

RECORDED MACHINE DETAILS

MODEL
SERIAL NO.
DATE of PURCHASE
VOLTAGE
PHASE
CYCLES

QUOTE THIS INFORMATION
WHEN REQUESTING SERVICE
OR SPARES.

DISTRIBUTOR

STARTRITE

Model SD 310

PLANER & THICKNESSER

HANDBOOK

31E

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CONTENTS.

Page 3	Operating Safety Precautions
Page 4	Installation
Pages 4 & 5	Connection To Electrical Supply
Pages 5 & 6	Guarding & Safety Device
Page 7	Thicknessing & Guard Deflector
Page 7	Adjustment & Fixing Of Knives
Page 8	Operating Surfacers
Page 9	Thicknessing
Page 9	Maintenance

GUARANTEE.

The STARTRITE MACHINE TOOL CO. LTD. guarantee that should any defect in materials or workmanship occur in the mechanical parts within twelve months of purchase, the company will repair or replace such parts free of charge at their discretion. No further liability will be accepted by the COMPANY.

EXEMPTIONS : Accidental damage, fair wear and improper use.

Electrical equipment covered by makers guarantee.

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OPERATING SAFETY PRECAUTIONS.

BEFORE ATTEMPTING TO OPERATE THE MACHINE BECOME FAMILIAR WITH THE CONTROLS AND OPERATING INSTRUCTIONS.

NO PERSON SHOULD OPERATE THIS MACHINE WITHOUT SUFFICIENT TRAINING AS TO ITS SAFE AND PROPER OPERATION, OR WITHOUT SUPERVISION AS MAY BE NECESSARY (Para. 2 No.903 Woodworking Machinery Regulations 1974).

Before starting the machine, check that it is safe to do so, ensuring that the knives are correctly set and securely fastened and all necessary adjustments have been completed and all guards are positioned and securely fixed.

Never make any adjustments while the machine is running. Make sure the machine has been completely switched off and isolated.

Keep hands well away from the rotating cutterblock and all moving parts.

For short lengths and ends of material to be machined, use a push-block or stick to feed with. (Should be made from straight grained hardwood, notched at feed end to grip material and shaped at other end to form a comfortable handgrip).

Never operate machine with loose cuffs, exposed bandages etc. which may become entangled in moving parts. Should a necktie be worn, prevent ends from hanging loose.

Use only knives that are suitable for the machine and are in good condition for the work in hand. Knives that are blunt are unsafe to use and should be re-ground or replaced.

When machining long lengths of material, roller supports or trestles should be used to support overhanging weight of material.

Always keep working area around the machine free from waste chippings and other obstructions.

When leaving machine unattended, make sure that the starter and isolators (if fitted) are in the 'OFF' position.

Care has been taken in the design and construction of this machine to minimise the noise generated by the moving parts. Under some conditions the operator may be subjected to sound levels in excess of 90 dB(A) due to the noise generated in the cutting operation in addition to the background noise.

The Woodworking Machinery Regulations 1974 require that where any employed person is likely to be exposed continuously for 8 hours to a sound level of 90 dB(A) or to an equivalent or greater exposure to sound, such measures as are reasonably practicable shall be taken to reduce this exposure.

If continuous operation is likely for periods approaching 8 hours then an approved ear protection device should be worn.

INSTALLATION.

IMPORTANT : DO NOT LIFT OR MOVE MACHINE BY TABLES AS THIS MAY CAUSE MIS-ALIGNMENT OF TABLES.

Site the machine with adequate working space around it so as to ensure proper operation without obstruction.

Where possible, choose a position that offers minimum risk of the operators attention being distracted while using the machine. Take advantage of any natural light available and provide adequate artificial lighting over the whole working area.

The floor around the machine must have a level non-slip surface free of any feature which may create a hazard. To comply with the Woodworking Regulations the machine should be anchored with fixing bolts (not supplied) through the bolting down holes in the feet of the machine. Before anchoring the machine to the floor, place packing under the feet to ensure that it stands firmly and without wobble.

