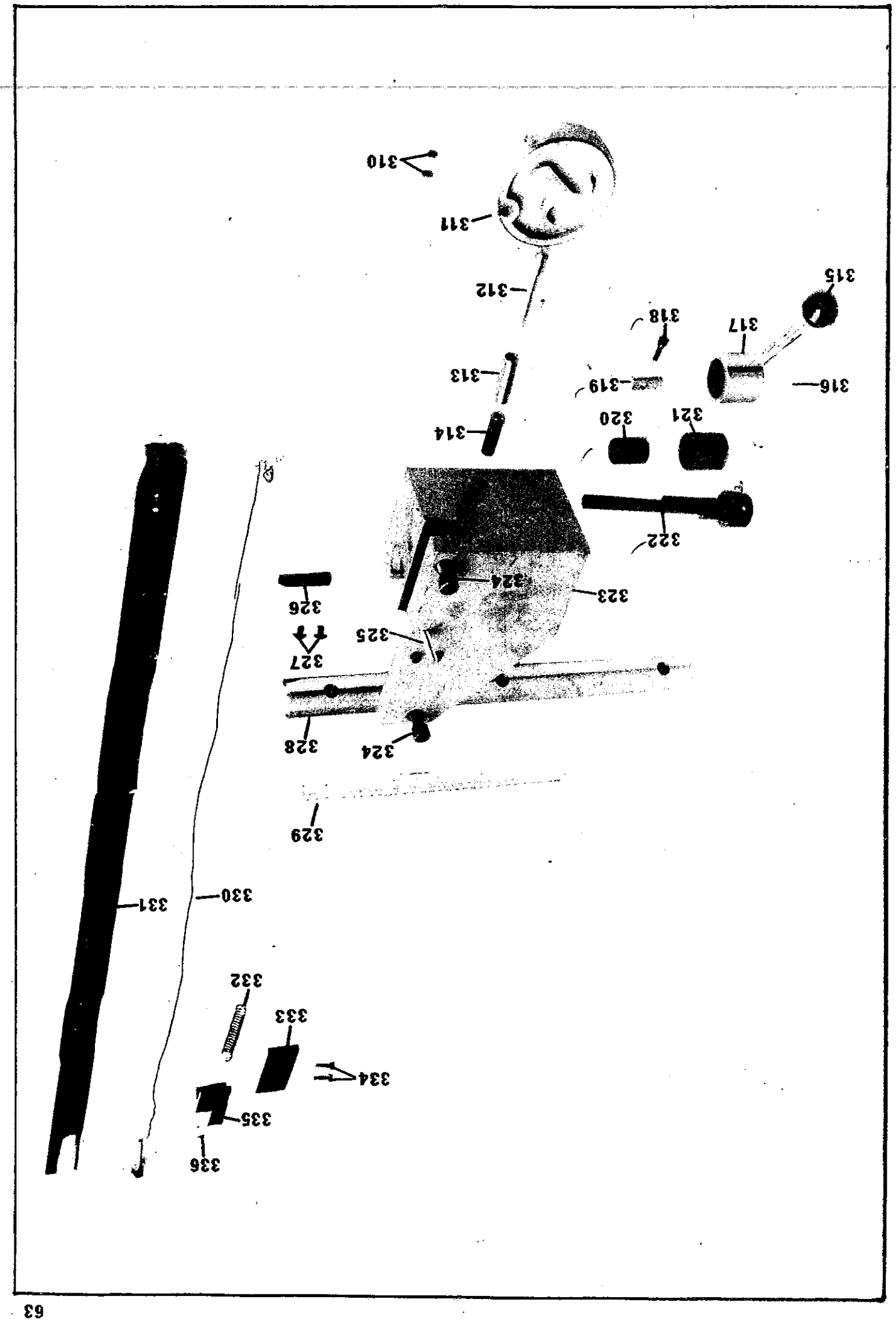
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
310		2	M10 x 10 Long Socket Set Screws
311	~~T5-135~~	1	Rise and Fall Handwheel C69 306
312	PAR 113	1	Pinion Shaft
313	CP32-170	1	Pinion Bush
314	PAR 114	1	Pinion for Fence * CHECK SIZE WITH CUSTOMER
315	K51.27.152	1	1¼" Dia x M10 Ball Knob
316	CP32-160	1	Locking Handle
317	PAR 107	1	Sleeve for Bush
318		1	M6 x 20 Long Socket Capscrew
319	PAR 109	1	Cable Clamp
320	PAR 108	1	Sleeve for Shaft
321	K51.05.253	1	13/754 Metalastic Bush
322	PAR 105	1	Fence Locking Shaft
323	PAR 55	1	Thicknesser Fence Bracket
324		2	M10 x 30 Long Socket Capscrews
325		1	M8 x 35 Long Brass Screw
326	PAR 174	1	Thicknesser Fence Pointer
327		2	M5 x 16 Long Socket Button Head Screws
328	PAR 130	1	Fence Bar
329	PAR 143	1	Rule for Thicknesser Table
330	PAR 110	1	Locking Cable
331	PAR 180	1	Thicknesser Fence
332	K51.73.115	1	ETS 127 Spring
333	PAR 111	1	Rear Cover Plate
334		2	M6 x 16 Long Socket Button Head Screws
335	PAR 128	1	Rear Locking Piece
336		1	M10 Nut

(92mm) LONG.

