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**Waste Handling Equipment News**

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**No time for downtime**



# No time for downtime



**B.O.G. Construction, Inc. keeps traffic moving with the Allied-Gator MT® Series Multi-Tool**

With a narrow window of time for completion, B.O.G. utilized the MTR 50 C to expedite the demolition process.

As soon as the Fourth of July holiday traffic died down around Atwood Lake in Tuscarawas County, Ohio, B.O.G. Construction, Inc. was given the green light by the Ohio Dept. of Transportation (ODOT) to begin its most recent undertaking: replacing the mile marker 14 Bridge over Conotton Creek on State Route 212.

B.O.G. Construction, Inc., a Salem, Ohio based company, has been constructing, destructing and reconstructing Ohio bridges since 1988. Contracting exclusively with ODOT, B.O.G. specializes in the new construction, repair, restoration and reconstruction of bridges and culverts throughout the Buckeye State.

For this project, B.O.G. was contracted to perform bridge rehabilitation, or reconstruction to over 90 percent of the SR 212 bridge. This is the type of work required when only portions or surfaces of a given bridge have become worn or damaged beyond an ODOT acceptable condition. When these bridges have structurally sound underlying bridge components remaining, B.O.G. is contracted to remove the damaged areas and reconstruct the bridge by incorporating the remaining undamaged portions of the structure.

Because traditional methods of bridge reconstruction normally yield slim profit margins on these types of ODOT projects, many companies avoid bidding them altogether. B.O.G., however, has found a new



The Allied-Gator MTR 50 C finishes demolition of the second lane of the Conotton Creek Bridge decking in six hours.



B.O.G. finishes demolition on the first bridge lane in less than one day and must immediately reconstruct the bridge decking on the existing piers and columns.

and effective method of completing these jobs successfully, timely and profitably. Over the past three years, B.O.G. owners Mark Gettman and Tom O'Donnell have realized these advantages with the addition of Allied-Gator MT™ Series Multi-Tool units to B.O.G.'s jobsite fleet. For the SR 212 bridge project, B.O.G. utilized the MT Series Multi-Tool model MTR 50 C (with the Quick Change™ Cracker/Crusher Jaw Set) on a 25 ton excavator.

The SR 212 bridge restoration project required B.O.G. to remove and replace a two lane bridge, consisting of a 19-inch continuous concrete slab deck covering three separate spans, with an average height of 15 to 20-feet above Conotton Creek. For this ODOT projects, B.O.G. was required work within pressing time parameters, and was given a narrow 60 day window for completion of both demolition and reconstruction of the State Route 212 bridge. In addition, ODOT time specifications usually include the maximum duration of the road closure; however, lack of reasonable alternate routes around Atwood Lake would have presented a great inconvenience for trav-

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elers, who would have experienced detours up to 30 miles long. Therefore, ODOT dictated that the bridge must have one open, functional lane for traffic at all times.

This restriction presented a unique challenge to B.O.G. because one lane of the bridge was required to remain open during the entire bridge restoration project. This factored heavily into B.O.G.'s strategy, with safety of the passing traffic as their number one priority. In order to isolate each lane during the demolition stage and prevent traffic from being affected or endangered, B.O.G. first saw cut the bridge down the center. This divided the bridge into two pieces and isolated each side during its phase of the demolition and reconstruction process, ensuring the safety of both the traffic and B.O.G. personnel.

Another challenge presented by this restriction was that, in order to keep one lane open at all times, the bridge had to be tackled in two separate phases. The first lane closed, as specified by ODOT, had to be completely demolished and reconstructed before any work could be performed to the opposite lane. This also required B.O.G. to re-route the lane closure barriers and traffic signal being used to control one lane traffic flow over the bridge.



As soon as the first bridge lane was reconstructed and ready to handle traffic, demolition on the second lane began.

