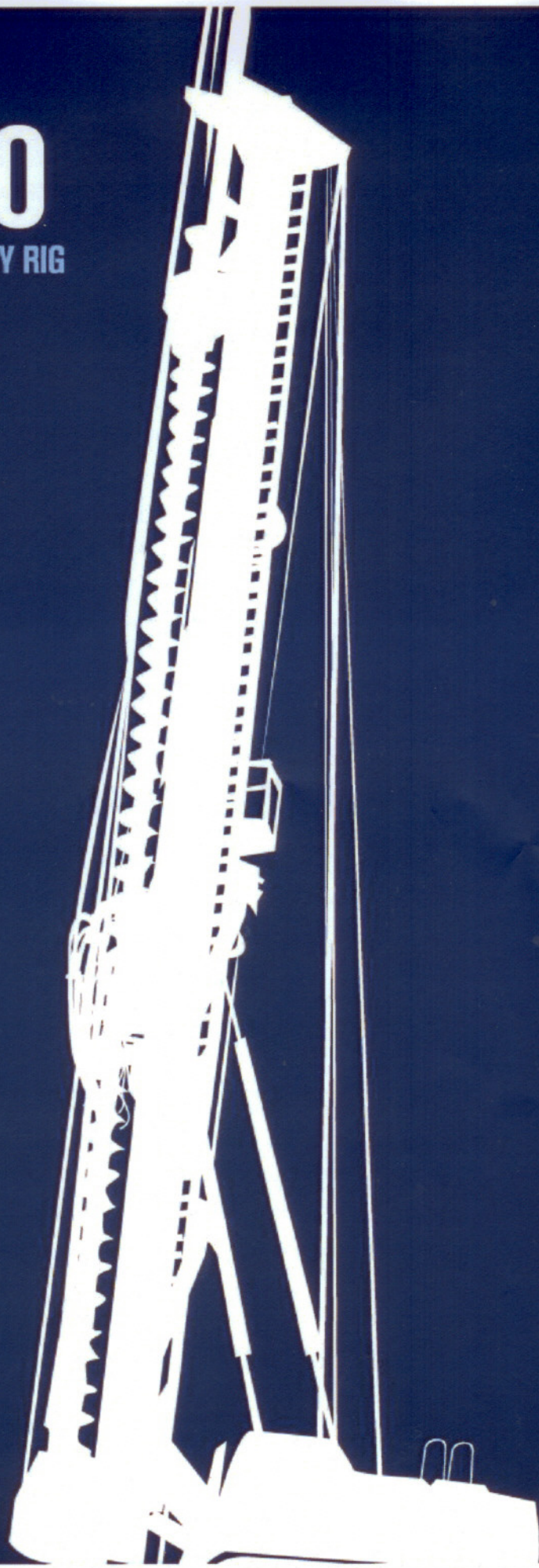


CM-120

HYDRAULIC CFA/GSP ROTARY RIG



SOILMEC 
Drilling and Foundation Equipment

CM-120

HYDRAULIC ROTARY RIG

A new model

Self-erecting drilling rig **dedicated to large diameter CFA and CSP pile drilling.**

- A new rig to increase the production capacity in CFA classical technology by drastically reducing the time dedicated to rig up and rig down even for large piles over 1m diameter.
- A new rig to replace D.W. by cased secant piles executed with high production rate with secured vertical alignment through casing use.

Once more, after the CM-48, CM-50 and the CM-70, with the introduction of the new CM-120, SOILMEC extends the present limits of C.F.A. application field allowing the use of self-erecting rig to very large diameter drilling.

