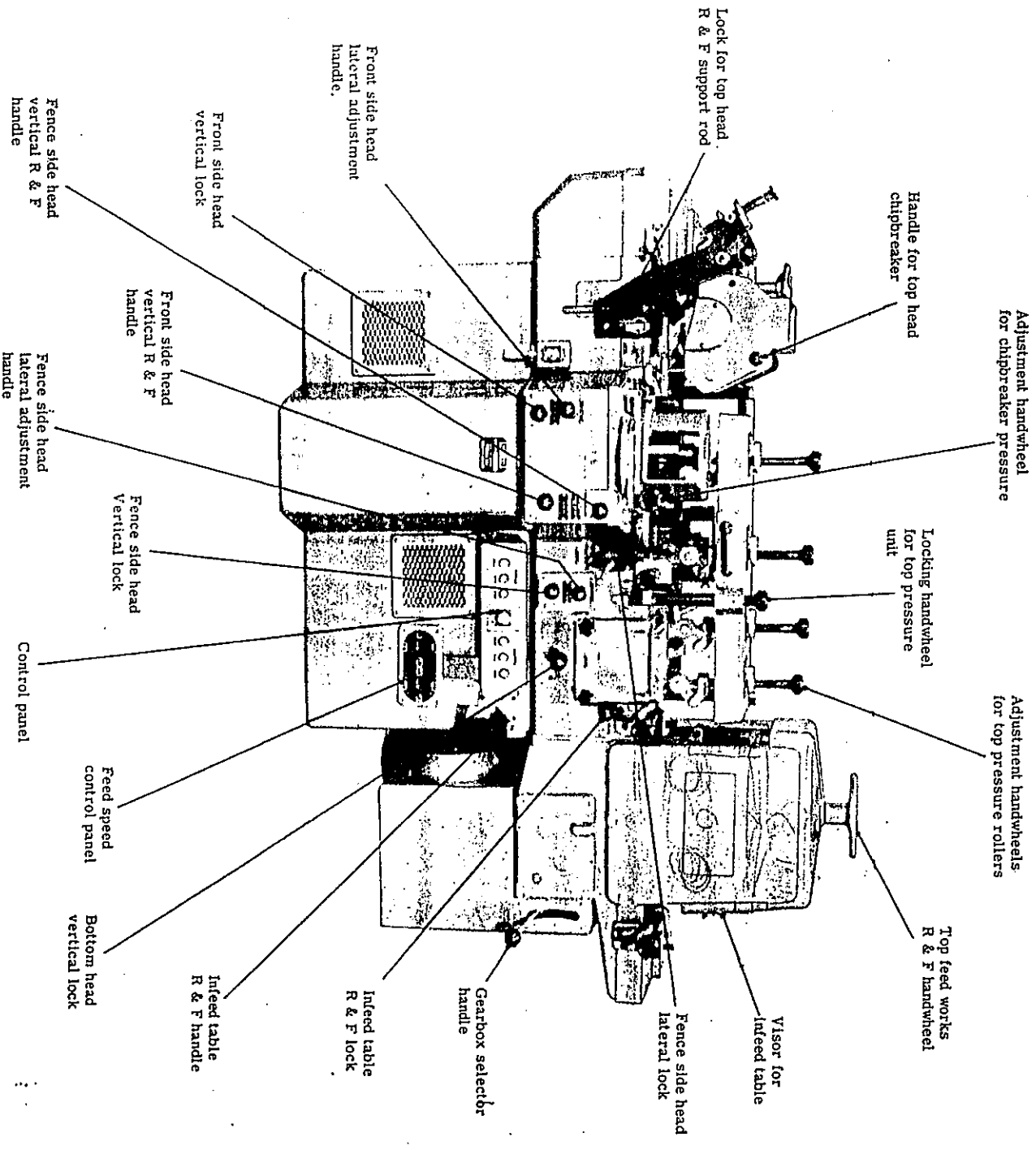


6'x3' PLANER & MOULDER TYPE 6' BFO



SPECIFICATION

Maximum Size of timber admitted

Cutting Circle : Bottom Head

Top Head
Fence Side Head
Front Side Head
Extra Bottom Head

Extra bottom head can accommodate
Feed speeds per minute
Dia. of Spindle End
Feed motor (2speed: 3000/1500 rpm)
Spindle motors: Horizontal heads
Side Heads
Extra bottom head

Spindle speeds
Diameter of feed rolls
Yield of feed rolls

Floor space :
4 Head machine
5 Head machine
Net weight approx:
4 Head machine
5 Head machine

Shipping dimensions :
4 Head machine
5 Head machine

6½" x 3½"
Standard

5½" 140mm
5½" 140mm
5½" 140mm
5½" 140mm
5½" 140mm
9" (230mm) dia. saw

20, 30, 40 and 60ft.

40mm
5-5/4-2HP

10HP
7.5HP
7.5HP
5,000-rpm
4"
5/8"

73" x 43"
94" x 43"

3140 lb
3360 lb

133 cu.ft.
160 cu.ft.

165 x 90mm
Maximum Moulding Dia.

6½" 159mm
7½" 191mm
7" 178mm
7½" 185mm
7½" 191mm

6, 9, 12, 18m

40mm
5-5/4-2HP

10HP
7.5HP
7.5HP
5,000rpm
100mm
16mm

1900 x 1090mm
2390 x 1090mm

1420 kg
1525 kg

3, 7m³
4, 7m³

INSTALLATION

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

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 isolator when fitted.

Points to note when connecting to power supply:-

1. Check that the voltage, phase and frequency correspond to those on the motor plate, also the correct coils and heaters are fitted to the starters.
2. It is important that the correct size of cable is used to give the correct voltage at the starter. Too light a cable will give a voltage drop at the starter and may damage the motor.
3. Check the main line fuses are of the correct capacity. See list below. When an isolator is fitted, the fuses are of the correct capacity as received.
4. Connect the line leads to the appropriate terminals. See fig. 2 for wiring diagram.
5. Check all connections are sound.
6. Check the rotation of all the motors for the correct direction. If this is incorrect reverse any two of the line lead connections.

Four Head Machine		HP	S. W. G. Tinned Copper Wire	Fuse Rating Amps
Voltage	Phase			
220	3	10/7½/5½/4·2	15	78
380/420	3		19	38
550	3		19	38

Five Head Machine		HP	S. W. G. Tinned Copper Wire	Fuse Rating Amps
Voltage	Phase			
220	3	10/7½/7½/5½/4·2	14	102
380/420	3		18	45
550	3		18	45

FOUNDATION

See fig. 3 for foundation bolt positions and clearances required. Foundation bolts are not supplied with the machine but are available at a reasonable extra charge.

LUBRICATION

Lubrication should be carried out as shown in fig. 4.

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

DUST EXHAUST SYSTEM

The size of all dust outlets are shown in Fig. 4.

We have developed with Messrs. Dustraction of Leicester a special collector unit for this machine which represents a big advance on the usual practise of coupling each head independently into the main exhaust system. We shall be pleased to supply details and quotation on request.

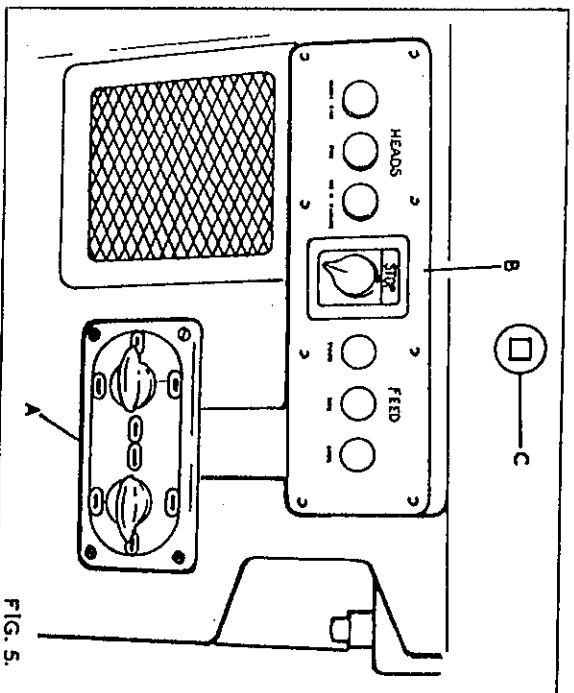


FIG. 5.

OPERATING INSTRUCTIONS FOR ELECTRICAL CONTROLS

All the electrical controls are conveniently placed towards the in-feed end of the machine. The controls are situated in two separate panels as shown in Fig. 5.

Panel "A" incorporates the rotary switches to control the feed motor. They are for forward and reverse motion of the feed rollers and fast and slow speed to give you the range of feed speeds.

Panel "B" is in two sections. One section for the feed, with start and stop push buttons and an inch button. This button operates the feed in either direction for the period it is depressed only.

The other section has the start buttons for the top and bottom motor, side head motor and extra head motor when supplied. A master stop button is fitted between the two sections, which when operated stops the whole machine. This button is fitted with a lock off feature and can be pushed in and half turned to lock the button in the "off" position, thus rendering all the controls inoperative. It should be used when leaving the machine or when attending to the cutterblocks to prevent accidental starting.

A master stop button is also fitted to the main table after the top head.

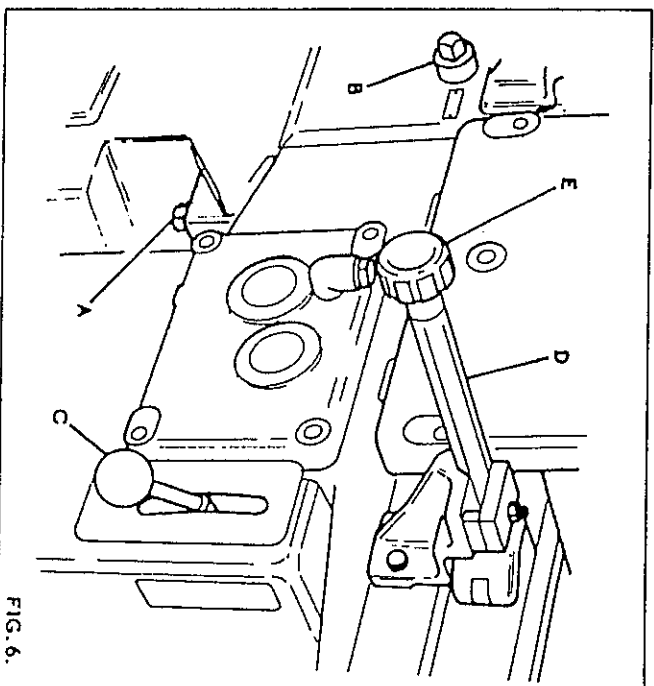


FIG. 6.

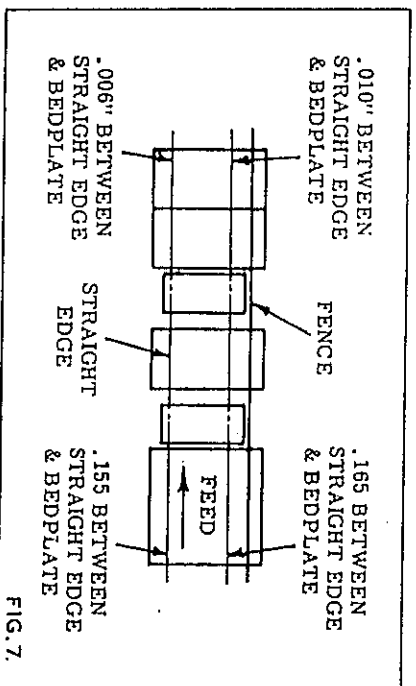


FIG. 7.

INFEED TABLE

The infeed table is fitted with renewable bedplates and four driven ball bearing mounted feed rollers. The table has a total movement of ¼" (6mm) which is controlled by the handle "A" in Fig. 6. The table should be set to give the amount of cut required on the bottom head and can be locked in any position by means of the locking handle "B".

The four feed rollers are all power driven with the top pair mounted directly above the bottom pair. These rollers are pitched to ensure that the stock is kept against the fence throughout the machine.

The rollers are set at the works in accordance with dimensions shown in Fig. 7. The bottom rollers can be adjusted by means of four set screws and locknuts each placed under the ends of the rollers. Care should be taken to ensure that the rollers are set to the dimensions shown should any re-alignment be necessary.

FOUNDATION PLAN

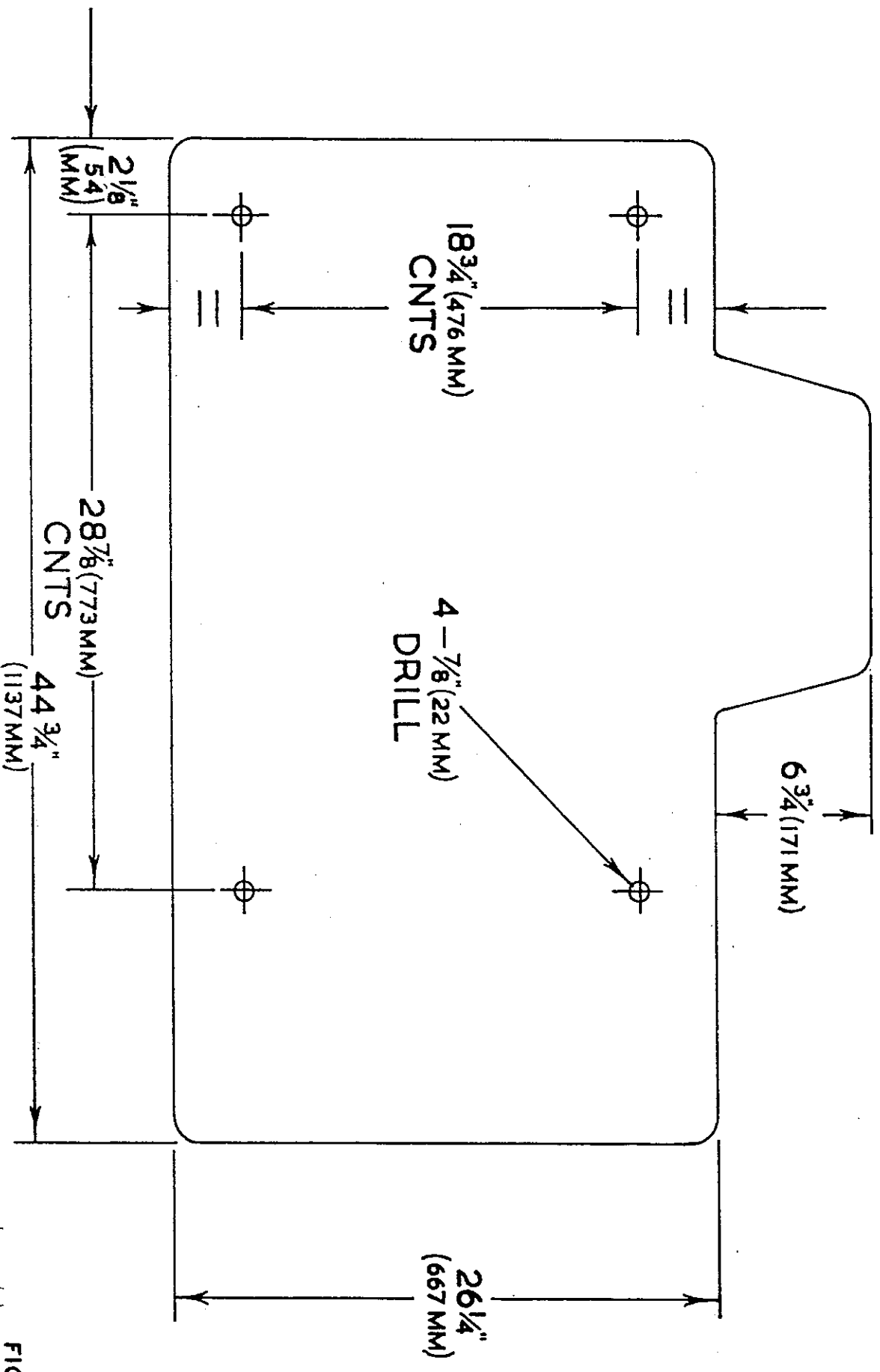
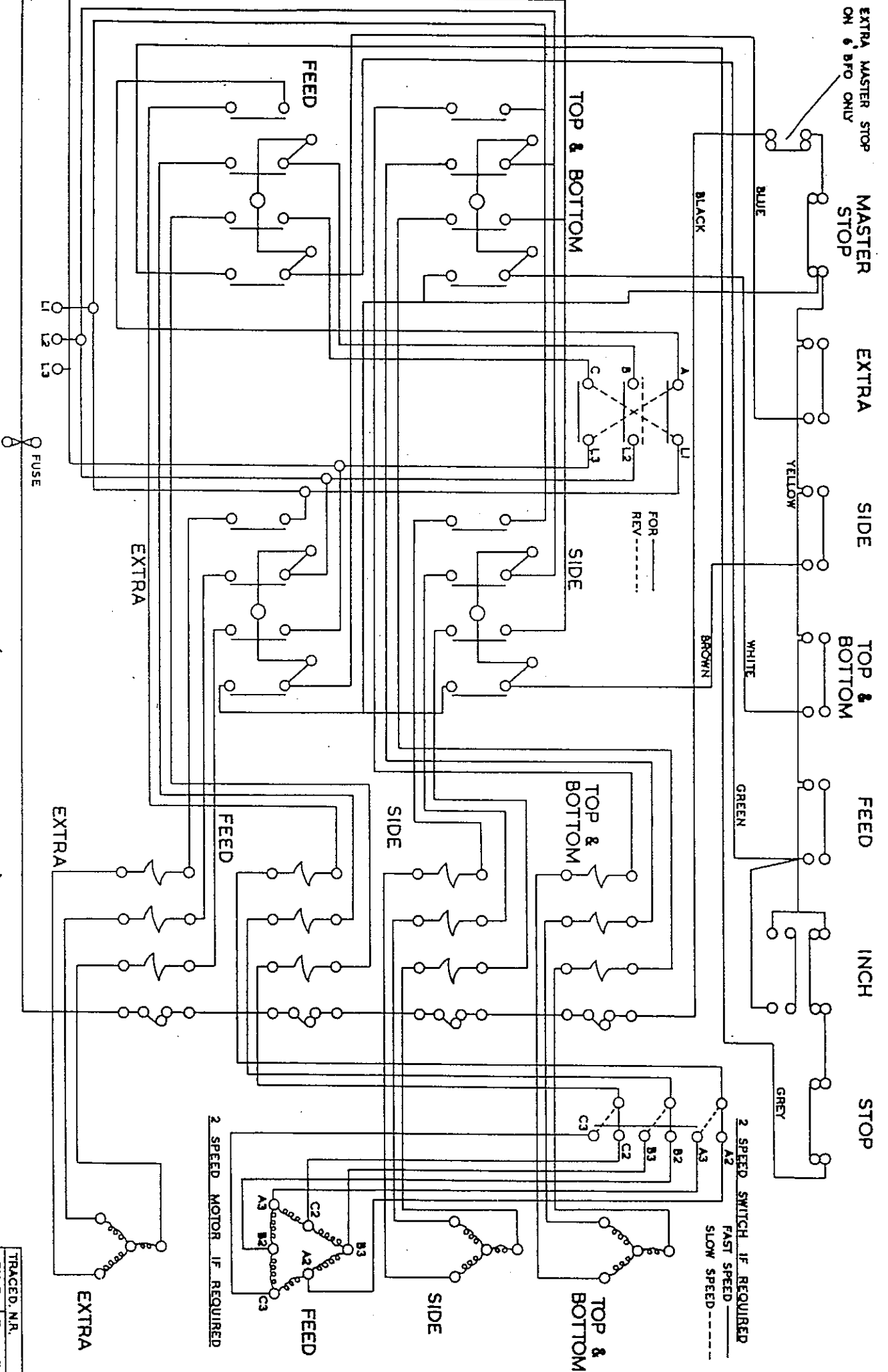
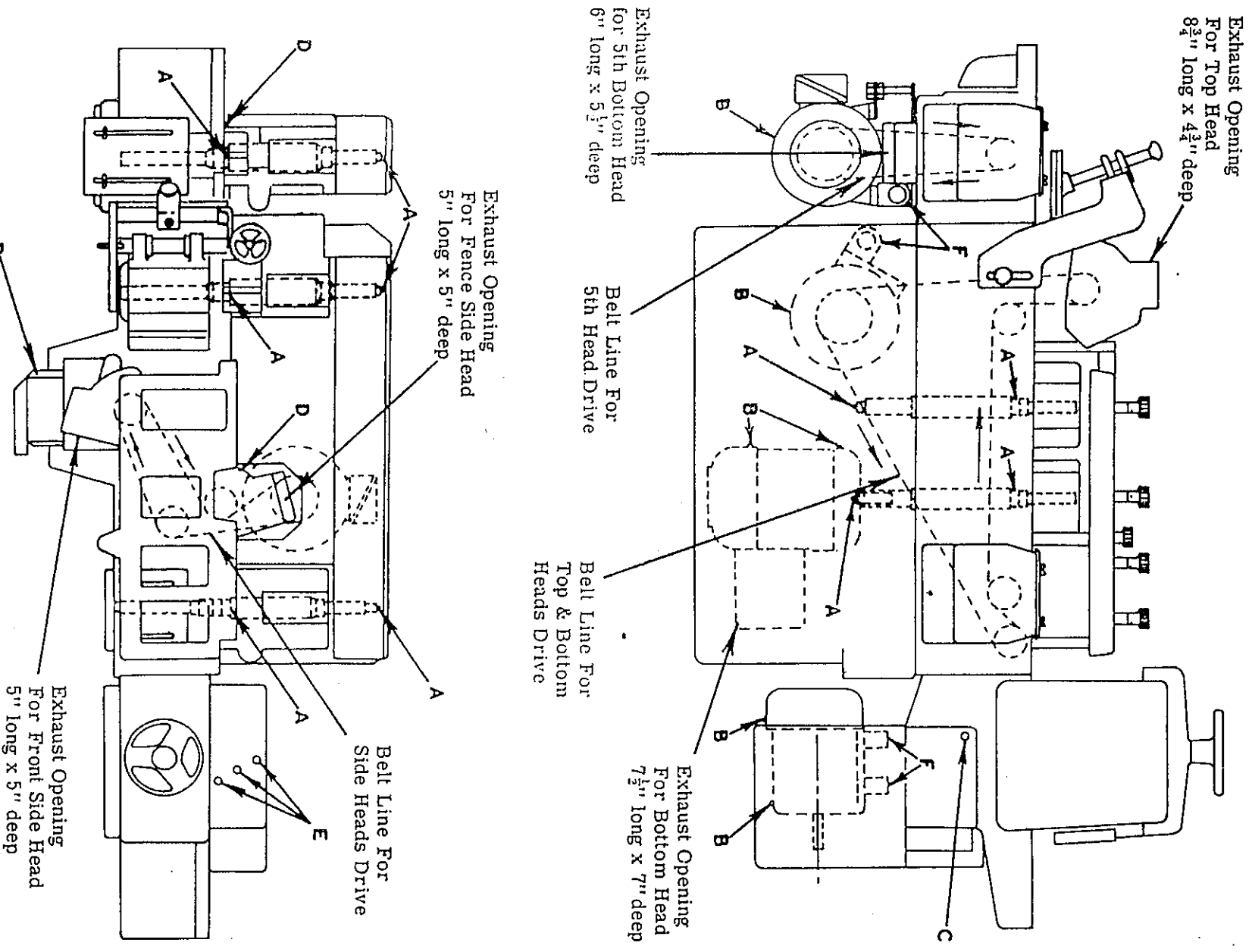


FIG. 3.