* PAR 113 REPLACED BY PAR271
* PAR 271. 108mm LONG.
* PAR 1184
* PAR 1035 170MM LONG
* CP3 169

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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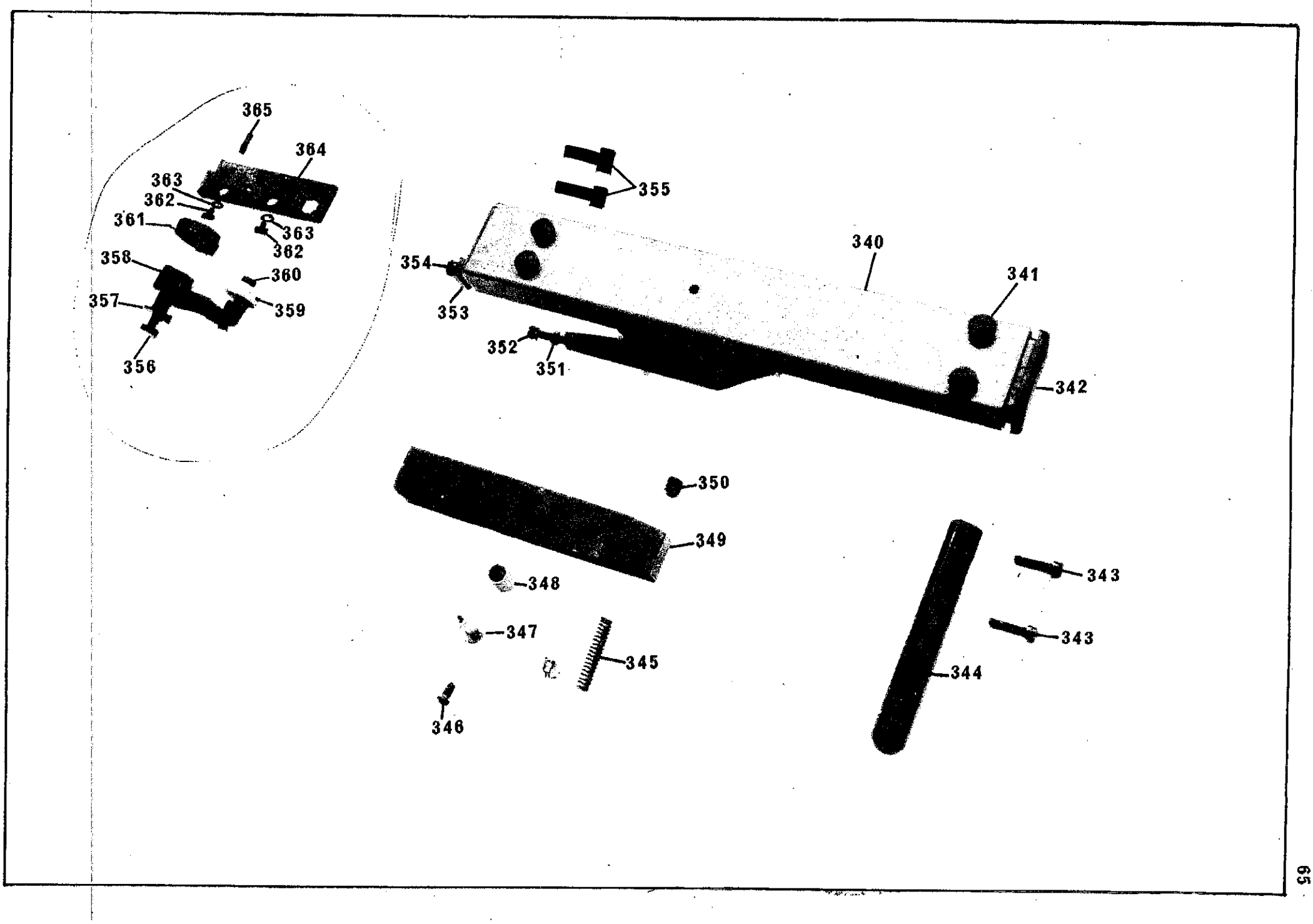
ILLUSTRATED PARTS LIST

ASSEMBLY:-			TIMBER SUPPORT AND SIDE PRESSURE
FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
340	PAR 179	1	Timber Support Arm
341	K51.61.104	4	DP812 Plugs
342	K51.61.181	1	Ribbed Insert
343		2	M12 x 25 Long Socket Capscrews
344	PAR 11	1	Support Bar
345	K51.73.113	1	ETS 101 Spring
346		1	M8 x 16 Long Socket Button Head Screw
347	PAR 173	1	Pressure Pivot Bush
348	K51.05.110	1	16 x 20 x 16 Oilite Bush
349	PAR 176	1	Front Side Pressure Bar
350		1	M16 x 16 Long Socket Grubscrew
351		1	M8 Locknut
352		1	M8 x 35 Long Hexagon Set Screw
353	PAR 170	1	Front Table Guide
354		1	M10 x 20 Long Socket Capscrew
355		2	M10 x 35 Long Socket Capscrews
356		1	M10 x 35 Hexagon Head Bolt
357	DA-43	1	Pressure Arm Support
358	DA-106	1	Top Pressure Arm
359	K06.30.402	1	CGR 0470500 Bearing
360		1	M10 x 20 Long Socket Capscrew
361	K51.13.135	1	ETS 1/4637 LH Spring
362		2	M10 x 20 Long Hexagon Set Screws
363		2	10mm Washers
364	PAR 190	1	Side Roller Bracket
365		1	6 Dia x 16 Long Groverlok Dowel

