



HERRENKNECHT Press Release.

## ULTRAMODERN METRO SYSTEM FOR QATAR'S CAPITAL

### HERRENKNECHT SUPPLIES 15 TUNNEL BORING MACHINES TO DOHA

The State of Qatar is pursuing a large and ambitious vision destined to provide the highest standards of living to the country and its citizens by the year 2030. An important component for this is a modern transport infrastructure. Consequently the capital Doha, chronically plagued by congestion, is to receive a completely new, very efficient metro system. The company Herrenknecht was charged with the delivery of 15 high-tech tunnel boring machines for this purpose. Today HE Jassim Saif Ahmed Al Sulaiti, the Minister of Transport – State of Qatar, took a closer look at a first tunnel boring machine for this major project at the Herrenknecht plant in Schwanau together with the former German Chancellor Dr. h.c. Gerhard Schröder.

**Doha, Qatar/ Schwanau, Germany, February 24, 2014.** The motto for the construction of the new Metro Doha in Qatar says it all: "Accomplishing a Vision". Each of the 15 machines made by Herrenknecht for this huge expansion project will take this motto with it while building the tunnels beneath the capital of Qatar.

Today at the Herrenknecht plant in Schwanau the Minister of Transport of the State of Qatar, HE Jassim Saif Ahmed Al Sulaiti, with his delegation composed of senior representatives of the client Qatar Rail and the joint venture QDVC / GS Engineering & Construction / Al Darwish Engineering as well as a representative of the Embassy of Qatar, inspected the first machine completely finished and ready for use.

During his visit Minister HE Jassim Saif Ahmed Al Sulaiti underscored the enormous importance of this project for Doha and the land of Qatar:

*“Qatar holds its hopes and aspirations for the future in accordance with the Qatar National Vision 2030. One of the most important elements in fulfilling this vision is the infrastructure of the country itself. As such, we have allocated tremendous resources and a generous budget for upgrading Qatar’s infrastructure, to which Qatar Rail’s Doha Metro project is also included.”*

Engineer Abdulla Abdulaziz Turki Al Subaie, Managing Director of Qatar Railways Company (Qatar Rail), added:

*“Qatar Rail places full faith in Herrenknecht’s abilities to deliver exceptional quality products with attention to detail; that’s why this firm has been selected to supply us with the TBMs.*

*The budget allocated to us will allow us to deliver a state-of-the-art rail system that will give confidence to citizens and residents alike that the network will be unquestionable when it comes to security, comfort, and reliability.*

*Of course, the benefits of our projects go beyond the transportation sector, and a positive impact will be felt socio-economically and environmentally.”*

Eng. Saad Ahmed Al Muhannadi, Chief Executive Officer of Qatar Railways Company (Qatar Rail), commented on the importance of the TBM’s technical aspects for the Doha Metro project:

*“Tunnel boring machines are important to the Doha Metro project as there is minimal interference in the day-to-day life of people working and living in Doha as a vast majority of work is done underground with only one point of entry. In addition, the environmental impact is also minimal, with almost no pollutants released into the air or into the groundwater.”*

Dr.-Ing. E.h. Martin Herrenknecht, founder and Chairman of the Board of Management of Herrenknecht AG, thanked the Minister, the client representatives and the contractors for the great confidence in top German technology: *“With our high-tech tunnel boring machines and absolute reliability we will contribute everything possible to ensuring Doha gets a metro tunnel system to the highest global standards.”*

The Earth Pressure Balance shields Lehwaita and Al Wakra with a diameter of 7,050 mm and a cutting wheel drive of 1,280 kW were ordered by the joint venture QDVC/GS Engineering /Al Darwish. The joint venture is responsible for the construction of the metro section Red Line South. The "Red Line" will not only handle the bulk of the national transport and connect the most important stadiums of the football World Cup in 2022. As a central line it also connects the city center with the airport and the Westbay Central.

For the expansion of the first section of the Doha Metro Herrenknecht is currently supplying a total of 15 Earth Pressure Balance Shield tunnel boring machines. By the year 2019 they are to drive about 90 kilometers of tunnel through the limestone below the Qatari capital for the Red Line South, the Red Line North and the Green Line.