4-6" BFO (MTE-UCCO UNITS) WIRING DIAGRAM.

TRACED, N.R.
 DRN, T.B. 7-6-67
 C-1033/WD



LUBRICATION INSTRUCTIONS

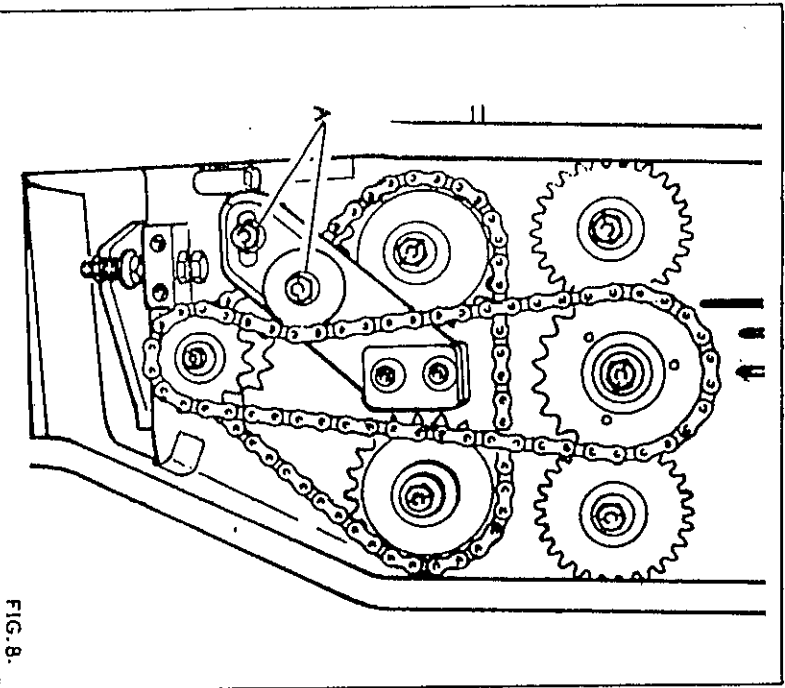
- POINT "A" ONE SHOT OF GREASE PER WEEK
 - POINT "B" TWO TURNS OF GREASE BOTH ENDS OF MOTOR PER YEAR
 - POINT "C" TOP UP TO OIL LEVEL WEEKLY USING EP LUBRICANT
 - POINT "D" OIL SLIDES WEEKLY
 - POINT "E" KEEP STAUFFERS FILLED WITH OIL
 - POINT "F" OIL PIVOTS WEEKLY
- TYPE OF GREASE RECOMMENDED :- SHELL ALVANIA 3.
 TYPE OF OIL RECOMMENDED, POINT C :- CASTROL PERFECTO R.R.
 TYPE OF OIL RECOMMENDED, POINT D :- CASTROL "D" EP 140

FIG. 4.

FEED WORKS

The feed works are chain driven from a two speed gearbox which in turn is belt driven from a two speed motor giving feed speeds of 20, 30, 40 & 60ft per minute (6, 9, 12 & 18 m/min)

The gearbox is controlled by means of the lever "C" in Fig. 6 and the two speed motor is controlled by the rotary switch which is mounted on the control panel at the front of the machine. The feed chain can be tensioned by means of the adjustable pulleys "A" in Fig. 8. These are to the rear of the feed works. The top feed rollers can be raised or lowered by means of the 8" diameter handwheel at top of the feed works unit. This also applies pressure to the feed rollers. Care should be taken, not to apply excessive pressure to the feed rollers as this causes erratic feeding.



BOTTOM HEAD

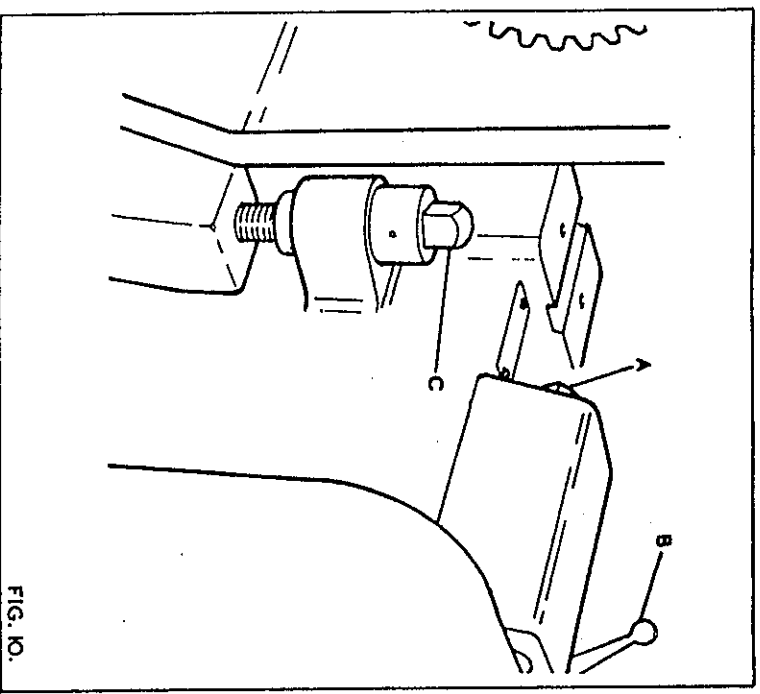
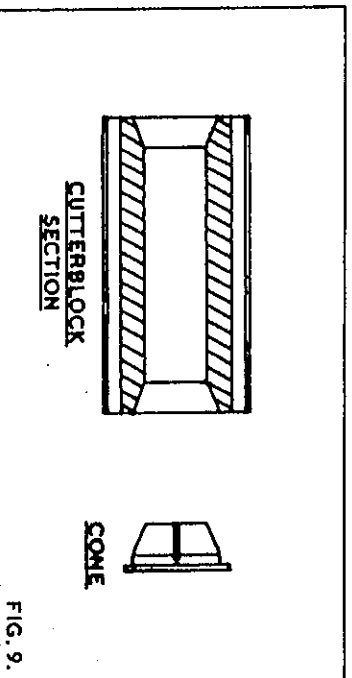
The drive to this head is by a flat belt from a 10HP motor which also drives the top head. The spindle end is 40mm diameter with special cone seating as shown in Fig. 9, and runs at 5,000rpm.

The block fitted to this spindle is $3\frac{1}{2}$ " (89mm) square x $6\frac{1}{2}$ " (165mm) long giving a standard cutting circle of $5\frac{1}{2}$ " (140mm) dia. A circular cutterblock can also be fitted which is $5.3/8$ " (137mm) dia x $6\frac{1}{2}$ " (165mm) long and gives a $5\frac{1}{2}$ " (140mm) dia cutting circle. The spindle is provided with lateral adjustment of $3/8$ " (10mm) by means of handle "A" in Fig. 10. The head is locked by the locking handle "B". Vertical movement of $5/16$ " (8mm) is provided to the spindle by means of the handle "C" which can be locked by the handle "C" in Fig. 5.

The standard cutting circle diameter of the block is $5\frac{1}{2}$ " (140mm) and a maximum moulding diameter of $6\frac{1}{4}$ " (159mm) is obtainable on this head.

NOTE:-

All cone seatings on the spindle and in the cutterblocks should be kept clean and free from dirt at all times.



FENCE SIDE HEAD

The drive to this head is by a flat belt from a $7\frac{1}{2}$ HP motor, which also drives the front side head. The spindle end is 40mm dia with special cone seating as shown in Fig. 9 and runs at a speed of 5,000rpm.

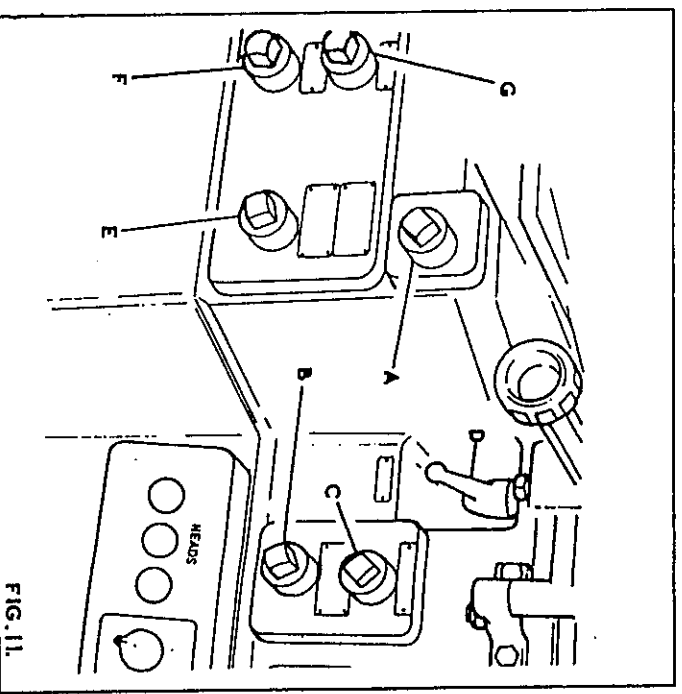
The block fitted to the spindle is $3\frac{1}{2}$ " (89mm) square x $3\frac{1}{4}$ " (83mm) long giving a standard cutting circle of $5\frac{1}{2}$ " (140mm) dia. A circular cutterblock can also be fitted which is $5.3/8$ " (137mm) dia x $3\frac{1}{4}$ " (83mm) long and gives a $5\frac{1}{2}$ " (140mm) dia cutting circle.

The spindle is provided with vertical adjustment of $5/8$ " (16mm) by means of the handle "A" in Fig. 11. This head is locked by means of the locking handle "B" in Fig. 11. Lateral movement of $\frac{1}{2}$ " (13mm) is provided to the head by means of the handle "C" in Fig. 11 which can be locked by the locking handle "D" in Fig. 11.

The standard cutting circle diameter of the block is $5\frac{1}{2}$ " (140mm) and a maximum moulding diameter of 7" (178mm) is obtainable on this head.

NOTE :-

All cone seatings on the spindle and in the cutterblocks should be kept clean and free from dirt at all times.



FRONT SIDE HEAD

The drive to the head is by a flat belt from the same $7\frac{1}{2}$ HP motor which drives the fence side head. The spindle end is 40mm dia with special cone seating as shown in Fig. 9 and runs at a speed of 5,000rpm.

A circular cutterblock can also be fitted which is 5.3/8" (137mm) dia x 3 $\frac{3}{4}$ " (83mm) long and gives a 5 $\frac{1}{2}$ " (140mm) dia cutting circle.

The spindle is provided with vertical adjustment of 5/8" (16 mm) by means of the locking handle "E" in Fig. 11. This being locked by means of the locking handle "F". Lateral movement of "6 $\frac{3}{8}$ " (171mm) is provided to the head by means of the handle "G" in Fig. 11 which can be locked by the locking handle "

The standard cutting circle diameter of the block is 5 $\frac{1}{2}$ " (140mm) and a maximum moulding diameter of 7 $\frac{1}{4}$ " (184 mm) is obtainable on this head.

NOTE:-

All cone seatings on the spindle and in the cutterblocks should be kept clean and free from dirt at all times.

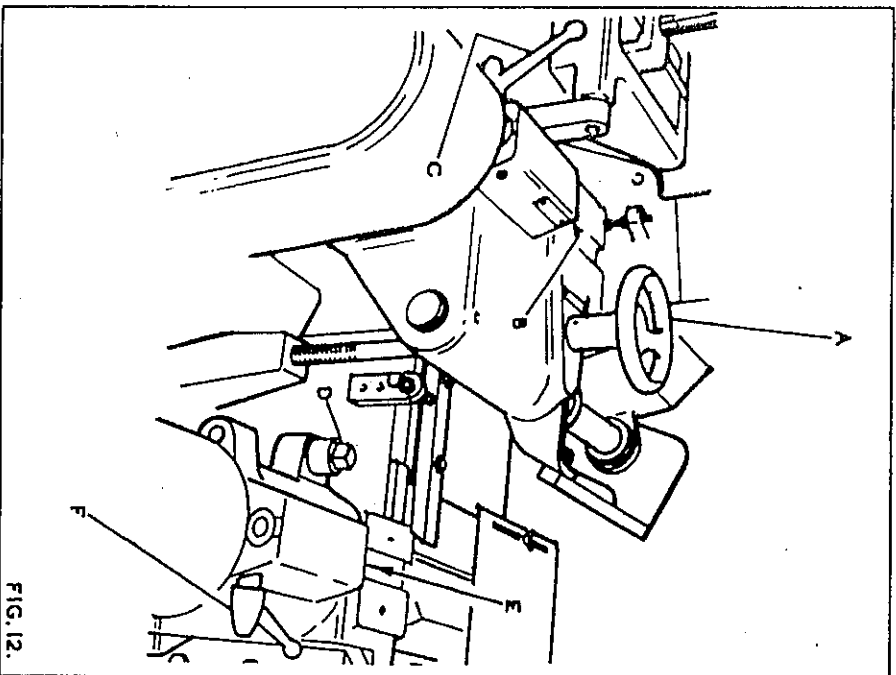


FIG. 12.

TOP HEAD

The drive to the head is by a flat belt from the same 10HP motor which drives the bottom head. The spindle end is 19/40mm dia with special cone seating as shown in Fig. 9 and runs at a speed of 5,000rpm.

The block fitted to the spindle is 3 $\frac{1}{2}$ " (89mm) square x 6 $\frac{1}{2}$ " (165mm) long giving a standard cutting circle of 5 $\frac{1}{2}$ " (140mm) dia. A circular cutterblock can also be fitted which is 5.3/8" (137mm) dia x 3 $\frac{1}{2}$ " (89mm) long and gives a 5 $\frac{1}{2}$ " (140mm) dia cutting circle.

The spindle is provided with vertical adjustment of 3 $\frac{1}{4}$ " (83mm) by means of the handwheel "A" in Fig. 12. This head is locked by means of the locking handle "A" in Fig. 13. Lateral movement of 3/8" (10mm) is provided to the head by the handle "F" in Fig. 12. This can be locked by the handle "C".

The standard cutting circle diameter of the block is 5 $\frac{1}{2}$ " (140mm) a maximum moulding diameter of 7 $\frac{1}{2}$ " (191mm) is obtained on the head.

NOTE :-

All cone seatings on the spindle and in the cutterblocks should be kept clean and free from dirt at all times.

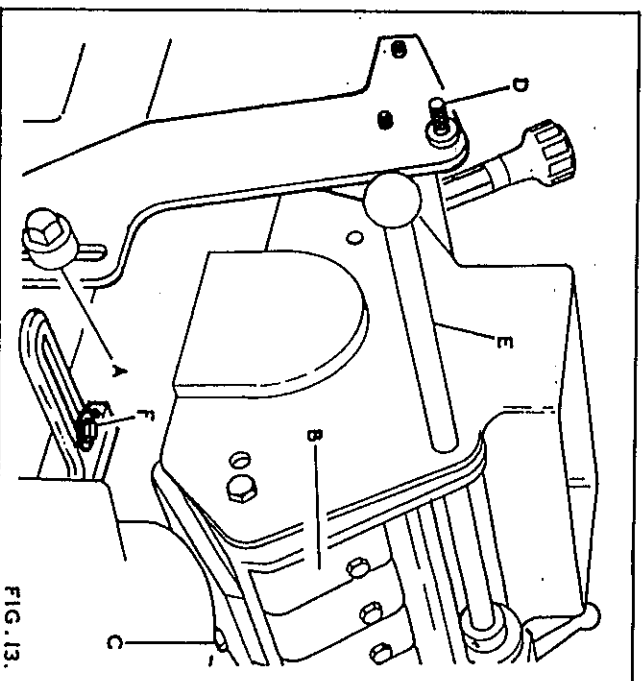


FIG. 13.

EXTRA HEAD

The drive to the head is by a flat belt from a 7 $\frac{1}{2}$ HP motor. The spindle end is 40mm dia with special cone seating as shown in Fig. 9, and runs at a speed of 5,000rpm.

The block fitted to this spindle is 3 $\frac{1}{2}$ " (89mm) square and 6 $\frac{1}{2}$ " (165mm) long with a 5 $\frac{1}{2}$ " (140mm) dia cutting circle. A circular cutterblock can also be fitted which is 5.3/8" (137mm) dia x 6 $\frac{1}{2}$ " (165mm) long and gives a 5 $\frac{1}{2}$ " (140mm) dia cutting circle.

The spindle is provided with vertical adjustment of $\frac{3}{4}$ " (19mm) by means of the handle "D" in Fig. 12 and can be locked by the locking handle "A" in Fig. 14. Lateral movement of 3/8" (10mm) is provided to the head by means of the handle "E" in Fig. 12. This can be locked by the handle "F" in Fig. 12.

The standard cutting circle diameter of the block is 5 $\frac{1}{2}$ " (140mm) and a maximum moulding diameter of 7 $\frac{1}{2}$ " (191mm) is obtainable on this head.

NOTE :-

All cone seatings on the spindle and in the cutterblocks should be kept clean and free from dirt at all times.

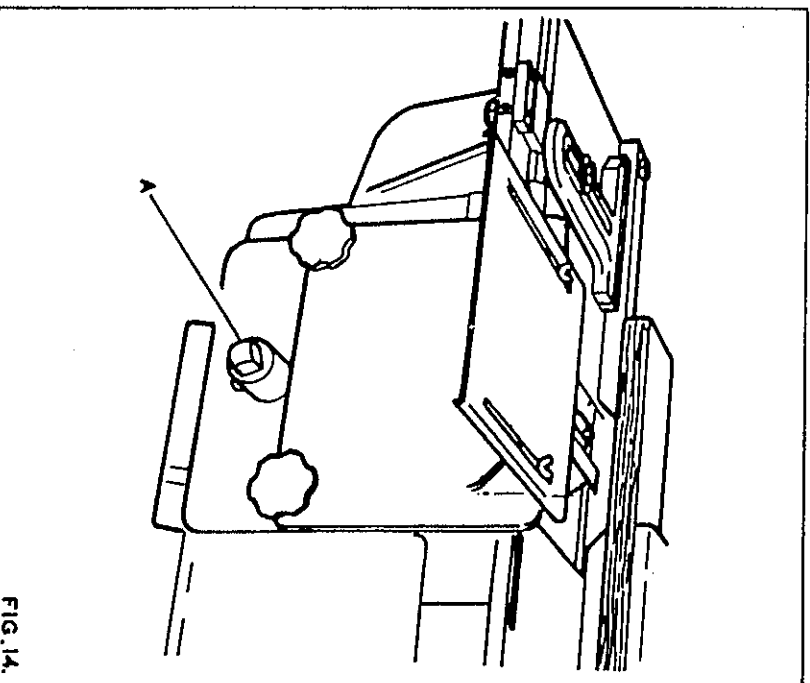


FIG. 14.

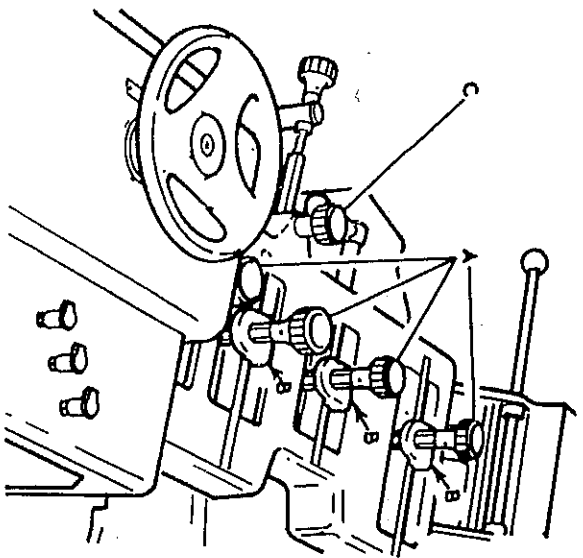


FIG. 15.

