



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 at the rear end of 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 Cummins 121 kW Stage V approved engine provides clean and efficient operation and gives maximum speed of 28 km/h and 9 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.

Technical performances indicated in this document are valid at sea level.

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)
Cabin door interlock switches with safety brake application

ENGINE

Liquid cooled turbo charged Cummins B 4.5,
121 kW/2500 rpm, Stage V approved
Engine brake
Requires DEF (urea) and ultra-low sulphur diesel (ULSD) (max sulphur content < 15 ppm)

EXHAUST AFTER TREATMENT SYSTEM

EGR (Exhaust Gas Recirculation), DOC (Diesel Oxidation Catalyst) and SCR (Selective Catalytic Reduction)

TRANSMISSION

Dana 24 000 series power shift with pump drive group
3 speeds forward and reverse
4-wheel drive
Lock up turbine

AXLES

Planetary type
Dana 123
Load end axle fixed
Engine end axle oscillation +/- 10°
Normet reserves the right to change this specification without further notice.

TYRES

12.00 - 20 PR 20

PERFORMANCE

1st gear max.	6 km/h
2nd gear	12 km/h
3rd gear	28 km/h
Max. tractive effort	132 kN
Max speed in 1:7 inclined tunnel	9 km/h
Performance curve	100087562

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
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DEF TANK

Diesel Exhaust Fluid Capacity	19 L
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HYDRAULIC SYSTEM

Variable displacement pump system
190 bar, 135 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
LED driving lights (4 + 2 pcs)
LED work lights (4 pcs)
LED work lights in basket (2 pcs)
LED parking, brake and turning indicator lights
Side reversing LED lights (2 pcs)
Rotating beacon, amber
Wire harness (self extinguishing) with tinned wires and water tight conduits

GREASING SYSTEM

Centralized grease fittings for the carrier and boom

MACHINE CONNECTIVITY

Machine connectivity hardware (WLAN/3G/4G/LTE)

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**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

MACHINE CONNECTIVITY

- Data lifetime license (Include connectivity hardware)
- Analytics license
(Include connectivity hardware and data lifetime license)

OTHER

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 bar with hydraulic lift:

Reduces lifting capacity 60 kg

Safety roof with hydraulic lift:

Reduces lifting capacity 100 kg

Safety roof with hydraulic lift and slide:

Reduces lifting capacity 200 kg

LED working lights on safety roof / safety bar (2 pcs) 43 W
Boom suspension

FIRE SUPPRESSION SYSTEM

Fogmaker: Manually or automatically actuated

Ansul: Manually or automatically actuated

GREASING SYSTEM

Automatic lubrication system (Lincoln) for:

Carrier or carrier and lifter

Additional equipment**OTHER**

Winter kit for diesel engine

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

Service

OPERATIONAL SPARE PARTS

A complete parts package to ensure your machine runs with optimal uptime.

After commissioning of your new Normet equipment, the following maintenance & critical spares are typically recommended to support and service your machine:

- Filters, belts
- Sensors, work lights, solenoid coils and fuses
- Sliding parts, bearings, cylinders, seals & pins
- Hoses including concrete, charging & hydraulic
- Nozzles & tips
- TamCrete EasyClean - nontoxic protective agent
- Pistons and seal kits
- Guide rollers and bushes

Note: The usage and consumption of parts may vary depending on the operating environment.

EXTENDED WARRANTY

Standard Normet equipment warranty is 2000 operation hours or 12 months (whichever is reached first). Extended warranty for your Normet equipment can be provided with service agreement- conditions apply.

TRAINING AND EXPERTISE SERVICES

Need training before your machine goes into service or any stage during its working life? The Normet Academy and our highly skilled technicians can provide all your expert training needs including...

Product training:

Operation and Maintenance
Automation -NorSmart/Nordoser
Electric, hydraulic and mechanical fundamentals
Trouble-shooting and fault finding

Process & operator improvement audit for:

Concrete spraying - practical or simulated
Charging
Scaling - practical or simulated

Audit services to improve:

Equipment performance, machine availability, safety & quality.

