



UNI 50-4 BM-TM

Compact carrier vehicle as concrete transport mixer for use in underground mining

- Concrete mixer
- Transport mixer
- Agitator system

Technical data

4510-00-100 - 10.06.2024

DEFINITION OF OPTION / OPTIONAL EQUIPMENT

In the following, the selectable equipment of the machine is identified by the terms "option" or "optional equipment."
The option describes equipment that can be selected in addition to the standard machine.
The optional equipment describes equipment that replaces other equipment on the machine.

MAIN FEATURES OF THE MACHINE

Compact carrier vehicle as concrete transport mixer for use in underground mining

SAFETY

All machines are designed and manufactured in accordance with the applicable legal requirements. They offer a correspondingly high level of safety for users.

Some safety equipment at a glance:

- ROPS/FOPS certification
- Battery master switch, lockable
- Emergency stop button: one in the driver's platform, two outside
- Automatic shutdown when engine-specific parameters are exceeded
- Audible reversing signal
- 3-point safety entry
- Entrances and exits, slip-resistant and color-contrasting
- Articulated frame lock
- Plug connection protected against moisture

The door contact switch is automatically used if the driver is absent:

- The drive shifts to neutral
- Activation of the parking brake
- Deactivating the steering

OPERATING CONDITIONS

Permitted environment temperature *	-20 °C to +40 °C
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** Observe the cold-start limit temperature of the engine*

Permitted longitudinal gradient, maximum	35 %
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Operating altitude without reduction in power, maximum	< 1,500 m
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WEIGHTS AND LOADS

Operating weight *	13,500 kg
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Permissible payload, maximum *	11,500 kg
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Permitted front axle load, maximum	9,000 kg
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Permissible rear axle load, maximum	16,000 kg
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** Depending on selected options and optional equipment*

CHASSIS

Swivel angle, maximum	±10°
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- Split chassis with articulated pendulum steering
- Fixed front axle and oscillating rear axle

ENGINE

DEUTZ TCD 2013 L04 2V diesel engine

Manufacturer	DEUTZ
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Type	TCD 2013 L04 2V
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Emissions stage EU	Stage III A
Emissions stage USA	EPA Tier 3

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Output At speed	126 kW 2,300 rpm
Alternator	28 V 80 A
Starter motor	24 V 4 kW
Cold start limit temperature	-15 °C

- Catalytic converter with measuring points
- Fuel prefilter and fuel fine filter with water separator
- Dry air filter with pre-filter
- Liquid-cooled

ENGINE (OPTIONAL EQUIPMENT)

MERCEDES OM 904 LA diesel engine

Manufacturer	MERCEDES BENZ
Type	OM 904 LA
Emissions stage EU Emissions stage USA	Stage III A EPA Tier 3
Output At speed	129 kW 2,200 rpm
Alternator	28 V 100 A
Starter motor	24 V 4 kW
Cold start limit temperature	-20 °C

- Catalytic converter with measuring points
- Fuel prefilter and fuel fine filter with water separator
- Dry air filter with pre-filter
- Liquid-cooled

Diesel engine CATERPILLAR C4.4

Manufacturer	CATERPILLAR
Type	C4.4
Emissions stage EU	Stage III A

Emissions stage USA	EPA Tier 3
Output At speed	106 kW 2,200 rpm
Alternator	28 V 60 A
Starter motor	24 V 4.5 kW
Cold start limit temperature	-15 °C

- Catalytic converter with measuring points
- Fuel prefilter and fuel fine filter with water separator
- Dry air filter with pre-filter
- Liquid-cooled

Diesel engine DEUTZ TCD 4.1 L4

Manufacturer	DEUTZ
Type	TCD 4.1 L4
Emissions stage EU Emissions stage USA	Stage V EPA Tier 4F
Output At speed	105 kW 2,300 rpm
Alternator	28 V 100 A
Starter motor	24 V 4 kW
Exhaust gas aftertreatment	DOC DPF SCR
Cold start limit temperature	-15 °C

- Fuel prefilter and fuel fine filter with water separator
- Dry air filter with pre-filter
- Liquid-cooled

FUEL SYSTEM

Fuel tank capacity	125 L
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- Electrical fill level indicator
- Shut-off valve to protect against fuel leakage in case of hose rupture

