

TUNNEL HEADING & LOADING MACHINES models ITC
TUNNEL ARTICULATED DUMP TRUCKS models ITC

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1. DIGGING WITH EXCAVATION BUCKET / RIPER TOOTH

1.1 ROAD OR HIGHWAY TUNNELS

1.1.1 M40-ORBITAL HIGHWAY AROUND MADRID, (ES)
- See Info

1.1.2 ROAD TUNNEL IN THE BUTMIR, SUBURB OF SARAJEWO

1.1.3 ROAD TUNNEL UNDER THE CITY OF BRNO
- Main traffic tunnel under the inhabited city.
- Joint Venture: Metrostav, ZS Brno, Subterra.
- 3 units model ITC 112 M3 with TCU and M4 (with TCU).
- Geology: Sand and gravels
- Heading system: NATM, currently, two side drifts and one pilot tunnel are driven. Mucking through railway and one through Paus Dumptruck (pilot tunnel).

1.1.4 AIRSIDE ROAD TUNNEL AT T5 HEATHROW AIRPORT
- Tunnel under the Terminal 5
- Joint Venture: Miller Tunnelling and Vinci.
- 2 units model ITC 112 E3/E7.
- Geology: London clay
- Heading system: NATM

1.1.5 ROAD TUNNEL IN HAUSMANNSTÄTTEN, (AT)
- Recognition tunnel for the diversion road of Graz.
- 1 unit model ITC 312 H1
- Heading system: NATM, mucking on dumptrucks Paus ITC 10000

1.1.6 A3 HIGHWAY TUNNEL IN HINDHEAD, (UK)
- Dual carriageway tunnel of 1.8 km
- Joint Venture: Balfour Beatty and Mott MacDonald.
- 2 units model Terex TE 210 Electric.
- Geology: sedimentary deposit, sandstone, silt and clay
- Heading system: NATM

1.1.7 ROAD ESCAPE TUNNEL IN MANNHEIM GERMANY
- Saukopf Road escape tunnel.
- 1 unit model ITC 120 F3
- Contractor: Jäger Bau GmbH

1.1.8 HIGHWAY TUNNEL EKPTT
- Tunnels on the Highway from Athen to Thessaloniki.
- 1 unit model TE210
- Contractor: JV Vinci & Aktor

1.1.9 AIRSIDE ROAD TUNNEL AT T5 HEATHROW AIRPORT
- Tunnel under the Terminal 5
- Joint Venture: Miller Tunnelling and Vinci.
- 2 units model ITC 112 E3/E7.
- Geology: London clay
- Heading system: NATM

1.1.10 ROAD TUNNEL IN HAUSMANNSTÄTTEN, (AT)
- Recognition tunnel for the diversion road of Graz.
- 1 unit model ITC 312 H1
- Heading system: NATM, mucking on dumptrucks Paus ITC 10000

1.2 RAILWAY TUNNELS

1.2.1 ONE TRACK RAILWAY TUNNEL MIGLIONICO, (IT)
1.2.2 ONE TRACK RAILWAY TUNNEL EIDSVOLL CLOSE TO OSLO, (NO)

1.2.3 GERMAN HIGH SPEED RAILWAY, TUNNEL OF LIMBURG
1.2.4 SWISS PRIVATE RAILWAY
1.2.5 GERMAN HIGH SPEED RAILWAY RHEIN-MAIN, TUNNEL OF WANDERSMANN
1.2.6 GERMAN HIGH SPEED RAILWAY RHEIN-MAIN, TUNNEL OF SIEGAUE
1.2.7 BRENNER HIGH SPEED RAILWAY TUNNEL OF BRIXLEGG WEST
1.2.8 RAILWAY TUNNEL OF CHOMUTOV BY BREZNO IN THE CZECH REPUBLIC
1.2.9 RAILWAY TUNNEL OF KORALM, (AT)
- Excavation of the recognition tunnel Mitterpichling according to the NATM.
- 2 units model ITC 312 H1.
- Tunnel driven very efficiently from November 2004. Best performance in sandstone: 2.6 m/day. Best performance in schluff: 10.2 m/day, average advance rate: 5-6 meters a day.

1.2.10 RAILWAY TUNNEL WIENERWALD, (AT)
- The length is approx. 2.3 km with 75 m of it under divided cross section and 300 m under HDI tubing screen. Cross section 120 m². Geology: Flysch: Mixture from sandstone, clay stone, marl with storages of multicolored slates. The tunnel excavator TE 200 is used in the side wall, crown tunnel and into the emergency escape where bigger machines cannot operate. To break off machine equipped with a rotary cutting unit and hydraulic rock breaker to excavate the invert.