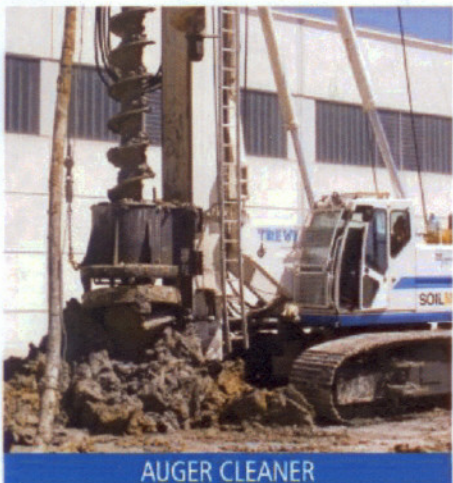
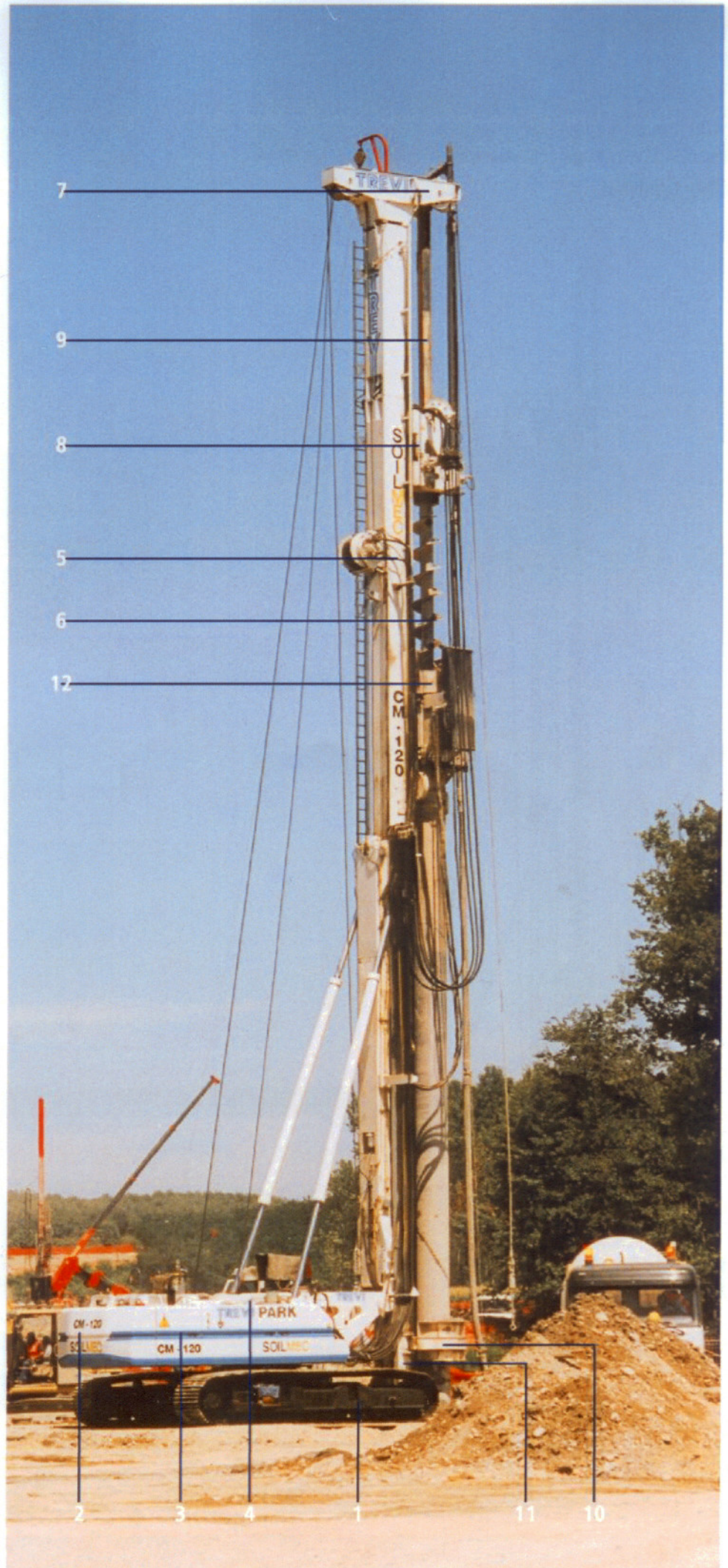
In fact the CM-120 is the unique machine on the market offering the combination of huge drilling capacities, easy transport and self-erection. No service crane is necessary to mount the machine. To reach the highest production level, more than 300 BHP are available at the rotary for high speed drilling with 300 kNm maximum torque. In addition, 116 t extraction force are available to reach 30,5 m depth.

