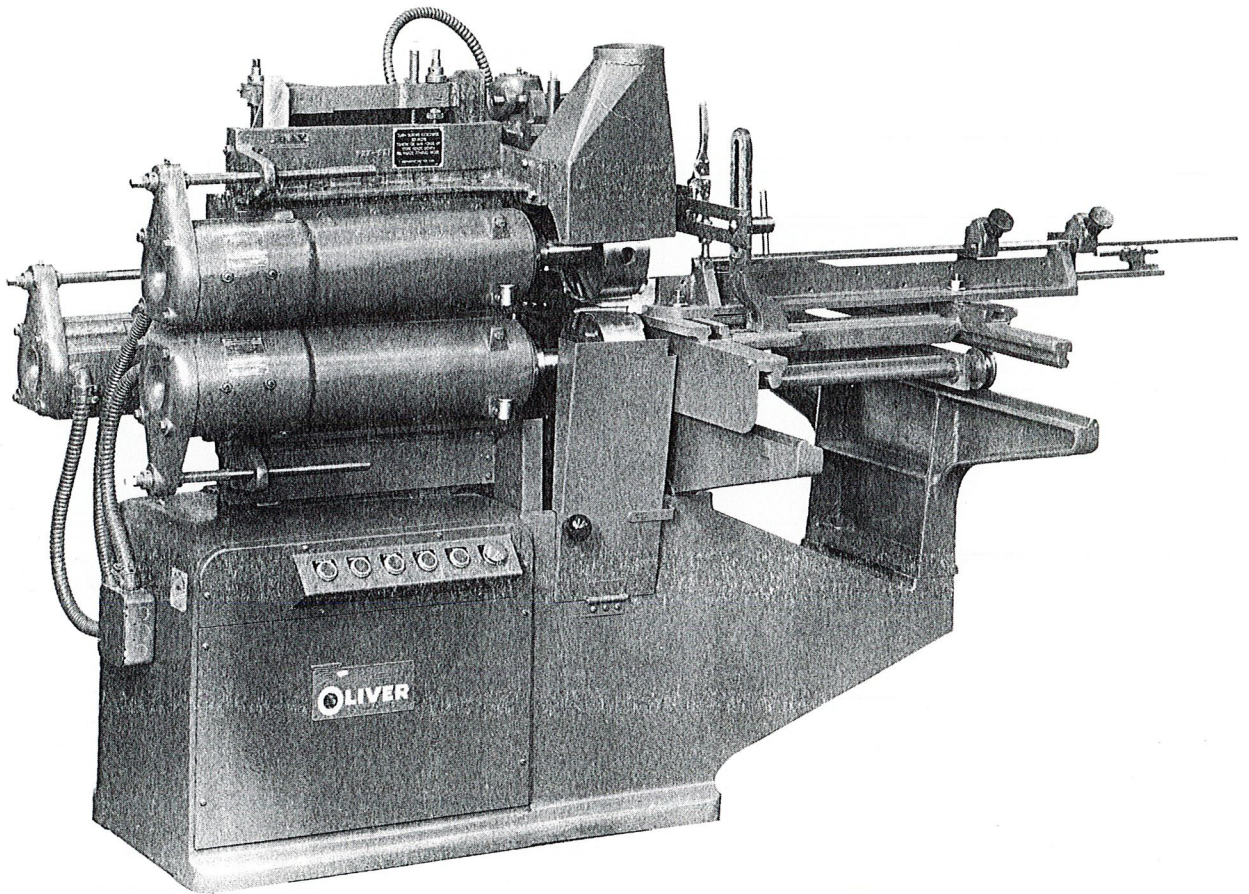




No. 125-D SINGLE END TENONER



OLIVER

OLIVER MACHINERY COMPANY, GRAND RAPIDS, MICH. 49504

Makes light and heavy intricate cuts swiftly

APPLICATION

Designed for tenoning, coping and cutting off stock to lengths used in the production of furniture, cabinets, chairs, vehicles, toys, house trim and finish, sash, doors, blinds, or wherever a tenoner of wide range is needed.

