

## IMPORTANT

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



**For Replacement Parts, Tools and Accessories,  
Contact:**

**WADKIN DURHAM**

**DIVISION OF WADKIN PLC,**

**FENCE HOUSES, HOUGHTON-LE-SPRING,**

**TYNE & WEAR, DH4 5RQ, ENGLAND.**

**A MEMBER OF THE THOS. ROBINSON GROUP PLC**

**Telephone: Durham (091) 385 2385**

**Telex: 53441 (BURDRM G)**

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**BE CAREFUL**  
**THIS MACHINE CAN BE DANGEROUS**  
**IF IMPROPERLY USED**

**Always use Guards**  
**Keep clear until rotation has ceased**  
**Always operate as instructed and**  
**in accordance with good practice**  
**Read Instruction Manual**

## 8.0 SPARES

### 8.1 Instructions When Ordering Spare/Replacement Parts

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

- a) Machine type.
- b) Machine serial number.
- c) If no manual available, give as full a description as possible of the required part, including location within the machine.
- d) Order number and full company name and address.
- e) Company account number, with **Wadkin**, if known.
- f) All telephone orders must be followed by an official order, clearly marked "Confirmation Order".

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

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## HEALTH AND SAFETY ADVICE

Persons who install this machine for use at work have a duty under the Health and Safety at Work etc. Act 1974 to ensure, so far as is reasonably practicable, that nothing about the way in which it is installed makes it unsafe or a risk to health at all times during setting, use, cleaning and maintenance. This includes such aspects as correct assembly, electrical installation, construction of enclosures, fitting of guards and exhaust ventilating equipment. When installing this machine, consideration must be given to the provision of adequate lighting and working space.

This machine is supplied complete with all necessary safeguards to enable the user to comply with the Woodworking Machines Regulations 1974. Details of correct installation and use, together with guidance on fitting and proper adjustment of guards are described in this manual.

The Woodworking Machines Regulations place absolute legal duty on employers and employees to ensure that guards and any other safety devices are securely fitted, correctly adjusted and properly maintained.

Repairs and maintenance must only be undertaken by competent technicians. Ensure that all power supplies are isolated before maintenance work commences. Instructions for routine maintenance are included in this manual.

Machine operators must have received sufficient training and instructions as to the dangers arising in connection with the machine, the precautions to be observed and the requirements of the Woodworking Machines Regulations which apply, except where they work under the adequate supervision of a person who has a thorough knowledge and experience of the machine and the required safeguards.

Persons under the age of eighteen years must have successfully completed an approved course of training before operating this machine at work, unless participating in a course of training under adequate supervision. (N.B. This paragraph is only relevant to: circular sawing machines, any sawing machine fitted with a circular blade, any planing machine for surfacing which is not mechanically fed or any vertical spindle moulding machine).

Before commencing work, ensure that the tooling is set to cut in the correct direction, securely fastened, sharp and is compatible with the machine and spindle speed.

### DUST

Wood dust can be harmful to health by inhalation and skin contact and concentrations of small dust particles in the air can form an explosive mixture.

These concentrations usually occur in dust extraction equipment which may be destroyed unless explosion precautions have been taken in the design and installation of the equipment.

Employers have duties under the Factories Act 1961, the Health and Safety at Work etc. Act 1974 and the Control of Substances Hazardous to Health Regulations 1988 to control wood dust in the workplace.

Employers should carry out an adequate assessment of the possible risks to health associated with wood dust to enable a valid decision to be made about the measures necessary to control the dust. It may be necessary to provide effective exhaust appliances.

Prevention or control of wood dust exposure should, so far as is reasonably practicable, be achieved by measures OTHER than the provision of personal protective equipment.

Further information and references to practical guidance are contained in free leaflets available from the Health and Safety Executive.

#### NOISE

Noise levels can vary widely from machine to machine depending on conditions of use. Persons exposed to high noise levels, even for a short time, may experience temporary partial hearing loss and continuous exposure to high levels can result in permanent hearing damage. The Woodworking Machines Regulations require employers to take reasonable practicable measures to reduce noise levels where any person is likely to be exposed to a continuous equivalent noise level of 90 dB(A) or more over an 8 hour working day. Additionally, suitable ear protectors must be provided, maintained and worn.

Machines identified as generating unhealthy noise levels should be appropriately marked with a warning of the need to wear hearing protection and it may be necessary to designate particular areas of the workplace as "Ear protection zones". Suitable warning signs are specified in the Safety Signs Regulations 1980. It may be necessary to construct a suitable noise enclosure, in which case professional advice should be sought.

Further information and references to practical guidance are contained in free leaflets available from Health and Safety Executive.

GENERAL SAFETY NOTE

The enclosed operating instructions draw particular attention to the legal requirements of the U.K. Health & Safety laws.

