

Diesel or electro hydraulic unit with boom and process platform



Pictured machine may include options and additional equipment.

Features

Charmec MC 605 D(V) charger with diesel hydraulic drive is designed for face and production charging in underground mines and tunnels up to 65 m² cross sections where max face height is 8.8 m.

Place for external emulsion kit is located in the middle the unit. Ready designed place for stick powder boxes, 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.

The liquid cooled turbo charged 120 kW Deutz or 110 kW MB TIER 3 approved engine provides clean and efficient operation and gives maximum speed of 25 km/h and 8 km/h in upward 1:7 inclined tunnel.

The FOPS / ROPS approved safety canopy / cabin with pivotal operator's seat provides comfortable compartment for the driver and his assistant. The enclosed cabin provides noise level < 75 dB.

Self extinguishing marine type wire harness with tinned wires and water tight conduits are specially designed for safe and reliable operation in tough underground conditions. All daily checks can be done from the ground level.

normet

Charmec MC 605 D(V)

Technical data sheet

100063166

23.06.2014

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Technical specification

CHARGING SYSTEM

Process platform and work stand rear end of unit
Inner dimensions 1840 mm x 1900 mm
Max load 2500 kg. Center of gravity shown in dimensional picture

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 8.8 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 (2700 mm)

ENGINE

Liquid cooled turbo charged Deutz TCD 2013 L4,
120 kW/2300 rpm, TIER 3 approved

EXHAUST SYSTEM

Catalytic exhaust gas purifier and muffler

TRANSMISSION

Clark 24 000 series power shift with pump drive group
3 speeds forward and reverse
4-wheel drive

AXLES

Planetary type
Dana 123
Load end axle fixed
Engine end axle oscillation +/- 10°

TYRES

12.00 - 20 PR 20

PERFORMANCE

1st gear max.	6 km/h
2nd gear	12 km/h
3rd gear	25 km/h
Max. tractive effort	133 kN
Max speed in 1:7 inclined tunnel	
• Fully loaded	6 km/h
• Empty	11 km/h
Performance curve	100018584

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 112 L

HYDRAULIC SYSTEM

Variable displacement pump system
190 bar, 95 L/min/2200 rpm
Hydraulic oil tank capacity 115 L
Return oil filtration 10 µm
Indication of level, filtration and temperature

24 VDC ELECTRICAL SYSTEM

Exposed components are min IP 65 standard
Battery 2 x 115 Ah
Alternator 100 A
Halogen driving lights (4 + 2 pcs) 70 W
Halogen work lights lights on cabin (4 pcs) 70 W
LED work 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

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Optional equipment**DRIVER'S CABIN****Enclosed cabin:** Noise level in cabin LA = 75 dB

- Upper assembly height: 2700 mm
- Lower assembly height: 2400 mm

Canopy:

- Lower assembly height: 2400 mm

ENGINE**Liquid cooled turbo charged Mercedes- Benz 904 LA, 110 kW/2200 rpm, TIER 3 approved:**

1st gear max.	5 km/h
2nd gear	10 km/h
3rd gear	25 km/h
Max. tractive effort	120 kN
Max speed in upward 1:7 inclined tunnel	10 km/h
Performance curve	100006272

OTHER**LED driving lights (4 + 2 pcs) 18 W****LED work lights on cabin (2 + 2 pcs) 43 W****Warning lights: 1 unit**

- Rotating beacon; red
- Rotating beacon; blue

Additional equipment**CHARGING SYSTEM****Charging reel for face charging**

(controls of these equipment designed case by case)

Mechanical EMU hose feeding for production**charging:** (controls of these equipment designed case by case)**Hose guide for upward production charging****Diverting pulley for downward production charging****EMU hose diameter:**

- For face charging 20.4 x 25 mm, 10 m
- For stope charging 40 x 32,6 mm, 30 or 60 m

HIGH VOLTAGE ELECTRICAL SYSTEM**Electro hydraulic drive:**

- 400 V / 50 Hz with 100 m cable
- 440 V / 60 Hz with 100 m cable
- 690 V / 50 Hz with 100 or 150 m cable
- 1000 V / 50 Hz with 100 or 150 m cable

FOR ENCLOSED CABIN**CD/Radio system****Cabin ventilation:**

- Cabin heating
- Air conditioning

FOR NBB BASKET BOOM**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**Boom suspension****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 or carrier and lifter

OTHER**Winter kit for diesel engine (only for MB)****Fast fuel filling system: Wiggins****Oil evacuation kit with sample points****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 / En / Por / Swe / Rus / Nor / Ger / Fra / Spa / Ita

Towing kit

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

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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.

