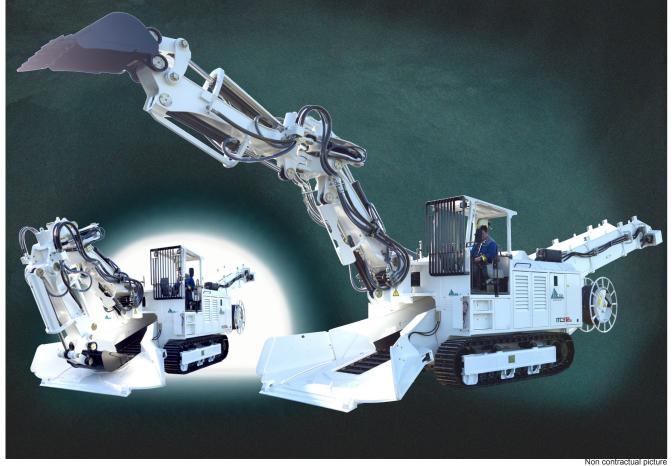


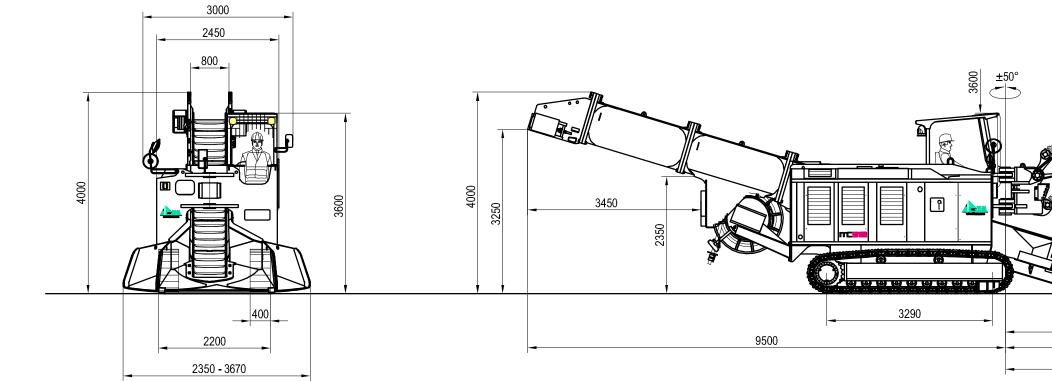
# TUNNEL HEADING AND LOADING MACHINE ITC 312N - H1

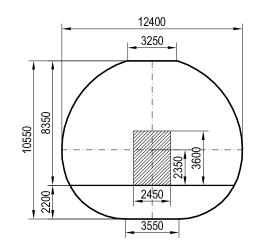


- Excavation boom with swivel dipper stick for heading in soft ground
- Minimal cross section approx. 18 m<sup>2</sup>
- Diesel drive 165 kW
- Electric drive 90 kW
- Operating weight approx. 35,2 t