1.2.11 RAILWAY TUNNEL FRITZENS (INNTAL), (AT)
- Excavation of the recognition tunnel Fitzens according to the NATM.
- The length is approx. 5.2 km, 2.8 km of it driven under compressed air and of it 430 m under HDI tubing screen. Cross section 112 m². Geology: Inn crushed stone, gravel. (commencement of construction of the compressed air heading in March ‘06).
- 2 units model TE 210 electric.

1.2.12 RAILWAY TUNNEL OF KORALM, (AT)
- Excavation of tunnel Leibenfeld according to the NATM.
- The length is 2300 m starting from a 60 m deep pit (Ø9m) in a 22 m² cross section. Geology is on approx. 8-900 m loose rock (machine works as excavator) and then the main drive as crystalline rocks, which will be headed in Drill and Blast method (machine works as continuos mucking machine).
- 1 unit model ITC 120 F2.

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1.2.13 RAILWAY TUNNEL OF KORALM, (AT)
- Excavation of the recognition tunnel Paierdorf according to the NATM.
- The length is 5600 m starting from a 120 m deep pit (Ø9m) in a 37-45 m² cross section (1100 m to the West, 4500 m to the East).
- Geology is silt, fine sand and gravelled sand. In the eastern drive after approximately 1 km the Lavanttaler disturbance has to be crossed and then the heading will be by Drill and Blast.
- 2 units model TE 210.

1.2.14 RAILWAY TUNNEL LT31 MAXING, (AT)

1.2.15 RAILWAY TUNNEL OF KING’S CROSS, (UK)

1.2.16 RECOGNITION RAILWAY TUNNEL FOR THE BRENNER
- Recognition Tunnel Brenner North, Innsbruck.
- 1 unit model ITC 312 H1 & 3 dump truck ITC 10’000
- Contractor: JV Strabag & Porr

1.2.17 HL NÜRNBERG-ERFURT, RENNBERG & FEUERFELSEN-TUNNEL
- Excavation of partial section acc. to NATM.
- Contractor: Marti Tunnel
- 1 unit TE 210

1.2.18 HIGH SPEED RAILWAY - SEMMERING BASRIS TUNNEL (AT)
- 3 dump truck ITC 10’500

1.2.19 HIGH SPEED RAILWAY - KORALM TUNNEL 3 (AT)
- 1 mucking unit TE210

1.3 SUBWAY TUNNELS

1.3.1 LONDON - JUBILEE LINE EXTENSION - CONTRACT 104 : LONDON BRIDGE
- -> See Info

1.3.2 FRANKFURT AM MAIN

1.3.3 LISBON (A.C.E.)

1.3.4 METEOR UNDER THE PAVEMENTS OF BERCY: THE FUTURE METRO IN PARIS.
- -> See Info

1.3.5 LONDON - JUBILEE LINE EXTENSION - CONTRACT 102 : WATERLOO STATION

1.3.6 MADRID – SUBWAY S.S. SEBASTIAN - ALCOBENDAS

1.3.7 STUTTGART – SUBWAY AIRPORT-BERNHAUSEN
- -> See Info

1.3.8 BUENOS AIRES SUBWAY (REP. ARGENTINA) LINEA ‘H’, LOT ‘B’

1.3.9 VIENNA SUBWAY (AUSTRIA) LINEA ‘U2’ WENDEPLATZ

1.3.10 SUBURBAN RAILWAY MUNICH UNDER THE CITY OF GARCHING
- -> See News N° 11

1.3.11 SUBURBAN RAILWAY UNDER THE CITY OF BOCHUM
- Subway under the inhabited city.
- Joint Venture: Heitkamp and Beton&Monierbau.
- 1 unit model ITC 312 H1.
- Geology: Sand and gravels
- Heading system: NATM, mucking through suspended conveyor system
- -> See News N° 15

1.3.12 SUBURBAN RAILWAY UNDER THE CITY OF MUNICH
- Subway under the inhabited city.
- Joint Venture: Züblin and .
- 2 units model TE 200.
- Geology: Sand and gravels
- Heading system: NATM in compressed air.

