

SAFETY ALERT



COAL MINE SHUTTLE CAR CABLE REEL

NOTE

This Safety Alert has been issued to inform the underground coal mining industry of a significant risk of failure of the explosion protected characteristic of the cable-reel slip ring cover in common use on JOY shuttle cars.

The in-service failure of the explosion protection characteristic of explosion protected apparatus located in a hazardous zone is regarded as a dangerous occurrence for the purposes of Coal Mines (Underground) Regulation 1999 (Part 2, Division 5), Clause 34 (1) (g).

EVENT

There have been a number of separate incidents of failure of a weld between the slip ring cover and the sprocket shaft. These failures compromised the explosion protected characteristic of the cable-reel slip ring cover of JOY shuttle cars. In a number of cases the cable reel covers had been inspected by an approved workshop within the previous 12 months.



This failure mode of the shaft was previously advised to JOY customers in a JOY service bulletin Number ASB 232 dated 14/9/1992. The bulletin advised customers that the cover assembly (p/n 577446) had been replaced by cover assembly part number 01756742 0000. The redesign provided for a headed stub shaft that is fully welded to the interior face of the cable reel cover.

The picture shows a slip ring cover, internal side up. The sprocket and parallel shaft also shown was able to break free from the centre locating hole because of the lower strength

design. The redesigned shaft with a larger diameter head fully welded to the cover is intended to increase the strength of the assembly.

RECOMMENDATIONS

1. As a result of the recent failures, collieries and approved workshops are urged to examine each cable reel cover, and to replace or repair any that do not have the improved sprocket shaft. In case of any doubt, the Original Equipment Manufacturer, Joy Mining Machinery Pty Ltd, should be consulted.
2. The Department also draws the attention of Mine Managers to the requirements of Clause 51, Coal Mines (General) Regulation 1999.

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