

# CASE

# WX90

## Wheeled Excavator

Operational weight: 9 tons  
Perkins engine: 57 kW (76.5 hp)  
Hydrostatic transmission with 4 wheel steer



C O M M I T T E D T O Y O U R N E E D S



## ENGINE

Make ..... PERKINS  
 Model ..... 1004.42  
 Type .....diesel, 4 stroke, direct injection  
 Number of cylinders ..... 4  
 Displacement ..... 4233 cm<sup>3</sup>  
 Bore x stroke ..... 103 x 127 mm  
 Cooling ..... water-cooled  
 Net power EEC 80/1269 (road) ..... 76.5 hp / 57 kW  
 Engine speed (road) ..... 2000 rpm  
 Net power EEC 80/1269 (work) ..... 71 hp / 53 kW  
 Engine speed (work) ..... 1800 rpm  
 Engine conforming to European norms in force.  
 Engine auto idle can be deactivated manually.  
 Electronic control of engine speed by an electric selector switch.  
 Cold start device.



## HYDRAULIC SYSTEM

Closed centre Load Sensing hydraulic system for controlling the attachment and an independent circuit for upperstructure swing to ensure perfect simultaneity of all movements.

### PUMPS

The circuit comprises 2 variable flow displacement pumps  
 - One pump for the boom and travel circuit  
 Maximum flow ..... 150 l/min  
 Maximum operating pressure ..... 350 bar  
 - One pump for the upperstructure swing circuit  
 Maximum flow ..... 50 l/min  
 Maximum operating pressure ..... 310 bar

### CONTROL VALVES

- One closed centre control valve block (with 9 sections, of which 1 is reserved for the auxiliary circuit). This block controls the attachments, the dozer blade (or the stabilisers) and travel.
- One block of 1 section for upperstructure swing control.

### UPPERSTRUCTURE SWING

Engine ..... with axial pistons  
 Swing speed ..... 9 rpm  
 Swing brake .....automatic disk brake  
 Final drive .....epicyclic oil immersed  
 Turntable .....in a grease bath  
 Mechanical swing locking control

### CYLINDERS

Cylinders with end of stroke shock absorbers.  
 Safety valves on boom, offset, dozer blade and axle locking cylinders



## ELECTRICAL CIRCUIT

Circuit ..... 24 volts  
 Maintenance free batteries ..... 2 x 12 v. – 75 A/h  
 Alternator ..... 55 A  
 Double sealed electrical connections



## UNDERCARRIAGE

Modular frame allowing the assembly of dozer blade or stabilisers (front and rear).  
 Toolbox.

### TRANSMISSION

Hydrostatic with 4 drive wheels  
 The hydraulic motor acts through a gearbox and has 2 gear ranges.

### Road speed

First ..... 0 to 10 km/h  
 Second ..... 0 to 20 km/h  
 Third ..... 0 to 30 km/h  
 Gradient that can be overcome ..... 16 %

### Work speed

First ..... 0 to 4 km/h  
 Second ..... 0 to 7 km/h  
 Third ..... 0 to 11 km/h  
 Gradient that can be overcome ..... 60 %

### AXLES

Axles with oil immersed disk brakes

**Rear axle:** fixed directional

**Front axle:** swivelling directional

Total swivel ..... 15°  
 Vertical clearance ..... 290 mm  
 The front axle can be blocked hydraulically

### TYRES

8 wheels ..... 8.25 x 20 with twinning rings  
 4 wheels ..... 500/45 x 20

### STEERING

Type ..... ORBITROL with safety valves  
 Pump ..... with gears  
 Double rod cylinders, with double action  
 Choice, by means of a selector switch, between 3 steering modes

- 2 wheel steer
- 4 wheel steer
- Crab steer

Ability to turn with the engine stopped

Turning radius outside the tyres :

Front axle turned ..... 6.00 m  
 Front and rear axles turned ..... 3.60 m

**Note:** the maximum speed can be reached only in the 2 wheel steer position.



## BRAKES

**Brake lock and service brakes:** oil immersed disk brakes acting on the 4 wheels with independent double circuit

**Parking brakes:** oil immersed multiple disks brakes. Mechanical engagement, electro-hydraulic disengagement

**Emergency brake:** with an independent double circuit to ensure braking on at least one axle in case of engine failure



## CAB

Fitted with a maximum of «comfort» accessories in the standard model, the cab is equipped with large tinted glasses, a sun visor on the rear window, a sun roof, a windscreen wiper and windshield washer system, a heating system, providing the best comfort whatever the external temperature conditions.

