

ABSTRACT**CUTTER HEAD, TUNNEL EXCAVATING MACHINE, AND CUTTER REPLACING METHOD**

A cutter head is rotationally drivably mounted on a front portion of a tunnel excavating machine body, a plurality of cutter spokes are provided radially on the cutter head, a plurality of mounting holes are formed in a front surface portion of each of the cutter spokes, a valve plate is turnably mounted and has through-holes formed in correspondence with the mounting holes, relay bits are mounted movably to the through-holes and the mounting holes and rearwardly withdrawably, the relay bit can be fixed by bolts at a position at which the relay bit protrudes from the front surface portion of the cutter spoke, and when the relay bit is withdrawn rearward from the mounting hole, the valve plate is turned to close the mounting hole, whereafter the relay bit is detached and can be replaced.

Figure 1