



CASE STUDY



HI-RAIL AIR SPADE/VACUUM TRUCK RESTORE SAFETY TO INACCESSIBLE TRACK

Scope

Chronic mud problems created potentially dangerous softness and flex in the rail for one railroad company, especially on those stretches of track that ran along a river. The situation became more dire after flooding added to the mud in these areas. Unfortunately, the steep banks on either side of the track did not permit the use of an off-track undercutter.

Solution

Hulcher used an air spade and hi-rail Guzzler® vacuum truck to reach the remote stretches of track. The crew fabricated a hi-rail cart for the air spade's compressor, which was then pulled by the vacuum truck. This configuration made the air spade an ideal solution for quickly cleaning out mud and debris in environments with little off-track access along the right-of-way. After the railroad's regulator crew scraped along the ties to break down ballast, Hulcher crews used the air spade and vacuum truck to clean out and remove the debris. The process moved quickly; the air spade cleaned approximately 50 tie lengths every two hours. Because the air spade uses low-impact air, it is able to operate without damaging underground wires or affecting the integrity of the ties by bumping them out of place.

Outcome

With the mud cleaned from the track, this stretch of the mainline was safe and ready for use. The railroad found Hulcher's creative hi-rail air spade/vacuum truck combination to be an effective, fast and economic solution for spot-cleaning stretches of track without off-track access. Based on the success of this project, the railroad is now planning to use Hulcher's air spade/vacuum truck solution for other situations, such as winterizing switches, safely exposing trenching and cables (an important task with the expansion of Positive Train Control) and cleaning tracks in tunnels.



KEY FACTS

PROJECT SUMMARY: Clean mud and debris from stretch of right-of-way not accessible with off-track undercutters

AIR SPADE: Air spade and vacuum truck allowed cleaning of remote track

HI-RAIL: Hulcher crew fabricated cart to make air spade hi-rail

POSITIVE TRAIN CONTROL: Air spade cleaned track and exposed wires without damage

