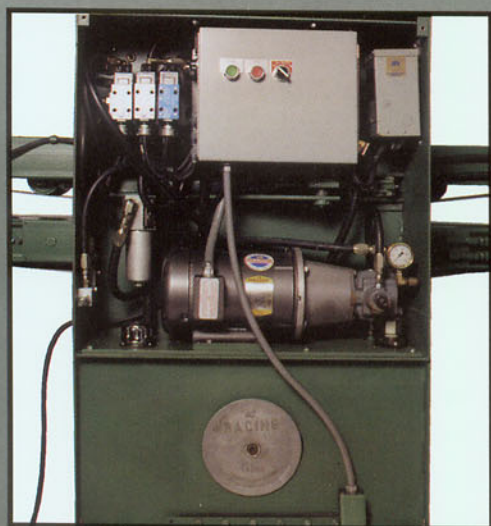
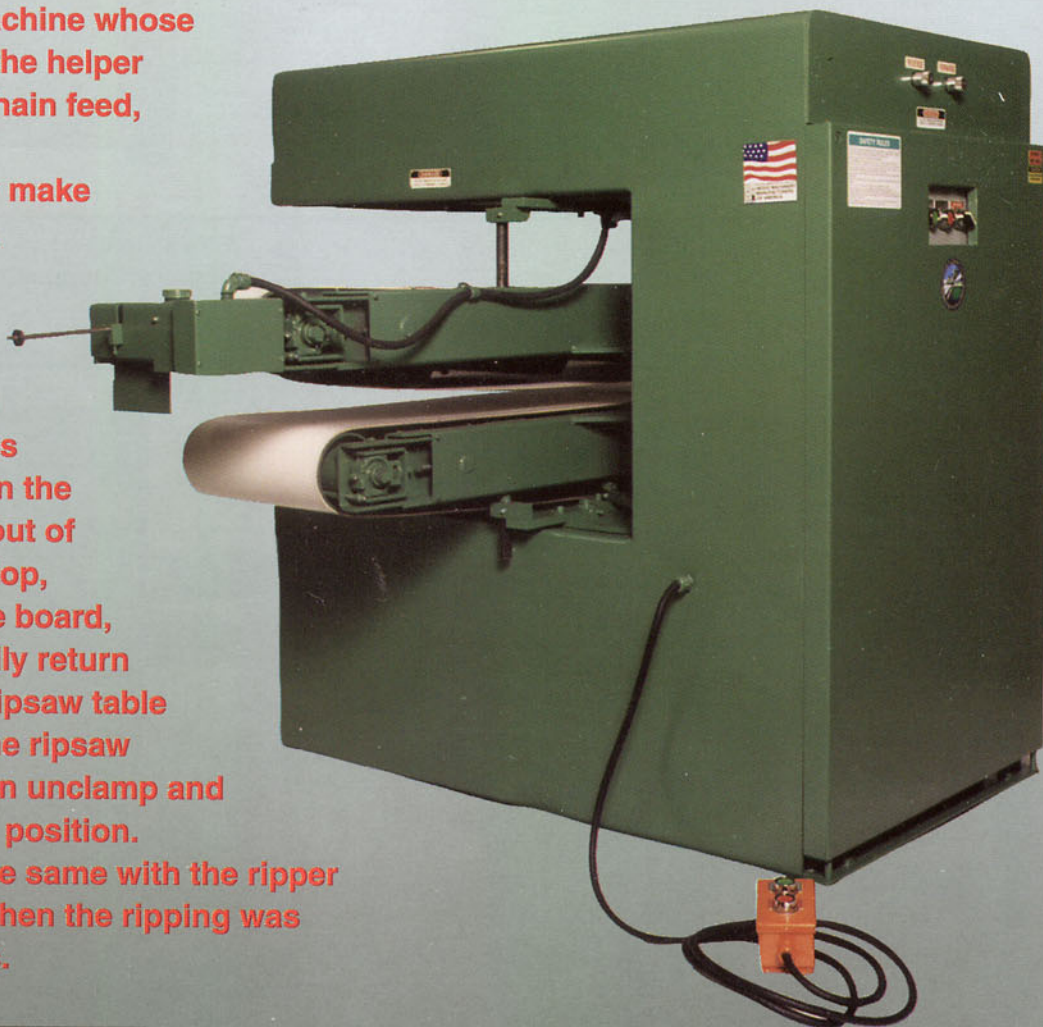


# Northfield

## Automatic TAILBOY

### REPLACE THE HELPER ON YOUR RIPSAW

**NORTHFIELD AUTOMATIC TAILBOY** is a fully automatic machine whose function is to replace the helper in connection with a chain feed, straight-line rip saw. It will operate with any make of modern, single saw, straight-line rip saw. The machine grips the lumber between an upper and a lower belt as it comes out of the rip saw. When the lumber is completely out of the rip saw, the belts stop, shift sideways with the board, then reverse and rapidly return the board across the rip saw table to a position next to the rip saw operator. The belts then unclamp and return to the receiving position. Production is about the same with the ripper using our Tailboy as when the ripping was done by two operators.