1.3.13 U2/2 SUBWAY OF VIENNA
- -> See News N° 23

1.3.14 METRO OF PARIS
- Subway under the inhabited city, Extension of the line N° 4 at Porte d’Orléans.
- Joint Venture: Soletache Bachy.
- Pre-cutting heading with Perforex system
- 1 unit ITC 312 H6

1.3.15 METRORAIL DULLES AIRPORT, WASHINGTON
- Subway under the inhabited city, NATM section.
- Joint Venture: Bechtel, Beton & Monierbau.
- 2 unit ITC 312 H1

1.3.16 CROSSRAIL TOTTENHAM COURT ROAD
- Subway East-West under London in NATM.
- Joint Venture: Vinci BAM Nuttal.
- 1 unit ITC 120 F3

1.3.17 CROSSRAIL C510
- Subway East-West under London in NATM.
- Joint Venture: Balfour Beatty, BeMo, Morgan, Vinci BBMV.
- 3 units ITC 312 H1

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1.3.18 CROSSRAIL C410
- Subway East-West under London in NATM.
- Joint Venture: BFK, Bam Nuttal, Ferrovial, Kier
- 1 unit ITC 120 F3 / F8; 1 unit TE210

1.3.19 SUBWAY LONDON, (GB)
- Bond street Upgrade; JV Costain, Laing, O’Rourke
- 1 unit TC 125 E; 1 unit ITC 120 F3 / F8

1.3.20 U-BAHN VIENNA, (AT)
- Extension Line U1/1-9; Contractor: Strabag
- 5 units TE 210

1.3.21 U-BAHN STUTTGART, (DE)
- Extension Line U12; Contractor: Zublin
- 2 units TE 210; 3 units dumper ITC 10'500

1.3.22 U-BAHN NÜRNBERG, (DE)
- Extension Line U3; Contractor: Bilfinger/Impienia
- 2 units dumper ITC 10'500

1.3.23 EDMONTON TRANSER LRT PROJECT (CA)
- 2 units ITC 312N H1

1.3.24 LONDON BSCU (GB)
- 1 unit ITC 120 N F8
- 1 unit TE210

1.3.25 TORONTO CROSSLINX (CA)
- 2 units ITC 312N N1s

1.4 WATER SUPPLY
1.5 WASTE WATER AND RAINWATER
1.5.1 RAIN WATER DISCHARGE CANAL IN MISTERBIANCO, (IT)
1.5.2 SEWAGE TUNNEL IN HULL, UK

1.6 IRRIGATION
1.6.1 CANAL CARRION, (ES)
1.7 GENERAL SUPPLY
1.7.1 DISTANT HEAT CANAL F. HEATING PLANT TO AIRPORT

2. HAMMER TUNNELLING
2.0 HYDRO-ELECTRIC-PLANTS
2.0.1 HYDROELECTRIC PLANT CLEUSON - DIXENCE (VS, CH)
-> See Info
2.0.2 DIGA DEL METRAMO, (IT)
2.0.3 HYDROELECTRIC PLANT PARADISO, (GT)
2.0.5 HYDROELECTRIC PLANT XCABAL, (GT)
2.0.6 HYDROELECTRIC PLANT SPILLVATN, SWEDEN
-> See News N° 39
2.0.7 HYDROELECTRIC PLANT NIYET MEKTUBU, TÜRKEY
2.0.8 HYDROELECTRIC PLANT IN CRETE

2.1 ROAD OR HIGHWAY TUNNELS
2.1.1 HIGHWAY TUNNEL, SIERRA /VALAIS (SWITZERLAND)
-> See News N° 04
2.1.2 HIGHWAY TUNNEL, ST. AUBIN (SWITZERLAND)
2.1.3 ROADWAY TUNNEL, BRANISKO (SLOVAK REPUBLIC)
2.1.4 ROADWAY DEVIATION TUNNEL IN SISSACH (CH), CHIENBERGTUNNEL
-> See News N° 12
2.1.5 ROADWAY TUNNEL IN GUAYAQUIL (EC), ‘EL CARMEN’ AND ‘SANTA ANA’ TUNNELS
2.1.6 ROAD TUNNEL OF GUAYAQUIL TUNNEL VIAL DE LOS CERROS

