

OLIVERTM
MACHINERY COMPANY

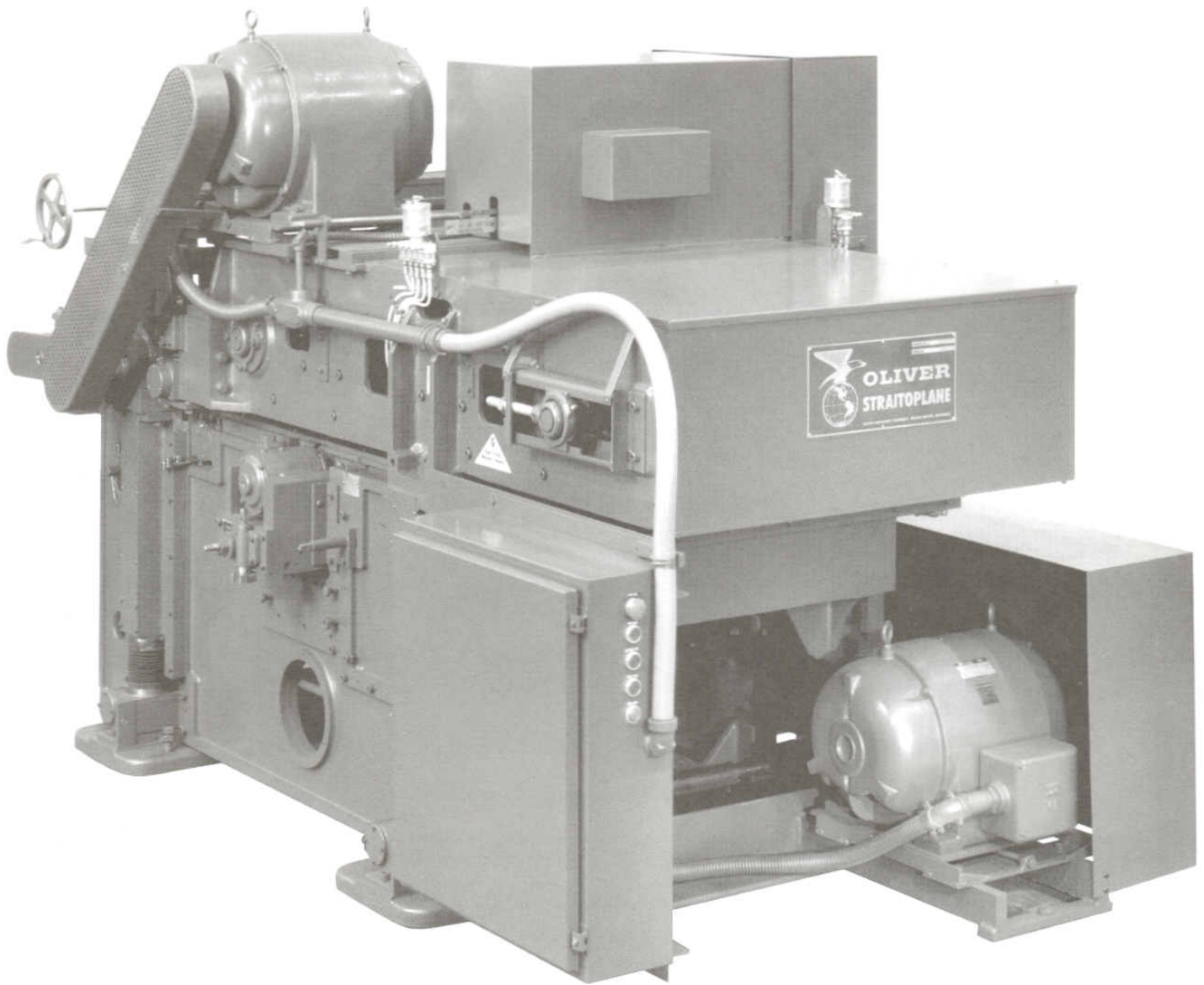
STRAITOPLANES®

NO.2070 - 18"

NO.2071 - 24"

NO.2072 - 30"

NO. 170 - 36"



