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## **Report**

### **Visit to Herrenknecht in Schwanau, Germany**

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Herrenknecht is a well-respected Tunnel Boring Machine (TBM) manufacturer located in Schwanau, Germany. Their facility is about an hour and half north west of Zurich. Travel by car takes about 10 hours roundtrip from where the ATC office is in Switzerland. The most economical way (cost and time) to this destination was assessed to be via a rental car.

On Tuesday, Nov 16, 2010, I met with *Mr. Chadad Hicham* at 1 pm, who is a sales engineer responsible to cover Middle East and North Africa. *Ms. Karin Baepler* was unable to attend the meeting. Naturally, Herrenknecht thought that the visit was about purchasing a new TBM unit. My earlier communication expressed interest in the large-size (15+) TBM with no mention of any details of the plan. This was primarily because of the nature of our proposal, which was something needed to be presented in a one-on-one meeting than sentences in, for example, email communications or phone calls.

The meeting started with usual ice-breaking conversations and then I began presenting the business proposal. I indicated that although interest in a new large-sized TBM is in our plan, currently the focus is on a refurbished unit. I told him that discussions have already started at a very high level on several fronts and in parallel, both on a few construction projects and a quest for acquisition of a suitable TBM machine. I explained that my visit was a step towards a search for a 15+ used TBM machine and also to initiate a dialogue on a new business proposal. The proposal was explained to him as refurbishment of used TBM machines in Dubai with collaboration and assistance of Herrenknecht, something like a joint venture. I indicated that our objective was to bring value to all parties and as such we think a series of meetings are required to reach to a point where everyone is satisfied with the plan.

Mr. Hicham wanted to know more about the nature of the project, specifically the geological details of the plan. He indicated that no matter what, first and foremost, they need to know the soil condition so that the machine is prepared for the type of ground in which excavation is done. This is true even if a used unit is purchased. He was very insistent on this aspect of our TBM work and several times made this specific point

known. To address his question, I acknowledged that indeed our technical people are fully aware of the importance of this information and the details are being worked out by other team members and that he would be informed as soon as the matter is finalized and geological information becomes available. Nevertheless, I emphasized that the machine would be owned by a company based in Dubai and that the project was about transportation in UAE. Mr. Hicham shared with me that his primary responsibility is about selling new machines in Middle East and North Africa and that he needs to take our business plan to those who are in position of evaluating such proposals. Hence, I made sure that the key points of our business proposal are well understood and registered by Mr. Hicham so there is no confusion about the overall plan we have in mind.

Mr. Hicham reconfirmed my earlier findings from conversations I had with people involved in the Gotthard Base project in Switzerland that Herrenknecht has a buy-back plan with them. Herrenknecht has already bought back all the TBMs after the breakthrough and plans are ongoing to refurbish them for resale. Apparently, it is a profitable business, especially for Herrenknecht which has all the facilities and know-how to refurbish them rapidly and cost effectively. He told me that the price tag of the reconditioned unit will not be much less than a new one, something like 10% at a discounted value, but carries all the warranties similar to a new unit. His point was that this is not a substantial reduction of an overall project cost, and indirectly was trying to convey that the profit margin for us would be quite low or even negative.

After our meeting, Mr. Hicham took me to an interesting tour of their facility. Especially eye-catching, was a 15.5 meter new TBM machine being built outdoor for an Italian customer. Although all other small-sized TBMs are built in covered areas, this one was outdoor despite the cold weather. This was due to lack of suitably-sized covered working area. The scene was quite impressive, dominated by tons of large-sized steel pieces being put together by surprisingly only a few workers. This unit was a EPB machine for soft and under river tunneling excavation. We spent nearly an hour and half on this tour.

I concluded the meeting around 4:30 pm with a summary of key points and Mr. Hicham was going to discuss the matter with those in Herrenknecht who are positioned to evaluate our business proposal.