PRESSURES

First Side Pressure

The first side pressure is mounted on the in-feed table before the feed works as shown in Fig. 6. The roller is mounted on the adjustable bar "D". To set roller reduce spring pressure to a minimum by turning handwheel "E", then proceed to loosen hexagon nut "F" and move bar forward until the roller touches the timber. Move the bar forward a further $\frac{1}{4}$ " (6mm) and relock hexagon nut "F". This should give the necessary pressure required for a good finish, but should further tension be required this should be done by adjusting the handwheel "E". The spring loaded roller when correctly set will allow for a maximum variation in timber of 3/8" (10mm) without altering the setting of the pressure unit, except on maximum size stock.

Second Side Pressure before Bottomhead

This pressure is identical to the first side pressure and is adjustable in exactly the same manner.

Top Pressures over Bottom Head and Side Heads

Four top pressures are mounted on the top pressure bracket. Each one can be individually adjusted by reducing spring pressure to a minimum by turning handwheel "A" in Fig. 15 then proceeding to loosen the square head bolt "B" in Fig. 15. Move bar down until the roller touches the timber, then move bar down a further $\frac{1}{4}$ " (6mm) and relock bolt "B". This should give the necessary pressure required for a good finish, but should further tension be required, this should be done by adjusting the handwheel "A". The spring loaded roller when correctly set will allow for a maximum variation in timber of 3/8" (10mm) without altering the setting of the pressure unit. The top pressure bracket can be lifted clear to allow for easy access to the cutterblocks by loosening the handwheel "C" in Fig. 15.

Side Pressure before Front Side Head

This pressure is identical to the first side pressure and is adjustable in exactly the same manner.

Side Pressure After Front Side Head

This pressure is of the solid type. The unit is slotted to give adjustment. To adjust the pressure loosen the bolt "F" in Fig. 13, and position where required and relock bolt "F". The front of this pressure plate is drilled to take a wood packing piece if required.

Side Pressure after Top Head (4 Head Machine)

This pressure is identical to the side pressure before top head and is adjustable in exactly the same manner.

Top Pressure after Top Head

This pressure is of the spring loaded type with the pressure plate drilled to take a wood pressure pad. To adjust to pressure loosen the square head nut "A" in Fig. 16 making sure that the pin is in the centre of the slot on the hexagon tube. Move pad down until it touches timber and relock bolt "A". Pressure can now be applied to the pad by adjusting handwheel "B" until there is approximately $\frac{1}{4}$ " (6mm) between adjusting bar and handwheel boss as shown at "C". This should give the necessary pressure required for a good finish, but should further tension be required this should be done by adjusting the handwheel "B".

Side Pressure after Extra Head (5 Head Machine)

This pressure is identical to the side pressure before top head and is adjustable in exactly the same manner.

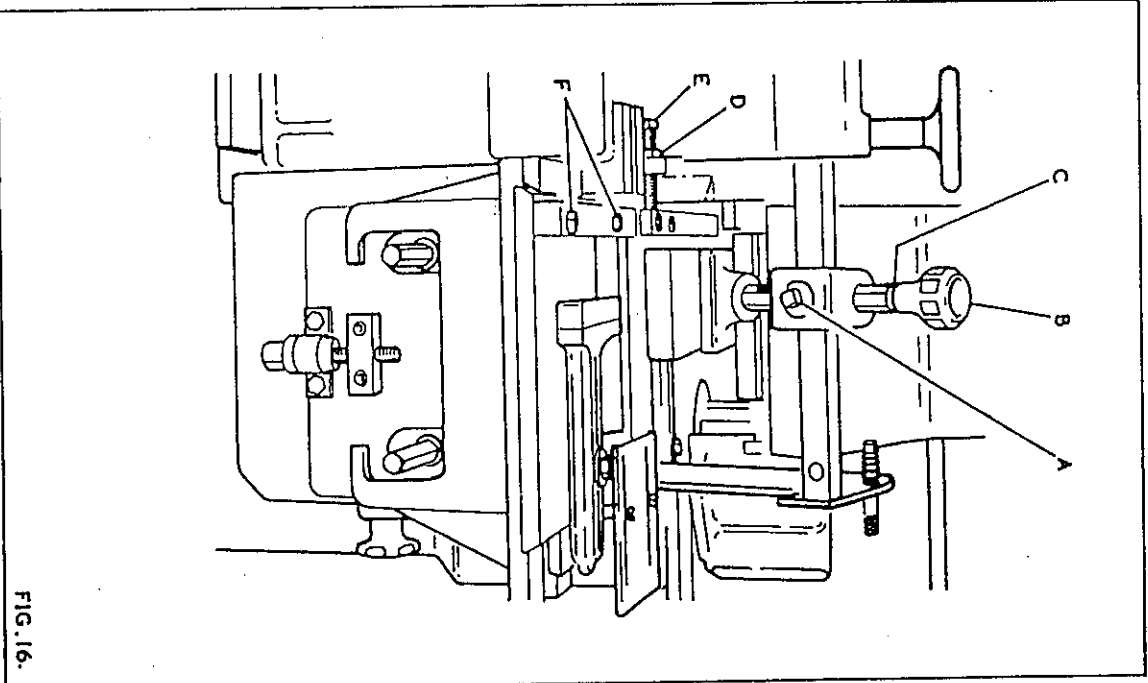


FIG. 16.

CHIPBREAKERS

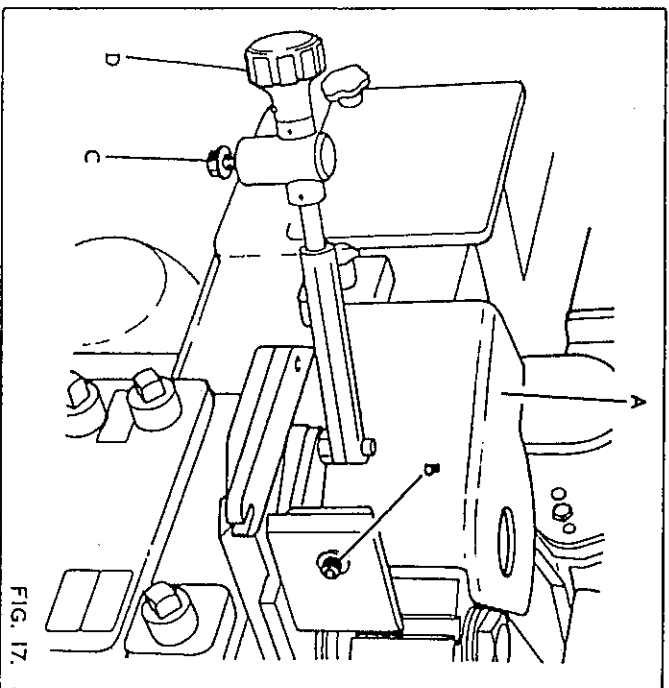
Side Head Chipbreaker

This chipbreaker is fitted to the slide which houses the front side head and so moves with the whole head unit. The chipbreaker bracket "A" in Fig. 17, can be set to the cutting circle being used by using any one of the three hole positions on the guard. The steel toe piece can be adjusted by loosening the socket head cap screw "B" in Fig. 17, positioning as required then relocking the socket head cap screw "B". The chipbreaker assembly pivots by means of a pivot screw which also has three alternate positions depending on the relationship of the bedplate to the cutting circle. The whole unit can be moved clear to give access to the front side head by loosening the bolt "C" and swinging the unit round on its pivot. When in the working position, pressure can be placed on the chipbreaker by means of the handwheel "D".

Top Head Chipbreaker

This chipbreaker is fitted with removable weights "B" in Fig. 13 for required pressure. Two steel toe pieces are attached to the chipbreaker and are adjustable by loosening the hexagon head bolts "C", positioning where required then relocking the hexagon head bolts "C". The chipbreaker has two positions depending on the cutting circle being used. These positions can be altered by loosening the hexagon head bolt at the rear of the chipbreaker then removing the hexagon head bolt "M" at the front moving the chipbreaker to the desired cutting circle and replacing the hexagon head bolt in the appropriate hole. Relock both bolts.

The complete guard and chipbreaker assembly can be lifted clear to give access to the top head cutterblock. The assembly will be held clear by means of the spring loaded plunger "D". Care should be taken, by taking the weight of the chipbreaker with the handle "E" before releasing the plunger "D" then gently lowering the unit back to the working position.



FENCES

Infeed Fence

This pre-set fence is secured to the infeed table and needs no adjustment.

Fences between Bottom and Fence Side Head

These two short fences are fitted to the bedplate between the bottom and fence side heads and are provided with longitudinal adjustment to cater for various cutting circles. To adjust fences loosen large socket head cap screw "A" in Fig. 18 at rear of fence, proceed to loosen the hexagon head bolts "B" position fences with minimum clearance to cutting circles then relock bolts "B" and cap screw "A".

Outfeed Fence

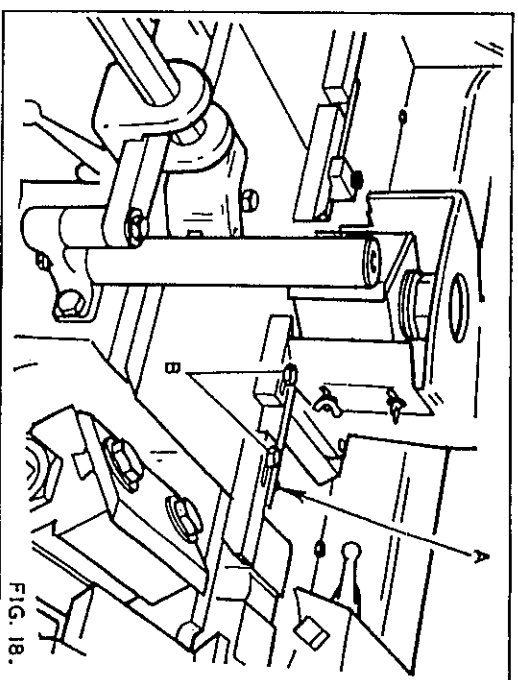
This fence is secured to the main table immediately proceeding the fence side head and has a total lateral adjustment of $\frac{1}{4}$ " (6mm).

For this adjustment loosen socket head cap screw "A", hexagon head bolts "C" and locknut "D" in Fig. 19 also loosen locknut "D" in Fig. 16. Proceed to adjust square head bolts "E" in Fig. 19 and "E" in Fig. 16 equally until fence is in required position. Relock locknuts "D" in Fig. 16 and 19, hexagon head bolts "C" in Fig. 19 and socket head cap screw "A" in Fig. 19. This procedure ensures the outfeed fence is kept parallel to the infeed fence.

The short extension of the outfeed fence is adjustable longitudinally to cater for various cutting circles on the fence side head. For adjustment loosen socket head cap screws "A" and "B" in Fig. 19, position fence with minimum clearance to cutting circle, then relock socket head cap screws "A" and "B".

Fence after Extra Head (Five Head Machine)

This fence is fitted to the bedplate on the rear table and has a total lateral adjustment of $\frac{1}{4}$ " (6mm). The fence moves longitudinally with the bedplate to give minimum clearance to the fifth head cutting circle. To adjust fence laterally loosen hexagon head bolts "F" in Fig. 16, position fence as required ensuring that it is kept parallel to the outfeed fence and relock hexagon head bolts "F".



BEDPLATES

Renewable steel bedplates are fitted throughout the entire length of the machine.

Fixed Bedplate before Feed Works

This bedplate is secured to the infeed table before feed works and requires no further attention.

Fixed Central Infeed Table Bedplate

This bedplate requires no further attention.

Fixed Bedplate after Feed Works

This bedplate requires no further attention.

Adjustable Bedplate before Bottom Head

This bedplate has 1" (25mm) adjustment to allow for varying sizes of cutting circle. A 1" (25mm) wide removable packing piece is also provided.

Adjustable Fence Side Head Bedplate

This bedplate has $\frac{7}{8}$ " (22mm) adjustment to allow for varying sizes of cutting circle

Adjustable Front Side Head Bedplate

This bedplate is attached to the front side head and moves laterally with the head. It also has an independent movement of $1\frac{1}{2}$ " (32mm).

Bedplate below Bottom Head

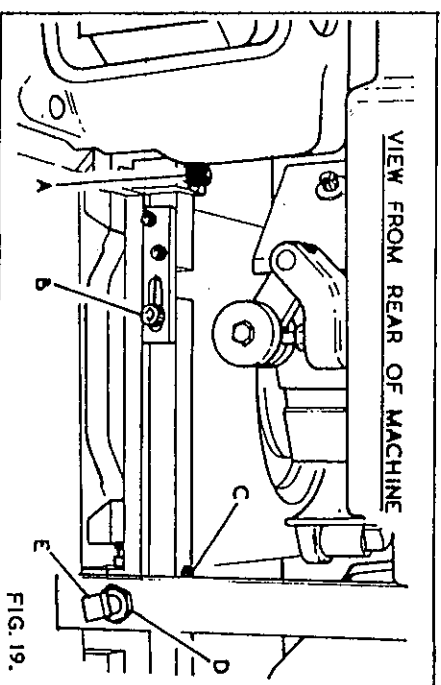
This bedplate requires no further attention.

Bedplate for Extra Head (5 Head Machine)

This bedplate has $2\frac{1}{2}$ " (64mm) adjustment to allow for varying sizes of cutting circle. $2\frac{1}{2}$ " (64mm) and $1\frac{1}{4}$ " (32mm) removable packing pieces are also provided.

Bedplate after Extra Head

This bedplate is secured to the fifth head slide bracket and is adjustable longitudinally with the table to the size of cutting circle.



Instructions to Change Feed Rollers

To change feed rollers the undermentioned procedure should be followed:-

1. Remove feed works drive cover at rear of machine then loosen aerolight nuts and washers "B" in Fig. 20 and remove.
2. Extract split link "C" remove chain. Proceed to loosen socket head capscraws "D" and remove chain tensioner assembly "E".
3. Remove drive gears "F" and "G" complete with spacers behind gears "G". Proceed by extracting split link "H" removing chain "I" and sprockets "J".
4. Loosen four round head screws holding infeed table visor and remove visor. Remove dust caps "A" in Fig. 21 and proceed to loosen socket head capscraws "B" in Fig. 21. Drift front sidetrane "C" from dowels by means of hide faced mallet or similar tool.
5. Raise feed rollers to top position by means of handwheel "D" in Fig. 21. Loosen socket head capscraw "A" in Fig. 22 then lower feed rollers by handwheel "D" in Fig. 21 down until they rest on piece of stock which should be placed beneath feed rollers to take weight.
6. Remove feed roller pivot shaft "B" in Fig. 22 by drifting from the rear of machine, then continue by removing circlips "C" and driving pins "D".
7. Top feed roller housing assembly "E" can now be removed from machine.
8. Proceed with bottom rollers by loosening hexagon head bolts "A" in Fig. 23 and removing infeed fence "B". Loosen socket head capscraws "C" and remove feed roller retaining bar "D" taking care not to lose two tension springs.
9. Loosen socket head capscraws "E" and remove bedplate "F" before feed rollers, bedplate "G" between feed rollers and bedplate "H" alter feed rollers.
10. Lift feed rollers "I" and "J" vertical until the bearing blocks at the fence side clear dowels, then remove from machine.
11. At this stage the bottom feed rollers can be changed by loosening countersunk head screws and washers "G" in Fig. 22 then removing bearing blocks "K". The feed rollers can now be removed from their respective shafts.
12. To remove the top feed rollers from housings, loosen hexagon head screws and washers "I" in Fig. 22 and remove shafts "J" by pressing from same end as circlip held bearings. Note position of spacers on shafts to ensure correct reassembly. The rollers can now be removed.

To replace feed roller assembly reverse above procedure.

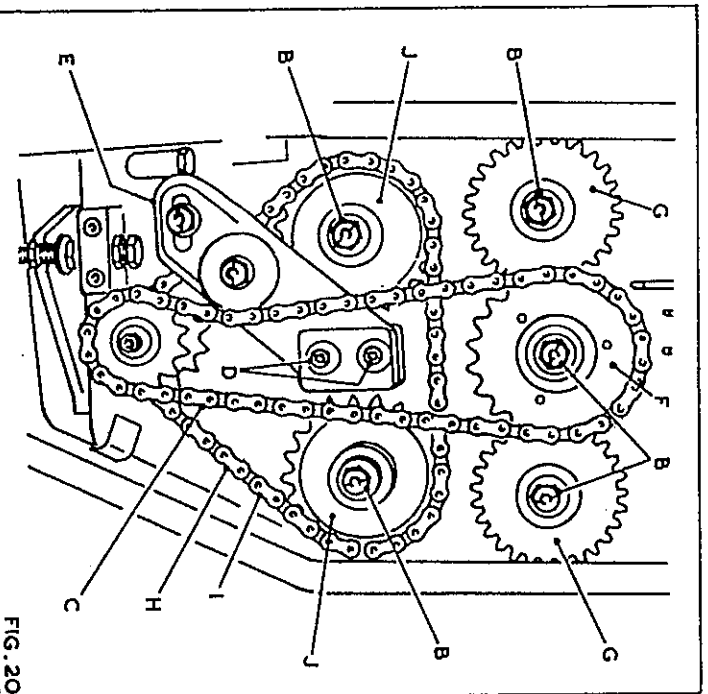


FIG. 20

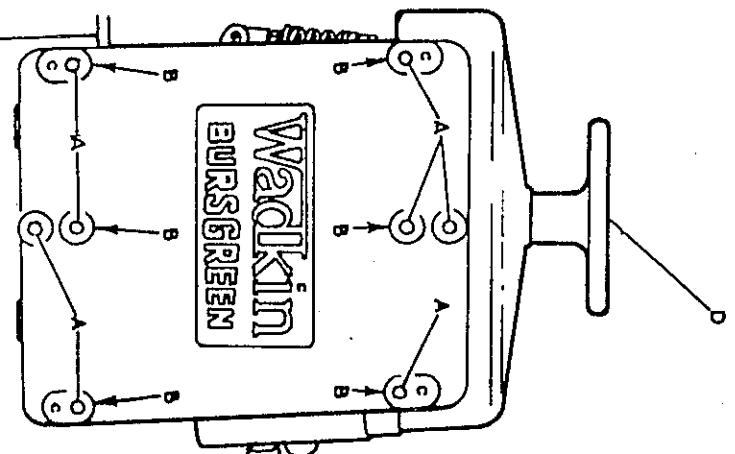


FIG. 21.

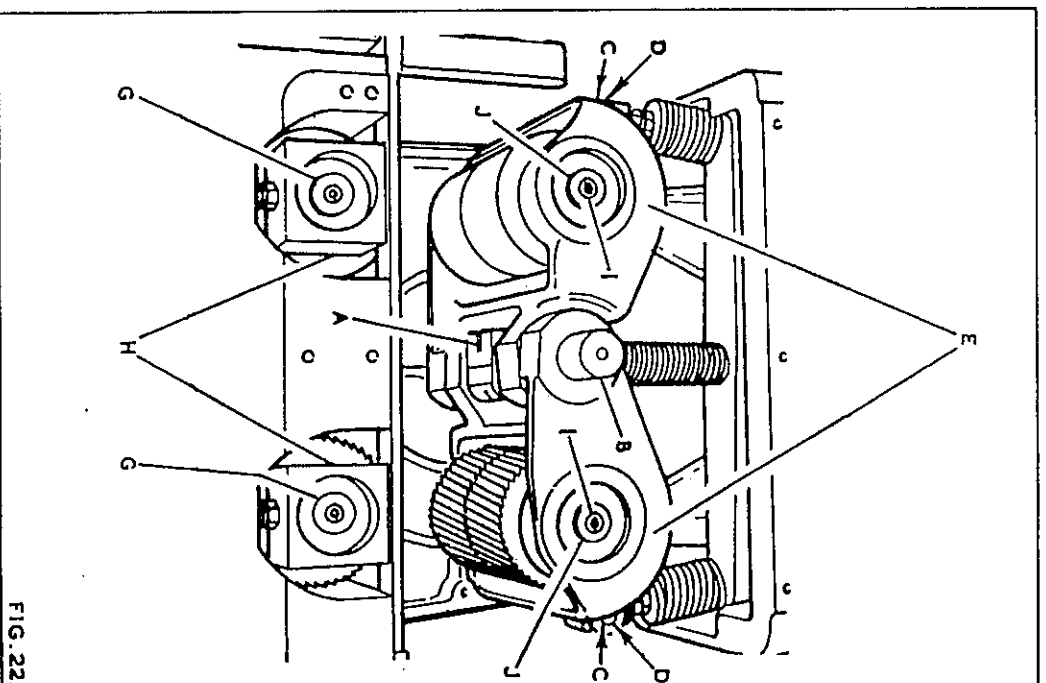


FIG. 22.

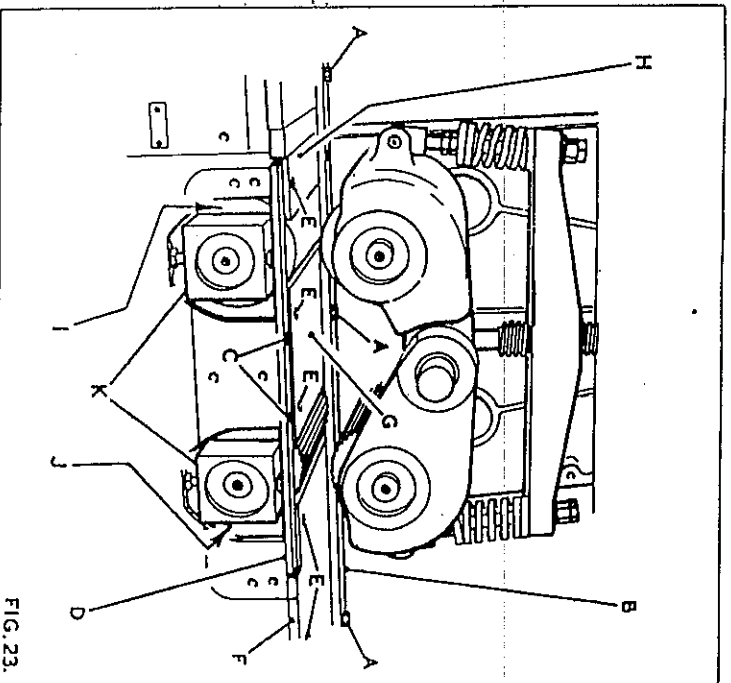


FIG. 23.