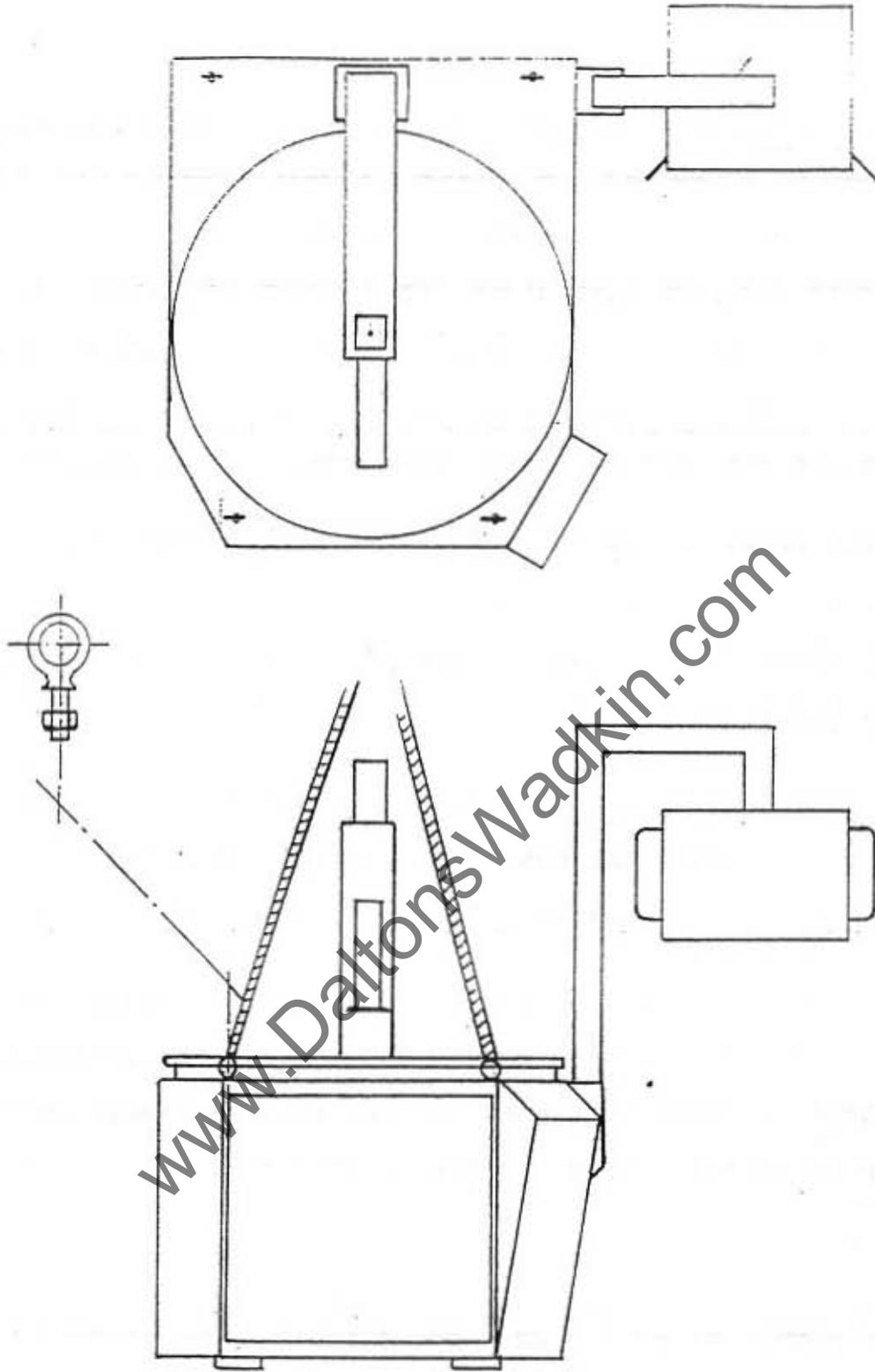
Whilst safety laws vary in the many different countries to which Dominion machines are exported, the advice and obligations which are mandatory in the United Kingdom should be equally observed elsewhere in the world. Woodworking machines are potentially dangerous in untrained hands and must not be entrusted to such operators.

"Familiarity breeds contempt", and many accidents are caused, even to skilled operators, when they become familiar with machinery.

DO NOT TAKE SHORT CUTS. Always use the guards provided and observe the warning labels.

When cleaning and setting this machine do not forget that Saw Teeth are dangerous even when the Saw is stationary. Avoid contact with Saw Teeth at all times when installing the saw in the machine.

The TS180 is designed for two handed operation to ensure the operators hands are kept remote from the saw. It is imperative to ensure that no other personnel are permitted anywhere near the machine or guards during the operating cycle.



WEIGHT 850 Kgs. LIFT BY SLING AT POSITIONS SHOWN

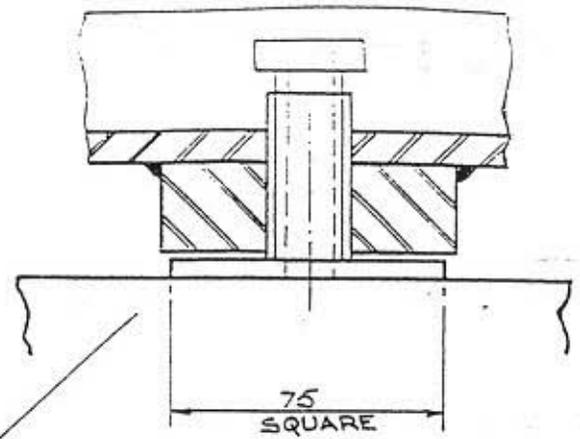
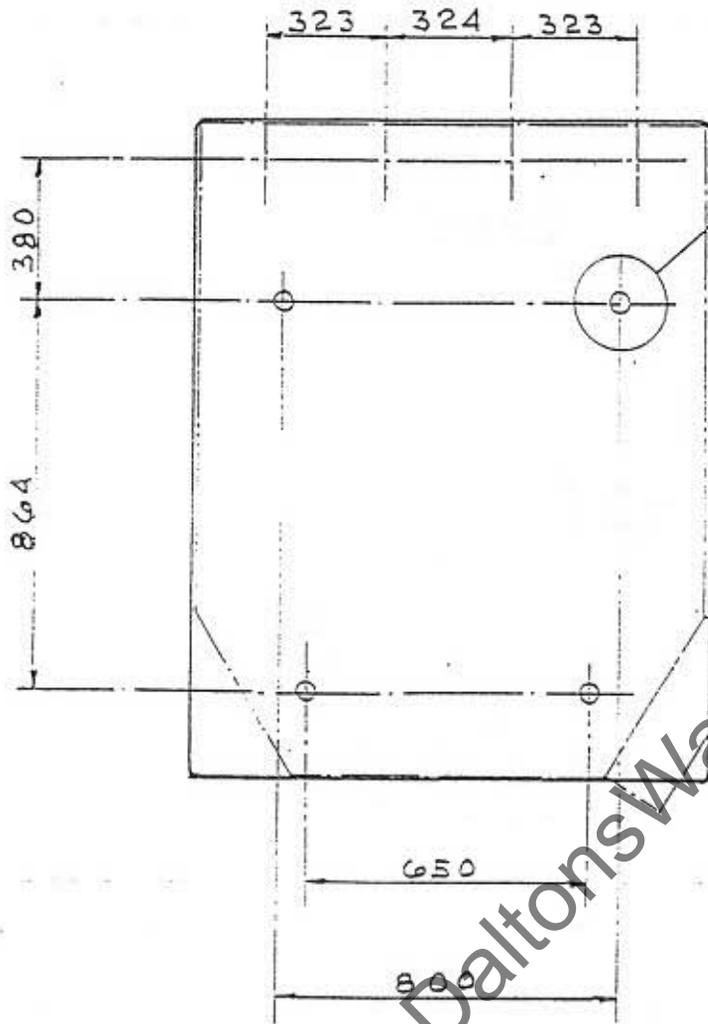
LIFTING BY SLING