The adjustable suspension seat is equipped with armrests and a safety belt.

The small «hydraulically» assisted steering wheel, is mounted on an adjustable steering column; the operator can make use of a radio with loudspeakers integrated into the cab. The operation and control of the main functions of the machine are grouped together on three ergonomic consoles located in the operator's best field of vision according to the work being carried out.



## STEERING COLUMN

(Control during the machine's travel) groups together the following functions:

- Rotary selector to control the parking brake, the service brake and axle locking. The engine cannot be started if this selector is not in the «parking brake» position.
- Speed indicator (tachometer)
- Brake pressure gauge.
- Brake control, axle locking and «road» light indicators.
- Gearshift control lever (3 per range).
- High beam, directional signal, windscreen washer, windscreen wiper and horn control lever.
- Emergency indicator control knob
- Contact switches placed along the steering column for:
  - Hammer circuit, roof light, pilot circuit locking

(cancellation of attachment and swing movements during road travel) and «anti-tilt» warning.

## MAIN INSTRUMENT PANEL

Placed in front and on the right of the operator's seat, it groups together the machine's main indicators and controls:

- Dial gauges with audible and visible alarm to indicate the engine temperature and diesel oil level, economy (E) mode indicator, control and indicator of the auto idle position, Speed range control (road, work site), audible alarm cancellation, engine oil, coolant and hydraulic oil level control button, battery charge and air filter clogging indicator lamp, work lamp control and indicator.
- The hour meter placed on the side of the instrument panel is visible from the ground.
- Electronic immobiliser lock with red flashing operating light.



## SIDE INSTRUMENT PANEL:

Placed on the side of the right hand control lever, it groups together the following functions:

- Engine battery master key, economy (E) mode control button, engine swing speed adjustment control, steering mode (normal, 4 wheel steer, crab steer) selection control button with audible and visible warning for rear wheel realignment (mandatory for changing modes).
- Cab heating and air-conditioning controls (optional)



## CAPACITIES

Engine oil .....	8.5 l
Coolant .....	18.5 l
Fuel reservoir .....	147 l
Hydraulic system .....	120 l
Axles (total).....	19 l
Swing reduction gear .....	3 l