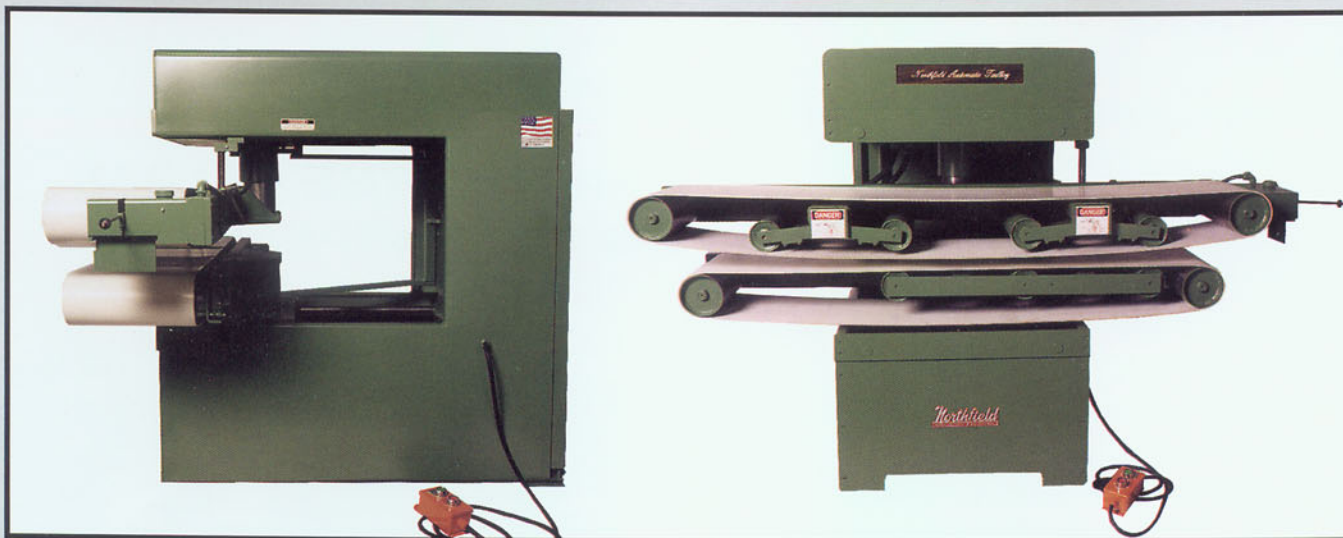
### Fully Automatic

The Tailboy requires no attention from the operator to complete its automatic cycle. The opening height for various thicknesses of lumber is set automatically.