USE SLINGS WITH A SAFE WORKING LOAD IN EXCESS OF 850 Kgs. ALLOW FOR SOME ADDITIONAL WEIGHT WHICH MAY RESULT FROM EXTRA PACKING.

I M P O R T A N T

DO NOT WALK UNDER THE MACHINE OR PERMIT OTHER PEOPLE TO DO SO WHILST LIFTING

# FIXING HOLES

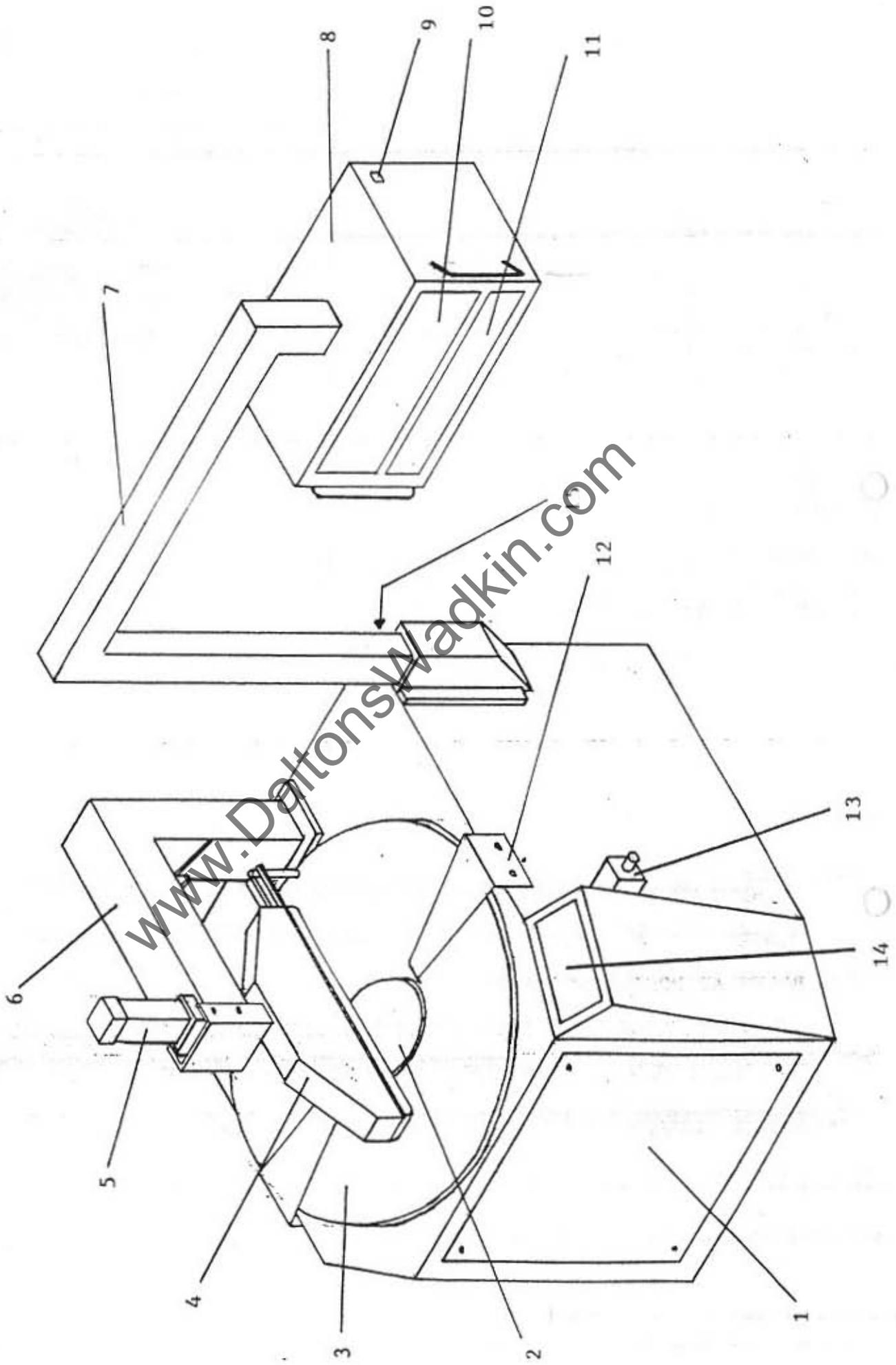


DETAIL SHOWING FIXING HOLE INCORPORATING JACKING SCREW FOR LEVELLING MACHINE.

MACHINE MUST BE POSITIONED AND LEVELLED ON A SOLID CONCRETE FLOOR WITH AN AVERAGE DEPTH OF 150mm. FLOOR FIXING BY STEEL BOLTS AT POSITIONS SHOWN.

IF SITED CLOSE TO A WALL SUFFICIENT CLEARANCE MUST BE ALLOWED FOR MAINTENANCE AND EXTRACTION SERVICES - GENERALLY 650mm. MINIMUM.

