

WADKIN BURSGREEN  
INSTRUCTION MANUAL

6IN. BGA - 150  
BELT SANDER  
MODELS 0; 1 AND 2



Please Insert Serial Number  
of Machine.

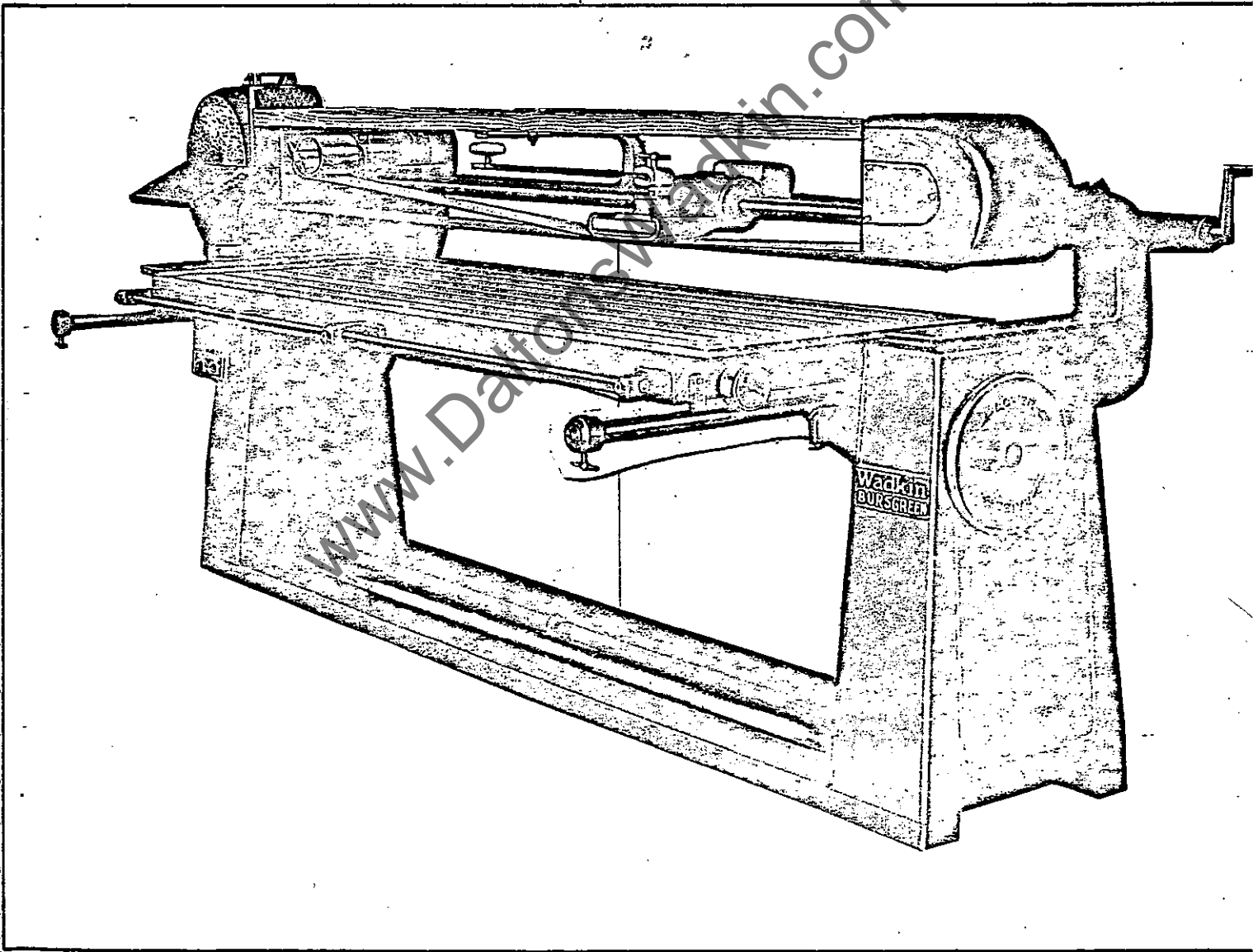
MODIFICATIONS ARE MADE TO THESE BOOKS FROM  
TIME TO TIME AND IT IS IMPORTANT THAT ONLY  
THE BOOK SENT WITH THE MACHINE BE USED AS  
A WORKING MANUAL.

UNDER AND OVER BELT SANDER  
6IN. BGA 150

No. 0 size, Type BGA 0 for work up to  
4 feet (1.2metres) long.

No. 1 size, Type BGA 1 for work up to  
8 feet (2.5 metres) long.

No. 2 size, Type BGA 2 for work up to  
10 feet (3 metres) long.

