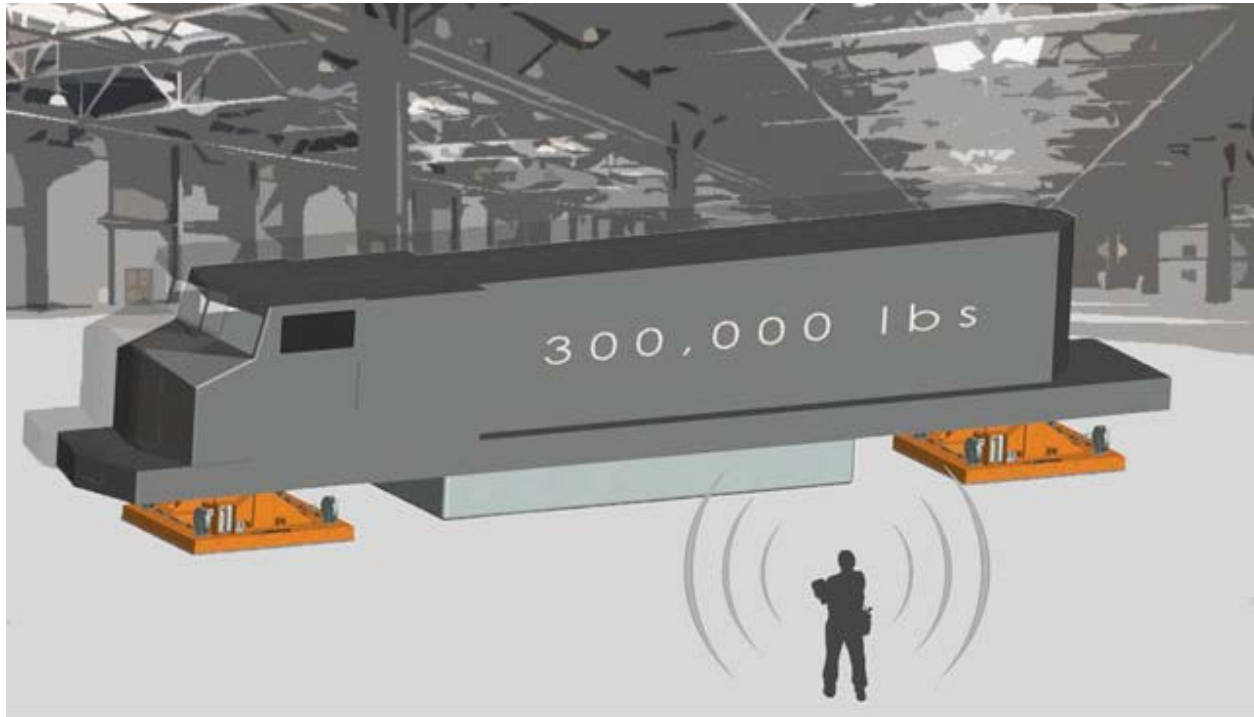




Locomotive Assembly Transporters



The Situation

The largest North American manufacturer of diesel locomotives wanted to reduce assembly times and decrease costly work-in-process (WIP) inventories at its Erie, Penn., facility. The company had been using overhead cranes to move the locomotives from workstation to workstation. This inevitably led to costly idle time spent waiting for slow-moving cranes. Workers were also prohibited from walking beneath lift loads, causing additional inefficiency.

The Solution

Airfloat designed and built custom air bearing transporters, allowing the manufacturer to create the world's first moving assembly line for locomotives, which workers euphemistically refer to as "the world's largest air hockey table." A pair of transporters, each equipped with internal drive units and guide wheels, is placed beneath the locomotive deck at the beginning of the line. Then the 75-ft.-long structure is floated on air by a single operator to subsequent assembly stations, where the engine, cab and other components are added.

As they approach the end of the assembly line, the locomotive assemblies weigh over 300,000 lbs. In the final stage, the assembly is lifted off the transporters by crane and placed onto a set of "trucks" (or wheel assemblies).

The Results

Airfloat equipment helped the locomotive maker boost its output from 17 to 22 locomotives per month – a 29% gain.