

# Wood Turning Lathe (B.Z.L.)

(British Standard Classification No. 12.61)



**Wadkin**  
**BURSGREEN**



# Wood Turning Lathe B.Z.L.

This Bursgreen lathe is the ideal machine for colleges, schools, evening institutes, handicraft centres, and all similar educational establishments. It has also proved a useful machine for the profitable manufacture of a wide range of turned wood products, and for use in pattern or model shops for the smaller classes of work.

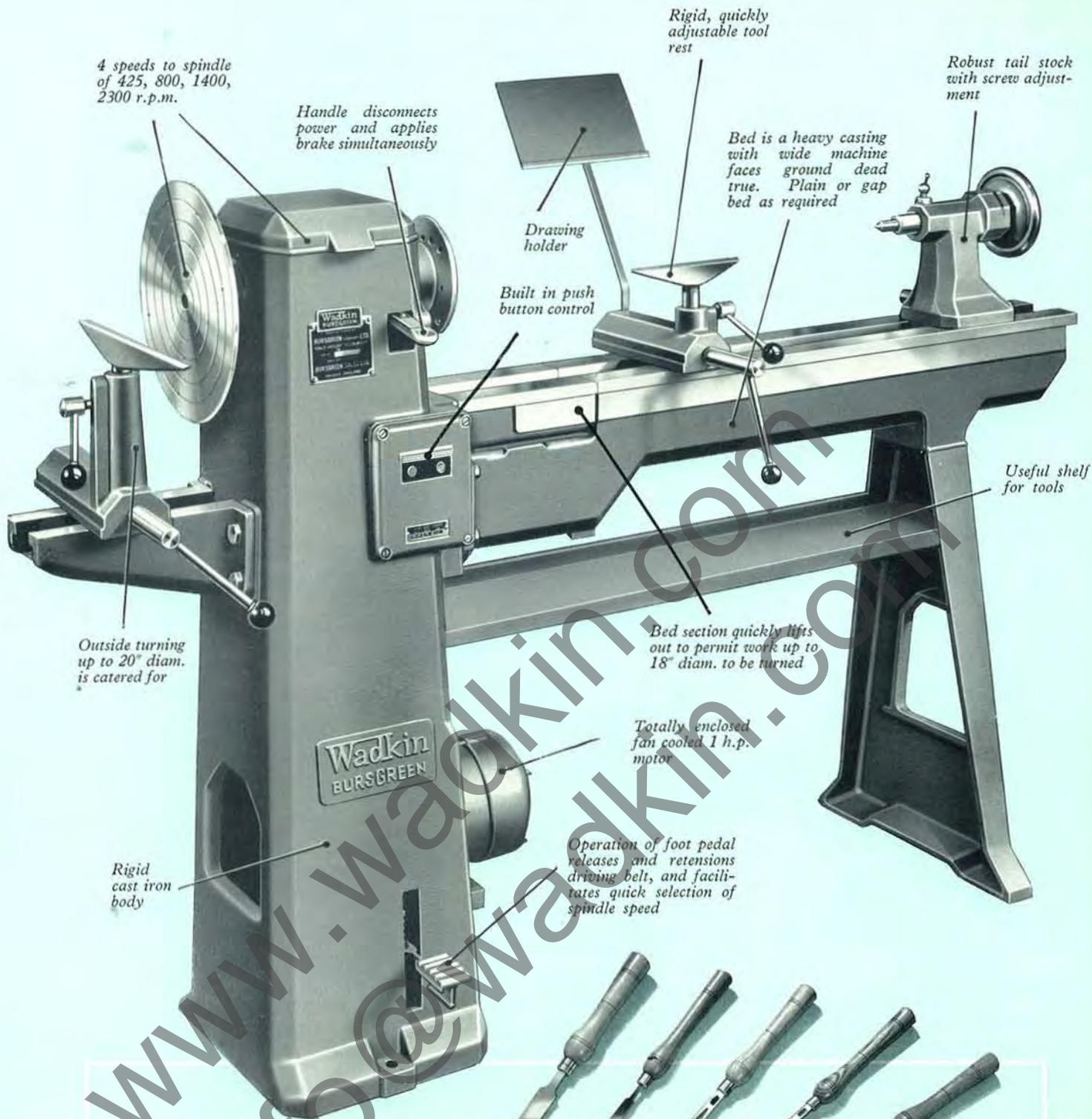
It is very sturdily built for maximum rigidity, and is engineered for accuracy and to give continuous trouble free running with the minimum of attention. The gap bed and the outside face plate give it an exceptionally large scope of working and make it capable of a wide variety of work of a high standard.

