

# SAFETY ALERT

## Draw bar failure on dog trailer

### INCIDENT

The drawbar on a road registered dog trailer catastrophically failed after the truck and dog trailer was loaded in a mine pit.

### CIRCUMSTANCES

The road registered truck and dog trailer was hauling material from the mine pit to the coal preparation plant.

As the loaded vehicle drove away, the drawbar on the dog trailer catastrophically failed at the welded area adjacent to the ring hitch, see figure one. The truck and trailer was transporting coal on private and public roads.



*Figure One – Failed drawbar on dog trailer*

### INVESTIGATION

The investigation identified two issues.

1. When material was tipped out of the truck body the dog trailer was turned to the side and the draw bar would have contact with the tyres or the truck structure. This caused side loading on the drawbar. This was standard procedure.
2. There was no evidence of any inspection on the dog trailer drawbar area to pick up any damage or defects.

The truck and trailer were within load tolerances and not overloaded. The emergency brakes were applied as required when the connection was broken. The truck and dog trailer complied with the Australian Design Rules for vehicles.

## RECOMMENDATIONS

Mines should have a system to ensure all road registered trucks operating on the site are periodically checked for structural integrity. This system should be part of the mine's mechanical engineering management plant and should include –

1. Inspection of all drawbars, couplings, pins and other structural components.
2. Visual inspection by a competent person of the drawbar connection.
3. An independent Non-Destructive Testing inspection of the drawbar connection and an inspection report, at periodic intervals depending on the duty cycle.
4. A review of the mine's tipping rules for truck and dog trailer combinations to prevent side loading on the drawbar and coupling. Task-based observations should be completed on a routine basis.
5. Carrying out periodic audits on the equipment and system to measure the effectiveness of the inspections.

**NOTE:** Please ensure all relevant people in your organisation receive a copy of this Safety Alert, and are informed of its content and recommendations. This Safety Alert should be processed in a systematic manner through the mine's information and communication process. It should also be placed on the mine's notice board.

**Signed**



**Rob Regan**  
**DIRECTOR**  
**MINE SAFETY OPERATIONS BRANCH**  
**NSW TRADE & INVESTMENT**

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