

AIRMATIC®
CASE STUDIES

# How a Railcar Gate Opener Improved Gravity Gate Safety and Efficiency

## About the Project



GO-M04

This job story highlights how a simple mechanical improvement can eliminate long-standing safety risks in bulk material handling.

At a large agricultural cooperative in the Upper Midwest, operators were experiencing frequent injuries while using heavy pry bars to close railcar gravity gates during grain-loading operations. Concerned about both worker safety and efficiency, the Environmental Health & Safety (EHS) team sought an economical, standardized solution using safer railcar gate openers that could be implemented across multiple facilities.

## The Challenge

Before railcars could be filled, their gravity gates had to be securely closed. Operators traditionally used six-foot pry bars inserted into the small outer holes of each capstan barrel to force the gates shut. This manual process created several issues:

### Safety Hazards

- Pry bars often slipped from the barrel, striking operators or causing falls.
- Operators experienced strains and impacts to hands, wrists, shoulders, and backs.

### Inefficiency

- Gravity gate closing was slow, awkward, and physically demanding.
- Operators had to reposition the pry bar in the capstan barrel multiple times and then reapply manual force to fully seat each gate.

### Inconsistency

- Each site used different improvised tools rather than a standardized railcar gate opener
- Techniques varied widely, creating uneven performance and no uniform safety practice.

Without a reliable railcar gate opener, operators depended on improvised tools that created unnecessary risk. The cooperative recognized that continuing this approach exposed personnel



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to preventable injuries and slowed down railcar loading operations. Eliminating pry-bar use became a top safety initiative across its locations.

## How We Solved It

AIRMATIC proposed the WORKMASTER GO-M04 Manual Ratchet Gate Opener, a compact, bi-directional manual railcar gate opener with a powerful mechanical advantage designed to safely and efficiently close railcar gravity gates.

Unlike pry bars that rely on leverage against the outer holes of the capstan barrel, the GO-M04 engages directly with the square drive opening at the barrel's center. This secure male-to-female connection prevents slippage, maximizes torque transfer, and allows smooth, no-torque-reaction ratcheting in both directions. Despite being only 36 inches long—half the length of a typical pry bar—the GO-M04 delivers equivalent closing force with far less strain on the operator.

AIRMATIC supplied multiple GO-M04 assemblies and provided instructions for proper use and safe handling, enabling the cooperative to standardize the procedure at each of its shuttle-loading sites.

## The AIRMATIC Impact

By replacing pry bars with the WORKMASTER GO-M04, the agricultural cooperative eliminated a major source of injury and improved the efficiency of its railcar-loading operations. The tools have performed flawlessly since installation, requiring no maintenance or replacement.

This case demonstrates how a straightforward mechanical solution can significantly improve operator safety, standardize procedures across multiple facilities, and enhance overall productivity in demanding grain-handling environments.

If opening and closing railcar gates is creating safety risks or slowing down your grain-loading workflow, AIRMATIC can help identify the right railcar gate opener for your site. Contact us at 215-333-5600 or infocenter@airmatic.com.



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