CONNECTION TO ELECTRICITY SUPPLY.

IMPORTANT: Check that the machine is suitable for the electricity supply. At all times, ensure that the machine is isolated from supply before making any electrical connections or adjustments.

Remove two screws from starter cover and take off complete with stop buttons. (Fig.1. shows inside of starter cover).

THREE PHASE:

Connect three supply leads to terminals L1, L2 & L3 on the connecting block (Fig.2). A three Phase motor may run in either direction, therefore, check that cutter block rotates correctly as shown in Fig.4.

If necessary interchange any two of the supply leads to reverse rotation.

SINGLE PHASE:

Connection should be made to a 15amp circuit using terminals L1 & L2 on the connecting block for the live and neutral supply. (Fig.3)

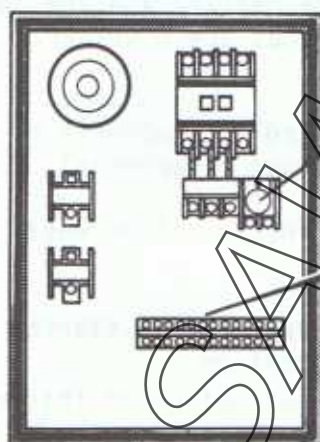


Fig.1.

Overload setting

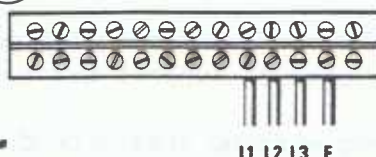


Fig.2.

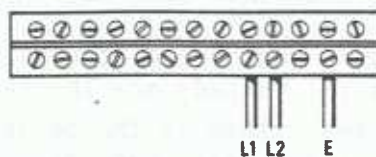


Fig.3.

CONNECTION TO THE ELECTRICITY SUPPLY
(CONTINUED).

The supply lead should be protected by solid or flexible conduit to a suitable isolator. Check local regulations and operating conditions as required.

IMPORTANT : IN ALL CASES THE MACHINE MUST BE EFFECTIVELY EARTHED.

Both single and three phase motors are protected by the contactor which incorporates an overload release and it is essential that it is set correctly in order that the motor is protected against sustained overload. The pointer on the overload unit must be set to indicate the full load amps of the motor. (See page 4 for removal of cover and overload setting). Should overloading take place during operation due to the workload or feed being too heavy for the motor to accommodate, the overload units trips will release and stop motor automatically. Allow 30 - 60 seconds before re-starting in the normal way (this allows heater coils to cool). Care should be taken to ease the load or feed condition so as not to overload the motor again.

IMPORTANT : The service of competent electrical engineer must be obtained if there is doubt on any point regarding electrical installation.

GUARDING & SAFETY DEVICE.

BRIDGE TYPE CUTTERBLOCK GUARD - FOR USE ON ALL SURFACING OPERATIONS.

SURFACING :

Keep cutterblock guard within 10 mm above material and as close as possible to fence (see Fig.5)

EDGING :

Keep cutterblock guard as close as possible to the table and within 10 mm from material (see Fig.6)

BEVELLING :

Keep cutterblock guard as close as possible to both table and material (see Fig.7)

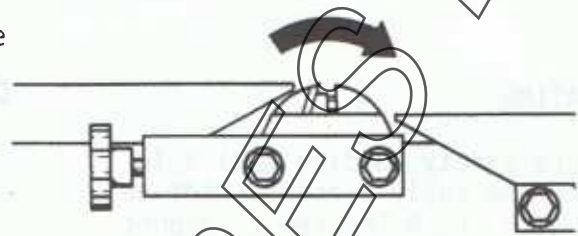


Fig.4.

