

Wadkin

OPERATING AND MAINTENANCE INSTRUCTIONS

24" x 38" G.H.

CLEANING BRUSH (TO SPECIAL ORDER)

RUBBER COVERED FEED-OUT ROLL

2 1/2" DIA

2 1/2" DIA

BOTTOM FEED-OUT ROLLS

FULLY ADJUSTABLE & REMOVABLE

REMOVABLE CRANKED HANDLE

FOR TENSIONING SAND BELT

TURN HANDLE CLOCKWISE
TO DECREASE BELT TENSION
ANTI-CLOCKWISE TO INCREASE
TENSION

TENSION ROLL

LOWER

RAISE

MAIN FEED ROLL 8" DIA

RUBBER COVERED

FEED

FEED-IN TABLE FULLY

ADJUSTABLE & REMOVABLE

CONTACT ROLL 1 1/4" DIA

HANDLING BELT

TRACKING HANDWHEEL

[AT OTHER END OF MACHINE]

NOTE - TURN HANDWHEEL

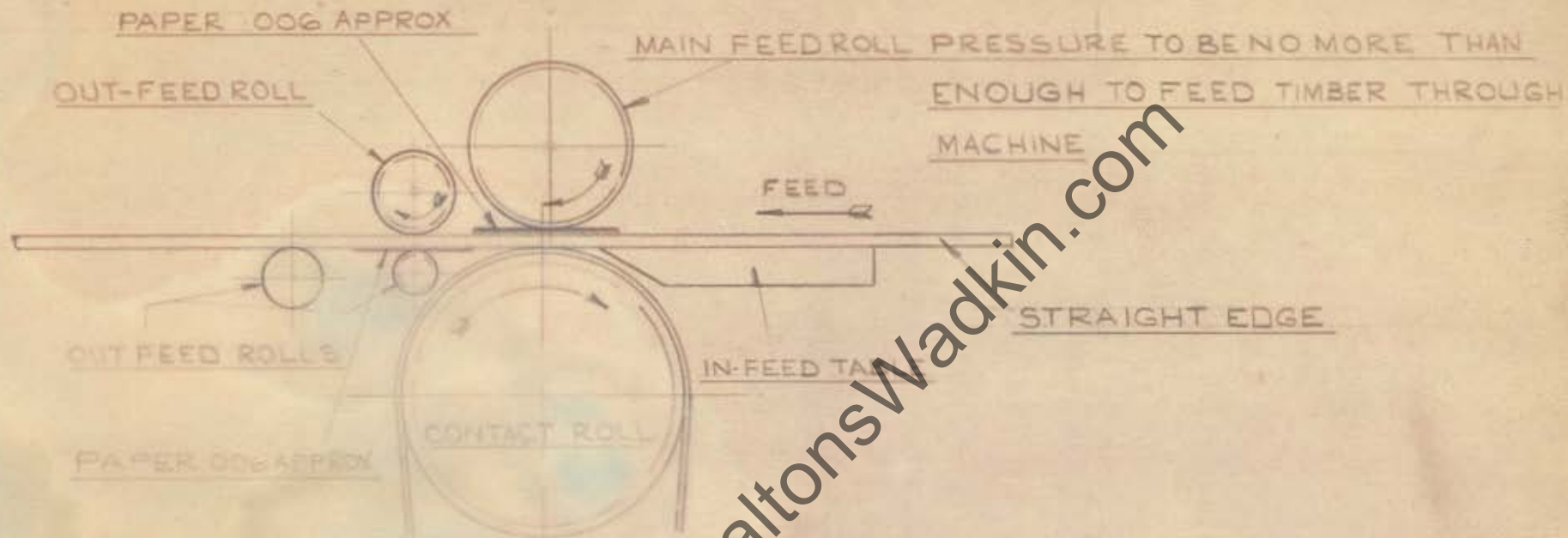
CLOCKWISE TO BRING BELT

TOWARDS HANDWHEEL 2

ANTI-CLOCKWISE TO TAKE

BELT AWAY FROM HANDWHEEL 2

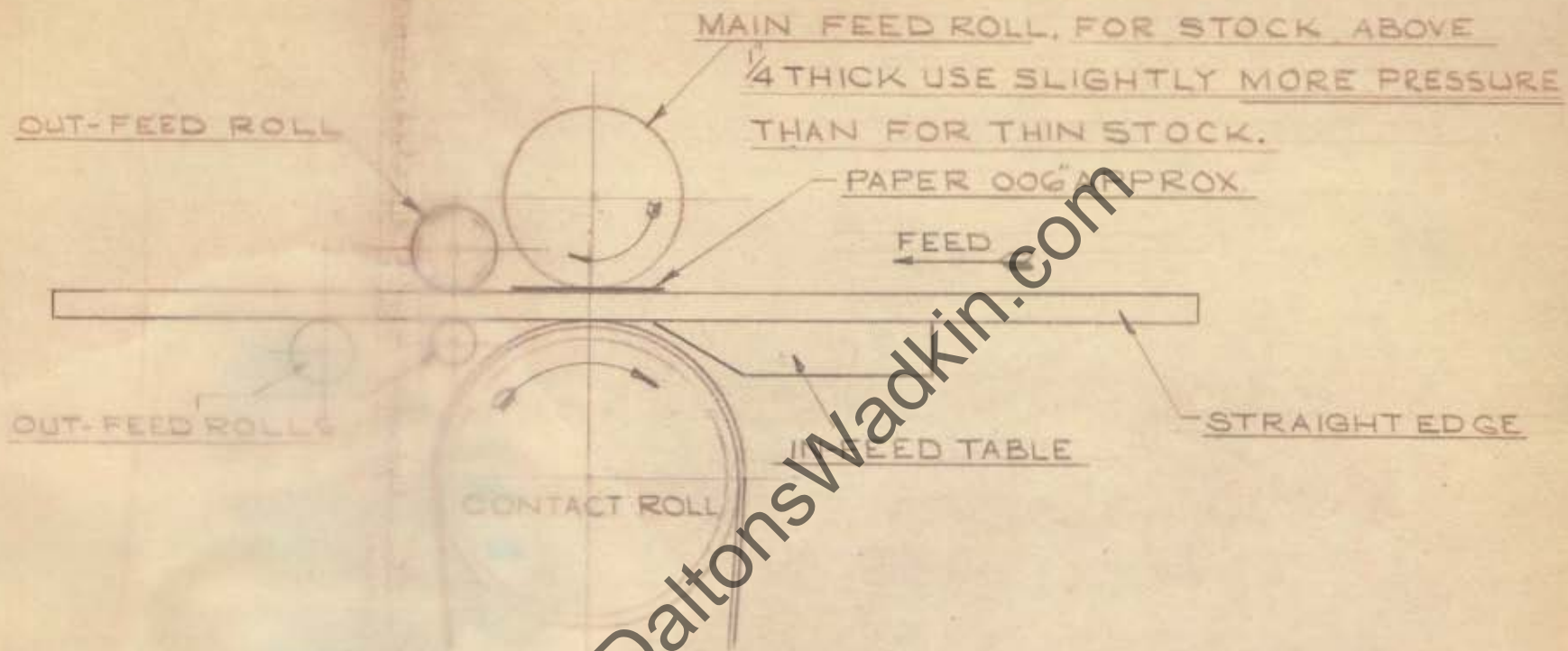
ROLL & TABLE SETTINGS FOR STOCK TO $\frac{1}{4}$ THICK



WITH STRAIGHT EDGE LEVEL & SUPPORTED ON IN-FEED TABLE & BOTTOM LARGE OUT-FEED ROLL, SET TOP OUT-FEED ROLLER TO TOUCH, WITHOUT PRESSURE THE TOP OF THE STRAIGHT EDGE. THE MAIN FEED ROLLER MUST BE THEN ADJUSTED TO TOUCH, WITHOUT PRESSURE, A PIECE OF PAPER, APPROX OOG RESTING ON THE STRAIGHT EDGE.

