

The background of the image shows a logging operation in a forest. A yellow PONSSE harvester is visible on the right, with its mechanical arm holding a log. In the foreground, there is a large stack of cut logs. The scene is dimly lit, with some lights from the machinery illuminating the area. The PONSSE logo is centered at the top in a yellow box.

PONSSE

TECHNICAL DATA

- Scorpion -

Technical data, Scorpion

DIMENSIONS	
Length:	8020 mm
Width:	2630–3085 mm
Transportation height (Max)	3720 mm
Ground clearance	655 mm
Weight	21 700 kg
Typical weight	22 700 kg
ENGINE	
Model:	Mercedes-Benz OM 936
Power:	210 kW (286 hp)
Torque:	1150 Nm (1200-1600 rpm)
Tractive force:	170 kN
Fuel tank:	410 l (with stump treatment option 320 l)
CRANE	
Model	PONSSE C50
Reach	10/11 m
Lifting moment	265 kNm
Slewing moment, gross	57 kNm
Slewing angle	280°
CABIN	
Leveling	Front/rear ±15°, lateral ±12° + effect of bogies
TYRES	
Front:	600/55-26.5" / 710/45-26.5"
Rear:	600/55-26.5" / 710/45-26.5"

HYDRAULIC SYSTEM	
Control system:	Ponsse OptiControl
Working pump:	210 cm ³
Hydr. Oil tank:	280 l
HARVESTER HEAD	
Model:	PONSSE H5/H6 (crane reach 11 m)

Technical data, Scorpion King

DIMENSIONS	
Length:	8020 mm
Width:	2690–3085 mm
Transportation height (Max)	3720 mm
Ground clearance	655 mm
Weight	22 200 kg
Typical weight	23 200 kg
ENGINE	
Model:	Mercedes-Benz OM 936
Power:	210 kW (286 hp)
Torque:	1200 Nm (1200-1600 rpm)
Tractive force:	180 kN
Fuel tank:	410 l (with stump treatment option 320 l)
CRANE	
Model	PONSSE C50
Reach	10/11 m
Lifting moment	265 kNm
Slewing moment, gross	57 kNm
Slewing angle	280°
CABIN	
Leveling	Front/rear ±15°, lateral ±12° + effect of bogies
TYRES	
Front:	600/55-26.5" / 710/45-26.5"
Rear:	600/55-26.5" / 710/45-26.5"

HYDRAULIC SYSTEM	
Control system:	Ponsse OptiControl
Working pumps:	145 + 190 cm ³
Hydr. Oil tank:	280 l
HARVESTER HEAD	
Model:	PONSSE H5 (crane reach 11 m) H6 (crane reach 11 m) H7 (crane reach 10 m)

Machine width – different offset / wheels

Scorpion max track width front & rear with symmetrical tracks

Bogie PO100

Wheel rim offset	600/55-26,5 Offset +50	600/55-26,5 Offset -35	710/45-26,5 Offset 0	710/45-26,5 Offset -75	800/40-26,5 Offset -50
Machine width (order sheets)	2630 mm	2800 mm	2840 mm	2990 mm	3026 mm
Max. track width crane side	700 mm	870 mm	800 mm	950 mm	900 mm
Max. track width engine side	700 mm	870 mm	800 mm	950 mm	900 mm

Bogie PO98 (balanced bogie)

