

# D

SERIES WHEEL LOADERS

521D-D<sup>XT</sup> 621D-D<sup>XT</sup>-D<sup>XR</sup>

**CASE**



P R O F E S S I O N A L P A R T N E R

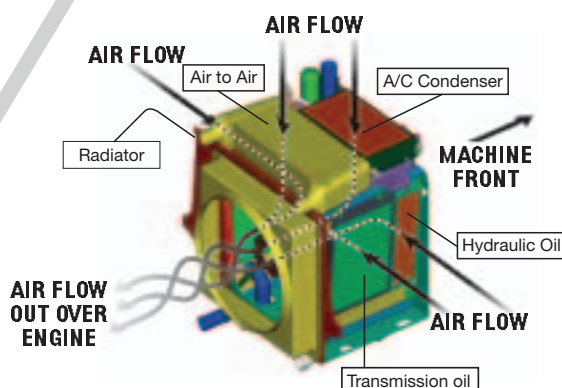
# D SERIES WHEEL LOADERS

## 521D-D<sup>XT</sup> 621D-D<sup>XT</sup>-D<sup>XR</sup>

TOTAL PRODUCTION MACHINES

### **MID - MOUNT COOLING MODULE**

The Case, mid-mount cooling module features an ultra-efficient design that draws the coolest air to the cooling radiator, A/C Condenser, turbo air cooler, hydraulic and transmission oil radiators. The cube-shape design prevents debris from plugging between coolers, and the reversible hydraulic fan easily purges any trapped material, for maximum uptime. The system prevents fluid breakdown and extends component life.





### **BUCKETS ATTACK THE PILE**

Larger buckets on D-Series wheel loaders quickly penetrate the pile and efficiently prepare material for rapid fills and more tons moved per hour. The angled floor plate smoothly and quickly transitions material to the back of the bucket.

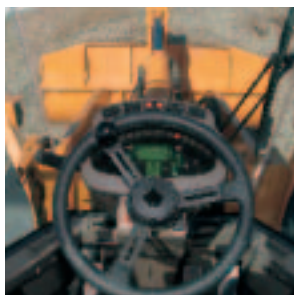


### **QUICK-RAISE HOOD**

A flip of a switch raises the one-piece rear hood for quick access to the cooling module, engine and all daily service points. Ground-level service checks can be completed with no tools. These design enhancements help make D-Series wheel loaders best in class on an SAE index for maintainability.

### **LIMITED-SLIP AXLES**

Limited-slip differentials on the front and rear axles maximise traction by transferring power from the wheel that is slipping to the wheel that is gripping. This provides maximum power when pushing material or creating a pile in wet, muddy conditions.

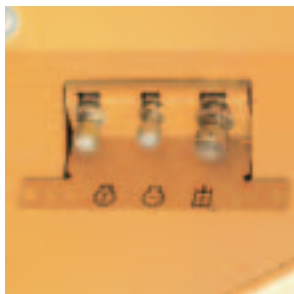


### **ERGONOMIC CAB**

The de-luxe, roomy cab on D-Series machines gives the operator a commanding, comfortable position. With single-lever controls, a convenient, electronic information centre, suspension seat and ample leg and head room, D-Series is the standard for comfort. Fatigue is reduced; productivity increased.

### **HOOD SLOPES FOR VISIBILITY**

View to the rear is improved by the clean, modern design of the dramatically sloping rear hood. The sloping hood is made possible by the mid-mount cooling module, which eliminates the need to enclose large large coolers at the rear of the machine.



### **REMOTE DRAINS**

Drains for coolant, hydraulic oil and engine oil are grouped at ground level at the left rear of the machine for convenient access. The remote drains allow for fast, environmentally friendly fluid changes.

### **LOADER CONFIGURATIONS**

For maximum versatility, D-Series wheel loaders come in linkage configurations including traditional Z-Bar, XT tool carrier and, depending on the model, XR extended reach.



### **QUICK COUPLER**

The quick coupler makes attachment changes quick and easy from the cab, granting maximum visibility to the operator.