2.2 RAILWAY TUNNELS
2.2.1 EAST-WEST-EXPRESS LINK IN PARIS (SEQUENCE 36 B)
2.2.2 RAILWAY IN SPAIN, TUNNEL OF VERINA
2.2.3 NEW HIGH SPEED RAILWAY IN SPAIN, TUNNEL OF RICLA (MADRID-BARCELONA)
2.2.4 RAILWAY IN SWITZERLAND, TUNNEL GRANDVAUD
2.2.5 SWISS HIGH SPEED
2.2.6 NARROW GAUGE RAILWAY IN SWITZERLAND TUNNEL OF ENGELBERG
-> See News N° 17
2.2.7 TGV FRANCE SPAIN, TUNNEL LE PERTHUS
2.2.8 ÖBB RAILWAY TUNNEL WIENERWALD IN AUSTRIA INTERMEDIATE MUCKING TUNNEL
- Machine model ITC 120 F2 with hammer S29, mucking on to Paus ITC 10000 dump trucks.
- See News N° 30, see video
2.2.9 REHABILITATION OF RAILWAY LINE LES CARPETES, FR
- One unit model ITC 312 H6 equipped with the V32 Montabert rock breaker with 2 dump trucks ITC 10'000.
- Contractor: Bouygues
2.2.10 EXTENSION OF THE HIGHSPEED RAILWAY LINE MADRID-BARCELONA, (ES)
- One unit model ITC 312 H6 with the V32 Montabert rock breaker
- Contractor: Noturnel
2.2.11 RAILWAY TUNNEL T48 IN JAMMU & KASHMIR, (IN)
- Access tunnel & main drives and HRT
- 2 heading machines ITC 120 F2
- 2 tunnel excavators TE 210
- Contractor: HCC Mumbai
2.2.12 SIMPON RAILWAY TUNNEL, (CH)
- Cowering the invert
- 1x heading machine ITC 320 V45
2.2.13 RHB - ENLARGEMENT GLATSCHERA TUNNEL, (CH)
- Hammer unit ITC 320 V45
- 1x Tunnel excavator TE210
- 40 m² x 340m
-> See News N° 51
2.2.14 SWISS FEDERAL RAILWAY-COLDREDIERIO TUNNEL, (CH)
- 2x unit ITC 312 H1
- 1x unit ITC 320 V45
- 1x unit ITC 312 H6

2.2.15 SUBWAY TUNNELS

2.3.1 SEOUL SUBWAY (SOUTH KOREA)
2.3.2 SUBWAY IN PUSAN (KOREA)
2.3.3 SUBWAY IN ATLANTA

2.3.4 PRAG SUBWAY IN THE CZECH REPUBLIC
- Excavation of the main tunnel, according to the NATM.
- Cross section of total approx. 40 m², total length abt. 2000 m.
- Geology: Clay, marl, very soft and weathered ground condition.
- 1 unit model ITC 312 N1s.

2.3.5 SUBWAY OF MOSCOW, EXTENSION LINES, RU
- Access tunnels and stations
- 3 heading machines ITC 120 F2/F3
- 2 heading machines ITC 312 N1/H6
- Contractor: Mosmetrostroy

2.3.6 SUBWAY OF MILAN, (IT)
- 1x unit ITC 312 N1s equipped with the M300 Montabert.
- Geology: Clay, marl, very soft and weathered ground condition.

2.3.7 SUBWAY TUNNELS IN LONDON, (UK)
- 3 heading machines ITC 120 F2/F3

2.5 WASTE WATER AND RAINWATER

2.5.1 RESERVOIR TUNNEL AT BURTSCHEID AACHEN (DE)

2.5.2 MAIN SEWAGE IN WIESBADEN (GERMANY)
- 3 heading machines ITC 120 F2/F3
- 2 heading machines ITC 312 N1/H6
- Contractor: Mosmetrostroy

2.5.3 PIPELINE TUNNEL IN DÄTTLIKON (SWITZERLAND)
- 3 heading machines ITC 120 F2/F3
- 2 heading machines ITC 312 N1/H6
- Contractor: Mosmetrostroy

2.5.4 DRINKING WATER SUPPLY TUNNEL IN ERZURUM (TURKEY)

2.5.5 IRRIGATION SCHEME ON ISLE OF REUNION (FRANCE)
- Cross-section 21 m², total length 4'900 m.
- One unit ITC 112 E5 equipped with the M300 Montabert.
- Geology: strongly weathered rock, Anglomera, Andesite and Basalt. The tunnel is completely under water income (sometimes more than 600 l/sec).

2.5.6 WATER TRANSFER TUNNEL IN CANARIAN ISLAND
- One unit model ITC 120 F6 equipped with the S29 rock breaker.

2.5.7 WATER TRANSFER TUNNEL COBURG, (DE)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker with 2 dump trucks ITC 10'000.
- Contractor: Kunz Tunnelbau

2.5.8 METALL GROUP, BELGORD, (RU)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker. Soft mineral production.

2.5.9 CADIA GOLD GROUP, GOSOWONG, (ID)
- One unit model ITC 312 H6 equipped with the Montabert V32 rock breaker. Soft mineral production.

