

# BFFR

INSTRUCTION MANUAL



**Wadkin**  
**Burgreen**

## - SPECIFICATIONS -

Planing Width	20"
Planing Thickness	1" to 6"
Cutting Circle of Bottom Block (2 knife)	5"
Cutting Circle of Top Block (2 knife)	5"
Top and Bottom Cutterblock Speeds.	4,5000 R.P.M.
Feed Speeds (50 cycles)	15, 30, 40, 50, 80 and 100 Ft/Min.
Feed Roller Diameters. (Sectional)	4"
Bottom Block Adjustment	3/32"
Top Cutterhead and Feed Adjustment	6 1/8"
Front Table Adjustment	3/8"
H.P. of Bottom Block	5 1/2. (7 1/2 optional extra.)
H.P. of Top Block	7 1/2. (11 1/2 " " )
H.P. of Feed.	4/3.2
Table Height	34" (Fixed)
Overall Length	65"
Overall Width	48"
Nett Weight	3580 lbs.

DETAILS INCLUDED:-

Motors, Control Gear, Isolator and Internal Wiring, Cutters for each head, Exhaust Hoods, Top Block Knife Setting Device, Grease Gun and Lubricant, Keys and Spanners.

16" x 4 1/2" FOUR SIDED PLANER MODEL BFR 4 (400)

## - SPECIFICATIONS -

Planing Width	1" to 16"
Planing Thickness	7/16" to 4 1/2"
Diameter of Side Spindles	1 1/4"
Cutting Circle of Bottom Block (2 knife)	3"
Cutting Circle of Top Block (2 knife)	5" (6 1/2" moulding)
Cutting Circle of Side Block (3 1/2" sq.)	6" Min. 8" Max.
Top and Bottom Block Speeds	4,500 RPM
Side Block Speeds	5,000 RPM
Feed Speeds (50 cycles)	15, 30, 40, 50, 80, and 100 Ft/Min.
Feed Roller Diameters	4"
Projected through Feed Roller Diameter	8" (Polyurethane)
Bottom Block Adjustment	3/32"
Top Cutterhead and Feed Adjustment	6 1/8"
Fence Side Head Vertical Adjustment	1/2" tilting 15°
Near " " "	1/2" tilting 45°
Front Table Adjustment	1/8"
Horse Power of Bottom Block.	5 1/2 (7 1/2 optional extra.)
Horse " " Top "	7 1/2 (11 1/2 " " )
Horse " " Side Heads	3 ( 4 " " )
Horse " " Feed	4/3.2
Table Height	34" (fixed)
Overall Length	92"
Overall Width	48"
Nett Weight	4,260 lbs.

-DETAILS INCLUDED:-

Motors, Control Gear, Isolator and Internal Wiring, Cutters for each head, Exhaust Hoods, Top Block Knife Setting Device, Grease Gun and Lubricant, Keys and Spanners.

INSTALLATION.

Remove protective coating from bright parts with cloth soaked in paraffin, turpentine or other solvent. Level the table surfaces by packing under the main base and adjusting jacking screws in the bottom of the outer table support. (see FIG 1 for foundation bolt positions.)

