

### Technical Main Data

Maximal vertical reach	mm	8.500	Electric connection	A	250
Maximal boom reach	mm	3.900	Travel speed	km/h	0-1.7 / 4,5
Minimal operating height	mm	4.700	Specific ground pressure	kN	280
Machine width	mm	2.700	Operating weight, acc. too equipment	t	30
Machine height over cab	mm	3.100			
Power electric drive 400V, 50Hz	kW	132			



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## ELECTRIC TUNNEL EXCAVATOR

# TE210 E



- Emission-free electric drive
  - Cable reel on undercarriage
  - For heading in soft ground
  - Excavation boom with swivel dipper stick
- Optimal cross section approx. 25-60 m<sup>2</sup>
  - Electric drive 132 kW
  - Operating weight approx. 30 t



## Electric Tunnel excavator TE 210 E

The Schaeff TE 210 Tunnel Excavator is the successor of the robust TE 200 Tunnel excavator and the result of the steady upgrade of the well-known Schaeff tunnel machines and year of experience gained all over the world in construction, engineering and tunnelling.

Featuring compact and robust design, the TE 210 is predestined for use small and medium-sized tunnel cross sections. The specially designed short tail rear end allows for a large superstructure slewing range even in narrow tunnels. The kinematics of the work equipment in combination with high breakout forces permits advance in low-profile tunnels higher than approx. 4'800mm, while operating heights of up to approx. 8'500mm can be mastered.

The TE 210 - electric is equipped aircooled 132 kW electric drive, allowing emission-free working at the tunnel face, such as required for compressed air tunnel heading.

The cable is routed either directly into the superstructure or alternatively through an optional uppercarriage-mounting cable drum or alternatively through an undercarriage-mounted cable drum. The optional undercarriage-mounted cable drum under allows thanks to a special slip-ring assembly with electrical sliding contact ring installed on the excavator superstructure, the slewing range remains equally excellent.

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| 3. - Side view working position     | 8. - Electric motor 132 kW |
| 4. - Front view in working position | 9. - FOPS cab              |
| 5. - Cable reel                     |                            |



## Technical data / Area of application:

### Operating data

• Maximal vertical reach	8'500 mm
• Maximal digging depth	3'900 mm
• Minimal operating height	4'700 mm
• Minimal overhead clearance	3'300 mm
• Machine width lower carriage	2'500 mm
• Machine width upper carriage	2'700 mm
• Machine height over cab	3'100 mm
• Machine height for transport	3'300 mm
• Rear swing radius	2'250 mm
• Minimal swing radius	3'670 mm
• Operating weight, acc. to equipment	approx. 30 t

### Electric drive

• Power of electric drive 400 Volt, 50 Hz:	132 kW
• Total installed power:	140 Kw
• R.P.M (50 Hz):	1480 Upm
• Nominal torque:	851 Nm
• Nominal current: (400 V)	251 A
• An alternative to the standard electric drive is the water-cooler Deutz turbocharged diesel engine featuring charge-air cooling and may be optionally fitted with an exhaust soot particule filter system.	

### Certification for tunnel construction

• The machine meets the current CE-requirements and is certified for tunnel construction according to EN12111, Dec. 2002



### Hydraulic system

• Output controlled dual axial piston pump with «load-sense» control and electronic power limit control	
• Pump capacity:	380 + 140 l/min
• Hammer / TCU control circuit:	280 l/min
• Max. hydraulic operating pressure:	350 bar
• Hydraulic capacity (incl. system):	ca.380 ltr
• Hydraulic oil tank capacity:	ca.330 ltr.
• Hydraulic oil filter: Full-flow return filter with contamination indicator	
• Filter fineness:	10 µm

### Crawler-type undercarriage

• Undercarriage with dozer blade	2'700 mm
• Hydrostatic travel drive via 3-stage planetary gear	
• Travel speed	0 - 1,7 / 4,5 km/h
• Crawler chain type	D6
• Length	3'450 mm
• Width of triple grouser shoes	400 mm (in option 500 mm)
• Crawler chain drawbar pull	280 kN
• Gradeability	max. 100%

### Electric equipment

• Voltage (Standard):	400V/50 Hz
• Electrical installation:	DIN EN 60439 und VDE113
• Board electric system:	24 V DC
• Safety features installation: Optical and acoustic warning if limit values are exceeded: engine water + oil temperature, hydraulic oil temperature, oil level, contamination of hydraulic oil filter.	