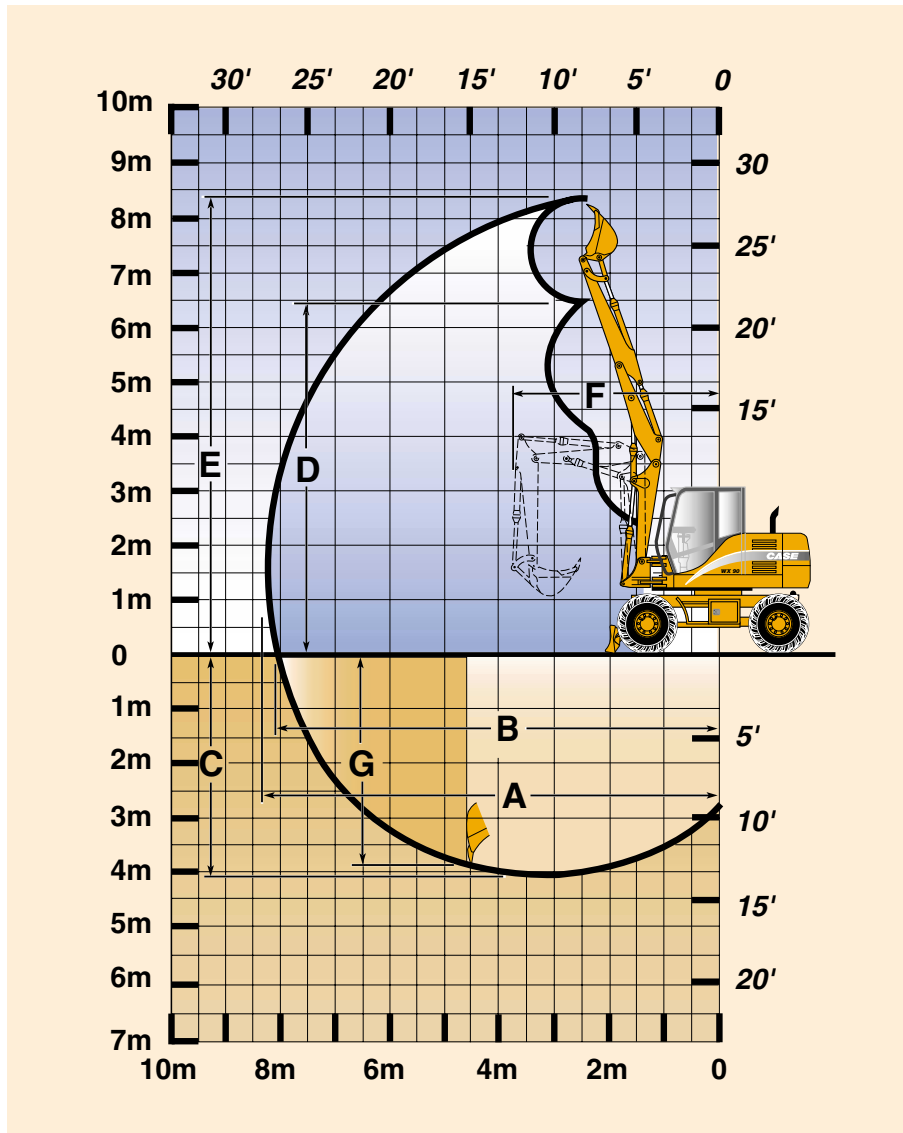


## ATTACHMENT

The standard model of the WX90 is equipped with a monobloc, articulated or offset boom, mounted on a swing swivel, and a 1.85 m dipper and 600 mm bucket (181 l).



## BACKHOE EQUIPMENT



		boom :		Monobloc		Offset boom		
		dipper (m)		1.85	2.20	1.85	2.20	
<b>A</b>	Maximum digging reach	m	7.85	8.20	7.05	7.40	6.85	7.20
<b>B</b>	Maximum digging reach at ground level	m	7.65	8.00	6.80	7.15	6.65	7.00
<b>C</b>	Maximum digging depth	m	3.75	4.10	3.65	4.00	3.60	4.00
<b>D</b>	Maxi dump height	m	6.05	6.35	4.35	4.55	3.80	4.00
<b>E</b>	Overall reach height	m	7.90	8.20	6.10	6.30	5.60	5.75
<b>F</b>	Minimum swing radius	m	3.25	3.45	3.10	3.10	3.05	3.05
<b>G</b>	Vertical straight wall dig depth	m	3.60	3.95	3.30	3.65	3.20	3.60
	Digging force	daN	4400	3900	4400	3900	4400	3900
	Breakout force	daN	5400	5400	5400	5400	5400	5400

