



*Pictured machine may include options and additional equipment.*

## Features

Charmec LC 605 ANFO charger (short end model) with diesel hydraulic drive is designed for face and production charging in underground mines and tunnels up to 65 m<sup>2</sup> cross sections where max face height is 8.4 m.

ANFO vessels options of 2 x 360 / 500 / 720 litres provides enough explosive storage volume for several faces without need for refuelling. Ready designed place for packed explosives, primers and detonators makes it possible to bring all the needed materials to the workplace at once and eliminates the need for an additional explosive service vehicle.

Compressor option eliminates the need for external pressure air line. In production charging optional mechanical hose feeding system allows 33.5 mm or 38 mm charging hoses to be used for up- and down holes. Water adding system allows 1-2 % of water to be added into ANFO during the charging of up-holes for helping ANFO to stay in vertical holes.

The liquid cooled turbo charged 170 kW TIER 3 approved engine provides clean and efficient operation and gives maximum speed of 12 km/h in upward 1:7 inclined tunnel. Heavy duty drive train and 14.00 - 24 series tyres allows operation even in rough mine headings.

The FOPS /ROPS approved safety canopy / cabin with pivotal instrument consol provides comfortable compartment for the driver and his assistant and superior visibility forwards and backwards. The enclosed cabin provides noise level < 75 dB. The Norsmart CAN bus carrier control system comes with fault diagnostics. Self extinguishing marine type wire harness with tinned wires and water tight conduits are specially designed for safe and reliable operation in hard underground conditions. All daily checks can be done from the ground level.

Normet reserves the right to change this specification without further notice.

## Technical specification

### CHARGING SYSTEM

2 ANFO vessels and work stand, 1 charging operator  
500 L stainless steel ANFO kettle  
Pressure max. 7 bar  
Extra air for charging  
Charging hose 19 / 25 mm, 30 m  
Pneumatic hand and foot control for charging and blowing  
Pneumatic control in basket to switch between vessels  
Earth straps front and rear  
Storage area for packaged explosives  
Storage boxes for primers and detonators

### NBB3S BASKET BOOM

2-men basket  
Lifting capacity 500 kg  
Boom lift -18°...+ 60°  
Max. Lifting height (basket floor) 6.5 m  
Max. Vertical reach 8,4 m  
Boom slew +/- 30°  
Automatic levelling of basket  
Diesel start/stop from basket  
Battery operated emergency pump for lowering the boom

### CONTROL SYSTEM

Integrated, seamless control and diagnostic system  
NorSmart for all machine functions. NorSmart controls:

- Carrier functions
- Boom functions
- Charging process
- Safety requirements
- Fault diagnostics
- Data logging

### DRIVER'S COMPARTMENT

Open 2-man cabin FOPS/ROPS approved  
Suspended driver's and passenger's seat  
Seat with retractable (75 mm wide) lap seat belt  
The driver's compartment with pivoting instrument console with driving controls and pedals  
Instrument console contain multi-informational color display  
Assembled in upper mounting height (2810 mm)

### ENGINE

Liquid cooled turbo charged MB OM 906 LA,  
170 kW/2200 rpm, TIER 3 approved

### EXHAUST SYSTEM

Catalytic exhaust gas purifier and muffler

### TRANSMISSION

Dana 32 000 series power shift with pump drive group  
3 speeds forwards and reverse  
4-wheel drive

### AXLES

Planetary type  
Dana 113  
Load end axle fixed  
Engine end axle oscillation +/- 7°

### TYRES

14.00 - 24 PR 28

### PERFORMANCE

1st gear max. 5 km/h  
2nd gear 11 km/h  
3rd gear 19 km/h  
Max. tractive effort 165 kN  
Max speed in upward 1:7 inclined tunnel 12 km/h  
Performance curve 100003433

### BRAKES

Service brake: hydraulically powered dual-circuit oil immersed multidisc brakes in both axles  
Safety/Parking brake: spring applied hydraulically released fail-safe -type brake. Brake testing possible from cabin

