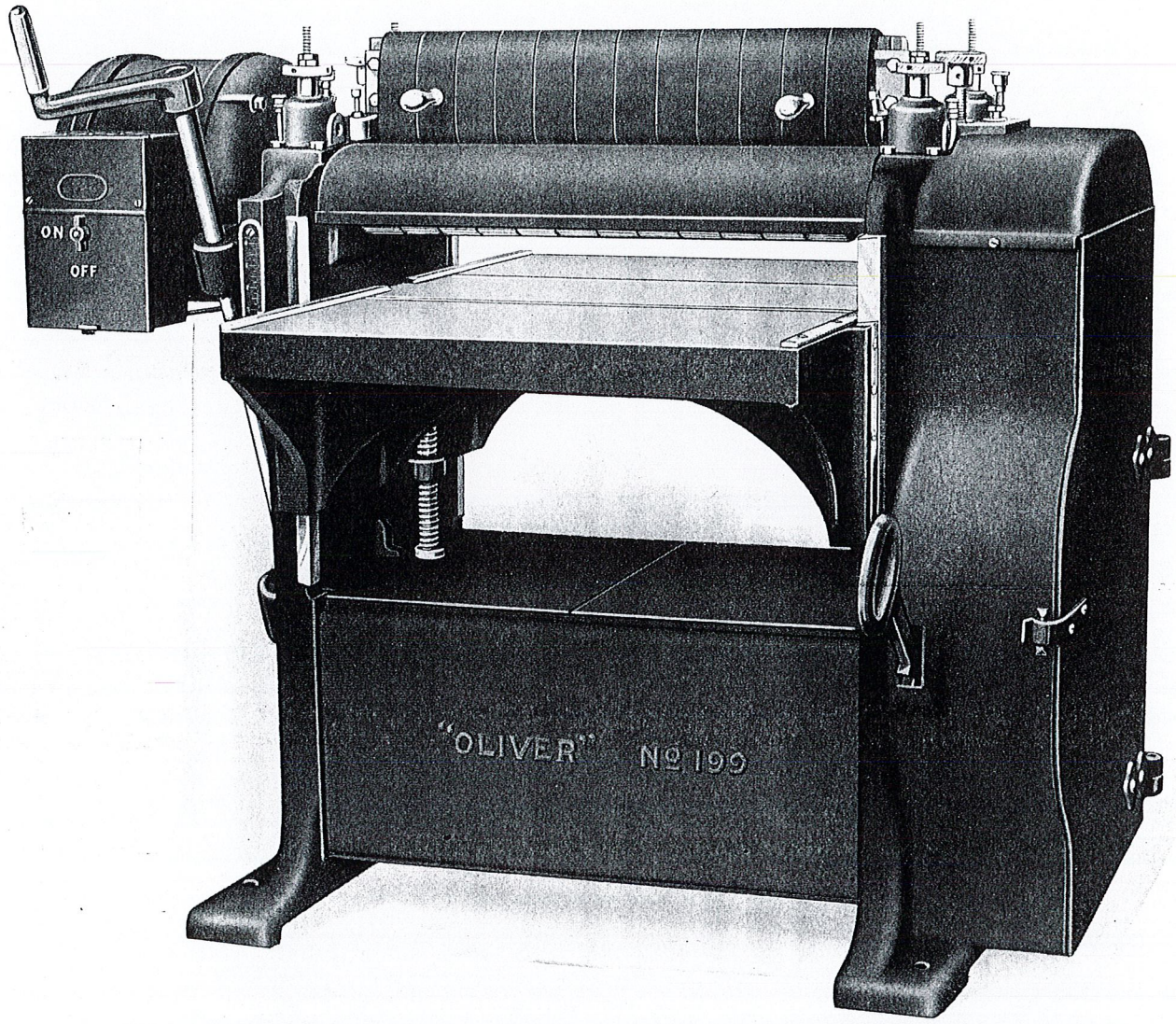
"Every User Is a Booster"

