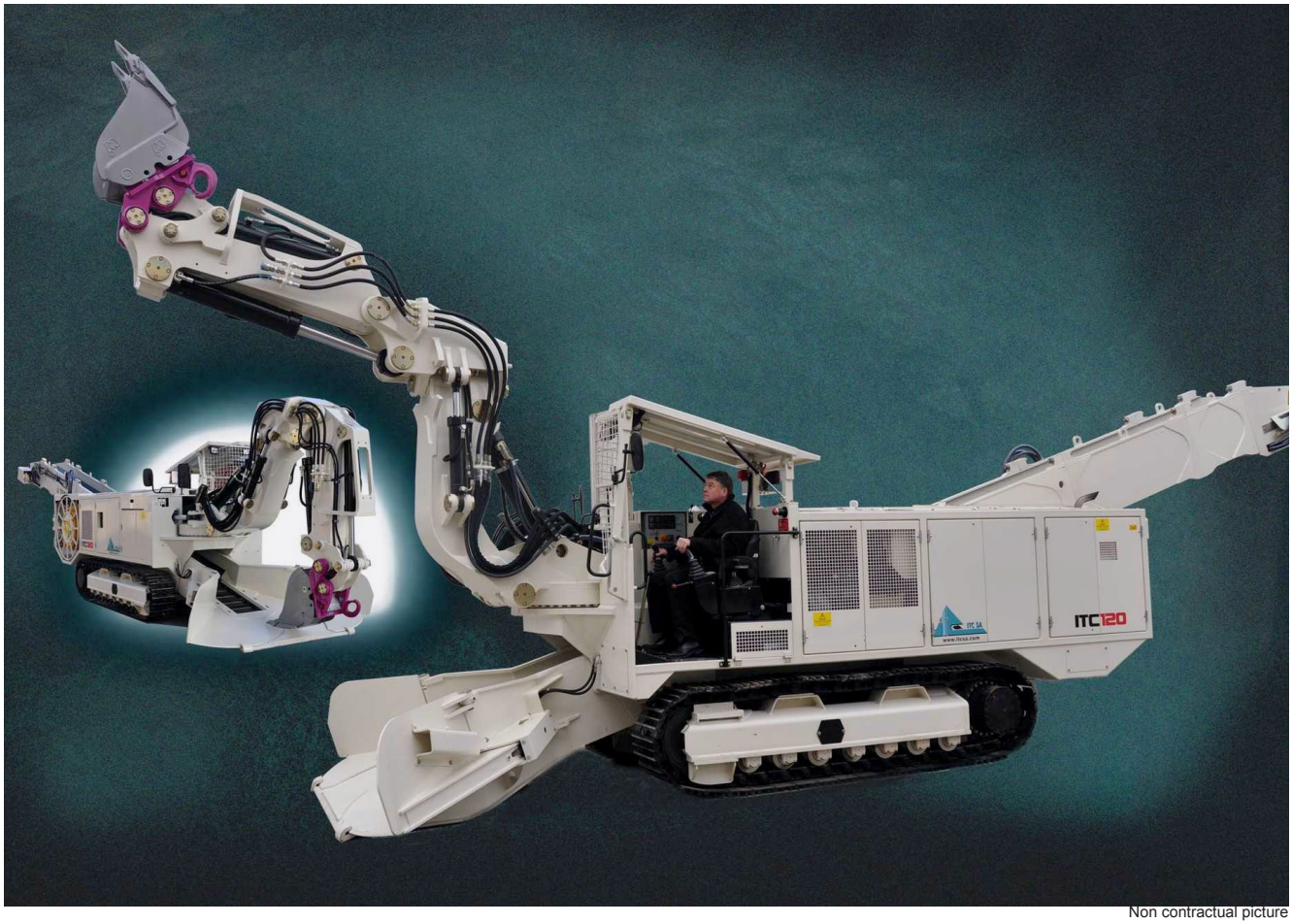
ITC SA
INTER TECHNO COMMERCE SA

TUNNEL HEADING AND LOADING MACHINE

ITC 120N - F3

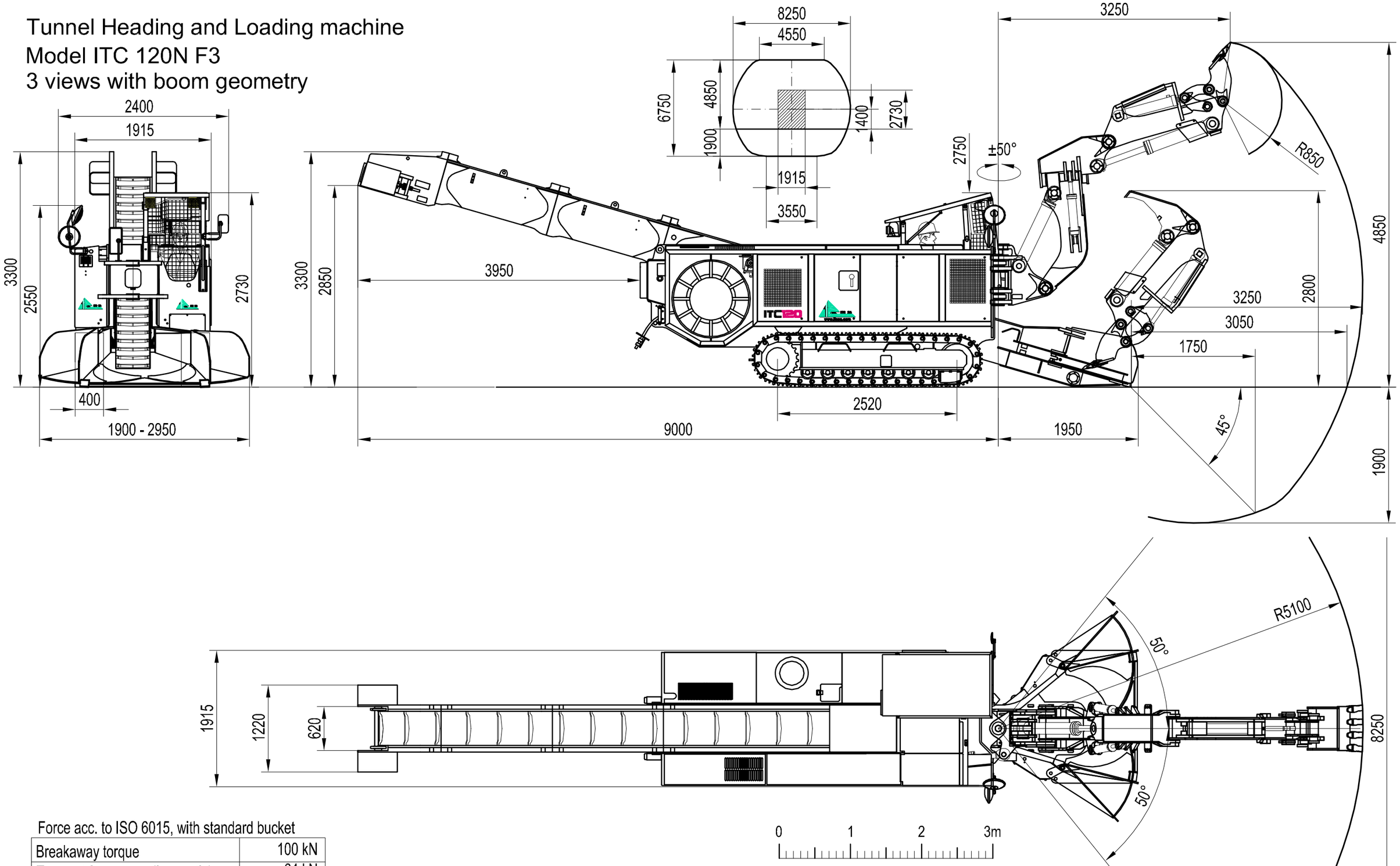


Non contractual picture

- For heading in soft ground, for scaling and high speed mucking of blasted rock

• Minimal cross section	approx. 10 m²
• Diesel drive	74 kW
• Electric drive	55 kW
• Operating weight	approx. 21,6 t

Tunnel Heading and Loading machine
Model ITC 120N F3
3 views with boom geometry



Force acc. to ISO 6015, with standard bucket

Breakaway torque	100 kN
Tear-out force over dipper stick	64 kN
Lifting force without tool	20 kN
Specific ground pressure	10,7 N/cm²
Global weight	21,9 t