The Oliver Straitoplane Family: Unmatched for high production

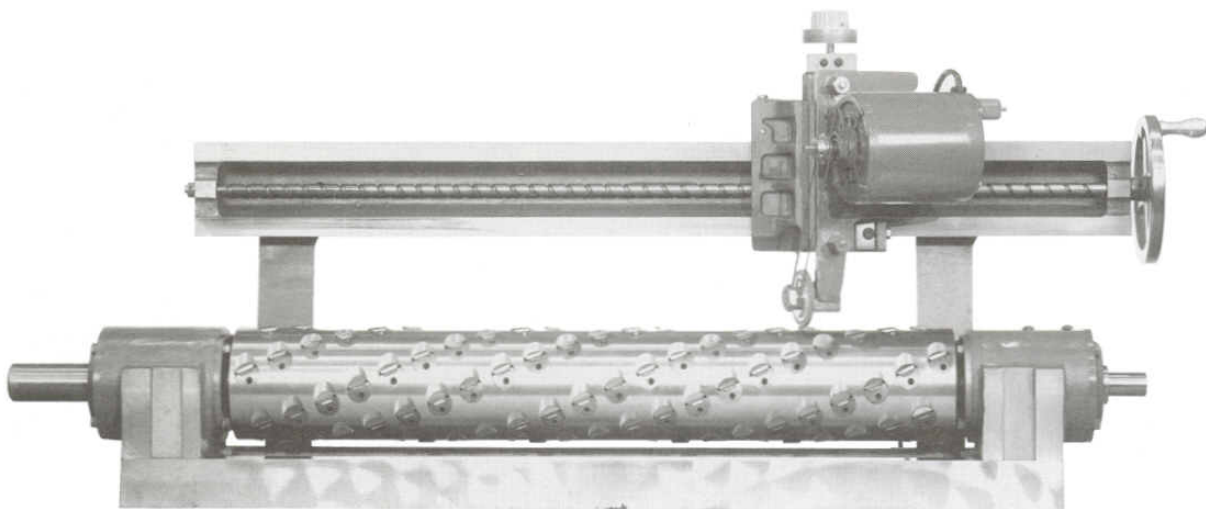
The *Oliver Straitoplane*[®] combines two machines, or operations: a power feed facing planer and a single surface planer. It planes both sides of the boards, reducing them to a uniform thickness. The *Straitoplane*[®] removes the warp and wind, on moderately warped or twisted lumber, to produce boards that are uniformly straight and flat.

The *Straitoplane*[®], used as a double roughing planer, will take lumber of any length over 16 inches. Unlike ordinary pneumatic roll feed roughing planers, it will not split cupped or warped boards. It produces boards that are flatter and straighter than any roughing planer sold today.

CAPACITY

The *Straitoplane*[®] will plane warped or straight stock simultaneously on both sides up to 36 inches wide, and from 1/2 to 8 inches thick. Warp or wind, up to 1/4 inch, can be planed out, and the stock reduced to the desired thickness in one pass through the machine.

The *Oliver Straitoplane*[®] can be furnished with feed rates up to 120 feet per minute. It planes both sides of pieces as short as 12 inches when fed continuously, and as short as 16 inches when fed one at a time. The *Straitoplane*[®] will surface timbers up to 12" x 12" if fed through the machine one at a time.