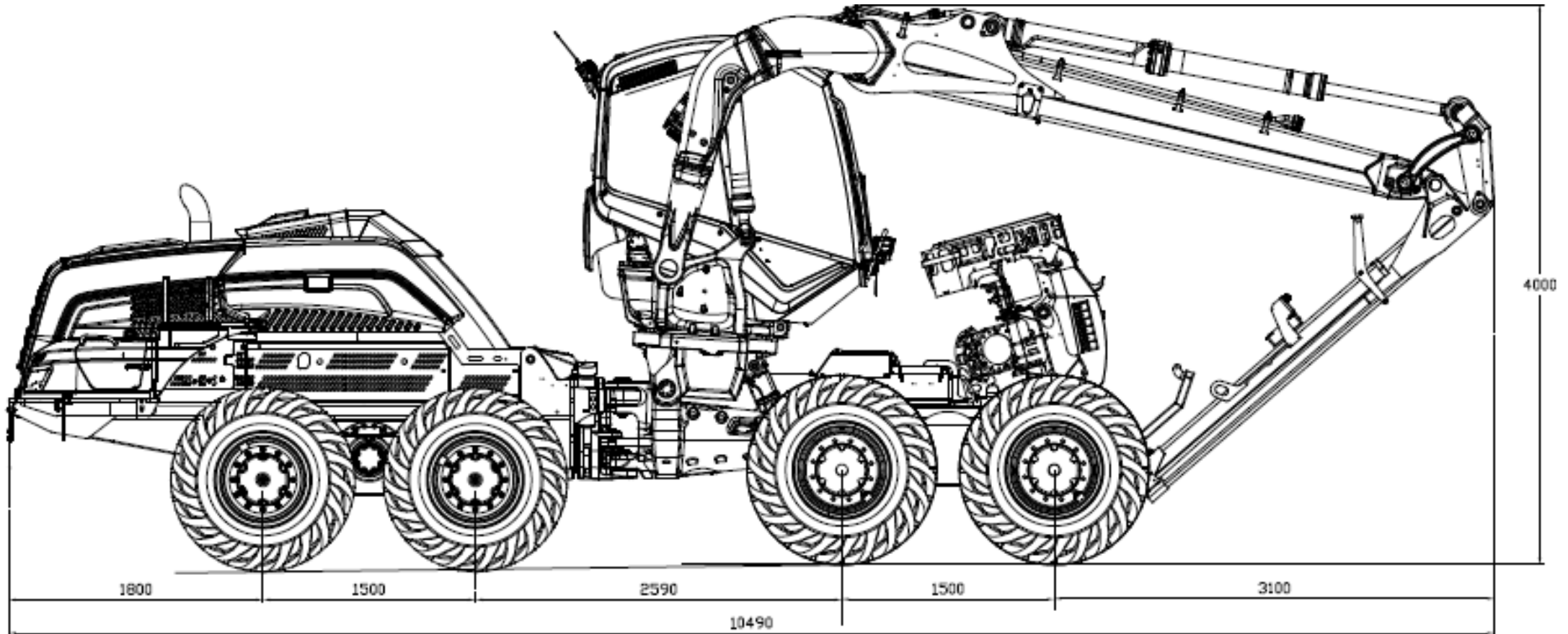
Wheel rim offset	600/55-26,5 Offset +50	600/55-26,5 Offset -35	710/45-26,5 Offset 0	710/45-26,5 Offset -75	800/40-26,5 Offset -50
Machine width (order sheets)	2690 mm	2860 mm	2900 mm	3050 mm	3086 mm
Max. track width crane side	760 mm	930 mm	860 mm	1010 mm	960 mm
Max. track width engine side	760 mm	930 mm	860 mm	1010 mm	960 mm

Scorpion King max track width front & rear with symmetrical tracks

Bogie PO101 / 102 (balanced bogie)

Wheel rim offset	600/55-26,5 Offset +50	600/55-26,5 Offset -35	710/45-26,5 Offset 0	710/45-26,5 Offset -75	800/40-26,5 Offset -50
Machine width (order sheets)	2690 mm	2860 mm	2900 mm	3050 mm	3086 mm
Max. track width crane side	760 mm	930 mm	860 mm	1010 mm	960 mm
Max. track width engine side	760 mm	930 mm	860 mm	1010 mm	960 mm