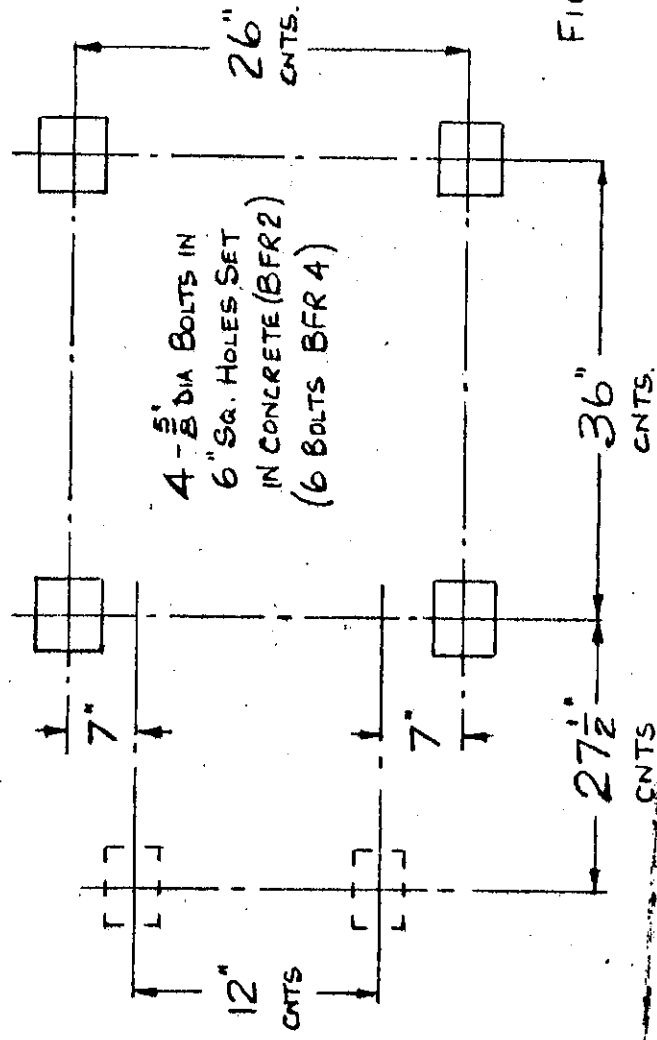


FIG 1.

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 isolator. Points to check when connecting the power supply:-

1. Check the voltage, phase and frequency with those on the Machine plate.
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 motors.
3. Check the main line fuses are the correct capacity.
4. Connect the line leads to the appropriate isolator terminals. (i.e. L1, L2, L3. See wiring diagram. Fig. 2 and 3.)
5. Check all connections are sound.
6. Check all overload settings.
7. Check all cutterblocks are free to rotate.
8. Check direction of all motors by using the power rise and fall, as described in the following paragraphs. Do not run until this is fully understood.

RUNNING MACHINE.

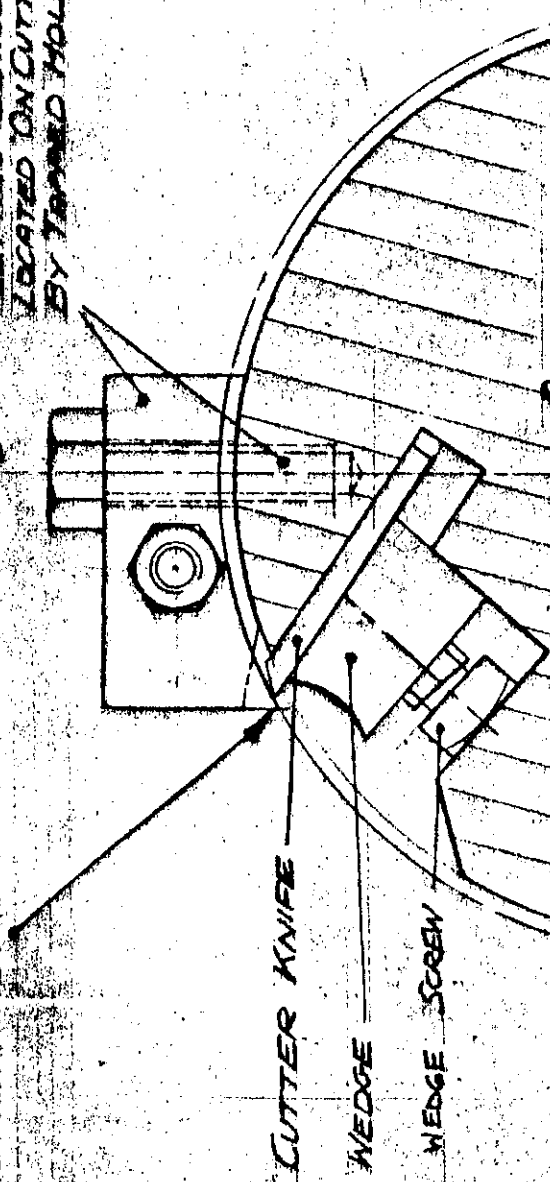
The Machine is arranged with built in safety switches to ensure maximum safety.



# TOP SETTING

NOTE - KNIFE IS SET WHEN TIP OF KNIFE TOUCHES SETTING DEVICE AS ILLUSTRATED

SETTING DEVICE LOCATED ON CUTTERBLOCK BY TAPPED HOLES



CUTTER KNIFE

WEDGE

WEDGE SCREW

CUTTERBLOCK

CAUTION - ALWAYS REMEMBER AFTER RE-SETTING KNIVES TO ENSURE THAT THEY ARE CLAMPED WITH CUTTERBLOCK FIRMLY

# BOTTOM SETTING

CUTTER IS SET FROM SURFACE OF FIXED TABLE WITH STRAIGHT EDGE AS SHOWN. WHEN RE-SETTING CHECK AT DIFFERENT POINT ALONG BLADE LENGTH AS ILLUSTRATED.