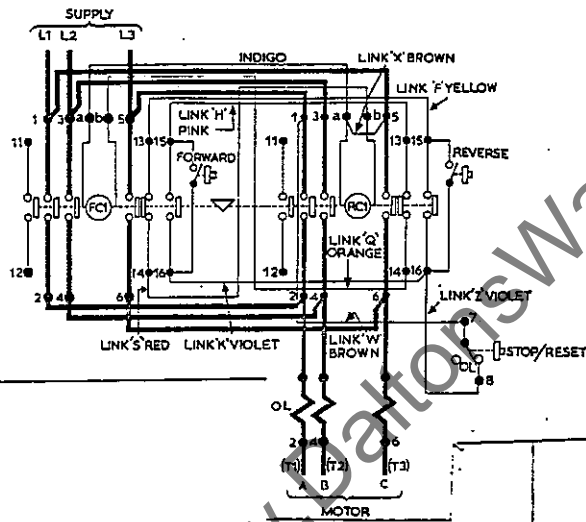


## SPECIFICATION.

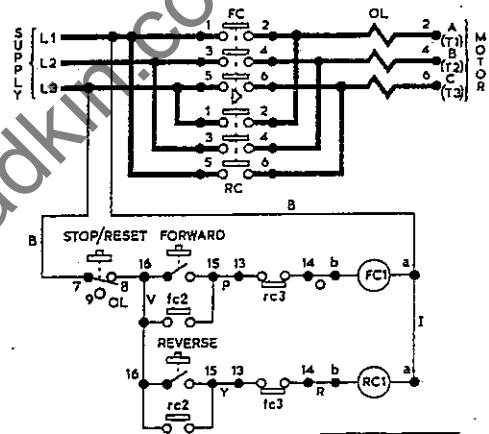
Height from floor to sanding belt - over	4ft. 4in.	1,320mm
under	3ft. 6in.	1,070mm
Maximum length sanded between columns		
No. 0 machine	4ft.0in.	1.25 metres
No. 1 machine	8ft.0in.	2.5 metres
No. 2 machine	10ft.0in.	3 metres
Maximum width sanded between columns	2ft. 6in.	760mm
Maximum depth between belt and table	2ft. 0in.	610mm
Size of Undertable		
No. 0 machine	4ft. x 2ft.6in.	1,250mm x 760mm
No. 1 machine	8ft. x 2ft.6in.	2,500mm x 760mm
No. 2 machine	10ft. x 2ft.6in.	3,000mm x 760mm
Surface speed of sanding belt	3,700 ft/min.	1,130 m/min.
Motor speed (50 cycles) - 50 hertz		1,440 r.p.m.
(60 cycles) 1 50 hertz		1,800 r.p.m.
Motor	5.5 h.p.	4 kW
Size of sanding belt		
No. 0 machine	13ft.6in. x 6in.	4100mm x 152.4mm
No. 1 machine	21ft.6in. x 6in.	6550mm x 152.4mm
No. 2 machine	25ft.6in. x 6in.	7650mm x 152.4mm
Overall Height of Machine	4ft. 9 in.	1,450mm
Net weight of No. 0 machine	1,200 lb.	544 Kg.
Net weight of No. 1 machine	1,600 lb.	725 Kg.
Net weight of No. 2 machine	1,700 lb.	770 Kg.
Gross weight of No. 0 machine	1,600 lb.	725 Kg.
Gross weight of No. 1 machine	2,000 lb.	900 Kg.
Gross weight of No. 2 machine	2,100 lb.	950 Kg.
Shipping Dimensions No. 0 machine	51 cu/ft.	1.4m <sup>3</sup>
Shipping Dimensions No. 1 machine	83 cu/ft.	2.3m <sup>3</sup>
Shipping Dimensions No. 2 machine	98 cu/ft.	2.8m <sup>3</sup>
Floor space No. 0 machine	9ft. x 5ft.6in.	2.7m x 1.7m
Floor space No. 1 machine	13ft. x 5ft.6in.	4m x 1.7m
Floor space No. 2 machine	15ft. x 5ft.6in.	4.6m x 1.7m

# WIRING FOR 3 PHASE - RRT - STARTER

**WITH THERMAL OVERLOADS**



**KEY DIAGRAM**



FOR ANY OTHER TYPE OF STARTING SEE SEPARATE WIRING DIAGRAM ENCLOSED INSIDE STARTER BOX.

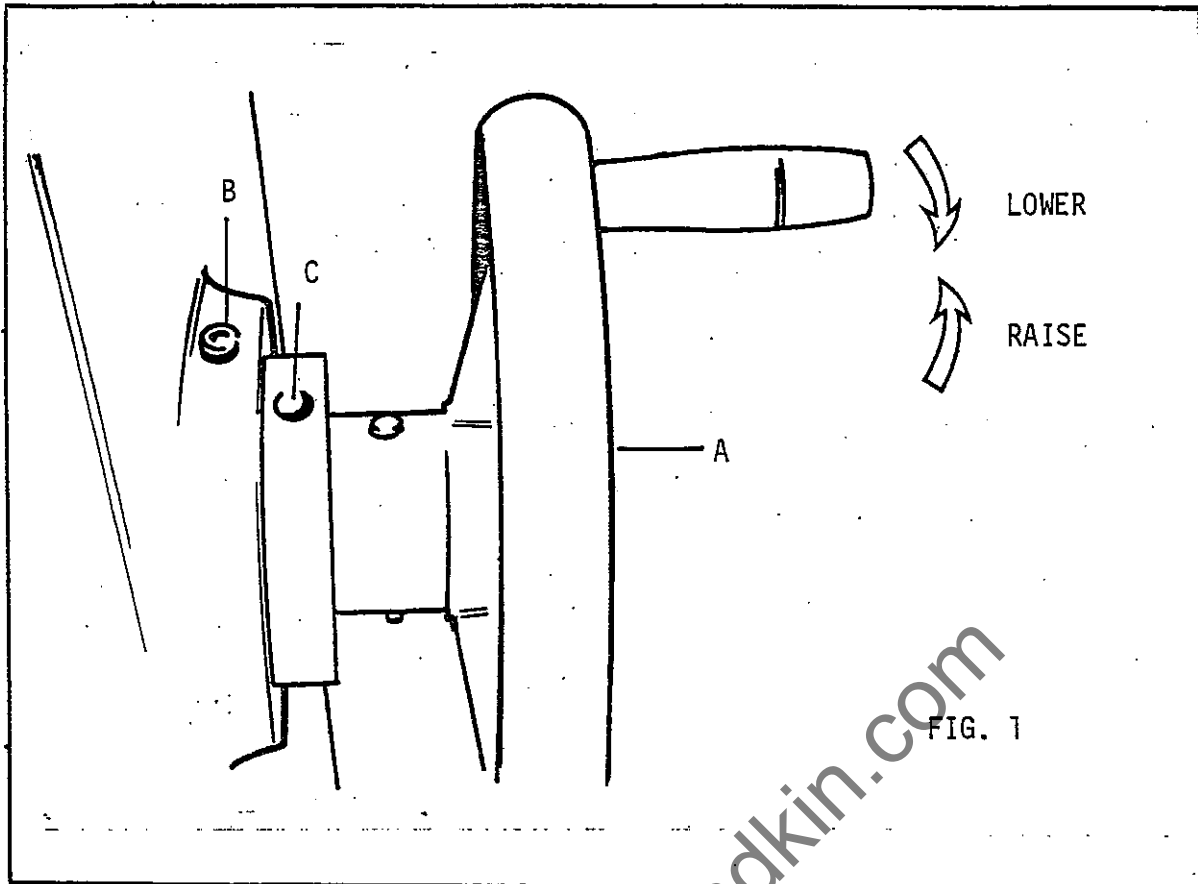


FIG. 1

#### MAIN TABLE RISE AND FALL, FLOATING AND HAND PADS TABLE RISE AND FALL.

The rise and fall motion of the work table is operated by the handwheel (A) positioned at the side of the idler pulley and support pillar (Fig. 1). The motion is transferred to the table carriers from the handwheel via the chain drive and gears.