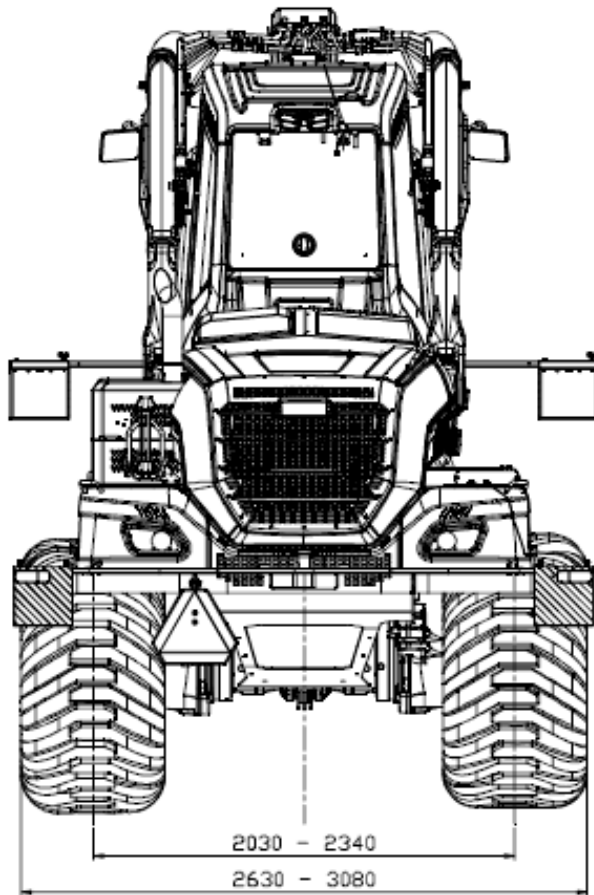
Dimensions, Scorpion / Scorpion King



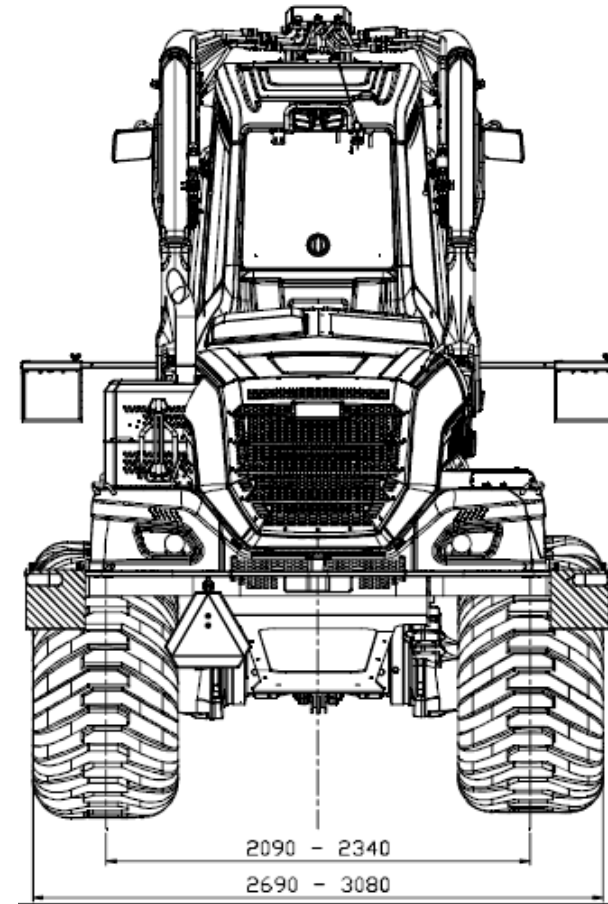
Note: in this picture cabin & crane base tilt is not in transport position → machine is higher!