## ENGINE

### 521D-D<sup>XT</sup>

<b>Make</b>	Case Family III
<b>Type</b>	4TAA-4502
<b>Max. power gross SAE (J 1995)</b>	119 hp (89 kW) at 2000 rpm
<b>Max. power net EEC 80/1269</b>	110 hp (82 kW) at 2000 rpm
<b>Max. gross torque</b>	481 Nm at 1400 rpm
<b>Max. net torque</b>	455 Nm at 1400 rpm
<b>Displacement</b>	4.5 l
<b>N° of cylinders</b>	4
<b>Bore x stroke</b>	104 x 132 mm
<b>Compression ratio</b>	17.5 to 1
<b>Fuel injection system</b>	direct injection, turbocharged, aftercooler
<b>Oil filter</b>	spin-on cartridge
<b>Air filter (dry-type)</b>	2 elements

### 621D-D<sup>XT</sup>-D<sup>XR</sup>

<b>Make</b>	Case Family III
<b>Type</b>	6TAA-6802
<b>Max. power gross SAE (J 1995)</b>	148 hp (110 kW) at 2000 rpm
<b>Max. power net EEC 80/1269</b>	136 hp (101 kW) at 2000 rpm
<b>Max. gross torque</b>	690 Nm at 1200 rpm
<b>Max. net torque</b>	671 Nm at 1200 rpm
<b>Displacement</b>	6.8 l
<b>N° of cylinders</b>	6
<b>Bore x stroke</b>	104 x 132 mm
<b>Compression ratio</b>	17.5 to 1
<b>Fuel injection system</b>	direct injection, turbocharged, aftercooler
<b>Oil filter</b>	spin-on cartridge
<b>Air filter (dry-type)</b>	2 elements

The engines comply with 97/68/EC Stage 2 and with 1996 US EPA and CARB standards.



## HYDRAULIC SYSTEM

Variable output "Load Sensing" type, closed centre hydraulic system. Single body variable output hydraulic pump with axial pistons.

<b>Maximum output</b>	134 l/min
<b>Pressure</b>	250 bar
<b>Double acting cylinders</b>	
<b>Arm (2) D / DXT</b> (bore x stroke)	102 x 783 mm
<b>Bucket (1) D</b> (bore x stroke)	114 x 529 mm
<b>Bucket (2) DXT</b> (bore x stroke)	102 x 758 mm

<b>Maximum output</b>	171 l/min
<b>Pressure</b>	250 bar
<b>Double acting cylinders</b>	
<b>Arm (2) D / DXT</b> (bore x stroke)	114 x 788 mm
<b>Bucket (1) D</b> (bore x stroke)	127 x 620 mm
<b>Bucket (2) DXT</b> (bore x stroke)	114 x 820 mm

Pressurised hydraulic tank integrated into the cooling assembly. 10 µ return filters.

<b>CYCLE TIME</b>	<b>D</b>	<b>DXT</b>
Raising (full bucket)	5.6 sec.	5.6 sec.
Lowering (bucket empty)	2.7 sec.	2.7 sec.
Dumping	1.1 sec.	1.1 sec.
Total	9.4 sec.	9.4 sec.

<b>D</b>	<b>DXT-DXR</b>
5.4 sec.	5.4 sec.
4.4 sec.	4.4 sec.
1.5 sec.	1.7 sec.
11.3 sec.	11.5 sec.

## ELECTRICAL SYSTEM

**Voltage** 24 Volts **Batteries** 2 x 12 Volts **Alternator** 70 Amperes

## 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.





## RIDE CONTROL

An anti-pitch system (optional) allows for the displacement of the loaded machine with reduced loss of material, 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.