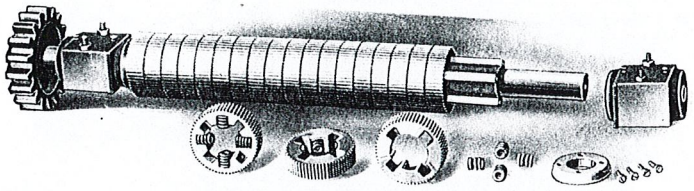
"Oliver" No. 199
Single Surface Planer

24 Inches by 7 Inches

Either Belt or Motor Driven



"OLIVER" No. 199 SINGLE SURFACE PLANER
Front View of Motor-On-Head Machine Fitted with Sectional Infeed Roll, Sectional Chipbreaker, Knife Setting, Jointing and Grinding Attachments.



SECTIONAL UPPER IN-FEED ROLL
Note the Positive Drive and the Fool-Proof Construction.

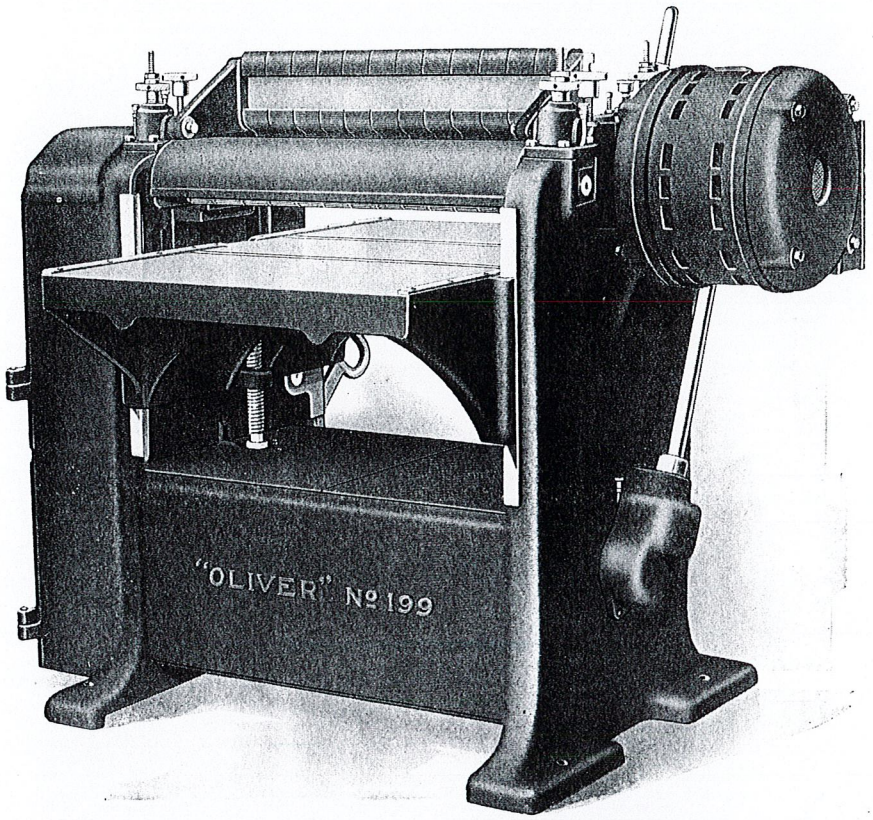
Manufactured by

Oliver Machinery Co.

Grand Rapids, Mich., U. S. A.

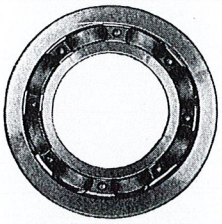
BRANCH SALES OFFICES:
New York, St. Louis, Minneapolis, Los Angeles, San Francisco, Chicago, Denver, Salt Lake City, Seattle, Manchester, Eng.

