



## Tether Track™ Fold-Away fall arrest system offers protection without obstructions

**Industry:**  
Mining

**Product:**  
trenching and mining machines

**The Problem:**  
Workers were at an elevated risk

**The Solution:**  
Fold Away Tether Track™  
Systems



**“We can get four operators up onto a machine and have them all tethered so that we can throw maximum manpower at building the machine.”**

At nearly 200 tons, with a grinding surface nearly 10 feet tall and treads as tall as the average American man, the track trenching and surface mining machines built by a Midwest company aren't easily disrupted by obstacles in their path. Building those machines, however, was creating a series of problems that were getting in the way of safely producing them.

Assembly of a single machine takes about 8 weeks, and requires movement of many very large, heavy components using several 40 ton capacity overhead bridge cranes. It doesn't take long before the assembly reaches a point where its workers were at an elevated risk, and the safety conscious company was well aware of the problems they faced.

OSHA guidelines require that any person performing work at just 4' of elevation have some form of fall protection. With the work being done on a machine, any form of passive restraint – such as handrails – were impractical. The company sought a permanent overhead fall arrest system, but quickly realized that most permanent solutions to protect the workers from falls would become obstacles for the cranes delivering components to those workers.

“Whether we installed a wire rope system or a fixed rigid rail system, the problem we had was maneuverability of the overhead cranes,” said the company's safety engineer. “We knew we would be putting people at an elevation where we needed to protect them and we needed to be compliant with OSHA, but we work on very tight deadlines and we needed to maintain a high level of productivity.”



In order to provide the most fall protection coverage without obstructing the crane movement, they installed four Tether Track fold away fall arrest systems. The systems feature dual track rails so that each track can support two workers. Two of the systems are 100' long and two are 150', and they are supported every 50' by wall cantilever style jibs. One jib per Tether Track system is motorized so that it can either be easily positioned at any point in the jib's

180-degree coverage areas, or folded flat against the wall. The systems were installed on opposing walls, which allowed full rectangular coverage beneath the overhead bridge cranes.

"The Gorbels system gives us the most flexibility," said the safety engineer. "We can get four operators up onto a machine and have them all tethered so that we can throw maximum manpower at building the machine."

With their safety concern for their workers now resolved, the next major test was evaluating whether the Tether Track fall arrest systems would have any negative impact on productivity. With the ability to fold the Tether Track system out of the way of the overhead cranes, productivity is as high as it's ever been.

"The operators will have the parts into position with the hoist and set them down. We can deploy the Tether Track system and bring the hoist in over the top of it, drop the hoist down through the rectangle the jibs and runs make, and we can hoist that product into place. Operators can be tied off while they are assembling and positioning those parts. We don't need to stop what we're doing, and the workflow can continue as it needs to."