



Air Bearing Turntables for Mining Truck Manufacturer



The Situation

Earthmoving equipment manufacturer Caterpillar wanted to increase productivity at its Decatur, Ill., mining truck facility. Previously, the company relied on a single-rail assembly line to build the enormous trucks. This routinely produced production bottlenecks; however, the system had successful elements that Caterpillar wanted to retain. Due to the nature of the assembly line, all equipment had to be flush to the ground to interface with existing rail lines.

The Solution

Airfloat completely transformed the Decatur mining truck line. Instead of keeping the traditional single-line rail system, Airfloat integrated several 32-foot air-bearing turntables with inset rails into the existing assembly line. This allowed Caterpillar to create a multiple-rail assembly line by using the turntables to direct the trucks to different stations, removing the bottlenecks that previously occurred.

The massive turntables have a weight capacity of 200,000 pounds, making them perfect for extreme loads like a mining truck chassis. The turntables were also installed below the floor level, making them flush with the existing rail line.

The Result

The multiple-rail assembly line led to substantial productivity increases. “[Decatur] has become our mining truck headquarters,” Caterpillar spokesman Jim Dugan told a local newspaper at the time of installation. “We’ve made significant investments there so we could produce more of the trucks.”