

# Medium-Diameter Shield Tunnel Boring Machine



**2019**

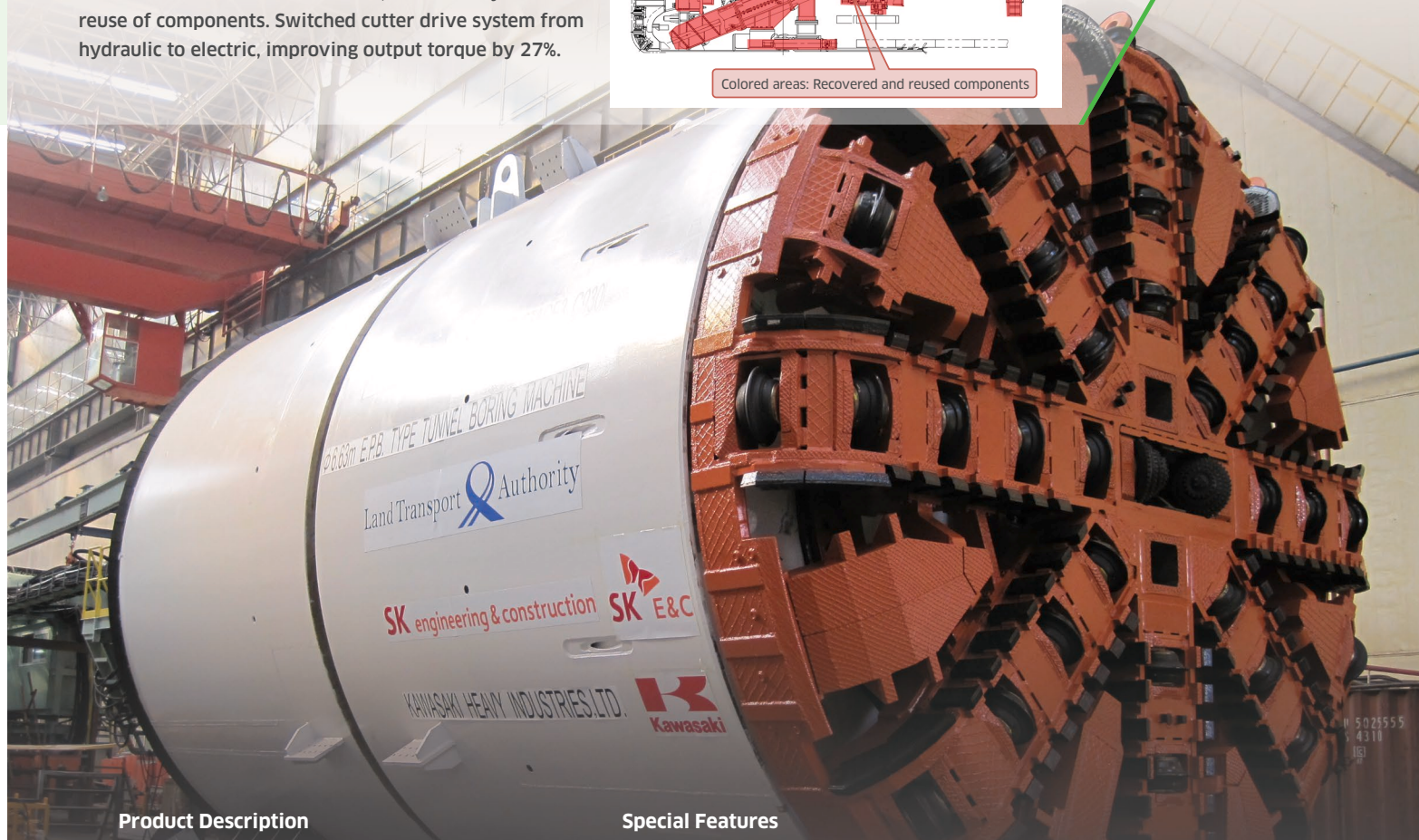
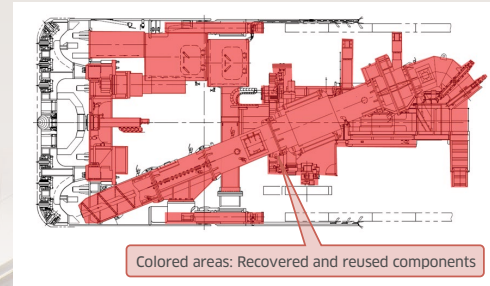
**Kawasaki  
Green Product**

Initial registration: 2016

Kawasaki Heavy Industries, Ltd.

Reduces construction period on tunnel projects and environmental impact, thanks to reuse of main components of shield tunnel boring machine and enhanced driving power efficiency

Changed joining method for main structural parts from welded fixing to bolted connection, thereby simplifying the work involved in construction, disassembly and reuse of components. Switched cutter drive system from hydraulic to electric, improving output torque by 27%.



## Product Description

A shield tunnel boring machine that features a structure more conducive to component reuse through the application of a bolt-on method for the joining of main structural parts, in place of prevailing welded fixing. This machine offers improved output torque and less waste oil through a change in the cutter drive system from hydraulic to electric.

## Special Features

- Switch from welded fixing to bolt-on connection for joining of main structural parts obviates need for welding and gas-cutting work at assembly, disassembly and component reuse stages
- Cutter drive output torque efficiency improved through switch from hydraulic to electric format
- Hydraulic fluid, which had been required to run cutter drives, is no longer necessary, thereby reducing the amount of hydraulic fluid used overall as well as the amount of hydraulic fluid disposed of after machine use