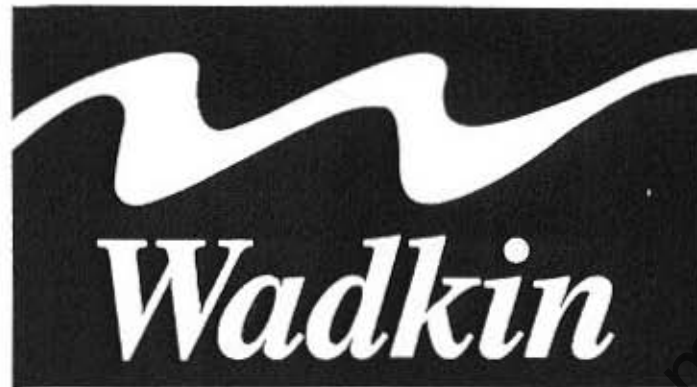


CK90

HIGH SPEED CROSS-CUT SAW

INSTRUCTION MANUAL No 3033/1

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CK90
HIGH SPEED
CROSS-CUT SAW

M/C No

TEST No

INSTRUCTION MANUAL

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**MANUFACTURERS E.C. DECLARATION
OF CONFORMITY**

The following machine has undergone "Conformity Assessment" and has undergone Third Party Examination by a Notified Body in accordance with:-

Schedule IV of the Supply of Machinery (Safety) Regulations 1992
and Amendment No. 2063

COMPANY

Wadkin Ultracare Limited
Green Lane Road
Leicester
LE5 4PF

RESPONSIBLE PERSON

Mr J P Smith (Director)

MACHINE DESCRIPTION

TYPE High Speed Cross-Cut Saw

MODEL CK 90

DIRECTIVES COMPLIED WITH

Supply of Machinery (Safety) Regulations 1992
Amendment No. 2063 1994
Draft Proposal CEN/TC 142
ISO 9001 Part 1

NOTIFIED BODY

Lloyds Register
Lloyds Register House
29 Wellesley Road
Croydon, CR0 2AJ

**SIGNED ON BEHALF OF WADKIN
ULTRACARE LTD.**



**EC TYPE EXAMINATION
CERTIFICATE NO.**

EC95/000011

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PREFACE

IMPORTANT

It is our policy and that of our suppliers to constantly review the design and capacity of our products. With this in mind we would remind our customers that while the dimensions and performance data contained herein are correct at the time of going to press, it is possible that due to the incorporation of the latest developments to enhance performance, dimensions and suppliers may vary from those illustrated.

This manual is written as a general guide. A typical machine is shown to illustrate the main features. For reason of clarity certain guards, safety devices and machine parts may not be shown on particular illustrations but **MUST** be fixed to the machine, correctly set and working before operating

Failure to comply with instructions in this manual may
invalidate the guarantee

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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 before installing
operating or maintaining machine.

Manufactured by:- WADKIN PLC
Green Lane Road
Leicester
LE5 4PF
England

phone no :-0116 2769111
fax no :-0116 2742310



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HEALTH AND SAFETY

The CE mark on this machine signifies that an EC declaration of conformity is drawn up indicating that the machine is manufactured in accordance with the Essential Health and Safety Requirements of the 'Supply of Machinery (Safety) Regulations 1992'.

The 'requirements for supply of relevant machinery' in the General Requirement of the Regulations are not only that the machine satisfies the relevant essential health and safety requirements, but also that 'the manufacture.....carries out the necessary research or tests on components, fittings or the complete machine to determine whether by its design or construction the machine is capable of being erected and put into service safely'.

Persons who install this machine have duties under the 'Provision and Use of Work Equipment Regulations 1992'. An indication of these duties is given in the following extracts, but the user should be familiar with the full implications of the regulations.

REGULATION 5 requires that;

Every employer shall ensure that work equipment is so constructed or adapted as to be suitable for the purpose for which it is used or provided.

In selecting work equipment every employer shall have regard to the working conditions and to the risks to health and safety of persons which exist in the premises or undertakings in which that work equipment is to be used and any additional risk posed by the use of that work equipment.

Every employer shall ensure that work equipment is used only for the operations for which, and under conditions for which, it is suitable.

In this regulation 'suitable' means suitable in any respect which it is reasonably foreseeable will affect health or safety of any person.

The Provision and Use of Work Equipment Regulations also include requirements as follows:-

regulation 6 - maintenance

regulation 7 - specific risks

regulation 8 - information and instructions

regulation 9 - training

Note:-

Attention is drawn to these requirements of the 'Woodworking Machines Regulations 1974' which are not replaced by the Supply of Machinery (Safety) Regulations or other, eg; Regulation 12 of the Woodworking Machinery Regulation, 'Training', still applies.

Whilst the prime duty for ensuring health and safety rests with employers, employees too have legal duties, particularly under sections 7 and 8 of the Health and Safety at Work Act. They include:

Taking reasonable care for their own health and safety and that of others who may be affected by what they do or don't do;

co-operating with their employer on health and safety;

not interfering with or misusing anything provided for their health, safety and welfare.

These duties on employees have been supplemented by regulation 12 of the Management of Health and Safety at Work Regulations 1992. One of the new requirements is that employees should use correctly all work items provided by their employer in accordance with their training and the instructions they receive to enable them to use the items safely.



Noise

Noise levels can vary widely from machine to machine depending on the 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 Noise at Work Regulations 1989 place legal duties on employers to prevent damage to hearing.

There are three action levels of noise defined in regulation 2;

The first action level:-

a daily personal noise exposure (LEP,d) of 85dB(A)

The second action level:-

a daily personal noise exposure (LEP,d) of 90dB(A)

The peak action level

a peak sound pressure of 200 pascals (140dB re 20pa)

The exposure level is obviously influenced by the emission level of all the equipment in use.

Emissions levels for machines are provided in the particular machine instruction manual.

These levels are measured in accordance with ISO 7960 under certain specified test conditions, they do not necessarily represent the highest noise level, which is influenced by many factors, eg number of spindles in operation, type and condition of work piece, spindle speeds etc.

For regulations and information on relevant personal protective equipment i.e ear defenders, employers should refer to the Personal Protective Equipment at Work Regulations 1992.

Dust

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

The Control of Substances Hazardous to Health Regulations (COSHH) 1989 place legal duties on employers to ensure that:-

the exposure of his employees to substances hazardous to health is either prevented or, where this is not reasonably practicable, adequately controlled.

.....adequate control to exposure of employees to a substance hazardous to health shall be secured by measures other than the provision of personal protective equipment.

where the measures taken in accordance with the paragraph above do not prevent or provide adequate control of, exposure to substances hazardous to the health of employees, then in addition to taking those methods, the employer shall provide those employees with such suitable personal protective equipment as will adequately control their exposure to substances hazardous to health.

Instructions for Use

Machinery manufactures are required by the Supply of Machinery Safety Regulations to provide comprehensive "Instructions for Use" of equipment, it is important that this information is transmitted to the person using the machine.

IMPORTANT

SAFETY PROCEDURES AND CONSIDERATIONS

To ensure safe working conditions, persons operating and assisting with the operation of this machine must ensure that they read and fully understand the instructions given within this manual and have received sufficient training in the use of the machine and the safety aspects to be observed.

Note:- Persons under the age of 18 years must not operate the machine except during the course of training under the supervision of a trained operator.

A) POINTS TO NOTE BEFORE OPERATING OR ASSISTING WITH THE OPERATION OF THE MACHINE.

- 1) You have read and understand the operation and safety aspects of the machine and have been checked out by a qualified supervisor.
- 2) The machine is supplied with full safe guarding. The machine shall not be operated unless the safe guardings are in position and are functional.
- 3) Cutters/blades are the correct type, suitable for the machine and working conditions, rotate in the correct direction of cut, are sharp and correctly fitted.
- 4) Loose clothing is either removed or securely fastened back and jewellery removed.
- 5) Adequate working space and lighting is provided.
- 6) All dust extraction equipment is switched on, properly adjusted and working adequately.
- 7) The machine is securely installed (refer to installation section within this manual).
- 8) The machine should only be used for cutting wood or materials with physical and technological characteristics similar to wood, and for which the chip or particle removal process is similar.



B) DURING MACHINING:-

- 1) Wear suitable protective clothing e.g, approved eye protection, ear defenders and dust masks. Gloves shall be worn when handling sharp edge saws.
- 2) Stop the machine using the emergency stop or at the mains isolator before making adjustments, cleaning or carrying out maintenance.
- 3) Keep the floor area around the machine clean and free from wood refuse. Do not allow the floor around the machine to become slippery.
- 4) Stop the machine and report immediately to a person in authority any actual or potential malfunction or operator hazard. Do not attempt to repair or rectify the machine unless qualified or authorised to do so.
- 5) The operator must not leave the machine running whilst unattended.
- 6) Never by-pass interlocks.
- 7) A push stick or handled push block must be used to feed the trailing edge of a workpiece past the cutting blade.

WARNING:-

Failure to observe correct operating procedures prior to and during operation of this machine can result in severe injury.

DO NOT attempt to operate the machine while under the influence of anything that reduces your alertness.

CONTENTS

SECTION 1	GENERAL INFORMATION	Page
	General Description	1-1
	Foundation and Machine Dimensions	1-1
	Noise Emission Values	1-2
	Machine criteria	1-2
	Machine cutting criteria	1-2
	Tooling criteria	1-2
	Operator Working Stations	1-3
	Machine Specifications	1-5
	Electrical Wiring Diagrams	1-7
SECTION 2	UNLOADING, UNPACKING, AND INSTALLATION	
	Unloading	2-1
	Unpacking	2-1
	Cleaning	2-1
	Location and foundation	2-1
	Machine re-assembly	2-2
	Supplies and Services	
	Electrical supply	2-2
	Exhaust connections	2-3
SECTION 3	OPERATING INSTRUCTIONS	
	Safety and Safety Devices	3-1
	Before operating the machine	3-1
	During machining	3-1
	Machine Controls	3-2
	Typical Machine Operation Cycle	3-3
	Tim Stop Adjustment	3-4
SECTION 4	MAINTENANCE	
	Scheduled Maintenance	4-1
	Weekly	4-1
	Monthly	4-1
	Yearly	4-1
	Two yearly	4-1
	Tensioning/Replacing Motor Drive Belts	4-2
	Tensioning/Replacing Saw Spindle Drive Belts	4-2
	Air Filter and Lubricator Maintenance	4-2
	Changing Saw Blades	4-3
	Approved Lubricants	4-5



SECTION 5

ILLUSTRATED PARTS LIST

Main Body Assembly	5-3
Drive and Spindle Assembly	5-5
Top Clamp Assembly	5-7
Trim Stop Assembly	5-9
Saw Clamp Assembly	5-11
Outfeed Table Assembly	5-13
Pneumatic Assembly	5-15

