



Himec RM 905 (T)(V) & 125 T(V)



Normet reserves the right to change
this specification without further notice

Pictures may include options and additional equipment.

INTRODUCTION

Himec RM 905 (T)(V) & 125 T(V) are self propelled boom units for person lifting and installation works in underground excavation and tunnelling.

Booms can be controlled either from the basket or down from the carrier. Twinboom application's large coverage allows the whole face to be operated from one setup. Each boom can be operated independently allowing multiple operations to be carried out safely without machine relocation.



POWER TRAIN

M-series units have powerful 4-cylinder liquid cooled turbo-charged engines, which power range is between 110-121 kW, depending of the selected engine model. Available emission standards are Tier 3 / Stage IIIA and Stage V that provide clean and efficient operation.

Machine is equipped with Hydrostatic transmission and planetary type axles which have hydraulically powered dual-circuit oil immersed multidisc service brakes. Moreover, axles have spring applied hydraulically released fail-safe -type parking/safety brake.

SAFETY AND USABILITY

Normet's FOPS and ROPS approved safe and spacious cabin provides superior visibility and comfortable compartment for the driver. Cabin controls are easy and ergonomic to use, and the multifunctional display (MID) provides driving information (speed, RPM, temperatures, safety warnings & alarms etc.), which can be recorded for further analysis. Optional enclosed cabin provides low noise level ensuring safe and comfortable driving.

Electric system is designed for harsh underground environment. System consists of self-extinguishing wire harnesses with tinned wires, water tight conduits and all exposed components are minimum IP65 protection class. In addition, vehicle layout allows easy access to all service points, all daily checks can be done from the ground level.

TECHNICAL SPECIFICATION

NBB BASKET BOOM

Boom:

- 1 x NBB3 basket boom (905)

Lifting capacity (without optional equipment)	500 kg
---	--------
- 2 x NBB3 basket boom (905 T)

Lifting capacity (without optional equipment)	500 kg
---	--------
- 2 x NBB5 basket boom (125 T)

Lifting capacity (without optional equipment)	400 kg
---	--------

Max. lifting height and wall coverage specified in dimensional drawing

Automatic levelling of basket

Start/stop from basket

Battery operated emergency lowering system

Basket:

- Standard 2-operator basket
 - Short 2-operator square tube basket
 - Short 2-operator open profile basket
 - 1-operator basket

Basket installation position:

- Regular
- Hanging (reduce max. lifting height 500 mm)

Basket slew:

- Without basket slew
- With 35° basket slew

Person lifter safety system:

- Dangerous movement preventing system (mandatory in NAP, NAS, CE area)
- Dangerous movement warning system with overload monitoring
- Dangerous movement warning system without overload monitoring

ENGINE AND TRANSMISSION

- **Cummins QSB4.5 110 kW/2300 rpm, Tier 3 / Stage IIIA approved**

Catalytic exhaust gas purifier and muffler

Fuel tank capacity: 140 l

Hydrostatic 4-wheel transmission

- **Cummins B4.5, 121 kW/2500 rpm with exhaust brake, Stage V approved**

Requires diesel exhaust fluid (DEF) and Ultra-low sulphur diesel (ULSD)

Diesel particulate filter (DPF)

Selective catalytic reduction (SCR)

DEF tank capacity: 19 l

Fuel tank capacity: 140 l

Hydrostatic 4-wheel transmission

PERFORMANCE

Tramming speed 905 (T) (horizontal): 25 km/h

Tramming speed 125 T (horizontal): 11 km/h

Lateral gradient for tramming (continuous) 4°

Longitudinal gradient for tramming (continuous) 9°

Lateral gradient for operation 3°

AXLES AND BRAKES

Planetary type axles:

Front: Dana 213

Rear: Dana 223

Fixed axle at the front of the carrier

Oscillating axle +/-8° at the rear end of the carrier

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

Safety/Parking brake: spring applied hydraulically released fail-safe -type brake

TYRES AND RIMS

- Nokian Tyres 12.00–20" with NDT inspected rims
- Bridgestone 12.00–20" with NDT inspected rims

STEERING

Two- and four-wheel steering and crabwalk.

Steering wheel and orbitrol type power steering control unit.

HYDRAULIC SYSTEM

Variable displacement pump system:
190 bar, 135 l/min at 2200 rpm

Oil tank capacity, stainless steel 130 l

Return oil filtration 10 µm

Oil level and return filter contamination indicator

Carrier hydraulic system (hydrostatic):

Pump 115 cm³

Motor 160 cm³

Oil tank capacity, stainless steel 110 l

Return oil filtration 10 µm

Oil level and return filter contamination indication

Hydraulic oil type for process and carrier (hydrostatic drive system):

- Mineral hydraulic oil
- Biodegradable hydraulic oil (ISO 15'380/HEES)

24 VDC ELECTRICAL SYSTEM

Mechanical main switch in battery box

LED driving and indicator lights

LED work lights on cabin

LED work lights in basket

Warning LED light:

Color

- Amber
- Blue
- Red
- Green (n/a with rotating light pattern)
- White (n/a with rotating light pattern)

Light pattern

- Strobe
- Rotating

DRIVER'S COMPARTMENT

Cabin type:

- Open cabin FOPS/ROPS* approved
 - Enclosed cabin FOPS/ROPS* approved with air conditioning and heating

*ROPS not available with 125 T

Air suspended T-back seat with 3-point seat belt

Seat belt safety interlock for driver:

- Warning indicator in display
- Safety brake application

Cabin door interlock switch with safety brake application

MACHINE CONNECTIVITY

- Machine connectivity hardware (WLAN/3G/4G/LTE)
 - Analytics license (includes connectivity hardware)

TECHNICAL DOCUMENTATION

Standard documents:

Instruction manuals, hard copy 2 pcs:

- English
 - Russian
 - One of destination EU languages

Spare parts manuals, hard copy 2 pcs:

- English
 - Russian

PDF manuals on USB-stick 2 pcs, includes instruction and spare parts manuals

Additional documentation:

- Extra hard copies of manuals
- Extra PDF manuals
- LinkOne WebView electronic manuals
- Other than standard language manuals

OTHER

Powder extinguisher:

- 6 kg
- 12 kg
- Ansul Sentry

Number of extinguishers:

- 1
- 2

Painting and taping:

- Standard painting and taping
- Painting and taping according to customer specifications

Front camera and display (Only with twin booms)

2 pairs of support legs; extendable legs at front and standard at rear

Text labels in:

- En/Ru/One of destination EU languages
- Other language

Measurements:

- Noise
- Vibration
- Emissions

ACCESSORIES

PROCESS PRODUCTIVITY

- Compressed air source with air outlet and oil lubrication unit in basket:
 - Compressed air inlets with water separator on carrier
 - Onboard compressor, 2.6 m³/min
- Hydraulic outlet in basket (PTO)
- Electrical system:

Main supply voltage

Power supply for the electrical functions

- 50 Hz
 - 380 V (IEC)
 - 400 V (IEC)
 - 415 V (IEC)
 - 525 V (IEC)
 - 690 V (IEC)
 - 1000 V (IEC)
 - 1000 V (AS/NZS)
- 60 Hz
 - 440 V (UL/CSA)
 - 440 V (IEC)
 - 480 V, (460 V) (UL/CSA)
 - 600 V, (575 V) (UL/CSA)
 - 1000 V (UL/CSA)

Robust and abrasion-resistant mains voltage supply cable with PUR outer sheath:

Hydraulically driven reel with spooling device

Cable in / out reeling function from the cabin and near the reel

- With supply cable (excluding plug)
- Without supply cable (must be sourced and installed locally)

Pilot circuit

- No
- Yes

Hydraulic power pack 30 kW: Single pump for carrier and process 110 l/min at 1500 rpm

Socket supply voltage:

- No sockets
 - 220/230/240 V (no UL/CSA or AS/NZS approval)
 - 110/120 V
- 400 V 16 A outlet socket on carrier for accessories like submersible pump
- 3 x 100 W LED working lights on cabin roof (no UL or AS/NZS approval)

CARRIER PRODUCTIVITY

- Audio system for enclosed cabin
- 12 V, 18 A power supply in cabin with socket and connector
- 24 V, 18 A power supply in cabin with socket and connector
- Auto engine shutdown during idling
- Engine shutdown delay
- Inlet plug for jump start
- Block heater with interior heater and battery charger 230 V (Interior heater available with enclosed cabin)
- Fuel operated pre-heater
- Fast fuel filling system
- Hand pump for filling of hydraulic tank
- Fluid evacuation panel with sampling points
- Automatic lubrication system for carrier and basket boom(s)
- Reversing camera: 2 cameras (front and rear), 2 displays
- Spare rim and tyre
- Toolbox and maintenance tools
- Stainless steel box for equipment
- Interior cooling fan
- Wax tape for electric connectors

SAFETY BASKET BOOM

- Safety roof or bar on basket(s)
 - 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

NOTE: safety roofs and bars for the basket boom affect to the lifting capacity.

Accessories for basket boom(s):

- Boom suspension
- LED working lights on safety roof/bar
- Operator present: Foot pedal switch on basket
- Operator present: Spring loaded valve levers
- 24 V fan in the basket

SAFETY

- Extra warning LED light
 - Color
 - Amber
 - Blue
 - Red
 - Green (n/a with rotating light pattern)
 - White (n/a with rotating light pattern)
 - Light pattern
 - Strobe
 - Rotating
- Fire extinguisher system, 3 point activation (basket, cabin, rear frame)
 - Dry chemical
 - Ansul A-101
 - Manual
 - Automatic, Checkfire 110
 - Liquid agent
 - Fogmaker (Automatic)
- Higher speed range disabling (standard in 125 T)
- Electric pump for brake release
- Tyre pressure indicators
- Warning triangles
- Flashlight with charger
- Hearing protectors
- Wheel chocks with brackets

SERVICES

NORMET SERVICES

Normet is committed to servicing its customers all over the world. We provide service from a single machine to an entire fleet. The Normet service offering consists of many different products from delivery of parts and training to fleet performance agreements.

More information check [normet.com](https://www.normet.com):

<https://www.normet.com/en/products-and-services>

For any questions about Normet Services contact local Normet.

<https://www.normet.com/en/contact/>

SPARE PARTS

As a leading global Original Equipment Manufacturer, we are committed to providing a complete solution to your spare parts needs. All of Normet's spare parts are manufactured to the highest possible standards to help maintain the safety and profitability of your projects. Our spare parts improve efficiency and total cost of ownership throughout your operations.

Start a carefree journey with Normet equipment by having the right selection of parts available from the beginning.

Spare part recommendation / Start-up Spare Part package:

Available for the first 2000h*: includes periodical service parts, most common wearing parts and other recommended parts. (*Recommendations are based on average hours that can vary depending on worksite conditions.)

Underground, every part is critical!

More information check <https://www.normet.com>

SERVICE AGREEMENTS

Service agreements are always customized to meet our customer needs, consisting of various Normet service products. The service solution is created together with the customer and the level of an agreement can vary with different support agreements (including e.g. parts, periodical maintenance, on-call services, and audits) up to guaranteed fleet availability or process performance (including e.g. parts, all maintenance activities, operator trainings and process audits).

Note that we can provide Digital solutions with connected equipment.

More information check [normet.com](https://www.normet.com).

TRAININGS

Training services can be tailored to your individual needs and range from equipment service training to process application training.

We offer a sustainable training path from the beginning of your operation to the execution stage of your project.

More information check [normet.com](https://www.normet.com).

COMMISSIONING

Equipment commissioning concerns **equipment familiarization**. This is included as part of Normet vehicle delivery. Safety introduction and operating basics for Normet Equipment. Review of Normet user and spare parts manuals. Hands-on equipment safety device operational training. Ensure product quality and customer satisfaction during handover.

Commissioning includes machinery handover to customers and safety operating principles without technical insights or process application training.

EXTENDED COMMISSIONING

We offer an extended training package on top of standard commissioning. Normet provides extended commissioning services that offer basic insights into maintenance manuals, periodical and daily maintenance, as well as modern operating perspectives to maximize handling efficiency. Safety-oriented training ensures reliable operations for Battery Electric Vehicles and Diesel-Driven based on your vehicle fleet. This cost-effective solution covers the essential aspects of equipment operation, safety, and maintenance schedules.

To ensure continuous and maximized safe operations with your new equipment and to expand your knowledge scale of operations, this option is the most suitable and recommended option for extending your new equipment training. This cost-effective solution covers the essential aspects of equipment operation, safety, and maintenance schedules.

