

Bertha is back below

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Mammoet smoothly executes the lowering of repaired tunnel boring machine, Bertha.

Mammoet, the world's largest service provider specializing in engineered heavy lifting and transport, successfully lowered into place the front end of the tunnel boring machine, Bertha, using a specially designed and constructed gantry and skid system. The front section will now be reconnected with the main body of the machine in preparation to recommence the tunnel boring project.

In December 2013, the machine stopped 1,000 feet into its underground operation after the discovery of damage to the seals. A 120-foot (37 meters) deep access pit was specifically constructed to free the stalled cutter. Since Mammoet successfully raised the front end in March, the bearing block section of the boring machine has been undergoing renovation. The inner and outer bearings, surrounding the drive ring, have been replaced with bearings with stiffer seals. With the repairwork to this part of the machine complete, it needed to be reunited with the rest of the cutter head for the next phase of the machine's recovery.

On August 15th, Mammoet lifted the 814,000-pound (370 tonnes) bearing block onto the cutter head for reassembly. Further reconstruction work was then necessary when 16 of 24 electric motors, each weighing 26,455 pounds (13 tonnes), required reattachment before the cutter head could be maneuvered down for reconnection with the main portion of the tunnel boring machine. In total, a load of 4 million pounds, which includes the circular bearing block and round cutter head, was rotated a quarter turn and lowered back into the 120-foot deep access pit.

Following the lowering of the heavy machine cutter, crews are working to reconnect all sections of the machine. Once reassembly is completed, tests will be done to certify that the boring operation is ready to recommence.