Every possible safety feature has been incorporated to make the machine suitable for youthful operators. All adjustments, locks, etc., have been designed for ease and convenience of operation and to make the use of the machine simple and foolproof.

Being an entirely self-contained, electric driven unit, the machine presents no difficulties in installing.



The vibrationless running of the headstock allied with good engineering throughout enables every class of work to be done on a Bursgreen lathe with speed, accuracy and perfect finish.



4 speeds to spindle of 425, 800, 1400, 2300 r.p.m.

Handle disconnects power and applies brake simultaneously

Rigid, quickly adjustable tool rest

Robust tail stock with screw adjustment

Bed is a heavy casting with wide machine faces ground dead true. Plain or gap bed as required

Drawing holder

Built in push button control

Useful shelf for tools

Outside turning up to 20" diam. is catered for

Bed section quickly lifts out to permit work up to 18" diam. to be turned

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Totally enclosed fan cooled 1 h.p. motor

Rigid cast iron body

Operation of foot pedal releases and retensions driving belt, and facilitates quick selection of spindle speed

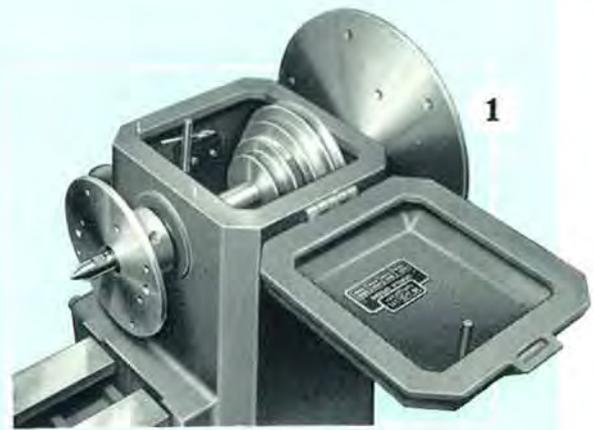
Included with the machine is a 6½" face plate, driving and dead centres and spanners as shown below.

A complete set of chisels, gouges and parting off tools as illustrated can be supplied to order.



1

**The Headstock** embodies a vee belt drive from motor in the base. Access to the 4 speed pulley on the main spindle is through the hinged lid of the headstock. A safety switch automatically operated when the brake is applied or the lid is raised, cuts off the power to the motor which cannot be restarted until the lid is closed. 4 speeds of 425, 800, 1,400 and 2,300 r.p.m. are provided.



2

**Main spindle** is powerful and rigid, made of high tensile steel and is mounted on sealed for life ball bearings requiring no lubrication, with provision for taking end thrust both ways. It is screwed both ends for faceplates and bored out at the front end No. 2 morse taper for the driving centres. Cone pulley providing 4 speeds is keyed to the spindle.



3

**Tailstock** has quick adjustment along the bed with powerful lever lock. It is bored out for a steel poppet which is controlled by handwheel and screw. Poppet is bored morse taper same size as headstock.



4

**Drive** is by vee belt from 1 h.p. totally enclosed fan cooled motor carried on hinged bracket inside headstock. Foot lever disengages the tension on the belt for speed changing.



# Accessories for use on Wood Turning Lathes

## Conical Centres



These are supplied in pairs, one for the driving headstock, and one for the tailstock. They are of tempered steel and accurately ground with No. 2 Morse taper shanks.

## Four Spur Driving Centres



These are made with four spurs and centre point. They are of tempered steel and accurately ground with No. 2 Morse taper shanks. Sizes :  $\frac{3}{4}$ ",  $1\frac{1}{8}$ ",  $1\frac{1}{2}$ ".

## Cup Centres



These are similar to those above with the exception that they are circular in shape. Sizes :  $\frac{1}{2}$ ",  $\frac{3}{4}$ ".