UPGRADES AND MODIFICATIONS

We build our machines to last. We also understand that your needs on the ground can change - and reacting to that change makes a big difference in your productivity. Normet Upgrades & Modifications provide you with access to product improvements that meet your evolving requirements and let you stay one step ahead of the curve.

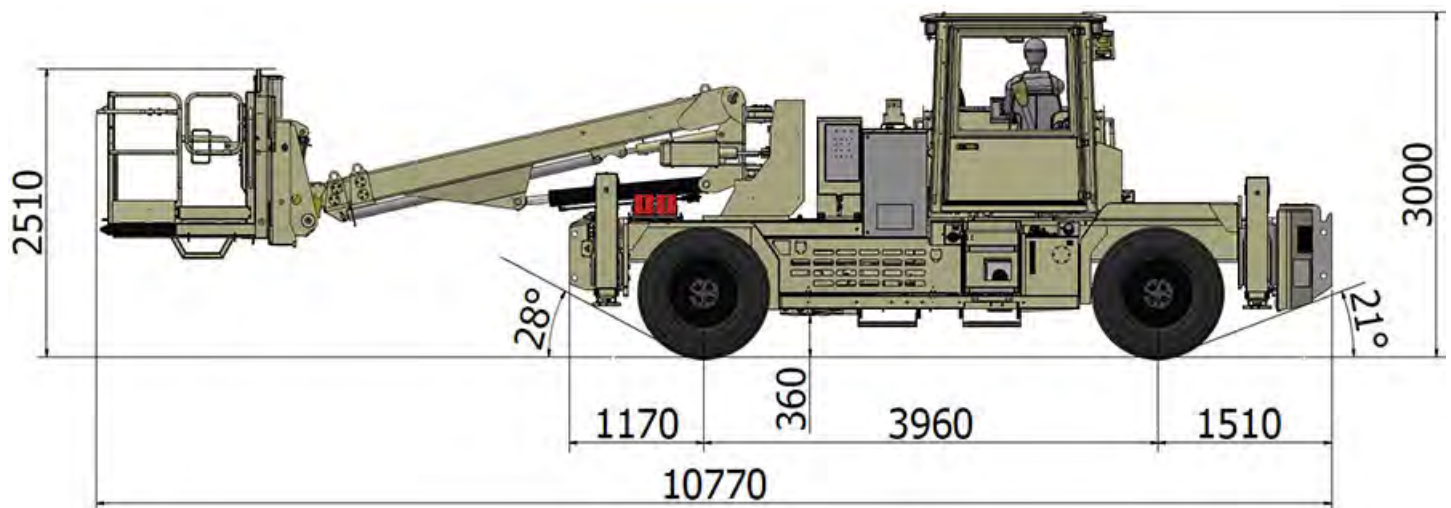
Contact your local Normet office for Upgrade offering to your fleet.

More information check [normet.com](https://www.normet.com).

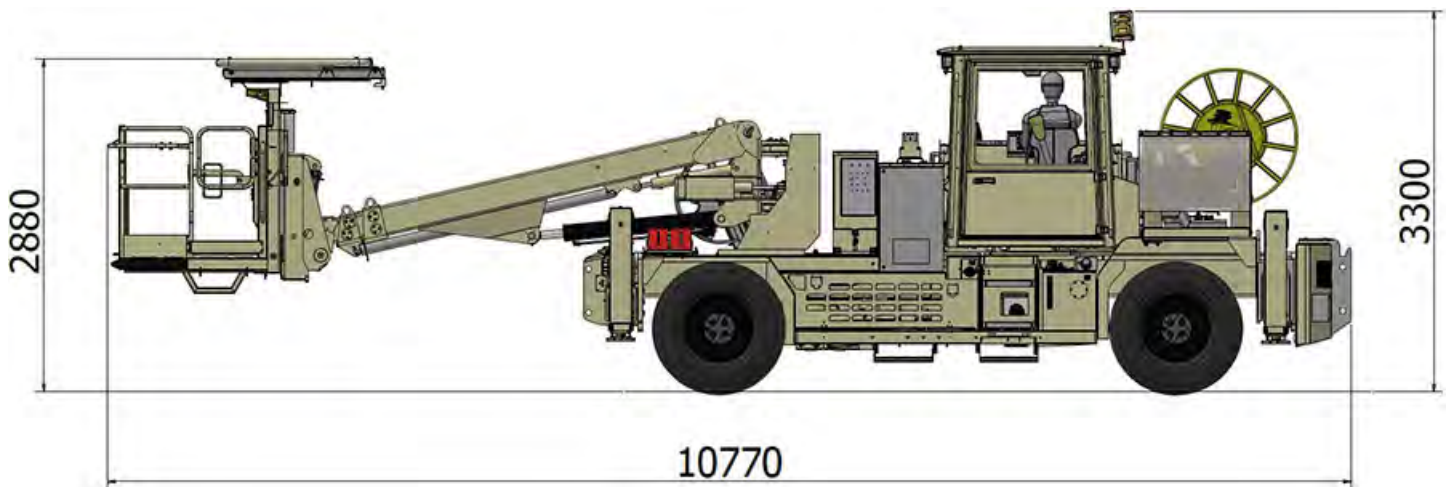
DIMENSIONS

	905	905 T	125 T
Length	10770 mm	10990 mm	11940 mm
Width	2450 mm	3330 mm	3400 mm
Height	3000 mm	3000 mm	3000 mm
Wheel base	3960 mm	3960 mm	3960 mm
Track	1930 mm	1930 mm	1930 mm
Ground clearance	360 mm	360 mm	360 mm
Turning radius outer	7500 mm	9080 mm	9850 mm
Turning radius inner	3150 mm	3150 mm	3150 mm

SIDE VIEW – BASIC MACHINE, 905



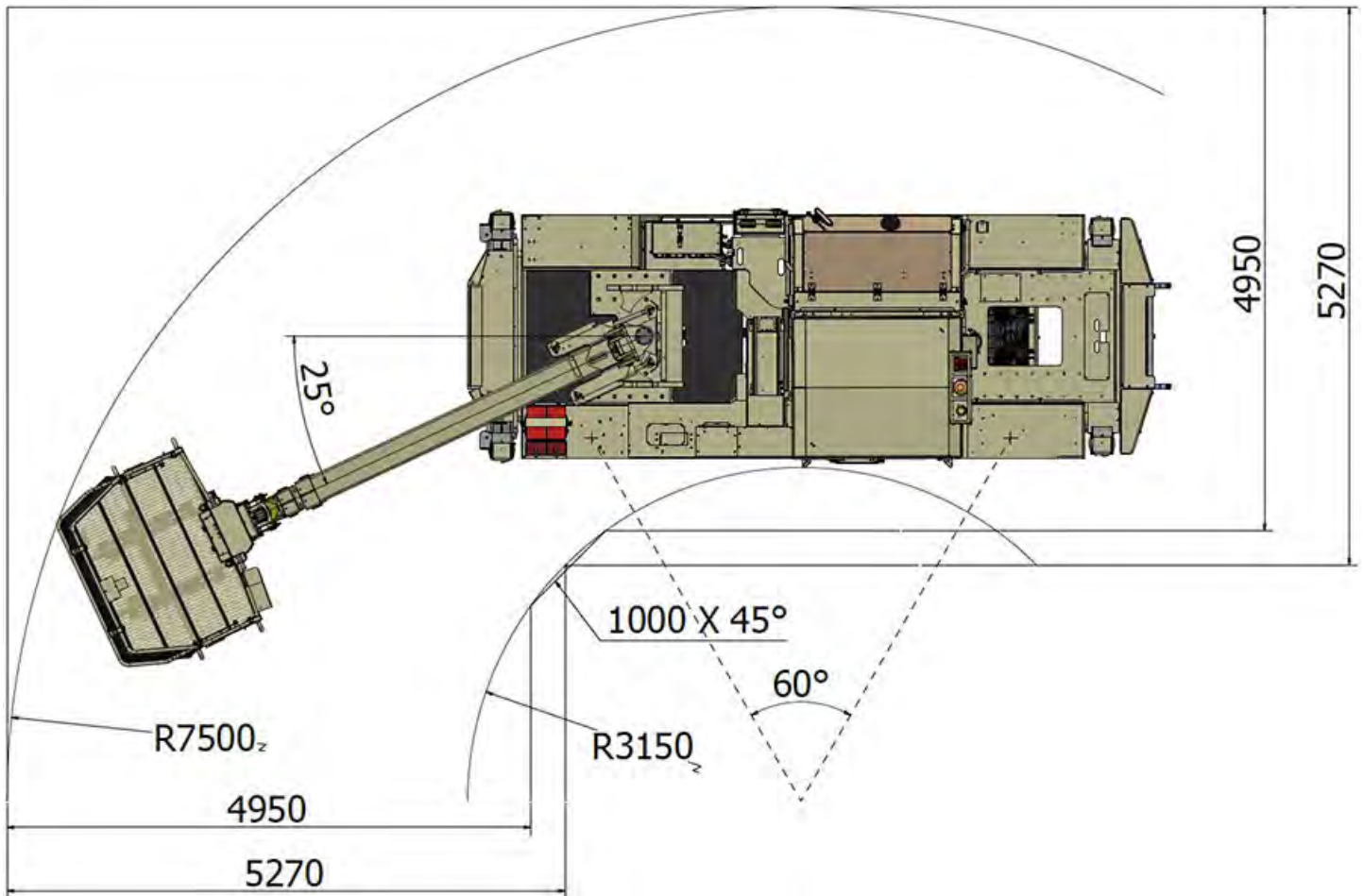
SIDE VIEW – MACHINE WITH OPTIONS, 905



Normet reserves the right to change this specification without further notice

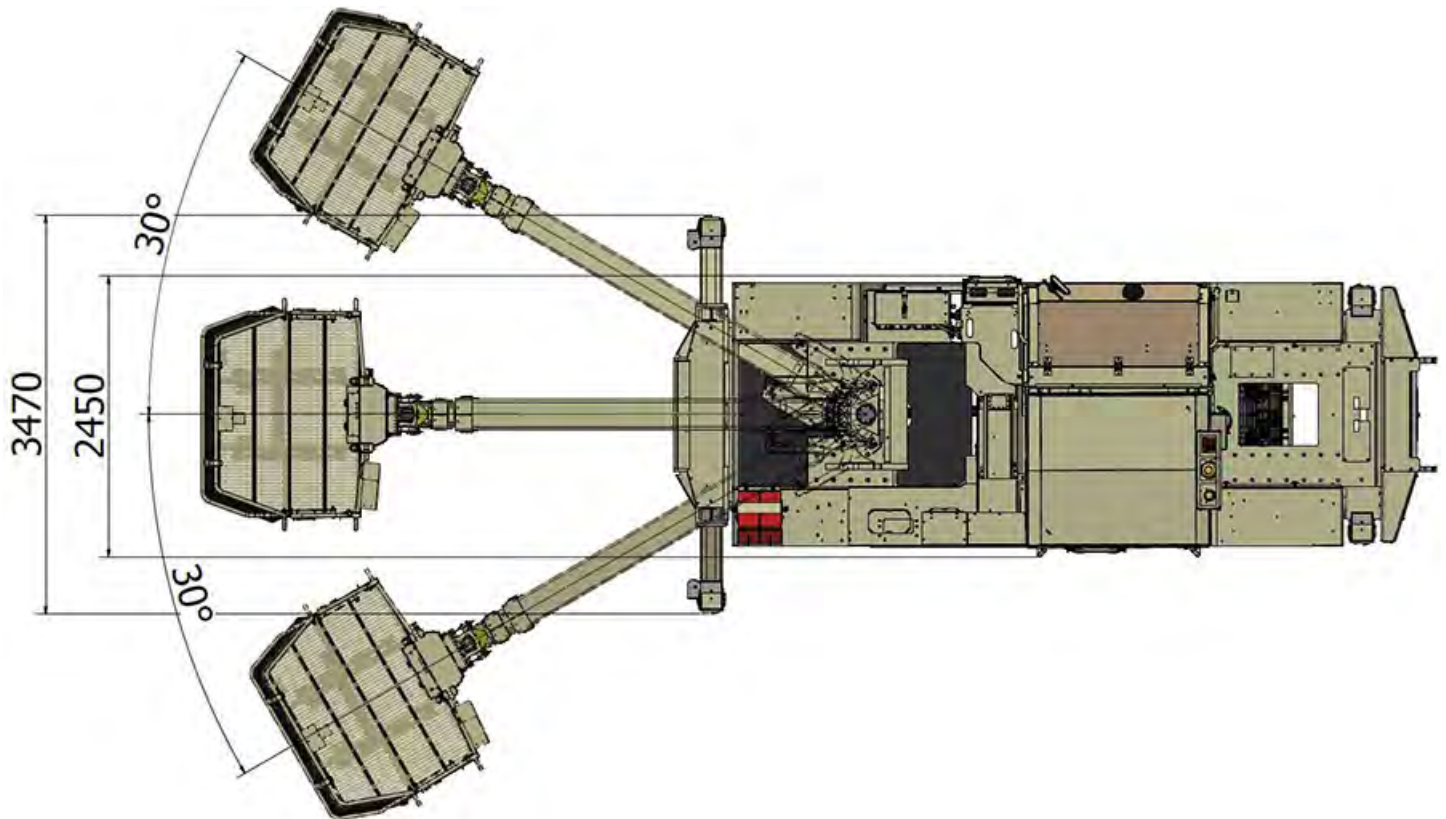
Pictures may include options and additional equipment.