## POWER TRAIN

521D-D<sup>XT</sup>

621D-D<sup>XT</sup>-D<sup>XR</sup>

### TORQUE CONVERTER

Stall ratio 2.55:1

2.66:1

### POWERSHIFT GEARBOX

Manufacturer

ZF

ZF

### TRAVEL SPEEDS (with standard L3 tyres)

	1st	2nd	3rd	4th
Forward km/h	6.9	13.3	23.4	37.6
Reverse km/h	7.2	14.0	24.5	—

1st	2nd	3rd	4th
6.9	13.5	23.9	38.6
7.3	14.2	25.0	—

### 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.

## CAPACITIES

Fuel tank	190 l
Hydraulic system	114 l
Hydraulic tank	57 l
Engine with filter	12 l
Transmission	26 l
Front axle	22 l
Rear axle	22 l
Engine cooling system	22 l

190 l

114 l

57 l

16 l

26 l

22 l

22 l

24 l

## TYRES

Standard 17.5 R 25 L2 to L3

Standard 20.5 R 25 L2 to L3

## AXLES

Manufacturer ZF, Front axle Fixed, Rear axle Oscillating ( $\pm$ )12°

**Limited slip differentials on front and rear axles, as standard.**

## 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 transmission output shaft. A safety device automatically cuts out the transmission when the parking brake is in use.

## STEERING

“Orbitrol” type with steering priority valve, closed centre steering with amplified output permitting variation in the number of turns of the steering wheel depending on the load level:

- Steering lock-to-lock angle ( $\pm$ ) 40°

## COOLING SYSTEM

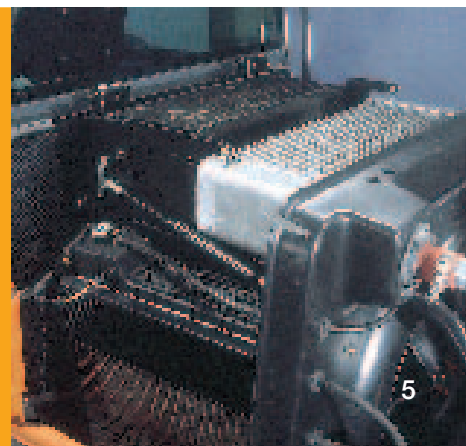
The machine's mid-mount cooling system integrates five radiator elements.

**Engine coolant radiator**  
**Turbo air cooler**  
**Transmission oil cooler**

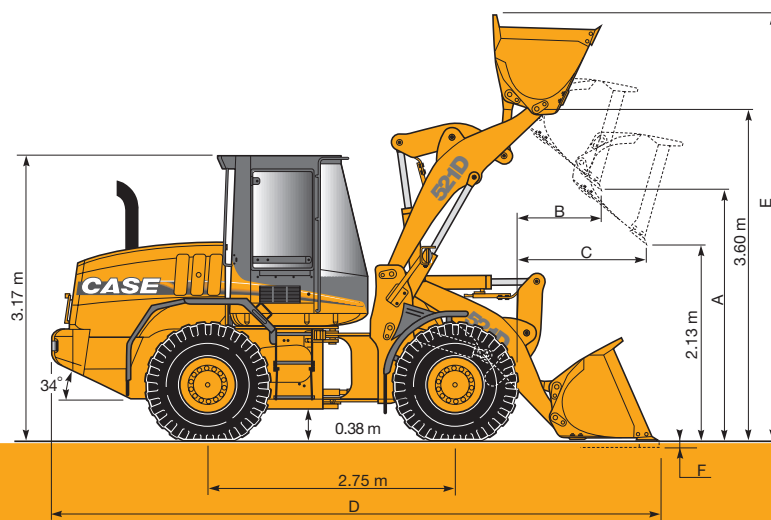
**Air conditioning condenser**  
**Hydraulic oil cooler (opt.)**

This assembly is equipped with a hydraulic driven fan for the cooling.

There is an option of reversing the fan's direction for cleaning the radiators (significant reduction in maintenance and down time when the machine is working in dusty conditions). The cooling system also includes the hydraulic reservoir.