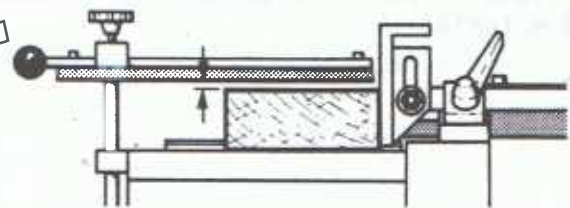


Fig.5.

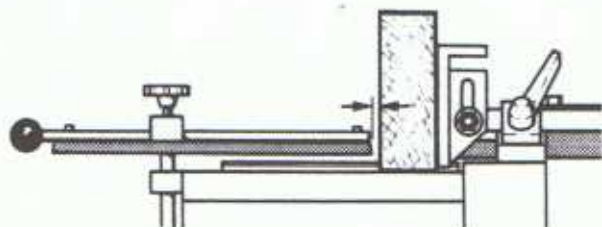


Fig.6.

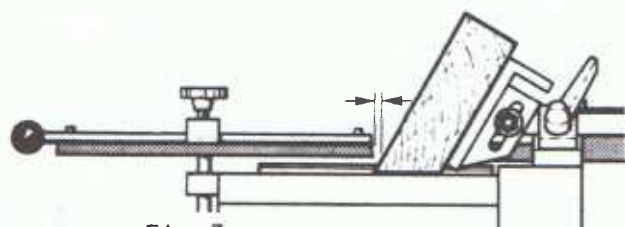


Fig.7.

GUARDING & SAFETY DEVICE (CONTINUED).

SAFETY HOLDING DEVICE - USE WHEN REBATING AND BRIDGE GUARD NOT SUITABLE.

REBATING :

Secure safety holding device to fence and apply pressure pads as shown in Fig.8. The fence support arm will cover the cutterblock at the rear of fence.

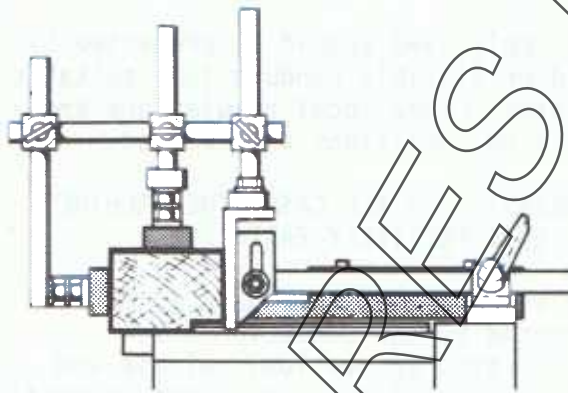


Fig.8.

SQUARE SURFACING & BEVELLING :

Both bridge guard and safety holding device may be used. Secure safety holding device to fence and apply pressure pads as shown in Fig.9. Keep guard as close as possible to table and material.

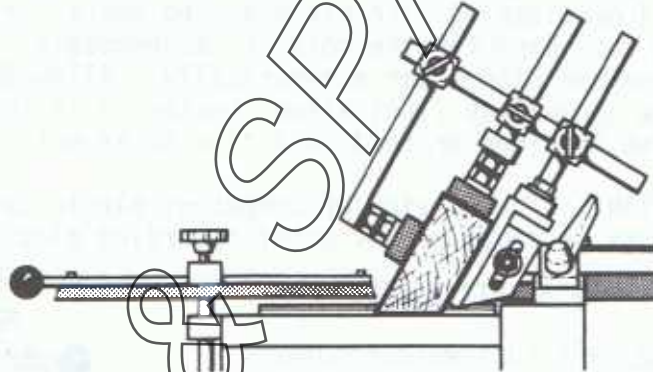


Fig.9.

THICKNESSING GUARD & DEFLECTOR.

For operating position remove fence. Push in table release (see Fig.10) and lift table into vertical position as shown. It will then be possible to swing guard/deflector over until it comes to rest on the infeed table or bearing housing.

IMPORTANT : Care should be taken that guard/deflector is not mal-adjusted and fouls cutterblock.