STRAIGHT EDGE TO OBTAIN BEST FEED & FINISH SET KNIFE SLIGHTLY UP ON FIXED TABLE.

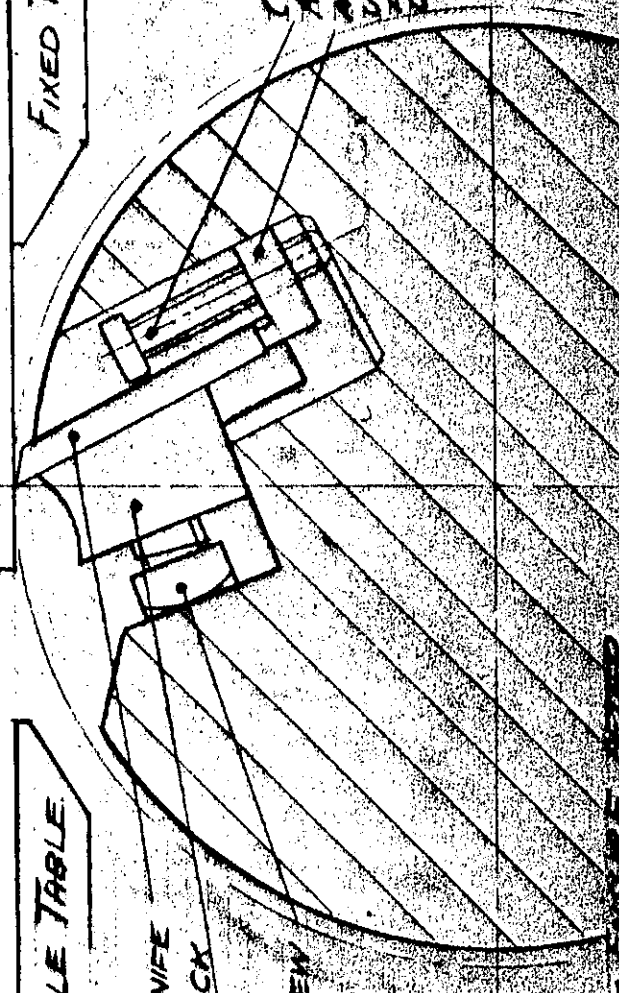
ADJUSTABLE TABLE

CUTTER KNIFE  
CUTTERBLOCK  
WEDGE

WEDGE SCREW

FIXED TABLE

CUTTER KNIFE ADJUSTER SCREWS AND SHOES, SCREWS UP OR DOWN TO ALTER SETTING OF BLADE



The power rise and fall to the top head is arranged with adjustable built in limit switches which automatically stops the head at its minimum and maximum heights. (IE.  $\frac{1}{4}$ " min;  $5\frac{1}{4}$ " max:)

The head can be adjusted beyond these limits by hand to a minimum height of  $7/16$ " (BFR.  $2\frac{1}{4}$ " ) and a maximum height of 6" by adapting the handle provided to spindle E (see FIG: 4)

When the head is set between the top  $5\frac{1}{4}$ " and 6" limits the power can only operate downwards and visa-versa for the bottom limits.

To operate power rise and fall follow the sequence as described in FIG: 4.