### STEERING

Hydraulic frame steering  
Orbitrol type  
Frame articulation +/- 40°

### FUEL TANK

Capacity 140 L

### HYDRAULIC SYSTEM

Variable displacement pump system  
190 bar, 95 L/min/2200 rpm  
Hydraulic oil tank capacity 120 L  
Return oil filtration 10 µm  
Indication of level, filtration and temperature

**Technical specification****24 VDC ELECTRICAL SYSTEM**

Exposed components are min IP 65 standard  
Battery 2 x 115 Ah  
Alternator 100 A  
Driving halogen lights (4 + 2 pcs) 70 W  
Working lights: Halogen lights on cabin (4 pcs) 70 W  
LED working lights in basket (2 pcs)  
LED parking, brake and turning indicator lights  
Side reversing halogen lights (2 pcs) 70 W  
Rotating beacon, amber  
Wire harness (self extinguishing) with tinned wires and water tight conduits

**GREASING SYSTEM**

Centralized grease fittings for the carrier and boom

**OTHER**

12 kg hand held fire extinguisher 2 pcs  
Standard symbol labels  
2 pairs of support legs; extendable legs at the load end and standard at the engine end

## Optional equipment

### CHARGING SYSTEM

**ANFO system:**

- 2 charging operators  
(N/A with one ANFO vessel systems)

**ANFO module:**

- 1 ANFO vessel and ANFO transport room
- 1 ANFO vessel with 4 m<sup>3</sup>/min onboard compressor

**ANFO vessel size:**

- 360 L
- 720 L

**Radio controlled charging and blowing in basket****ANFO hose diameter:**

- For manual hose feeding  
22 x 28 / 26,5 x 33,5 / 41,5 x 51 mm
- For Mechanical hose feeding  
26,5 x 33,5 / 30 x 38 mm

**ANFO hose length:**

- 30/60 m

### DRIVER'S CABIN

**Enclosed cabin:** Noise level in cabin LA = 75 dB

- Upper assembly heights: 2810 mm
- Lower assembly height: 2510 mm

**Canopy:**

- Lower assembly height: 2510 mm

### OTHER

**Xenon working lights on cabin (2 + 2 pcs) 35 W****LED driving lights (4 + 2 pcs) 18 W****LED working lights on cabin (2 + 2 pcs) 43 W****Warning lights: 1 unit**

- Rotating beacon; red
- Rotating beacon; blue

## Additional equipment

### CHARGING SYSTEM

**Additional pneumatic charging controls:** For toe holes and ground level charging work**Mechanical ANFO hose feeding for production charging****Water for ANFO system: 35 L container**

### FOR ENCLOSED CABIN

**CD/Radio system****Cabin ventilation:**

- Cabin heating
- Air conditioning

### FOR NBB BASKET

**Safety bar****Safety roof with hydraulic lift:**

- 400 kg = 240 kg + 2 persons

**Safety roof with hydraulic lift and slide:**

- 300 kg = 140 kg + 2 persons

**LED working lights on safety roof (2 pcs) 43 W**

### FIRE SUPPRESSION SYSTEM

**Fogmaker:** Manually or automatically actuated**Ansul:** Manually or automatically actuated**Tempus:** Manually actuated (Non CE)

### GREASING SYSTEM

**Automatic lubrication system (Lincoln) for:**

- Carrier
- Carrier and lifter

### OTHER

**Winter kit for diesel engine****Fast fuel filling system: Wiggins****Extra hand held fire extinguisher (12 kg)****Warning lights, 1 unit:**

- Rotating beacon; amber
- Rotating beacon; red
- Rotating beacon; blue
- Strobe light; white

**Toolbox and maintenance tools****2 wheel chocks with brackets****Spare wheel****Reversing camera****Text labels in:** Fin / Por / GB / Swe / Rus / Nor / Ger/ Fra/ Spa/Ita**Hose reel for pressurized air:** (N/A with compressor models)

- 1" 30 m when manually operated
- 1" 50 m when hydraulically operated

## LTC services

### SPARE PARTS

**Spare parts package A:** Available for 1000 h of use\*. Include periodical service, most common wearing parts and most critical safety parts. Special attention for parts that are crucial for charging process