EXTRA

A 9" dia alloy shifting saw can be fitted to extra head as shown in Fig. 24.

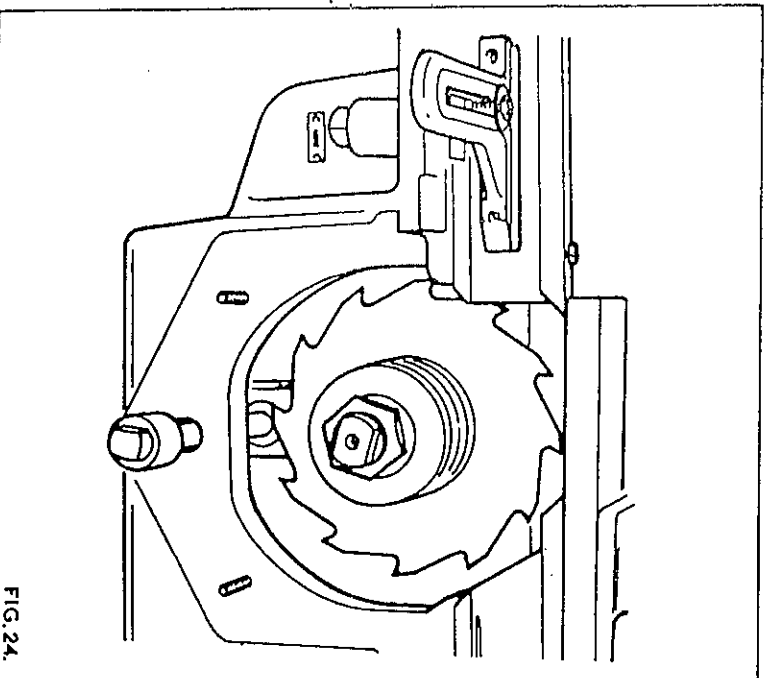


FIG. 24.

Shaping Cutters

When shaping cutters for any mould on any type of cutterhead or slotted collars it is important that the correct allowance is made to the depth of form of the cutter.

Fig. 25 shows the projections of the cutter to produce a simple rebate. For example using the 3½" square cutterblock, to produce a ¼" (19mm) deep rebate the cutter must have a depth of form of 7/8" (22mm) this being due to the angle at which the cutter strikes the work on the line "A.A." When a shaped mould is required to be cut it is necessary to plot out the form of the cutter; this is shown in Fig. 26.

It is important when selecting blanks from which to make the cutter that they have the minimum necessary overhang. Also, a blank as near the shape and width as possible should be selected so that there will be less waste and less chance of overheating cutters when grinding.

The minimum cutting circle is fixed to give the necessary clearance for the bolt head when working with straight irons only. The cutting angle which is normally 35° is shown at "B" in Fig. 25 and the cutting angle at "C" this angle varies with the size of the cutterblock and the depth of the mould.

To obtain the correct cutter form for a shaped mould without using the moulders rule, it is necessary to plot this out as shown. First the square block and cutter at minimum cutting circle are drawn out at "Y" in Fig. 26. The radius of the minimum cutting circle is drawn around to the centre line and divided up by the lines A, B, C, D and E, into either 1/16" (2mm) of 1/8" (3mm) according to the size and intricacy of the shape, these lines are then struck round from the centre line radially to the face of the cutter.

At "X" the lines A1, B1, C1, D1 and E1 are carried across as shown, also at "W" the mould is produced exactly as at "Z" and divided up the same, the lines 1, 2, 3, 4 and 5 which are from the points where lines A, B, C, etc. intersect the edge of the mould, are then drawn across to "X" thus E1 is cut by 1, D1 by 2 etc. The points of intersection are joined as shown thus giving the correct projected form of the cutter.

This takes up considerable time to do for each shape of cutters required, and can be very much reduced by using the moulders rule as shown in Fig. 27. This is a graph on which the form can be plotted and automatically gives the necessary allowance on the depth of form.

When the mould is to be a standard a template should be made to the projected form to which the cutters can be shaped when the job repeats. This will ensure uniformity on all future runs.

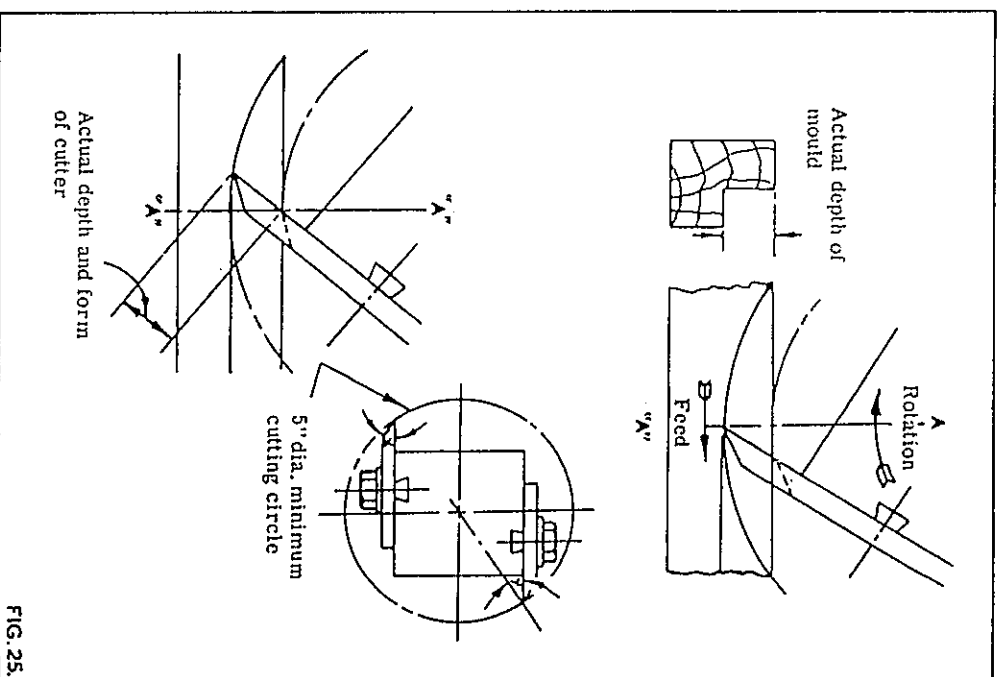


FIG. 25.

Moulders Rule

A permanent moulders rule can be made by the customer in sheet brass and aluminium and will then be handy to use in the workshop.

To plot the form of a cutter by use of the moulder's rule it is necessary to draw the full size shape of the mould on tracing paper and rule 1/8" (3mm) squares as shown in Fig. 27. This is then placed alongside the moulders rule and projected across, this will give a series of dots which must be joined to give the form of the cutter. The cutter blank chosen must be wide enough to give at least 1/8" (3mm) overlap beyond the edge of the mould.

Cutter Grinding

Cutters should be ground carefully avoiding any overheating as this will crack or soften cutters so that they will not stand up to the work.

A solution of soluble oil and water should be handy and the cutters should be held in this occasionally to cool them. This solution will also prevent rusting. Cutters should never be allowed to become discolored during grinding as this indicates overheating.

The correct cutting angle of 35° for most cutters should be maintained as this gives the correct strength of the cutting edge. When hollow grinding is carried out, the angle of the cutting edge, should be kept as near 35° as possible, see Fig. 28 (A) and (B).

Hollow grinding is recommended whenever possible, as a keen cutting edge is more easily obtained when hand lapping. When lapping or stoning a flat ground cutter, a good edge is more difficult to obtain due to the tendency to rock the stone and leave a convex face.

Good open grain wheels should be used and should not be allowed to become glazed as this will cause excessive heat.

About 12" (304mm) diameter wheels used down to 10" (254mm) give the best radius for a hollow grind and an economic life 8" (204mm) wheels used down to 6" (153mm) leave the grind too hollow.

Tungsten carbide tipped cutters should be purchased to the shape required and re-ground only as necessary. In this case cutters should be relieved at 35° on the steel position and the tips finished with a diamond impregnated wheel at 45° as shown, using only very light cuts to prevent cracking. The diamond wheel should not be allowed to touch the steel backing as this clogs the wheel and causes excessive heat. Where available a copious flow of coolant should be used. They may be honed with a diamond hand lap, as the cutter becomes dull, until a regrind is necessary. A thin oil lubricant should be used on the hand lap.

All cutter blanks sent out by us are ground only, and, if used as chippers or rebate cutters, require honing with a 142 carborundum slip stone to produce a razor sharp edge before commencing to cut. This will ensure a good finish on the wood and an easy feed. Dull cutters give a poor, rough and plucked out finish, and make it difficult to feed the job past the cutters. Honing should be done by a reciprocating or rotary motion on the cutter, using a little paraffin to give "Bite" to the stone. The honing stone is a much finer grit than the grinding wheel and leaves a sharp keen edge. A number of honing stones of different shapes, e.g. round sticks or square sticks will be found helpful in honing shaped cutters.

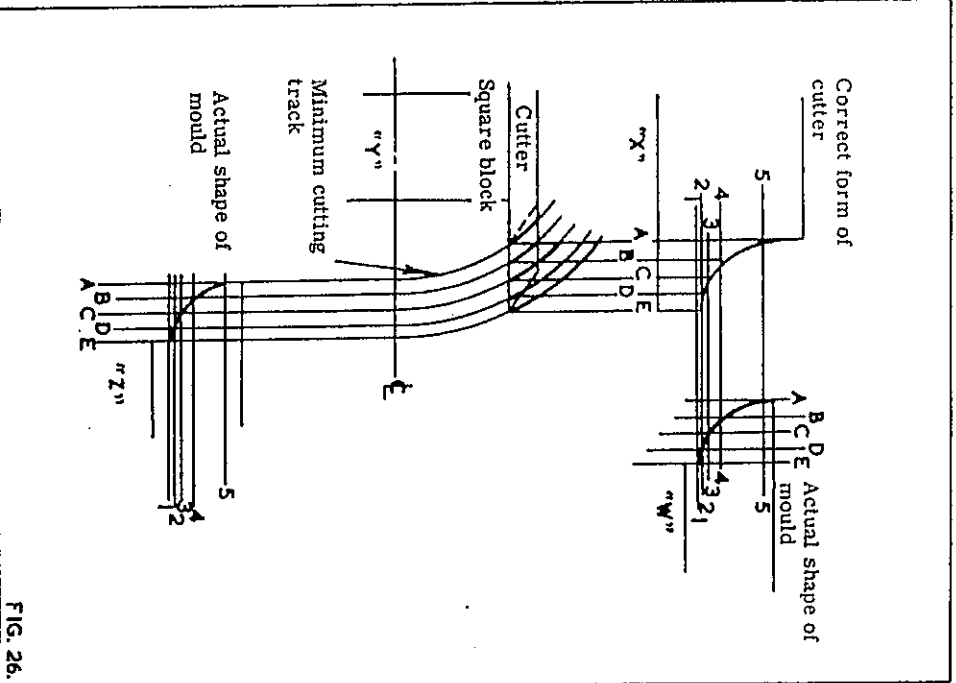


FIG. 26.

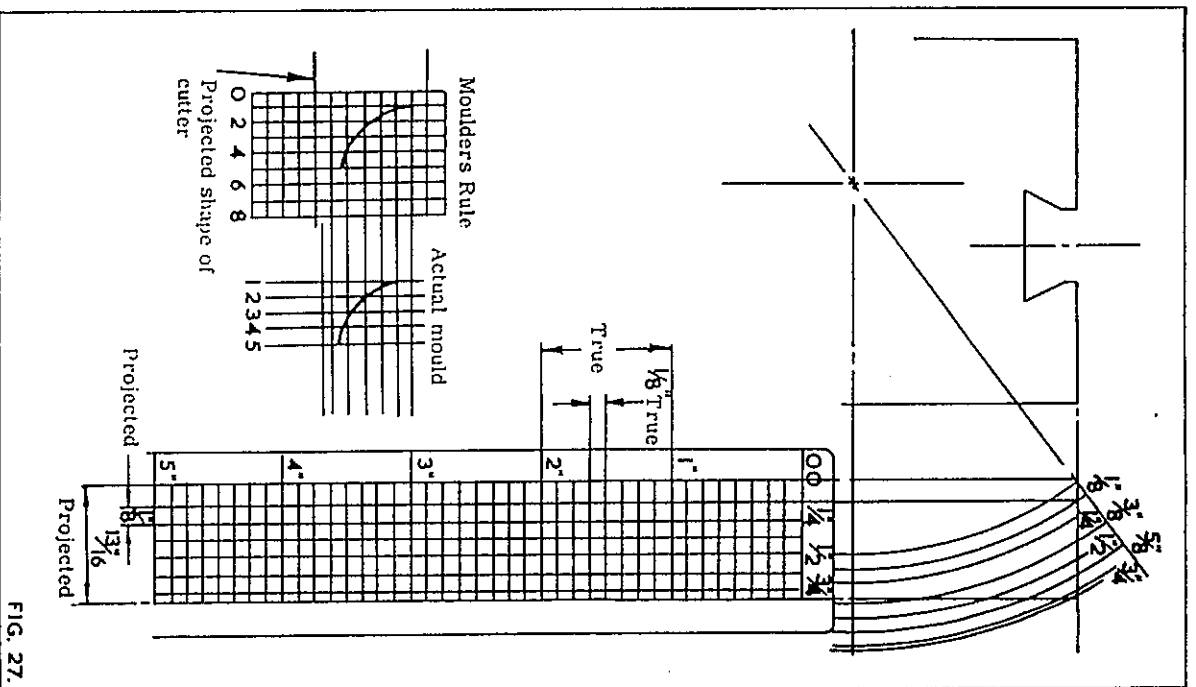


FIG. 27.

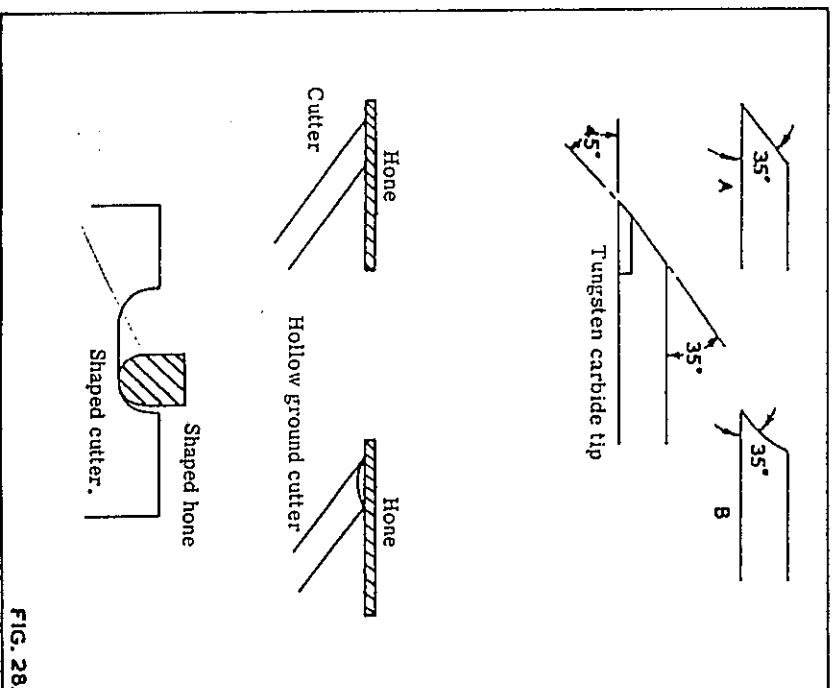
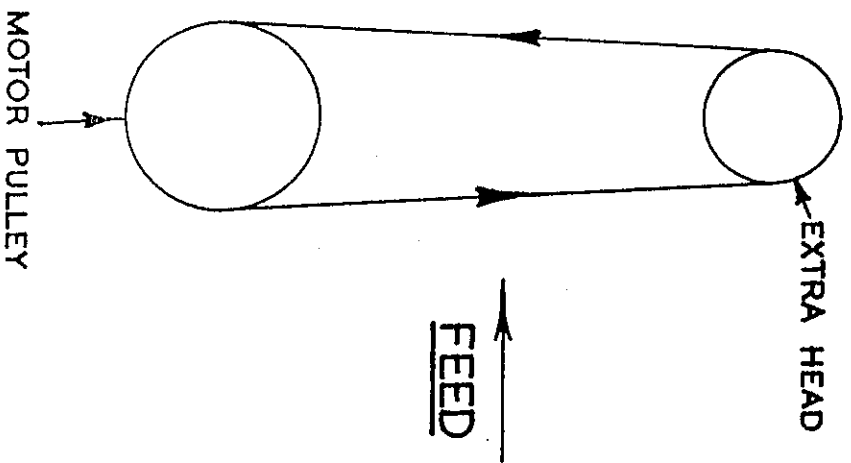


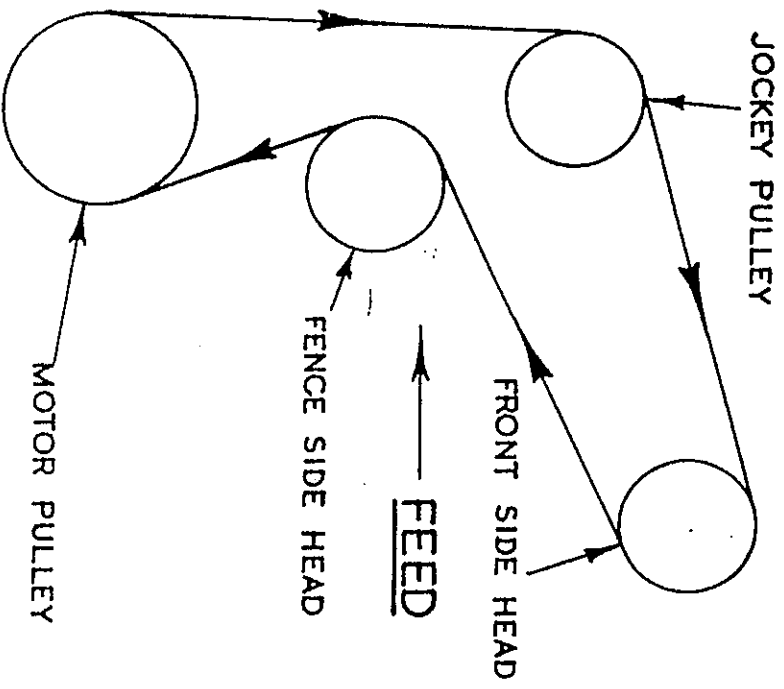
FIG. 28.

