# OVVER COSTS BY BOOSTING EFFICIENCY

The largest contributor to the operating cost of hydraulic mining shovels is fuel. And thanks to optimization of the hydraulic system and other enhancements, today's 6060 offers improved fuel efficiency up to 15% over machines in the field. In addition, significant engine-related improvements result in one fewer engine overhaul required over 60,000 hours.

6060

### **CAPTURED ENERGY**

The Closed-loop Swing System delivers faster cycle times and improved energy efficiency, while also generating less heat. Kinetic energy captured during the swing motion is fed back into the system during deceleration, providing more power to drive the main and auxiliary pumps. The system:

- + Uses pumps to decelerate
- + Uses energy instantaneously
- + Creates less heat
- + Lowers engine load factor
- + Reduces fuel consumption



#### PROTECTING AND EXTENDING THE LIFE OF HYDRAULIC COMPONENTS

#### **OPTIMIZED COOLING**

The Independent Oil Cooling system is a more efficient means of cooling that protects and extends the life of hydraulic components. The system is independent of return oil, achieving efficiency through the utilization of dedicated pumps that provide cooling capacity as needed, whether the engine is idling or under load. That means optimum oil temperature is being maintained, even while your operator waits for the next truck to load. Competitive hydraulic shovels provide cooling only when the machine is working and the engine is under load. Additional efficiency is achieved via our thermostatically controlled radiator fan speed.

- + Independent from return oil / machine movement
- + Continuous cooling keeps oil at optimal temperature
- + Temperature controlled

#### HYDRAULIC OPTIMIZATION

Conventional hydraulic systems operate all pumps at the maximum required cylinder flow and pressure, regardless of the demand from individual circuits. The Cat 6060 takes a different approach, dynamically assigning individual pumps or groups of pumps to deliver the exact flow and pressure that each hydraulic function requires. Called Hydraulic Optimization, this approach saves fuel and makes the 6060 up to 15% more efficient than shovels without it. Hydraulic Optimization:

- + Cuts down on waste
- + Eliminates metering losses
- + Reduces excess heat
- + Prolongs component lives
- + Conserves energy

## UP 15% MORE EFFICIENT