CASE STUDY

B&D MULTI HANDLER: A KEY COMPONENT TO THE BEST TOOLING PACKAGE FOR HAUL TRUCKS IN THE WORLD.

SITE

Copper mine in Chile that is currently operating 18 Komatsu 830Es and 14 Komatsu 930Es with an indoor maintenance shop that houses 4 bays,

OBJECTIVES

- Improve safety for service technicians
- Increase truck utilization
- Reduce operating costs.

OUTCOME

- No reported worker injuries as a result of maintenance and repairs on the component
- 4228 hours every 48 months of increased truck utilization which means over 1.5 months in every year
- Significant expectations for reducing long-term operating costs





CHALLENGE:

Mine management is now more than ever faced with the task of making sure that workers are safe, however, at the same time they are required to increase production and improve the bottom line. With continuous haul truck use in a demanding environment, a rigorous maintenance schedule is critical to keeping a fleet in operation. Whether it be proactive maintenance or unexpected equipment failures, the required repairs on these massive haul trucks are done in confined spaces due to demanding economics of the industry. As a result, ensuring the maintenance and repair can be done safely and quickly is key to a mine's success.

SOLUTION:

After a thorough investigation, the mine management at this particular site chose to work with B&D Manufacturing to put together a tooling package that could improve safety and increase truck utilization. As part of the site's custom tooling package, a B&D Multi Handler was acquired and implemented in the maintenance shops. The B&D Multi Handler is a specially designed tool to improve turnaround time on wheel motor, front suspension, rear suspension and hoist cylinder repairs. **After 48 months truck utilization increased by 4228 hours of truck utilization**.

Component	Recommended frequency for maintenance*	Maintenance hrs without B&D Multi Handler**	Maintenance hrs using B&D Multi Handler	Increased truck utilization (Frq x Hrs)
830E Wheel Motor	22,000 hrs = 33 months***	30 for a pair	20 for a pair	1.5 x 20 = 30 hours
830E Front Strut	14,000 hrs = 21 months***	48 for a pair	24 for a pair	2.5 x 24 = 60 hours
830E Rear Strut	16,000 hrs = 24 months***	8 for a pair	2 for a pair	2 x 6 = 12 hours
830E Hoist Cylinder	18,000 hrs = 27 months***	8 for a pair	2 for a pair	2 x 6 = 12 hours
930E Wheel Motor	18,000 hrs = 27 months***	30 for a pair	20 for a pair	2 x 20 = 40 hours
930E Front Strut	10,000 hrs = 15 months ***	48 for a pair	24 for a pair	3 x 24 = 72 hours
930E Rear Strut	16,000 hrs = 24 months***	8 for a pair	2 for a pair	2 x 6 = 12 hours
930E Hoist Cylinder	16,000 hrs = 24 months***	8 for a pair	2 for a pair	2 x 6 = 12 hours

Every 48 months this mine site gained 4228 hours truck utilization based on applying the hourly savings to eighteen 830Es and fourteen 930Es.

*Standard hours recommended from OEM Rate Book.

**Maintenance hours once the wheel has been removed.

***Based on trucks being used 657 hours per month (90% utilization).



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