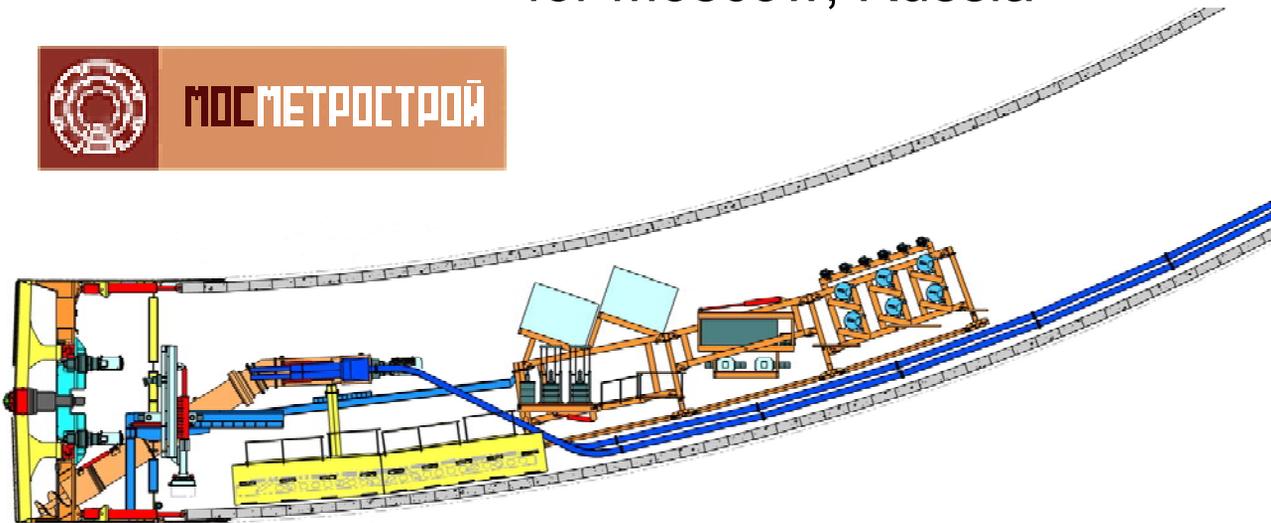




11m DIAMETER EPB TBM for Moscow, Russia



Mosmetrostroy Contractors of Moscow, Russia purchased an 800 tonne, 11m diameter Earth Pressure Balance TBM from LOVAT Inc. in September 2006.

The TBM, model RME430SE Series 23400 has been commissioned to excavate 150 meter long escalator tunnels at slopes 30°. The EPB TBM will be capable of a 100m radius vertical turn, through the use of twin articulation joints (passive and active) and a cyclical copy cutter. At the completion of the tunnel the TBM is designed to be disassembled and transported back through the completed tunnel.

The TBM is equipped with a Mixed Face Cuttinghead powered by a Variable Frequency Electric Drive which includes: Abrasion resistant plating on the cuttinghead face and rim, LOVAT ripper teeth, interchangeable with disc cutters, LOVAT Scraper Teeth and 6 No. Independent Injection Ports for Ground Conditioning.

The tunnel alignment is below the water table at a maximum depth of 80m above the tunnel invert. The anticipated geology along the tunnel alignment is carbonate rocks and a group of soils including: clay, loam, and loamy sand. The tunnel lining consist of 6 No. prefabricated concrete segments plus one key segment with an outside diameter of 10,600mm and inside diameter of 9,400mm. Muck removal from the tunnel will be accomplished by a high density much pump system.

In addition to the TBM, Lovat will also supply detailed design of the segmental lining, segment forms, technical support for the assembly and tunnelling as well as specialized guidance systems, ground conditioning and back fill grouting equipment.

The TBM is scheduled to be delivered in September 2007