TURNING RADIUS – 905

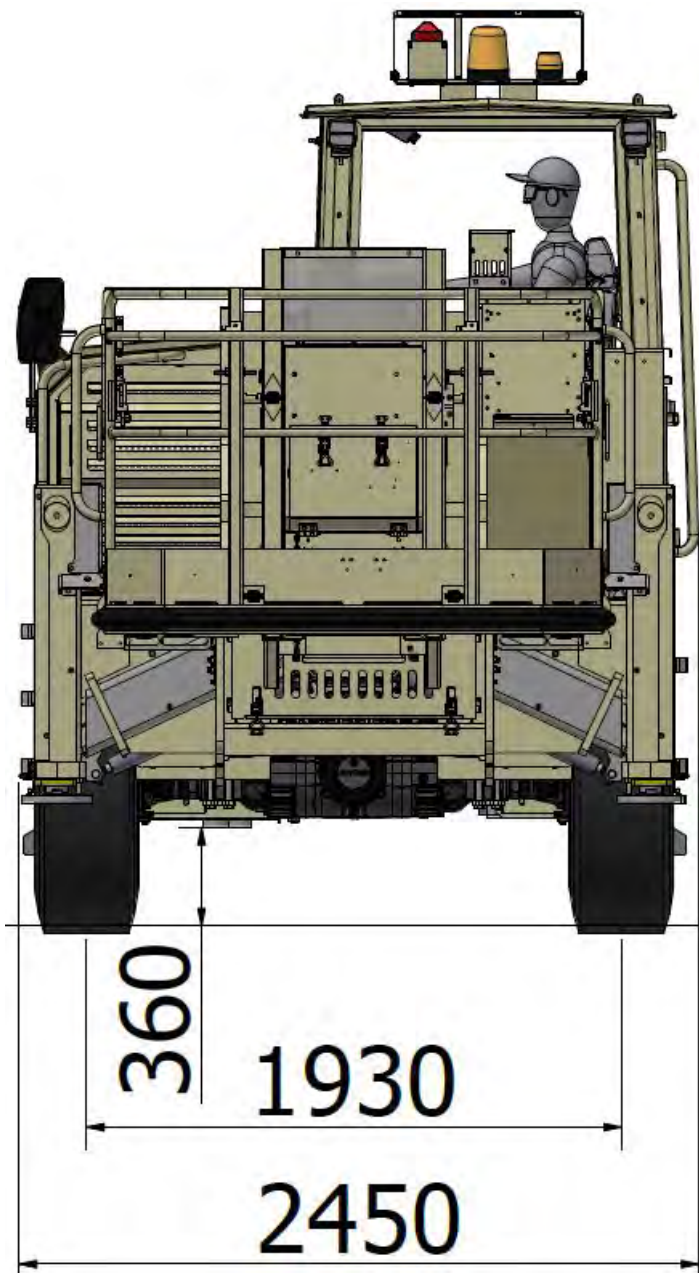


Normet reserves the right to change this specification without further notice

Pictures may include options and additional equipment.

TOP VIEW – 905

FRONT VIEW – 905

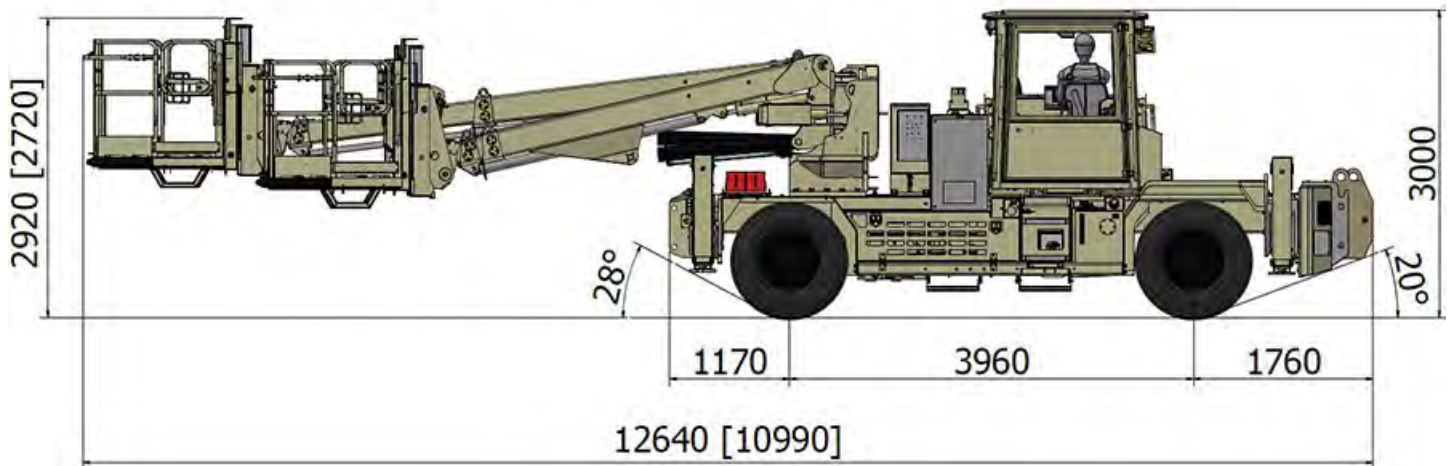


Normet reserves the right to change
this specification without further notice

Pictures may include options and additional equipment.

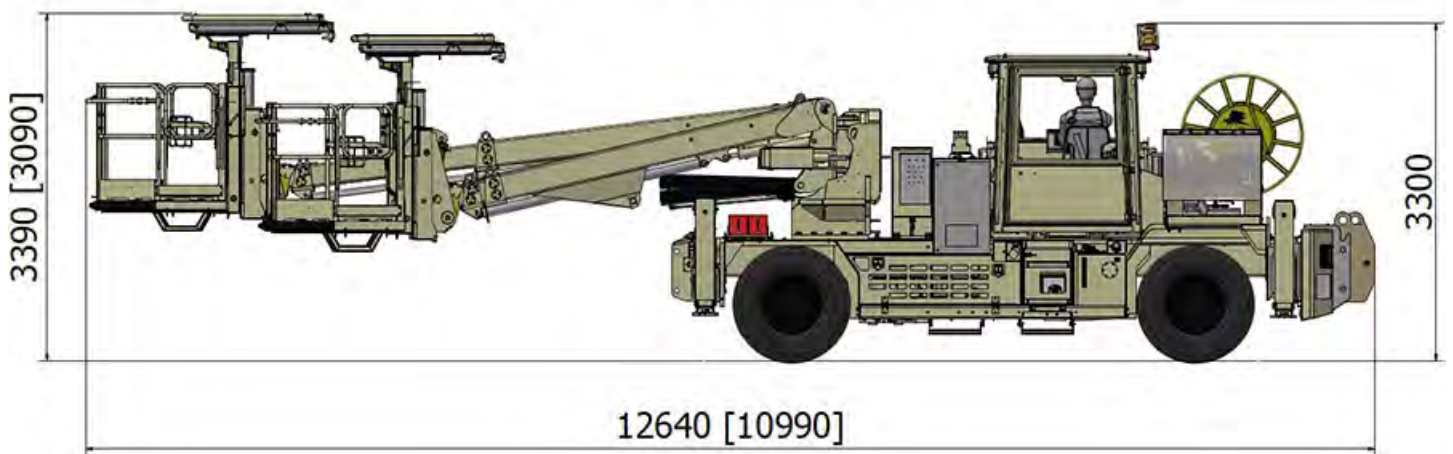
SIDE VIEW – BASIC MACHINE, 905 T

BOOMS SIDE BY SIDE DIMENSIONS IN BRACKETS []