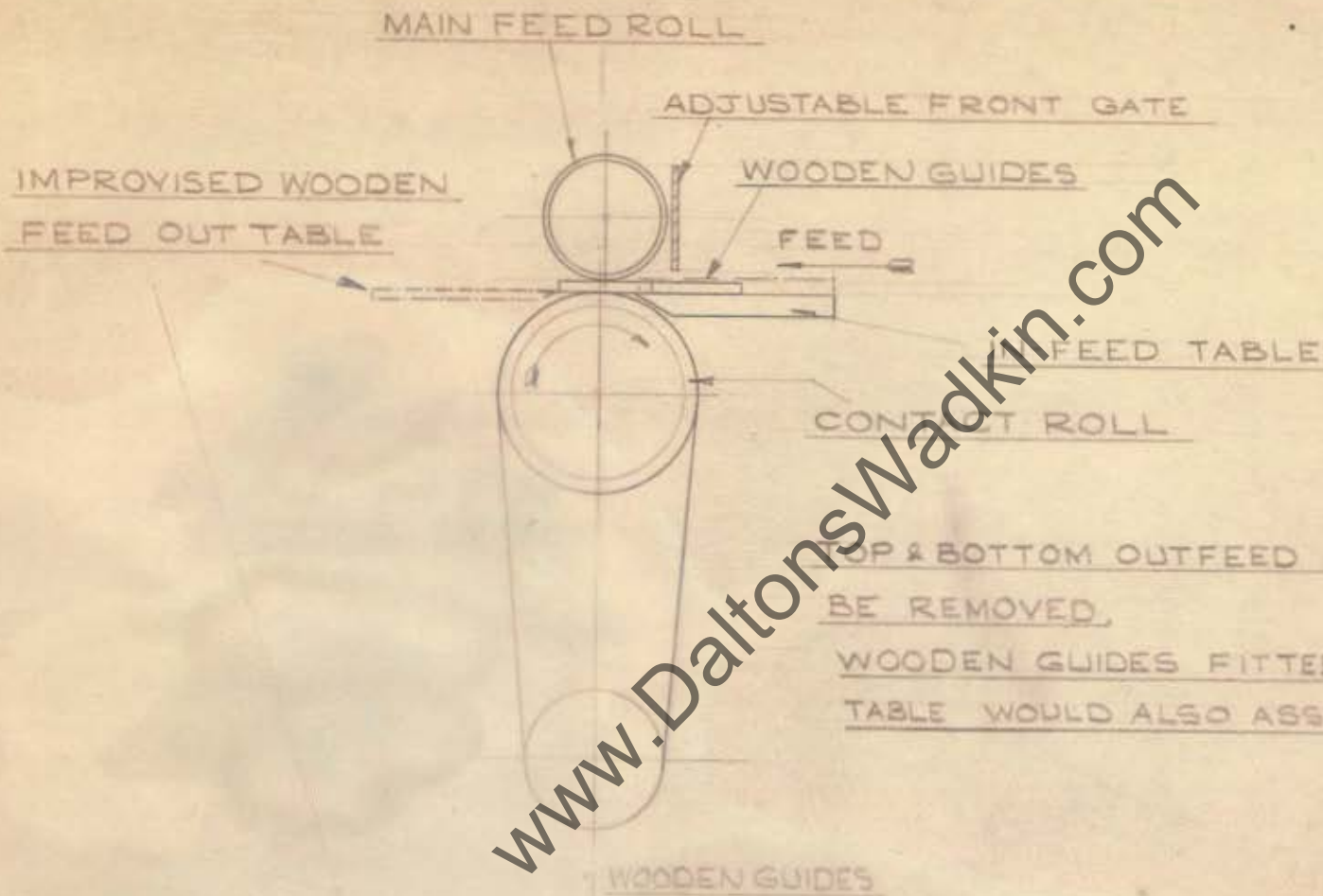
WITH THE STRAIGHT EDGE AS ABOVE, AND SANDING BELT TOUCHING THE UNDERSIDE OF THE STRAIGHT EDGE, THE SMALL BOTTOM OUT-FEED ROLL IS SET SO THAT A PIECE OF PAPER APPROX OOG CAN BE INSERTED BETWEEN ROLL & STRAIGHT EDGE.

