

# CASE

## Wheel Loader

Case engine: 118 hp (88 kW)  
buckets from 1.50 m<sup>3</sup> to 2.00 m<sup>3</sup>  
Breakout force: 9 164 daN

# 521D-DXT

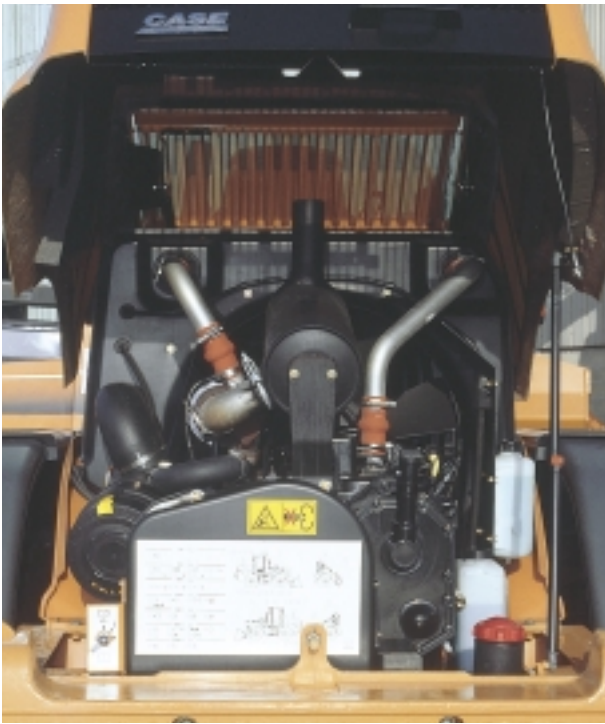


C O M M I T T E D T O Y O U R N E E D S



## ENGINE

Make ..... CASE  
 Type ..... 4TAA-390  
 Max. Power Gross SAE ..... 118 hp (88 kW) at 2000 rpm  
 Max. Power Net EEC 80/1269 .... 110 hp (82 kW) at 2000 rpm  
 Max. Gross torque ..... 481 Nm at 1400 rpm  
 Max. Net torque ..... 468 Nm at 1400 rpm  
 Displacement ..... 3.9 L  
 N° of cylinders ..... 4  
 Bore and stroke ..... 102 x 120 mm  
 Compression ratio ..... 17.8 to 1  
 Fuel injection system ..... Direct  
 Oil filter ..... Spin-on cartridge  
 Air filter (Dry-type) ..... 2 elements  
 In order to get the best performance under all working temperatures, the diesel is made to pass through a refrigeration system before being used.



## CAB

A spacious and comfortable cab provides the operator with a perfect 360° visibility. It has interior fittings that help the operator control and drive the machine in full safety. These include consoles with indicators, controls within the operator's reach and large size LCD displays providing continuous information on the position and state of the main transmission controls. Multi-position adjustable seat, ventilation control and adjustment of the steering column provide maximum comfort, enabling the operator to get the best out of the machine's performance.



## ELECTRICAL SYSTEM

Voltage ..... 24 volts  
 Batteries ..... 2 x 12 volts  
 Alternator ..... 45 A/h



## POWER TRAIN

### Torque converter

Stall ratio ..... 2,55 : 1

### Powershift gearbox

Manufacturer ..... ZF  
 ECM transmission  
 State of the art transmission working with an Electronic Control Module (ECM), This system provides smooth shifting and long life. The transmission can be programmed to operate automatically in a custom shift pattern, or simply choose automatic or manual mode.



### Travel speeds

17.5 x 25 L3 Tyres

	1 st	2 nd	3 rd	4 th
Forward (km/h)	6,9	13,5	23,9	38,8
Reverse (km/h)	7,3	14,2	25,1	—



## AXLES

Manufacturer ..... Carraro  
 Front axle ..... Fixed  
 Rear axle ..... Oscillating (+ -) 12°  
 Limited slip differentials on front and rear axles.



## TYRES

Standard ..... 17.5 x 25 L2 to L5

## BRAKES

Hydraulically controlled oil-bath multi-disc brakes in sealed housing.  
Separate twin brake circuit for front and rear axles.

### Parking brakes

Electric parking brake acting on a disc located on the transmission. A safety device automatically cuts out the transmission when the parking brake is in use.