Spare parts package B: Available for 3000 h of use*. Include periodical service, most common wearing parts and most critical safety parts.

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

TRAINING SERVICES

Available before delivery, at start up and after delivery.

NOTE! after/during Start up / Commissioning as additional training days these are cheaper.

In general training reduces operation costs.

Product training:

Operation and Maintenance

NorSmart

Foundation of electrics, hydraulics and mechanics

Audit

Process training:

Concrete spraying

Charging

Scaling

Process audit

AUDIT SERVICES

To improve machines performance

To improve your processes performance and quality

SERVICE CONTRACTS

Spare parts supply programmes

Scheduled inspection programmes

Supervision programmes

Periodic maintenance programmes

Machine usage programmes

LINK ONE

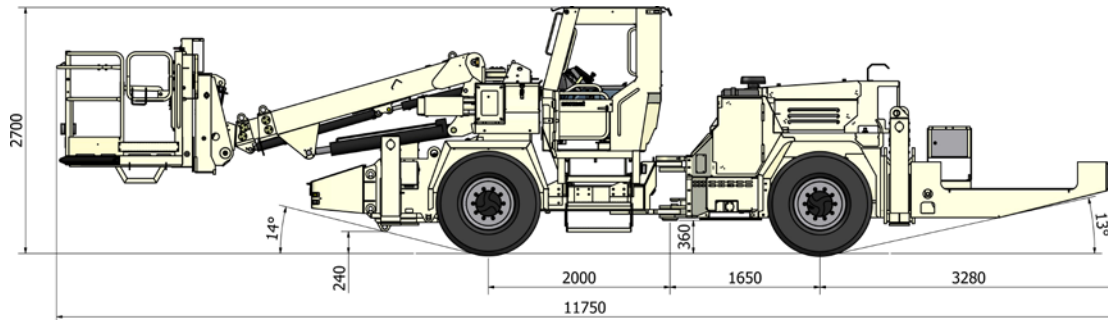
Link One electronic spare part manuals

WARRANTY SERVICES

Extended warranty

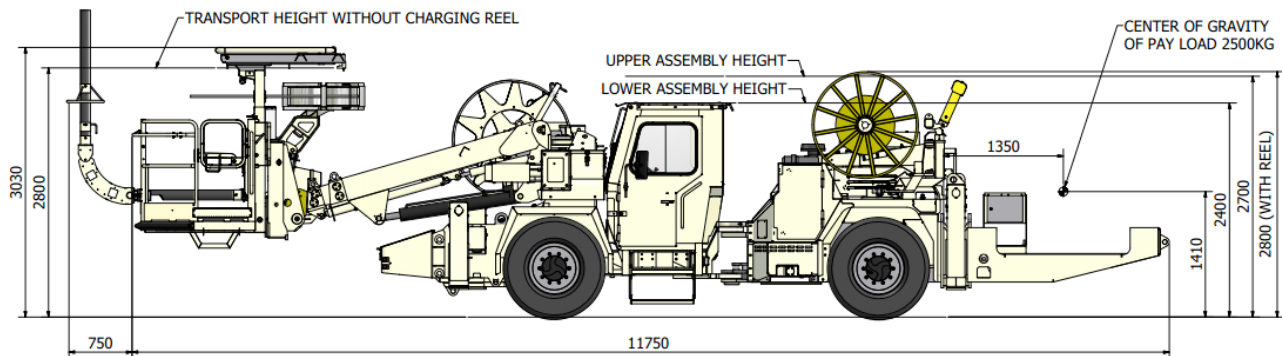
Diesel or electro hydraulic unit with boom and process platform

Dimensions



SIDE VIEW

Basic machine



SIDE VIEW

Machine with optional and additional equipment showing center of gravity

DIMENSIONS

Length	11750 mm
Width	2000 mm
Height	(2400) 2700 mm
Wheel base	3650 mm
Ground clearance as shown	300 mm