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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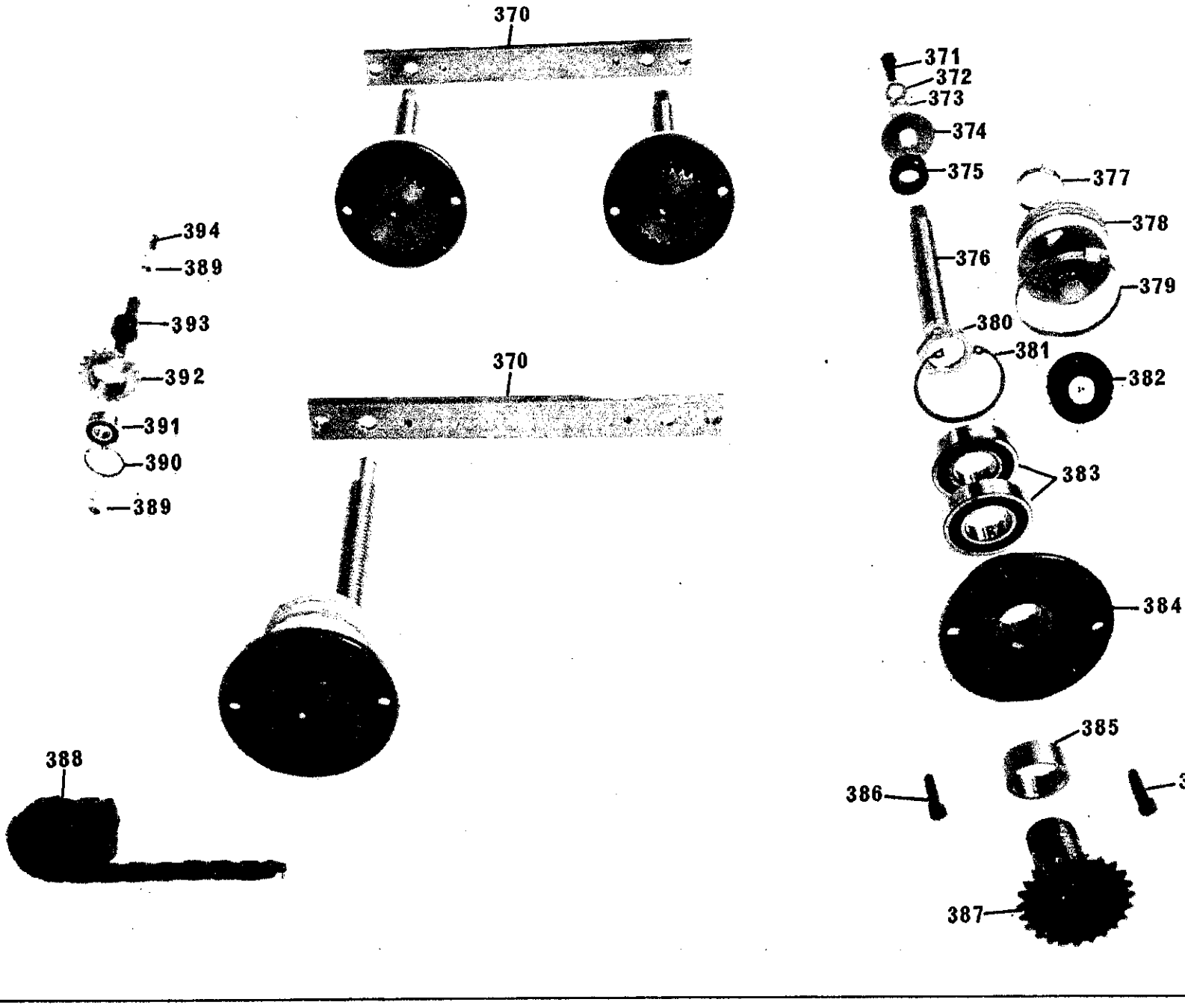
ILLUSTRATED PARTS LIST

ASSEMBLY:- THICKNESSER TABLE RISE AND FALL

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
370	PAR 53	2	Rise and Fall Tie Plate
371		4	M10 x 40 Long Hexagon Set Screws
372	T5-63	8	Rise and Fall Screw Washers
373	T5-696	8	Rise and Fall Screw Domed Washers
374	T5-330	4	Rise and Fall Washers
375	T5-64	4	Rise and Fall Screw Collar
376	PAR 49	4	Rise and Fall Screws
377	K51.11.202	4	40mm Dia Jubilee Clips
378	PAR 102	4	Rise and Fall Bellows
379	K51.11.205	4	80mm Dia Jubilee Clips
380	T5-256	4	Rise and Fall Locknuts
381	K51.10.208	4	72mm Internal Circlips
382	PAR 182	4	Caps for Bearing Housing
383	K06.01.219	8	6207-Z Bearings
384	PAR 51	4	Rise and Fall Screws for Bearing Housing
385	PAR 89	4	Driven Sprocket Spacers
386		8	M10 x 25 Long Hexagon Set Screws
387	T5-226	4	Rise anf Fall Screw Sprockets
388	K51.08.138	1	3/8'' Pitch x 204 Link Chain
389		2	M12 Aerotight Nuts
390	K51.10.202	1	7000-032 Internal Circlip
391	K06.01.180	1	6201-2RS Bearing
392	PAR 178	1	Chain Tension Sprocket
393	PAR 92	1	Chain Tension Bar
394		1	M8 x 20 Long Socket Set Screw