NO. 199 "OLIVER" SINGLE SURFACE PLANER 24" x 7"

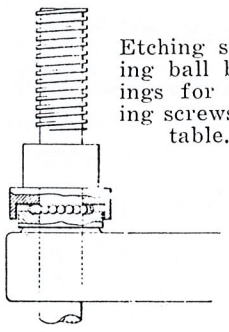


No. 199 "OLIVER" SINGLE SURFACE PLANER
Rear View of Motor-on-Head Self-Contained Machine.

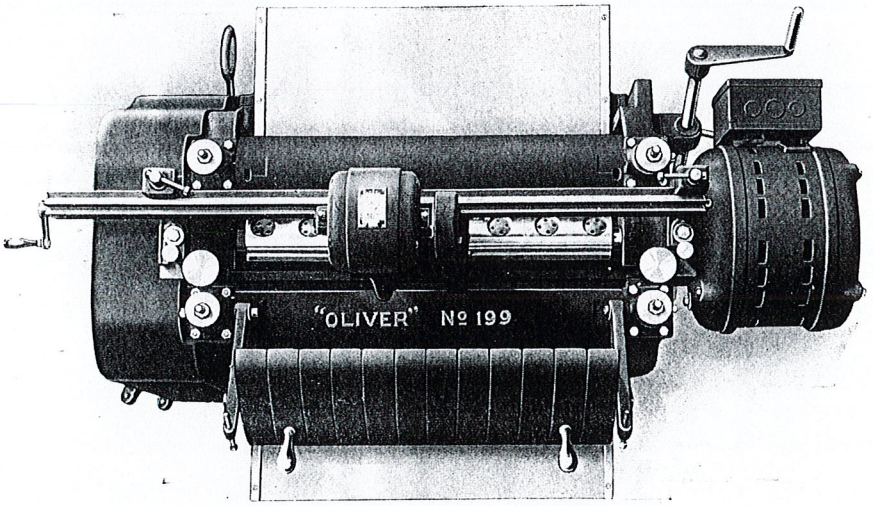
Powerful
Accurate
Dependable
Durable
Safe



Ball Bearings of the highest grade are used for the bearings of this machine. Less friction — More Power for the work.



Etching showing ball bearings for raising screws for table.



TOP VIEW OF "OLIVER" No. 199 SINGLE SURFACE PLANER
With the Sectional Chipbreaker swung back out of the way and the Motor Knife Grinder in place ready to grind.

NO. 199 "OLIVER" SINGLE SURFACE PLANER 24" x 7"

Capacity

Will surface up to 24 inches wide and to 7 inches thick at the rate of 35 or 18 feet per minute, producing a perfect, smooth surface. Pieces as short as 3 inches when feeding one after another, and as short as 10½ inches when feeding one at a time, may be surfaced without dubbing the ends. Sectional infeed roll and sectional chipbreaker are regularly furnished so that up to twelve narrow strips of varying thicknesses can be surfaced simultaneously, increasing the capacity of this surfacer manyfold.

Frame

Is made of cast iron sides and ribbed girts, nicely machined, jointed and bolted. Ample material and flanges at the base eliminate vibration, also provide rigid floor supports.