Width

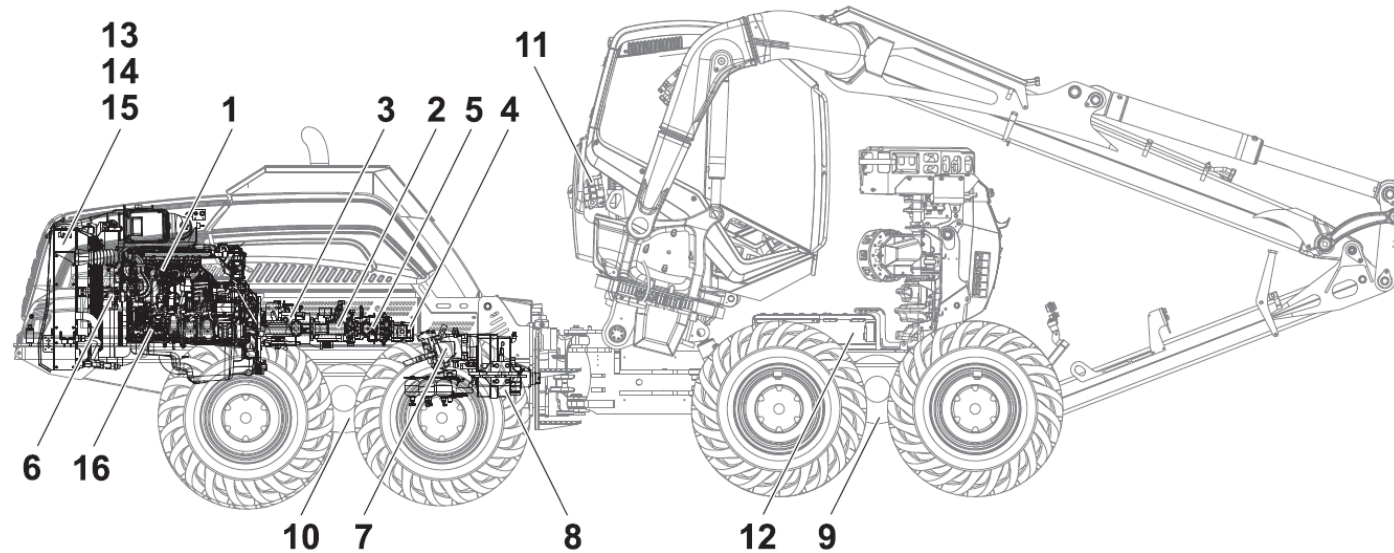
Scorpion



ScorpionKing



Main components

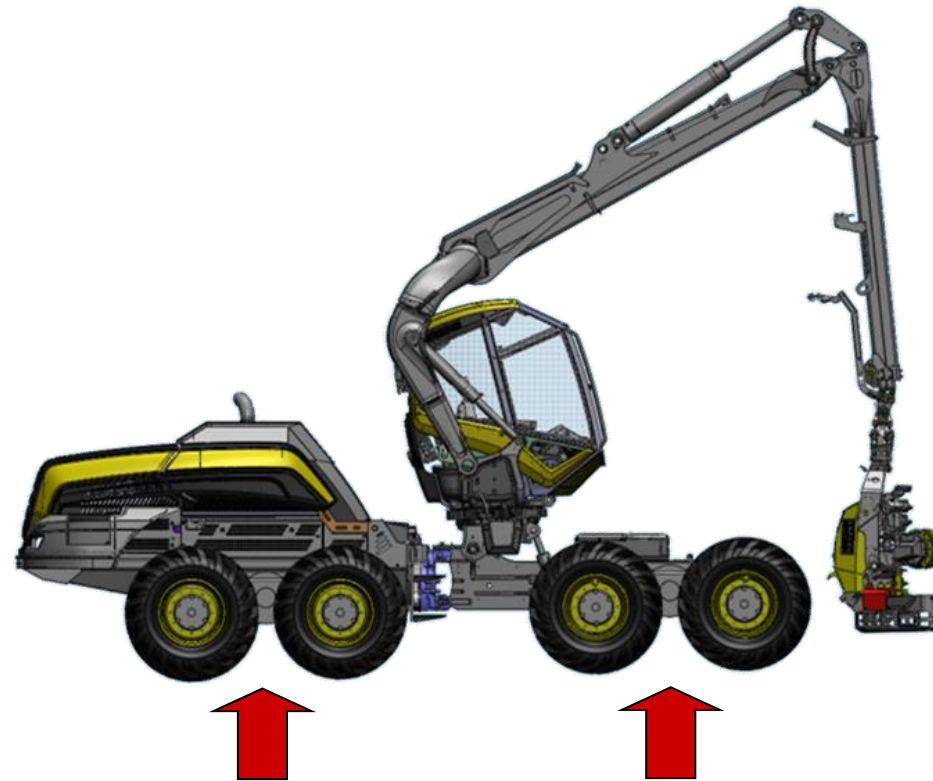


- | | | |
|---------------------------------|--------------------|------------------------|
| 1. Engine: | MB OM 936LA 210 kW | |
| 2. Drive transmission pump: | DANFOSS H1P130 | |
| 3. Work pump: | REXROTH A11VLO210 | |
| 4. Cooling pump: | 90 cm ³ | |
| 5. Hydraulic cooling fan pump: | SAUER H1P045 | |
| 6. Hydraulic cooling fan motor: | SAUER LC25 | |
| 7. Drive transmission motor: | SAUER H1B160 | |
| 8. Transmission gearbox: | NAF PO37 | |
| 9. & 10. Bogies: | | |
| • Standard: | | NAF PO100 |
| • Balanced (option): | | NAF PO98 (60 mm wider) |
| 11. Valve block: | | PARKER |
| K220LS | | |
| 12. Valve block: | | PARKER L90LS |
| 13. Hydraulic oil cooler | | |
| 14. Engine cooler | | |
| 15. Air conditioning cooler | | |
| 16. Air compressor | | |

ScorpionKing:

- | | |
|----------------------|--|
| Harvester head pump: | REXROTH A11 VLO190 cm ³ |
| Crane pump: | REXROTH A11 VLO145 cm ³ |
| Bogies: | |
| • Standard: | NAF PO101 |
| • Balanced (option): | NAF PO102 (same width with both bogies in Scorpion King) |