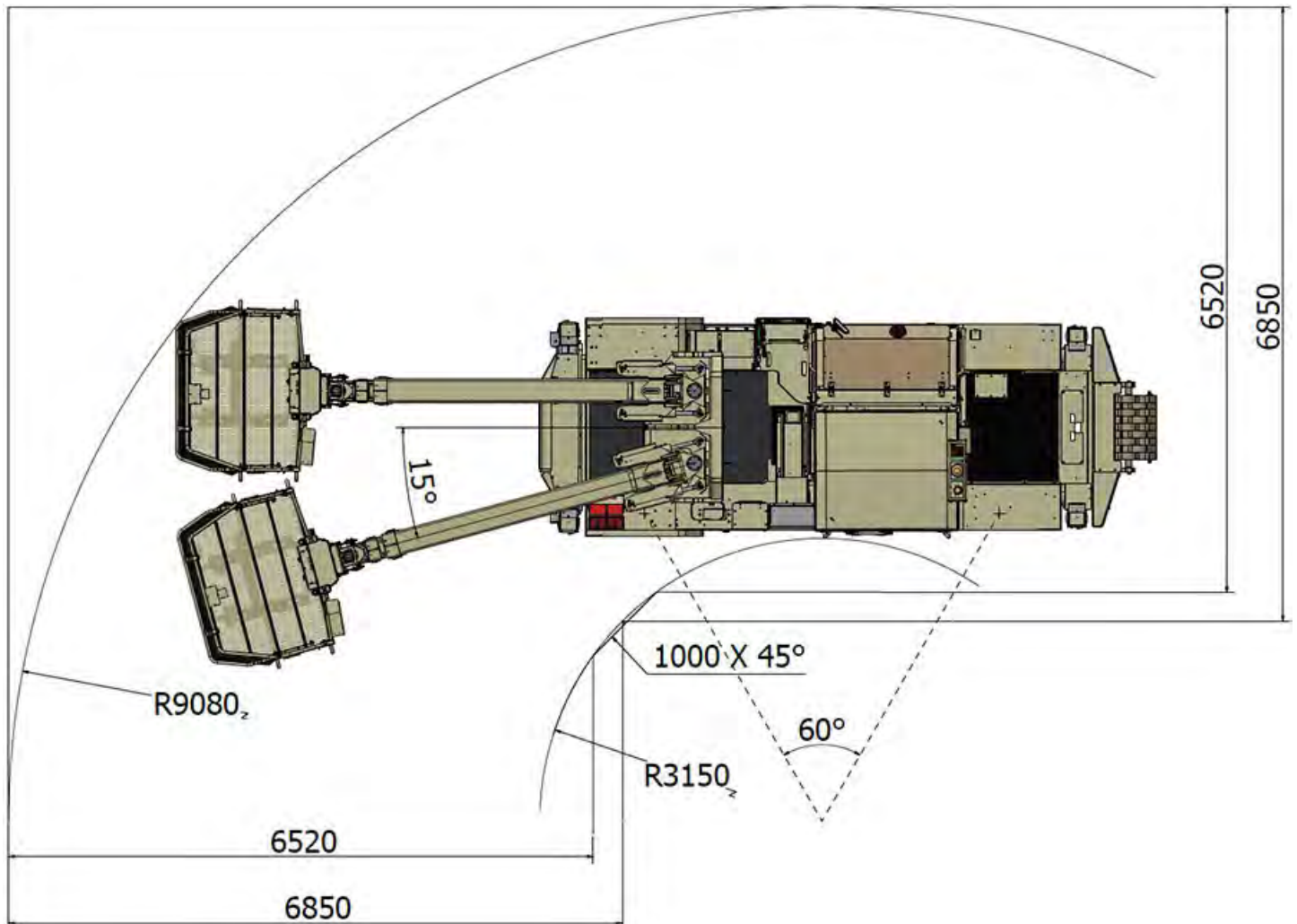


SIDE VIEW – MACHINE WITH OPTIONS, 905 T

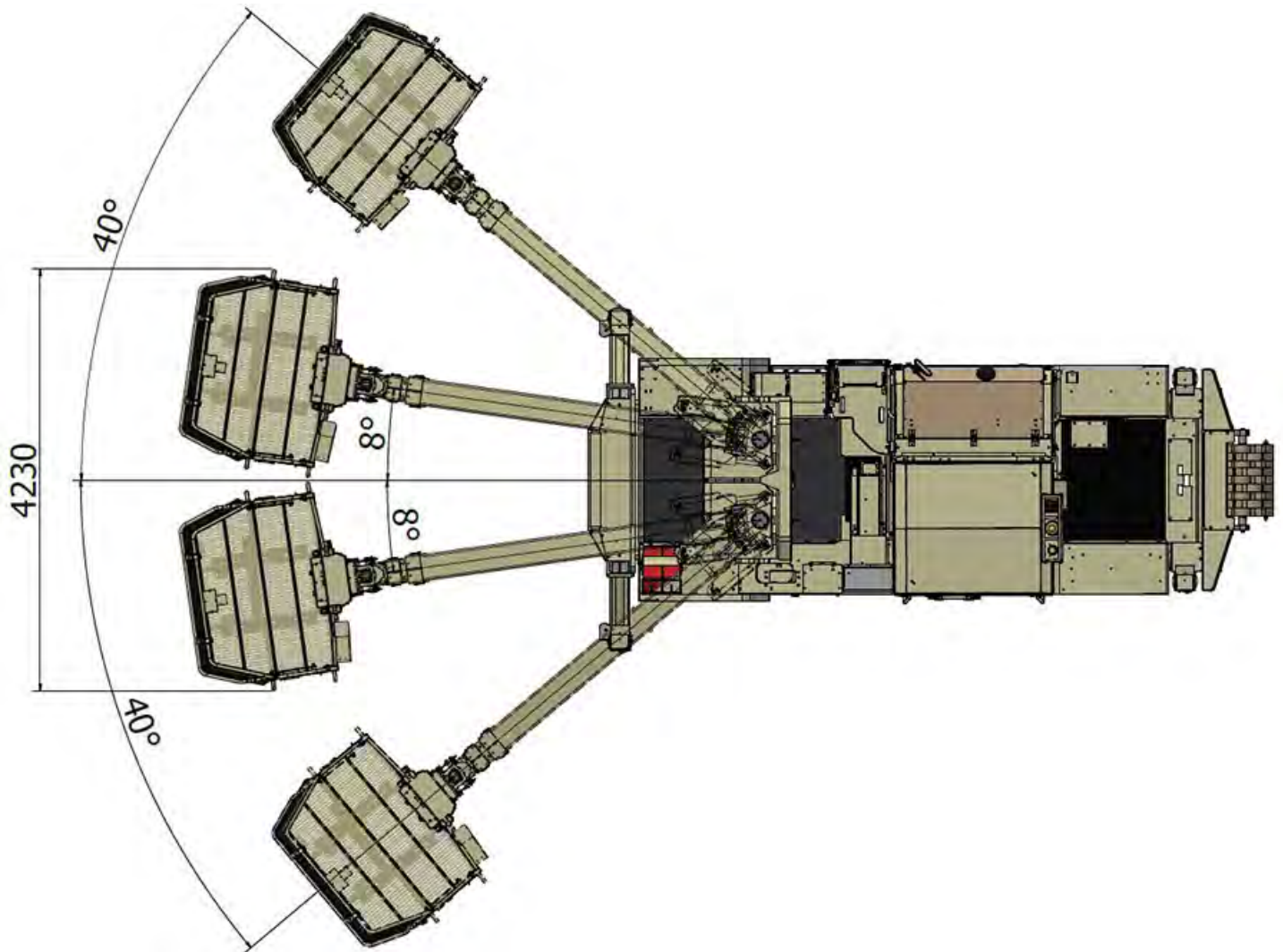
BOOMS SIDE BY SIDE DIMENSIONS IN BRACKETS []



TURNING RADIUS – 905 T

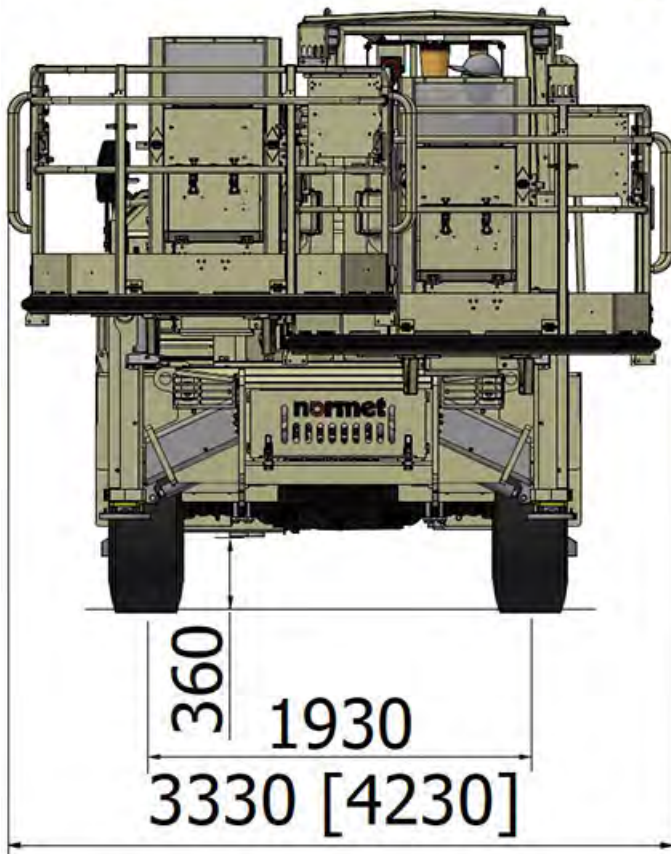


TOP VIEW – 905 T



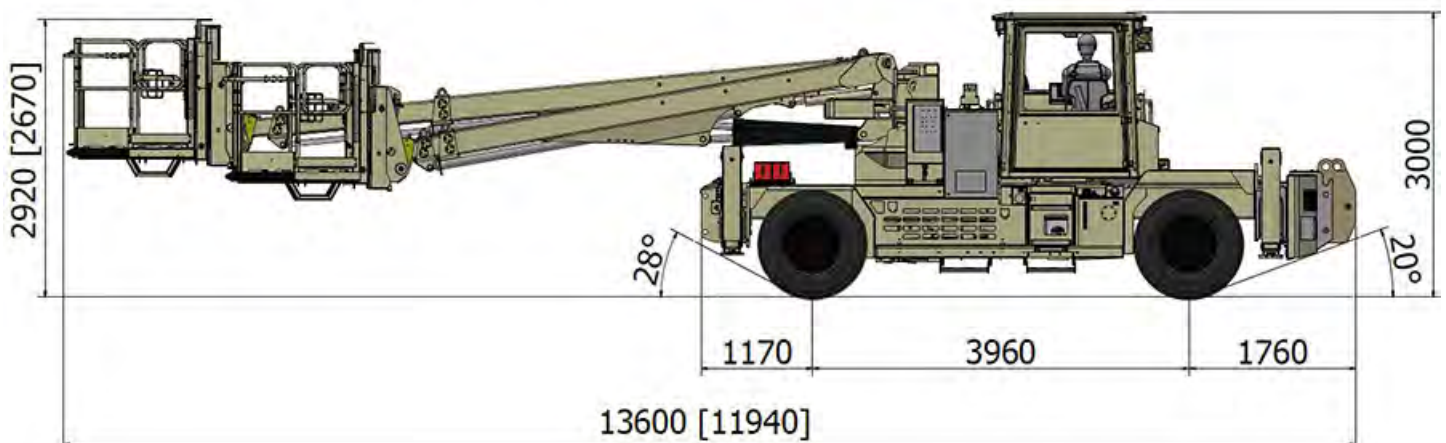
FRONT VIEW – 905 T

BOOMS SIDE BY SIDE DIMENSIONS IN BRACKETS []



SIDE VIEW – BASIC MACHINE, 125 T

BOOMS SIDE BY SIDE DIMENSIONS IN BRACKETS []

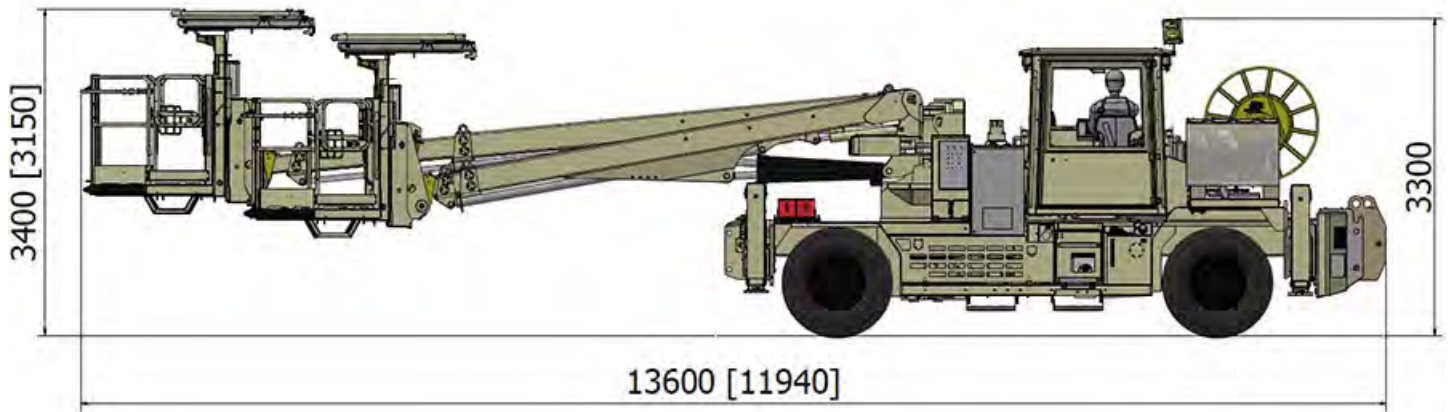


Normet reserves the right to change
this specification without further notice

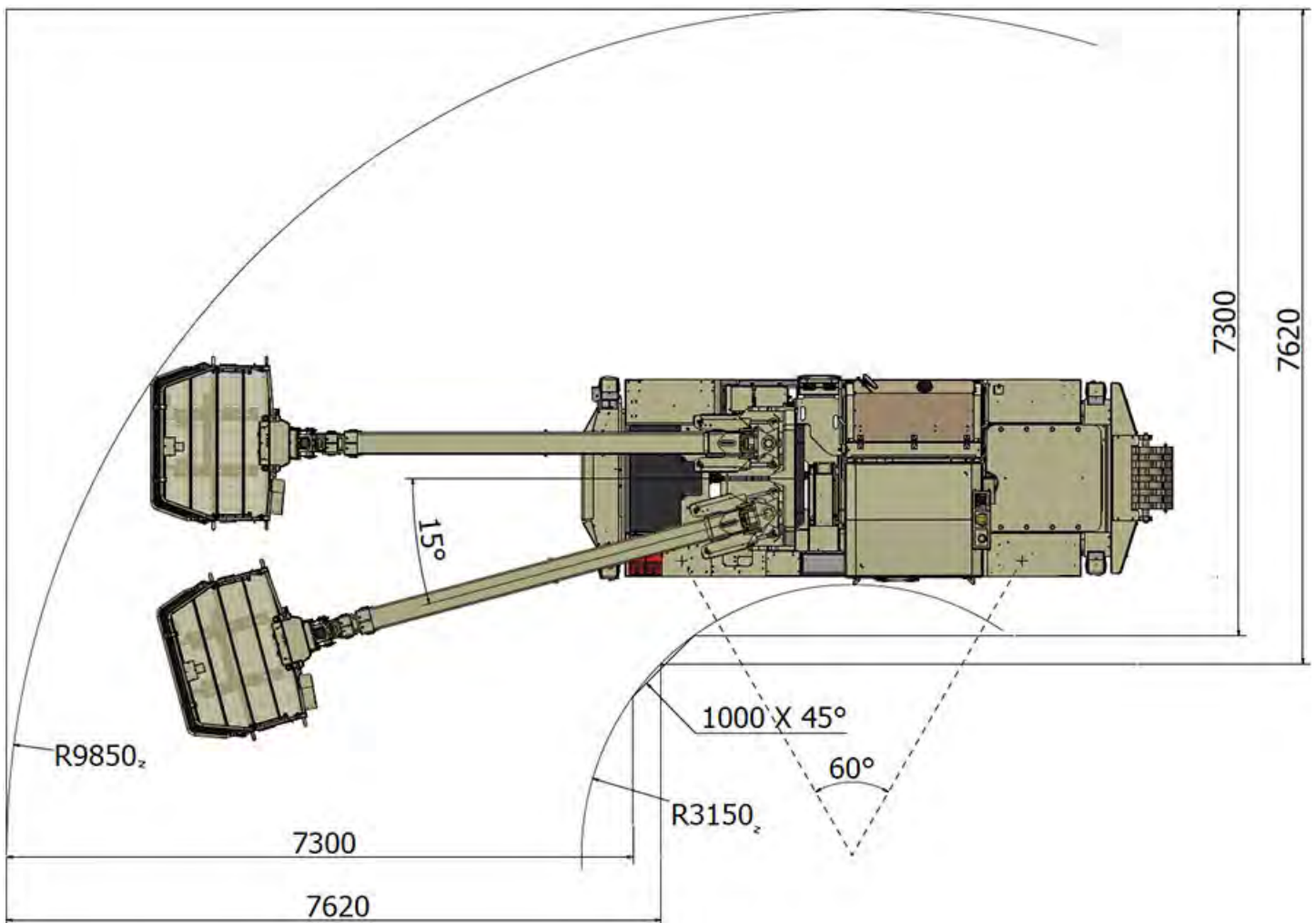
Pictures may include options and additional equipment.

