



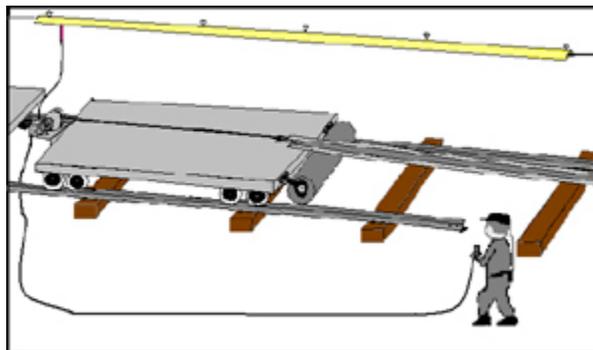
## MSHA's Accident Prevention Program Safety Idea

**SAFETY  
IS A  
VALUE!**

### "Mechanical Means of Lifting"

**Category :** Back Injuries  
**Mine Type:** Underground Coal

Back injuries are at the top of the list of statistics for every industry's top accident. Proper lifting techniques and the use of back braces help reduce the number of back injuries, but using a mechanical means of lifting is the best way to reduce them. The most effective way to reduce back injuries is to not put the back at risk. In mining, when a section retreats they must pull up the rails and ties. Injuries and strains often occur while lifting and loading these heavy, unwieldy objects. A trolley powered winch on one end of the rail car and a roller on the other can eliminate many injuries.



With a little shop work the winch can be fabricated from a bolter or cutter cable reel. The head sheave from an old belt drive makes an excellent roller. The roller should be about one and a half feet in diameter. This eliminates the need for even lifting the rail onto the end of the car. A smaller roller will allow the rail to catch, but the larger diameter roller simply raises the rail up and onto the car. A remote start-stop switch combined with this self loading feature will make it unnecessary to have anyone near the car. This allows miners to be positioned in a safe location in the event that a cable slips or breaks. Once on the car, the rails can be levered into place or stacked by the use of a slate bar.

Take a look at your operation to determine if this remedy will help reduce injuries.

Reissued:	<input type="text"/>
Tag #	AP2002-S002

**Remember – Safety is a Value that you can LIVE with!**