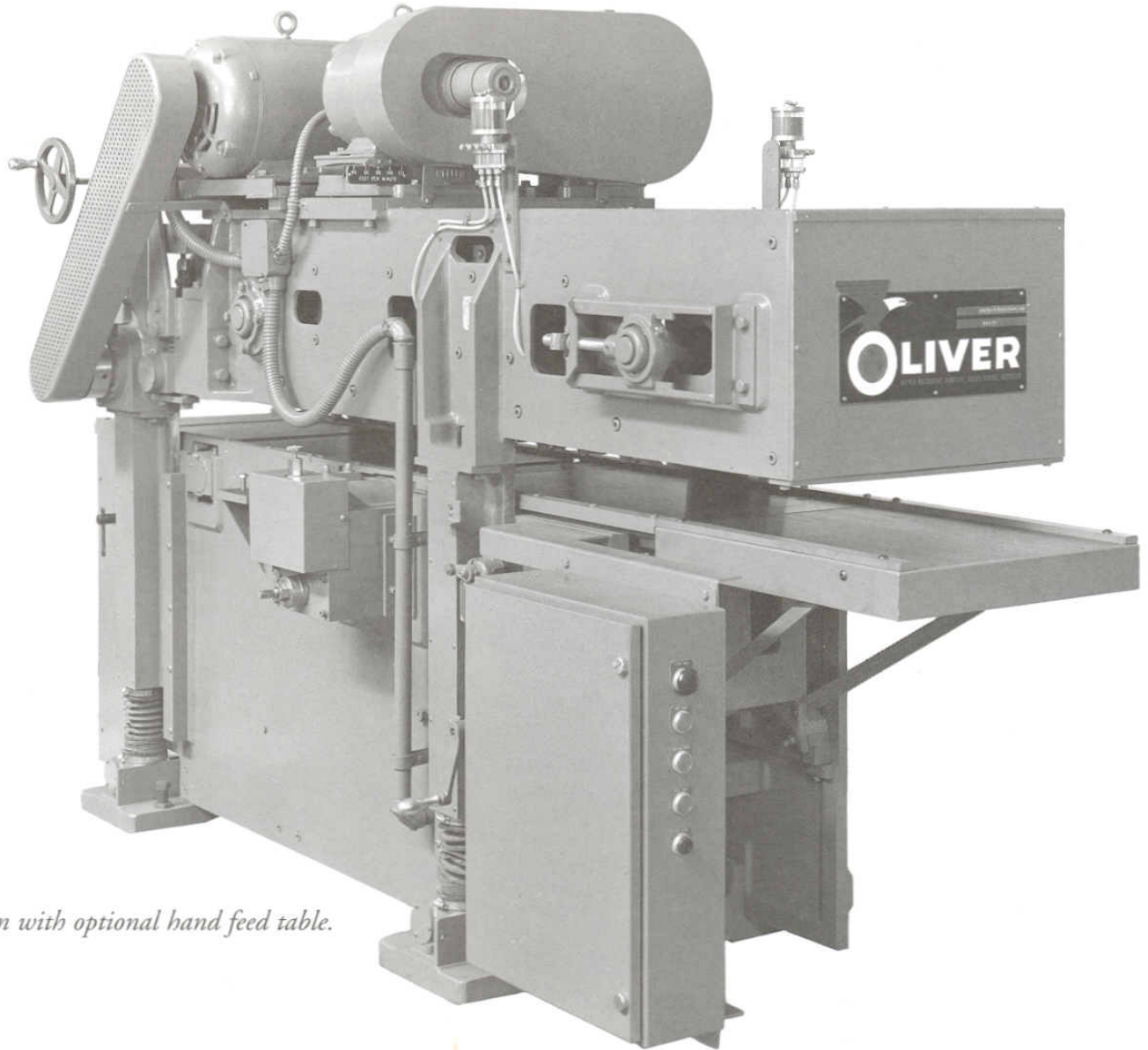
This view of a cutterhead shows the arrangement for grinding the carbide bits.

CUTTERHEAD

Oliver Straitoplanes[®] are equipped with two, six inch diameter, 4,400 RPM *Oliver* Inserted Tooth Cutterheads (I.T.C.H.). These patented heads are designed for noise reduction and long cutter life. The four-sided, indexable carbide cutters are arranged in a helical pattern around the head providing efficient material removal with an excellent surface finish. These cutters can easily be indexed if chipped or worn beyond specification tolerance. A simple rotation and light grinding procedure is all that is required. Each cutter provides four times the life of any standard cutter.

KNIFE GRINDERS

Knife grinding attachments are furnished for both cutterheads. The grinding bar for the top head is mounted permanently in place. The lower yoke assembly pulls out for the convenient grinding of the bottom cutterhead. One diamond grinding motor unit is provided for use on either grinding rail.



Shown with optional hand feed table.