INTERIOR VIEW SHOWING  
PUMP & MODULAR VALVING

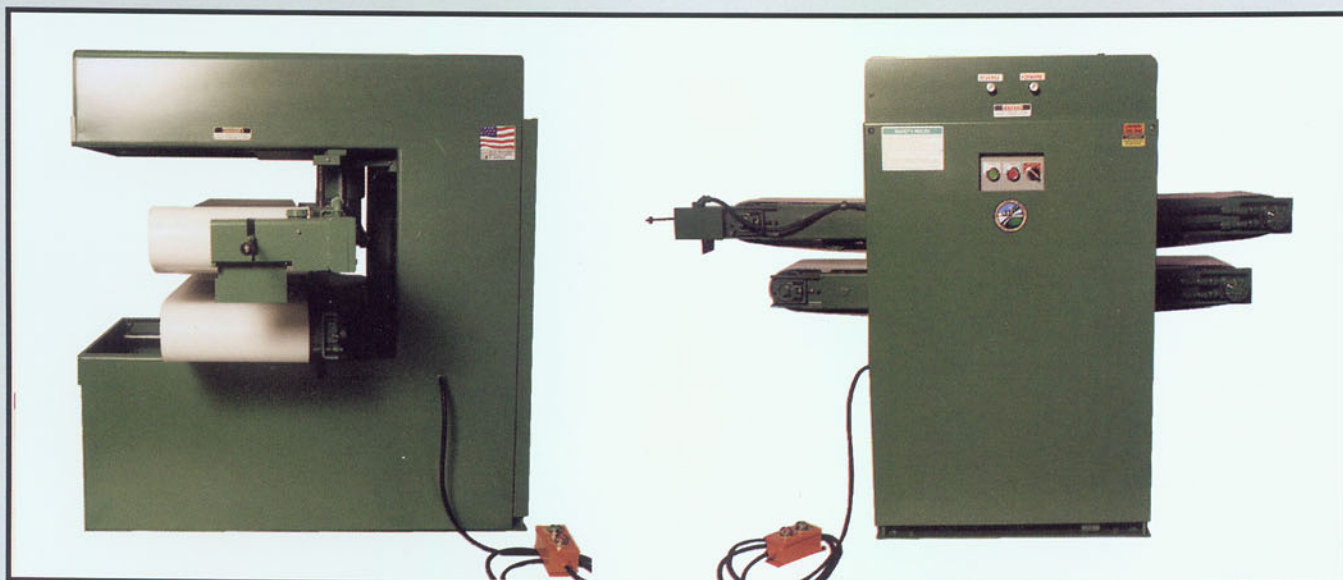
PROFIT THROUGH AMERICAN TECHNOLOGY  
WOOD MACHINERY  
MANUFACTURERS  
OF AMERICA  
MEMBER





Tailboy in shift position for lumber return.

Front view showing belts and belt suspension.



Tailboy in feed position for accepting lumber from rip saw.

Rear view showing operator controls and remote operator pendant control.

The entire operation of the machine is hydraulically powered, with the belt clamping, shifting and pivoting functions accomplished by means of hydraulic cylinders, and the belt rotation and reversing by means of direct-coupled hydraulic motors. The control system is electrical, using position-sensing method rather than timer or sequence control. Hence, the machine cannot get out of step with its various functions. The entire

machine is built to NEMA electrical and JIC hydraulic standards, and all components are from reputable and nationally known manufacturers.

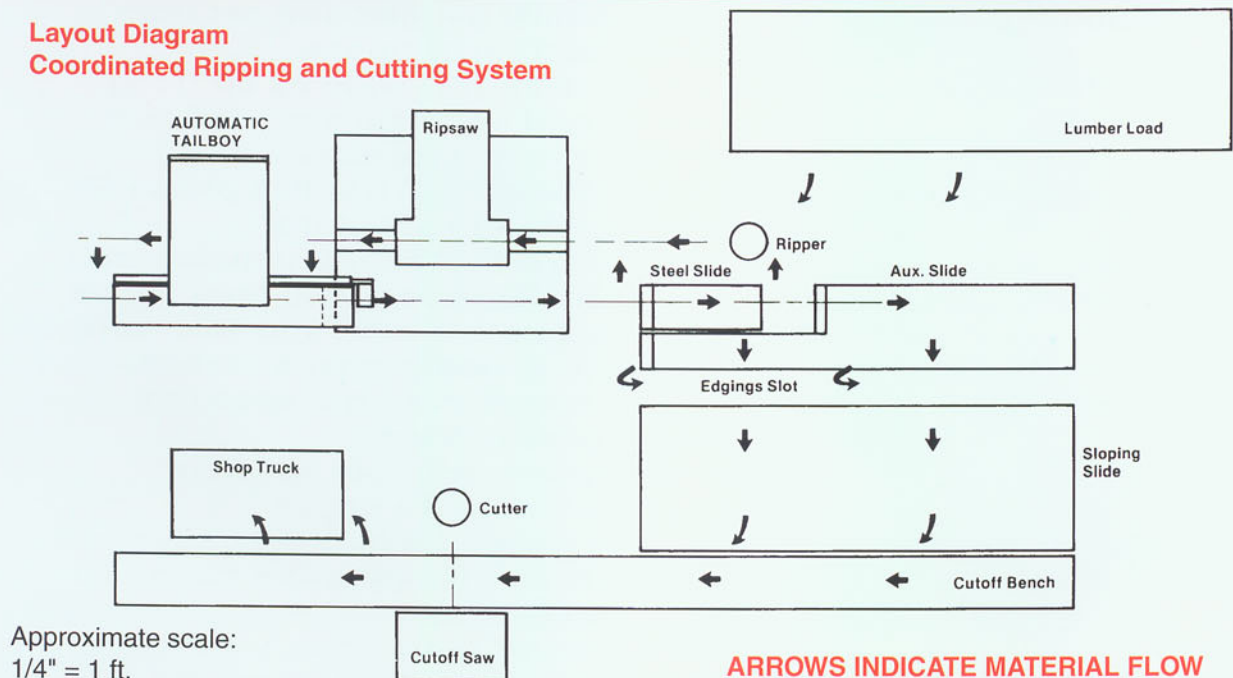
*As a safety feature, the belts may be stalled indefinitely without harm, or forced to run faster or slower than the power they are receiving, without harm to the machine. Other safety features are also built into the design of this machine.*