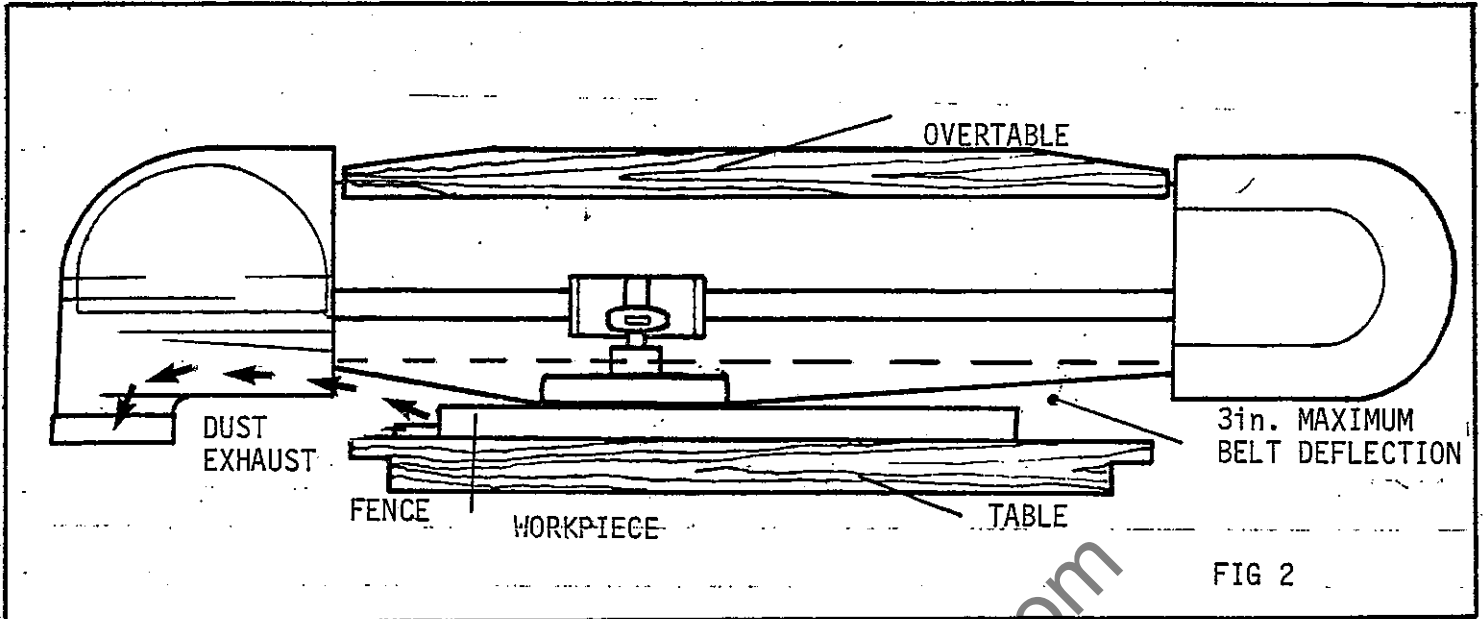
It is important that the rise and fall chain tension is maintained, adjustment being effected by unscrewing the locking screw at point (B) and rotating the eccentric collar (C) until the required tension is attained.

ENSURE RISE AND FALL GEAR, SCREWS AND CHAIN ARE LUBRICATED REGULARLY.

#### TABLE RUNWAY BARS

Each runway bar is provided with adjustable collars which act as travel stops, on no account should these be removed from the machine.

CLEAN AND OIL RUNWAY BARS REGULARLY.



#### THE MAIN TABLE

The main table has been levelled and set to your machine before despatch and only requires laying on the runway bars upon receipt of machine.

The related positions between the table, workpiece and belt are important. The face of the workpiece to be sanded should always be brought as near as possible to the belt (fig. 2).

In order to improve extraction and finish it is important that any work is positioned up to the fixed fence or datum on the table top face (Fig. 2).