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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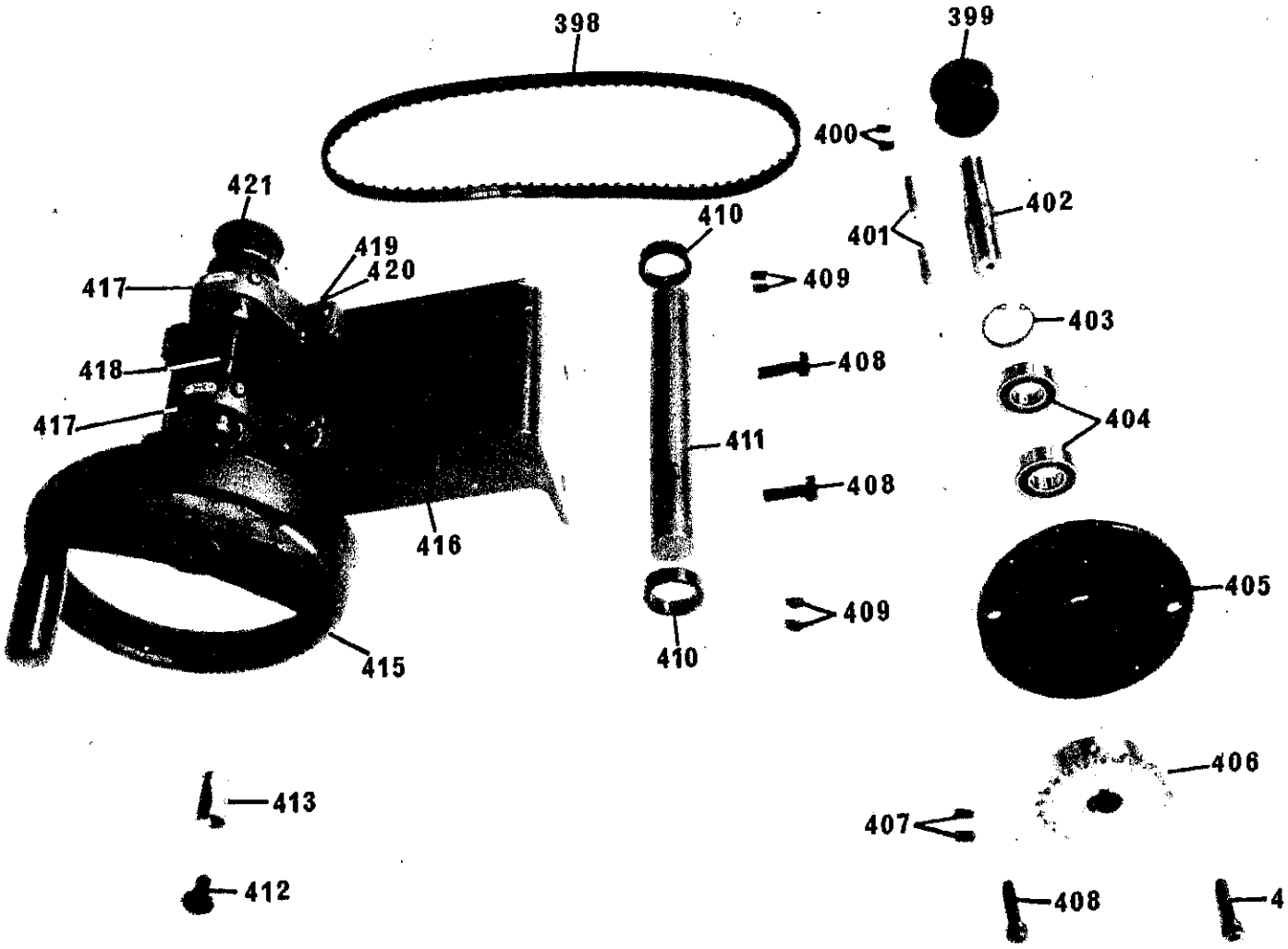
ILLUSTRATED PARTS LIST

ASSEMBLY:- THICKNESSER TABLE RISE AND FALL

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
398	K51.04.554	1	367 x L050 Timing Belt
399	PAR 221	1	Timing Pulley for Drive Spindle
400		2	3/8" Whit x 1/4" Long Socket Set Screws
401	K51.20.127	2	6 x 6 x 45 Long Key
402	PAR 48	1	Rise and Fall Drive Spindle
403	K51.10.204	1	7000-042 Internal Circlip
404	K06.01.121	2	6004-2RS Bearings
405	PAR 52	1	Drive Spindle Housing
406	T5-232	1	Rise and Fall Sprocket
407		2	M6 x 15 Long Socket Set Screws
408		4	M10 x 25 Long Hexagon Set Screws
409		4	M5 x 6 Long Socket Set Screws
410	K05.28.291	2	Loose Collars
411	PAR 87	1	Pivot Bar for Tension Bracket
412		1	M10x25 Long Countersunk Socket Head Screw
413	BEL 24	1	Tapered Bush for Handwheel
414	K51.27.214	1	M8 Handle
415	1057-400	1	Rise and Fall Handwheel
416	PAR 106	1	Rise and Fall Tension Bracket
417	K06.30.413	2	FLCTE 16 Flanged Bearing
418	PAR 47	1	Rise and Fall Handwheel Shaft
419		4	M10 x 35 Long Hexagon Set Screws
420		4	M10 Washers
421	PAR 222	1	Timing Pulley for Handwheel Shaft