A self operating anti-kick back device is fitted prior to the feed roller allowing material to pass in a forward direction only (see Fig.11) eliminating any rejection. This device makes it extra safe when machining one or more pieces of material at one time.

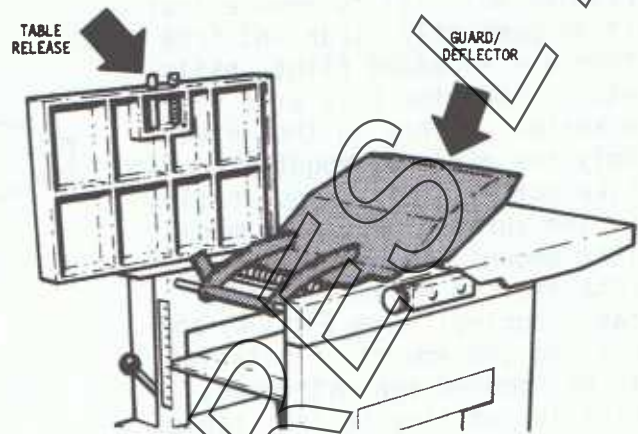


Fig.10. Final operational position.

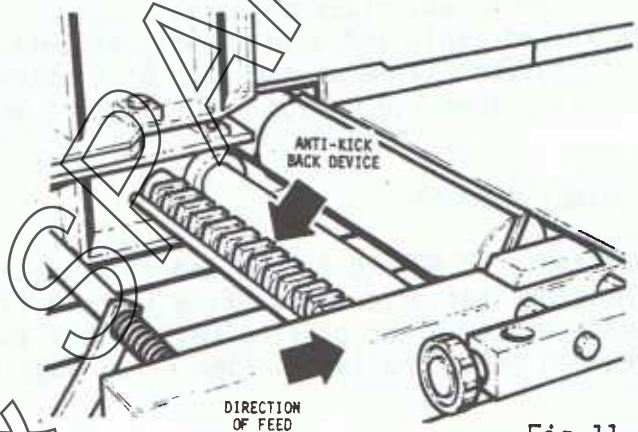


Fig.11.

ADJUSTING & FIXING OF KNIVES.

For perfect machining, the two knives must be in alignment to each other and at the same height as the outfeed table. This can be carried out as follows:-

Release knife wedge retaining screws (see Fig.12) with the 6 mm socket wrench supplied. The knives can then be adjusted for height by means of the adjusting screws (see Fig.12). Each knife must be aligned with the surface of the outfeed table.

(See Fig.13.) Re-tighten the retaining screws starting at the centre and working outwards. Care should be taken that the edge of the knife is set with a clearance to the edge of the outfeed table and that both knives are aligned with each other for rebating (see Fig.12)

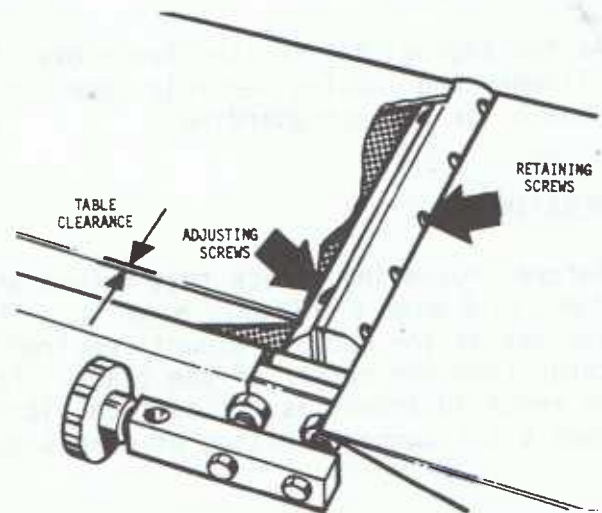


Fig.12.

