



भारत सरकार
Government of India
श्रम एवं रोजगार मंत्रालय
Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय
Directorate General of Mines Safety



No. DGMS (Tech) Circular (MAMID)/ 03

Dhanbad, dated : 14/03/2016

To
The Owner/Agent & Mangers
All Coal, Metalliferous and Oil Mines.

Subject: Safety features to be incorporated and maintained in crawler/tyre mounted machineries deployed in mines.

A serious accident took place in an open-cast mine, in which a dozer moved forward while the dozer operator, standing on track pad, started the dozer directly by short-circuiting the self-starter, keeping the machine in gear. The dozer operator fell between the dozer blade and the track pad and was run over by the track-pad inflicting serious injuries to both his legs and right hand leading to amputation of both the legs below knee.

After the accident, a study was undertaken in which all 278 numbers of crawler and tyre mounted machineries (hereinafter called machineries) deployed in the mine were examined.

The investigation revealed the following :

- (a) Neutral Switch electrical interlock with gear, which prevents starting of machineries if in geared position, was either not found in order or not provided in 90% of the machineries.
- (b) Hydraulic safety valve interlock, which prevents movement of the machineries even if its engine starts in geared position; the machineries will move only when the gear is brought to neutral position and then gear lever is shifted to engaged position. This safety feature was either not found in order or not provided in 35% of the machineries.
- (c) Self-starter protection guard, which prevents short-circuiting the terminals of self-starter motor, was either not found in order or missing in 89% of machineries.

During the period from 2012 to 2015, about 45% fatal accidents and 22% serious accidents took place due to machineries in coal mines. The same figures in non-coal mines were about 30% and 38% respectively.


The above findings of the investigation/examination highlight the need to take appropriate action in ensuring proper functioning safety devices provided in

machineries for the greater benefit of persons employed in mines and machineries deployed therein.

There is no doubt that if the machineries are maintained in safe working order, required safety devices are provided & maintained and work persons (operators/helpers/mechanics/electricians/supervisors/engineers) are adequately trained, it would be possible to eliminate recurrence such accidents in future.

I, therefore, request you to take necessary action to maintain all required safety features in crawler/tyre mounted machineries deployed in the mines, impart adequate training to all related work persons and improve safe work culture.

Yours faithfully,


(Rahul Guha) 14.03-16
Director General of Mines Safety