



# Motor Grader Operator Injured While Replacing Cutting Blades

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**SAFETY ALERT • JULY 2023**

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## BACKGROUND

On a winter day in the Southcentral US, a motor grader operator was parked in a hunt club parking lot, preparing to perform a cutting edge/blade exchange. Weather conditions were not a contributing factor to the accident. The operator had over 13 years of motor grader experience.

## UNSAFE ACTS AND CONDITIONS

The operator did not de-energize the machine and relied on the equipment's hydraulic system to keep the table and moldboard in place. The operator also placed himself in a dangerous position by stepping between the moldboard and the cab while performing maintenance on the motor grader.

## ACCIDENT

The operator began by disengaging the link pin to move the moldboard into position and then attempted to re-engage the link pin before starting his routine maintenance. He then shook the moldboard with the hydraulic system to ensure the link pin was engaged. The moldboard was then positioned at the side of the grader to begin the blade removal process. The blades were removed without incident, and the operator began cleaning the moldboard before installing the new blades. Next, the operator stepped around the moldboard to get a wire brush from the cab, placing himself between the moldboard and the grader cab. Suddenly, the table and moldboard fell, striking the operator in the back of his leg. The operator was able to call his supervisor for help, and EMT personnel were dispatched to the accident scene. The injured operator was transported to a local hospital for further evaluation and treatment. A post-accident inspection revealed that the link pin was not properly engaged, and a proper zero-energy process was not employed.



## INJURY

The operator fractured both the tibia and fibula in his lower leg.

## RECOMMENDATIONS FOR CORRECTION

- Always be aware of your surroundings and never place yourself in a position to be injured by stored energy during routine equipment maintenance and servicing.
- Develop lock out/tag out procedures to de-energize equipment to a zero-energy state during equipment maintenance and repair.



This Safety Alert analyzes an injury in accordance with the chain of events represented by the five dominoes above. Pioneer industry safety experts H.W. Heinrich and Alfred Lateiner developed this accident analysis system to provide a graphic sense of how injuries can be avoided. Their methodology has been accepted by safety professionals worldwide.

### Safety Meeting Report

Date:

Company:

Names of Employees Attending:

Topic(s) Discussed:

Comments / Recommendations:

Meeting Conducted by:

Please follow equipment manufacturers' recommendations for safe operation and maintenance procedures.

signature