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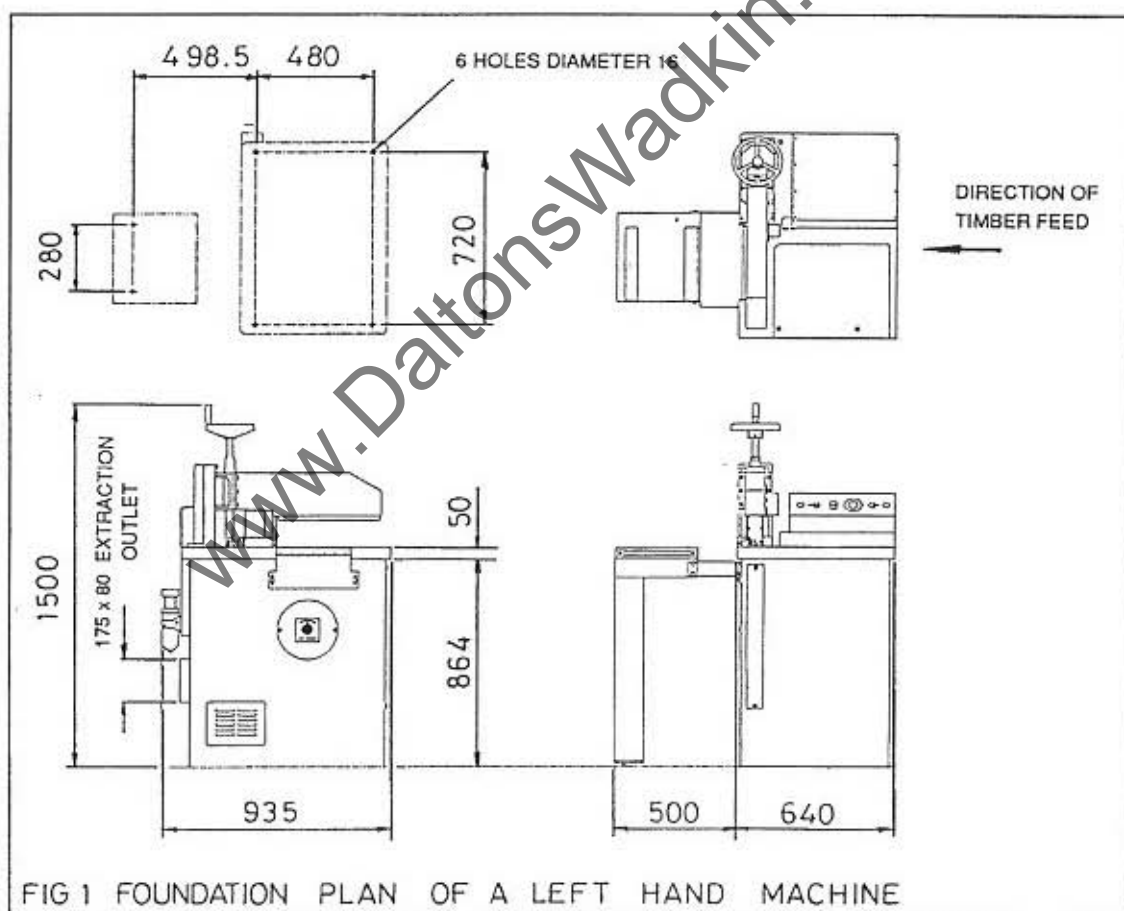
SECTION 1 GENERAL INFORMATION

General Description

The CK machine is a high speed cross cut saw capable of cutting timber sections up to 305mm x 100mm.

Timber may be manually or machine fed into the saw. To ensure the correct lengths of material are cut a variety of options are available. These include automatic stop systems as well as manual and pneumatic stops. Once at the correct cut setting the top guard clamp is automatically lowered down as part of the operating sequence and holds the timber whilst the saw is cutting. When the operating sequence is finished the clamp is released ready for the timber to be moved to the next cut position.

The CK90 crosscut saw may be supplied in either a right hand or left hand version. The left hand version has the saw blade and outfeed roller table to the left of the machine when viewed from the front, with timber being feed from the right. A right handed machine is the mirror image of this. The working area indicated in the illustration is for the standard machine although this may alter if optional roller tables are fitted and the machine is still maned by a single person.





NOISE EMISSION VALUES

The figures quoted in the noise emission chart are emission levels and are not necessarily safe working levels.

Whilst there is a correlation between emission levels and exposure levels, this cannot be used reliably to determine whether or not further precautions are required to achieve safe working levels.

Factors that influence the actual level of exposure to the work force include the duration of exposure, the characteristics of the work room, sources of noise etc i.e the number of machines and other adjacent processes. Also the permissible exposure levels can vary from country to country.

Emission levels, however will enable the user of the machine to make a better evaluation of the 'hazard and risk'.

Machine criteria

The machine was free standing on a concrete floor, not bolted down and not mounted on any vibration dampening. A flexible pipe connected the machine to the dust extraction.

There was no enclosure around the machine.

Machine cutting criteria

The machine was fitted with a 500mm main saw rotating at 2200 R.P.M. The saw blade had 72 carbide tipped teeth and a cutting width of 4mm.

Feed rate:- 4-8 M/min

Material criteria

Material :- Softwood medium grade

Moisture content:- 8-14%

Timber width:- 200mm

Timber height:- 75mm

Tooling criteria

The CK90 crosscut saw has been designed to accept only 500mm diameter saw blades suitable to fit on a 30mm spindle.

The saw must have a 'pin hole' drive location.

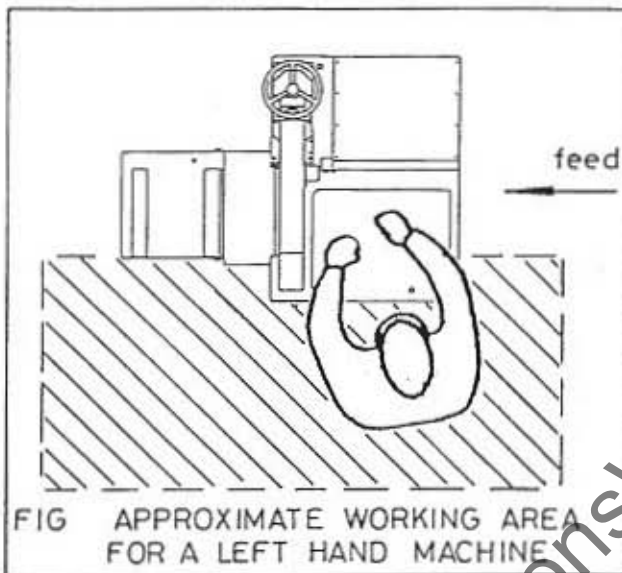
The saw speed is fixed at 2200 R.P.M.

NOISE EMISSION CHART		
MODEL:- HIGH SPEED CROSSCUT SAW		
TYPE :- CK90 50HZ 415V		
DECLARED NOISE EMISSION VALUES in accordance with ISO4871		
	Idling	Operating
Declared A-weighted sound power level (L _{WAD}) in dB re 1 _{pw}	91.63	98.86
Declared A-weighted emission sound level (L _{pAd}) in dB re 20µPa at the operators position	80.11	87.34
Environmental correction factor (K)	= 3	
values determined according to specific test code ISO 7960 Annex N		



Only tools made in conformity to pr EN847-1 shall be used on the machine.

It should also be noted that H.S.S saw blades may be prohibited by law in certain countries and the operator should ascertain the position on this point.



**CK90. Copmpressed Air Consumption**Using Full 200mm. Stroke.

Cuts/Min	Cu.M./Min	Cu.M./Hr	Cu.Ft./Min	Cu.Ft./Hr
10	0.012	0.7	0.42	25
20	0.024	1.4	0.84	50
30	0.036	2.1	1.25	75
40	0.047	2.8	1.67	100
50	0.059	3.6	2.09	125
60	0.071	4.3	2.51	151
70	0.083	5.0	2.93	176
80	0.095	5.7	3.35	201
90	0.107	6.4	3.76	226
100	0.118	7.1	4.18	251
110	0.130	7.8	4.60	276
120	0.142	8.5	5.02	301



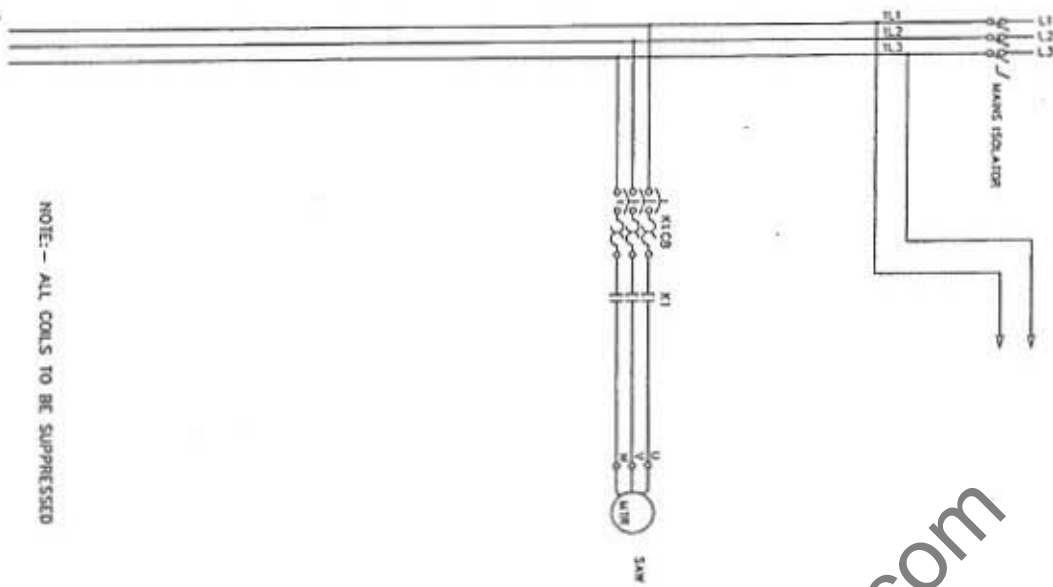
MACHINE SPECIFICATION

Usable saw diameter	500mm
Saw location	14mm pin hole at 30mm centre
Maximum timber capacity	305mm x 100mm
Table size	640mm x 850mm
Table height	914mm
Drive motor (standard)	5.5Kw (7.5h.p)
(optional)	7.5Kw (10h.p)
Spindle speed	2200 r.p.m
Spindle diameter	30mm
Weight	365Kg

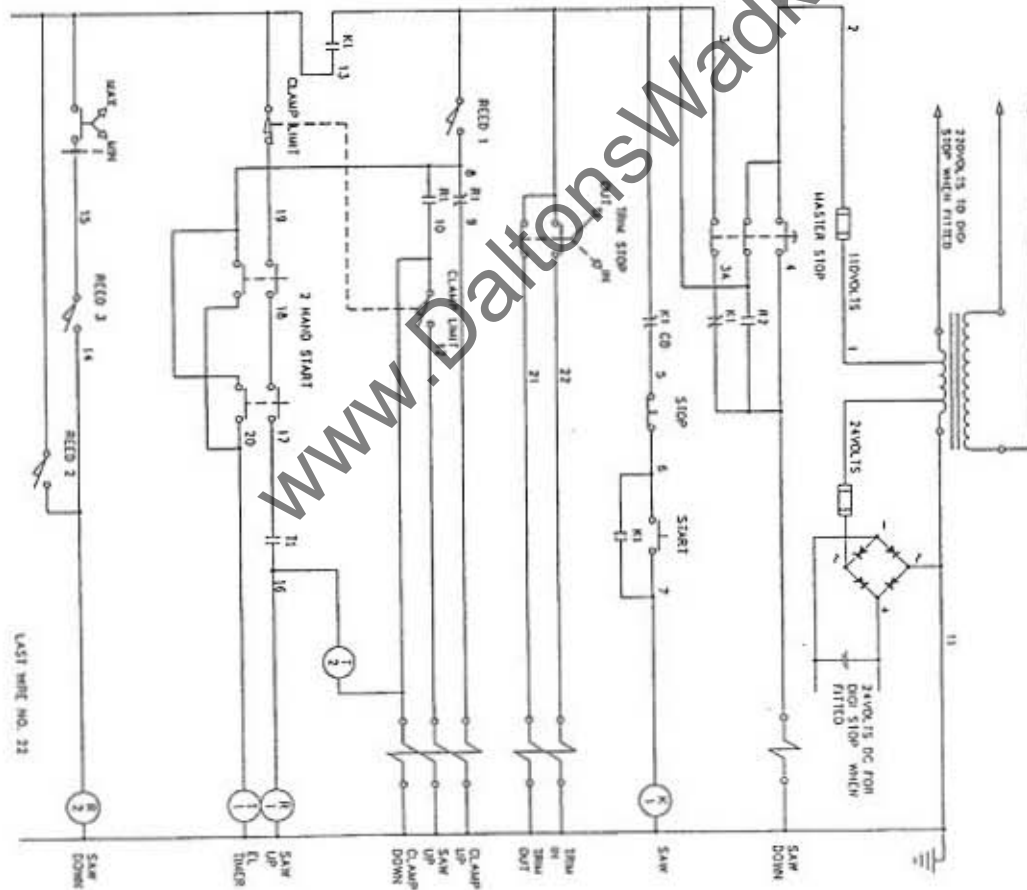
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NOTE:- ALL COILS TO BE SUPPRESSED