TRAVEL DRIVE

Manufacturer	DANA
Type	24300
Travel speed:	
1st gear	5 km/h
2nd gear	10 km/h
3rd gear	25 km/h
Tractive force (loaded):	
1st gear	130 kN
2nd gear	60 kN
3rd gear	26 kN
Climbing performance (loaded):	
1st gear	66 %
2nd gear	26 %
3rd gear	11 %

- Hydrodynamic travel drive
- "Full power shift" transmission
- Three forward and reverse gears
- Single-stage torque converter
- Drive reversible under load
- Permanent all-wheel drive

AXES

Manufacturer	DANA
Front axle type	114
Front axle differential	Open
Rear axle type	114

Rear axle differential

Open

SERVICE BRAKE

- Hydraulic foot brake as 2-circuit external force brake system
- Oil-immersed multi-disk brakes

PARKING BRAKE

- Spring-applied, hydraulically released (SAHR)
- Hand pump to release the brake in case of system failure

EMERGENCY BRAKE

- The parking brake also acts as an auxiliary brake

TIRES

Tire size	14.00x24
Tire filling	Air

- Single tires with inner tube

STEERING

- Hydraulic articulated steering with two double-acting hydraulic cylinders
- Steering wheel
- Emergency steering

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HYDRAULICS

Hydraulic tank capacity	130 l
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- Inspection glasses for min/max indication
- Temperature sensor
- Electrical fill level monitoring
- All fittings as JIC version

HYDRAULICS (OPTIONAL)

- Hand pump for filling the hydraulic fluid reservoir
- Electric pump for filling the hydraulic fluid reservoir

ELECTRICS

Supply voltage	24 V
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Number of batteries	2 pcs.
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Battery voltage	12 V
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Battery charge	155 Ah
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ELECTRICS (OPTIONAL)

- Jump start socket
- Enhanced sealing of the connectors with grease filling and sealing tape

LIGHTING

All headlights and lamps as LED variants:

- Two main headlights at the front, with high beam, low beam, parking light and turn signals
- Two work lights at the rear of the cab
- Two rear lights with tail light, brake light, reversing light and turn signals
- Two additional reversing lights

- One yellow strobe light
- Two rear work lights on the platform

LIGHTING (OPTIONS)

- Direction indicators red / green, front / rear
- Two impact lights in the articulated joint area
- two additional working lights on the front of the driver's compartment
- Rotating flashing beacon / blue strobe lights *
- Rotating flashing beacon / red strobe light *

* *Maximum of two lamps possible*

DRIVER'S STAND

Open cabin

- Open cabin with hatches
- Access from both sides
- Storage compartment under the passenger seat
- Windshield made of laminated safety glass
- Wiper/washer system for windshield
- Interior lighting
- Reading lamp
- Ventilation for windshield
- Two exterior mirrors
- Document box
- All drive relevant switches, displays and controls are located within reach of the operator
- Informational display for all engine-specific data

Driver's seat

- synthetic leather cover
- Mechanically sprung
- Lap belt without monitoring
- Adjustable backrest and seat cushion
- Height adjustable

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Passenger seat

- synthetic leather cover
- Mechanically sprung
- Lap belt without monitoring
- Adjustable backrest and seat cushion
- Height adjustable

DRIVER'S STAND (OPTIONAL EQUIPMENT)

- Mechanically sprung seats for driver and passenger with 3-point seat belt and belt monitoring
- Air-sprung seats for driver and passenger with 3-point seat belt and belt monitoring
- Heated exterior mirrors
- WEBASTO water heater

Closed cab

- Closed cab with doors and sliding windows
- Access from both sides
- Storage compartment under the passenger seat
- Windshield made of laminated safety glass
- Wiper/washer system for windshield
- Interior lighting
- Reading lamp
- Heating with ventilation and filter
- Two exterior mirrors
- Document box
- All drive relevant switches, displays and controls are located within reach of the operator
- Informational display for all engine-specific data

Rotating driver's seat

- Rotates 90° for better rear view
- Brake pedal, accelerator pedal and gear shifting controls are also rotated
- Mechanical locking

DRIVER'S STAND (OPTIONAL)

- Air conditioning
- Rear view camera system or 4-camera system
- Vandalism protection
- Brake test function
- Activation of the parking brake when the travel drive is in neutral for longer than 3-4 seconds
- Tire pressure monitoring
- Dead man's switch for driving mode
- Methane gas warning system (CH₄)
- Electric emergency steering
- Engine start warning
- Holder for escape apparatus
- Second passenger seat *