Bed

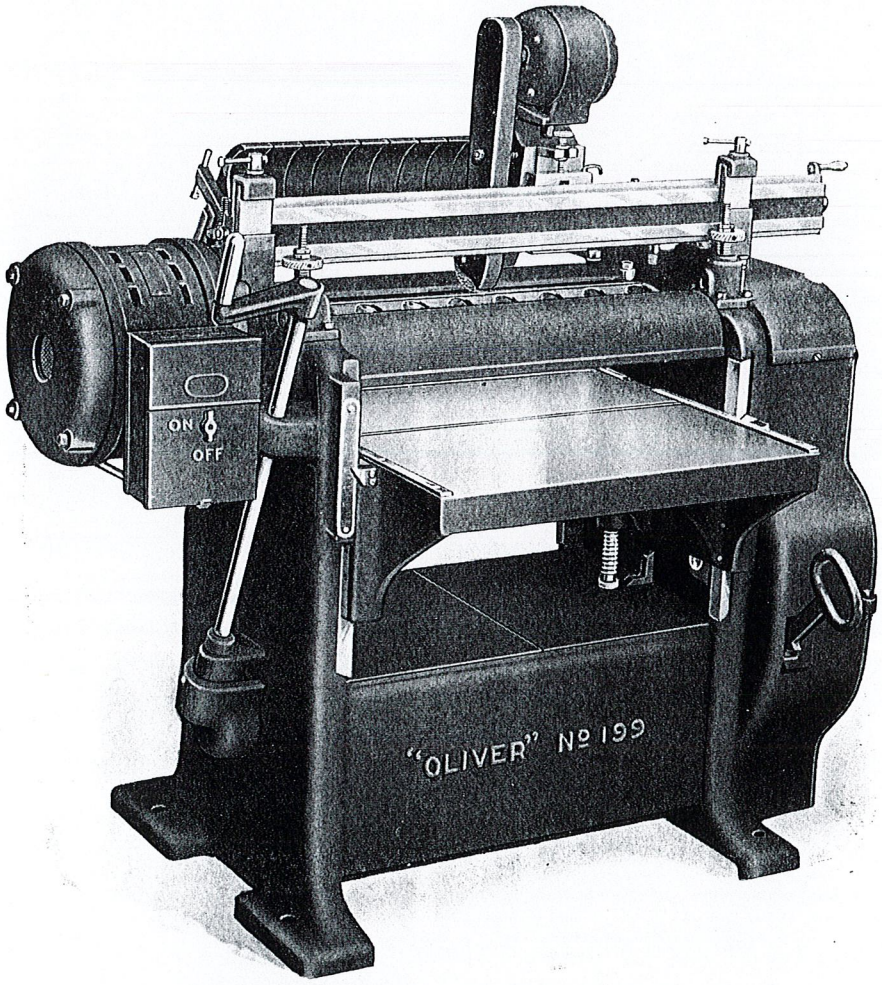
Is very heavy, cast in one piece, 36 inches long, 24¼ inches wide. Fitted to main frame by means of four bearings 10 inches long, arranged with dovetailed gibs for taking up any wear. Bed is supported by two screws of large diameter, which rest on dust-proof, frictionless ball bearings. Raising screws easily operated by means of enclosed bevel gears and crank conveniently placed.

Bearings

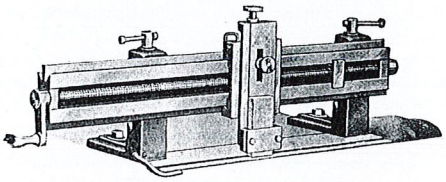
Oversize frictionless double row Ball Bearings of the highest type are used with lubricating chambers fed by large pressure cups, thus less friction and greater efficiency are assured.

Cylinder

Made of forged crucible steel accurately ground and balanced. It is three knife circular type fitted with three thin high speed knives and three hardened steel chipbreakers. Produces much finer grade of work than the ordinary heads. Cutting diameter is 3⅝ inches; bearing ends are 2 inches diameter; speed is 3600 r.p.m., giving more than ten thousand cuts per minute; pulley 4 inches diameter, 4½-inch face. For quickly and accurately setting the knives—a knife setting block and knife puller are regularly supplied.



FRONT VIEW OF "OLIVER" No. 199 SINGLE SURFACER
With the Sectional Chipbreaker swung back out of the way and the Motor Knife Grinder in place ready to grind.



Knife Jointing Attachment in Use.

With each Surfacer we regularly furnish an "Oliver" Knife Setting Block and Puller. This makes it extremely easy to properly set the knives. A Motor Knife Grinding Attachment is also regularly furnished. This will quickly and accurately grind the knives without the trouble of taking the knives off the machine. The motor is mounted in grinder head; current is taken from an ordinary lamp socket.