ROLL & TABLE SETTINGS FOR STOCK ABOVE $\frac{1}{4}$ THICK



SUPPORT STRAIGHT EDGE ON IN-FEED TABLE & BOTTOM OUTFEED ROLLS, THEN LOWER THE TABLE & BOTTOM OUT FEED ROLLS BY MEANS OF THEIR ADJUSTING SCREWS, UNTILL THE STRAIGHT EDGE TOUCHES THE SANDING BELT.

FEEDING TIMBER LESS THAN 6' LONG



TOP & BOTTOM OUTFEED ROLLS MUST
BE REMOVED.

WOODEN GUIDES FITTED TO IN-FEED
TABLE WOULD ALSO ASSIST

SANDING CURVED WORK

NOTE:- FOR CURVED WORK IT IS NECESSARY TO REMOVE
THE FOLLOWING COMPONENTS.

IN-FEED TABLE, BOTTOM OUT-FEED ROLLS,
CLEANER BRUSH (IF FITTED), & 4" DIA. TOP OUT-FEED
ROLLER.

THE CURVATURE OF THE WORK TO BE SANDED IS
LIMITED ONLY BY THE 8" DIA. FEED ROLL & 14 1/4" DIA.
CONTACT ROLL.

DEFECTIVE SANDING AT LEADING & TRAILING EDGES



IF THE LEADING EDGE OF TIMBER
IS BEVELLED AT A IT INDICATES
THAT THE 8" DIA. FEED ROLL
IS PRESSING TOO HEAVILY.

IF THE TRAILING EDGE IS BEVELLED
AT B IT INDICATES THAT THE TWO
BOTTOM FEED ROLLS ARE SET
TOO HIGH.

BELT TENSION

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THE ADVICE GIVEN ON THE FOLLOWING PAGES IS VITAL IF THE BELT IS TO BE MADE TO RUN CENTRALLY, BUT IT IS USELESS UNLESS OTHER ADJUSTMENTS HAVE BEEN CARRIED OUT & MAINTAINED CORRECTLY THEY WERE MADE WITH GREAT CARE BEFORE THE MACHINE LEFT OUR WORKS.

1) BECAUSE OF ITS CONSTRUCTION THE MACHINE MUST BE VERY CAREFULLY ALIGNED, THIS IS CARRIED OUT WITH GREAT PRECISION BEFORE LEAVING OUR WORKS, BUT OF COURSE THE SAME CARE AND PRECISION MUST ALSO BE USED IN SETTING UP THE MACHINE AT THE CUSTOMERS WORKS, NOT ONLY TO ENSURE THAT THE FRAME IS NOT TWISTED BUT ALSO TO ATTEND TO THE FOLLOWING FACTORS:-

- (a) THE FEED-IN TABLE MUST BE MADE PARALLEL WITH THE CONTACT ROLL SHAFT BY USING A PRECISION LEVEL.
- (b) THE RUBBER SURFACE OF THE CONTACT ROLL MUST BE "SANDED" (SEE PAGE 11) USING CORRECTLY LEVELLED TABLE AS A "DATUM" FOR THE "SANDING-BOARD" TO WORK FROM. THIS SANDING OPERATION IS PRIMARILY TO ENSURE THAT THE CONTACT ROLL SURFACE IS PARALLEL WITH THE CONTACT ROLL SHAFT:- I.E. THAT THE ROLL IS A TRUE CYLINDER. THIS IS MORE IMPORTANT THAN TO CLEAN-UP THE ROLL.
- (c) THE 3" DIAMETER FEED ROLLS ARE SET LEVEL WITH THE CONTACT ROLL AND SANDED & CLEAN THEM UP IF NECESSARY

2) THE TWO 3" DIAMETER BELT-TRACKING ROLLS MUST BE ADJUSTED AS DESCRIBED ON PAGE 7. THE FIGURE $\frac{5}{8}$ IS GIVEN AS A GUIDE, BUT EXPERIENCE WITH THE MACHINE AND TRACKING THE BELT, WILL SHOW THE OPERATOR THE BEST SETTING TO SUIT THE WORK IN HAND.