SIDE VIEW – MACHINE WITH OPTIONS, 125 T

BOOMS SIDE BY SIDE DIMENSIONS IN BRACKETS []



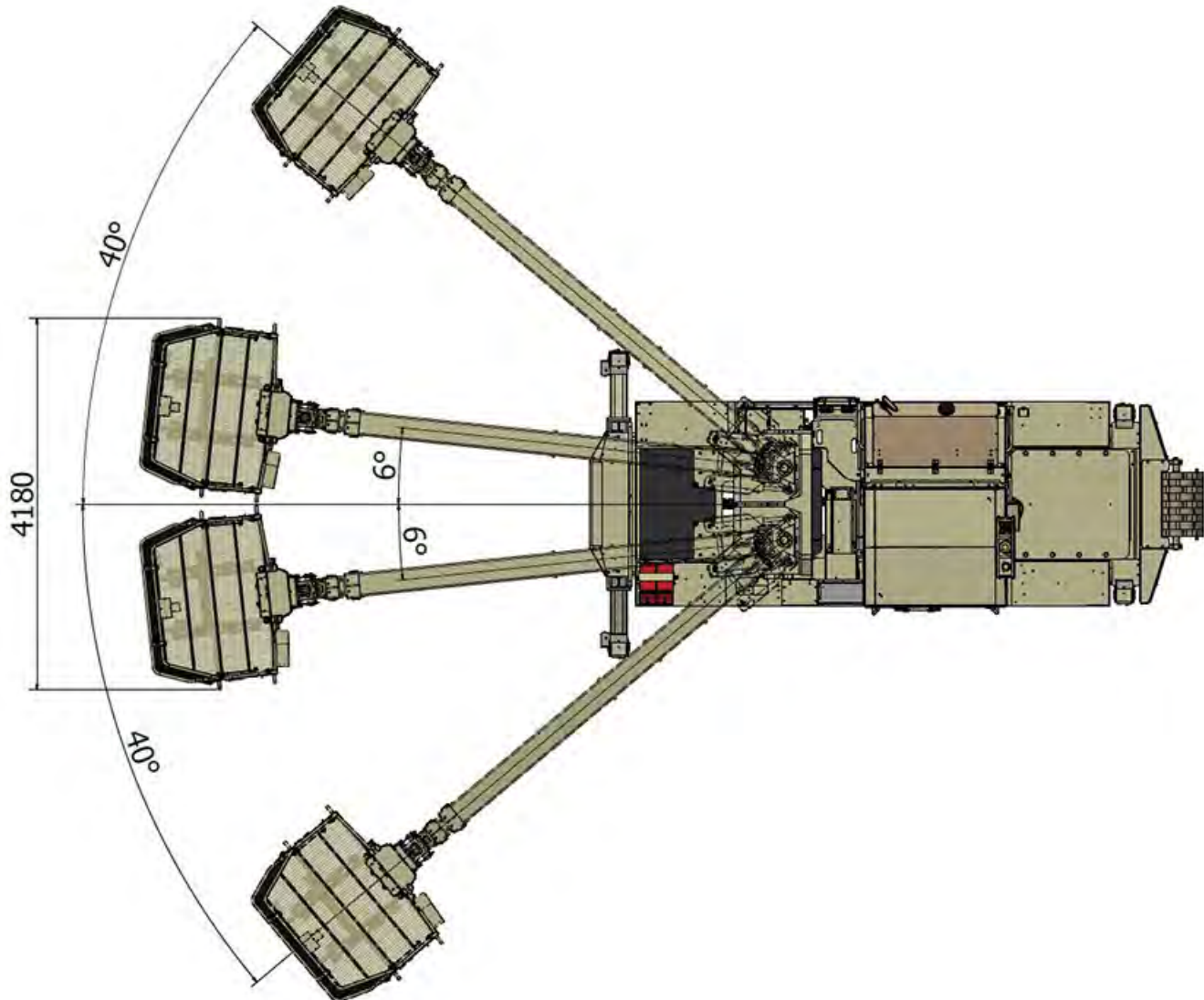
TURNING RADIUS – 125 T

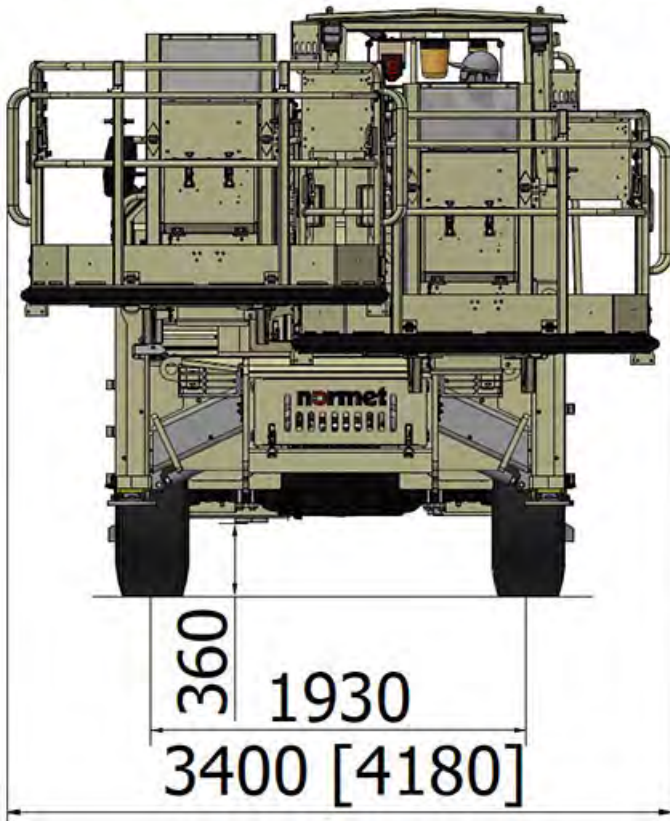


Normet reserves the right to change this specification without further notice

Pictures may include options and additional equipment.

