



Equipment Designed with Autodesk Inventor Enhances Mine Safety and Productivity

September 16, 2010

Joy Mining Machinery Uses Digital Prototyping Software to Create More Efficient Continuous Miner-Bolter Machine That Improves Workplace Safety

SAN RAFAEL, Calif., Sep 16, 2010 (BUSINESS WIRE) --

[Autodesk, Inc.](#) (NASDAQ: ADSK) has named Joy Mining Machinery, a leading global supplier of underground mining systems, as the Autodesk [Inventor of the Month](#) for September. The company used [Autodesk Inventor](#) Digital Prototyping software to develop its JOY 14ED25 continuous miner-bolter machine.

The JOY 14ED25 is used by mining companies to develop underground mine entries. Combining mining and bolting operations into a single machine helps promote zero harm in the underground mining environment by eliminating the need for two separate machines within the limited space of an underground entry. By utilizing the JOY 14ED25, mining companies can safely maximize both productivity and lower cost.

[Digital Prototyping](#) with Autodesk Inventor makes it easier for Joy engineers to design, visualize and simulate each JOY 14ED25 to meet customer specifications, while focusing on other important areas, such as ergonomics and better accessibility of serviceable parts. The resulting machines are easier to operate and maintain, while performing more reliably in harsh mining environments -- all of which increases operator safety in multiple ways.

"Our machines are precisely tailored to meet the mining applications of each customer," said Chris Flynn, director of engineering systems at Joy. "We don't produce 'cookie-cutter' solutions. The powerful visualization capabilities in Autodesk Inventor help us share our vision of each customer's machine *before* we start to build it. We can arrive at the optimum solution virtually."

Digital 3D Models of Thousands of Parts

Historically, the development of underground mine entries has significantly slowed mining operations because two separate machines were required: a mining machine to cut the material and create a passageway, and a bolting machine to install large bolts that support the roof and side walls.

Joy relies on a comprehensive Digital Prototyping solution deployed by Autodesk Consulting and used by hundreds of engineers in the United States, United Kingdom, South Africa and Australia. Inventor software enables Joy engineers to digitally explore and test different ideas in 3D. In addition, [Autodesk Vault Manufacturing](#) software helps the company more effectively manage its engineering data -- a critical business need when each machine contains from 3,000 to 7,000 discrete parts, and as many as 40,000 parts in total.

"Equipment manufacturers like Joy must balance pressure to get products to market faster while safely increasing production and reducing costs," said [Robert "Buzz" Kross](#), senior vice president, Manufacturing Industry Group at Autodesk. "That is often a tall order, and we recognize the innovative engineering team behind this impressive continuous miner-bolter machine."

About the Autodesk Inventor of the Month Program

Each month, Autodesk selects an Inventor of the Month from the users of Autodesk Inventor software, which takes manufacturers beyond 3D to Digital Prototyping. Winners are chosen for engineering excellence and groundbreaking innovation. For more information about Autodesk Inventor of the Month, contact us at IOM@autodesk.com.

About Joy Mining Machinery

Joy Mining Machinery has 90 years of experience as a global leader in the development, manufacture, distribution and service of underground mining machinery for the extraction of coal and other bedded materials. For additional information, visit www.joy.com.

About Autodesk Consulting

Working with a global network of partners, Autodesk Consulting provides best practices and top-level expertise to help organizations fully adopt and integrate Autodesk technology for design innovation and business operational excellence. For more information, visit www.autodesk.com/consulting.

About Autodesk

Autodesk, Inc., is a leader in [3D design](#), engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries - including the last 15 Academy Award winners for Best Visual Effects - use Autodesk software to design, visualize and simulate their ideas. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit www.autodesk.com.

Editorial Note:

An interview with Joy Mining Machinery is available on the Autodesk YouTube Channel at <http://www.youtube.com/watch?v=u0gehl3tVK8>.

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Autodesk, Inc.

Clay Helm, 415.547.2425

clay.helm@autodesk.com

or

Alyson Moses, 312.297.7430

alyson.moses@edelman.com