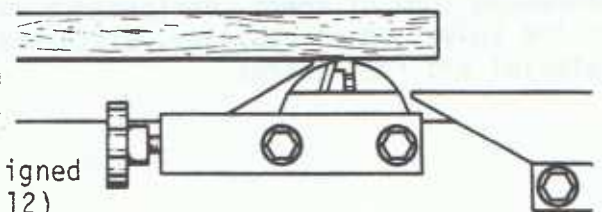


Fig.13.

OPERATING SURFACER.

SURFACING :

Examine material to ensure that it is perfectly clean and free from any embedded flint, nails etc. Otherwise this will have a serious effect on the knives. Only the minimum amount of cut to take out all the irregularities in the surface should be made. This amount can be set by rotating (to release) infeed table control (see Fig.14) and setting the amount of material to be removed against scale, finally rotating to lock table. Now that the material is ready to be machined, place material on infeed table and hold tightly against fence. Pass over cutterblock and onto outfeed table at the rate of 5 metres/16 feet per minute for best results. (See Fig.5 page 5 for correct guarding).

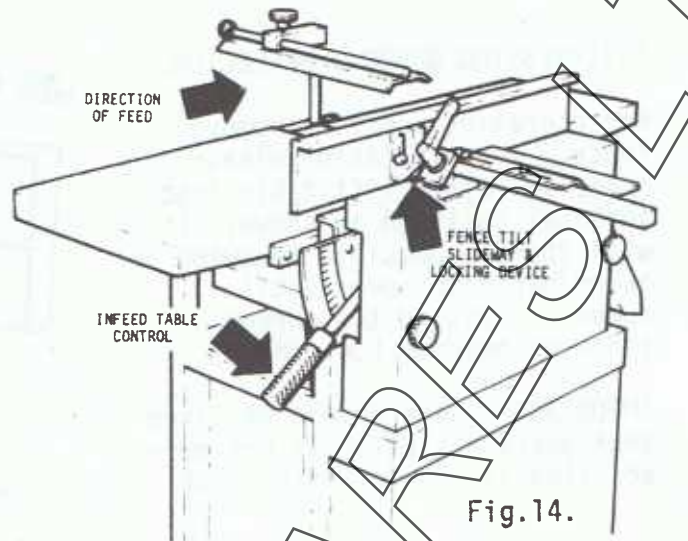


Fig.14.

EDGING/SQUARING :

Set fence at 90° to tables and lock securely. Proceed as for surfacing but ensuring that material surface is held firmly flat against fence prior to cutterblock. After passing cutterblock the material will seat squarely between fence and table. (See Fig.6 page 5 for correct guarding).

BEVELLING :

As for edging, but setting fence over to required angle by means of tilt slideway and locking securely (see Fig.14). (See Fig.7 page 5 and Fig.9 page 6 for correct guarding).

REBATING :

Before proceeding, check that knives are correctly set for this operation (see Fig.8 page 6 & Fig.12 page 7). The fence should be moved across table and set at the correct amount required for the width of rebate. This amount is taken from the corner of the blade. For the rebate depth lower infeed table to required amount as for surface planing and feed as for edging. (See Fig.8 page 6 for correct setting of guards and safety device.)

IMPORTANT : For all hand feed operations carried out above tables, NEVER feed faster than the cutterblock can accommodate. This will be noted by a decreased tone of speed. Performance will vary according to the condition of the knives, machinability, width and thickness of chip removal of material and feed speeds.

THICKENING.

Prepare machine for thickening as illustrated on page 7, fig.10. Check the thickness of material and set thickening table by rotating thickening height control (see Fig.15.) to the required amount, then lock in place using locking handknob. Should the amount of chip removal be greater than 4 mm, two or more passes must be made. To start the automatic feed, lift clutch control (see Fig.15), which will set the feed rollers in motion. Enter material into thickening aperture pushing forward until the feed rollers take over the power feed.

Long lengths of material must be supported, either by hand, roller or trestle, to eliminate overhand drag.

Should the feed have to be stopped during operation, or when finished with, lower feed clutch control.