BELT DRIVE LAYOUT

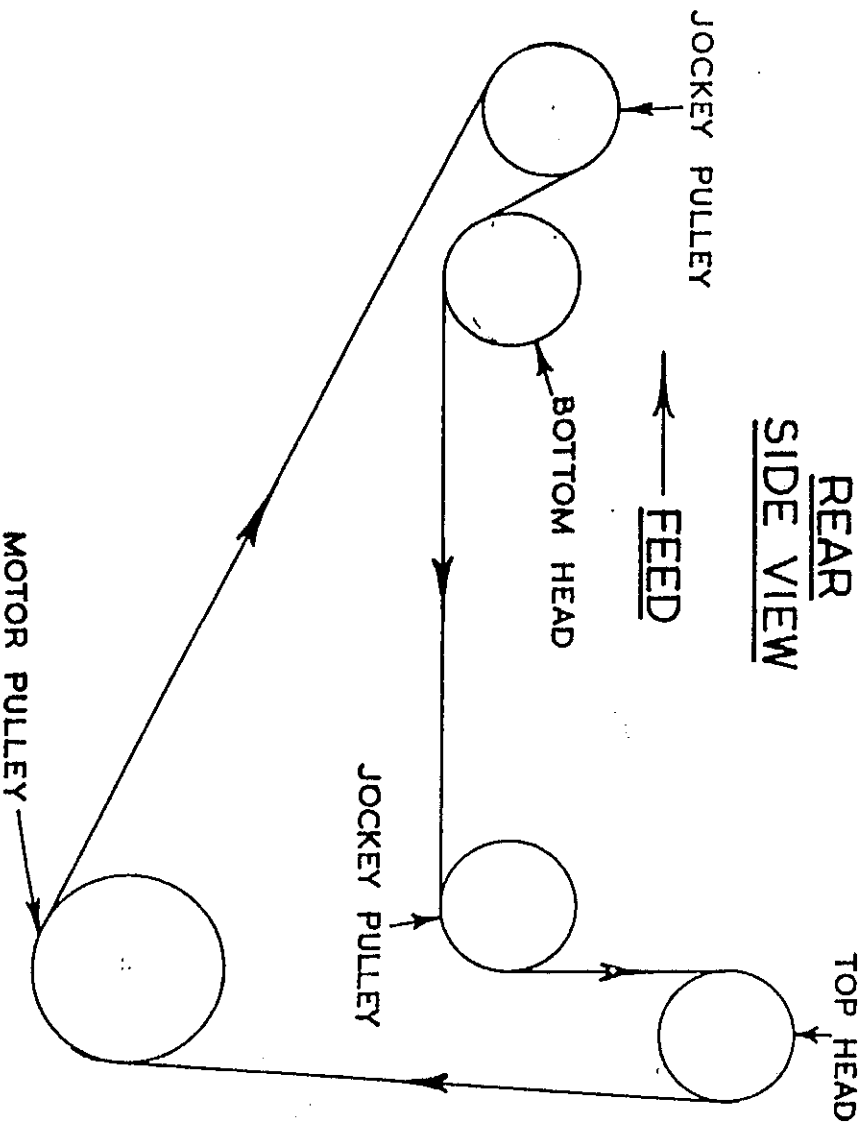
REAR
SIDE VIEW



PLAN VIEW



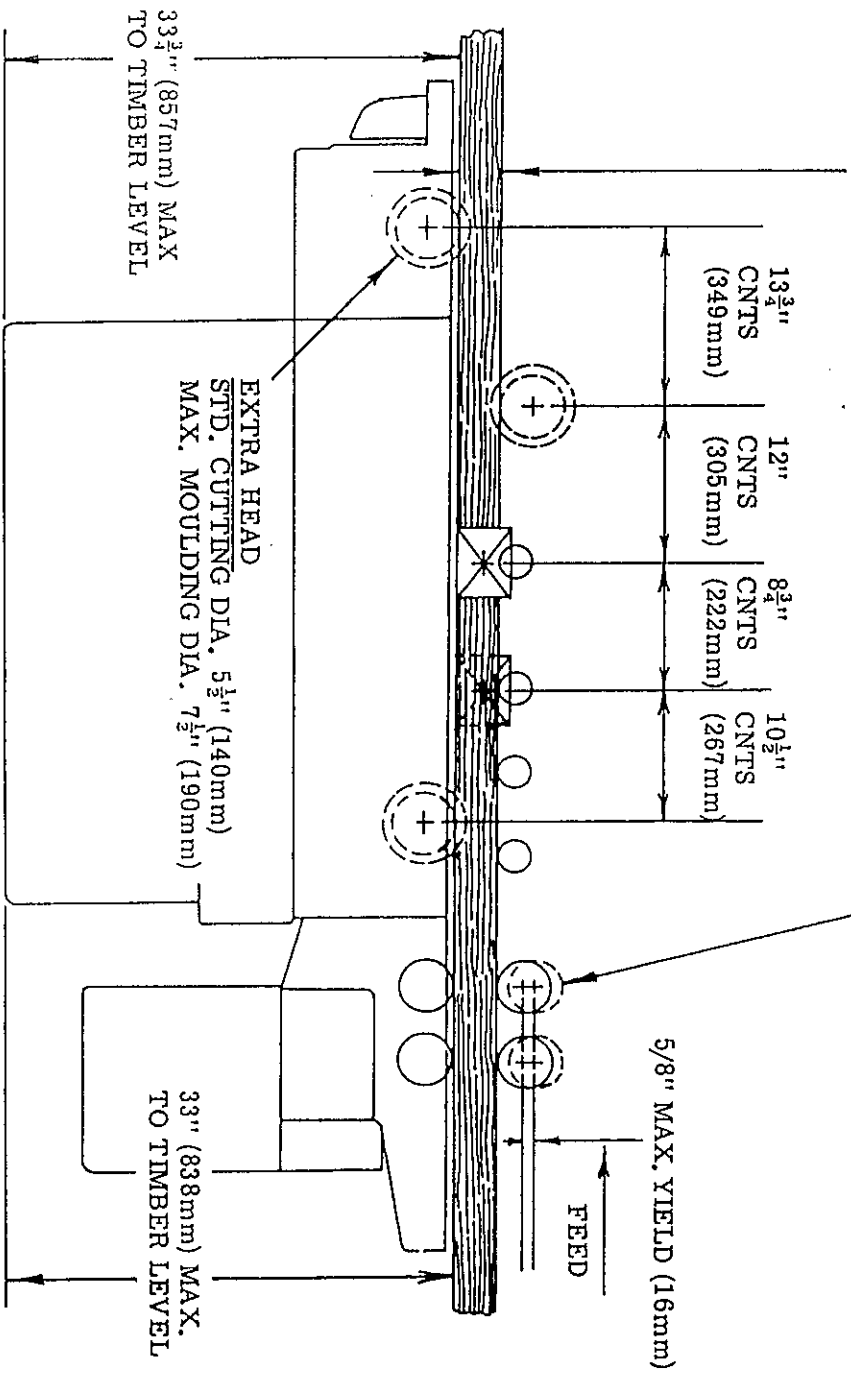
REAR
SIDE VIEW



3" MAX. (76mm)

1/8" MIN. (3mm)

3.15/16" (100mm) DIA. FEED ROLLERS



TOP HEAD
STD. CUTTING DIA. 5¹/₂" (140mm)
MAX. MOULDING DIA 7¹/₂" (190mm)

BOTTOM HEAD
STD. CUTTING DIA 5¹/₂" (140mm)
MAX. MOULDING DIA 6¹/₄" (159mm)

6" MAX. (152mm)

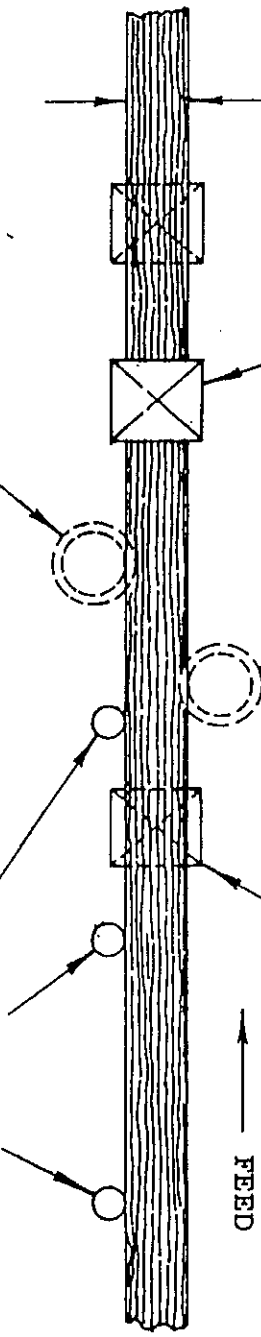
3/8" MIN. (9mm)

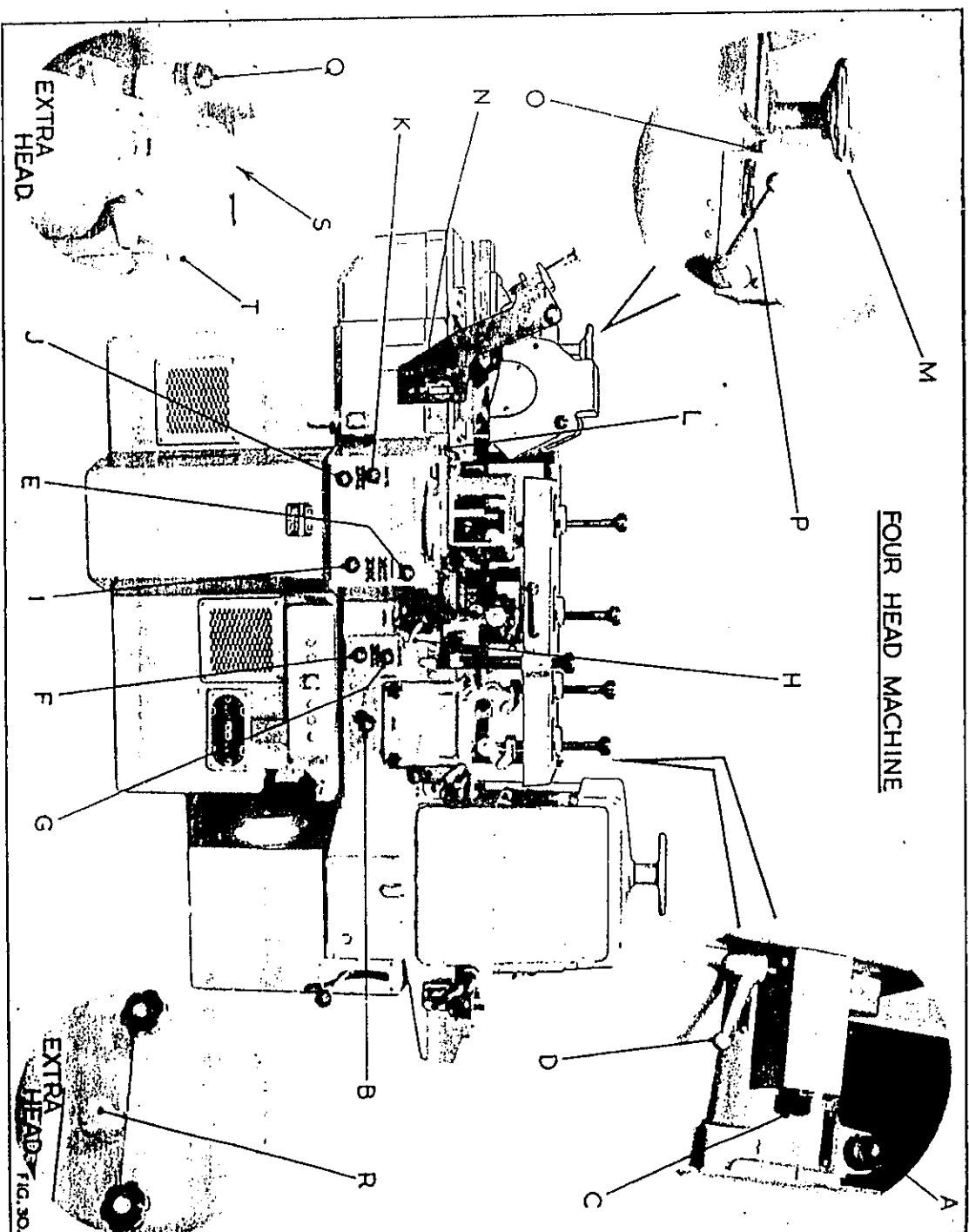
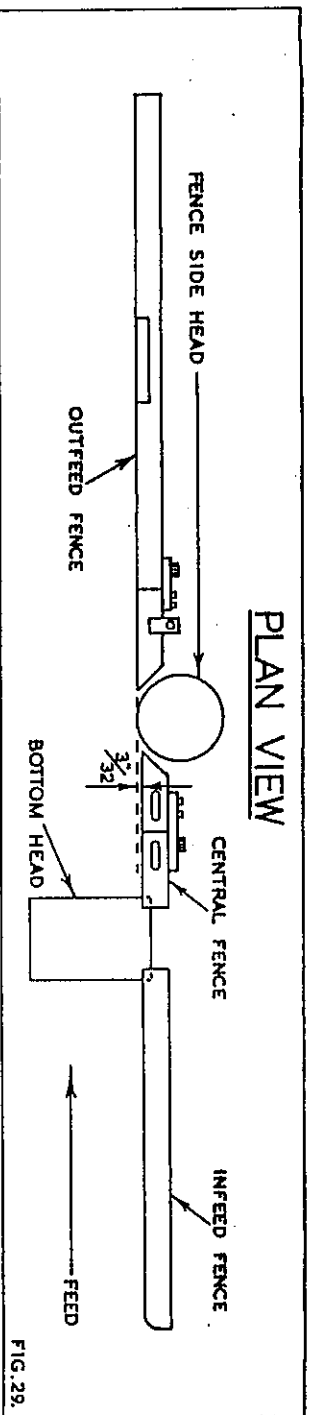
FENCE SIDE HEAD
STD. CUTTING DIA. 5¹/₂" (140mm)
MAX. MOULDING DIA. 7" (178mm)

FRONT SIDE HEAD
STD. CUTTING DIA 5¹/₂" (140mm)
MAX. MOULDING DIA 7¹/₄" (184mm)

ROLLER SIDE PRESSURES

FEED





Upon leaving the works all machines have the central and outfeed fences pre-set to the infeed fence (as in Fig. 29.) which requires no adjustment. These fences when altering, must be kept parallel to the infeed fence, which can be accomplished by placing a straight edge along the fences.

To set the machine to the shape and size of mould required the following procedure should be followed:-

1. Work along the machine starting at first bottom head. Position cutterblock vertically by means of handle "A" in Fig. 30 until minimum cutting circle lines up with central bedplate. Lock head vertically by handle "B". Lateral movement is made through handle "C" which in turn is locked by handle "D".

Note:- Ensure locks are free before making either vertical or lateral adjustment.

2. Having set bottom head, adjustment is now carried out on fence side head. Set cutting circle in line with outfeed fence according to stock being worked. Vertical adjustment through the handle "E" is locked by handle "F". Lateral adjustment through handle "G" is locked by handle "H".

Note:- Ensure locks are free before making either vertical or lateral adjustment.

3. Similar procedure is then carried out on front side head. Handle "I" for vertical adjustment is locked by handle "J". Lateral movement is through handle "K" which is in turn locked by handle "L".

Note:- Ensure locks are free before making either vertical or lateral adjustment.

4. Having set front side head proceed to adjust top head to suit extra. Vertical adjustment by means of handwheel "M" is locked by handle "N". Lateral movement through handle "O" which in turn is locked by handle "P".

Note:- Ensure locks are free before making either vertical or lateral adjustment.

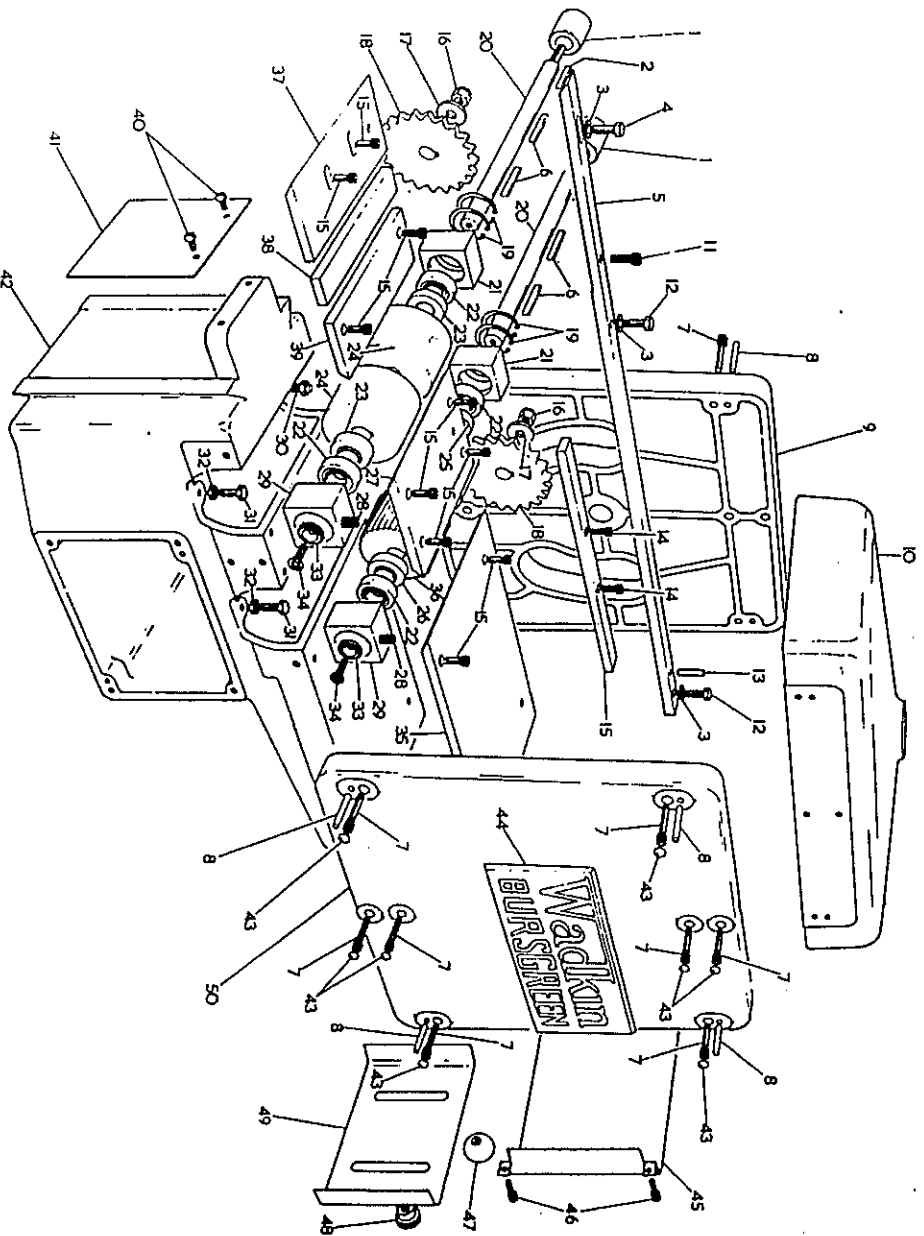
5. On all machines an extra head can be fitted as an optional extra. When fitted, adjust as follows:- Vertical adjustment by handle "Q" is locked by handle "R". Lateral movement through handle "S" is in turn locked by handle "T".

Note:- Ensure locks are free before making either vertical or lateral adjustment.

6. Pressures are used along the machine to keep stock being worked, well up against either the fence or bedplate. They must be set to suit the stock being worked as previously described.

7. Feed rollers should be adjusted to correct pressure on the stock so as to give a smooth feeding action throughout the machine as previously described.

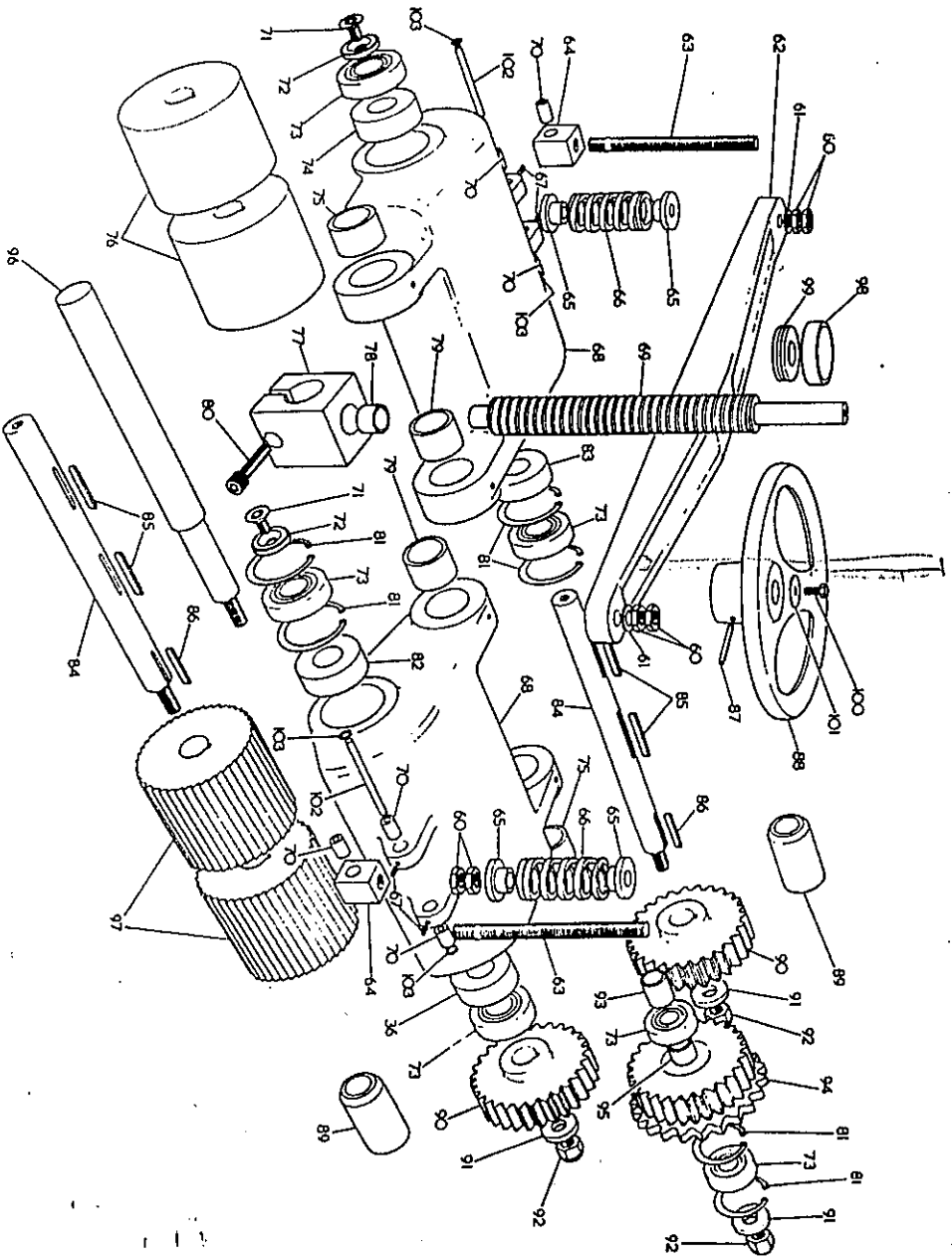
8. Before commencing to start the machine carefully check to ensure that all the cutters are tight and secure in their respective cutterblocks. Inch stock through feed rollers checking that they have lifted to the horizontal position and are driving over full face of stock. Check that the pressures and fences are all set correctly, before commencing to make the first mould.



NOTE:-
When ordering replacement parts quote part no. and serial number of the machine.