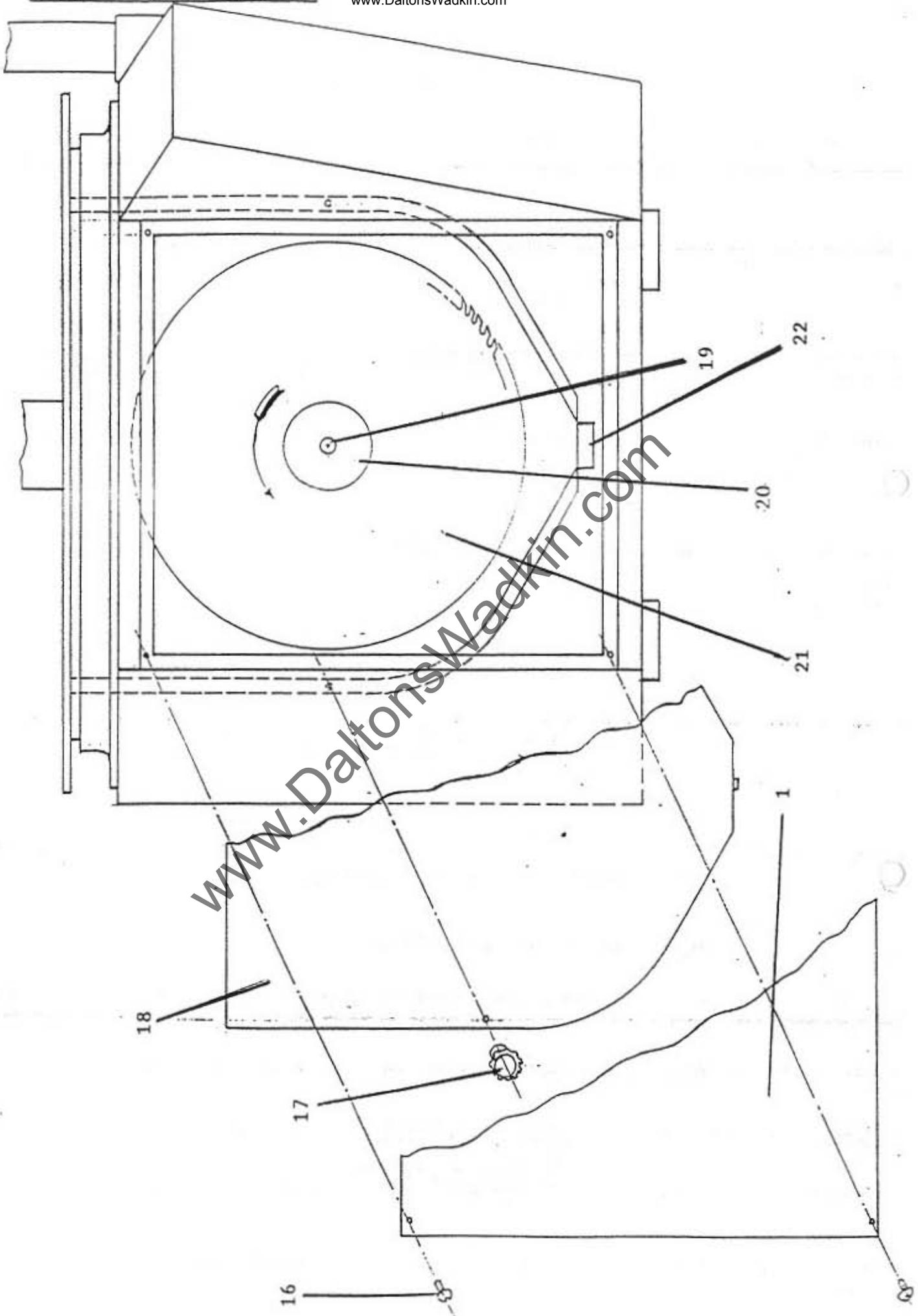
WASTE EXTRACTION REQUIRED 15<sup>3</sup> m./min.



TS180 ANGULAR CROSSCUT

1. SAW ACCESS COVER
2. CENTRE SUPPORT
3. ROTARY TABLE
4. TOP CLAMP SAW GUARD
5. TOP CLAMP PISTON
6. CLAMP SUPPORT COLUMN
7. PENDANT SUPPORT ARM
8. CONTROL PENDANT
9. MICROSTOP RESET (TS180E ONLY) SWITCH
10. MICROSTOP CONTROLLER (TS180E ONLY. FOR CONTROL SEE SEPARATE MANUAL).
11. ROTARY TABLE ELECTRONIC CONTROLLER
12. INFEEED AND MATERIAL SUPPORT PLATE
13. EMERGENCY STOP BUTTON
14. CONTROL PANEL (SEE PAGE 8).
15. REAR ACCESS PANEL TO:

DUST CONNECTION  
SAW SPINDLE YOKE  
PNEUMATIC CONTROL  
DC MOTORS



## SAWSETTING AND REMOVAL

### SAW ACCESS

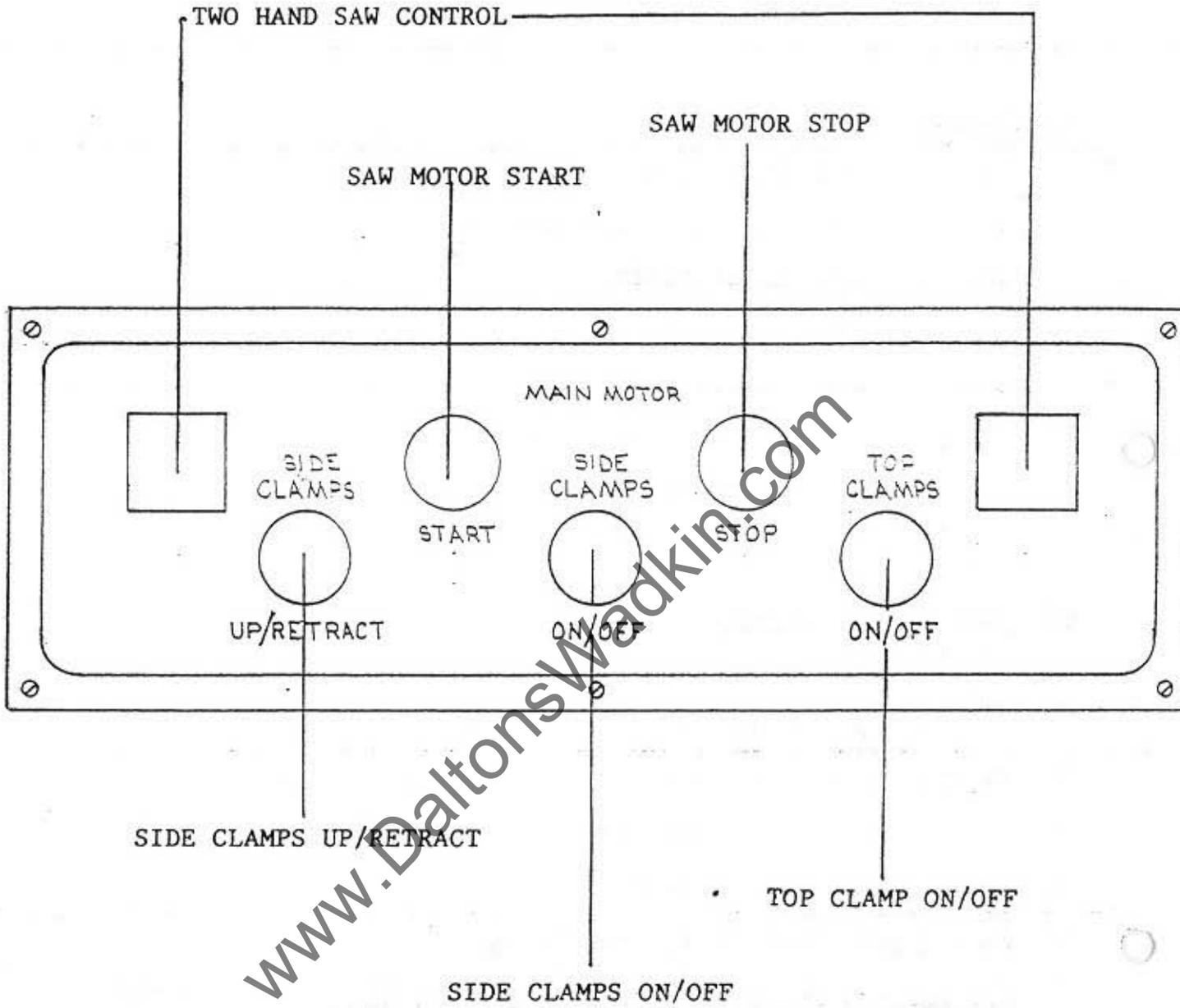
16. CAP HEAD SCREWS x 4
17. KNURLED SAW COVER SCREWS
18. SAW COVER PLATE
19. SAW RETAINING BOLT
20. SAW FLANGE
21. SAW BLADE (ALWAYS CHECK DIRECTION)
22. SAW COVER DUST OUTLET

