

ABSTRACT**An excavating tool for a tunnel boring machine, and boring machine comprising such a tool**

This excavating tool (4) comprises a drag bit (20) for attacking the land to be excavated and a mounting bracket for mounting the drag bit, provided so as to be permanently attached to a cutting head of the tunnel boring machine, the mounting bracket and the drag bit being shaped so as to be engaged with each other so as to fixably bind the drag bit with the mounting bracket in all the directions of space except in a disengagement direction (D). A screw (30) removably attaches the drag bit to the mounting bracket, this screw being provided with a threading (34) which is screwed into a tapped hole (26) of the drag bit, the disengagement direction (D) being transverse to the central axis (Y2) of this tapped hole. In a mounted configuration of the excavating tool, the drag bit is in direct mechanical engagement with the mounting bracket in directions other than the disengagement direction and the screw interferes with the mounting bracket in the disengagement direction so as to block the drag bit with respect to the mounting bracket. In order that the mounting and the attachment of the drag bit be efficient and rapid, as well as simple to apply, the tapped hole of the drag bit and the threading of the screw are designed so that, by screwing-unscrewing, maintaining the drag bit and the screw secured to each other while having the excavating tool pass between its mounted configuration and its disassembled configuration wherein the screw does not interfere with the mounting bracket in the disengagement direction so that, by driving only in the disengagement direction, the drag bit and the screw are disengaged from the mounting bracket, while, by driving only in a direction opposite to the disengagement direction, the drag bit and the screw are mounted on the mounting bracket.

Fig. 4