INFEED TABLE ASSEMBLY

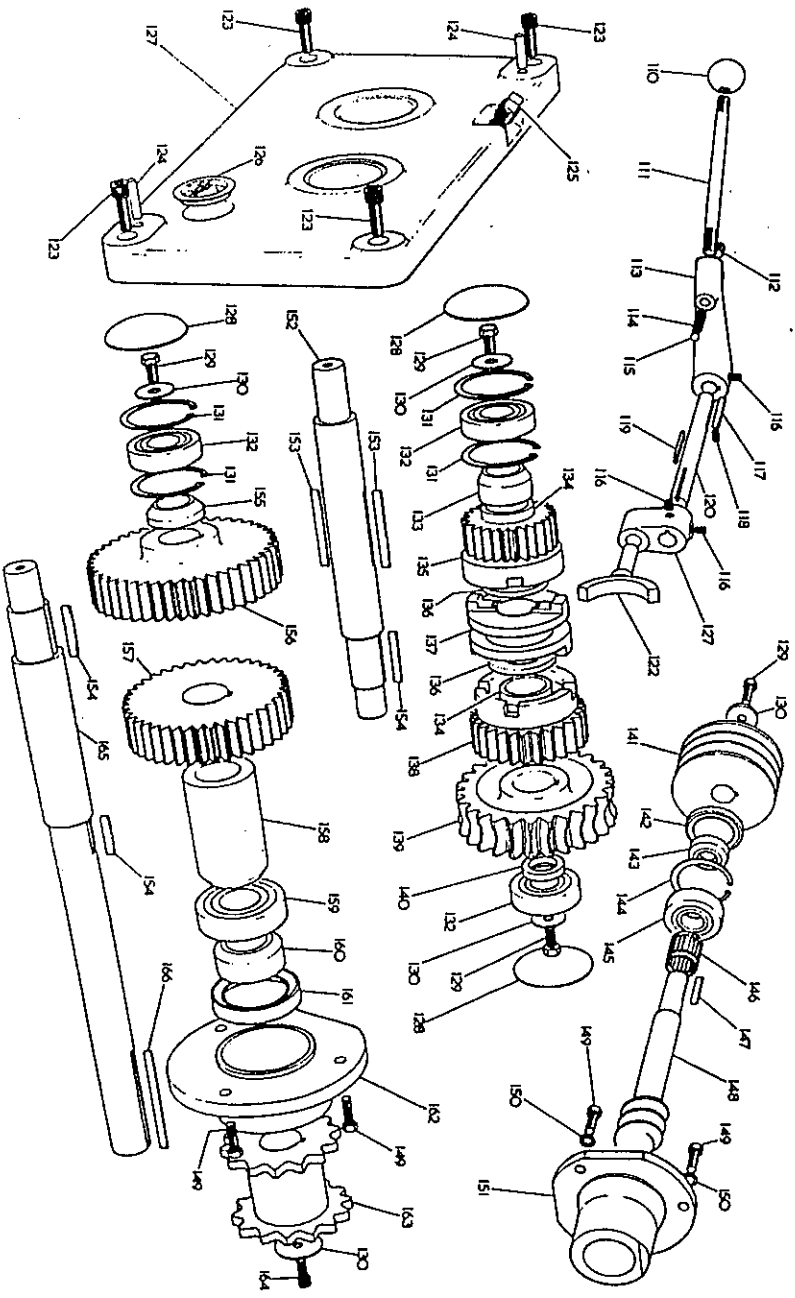
Ref.No.	Part No.	No.Off	Description	Ref.No	Part No.	No.Off	Description
1	A-1056/69	2	Bottom feed roller distance piece	26	A-1056/72	1	Feed roller retainer (27/32" wide)
2		2	$\frac{1}{4}$ " wide x $1\frac{1}{4}$ " long key	27	B-1056/161	1	Centre bedplate for infeed table
3		3	$\frac{3}{8}$ " BSF Washer	28	A-1810/74	2	Spring for bottom feed roller block
4		1	$\frac{3}{8}$ " whit x $1\frac{1}{4}$ " long hexagon head bolt	29	B-1056/93	2	Bottom roller bearing block
5	B-1056/170	1	Infeed fence	30	A-1056/329	2	Feed roller adjustment screw
6		4	$\frac{1}{4}$ " wide x $1\frac{1}{2}$ " long key	31		2	$\frac{3}{8}$ " whit x $1\frac{1}{2}$ " long hexagon head bolt
7		14	$\frac{3}{8}$ " whit x $1\frac{3}{4}$ " long socket head capscrew	32		4	$\frac{3}{8}$ " whit locknuts
8		8	$\frac{3}{8}$ " dia x 2" long fluted dowel	33	A-1056/370	2	Washer for feed roller shaft
9	D-1056/4	1	Rear sideframe for feedworks	34		2	$\frac{1}{2}$ " whit x $\frac{1}{4}$ " long countersunk socket head screw
10	D-1056/5	1	Top cover for feedworks	35	B-1056/160	1	Front bedplate for infeed table
11		1	$\frac{3}{8}$ " whit x 1" long socket head capscrew	36	B-1056/131	2	Adjusted bedplate for infeed table
12		2	$\frac{3}{8}$ " whit x $1\frac{3}{4}$ " long hexagon head bolt	37	B-1056/163	1	Packing piece for infeed table bedplate
13		1	$\frac{3}{8}$ " dia x $1\frac{1}{4}$ " long dowel	38	A-1056/169	1	Fixed rear bedplate for infeed table
14		11	$\frac{5}{16}$ " whit x $1\frac{1}{2}$ " long socket head grub screw	39	B-1056/162	1	$\frac{1}{4}$ " whit x $\frac{1}{2}$ " long hexagon head bolt
15	B-1056/287	1	Bottom feed roller spring block	40		2	Deflector for infeed table
16		2	$\frac{1}{2}$ " whit aerodight nut	41	B-1056/192	1	Infeed table
17	A-1056/343	2	Washer for feed roller shaft	42	E-1056/1	8	Plastic caps for $\frac{3}{8}$ " whit socket head capscrew
18	B-1056/27	2	Bottom feed roller sprocket	43		1	Nameplate
19	No. 5000/206	4	52mm Truarc internal circlip	44	B-S-115	1	Cover for feedworks
20	B-1056/134	2	Bottom roller bearing shaft	45	C-1056/181	1	$\frac{1}{4}$ " whit x $\frac{1}{2}$ " long socket head capscrew
21	B-1056/93	2	Bottom roller bearing block with circlip groove	46		4	$1\frac{1}{4}$ " dia x $\frac{3}{8}$ " whit bore plastic ball
22	SKF-6205-2RS	4	Sealed for life bearing	47	A-1029/59	1	Visor for feedworks
23	A-1056/72	2	Feed roller retainer (23/32" wide)	48	C-1056/182	1	Front sideframe for feedworks
24	B-1056/301	2	Plain feed roller	49	D-1056/3	1	Front sideframe for feedworks
25	A-1056/72	1	Feed roller retainer (19/32" wide)	50		2	$\frac{1}{4}$ " spring washer



FEED WORKS ASSEMBLY

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
60		8	1 1/2" whit Locknut	80		1	1 1/2" whit x 1 1/2" long socket head cap screw
61		2	1/2" washer	81	5, 000/206	6	52mm Truarc internal circlip
62	C-1056/7	1	Feed roller rise and fall bracket	82	A-1056/72	1	Feed roller retainer (15/16" wide)
63	A-1056/159	2	Feed roller spring stud	83	A-1056/72	1	Feed roller retainer (5/8" wide)
64	A-1056/154	2	Top feed roller spring block	84	2-B-1056/133	2	Top feed roller shaft
65	A-1056/289	4	Feed roller spring seating	85		4	1 1/2" wide x 1 1/2" long key
66	A-1033/300	2	Feed roller spring	86		2	1 1/2" wide x 1 1/4" long key
67		4	1 1/4" whit x 3/8" long socket head grub screw	87	No. 4	1	Taper pin
68	D-1056/6	2	Feed roller pivot arm	88	3B	1	Handwheel (8" dia)
69	B-1056/130	1	Feed roller rise and fall screw	89	A-1056/245	1	Top feed roller distance piece
70	A-1056/395	6	Feed roller shear bush	90	B-1056/29	2	Feed roller drive gear
71		2	1 1/2" whit x 1" long countersunk socket head grub screw	91	A-1056/343	3	Washer for feed roller shaft
72	A-1056/370	2	Washer for feed roller shaft	92		3	Distance piece (1. 7/16" long)
73	SXF-6205-2RS	5	Sealed for life bearing	93	A-1056/70	1	Feed roller centre gear
74	A-1056/72	1	Feed roller retainer (3/4" wide)	94	B-1056/30	1	Distance piece (3" long)
75		2	1 1/4" bore x 1 1/2" o/d x 1 1/2" long oilite bush	95	A-1056/70	1	Feed roller pivot bar
76	B-1056/301	2	Plain feed roller	96	B-1056/132	2	Serrated feed roller
77	B-1056/135	1	Feed roller rise and fall screw support	97	B-1056/131	1	R & F screw thrust race shroud
78		1	3 1/2" bore x 1" o/d x 1 1/2" long oilite bush	98	A-1056/71	1	Hoffman thrust race
79		2	1 1/2" bore x 1 1/2" o/d x 1 1/2" long oilite bush	99	W 3/4" B	1	1 1/4" whit x 3/4" long hexagon head bolt
		1		100		1	Washer
		2		101	A-1033/280	4	Feed roller shear pin
		1		102	A-1056/394	4	Washer
		2		103	5555 - 18	4	Feed roller shear pin

NOTE:-
When ordering replacement parts quote part no. and serial number of the machine.

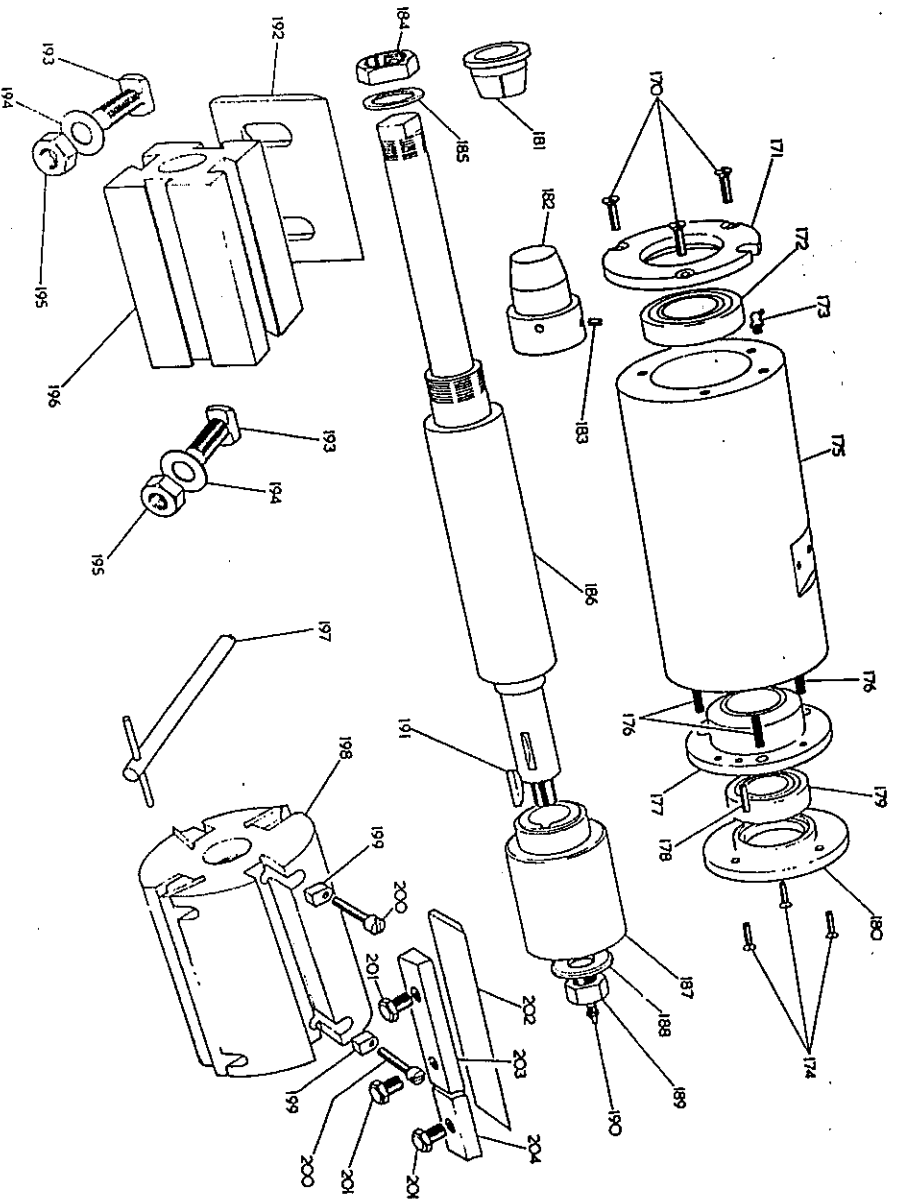


GEARBOX ASSEMBLY

NOTE:-

When ordering replacement parts quote part no. and serial number of the machine.

Ref. No.	Part No.	No. Off	Description	Ref No.	Part No.	No. Off	Description
110		1	1½" dia plastic ball, ½" whit	140	A-1056/53	1	Gearbox input shaft distance piece (7/32" long)
111	A-1810/73	1	Selector handle stud	141	B-1056/33	1	Gearbox pulley (50 cycle)
112		1	½" whit x 5/8" long socket head grub screw		B-1056/350	1	Gearbox pulley (60cycle)
113	B-1810/30	1	Gearbox selector handle	142	G42 x 52 x 4	1	Oil seal for worm shaft
114	A-1810/74	1	Selector handle compression spring	143	A-1056/65	1	Worm shaft distance piece
115		1	3/8" dia steel ball	144	5,000/206	1	52mm internal circlip
116		3	1/8" gas x 3/8" long socket head grub screw	145	SKF 6205	1	Bearing for worm shaft
117		1	3/16" wide x 1" long key	146	INA	1	Roller bearing for worm shaft
118		1	1/8" gas x ½" long socket head grub screw	147	NK30/20	1	5/16" wide x 1½" long key
119		1	3/16" wide x 1" long key	148	B-1056/324	1	Worm for gearbox
120	A-1056/311	1	Gearbox handle shaft	149		6	5/16" whit x 1" long hexagon head bolt
121	B-1810/31	1	Gearbox selector arm	150		3	5/16" BSF washer
122	A-1810/32	1	Gearbox selector	151	B-1056/19	1	Gearbox worm shaft bearing housing
123		4	3/8" whit x 1½" long socket head cap screw	152	B-1056/25	2	¼" wide x 2½" long key
124		2	3/8" dia x 1¼" long fluted dowel	153		1	¼" wide x 1½" long key
125		1	½" gas filler plug for gearbox	154		3	Gearbox output shaft distance piece (short)
126	IC4610	1	Oil level window	155	A-1056/62	1	45 tooth output gear
127	C-1056/8	1	Gearbox lid	156	B-1056/21	1	39tooth output gear
128		3	Welsh washer (2" dia)	157	B-1056/20	1	Gearbox output shaft distance piece (long)
129		4	5/16" whit x ¾" long hexagon head bolt	158	A-1056/61	1	Gearbox output sprocket distance piece
130	A-1031/70	4	47mm Tvarc internal circlip	159	SKF 6206	1	Bearing for gearbox
131	5,000/185	3	Bearing for gearbox	160	A-1056/64	1	Gearbox output sprocket distance piece
132	SKF 6204	3	Gearbox input shaft distance piece (13/16" long)		WB 2441		
133	A-1056/63	1	1" bore x 1¼" o/d x 1½" long oilite bush	161	7739 R4	1	Western oil seal
134		2	20tooth input gear	162	B-1056/112	1	Gearbox output shaft bearing housing
135	B-1056/23	1	Gearbox layshaft distance piece	163	B-1056/28	1	Gearbox sprocket
136	A-1810/71	2	Gearbox selector dog	164		1	3/8" whit x 1" long socket head grub screw
137	B-1810/68	1	26tooth input gear	165	B-1056/26	1	Gearbox output shaft
138	B-1056/22	1	Wormwheel for gearbox	166		1	5/16" wide x 2½" long key
139	B-1056/324	1					

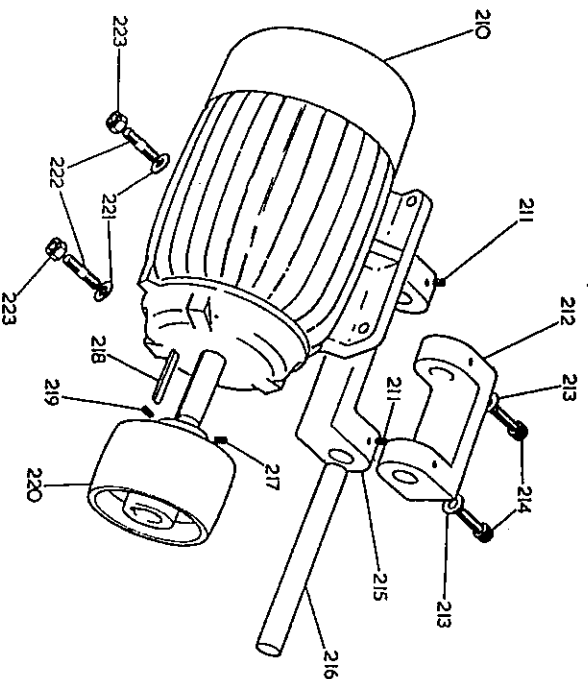


SPINDLE ASSEMBLY

NOTE:-
When ordering replacement parts quote part no. and serial number of the machine.

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
170		12	5/16" whit x 1" long CSR head screw	189		2	1" whit R. H. nut (Bottom head and Front side head)
171	B-1033/11	4	Extra Head "ditto"			2	1" whit L. H. nut (Top head and Fence side head)
172		1	Thrust end dustcap	190		4	1" whit R. H. nut (Extra head)
173		4	Extra head "ditto"	191		4	1/8" gas straight grease nipple
		1	Hoffman 145 bearing	192	R-1056/220	2pair	Extra head "ditto"
		1	Extra head "ditto"		B-1056/381	2pair	Standard knives for horizontal blocks
		2	1" DSF 35° angle grease nipple (Top and Bottom heads)		B-1056/220	1pair	Standard knives for extra head
		1	Extra head "ditto"	193	A-1033/224	16	Square cutterblock bolt
		2	1" SF Straight grease nipple (Side heads)			4	Extra head "ditto"
174		12	1" whit x 5/8" long countersunk head screw	194	A-1033/226	4	Square cutterblock washer
175	C-1056/14	4	Extra head "ditto"	195	A-1033/225	16	Extra head "ditto"
		3	Spindle gull (State head required for)			4	Square cutterblock nut
176	A-1033/59	12	Extra head "ditto"	196	B-1056/143	2	Top and bottom head square cutterblock
		12	Springs for spindle end float			2	Side head square cutterblock
177	B-1056/89	3	Extra head "ditto"		B-1056/142	2	Extra head square cutterblock
		4	Float end inside dust cap		B-1056/143	1	Adjusting spanner for circular cutterblock Cutters (Special)
178		4	Extra head "ditto"	197		1	Top and bottom head circular cutterblock (Special)
		4	3/16" dia x 1 1/4" long Groverlok spring dowel	198	C-1056/145	2	Side head circular cutterblock - (Special)
		1	Extra head "ditto"			2	Extra head circular cutterblock - (Special)
179		4	Hoffman 135 bearing	199		32	No. 2 adjusting nuts (Special)
		1	Extra head "ditto"	200		8	Extra head "ditto" (Special)
180	B-1033/13	4	Float end outside dust cap		C-1056/144	32	No. 2 Adjusting Screws (Special)
		1	Extra head "ditto"		C-1056/145	8	Extra head "ditto" (Special)
181	A-1056/146	4	Locking cone for cutterblock	201	A-1033/221	44	1/2" whit wedges screws (Special)
		1	Extra head "ditto"			10	Extra head "ditto" (Special)
182	B-1056/353	2	Top and bottom head spindle adaptor (State head)	202	A-1056/221	4pair	Knives for horizontal head circular cutterblock (Special)
		2	Slide head spindle adaptor (State head)			4pair	Knives for vertical head circular cutterblock (Special)
		1	Bottom head spindle adaptor (Extra head)	203	A-1033/217	16	Knives for extra head circular cutterblock (Special)
183	B-1056/354	4	5/16" whit x 3/4" long socket head grub screw		A-1056/221	2pair	Knives for extra head circular cutterblock (Special)
		1	Extra head "ditto"			4	Knives for extra head circular cutterblock (Special)
184	A-1056/352	2	Cutterlock locknut R. H. thread (Top and fence side head)		A-1033/218	4	Knives for extra head circular cutterblock (Special)
		2	Cutterlock locknut L. H. thread (Bottom and front side head)		A-1033/218	4	Knives for extra head circular cutterblock (Special)
		1	Cutterlock locknut L. H. thread (Extra head)		A-1033/218	2	Knives for extra head circular cutterblock (Special)
185	A-1056/312	4	Washer for spindle		A-1056/285	4	Knives for extra head circular cutterblock (Special)
		2	Extra head "ditto"			2	Knives for extra head circular cutterblock (Special)
186	C-1056/140	1	Top and bottom head spindle (State head)			2	Knives for extra head circular cutterblock (Special)
		2	Side head spindle (State head)			2	Knives for extra head circular cutterblock (Special)
187	C-1056/141	1	Extra head spindle			2	Knives for extra head circular cutterblock (Special)
		1	Spindle pulley			2	Knives for extra head circular cutterblock (Special)
188	B-1056/39	4	Extra head "ditto"			2	Knives for extra head circular cutterblock (Special)
		4	Spindle washer			2	Knives for extra head circular cutterblock (Special)
188	A-1033/58	1	Extra head "ditto"			2	Knives for extra head circular cutterblock (Special)

TOP & BOTTOM MOTOR MOUNTING ASSEMBLY

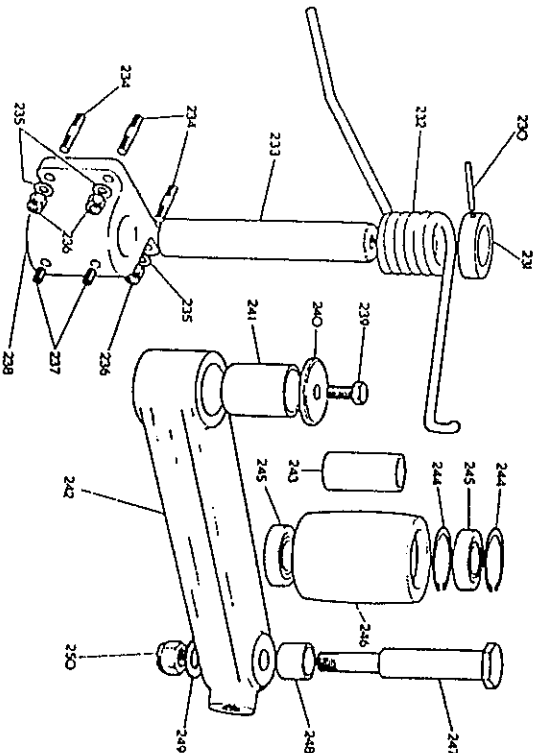


Ref. No.	Part No.	No. Off	Description
210		1	Brook motor, frame D1325b, 10HP 3,000 rpm foot mounted terminal box at 9 o'clock, 50 cycles (3,600 rpm, 60 cycles)
211		2	3/8" whit x 3/4" long socket head grub screw
212	B-1056/36	1	Top head motor pivot bracket
213		2	1/4" spring washer
214		2	1/4" whit x 1 1/4" long socket head cap screw
215	B-1056/35	1	Top head motor bracket
216	A-1056/66	1	Top head motor pivot pin
217		1	3/8" whit x 3/4" long socket head grub screw
218		1	10mm wide x 2 1/4" long key
219		1	3/8" whit x 3/8" long socket head grub screw
220	B-1056/38	1	Motor pulley
221		2	1/4" washer
222		2	1/4" whit x 2" long stud
223		2	1/4" whit acroflight nut.

