

APPLICATIONS PUMPS



CONTINUOUS MINER COAL DUST SUPPRESSION

File No. 183

Section 9

OPERATION:

Coal mining is a very demanding, dirty and dangerous job. With the installation of a high pressure spray system, some of these adversities have been minimized. A continuous miner has a series of rotating cutting blades. Between each blade a nozzle is mounted. As the blades carve out the coal and the coal falls onto the conveyor, a spray is emitted to settle the coal dust and help flush the coal cuttings onto the conveyor.

The unit is mounted outside the mine area for safety and to eliminate the added expense of an explosion proof motor. This skid mounted unit is also used for equipment clean-up which reduces downtime and maintenance expense.

Under standard laboratory conditions, 5% dust concentrate is considered effective control. With the 3000 PSI high pressure water dust suppression system, the dust concentrate is reduced to an impressive 1%.

PROBLEM:

To eliminate the hazards of coal dust while mining.

SOLUTION:

Install a high pressure spray system for dust suppression.

SPECIFICATIONS:

CAT PUMPS Model	*2520
Pressure	700-800 PSI
Flow	25 GPM
Temperature	Ambient
Fluid	Water
Duty Cycle	Continuous
Drive	Electric

*Alternate CAT PUMP model 2530 plunger pump

BENEFITS:

- Reduces air pollution and improves working conditions for the coal miner.
- Improves the performance of the mining equipment.
- Eliminates fire hazard associated with accumulated coal dust.
- Reduces equipment downtime and maintenance costs.

“Customer confidence is our greatest asset”

Products described hereon are covered by one or more of the following U.S. patents 3558244, 3652188, 3809508, 3920356, 3930756 and 5035580

Aug 1999 8940

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