## HYDRAULIC SYSTEM

Variable output “ Load Sensing ” type closed centre hydraulic system.

Single body variable output hydraulic pump with axial pistons.

Maximum output:..... 135 l/min  
Pressure:..... 250 bar

Double acting cylinders.

- Arm (2) D / D<sup>XT</sup>  
(rod x piston x stroke)..... 57.2 x 101.6 x 783 mm
- Bucket (1) D  
(rod x piston x stroke)..... 63.5 x 114.3 x 529.2 mm
- Bucket (2) D<sup>XT</sup>  
(rod x piston x stroke).....57.2 x 95.2 x 922.4 mm

Watertight auto-pressurised hydraulic tank integrated into the refrigeration assembly.

10 µ return filters.

### Cycle time

	D	D <sup>XT</sup>
• Raising (full bucket).....	5.3 sec	5.3 sec
• Lowering (bucket empty).....	3.7 sec	3.7 sec
• Dumping.....	1.5 sec	1.5 sec
Total.....	10.5 sec	10.5 sec

## STEERING

“Orbitrol” type closed centre steering with amplified output permitting variation in the number of turns of



the steering wheel depending on the load level:

- 5 turns when precision is required
- 3.1 turns when speed is required,
- Integrated back-up steering standard
- Steering lock angle (+ -) 40°

## REFRIGERATION

521 D's centralised refrigeration system integrates the 6 refrigerating elements of the machine.

- Fuel coolant
- Engine coolant radiator
- Turbo air cooler
- Air-conditioning condenser
- Transmission oil coolant
- Hydraulic coolant.

This assembly is equipped with an independent fan driven by a hydraulic engine.

There exists an option to initiate an efficient and quick cleanup by reversing the engine's direction of rotation (significant reduction in maintenance time and costs, especially in dusty environments).

The refrigeration assembly also includes the hydraulic tank.

