TBM APPLICATIONS II

6. – 7. JUNE 2016
Scandic Ørnen Hotel, Bergen, Norway

Last date of registration: 27 May 2016
MONDAY 6. JUNE

09.00  Registration of delegates

Norwegian TBM tunnelling

10.00  (1) Seminar opening
       Frode Nilsen, LNS AS

10.10  (2) ITA WTC 2017 Bergen
       Heidi Berg, Vianova Systems AS

10.25  (3) Boring of the new Ulriken Railway Tunnel
       Hans-Egil Larse, Norwegian National Rail Adm./
       Torbjørn Tveit Bakketun, JV Skanska Strabag

10.45  (4) Tunnel boring in Norway – an overview
       Amund Bruland, NTNU

11.05  Coffee break

11.20  (5) TBM boring of the headrace tunnel at Nedre
       Rassåga HEP
       Dag Bras, UNS AS

11.40  (6) The Follo Line TBM tunnel
       Fernando Vara, Acciona – Ghella JV

12.00  (7) Hard rock experiences and critical design principles
        for TBMs
       Amund Bruland, NTNU

12.15  Lunch at Scandic Ørnen Hotel

TBM applications

13.15  (8) Different TBMs – different applications
       Karin Baeppler, Herrenknecht AG

13.45  (9) Boring in mixed ground
       Sindre Log, The Robbins Company

14.15  (10) Chemicals used in TBM tunneling
        Lars Langmaack, Normet International Ltd.

14.45  Coffee break

International TBM Projects

15.10  (11) St. Gotthard railway tunnel project – Experience
        versus planning. Lessons learned
        Thomas Jesel, Amberg Engineering Ltd

15.35  (12) Anneberg-Skanstull Tunnel
        Rolf Axén, Svenska kraftnät

16.05  Coffee break

Planning and Design

16.20  (13) Environmental impact – TBM versus D&B
        Christofer Skaar, SINTEF
        Morten Bergem, JM Bygg
        Pål Drevland Jakobsen, NTNU

16.50  (14) Design, manufacturing and installation of segmental lining in TBM tunnels
        Johannes Gollegger, Norwegian National Rail Adm.

17.20  Questions, end of seminar day 1

19.00  Dinner at Scandic Ørnen Hotel

TUESDAY 7. JUNE

Planning and design, cont.

08.30  (15) Geological and geotechnical investigations for TBM applications
        Pål Drevland Jakobsen, NTNU

08.50  (16) The updated NTNU TBM prediction model
        Javier Macias, NTNU/SINTEF

09.10  (17) FAST-Tunn
        Eivind Grøv, SINTEF

09.30  (18) TBM experiences from Koral jury railway tunnel and re-use of TBM muck
        Gerhard Harer

10.00  Questions - Coffee break

10.15  (19) D&B versus TBM – some case histories
        Anne Kathrine Kalager, Norwegian National Rail Adm.
        Arild Hegrenæs, Norwegian Public Roads Adm.

10.55  (20) Boring of long distance tunnels in hard rock
        Brian Khalighi, The Robbins Company

11.15  (21) Small diameter tunnels
        Lutz zur Linde, Herrenknecht AG

11.45  Questions and answers

12.00  Lunch

13.00  (22) Data Acquisition in TBM tunnels – case histories
        Tim Babendererde, Babendererde Engineers

13.30  (23) Horizontal Raise boring
        Trond Øiseth, Entreprenørservice AS

Possible TBM projects in Norway

13.50  (24) Preparing for the Fornebu Metro Line
        Ingeborg Krigsolv, Oslo Sporveier AS

14.10  Questions – coffee break

14.25  (25) Oslo Navet – A Mega-project
        Nina Tveiten, Norwegian National Rail Adm.

14.45  (26) Possible TBM application for new water supply to the city of Oslo
        Lars Hem, Oslo VAV

15.05  (27) Possible future TBM road tunnels
        Gunnar Gjæringen, The Norwegian Public Roads Administration

15.25  Questions and closing of seminar
        Frode Nilsen, LNS AS
TBM APPLICATIONS II

During the period from early nineteen seventies to early nineties more than 250 km of tunnels were excavated in Norway by the use of Tunnel Boring Machines (TBM). The purpose of these tunnels were mainly for hydropower and a few road tunnels. After this period the development of hydropower came more or less to a stop and the same was the case with the application of TBMs. Some of the contractors continued to do some TBM tunnels abroad. Internationally the development has gone the opposite way. More and more TBMs are applied to a variety of different ground conditions and purposes. This seminar will highlight the development of this tunnelling technique over the last 20 years and show tunnelling professionals the possibilities of this method.
GENERAL INFORMATION

Conference number: 1626103

Date and venue: 6. – 7. June 2016, Scandic Ørnen Hotel, Bergen, Norway

Conference committee:
- Arnulf M. Hansen, AMH Consult AS
- Anne Kathrine Kolager, Norwegian National Rail Adm.
- Hans-Egil Larsen, Norwegian National Rail Adm.
- Gunnar Gjæringen, Norwegian Public Road Adm. Region West
- Kjersti Kvalheim Dunham, Norwegian Public Road Adm., ferry-free E39
- Thor Skjeggedal, The Norwegian Tunnelling Society

Administration:
Siri Ebro Engen, Tekna / Norwegian Tunnelling Society (siri.engen@tekna.no)

Organizers:
Norwegian Tunnelling Society (NFF)
Tekna

Participant fee:
Personal members of NFF/Tekna: NOK 5.500,-
Non-members: NOK 6.000,-
Inclusive coffee breaks and lunches

Dinner 6. June:
NOK 500,-

Exhibition:
2 meters width, depth approx. 1 meter = NOK 7.500,- lunches and coffee breaks included. Each company must have at least one delegate paying full delegate fee.
All prices exclusive VAT

Hotel:
Scandic Ørnen: single room NOK 1.810,- incl. breakfast and free wi-fi.

Last date of registration:
27 May 2016

Cancellations received after 30 May: No refunds will be made.

Registration:
Tekna, Service-center
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