To ensure smooth power feeding the thickening table must be kept polished at all times. A light waxing occasionally may also be required.

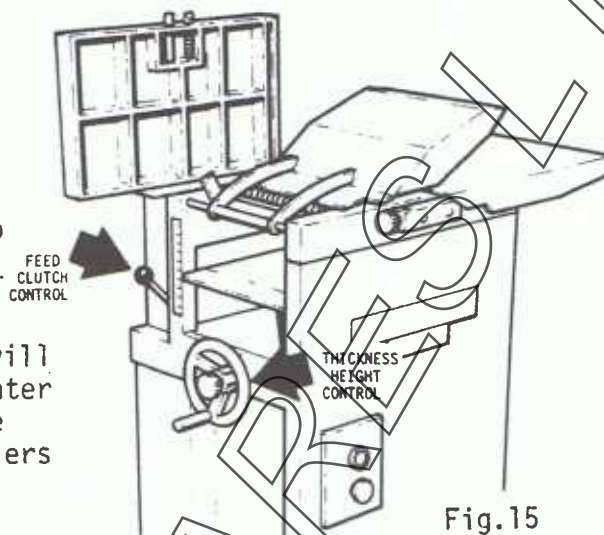


Fig.15

MAINTENANCE.

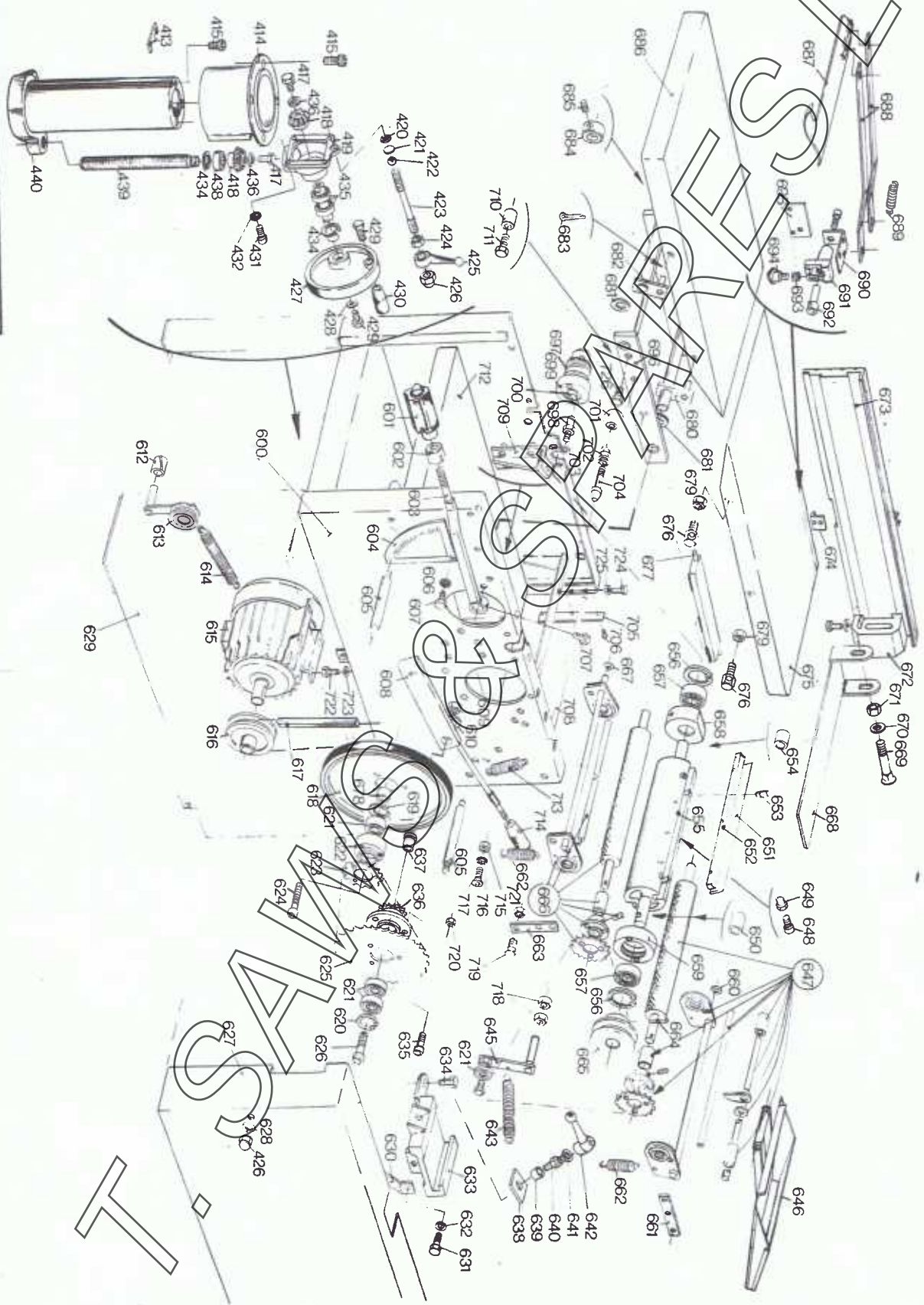
All bearings are of the sealed-for-life type and require no further lubrication.