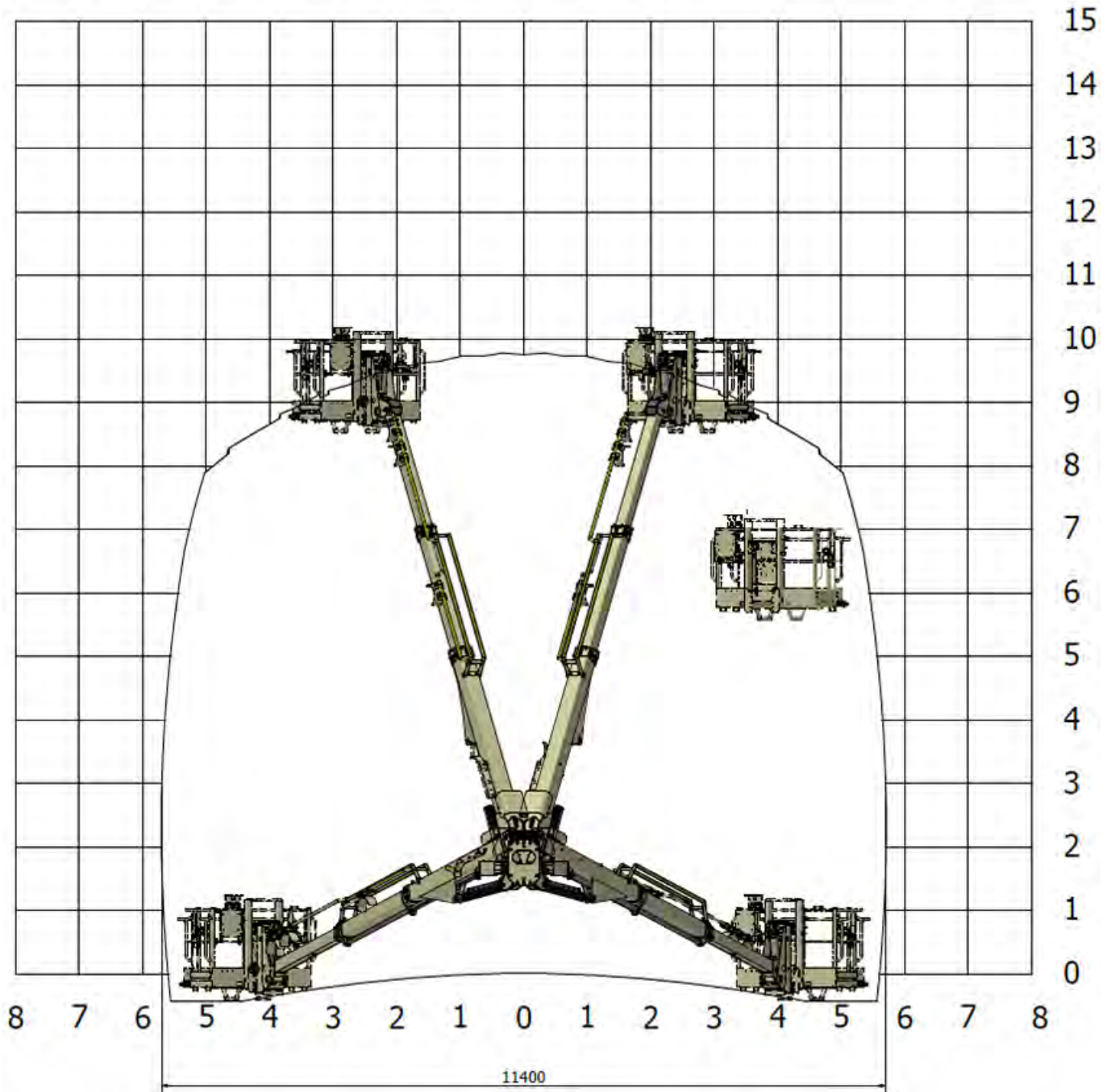
TOP VIEW – 125 T



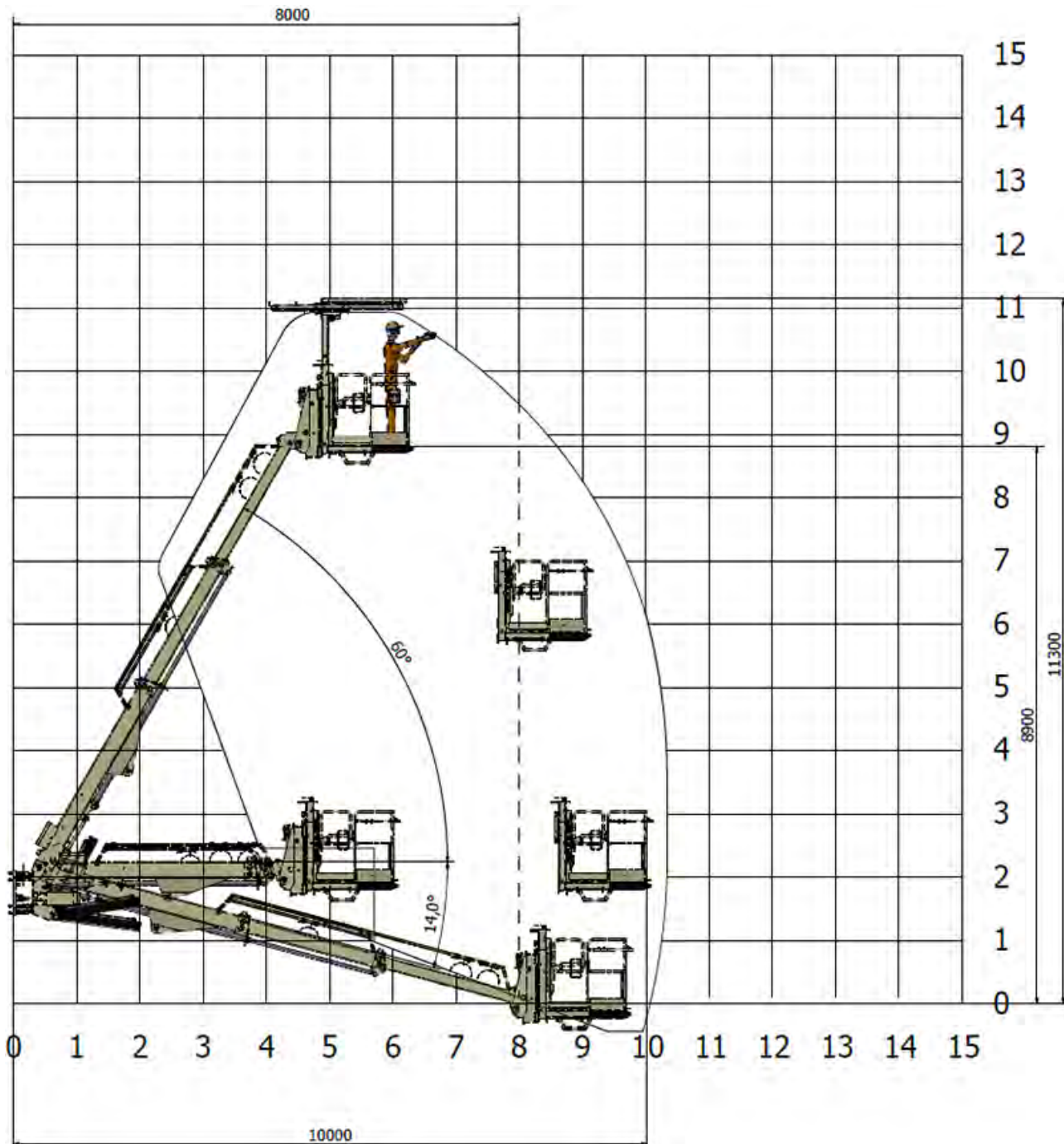
FRONT VIEW – 125 T**BOOMS SIDE BY SIDE
DIMENSIONS IN BRACKETS []**

BOOM REACH – NBB 3 WITH 30° TURN

Reach area in the tunnel 8 m from the base of the boom



BOOM REACH – NBB 3 WITH 30° TURN

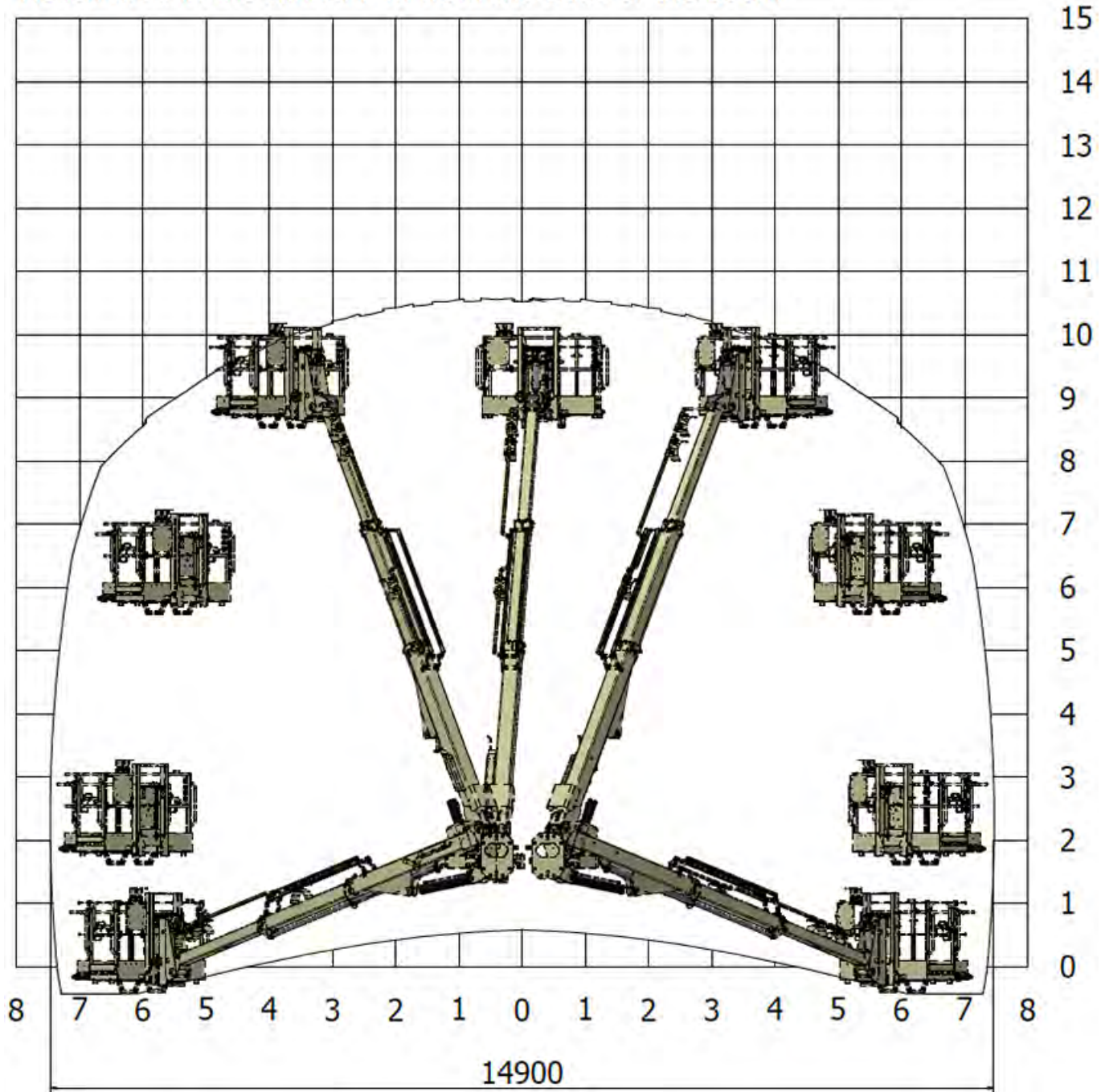


Normet reserves the right to change this specification without further notice

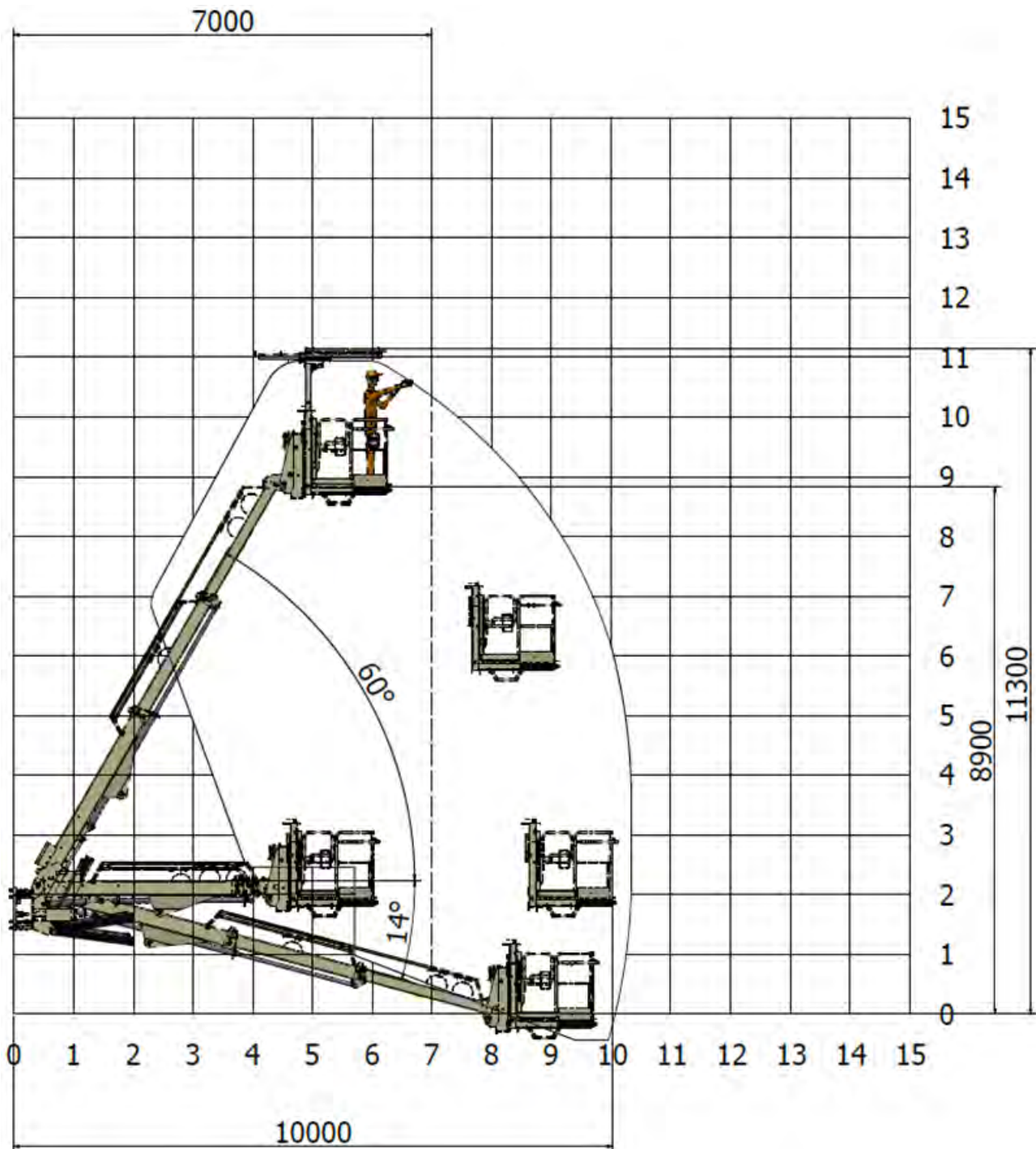
Pictures may include options and additional equipment.

BOOM REACH – NBB 3 TWIN BOOM WITH 40° TURN

Reach area in the tunnel 7 m from the base of the boom



BOOM REACH – NBB 3 TWIN BOOM WITH 40° TURN

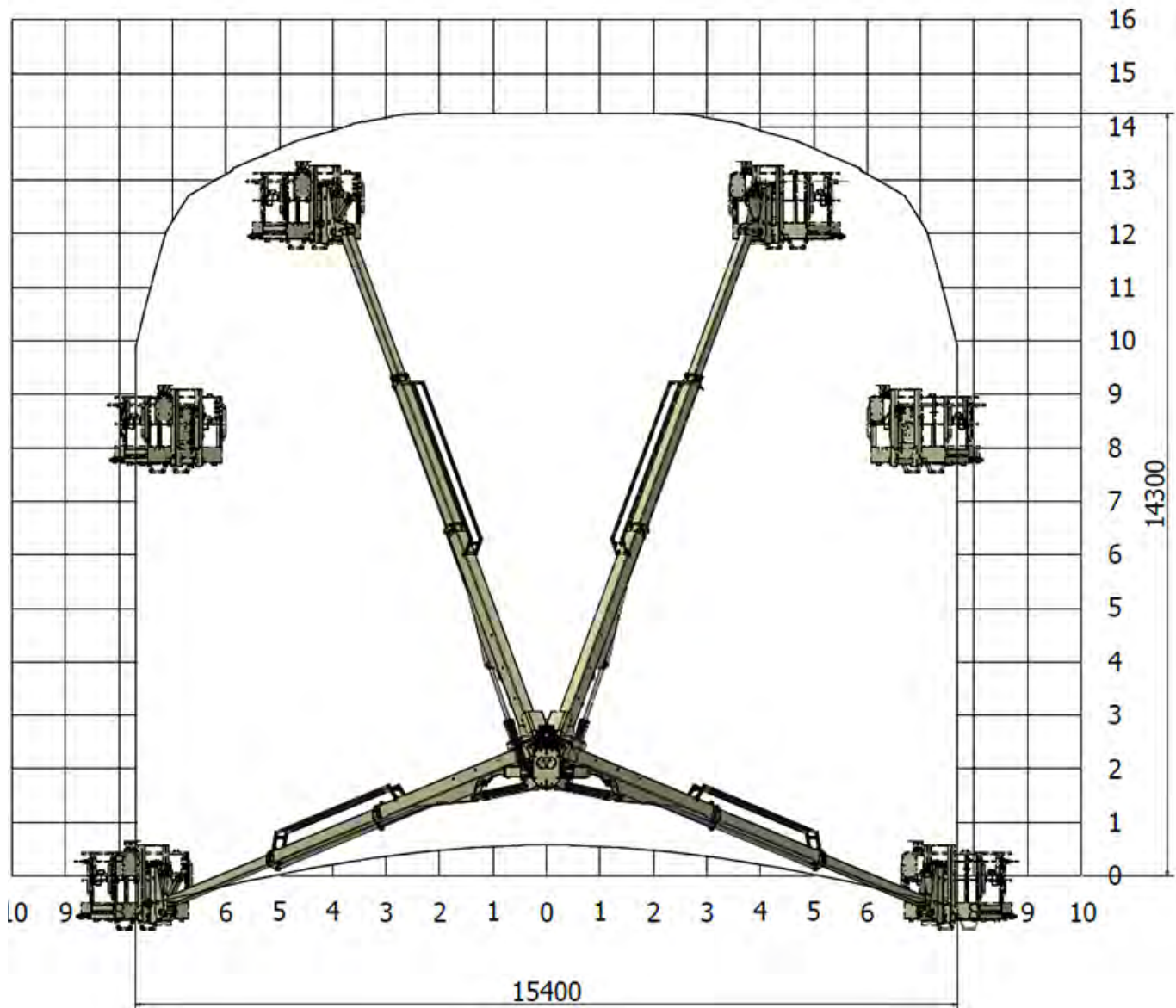


Normet reserves the right to change this specification without further notice

Pictures may include options and additional equipment.

