

Case study

Mongolia

September 2013

Fuel efficiency



Dump truck loading

Trucks are used to haul overburden or ore from the pit to the dump site, stock pile or to the next stage of the mining process.

Their use is scheduled in conjunction with other machines like loaders, excavators, graders in conjunction with the mine layout and production capacity.

Trucks use a significant amount of diesel and are extremely expensive to purchase and maintain.

Operating procedures influences energy use and maintenance costs. Truck velocity, braking patterns and road surface characteristics can effect tremendously tyres life and parts replacement costs.

These 3 factors, Velocity, Breaking and Road surface can have a different impact upon the payload the truck transports.

This has been the key reason for Erdenes Tavan Tolgoi Project mine in Mongolia to install on their big loaders the VEI Loader scale Millennium5 in order to load Trucks to the nominal capacity, preventing overloading and consequently driving down haulage costs.

After just 2 months of operation results are showing a fuel consumption reduction of 15% due to the elimination of underloads, waiting times at the loading site when the truck was overload, overload fuel consumption.

But that is not all! Now with the VEI Loader scale they can control production, know the total by loading site, understand the loading cycle time and where to improve it, have the total haulage by truck, the liters of diesel to produce one tonne, all unknown factors before. "In few months production manager is saying that they will be able to analyze whether production can be improved by road and loading site better maintenance and or fleet increase. Fuel efficiency is already a great result and looking at the numbers the VEI loader scale payed off within 3 weeks".



operator



Millennium5 VEI on board weighing

