

Evolution[®] 6040 Crawler Shoes

Location	Pilbara Region, Western Australia
Platform	6040/RH170 Hydraulic Excavator
Conditions	Hard Rock – Iron Ore
Solution	Evolution [®] Crawler Shoes

Situation

A customer in the Pilbara Region of Western Australia was operating two 6040/RH170 machines mining iron ore. The machines were delivered with manufacturer's original fitment crawler shoes. The OEM shoes began failing at approximately 7,000 operating hours. To get the tracks through to their budgeted 13,000 hour full life, many of the shoes had to be replaced on an individual basis, as and when they failed.

The cost of parts alone ended up higher than the original track cost. Add to that machine down time and the overall cost to the mine was significant. After 13,000 hours the OEM tracks were totally worn and not able to be refurbished.

Solution

At this time, the operators of the mine decided to install Bradken Evolution[®] crawler shoes.

The Evolution[®] design incorporates the use of Bradken's patented 'continuous roller path'. This design enhancement improves the contact pressure distribution between the roller and the shoe. As a result, the roller is supported at all times as illustrated in the diagram (bottom right). This reduces metal flow in the shoe and increases the service life of mating components.

Results

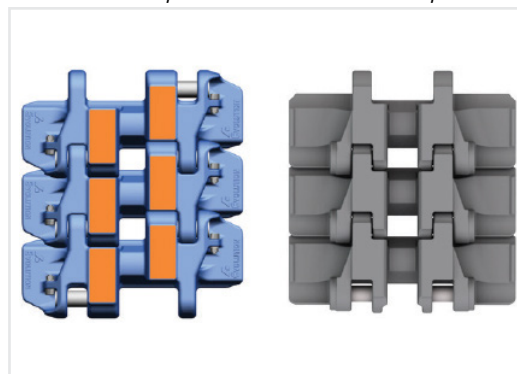
After 14,500 hours of service, the Bradken crawler shoes were replaced by another set of Bradken Evolution[®] crawler shoes. The removed set was still in good condition and underwent refurbishment for future reuse. The mine has now implemented a full lifecycle rotatable strategy for their 6040/RH170 machine undercarriages utilizing new and refurbished Evolution[®] crawler shoes.



6040/RH170 Excavator



Bradken's patented continuous roller path



EVOLUTION[®]

DRP/OEM



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