



Pictured machine may include options and additional equipment.

Features

Utimec SF 205 Per vehicle is designed for personnel transportation in small or medium size tunnel cross sections. It has personnel compartment with seats for 20 persons. The personnel compartment is designed for safe and easy entry and exit. Door opening is wide and handrails and non-slip steps are correctly positioned.

Vehicle has optional front and rear axle suspension system that improves driving safety and comfort and reduces fatigue. The suspension system reduces vibration from wheels to the front and rear cabins and improves handling of the vehicle. The suspension system gives efficiency and speed to vehicle usage, with safety and comfort for the passengers and the driver.

The new Normet FOPS and ROPS approved safety front cabin provides superior visibility and comfortable compartment for the driver and the passenger. Front cabin is designed for safe and easy entry and exit. Door openings are wide and handrails and non-slip steps are correctly positioned. Dashboard is easy and simple to use. New multifunctional display (MID) provides driving information (speed, RPM, temperatures etc.) and information can be recorded for analysis. Enclosed cabin provides noise level < 75 dB ensuring safe and comfort driving.

Vehicle layout allows easy access to all service points, all daily checks can be done from the ground level.

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

Technical specification

PERSONNEL COMPARTMENT

Suspension seats for 20 persons

ENGINE

Liquid cooled turbo charged Deutz TCD 2012 L4,
96 kW/2200 rpm, TIER 3 approved

EXHAUST SYSTEM

Catalytic exhaust gas purifier and muffler

TRANSMISSION

Dana 20 000 series power shift with pump drive group
3 speeds forward and reverse
4-wheel drive

AXLES

Planetary type
Dana 112
Load end axle fixed
Engine end axle oscillation +/- 10°

TYRES

10.00 - 20 PR 16

PERFORMANCE

1st gear	max.5 km/h
2nd gear	12 km/h
3rd gear	25 km/h
Max. tractive effort	90 kN
Max speed in upward 1:7 inclined tunnel	11 km/h
Performance curve	4800031

BRAKES

Service brake: hydraulically powered two-circuit oil immersed multidisc brakes in both axles

Safety/Parking brake: spring applied hydraulically released fail-safe -type brake. Brake test possibility in cabin

STEERING

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

FUEL TANK

Capacity 112 L

HYDRAULIC SYSTEM

Variable displacement pump system
Pressure setting 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
Driving halogen lights (4 + 2 pcs) 70 W
Working halogen lights (2 + 2 pcs) 70 W
LED parking, brake and indicator lights
LED side lights; amber
Side reversing halogen lights 70 W
Rotating beacon; amber
Wire harness (self extinguishing) with tinned wires and water tight conduits

DRIVER'S COMPARTMENT

Open 2-man cabin FOPS/ROPS approved
Air suspension driver's seat
Seat with retractable lap seat belt
Forward and side seating for the driver with two sets of pedals (brake and accelerator)
MID 070 S Multifunctional Display with:

- Meters; e.g. speed, RPM, operating hours
- Status indicators; e.g. fluid levels, temperatures, pressures, alarms, faults

GREASING SYSTEM

Centralized grease fittings for the carrier

OTHER

12 kg hand held fire extinguisher
Standard symbol labels

Optional equipment

PERSONNEL COMPARTMENT

Enclosed personnel compartment
Benches for 20 persons

ENGINE

Liquid cooled turbo charged MB OM 904 LA,
90 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	90 kN
Max speed in upward 1:7 inclined tunnel	6 km/h
Performance curve	4800032

Air cooled Deutz D914 L06 86.5 kW/2300 rpm TIER 3
approved

Performance curve	100021199
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DRIVER'S CABIN

Enclosed cabin
Air suspension T-back seat for driver and passenger

OTHER

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

FOR ENCLOSED PERSONNEL COMPARTMENT

Compartment ventilation:

- Heating
- Air conditioning

SUSPENSION

Front and rear axle suspension

FOR ENCLOSED CABIN

CD/Radio system

Cabin ventilation:

- Cabin heating
- Air conditioning
- Not available with D914 Engine

FIRE SUPPRESSION SYSTEM

Fogmaker: Manually actuated

Fogmaker: Automatically actuated

Ansul: Manually actuated

Ansul: Automatically actuated

Tempus: Manually actuated (Non CE)

GREASING SYSTEM

Automatic lubrication system for carrier: Lincoln

OTHER

Fast fuel filling system: Wiggins

Oil evacuation kit with sample points

Extra hand held fire extinguisher (12 kg)

Hydraulic front support legs

Warning lights, 1 unit:

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

Text labels in: Fin / Por / EN / Swe / Rus / Nor / Ger / Fra / Spa / Ita

Toolbox and maintenance tools

2 wheel chocks with brackets

Reversing camera

Spare wheel with tyre

WLAN connection

LTC services

RECOMMENDED SPARE PARTS FOR EARLY LIFE

Spare parts package: A complete package to make sure your machine runs with optimal uptime up to 1000 operation hours*.

Includes periodical maintenance parts and most critical spare parts related to e.g.:

- Engine (e.g. filters, belts)
- Chassis (e.g. wiper blades, throttle pedal connector)
- Hydraulics (e.g. filters)
- Electrics (e.g. sensors, work lights, solenoid coils, contactors)
- Compressor, if applicable (e.g. filters)

*) In challenging operating environment 1000h of usage may not be reached with this spare parts package.

EXTENDED WARRANTY

Extended warranty extends the standard warranty period (12 months or 2000 usage hours) up to total 24 months or 3000 usage hours, whichever is reached first.

ELECTRONIC MANUALS ON THE WEB

LinkOne electronic spare parts and instruction manuals

TRAINING AND EXPERTISE SERVICES

Available before and at the equipment delivery - and during the whole equipment life-time!

Product training:

Operation and Maintenance
Automation - NorSmart
Foundation of electrics, hydraulics and mechanics
Trouble-shooting

Process & operator improvement audit for:

Concrete spraying
Charging
Scaling

Audit services to improve:

Performance, availability, maintenance & repair efficiency, safety, quality, environmental aspects

SERVICE CONTRACTS FOR

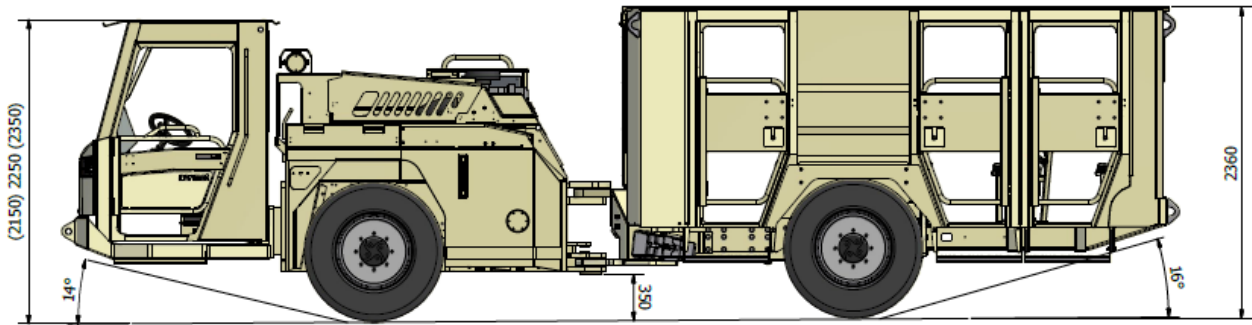
Spare parts supply
Scheduled inspection
Supervision
Scheduled maintenance
Preventive maintenance

