

World's largest tow truck debuts at Syncrude

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Two retired 793 heavy haulers were converted into rescue vehicles to pull disabled haulers out of the mines.
photo by Bob Nyen

By BOB NYEN

When a heavy hauler breaks down in the mine, who you gonna call? Not AMA!!!!

With an empty vehicle weight topping 320 tons, there're not a lot of options available. Until recently, a disabled 797 in the mine meant taking other mining equipment and personnel out of production to retrieve the heavy hauler.

"We have a worst -case example of it taking us five days to recover a heavy hauler using a traditional tractor-trailer bed, and a crane to lift and place it on the trailer to haul it to the shop," said Paul Wohlgemuth, an associate mechanical engineer in Mining. "That's an extra five days of downtime for that 797, plus the equipment and personnel required to get it co the shop."

In the mining business, time is money, and the loss of a heavy hauler for five days translates to a loss of 90,000 tons of material handling.

That's why Syncrude teamed up with Tow Haul to design and build a tow truck capable of pulling those behemoths from the pit to the shop for repair. With the impending retirement of the 793 fleet of heavy haulers, Syncrude found itself with a chassis capable of handling the weight of a 797. All that remained was designing the 793-conversion package to ensure it met Syncrude's requirements.

"Converting the 793 to a tow truck meant adding 58,000 lbs. of ballast to the front end, and ensuring the boom and pin were structurally sound at minus -40C so weather wouldn't restrict when we can use the tow truck. We also wanted to include the necessary functions to aid in the recovery," said Paul.

"We looked at the needs of our mechanics to safely and efficiently tow our heavy haulers out of the mine," said Glenn Doonanco, project manager mobile equipment acquisitions. "We incorporated an air system so our mechanics could operate air tools like chipping hammers to remove caked-on oil sand; a hydraulic system to allow us to use the tow truck to dump the load from a disabled heavy hauler, and a park brake release system for all the different trucks in our fleet."

"It's really a self-contained recovery vehicle. With this unit, we will rarely need extra equipment to recover a heavy hauler," added Paul.

The design work on this recovery vehicle began when Syncrude knew it would be operating the world's largest heavy haulers in its mining operation.

"An evaluation of our existing rescue vehicle, the converted 170-ton heavy hauler, proved it wasn't capable of safely handling disabled 400 ton haul trucks. However, it was a good template for designing the 793," said Glenn.

Once that evaluation was complete Paul and See-Tung Lim put together a technical and functional specification the new tow truck. Tow Haul then converted two 793s into the world's largest tow trucks, one for Aurora and one for the North Mine.

"No one had ever built a tow truck intended to handle disabled 400-ton haulers," said Glenn.

Aurora took possession of the first unit in August, and almost immediately put it to work. In the first three months, it made 12 heavy hauler recoveries in as little as two hours each.

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