## Typical Installation of NORTHFIELD Automatic Tailboy

- The piling and unpling of stock on shop trucks and the pushing of the trucks between the two operations has been eliminated.
- The carrying of stock by hand between the two locations when trucks were not readily available or small amounts were involved has been eliminated.
- Except to bring in the lumber loads for the rip saw, neither operator has to move from their normal work stations to process the lumber.
- The edgings from the rip saw are accumulated neatly and with no lost time by the ripper.
- An adequate accumulation area is provided between the two operations so that the production rates of the two operations need not be synchronized.

**Layout Diagram**  
**Coordinated Ripping and Cutting System**



A movable steel slide table (furnished with the Automatic Tailboy) is positioned at the ripper's left, on which the stock comes to rest when it is returned by the Automatic Tailboy. An additional wood slide table has been built to accommodate wide lumber, and provides a temporary storage space for the ripper. Lumber up to 16 feet in length can be handled. The steel table can be readily moved up close to the rip saw for handling shorter lumber.

Next to the slide table, an edgings accumulation slot has been provided. Into this receptacle the ripper can effortlessly drop the edgings or scraps from the ripping process, from where they are easily removed periodically by the cleanup man. This provision makes for good housekeeping, as the edgings are neatly retained in this receptacle.

Next to the edgings slot, but still within easy reach of the ripper, is the sloping slide table. By means of gravity, the stock slides down this table laterally to a point near the cutter. The saw and bench may be seen at the

extreme right of the picture. This sloping slide table is Formica™-surfaced for wear and easy sliding, and has adequate size for storing a sizeable quantity of stock ahead of the cutter. From this point, the lumber is easily placed on the cutting bench and cut to length by the cutter.

Although the ripping operation with an Automatic Tailboy is normally faster than the cutoff function, by building up a backlog of stock ahead of the cutter, the operator has time to attend to his other jobs such as selecting stock to be used from the yard, and wheeling in loads of lumber for ripping.

This flexible arrangement can also be used as a one-man ripping and cutting department, with the ripper simply moving to the cutoff station after he has ripped up a good supply of material.

It should be noticed that this versatile system requires no additional powered handling equipment other than the Automatic Tailboy. The two slide tables were readily built by shop personnel with materials on hand.





## Automatic Tailboy for use with Straight-Line Power Feed Ripsaws

### SPECIFICATIONS

Capacity .....	Width: 18" Length: 3 to 16 feet
Return Time .....	Approximately five seconds for sixteen foot lumber.
Thickness Setting .....	Automatically gauged and set from ripper's setting of ripsaw.
Floor Space Required .....	Machine is 32-1/2" wide by 50" long. Belts extend approximately two feet on each side of machine.
Electrical Requirements .....	200-208, 230/460, 575 volt, 3 phase 60 cycle motors are standard.
Electric Motor .....	3 HP 1800 RPM TEFC continuous duty.
Electric Controls .....	Start, stop, test cycle, and tank heater switches. Remote start and stop controls for mounting near ripper's station.
Hydraulic Controls .....	Receive speed: controls speed of receiving from ripsaw. Return speed: controls speed of returning lumber to ripper.
Instruments .....	Pressure gauge for hydraulic pressure. Fluid level and temperature gauge for hydraulic reservoir.
Standard Accessories .....	Stock support table —heavy gauge welded steel table to support the returned lumber at the left of the ripper's position. Universal height arm bracket attaches to outfeed end of ripsaw.
Domestic Shipping Weight .....	1800 lbs.
Export Shipping Weight .....	2200 lbs.
Cubic Measure .....	225 cu. ft.

### SPECIAL REQUIREMENTS WELCOMED!

NORTHFIELD has a fine line of other automation products for the woodworking industry. We also design and build custom automation equipment. If you have a need for a special machine, we would welcome the opportunity to discuss your requirements.



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