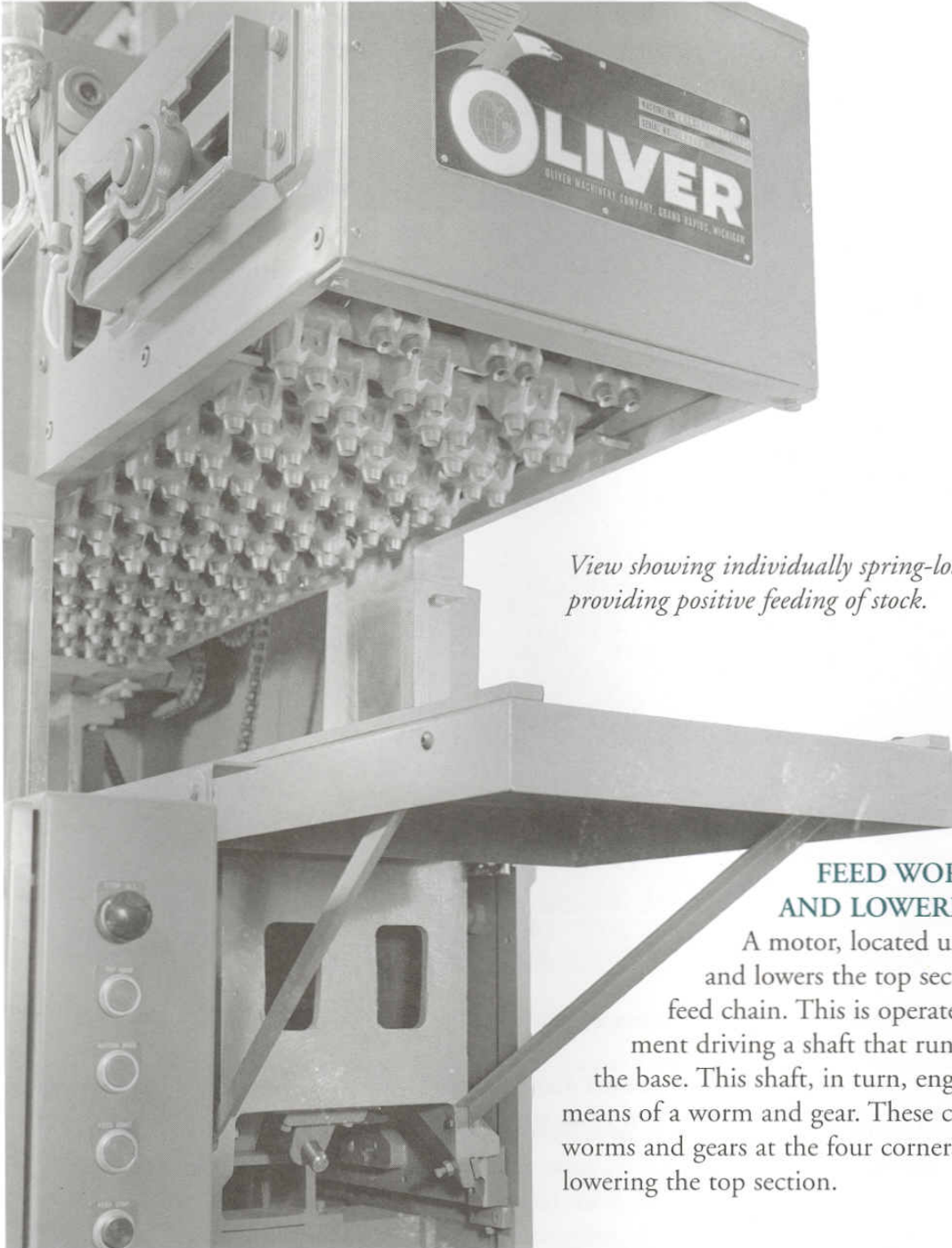
*Note: Some guards are removed to show machine detail.
Do not operate without all guards in place.*

MAINFRAME

Unlike many other industrial planers manufactured today, we at *Oliver Machinery Company* use heavy gray iron castings in the construction of our *Straitoplanes*[®]. Cast-iron is renowned for its vibration dampening properties, assuring the minimal amount of vibratory transference to your finished products. The sides of the main frame are thick, one piece castings, connected by iron cross girts precision machined for extremely accurate alignment and maximum stability.

FEED WORKS

The feed-driving mechanism is mounted on top of the feed chain housing. The motor unit has a primary drive to the feed chain unit, and a secondary drive to the four large rolls that carry the stock under the top head. A hand wheel at the left side of the machine adjusts the speed of this drive with a ratio of 3 to 1. Feed speeds of 20 to 60, 30 to 90, or 40 to 120 feet per minute are available.



View showing individually spring-loaded toes providing positive feeding of stock.