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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ILLUSTRATED PARTS LIST

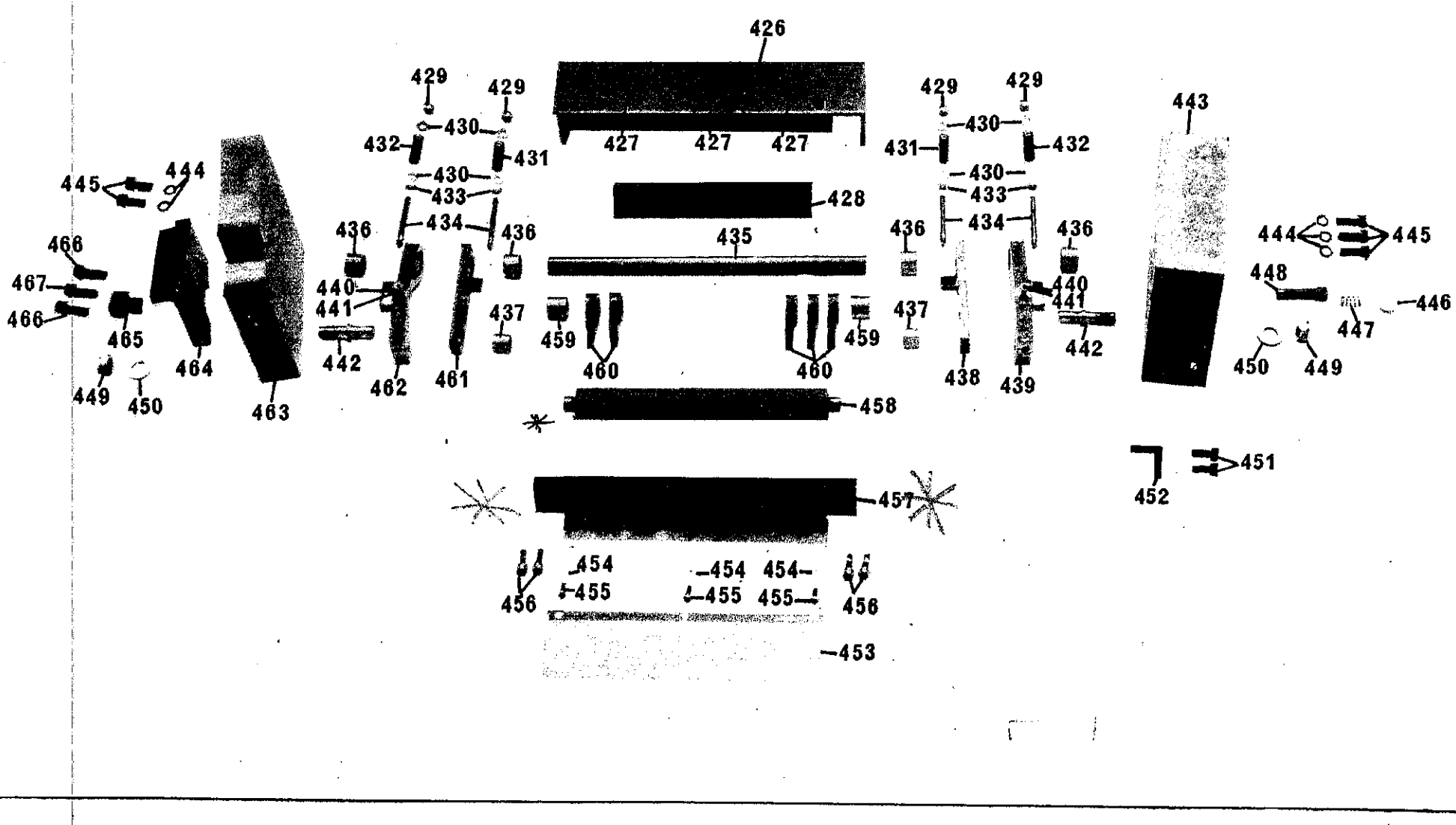
ASSEMBLY:- THICKNESSER.INFEED PRESSURES

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
426	PAR 162	1	Infeed Tie Plate
427		3	M6 x 12 Long Socket Button Head Screws
428	PAR 9	1	Stop for Kick Back Finger
429		4	M8 Aerotight Nuts
430		8	8mm Washers
431	K51.73.146	2	S334 Springs
432	K51.73.145	2	S312 Springs
433		4	M8 Nuts
434		4	M8 x 70 Long Studs
435	PAR 155	1	Pivot Bar
436	K51.05.134	4	25 x 30 x 12 Long Oilite Bushes
437	K51.05.133	2	20 x 25 x 12 Long Oilite Bushes
438	PAR 137	1	Arm for Infeed Pressure Roller
439	PAR 147	1	Arm for Infeed Pressure Bar Bracket
440		2	M6 x 25 Long Socket Grubscrews
441		2	M6 Locknuts
442	PAR 183	2	Infeed Pressure Bar Stops
443	PAR 61	1	Pressure Bar Bracket
444		5	M10 Spring Washers
445		5	M10 x 20 Long Socket Capscrews
446	K51.18.698	1	M20 x 1.5 Pitch Conduit Plug
447	1014-118	1	Spring
448	PAR 158	1	Top Table Stop
449		2	M12 Aerotight Nuts
450		2	12mm Washers
451		2	M8 x 16 Long Socket Capscrews
452	PAR 206	1	Infeed Pressure Stop
453	1031-32	1	Baffle Plate
454		3	6mm Spring Washers
455		3	M6 x 16 Long Socket Capscrews
456		4	M8 x 25 Long Socket Capscrews
457	PAR 165	1	Infeed Pressure Bar
458	PAR 135	1	Pressure Roller
459		2	25 Bore x 30 O/D x 25 Long Oilite Bushes
460	B-SK-1344	18	Kick Back Fingers
461	PAR 136	1	Arm for Infeed Pressure Roller
462	PAR 161	1	Arm for Infeed Pressure Bar Bracket
463	PAR 60	1	Pressure Bar Bracket
464	PAR 50	1	Outfeed Table Guide
465	PAR 45	1	Outfeed Fence Adjuster
466		2	M10 x 30 Long Socket Button Head Screws
467		1	M10 x 45 Long Socket Capscrew