* Not possible with rotating driver's seat

Radio preparation

- Ignition voltage
- Battery voltage
- Vehicle mass

CAN bus interface preparation

- Ignition voltage
- Battery voltage
- Vehicle mass
- CAN High
- CAN Low

SUPERSTRUCTURE

Gross volume	5.5 m ³
Useful volume	4.5 m ³
Loading hatch, diameter	500 mm

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- Mixing drum made from high-quality sheet metal and profile steel
- Horizontal mixing drum, secondary mixer system
- Two loading hatches, mechanically locked
- Two manholes for repair work
- Platform with railing on the left and right next to the mixing drum
- Mixing drum rotation controlled by two hydraulically piloted hand levers. One in the driver's platform, one at the mixer outlet on the left in the direction of travel
- Reversible direction of rotation
- Adjustable speed

SUPERSTRUCTURE (OPTIONAL EQUIPMENT)

Gross volume	5.5 m ³
Useful volume	4.5 m ³
Loading hatch, diameter	500 mm
Transfer height, minimum	1,250 mm
Transfer height, maximum	2,050 mm

- Tilting mixer drum
- Mixing drum made from high-quality sheet metal and profile steel
- Hydraulic tilting device
- Two loading hatches, mechanically locked
- Two manholes for repair work
- Platform with railing on the left and right next to the mixing drum
- Mixing drum rotation controlled by two hydraulically piloted hand levers. One in the driver's platform, one at the mixer outlet on the left in the direction of travel
- Reversible direction of rotation
- Adjustable speed

SUPERSTRUCTURE (OPTIONAL)

High-pressure cleaner

Operating pressure	200 bar
Hose length	15 m
Tank capacity	170 L

- Hydraulically driven by the diesel engine
- Spring hose drum with hose
- Spray lance
- Stainless steel tank

Anti-adhesive sprayer

Tank capacity	10 L
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- For manual application of non-stick agent
- Backpack design with two padded carrying straps, quick-release system and back support
- Stainless steel tank

FIRE PROTECTION

- Handheld fire extinguisher (TOTAL) with 9 kg of dry extinguishing agent

FIRE PROTECTION (OPTIONAL EQUIPMENT)

- HRD fire-extinguishing system (PROTECFIRE) with manual release and dry extinguishing agent
- HRD fire-extinguishing system (PROTECFIRE) with automatic release and dry extinguishing agent
- HRD fire-extinguishing system (ANSUL) with manual release and liquid agent
- HRD fire-extinguishing system (ANSUL) with automatic release and liquid agent
- Portable fire extinguisher (ANSUL) with 7.7 kg of dry extinguishing agent

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FIRE PROTECTION (OPTIONAL)

- Additional handheld fire extinguishers
- * Type depends on the handheld fire extinguisher selected*

PAINTWORK

Color of cabin / driver's stand	RAL 7016
Chassis color	RAL 1007

ACCESSORIES

- Two wheel chocks
- Two triangular safety reflectors
- Tool kit with bag
- Safety helmet and ear protection
- First aid kit

ACCESSORIES (OPTIONS)

- Replacement rim
- Spare wheel
- Expanded tool set
- Central lubrication system on basic vehicle
- Scraper for windshield and mirror as tubular construction

DOCUMENTATION

- A printed operating manual in the local language in the document box on the vehicle
- Operating instructions, spare parts list and wiring diagrams in electronic form via online access

DOCUMENTATION (OPTIONAL)

- An additional operating manual in local language, in printed form, included with the machine
- A spare parts list in local language or English, in printed form

MAINTENANCE PACKAGES (OPTIONAL EQUIPMENT)

- Service package, 2000 operating hours
- Service package, 3000 operating hours
- Service package, 5000 operating hours

PAUS CONNECT CLOUD (OPTIONAL)



The PAUS CONNECT CLOUD collects and visualizes data, messages or location information of the machine.

The data is transmitted to the cloud using a built-in telemetric unit.