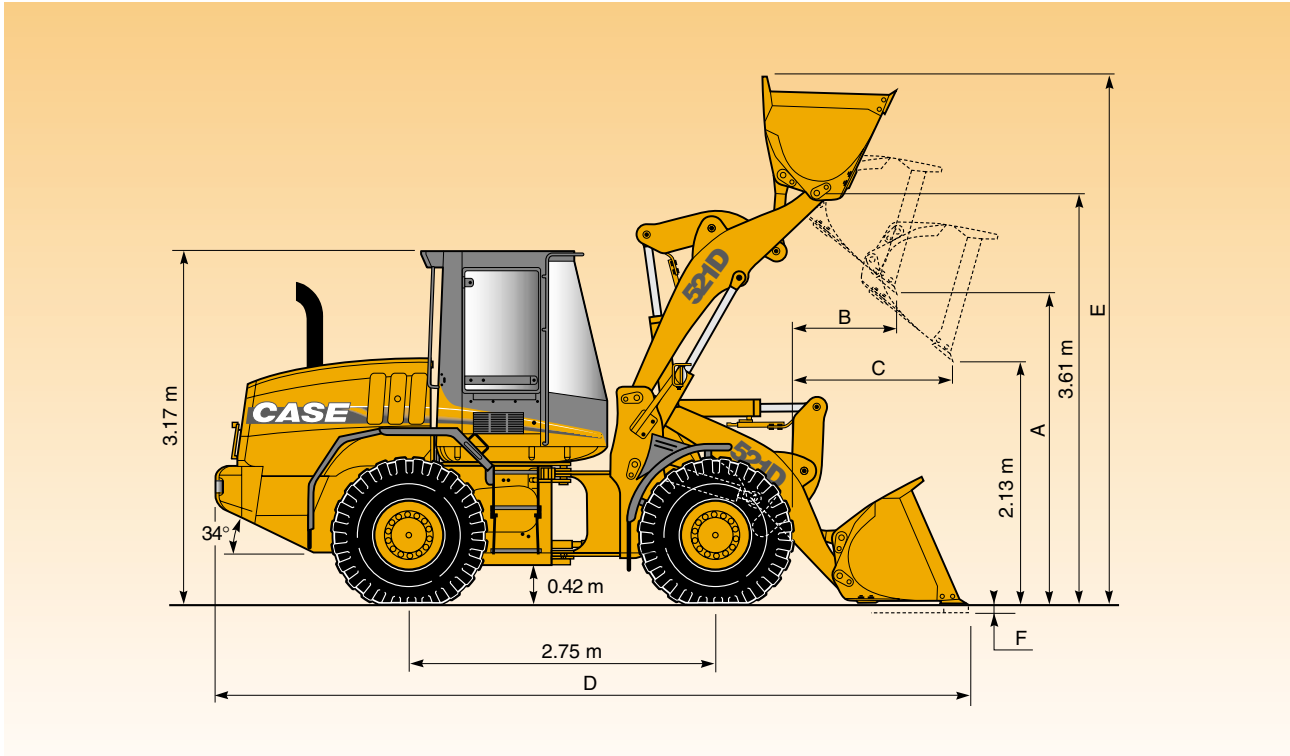


## CAPACITIES

Fuel tank.....	190 L
Hydraulic system.....	114 L
Hydraulic tank.....	57 L
Engine with filter.....	10.4 L
Transmission.....	19 L
Front axle.....	20.8 L
Rear axle.....	20.8 L
Engine cooling system.....	34 L

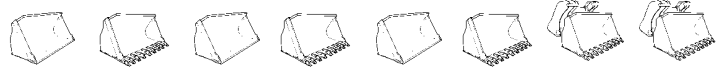
## RIDE CONTROL

An anti-pitch system (optional) allows for the displacement of the loaded machine with reduced loss materials, ensuring greater driving comfort. It engages itself from 5 km/h onwards and cuts itself off as soon as the speed falls below this limit.