2.5.10 METALL GROUP, BELGORD, (RU)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker. Soft mineral production.

2.5.11 CADIA GOLD GROUP, GOSOWONG, (ID)
- One unit model ITC 312 H6 equipped with the Montabert V32 rock breaker. Soft mineral production.

2.5.12 METALL GROUP, BELGORD, (RU)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker. Soft mineral production.

2.5.13 CADIA GOLD GROUP, GOSOWONG, (ID)
- One unit model ITC 312 H6 equipped with the Montabert V32 rock breaker. Soft mineral production.

2.5.14 METALL GROUP, BELGORD, (RU)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker. Soft mineral production.

2.5.15 CADIA GOLD GROUP, GOSOWONG, (ID)
- One unit model ITC 312 H6 equipped with the Montabert V32 rock breaker. Soft mineral production.

2.5.16 METALL GROUP, BELGORD, (RU)
- One unit model ITC 120 F2 equipped with the S29 Rammer rock breaker. Soft mineral production.

3. MUCKING

3.0 HYDRO-ELECTRIC-PLANTS

3.0.1 OYACACHI, ECUADOR

3.0.2 HYDROELECTRIC POWER PLANT TRANSVASUR, GRAN CANARY, SPAIN

3.0.3 LOWER KIHANSI HYDROPOWER PROJECT (TANZANIA)

3.0.4 MUELA HYDROPOWER PROJECT (LESOTHO)

3.0.5 STORAGE WATER PUMP STATION GOLDISTAL IN THURINGE (D)

3.0.6 HYDROELECTRIC POWER PLANT CROT-ENEL, LANZA VALLEY , ITALY

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3.0.7 HYDROELECTRIC POWER PLANT CHIMAY, PERU
3.0.8 HYDROELECTRIC POWER PLANT BASPA II, INDIA
3.0.9 HYDROELECTRIC POWER PLANT GIGEL GIBE NEAR JIKMA IN ETHIOPIA (CHEFFA PROVINCE)
3.0.10 HYDRO ELECTRIC POWER PLANT VENDA NOVA II HEADRACE TUNNEL IN PORTUGAL
3.0.11 HYDRO ELECTRIC POWER PLANT VISHNU PRAYAG HEADRACE TUNNEL IN INDIA
3.0.12 HYDRO ELECTRIC POWER PLANT VENTOUX HEADRACE TUNNEL IN NORTH ITALY
3.0.13 HYDRO ELECTRIC POWER TYIN HEADRACE TUNNEL IN NORWAY
3.0.14 HYDRO ELECTRIC POWER ERMENEK DIFFERENT TUNNELS IN TURKEY
3.0.15 HYDRO ELECTRIC POWER PLANT JING PING DIFFERENT TUNNELS IN SOUTH CHINA
3.0.16 HYDRO ELECTRIC POWER FOLAFOS HEADRACE TUNNEL IN NORWAY
3.0.17 HYDRO ELECTRIC POWER KOPSWERK II HEADRACE TUNNEL IN AUSTRIA
3.0.18 HYDRO ELECTRIC POWER INNVIK HEADRACE TUNNEL IN NORWAY
3.0.19 HYDRO ELECTRIC POWER BLEIKVATN HEADRACE TUNNEL IN NORWAY
3.0.20 HYDRO ELECTRIC POWER NYGAARDSJOEN WATERTRANSFER TUNNEL IN NORWAY
3.0.21 HYDRO ELECTRIC POWER KJØSNESFJORDEN HEADRACE TUNNEL IN NORWAY
- Excavation of the several headrace tunnels, by Drill&Blast.
- Cross section of 16 + 25 m², total length abt. 21 km.
- Geology:micaceous granit-gneiss.
- 2 units model ITC 312 SL and 1 unit ITC 312 H3
- 3 dump truck ITC 10'000.
  World Record of Conventional Heading
  --> See News N° 40
3.0.22 HYDRO ELECTRIC POWER BLEIKVATN HEADRACE TUNNEL IN NORWAY
3.0.23 HYDRO ELECTRIC POWER SAUDA HEADRACE TUNNEL IN NORWAY
3.0.24 HYDRO ELECTRIC POWER BOULLANJAKKA HEADRACE TUNNEL IN NORWAY
3.0.25 HYDRO ELECTRIC POWER KAPRUN HEADRACE TUNNEL IN AUSTRIA
3.0.27 HYDRO ELECTRIC POWER BOUDHIL, HEADRACE TUNNEL, INDIA
- Excavation of the headrace tunnel, by Drill&Blast.
- One unit ITC 312 H3
- Contractor: Lanco
3.0.28 HEP PRINI, HEADRACE TUNNEL, INDIA
- Excavation of the headrace tunnel, by Drill&Blast.
- One unit ITC 120 F2
- Contractor: AD
3.0.29 HYDRO ELECTRIC POWER UTTARAKHAND, HEADRACE TUNNEL, INDIA
- Excavation of the headrace tunnel, by Drill&Blast.
- Two units ITC 312 SL
- Joint Venture: CMC Ravenna and Impregilo
3.0.30 HYDRO ELECTRIC POWER INGULA, HEADRACE TUNNEL, SOUTH AFRICA
- Excavation of the headrace tunnel, by Drill&Blast.
- Two units ITC 312 SL
- Contractor: Conciviles
3.0.31 HYDRO ELECTRIC POWER AMOYA, HEADRACE TUNNEL, COLUMBIA
- Excavation of the headrace tunnel, by Drill&Blast.
- One unit ITC 312 H3, 7 dumpers ITC 10'000
- Contractor: Hochtief
3.0.32 HYDRO ELECTRIC POWER LA CONFLUENCIA, HEADRACE TUNNEL, CHILE
- Excavation of the headrace tunnel, by Drill&Blast.
- One unit ITC 312 H3, 7 dumpers ITC 10'000
- Contractor: JV Astaldi & Graña Montero
3.0.33 HYDRO ELECTRIC POWER DAGACHU, HEADRACE TUNNEL, BHUTAN
- Excavation of the headrace tunnel, by Drill&Blast.
- Three units ITC 312 H3s
- Contractor: Hindustan Construction Company3.0.34 Hydro Electric power Huanza, Headrace Tunnel, Peru
- Excavation of the headrace tunnel, by Drill&Blast.
- 3 units ITC 112 and 10 units dump truck ITC 10'000
- Contractor: JV Astaldi & Graña Montero
3.0.35 HYDRO ELECTRIC POWER GIGEL GIBE, REPAIR OF HEADRACE TUNNEL, ETHIOPIA
- 3 units ITC 312
- Contractor: Salini
3.0.36 HYDRO ELECTRIC POWER GLENDOE, REPAIR OF HEADRACE TUNNEL, SCOTLAND
- 3 units ITC 312 SL and 6 units dump truck ITC 10'000
- 1 unit ITC 312 H6
- Contractor: JV Barn - W&F
3.0.37 HYDRO ELECTRIC POWER LINTH-LIMMERN, CH
- Mucking on 6 units dump truck ITC 10'000
- Contractor: Marti Tunnelling
3.0.38 HEPP EIRISKDAL BY HØYANGER, NO
- Inclined shaft 20% slope
- 1 superloader ITC 312 SL
- Contractor: Skanska