3) THE SETTINGS FOR THE FEED ROLLS & TABLE RELATIVE TO THE CONTACT ROLL SHOWN ON PAGE 2, 3, AND 4, MAY HAVE TO BE DEPARTED FROM. ONLY EXPERIENCE WITH THE MACHINE WILL SHOW THE OPERATOR THE BEST SETTING TO USE FOR EACH JOB.

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16" DIA HANDWHEEL FOR
SETTING HEIGHT OF
FEED ROLLS & CONTROLLING
FEED ROLL PRESSURE

SAND BELT

FEED

IN-FEED TABLE

CONTACT
ROLL 14" DIA

SUPPORT BAR TURNED
INTO VERTICAL POSITION
WHEN FITTING SAND
BELT.

AUTO-TRACKING ROLLS

6" DIA HANDWHEEL FOR
TILTING TENSION ROLL
TO TRACK SAND-BELT

SQUARE ENDED

SHAFT FOR ADJUSTMENT
TO SAND-BELT TENSION

RAISE LOWER

LOWER SUPPORT BAR
FITTED TO 38 MACHINE
ONLY.

TENSION
ROLL TO
TENSION &
TRACK BELT

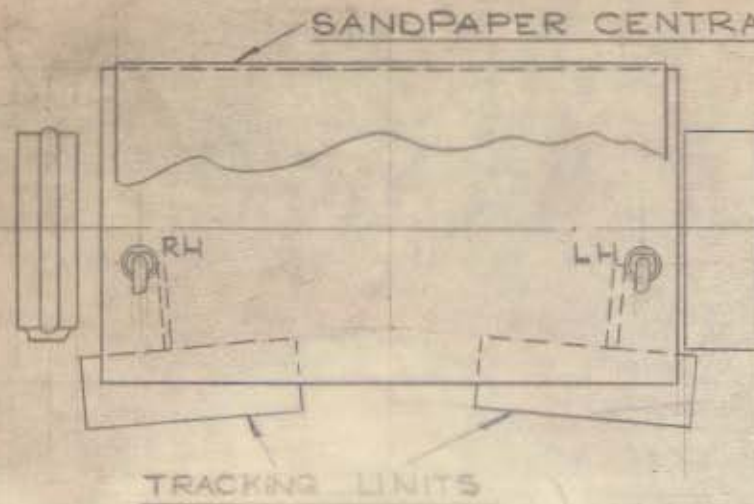
TO TENSION THE SANDING BELT

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1. FIT BELT CENTRALLY OVER THE CONTACT ROLL (14 1/4 DIA) AND UNDER THE BOTTOM TENSION ROLL, ALSO INSIDE THE TWO AUTO-TRACKING ROLLS.
2. TENSION THE BELT (TURN CRANKED HAND-LEVER CLOCKWISE) UNTIL IT IS JUST DRIVEN BY THE CONTACT ROLL. IT IS IMPORTANT THAT THE BELT SHOULD NOT BE OVER-TENSIONED. TENSION TO REMOVE "FLABBINESS" ONLY, BEFORE IT IS TRACKED.
3. RUN CONTACT ROLL UP TO SPEED, USING 6" DIA. "TRACKING" HANDWHEEL WITH CARE, TO KEEP BELT RUNNING CENTRALLY ON THE CONTACT ROLL.
4. STOP THE MOTOR AND APPLY THE FOOT BRAKE TO BRING THE CONTACT ROLL TO REST SMARTLY AND IT WILL BE FOUND THAT, IF THE BELT IS LOOSE ENOUGH, THE BOTTOM ROLL WILL CONTINUE TO RUN, FOR A NUMBER OF TURNS, AFTER THE CONTACT ROLL HAS BEEN BROUGHT TO REST IF IT WILL "SKID" IN THE BELT. IF IT DOES NOT SKID FOR 1 OR TWO TURNS, LOOSEN THE BELT TENSION, GRADUALLY, UNTIL IT DOES "SKID".
5. AFTER ANOTHER TEST RUN, RUN THE BELT UP TO SPEED AGAIN, TENSION IT, AND TRACK IT TO RUN CENTRALLY, UNTIL, WHEN AT REST THE CENTRE OF THE BELT CAN BE PULLED INWARDS AND OUTWARDS, SEE PAGE 7 UP TO 3/8 OR 1/2.
6. WHEN STABLE AND CENTRAL RUNNING HAS BEEN OBTAINED, LOCK THE NUT ON THE TRACKING SCREW (TIGHTEN THE HEXAGON NUT TO CLAMP THE SPLIT NUT ON THE SCREW). A "CREEPING" TRACKING SCREW WILL INEVITABLY CAUSE THE BELT TO BECOME UNSTABLE AND RUN OFF RUN THE BELT FOR AT LEAST 10 MINS. BEFORE SANDING.
7. IT IS MOST IMPORTANT WHEN "TRACKING" THE BELT, TO ENSURE THAT THE TENSION ROLL TILTS TO A REASONABLE EQUAL ANGLE TO EACH SIDE OF THE HORIZONTAL LINE (IE A LINE PARALLEL WITH THE CONTACT ROLL). ANY SERIOUS DEPARTURE FROM EQUAL ANGLE TILTING, MAY RESULT IN THE BELT BEING CREASED, OR EVEN "SPLIT" DOWN THE MIDDLE. SEE PAGE 3, FIG 2.