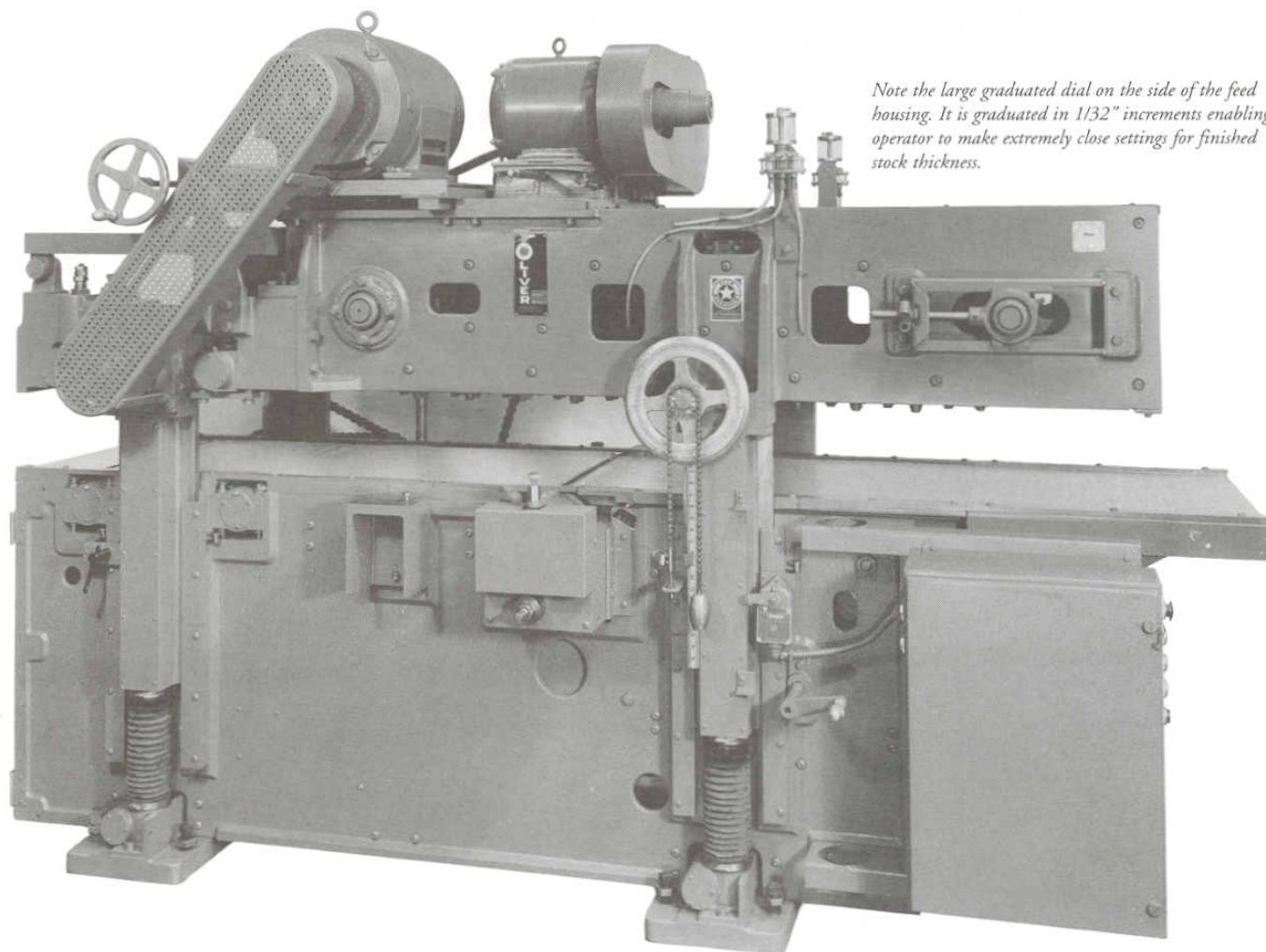
FEED WORKS-RAISING AND LOWERING

A motor, located under the tables, raises and lowers the top section containing the feed chain. This is operated by a V-belt arrangement driving a shaft that runs the entire length of the base. This shaft, in turn, engages cross shafts by means of a worm and gear. These cross shafts operate worms and gears at the four corners of the base raising and lowering the top section.

FEED CHAIN ASSEMBLY

Stock is fed over the lower cutterhead by individually spring-loaded feed toes mounted in cast-iron holders. The holders make up the links of the chain. The ends of the toes are conical in shape giving a circular contact edge.

Geometrically, this gives the maximum contact edge, assuring the highest feeding efficiency and presents a restraining force to any side movement of the stock. The toe edges are hardened steel for maximum wear while at the same time are a low-cost (throw-away) preventive maintenance item. For short stock where contact area is small, the vertical movement of the toe allows it to come down behind the stock giving positive feed.



