

## Russia Coal Industry Managing Capacity Growth With Mix of Domestic, Imported Mining Machines

To energize an expanding economy across the vast Russian Federation, the coal industry in Russia is investing heavily to obtain capacity growth rates of about 10 million metric tons annually over the coming decade.

Coal has long been a dominant energy source supporting Russia's industrial base. Russian recoverable coal reserves are estimated at 200 billion metric tons – among the world's largest in a group that includes the U.S., China and India.

Most of Russia's coal production comes from Siberia and the Far East regions, including highly productive coal fields along the Trans-Siberian Railroad that traverses the Kuznetsk (Kuzbass), Kansk-Achinsk and Chermkhovo coal basins.

Russia has 22 coal basins with 114 coal deposits, about 240 operating coal mines, and current annual production capacity of about 320 million metric tons. By the year 2020, Russia's coal industry is aiming for annual production capacity approaching 430 million tons.

Significantly, Russia's coal industry in 1988 peaked at 425 million metric tons out of the total 467 million tons produced by the USSR coal industry of which Russia was a major source. That remarkable production record occurred at the end of an era marked by a highly labor-intensive Russian coal industry. Annual production would fall to 232 million metric tons in 1998 as the industry underwent a difficult process of asset rationalization toward a new, capital-intensive coal industry model.

Russia's coal industry is growing rapidly as it invests in modern equipment and systems. Most of the investment is directed toward domestic equipment sources, with a growing share of equipment sourced from Germany, China, Poland, Japan and the U.S.

Russia's coal industry in 2010 posted total revenue of EUD9.1 billion (USD\$13 billion), representing a combined annual growth rate (CAGR) of 16.2 percent for the period 2006-2010. That strong growth rate is forecast to slow somewhat to an estimated 8.7 percent



One of the original P&H 2300XP shovels placed into service in the Kuznetsk coal basin in Western Siberia during the 1980s (top photo); one of several original P&H 2800XPs that continue to provide productive service in the Kuzbass (center photo); a modern-era P&H 2800XPB loads a Belaz haul truck in a Kuzbass coal mine (lower photo).



through 2015. Clearly, however, Russia's coal industry is embarked on a strong growth trend.

Despite the challenges of long supply lines and logistics management, some equipment is reaching Russia's coal industry from some of the leading mining equipment suppliers outside of Russia. Those sources include Caterpillar, Atlas-Copco, Komatsu, Liebherr, Sandvik-Tamrock, Joy Mining Machinery and, as a case in point, P&H Mining Equipment.

United Kingdom-based P&H Mining Equipment (UK) Ltd. represents U.S.-based P&H Mining Equipment and has been building upon an equipment supply relationship with coal mines in the Kuznetsk Basin in Western Siberia begun in the 1970s. During the 1980s, P&H placed a total of 14 P&H 2300XP (20 cubic meter dipper capacity) electric shovels in the Kuzbass – six with OAO Mezhdurechve and the balance with OAO South Kuzbass Coal.

Many of those original shovels remained active and productive over two decades later in 2004 when P&H Mining Equipment (UK) began to coordinate delivery and support of new P&H shovels with a new surge in capacity investment. Those shovel placements include:

- 3 P&H 2800XPB shovels at Kuzbassrazrezugol (KRU) Bachatsky
- 2 P&H 2800XPB shovels at OAO South Kuzbass Coal Sibirginsky
- 1 P&H 2800XPB shovel at OAO Mezhdurechve Mezhdurechenskiy
- 2 P&H 2300XPC shovels at KRU Cheremshanskiy
- 2 P&H 4100XPC shovels at KRU Taldinsky
- 1 P&H 2800XPC shovel at KRU Bachatsky

Two new P&H 2800XPC shovels will be commissioned for KRU during 2011, and another two P&H 2800XPCs have been ordered by SDS-Coal.

To help optimize the reliability and productivity of that shovel fleet, P&H Mining Equipment invested in spare parts inventory, a team of service engineers available 24/7 to assist the mines' service teams, a fleet of service trucks and a strong safety management program to help ensure their success.

Results obtained by those Kuzbass coal operations that invested in P&H electric shovels include monthly 1 billion bank cubic meters (BCM) run-of-mine throughput on average from their P&H 2800-class shovels and annual 20 million BCM throughput from their P&H 4100XPC shovels.

To further strengthen its support capabilities in the Kuzbass region, P&H Mining Equipment is developing a plan to invest in a service center along with its Joy Global Inc. sister company Joy Mining Machinery to further increase service levels for surface and underground operations in that region and beyond.

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