



HME Optimization

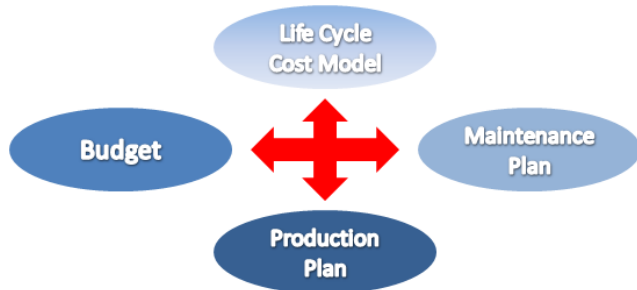
How to achieve productivity gains through planning and communication

Fleet assets demand long-term commitment to planning, communication, and knowledge transfer

Vigorous Equipment Plans

Today's volatile commodity price environment offers even more incentive to plan activities from a zero baseline and to constantly measure results. For Heavy Mining Equipment operators this means building comprehensive equipment plans by aggregating all inputs in a life cycle cost model that feeds the budget.

Planners and engineers need to be able to match maintenance strategy, costs and consumption rates with operating conditions in order to properly assess production plans.



Building an acceptable plan, and adjusting it for risk, gives mine managers the backup they need to create an integrated budget that provides realistic estimates for availability, utilization, production and cost.

The equipment plan also provides the basis for mine and maintenance schedule alignment, estimating physical and manpower resources, and provides an excellent framework for evaluating overall maintenance strategy and technology investments.

Constructive Supplier Relationships

Bad relationships cost money – they create a toxic work environment and kill profits.

In an era when most mines rely on significant product support (such as MARC's) from their mobile equipment suppliers in order to meet production targets, it's imperative that all sides invest in constructive long-term relationships.

For mine operators, this often begins by acknowledging that how they treat their equipment directly affects how it performs. For suppliers, it means taking action on problems and not hiding information.

The best relationships have:

- A mutual understanding of each others' business
- Constant, purposeful communication
- Personal contact at every level between organizations, from executives to the shop floor
- Integrated engineering efforts in modification design, reliability centered maintenance, failure analysis and condition monitoring
- Reasonable and measurable commercial agreements
- Shared commitment to the lowest sustained cost per ton

It's an advantage to negotiate the right agreements in the first place, but disputes, management change and reporting discrepancies can all lead to deterioration of the critical day-to-day relationships necessary to support HME assets.

It pays to pay attention because equipment health is directly related to the health of the operator/supplier relationship. By the time it starts to show financially there's probably more at stake than you think.

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Sharing Knowledge

With skilled worker shortages occurring at the same time that HME becomes more sophisticated, the ability to transfer knowledge between generations of engineers and tradesmen is a strategic advantage to companies that get it right - the need to share knowledge has never been greater.

Sharing knowledge between sites is just as important in the short-term because it supports trouble-shooting and performance benchmarking, helps determine operating best practices, and aids in fleet selection:

240 Ton Haul Trucks: ALL SITES		
Life Cycle Cost Element:	Electric Drive	Mechanical Drive
R&M	\$ 108.53	\$ 115.69
Tires	\$ 78.09	\$ 73.98
Fuel	\$ 115.65	\$ 123.16
Capital	\$ 63.32	\$ 60.44
Total LCC/Hour	\$ 365.59	\$ 373.27

This means that HME knowledge is a critical asset, and creating a plan to share it should be a strategic priority. It's more than just a training plan, it's a commitment to permanently capture and transfer the best ideas throughout an organization.

The best results come from:

- Recruiting engineers and tradesmen who have a passion for HME, then challenging them with responsibility early in their careers
- HME user group meetings that bring together internal experts
- Topical workshops that provide quick dissemination of ideas
- Private online forums that serve as a company database and solution center
- Constant skills upgrading policies that ensure that key personnel have current understanding of and access to critical HME knowledge

How M.G. Currie & Company Can Help

With over 25 years HME experience that includes senior roles with a major Caterpillar dealer and the global mining practice at a Big 5 consultancy, we bring credible industry knowledge to engagements that focus on solving problems, not just identifying them.

Specialties include:

- Delivering life cycle costing methods and products that support lasting financial discipline and engineering excellence
- Improving supplier relationships through facilitated dispute resolution, contract audits and product support capability assessments
- Knowledge transfer through HME management workshops and design/delivery of private maintenance user forums (Michael Currie was founder of Mining Equipment Maintenance.com)

Clients and workshop attendees include:

Arch Coal	Ledcor
Barrick Gold	Liebherr Mining Equipment
BHP Billiton Olympic Dam	Matrikon Inc.
Bucyrus	Modular Mining
Caterpillar	Mount Polley Mining Corp
Companhia Vale do Rio Doce	Newcrest Mining Ltd.
Cummins Inc.	Newmont
Diavik	North American Const.
Elk Valley Coal	P&H Minepro Services
EPCOR	PT Cipta Kridatama
Finning (Chile)	Quebec Cartier Mining
General Electric	Rio Tinto Pilbara Iron
Gold Fields	Road Machinery LLC
Hammerstone	Sandvik Mining
Highland Valley Copper	Shell Lubricants
Hitachi	OK Tedi Mining Ltd.
Iron Ore Company	Suncor
Kal Tire	Syncrude
Kalgoorlie Cons. Gold Mines	Total E&P
Kaltim Prima Coal	Terex Mining
KMC Mining	Voisey's Bay Nickel
Komatsu	Wenco Mining Systems