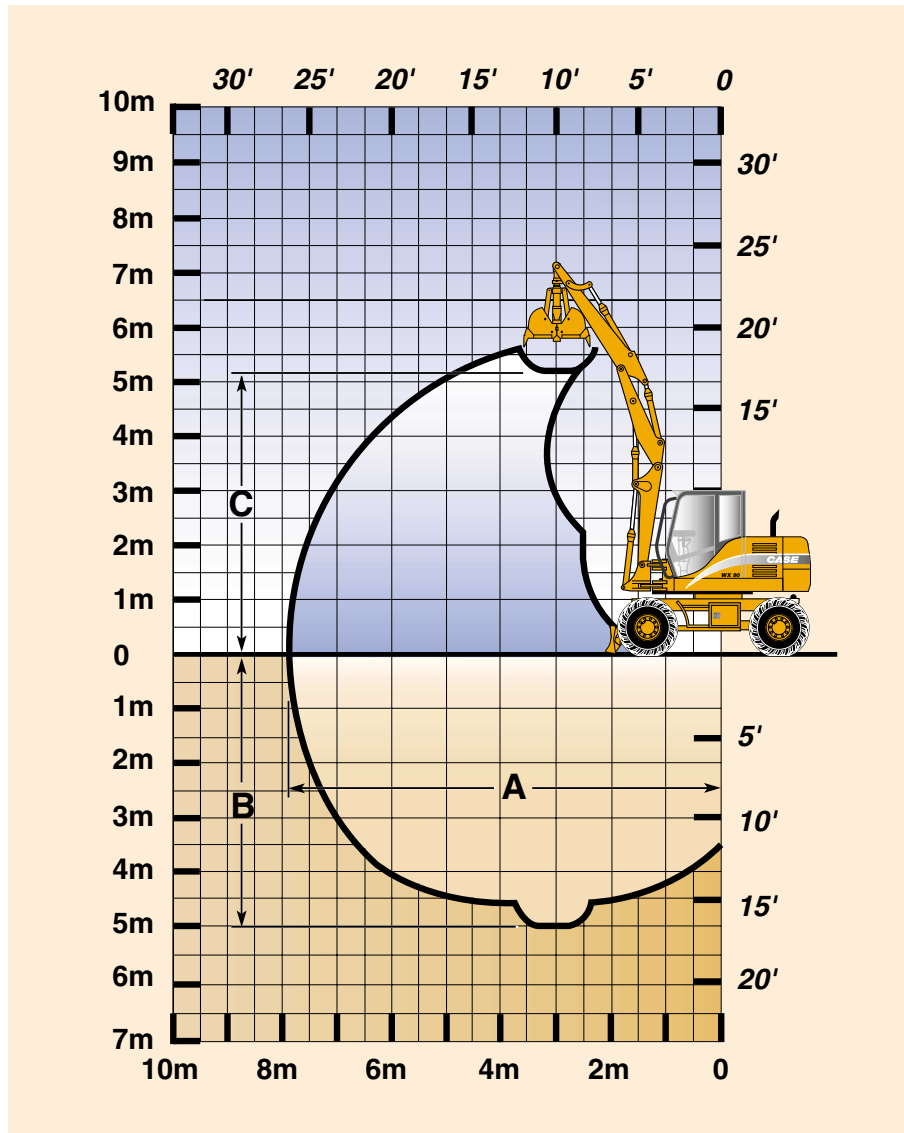


## BUCKET

SAE capacity	Litres	50	75	145	181	217	290
Width	mm	280	350	450	600	700	800
Weight	kg	78	85	128	137	147	163



## CLAMSHELL ATTACHMENT



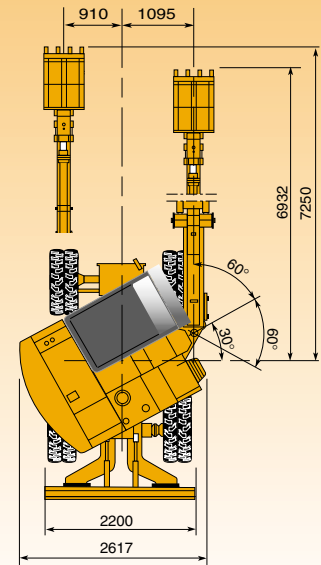
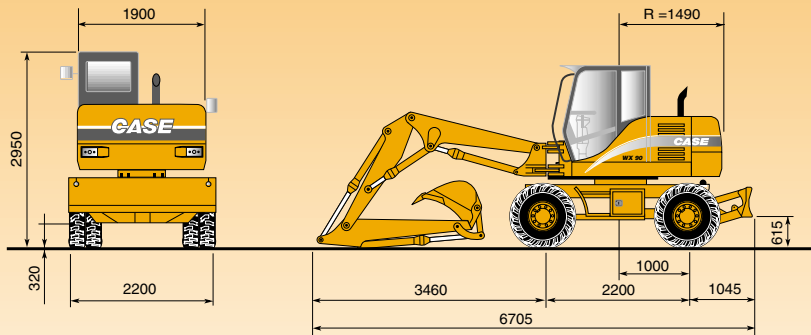
		boom :				
		Articulated		Monobloc		
dipper (m)		1.85	2.20	1.85	2.20	
A	Maximum reach	m	7.45	7.80	6.75	7.10
B	Maximum digging reach	m	4.65	5.00	4.55	4.90
C	Dump height	m	4.90	5.10	3.40	3.60





