



HERRENKNECHT press information.

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NEW RECORD-BREAKING TBM EXTENDS HIGHWAY NETWORK IN ITALY.

A Herrenknecht Earth Pressure Balance Shield with a diameter of 15.55 meters will be ready to start work in the year 2011 to extend the A1 highway between Bologna and Florence. Then, the giant from Schwanau will be the largest tunnel boring machine ever built in the world.

Schwanau, June 07, 2010. Currently, a busy section of the A1 highway in Italy between Bologna and Florence is being extended as part of the >>Variante di Valico<< extension project. In the future, this section will accommodate at least 3 traffic lanes on both sides.

The 6-7 lot of a new alternate route includes the construction of the Sparvo Tunnel, the profile of which will set a new record in mechanized tunnelling as far as the drilling diameter is concerned. The tunnel will consist of two parallel-running tubes with a length of 2.5 kilometers each, which will both accommodate a three-lane road. Due to the size and the geological conditions, the construction of the tunnel is considered to be the most challenging part of the overall project. The Italian contractor decided to use mechanized tunnelling technology to improve work safety and to accelerate the works. Therefore, the Chieti-based company >>Toto Costruzioni Generali S.p.A.<< ordered a tunnel boring machine (TBM) from the German company Herrenknecht, market leader in mechanized tunnelling. Toto will carry out the tunnelling works in loose soils with local presence of gas using EPB technology on a total length of 5 kilometers. The Sparvo Tunnel is part of the project awarded by >>Autostrade per l'Italia S.p.A.<< to a joint venture comprising >>Vianini Lavori S.p.A.<<, >>Toto Costruzioni Generali S.p.A.<< and >>Profacta S.p.A.<<.

In order to produce the two 2.5 kilometer long tubes of the Sparvo Tunnel, Herrenknecht is developing and building an EPB Shield (Earth Pressure Balance Shield) with an exterior diameter of 15.55 meters, a weight of 4,300 tonnes, a cutterhead power of 12,000 kilowatts and an overall length of 120 meters. After completion at the Schwanau plant, the world's largest tunnel boring machine will then start its work in Italy.

Preparations for the assembly of the record-breaking TBM have already started in Schwanau. A tight time schedule has been set for the construction of the Sparvo Tunnel. In line with the current planning, the machine is expected to start tunnelling near Florence towards the north as early as in the first half of 2011. The 6-7 lot is the last section of the >>Variante di Valico<< project which will considerably reduce the travelling time between Bologna and Florence for up to 90,000 vehicles per day after the alternate route is opened according to schedule at the end of 2013.