SERVICE AGREEMENTS

Parts supply
Periodic fleet inspection
Preventative maintenance
Maintenance Supervision
Fleet availability

ELECTRONIC MANUALS

LinkOne electronic spare parts and instruction manuals

EQUIPMENT - COMMISSIONING & START UP SERVICES

Operator Training

- Class room training
- Practical training

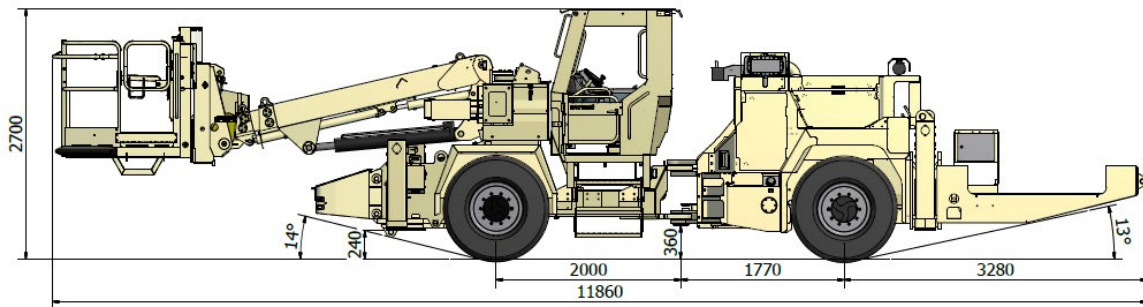
Maintenance & Repair Training

- Class room training
- Practical training

Commissioning

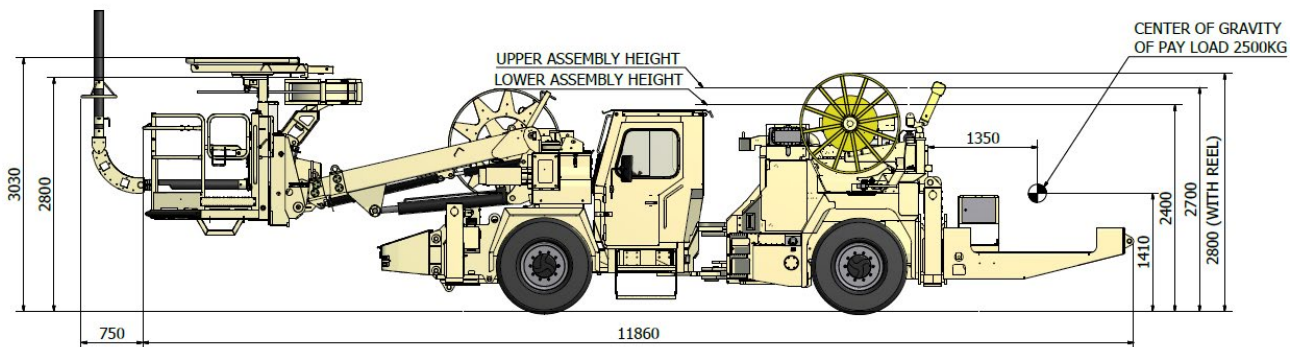
- Receiving inspection

Dimensions



SIDE VIEW

Basic machine



SIDE VIEW

Machine with optional and additional equipment showing center of gravity

DIMENSIONS

Length	11860 mm
Width	2000 mm
Height	(2400) 2700 mm
Wheel base	3770 mm
Ground clearance as shown	240 mm