Periodically, blow out with air all dust and chippings, wiping clean all moving parts and lightly oil with a cloth. Particular attention should be given to the table movements and driving chains which can be found on removing the drive gear cover. **IMPORTANT** : Isolate machine from mains supply before removing cover.

Both driving chains and drive belt are fitted with self-tensioning devices and require no further attention. The drive belt should be replaced when showing signs of wear or slipping during operation.

T.D

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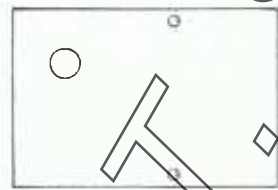


SANSA

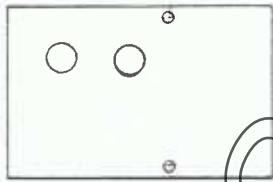
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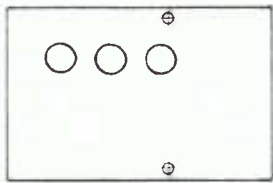
A.L.



501



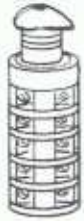
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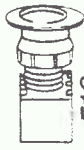
503



505



- 518 = T 1-2
- 519 = T 1-3-7
- 520 = T 1-4-5
- 521 = T 1-4 27225
- 522 = T 1-8 2704



516



515

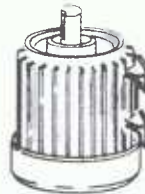


517



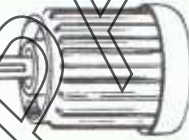
- 506 = 6 amp 220V
- 507 = 6 amp 380V
- 508 = 10 amp 220V
- 509 = 10 amp 380V
- 510 = 16 amp 220V

- 511 = 220 v
- 512 = 250 v
- 513 = 380 v
- 514 = 440 v



B3

- 523 = 220/380v 3000 t/m 2 pk
- 524 = 220/380v 3000 t/m 3 pk
- 525 = 220v1500 / 3000 t/m 2 pk
- 526 = 380v 1500 / 3000 t/m 2 pk
- 527 = 220v mono 3000 t/m 2 pk



- 528 = 220/380v 3000 t/m 2 pk
- 529 = 220/380v 3000 t/m 3 pk
- 530 = 220v 1500/3000 t/m 3 pk
- 531 = 380v 1500/3000 t/m 3 pk
- 532 = 220v mono 3000 t/m 2 pk



- 533 = 220 / 380 v 3000 t/m 2 pk
- 534 = 220 / 380 v 3000 t/m 3 pk
- 535 = 220 v mono 3000 t/m 2 pk

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