

**G-SERIES WHEEL LOADERS**  
**521G | 621G**  
**STAGE IV**

**CASE**  
CONSTRUCTION



**MOVING**  
**MOUNTAINS**

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**SINCE 1842**

# G-SERIES

## WHEEL LOADERS

### ENGINE

	521G	621G
FPT engine _____	N45	N67
Cylinders _____	4	6
Displacement (l) _____	4.5	6.7
Air intake _____	Turbocharger with air-to-air cooling. No EGR valve is used: Only fresh air is taken for combustion and no extra cooling system is needed.	
Injection _____	Common Rail Multiple Injection.	
After Treatment System _____	HI-eSCR (DOC+SCR)	
Emission level _____	Compliant with EU Stage IV	
Max. power (kW) _____	106	128
Max. power (hp) _____	142	172
(@rpm) _____	1800	1800
(ISO 14396)		
Max. torque (N.m) _____	608	730
(@rpm) _____	1600	1600
(ISO 14396)		

### TRANSMISSION

ProShift: 5-speed powershift with lock up (optional on 621G)  
Lock up clutch eliminates torque converter losses from second gear up to fifth gear.  
Intelligent Clutch Cut Off (ICCO) with Power Inch: Proportional declutching depending on braking intensity.

Forward 1 (km/h) _____	-	7
Forward 2 (km/h) _____	-	13
Forward 3 (km/h) _____	-	20
Forward 4 (km/h) _____	-	31
Forward 5 (km/h) _____	-	45
Reverse 1 (km/h) _____	-	7
Reverse 2 (km/h) _____	-	14
Reverse 3 (km/h) _____	-	32

4-speed ZF Powershift with Intelligent Clutch Cut Off (ICCO)

Forward 1 (km/h) _____	6	7
Forward 2 (km/h) _____	11	13
Forward 3 (km/h) _____	22	24
Forward 4 (km/h) _____	36	39
Reverse 1 (km/h) _____	6	7
Reverse 2 (km/h) _____	12	14
Reverse 3 (km/h) _____	23	25

### AXLES AND DIFFERENTIAL

Rear axle total oscillation \_\_\_\_\_ 24°  
Heavy-duty ZF axles \_\_\_\_\_ with open differentials and automatic 100% lock system on the front differential. 100% tractive effort always, no wheel slip, less tire wear.  
Standard ZF axles \_\_\_\_\_ with limited slip differentials front and rear 73% tractive effort on slippery ground.

### TYRES

Tyres _____	17.5R25 20.5R25	20.5R25
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### BRAKES

	521G	621G
Service brake _____	Maintenance free, self-adjusting wet 4-wheel disc brakes.	
Brake disc area (m <sup>2</sup> /hub) _____	0.39	0.39
Parking brake _____	With the negative brake all four wheels are automatically stopped when the engine is stopped.	
Parking disc brake area (cm <sup>2</sup> ) _____	58	58

### HYDRAULICS

Valves _____	Rexroth Closed-center, Load sensing hydraulic. Main valve with 3 sections.	
Steering _____	The steering orbital hydraulically is actuated with priority valve.	
Automatic functions _____	Bucket Return-to-dig, Boom Return-to-travel, Boom Auto-lift.	
Control type _____	Pilot control with single joystick or two/three levers.	
Type of pump _____	Tandem variable displacement pump (single pump on 521G-621G).	
(l/min) _____	134	169
(@rpm) _____	2000	2000

### AUXILIARY HYDRAULIC CIRCUIT

Max flow (l/min) _____	134	169
Max pressure (bar) _____	249-255	249-255

### SERVICE CAPACITIES

Fuel tank (l) _____	189	248
AdBlue tank (l) _____	41.3	41.3
Cooling system (l) _____	22	27
Engine oil (l) _____	12	13
Hydraulic oil tank (l) _____	57	91
Total hydraulic system oil (l) _____	114	148
Front and Rear Axles (l) _____	22+22	22+22
Transmission oil (l) _____	19	27

### CAB PROTECTION

Protection against falling objects (FOPS) \_\_\_\_\_ ISO EN3449  
Protection against roll over (ROPS) \_\_\_\_\_ ISO EN13510

### NOISE AND VIBRATION

In the cab - LpA (dB) _____	68	68
(ISO 6396: 2008)		
Outside - LwA (dB) _____	102	104
(2000/14/EC)		
Vibrations _____	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s <sup>2</sup>	