ELECTRICAL DIAGRAM



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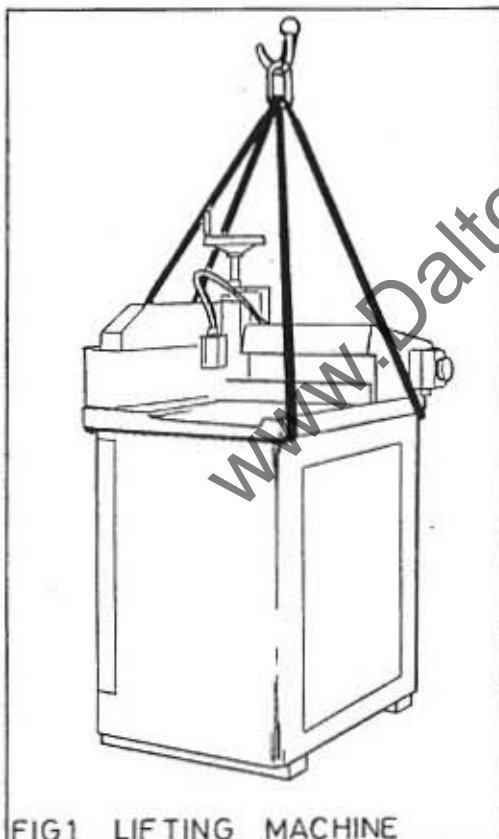
SECTION 2 INSTALLATION

Unloading (Fig 1)

Ensure that all lifting equipment used is capable of lifting the weight of the machine as a minimum. Refer to Specifications (Section 1) for machine weight.

To lift, place a sling either side of the machine, passing under the overhanging table and as close to the main body as possible. Slowly lift the machine ensuring it does not tilt and slings are not slipping. Alternatively the machine is bolted to two wooden spacer blocks to allow a forklift truck to be used.

WARNING DO NOT WALK OR STAND UNDERNEATH A SLUNG MACHINE.



Unpacking

Remove the packaging from all the items and ensure that no damage has occurred during transit.

The wooden spacer blocks secured to the bottom of the machine must also be removed.

Ascertain that the machine is complete with all fittings, requested accessories and tool kit. On a standard CK the outfeed roller table and the wire safety cage are packed separately to the main machine.

Contents of standard tool kit :-

Open ended spanner 46mm A/F
8mm Long arm Allen key
Push stick (C.E machines only)
General purpose 500mm diameter saw

Cleaning

Before levelling the machine remove the anti-rust material particularly from the bright areas. This may be accomplished using a clean soft rag soaked in paraffin. **DO NOT** use a substitute as it may participate an explosion.

Location and Foundation

The machine should be so placed that the traffic of persons and materials to and from the saw fits smoothly into the general work flow. It should not be sited such that the operator is placed in a possible hazardous position. Adequate clearance around the machine should be provided to cater for intended workpieces.

To obtain the best results from the **Wadkin** machine it is important that the floor on which the machine is to stand has been levelled and is dry.



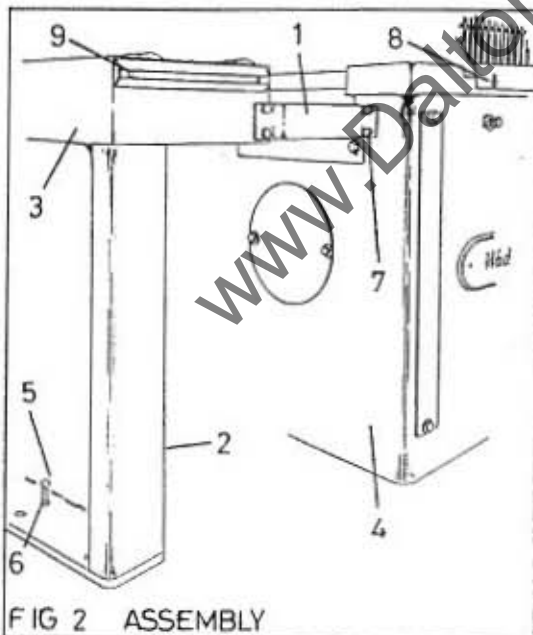
The floor may be pre-drilled and anchors already fitted or the machine with the outfeed table fitted may be used as a template after being sited and assembled. Hole positions for fixing are found on the 'machine foundation illustration' in Section 1.

NOTE:- The machine and outfeed table must be firmly secured to the floor before machining.

Remove the large side access panel to obtain access to anchor bolts holes. Fully tighten the anchor bolts and re-secure panel.

Machine Assembly (Fig 2)

Bolt the table leg (2) and the two fixing brackets (1) securely to the outfeed table (3). Fasten the fixing brackets to the side of the saw base (4) but do not tighten at this stage. Place a straight edge along the saw table and projecting over the outfeed roller table.



By turning the adjusting screws (5) in the foot of the table leg the outfeed table may be levelled to the saw table.

When set tighten the locknuts (6) on the adjusting screws tacking care not to move the screws settings. The setscrews (7) holding the fixing bracket to the saw base can now be tightened. Secure table to floor tacking care not to over tighten the bolts.

The wire guard is held in position by eight screws positioned as follows:-

- 1) Two screws (8) on the front face of the saw table.
- 2) The two screws (9) holding the retaining plate at the front of the outfeed table also fix the guard.
- 3) Two screws at the rear of the outfeed table.
- 4) Two screws positioned on top of the infence.

Supplies and Services

Electrical Supply

The customer is responsible for an adequate electrical supply. Details of the power requirements are provided with the machine.

The machine is delivered with its complete electrical equipment ready for connection.

The electrical connection is at the side of the machine and an electrical schematic diagram is supplied with the machine as well as within this manual.

POINTS TO NOTE WHEN CONNECTING THE POWER SUPPLY

- A) Check the voltage, phase and frequency correspond to those on the motor plate.
- B) Check the main fuses are of the correct capacity in accordance with the machine nameplate.
- C) Connect the incoming supply leads to the appropriate terminals.

- D) Check all connectors are sound and that equipment is earthed.
- E) Check the saw rotation:- When viewed from the front the saw should be rotating towards the back of the machine. If this is incorrect reverse any two of the incoming mains leads after having first isolated the power.

Exhaust Connections

The exhaust connection is located at the rear of the machine.

The outlet is 175mm x 80mm and should be connected to the main extraction duct by a length of flexible hose.

The volume of air to be extracted at the outlet is 11 cubic meters per minute at a rate of approximately 26 meters per second.

The air requirement is 6 Bar (84 P.S.I.).

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SECTION 3 OPERATING INSTRUCTIONS

Safety and Safety Devices

The safe operation of woodworking machinery requires the constant alertness and close attention to the work in hand.

Read this instruction manual in its entirety before operating the machine.

Blunt saws often contribute to accidents. An efficient machinist knows when sharpening is necessary, but if there is a reluctance to spend time on sharpening then instead of cutting efficiently and smoothly they will tend to chop and snatch at the workpiece. This not only increases the risk of accidents but also lowers the quality of work.

When choosing a saw blade ensure it is suitable for the machine, material and saw speed.

A limit switch fitted to the top clamp ensures correct holding of the timber during cutting operation. If the switch is not in contact with the timber it prevents the operating cycle commencing.

The wire cage guard covering the whole top surface of the machine restricts access.

Simultaneous operation of the two 'saw cycle' start buttons ensure hands are clear of the workpiece.

Before Operating the Machine

Ensure that all guards and fences are securely fitted and correctly adjusted. Guards and other safety devices are NOT to be removed/opened while the machine is in operation. They are there for YOUR SAFETY.

Ensure saw blades are the correct type and size for the prevailing machine conditions and workpiece.

Check saw rotates in the correct direction of cut, is sharp and securely fastened.

Remove or securely fasten loose clothing; confine long hair and remove jewellery, etc.

Ensure adequate working space and lighting is provided.

Switch on all dust extraction equipment, ensure it is working correctly.

Check machine is in a safe and secure manner to operate.

Check main is 'ON' and isolator at the rear of the machine is 'ON'.

During Machining

Wear suitable protective equipment, e.g. goggles, ear defenders, dust mask.

Stop the machine using the master stop before making adjustments or cleaning wood chips from the work area.

Keep the floor area around the machine clean and free from wood refuse.

Do not allow the floor to become slippery with oil or grease.

Report any machine malfunction or operator hazard to a person in authority immediately. Do not attempt to start or repair the machine unless qualified to do so. If the machine is running it should be immediately stopped using the master stop.

Ensure all power sources are isolated before commencing any maintenance work.

Comply with the Woodworking Machines Regulations. Failure to do so could result in legal proceedings.

Never leave the machine running whilst unattended.

Do not attempt to operate the machine while under the influence of anything that reduces your alertness.

Machine Controls (Fig 1)

Before attempting to use the machine operators must be familiar with the controls and their usage.

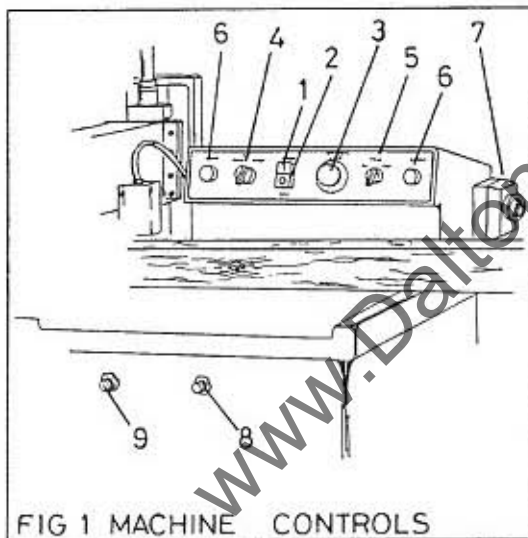


FIG 1 MACHINE CONTROLS

The control panel has been designed for the easiest possible use and may contain the following:-

- 1) A square green start button. When pushed this starts the saw rotation. All functions except the trim stop are isolated until the motor is started and running at full speed.

- 2) A square red stop button. The power to the saw motor is cut off when pressed.