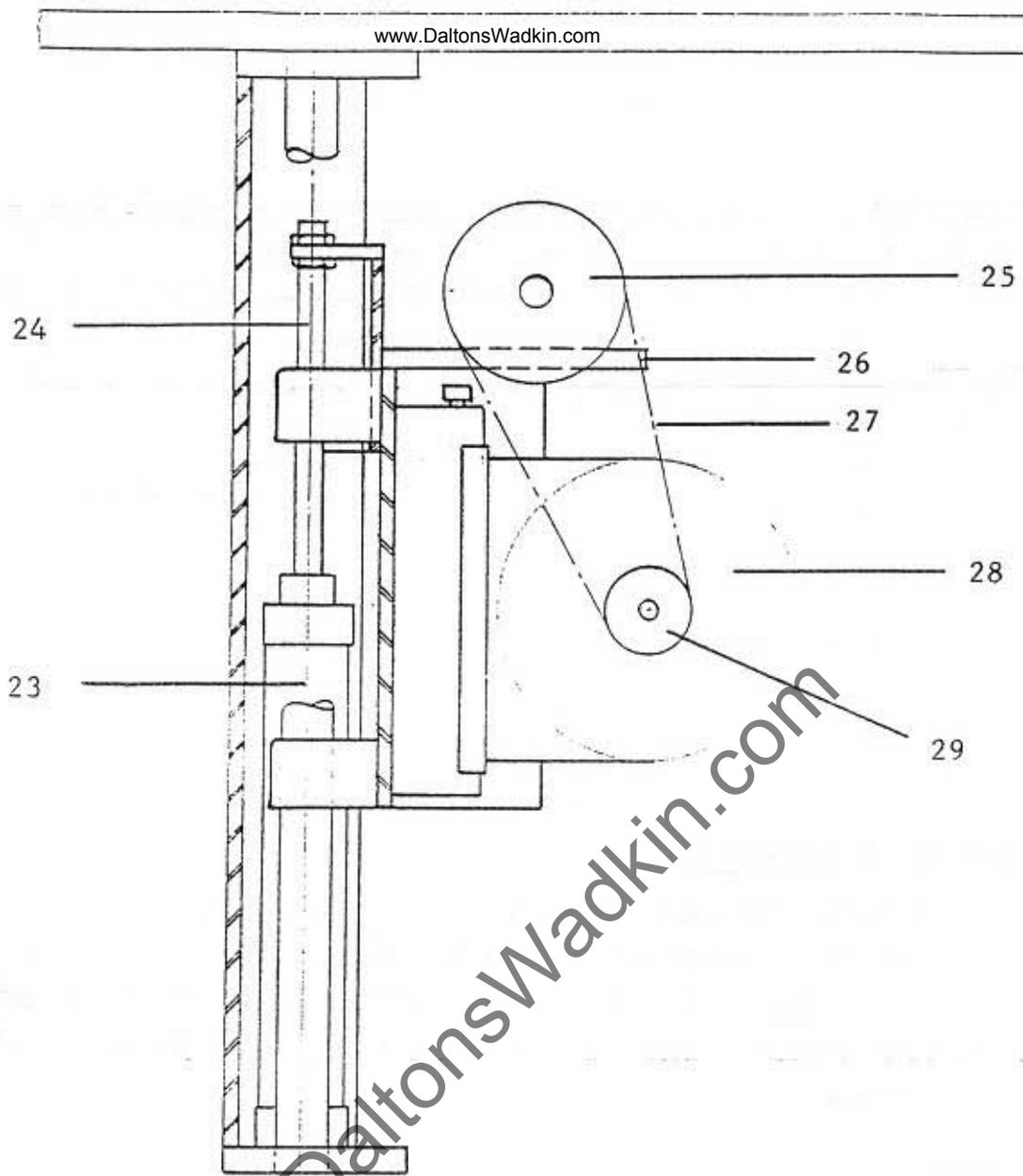
### SAW REMOVAL/REPLACEMENT

- 1) Rotate table of machine to - 25 degrees
- 2) Turn off power and isolate machine
- 3) Remove machine outer cover access panel (1)
- 4) Remove saw guard cover (18)
- 5) Unlock flange screw (19)
- 6) Remove saw blade flange plate (20)
- 7) Saw can now be easily removed from spindle. Care should always be taken when handling sharp objects.
- 8) To fit new blade repeat sequence 7 - 3 in reverse. Always check and ensure correct rotation of saw blade.

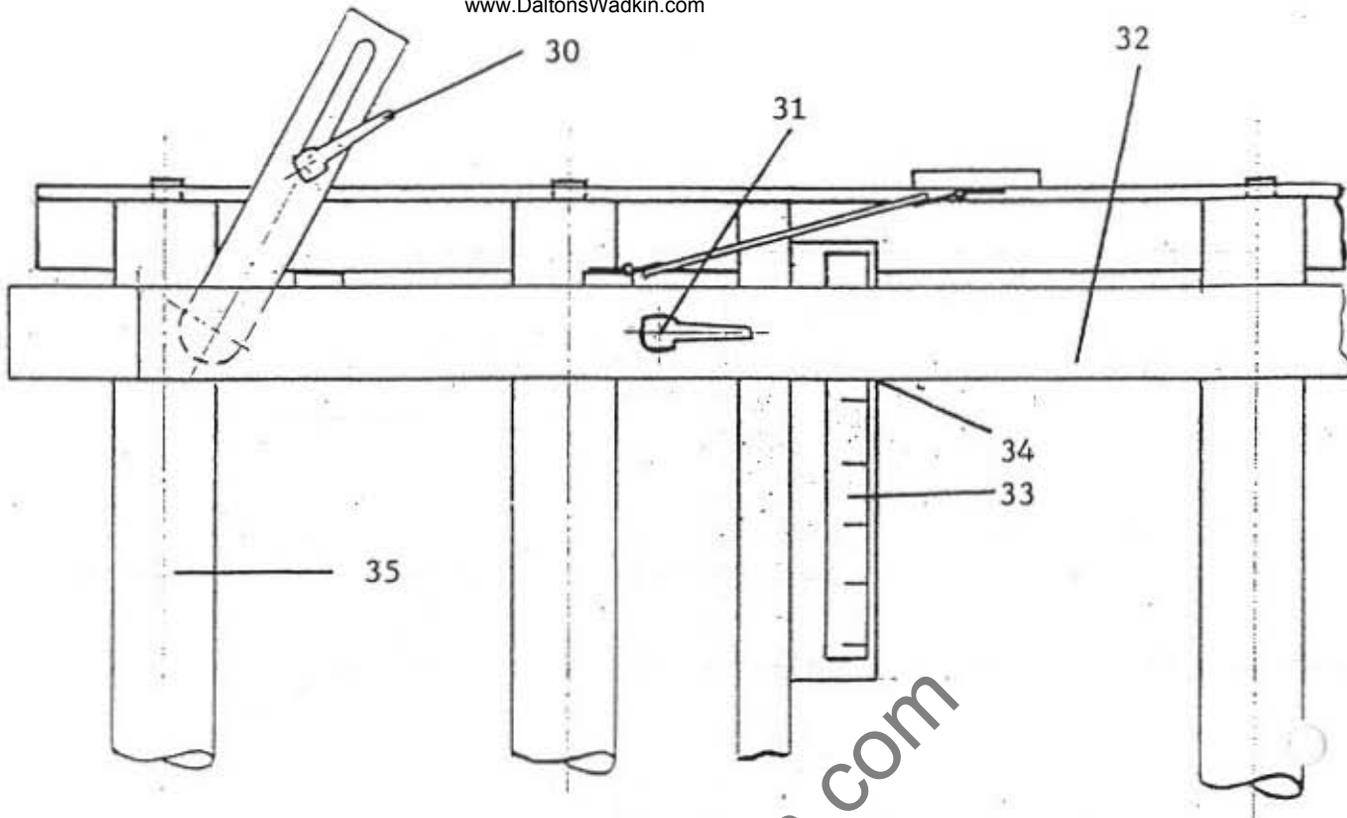
N.B. It is good engineering practice to ensure that a light film of oil is applied to all locking screws before replacing.

MACHINE CONTROLS





- 23. SAW STROKE PISTON
- 24. SAW STROKE PISTON ROD
- 25. SAW SPINDLE PULLEY
- 26. PULLEY TENSIONING BRACKET
- 27. VEE BELT REF: HTD 880 - 8M - 30mm.
- 28. MAIN MOTOR
- 29. MAIN MOTOR PULLEY



### OPERATING THE MACHINE

BEFORE TURNING THE MACHINE ON FOR THE FIRST TIME, ENSURE THAT IT IS CORRECTLY CONNECTED TO THE ELECTRICAL, PNEUMATIC AND DUST EXTRACTION SUPPLY, AND IS SECURELY FIXED TO ITS FOUNDATIONS CHECK SAW ROTATION IS ANTI-CLOCKWISE (CUTTING TOWARDS THE REAR OF THE MACHINE).

### SETTING

BEFORE USE THE WIDTH OF TIMBER TO BE CUT MUST BE CHECKED. THIS WILL BE USED FOR SETTING THE INFEED AND OUTFEED FENCES.