TURNING RADIUS

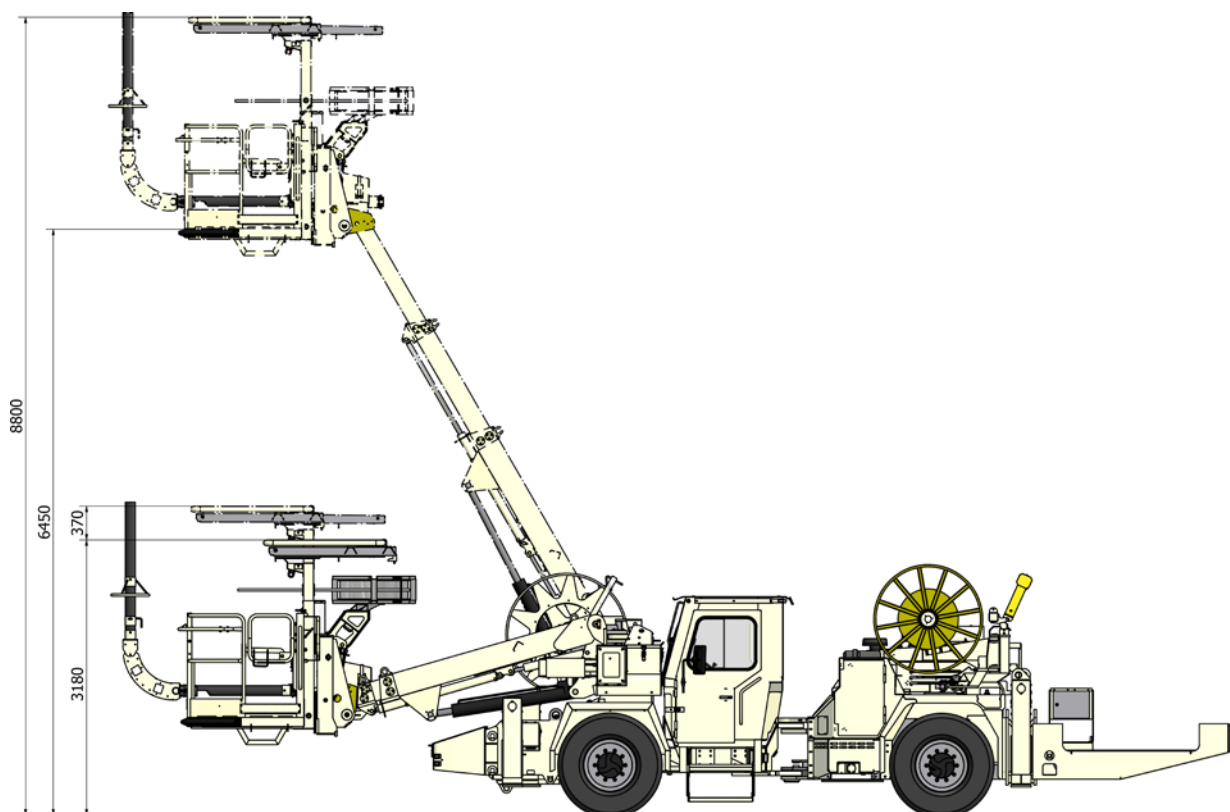
Outer	7450 (6850) mm
Inner	3900 mm

WEIGHT

Operating	13 000 kg (+ 2500 kg payload)
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