- 3) A large red master stop/emergency stop button. When pressed the button remains in and must be turned clockwise to be released. Using the master stop cancels all but the trim stop functions and returns the saw to its lower position where it is held until the cycle is ready to be restarted.

- 4) Pre-set 'saw cycle cut' switch. To shorten the cycle time the switch can be set to the 'MIN' position to restrict the upward travel distance of the saw. The maximum timber thickness for a clean through cut when set at 'MIN' is 15mm.

- 5) Trim stop switch. Turning the switch to the 'ON' position extends a stop into the timber path. The stop is adjustable to give a trim to the end of the timber up to a maximum of 10mm. Turning the switch to 'OFF' retracts the stop.

- 6) Saw cycle start buttons. The two cycle start buttons must be pressed simultaneously.

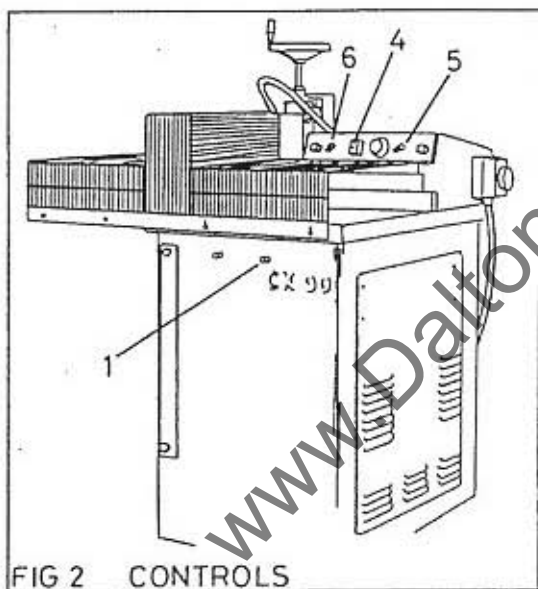
The machine isolator (7) is located on the side of the machine. In the 'power on' position the central bar of the switch is vertical. Using a padlock, it is possible in the 'off' position, to immobilise the switch and prevent unauthorised use.

The rate at which the saw may be raised or lowered in the 'cut cycle' may be adjusted via the regulators (8 and 9). The down stroke regulator (9) is factory pre-set and should not normally need adjusting. A slower 'up stroke' rate must be selected for hard wood or similar dense materials as opposed to a fast rate for soft woods.

Typical Machine Operation Cycle

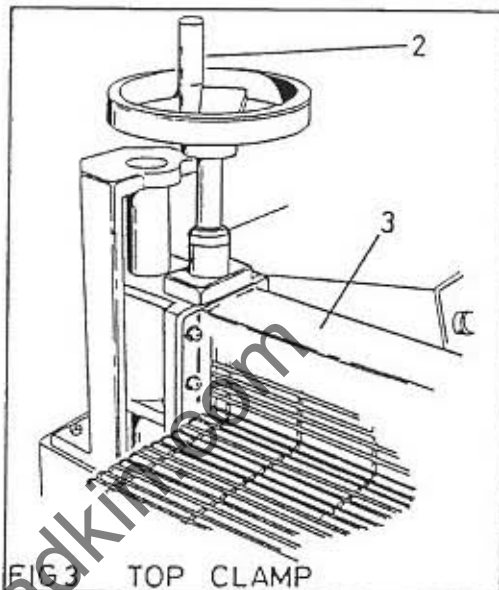
The following is an example of a typical machining cycle. The machine should be correctly set up for the component to be cut and the electrical, pneumatics and extraction equipment switched on and correctly working.

- 1) Start saw by pressing square red button (4).
- 2) Set the speed rate of the upward saw action whilst no timber is present. To increase the rate turn the stroke regulator (1) clockwise and anti clockwise to reduce
- 3) If required, operate trim stop (5) or optional position feed stops.



- 4) Select required pre-set saw cut cycle (6).
- 5) Feed timber to stop or required cut position.

- 6) Wind down top clamp (3) by turning handle (2) in a clockwise direction until within 5mm of the timber.



Press the two outer saw cycle start buttons simultaneously. This lowers the top clamp to hold the timber in position and then triggers the saw to move upwards. At the top of its upward stroke, contact is made with a limit switch which returns the saw to the bottom rest position and then releases the clamp.

Note:- Although the saw is returned to its bottom rest position it should be noted that the saw itself is still switched on and rotating.

- 8) Repeat procedure for next cut after removing previous cut timber.



Trim Stop Adjustment

When the trim stop is operated a pneumatic cylinder ejects the trim stop bar out into the path of the timber. Located at the end of the bar is a threaded screw with a locknut which provides for the adjustment.

For safety and ease of adjustment the trim stop must be out and the power isolated at the master stop button before setting. To set the trim stop, first loosen off the locknut and then turn the screw clockwise to increase the trim cut or anti-clockwise to reduce the cut. The cut should not be less than 3mm and up to a maximum of 10mm. Tighten the locknut when set

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SECTION 4 MAINTENANCE

Scheduled Maintenance (Fig 1)

Scheduled maintenance consists of regularly maintaining the machine in a good operating condition, capable of safely producing good quality trouble free work, with the minimum of down time.

This includes tasks such as regular cleaning and lubrication which can and should be performed by the operator.

The power to the machine must always be isolated at the mains or at the master stop before proceeding with any maintenance operation.

Weekly

It is recommended that the machine be cleaned thoroughly once a week especially when working on hardwood or highly resinous material, to prevent chocking of ventilator airways and build-up of deposits on working parts. Ensure sawdust does not build up around motor and belts.

If cleaning with compressed air take care not to direct the jet into any bearing housings, moving shafts, etc to avoid forcing dust and debris into the bearings and housings. Check all machine parts move freely.

Grease each of the four bearing units (1) via their grease nipples with one 'shot' of Wadkin grade L6 grease from a pump type grease gun.

The two idler pulleys (2) have grease nipples at their centres and should be lubricated with the same amount and type of grease as the bearing units using a pump type grease gun.

The saw blade should be checked for damage and build up of resin/saw dust. Clean or replace as necessary.

Monthly

Check level of oil in air lubrication unit and if necessary top up using Wadkin grade L1 oil from an oil can.

Check liquid level in filter/regulator bowl and drain if required.

Check tension and condition of all drive belts. Replace if necessary.

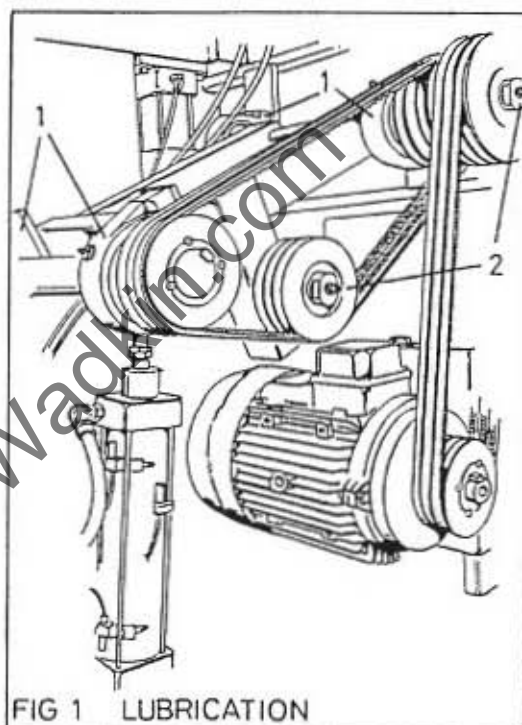


FIG 1 LUBRICATION

Yearly

Remove and clean the air inlet filter and bowl. Remove and clean lubricator bowl.

Two Yearly

Replace air inlet filter element.

Note:- Depending on the machines usage and environment it may be found necessary to halve the cleaning and replacement time for the air inlet filter parts.

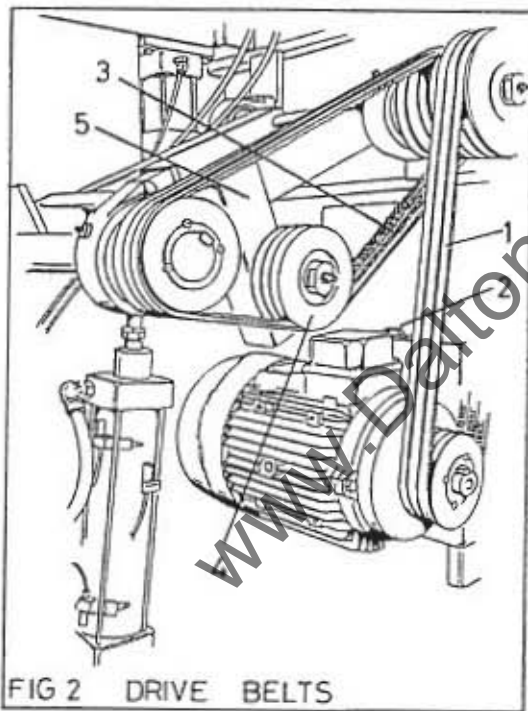
Tensioning/Replacing Motor Drive Belts (Fig 2)

Belts must only be replaced as a set and never on an individual basis.

Isolate power at mains or at master stop before proceeding.

The belt is at the correct tension when, on application of an average thumb pressure of 22-31N (5-7lb/f) at the mid span, it deflects approximately 6-10mm.

To slacken off the tension for belt (1) removal or to increase the belt tension, the motor mounting bracket must be moved using the adjustment screw (2). A clockwise rotation increases the tension.



Tensioning/Replacing Saw Spindle Drive Belts (Fig 2)

Belts must only be replaced as a set and never on an individual basis.

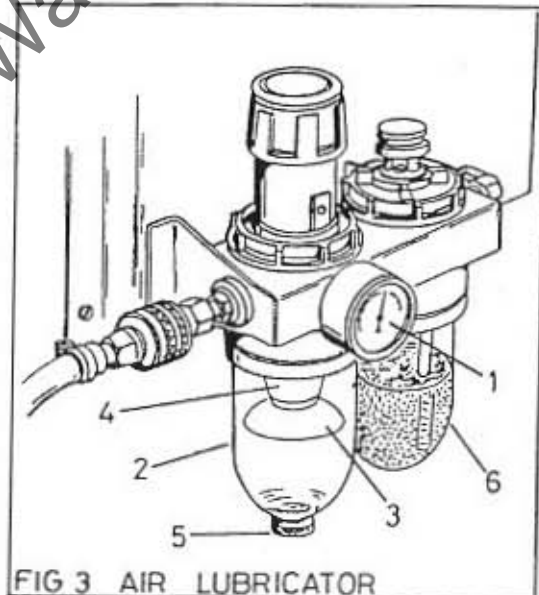
Isolate power at mains or at master stop before proceeding.

The belt is at the correct tension when, on application of an average thumb pressure of 22-31N (5-7lb/f) at the mid span, it deflects approximately 6-10mm.

To slacken off the tension for belt (3) removal or to increase the belt tension, the belt tension pulley (4) should be adjusted. The tension pulley is secured to a slotted bar (5) and by slackening off the pulley spindle locknut at the rear of the bar the pulley may be re-positioned. The nut must be re-tightened after tensioning belts.

Air Filter and Lubricator Maintenance (Fig 3)

Before attempting to service any air operated unit the air supply must be shut off and the systems pressurised air exhausted.



Air Filter/Regulator

To remove the filter element, first remove the pressure gauge (1) and then unscrew the bowl (2) anti-clockwise. Unscrew the baffle (3) and withdraw the element (4) and gasket.