# GENERAL DIMENSIONS

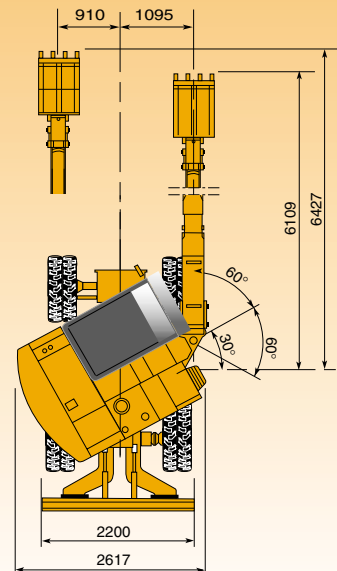
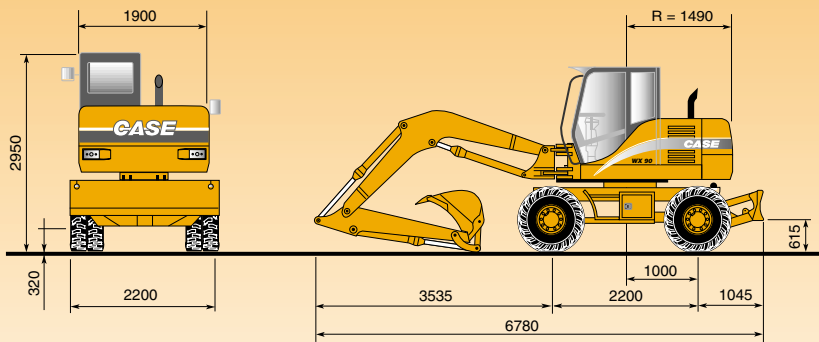
## ARTICULATED BOOM



**Operating weight (with 1.85 m dipper, 600 mm bucket, coupled wheels, full fuel tank and with the operator)**

With rear dozer blade .....	9040 kg
With rear stabilisers.....	8890 kg
With rear stabilisers and front dozer blade.....	9390 kg

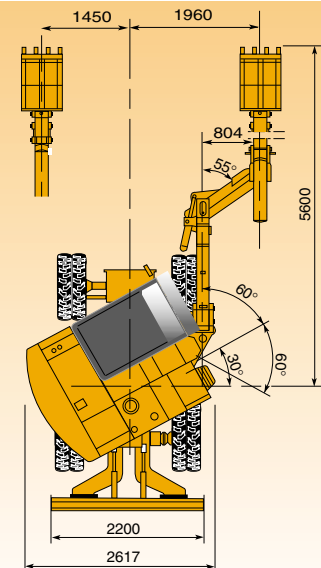
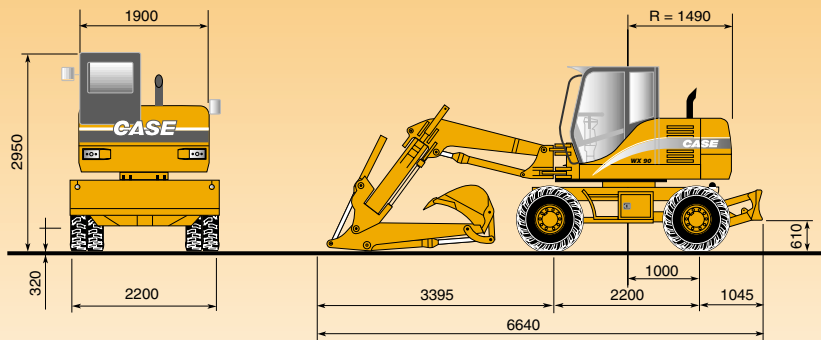
## MONOBLOC BOOM



**Operating weight (with 1.85 m dipper, 600 mm bucket, coupled wheels, full fuel tank and with the operator)**

With rear dozer blade .....	8860 kg
With rear stabilisers.....	8710 kg
With rear stabilisers and front dozer blade.....	9210 kg

## OFFSET BOOM



**Operating weight (with 1.85 m dipper, 600 mm bucket, coupled wheels, full fuel tank and with the operator)**

With rear dozer blade .....	9110 kg
With rear stabilisers.....	9860 kg
With rear stabilisers and front dozer blade.....	9460 kg



## LIFTING CAPACITY

with dozer blade or stabilisers on the ground

### WX90 with articulated boom or offset boom, 1.85 m dipper and 600 mm bucket

Reach	3 m		4.5 m		6 m		maxi	
	Front	360°	Front	360°	Front	360°	Front	360°
Height								
<b>6 m</b>			<b>2220*</b>	<b>1390</b>			<b>2220*</b>	<b>1290</b>
4.5 m			2070*	1410	1750*	830	1750*	810
<b>3 m</b>			<b>2420*</b>	<b>1320</b>	<b>1760*</b>	<b>820</b>	<b>1560*</b>	<b>650</b>
1.5 m	3280*	2580	2780*	1200	1830*	770	1410*	610
<b>0</b>	<b>4390*</b>	<b>2160</b>	<b>2630*</b>	<b>1140</b>	<b>1680*</b>	<b>750</b>	<b>1230*</b>	<b>640</b>
-1.5 m	2420*	2170	1880*	1150			880*	770
<b>-3 m</b>								