### Cabel reel

• Cable reel on uppercarriage	
• Leitungstrommel mit hydrostatischen Antrieb und automatischer Kabelpulvorrichtung	
• Storage capacity:	60 m
• Cable model:	Buflax M, 3x120 + 3x25 mm <sup>2</sup>

### Boom Equipment

• Monobloc tunnel boom equipment for excavation of soft ground or blasted material, composed of:	
• a basic jib with double lift rams	
• a tunnel swivel console 2x45°	
• a dipper stick with double lift rams and integrated bucket ram	
• Length of the standard dipper stick	3'780 mm
• Dipper stick crowd distance (in 4,7m height)	2'400 mm
• Width of standard ripper bucket with 2 teeth Esc V51	660 mm
• Bucket radius	1'175 mm
• Ripping force	100 kN
• Breakout force	140 kN

### Optional Equipments

• There is the possibility for the attachment of a range of ancillary equipment such as emission control with soot filter, quick hitch for tools, cylinder protection on dozer blade, additional rear dozer blade, hydr. TCU (max. 90kW), hydr. rock breaker (max. 1200 kg), different bucket sizes, ripper tooth, transverse cutting unit (max. 90 kW), Diesel engine (165 kW), dipper sticks for longer or shorter reach, etc.

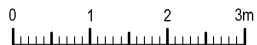
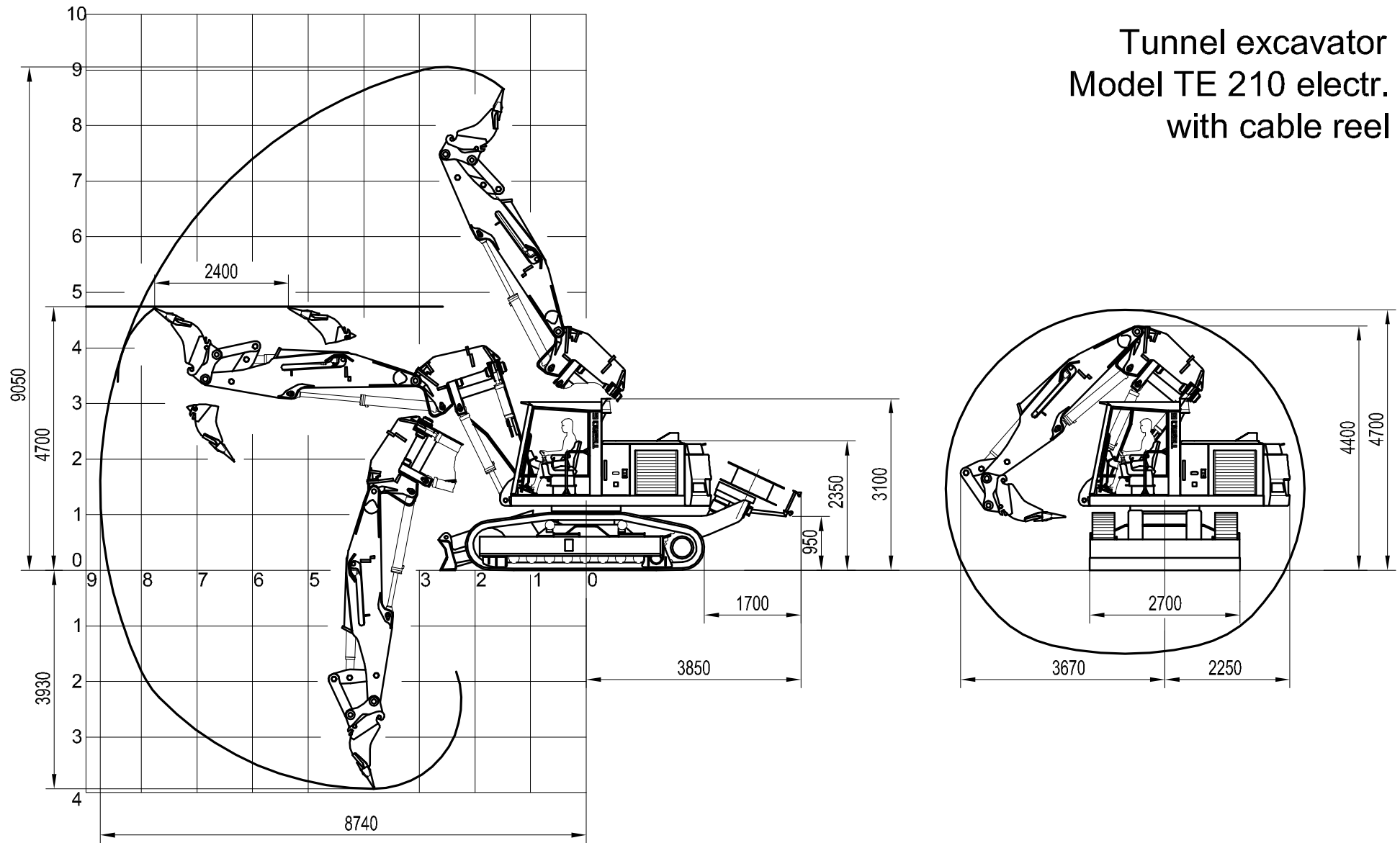
Further details accessories available upon request.  
Subject to modification without prior notice.