PRINCIPLE

Two tenon heads on horizontal arbors are mounted on front side of a stand placed on a frame which forms the base of the machine. These two arbors have independent horizontal adjustment and either independent or unison vertical adjustment. Back of these two heads are located the two vertical cope heads, each with independent vertical and horizontal adjustment. On the rear of the stand is mounted a saw arbor in a horizontal position having both vertical and horizontal adjustment. All of the above are driven by individual motors mounted directly on the arbors. To the right of the stand carrying the heads and arbors is a table with horizontal rolling travel to carry material to be machined.

FEATURES

1. Motor-on-arbor construction, with rotor mounted on the cutting spindles. Stators are held securely in cast iron housings, with large precision ball bearings for all spindles.
2. Push button magnetic controls with overload and low voltage protection for each motor; all mounted in the base of the machine, with master stop button to stop all motors simultaneously. All wiring in flexible conduit from control to motors.
3. Guards are provided for revolving parts.
4. Base is solid one piece casting with deep flanges assuring rigidity.
5. Shaving chute and exhaust connection is provided above the top tenon head as well as directly below all the heads.
6. Table runs on ball bearing rollers, assuring easy operation and perfect alignment.
7. Table tilts (when so ordered) to 15 degrees, with screw adjustment and pointer, hence angle and compound tenons for chair backs and similar work may be cut without the use of special fixtures.
8. Two spring tops furnished in center of table. Also a stop rod with two swing back stops is mounted on the fence for use on long and heavy work.
9. Each tenon arbor may carry two heads, front tenon head being tongued into the rear head, so that smooth tenons up to 7" long may be cut in one pass through the machine.
10. Tenon heads can be put on or removed easily because arbor unit can be adjusted to convenient position.
11. Tenon heads have independent cross movement, individual vertical adjustment, and may be adjusted in unison. All adjustments are made by screw and hand crank.
12. Cope heads have independent vertical, as well as cross movement, all adjusted by screws. Cut off saw attachment has vertical as well as cross movement.
13. Special heads can be used for routing, rabbeting, dovetailing, and similar special work. End thrust take up is provided for all heads and the saw.
14. All heads are adjusted $1/16''$ per turn of adjusting screws — $1/4$ turn moves head $1/64''$, $1/2$ turn moves head $1/32''$, etc.

CAPACITY

Will cut tenons $3\frac{1}{2}''$ long (one head) or 7" long (two heads), or $8\frac{1}{2}''$ long in two cuts, 6" thick, and 24" wide; cut off stock 42" wide; can be used as saw tenoner to work tenons 4" long, 6" thick and 24" wide.

MAIN FRAME

Of machine is made of iron, rigid construction, having large base and dust chute cast in one piece. This frame carries all of the sub units which compose the machine and are interchangeable.

HEAD STAND

Is of rigid construction and carries the head yoke, cope, and saw arbor motor head spindles. It is bolted and pinned to the main frame.

TABLE

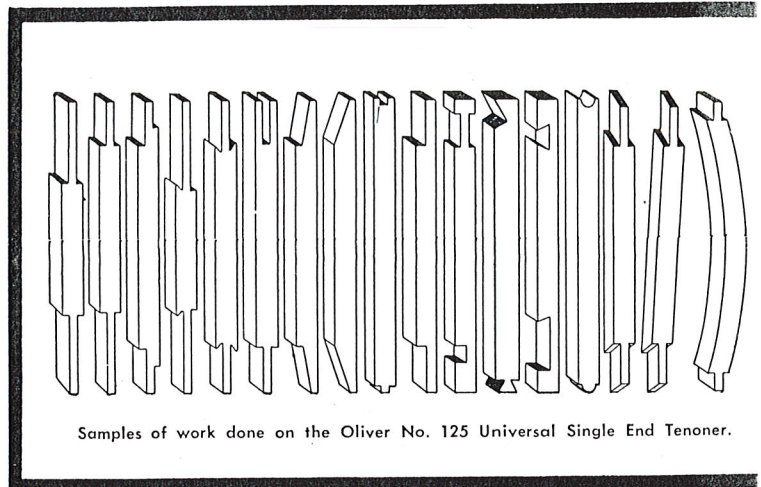
Rolls on roller ball bearings, has a horizontal travel of $43\frac{1}{2}''$. Will clamp stock 6" thick, 24" wide. Has a 15° tilting adjustment (when so ordered) for tenoning angle tenons such as chair backs and polygon joints. It also has a fence which can be adjusted to angle; on this fence is a swing stop gauge and the stops can be swung back out of the way as occasion requires. On main frame of table is an automatic stop bar having two disappearing stops which can be set to work and are used when cutting double end tenons. There is a positive grip clamp rod and shoe to hold the stock while passing through machine.