Track: 1.85 m  
Width outside tyres: 2.34 m

# 521D

## BUCKET TYPE

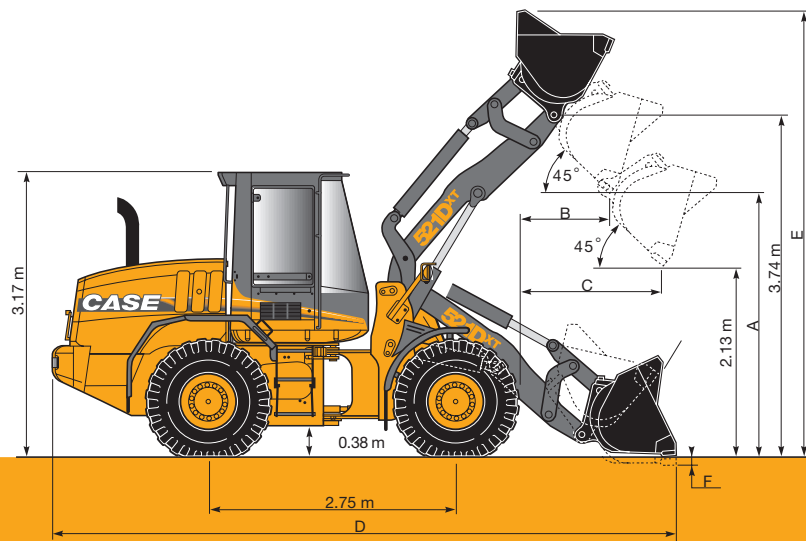


<b>SAE heaped capacity</b>	m <sup>3</sup>	1.7	1.7	1.9	1.9	1.7	1.7
<b>Maximum density</b>	t/m <sup>3</sup>	2.07	2.07	1.88	1.88	2.10	2.10
<b>Bucket width</b>	m	2.47	2.47	2.47	2.47	2.44	2.44
<b>Bucket weight</b>	kg	744	774	715	745	1140*	1065*
<b>A - Dump clearance at 45° full height</b>	m	2.70	2.61	2.66	2.56	2.57	2.56
<b>B - Bucket reach at 45° full height</b>	m	1.01	1.13	1.06	1.16	1.18	1.22
<b>C - Bucket reach at 45° 2.13 m height</b>	m	1.44	1.48	1.46	1.50	1.53	1.56
<b>D - Overall length</b>	m	6.64	6.79	6.71	6.86	6.85	6.88
<b>E - Overall height</b>	m	4.68	4.68	4.73	4.73	4.76	4.76
<b>F - Digging depth</b>	mm	76	86	84	94	68	58
<b>Turning radius c/w bucket</b>	m	5.46	5.50	5.48	5.53	5.49	5.50
<b>Breakout force</b>	kg	8796	8764	8254	8223	7 100	6955
<b>Tipping load (std. counterweight)</b>							
straight	kg	7189	7149	7186	7146	7161	7260
at 40° turn	kg	6277	6237	6277	6237	6209	6308
<b>Operating weight</b>	kg	9590	9620	9562	9591	10 085	10 013
<b>Tipping load (heavy counterweight)</b>							
straight	kg	8264	8224	8261	8221	8273	8372
at 40° turn	kg	7182	7142	7182	7142	7145	7244
<b>Operating weight</b>	kg	10 066	10 096	10 038	10 067	10 561	10 489

\* With quick coupler

All specifications and dimensions given above are based on unit fitted with **17.5 R 25 XTLA Michelin** tyres, standard equipment, ROPS and FOPS 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

