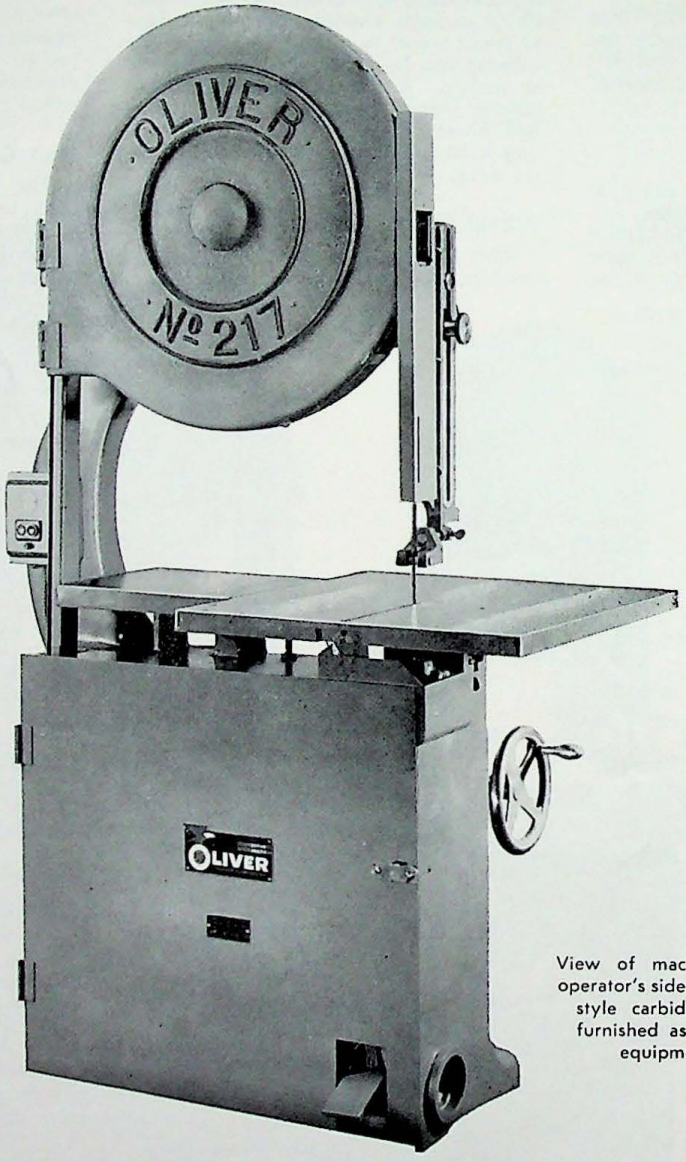
OLIVER

No. 217

30" BAND SAW



View of machine from operator's side. Note new style carbide guide furnished as regular equipment.

OLIVER MACHINERY COMPANY, GRAND RAPIDS 2, MICHIGAN, U.S.A.

Quality

The "Oliver" No. 217 truly represents the perfection of 30-inch Band Sawing Machines. The new automatic brake for the upper wheel; the most complete guarding of all moving parts, the enclosed, oil immersed, self-locking tilting device for the table; the dependable tension indicator; the foot brake which shuts off the current and stops the machine quickly; the dust collecting system — and many other important useful, modern features make this Band Saw without a peer.

Capacity

Will take 29½" between saw and rear saw guard, and will take 15" under the guide; table tilts 45° to right and 10° to left; uses blades 16' long and from ⅛" to 1½" wide.

Frame

The frame is a one-piece casting in the cored form, strong, durable and free from vibration at any speed. The bottom is machined straight and all other parts are finished square to the bottom, assuring perfect permanent alignment. The base is 34" long, 18" wide.

Metal Cutting

Machine can be adapted for metal cutting of non-ferrous alloys and light sheet steel. Write for further information.

Wheels

Both wheels are of one-piece disk type, accurately machined and perfectly balanced. Upper wheel is aluminum, lower wheel semi-steel. They are 30" diameter, 1½" wide, faced with rubber bands and secured to the wheel shafts on taper bearing by a hexagonal nut. A dust chute is built directly in front of face of lower wheel to catch the sawdust and exhaust can be attached to this chute if so desired. A cleaner brush is provided for the lower wheel. Upper wheel raises and lowers in gibbed dovetailed ways, which have adjusting screws for taking up wear.

Wheel Shafts

They are made of special spindle steel, machine ground, tapered to receive wheels. Upper wheel shaft is 1¾" diameter. Lower wheel shaft is 2" diameter and 1¾" diameter in the bearings. Both shafts run in self-lubricating ball bearings.

