



Equipment includes options and extra equipment.  
Illustrated vehicle may look different than final product.

## Features

The Spraymec NorRunner 140 DC is designed to be used in tunnel profiles up to 19.5 m in height and 28 m in width.

The NorRunner features the new NSP 30 concrete pump with a maximum theoretical output of 30 m<sup>3</sup>/h and an on-board compressor with a capacity of 12.7 m<sup>3</sup>/min with 7 bar constant pressure to deliver enough air for spraying operations. The state-of-the-art NorSmart control system is used to control all spraying, accelerator dosing and boom functions.

Two 1000 l plastic containers with heaters and mixers are provided for the accelerator. A hydraulically operated generator supplies electric power for heaters and mixers during driving, allowing safe operation during the winter season.

The spraying operation can be powered by diesel drive. With the selected chassis and the best transmission on the market, high output hydraulic pumps can be used to run the compressor and concrete pump as well as all other functions needed. Independent operation without a high voltage system is crucial for sites in remote places.

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

## Technical specification

### CARRIER MB AROCS 4151K 8x4/4

Diesel engine OM 471. (Euro 6)  
Output: 375 kW, Max. torque 2500Nm  
Transmission: MB PowerShift G330-12/11, 63-0,77, semi automatic.  
Drum brakes.  
Parking brakes in axles 1,3 and 4  
Steel springs.  
Four axle -type.  
Full power PTO with flange.  
PTO behind the engine with flexible clutch, max 600 Nm  
Mid long cabin (+250 mm)

### SPRAYBOOM SB 514

Automatic functions:

- Vertical and horizontal stabilization
- Nozzle rotation
- Telescopic stroke (upper boom)

Upper boom telescope equipped with self lubricating bronze slide pieces and slide rollers.  
The speed of the movements can be adjusted from the display.  
All the movements are pressure compensated and have a proportional output.

Boom coverage:

• Lateral	28 m
• Vertical normal	13 m
• Vertical max	19.5 m

### CONCRETE PUMP

Spraypump NSP 30  
Low-wear and low-maintenance double piston pump:

• Pumping capacity theoretical	3 - 30 m <sup>3</sup> / h
• Pumping cylinder diameter	200 mm
• Cylinder stroke	600 mm
• Pumping pressure	max. 51 bar
• Hydraulic pressure	max. 250 bar

High pumping pressure enables the conveying of stiff concrete.

The pump is able to pump up to max. aggregate size of 16 mm (including crushed) and all types of fibres (max. length 60 mm) in the mix.

Sophisticated control system (hydraulic and electric systems) provides low pulsation concrete flow.  
Hydraulically driven agitator.

The pump group can be lifted up and down and dismantled easily from the machine. Controls for lifting in driver's cabin and at the concrete pump.

Specially designed hopper with foldable cover for spill and transport protection.

Concrete pump override switches.  
Power supply for the electrical functions.

### COMPRESSOR

Hydraulically operated screw compressor  
FAD 12,7 m<sup>3</sup> at 7 bar.  
Air flow to nozzle adjustable in three steps (8 m<sup>3</sup>, 10 m<sup>3</sup> and max. flow)

### REMOTE CONTROL SYSTEM

Two displays, master display on the main electric box, second one at the rear.  
Joystick control system for the boom.  
Following features can be adjusted or switched on / off from the control box:

- Accelerator dosing rate.
- Accelerator pump on/off.
- Concrete pumping speed.
- Concrete pump on/off / reverse.
- Air flow to nozzle on/off and air rate in three steps.
- Nozzle quick wash on/off.
- Wall washing on/off.
- Automatic horizontal levelling on/off.
- Automatic second telescope zoom in/out on/off.
- Nozzle rotation on/off.
- Storage box for radio remote.

### ACCELERATOR SYSTEM

Hydraulically driven Mono pump  
Max. pumping pressure 12 bar  
Dosing rate 0.5...16 L / min (30 - 960 L / h)  
Accelerator flow fully synchronized with the concrete output.  
Suction line diameter 2" (50 mm)  
Pressure line diameter 1" (25 mm)  
Possibility of using 2 x 1000 L intermediate bulk containers (IBC)

### CONCRETE LINE

Concrete line diameter 76 mm  
Place for concrete pipes and concrete hoses during tramming.