# 521D<sup>XT</sup>

## BUCKET TYPE

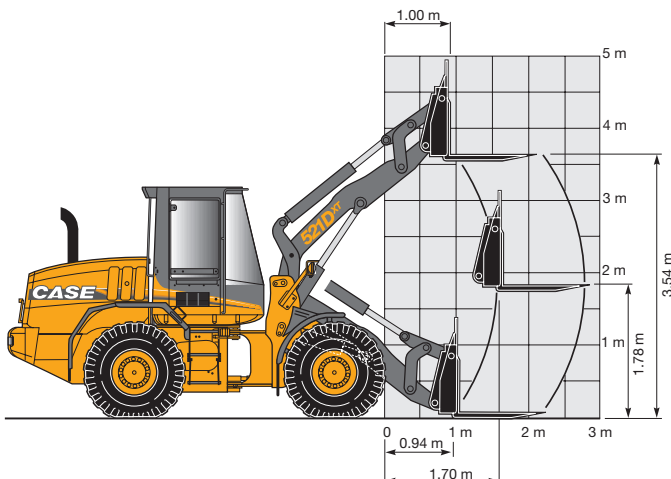


<b>SAE heaped capacity</b>	m <sup>3</sup>	1.7	1.7
<b>Maximum density</b>	t/m <sup>3</sup>	1.9	1.9
<b>Bucket width</b>	m	2.44	2.44
<b>Bucket weight (w/quick coupler)</b>	kg	1120	1045
<b>A - Dump clearance at 45° full height</b>	m	2.50	2.50
<b>B - Bucket reach at 45° full height</b>	m	1.23	1.27
<b>C - Bucket reach at 45° 2.13 m height</b>	m	1.54	1.54
<b>D - Overall length</b>	m	7.05	7.08
<b>E - Overall height</b>	m	4.94	4.94
<b>F - Digging depth</b>	mm	196	185
<b>Turning radius c/w bucket</b>	m	5.55	5.56
<b>Breakout force</b>	kg	8315	8150
<b>Tipping load</b>			
straight	kg	7390	7485
at 40° turn	kg	6360	6455
<b>Operating weight</b>	kg	10 810	10 740

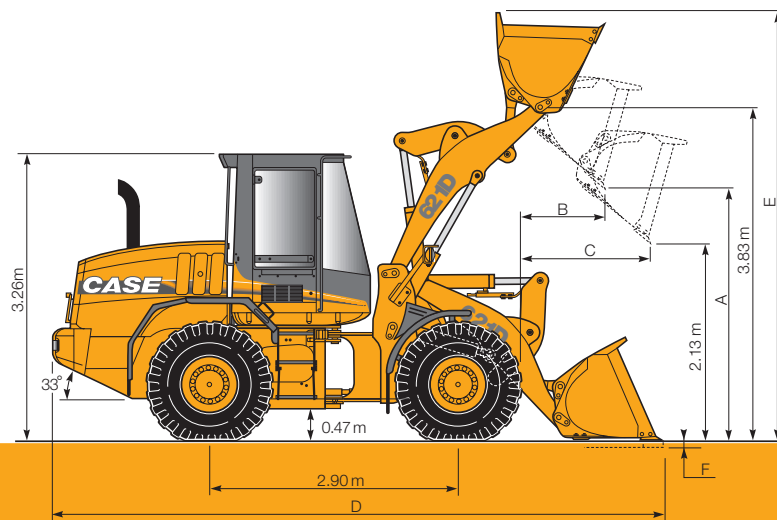


All specifications and dimensions given above are based on unit fitted with **17.5 R 25 XTLA Michelin** tyres, standard equipment. ROPS and FOPS cab, heavy counterweight, operator and full tanks. The dimensions and specifications comply with the ISO 8313, 5998, 7546 and pr EN 474-3.

## 521D<sup>XT</sup> WITH PALLET FORKS



<b>Fork length</b>	1.22 m
<b>Fork frame width</b>	1.50 m
<b>Fork weight w/ quick coupler</b>	686 kg
<b>Tipping load ISO:</b>	
in line	4985 kg
at 40° turn	4305 kg
<b>Working load</b>	
rough ground	2580 kg
<b>Overall operating weight</b>	10 378 kg
Centre of gravity, load at 0.60 m	



