

Motorized Equipment

Vehicles should be moved in low gear and at low speed inside shop areas, especially up and down ramps

Training repair shop personnel

Apprentices and new employees should be trained to do each job in the most efficient manner. Job instruction should include the safety rules and regulations pertaining to each job and give the reasons for such rules. The new mechanic should be thoroughly indoctrinated concerning the company's policy toward safety. He should understand the organization of the safety program and the part he is expected to play in it.

Having been indoctrinated and trained to work safely, the new employee must be kept actively interested in observing accepted safe practices in the conduct of his job. There are many devices available to the safety director to accomplish this end, including safety supervision, safety contests, safety meetings, posters, safety bulletins, and pamphlets.

Proper application of these various incentives is described elsewhere in this Manual. This safety director should select those most suitable to his purpose and adapt them as needed.

Off-the-Road Motorized Equipment

Heavy-duty trucks are again mentioned here because they are used extensively for special off-the-road operations in such industries as mining and construction. When on the road, they are, of course, governed by the same safe-driving practices as other types of automotive equipment.

The use of heavy-duty trucks, mobile cranes, tractors, bulldozers, and other motorized equipment in the production of stone, ore, and similar materials and in construction work is often accompanied by serious accidents. Workers near equipment can be struck, run over, and killed. Equipment sometimes slips over embankments, injuring people. Servicing and maintaining equipment can be hazardous.

Many accidents, even those that do not injure anyone, result in costly damage to equipment, loss of efficiency and production, and high maintenance costs.

In general, prevention of accidents to heavy equipment requires

- 1 Safety features on equipment,
- 2 Systematic maintenance and repair,
- 3 Trained operators, and
- 4 Trained repairmen

Safe and proper operation of equipment should be found in manufacturer's manuals. Many driving practices are the same as those necessary for the safe operation of highway vehicles. Off-the-road driving, however, involves special hazards requiring special training and safety measures.

Haul-roads

Roadway improvements pay for themselves because they reduce accidents and lower maintenance costs. Both temporary and permanent roads often are too narrow for the equipment and for two-way traffic, especially at curves and fills. Enough space must be provided at curves so that large trucks need not cross the centerline of the road. Curves should be elevated toward the outside.

Roadways for heavy-duty trucks and two-way traffic in open pit mines should be 40 to 50 ft wide. Sized rock and sand with clay and oil for binders make a satisfactory road. Roads of heavy rock, filled with rock of smaller sizes and surfaced with fine rock, also stand up well under heavy traffic.

Roadways should have a slight crown and ditches for drainage. The maximum grade should not exceed 8 per cent. A windrow of loose material along the bank side furnishes protection against the truck's going off the roadway. For night driving, reflectorized signs along the bank side will increase safety.

Both temporary and permanent roadways require regular patrolling and maintenance. Too often serious accidents, breakdowns, delays, and unnecessary maintenance expense can be traced to neglected temporary roadways. Road patrols should be provided with protective equipment, such as barricades, MEN WORKING signs, red flags, flagmen, and flares.

Seasonal conditions create road hazards which require prompt attention. Some companies provide sprinkler trucks to protect their men against harmful dusts, discomfort, and the possibility of accidents during dry