Feed Rolls

Are made of forged steel, 3½ inches diameter, ground true and set very close, only 10 inches apart, making it possible for single pieces as short as 10½ inches to feed through. Upper infeed roll is corrugated radially and made sectional, each section having $\frac{3}{16}$-inch independent yield. All rolls run in bronze bushed replaceable bearings. Lower rolls are adjustable with the bed. Upper rolls are held down by helical encased springs and are aligned by hand wheels at the end. Lock nuts above the hand wheels regulate the pressure of the springs which control the vertical yield of the rolls from 0 to ⅜-inch.

Feed Drive

Two feeds, 35 and 18 feet per minute—obtained by belt on 2 step cones. The entire feed mechanism is enclosed in a box with a steel swinging door for easy access. The drive consists of a powerful downward drive by a continuous anti-friction roller chain and hardened steel sprockets cut from the solid. The chain is driven by a train of compound reduction gears which in turn is driven by a belt from the cylinder through a lever controlled belt tightener, with quick release for safety. All bearings of the feed mechanism are bronze bushed and fitted with grease pressure cups for lubrication.

Sectional Chipbreaker

The chipbreaker is sectional, consisting of 2-inch sections supported on a flat steel bar and fitted with helical springs giving ¼-inch independent yield to each section. The entire unit swings back on concentric pivots clearing the space directly above the cylinder for easily applying the Knife Setting, Jointing or Grinding Attachment.

Pressure Bar

The pressure bar, which is immediately back of the cylinder, exerts a holding down pressure on the work directly following the cut. Helical spring pressure with hand wheel adjustment and lock nut tensioning device at each end provides proper hold down to the bar.

Motor Drive

We can furnish all known methods of surfacer motor drives. Where 3600 r.p.m. polyphase A.C. motors may be used; we highly recommend the "Motor-On-Head" type of drive where shaftless motors are mounted directly on the end of the cutter head or cylinder. Where D.C. 3600 r.p.m. motors are used we recommend the "Coupled-to-Cylinder" type of drive which carries the motor on a bracket attached to the machine and couples it to the cylinder. Where 1800 r.p.m. or slower speed motors, either A.C. or D.C are used, we recommend mounting the motor with its own base rails and proper size pulley either on the floor or on the ceiling and belting directly to the cylinder

Horse Power

We regularly furnish a 5 h.p. motor for all general work. 7½ h.p. may be furnished if desired.

Countershaft

For belt drive, we furnish a Ball Bearing countershaft. Driving pulley, 18x5½ inches. Tight and bronze bushed loose pulley, 10x5½ inches. Speed, 800 r.p.m.

Floor Space

36x50 inches for belt drive; 36x54 inches for "Motor-On-Head" driven machine.

Equipment

The surfacer is regularly equipped with 5 h.p., 3 phase, 60 cycle, 220 or 440 volt motor mounted directly on cylinder with Push Button Magnetic Control properly wired and mounted on machine, sectional roll, sectional chipbreaker, Knife Setting Block and Puller, Motor Knife Grinder and Jointer.

CODE, WEIGHTS, ETC.

CODE	MACHINE DESCRIPTION	WEIGHT IN POUNDS CRATED	BOXED	CUBIC FEET
Dijno	No. 199-D—24-inch Surfacer with "Motor-on-Head" drive, including motor and starter	2150	2550	66
	DEDUCTIONS			
Digab	Motor Knife Grinding and Jointing Attachment and bar, if not wanted	50	50	
Digad	Motor Knife Grinder only—leaving bar and slide.			
Digae	Solid Roll instead of Sectional.			
Digag	Solid Chipbreaker instead of Sectional.			
Digak	Belt Drive arrangement — no Countershaft.			
	EXTRAS			
Diha	Shaving Hood.			
Dihab	Ball Bearing Countershaft.			
Dihad	Coupled Motor Drive consisting of Motor Bracket, Coupling and mounting of Motor, but no Motor.			
Dihak	7½ h.p. Motor instead of 5 h.p. Motor.			