Track: 1.85 m  
Width outside tyres: 2.43 m

# 621D

## BUCKET TYPE



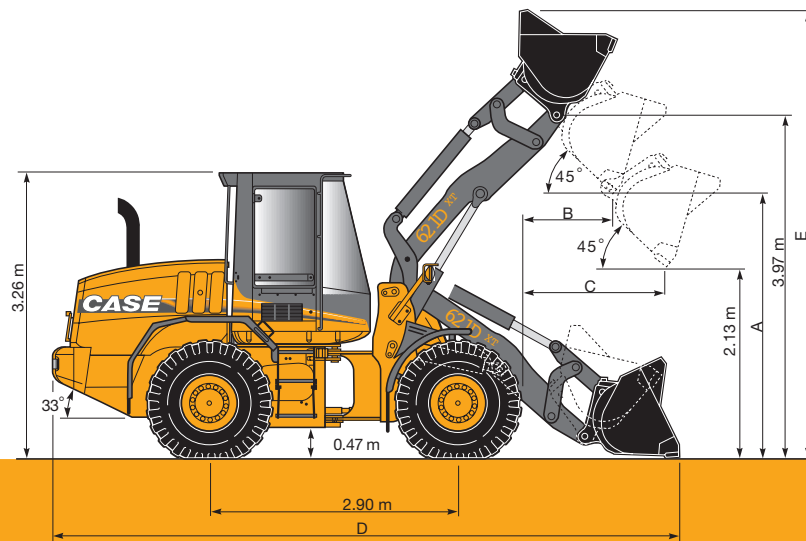
<b>SAE heaped capacity</b>	m <sup>3</sup>	2.1	2.1	2.3	2.3	2.0	2.0
<b>Maximum density</b>	t/m <sup>3</sup>	2.10	2.10	1.92	1.92	2.30	2.30
<b>Bucket width</b>	m	2.49	2.49	2.49	2.49	2.49	2.49
<b>Bucket weight</b>	kg	842	872	885	922	1240*	1170*
<b>A - Dump clearance at 45° full height</b>	m	2.85	2.75	2.81	2.71	2.72	2.70
<b>B - Bucket reach at 45° full height</b>	m	0.97	1.07	1.01	1.11	1.12	1.16
<b>C - Bucket reach at 45° 2.13 m height</b>	m	1.49	1.55	1.52	1.56	1.58	1.60
<b>D - Overall length</b>	m	6.97	7.12	7.04	7.18	7.18	7.21
<b>E - Overall height</b>	m	4.96	4.96	5.04	5.04	5.05	5.05
<b>F - Digging depth</b>	mm	76	84	82	92	79	89
<b>Turning radius c/w bucket</b>	m	5.75	5.80	5.77	5.82	5.73	5.74
<b>Breakout force</b>	kg	11 255	11 225	10 540	10 575	9475	9275
<b>Tipping load (std. counterweight)</b>							
straight	kg	9334	9294	9256	9249	9603	9705
at 40° turn	kg	8111	8070	8032	8025	8308	8411
<b>Operating weight</b>	kg	11 461	11 491	11 504	11 541	12 032	11 958
<b>Tipping load (heavy counterweight)</b>							
straight	kg	10 254	10 214	10 176	10 169	10 564	10 666
at 40° turn	kg	8886	8845	8807	8800	9118	9 221
<b>Operating weight</b>	kg	11 860	11 890	11 903	11 940	12 432	12 358

\* With quick coupler

All specifications and dimensions given above are based on unit fitted with **20.5 R 25 XTLA Michelin tyres**, standard equipment, ROPS and FOPS 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: 2.43 m

# 621D<sup>XT</sup>

## BUCKET TYPE

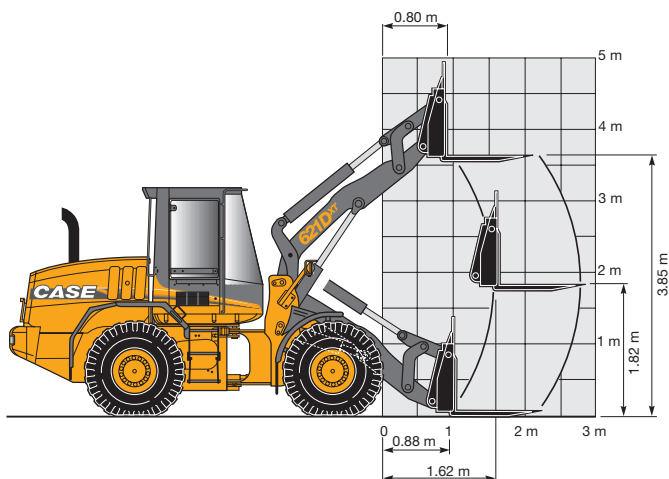


<b>SAE heaped capacity</b>	m <sup>3</sup>	2.0	2.0
<b>Maximum density</b>	t/m <sup>3</sup>	2.14	2.17
<b>Bucket width</b>	m	2.49	2.49
<b>Bucket weight (with quick coupler)</b>	kg	1235	1125
<b>A - Dump clearance at 45° full height</b>	m	2.66	2.64
<b>B - Bucket reach at 45° full height</b>	m	1.22	1.26
<b>C - Bucket reach at 45° 2.13 m height</b>	m	1.65	1.68
<b>D - Overall length</b>	m	7.43	7.46
<b>E - Overall height</b>	m	5.24	5.24
<b>F - Digging depth</b>	mm	175	164
<b>Turning radius c/w bucket</b>	m	5.75	5.76
<b>Breakout force</b>	kg	10 590	10 390
<b>Tipping load</b>			
straight	kg	9970	10 100
at 40° turn	kg	8560	8690
<b>Operating weight</b>	kg	12 635	12 525