For secant piles, the CM-120 is fitted with a lower casing rotary driver able to develop 360 kNm. It is completed by 32 t capacity crowd winch. Even for big secant pile diameters as 1000 mm, the new rig is able to double or triple the daily production reached by conventional equipment.

Continuous Flight Auger		
Max. pile diameter	mm	1400
Max. pile depth	m	24,5 + 6 (extension)
Max. pile depth (with auger cleaner)	m	29
Auger cleaner max. diameter	mm	1200
Continuous Secant Piles		
Max auger diameter	mm	1000
Max pile depth	m	26,5
Max cased depth	m	19,8
CFA max torque at rated pressure (30 MPa)	kNm	250 @ 9,5 rpm
CSP max torque at rated pressure (30 MPa)	kNm	360 @ 6,6 rpm
Auger cleaner inside rotary casing		
Push/pull on casing (crowd winch)	kN	320
Base Carrier		
Overall length	mm	5000
Track shoe width	mm	900
Overall width (opened tracks)	mm	4700
Overall width (closed tracks)	mm	2500
Ground pressure	MPa	0,070
Diesel Engine		
Make / Model		Deutz BF8M1015C
Power rating	kW (HP)	400 (544) @ 2100 rpm
Hydraulic Pumps		
Main pumps	lt/min	2x380
Max working pressure	MPa	35
Main Winch Type SW 290		
1st layer nominal line pull	kN	290
1st layer nominal rope speed	m/min	50/80
Rope diameter	mm	30
Service Winch Type SW 140		
1st layer nominal line pull	kN	140
1st layer nominal rope speed	m/min	60/120
Rope diameter	mm	26
Rotary Table		
Nominal torque	kNm	300 @ 9,5 rpm
Maximum drilling speed	rpm	25
Dimensions and Weight		
Operating weight	ton	105
Transport width (track frames removed)	mm	3000
Transport height	mm	3862
Transport weight (crawlers, counterweight and rotary removed)	ton	53

Note: A device in the cabin enables the operator to share in the best way the power available between the auger rotary and the casing rotary.

- 1 - **Undercarriage** with expandable and removable tracks
- 2 - **Self-lifting** counterweight
- 3 - **Rotating** turret powered by DEUTZ BF8M1015C diesel engine complete with soundproof canopy and power pack
- 4 - **Winch** assembly
- 5 - **Self-erecting mast** which is designed to allow the max. torque along its complete length
- 6 - **Continuous Flight Auger**
- 7 - **Sheave cathead**
- 8 - **Rotary head**
- 9 - **Auger extension**
- 10 - **Openable** lower guide
- 11 - **Foot element**
- 12 - **Rotary casing**