### ELECTRICAL SYSTEM

24V. Batteries 2 x 12V.		
Alternator (A) _____	70	120

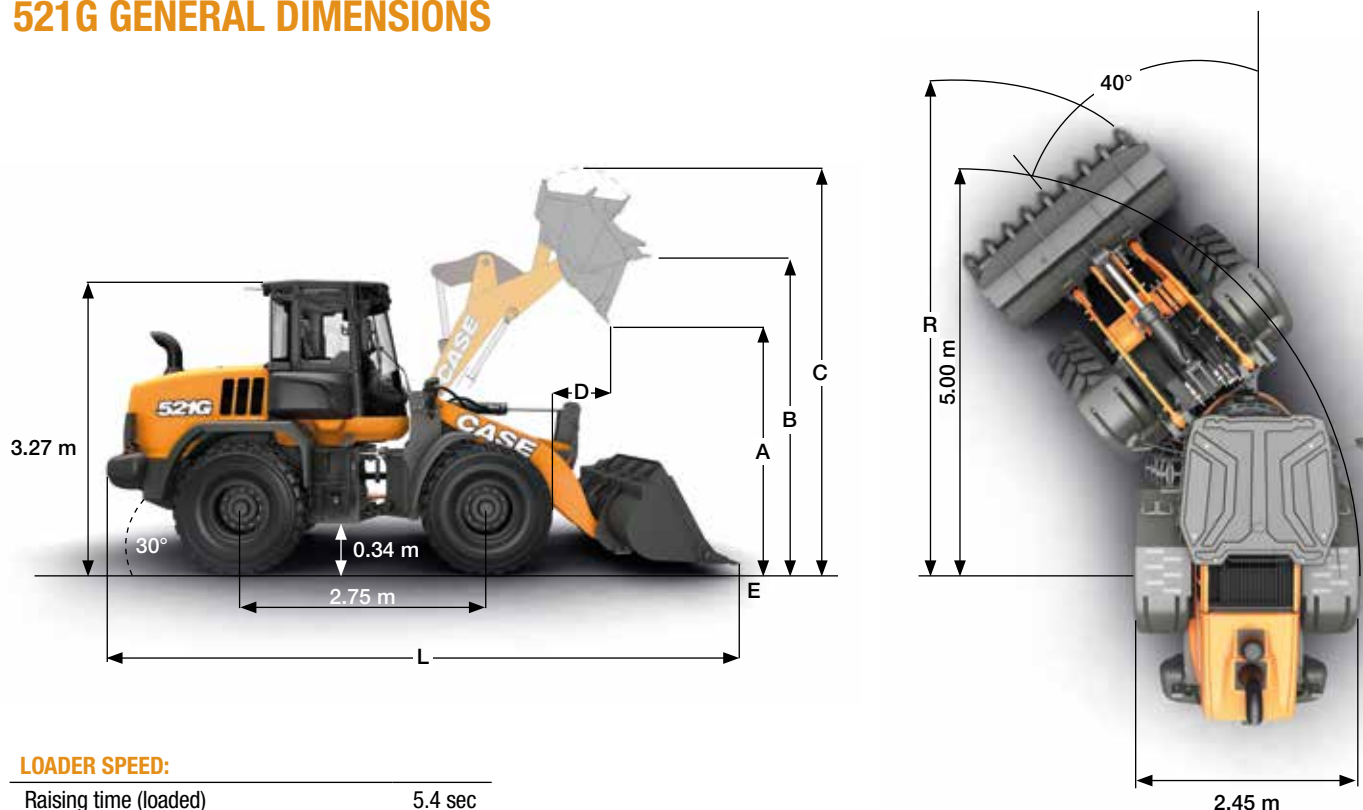


621G XT

CASE

# G-SERIES WHEEL LOADERS

## 521G GENERAL DIMENSIONS

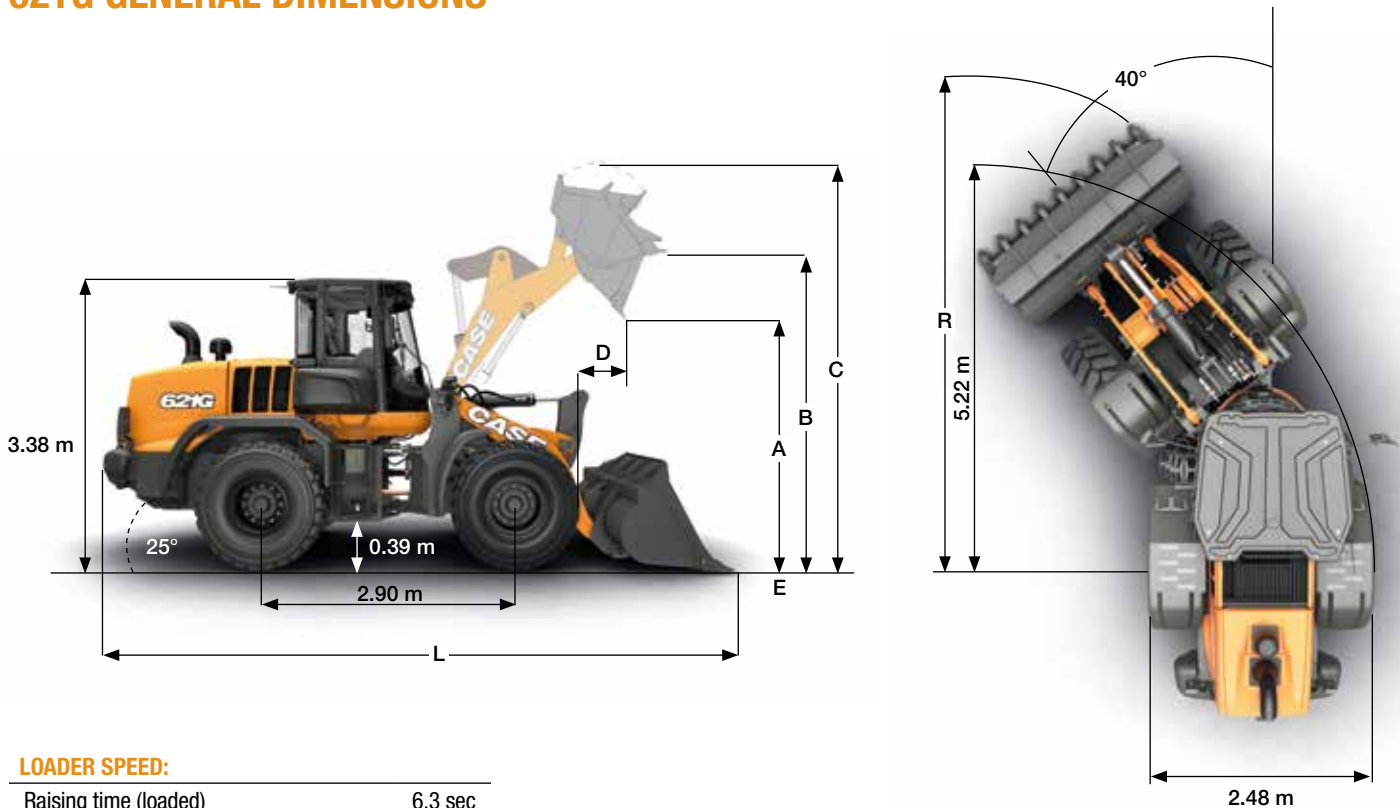


### LOADER SPEED:

Raising time (loaded)	5.4 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	3.9 sec
Lowering time (empty, float down)	3.9 sec

521G		Z-bar buckets				XR bucket				XT bucket	
		2.1 m <sup>3</sup> pin-on		1.7 m <sup>3</sup> w/QC		1.9 m <sup>3</sup> pin-on		1.7 m <sup>3</sup> w/QC		1.7 m <sup>3</sup> w/QC	
		edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments
	Bucket volume (heaped)	m <sup>3</sup>	2.1	2.1	1.8	1.7	1.9	1.8	1.8	1.7	1.7
	Bucket volume at 110% filling rate	m <sup>3</sup>	2.3	2.3	1.9	1.9	2.1	2.0	1.9	1.9	1.9
	Bucket Payload	kg	3895	3880	3735	3735	3350	3330	3170	3165	3175
	Maximum material density	ton/m <sup>3</sup>	1.85	1.87	2.13	2.18	1.78	1.81	1.81	1.85	1.81
	Bucket outside width	m	2.50	2.54	2.44	2.44	2.5	2.54	2.44	2.44	2.44
