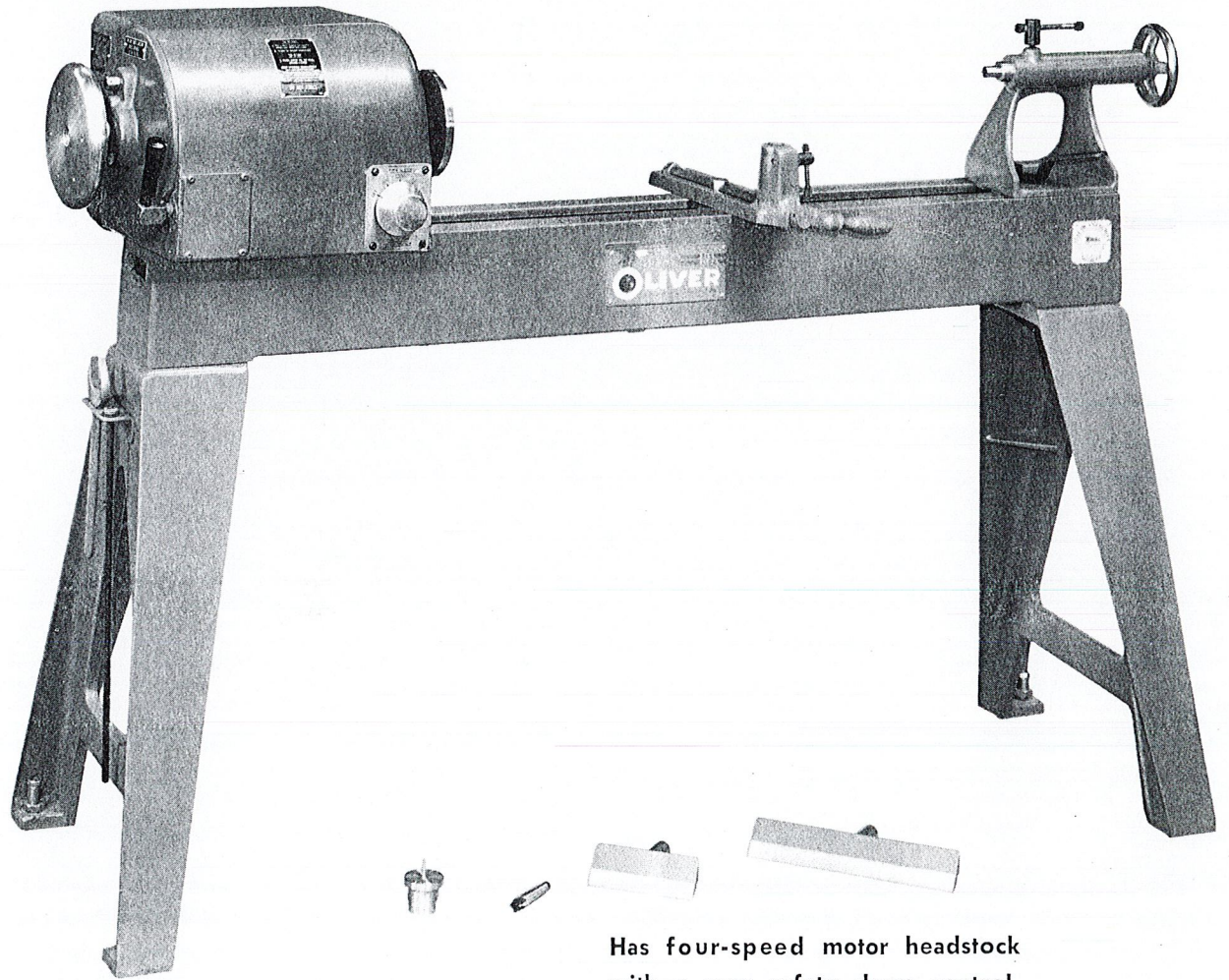


No. 51 SPEED LATHE



Has four-speed motor headstock
with a new safety drum control.

OLIVER

OLIVER MACHINERY COMPANY, GRAND RAPIDS, MICH. 49502

THIS LATHE HAS FOUR-SPEED HEADSTOCK . . . BED

The Oliver No. 51-D unit type Motor Headstock Lathe is the latest, most efficient and reliable Speed Lathe built. At the same time it is simple and safe to operate. It has ample power and flexibility for all work within its capacity. This low-cost Lathe has many features found in Oliver's larger lathes.

