

# Safety Alert

Mines Inspectorate—All mines

Safety Alert No. 283 | 18 January 2012

## Screenbox flywheel failures on Powerscreen® Chieftain 2-deck screening plants

### What happened?

In three separate incidents, the screenbox flywheel on Chieftain 2-deck screening plants failed. Two incidents occurred on a Chieftain 2100 flywheel (damaged flywheel pictured) and one on a Chieftain 1400.



### Why did it happen?

The cause of the failure is yet to be determined but two possibilities are:

- the flywheel was operating outside the design parameters, or
- there was a precondition associated with the welding process.

All three failures exhibited a similar pattern in that the flywheels separated from the hub adjacent to the weld.

The weight of the Chieftain 2100 detached flywheel, with its complement of six counterweights, is in excess of 50 kg. In one incident the disintegrated flywheel landed on the ground underneath the access platform, placing any person in the vicinity at risk. It is not known if the flywheel guard has been designed to contain a disintegrating flywheel.

Powerscreen has issued a Safety Notice CB 028 that recommends all flywheels on the Warrior WR1800 should be replaced with heavier duty units. It is believed that the flywheels for the Chieftain 2100 are the same as the lighter duty Warrior WR1800 flywheels.

## Recommendations

1. Owners and operators of Powerscreen® Chieftain 2100 and Chieftain 1400 2-deck screening plants should contact Lincom Pacific Equipment Pty Ltd to ascertain what action to take so that injury risk due to a failure of screenbox flywheels is within acceptable limits and as low as reasonably achievable.
2. Keep guards in place while the plant is under operation, testing or fault finding.
3. Ensure workers' safety in the flywheel drop zone should a flywheel fail in service and detach.

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