# NORDBERG UTILITY GRINDER

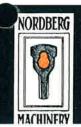
MODEL UG

A Compact Power Tool For The Many Grinding Jobs On Track



A light weight, easily handled grinder, especially applicable for multi-track congested traffic areas.

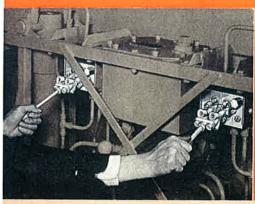
**Bulletin 101A** 



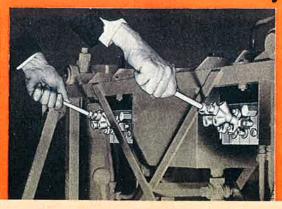
## NORDBERG MFG. CO.

MILWAUKEE, WISCONSIN

### HYDRAULIC—The Modern Way to Raise Track



With both control levers pushed downward, oil is admitted to the top of the cylinders and the rams move downward.



With both control levers pulled upward, oil is admitted to the bottom of the cylinders and the rams move upward.

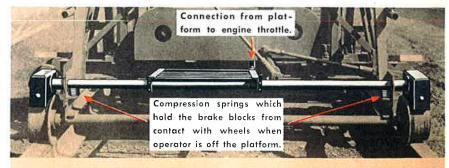


With one lever up, the other down, one ram moves upward and the other ram downward.

is controlled by two hand levers convenient to the operator, one lever for each cylinder. When these levers are pushed down, the rams move downward and when raised, move upward. These controls to the regulating valves work independently of each other, thus permitting both rams to move downward or both upward simultaneously, or one stationary and the other up or down. With this simple control over the direction, speed and amount of travel of the rams, the height of lift can be controlled with the greatest degree of accuracy. Because of the smooth action of the hydraulic rams every lift is to the correct elevation and re-raising is unnecessary. The constant, even lift does not disturb rail alignment. These advantages speed up the ballasting operation and help

to improve the quality of work. Bypasses for the oil prevent movement of the rams beyond the regular range of travel. Oil storage for the system is contained in an elevated tank. Since all the moving parts of the hydraulic system run in oil, wear is reduced to a minimum.

Built-in sighting gauges are provided for those who prefer the use of this device. These are hinged to swing back, out of the way, when not in use. The jack is insulated so as not to operate track signals. The weight of the jack is only 1025 pounds.



When operator steps on the platform, the brake blocks contact the wheels and lock the jack in position, also speeds up the engine from idling to normal operating speed.

### NORDBERG LINE OF POWER TOOLS FOR TRACK MAINTENANCE

Adzing Machine — Power Wrench — Rail Drill — Cribex Power Jack — Spike Puller — Spike Hammer — Track Shifter Grinders for all rail grinding jobs

#### Applicable to All Rail Grinding Jobs

The Nordberg Flexible Arm Grinder answers the need for an easily operated, efficient, yet highly accurate machine for performing such grinding jobs as removing flow from switchpoints and stock rails, undercutting stock rails to house switchpoints, rail end slotting and grooving turnout rails for insertion of copper wire to assure contact for operation of signals. The FG Grinder does all and more than a flexible shaft grinder; does it faster, more accurately and with less effort on the part of the operator. The rapid rate at which this machine removes metal and the ease with which the flexible arm can be made to reach these various grinding jobs make it the fastest and most convenient grinder ever offered.

The weight of the grinding wheel, grinding head and flexible arm is supported by a spring so that in rail slotting and frog grinding operations, the operator has maximum control of his wheel with a minimum of effort. The grinding wheel can be tilted and locked at an angle to undercut stock rails. When removing

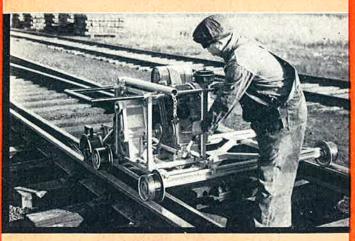
the flow from switchpoints and stock rails or when undercutting stock rails, the flexible arm and grinding head are locked in position, spring tension is set to maintain uniform pressure of wheel and the operator merely has to push the machine back and forth on its running wheels to perform the grinding operation.

The FG Grinder has sealed type ball bearings throughout. The transverse carriage supporting the flexible arm is full revolving on a ball bearing turntable and can be moved laterally across the truck frame to grind either rail. The drive from the 6 horsepower air cooled gasoline engine to the grinding head is by means of multiple V-belts. Total weight of the FG Grinder is 385 pounds.

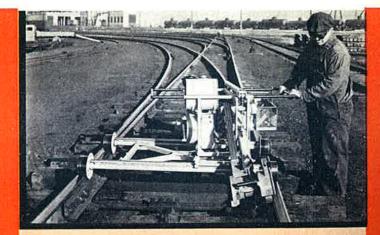
This grinder uses an 8" diameter x  $2\frac{1}{2}$ " double faced cupwheel for grinding switch-points and stock rails, an 8" diameter x 1" thick wheel for frog and surface grinding and an 8" diameter wheel of desired thickness for rail end slotting or rail grooving.



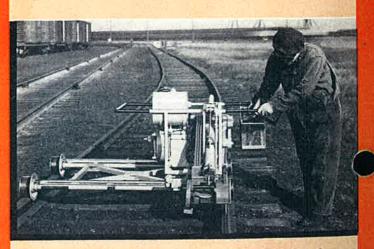
Grinding flangeways at frogs and crossings.



Adjustable spring tension maintains uniform pressure of wheel against stock rail or switchpoint.



Cup wheel undercuts stock rail to house switchpoint.



Grinding groove for wire insert at a turnout to improve contact for operating signals.