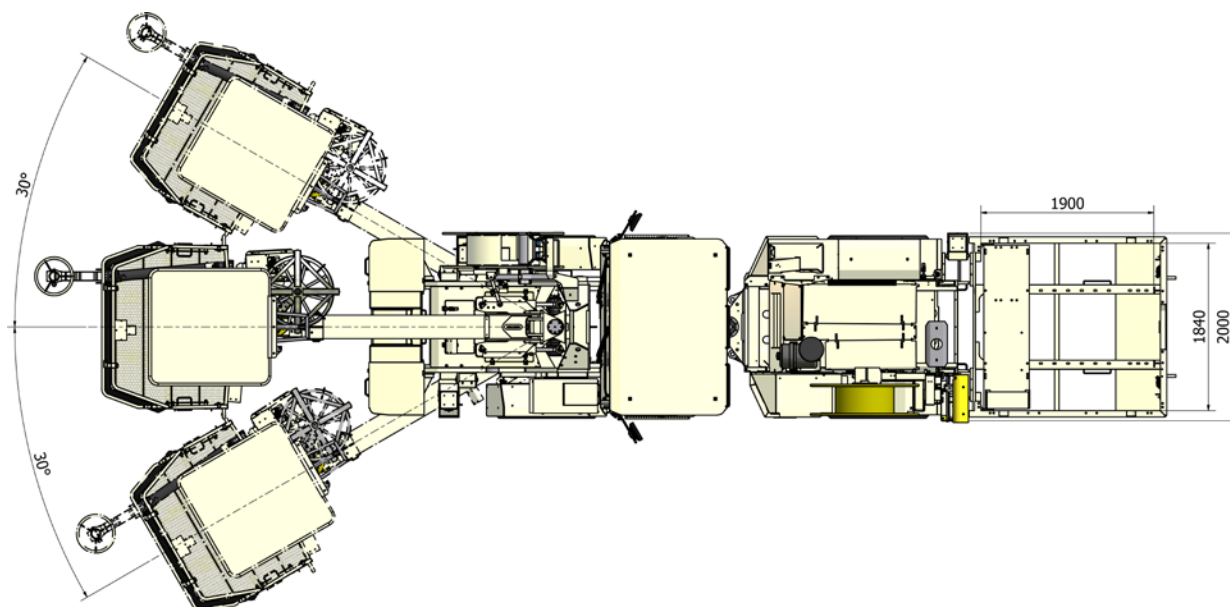
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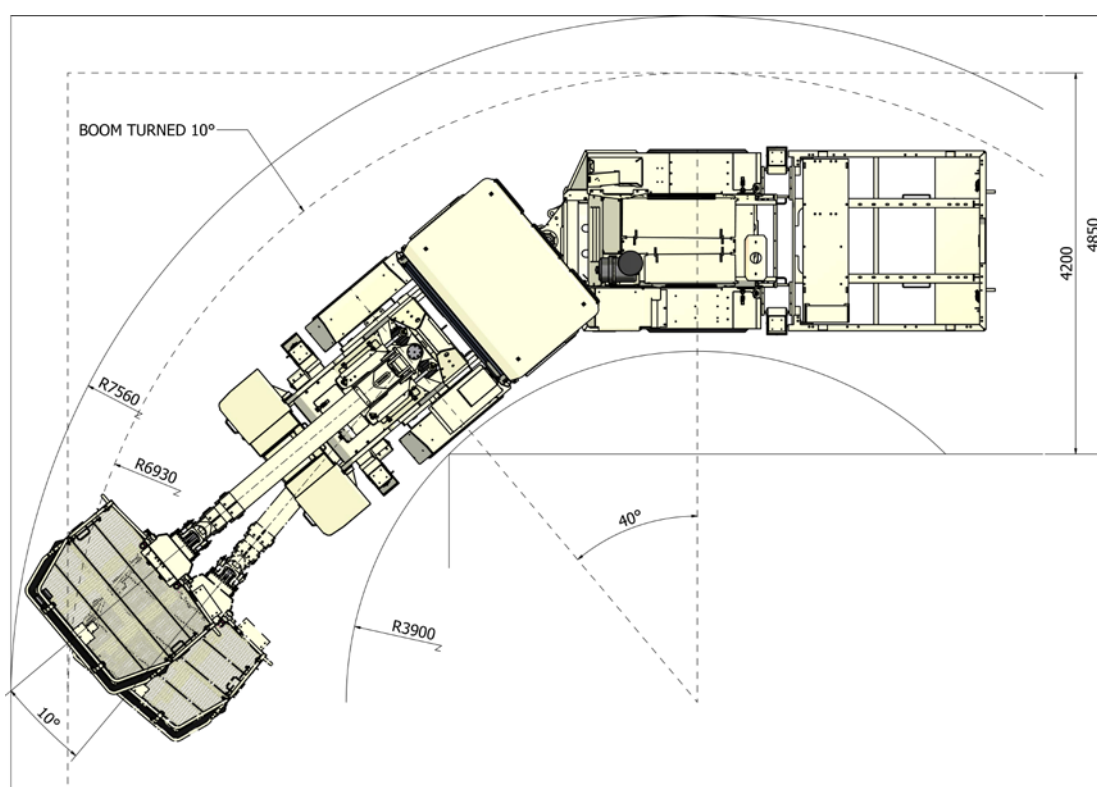
**SIDE VIEW**