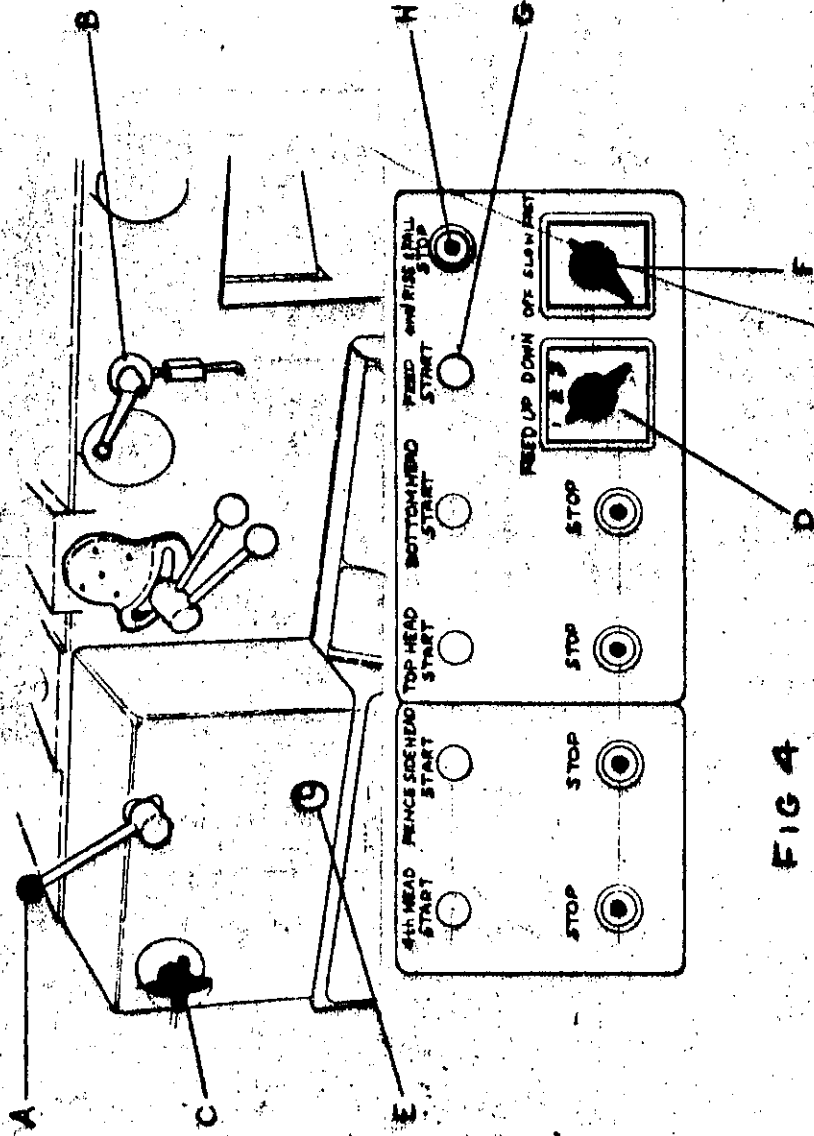


FIG 4

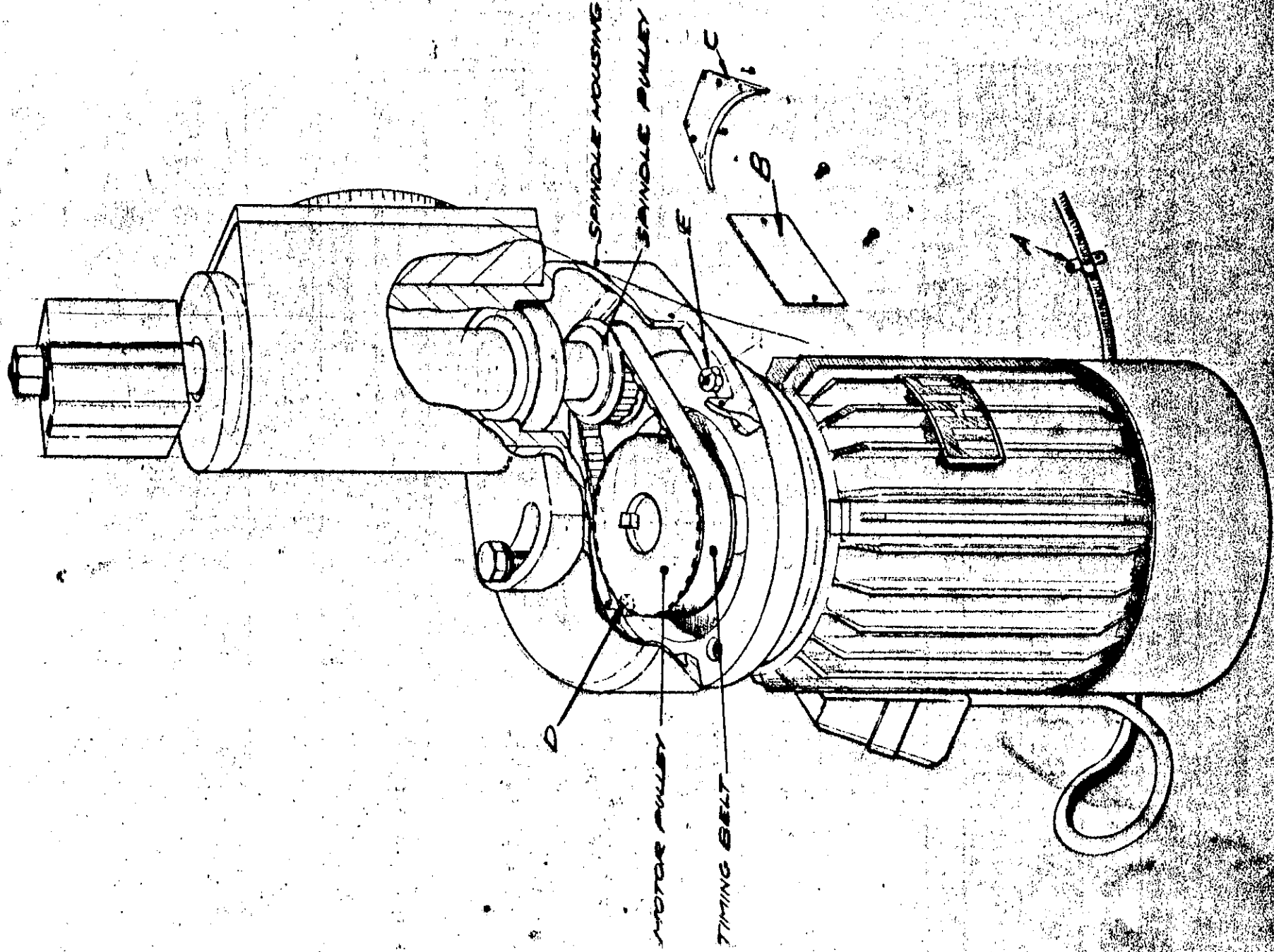
1. Unlock handles 'A' and 'B'
2. Adjust top head to between 2" to 3" position using handle at point E (This only applies for initial running)
3. Select up position on switch D
4. Select up down position on dial C
5. Select slow or fast position on switch F
6. Press feed start button G holding C in position
7. To stop power rise and fall press button H