## Technical specification

### CONTROL SYSTEM

Integrated, seamless NorSmart control and diagnostic system. NorSmart controls:

- Spray boom
- Concrete pump
- Accelerator dosing system
- Safety requirements
- Fault diagnostics
- Data logging

### WATER REEL AND TANK

Hydraulically driven water reel:

- Hose length 120 m
- Hose size 1 1/4" (35 mm)
- Controls in cabin and at concrete pump
- 1000 l stainless steel water tank
- 300 l tank for anti freeze liquid

### HYDRAULIC SYSTEM

Diesel driven hydraulic pump unit for compressor, concrete pump boom and agitator/dosing system. Diesel driven hydraulic pump for the hydraulic driven generator and emergency use.

Bypass filter, 220 V operated.

24 VDC hydraulic pump for emergency operation of support legs and pump lifting.

### MB CARRIER AND 24 VDC ELECTRICAL SYSTEM

Battery 2 x 220 Ah

Alternator 80 A

Spraying module wire harness (self extinguishing) with tinned wires and watertight conduits and exposed components are min. IP 65 standard.

### WORKING LIGHTS

24 VDC LED working lights in the SB 514 Boom (6 pcs)

### GREASING SYSTEM

Automatic lubrication system for the boom. (Nozzle end not included)

Centralized manual lubrication for carrier.

### GENERATOR

Hydraulically operated generator

- Power 10 kVa / 400 V (7 x 230V / 1 x 400 V sockets)
- Controls in cabin

### FORM OIL SYSTEM

24 V operated system with hose reel:

- Tank capacity 40 L
- Hose length 30 m
- Working pressure 7 bar

### MACHINE AND ROCK WALL WASHING SYSTEM

Hydraulically operated pressure washer with hose reel:

- Max. water pressure 180 bar
- Max water flow 30 L/min
- Hose length 30 m

Hydraulically operated pressure washer for wall:

- Max. water pressure 180 bar
- Max. water flow 90 L/min for wall washing

When using this equipment, the vehicle washing is also carried out by this washer. The washing power will automatically adjust to the correct level.

### FIRE SUPPRESSION SYSTEM

Fogmaker: Automatic water mist system for carrier.

### OTHER

Extendable hydraulic support legs at the rear end.

12 kg hand-held fire extinguisher.

Standard symbol labels.

Storage box with power outlet for head lamp and radio remote battery chargers.

Filter mat for MB engine and other radiators, easy clean model.

Tool box for tools.

Basic tool set:

- Cleaning plug
- Washing ball
- Hitting tool for nozzle
- Claw coupling
- Hose clamp
- Rubber hose 3/4" 4 m
- Carabiner
- Wrench for spraymec nozzles
- Sledgehammer 800g
- Nozzle tip d45mm plastic
- Cone for concrete piston assembly
- Special bolt for concrete piston assembly

## Additional equipment

### OIL CONDITION MONITORING

#### Hydraulic oil diagnostic sensor

Boom and concrete pump hydraulic oil contamination monitoring and moisture % RH indicator gives alarm to NorSmart if the setting limits are exceeded.

### FOR RADIO REMOTE CONTROL

**Recodrive:** Enables driving and moving Mercedes via radio remote control when diesel engine is running.

### OIL FILTRATION SYSTEM

#### Bypass filter kit

For concrete pump and boom oil circuit:

- 0,5 µm filtration, extremely clean oil
- Also absorbs the water from the oil
- Longer lifetime for the hydraulic components
- Reduces cost of ownership

### OTHER

Spare wheel with a rack

Water hose for cleaning the concrete pump.

## LTC services

### SPARE PARTS

**Spare parts package A:** Available for 3000 m<sup>3</sup> of pumped concrete\*. Include periodical service, most common wearing parts and most critical safety parts.

**Spare parts package B:** Available for 6000 m<sup>3</sup> of pumped concrete\*. Include periodical service, most common wearing parts and most critical safety parts.

\* Recommendations are based on average consumption - can vary a lot depending on used shotcrete and work site conditions.

### TRAINING SERVICES

Available before delivery, at start up and after delivery

#### Product training:

Operation and Maintenance

NorSmart

Foundation of electrics, hydraulics and mechanics audit.