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES

Fig. 1069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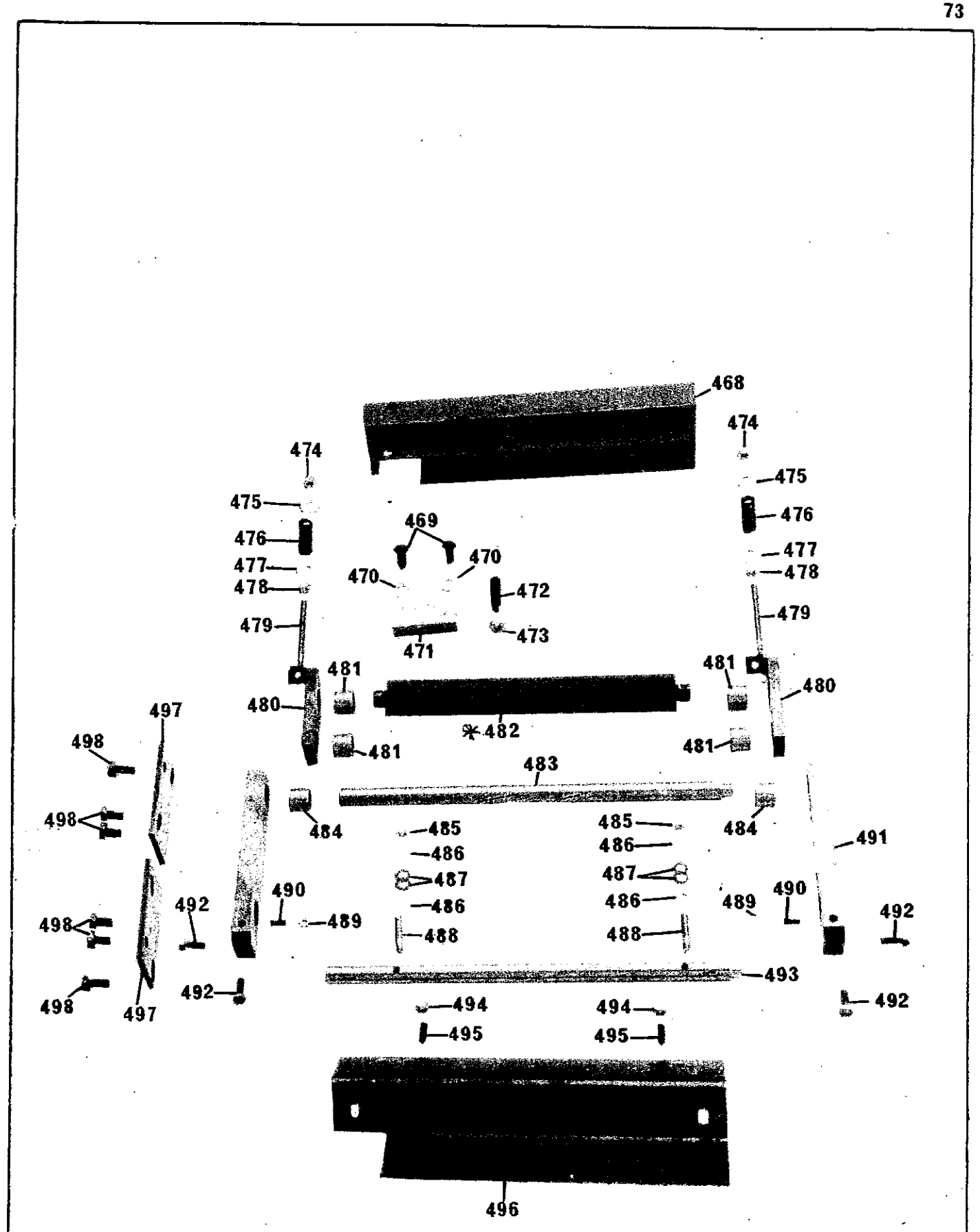
ILLUSTRATED PARTS LIST