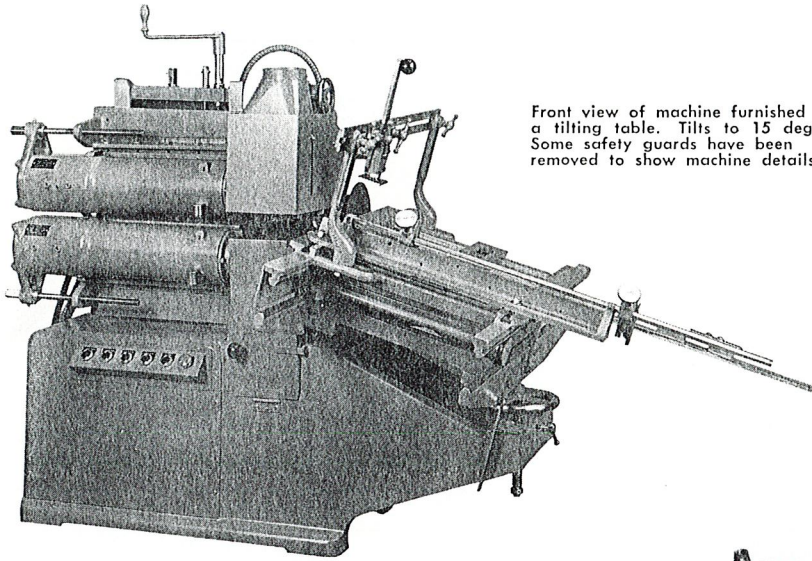
TENON HEADS

Are of the shear knife circular safety type with the modern self-hardening steel thin knife; the spur knives are of the fluted type, cutting diameter 7", face of front head $3\frac{1}{2}''$ with spur cutters; face of back head $3\frac{1}{2}''$ without spur cutters; they have 2" holes.