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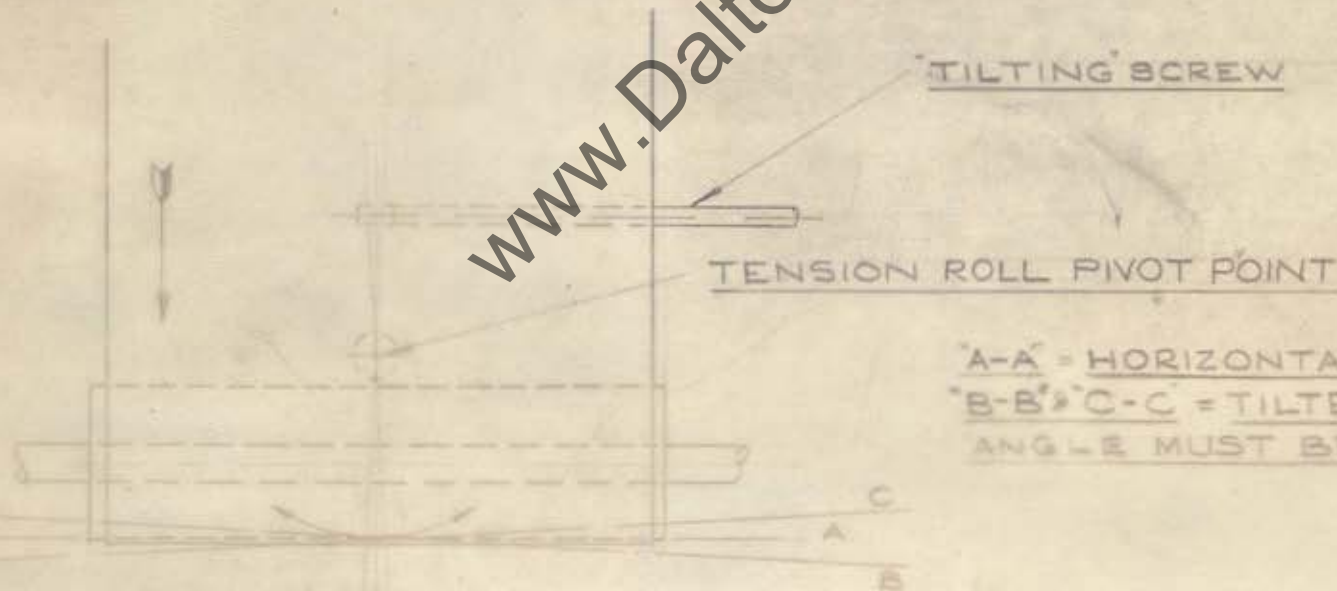
NOTES ON BELT TRACKING



RH & LH TRACKING UNITS MAY BE ADJUSTED IN OR OUT FROM CENTRE OF MACHINE TO BALANCE THE TRACKING OF THE SANDPAPER BELT.