#### Process training:

Concrete spraying

Charging

Process audit

### 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

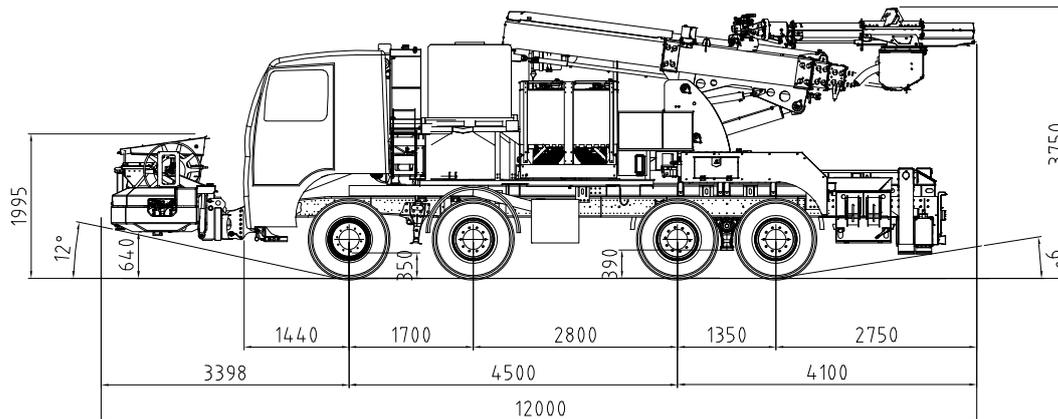
### LINKONE

LinkOne electronic spare part manuals

### WARRANTY SERVICES

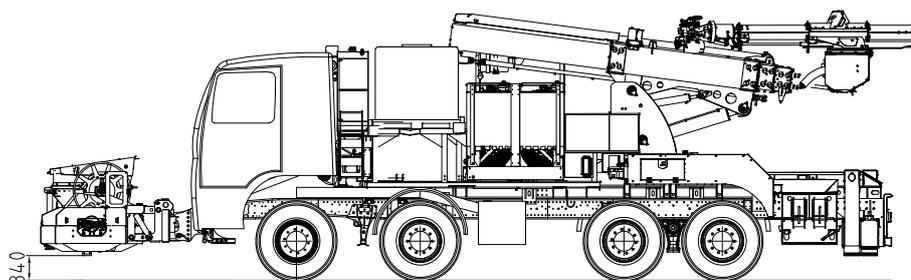
Extended warranty

**Dimensions**



**SIDE VIEW**

Basic machine. Transportation and driving dimensions