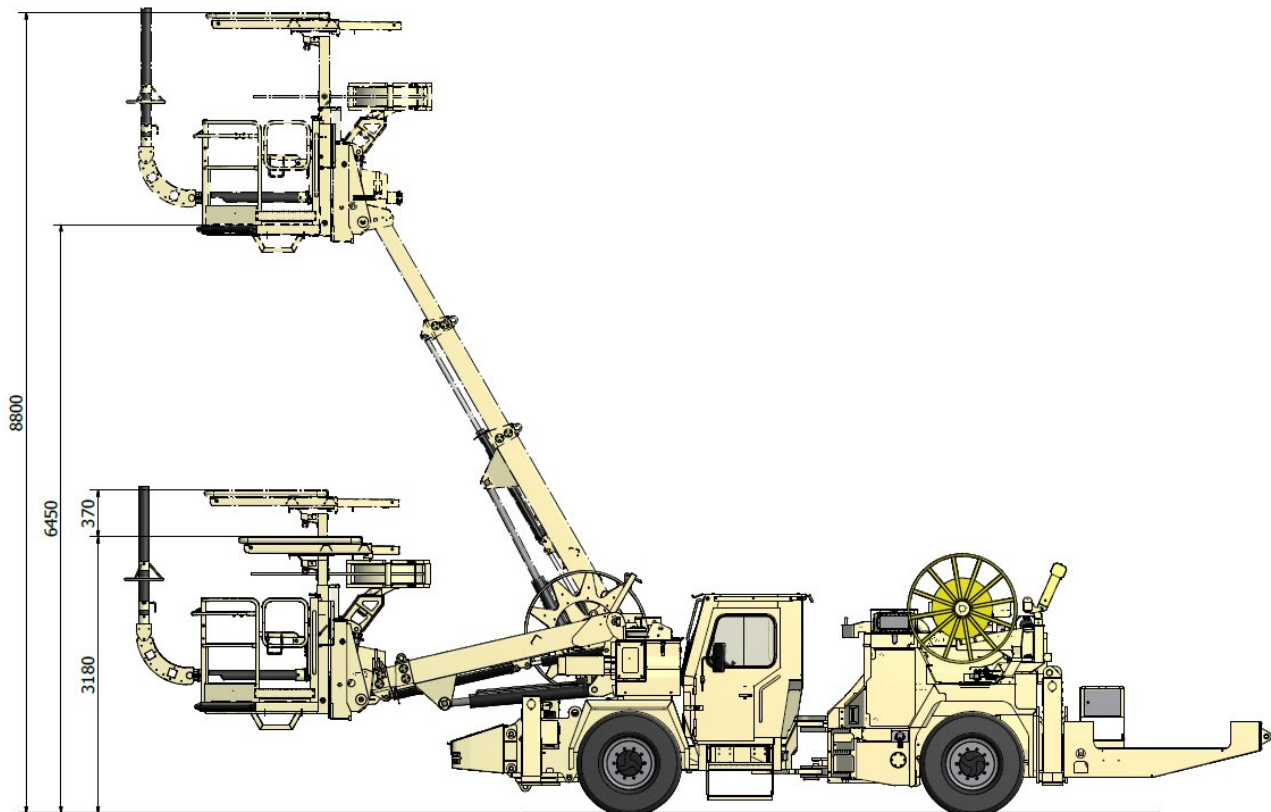
TURNING RADIUS

Outer	7650 (7050) mm
Inner	4050 mm

WEIGHT

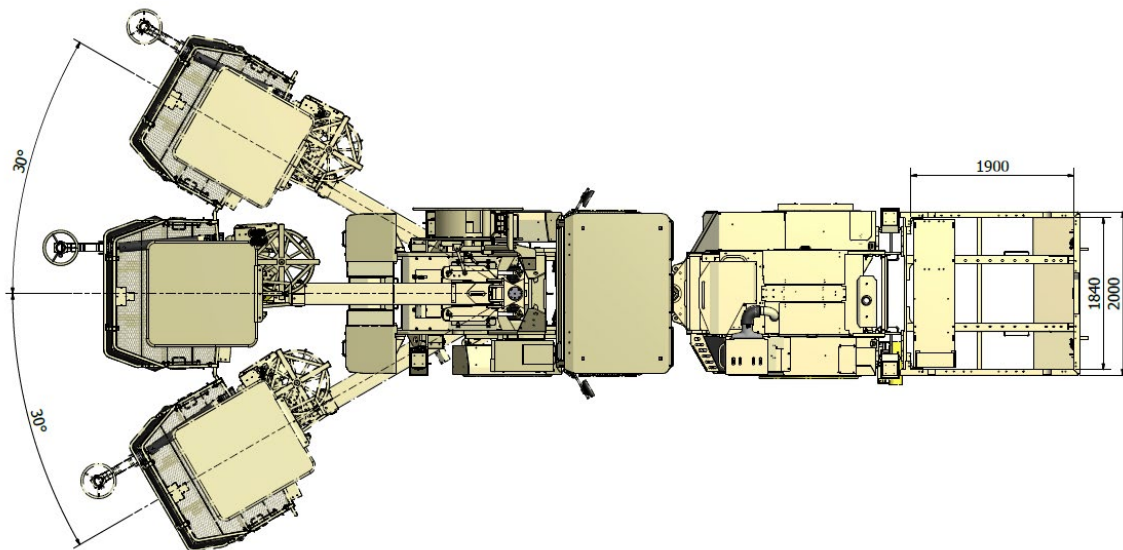