NOTE:-

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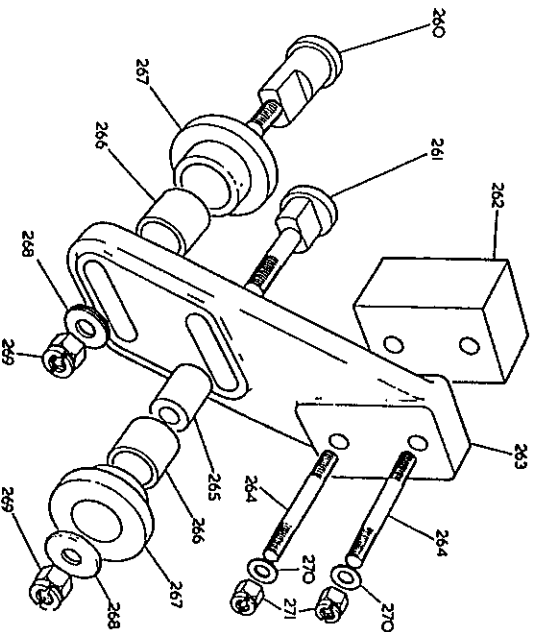
JOCKEY PULLEY ASSEMBLY



Ref. No.	Part No.	No. Off	Description
230		1	1 1/2" dia x 2" long Groverlok dowel
231	A-1056/241	1	Collar for jockey arm pivot pin
232	B-1056/246	1	Spring for side head belt tension
233	B-1056/76	1	Jockey arm pivot pin
234		4	3/8" whit x 1 1/2" long stud
235		4	3/8" washer
236		4	3/8" whit acroflight nut
237		2	1/8" gas x 1/2" long socket head grub screw
238	B-1056/240	1	Side head jockey arm pivot bracket
239		1	1/4" whit x 1" long hexagon head bolt
240	A-1056/342	1	Washer for jockey arm
241		1	1 1/2" bore x 1 1/2" o/d x 2" long oilite bush
242	C-1056/49	1	Jockey pulley arm
243	A-1056/77	1	Jockey pulley distance piece
244	No. 5000/206	2	1.13/16" long Fischer
245	DN - 205	2	5/8mm Truarc Internal circlip
246	B-1056/48	1	Sealed for life bearing
247	D-1056/85	1	Jockey pulley
248	B-1056/85	1	Side head jockey pulley bearing pin
249	A-1056/77	1	Jockey pulley distance piece
250		1	1.13/32" long 5/8" washer
250		1	5/8" whit acroflight nut

NOTE:-

When ordering replacement parts quote part no. and serial number of the machine.

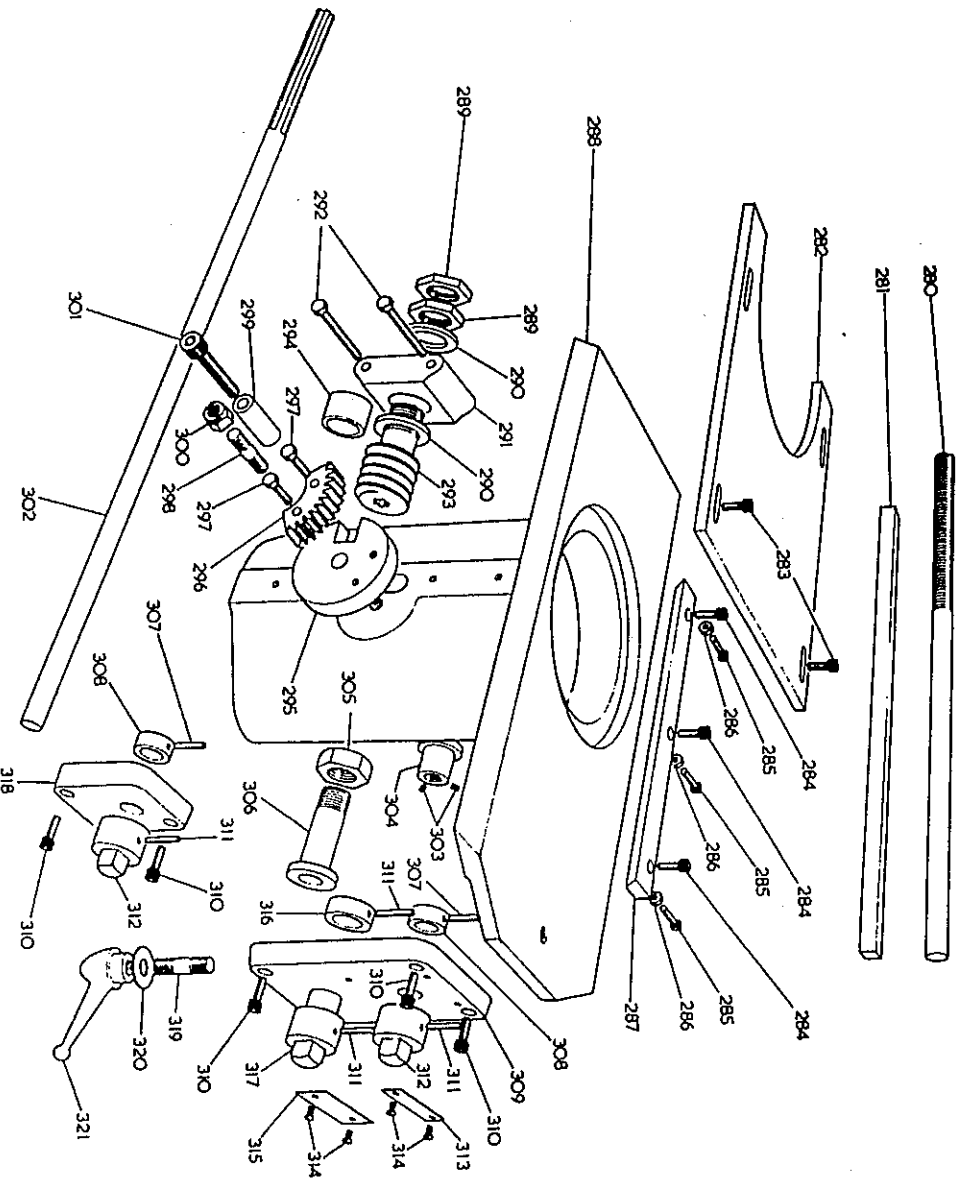


Ref. No.	Part No.	No. Off	Description
260	A-1056/264	1	Feed chain tension pin for rear roller
261	A-1056/231	1	Feed chain tension pin for front roller
262	B-1056/234	1	Feed chain tension bracket packing piece
263	C-1056/230	1	Feed chain tension bracket
264		2	3/8" whit x 5/8" long stud
265	A-1056/265	1	Feed chain tension bearing bush
266		2	1" bore x 1 1/4" o/d x 1" long oilite bush
267	A-1056/232	2	Feed chain tension roller
268		2	1/4" washer
269		2	3/8" whit acroflight nut
270		2	3/8" washer
271		2	3/8" whit acroflight nut

CHAIN TENSIONER ASSEMBLY

NOTE:-

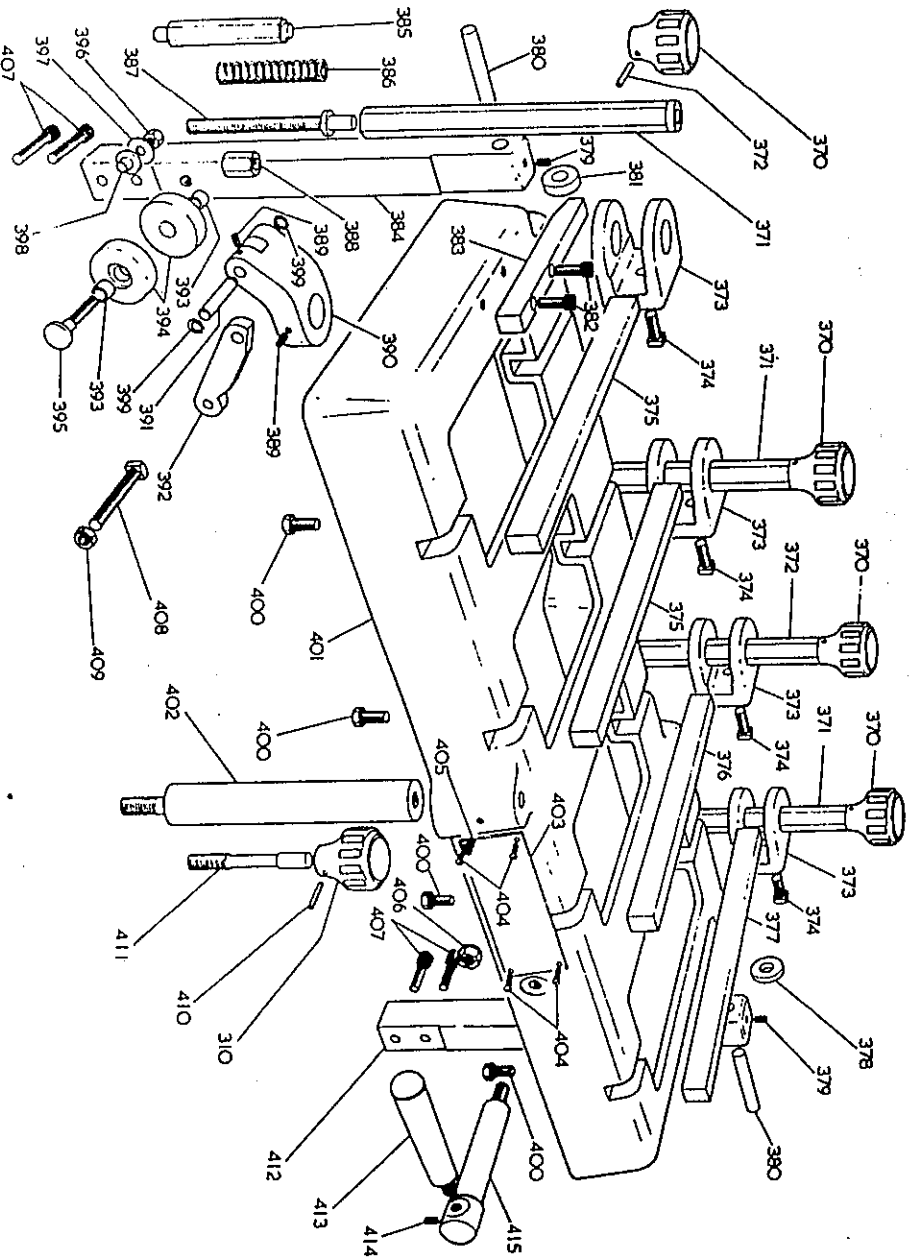
When ordering replacement parts quote part no. and serial number of the machine.



FENCE SIDE HEAD ASSEMBLY

Ref.No.	Part No.	No. Off	Description	Ref.No.	Part No.	No. Off	Description
280	B-1056/99	1	Front side head lateral adjusting screw	299	A-1056/78	2	Side head R & F peg bush
281	A-1056/82	1	Fence side head locking bar 16 ¹ / ₂ " long	300	A-1033/106	2	¹ / ₂ " whit aerotight nut
282	B-1056/165	1	Front side head locking bar 17 ¹ / ₂ " long	301	B-1056/44	1	¹ / ₂ " whit x 2" long socket head cap screw
283	C-1056/166	1	Bedplate for front side head	302		1	Fence side head vertical adjustment shaft
284		2	Bedplate for front side head cap screw	303		2	Front side head vertical adjustment shaft
285		3	³ / ₈ " whit x ³ / ₄ " long socket head cap screw	304	A-1031/58	2	¹ / ₂ " whit x ³ / ₄ " long socket head grub-screw
286		3	5/16" whit x 1" long square head bolt	305	A-1033/106	2	Nut for side head lateral adjustment
287	B-1056/177	1	5/16" whit locknut	306	B-1033/98	2	Nut for side head locking screw
288	D-1056/16	1	Vee strip for fence side head	307		2	Side head locking screw
289		1	Vee strip for front side head	308	A-1033/259	2	3/16" dia x 1 ¹ / ₄ " long groverlok dowel
290	A-1056/84	1	Front side head slide bracket	309	B-1056/46	1	Collar for R & F screw
291	A-1056/123	1	Side head R & F worm locknut	310		6	Fence side head cover plate
292	B-1056/92	2	Washer for side head R & F bearing	311	A-1056/137	4	5/16" whit x 1 ¹ / ₄ " long socket head cap screw
293		4	Side head R & F bearing housing	312		1	3/16" dia x 1 ¹ / ₂ " long groverlok dowel
294	B-1056/42	2	Side head R & F worm	313	A-1056/137	1	Side head lateral adjusting handle
295		2	1" bore x 1 ¹ / ₄ " o/d x 1 ¹ / ₄ " long oilite bush	314	B-1056/195/D	1	Side head vertical adjusting handle
296	B-1056/98	2	Side head vertical R & F bracket	315	C-SK-528/D	4	Instruction Plate
297	B-1056/43	2	Side head R & F quadrant	316	A-1033/261	1	¹ / ₂ " self tapping screw No. Z.6
298		2	5/16" whit x 1 ¹ / ₄ " long hexagon head bolts	317	B-1056/138	2	Collar for side head lock
299		2	¹ / ₂ " whit x 1 ¹ / ₄ " long stud bolts	318	B-1056/45	1	Side head locking handle
300		1		319		1	Fence side head bearing plate
301		1		320		1	¹ / ₂ " whit x 1 ¹ / ₄ " long stud
302		1		321		1	¹ / ₂ " washer
303		1		322		1	Adjustable handle 5/8" whit.

NOTE:-
When ordering replacement parts quote part no. and serial number of the machine.

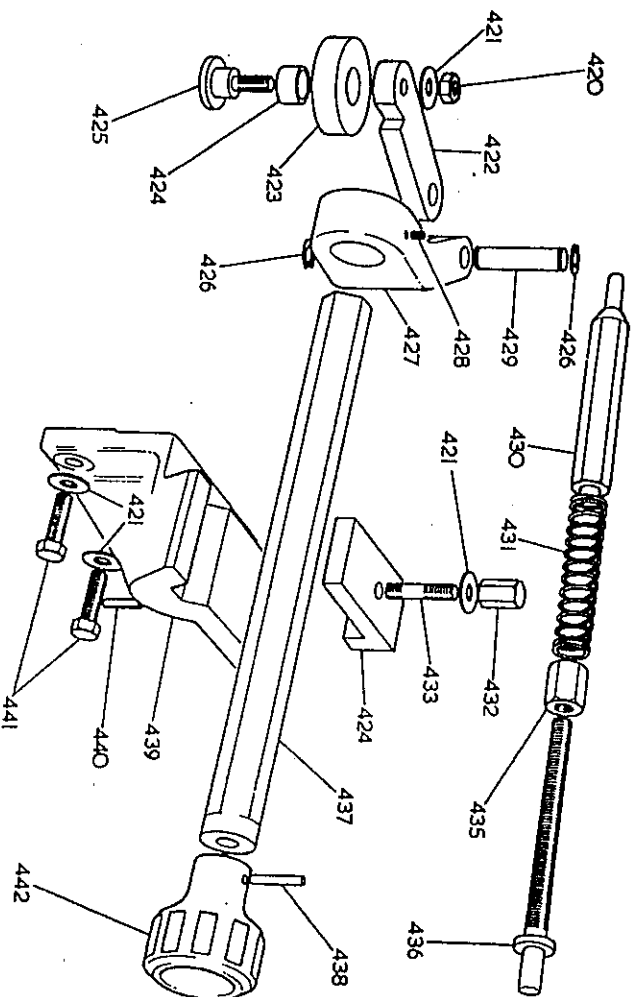


TOP PRESSURE UNIT ASSEMBLY

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
370	Part. No. 24	5	2" dia plastic handwheels $\frac{1}{2}$ " bore	393		8	$\frac{1}{2}$ " bore x $5/8$ " o/d x $\frac{1}{2}$ " long oilite bush
371	B-1056/107	4	Hexagon tube for pressures $7\frac{1}{2}$ " long	394	A-1056/105	8	Pressure rollers
372	B-1056/53	4	No. 3 Taper pin	395	A-1056/110	4	Roller pin
373	B-1056/53	4	Pressure locking bracket	396		4	$3/8$ " whit nut
374	B-1056/118	4	$\frac{1}{2}$ " whit x 1" long square head bolt	397		4	$3/8$ " washer
375	B-1056/118	2	Pressure adjustment bar $12\frac{1}{2}$ " long	398	A-1056/109	4	Bush for double pressure rollers
376	B-1056/118	1	with tapped holes at 8" Cnts	399	No. 5100/50	8	$\frac{1}{2}$ " Truarc external circlip
377	B-1056/118	1	Pressure adjustment bar $12\frac{1}{2}$ " long	400		8	$3/8$ " whit x 1" long hexagon head bolt
378	A-1056/251	1	with tapped holes at $9\frac{1}{2}$ " Cnts	401	C-1056/9	1	Top pressure bracket
379	A-1056/184	2	Distance piece for top pressure bracket $\frac{1}{4}$ " thick	402	B-1056/96	1	Top pressure bracket support rod
380	A-1056/184	2	$3/8$ " whit x $3/8$ " long grub screw	403	A-1056/252	1	Support for top pressure bracket
381	A-1056/251	1	Pivot pin for top pressure bracket	404		4	No. 26 self tapping screw $\frac{1}{4}$ " long
382		2	Distance piece for top pressure bracket $3/8$ " thick.	405		1	$\frac{1}{4}$ " whit x $\frac{1}{2}$ " long socket head grub screw
383	A-1056/247	1	$3/8$ " whit x 1" long socket head grub screw	406		1	$\frac{1}{2}$ " whit aeroflight nut
384	B-1056/183	1	Stop for top pressure bracket	407		4	$3/8$ " whit x $1\frac{1}{2}$ " long socket head cap screw
385	A-1056/104	4	Support for top pressure bracket (with $\frac{1}{2}$ " whit hole)	408		1	$\frac{1}{4}$ " whit x $4\frac{1}{2}$ " long square head bolt
386	A-1056/113	4	Plunger for top pressure $4\frac{1}{2}$ " long	409		1	$\frac{1}{2}$ " whit locknut
387	A-1056/102	4	Spring for top pressure	410	A-1056/260	1	$3/16$ " dia x 1" long groverlok dowel
388	A-1056/101	4	Pressure adjusting nut	411	B-1056/183	1	Top pressure bracket locking handle
389		2	Pressure adjusting nut $\frac{1}{4}$ " whit x $3/8$ " long socket head grub screw	412		1	Support for top pressure bracket (without $\frac{1}{2}$ " whit hole)
390	B-1056/55	4	Pressure pivot bracket	413		1	$5/16$ " plastic pull handle $3/8$ " whit
391	A-1056/108	4	Pressure link pivot pin	414		1	$5/16$ " whit x $3/8$ " long socket head grub screw
392	A-1056/106	4	Link for pressure	415	A-1056/248	1	Handle for top pressure bracket

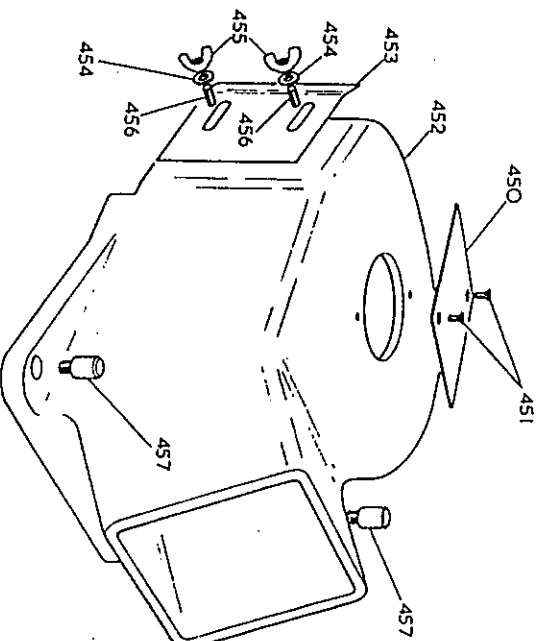
NOTE:-

When ordering replacement parts quote part no. and serial number of the machine.