**SIDE VIEW**

Basic machine. Concrete pump in low position

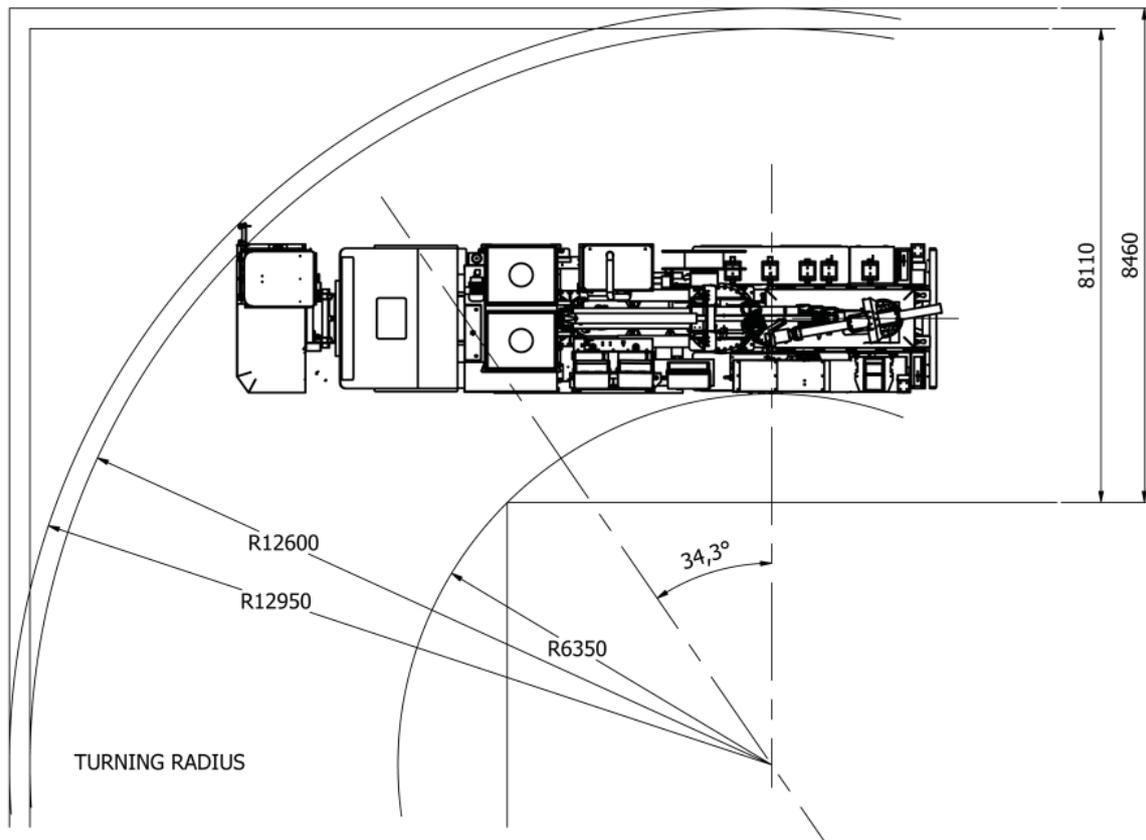
**NOTE!**

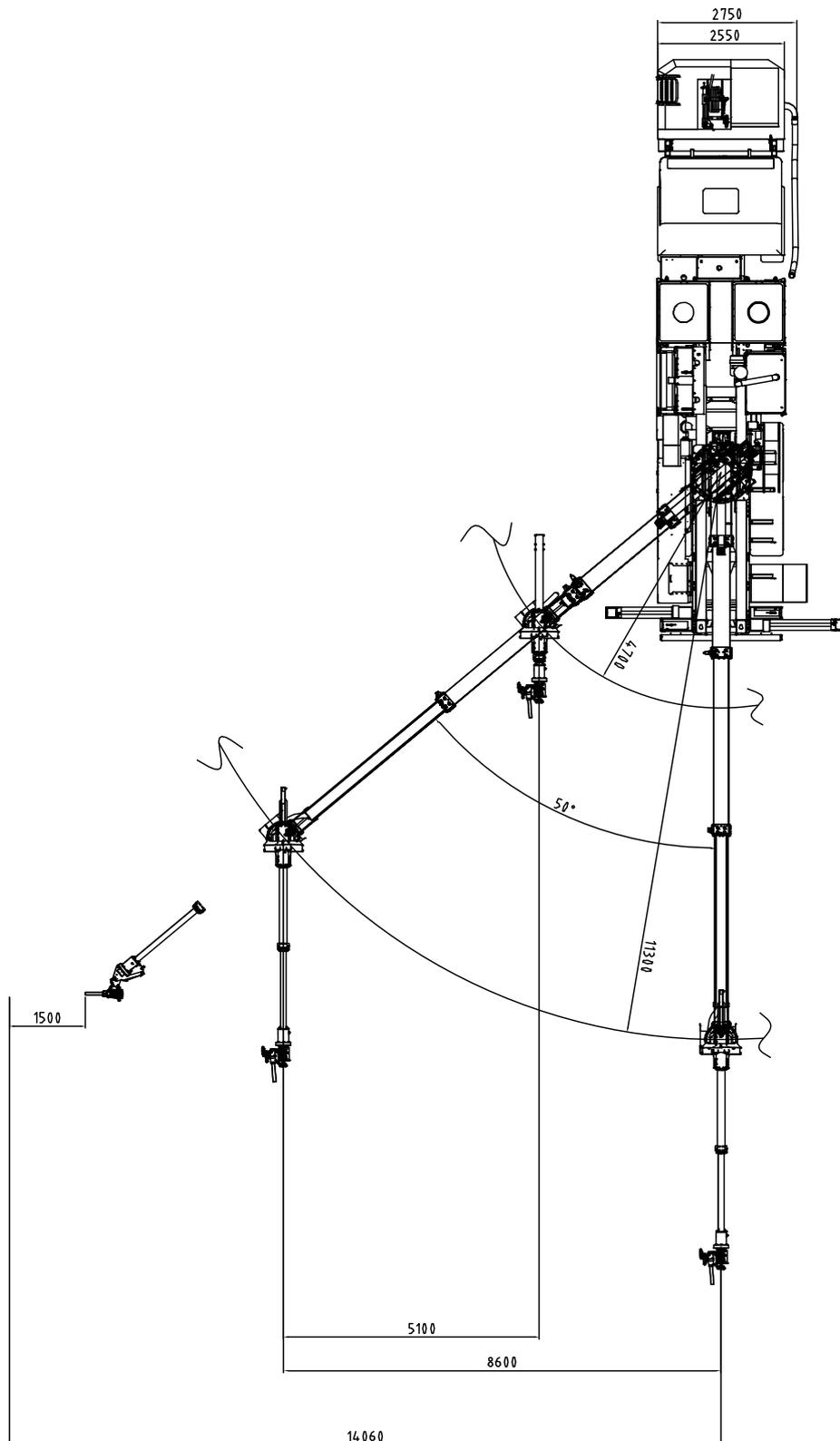
Dimensions and weight are indicative and subject to possible changes due to changeover to Euro 6 emission standard. (Dimensions are from Euro 5 model.)