Track : 1.85 m  
Width outside tyres : 2.34 m

### BUCKET TYPE



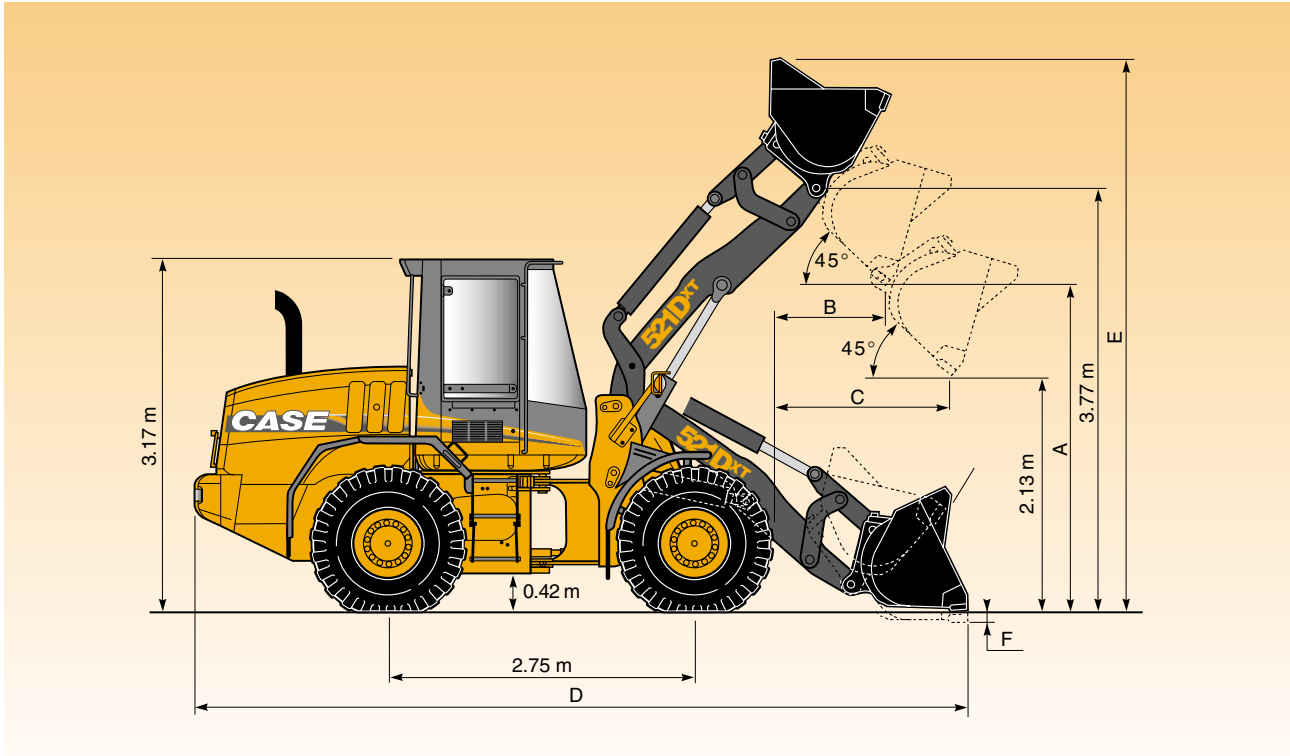
		1.53	1.53	1.72	1.72	1.91	1.91	1.62	1.98	
SAE heaped capacity	m <sup>3</sup>	1.53	1.53	1.72	1.72	1.91	1.91	1.62	1.98	
Struck capacity	m <sup>3</sup>	1.30	1.30	1.47	1.47	1.62	1.62	1.39	1.71	
Maximum density	t/m <sup>3</sup>	2.16	2.14	1.88	1.87	1.69	1.68	1.87	1.55	
Bucket width	m	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	
Bucket weight	kg	705	736	744	774	715	745	1 185*	1 017*	
<b>A</b> Dump clearance at 45° full height	m	2.71	2.61	2.66	2.55	2.61	2.50	2.67	2.59	
<b>B</b> Bucket reach at 45° full height	m	0.89	0.98	0.93	1.02	0.97	1.06	0.93	1.01	
<b>C</b> Bucket reach at 45° 2.13 m height	m	1.32	1.35	1.33	1.36	1.34	1.37	1.34	1.37	
<b>D</b> Overall length	m	6.56	6.71	6.64	6.79	6.71	6.86	6.63	6.74	
<b>E</b> Overall height	m	4.67	4.67	4.69	4.69	4.74	4.74	4.77	4.90	
<b>F</b> Digging depth	mm	62	73	68	78	76	86	64	64	
Turning radius c/w bucket	m	10.87	10.96	10.92	11.00	10.96	11.05	10.91	10.98	
Breakout force	kg	9 164	9 134	8 481	8 450	7 958	7 927	8 449	7 578	
Tipping load	• straight	kg	7 863	7 824	7 738	7 699	7 701	7 663	7 289	7 380
	• at 40° turn	kg	6 596	6 557	6 483	6 444	6 454	6 415	6 050	6 148
Operating weight	kg	9 799	9 829	9 837	9 868	9 809	9 839	10 278	10 111	

\* Weight with quick coupler

All specifications and dimensions given above are based on unit fitted with **17,5 X 25 XTLA Michelin** tyres, standard equipment, ROPS and FOBS cab, standard counterweight, operator and full tanks.

The dimensions and specifications comply with the ISO 8313, 5998, 7546 and pr EN 474-3.