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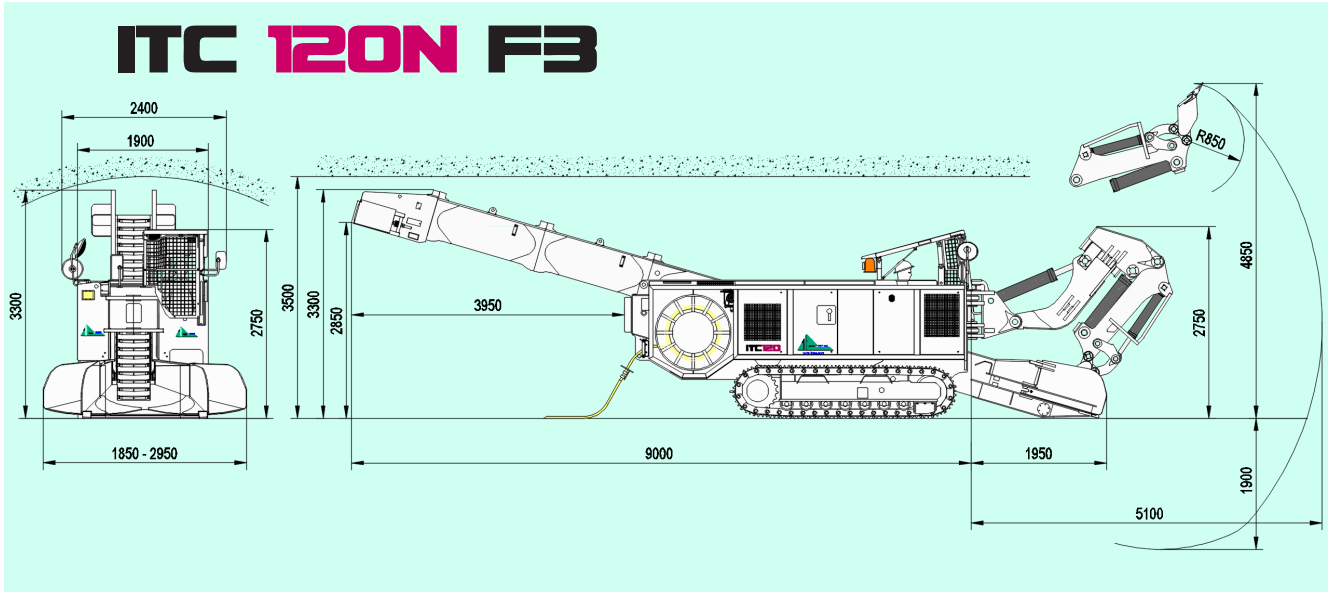
ITC 120N F3



Technical data ITC 120N – F3

Drive units

Electro-hydraulic and Diesel-hydraulic power packs each with a separate pump units
Electric drive for emission-free work at the face

Air-cooled electric motor, Power at 400 Volt , 50 Hz	55 kW

Diesel drive for travelling and operation without electrical supply
Water-cooled diesel engine, Deutz TCD2012 L04 2V

Power rating at 2,000 r.p.m	74 kW
Diesel engine complies with emission standard	Eur St. 3a

Electrical system

Total installed power	60 kW
Voltage (standard)	400 V - 50 Hz AC
Control voltage	24 V DC
Electrical system acc. to	EN 60529 (IP54)

Cable reel hydraulically driven with 75 m

Cable cross section at 400 V - 50 Hz	3x50+3x10 mm²

Operator's cab

FOPS-Operator's cab gives all-round visibility, and front protection grill.
Roof foldable 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 of axial piston gear pump at each drive
Pilot control sysem for all working functions
Main operation by 2 joysticks in Euro standards
Thermostatic controlled hydr. driven oil cooler

Max. hydraulic operating pressure	280-380 bar
Hydraulic oil capacity (incl. tank)	400 l
Hydraulic oil tank	300 l

Operating data (F3 boom equipment)

Mininimal cross section	approx. 10 m²
Machine width	1'900 mm
Maximal height	2'400-2'750 mm
Transport height	2'400 mm
Length (dep. on equipment)	~10'000 mm
Width of loading apron (adjust.)	1'850-2'950 mm
Width of conveyor (internal)	620 mm
Height of conveyor (internal)	650 mm
Conveyor capacity	approx. 150 m³/h
Conveyor discharge height	1'800-2'850 mm
Operating weight	approx. 21,6 t

Boom Equipment F3

F3 Boom equipment for heading and loading, includes:

- King post with jib, swivel console (2x 45°) and dipper stick
- Excavation and mucking bucket, width 350 - 700 mm
- Hydraulic circuit for a hydraulic rock breaker
- Loading capacity acc. to rock conditions approx. 2,0 m³/min
- Breakaway torque 100 kN
- Tear-out over dipper stick 64 kN
- Lifting power (without working tool) 20 kN

Other Equipment

It is possible to attach a range of ancillary equipment, such as different bucket sizes, ripper tooth, pony truck, rubber plated conveyor, other voltage and frequency, other boom, quick hitch device, transverse cutting unit, soot particle filter, central lubrication device, extinguisher system, etc.

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

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