Clean the filter element in paraffin and reverse blow with compressed air. Re-fit cleaned or new filter element, taking care not to damage it by over tightening baffle.

The bowl once removed can be cleaned in soapy water and rinsed in clean water. DO NOT use solvents as will destroy the bowl.

To drain liquid from bowl slacken off securing ring (5) until liquid flows out freely. When empty tighten ring.

Lubricator

The bowl (6) is removed by turning anti-clockwise and cleaned in the same manner as above before being re-fitted.

Changing Saw Blades (Fig 4)

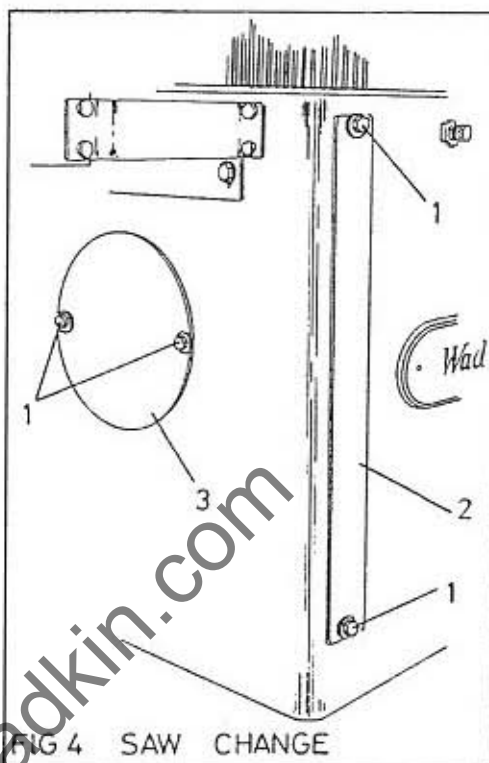
Isolate machine at mains or at master stop.

Using a spanner, unscrew and remove the setscrews (1) securing the front and side access covers (2 and 3). Position a piece of wood in the front access slot under the saw blade to prevent tooth damage should it accidentally fall. Locate the supplied allen key into the end of the exposed saw spindle. Use the allen key to prevent the spindle rotating when turning the locknut. with the supplied spanner. An anti-clockwise rotation slackens the nut. When the nut and front collar are removed the saw can be lifted off the spindle and removed.

Warning :- Great care must be taken when handling the saw blade and the use of thick gloves is recommended.

On refitting a blade ensure the drive peg locates it the saw and front collar before replacing and tightening the locknut.

Replace and secure the access covers.





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APPROVED LUBRICANTS

WADKIN	CASTROL	B.P	SHELL	MOBIL	ESSO	GULF	CALTEX
L1	Hyspin AWS 32	Energol HLP 32	Tellus 37	DTE oil Light 24	Nuto H32 43 AW	Harmony Oil HDA	Rando
L2	Alpha ZN 150	Energol HP 150	Vitrea 150 or CS 150	Vactra Extra	Spartan EP 150 Heavy	Service 13	URSA P40
L4	Magna 68	Energol HP 68	Vitrea 68 or CS68	Vactral Oil	Nurray 68 Heavy Medium	Service 57	URSA P20
L6	Spheerol AP3	Energol LS3	Alvania Grease No 3	Mobilplex Grease No 48	Beacon 2	Gulfcrown Grease No 3	Regal Startak Premium 3

- L1 Oil** Hydraulic oil with anti-corrosion, anti-oxidation, anti wear, anti-foam performance.
- L2 Oil** Gear oil (viscosity 150 centi-stokes at 40 degrees c).
- L4 Oil** Plain mineral oil (viscosity 68 centi-stokes at 40 degrees c).
- L6 Grease** Grease NLGI No3 consistency lithium bearing grease.



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ILLUSTRATED PARTS LIST

CONTENTS

1. MAIN BODY ASSEMBLY
2. DRIVE AND SPINDLE ASSEMBLY
3. TOP CLAMP ASSEMBLY
4. TRIM STOP ASSEMBLY
5. SAW CLAMP ASSEMBLY
6. OUTFEED TABLE ASSEMBLY
7. PNEUMATIC ASSEMBLY

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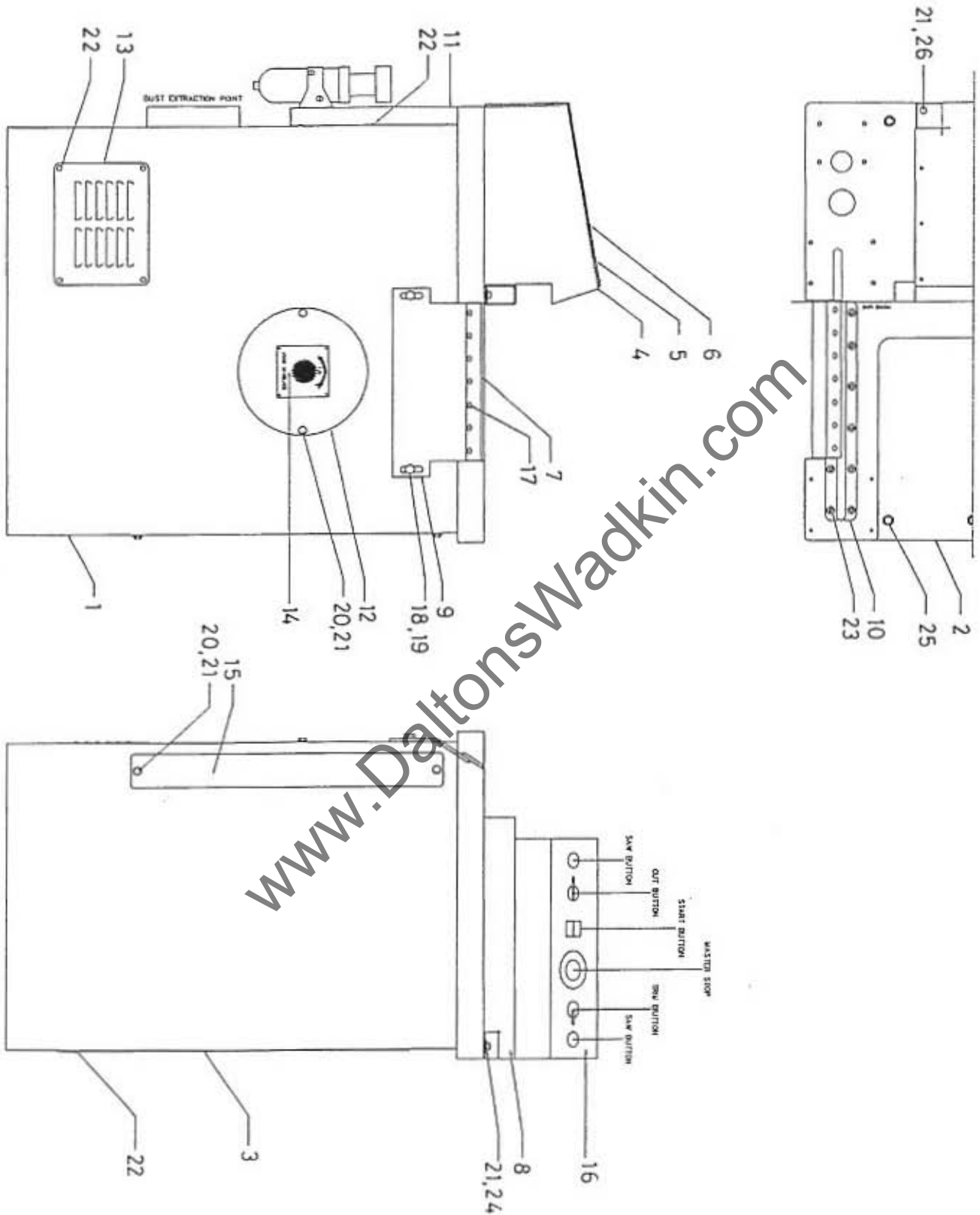


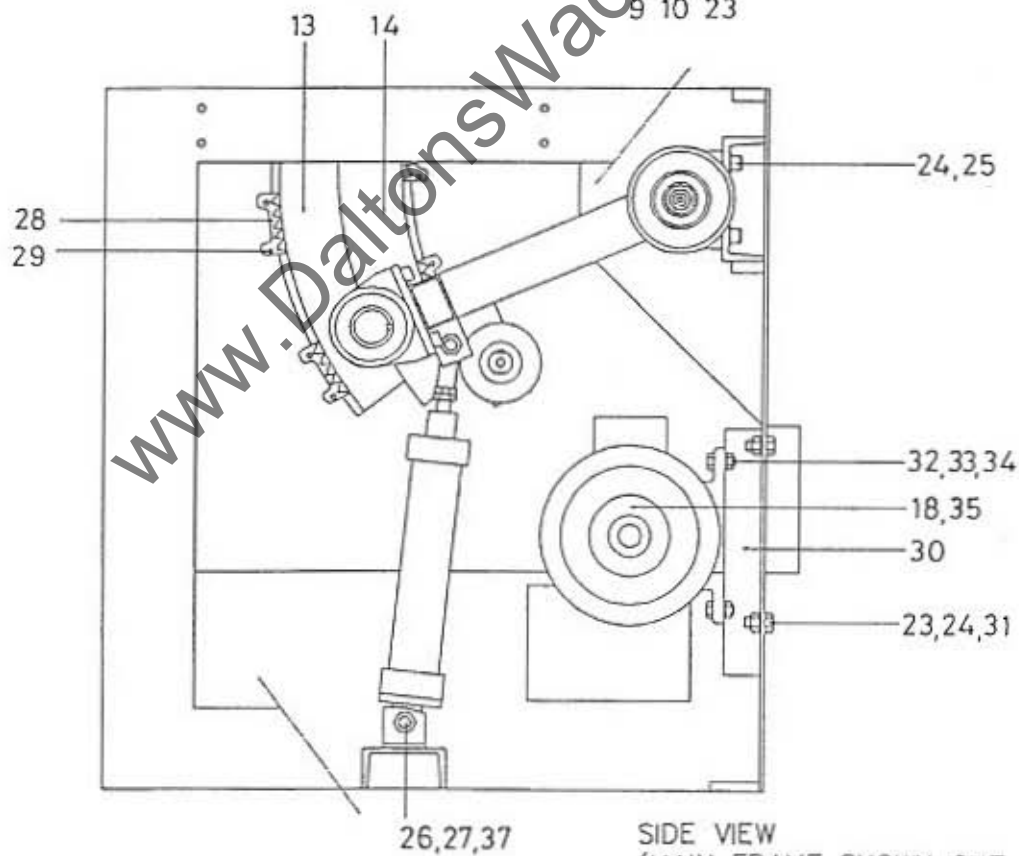
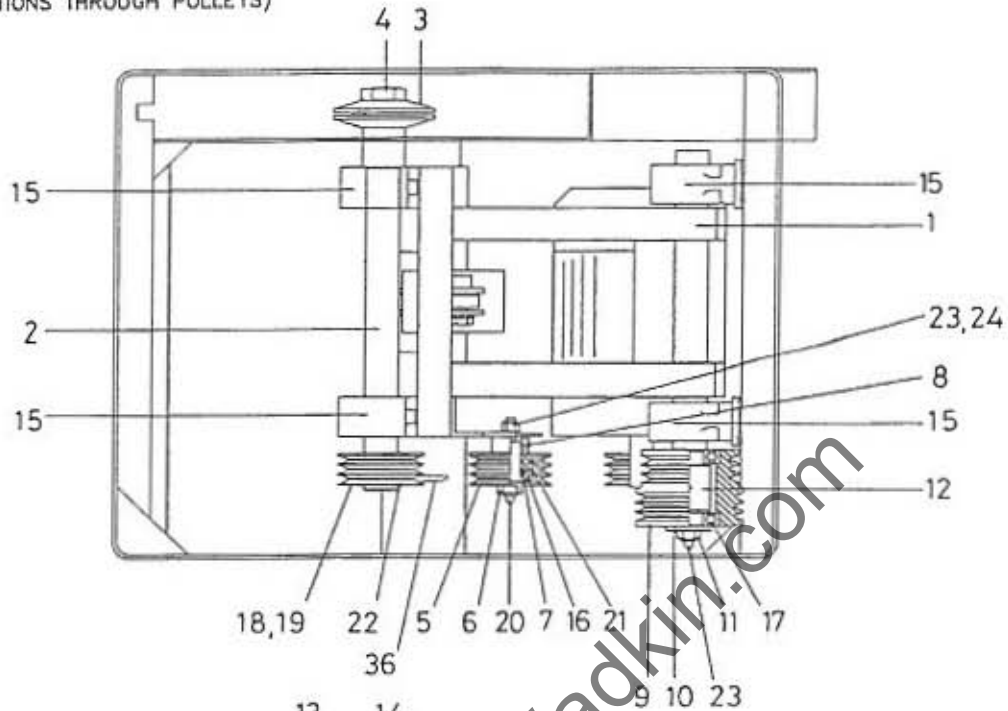
FIG 1 MAIN BODY ASSEMBLY