Machine with optional and additional equipment

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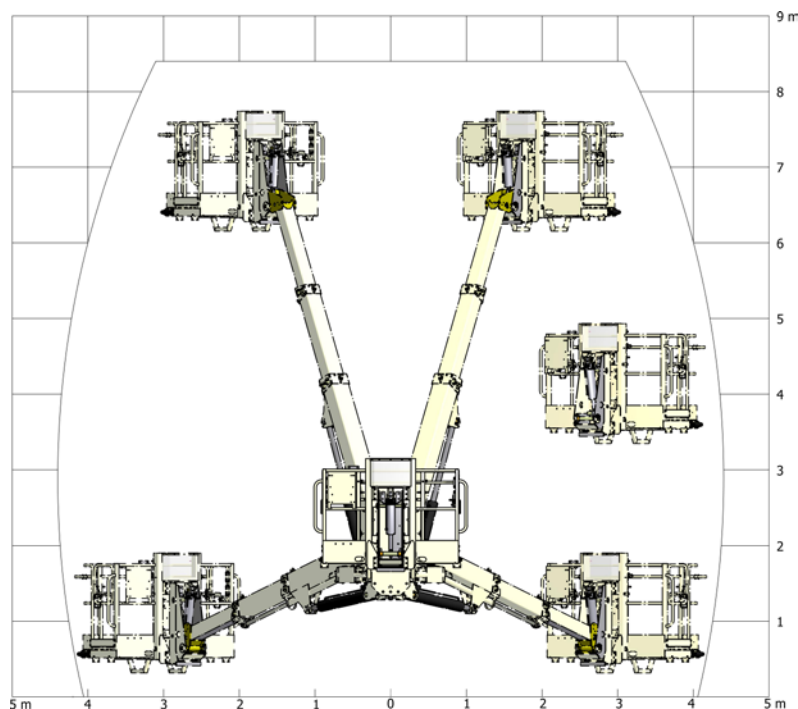
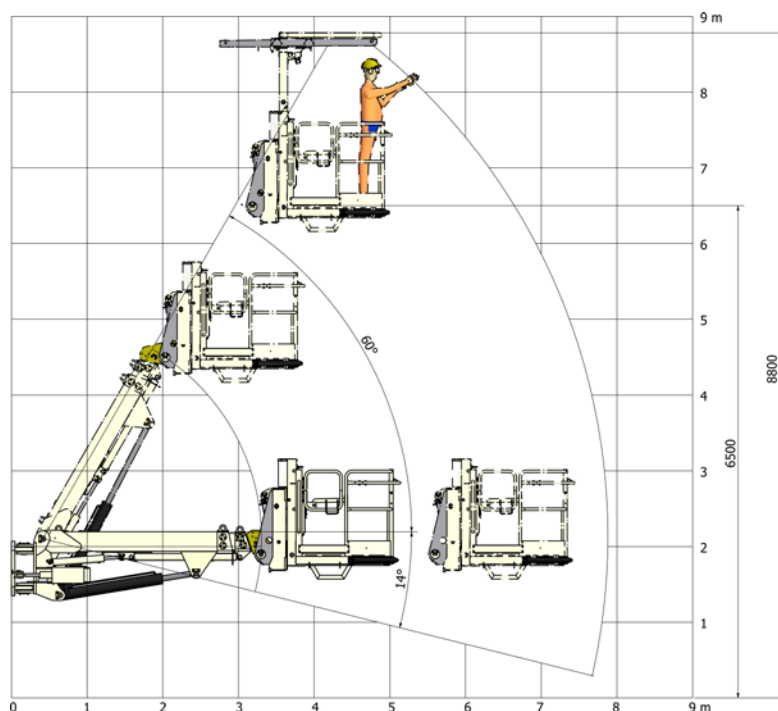
TOP VIEW