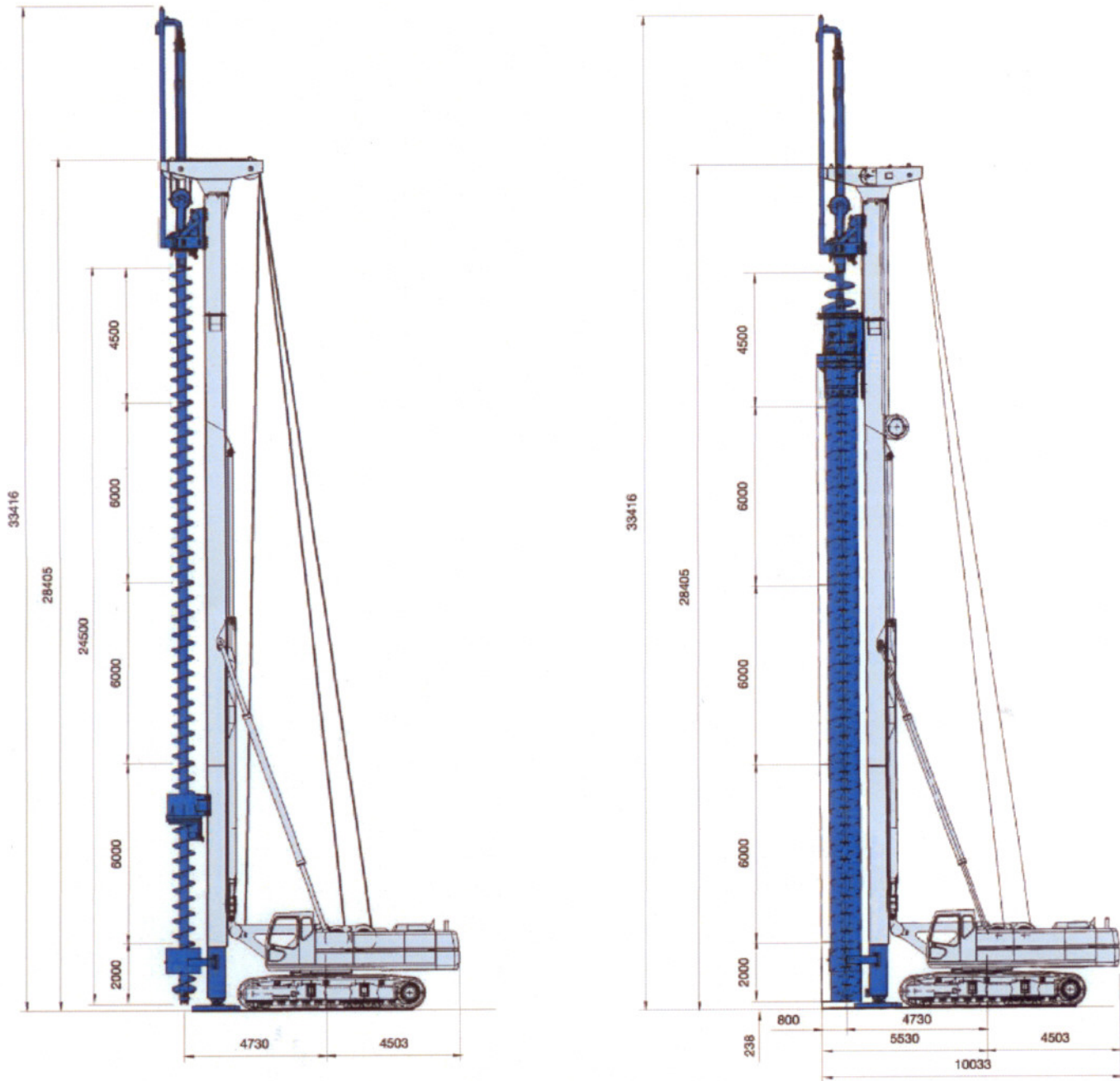


AUGER CLEANER

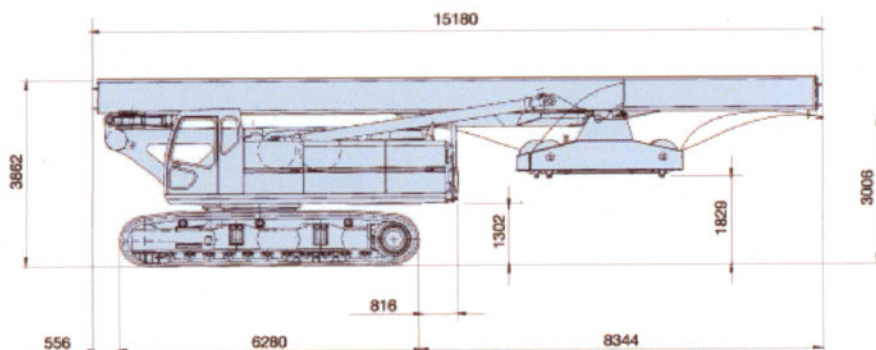
CM-120

HYDRAULIC CFA/CSP ROTARY RIG

Working Condition



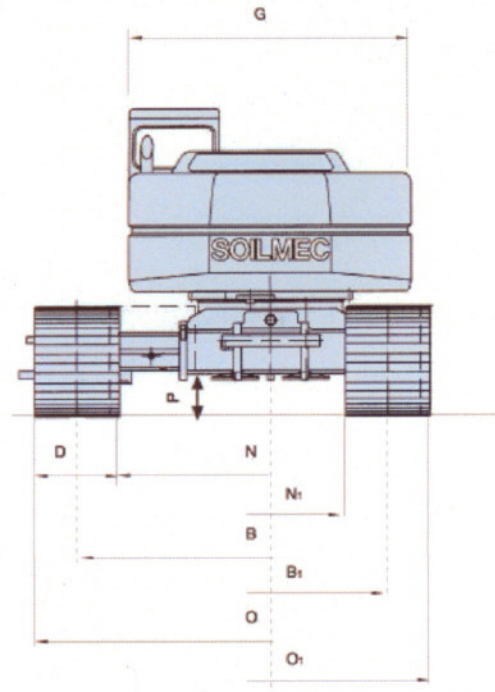
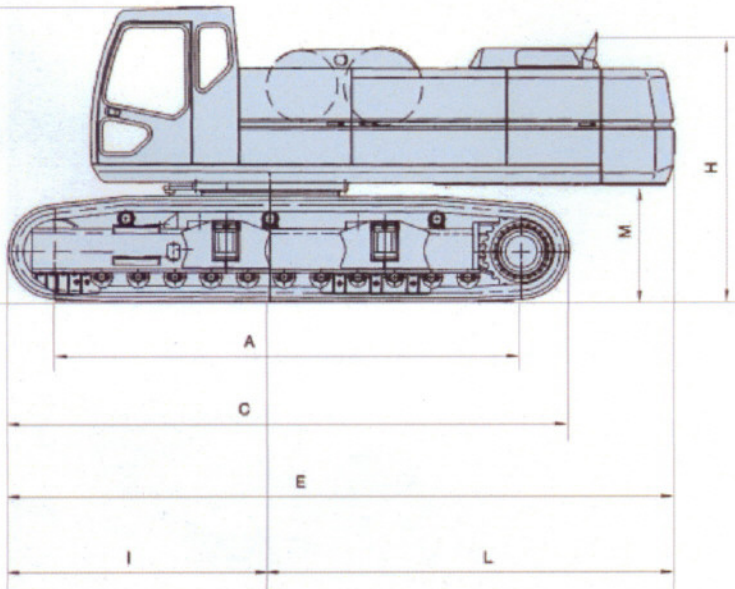
Transport Condition



CM-120

HYDRAULIC CFA/CSP ROTARY RIG

Base Carrier



Dimensions

A	Track wheel centre to centre distance	mm	5220
B	Track gauge open	mm	4100
B ₁	Track gauge closed	mm	2500
C	Track length	mm	6280
D	Shoe width	mm	900
E	Length of base machine	mm	7443
F	Height of base machine	mm	3282
G	Turret width	mm	3000
H	Max. height of hoods	mm	2825
I	Radius of front end	mm	2940
L	Tail swing radius	mm	4503
M	Counterweight ground clearance	mm	1302
N	Width of undercarriage open	mm	3200
N ₁	Width of undercarriage closed	mm	1600
O	Total width of undercarriage open	mm	5000
O ₁	Total width of undercarriage closed	mm	3400
P	Ground clearance (below crawler unit)	mm	390
	Ground pressure	MPa	0.07
	Weight of base machine	ton	60



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CERTIFIED QUALITY SYSTEM

In 1990 Soilmec was awarded the certification of its own Quality System to ISO 9001/UNI 29001 series standards.



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