Operating	13 200 kg (+ 2500 kg payload)
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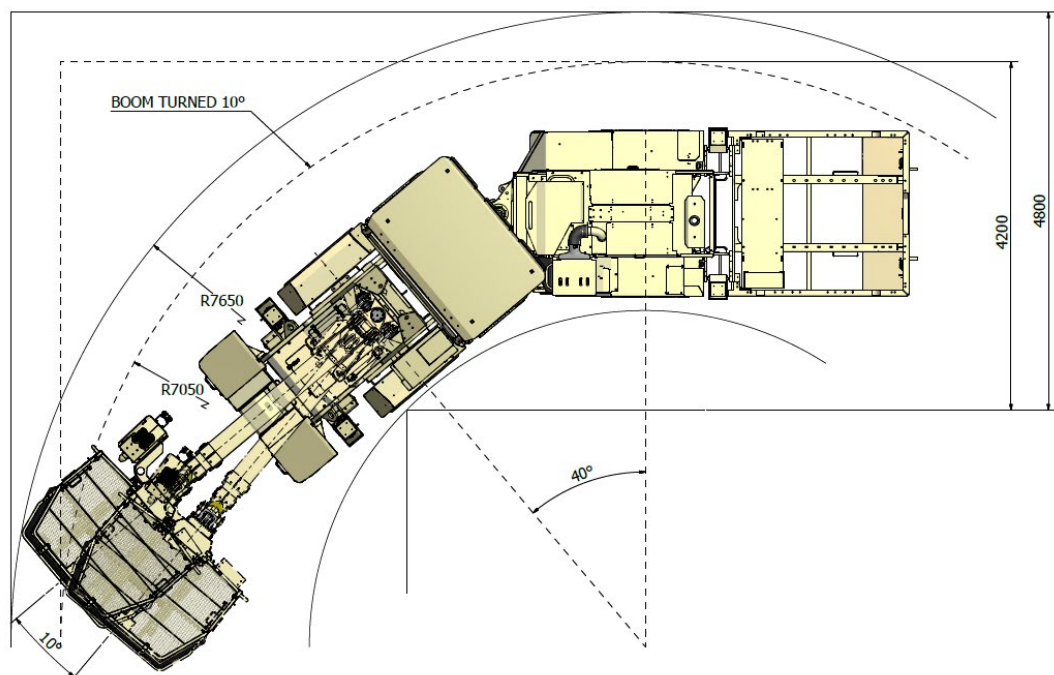
Dimensions**SIDE VIEW**