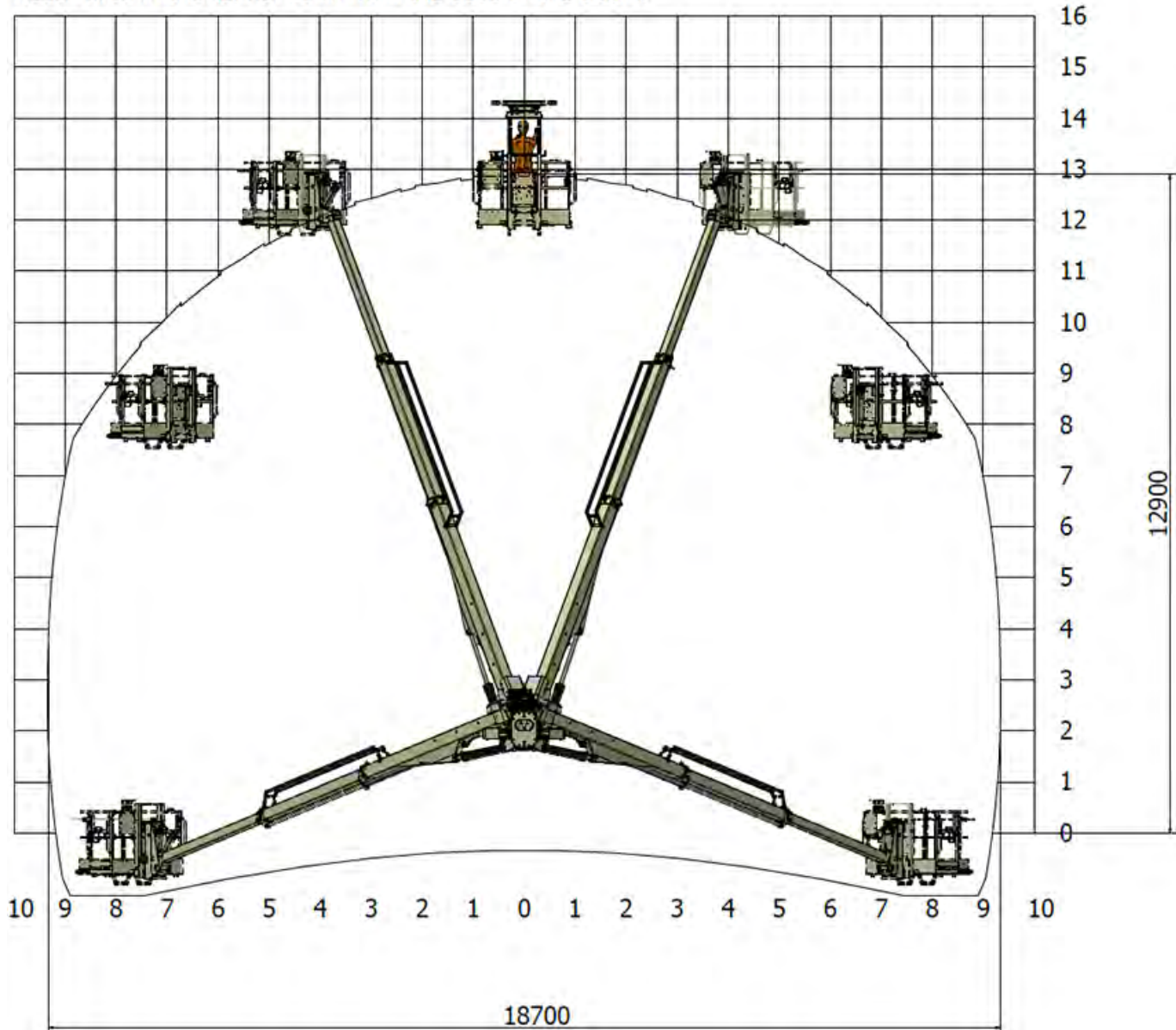
BOOM REACH – NBB 5 WITH 40° TURN

Reach area in the tunnel 7,5 m from the base of the boom.

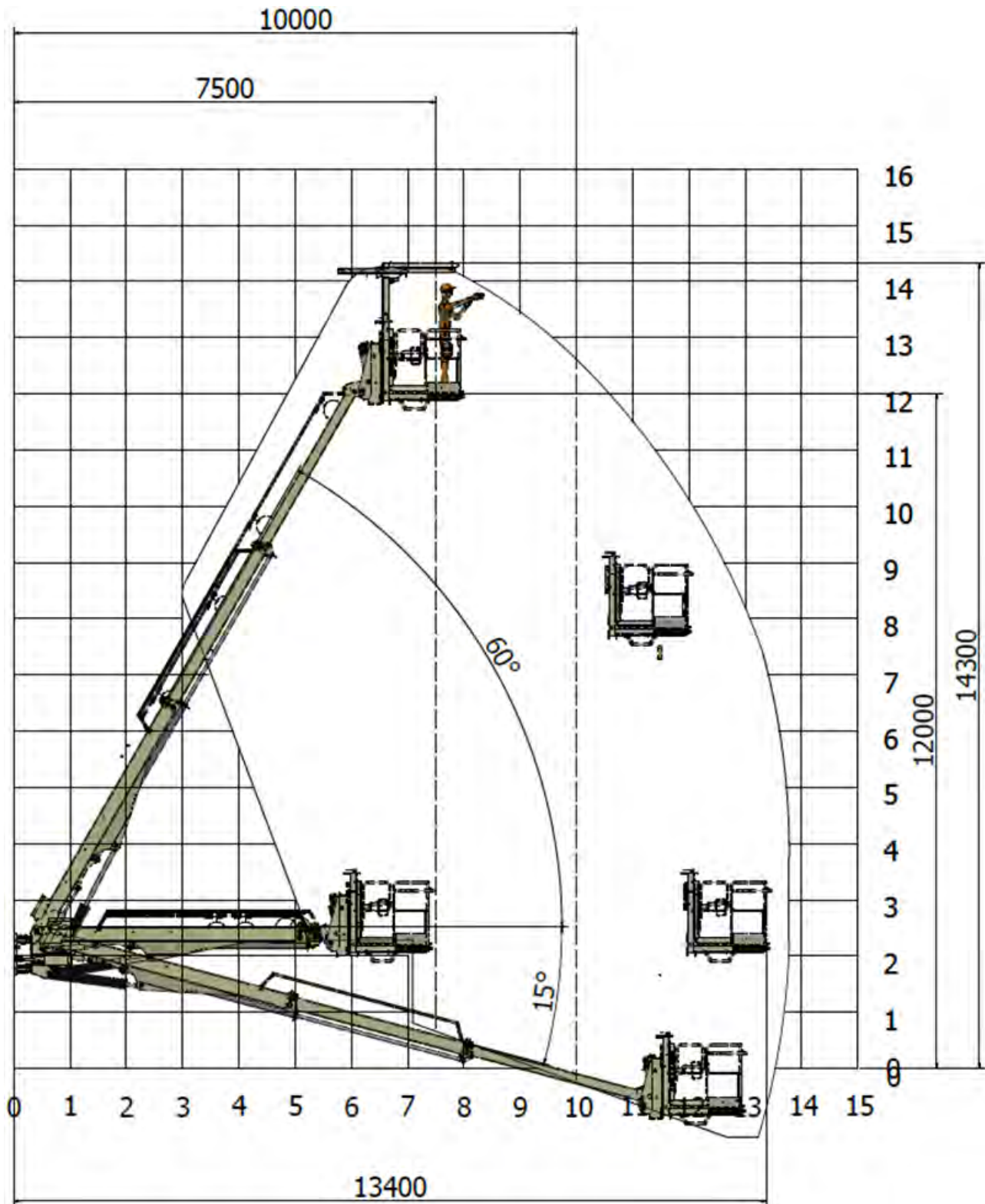


BOOM REACH – NBB 5 WITH 40° TURN

Reach area in the tunnel 10 m from the base of the boom.



BOOM REACH – NBB 5 WITH 40° TURN

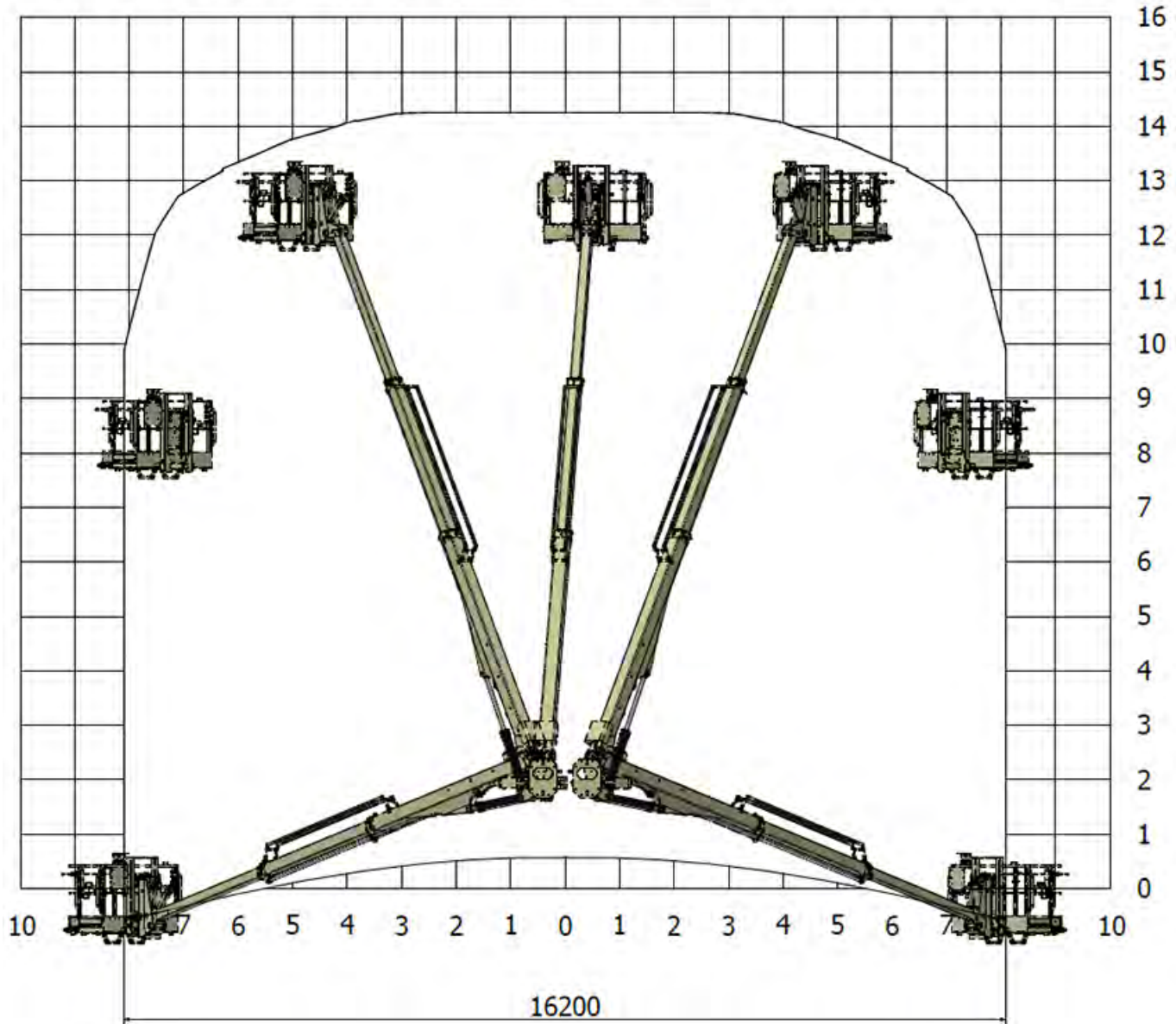


Normet reserves the right to change this specification without further notice

Pictures may include options and additional equipment.