Bearings

Both upper and lower wheel shafts run in frictionless ball bearings. A set of two ball bearings is used for each shaft — one at each end of the shaft; thus perfect alignment and long life is assured.

Electric Tension Control

This machine is equipped with an electric tension device. This prevents operating the machine without the proper blade tension, giving smoother operation and longer life to blades and wheel tires.

Unit Construction

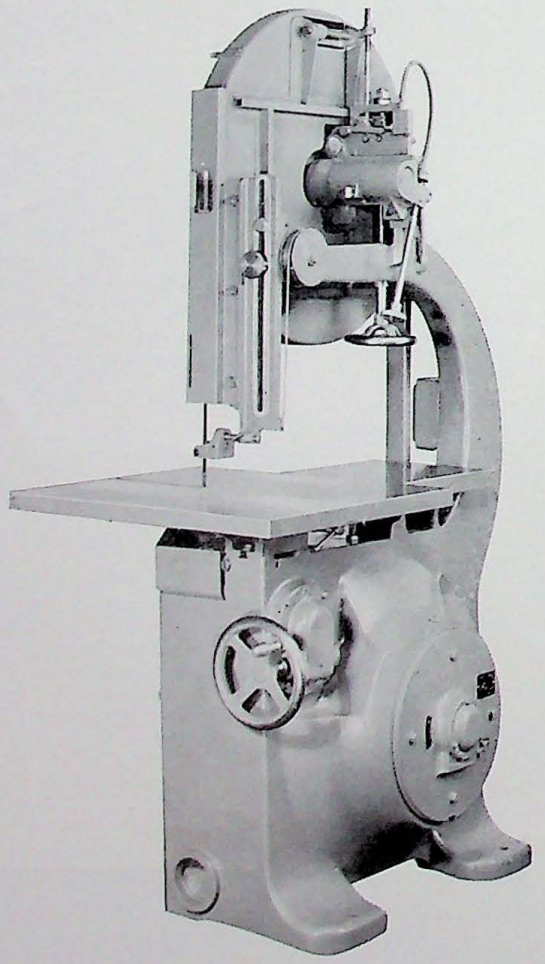
The unit system of construction is used in this machine. All major parts are interchangeable. The built-in "Motor-on-Shaft" Unit as well as the belt driven lower spindle unit are located in a finished circular hole in the base, tightly fitting and locked in place when in use, yet they may be readily removed as a whole and exchanged for a new unit should it ever be necessary.

Motor Drives

We can furnish any type of motor drive desired — belted, geared, coupled, silent chain, motor hung at the rear, or our fully enclosed built-in "Motor-on-Shaft" drive. When 1800 r.p.m. motors are used we recommend the "Attached Belted Drive" which supports the motor on a self-contained bracket bolted to the frame on a finished square pad and fitted with a sheet steel belt guard, endless belt and slide base with screw take-up for belt stretch. When 600 to 900 r.p.m., 2 or 3 phase Alternating Current motors can be used, we very strongly recommend our ball bearing, fully enclosed "Motor-on-Shaft" drive, wherein the motor is built-in directly on the lower wheel shaft, giving the most efficient, enclosed, silent, practical, durable, and self-contained motor drive possible. For Direct Current Electric motor drive we recommend our new No. 217-DC Geared Head totally enclosed, fan cooled motor drive, wherein the motor is bolted on a machined shelf, cast solid with the main column, and the band saw wheel is mounted directly on the tapered ball bearing secondary shaft of the motor, making a very compact, self-contained, direct drive.

Adjustment

The lower wheel has a positive non-changing alignment with the frame of the machine. The upper wheel has a very simple 3" vertical screw adjustment fitted with springs for saw tension. Upper wheel also has an exceedingly delicate micrometer screw tilting device for



Rear view showing direct motor drive. Electric tension control system and carbide guides are standard equipment.