Machine with optional and additional equipment

Dimensions



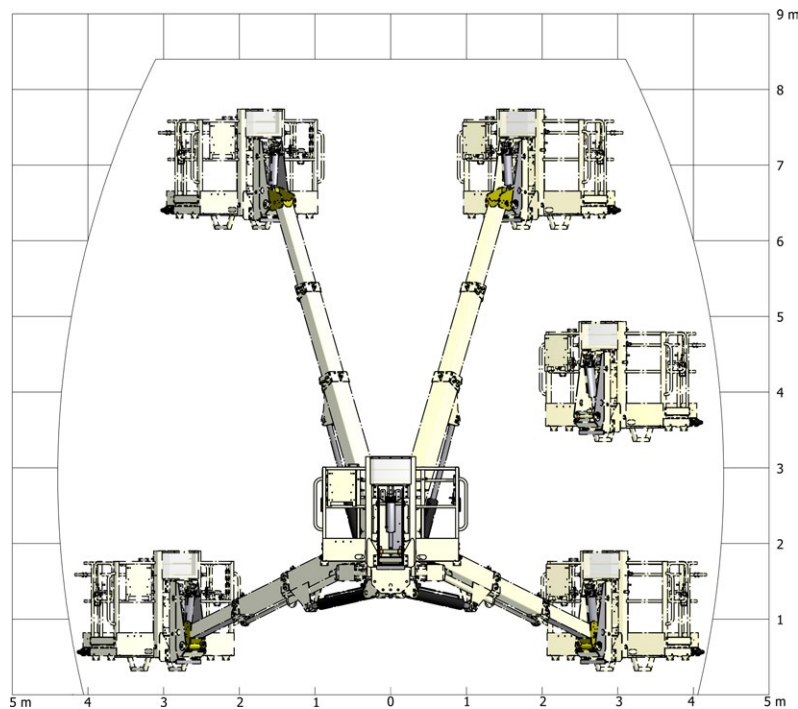
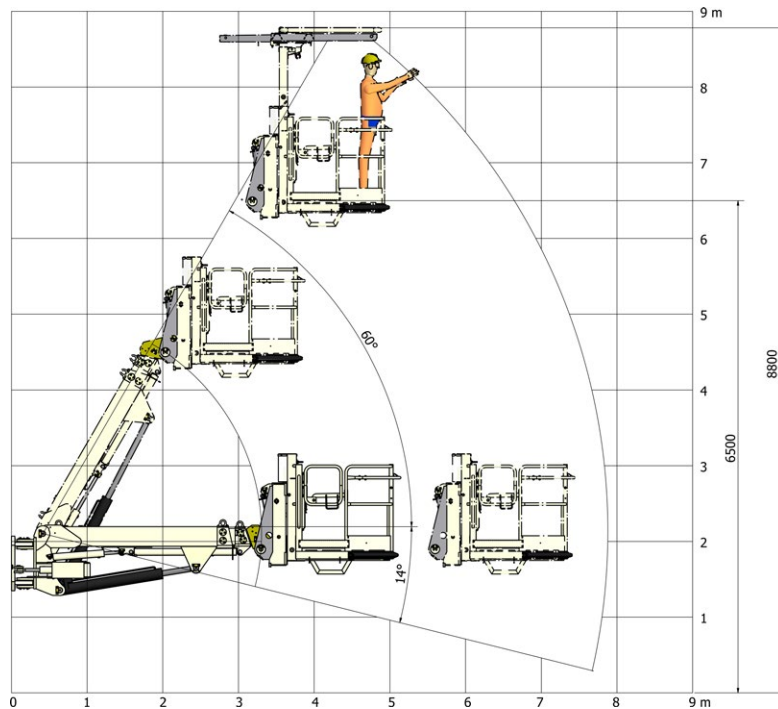
TOP VIEW



TURNING RADIUS

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Dimensions



COVERAGE AREA OF NBB3 BASKET BOOM

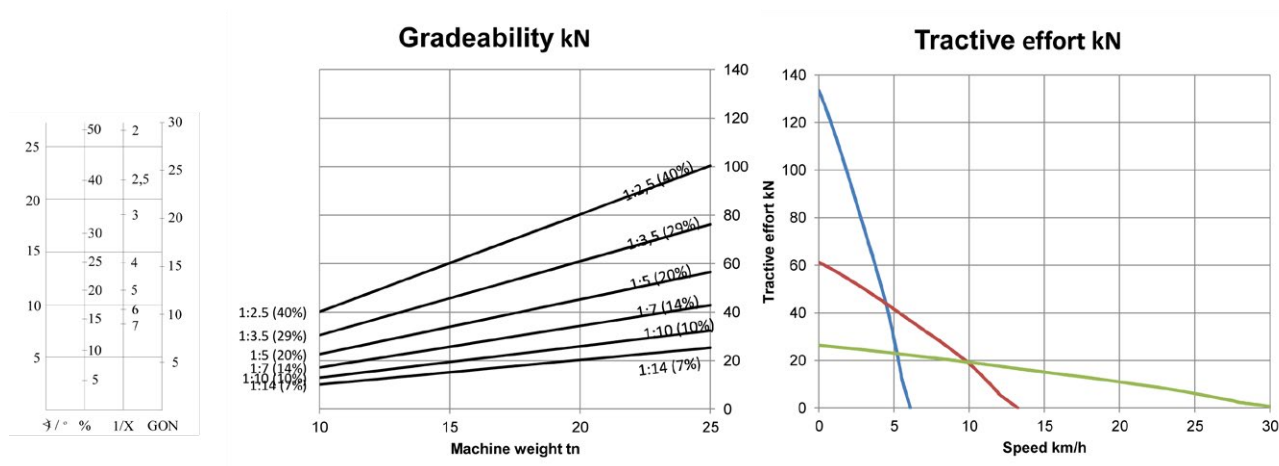
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Charmec MC 605 D(V)

Technical data sheet
100170367.1
02.08.2022

Tractive efforts



CUMMINS QSB 4.5, 121 kW
Performance curve 100087562