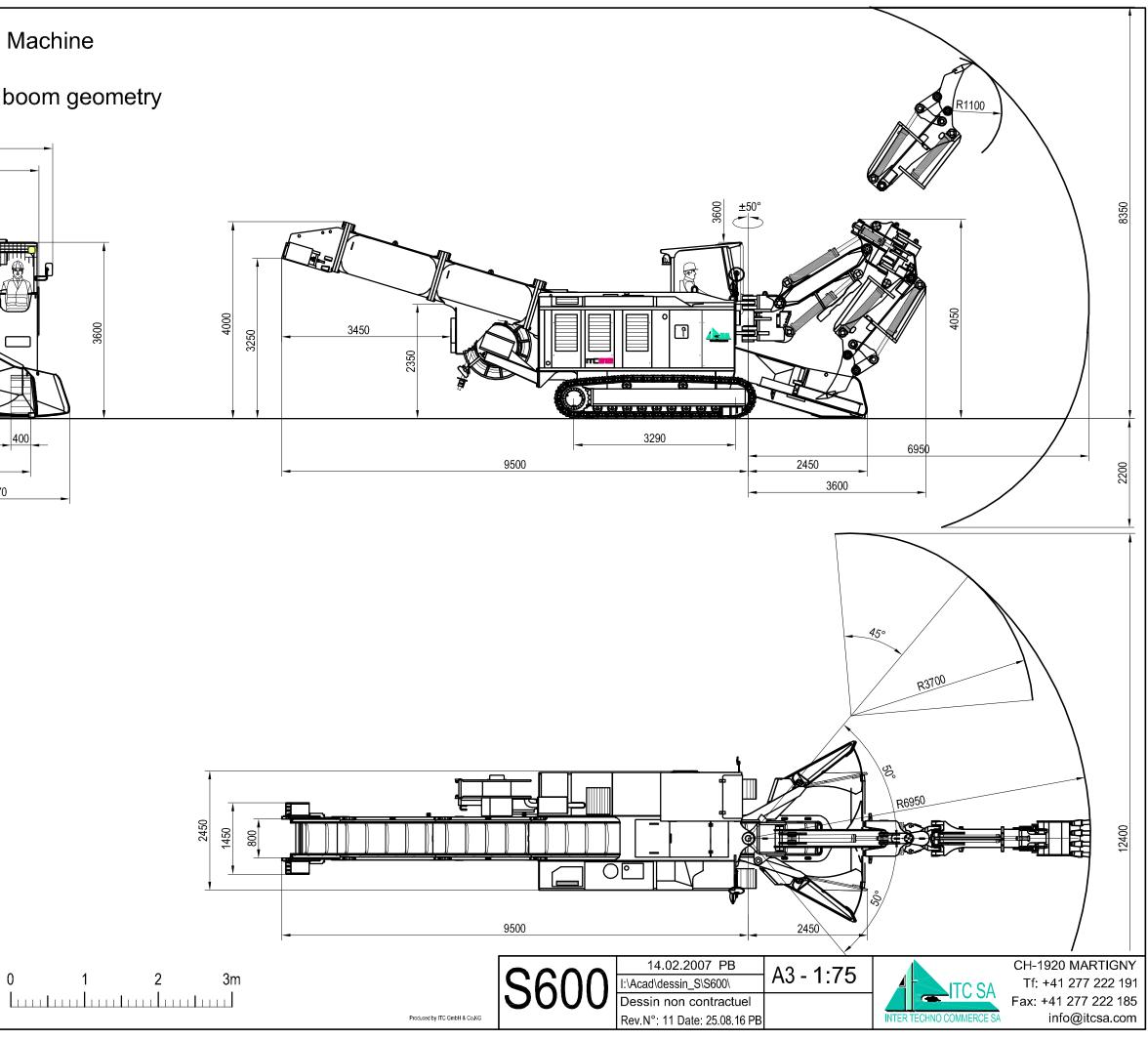
## Tunnel Heading and Loading Machine Model ITC 312N H1 Front, side and top view with boom geometry

