



MSHA's Accident Prevention Program Safety Idea

**SAFETY
IS A
VALUE!**

Brake Cars (A Sequel to "Wire Rope Safety")

Category : Hoisting & Elevators
Mine Type: Underground Coal

Almost every slope hoist in deep mines is set up to transport personnel, if not as the primary, then as a secondary man hoist. In many cases, a brake car is used as an emergency stopping device. The brake car is equipped with a battery powered electro-magnetic braking system that is designed to stop the car if activated by an overspeed sensor or manual switch. Brake cars should be maintained with the following standards:

- The car overspeed switch should be set to the correct activation speed setting. Maintain and periodically test the car overspeed switches.
- Maintain the communication systems on the car and at the hoist and bottom locations. Test daily.
- Hoist operator should take slack out of rope before the brake is released.
- Batteries should always be fully charged to prevent unintentional setting of the brakes that can result in slack rope conditions. (Requires a good battery maintenance program)
- Personnel should be trained in procedures for proper methods of signaling the hoistman, how to release and set brakes and how to remove the slack from the rope before releasing the brakes. Also, post these procedures on the brake car.



The best maintained brake car is still a hazard if the track and road bed are not maintained properly. Enough dirt, mud or debris on the rails will make the braking system ineffective. If enough dirt, mud or debris is present to slow the car's decent, a slack rope situation can develop. If the dirt or mud is allowed to accumulate on the cable rollers to the point where they won't turn, excessive wear on the cable itself can occur.

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