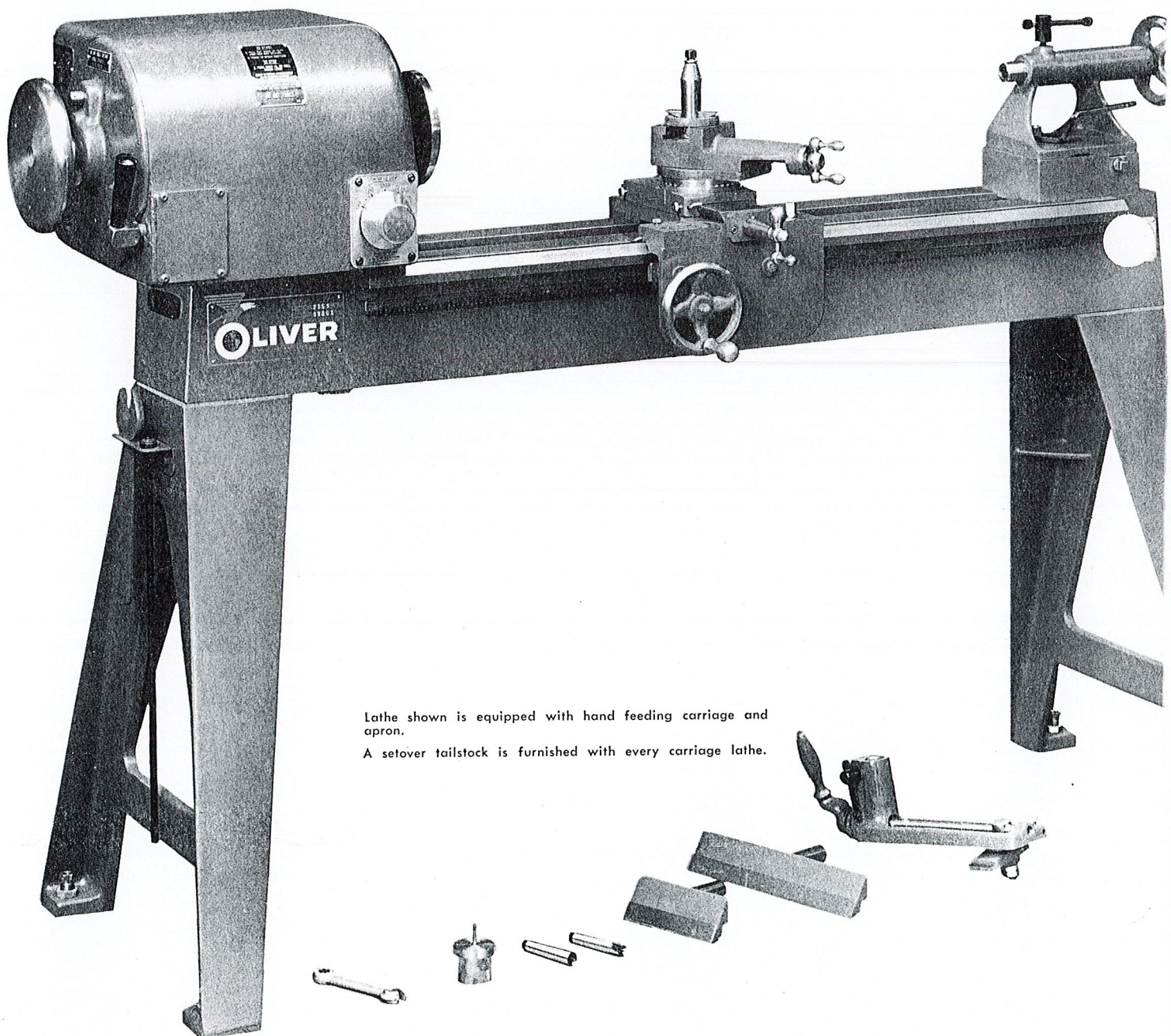
FOUR-SPEED MOTOR WITH BUILT-IN CONTROL

The motor headstock of this Lathe is a $\frac{3}{4}$ h.p., 600, 1200, 1800 and 3600 r.p.m. constant horsepower, ball bearing unit type. It has all motor control devices, including overload and low voltage protection, built into

the motor housing. The maximum height of the headstock above the bed is 12 inches. The control station is conveniently located at the front right hand corner.