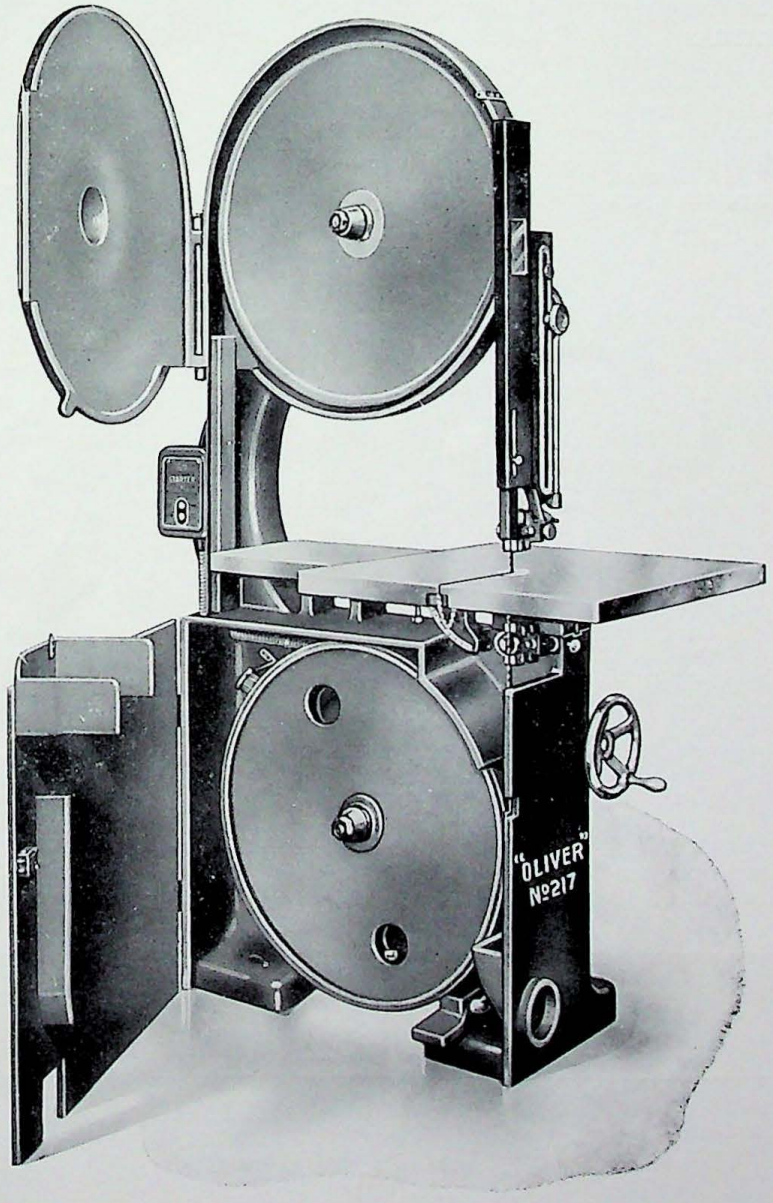
tracking the saw on the wheel. All adjustments are controlled by hand-wheels conveniently located to operator.

Brakes

Both wheels are provided with positive brakes for greater safety. The lower wheel brake is operated by a foot lever conveniently located near the floor; a gentle pressure of the operator's foot on the pedal instantly shuts off the electric current and applies pressure on the inside of the rim of the wheel, stopping the machine very quickly. The brake for the upper wheel is fully automatic; it is located near the top of the wheel at the rear. It is normally kept open by the same mechanism that applies tension to the saw blade, and the instant the pressure is released for any reason (either by the saw breaking or by running off the wheel), the brake is automatically applied against the rim of the wheel and instantly stops the upper wheel, thus preventing coiling of the broken blade around the wheel or throwing the broken upper end of the blade against the table, assuring maximum safety to the operator and saving the blade. Mechanical Brake for the lower wheel is very efficient.

Guide Post

Post is a one-piece casting. It carries the upper guide and also serves as a guard for the face of the upper wheel and saw blade directly above the guide. Post is counterbalanced by an encased coil spring, and is fitted with a small glass window to assist operator in tracking the blade properly on the wheel. Guide post is adjustable vertically and can be locked in various positions by means of a knurled hand knob.



NO. 217 BAND SAW — FRONT VIEW
With guarding doors swung open to show completeness of safety guarding.

Carbide Guides

The upper and lower guides are the new No. 4 with all wear surfaces of carbide. There are no moving parts to stick or require lubrication. The guides take up less space and give more capacity under upper guide. The distance from the carbide back pressure pad to the bottom of the guide is less than the conventional ball bearing guide for closer support to load. The result will be less blade breakage.

Safety Guards and Doors

Blade runs in a fully enclosed metal guard at back of machine, which has a narrow slot for inserting saw in frame. Saw is guarded at front by a "U" Shaped Guard attached to the guide post and an adjustable shutter guard which can be set close to the work. Upper wheel is totally enclosed in a formed steel housing. Lower wheel is also totally enclosed and has a sheet steel door at front. This is the most completely guarded Band Saw on the market, and all moving parts are covered except the part doing the sawing between the guide and table.