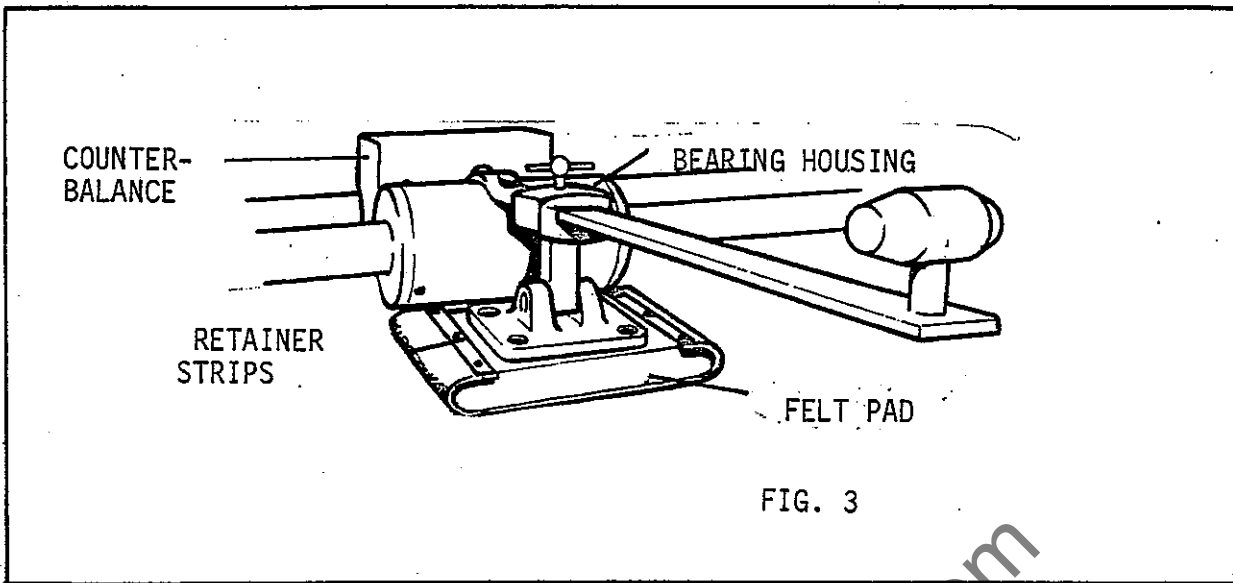


FIG. 3

THE FLOATING PAD (Fig. 3)

The floating pad is mounted on sealed for life bearings for ease of operation and it is important that the runner bar be cleaned and is oiled regularly. The bearings fitted inside the pad body are eccentrically mounted to facilitate adjustment though this should not be required. The whole unit is operated by a long counter-balanced handle. Replacement felt pads are fitted by removing the two metal retainer strips.

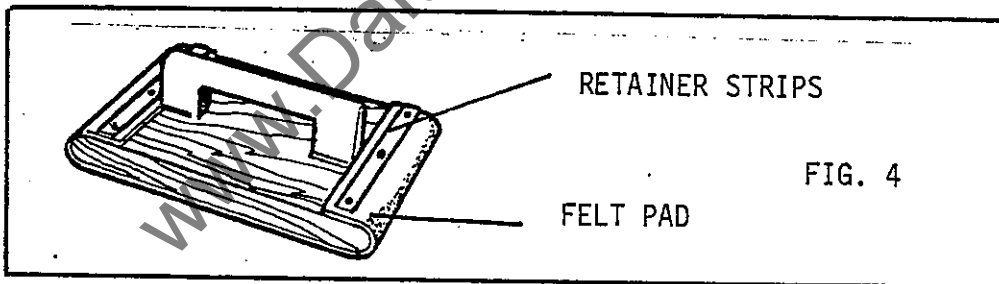


FIG. 4

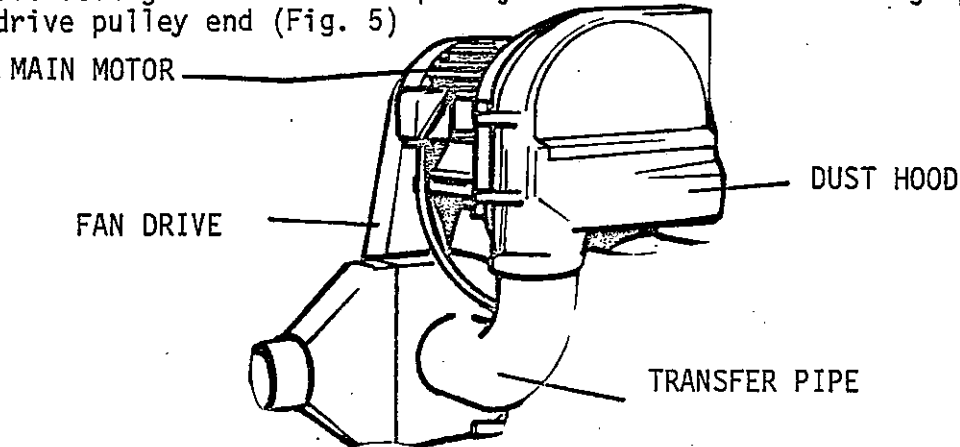
THE HAND PAD (fig. 4)

A hand pad is provided with each machine for work on intricate and awkward workpieces. The replacement of felt pads on this unit is the same as outlined for the floating pad assembly.

## REMOVAL, REPLACEMENT AND TRACKING OF SANDING BELTS

To remove and replace abrasive belts the following procedure should be adopted.

1. Remove belt guard from idler pulley end of machine and swing open dust hood guard at drive pulley end (Fig. 5)



2. Turn hand lever 'A' (Fig.6) in clockwise direction to slacken belt until it is possible to lift belt from pulleys and over wooden fence on the oversanding table. On machines with sanding discs fitted to drive pulley, the belt will require lifting over disc back plate, therefore, belt may require slackening further than machines which are not fitted with this feature.
3. Before refitting, it is important that the condition of the replacement belt is checked and found to be in good condition (i.e.) free from cuts, cracks or tears.

RUNNING WITH WORN OR DEFECTIVE BELTS CAN BE DANGEROUS.

4. To replace belt, reverse procedure outlined in point (2) and re-tension by turning handlever 'A' in anti-clockwise direction (DO NOT OVERTENSION, SEE POINT 'X' (Fig. 6)