NEW SINGLE DIAL CONTROL

The complete motor control is built into a single hand dial. Pulling the dial when in off position closes the magnetic contactor which is then ready to supply the protected current to the motor. Turning the dial to the desired speed will start the motor. If the dial is turned to a higher speed than desired it can not be turned back



Lathe shown is equipped with hand feeding carriage and apron.
A setover tailstock is furnished with every carriage lathe.

4' TO 8' LONG

to a slower speed without pushing the dial which automatically opens the magnetic contactor, thus preventing a plugging of the motor. A hand brake is provided to shut off the current automatically when the brake is actuated. All these features provide efficient, trouble-free operation, and maximum safety for the operator.

MOTOR PROTECTION

The four-speed motor has low voltage and overload protection. A magnetic contactor is built into the headstock casting, and is readily accessible by removing the rear housing cover. Four sets of overload relays of the latest automatic reset design are also built into the headstock. These devices give full motor protection at each of the four speeds. Without individual overloads for multi-speed motors it is impossible to protect them against burn-outs and consequent costly repairs.

SPINDLE

The spindle is made of steel 1½ inches diameter and has a ⅝-inch hole its entire length to facilitate the removal of centers. The front end is threaded for face plates, and bored to receive No. 2 Morse Taper Shanks. The rear end carries an Oliver patented combined handwheel and face plate for use as a rear end face plate, and for turning the spindle by hand when making adjustments. A plunger-type positive lock, when pressed in, engages a disk keyed on the spindle inside of the motor. This gives an easy yet positive method of locking the spindle for removal or tightening of face plates.

THE BED

The bed is a cored casting 6 inches deep, 6½ inches wide, and regularly 48 inches long. Can also be furnished with bed up to 8 feet long. The top of the bed is planed and ground flat. The inside edges are machined, and serve as ways for the alignment of head and tailstock. When furnished with a hand feeding carriage, the V-way is cast on the front of the bed.

TAILSTOCK

The tailstock is of the open side design — 7 inches long, 6 inches wide. It is secured to the bed by a positive lever clamp. The machine ground steel spindle is 1¼ inches diameter, 8 inches long, bored for No. 2 Morse Taper, and is held in position by lever clamp. The tail

center is removed by backing up the screw. On lathes with carriage the tailstock is furnished with a setover device for taper work. The spindle has a traverse of 4 inches, and on lathes with carriage a setover of 1 inch.

TOOL CARRIAGE

The hand feed tool carriage with cross feed and compound swivel rest can be furnished with bed 5 to 8 feet long. The apron has a bearing of 10 inches on the bed, and a travel of 37 inches on a bed 60 inches long. It is freely operated in either direction by a cut steel rack and pinion actuated by a handwheel. The traverse of the cross feed is 5½ inches.

COMPOUND SWIVEL TOOL REST

The compound rest carries the slotted tool post, and has a traverse of 3½ inches. Its socket base is graduated and swivels on the cross slide. This mechanism enables the operator to remove the compound rest and substitute a socket to receive the hand tool rest so hand turning can be done without having to remove the carriage. The tool post slot is 2 inches high, 19/32 inch wide.

CARRIAGE GRADUATIONS

On lathes having tool carriage, the top of the bed and the guide of the cross slide are graduated by sixteenths. The end of the carriage, as well as the ends of the cross slide, are provided with little pointers adjustable to any work. The operator can turn work to a definite length or depth without fitting and trying.

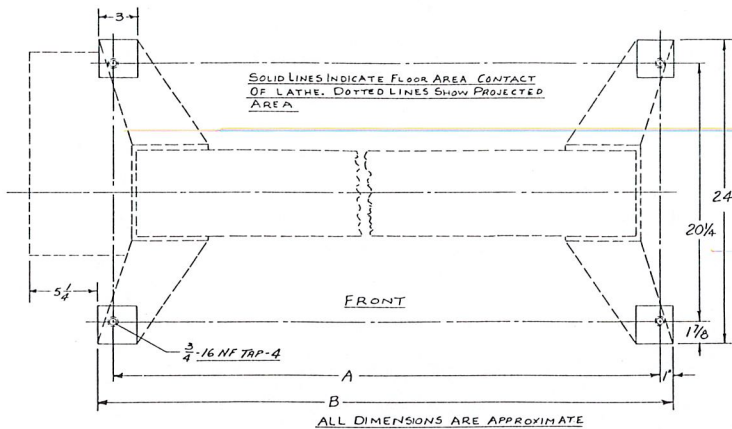
CAPACITY

The lathe will swing 12 inches diameter over the bed, and 9½ inches over the carriage. It will turn 24 inches long between centers on a 48-inch bed, or 36 inches on a 60-inch bed.