1. MAIN BODY ASSEMBLY

Ref No	Description	No Off
1. *	Main frame	1
2. *	Table	1
3.	Access cover	1
4. *	Control panel	1
5.	Control panel cover	1
6.	Pan head screw M3 x 6mm long	16
7.	Access plate strip	1
8.	Table fence	1
9.	Saw Access plate	1
10. *	Table insert	1
11.	Cable cover	1
12.	Spindle cover	1
13.	Motor inlet cover	1
14. *	Rotation label	1
15.	Saw Access cover	1
16.	Electrical control plate	1
17.	Hexagon socket countersunk screw M8 x 10mm long	7
18.	Hexagon head setscrew M10 x 20mm long	2
19.	Plain washer M10	2
20.	Hexagon head setscrew M8 x 35mm long	4
21.	Plain washer M8	10
22.	Hexagon socket button head screw M5 x 12mm long	14
23.	Hexagon socket countersunk screw M8 x 12mm long	8
24.	Hexagon socket caphead screw M8 x 25mm long	3
25.	Hexagon socket caphead screw M12 x 40mm long	4
26.	Hexagon head setscrew M8 x 40mm long	4

* Specify left or right hand feed

PLAN VIEW
(SHOWING HALF SECTIONS THROUGH PULLEYS)



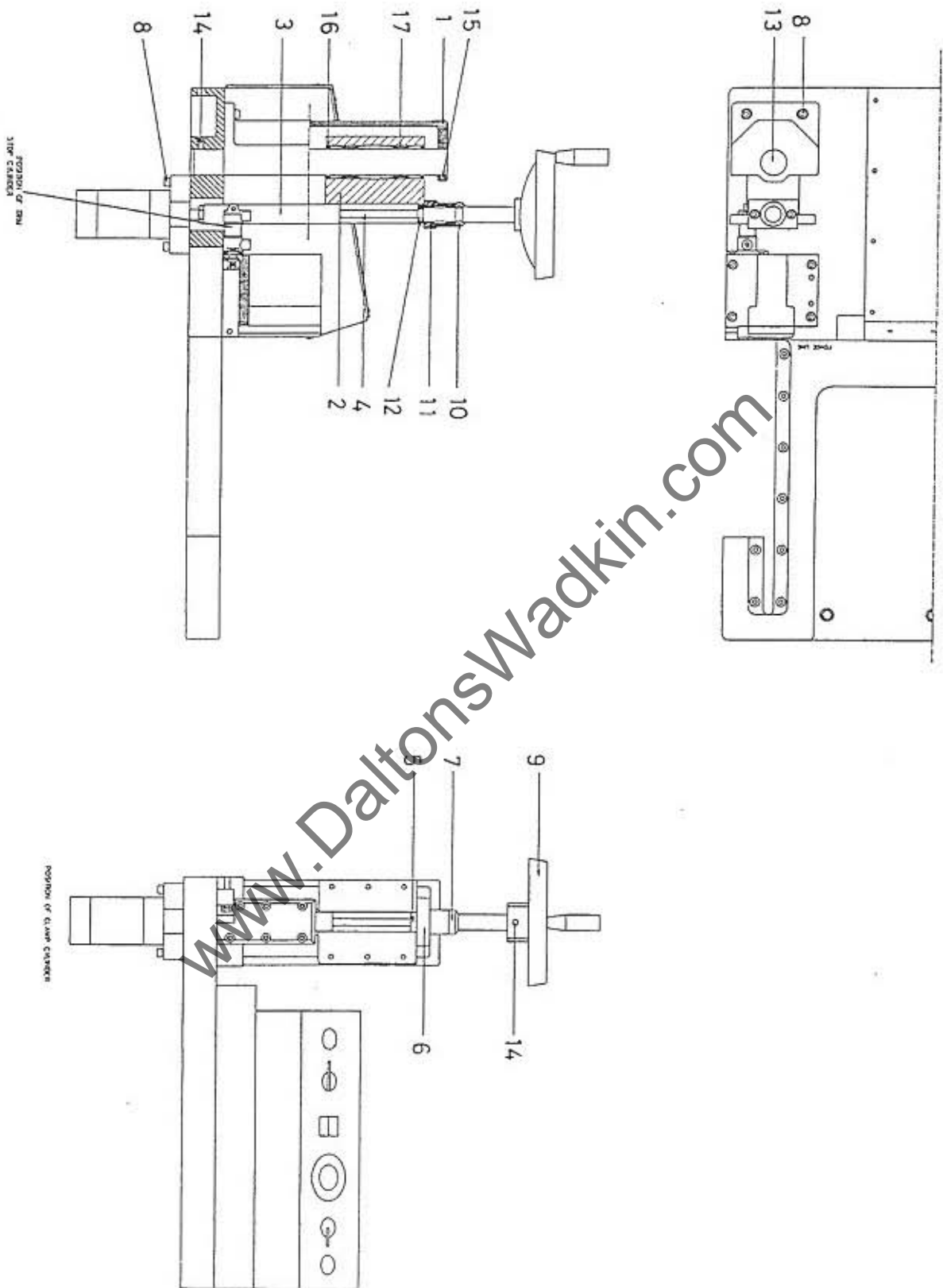
SIDE VIEW
(MAIN FRAME SHOWN CUT AWAY)

FIG 2 DRIVE AND SPINDLE ASSEMBLY

2. DRIVE AND SPINDLE ASSEMBLY

Ref No	Description	No Off
1. *	Saw swing arm	1
2. *	Saw spindle sub-assembly	1
3.	Front saw flange	1
4. *	Saw spindle nut	1
5.	Belt tension pulley	1
6.	Tension pulley pin	1
7.	Split spacer	1
8.	Collar	1
9.	Idler pulley	1
10.	Wheel washer	1
11.	Idle pulley retaining screw	1
12.	Saw pivot shaft spacer	1
13.	Outer brush	1
14.	Inner brush	1
15.	Bearing ref SNP40FS	4
16.	'SKF' Bearing ref 6205-Z	2
17.	'SKF' Bearing ref 6207-Z	2
18.	Pulley	2
19.	Taper lock bush	1
20.	Lubrication nipple	2
21.	Internal circlip diameter 52mm	1
22.	Key 6mm x 6mm x 40mm long	1
23.	Hexagon nut M12	5
24.	Plain washer M12	13
25.	Hexagon socket cap screw M12 x 25mm long	8
26.	Plain washer M16	4
27.	Hexagon nut M16	2
28.	Inner/outer brush fixings	4
29.	Hexagon socket capscrew M5 x 12mm long	8
30.	'Kenyan' motor base	1
31.	Hexagon head setscrew M12 x 25mm long	4
32.	Hexagon head setscrew M10 x 25mm long	4
33.	Hexagon nut M10	4
34.	Washer M10	4
35.	Taper lock bush	1
36.	Drive belt ref SPZ1180	6
37.	Hexagon socket capscrew M16 x 45mm long	2

* Specify left or right hand feed



3. TOP CLAMP ASSEMBLY

Ref No	Description	No Off
1.	Trim stop base	1
2.	Trim stop pad	1
3.	Trim stop bar	1
4.	Cylinder end plate	1
5.	Hexagon socket capscrew M8 x 40mm long	4
6.	Dowel diameter 8mm x 40mm long	2
7.	Hexagon socket countersunk screw M6 x 200mm long	6
8.	Hexagon head setscrew M8 x 50mm long	1
9.	Plain nut M8	1
10.	Hexagon socket countersunk screw M6 x 16mm long	2

* Specify left or right hand feed.