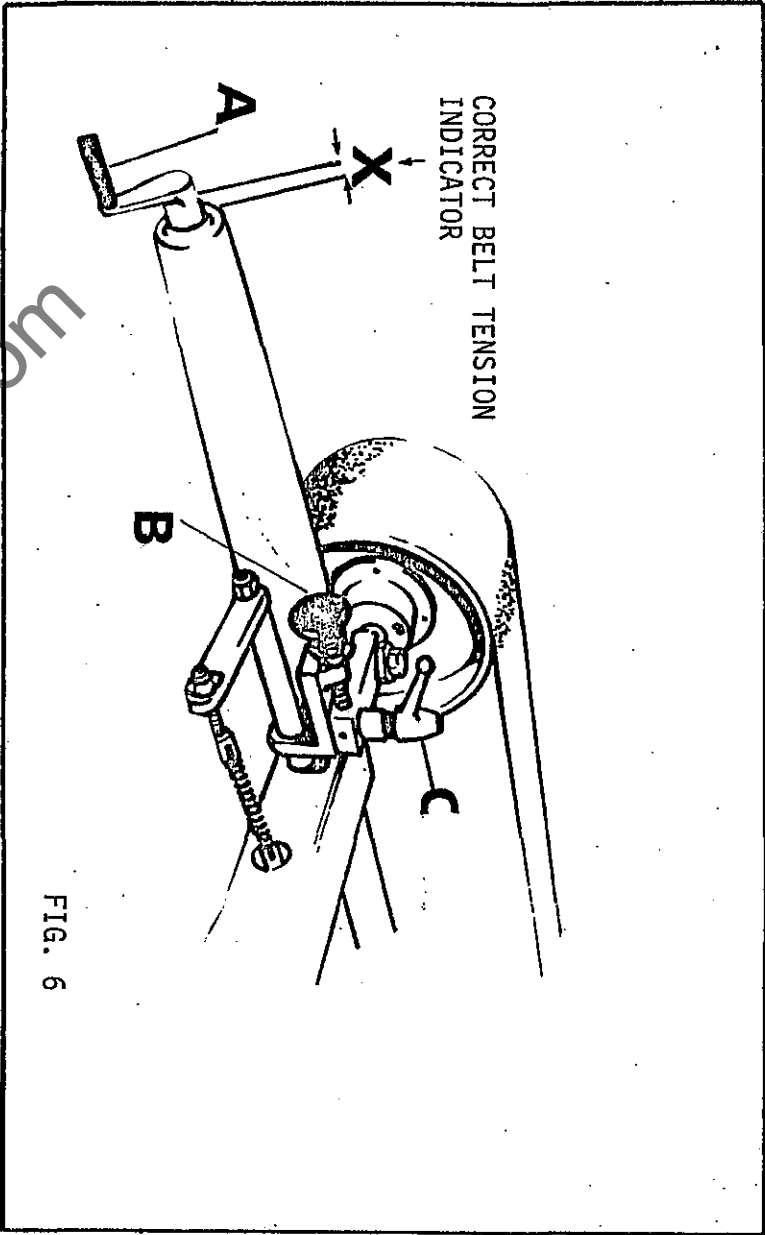
### TRACKING

It may be found that after replacement or during the running life of a belt that the track or running alignment requires adjustment in order that the belt runs equally over each pulley and does not tend to 'run-off'

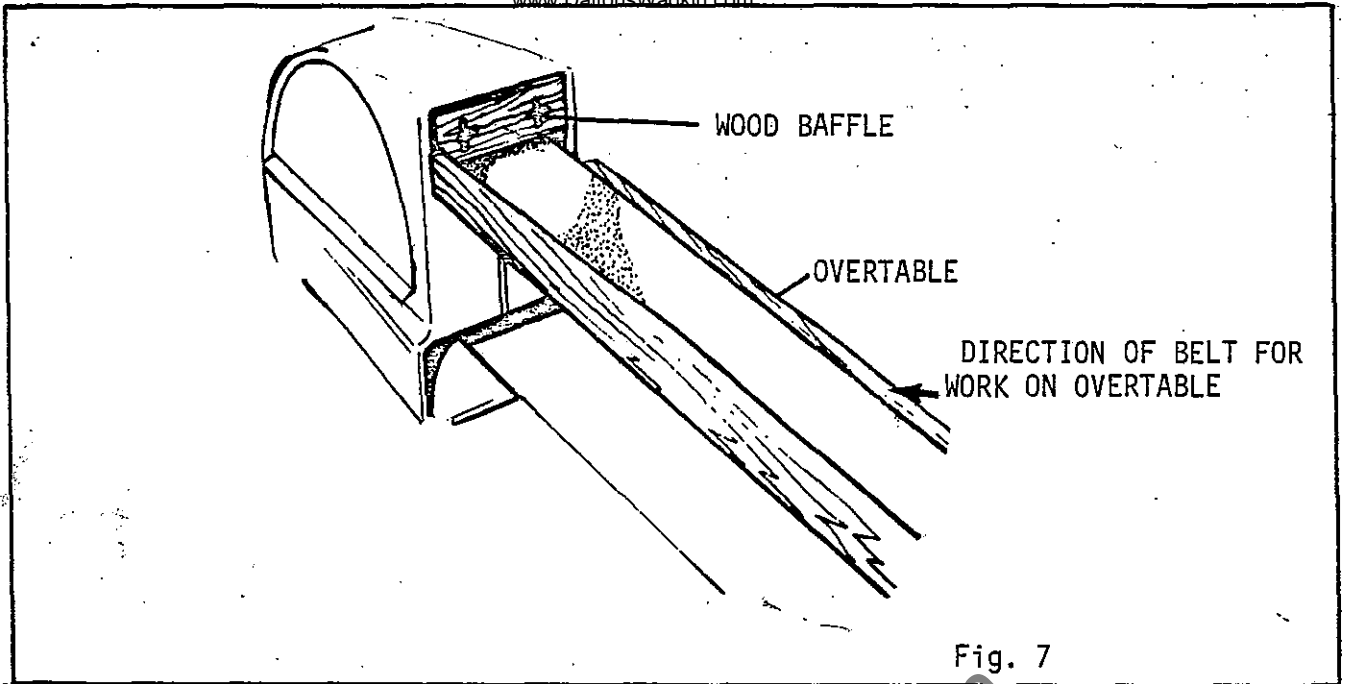
TO UNDERTAKE THIS OPERATION THE FOLLOWING PROCEDURE SHOULD BE ADOPTED.

1. Remove the pulley guard and by turning the handlever 'A' (Fig.6) tension belt to point where all slackness is removed but belt is not fully tensioned as it would be for use under running conditions.
2. Rotate idler pulley by hand and whilst rotating slacken handle 'C' and wingnut positioned behind handwheel 'B'
3. Still rotating pulley, turn handwheel 'B' in either direction until belt is central on width of pulley drive face. At this point re-lock lever 'C' and wingnut on screw at handwheel 'B'.
4. Replace pulley guard and tension belt by turning handle 'A' until there is 1/8in. to 1/4in. (3mm-6mm) clearance between shoulder of handle and body casting (see point 'X' Fig. 6).