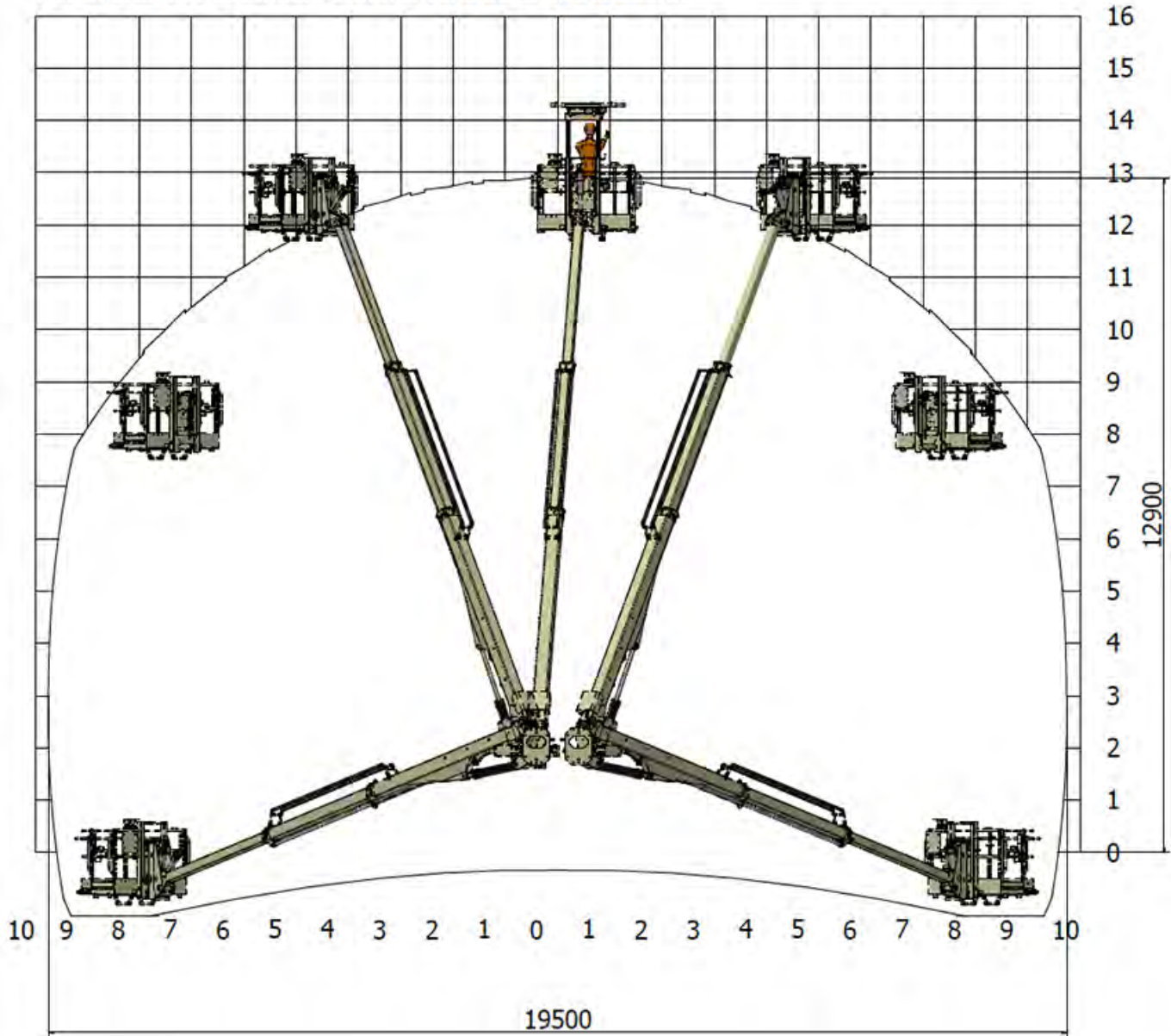
BOOM REACH – NBB 5 TWIN BOOM WITH 40° TURN

Reach area in the tunnel 7,5 m from the base of the boom.

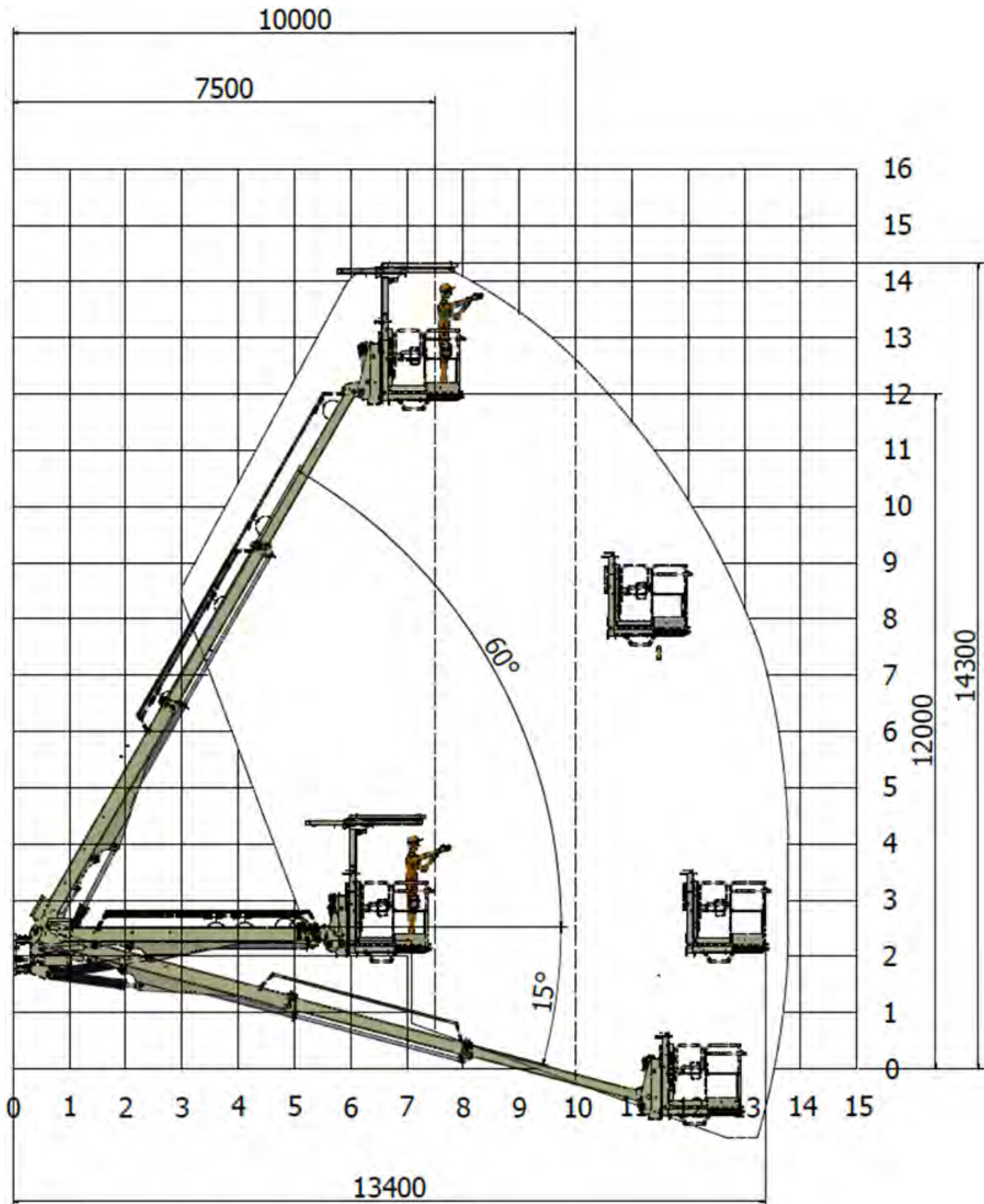


BOOM REACH – NBB 5 TWIN BOOM WITH 40° TURN

Reach area in the tunnel 10 m from the base of the boom.



BOOM REACH – NBB 5 TWIN BOOM WITH 40° TURN



Normet reserves the right to change this specification without further notice

Pictures may include options and additional equipment.

TRACTIVE EFFORTS

OPERATING WEIGHT

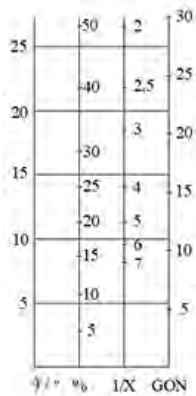
Machine without options (905)	18 500 kg
Machine without options (905 T)	21 600 kg
Machine without options (125 T)	22 500 kg

final machine weightvariate in agree with selected options

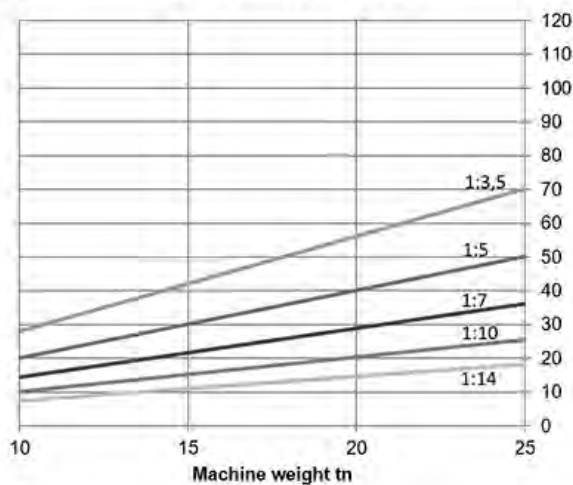
CUMMINS QSB4.5 110 KW

Performance curve DOC033669

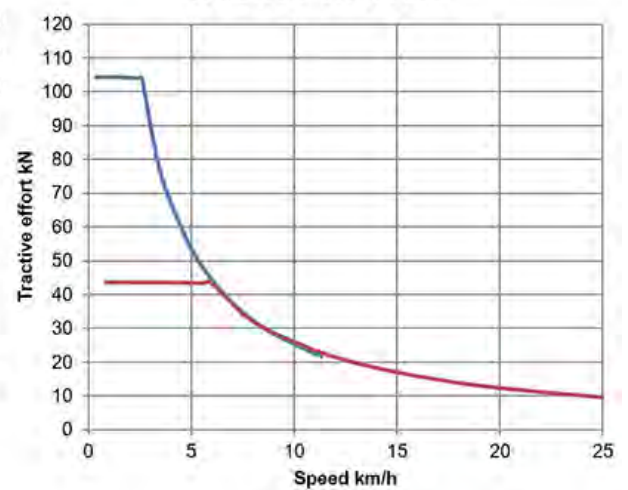
Conversion chart



Gradeability kN



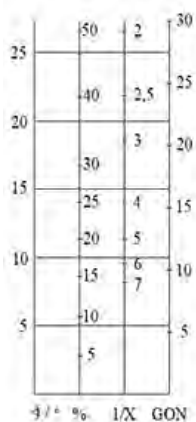
Tractive effort kN



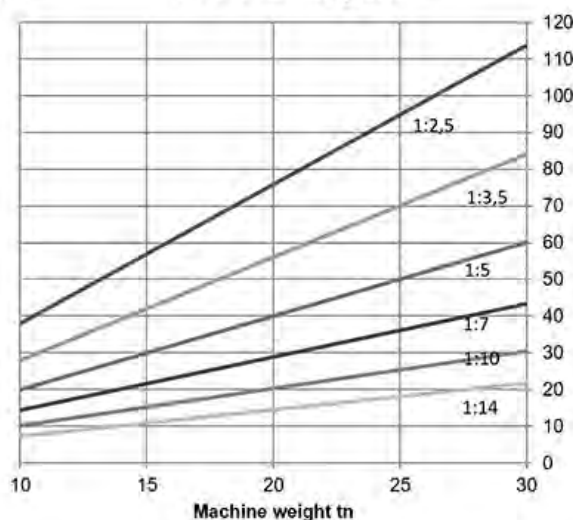
CUMMINS B4.5 121 KW

Performance curve DOC059936

Conversion chart



Gradeability kN



Tractive effort kN

