



Department of
Industry and Resources

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SIGNIFICANT INCIDENT REPORT NO: 118

GRADER INCIDENT – LOSS OF CONTROL

Incident:

Whilst grading the decline of an underground mine a Caterpillar 130G Grader ran out of fuel. The operator attempted to park the grader by rolling backwards and steering it into the wall. With the engine not running, however, the operator was unable to steer the grader or lower the blade to the ground. After 3-4 applications, the service brake failed to operate as its system was depleted of air. The grader then began to roll backwards in an uncontrolled manner down the decline.

After travelling a short distance the blade of the grader struck the side of a light vehicle which had pulled off the decline to let the grader pass. In total, the grader travelled 120 metres down a straight section of the decline reaching an estimated speed of 30-40 kilometres per hour. It came to an abrupt halt after hitting the sidewall at the bottom of the straight. Fortunately the four occupants of the light vehicle were not hurt and the grader driver received only minor injuries.

Causes:

- The grader ran out of fuel in the decline.
- When the engine shut down the operator was unable to steer the grader or lower the blade to the ground. The service brake only allowed 3-4 applications before running out of air.
- The operator did not apply the park/emergency brake when the grader started to move down the decline.
- The grader was not fitted with supplementary steering which would have provided steering of the vehicle after the engine shut down.
- The grader operator was not fully aware of the limitations of the grader when the engine was not running.

Preventative Action:

- Ensure graders for use underground are refuelled at the start of each shift and prestart checks including fuel levels are carried out prior to use.
- Mobile plant underground including graders to be fitted with fuel gauges or warning lights or alarms indicating low fuel levels.
- Where practicable graders for use underground to be fitted with supplementary steering systems.
- Grader operators should be made aware of the limitations of air applied service braking systems.
- Grader operators must be given adequate instruction and training in the operation of the grader underground. They should be assessed for competency in accordance with Regulation 4.13 of the Mines Safety and Inspection Regulations 1995.

M. J. Knee
STATE MINING ENGINEER
30 August 2002