Track : 1.85 m  
Width outside tyres : 2.34 m

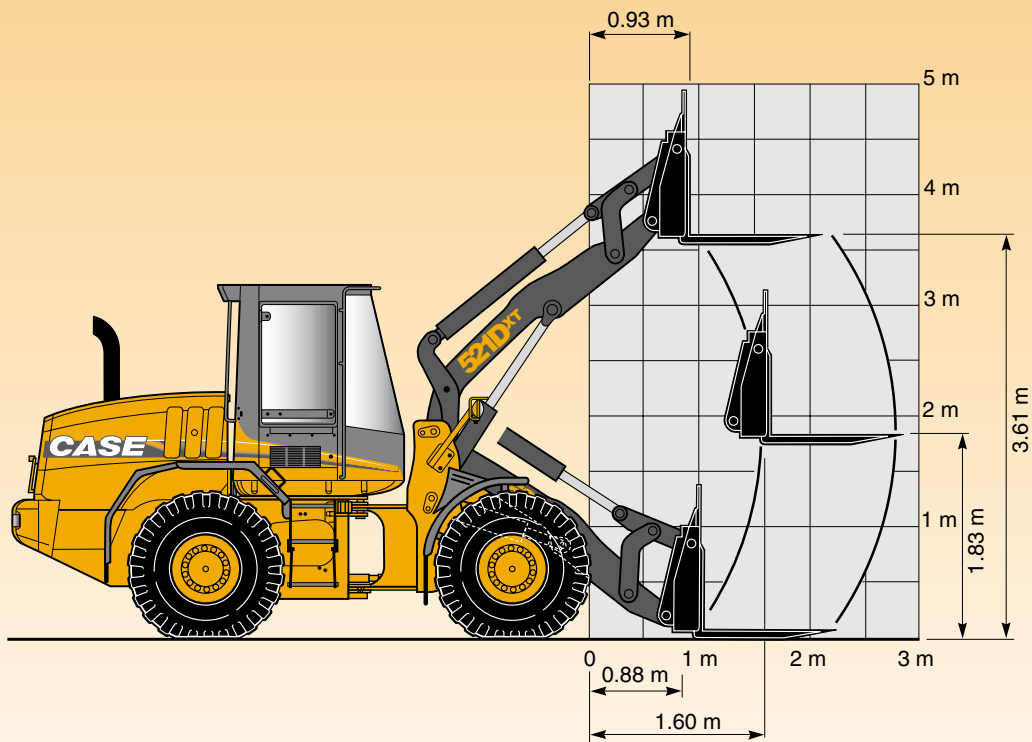
## BUCKET TYPE



				
SAE heaped capacity	m <sup>3</sup>	<b>1.62</b>	<b>1.98</b>	
Struck capacity	m <sup>3</sup>	1.39	1.71	
Maximum density	t/m <sup>3</sup>	1.57	1.31	
Bucket width	m	2.47	2.47	
Bucket weight (with quick hitch)	kg	1 184	1 017	
<b>A</b> Dump clearance at 45° full height	m	2.82	2.73	
<b>B</b> Bucket reach at 45° full height	m	1.25	1.34	
<b>C</b> Bucket reach at 45° 2.13 m height	m	1.69	1.73	
<b>D</b> Overall length	m	6.86	6.97	
<b>E</b> Overall height	m	4.94	5.078	
<b>F</b> Digging depth	mm	124	124	
Turning radius c/w bucket	m	11.15	11.22	
Breakout force	kg	9 858	8 854	
Tipping load	• straight	kg	6 112	6 226
	• at 40° turn	kg	5 081	5 198
Operating weight	kg	10 143	9 976	

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## 521D<sup>XT</sup> with PALLET'S FORKS (using quick coupler)



Fork length	1.22 m
Fork frame width	1.37 m
Weight with quick hitch	776 kg
Tipping load ISO :	
-- in line	5 806 kg
- at 40° steering lock	4 884 kg
Working load	
- rough ground	2 442 kg
- flat ground	
Overall operating weight	9 870 kg

