

Bolting systems add safety, speed to major bridge rehabilitation

HYTORC

The rehabilitation of any bridge requires tremendous planning, but when that bridge supports nearly half a million people a day, the job must be executed flawlessly. The Manhattan Bridge had its 100-year anniversary in 2009, and while regular maintenance was performed over its lifespan, it was time for a major rehabilitation project to ensure future integrity. The project contractor, Skanska-Koch, reached out to HYTORC to assist with the bolting challenges the project would bring.

“Even with obstacles outside of the bolting process, HYTORC provided the solutions we needed.”

— Jim Hegarty, Skanska-Koch

Part of the bridge rehabilitation called for the replacement of all 628 bridge suspenders (the vertical cables that connect the deck to the main cables). The 5,200 bolts that keep this together had to be removed and replaced one at a time. HYTORC developed a safe and simple solution using the Torque Gun air tool with a custom-designed reaction fixture. This made the job much faster while assuring accurate torque was applied to each nut.

The bolts on the underside of the bridge presented a challenge of their own. They were up to six inches in diameter and had been subjected to more than 100 years of paint and decay. As an added challenge, the spacing between the nuts was minimal and they were hanging hundreds of feet over the East River. Skanska-Koch and HYTORC worked hand in hand to develop a solution that would ensure the safety of workers while keeping the job simple and accurate. HYTORC’s engineering

team developed a custom fixture that would allow the tool to hang on to the bolt so it could be operated remotely, keeping the operator at a safe distance.

Jim Hegarty, senior superintendent for Skanska-Koch, recounted, “HYTORC provided us with a true solution to the bolting

process, both in the actual turning of the nut as well as holding down the backside nut. The on-site service was excellent, and knowing an answer was only one phone call away made this massive bolting project run incredibly smoothly. Even with obstacles outside of the bolting process, HYTORC

provided the solutions we needed.”

To learn how HYTORC can make your next bolting job safer, simpler and faster, contact the company today for a free consultation. For more information, visit www.hytorc.com or call (800) FOR-HYTORC [367-4986]. ●



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The Torque Gun at work with custom fixture.

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