Table

The table is cast iron 26" x 28", 38" high, made exceptionally deep, cross-ribbed for strength and fitted with double rib around the edge to assure rigidity and provide a good hold for form clamps. Table is mounted on machined rockers and rocker seats (not babbitted) having a tongue and groove fitting and provided with take-up for wear. Table tilts 45 degrees to the right and 10 degrees to the left by means of hand wheel worm and worm gear self-locking tilting device having index and pointer to automatically register the tilt. Table tilting device is totally enclosed and lubricated. Auxiliary table is 16" x 14", finished and securely mounted at left of main table.

Floor Space

Maximum floor space, 30" x 52". Overall height with standard length blade 83".

Horse Power

Three h.p., 720 r.p.m. is regularly furnished. Other combinations are available.

Equipment

One saw blade, ½" wide, and saw guards. One No. 138 ripping fence.

Specifications

Capacity
29½" between saw blade and column. 15" under the guide.

Wheels
30" diameter, 1½" face. Upper wheel aluminum. Lower wheel semi-steel. Rubber faced.

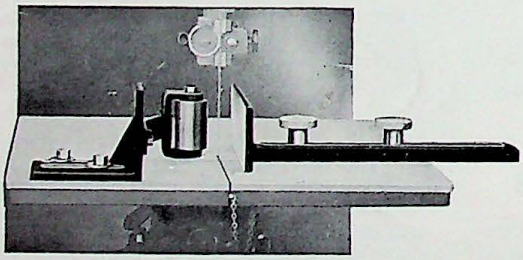
Motor Drive
3 h.p. Motor-on-shaft regular. 720 RPM. Belt or geared head also available. Variable speed if desired.

Guides
All carbide wear surfaces. No moving parts – no lubrication required. For saws up to 1½" wide.

Table
26" x 28" Cast Iron, cross ribbed for strength. 16" x 14" Auxiliary table. Main table tilts 45° to right, 10° to left.

CODE, WEIGHT, ETC.

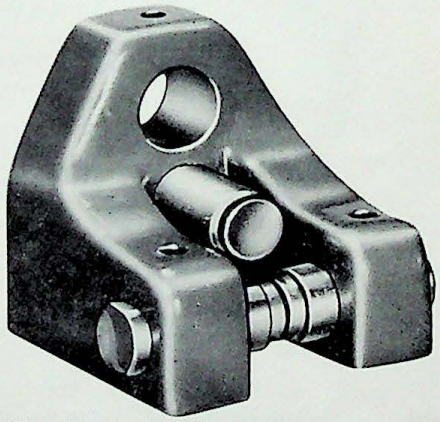
CODE	MACHINE DESCRIPTION	WEIGHT IN POUNDS CRATED	WEIGHT IN POUNDS BOXED	CUBIC FEET
Dena	No. 217-D – Motor-on-Shaft Band Saw ..... NOTE: This machine can be furnished for belt drive or in other modified forms.	1600	2150	85
	EXTRAS			
Delund	DIRECT CURRENT or SINGLE PHASE 220 VOLT DRIVE – No. 217 can be supplied for above currents with modern built-in geared head, 2 h.p. motor with quiet, hardened steel herringbone gears fully enclosed, running in oil – motor fan cooled, and dust-proof. Speed of band saw at customer's option (from 100 to 1000 r.p.m.) State speed desired			
Delui	2 h.p., 600 r.p.m. Motor instead of 3 h.p., 720 r.p.m.			
Deluo	3 h.p., 600 r.p.m. Motor instead of 3 h.p., 720 r.p.m.			



Hand Resawing Attachment for Band Saws

It is frequently required that our various Band Saws be fitted with a hand resawing unit. We have designed one that may be applied to the table of any size built.

The Oliver 30", 36" and 38" Band Saws now include the No. 138 Ripping Fence as regular equipment. All tables are drilled and tapped for both Roll Device and the Fence.



No. 4 Std. Carbide Guide

PATENT PENDING

No moving parts – nothing to lubricate. All carbide wear surfaces. Easy to adjust. Mounts on straight stud on most machines. ¾" mounting hole. Takes saws up to 1½" wide.

CODE	MACHINE DESCRIPTION	Boxed Weight	Measure in Cu. Ft.
Demag	No. 139 – Special Spring Roll Device for Hand Resawing	25	2

OLIVER MACHINERY COMPANY
Grand Rapids 2, Michigan, U.S.A.

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