# TE210 E





# Tunnel excavator Model TE 210 electr. with cable reel



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**TE210-02**

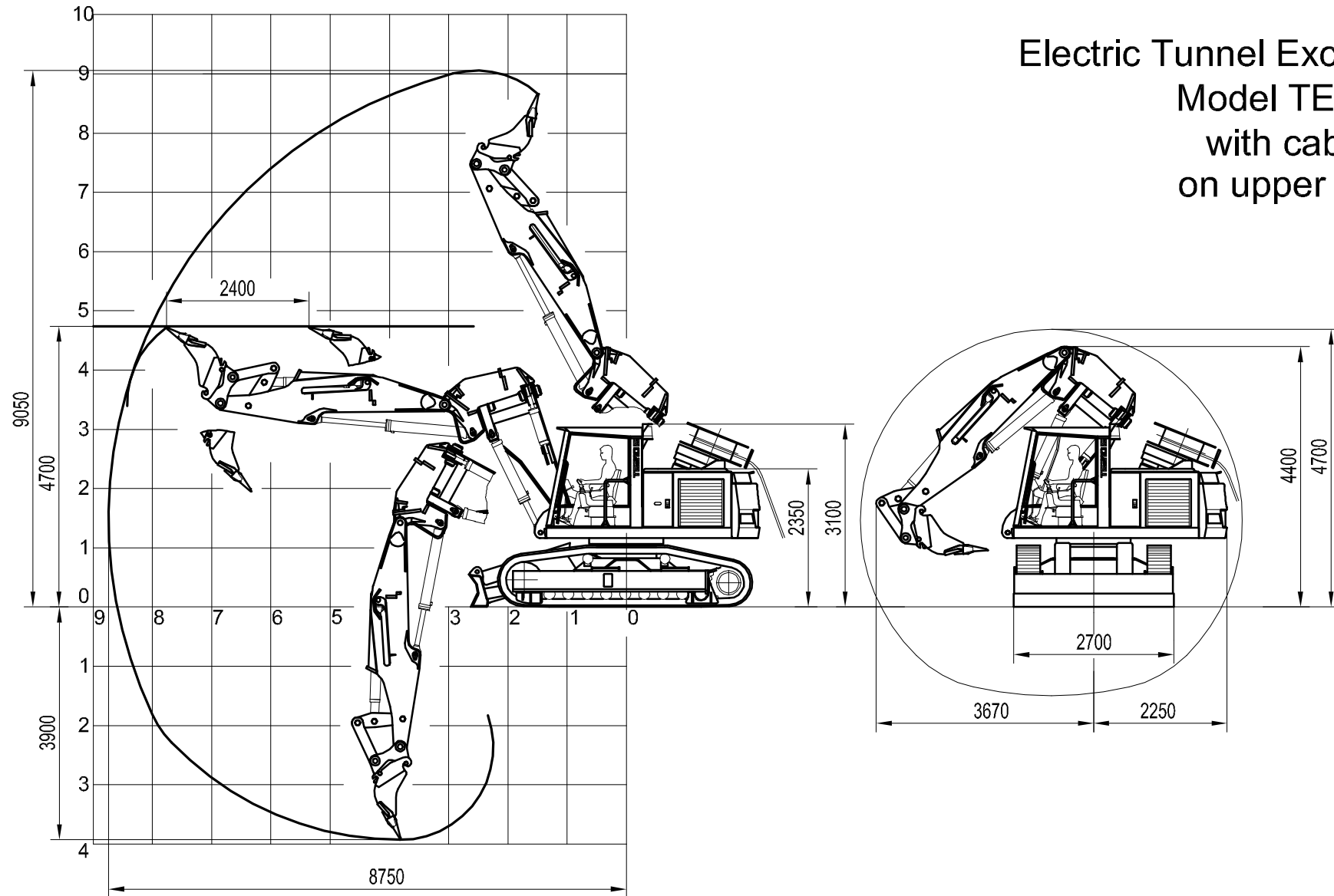
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Electric Tunnel Excavator  
 Model TE 210 E  
 with cable reel  
 on upper carrier