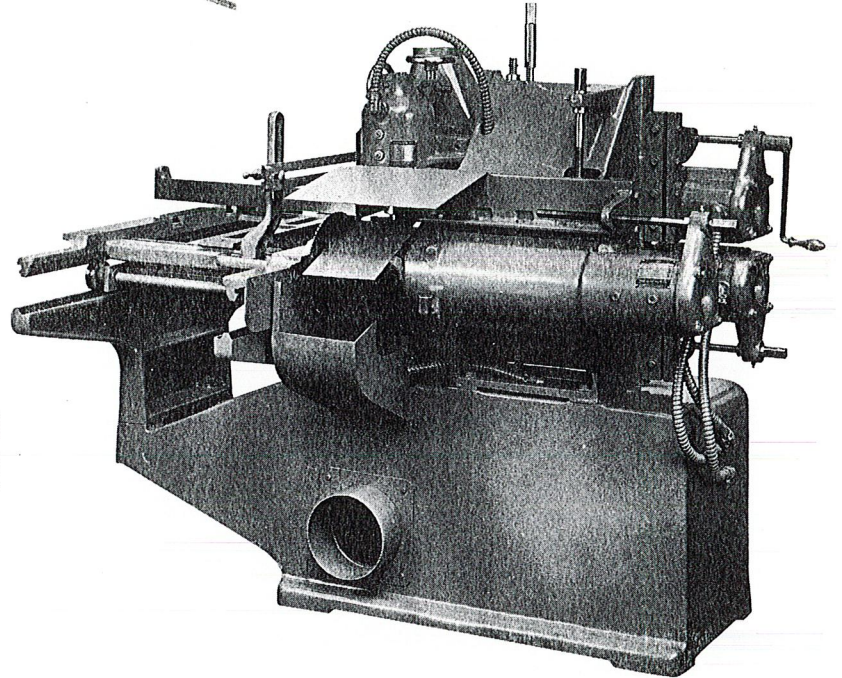
TENON HEAD YOKES

Have both vertical and horizontal adjustment by means of screw and hand crank. The vertical adjustment is 6" and the horizontal adjustment is 4". Spindles are 2"





Front view of machine furnished with a tilting table. Tilts to 15 degrees. Some safety guards have been removed to show machine details.



Rear view of Single End Tenoner from the right side showing the non-tilting table, exhaust connection and cuttings separator. Some safety guards have been removed to show machine details.

diameter where heads are applied, and operate in precision ball bearings, installed in dust proof housing, oil lubricated. Head yokes adjust vertically on the head stand which is bolted and pinned to main frame of machine.

The top tenon head is tilted up $2/3$ of one degree and lower tenon head is tilted down $2/3$ of one degree. This insures the best fit for tenon and mortise joints. If it is necessary to have the knives cut parallel tenons we can furnish a special gauge for the knife setting fixture (gauge No. 125-310). Regular equipment includes No. 125-284 tenon knife grinding gauge.

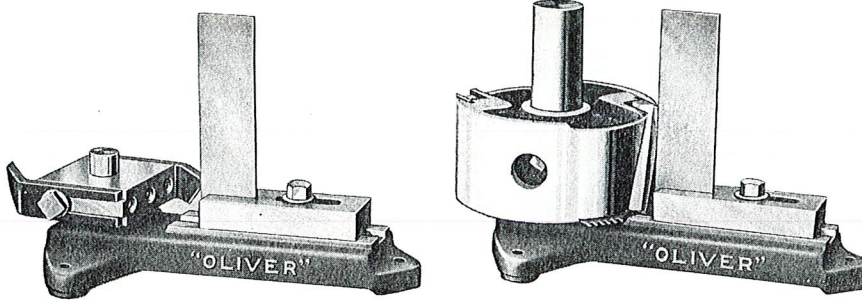
COPE HEAD YOKES

Are attached to tenon head yokes and adjust with tenon head yokes. Also have independent vertical and horizontal adjustment. Horizontal adjustment is 2", vertical 2". The cope spindles and drive shafts run in

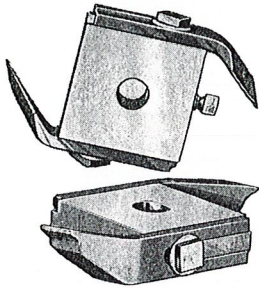
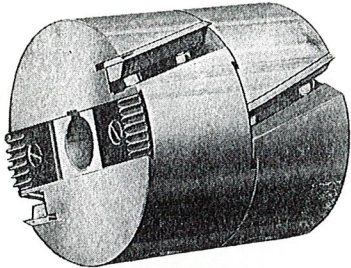
ball bearings, which are impervious to wear, run in lubricating grease which prevents cutting and which are encased so completely that no dirt can come in contact with them. The spindles are $1\frac{3}{8}$ " diameter where heads are applied. Cope heads are of the square type with long hook shear cutting knives.