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3.0.39 HYDRO ELECTRIC POWER, PK
- 1 mucking unit ITC 312 H3
- Contractor: Universal Drilling

3.0.40 HYDRO ELECTRIC POWER VENDA NOVA 3, PT
- 3 mucking unit ITC 312 SL
- Contractor: JV Mota, Somague

3.0.41 HYDRO ELECTRIC POWER KWO GRIMSEL, CH
- 1 mucking unit ITC 312 H3
- Contractor: Gasser Felstechnik

3.0.42 HYDRO ELECTRIC POWER KAISERSTUHL, CH
- 1 mucking unit ITC 312 H3
- 3 units dump truck ITC 10'000
- Contractor: JV Gasser Felstechnik, Strabag

3.0.43 HYDRO ELECTRIC POWER KÜHTAI, AT
- 1 mucking unit ITC 312 H1 and 2 x ITC 10'000
- Contractor: Alpine BeMo Tunnelbau

3.0.44 HYDRO ELECTRIC POWER WALDECK 2, DE
- mucking on 1x ITC 10'000
- Contractor: Feldhaus Bergbau

3.0.47 HYDRO ELECTRIC POWER CHEVES, PE
- 1 heading unit ITC 312 H6
- 2 mucking machine 1x ITC 312 H3, 1x ITC 312 SL
- Contractor: JV Hochtief

3.0.49 HYDRO ELECTRIC POWER KWO INNERTKIRCHEN
- Access tunnel for TBM Lauch
- Joint Venture: Gasser Felstecknik & Strabag
- 1 Superloader ITC 312 SL