NOTE: If after following the above sequence the head travels in the opposite direction press stop button H immediately and reverse any two of the incoming supply wires.





SIDE HEADS



To replace timing belt pulleys follow the following procedure:-

- (1) Isolate the machine, remove guards and cutters.
- (2) Remove saddle 'A' securing electric cable to base.
- (3) Remove bridge pieces between tables.
- (4) Remove inspection cover 'B' and pulley cover 'C'
- (5) Tilt head into horizontal position.
- (6) Support the motor, remove allen screw 'D' and locknut 'E', withdraw motor from head.
- (7) Remove timing belt.
- (8) Remove pulley from cutter spindle and replace with new pulley, ensure pulley is locked securely in position.
- (9) Remove pulley from motor shaft and replace with new pulley, ensuring pulley is set in correct position as in sketch and locked securely in position.
- (10) Place timing belt around cutter spindle pulley.
- (11) Offer motor to the head, hook motor pulley under and into timing belt, at the same time rotate the cutter spindle. PLEASE NOTE DURING THIS OPERATION DO NOT CRUSH OR CRIMP THE BELT. Check belt is in correct position.
- (12) With motor in position replace allen screw 'D' and locknut 'E', finger tight.
- (13) Tension belt by pivoting motor around allen screw 'D' when correct tension is attained lock both allen screw 'D' and locknut 'E'.
- (14) Ensure head is now clear to run, with the motor running check the belt tension, adjust if necessary by loosening locknut 'E' and pivoting around allen screw 'D'
- (15) Ensure both allen screw 'D' and locknut 'E' have been tightened, replace inspection cover 'B' and pulley cover 'C' and saddle 'A', return head to vertical position, replace bridge pieces.
- (16) The head is now ready for use.

BALL RACE LIST

POSITION ON MACHINE	NO	TYPE & NUMBER OF BALLS		TRAJ
		NEAR	FACE SIDE	
CUTTERBLOCKS				
TOP CUTTERBLOCK	1	2307 M	1 2307 M	S.K.F
BOTTOM CUTTERBLOCK	1	2307 M	2 2307 M	S.K.F
SIDE CUTTERBLOCKS				
BOTTOM BEARING	2	6306 2RS		S.K.F
TOP BEARING	2	6207 2RS		S.K.F
RISE & FALL HEAD (CHAIN DRIVE)				
INTERMEDIATE SHAFT	2	6206 2RS		S.K.F
OUTFEED				
ROLLER SPINDLE	2	6307		S.K.F
FEED DRIVE SHAFT (WITH DUPLEX SPOON)	2	RAX 435PZ		MARZELLA
TABLE				
IDLER ROLLER	8	410249		S.K.F
RISE & FALL (REF)				
FRONT R & F SCREW	2	RAXPZ 425/20		S.K.F
R & F SCREW	1	O.B		S.K.F
R & F PINION SHAFT		{ O.B SPECIAL 1625		S.K.F TORRING -TON
FEEDBOX				
DRIVEN SPINDLE	2	6307 2RS		S.K.F
DRIVING SPINDLE	2	6307 2RS		S.K.F
RISE & FALL	1	6307 2RS		S.K.F
RISE & FALL	1	6307 2RS		S.K.F