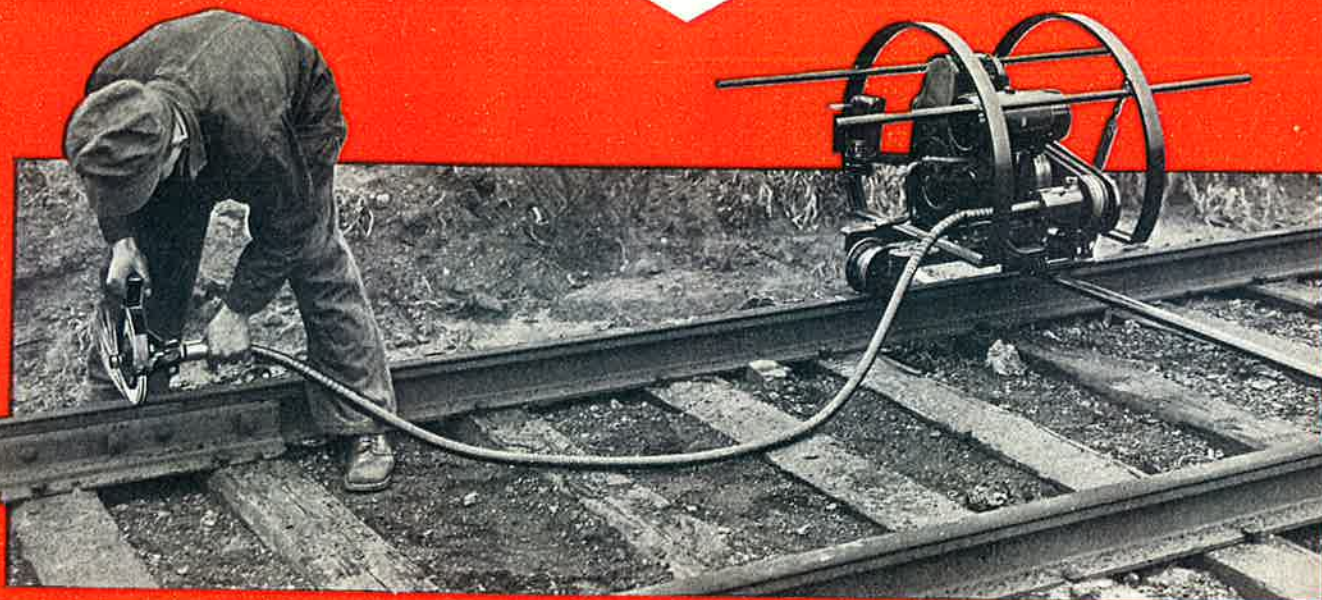


NORDBERG CROSS GRINDER



A Convenient Grinder for Slotting Rails

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NORDBERG MFG. CO.

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NORDBERG CROSS GRINDER

MORE and more attention is being given to the advantages derived from the slotting of joints of newly laid rail. Some roads are making it the regular practice to slot all rail when it is laid. In keeping with its policy to develop equipment to meet the newer trends in track maintenance, Nordberg brought out this Cross Grinder to provide a simple and easy means to accomplish this slotting operation.

A Self Contained One Man Machine

The Cross Grinder requires the service of but one man. It runs mainly on one rail, being carried on double flanged rollers, while to the other rail is an insulated supporting bar to provide stability. Being of light weight and mounted on free running rollers, very little effort is required to move the machine along the track as the work progresses.

Grinding Not Hampered by Fixed Position of Grinding Wheel

The freely held wheel, such as is used on the Nordberg Cross Grinder, is desirable for speed

and a necessity in order to properly slot wide gaps. If the gap is wider than the thickness of the wheel, the freely held wheel can be turned at any angle and successfully grind from both rail ends at the same time. With the grinding wheel mounted in a fixed position at right angles to the rail, it is almost impossible to grind a wide gap using the side of a wheel that is only $\frac{1}{8}$ to $\frac{3}{16}$ of an inch in thickness.

Suitable for Any Portable Service

In addition to slotting joints, the Cross Grinder can also be used for grinding switch points and frogs, driving a wire brush for cleaning steel work, or any similar application where a portable grinder can be used. It will take a wheel 8 inches in diameter and of any thickness from $\frac{1}{8}$ " to 1". In normal service from 30 to 40 joints can be slotted per hour.

The Cross Grinder is driven by a 3 to 5 horsepower air-cooled gasoline engine equipped with an oil type air cleaner that effectively removes dust and abrasive. The engine has a variable



As the operator moves from joint to joint, the Grinder is rolled along on one rail. The 9 foot flexible shaft easily reaches either rail.

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Grinding switch points and frogs is one of the uses to which the Cross Grinder can be put.

speed governor which gives any speed from 1800 to 3000 r.p.m., the change being easily and quickly made. As the diameter of the wheel becomes smaller due to wear, this can easily be compensated for by increasing the engine speed.

The type of engine used is one that is commonly found on power driven machinery requiring a unit of small capacity. It is easily started and due to its simplicity, does not require the services of a specially trained mechanic.

The grinding wheel is driven by means of a rubber covered flexible shaft 9 feet in length. The drive from the engine to the flexible shaft is through multiple "V" type rubber belts. When starting the engine, the shaft may be rendered inoperative by swinging the shaft pulley toward the engine, thereby not allowing the belts to come into contact with the driving pulley.

Quick Removal from Track

The Cross Grinder weighs approximately 300 pounds. Two men can readily lift it off the track, carrying handles being provided for this purpose. In an emergency, however, when it is necessary to get the grinder off the track quickly, the machine can be rolled off to the side of the track by lifting the supporting bar. The heavy hoop-shaped guards, together with the carrying handles prevent damage to the grinder when removed in this manner.

Built for Hard Usage

Like other track maintenance machinery built by Nordberg, the Cross Grinder is constructed to withstand the rough usage encountered in track work. While light in weight, the welded structural steel frame and hoop guards provide strength and durability.

All bearings are equipped with Alemite lubrication, so arranged that the flow of grease is toward the outside of the bearing, thus preventing dust and abrasive from getting into and injuring the bearing surfaces.



Should it be necessary to remove the Cross Grinder quickly in case of an approaching train, it is only necessary for the operator to raise the supporting bar and roll the machine off the track.

Here are Five More Nordberg Machines that were Developed for your Maintenance Jobs.



Adzing Machine

Rails laid on machine-adzed ties require no re-gauging and less maintenance expense. It prepares a perfect seat on every tie, each level and in the same plane.



Track Shifter

For heavy duty raising and shifting track laterally on elevation work, fills and construction projects, this machine takes the place of the big labor gang.



Power Jack

One man and a few tampers at the jack will run away from the average tamping gang on ballasting and surfacing work.



Rail Drill

A light-weight compact drill that is simple enough in its operation to be handled by the average laborer found in section and extra gangs.



Spike Puller

Three men pull from 24 to 28 spikes per minute. Rail laying no longer need be held up by the slow-moving spike pulling gang.

Watch for other Machines that will follow later.