**Spare parts package B:** Available for 3000 h of use\*. Include periodical service, most common wearing parts and most critical safety parts. Special attention for parts that are crucial for charging process

\* Recommendations are based on average hours - can vary a lot depending on work site conditions

### TRAINING SERVICES

**Start-up training**

**Customized training**

### AUDIT SERVICES

To improve performance of the machines

To improve the performance of your processes

To help improve the quality of maintenance operations

### SERVICE CONTRACTS

**Spare parts supply programmes**

**Scheduled inspection programmes**

**Supervision programmes**

**Periodic maintenance programmes**

**Machine usage programmes**

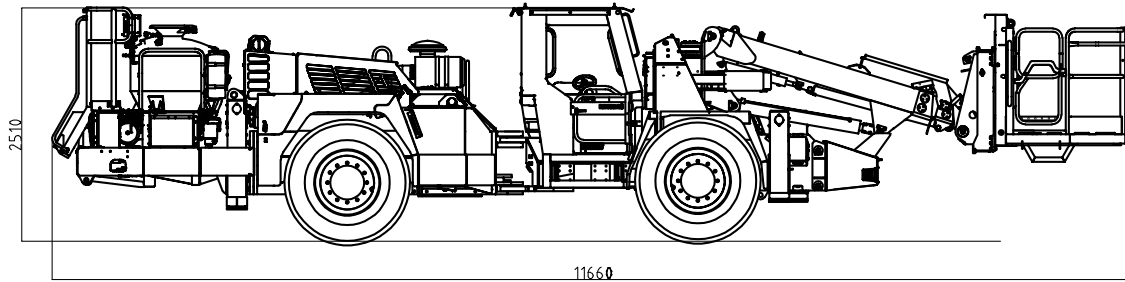
### LINK ONE

**Link One electronic spare part manuals**

### WARRANTY SERVICES

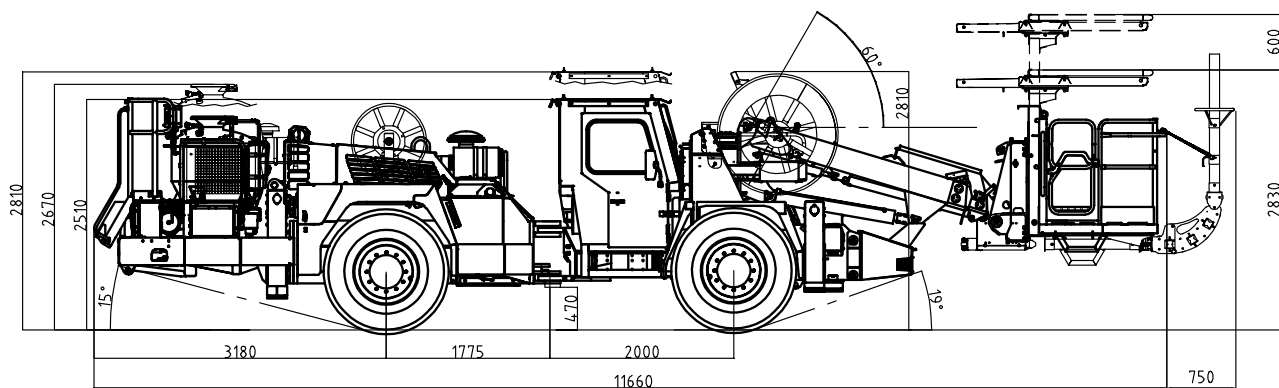
**Extended warranty**

### Dimensions



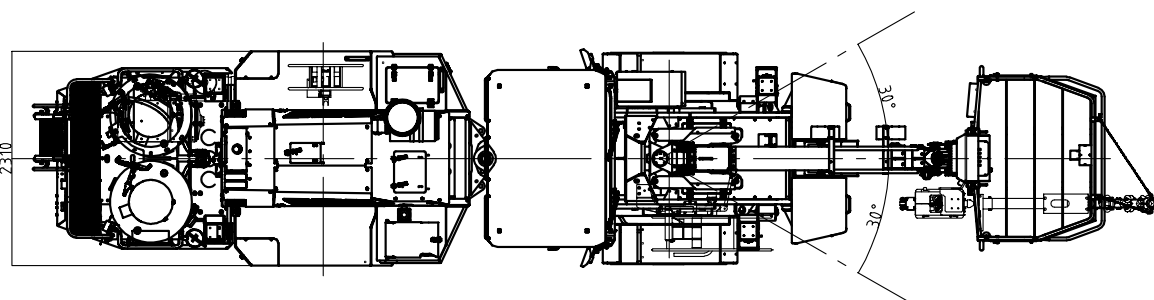
#### SIDE VIEW

Basic machine.



#### SIDE VIEW

Machine with options and extra equipment.



#### TOP VIEW

Machine with options and extra equipment.

#### DIMENSIONS

Length	11660 mm
Width	2310 mm
Height	2510/2830 mm
Wheel base	3775 mm
Ground clearance as shown	470 mm