CUT-OFF SAW YOKE

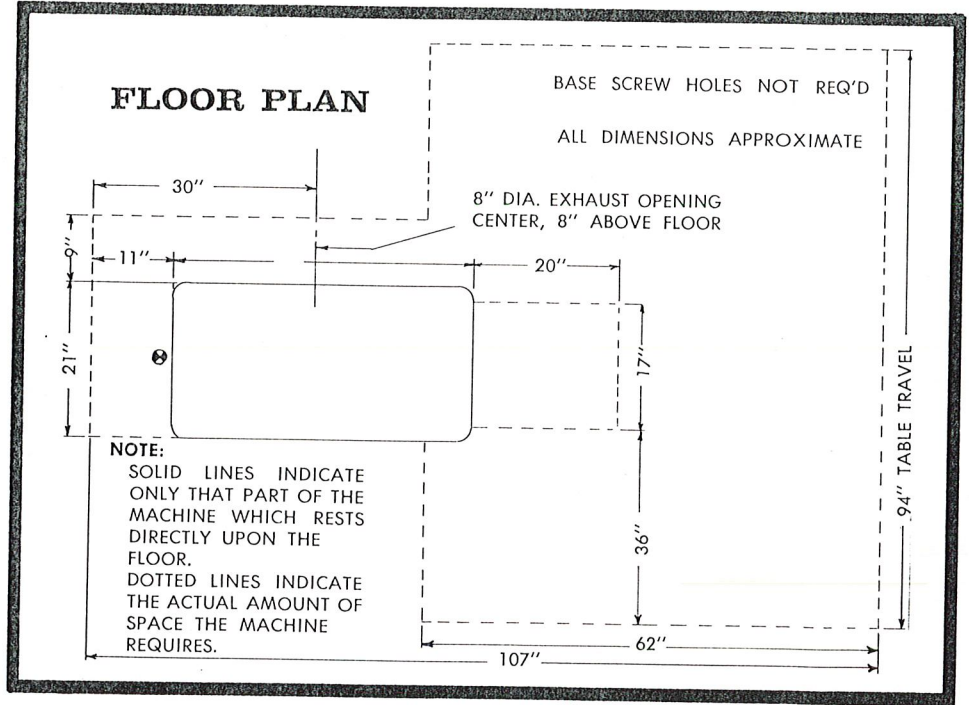
Is attached to rear of head stand. The advantage of this is that machine can be used for cutting and edging wide stock such as table tops and end of framings, and by the use of lower tenoning head on the saw arbor wide cross grain rabbets and grooving can be done. Saw arbor runs in ball bearings which are impervious to wear and are encased in dust proof mountings. It is 2" diameter where saw is applied. The arbor also has horizontal adjustment of 2" and vertical adjustment of 3" controlled by screw and hand crank.



Knife Setting Fixture for both Tenon and Cope Heads furnished as Extra when so ordered.



and Tenon and Square Cope Heads used on
er No. 125-D Universal Single End Tenoner.
ote methods of tongue and grooving front tenon
heads to the rear ones; reversing spurs, thin high
speed knives and decidedly new and smooth
cutting cope heads.



SPECIFICATIONS

TENON HEADS:

7" diameter, 3½" (178 x 89 mm) face.
Two knives with chipbreakers.
Two spur cutters.
2" (50.8 mm) diameter hole to fit spindle.

COPE HEADS:

3½" square, 1¼" thick (89 x 32 mm).
Two knife type.
1⅜" (35 mm) hole to fit spindle.

CUT OFF SAW:

10" (254 mm) diameter, flush mounted.

TABLE:

26" wide, 32" long (660 x 813 mm).
Tenon capacity 24" (610 mm) wide.
Cut off only 42" (1067 mm) wide.
Total travel 43½" (1105 mm).

(All specifications are subject to change without notice.)

MOTORS:

2 H.P. 3600 RPM for tenon heads.
1 H.P. 3600 RPM for cope heads.
1 H.P. 3600 RPM for cut off saw.

CONTROL:

Push button magnetic control for each motor,
mounted in dust proof enclosure in base. Master
stop button to stop all motors.

WEIGHT:

Crated 2700 lbs.
Floor space 107" x 94" (2718 x 2388 mm).

OPTIONAL EXTRAS:

Tilting table, to tilt 15 degrees.
Knife setting fixture for both tenon and cope heads.
125-310 special gauge to cut parallel tenons.
Grinding gauge for determining correct shape of
tenon knife.
2 H.P. motors for cope heads, in place of standard
1 H.P.

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