### WX90 with articulated boom or offset boom, 2.20 m dipper and 600 mm bucket

Reach	3 m		4.5 m		6 m		maxi	
	Front	360°	Front	360°	Front	360°	Front	360°
Height								
<b>6 m</b>			<b>1960*</b>	<b>1430</b>			<b>1890*</b>	<b>1070</b>
4.5 m			1900*	1440	1630*	850	1500*	720
<b>3 m</b>			<b>2270*</b>	<b>1350</b>	<b>1690*</b>	<b>820</b>	<b>1390*</b>	<b>590</b>
1.5 m	2380*	2380	2710*	1210	1800*	770	1310*	550
<b>0</b>	<b>4350*</b>	<b>2150</b>	<b>2710*</b>	<b>1130</b>	<b>1740*</b>	<b>730</b>	<b>1160*</b>	<b>570</b>
-1.5 m	3100*	2130	2100*	1120	1240*	740	880*	680
<b>-3 m</b>	<b>2740*</b>	<b>2250</b>					<b>1670*</b>	<b>1440</b>

### WX90 with monobloc boom, 1.85 m dipper and 600 mm bucket

Reach	3 m		4.5 m		6 m		maxi	
	Front	360°	Front	360°	Front	360°	Front	360°
Height								
<b>6 m</b>								
4.5 m			1840*	1410			1880*	1360
<b>3 m</b>			<b>1760*</b>	<b>1500</b>			<b>1620*</b>	<b>1000</b>
1.5 m			1950*	1220			1660*	910
<b>0</b>	<b>2150*</b>	<b>1120</b>	<b>2420*</b>	<b>1090</b>			<b>1980*</b>	<b>970</b>
-1.5 m	3270*	1650					2220*	1320
<b>-3 m</b>								

### WX90 with monobloc boom, 2.20 m dipper and 600 mm bucket

Reach	3 m		4.5 m		6 m		maxi	
	Front	360°	Front	360°	Front	360°	Front	360°
Height								
<b>6 m</b>								
4.5 m			1570*	1460			1500*	1210
<b>3 m</b>			<b>1500*</b>				<b>1320*</b>	<b>920</b>
1.5 m			1700*	1230	1550*	850	1350*	840
<b>0</b>	<b>1860*</b>	<b>1110</b>	<b>2190*</b>	<b>1020</b>			<b>1580*</b>	<b>890</b>
-1.5 m	3060*	1420	2550*	1290			2090*	1160
<b>-3 m</b>								

- Machine in «LIGHT» mode
- Lift capacities are taken in accordance with SAE J 1097 / ISO 10567 / DIN 15019-2.
- Lift capacities shown in kg do not exceed 75% of the tipping load or 87% of the hydraulic lift capacity.
- Capacities that are marked with an asterisk are hydraulic limited
- If the machine is equipped with a quick coupler, subtract the weight of the quick coupler from the load shown in the tables to calculate the real lifting capacity.

## STANDARD EQUIPMENT

8 wheels with tyres 8.25 x 20  
3 mode steering system  
    Steerable front wheels  
    Steerable front and rear wheels  
    Crab steering  
Boom foot articulation  
Monobloc or articulated or offset boom  
Safety valves  
Clamshell circuit  
1.85 m or 2.20 m dipper  
Step plate «tool box» on the right-hand side  
Left-hand side step plate  
Immobiliser  
Radio  
Rainproof cab protection visor  
Roof light  
Rear dozer blade with bracket to support stabilisers



## OPTIONS

4-wheel model 500/45-20  
«Hammer» circuit  
Organic oil  
Clamshell bucket support  
Left-hand side step plate «tool box»  
Air conditioning  
P2A (stabilisers in place of the dozer blade)  
P2AL front dozer blade, rear stabilisers  
P4A front and rear stabilisers  
Rubber track shoes for stabilisers

*Standard and optional equipment can vary from country to country*

Conforms to directive 98/37/CE



**NOTE:** Standard and optional attachments and equipment may vary according to requirements and regulations from country to country. The photos given may show non standard or unmentioned items. Furthermore CASE reserves its right to modify specifications of its machines without prior warning, without incurring any obligation whatsoever that might result from such modifications.



# CASE

Published by **Case France**  
18, Place des Nymphéas  
Z.I. Paris Nord II  
95915 ROISSY CDG Cedex  
FRANCE  
Tél. : 01.49.90.23.00  
Fax : 01.49.90.26.15