EQUIPMENT HAND-OVER SERVICES

	Start-up training	Commissioning
1. Operator training		
1.1 Classroom training		No classroom training included in commissioning
General introduction and operation of machine	Comprehensive	
Safety instructions	Comprehensive	
Use of manuals	Comprehensive	
Technical introduction of equipment	Comprehensive	
Hands-on service and pre-operation checks	Comprehensive	
Controls and driving (starting, driving, stopping, parking)	Comprehensive	
Work method	Comprehensive	
1.2 Practical training		
Pre-operation checks	Comprehensive	Basic
Driving, starting, stopping, parking	Comprehensive	Basic
Preparing the machine for specific operation conditions	Comprehensive	Not covered
Operation	Comprehensive	Basic
Washing the machine	Comprehensive	Basic
Troubleshooting	Comprehensive	Basic
2. Maintenance and repair training		
General operation of machines	Comprehensive	Basic
Symbols of drawings and codes	Comprehensive	Not covered
Understanding hydraulic and electric schematics	Comprehensive	Basic
Control systems	Comprehensive	Basic
Function of main components (depending on equipment)	Comprehensive	Basic
Locations of components in the machine	Comprehensive	Not covered
Periodical maintenance	Comprehensive	Basic
Troubleshooting	Comprehensive	Not covered
Use of manuals	Comprehensive	Basic
Connection of hydraulic and electrical equipment	Comprehensive	Not covered

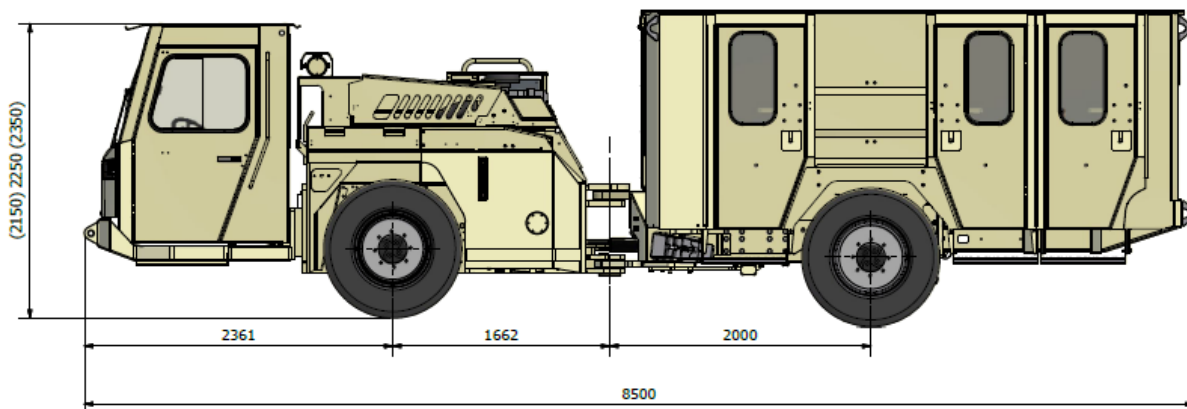
Normet reserves the right to change this specification without further notice.

Dimensions



SIDE VIEW

Basic machine



SIDE VIEW

Machine with enclosed cabin

DIMENSIONS

Length	8500 mm
Width	1850 mm
Height	2360 mm
Wheel base	3660 mm
Track	1650 mm
Ground clearance as shown	350 mm