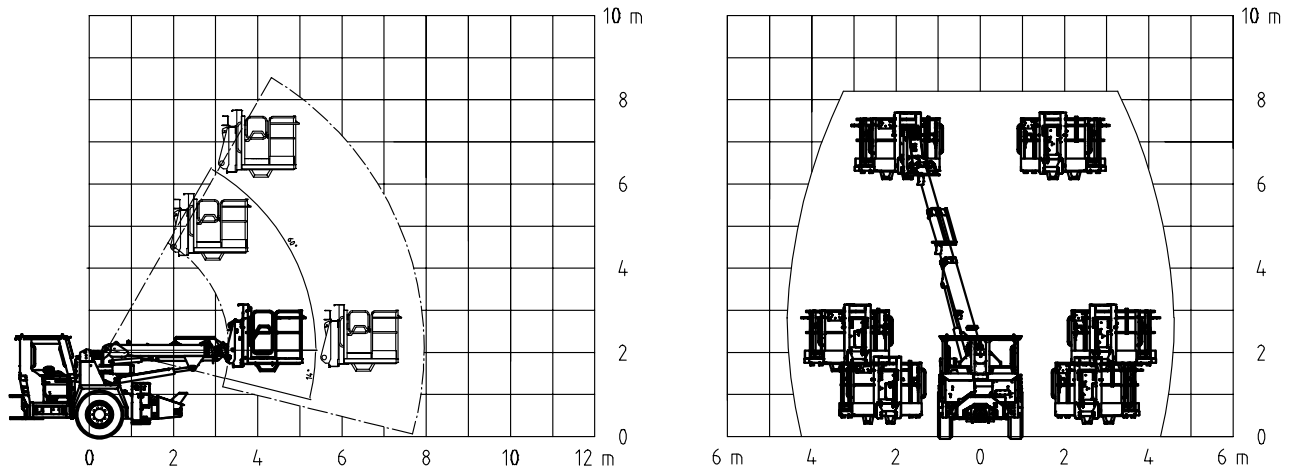
#### TURNING RADIUS

Outer	(7000 mm) 7600 mm
Inner	3950 mm

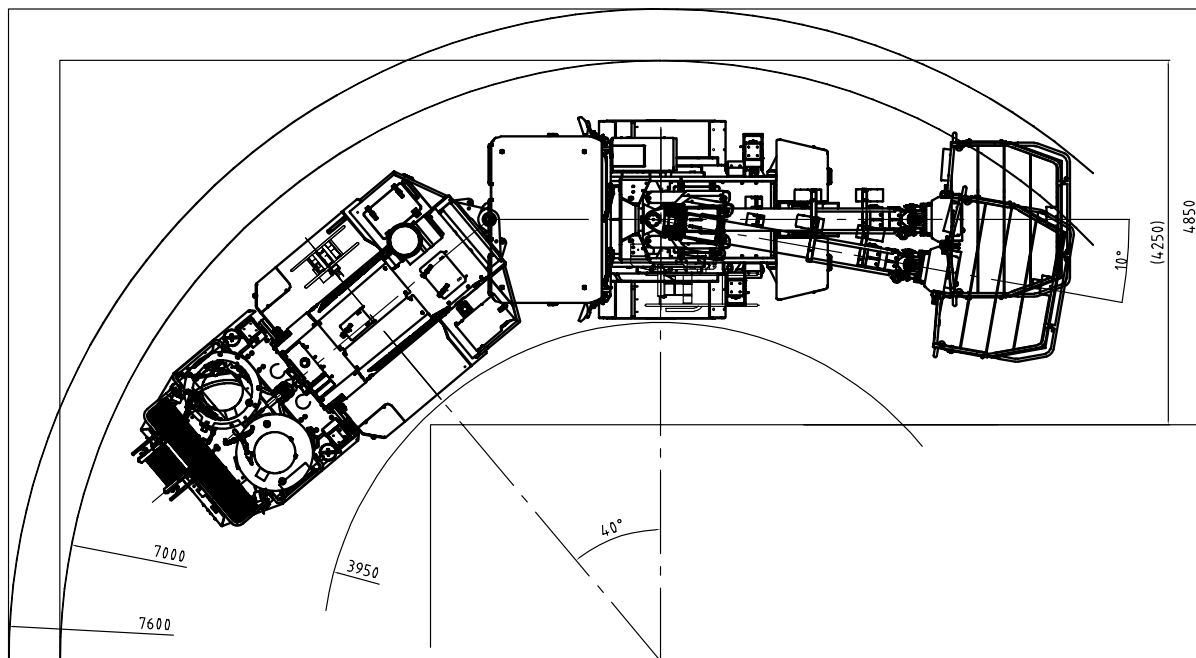
#### WEIGHT

Operating	18 000 kg
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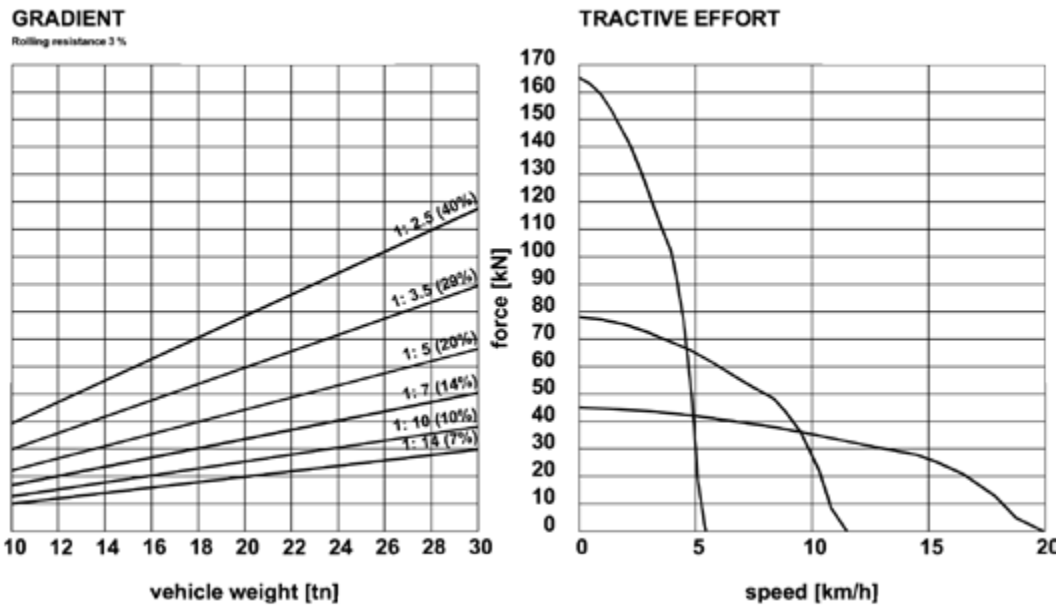
**COVERAGE AREA OF NBB3 BASKET BOOM**



**TURNING RADIUS**

Normet reserves the right to change this specification without further notice.

**Tractive efforts**



**MERCEDES-BENZ OM 906 LA, 170 kW**  
Performance curve 100003433