In addition to the time restrictions and the inability to close the bridge, B.O.G. was challenged by three environmental factors. First, protected wetlands in close proximity to the bridge on both sides prevented machinery from working or traveling outside the tight boundaries of the specified work area. Secondly, the concrete debris from the bridge had to be removed from the underlying waterway daily to prevent blockage. Because the MTR 50 C crushed the concrete bridge decking into consistently sized material, B.O.G. operator Tracy Cooper could easily remove the fallen debris from Conotton Creek as needed and keep the waterway clear. Lastly, B.O.G. was faced with an exceptionally wet season, causing numerous rain delays and lost days of work that still counted toward the allotted 60-day completion window. Faced with this adversity, B.O.G. was under pressure to make every working day count.

The utilization of the MTR 50 C on this project gave B.O.G. all the advantages they were looking for. With fast cycle times and tremendous power, the Allied-Gator MT enabled the operator to work continuously and quickly, breezing through the heavy duty bridge decking full of rebar. The MT Cracker/Crusher Jaw Set also allowed B.O.G. to remove the rebar cleanly from the concrete as it was being crushed, leaving material small enough to be combined with dump rock material and used for slope protection. This prevented B.O.G. from spending a large amount of resources purchasing rip rap material for use onsite. By employing a successful demolition plan and utilizing the right tools for the job, B.O.G. had no trouble completing the SR 212 bridge project within the 60 day limit.

In discussing the ways in which he would have tackled this job without the MTR 50 C, Mark Gettman reflected. Using a hydraulic hammer was out of the question due to strict ODOT guidelines. In fact, these ODOT restrictions prohibit the use of a hydraulic hammer anytime a bridge deck is being replaced without the replacement of the substructure walls/piers underneath. Due to the damage that hydraulic hammers can cause to the parts of the bridge to remain intact and be integrated into the

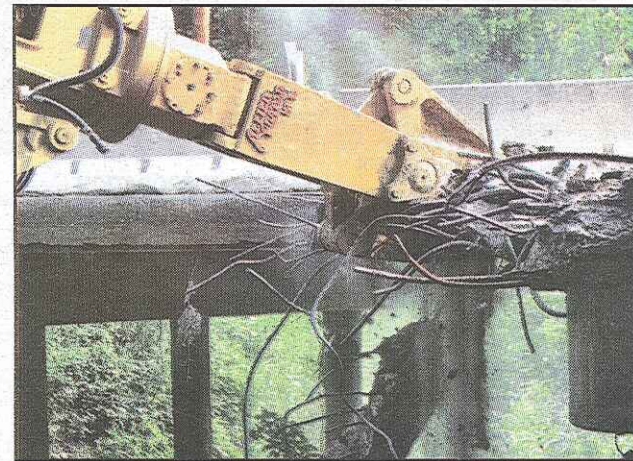


Side view of the first bridge lane, prior to demolition (L) and after reconstruction (R).

new construction, hydraulic hammers are only permitted during a complete bridge removal and are often subject to the noise regulations of the local community.

Saw cutting the entire bridge was also impractical because the bridge deck was so thick. Saw cutting would have yielded pieces too heavy to be removed by an excavator, and would have required a crane, which would have been much more expensive and time consuming. With the MT, each phase of this bridge demolition only took one day. According to Gettman, "Using the MT on a project like this is five times faster than saw cutting and removing the heavy deck sections with a crane." Furthermore, the large chunks would still need to be hammered into smaller pieces before loading, which would add yet another step to the process. In Gettman's estimate, using the MTR 50 saved B.O.G. half the cost it would have taken to employ saw cutting as the primary method of demolition. He remarks, "With the MT, we had each bridge lane crushed and out of there by the time we would have been halfway done saw cutting it. There's a clear advantage to being able to get that much heavy concrete demolished in a single day with one 25 ton excavator."

