# **CAT7495 Crawler Shoes**

| Location   | Colombia, South America                                  |
|------------|--|
| Platform   | CAT7495 Excavator  |
| Conditions | Coal Overburden  |
| Solution   | Bradken OC7495S79-3A Induction<br>Hardened Crawler Shoes |

#### Situation

Our customer operates multiple CAT7495 electric rope shovels in a major Colombian coal mine. The mine plan requires higher than standard tramming of the shovels, resulting in elevated wear of the tracks and therefore reducing service life.

The OEM supplied shoes only achieve approximately 15k hours in these conditions with intermittent failures occurring during service without warning. In addition to this, the shoes can lose their pin eye bushes, causing pins to break and the track to separate.

Low wear life and intermittent shoe failures cost the customer in unplanned downtime, increased maintenance, and extra spend on product replacement.

## Solution

Bradken collaborated with the customer to develop a 79" crawler shoe featuring an innovative ultra-deep wear surface hardening process, which resulted in reduced wear rates on the high wear surfaces; the pin eyes, and the roller paths. By hardening the pin bores, Bradken eliminated the need for a bush, which effectively eliminated shoe failures resulting from bush loss.

As a result of the enhanced product offering the Bradken crawler shoes outlasted the OEM offering, with the Bradken tracks achieving 25k hours.

### Results

Since 2015, Bradken has supplied over 380 shoes to this mine site to support their CAT7495 shovels and, during this time there have been nil failures of Bradken shoes. However, during the same time, the site has experienced multiple events where the OEM supplied shoes have failed in-service without warning, causing unplanned downtime on the machines.

With the installation of Bradken shoes on the sites shovels the site has improved production rates, efficiency and safety by eliminating unplanned downtime due to shoe failure and maintenance. They can now typically achieve 25k hours at this site, where the OEM tracks rarely achieve more than 15k hours.

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#### **Results Summary**

- 60% increase in track life over the OEM shoe
- Eliminated unplanned downtime associated with shoe failures
- Eliminated incidence of bush failure by replacing it with a hardened pin bore
- Improved site safety with the reduction in shoe replacements onsite



Bradken undercarriage on CAT7495 Excavator



Bradken Induction Hardened OC7495S79-3A



Bradken's upgraded pin retention hardware



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