FIG.1

TRACKING UNITS



TILTING SCREW

TENSION ROLL PIVOT POINT

A-A = HORIZONTAL LINES
B-B & C-C = TILTED LINES
ANGLE MUST BE EQUAL

FIG.2

FURTHER NOTES ON BELT TENSION & STABILITY

1. WHEN A BELT WITH A HIGH MOISTURE CONTENT IS FITTED TO A SANDING MACHINE RUNNING IN A DRY ATMOSPHERE THE BELT WILL DRY OUT & INCREASE ITS TENSION, WHICH MUST BE REDUCED. IF THE ABOVE CONDITIONS ARE REVERSED THEN THE TENSION MUST BE INCREASED
2. IF THE BELT SHOWS PERSISTENT INSTABILITY IT IS POSSIBLE IT HAS BEEN INCORRECTLY JOINTED. TO CHECK FOR THIS, MEASURE WITH ACCURACY THE LENGTH OF THE TWO EDGES, & IF THEY DIFFER, RE-JOINT THE BELT, OR SCRAP IT

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SANDING THE CONTACT & FEED ROLLS

IF AFTER LONG USE, FAULTY BELT TRACKING OR VIBRATING DRUM OCCURS, SANDING MAY CURE THE TROUBLE

SANDING THE CONTACT ROLL

1 REMOVE THE SANDING BELT.

2 REST THE SANDING BOARD, SANDPAPER DOWNWARDS, ACROSS THE TABLE AND TWO BOTTOM OUTFEED ROLLS (SEE PAGE 12, FIG 1)

3 USING BOARD AS A STRAIGHT EDGE, ALIGN THE BOTTOM OUTFEED ROLLS WITH THE TABLE SURFACE, BY ADJUSTING THEIR HEIGHT BY MEANS OF THE TWO ADJUSTING KNOBS (SEE PAGE 12, FIG 2)

4 SCRIBE, OR MARK WITH A PENCIL DATUM MARK ON EACH OF THE 4 ADJUSTING KNOBS & SOME ADJACENT POINTS.

5 LOWER THE TABLE & ROLLS, WITH VERY GREAT CARE, BY TURNING THE 4 KNOBS BY EXACTLY THE SAME AMOUNT, UNTIL THE HIGHEST POINT ON THE CONTACT ROLL IS JUST TOUCHING THE SANDPAPER.

6 START THE MACHINE AND TRAVERSE THE BOARD BACKWARDS AND FORWARDS ACROSS THE WIDTH OF THE MACHINE (PAGE 12, FIG 2)

7 LOWER THE SANDING BOARD A FRACTIONAL AMOUNT AFTER EACH FULL TRAVERSE OF THE BOARD, UNTIL IT CAN BE SEEN THAT THE WHOLE LENGTH OF THE CONTACT ROLL SURFACE HAS BEEN CLEANED UP

SANDING THE 8 & 4 DIA FEED ROLLS

1 REST THE SANDING BOARD, SANDPAPER UPWARDS, ALONG THE TOPS OF THE TWO BOTTOM OUTFEED ROLLS (PAGE 13 FIG 1)

2 START MACHINE

3 BY MEANS OF LEVER HANDWHEEL, VERY GRADUALLY LOWER THE FEED ROLL UNIT UNTIL THE 4 FEED OUT ROLL BEGINS TO TOUCH THE SANDPAPER AND CONTINUE TO LOWER IT GRADUALLY, UNTIL THE WHOLE LENGTH OF THE ROLL IS BEING SANDED

4 REMOVE BOARD & LOWER THE FEED UNIT UNTIL THE 8 DIA FEED ROLL CONTACTS THE SANDING BELT ON THE CONTACT ROLL. (PAGE 13, FIG 2)

5 CONTINUE TO LOWER THE 8 ROLL VERY GRADUALLY UNTIL THE WHOLE LENGTH OF THE 8 DIA ROLL HAS BEEN CLEANED UP

Fig 1



Fig 2

