

ABSTRACT**DEVICE AND METHOD FOR THE AUTOMATED PICKING UP AND LAYING OF A SEGMENT TO FORM A LINING OF A TUNNEL**

The invention relates to a device for the automated picking up and placing of a segment forming the lining of a tunnel, intended to be coupled to a tunnel-boring machine (1) provided with a segment erector (2), comprising: - a controller designed to communicate with an automated system of the tunnel boring machine, suitable for controlling the actuation of the erector; and - a three-dimensional vision system comprising at least four laser profilometers; the controller is designed to receive a segment positioning plan and to determine, from the analysis data of the three-dimensional vision system, the measurement data of the erector sensors and the segment positioning plan, an erector trajectory for positioning the segment (V) to be placed in alignment with a segment and/or ring (A) of segments already placed, and to communicate movement commands to the automated system of the tunnel boring machine, for actuating the erector to pick up the segment to be placed and move it according to the above trajectory.

[No Suitable Figure]