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Your advantages:

- Faster service
- Life cycle cost management
- data transmission via existing WLAN and/or mobile phone networks
- intermediate storage of all data in the absence of connectivity (up to 30 days)
- Access to the PAUS CONNECT CLOUD
- remote diagnosis/remote maintenance
- statistical application evaluation
- vibrational monitoring
- two-way communication
- authorisation of machine use
- user administration with controlled data access
- individual evaluations and statistics
- direct access at the machine to read out data

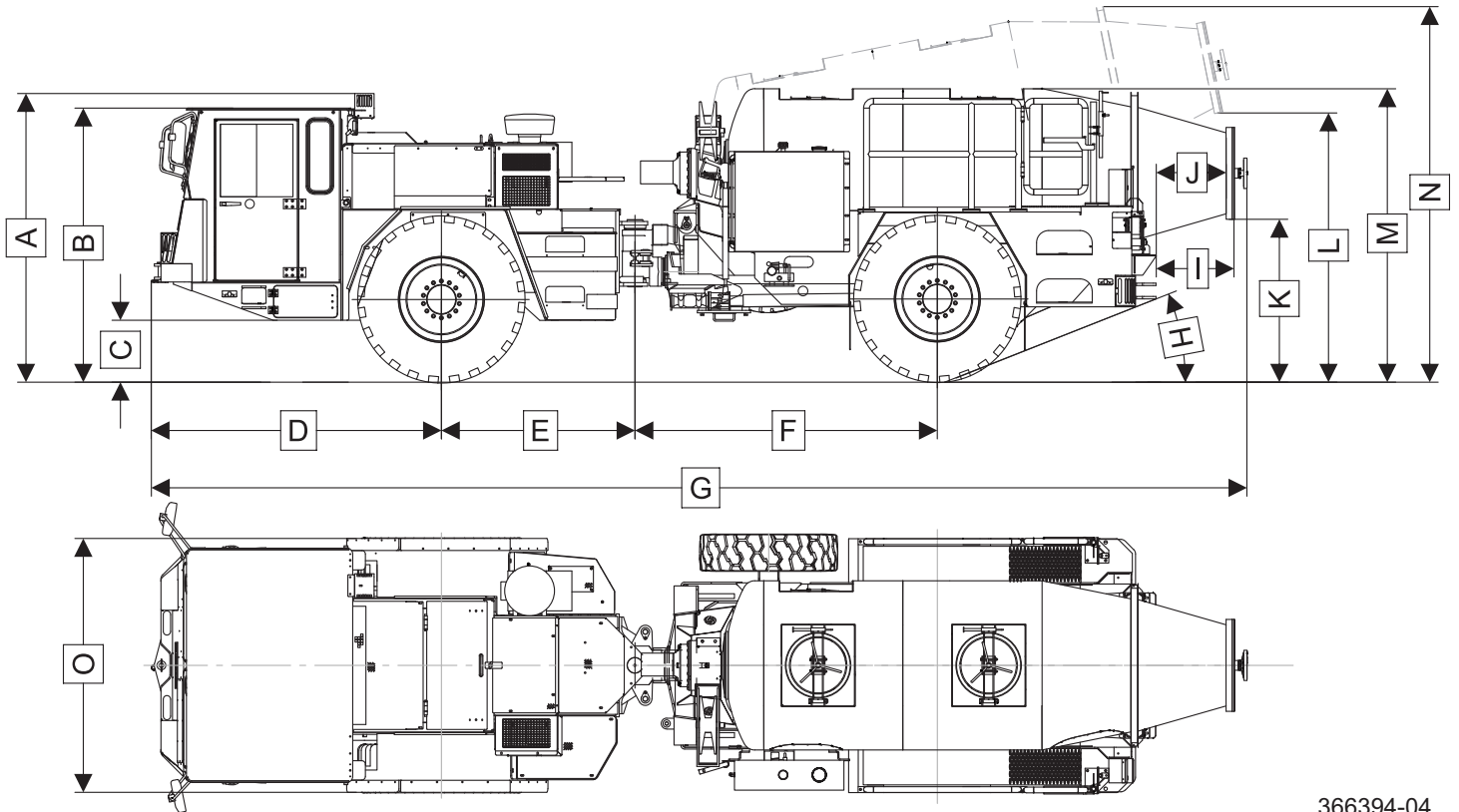
CUSTOMER SERVICE

Repair work and maintenance work are central points in customer care. Here, PAUS is broadly positioned and offers its customers and dealers worldwide an extensive service program. Trained employees are available on our service hotline, as are competent contacts at our local dealers.

SPARE PARTS

We attach great importance to a high level of availability of PAUS spare parts. In addition to maintenance and service parts, which are available at any time, customers and dealers are able to purchase spare parts for engines, axles, transmissions, etc. easily and quickly through us. Benefit from our online catalog with refined spare parts lists.