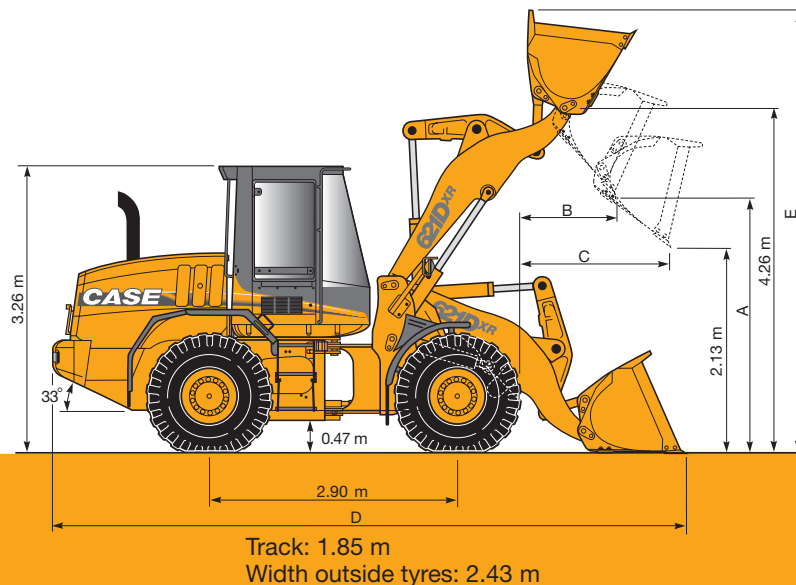
All specifications and dimensions given above are based on unit fitted with **20.5 R 25 XTLA Michelin tyres**, standard equipment, ROPS and FOPS cab, heavy counterweight, operator and full tanks. The dimensions and specifications comply with the ISO 8313, 5998, 7546 and pr EN 474-3.

## 621D<sup>XT</sup> WITH PALLET FORKS



<b>Fork length</b>	1.22 m
<b>Fork frame width</b>	1.70 m
<b>Fork weight w/ quick coupler</b>	732 kg
<b>Tipping load ISO:</b>	
in line	6540 kg
at 40° turn	5625 kg
<b>Working load</b>	
rough ground	3375 kg
<b>Overall operating weight</b>	12 130 kg

Centre of gravity, load at 0.60 m



# 621D<sup>XR</sup>

## BUCKET TYPE



<b>SAE heaped capacity</b>	m <sup>3</sup>	2.1	2.1	2.3	2.3	2.0	2.0
<b>Maximum density</b>	t/m <sup>3</sup>	1.73	1.73	1.57	1.57	1.86	1.86
<b>Bucket width</b>	m	2.49	2.49	2.49	2.49	2.49	2.49
<b>Bucket weight</b>	kg	842	872	885	922	1240*	1270*
<b>A - Dump clearance at 45° full height</b>	m	3.28	3.18	3.23	3.14	3.16	3.14
<b>B - Bucket reach at 45° full height</b>	m	0.97	1.07	1.01	1.11	1.14	1.18
<b>C - Bucket reach at 45° 2.13 m height</b>	m	1.85	1.91	1.88	1.93	1.94	1.97
<b>D - Overall length</b>	m	7.38	7.52	7.45	7.58	7.59	7.62
<b>E - Overall height</b>	m	5.38	5.38	5.46	5.46	5.48	5.48
<b>Turning radius c/w bucket</b>	m	5.94	5.99	5.97	6.00	5.93	5.94
<b>Breakout force</b>	kg	11 600	11 560	10 860	10 880	9515	9320
<b>Tipping load</b>							
straight	kg	8430	8390	8340	8330	8550	8645
at 40° turn	kg	7270	7230	7180	7170	7330	7430
<b>Operating weight</b>	kg	11 990	12 020	12 030	12 070	12 570	12 490

\* With quick coupler

All specifications and dimensions given above are based on unit fitted with **20.5 R 25 XTLA Michelin tyres**, standard equipment, ROPS and FOPS cab, heavy counterweight, operator and full tanks. The dimensions and specifications comply with the ISO 8313, 5998, 7546 and pr EN 474-3.