DIMENSIONS	
Length	12 000 mm
Width	2550 mm
Height	3750 mm
Wheel base	5850 mm
Ground clearance as shown	350 mm

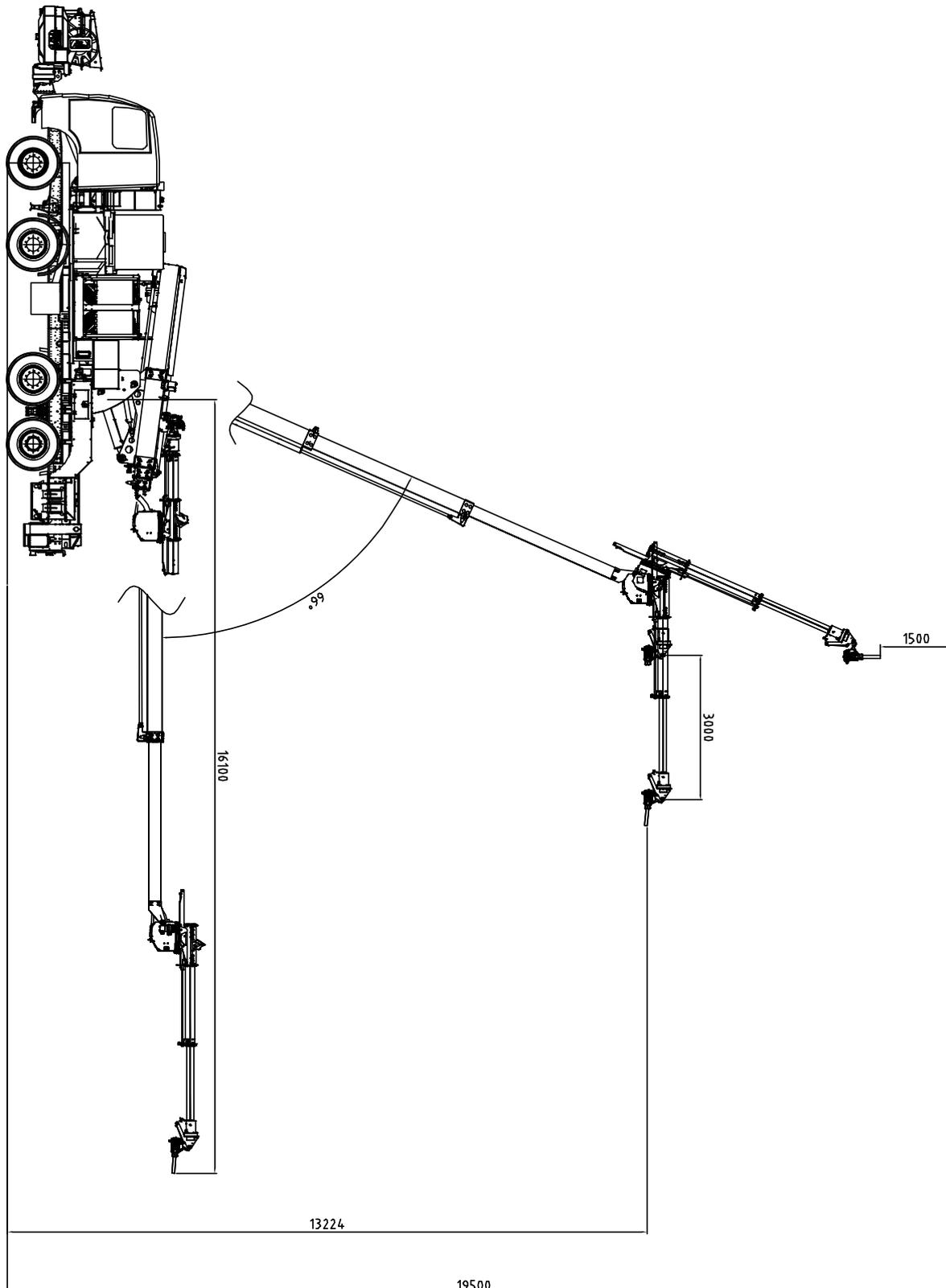
WEIGHT	
Operating	32 000 kg

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**Dimensions****TURNING RADIUS**

**COVERAGE AREA OF SB508 B BOOM**

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