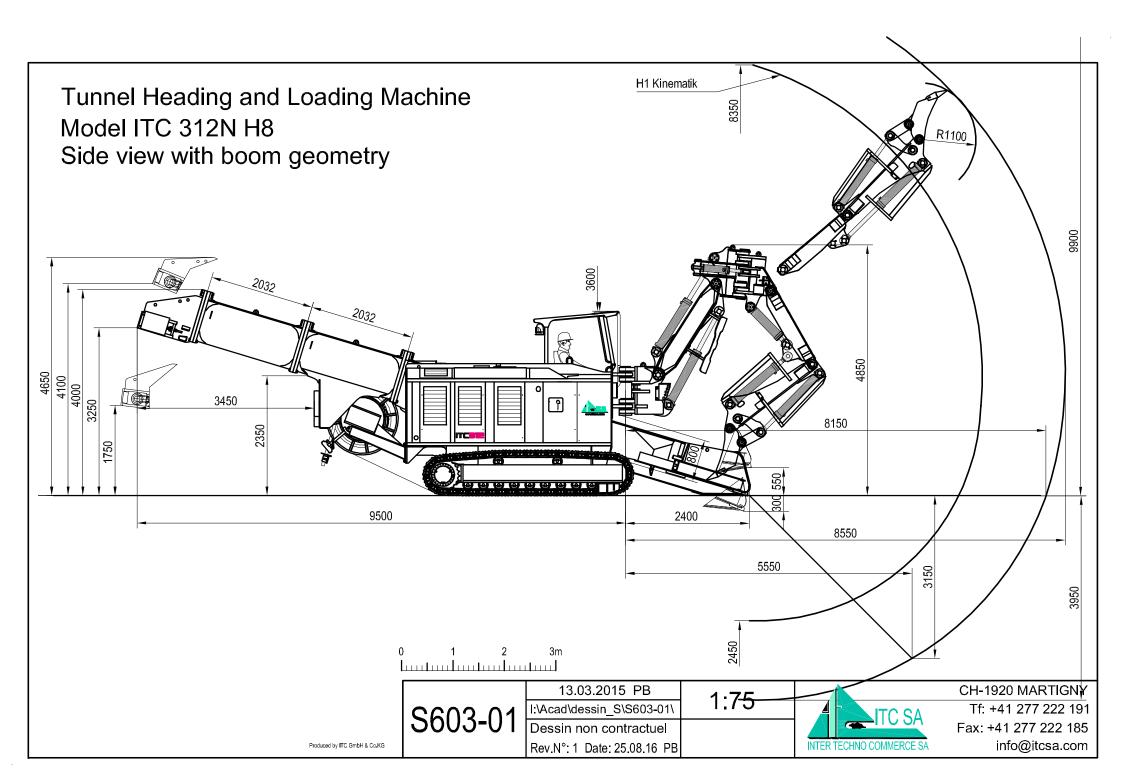


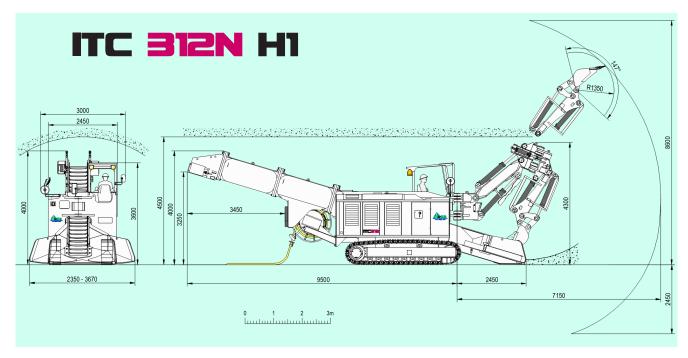


#### Force acc. to ISO 6015, with standard bucket

Breakaway torque	139 kN
Tear-out force over console	68 kN
Tear-out force over dipper stick	73 kN
Lifting power (without working tool)	10 kN
Specific ground pressure	13,4 N/cm <sup>2</sup>
Global weight	35,9 t







### Technical data ITC 312N - H1

#### Drive units

Electro-hydraulic and Diesel hydraulic power packs each	n	
with a separate pump unit with variable flow rate		
Electric drive for emission-free work at the face		
Air-cooled electric motor, power at 400 Volt, 50 Hz	90 kW	
Diesel drive for travelling and operation without electric supply.		
Water-cooled diesel engine. Deutz TCD2013 L06 2V		
Power rating at 2'000 r.p.m	165 kW	
Diesel engine complies with emission standard	Eur St. 3a	

#### Electrical system

Total installed power	95 kW
Voltage (standard)	400 V - 50 Hz AC
Control voltage	230 V - 24 V DC
Electrical system acc. to	EN 60529 (IP54)
Cable reel hydraulically driven with 90 m cable	3x95+3x16 mm <sup>2</sup>

#### Operator's cab

Operator's cab gives all-round visibility.

Roof removable for transport.

CE conformity incl. video monitoring system for the right and rear side with colour LCD in the cab.

#### Hydraulic system

Load Sense hydraulic system with combination axial piston pump and gear pump

Hydr. pilot control for travelling and main working functions Boom control with 2 joysticks in Euro standards

Thermostatic controlled hydr. driven oil/air cooler

Max. hydraulic operating pressure	250-350 bar
Hydraulic oil tank capacity	400 I
Pump delivery Diesel engine	440 l/min
Pump delivery Electric motor	500 l/min
Hydraulic oil system capacity	450 I

Operating data (H1 boom equipment)	
Minimal cross section	approx. 18 m <sup>2</sup>
Machine width	2'400 mm
Maximal height	3'600 mm
Transport height	2'700 mm
Length (dep. on conveyor)	~12'000 mm
Width of loading apron (adjust.)	2'350-3'700 mm
Width of conveyor (internal)	800 mm
Height of conveyor (internal)	800 mm
Conveyor capacity	approx. 300 m³/h
Conveyor discharge height	2'500-3'500 mm
Operating weight	approx. 35,2 t

#### Boom Equipment H1

H1 Boom equipment for excavation and loading of soft ground or blasted material, includes:

- · King post with jib, tilt-swivel console and dipper stick
- Excavation and mucking bucket, width 350 -900 mm
- Hydraulic circuit for a hydraulic rock breaker
- Loading capacity acc. to rock conditions approx. 3 m<sup>3</sup>/min

#### Other Equipment

It is possible to attach a range of ancillary equipment, such as pony truck, rubber plated conveyor, transverse cutting unit, soot particle filter, central lubrication device, etc.

Option: Closed cab, Air conditionning, Fire extinguishing device, Water pressurization device with hose reel, Quick hitch system.

Further details of attachments and accessories available upon request.

Subject to modification without prior notice.

