

2016

EMERGENCY RECOVERY OF HUANGHE RIVER BRIDGE

CUSTOMER: Beijing Fayan Engineering Technology LTD
STRUCTURE: Bridge
MISSION: Emergency recovery using hydrodemolition
ROBOT USED: Conjet 557

RECOMMENDED PRODUCTS

For both selective and non-selective concrete removal on bridges, Conjet recommend ACR Robot 557 to be used.

PROJECT DESCRIPTION

A fiery collision involving two trucks on Liujiang Huanghe River Bridge near Zhengzhou, China left a large part of the bridge deck damaged in 2016. An emergency recovery was necessary, but the extensive damage also required long-term restoration work. Beijing Fayan Engineering Technology LTD was commissioned to perform the task of restoring the damaged bridge using hydrodemolition.

THE SOLUTION

The task was to remove damaged concrete from the bridge deck, about 20-30 cm in depth, without leaving any micro-cracks and leaving the good concrete and structure intact. With Conjet's hydrodemolition robot and 480kW power pack the damaged concrete was removed without affecting the rebars. As this was the first time for the contractor to operate the hydrodemolition equipment, the Conjet team was on-site to provide a safety and operation demonstration. The Conjet ACR-robots ensured the job was safe and effective as the contractor did not need any kind of jackhammer equipment.

HOW IT WORKS

By using Conjet's ACR-robot with a 480kW power pack and its hydrodemolition technique the damaged concrete could be easily removed and secured. Also, the contractor was always safe in an otherwise exposed environment with heavy traffic, as the robot was operated by Conjet's remote control system. After the damaged concrete was removed, the surface that remained was ideal for the bonding of new and fresh concrete. The bridge will now stand strong for years to come.

RESULTS

The bridge is open again and traffic is back to normal. The task was completed on time, despite a very tight deadline and it being the first time the contractor operated the hydrodemolition equipment. They claimed the Conjet ACR-robot was easy to use thanks to clear instructions and safety information from the Conjet team. Chinese authorities visited the site upon completion and were impressed by the hydrodemolition technology and the overall results.



GET IN TOUCH WITH A SPECIALIST

Bridges. Car parks. Tunnels. Piers.

If a concrete structure is in need of repair, Conjet has the right automated concrete removal solution for the job.

And we have the right team to get the job done. TEAM Conjet is our group of certified specialists in safe and effective concrete removal and surface preparation.

Why choose Conjet? For more than 35 years, we have been instrumental in the development of hydrodemolition – a technology with a proven track record as the most sustainable and effective method for concrete removal and surface preparation. We use automated concrete removal robots. Safe for the structure, safe for the operator and safe for the environment.

At Conjet, we lead the technology development of automated concrete removal. We call it ACR™.