SIDE PRESSURE UNIT ASSEMBLY

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
420		1	3/8" whit nut	431	A-1056/113	1	Spring for pressure
421		4	3/8" washer	432	A-1027/113	1	Pressure locking nut
422	A-1056/106	1	Link for pressure	433	A-1027/29	1	3/8" whit x 1 1/2" long stud
423	A-1056/105	1	Pressure roller	434	A-1056/147	1	Clamp for side pressure
424		1	1/2" bore x 5/8" o/d x 3/4" long oillite bush	435	A-1056/101	1	Pressure adjusting nut
425	A-1056/100	1	Pressure roller pin	436	A-1056/102	1	Pressure adjusting screw
426	5100/50	2	external circlip	437	A-1056/107	1	Pressure adjusting screw
427	B-1056/55	1	Pressure pivot bracket	438		1	Hexagon tube for pressure 9 1/2" long
428		1	1/4" whit x 3/8" long socket head Erubscrew	439	B-1056/57	1	No. 3 Taper pin
429	A-1056/108	1	Pressure link pivot pin	440		1	Side pressure bracket
430	A-1056/104	1	Plunger for pressure 6 1/2" long	441		2	3/16" dia x 1" long groverlok dowel
				442	Pat No. 24	1	3/8" whit x 1" long hexagon headbolt 2" dia plastic handwheel 3/4" bore

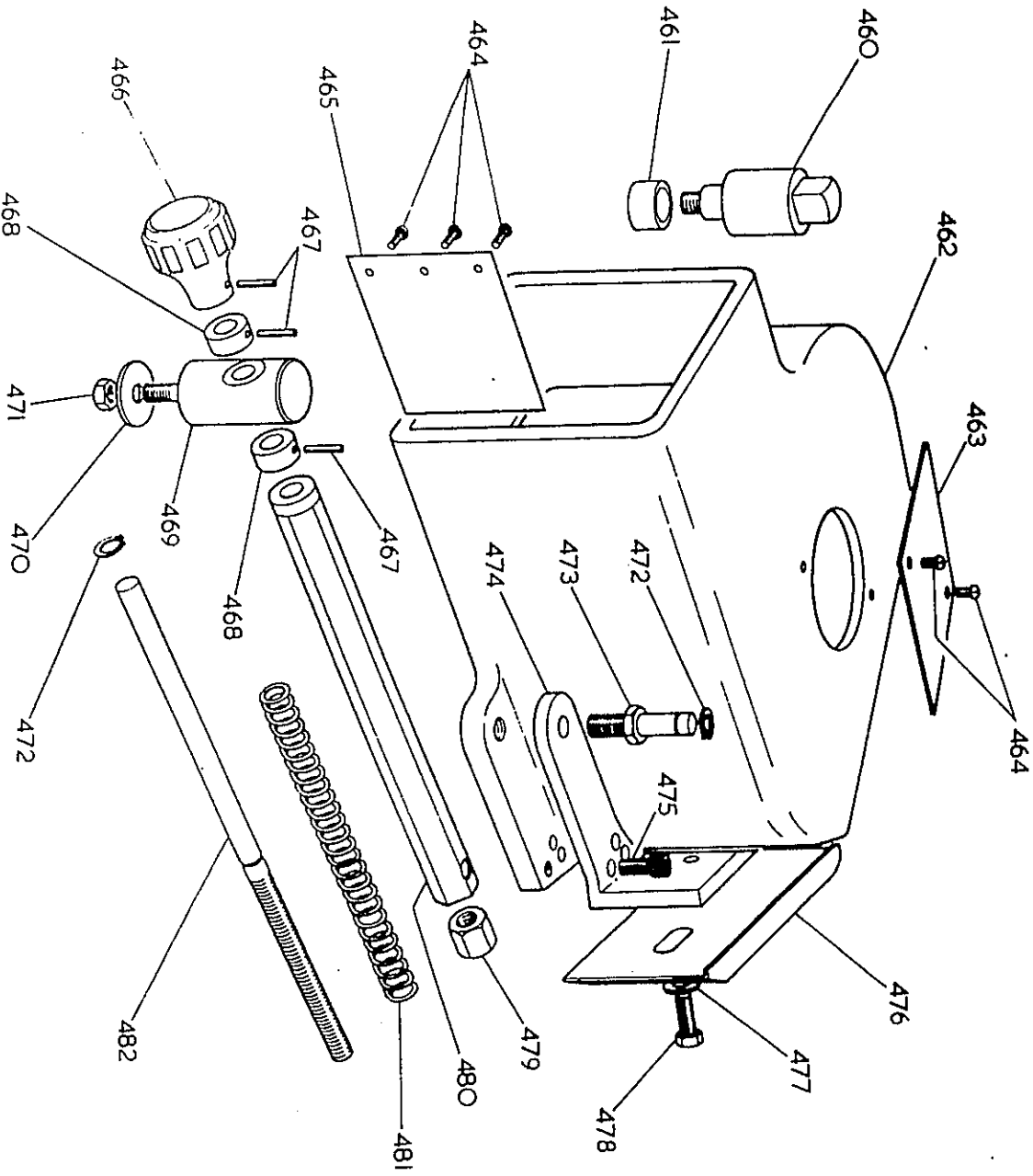


FENCE SIDE HEAD GUARD ASSEMBLY

Ref. No.	Part No.	No. Off	Description
450	A-1056/377	1	Side head guard cover
451		2	1/4" whit x 3/4" Long CSK head screw
452	C-1056/11	1	Fence side head guard
453	A-1056/266	1	Fence side head chip deflector
454		2	1/4" washer
455		2	1/4" whit wingnuts
456		2	1/4" whit x 3/4" Long stud
457		2	Location peg for fence side head guard

NOTE:-

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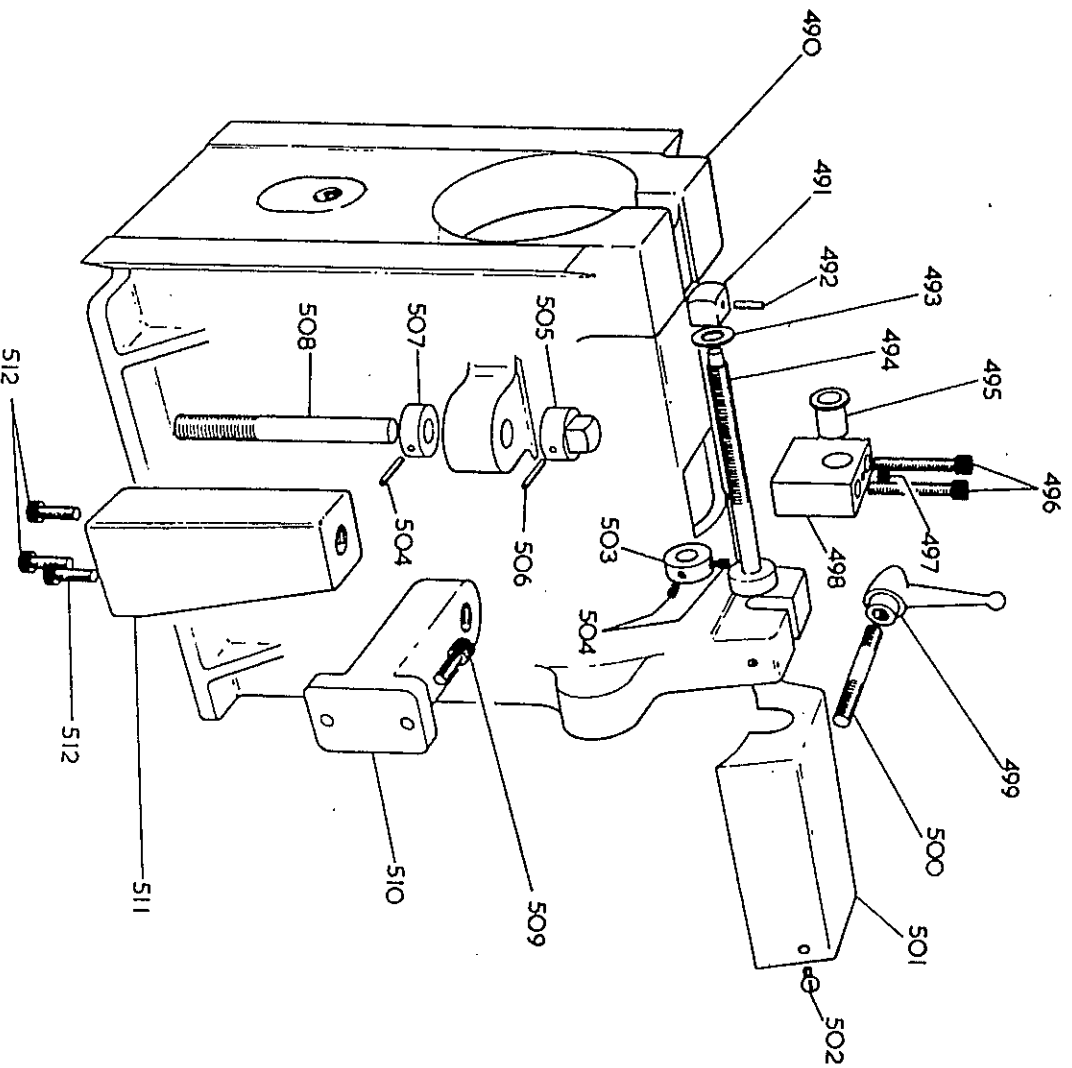


FENCE SIDE HEAD CHIPBREAKER ASSEMBLY

<u>Ref. No.</u>	<u>Part No.</u>	<u>No. Off</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>No. Off</u>	<u>Description</u>
460	A-1056/151	1	Front side head guard pivot	471	No. 5100/50	1	3/8" whit nut
461		1	3/4" bore x 1" o/d x 5/8" long cflite bush	472	A-1056/153	2	3/8" Truarc external circlip
462	C-1056/110	1	Front side head guard	473	A-1056/153	1	Side head guard pivot pin
463	A-1056/377	1	Side head guard cover	474	C-1056/111	1	Front side head chipbreaker bracket
464		5	3/4" whit x 3/8" long round head screw	475		1	3/8" whit x 3/4" long socket head capscREW
465	A-1056/267	1	Front side head chip deflector	476	B-1056/258	1	Front side head chipbreaker shoe
466	Pat. No. 24	1	2" dia plastic handwheel	477		1	3/8" washer
467		3	3/4" bore 3/16" dia x 1" long grover- lok spring dowel	478		1	3/8" whit x 3/4" long hexagon head bolt
468	A-1056/157	2	Front side head chipbreaker locating collar	479	A-1056/249	1	Side head chipbreaker adjusting nut
469	A-1056/238	1	Front side head chipbreaker anchor bar	480	A-1056/152	1	Side head chipbreaker tube
470	A-1032/22	1	Washer	481	A-1056/250	1	Side head chipbreaker spring
				482	A-1056/158	1	Side head chipbreaker adjusting screw

NOTE:-

When ordering replacement parts quote
part no. and serial number of the machine.

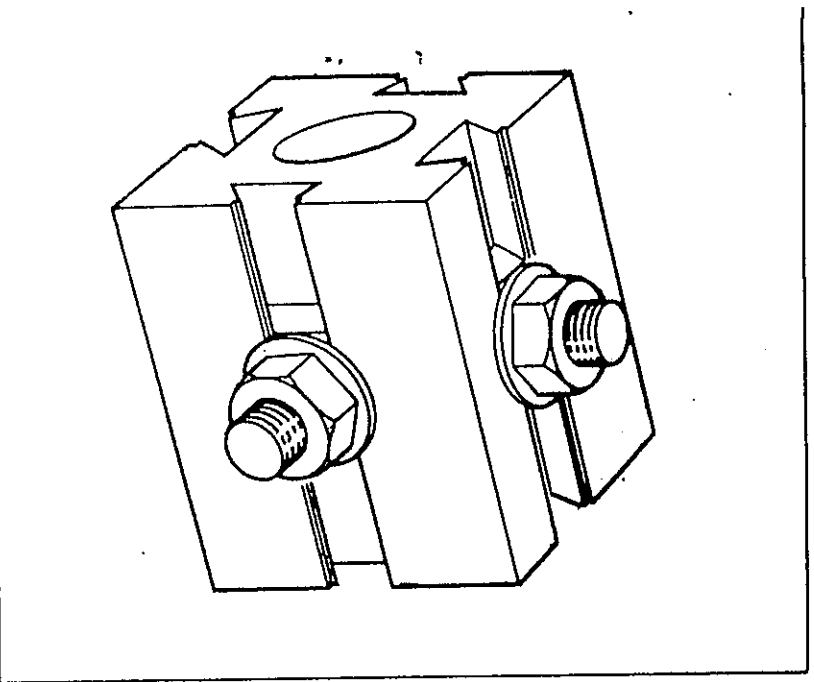


BOTTOM HEAD ASSEMBLY

<u>Ref. No.</u>	<u>Part No.</u>	<u>No. Off</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>No. Off</u>	<u>Description</u>
490	D-1056/12	1	Bottom head slide	504		1	3/16" dia x 1 1/4" Long
491	A-1056/253	1	Nut for bottom head lateral adjustment screw	505	A-1056/137	1	Evolverlok spring dowel
492		1	3/16" dia x 3/4" long groverlok dowel	506		1	Bottom head vertical adjustment handle
493		1	5/8" washer	507	A-1033/259	1	3/16" dia x 1 1/4" Long groverlok spring dowel
494	A-1056/128	1	Lateral adjustment screw	508	B-1056/120	1	Collar for R & F screw
495	A-1056/348	1	Nut for lateral adjustment	509		2	Vertical adjusting screw
496		2	5/16" whit x 2 1/2" long socket head cap screw	510	B-1056/47	1	3/8" whit x 1" long socket head cap screw
497		1	1/4" whit x 1" long socket head grub screw	511	C-1056/229	1	Extra head vertical adjustment nut
498	B-1056/121	1	Lateral adjusting nut	512		3	Bottom head vertical adjustment nut
499		1	Adjustable handle 1/2" whit	512		3	3/8" whit x 1 3/4" long socket head cap screw
500		1	Screw cover	513		2	5/16" whit x 3/8" long dog point grub screw
501	C-1056/114	1	1/4" whit x 3/8" long round head screw				
502		2	Collar for lateral adjustment screw				
503	A-1056/127	1					

NOTE:-

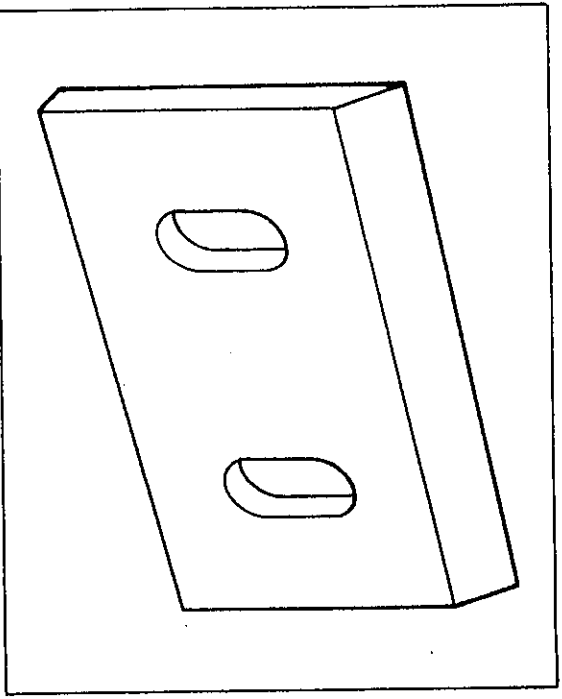
When ordering replacement parts quote part no. and serial number of the machine.



SQUARE CUTTERBLOCKS

FOR TOP & BOTTOM HEADS
 2" (165mm) long x 3 1/2" (89mm) square cutterblock, cone seated, 056/143, with bolts nuts and washers.

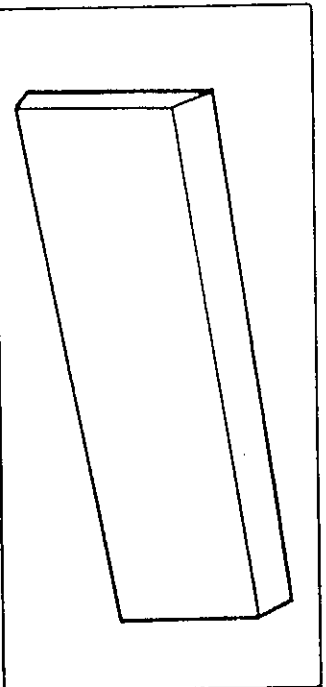
FOR SIDE HEADS
 1" (83mm) long x 3 1/2" (89mm) square cutterblock, cone seated, 056/142 with bolts nuts and washers



CUTTERS FOR SQUARE CUTTERBLOCKS

FOR TOP & BOTTOM HEADS
 1 pair 6 1/2" (165mm) long x 3 1/2" (95mm) x 3/8" (9.5mm) HSS straight cutters 1056/220

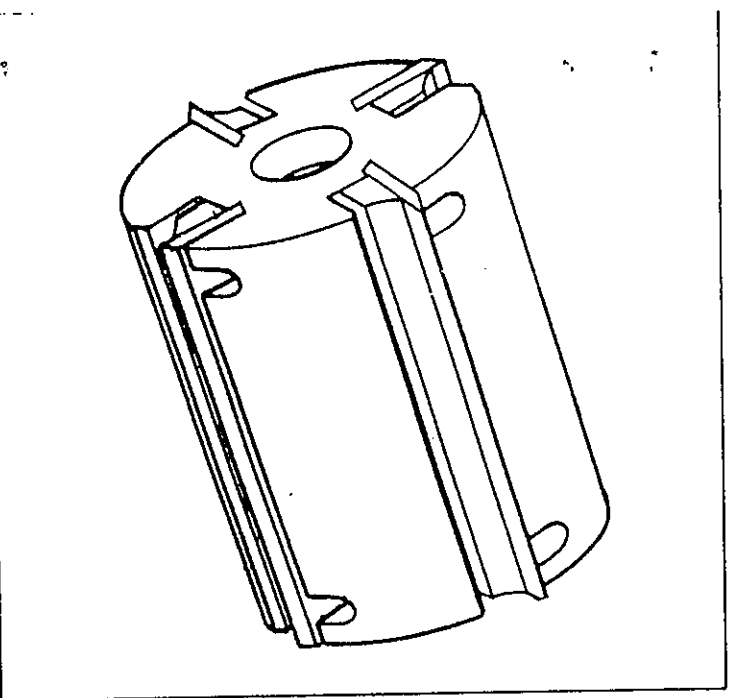
FOR SIDE HEADS
 1 pair 3 1/2" (82mm) x 3 1/2" (95mm) x 3/8" (9.5mm) HSS straight cutters 1056/381



CUTTERS FOR CIRCULAR CUTTERBLOCK

FOR TOP AND BOTTOM HEADS
 1 set straight cutters for circular cutterblock 6 1/2" (165mm) long A-1056/221

FOR SIDE HEADS
 1 set straight cutters for circular cutterblock 3 1/2" (83mm) long A-S-164



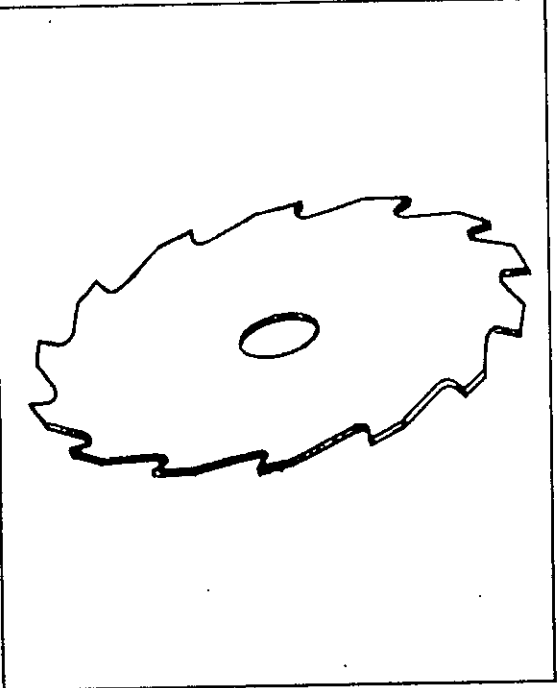
CIRCULAR CUTTERBLOCKS

FOR TOP AND BOTTOM HEADS

Four knife cone seated circular cutterblock 6 1/2" (165mm) long x 5 1/2" (140mm) dia cutting circle 1056/145

FOR SIDE HEADS

Four knife cone seated circular cutterblock 3 1/2" (83mm) long x 5 1/2" (140mm) dia cutting circle 1056/144



SPLITTING SAW FOR FIFTH HEAD

1 - 9" (230mm) dia alloy steel splitting saw
 1 pair saw flanges for above
 1 set spacing collars for above