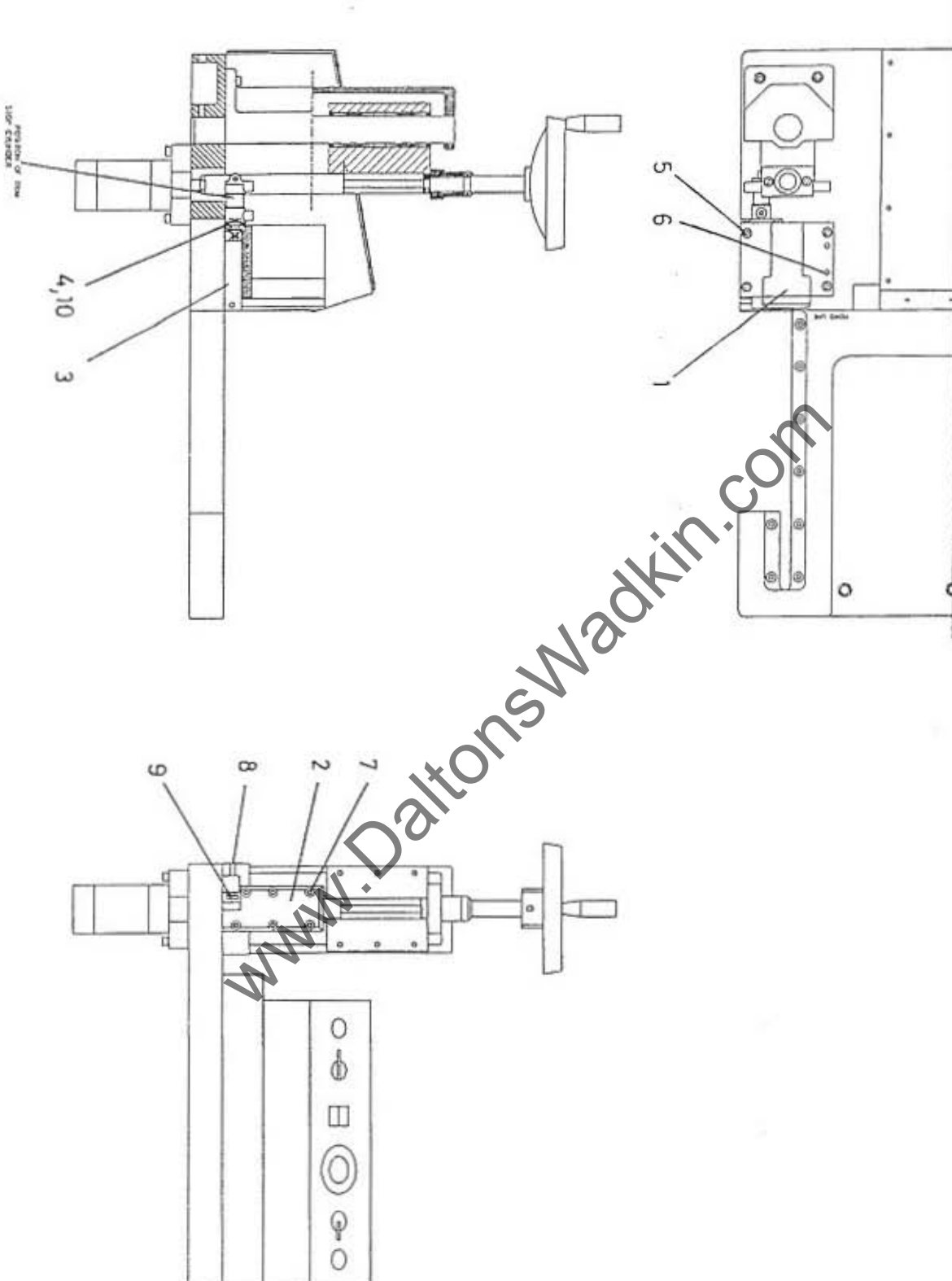


FIG 4 TRIM STOP ASSEMBLY

4. TRIM STOP ASSEMBLY

Ref No	Description	No Off
1.	Guard pillar support	1
2.	Guard bearing housing	1
3.	Guard adjusting bar	1
4.	Guard adjusting screw	1
5.	Setting collar	1
6.	Guard bearing block	1
7.	Dust cover	1
8.	Hexagon socket capscrew M8 x 30mm long	8
9.	Handwheel	1
10.	Thrust bearing	1
11.	Oilite bush I/D 20mm x O/D 25mm x 12mm long	2
12.	Hexagon socket grubscrew M5 x 8mm long	1
13.	Shaft	1
14.	Hexagon socket grubscrew M10 x 16mm long	2
15.	Hexagon socket grubscrew M6 x 12mm long	1
16.	Oil seal	2
17.	Bearing bush	2

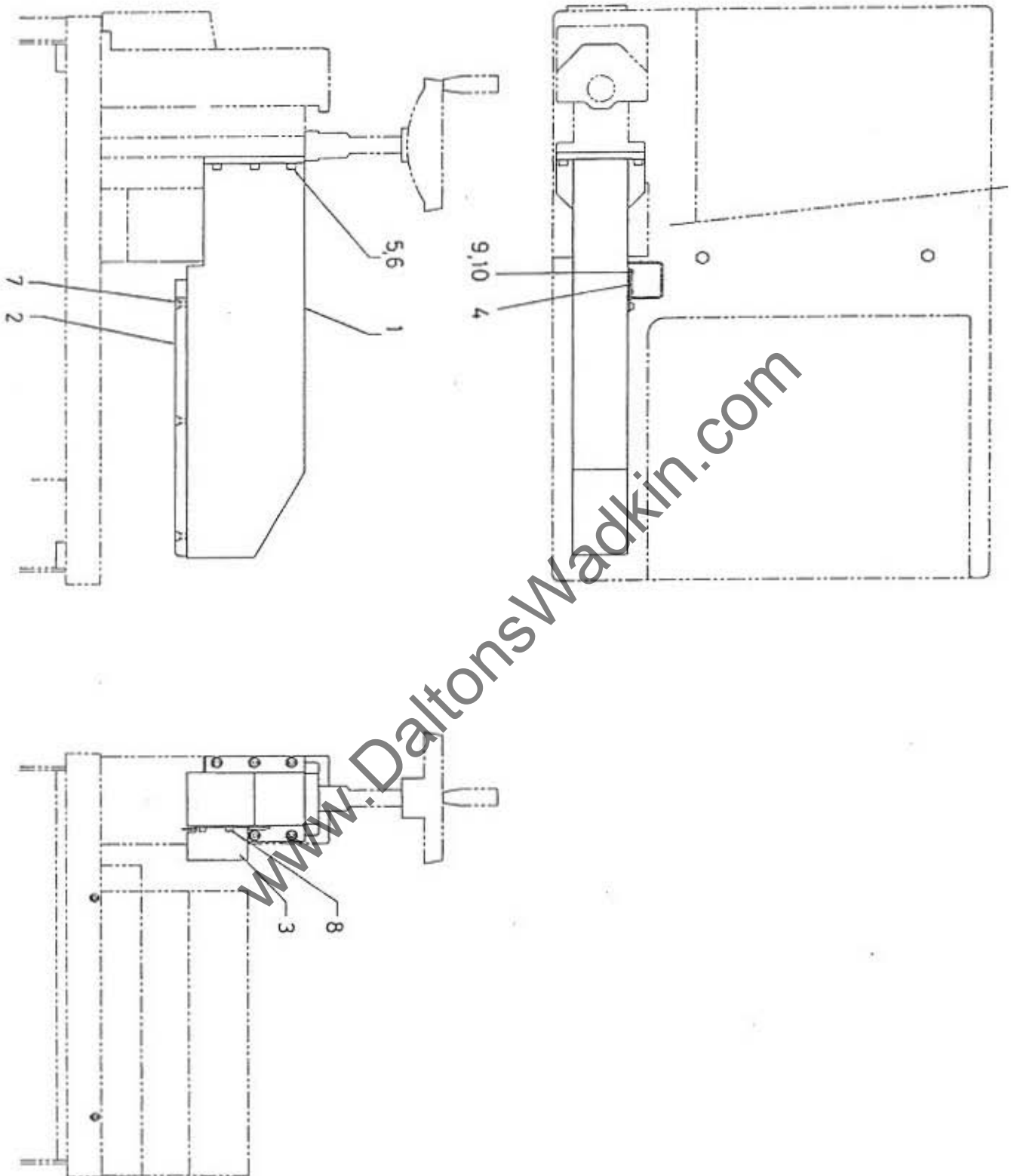


FIG 5 SAWGUARD CLAMP ASSEMBLY

5. SAW CLAMP ASSEMBLY

Ref No	Description	No Off
1. *	Sawguard clamp	1
2. *	Clamp pad	1
3. *	Microswitch guard	1
4.	Limit switch plate	1
5.	Hexagon socket capscrew M8 x 25mm long	6
6.	Plain washer M8	6
7.	Hexagon socket capscrew M8 x 20mm long	6
8.	Hexagon socket capscrew M5 x 10mm long	6
9.	Hexagon socket button head screw M5 x 10mm long	2
10.	Spring washer M5	2

* Specify left or right hand feed.

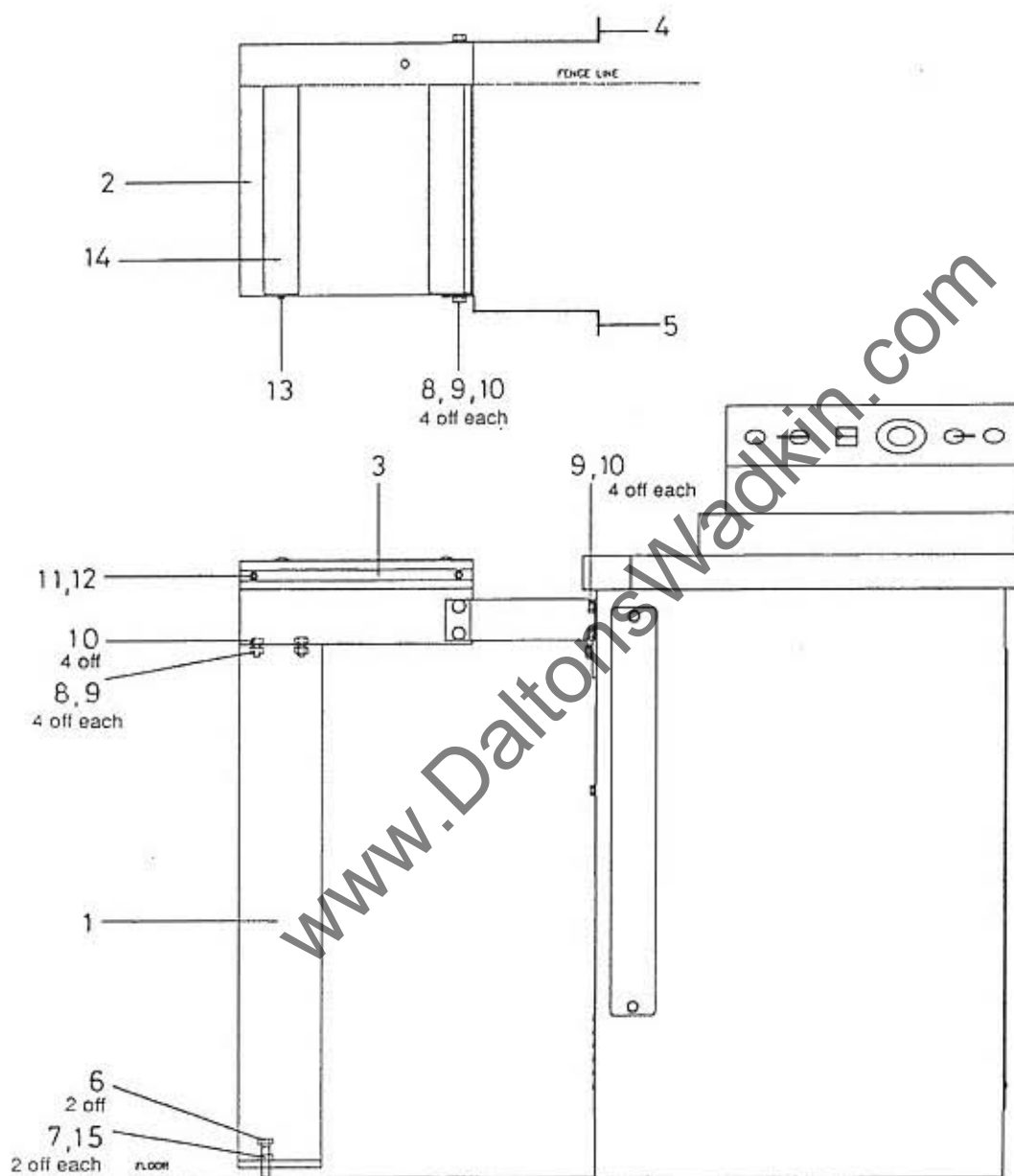


FIG 6 OUTFEED TABLE ASSEMBLY

6. OUTFEED TABLE ASSEMBLY

Ref No	Description	No Off
1.	Leg	1
2.	Short outfeed table	1
3.	Retaining plate	1
4.	Rear fixing bracket	1
5.	Front fixing bracket	1
6.	Hexagon head setscrew M12 x 50mm long	2
7.	Nut M12	2
8.	Nut M10	8
9.	Plain washer M10	12
10.	Hexagon head setscrew M10 x 20mm long	12
11.	Plain washer M6	2
12.	Hexagon socket button head screw M6 x 12mm long	2
13.	Tension pin diameter 4mm x 16mm long	2
14.	Roller and shaft	2
15.	Plain washer M12	2