Overall, the use of the MT Series Multi-Tool has enabled B.O.G. to tackle complex bridge restoration and removal projects with an innovative new approach. B.O.G. can now move on to the next ODOT job, taking with them a positive reputation and all the new experiences gained through overcoming the challenges of the SR 212 bridge project. With Allied-Gator MT technology at their fingertips, B.O.G. can complete projects quicker, safer and more profitably than ever before. In a final comment, Gettman summarizes his experiences with the MT, "Every time we've used the MT, it's been great. There couldn't have been an easier way to do it. In less than a day, for each lane of the bridge to be completely down and out of there — what more could you ask for?"



19-inch bridge decking full of rebar was no match for the MTR 50 C.



One lane of the Conotton Creek Bridge had to remain open at all times, and safety of passing traffic was the highest priority.

### B.O.G. continues to bridge the gap with the Allied-Gator MT

Although the challenging ODOT restrictions prohibiting the use of hydraulic hammers on select bridge projects initially led B.O.G. owners, Mark Gettman and Tom O'Donnell to the Allied-Gator MT®, the speed, power and efficiency of the MT has kept them on deck. With ODOT bridge refurbishments on the rise, the B.O.G. team is utilizing newer, quicker and more profitable select demolition techniques to grow their business.

"We've gone from a company who always used a hammer whenever we could, to a company that uses the MT instead. In our line of work, there will still be times when a hammer is the only option, or when saw cutting and rigging are the only way, but for the majority of our projects now the MT has proven itself to be the fastest and most cost effective method," says Gettman. "The MT has totally changed the way we look at projects. This attachment has given us a clear advantage

from the way we bid to the way we execute these types of bridge projects. We are confident that we will keep finding new ways to use it."

In addition to the time limitations and the structural integrity issue of the bridge's remaining support members, B.O.G. was faced with some unique challenges on this particular project. "Much of their work was taking place within less than 3-feet from a continuous flow of traffic. Even if ODOT had permitted the use of hydraulic hammers, the flying concrete debris would have definitely caused a safety issue to the passing traffic," states Allied-Gator representative Mike Ramun. With the MT, concrete is crushed quickly and effectively without any flying debris. It is a much safer and controlled method for heavy concrete demolition.

"Their challenge of eliminating the heavily reinforced 19-inch thick concrete slab was compounded by the poor soil conditions and the inability to stabilize

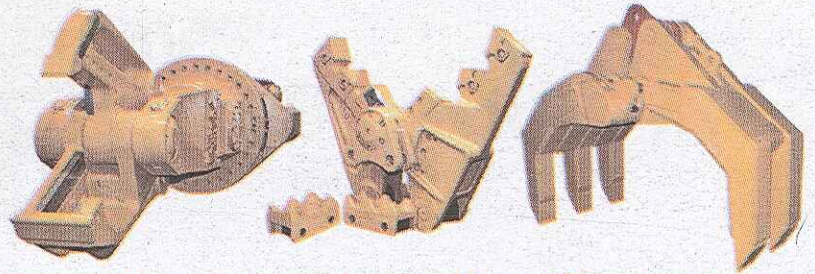
the ground all around the underlying creek bed. The access areas near the bridge precluded the use of a machine and tool combination larger than 25 tons," says Ramun. Allied-Gator MT customers can always count on the ability to conquer heavy duty work with smaller tools and lighter machines.

With 11 sizes ranging from 800-52,000-pounds, the MT Series Multi-Tool can accommodate any size carrier from skid steers and compacts to the world's largest mass excavators for use in demolition and recycling of structural steel and concrete, cast reduction, material handling and densifying, as well as railroad rail processing applications. The MT units also feature unrestricted 360 degree rotation, exclusive Fixed Centerline Closure and patented Allied-Gator Speed Circuit™ Technology for the fastest cycle times. For more information, and to watch how the MT performed on this project, visit [www.alliedgator.com](http://www.alliedgator.com).



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SELECT VIDEO: **MTR 50 C #7**

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