

## Maxipot Failure Results in Fatality

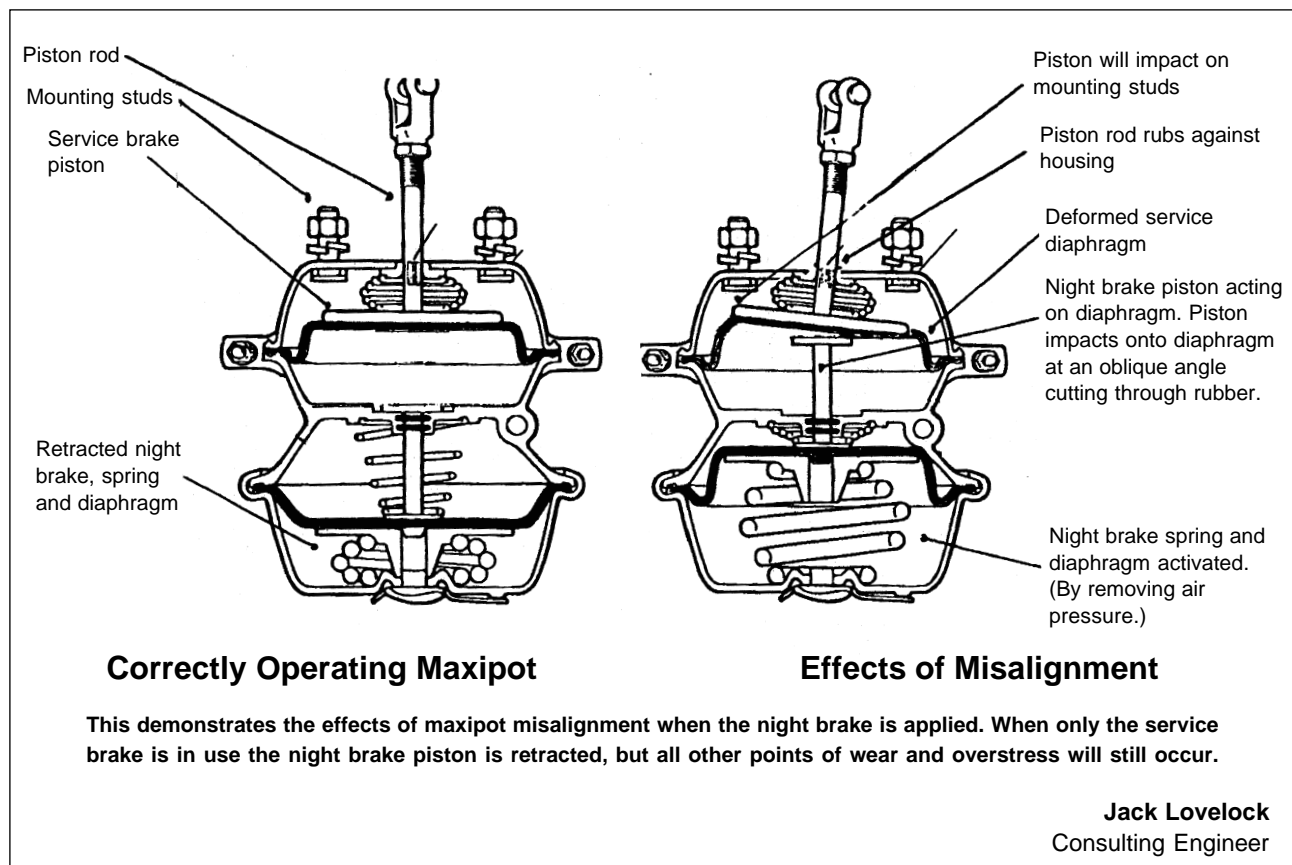
A breaker-out in a cable logging operation was fatally injured when the carriage attached to the skyline suddenly and unexpectedly dropped.

### Circumstances

A Madill 071 hauler was operating a standing skyline gravity-return system with a motorised slack-pulling carriage. At the time of the accident the carriage had been stopped and clamped to the skyline. It was suspended about 6 metres above the ground. The breaker-outs walked toward the carriage to take hold of a strop each when the skyline suddenly dropped. The carriage fell hitting one of the breaker-outs causing fatal injury.

### Investigation

The accident was caused by a catastrophic failure of the actuator (maxipot) on the skyline brake drum. The maxipot, which had been in service for about four years, was found to be seriously misaligned. The piston rod had bent alarmingly and over a period of time caused extensive damage to the piston, rod and diaphragm. Failure was imminent; finally the diaphragm tore out of its clamps resulting in a sudden loss of air pressure. This caused the skyline brake to release allowing the skyline to slip and the motorised carriage to drop.



## Recommendations

All hauler/yarder contractors should inspect and verify the:

**Maxipot size:** is the correct size as specified by the hauler/yarder manufacturer;

**Maxipot age:** is within warranty (it is recommended maxipots be replaced yearly); and

**Maxipot alignment:** is correct. (Refer to manufacturer's instructions as to frequency of inspection and adjustment.) As a guide, maxipots should be inspected at least once a fortnight. Use colour-banded maxipots to warn of over-stroke extension.

Maxipots found to be the wrong size, out of warranty or damaged, should be replaced immediately. All preventative maintenance and service work carried out on the hauler/yarder should be recorded in the machine's logbook.

**Madill 071 Operators:** As a further precaution to control the consequences of a sudden air loss in the braking system, operators should engage all three

clutches and service brakes when the rigging is stopped and persons are under or in the vicinity of the rigging. This action will stop or minimise any brake slippage in the event of a sudden air loss occurring. For other makes or models seek advice from your service agent or supplier.

The consulting engineer who gave evidence at the Coroner's inquest on the maxipot failure stated the industry urgently requires a preventative maintenance handbook on the correct installation and alignment of maxipots. In terms of complying with your legal duties and responsibilities, these recommendations, where applicable, should be implemented.

The Health and Safety in Employment Act 1992, section 6, "Employers to ensure safety of employees" requires employers to take all practicable steps to ensure the safety of employees while at work. That plant used is so arranged, designed, made and maintained that it is safe for the employee to use and they are not exposed to hazards arising from the use of such plant.