#### TO SET FENCES -

UNLOCK HANDLE 30 AND MANUALLY PULL OR PUSH FENCE UNTIL HALF OF THE WIDTH OF THE TIMBER IS SHOWN ON SCALE 33 WITH POINTER 34. ONCE IN POSITION RELOCK HANDLE 30. THIS PROCEDURE IS THEN REPEATED ON THE OUTFEED TABLES.

POSITION THE TIMBER UNDER THE TOP CLAMP AND ON CENTRE OF TABLE, FIRST HAVING SET THE CORRECT ANGLE REQUIRED. (TO SET ANGLE PLEASE CONSULT THE PROGRAMMING MANUAL).

RAISE SIDE CLAMPS (SEE PAGE 10)

TURN ON SIDE CLAMP PRESSURE

LOWER TOP CLAMP GUARD

START MAIN SAW MOTOR

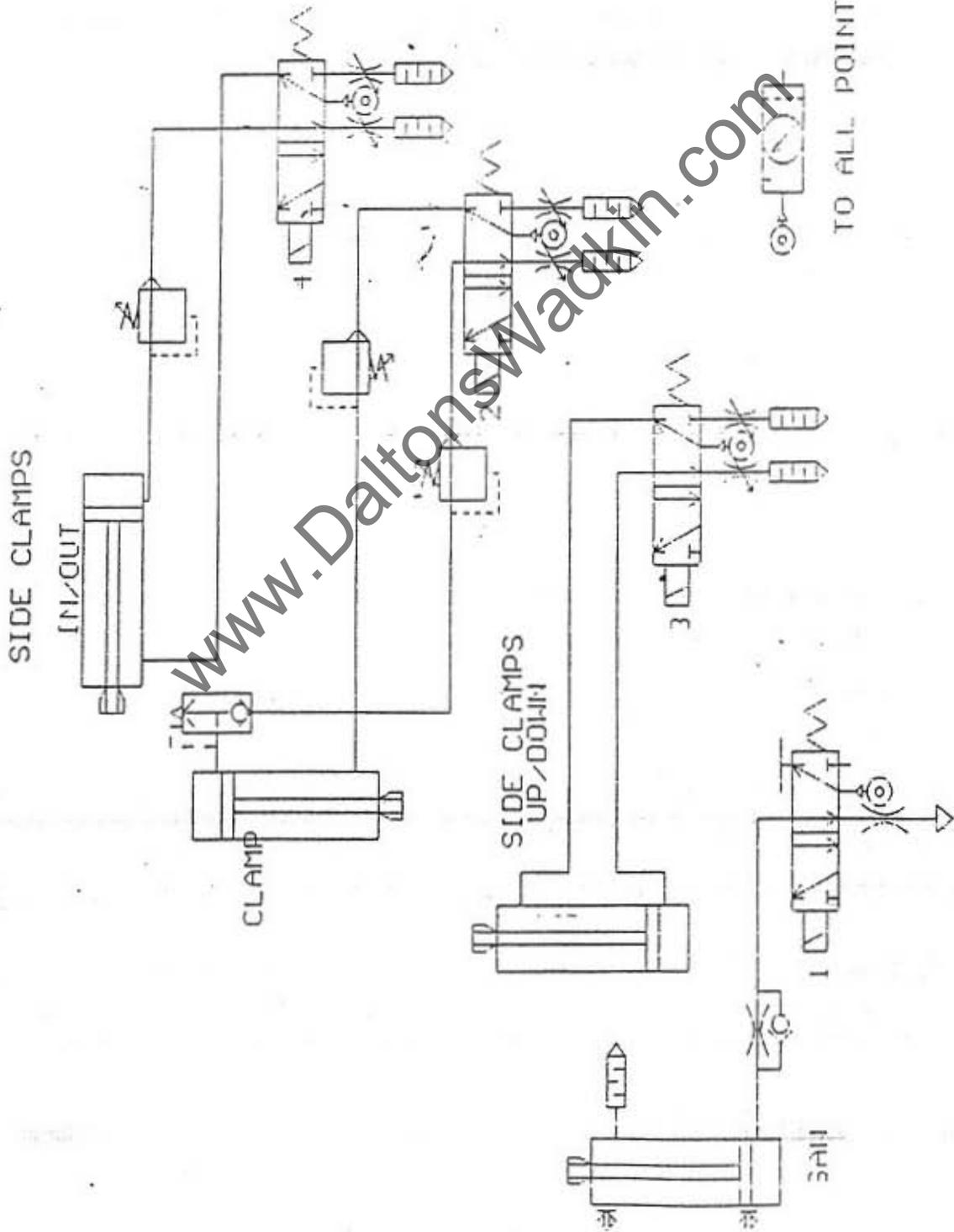
TO CUT, PRESS BOTH SAW CONTROL BUTTONS SIMULTANEOUSLY, ONCE THE CONTROL BUTTONS ARE RELEASED THE SAW WILL AUTOMATICALLY RETRACT BELOW THE TABLE.

TO RE-POSITION TIMBER THE TOP CLAMP GUARD AND SIDE CLAMP PRESSURES MUST BE RELEASED IF A SECOND ANGLE IS REQUIRED AT THE FIRST CUT POSITION, THE TOP CLAMP WILL AUTOMATICALLY RELEASE AND RESET ONCE THE POSITION/ANGLE HAS BEEN REACHED.

N.B. THE SAW/CUT CONTROLS WILL NOT RAISE THE SAW IF THE TOP CLAMP IS NOT LOWERED FIRST.

FOR LENGTH SETTING AND ANGLE PROGRAM CONTROLS PLEASE CONSULT THE APPROPRIATE MANUALS.

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TO ALL POINTS MARKED

Title: WADKIN DOMINION TS180.