Produced by ITC GmbH & Co.KG

**TE210-05**

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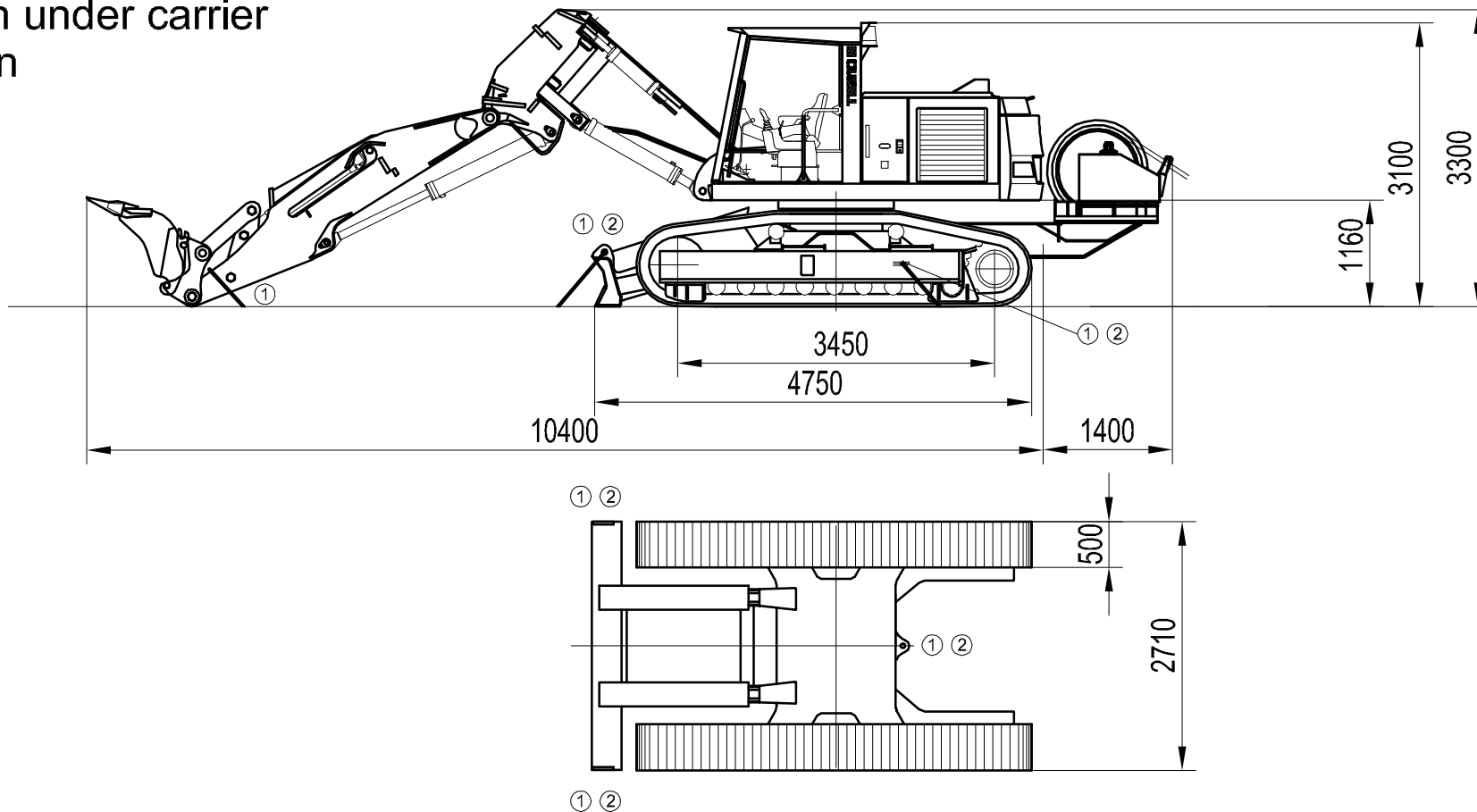
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Electric Tunnel Excavator  
 Model TE 210 E  
 with cable reel on under carrier  
 Transport position