Further plans envisage the completion of a second section by 2026. Then the Doha metro with four lines and around 100 stations will connect the residential and business centers of the capital with each other and with the suburbs.

<b>Doha Metro</b>			
Location	Doha, Qatar Red Line South	5 x EPB Shield: S-860 - 864	
Application	Metro	Diameter	7,050 mm
Tunnel length	34.7 km in total	Cutting wheel power	1,280 kW
Geology	Limestone	Thrust force	43,400 kN
Contractor Joint Venture	Qatari Diar, Vinci Construction Grands Projects (QDVC) / GS Engineering & Construction (GS E&C) / Al Darwish Engineering (ADE)		

### **Qatar Rail**

*Established in 2011, the Qatar Railways Company (Qatar Rail), was established to design and implement an integrated and world-class railway system for the State of Qatar. Currently one of the largest rail projects in the world, Qatar Rail aims to construct a new rail network, which is environmentally friendly, technologically advanced and will meet the demands of the rapidly expanding population of Qatar.*

*Supporting each of the four pillars of the Qatar National Vision 2030, Qatar Rail will develop a safe, efficient, integrated public transportation network which will provide an attractive and competitive alternative to private transport, capable of achieving a significant modal share. Qatar Rail will be responsible for the design, construction, commissioning, operation and maintenance of the entire rail network and systems and will ultimately own and manage Qatar's rail network.*

*The rail project will form a fundamental and integral element of the National Development Strategy 2011-2016, and will act as a catalyst in realising Qatar's National Vision.*

*The individual rail projects will comprise of the Doha Metro, Long Distance Network, and Lusail Light Rail Transit (LRT).*

### **Herrenknecht AG**

*Herrenknecht is the only company worldwide to deliver tunnel boring machines for all geologies and all diameters – ranging from 0.10 to 19 meters. The product range comprises tailor-made machines for traffic, supply and disposal tunnels as well as additional equipment and service packages. Herrenknecht also manufactures drilling rigs for vertical and inclined shafts as well as deep drilling rigs. In 2012 the Herrenknecht Group achieved total revenues of 1.135 billion euros. The Herrenknecht Group employs around 5,000 people worldwide, including over 200 trainees. With 78 domestic and overseas subsidiaries and associated companies working in related fields Herrenknecht provides comprehensive services close to each project and customer.*



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Workshop acceptance of the Earth Pressure Balance Shield Lehwaila on February 24<sup>th</sup>, 2014 at Herrenknecht plant in Schwanau, Germany. From left to right:

Dr.-Ing. E.h. Martin Herrenknecht - Chairman of the Board of Management Herrenknecht, Yanick Garillon - Chief Executive Officer QDVC, Adel Abdulrazzaq Haydar - Chief Operations Officer Manager QDVC, Eng. Abdulla Abdulaziz T. Al Subaie - Board Member and Chairman of Executive Committee Qatar Rail, HE Jassim Saif Ahmed Al Sulaiti - Minister of Transport - State of Qatar, Dr. h.c. Gerhard Schröder - former Chancellor of Germany, Eng. Saad Ahmed Al Muhannadi - Chief Executive Officer Qatar Rail, Eng. Hamad Ibrahim Al Bishri - Deputy Chief Executive Officer / Acting Chief Program Officer, Abdulaziz Nasser Al Nasser - Head of Protocol Qatar Rail



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Dr.-Ing. E.h. Martin Herrenknecht, Chairman of the Board of Management Herrenknecht AG, explains HE Jassim Saif Ahmed Al Sulaiti, Minister of Transport – State of Qatar, the Earth Pressure Balance Shield S-860, one out of 15 tunnel boring machines Herrenknecht is producing for Doha Metro.



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The former German Chancellor Dr. h.c. Gerhard Schröder together with Herrenknecht AG founder and Chairman of the Board of Management Dr.-Ing. E.h. Martin Herrenknecht and HE Jassim Saif Ahmed Al Sulaiti, Transport Minister – State of Qatar in front of the Doha Metro TBM Lehwaita with a diameter of 7.05 m.

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