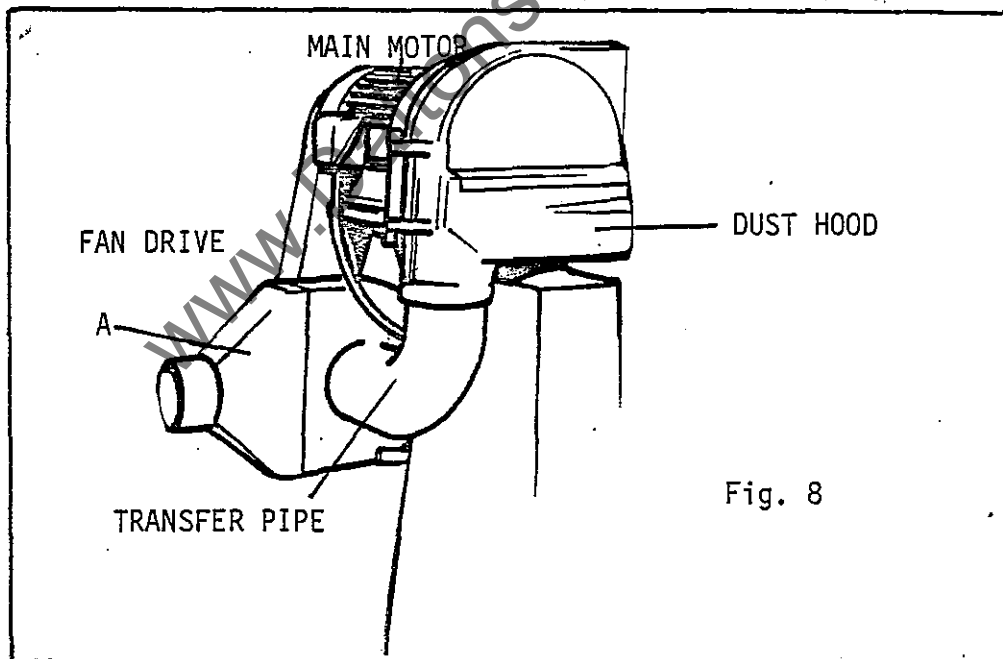


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### THE OVERTABLE

This feature is useful for a variety of light sanding work such as drawers and all box forms. It should be remembered that the direction of belt rotation must be changed by means of the forward/reverse switch when working on the overtable and that work should be undertaken as near to the dust hood as previously mentioned. At the exhaust hood aperture it will be noticed that an adjustable wood baffle is fitted which should remain adjusted to within  $\frac{3}{8}$ in. to  $\frac{1}{2}$ in. of the belt at all times (Fig. 7). (12mm to 12.7mm)



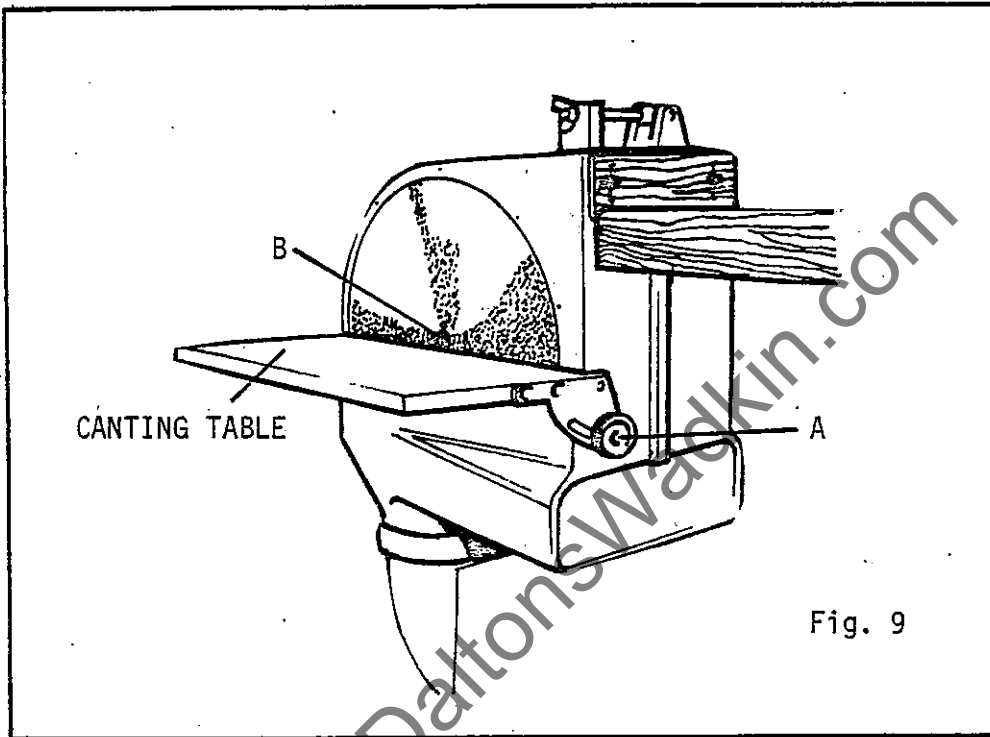
### THE DUST EXHAUST

The extractor fan is driven by the main belt drive motor through a Brammer type link belt. Periodically the system should be cleaned out to maintain maximum efficiency by removing cover 'A' (Fig. 8) and cleaning the impeller and blades and also removing any build up of dust inside the main hood guard and transfer pipe.

### OPTIONAL FEATURES

#### 14in. DIAMETER DISC WITH CANTING TABLE (EXTRA)

The disc attachment complete with canting table is suitable for square, bevel and external radii work (Fig. 9). The angle of cant is easily set as desired and can be locked rigidly in place by a handwheel 'A'. The disc is secured to the drive pulley shaft by means of a cup head allen screw 'B'.



IF THE DISC WITH CANTING TABLE IS NOT A FACTORY FITTED EXTRA (i.e.) FITTED BY THE CUSTOMER, THE FOLLOWING PROCEDURE SHOULD BE ADOPTED.