TURNING RADIUS

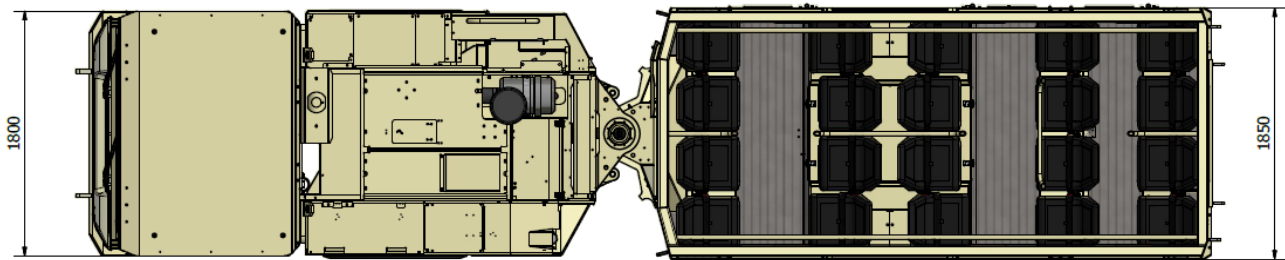
Outer	6400 mm
Inner	4000 mm

WEIGHT

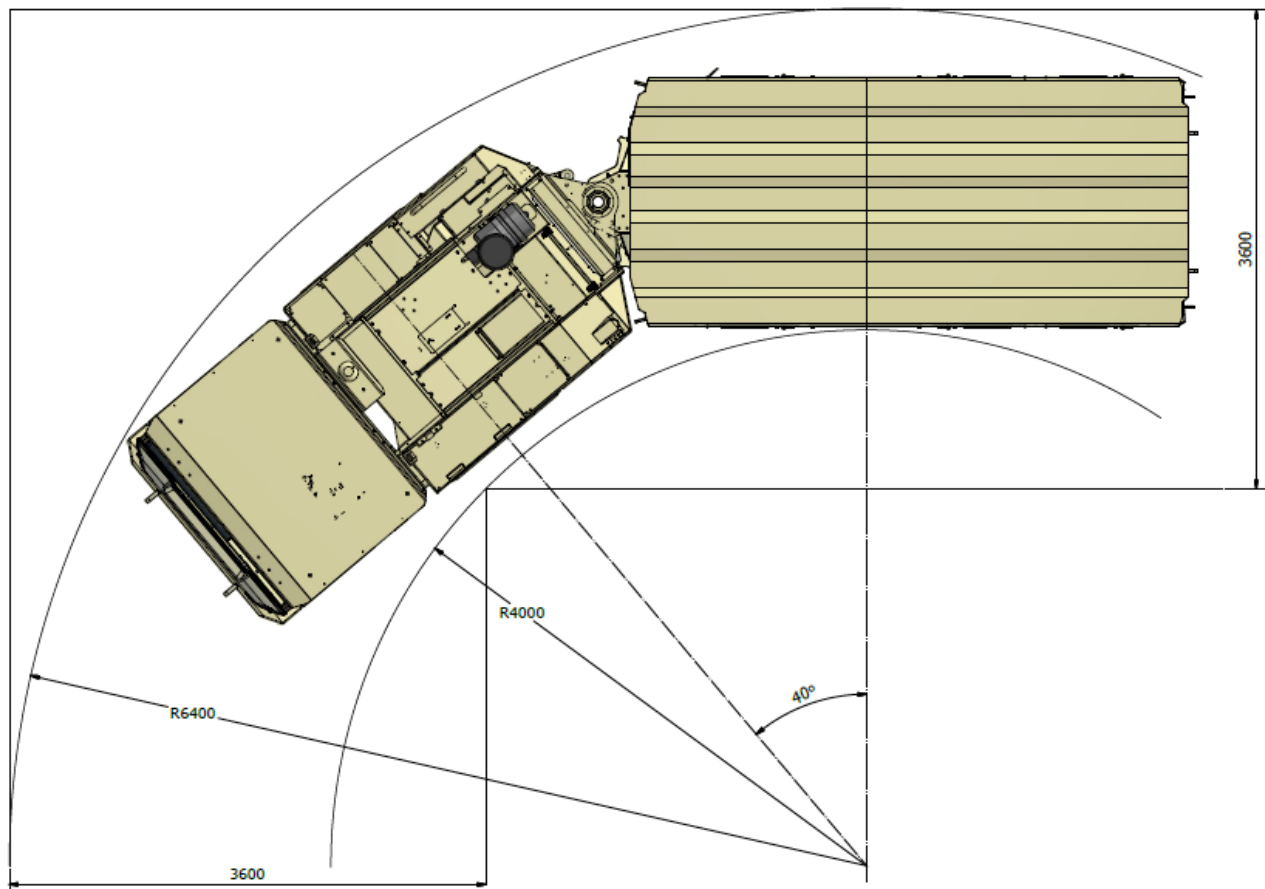
Operating	10000 kg
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Dimensions