Note the large graduated dial on the side of the feed housing. It is graduated in 1/32" increments enabling operator to make extremely close settings for finished stock thickness.

ROLLER INFEED TABLE

The infeed table features low maintenance, solid, three inch diameter alloy steel rolls. The infeed table is designed for use with your infeed conveyor or our optional hand feed table attachment. It is supported by large, heavy duty, adjustable cast iron wedges.

POWER FEED ROLLS

The *Oliver Straitoplane*® has four, massive 5-5/8" diameter, power feed rolls, one sectional and three solid, that provide continuous feeding action after the boards leave the feed chain assembly.

The sectional roll consists of spring loaded, two inch wide, corrugated cast steel rolls. The narrow, individual sections yield independently to variations in the stock thickness. In combination with the *Straitoplane*® feed chain, they ensure the optimum positive feed without splitting or cracking your valuable lumber resources.

STANDARD SPECIFICATIONS

2070-18" STRAITOPLANE

MOTORS:

Top Cutterhead 40 H.P.
Bottom Cutterhead 30 H.P.
Feed Motor 3 H.P.
Hoist Motor 1-1/2 H.P.

CAPACITY:

18" wide by 1/2" to 8" thick.
Shortest stock 12" butted,
16" singly
Feed Rate: variable 20 to 60, 30
to 90, 40 to 120 FPM
Maximum Cut
with lower head 1/2"
Distance between cylinders-40"

CHIPBREAKER:

Sectional, 9 toes, each 2" wide
3/16" yield

TABLES:

Infeed 18-1/8" wide
40" long
Height-36"

WEIGHT: 9600 pounds

AIR REQUIREMENTS:

2-8" outlets require 2800 CFM
at 4000 FPM velocity

2071-24" STRAITOPLANE

MOTORS:

Top Cutterhead 40 H.P.
Bottom Cutterhead 30 H.P.
Feed Motor 3 H.P.
Hoist Motor 2 H.P.

CAPACITY:

24" wide by 1/2" to 8" thick.
Shortest stock 12" butted,
16" singly
Feed Rate: variable 20 to 60, 30
to 90, 40 to 120 FPM
Maximum Cut
with lower head-1/2"
Distance between cylinders-40"

CHIPBREAKER:

Sectional, 12 toes, each 2" wide
3/16" yield

TABLES :

Infeed 24-1/8" wide
40" long
Height-36"

WEIGHT: 11,000 pounds

AIR REQUIREMENTS:

2-8" outlets require 2800 CFM
at 4000 FPM velocity

2072-30" STRAITOPLANE

MOTORS:

Top Cutterhead 40 H.P.
Bottom Cutterhead 30 H.P.
Feed Motor 3 H.P.
Hoist Motor 2 H.P.

CAPACITY:

30" wide by 1/2" to 8" thick.
Shortest stock 12" butted,
16" singly
Feed Rate: variable 20 to 60, 30
to 90, 40 to 120 FPM
Maximum Cut
with lower head-1/2"
Distance between cylinders-40"

CHIPBREAKER:

Sectional, 15 toes, each 2" wide
3/16" yield

TABLES:

Infeed 30-1/8" wide
40" long
Height-36"

WEIGHT: 12,500 pounds

AIR REQUIREMENTS:

2-8" outlets require 2800 CFM
at 4000 FPM velocity

170-36" STRAITOPLANE

MOTORS:

Top Cutterhead 50 H.P.
Bottom Cutterhead 40 H.P.
Feed Motor 5 H.P.
Hoist Motor 2 H.P.

CAPACITY:

36" wide by 1/2" to 8" thick.
Shortest stock 12" butted,
16" singly
Feed Rate: variable 20 to 60, 30
to 90, 40 to 120 FPM
Maximum Cut
with lower head-1/2"
Distance between cylinders-35"

CHIPBREAKER:

Sectional, 18 toes, each 2" wide
3/16" yield

TABLES:

Infeed 36-1/8" wide
50" long
Height-36"

WEIGHT: 18,500 pounds

AIR REQUIREMENTS:

2-8" outlets require 2800 CFM
at 4000 FPM velocity

OPTIONAL FEATURES:

- Power outfeed rolls for holding stock in horizontal plane over cross conveyor belt until released to fall on belt.
- Hand infeed table
- Four knife equivalent Inserted Tooth Cutterhead (I.T.C.H.)
- Pro-Scale Digital Thickness Readout
- Greater horsepower motors



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