1. Open guard door and remove sanding belt from machine
2. Unlock four bolts 'A' and remove drive pulley 'B'.
3. At point 'C' on drive pulley, cut or file 3/16in. (6mm) wide slot as shown.
4. Replace pulley on spindle along with adaptor 'D' (BGA 49) and bolt to rear flange as before.
5. Disc 'E' (BGA 20) should now be secured to drive pulley by means of 1/2in. (12.7mm) whit. allen screw provided. Ensure that peg in rear of disc plate engages in slot 'C' in pulley and lock up firmly.
6. Remove disc plate cover 'F' (BGA 110) from guard, close guard and ensure disc is clear by rotating disc by hand.
7. To fit disc table 'G' (BGA 62) drill 5/16in. (10mm) dia. holes on pads 'H' either end of cover and tap 3/8in. (12mm) whit.
8. Insert pivot peg 'J' (BGA 168) into 3/8in. (12mm) whit. hole and place table 'G' with side plates onto peg then insert second peg 'J' through pivot hole and screw into tapped hole on opposite end of guard cover.
9. Check disc table is level with spirit level
10. To mark positions of locking studs 'K', position table at 45° cant angle and print through radial slot in table side plates onto pads 'L' either side of guard.
11. Ensure that the marks scribed through slots onto pads 'L' are positioned in such a way that when the locking studs 'K' are fitted they will touch the end of the side plate slots and thus provide a positive 45° table stop.
12. After ensuring the above positions have been found, drill 5/16in. (10mm) dia. and tap 3/8in. (12mm) whit. Insert studs provided and lock table with plastic handwheels supplied.

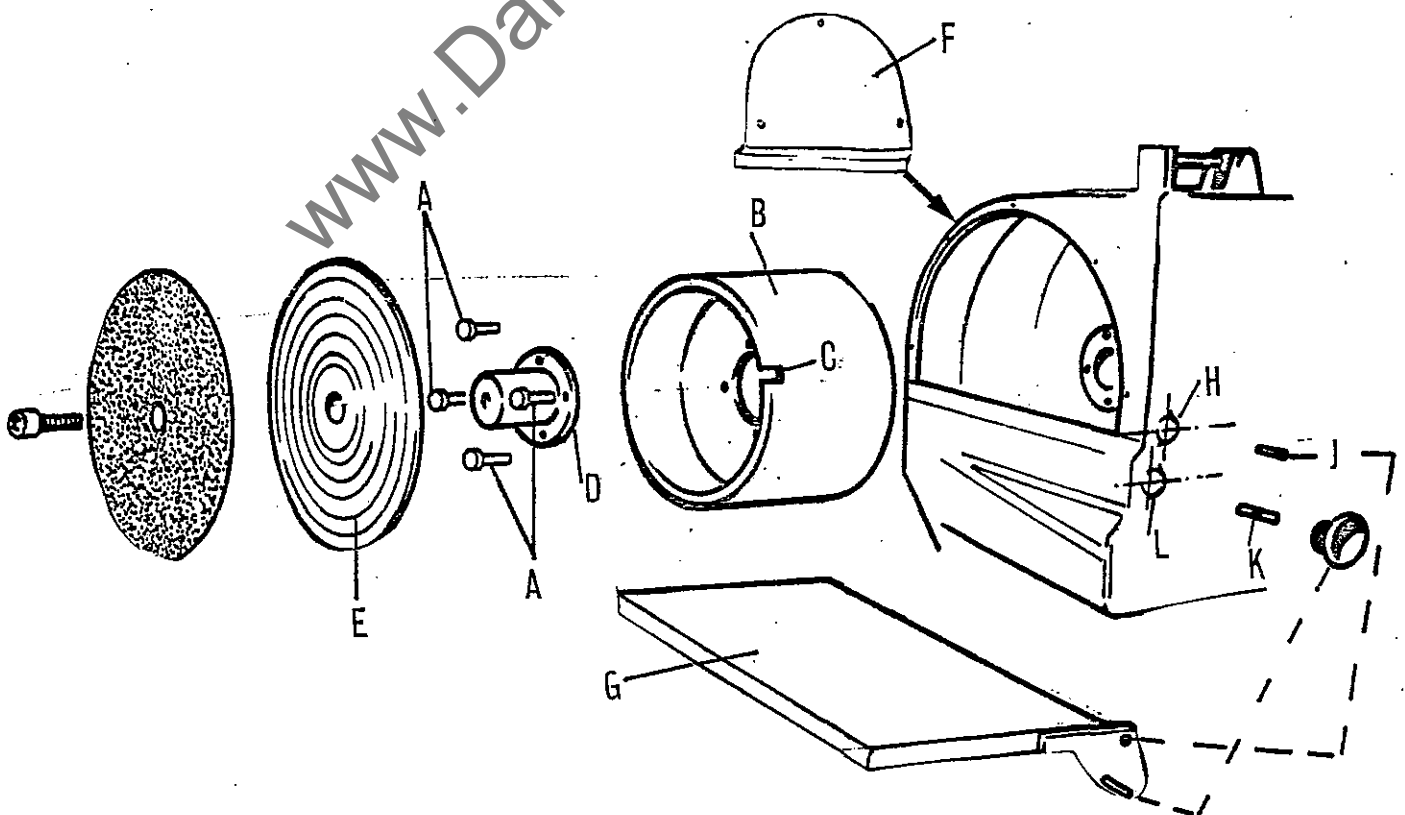


FIG. 10

## WOOD AND PNEUMATIC SANDING BOBBINS (EXTRA)

As an additional feature to the basic machine the bobbin attachment provides efficient sanding for a variety of work. Fitted on to the idler belt pulley the adaptor spindle accepts the following diameters:-

3in (76.2mm) dia., 4in. (101.6mm) dia., 6in (152.4mm) dia.  
x 6in. (152.4mm) long wood bobbins.

