



TRAMP METAL “FIRED” FROM JAW CRUSHER

INCIDENT

A primary jaw crusher operator on a surface gold mine heard a noise coming from the crusher and went to investigate. The operator stood on a viewing platform well above the moving jaws to try to determine the source of the noise. A piece of tramp steel was ejected from within the crushing chamber of the machine, narrowly missing the operator, and cannoned into the crusher control cabin some 15m above, causing serious damage to the structure before ricocheting onto a steel beam and then landing back within the jaws. Subsequent examination showed that the tramp metal was a ripper boot from a large bulldozer.

COMMENT

There is no doubt that, had this piece of metal struck any person in the vicinity of the crusher, a fatality would have been the result. The fact that the tramp metal landed back in the crusher throat raised the potential for an immediate recurrence of the incident.

REMEDIAL ACTION

In this particular instance, a substantial steel grid cover for the jaw crusher has been manufactured and is left in place at all times when the unit is operating. It is possible to remove the cover for maintenance. However, it may well be that (due to the geometry of crushing plant structure) such a solution will not be practicable in every case. The problem is compounded by the difficulty of using tramp iron magnets in a direct feed or primary chute feed situation.

Mine operators are therefore strongly enjoined to tackle such problems at their source (within the mine itself), and to ensure that sound procedures are in force for the checking and prompt replacement of worn or damaged ground engagement tools and their fixings.

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