Produced by ITC GmbH & Co.KG

TE210-07

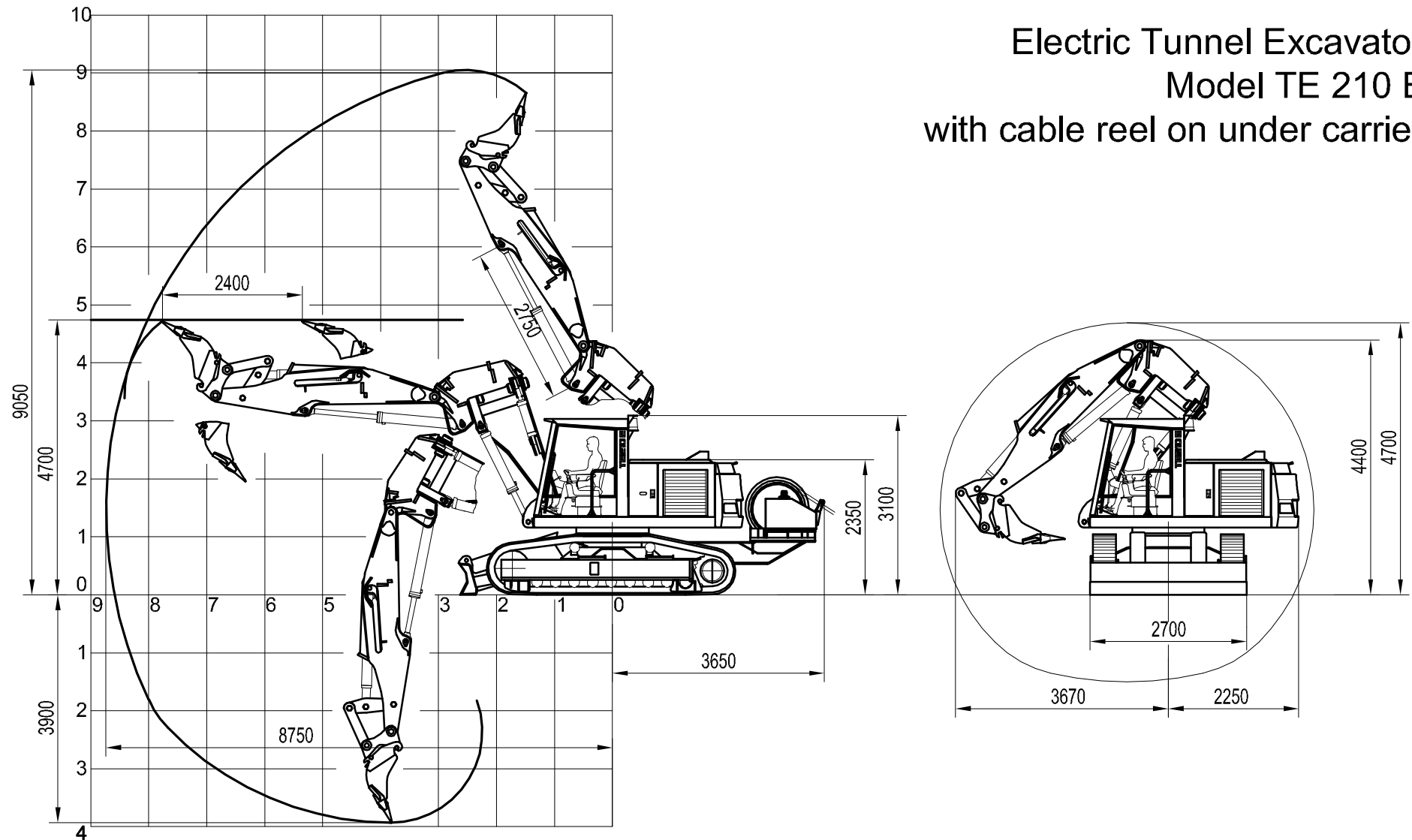
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# Electric Tunnel Excavator Model TE 210 E with cable reel on under carrier



Produced by ITC GmbH & Co.KG

**TE210-08**

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