TURNING RADIUS

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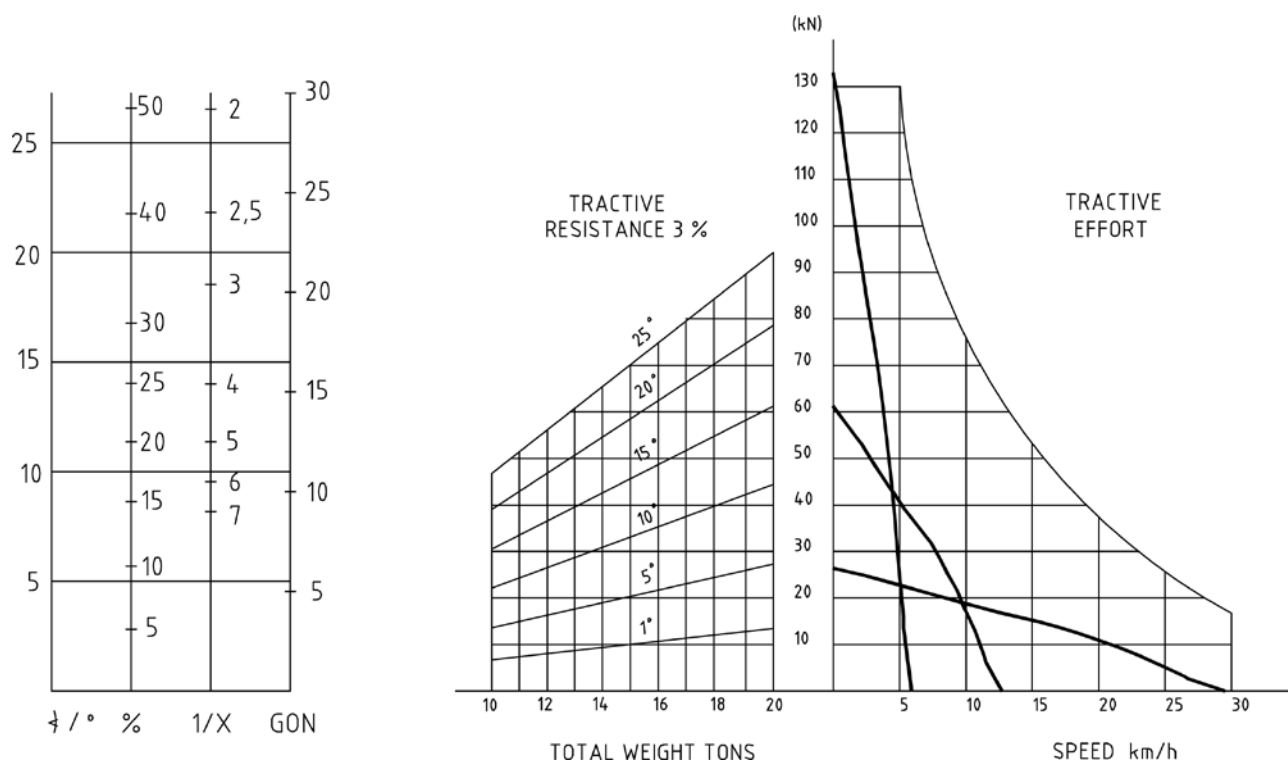
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Dimensions**COVERAGE AREA OF NBB3 BASKET BOOM**

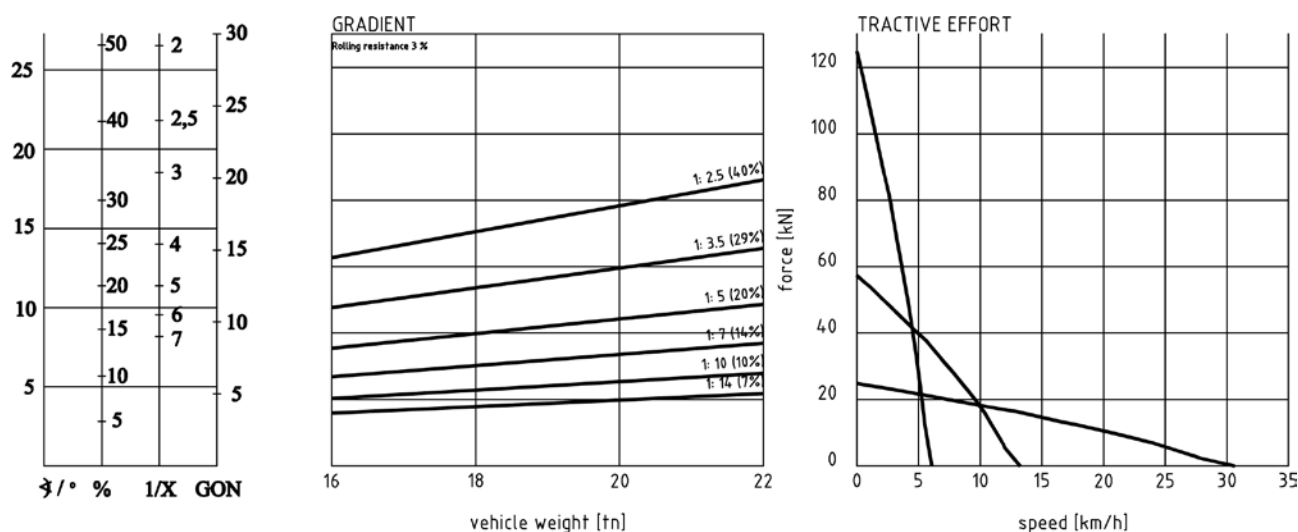
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Tractive efforts



DEUTZ TCD 2013 L4 120 kW
Performance curve 100018584



MERCEDES-BENZ OM 904 LA 110 kW
Performance curve 100006272

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