Surface pressure Scorpion



Surface pressure (710-tyres)

No tracks or chains:

58 kPa / 8.4 psi

58 kPa / 8.4 psi

Tracks front and rear:

30 kPa / 4.4 psi

30 kPa / 4.4 psi

Note. 1 kPa = 10 grams/cm² = 0.145 psi

Surface pressure Komatsu 901 XC

Komatsu 901 XC tyre size is 24,5" and it also has a shorter bogie than e.g. Scorpion (26,5" tyres)
 → Smaller tyre size and shorter bogie give smaller ground surface area, also when using tracks, which means that surface pressure is higher!



Surface pressure (710-tyres)
Rear

Front

No tracks or chains:

64 kPa

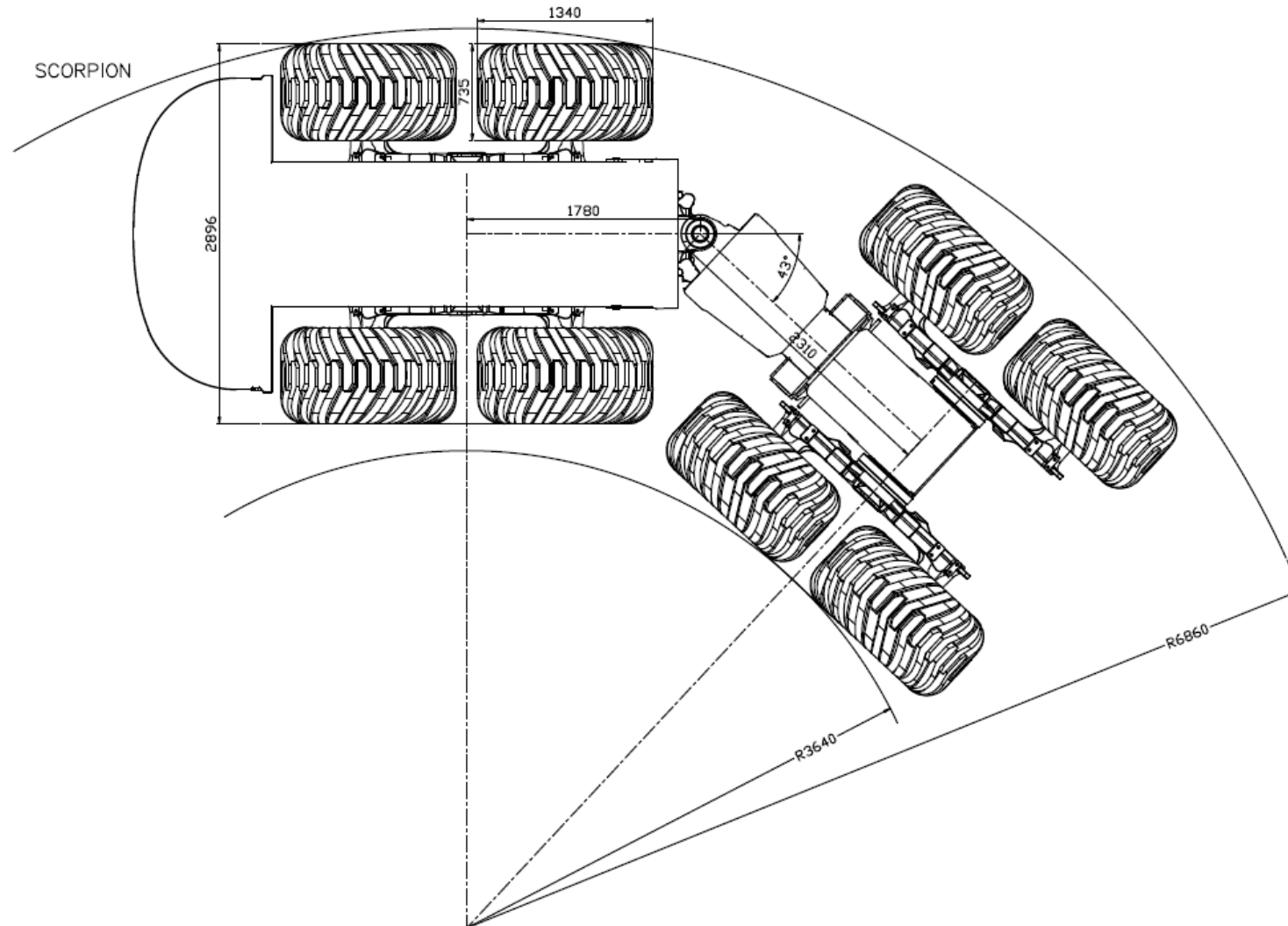
64 kPa

Tracks front and rear:

35 kPa

35 kPa

Turning radius Scorpion (710 wheels & standard 0-offset)



Weight

Machines minimum weight is it's dry weight in lightest setup (smallest crane model, harvester head, tyres etc.) with NO optional equipment, fuel, hydraulic oil, tyre ballast liquid, tracks or chains.

Typical weight is machine in working condition with full tanks of fuel and hydraulic oil, equipment typically delivered from factory - but always without tracks or chains, tyre ballast or some other possible options or equipment.

When talking about machine weight it's good to know that there are many factors that significantly effect the real weight of individual machine.

Examples of weight of different equipments or materials (not precise weights) in Scorpion / ScorpionKing:

Fuel (empty → full):		330 kg (410 liters)
Hydraulic oil (empty → full tank):	220 kg	
DEF (empty → full tank):		32 kg
Tyres, 710 vrt 600,		400 kg (8 wheels)
Harvester head (H5 → H6 / H6 → H7)	100 kg / 150 kg	
Front guard		70 kg

Tracks typically weight 1800-2100 kg/pair, chains 400-500 kg/pair.

Comparison Scorpion

	<u>PONSSE Scorpion</u>	<u>JD 1170G 8W</u>	<u>Komatsu 901 xc 8W</u>
Weight, min.	21 700 kg	20 500 kg(min)	20 980 kg
Transport height	3720 mm	3 880 mm	3 810 mm
Ground clearance	655 mm	580 mm	650 mm
Engine	MB OM 936LA	JD 6068 Tier 4	AGCO Power 66 AWF
Power	210 kW	155 kW	170 kW (1900 rpm)
Torque	1200 Nm (1200-1600 rpm)	978 Nm (1500 rpm)	950 Nm (1500 rpm)
Fuel tank	410 l	300 l	420 l
Work pump(s)	210 cm ³	190 cm ³	250 cm ³ *
Crane	PONSSE C50	CH6	Cranab 200H / 200DT
Reach	11 / 10 m	10 / 11,3 m**	10 / 11 m
Lift mom., gross	265 kNm	165 kNm	198 kNm
Slewing mom., gross	57 kNm	45 kNm	43 kNm
Power transmission			
Drive	8 wheels	8 wheels	8 wheels
Tractive force	170 kN	160 kN	181 kNm

* Twin-pump system (two pumps in one casing)

** PONSSE measures crane reach to boom tip, John Deere and Komatsu to delimiting knives → PONSSE's 11 m equals other's 11,3 m

Comparison Scorpion King

	<u>PONSSE ScorpionKing</u>	<u>JD 1270E 8W</u>	<u>Komatsu 931 xc 8W</u>	<u>EcoLog 688</u>
Weight, min.	22 200 kg	24 450 kg	21 700 kg	21 700 kg
Transport height	3720 mm	3 880 mm	3 910 mm ?	3 810 mm
Ground clearance	655 mm	717 mm	710 mm	650 mm
Engine	MB OM 936LA	JD 6090 HTJ 03 (6 cyl.)	AGCO Power 74 AWF	MB OM926 LA
Power	210 kW	200 kW	185 kW	225 kW
Torque	1200 Nm (1200-1600 rpm)	1315 Nm (1400 rpm)	1100 Nm (1500 rpm)	1200 Nm
Fuel tank	410 l	390 l	480 l	460 l
Work pump(s)	190+145 cm ³	190 cm ³	190+140 cm ³	145 + 140 cm ³
Crane	PONSSE C50	CH7	Cranab 230H	EcoLog 260
Reach	11 / 10 m	8,6 / 10 / 11,7 m	8,7 / 10 / 11 m	10 m / 11 / 11,5 m
Lift mom., gross	265 kNm	197 kNm	229 kNm	270 kNm
Slewing mom., gross	57 kNm	50 kNm	54 kNm	50 kNm
Power transmission				
Drive	8 wheels	8 wheels	8 wheels	8 wheels
Tractive force	180 kN	210 kN	187 kNm	200 kNm