3.0.50 HEPP BROKKE SØR BY RYSSTAD, NO
- Access tunnel + HRT
- 2 mucking machines ITC 312 H3
- 5 dump trucks PAUS ITC 10'500
- Contractor: Veidekke

3.0.51 HEPP KWO, HANDECK 2, GRIMSEL, (CH)
- Access, power house, HRT, derivation tunnels
- 2 Superloader ITC 312 SL
- Contractor: Gasser Felstechnik

3.0.52 HEPP TANGNU ROMAI IN HIMACHAL PRADESH, (IN)
- Access, head race tunnels
- 1 mucking machine ITC 120 F4
- Contractor: NSL Power

3.0.53 HEPP ALTO MAIPO, (CL)
- Contractor: Strabag, Strabag Chile
- 4 units Superloader ITC 312SL
- 1 unit loading machine ITC 120 F4
- 1 unit tunnel excavator TE210

3.0.54 HEP RENACE, (GT)
- 3x units Dumper ITC 10’000

3.0.55 HEPP ISTAK IN TORBOTN, (NO)
- 1x Mucking machine ITC 312 SL

3.0.56 HEPP BAJOLIHOLI, (IN)
- 2 mucking units ITC 312 H3
- Contractor: Gammon - GMR

3.0.57 HEPP RAMMAN, (N.E. INDIA)
- 2 mucking units ITC 120 F4

3.0.59 HEPP RINGEDALEN (NO)
- 1 mucking units ITC 312 H3

3.0.60 HEPP RHONE OBERWALD (CH)
- 1 mucking units ITC 312 SL

3.0.61 HEPP AMSTEG URI (CH)
- 1 units ITC 112

3.0.62 HEPP BECHNERBACH (CH)
- 1 mucking unit ITC 120N F4

3.0.63 HEPP Østerbø (NO)
- 1 mucking unit ITC 312 SL

3.0.64 HEPP GOUVAÈS (PT)
- 1 mucking unit ITC 312N H3

3.1 ROAD OR HIGHWAY TUNNELS
3.1.1 RECOGNITION TUNNEL S6, SEMMERING MOTORWAY
-> See News N° 05
3.1.2 ANDORRA ROAD TUNNEL, ENVALIRA
3.1.3 SUBURBAN ROAD TUNNEL, FREIBURG (D)
-> See Info
3.1.4 YAN MEN GUANG ROAD TUNNEL IN SHANXI PROVINCE
3.1.5 XUEFENGSHAN HIGHWAY TUNNEL FROM HUAI HUA TO ..IN HUNAN PROVINCE (CHINA)
3.1.6 SAFETY TUNNEL FOR NATIONAL HIGHWAY SISTO (CH)
- 1 mucking units ITC 112
3.1.7 SAFETY TUNNEL FOR NATIONAL HIGHWAY BÄRENBURG (CH)
- 1 mucking unit ITC 120N F4

3.2 RAILWAY TUNNELS
3.2.1 SEMMERING RAILWAY RECOGNITION TUNNEL, AUSTRIA
-> See News N° 05

PLEASE CONTACT US FOR FURTHER INFORMATION : WWW.ITCSA.COM !
3.2.2 ERPAIPO TUNNEL, RAILWAY CONNECTION BETWEEN NANNING AND KUN MING, (YUNNAN PROVINCE) CHINA

3.2.3 RAILWAY THROUGH THE QIN LING MOUNTAIN, CHINA

3.2.4 RAILWAY CONNECTION BETWEEN BEIJING AND HONG KONG, CHINA

3.2.5 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.6 ALPTRANSIT - ST GOTTHARD TUNNEL - ACCESS TUNNEL TO THE SHAFT

3.2.7 TUNNEL YAN LING, XIKANG RAILWAY, CHINA

3.2.8 TUNNEL YUAN TANZI, XIKANG RAILWAY, CHINA

3.2.9 TUNNEL SHUI BO, PROVINCE GUIZHOU, CHINA

3.2.10 RECOGNITION TUNNEL BRIXLEGG OST

3.2.11 NEW BRENNER HIGH SPEED RAILWAY TUNNEL OF VOMP

3.2.12 NEW BRENNER HIGH SPEED RAILWAY TUNNEL OF EUERWANG AND IRLAHÜLL

3.2.13 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.14 TUNNEL YUAN TANZI, XIKANG RAILWAY, CHINA

