



# **DAA (16in, 24in)**

**COMBINED SURFACING AND  
THICKENING MACHINE**

## **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 CURRENT 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.**

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

**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**

## 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 reasonably 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 the Health and Safety Executive.

**Wadkin Leicester  
Green Lane Works  
Leicester. LE5 4PF  
England  
Telephone: 0116 2769111  
Fax: 0116 2598138**

This machine, under certain conditions, will emit noise levels in excess of 90dB(a).

Noise levels will be affected by the environment in which the machine operates, the timber being machined, tooling, machine setting and dust extraction.

Further information available from Wadkin (at the above address) on request".

"As a manufacturer it is Wadkin's policy to reduce the noise level as far as is practicable.

## **Instruction leaflet for surface planing and thickening machine DAA**

**DELIVERY:** Whether for export or destination within the United Kingdom these machines are in the main part, erected ready for use and all that is necessary is connection to the mains supply. On taking delivery of a new machine, it should be carefully examined for any damage it may have received during transit. In addition, the machine and its accessories should be checked against any Despatch or Advice Note. Remove the anti-rust compound which we apply on the bright parts of the machine before despatch.

**INSTALLATION:** Ensure that the machine is positioned on a flat and level base and that the base of the machine has contact with the foundation at all points. Where it is preferred that the machine should be bolted down, use a spirit level on the planer tables and pack the base or feet of the machine to bring it level before securing in position, with coach screws into a wood floor or rag bolts grouted in a concrete floor.

**GUARDS AND SAFETY DEVICES:** Machines incorporate safety design features, safety devices, guarding arrangements and are supplied with such information as to their safe operation and use, that we believe, so far as it is reasonably practicable, they are safe and in compliance with the legal requirements of Health and Safety at work etc. Act 1974.

The following guards and safety devices are supplied as standard with surface Planing and Thickening machines and they should be positioned on the machines before carrying out any operation. Adjustable Front Bridge Guard, Rear Planer Guard, Anti-kickback fingers, Rear Belt Guard, Detachable Thickening Hood Guard for thickening only.

When Rebating Shaw Type Guards are required which can be supplied as optional equipment.

**ELECTRICAL EQUIPMENT:** Surface Planing and Thickening Machines are fitted with totally enclosed motors to prevent dust entering. The motor will be wired to the control gear before despatch and isolator may also be wired on the machine if this has been ordered or if it has been supplied as standard equipment.

**WARNING:** ALWAYS MAKE SURE THAT THE CUTTERBLOCK IS STATIONARY AND THE ELECTRICAL EQUIPMENT IS ISOLATED FROM THE MAIN ELECTRICAL SUPPLY BEFORE MAKING ANY ADJUSTMENTS TO ANY PART OF THE MACHINE:

### **OPERATING THE MACHINE:**

**SURFACE PLANING:** Both surface planer tables have rise and fall movement and before planing, the back table should be set level with the cutters at the top of the cutting circle in the stationary cutterblock. The front table should be lowered to the depth of the cut required - normally no more than 4mm below the top of the cutting circle.

Position and secure the planer fence to suit the width of the timber to be machined



Set the Bridge Guard in position, making sure that the gap between the guard and fence and guard and timber does not exceed 10mm when 'flattening' and the gap between guard and timber and guard and table does not exceed 10mm when 'edging'.

When planing short wide sections of timber which do not allow the bridge guard to be adjusted as above, a suitable push-block fitted with good hand holds should be made and used by the operator.

**REBATING:** A shaw type guard must be used for this operation and is available as an extra.

Both the fence and the front planer should be set to the width and the depth of rebate required. The Shaw type guard should be secured to the back planer table and the pressure pads adjusted to hold the timber firmly in position over the cutterback and against the fence.

**CHAMFERING:** Position the front planer table to the depth of the cut required and cant the fence to the desired angle of the chamfer. Set either the bridge guard or the shaw type moulding guard - fitted with a beveled pressure pad - into position before starting the operation.

**THICKNESSING:** To ensure efficient operation, the machine should be kept as clean as possible, with special attention given to the fluted and plain feed rollers and to the thicknesser table rollers. In the case of the larger machines, the tables have draw-back motion and the back table should be drawn back when thicknessing. (This is the table at the feeding in end of the machine when thicknessing). This gives added clearance for the shavings, chips and possible knots which could damage the table. Machines are fitted with steel lips at the leading edge of each table in order that in the event of damage these can be replaced without having to replace the complete table. The planer fence should be set clear at the back edge of the planer tables and thicknessing hood guard secured in position on the machine.

The feed speed is determined through a gear box which in turn drives the feed rollers through an endless chain. The chains require tensioning periodically, adjustment being made through the moveable chain bracket. It is not advisable you run the chain tight and if fitted correctly should have approximately 6mm play to allow the chain wheels to lift when a piece of timber is being fed through the thicknesser. The chains require oiling from time to time. Both feed rollers and pressure bars are spring tensioned, easily adjustable but always preset before despatch from our works. The thicknesser table rollers have vertical adjustment through the small hand wheel located at the in-feed end of the table. These should always be set proud of the surface of the table, the amount being dependant on the type of timber being machined.

## MAINTENANCE

**PLANER KNIFE SETTING:** In order that any thicknesser can function properly the cutters must be set correctly in the cutterblock. This is a simple task on all machines which are supplied with knife setting pieces. After sharpening or when fitting new cutters, push these into the block and secure only lightly. Screw down the knife setting pieces. At this stage the cutters can be fastened securely, the knife setting pieces removed and the operation repeated for the remaining cutters.

**RE-SETTING THE THICKNESSER:** If difficulty is experienced in power feeding timber through the thicknesser, first check that the rollers are clean and free from resin and that the cutters have been set in the block correctly. If these are in order and assuming that the chain drive and feed rollers are set and working properly, then consider the thicknesser table:-

First take hold of the cast iron arms attached to the thicknesser table which carry the extension rollers and check for any free movement in the table slides. To correct any movement in these slides adjust the three screws on either side of the table which act on the making-up strips. The table should be raised or lowered freely with the hand wheel without any free movement in the slides.

To adjust the thicknesser table for parallelism to the cutterblock, first release the two hexagon head screws fixing the angle brackets carrying the cast iron table-raising screw nuts. Vertical adjustment can then be made through the hexagon head screw located in the angle bracket and acting on the planer side. The screws fixing the angle brackets should then be tightened.

**DRIVE:** The drive to the cutter block is either through a flat nylon belt in the case of the smaller machines or through vee belts on the larger machines. Adjustment is made by tilting the motor on the hinged bracket. This will give simultaneous adjustment to the feed belt on the smaller machines but where a brammer belt is used, tension can be maintained by the removal of one or more links. The thicknesser table is raised or lowered by hand wheel showing the thickness of the timber being machined.

**LUBRICATION:** Only simple maintenance is necessary, the main factor being that the machine should always be kept as clean as possible. The machine, which has been run and tested in our works before despatch, is sent out with grease in the ball bearings and oil in the gear box. It is suggested that the machine should be put to work before any additional grease or oil is added.

The amount of oiling and greasing required will depend on the amount the machine is used. But a check should be made on the housings of the cutterblock from time to time to ensure that they are not running hot. Regular attention to greasing and oiling should be given but it must be remembered that too much grease can cause overheating. Fluted and plain roller housings, being plain bearings, require grease more often. The level of oil in the gear box should be checked at say monthly intervals and topped up if necessary.

Recommended Grease: Castrol Spheerol 'S'  
Recommended oil for Gear Box: B.P.Energol EM150.



## 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.