Centre of gravity, load at 0.60 m

## RANGE OF TOOLS AND ACCESSORIES

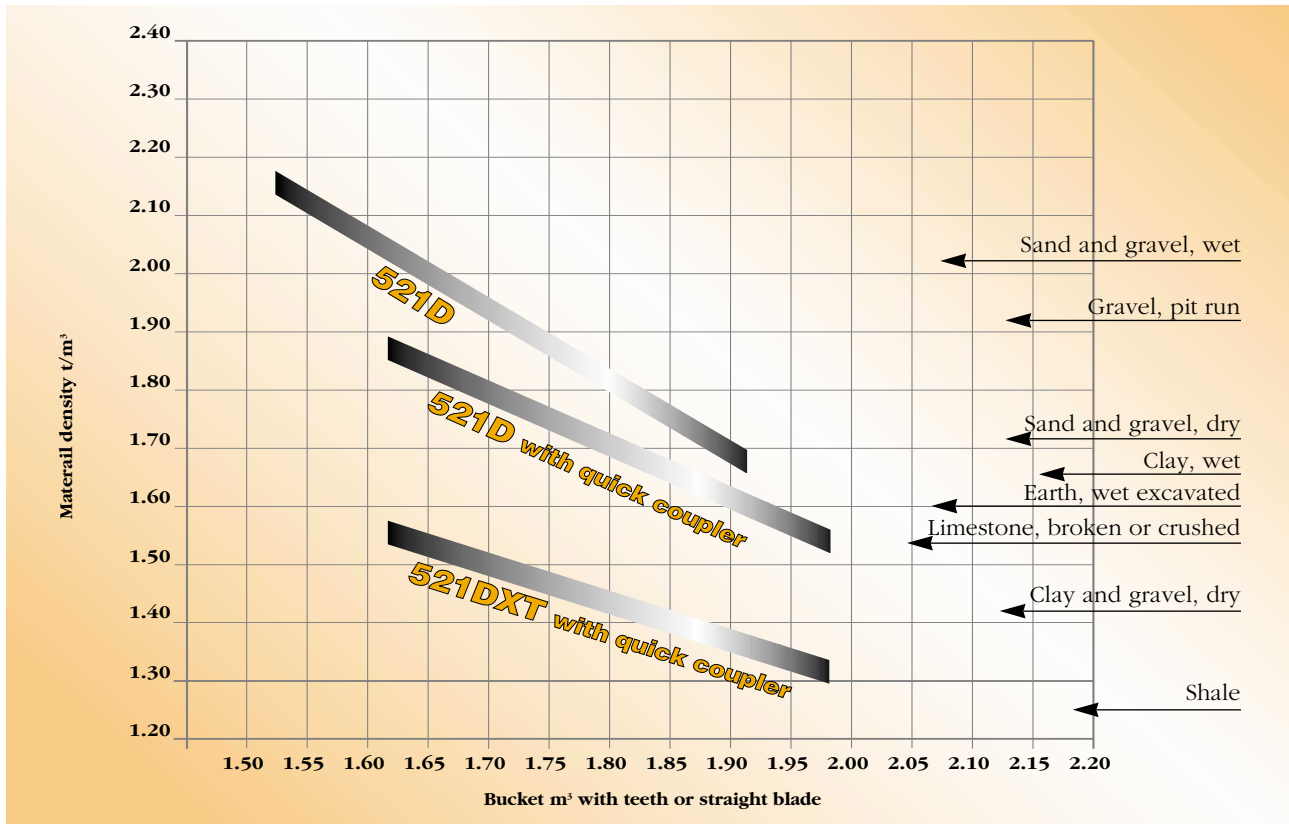
### Buckets :

- Without teeth
- With teeth
- With blade
- V-shaped blade
- Light-weight materials
- High tip

### Pallet forks

For other tools or specific applications, please consult Case.

## MATERIAL DENSITY BUCKET CAPACITY TABLE



## STANDARD EQUIPMENT

### Drivetrain

- Proportional-Shift Powershift gearbox
- Cold start protection (gearbox)
- Helical gears
- Proportional control valve
- Electrical/ hydraulic parking brake
- Transmission electronic control module
- Limited slip differentials

### Cab

- Pressurised cab
- ROPS and FOPS type approved cab
- Public highway lighting system
- Radio pre-equipment
- Air-conditioning\*
- Rotary beacon\*
- Grab handles
- Ventilation - Heating - Defrosting (redesigned)
- Wider and taller tinted window glass
- Cab filter
- Door opening gas strut assisted
- Instrument panel with electronic monitoring system
- Digital bar gauges

### Engine

- 45 amp alternator

### Hydraulics

- Axial piston variable flow pumps
- Bucket return-to-horizontal
- Automatic bucket return to transport position
- Integral refrigeration device

### Steering

- Flow amplified steering
- Closed centre steering
- Wide angle steering
- Emergency steering system
- Pilot control lock

### Equipment

- Front and rear windshield wiper
- Reverse travel audible warning
- Front and rear mudguards
- Hazard warning signal
- Front and rear working lights
- Light height pre-selection
- LH and RH rear-view mirrors
- Intermittent wipers
- Towing eye

## OPTIONAL EQUIPMENT

- Radio and converter
- Spark arrestor muffler
- 3rd hydraulic circuit
- Hydraulically controlled quick-hitch
- Air suspension seat with safety belt
- Reverse fan rotation to automatically clean cooling elements

*\* Standard and optional equipment may vary from country to country*

Conforms to directive 98/37/CE



**NOTE:** The standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional fittings or fittings not mentioned above. Moreover, the Case Company reserves the right to modify without prior notice its machine specifications, and without incurring any obligations relating to such changes.



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