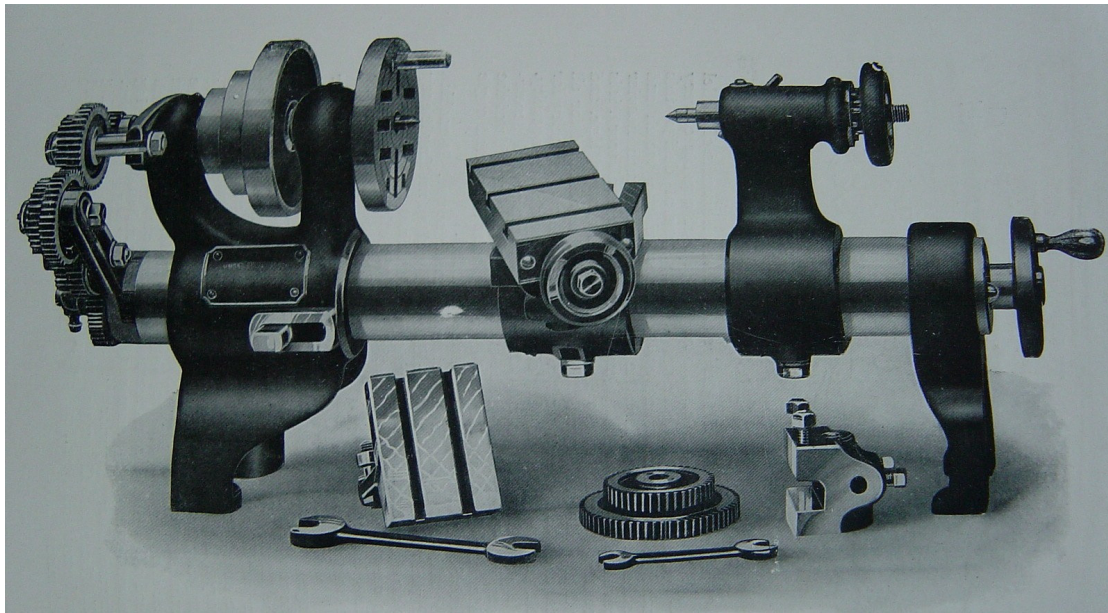


## The DRUMMOND 4-in. Model Makers' Lathe

Drummond designed this lathe to meet the wants of Model Makers and others who required a tool capable of very varied and accurate work. In general design this lathe follows somewhat on the lines of the watch and clockmaker's precision lathe type, but is of much heavier construction. Being designed primarily for small work, it is not back-gearled, but the speed cone is of unusual size, and with a good flat belt sufficient power can be obtained for all general model work.



The lathe is of fine workmanship throughout, and of great weight for its size. The ground cast iron bed is of hollow circular form, and completely encloses the leadscrew thus protecting it from dirt and swarf. The ground steel mandrel is of 1-inch diameter and runs in adjustable bearings. Headstock and tailstock both carry No. 1 Morse tapers. For turning long slightly tapered work, the tailstock has a set-over adjustment, and is fitted with a steel barrel and polished handwheel.

The saddle is formed as a machined and T-slotted boring table for large boring work, and carries the slide rest, which is similarly slotted and may also be used as a boring table. The topslide may be set to any angle, and has a graduated base. It may be removed by merely slackening its locking screw and lifting clear, thus leaving the saddle clear for boring or milling. The tool holder is self-contained, and no clamping strains are thrown on the central bolt. A hole is provided for holding boring tools in the holder. Height adjustment of the cutting tool is conveniently achieved by rotating the whole saddle around the bed.

The height adjustment capability is a particularly nice feature of this lathe. The saddle may be partially rotated around the bed, and locked at any angle without disturbing the provision for sliding. Swinging the saddle round the bed has the effect of raising or lowering the slotted work tables in relation to the lathe centres. A slotted angle plate, as shown in the illustration above, was originally supplied with these lathes for fitting to the cross slide.

A set of eleven change wheels was included which will cut the following threads per inch: 5,6,7,8,9,10,11,12,13,14,16,18,20,24,26,28,32,36,40, these being mainly commonly used Whitworth pitches. Metric threads from 0.5 to 2.5 mm pitch may also

be cut, in addition to a large number of odd and fine threads, and sliding speeds down to 200 per inch. A stud on which may be arranged a reversing gear is carried by a slotted bracket cast integral with the headstock, and thus all threads may be cut either right or left-handed.

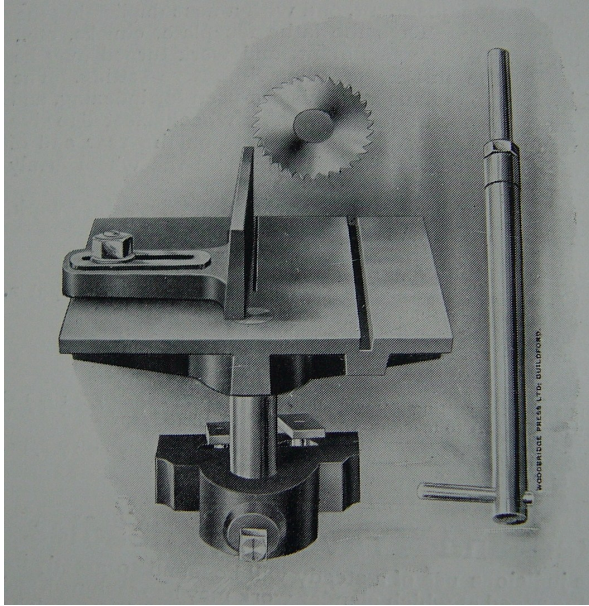
The Drummond 4" was also offered with an extra long bed, one foot longer than the standard model.

#### DIMENSIONS OF STANDARD LENGTH MODEL

Length over all	...	...	...	2 ft. 11 ins.
Approximate weight	...	...	...	105 lb.
Length of bed	...	...	...	2 ft. 4 ins.
Diameter of bed	...	...	...	3 ins.
Height of centres	...	...	...	4 ins.
Diameter of admitted over bed	...	...	...	8 ins.
Diameter of work over saddle	...	...	...	6 ins.
Length between centres	...	...	...	11 ¼ ins.
Pitch of leadscrew	...	...	...	10 tpi
Diameter of mandrel nose	...	...	...	¾ in.
Thread on nose, standard Whitworth	...	...	...	10 tpi
Size of centre hole	...	...	...	No. 1 Morse Taper
Diameter of speed cone	...	...	...	6 ins., 4 ½ ins., 3 ½ ins.
Diameter of flywheel rim	...	...	...	21 ins.
Diameter of steps on flywheel	...	...	...	16 ins., 14 ¾ ins., 13 ½ ins.
Weight of flywheel	...	...	...	100 lb.
Breadth of belt	...	...	...	1 in.
Dimensions of work-surface of milling table	...	...	...	4 ins. by 6 ins.
Dimensions of sliding milling table	...	...	...	7 ¼ ins. by 3 ⅝ ins.
Speed countershaft should run	...	...	...	250 rpm

#### ACCESSORIES

A number of accessories were offered for the Drummond 4-in., perhaps the most useful of which is the Milling and Gear-cutting Attachment. This attachment was claimed to be the only milling attachment suitable in every way for the Drummond 4-in. Lathe, but was a hefty £7: 5: 6 when the basic lathe cost £11: 0: 0.



Circular saw table with adjustable fence

Diameter of saw, 3 ½ ins.  
Diameter of bore, ½ ins.