DIMENSIONS



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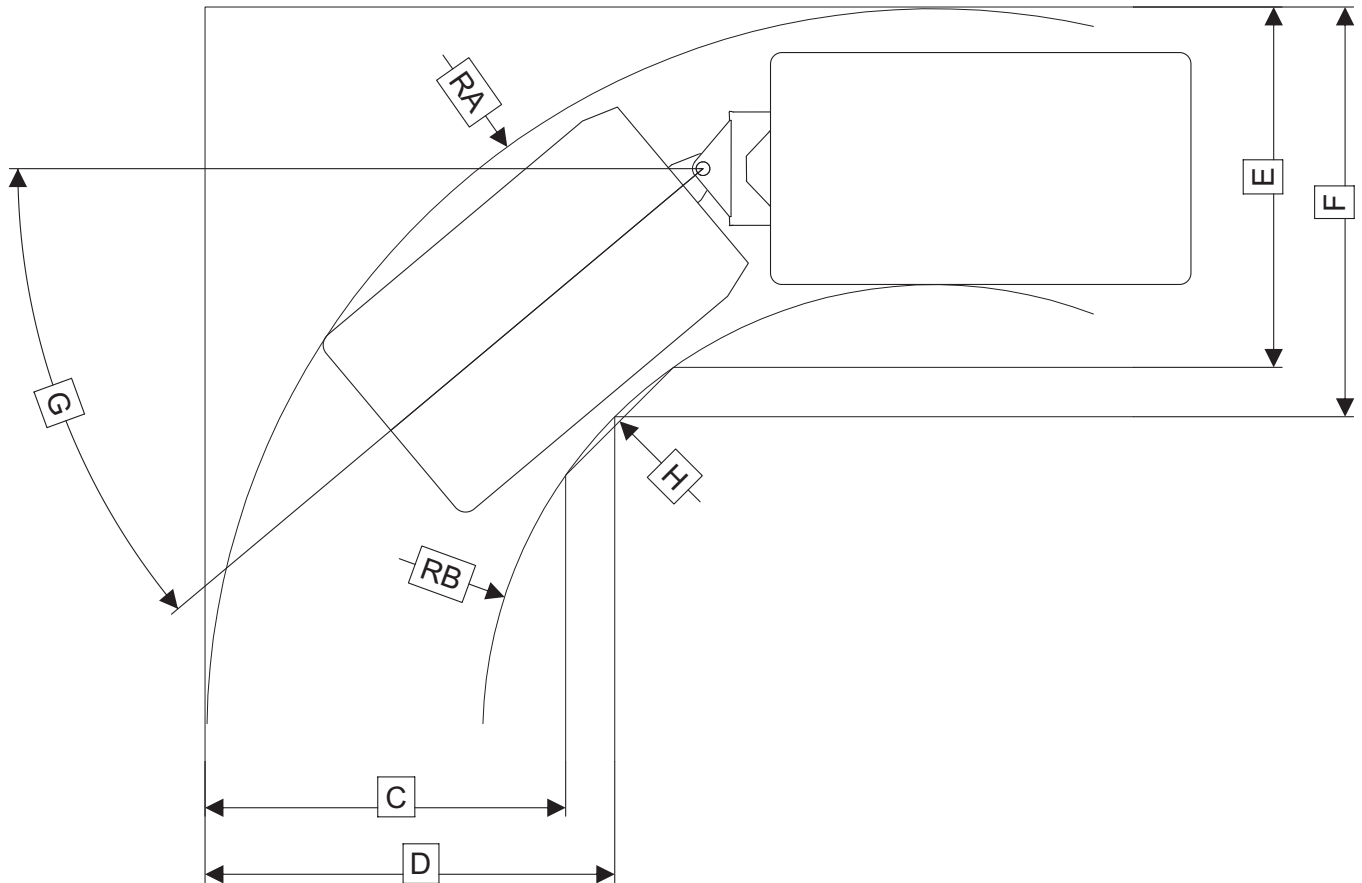
Dimension	Value	Unit
A	2370	mm
B	2230	mm
C	480	mm
D	2380	mm
E	1600	mm
F	2500	mm
G	9050	mm
H	20	°

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Dimension	Value	Unit
I	640	mm
J	550	mm
K	1300	mm
L	2190	mm
M	2400	mm
N	3100	mm
O	2100	mm

TURNING RADIUS



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Dimension	Note	Value	Unit
RA		7100	mm
RB		4400	mm
C		3500	mm
D		3950	mm
E		3500	mm
F		3950	mm
G	Lenkeinschlag, maximal	40	°
H	Beveled corner	1000x45°	mm