ASSEMBLY:- THICKNESSER OUTFEED PRESSURES

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
468	PAR 150	1	Rear Tie Plate
469		2	M10 x 20 Long Socket Button Head Screws
470		2	10mm Washers
471	PAR 199	1	Fence Stop Block
472	PAR 201	1	Stop Screw
473		1	M12 Nut
474		2	M8 Aerotight Nuts
475		2	8mm Washers
476	K51.73.108	2	ETS 89 Springs
477		2	8mm Washers
478		2	M8 Binx Nut
479		2	M8 x 95 Long Studs
480	PAR 163	2	Arms for Rear Pressure Roller
481	K51.05.133	4	20 x 25 x 12 Oilite Bushes
482	PAR 135	1	Pressure Roller
483	PAR 168	1	Rear Pivot Bar
484	K51.05.115	2	20 x 25 x 20 Oilite Bushes
485		2	M8 Aerotight Nuts
486	1039/39	4	Spacers
487	K51.73.251	12	Disc Springs (6 either side)
488	PAR 211	2	Studs
489		2	M8 Nuts
490		2	M8 x 16 Long Socket Grubscrews
491	PAR 175	2	Rear Pressure Bar Arms
492		4	M8 x 16 Long Socket Capscrews
493	PAR 160	1	Rear Pressure Bar Support
494		2	M8 Nuts
495		2	M8 x 20 Long Socket Grubscrews
496	PAR 124	1	Rear Pressure Bar
497	PAR 169	2	Pivot Bar Mounting Plates
498		6	M10 x 25 Long Hexagon Set Screws
*	PAR 309		SOME M/C'S HAVE STEEL INFEED ROLLER

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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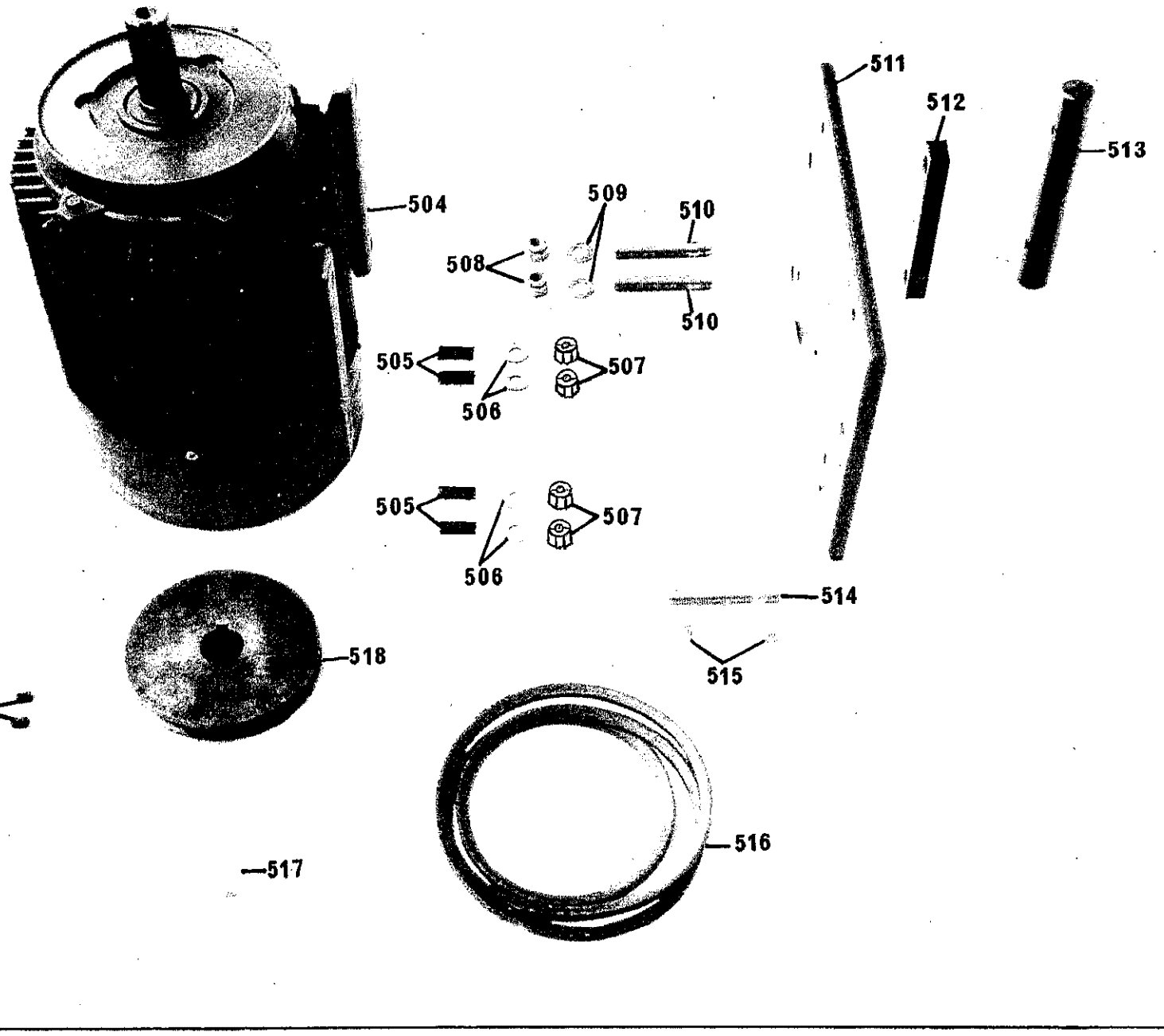
ILLUSTRATED PARTS LIST

ASSEMBLY:- SIDE HEAD MOTOR

FIG ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
504	K51.15.333	1	Side Head Motor
505		4	M10 x 35 Long Studs
506		4	10mm Washers
507		4	M10 Aerotight Nuts
508		2	M12 Aerotight Nuts
509		2	12mm Washers
510		2	M12 x 75 Long Studs
511	PAR 97	1	Side Motor Pivot Plate
512	PAR 95	1	Pivot Plate Spacer
513	PAR 94	1	Side Head Motor Pivot
514		1	M10 x 150 Long Stud
515		2	M10 Nuts
516	K51.04.214	1	SPZ 1520 Belt
517		1	8 x 7 x 40 Long Key
518	PAR 103	1	Side Head Motor Pulley - 50 cycle
	PAR 104	1	Side Head Motor Pulley - 60 cycle
519		2	M10 x 10 Long Socket Set Screws
			NOTE: WHEN RE-ORDERING MOTOR, STATE VOLTAGE PHASE, HP AND FRAME SIZE FROM MOTOR PLATE