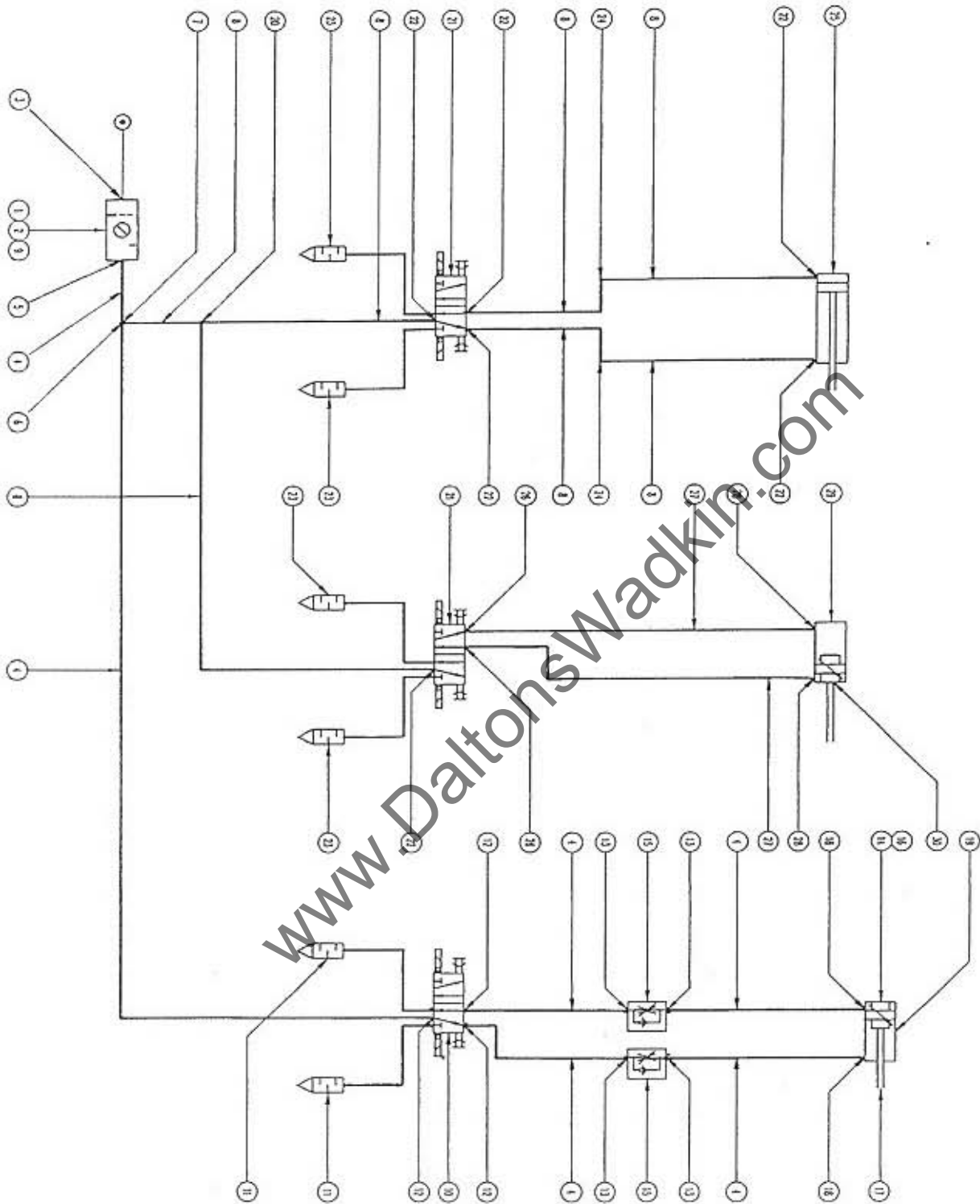


FIG 7 PNEUMATIC CIRCUIT

7. PNEUMATIC CIRCUIT

Ref No	Description	No Off
1.	Mounting bracket G3/8"	1
2.	Lubro control unit	1
3.	Tail piece adaptor G3/8"	1
4.	Natural nylon tube diameter 12mm	1 Metre
5.	90 Degree swivel elbow 12-3/8"	1
6.	Tee connector 12mm	1
7.	Reducing connector 12-6	1
8.	Natural nylon tube diameter 6mm	2 Metres
9.	Pressure gauge 0-10 Bar	1
10.	Solenoid piolet set-reset	1
11.	Silencer R1/4"	2
12.	Straight adaptor 12-1/4"	3
13.	90 degree swivel elbow 12-1/2"	4
14.	Air cylinder	1
15.	Uni-directional flow regulator	2
16.	Rear eye mounting 'UR'	1
17.	Piston rod eye mounting 'UF'	1
18.	Straight adaptor 12-3/8"	2
19.	Reed switch	3
20.	Tee connector 6mm	1
21.	Solenoid pilot pre-set	2
22.	90 degree elbow 6-1/8"	6
23.	Silencer R1/8"	4
24.	Elbow connector 6mm	2
25.	Air cylinder	1
26.	Straight adaptor 8-1/8"	2
27.	Natural nylon tube diameter 8mm	1 Metre
28.	90 degree swivel elbow 8-3/8"	2
29.	Air cylinder	1
30.	Flange mounting	1



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LIFTING AND TRANSPORTATION

Dimensions and Weight

Length for transportation	1300mm
Width for transportation	1200mm
Height for transportation	1500mm
Weight for transportation	400kg

Ascertain that the machine is complete with all fittings, requested accessories and tool kit. On a standard CK the outfeed roller table and the wire safety cage are packed separately to the main machine.

Unloading

Ensure that all lifting equipment used is capable of lifting the weight of the machine as a minimum.

The machine leaves the factory fitted to a wooden pallet or to wooden blocks which allows movement by a fork lift truck.

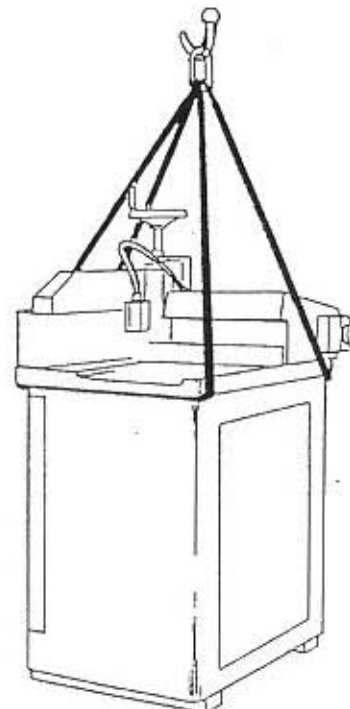
Alternatively to lift using a crane, place a sling either side of the machine, passing under the overhanging table and as close to the main body as possible. Slowly lift the machine ensuring it does not tilt and slings are not slipping.

WARNING:- Do not walk or stand underneath a raised machine.

Unpacking

Remove the packaging from all the items and ensure that no damage has occurred during transit.

The wooden spacer blocks secured to the bottom of the machine must also be removed.



CK 90

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**FOR YOUR SPARE PARTS REQUIREMENTS
PHOTOCOPY THIS FORM, COMPLETE THE SHADED
AREAS AND FAX BACK DIRECT TO WADKIN**



0116 2742310

CUSTOMERS *ORDER / * ENQUIRY FORM

*DELETE AS REQ'D

Your Ref. No. _____

Account No. 1045-2400

Date _____

Deliver To

Invoice To/Alternative Address

Telephone No. _____

Contact Name

Delivery Territory Code

Date Required	Customer order Number	Machine Number & Type	Test Number
Despatch instructions		Terms Of Payment	

[illegible]

PLEASE ACTION AS REQUESTED (Customers Signature)

Sheet No. 1 of

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SERVICE CLUB

The Wadkin Service Club is designed to assist companies who have woodworking machines and who appreciate the benefit of having their machines maintained on a regular and professional basis.

For each visit Wadkin make time on site will be charged at £28.00 per hour. Travelling time will be charged at £25.00 with no charge for mileage, we have however "capped" this cost at £100 per "engineer day".

If an engineer is required beyond the two recommended visits for breakdown repairs, then as a member of the Service Club, the reduced rate of £28.00 per hour will still apply. Travelling time will be charged but still at the reduced rate of £25.00 per hour.

With membership of the Club, the price of all Wadkin spare parts will be discounted by 25% (excluding CNC equipment and Tooling). You simply have to commit to two or more scheduled visits per year.

Contracts run from 1st January to 31st December annually.

It is felt that this service option gives value for money and flexibility for your business. Non Wadkin machines can be included in the service if required.

The following rates are charged to Non Service Club customers

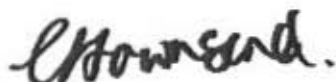
Travelling time	-	£35.00 per hour + 0.38p per mile
On site work time	-	£35.00 per hour.

Wadkin employ 24 Service engineers in the UK. All are fully trained and mobile and supported by a Leicester-based team of 4 specialists.

CNC routers are not maintained through our Service Club. We do however offer competitively priced Parts and Labour or Labour Only Service Contracts to cover this machinery. If you are interested please contact Mr Norman Crofton on the telephone number below.

We enclose a membership form and look forward to the opportunity of furthering our business relationship with you in the future. This is the club with no joining or membership fee.

Yours faithfully,
For Wadkin Ultracare Ltd



Tina Townsend

www.DaltonsWadkin.com



Wadkin Ultracare Ltd
Green Lane Road Leicester
LE5 4PF

Tel no :- 0116 2769111
Fax no :- 0116 2744567

SERVICE CONTRACT **TERMS AND CONDITIONS**

1. The company's general terms and Conditions shall apply.
2. All service provided by the company in accordance with this agreement shall be carried out by employees of the company or by sub-contractors employed for that purpose.
3. The machines specified must be operated and maintained in accordance with instructions provided by the company, with due particular reference to maximum loadings.
4. The customer shall ensure that the company's employees, agents or sub-contractors have full and free access to the equipment at all reasonable times for the purpose of inspection and service.
5. The customer shall ensure that, when required by the company's employees, agents or sub-contractors, fully competent operating staff are on site to operate the equipment, to demonstrate any faults, and subsequently to verify the satisfactory operation of the equipment.
6. The customer shall ensure that the machines are clean, and provide, at no charge, adequate working space, power and lighting to enable the company to perform the services.
7. In the event of non-payment by the due date the company reserves the right to suspend performance of its obligations under this agreement until such payment is made.
8. The company reserves the right to make a charge for engineer's time and other costs and expense incurred in responding to a call for service where the cause of the fault was external to, or due to mis-use of the machines. Such would be made at the normal service rates applicable at the time of the visit.
9. This agreement will remain in force for one year, unless otherwise stated.
10. The company shall not be liable for any failure its obligations caused by an industrial dispute or any other cause beyond its control.

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Wadkin Ultracare Ltd
Green Lane Road Leicester
LE5 4PP

Tel no :- 0116 2769111
Fax no :- 0116 2744567

ENROLMENT FORM

1. Enrolment in the Service Club is from 1st January to 31st December annually.
2. We would like _____ visits per year until further notice.
3. Preferred months being _____ and _____.
4. Machine type/types being _____.
5. When calling, your engineer should contact _____.
6. **Official Order Number** for the necessary visits (please note we will continue to use this order number until we are advised otherwise) _____.

7. Invoice address

Site address

Telephone No _____

Telephone No _____

Fax No _____

Fax No _____

Contact _____

Contact _____

8. We agree to pay the charges prevailing at the time the work is done. If there are any price changes, we will be notified in writing accordingly.
9. In the event that we wish to cancel this agreement notice will be given in writing 30 days prior the next scheduled visit.

Yours faithfully,

For _____ Position _____ Date _____

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