## Bowl Turning Rest



For turning inside diameters, the normal tool rest can be replaced by this special bowl turning rest to give increased support and safety.

## Screw Point Driving Plate



The advantage of it will be quickly seen where it is necessary to turn small pieces which cannot be held between the conical centres. The centre of the plate is drilled to take an ordinary wood screw, which is operated through a hole in shank, while additional holes are drilled in the plate for securing the work. It is provided with a No. 2 Morse taper shank to fit into the driving headstock. Two sizes are available with driving plate diameters of  $2\frac{1}{4}$ " and  $3\frac{1}{4}$ ".

## Revolving Centre, Model DB



It is sometimes found that the ordinary type of fixed centre in the tailstock gives trouble. To meet that difficulty we illustrate above a special type of work carrier arranged with a "live" or "revolving" centre. The centre spindle is mounted on ball bearings which are arranged to take the thrust load. The shank is accurately ground to fit the tailstock spindle. Morse taper : 2. Diameter of body :  $1\frac{13}{16}$ ". Length overall :  $5\frac{3}{16}$ ".

## Screw Point Chuck



This chuck is for rapidly centring small work, which is held by the taper screw. The further the work is screwed in the tighter it is held. The chuck is screwed internally to fit the headstock spindle. Two sizes 3" and 4" diameter.

## Three or Four Jaw Chucks



Where aluminium or similar light non-ferrous parts are to be handled this chuck is provided. It is suitable also for holding such articles as wood bowls, etc.

A 4" or 6" three jaw self-centring geared scroll chuck, as illustrated, can be supplied. Alternatively 4" or 6" chucks with four independent jaws can be supplied.

## Face Plates

These are machined all over and accurately balanced. A number of holes are drilled in the face for securing the work by means of wood screws.

Diameter for inside turning : 3", 4", 6½" and 12".

Diameter for outside turning : 3", 4", 6" and 12".

## Hollow or Bell Chuck



This is very useful as a quick acting chuck. It is bored with a taper hole to hold the work firmly and is screwed internally to fit the headstock spindle. The sizes given indicate the diameter of the hole to receive the work. 1", 1½", 2", 2½".

## Deep Hole Boring Equipment



This consists of a pillar for fitting into the hand rest base. It carries a cup type centre bored out to permit the auger to be inserted into the job. ⅝" auger will bore to 24" deep, and a 7/16" auger will bore to 30" deep. The auger may also be used through a centre in the tailstock.

## SPECIFICATION

Height of centres *	6"	155 mm.
Will take between centres	36"	915 mm.
Height from floor to centres	40"	1015 mm.
Diameter turned with gap bed	18"	460 mm.
Width turned with gap bed	8½"	215 mm.
Diameter turned over hand rest	8½"	215 mm.
Speed of spindles (50 cycles)	425, 800, 1400, 2300,	r.p.m.
(60 cycles)	500, 950, 1600, 2700,	r.p.m.
Horse power of motor (3 phase)	1	
(1 phase)	¾	
Speed of motor (50 cycles)	1500 r.p.m.	
(60 cycles)	1800 r.p.m.	
Floor space	72" x 21"	1830 mm. x 530 mm.
Net weight	620 lb.	282 kg.
Gross weight	780 lb.	350 kg.
Shipping dimensions	42 cu. ft.	1.2 m <sup>3</sup> .

\* Note, machine will swing a maximum of 12½" (317mm.) over bed between centres

## DETAILS INCLUDED WITH THE MACHINE

6½" Face plate, hand rest, two dead centres, one 1½" four-spur driving centre, set of spanners.

Telephone : Leicester 68151 (7 lines).

Telegrams : } Woodworker, Leicester, Telex.  
Cables : }

Telex : 34646 (Wadkin, Leicester).

and at York House, Empire Way, Wembley, Middx.  
Telex : 262210 Telephone: 01-902 7714 (3 lines)

## SALES & SERVICE

# Wadkin Ltd.

Green Lane Works, Leicester

BURSGREEN machines are manufactured by :  
BURSGREEN (DURHAM) LTD., Fence Houses,  
Houghton-le-Spring, Co. Durham.  
BURSGREEN (COLNE) LTD., Lodge Holme,  
Trawden, Nr. Colne, Lancs.