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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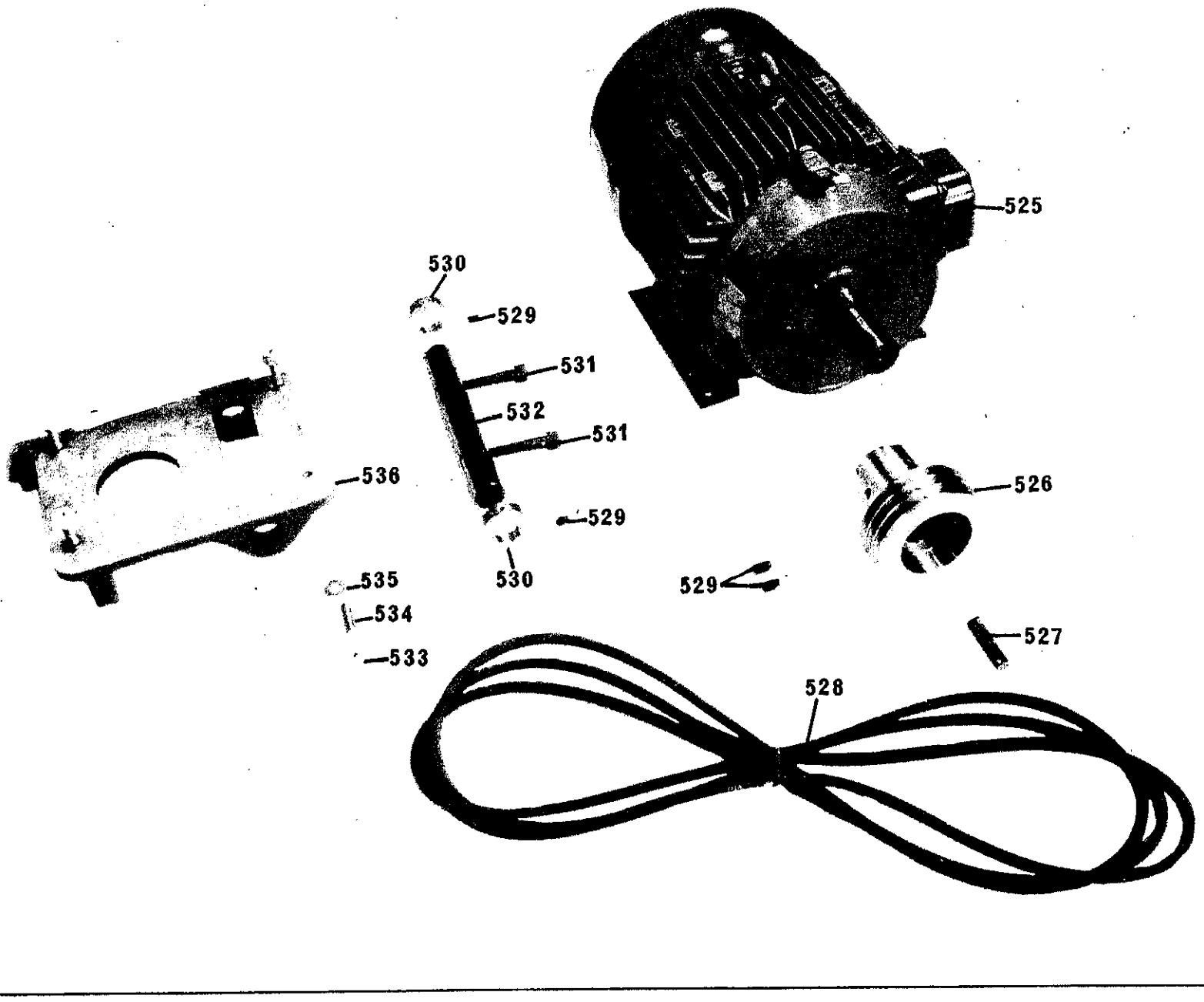
ILLUSTRATED PARTS LIST

ASSEMBLY:- HORIZONTAL MOTOR

ITEM	PART NO. *	UNITS PER ASSEMBLY	DESCRIPTION
525	K51.15.561	1	Horizontal Cutterblock Motor
526	1069-149	1	Motor Pulley - 50 cycle
	1069-113	1	Motor Pulley - 60 cycle
527		1	8 x7 x 40 Long Key
528	K51.04.212	3	SPZ1400 Belts
529		4	M8 x 10 Long Socket Set Screws
530	K05.28.259	2	Loose Collars
531		2	M12 x 60 Long Socket Capscrews
532	PAR 90	1	Main Motor Pivots
533		4	M10 Aerotight Nuts
534		4	M10 x 35 Long Studs
535		4	10mm Washers
536	EM72	1	Motor Pivot Plate
			NOTE: WHEN RE-ORDERING MOTOR, STATE VOLTAGE, PHASE, HP AND FRAME SIZE FROM MOTOR PLATE

– ITEM NOT ILLUSTRATED

* PLEASE QUOTE PART & MACHINE NUMBER WHEN ORDERING SPARES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