EQUIPMENT

Lathe comes equipped with one ¾-inch spur center, one ¾-inch cup center, one screw chuck 2¼ inches, one face plate 6 inches, one each 6-inch and 12-inch hand tool rest, one complete rest holder and one combined rear end handwheel and face plate, built-in positive spindle lock, knock-out rod, and face plate wrench.

FLOOR PLAN



ALL DIMENSIONS ARE APPROXIMATE

BED LENGTH	A	B
4 Ft.	51 1/4"	53 3/4"
5 Ft.	63 1/4"	65 1/4"
6 Ft.	75 1/4"	77 1/4"
7 Ft.	87 1/4"	89 1/4"
8 Ft.	99 1/4"	101 1/4"

SPECIFICATIONS

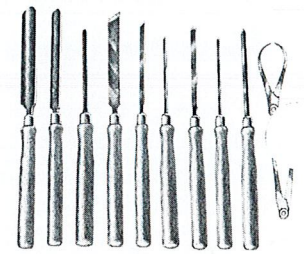
Capacities 12" diameter swing over bed. 9 1/2" over carriage. 24" between centers with 4' bed. 36" between centers with 5' bed. 48" between centers with 6' bed.

Headstock 4 speeds — 600, 1200, 1800, 3600 r.p.m. 3/4 h.p. constant horsepower. Built-in drum control. Overload and low voltage protection on all speeds.

Spindle 1 1/8" diameter at both ends. No. 2 Morse Taper bore at front end. 5/8" hole through spindle for removing centers. Spindle lock for removing or tightening face plates. Threaded at both ends for mounting face plates.

Bed 6" deep, 6 1/2" wide, cored casting. 36" from top of bed to floor.

Tailstock 7" long, 6" wide, open side design. Spindle 8" long, 1 1/4" diameter. No. 2 Morse Taper bore. 4" spindle travel.



Group "A" Woodturning Tools, recommended for educational institutions.

No. 256-A — Floor Stand.



No. 2 — 3/4" Cone Center



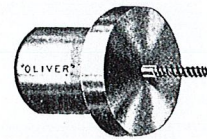
No. 2 — Cup Center
Sizes 1/2", 3/4", std., 1", 1 1/4", 1 1/2"



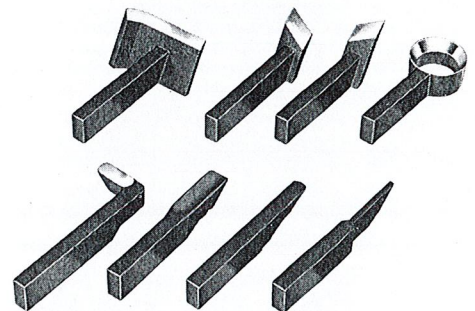
No. 2 — Spur Center
Sizes 1/2", 3/4" std., 1", 1 1/4", 1 1/2", 2"



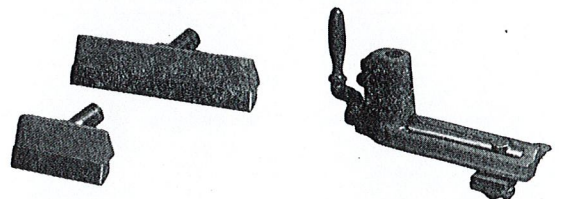
No. 266 Sizing Tool 4" Capacity. Complete with 1/2" parting tool.



2 1/4" Screw Chuck. 3" also available.



Group D — Tool Post Tools for use in tool post of carriage of wood lathe. Shank 1/2" x 1".



6" and 12" Tool Rests. 18" rest also available.

No. 25 Standard eccentric tool rest holder assembly.