



CASE STUDY

Caterpillar 793D Haul Truck
Operational Readiness Assessment



AT A GLANCE

Challenges

- Assessing the overall condition of the truck focusing on all critical systems that may cause unreliability and associated cost through component failures and loss of production.
- Assessing compartment condition based off historical oil analysis results which provide a snapshot of condition in the past but not necessarily at the time this project was undertaken.
- Ensuring the truck was safe to operate, all safety systems had to be functioning.



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"The Holistic Asset Management engineering team met and exceeded expectations, leaving a positive impact on the company and its operations"

Engineering Manager

THE ADDED VALUE

HolisticAM created value for the mining company by:

Value One

Recommending to the client which trucks make economic sense to return to work

Value Two

Increase in overall mine throughput by having extra haul trucks that were reliable.

Value Three

The overall fleet condition was known and documented with critical remediation work identified.



PROJECT OVERVIEW

The client due to reduced operation demands had parked up numerous Caterpillar 793D Haul Trucks. These trucks were used sparingly unless there was a shortage of trucks. With rising commodity prices and increase throughput from the mine the client required the trucks to be returned to service full time.

Holistic Asset Management (HolisticAM) was engaged by the mining company to undertake a detailed review to determine the reinstatement scope of works for each truck to determine which trucks were most cost effective to return to work.

The objective of this project was to understand the truck condition and provide a recommendation of which trucks were suitable to return to work.

The project utilised a hybrid onsite-offsite execution approach and was delivered on time and within budget.

THE CHALLENGE

The greatest challenge with this project was to assess the overall condition of the truck focusing on all critical systems that may cause unreliability and associated cost through component failures and loss of production.

In addition to assessing component condition, the team had to ensure the truck was safe to operate, all safety systems had to be functioning.

It was also challenging to assess compartment condition based off historical oil analysis results which provide a snap shot of condition in the past but not necessarily at the time this project was undertaken.



THE SOLUTIONS

The client chose HolisticAM based on their OEM, condition-monitoring expertise, on-site experience and proven track of delivering results in the mining industry.

As with all projects executed by HolisticAM, our methodical approach includes identifying the current state, the required future state and presenting these opportunities to the client for consideration.

HolisticAM worked closely with the client's engineering, planning and maintenance execution team to undertake the following reliability engineering tasks:

- A review of all the open work order on the trucks to determine criticality and corrective actions required
- Review of compartment oil condition to determine if there was any indication of degradations
- Review of major component hours against the planned maintenance strategy
- Review of Non-Destructive Testing (NDT) Reports to identify crack criticality and priority of repair. Where there was uncertainty NDT inspections were undertaken to validate and verify the cracks.
- Any performance testing was identified and completed

THE RESULTS

Key deliverables included:

- Asset Health Condition health assessment for each truck
- Critical Re-instatement Scope of works for each truck
- Recommendation of priority based on maximising availability and reliability whilst minimising cost



THE ADDED VALUE

HolisticAM was able to create value by

- Recommending to the client which trucks make economic sense to return to work.
- Increase in overall mine throughput by having extra haul trucks that were reliable.
- The overall fleet condition was known and documented with critical remediation work identified.



Who are we?

Holistic Asset Management is a leading provider of advanced reliability engineering technology and services to the asset intensive industries. We work with our customers to develop tailored solutions that meet the needs of their individual operations and help them realize significant savings in their maintenance costs.

We are proud of the reputation we have earned as a reliable and advanced engineering services provider to the mining industry. Our commitment to our customers is to provide the most reliable and advanced engineering solutions that will help them improve their reliability management systems and ultimately reduce their operational costs.

Unlock the full potential of your assets with our services. Contact us today to schedule a consultation and discover the difference we can make.

www.HolisticAM.com.au