2.3/8in. (62.8mm) dia., 3in. (76.2mm) dia. 4in. (101.6mm) dia.  
x 7 in. (177.8mm) long pneumatic bobbins.

As both wood and pneumatic bobbins utilise the same adaptor spindle, it is possible to interchange the two types on the machines as desired with the special adaptor collars supplied.

If the above feature is not a factory fitted item, all that is required to be done is as follows:-

1. Remove idler pulley belt guard
2. Remove bolts from idler pulley bearing end cap 'A' and remove end cap
3. Fit adaptor spindle 'B' as shown as a direct replacement for end cap 'A' and bolt in place.

Figure 11 illustrates collars required to use each bobbin type.

### Replacement of Abrasive Sleeves on Bobbins.

#### Wood Type

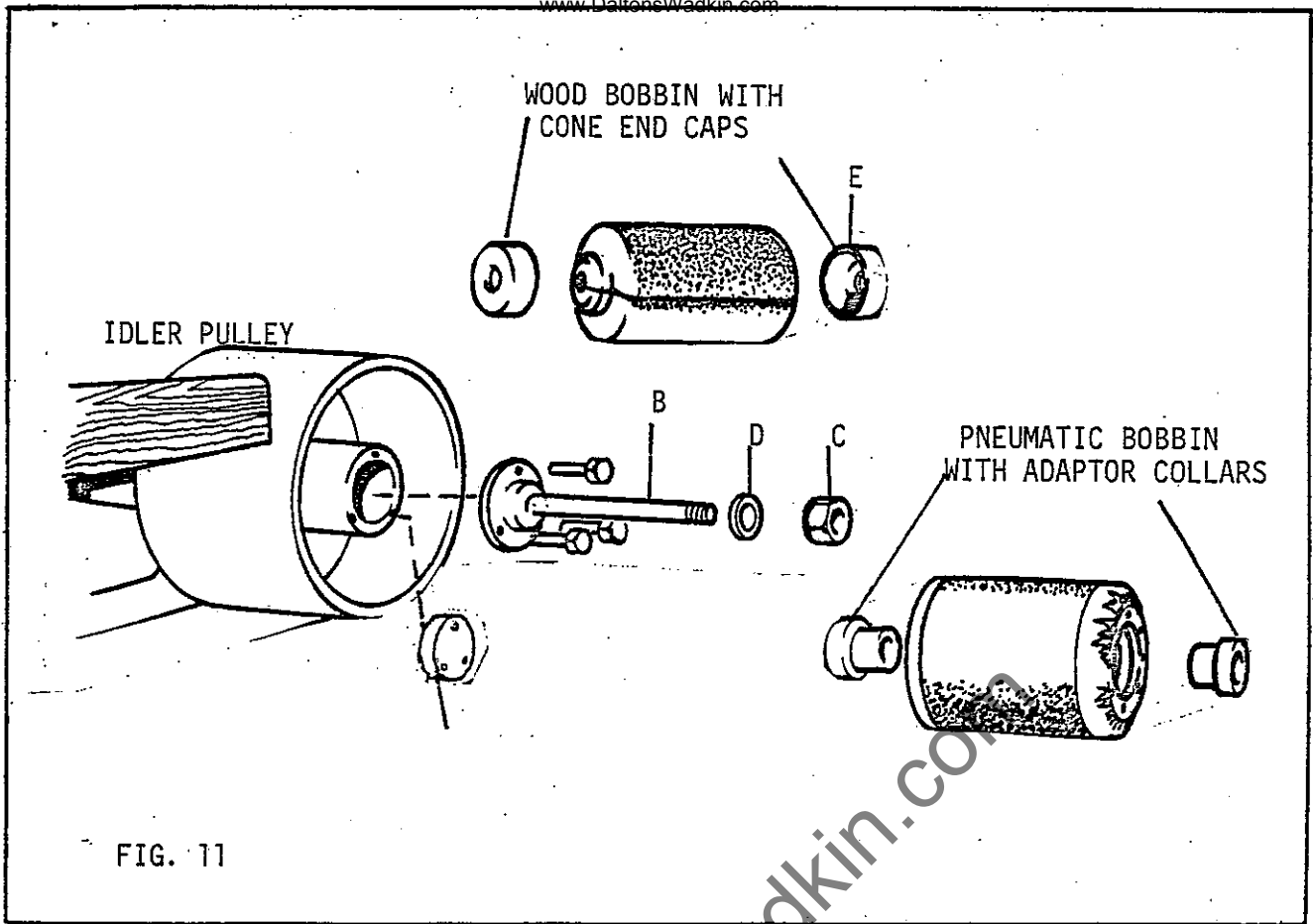
1. Slacken and remove nut 'C' and washer 'D'
2. Draw collar 'E' from spindle along with bobbin
3. At this point it is possible to pull bobbin in half and remove abrasive paper.
4. Wrap new piece of abrasive paper round body of bobbin and tuck ends down in between bobbin halves.
5. Close bobbin together and replace onto spindles and then lock up with nut and collar. The tapered collars cause the bobbin halves to clamp together when nut 'C' is tightened.
6. Check that abrasive is wrapped firmly and tightly around the body of the bobbin before running.

#### PNEUMATIC TYPE

1. Do not remove bobbin from spindle, simply de-flate by pressing centre pin of air valve
2. When fully deflated remove abrasive sleeve and replace with new sleeve
3. Position new sleeve equally on bobbin then inflate to a pressure of 14 lb/in.<sup>2</sup> (1kg/cm<sup>2</sup>)

The inflation process causes the bobbin to expand thus gripping the abrasive sleeve firmly.

FOR SAFETY MAINTAIN AND CHECK PRESSURE IN BOBBIN DAILY.



NOTE:-

For repairs and spare parts for pneumatic bobbins contact:-

REPAIRS:-Meddings Machine Tools Ltd.,  
543/4 Ipswich Rd.,  
Trading Estate,  
Slough,  
Berks. SL1-4EH

SPARES:- Meddings Machine Tools Ltd.,  
Lee Mill Industrial Estate,  
Ivybridge,  
Devonshire PL21 - 9LL