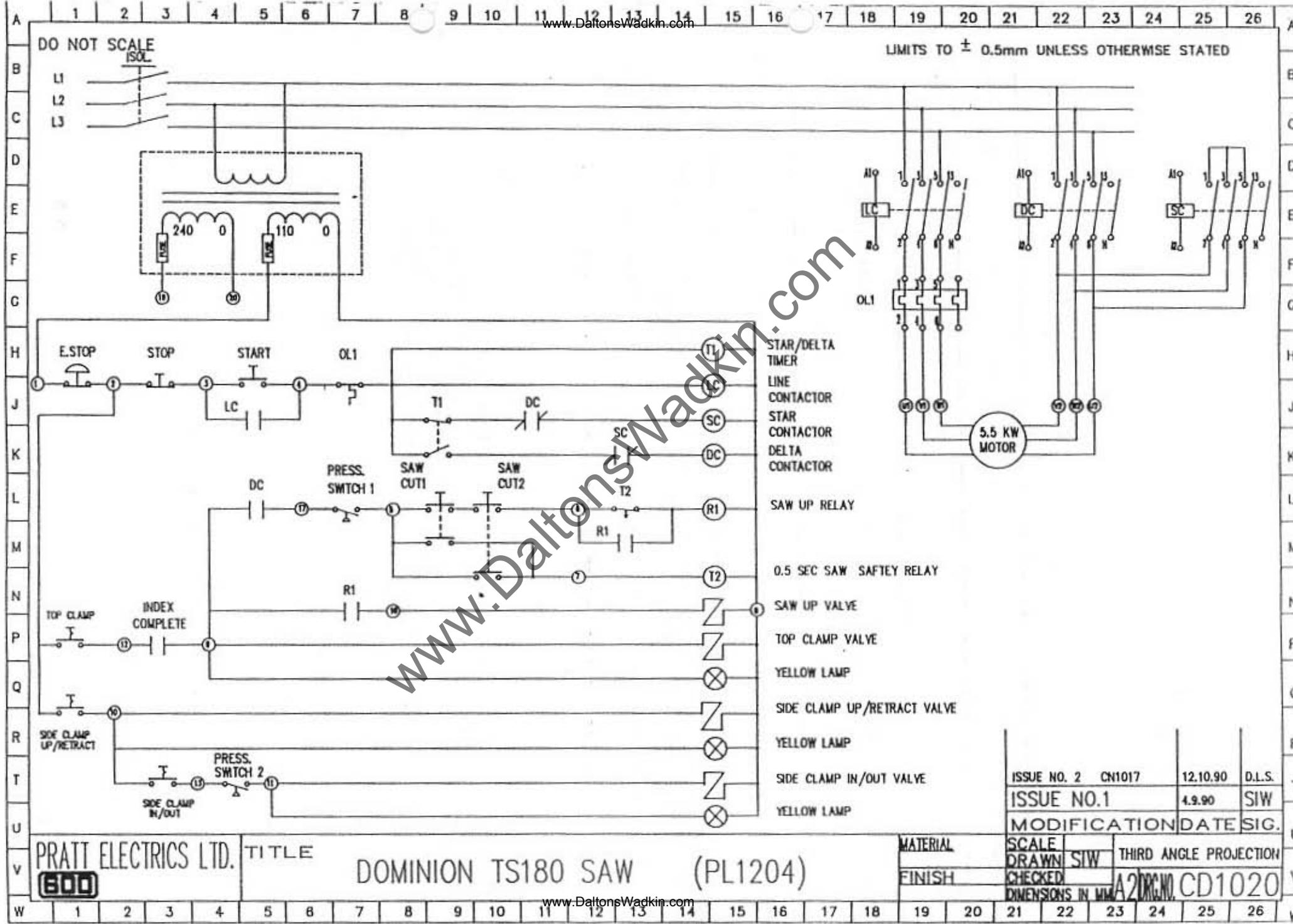
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LIMITS TO ± 0.5mm UNLESS OTHERWISE STATED

DO NOT SCALE



ISSUE NO. 2	CN1017	12.10.90	D.L.S.
ISSUE NO.1		4.9.90	SIW
MODIFICATION		DATE	SIG.
SCALE	DRAWN SIW	THIRD ANGLE PROJECTION	
FINISH	CHECKED	A2000 NO. CD1020	
DIMENSIONS IN MM			

PRATT ELECTRICS LTD. 600

TITLE DOMINION TS180 SAW (PL1204)

MATERIAL FINISH SCALE DRAWN SIW CHECKED THIRD ANGLE PROJECTION A2000 NO. CD1020

LUBRICANTS

Application	APPROVED LUBRICANTS					
						K.K. CROSSCUT
	I.S.O. No.	SHELL	B.P.	ESSO	CASTEROL	DOMINION
General Lubrication	General Purpose Oil I.S.O. - 100	Vitrea 100	B.P. Energol EM 100	Nuray 100	Magna 100	
Ball Bearing	Lithium LT 2	Alvania RA2	Energrease LT 2	Beacon 2	Spheerol AP 2	Hellenic LT 2
Pneumatic Cylinders + Valves	I.S.O. 37 Hydraulic Oil	Tellus 37	BP Hydraulic Oil 37	Nuto 37	Hyspin AWS 37	

Definitions:-  
 LT = Low temperature  
 2 = Consistency  
 LITHIUM = Base type of grease

TECHNICAL INFORMATION

Capacity	425mm x 50mm, 350mm x 150mm.
Motor	5.5kw. (7.5 h.p.) Alt. 7.5kw. (10h.p.)
Spindle Speed	1800 r.p.m.
Saw Diameter	700mm.
Air Requirements	6 bar, 80 p.s.i.
Dust Extraction Requirements	15m <sup>3</sup> /min.
Electric Supply	380-420V 3ph. 50 cycles 110V controls.
Saw bore and Pin Hole size and centres	Bore 30mm Pin Hole 14mm Centres 30mm.
Dust Extraction Outlet	125mm dia.
Range of Cutting Angles	90 Degrees to 12 Degrees.
Angular Accuracy	+/- 30 minutes.
Length Accuracy	+/- 0.1mm.
Table Diameter	1200mm.
Table Height	950mm.
Max. No. of Angles Programmable	80
Max. No. of Lengths Programmable	400
Table Motor	0.25kw DC.
Weight (Machine Only)	850 Kgs.

PNEUMATIC DIAGRAM

An air filter and lubricator is recommended to ensure clean dry air is fed to the machines pneumatic system.

GENERAL

Clean, maintain and protect all working parts regularly to prolong machine life and efficiency.

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