## 521D-D<sup>XT</sup> 621D-D<sup>XT</sup> -D<sup>XR</sup>

## RANGE OF TOOLS AND ACCESSORIES\*

### BUCKETS

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

### PALLET FORKS

\*For other tools or specific applications, please consult your Case dealer.



# 521D-D<sup>XT</sup> 621D-D<sup>XT</sup>-D<sup>XR</sup>

## STANDARD EQUIPMENT

### DRIVETRAIN

- Proportional Powershift gearbox
- Helical gears
- Proportional control valve
- Electrical/hydraulic parking brake
- Transmission electronic control module
- Limited slip differentials

### HYDRAULICS

- Axial piston variable flow pumps
- Automatic bucket return to transport position
- Integral cooling system
- Pilot control lock
- Dump height pre-selection

### STEERING

- Emergency steering system

### 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
- Cab filter
- Door opening gas strut assisted
- Instrument panel with electronic monitoring system
- Digital bar gauges

### EQUIPMENT

- Front and rear windshield wiper
- Reverse travel audible warning
- Front and rear mudguards
- Front and rear working lights
- LH and RH rear-view mirrors
- Intermittent wipers
- Towing eye

### ENGINE

- 70 Amp alternator

## POSSIBLE ADDITIONAL OPTIONS

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

Standard and optional equipment may vary from country to country



ALL  
YOU  
NEED  
IS  
CASE

## SERVICE & SUPPORT

### THE CASE DEALER YOUR PROFESSIONAL PARTNER

World-class construction equipment is just the start with Case. Your local Case dealer is a total solutions provider. Look to Case dealers to help find the right size machine, attachments and options to meet the demands of your job.

Case dealers help you maximise machine uptime and profitability. That means you can focus on the job, knowing your Case dealer is never far away.

Case dealers stand behind the equipment they sell, with skilled service technicians fully equipped to resolve your maintenance and repair issues and, the support of a global parts network, recognised as second to none in the industry.

But it doesn't stop there. Through CNH Capital, your local Case dealer offers flexible financing options, leasing packages and insurance services to protect your investment.

When you need more than just equipment, Case dealers deliver. More.



#### WORLDWIDE CASE CONSTRUCTION EQUIPMENT CONTACT INFORMATION

##### EUROPE/AFRICA/MIDDLE EAST:

CENTRE D'AFFAIRES EGB  
5, AVENUE GEORGES BATAILLE - BP 40401  
60671 LE PLESSIS-BELLEVILLE - FRANCE

##### NORTH AMERICA/MEXICO:

700 STATE STREET  
RACINE, WI 53404 U.S.A.

##### LATIN AMERICA:

AV. GENERAL DAVID SARNOFF 2237  
32210 - 900 CONTAGEM - MG  
BELO HORIZONTE BRAZIL

##### ASIA PACIFIC:

UNIT 1 - 1 FOUNDATION PLACE - PROSPECT  
NEW SOUTH WALES - 2148 AUSTRALIA

##### CHINA:

No. 29, INDUSTRIAL PREMISES, No. 376,  
DE BAO ROAD, WAIGAOQIAO FTZ, PUDONG,  
SHANGHAI, 200131, P.R.C.

**NOTE:** Standard and optional fittings can vary according to the demands and specific regulations of each country. The illustrations may include optional rather than standard fittings - consult your Case dealer. Furthermore, CNH reserves the right to modify machine specifications without incurring any obligation relating to such changes.

#### CNH UK Ltd.

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Conforms to directive 98/37/CE



[www.casece.com](http://www.casece.com)

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