3.2.15 TUNNEL SHAN TOU, PROVINCE GUANGDONG, CHINA

3.2.16 TUNNEL SHUI BO, PROVINCE GUIZHOU, CHINA

3.2.17 RECOGNITION TUNNEL BRIXLEGG OST

3.2.18 NEW BRENNER HIGH SPEED RAILWAY TUNNEL OF EUERWANG AND IRLAHÜLL

3.2.19 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.20 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.21 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.22 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.23 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.24 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.25 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.26 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.27 TUNNEL MIHUALING, PROVINCE GUANGXI, CHINA

3.2.28 RAILWAY Brenner Basis Tunnel, (AT)
- Excavation of several access and exploration tunnels
- 2008: ABN: 1x ITC 312 H1
- 2013: Padastertal: 1x ITC 312 H3
- 2014: ATP: 1x ITC 312 H1; 2x ITC 312 SL; 2x TE210

3.2.29 Rehabilitation of old Kaiser Wilhelm Tunnel, (DE)
- 3 Dumpers ITC 10’500 for ballast transport.

3.2.30 RAILWAY TUNNEL FOLLABANEN, (SE)
- 1x unit ITC 312 SL
- 27 m² in 10% incline x 20km

3.2.31 NARROW GAUGE SWISS RAILWAY (CH)
ALBULO TUNNEL
- 1 mucking unit ITC 312 SL

3.3 SUBWAY TUNNELS

3.3.1 TRI-MET LINE, PORTLAND, OREGON (USA)

3.4 WATER SUPPLY TUNNELS

3.4.1 TRAVERSE ISLA LA PALMA, SPAIN

3.4.2 GHTINA IRRIGATION NETWORK
DIVERSION TUNNEL METRAMO RIVER

3.4.3 IRRIGATION PLANT ACHELLOS IN GREECE
- Excavation of the main tunnel through a complementary adit by Drill&Blast.
- Cross section 30 m², length abt. 17 km originally driven by TBM.
- Geology: mixed rock and limestone.
- 1 unit ITC 312 H3 and one unit Superloader operated by Impregilo.

3.4.4 IRRIGATION PLANT JUCAR IN SPAIN
- 1 unit model ITC 312 H3

3.7 GENERAL SUPPLY

3.7.1 CONVEYOR TUNNEL FOR A CEMENT PLANT, PALERMO, LADIES ISLE, ITALY

3.7.2 GAZ PIPE TUNNEL FOR GDF, DEVIATION OF JOUQUES

3.7.3 FRESH WATER SUPPLY FOR BODØ INTAKE TUNNEL IN LAKE HAGGMØEN IN NORWAY

3.7.4 NUCLEAR WASTE DEPOSIT BATAAPATI, HUNGARY

3.8 MINING

3.8.1 COPPER MINE LOS PELAMBRES, CHILE

3.8.2 INCLINED SHAFT AS ACCESS TO A MPLATS MINE PROJECT MANDAAGSHOEK IN SOUTH AFRICA

3.8.3 MINE PROJECT MAROELABULT IN SOUTH AFRICA

3.8.4 LIMESTONE QUARRY ACCESS, BLAUSTEIN, GERMANY
- Excavation of the development tunnel, by Drill&Blast.
- One unit ITC 312 H3
- Contractor: Schachtbau Nordhausen

3.8.5 COPPER MINE AGUA TENIDA, SPAIN
- Excavation of the development tunnel, by Drill&Blast.
- One unit ITC 312 H3
- Contractor: Inserosa
- 2015: One unit ITC 312 SL
3.8.6  GOLD MINE CADIA EAST, ORANGE, AUSTRALIA
- Excavation of the development tunnel, by Drill&Blast.
- One unit ITC 312 SL
- Contractor: CadiaEast

3.8.7  IRON MINE MO-I-RANA, NO
- One mucking unit ITC 312 SL
- Contractor: Leonhard Nilsen & Söhner

3.8.10 CHROME MINE IN CHROMTAU, KZ
- Exploration tunnel
- 1 mucking machine ITC 120 F4
- Contractor: Too Schachtbau, KZ

4.1.3  SOTRAMA - ISLAND REUNION

4.1.4  WATER-CONNECTING-TUNNEL FROM THE SINNO-RIVER TO THE STORAGE LAKE SARMENTO, POTENZA, CALABRIA

4.8  OTHER LOADING WORKS
4.8.1  RAILWAY : BALLAST LOADING
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4.8.3  SWISS FEDERAL RAILWAY -> See News N° 13
4.8.4  PRIVATE RAILWAY SOB -> See News N° 22
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4.8.6  RAILWAY TUNNEL RENEWAL, ARLBERG, AUSTRIA
4.8.7  RAILWAY TUNNEL RENEWAL, LES CARPATES, FRANCE

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