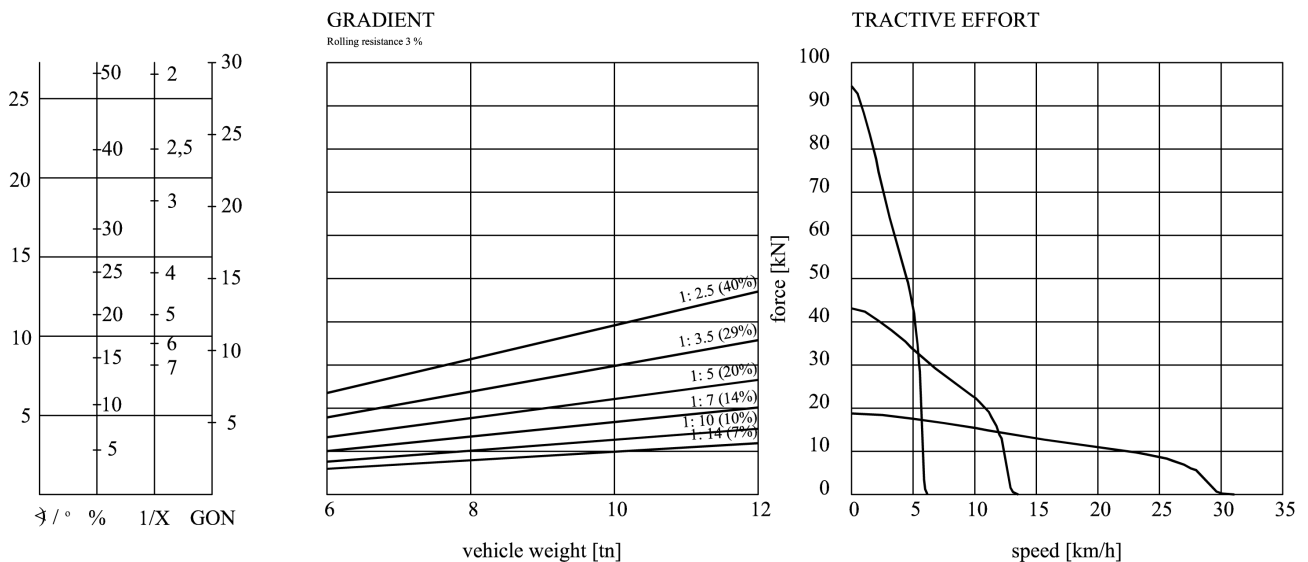
TOP VIEW
with standard seat layout



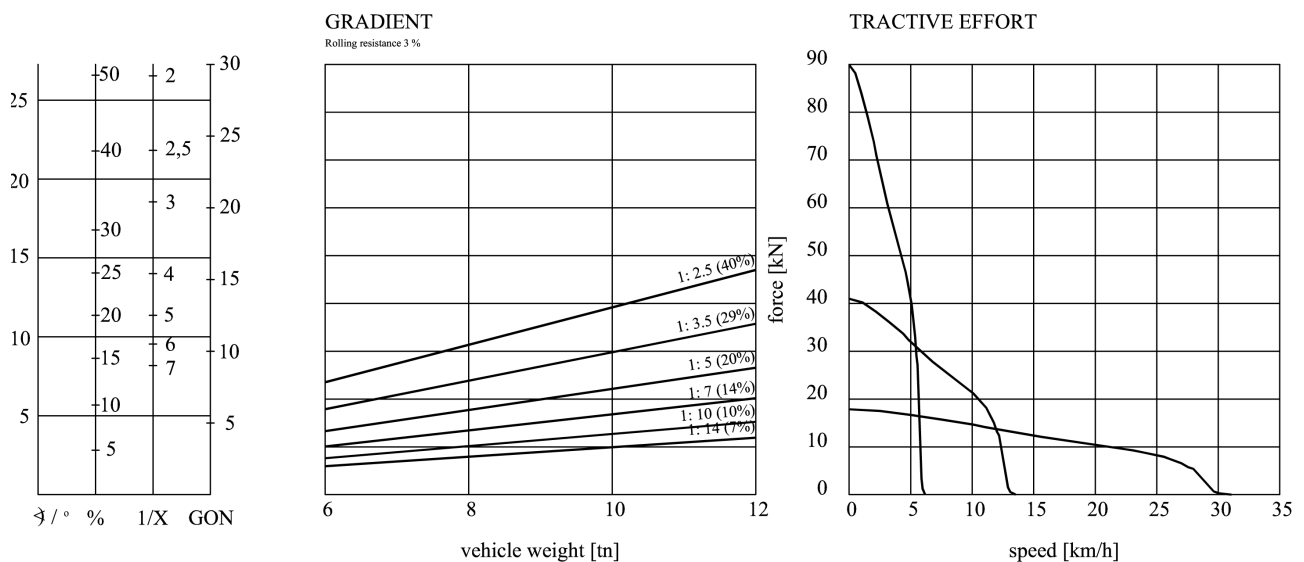
TURNING RADIUS

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Tractive efforts



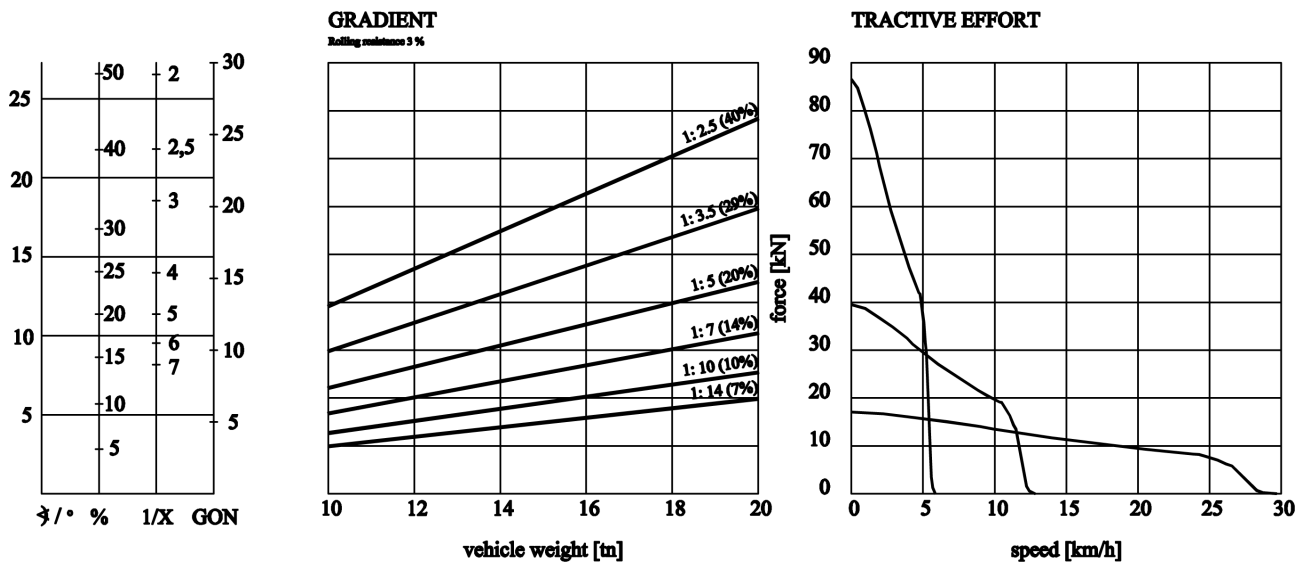
DEUTZ TCD 2012 L4 96 kW Performance curve 4800031



MERCEDES-BENZ OM 904 LA 90 kW Performance curve 4800032

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Tractive efforts



DEUTZ D914 L6 86,5 kW
Performance curve 100021199