	Bucket weight	kg	850	880	1055	1080	815	840	1050	1080	1050
	Tipping load - straight	kg	8870	8830	8530	8530	7650	7620	7280	7270	7260
	Tipping load - Articulated at 40°	kg	7790	7760	7470	7470	6700	6660	6340	6330	6350
	Breakout force	kg	7600	7880	7020	7210	8130	8390	7020	7210	8050
	Lift capacity from ground	kg	8870	8810	10620	10700	8930	8890	8690	8770	10500
A	Dump height at 45° at full height	m	2.61	2.55	2.48	2.41	3.04	2.98	2.92	2.86	2.43
B	Hinge pin height	m	3.61	3.61	3.61	3.61	3.99	3.99	3.98	3.98	3.75
C	Overall height	m	4.74	4.74	4.74	4.74	5.06	5.06	5.12	5.12	4.93
D	Bucket reach at full height	m	1.11	1.19	1.07	1.13	1.04	1.12	1.13	1.2	1.11
E	Dig depth	cm	8	9	10	10	11	11	14	14	19
L	Overall length with bucket on the ground	m	6.84	6.94	6.93	7.03	7.11	7.21	7.27	7.37	7.12
	Overall length without bucket	m	5.77	5.77	5.77	5.77	6.09	6.09	6.09	6.09	5.73
R	Turning radius to front corner of the bucket	m	5.53	5.57	5.53	5.57	5.67	5.72	5.67	5.72	5.53
	Bucket rollback in carry position	°	44°	44°	50°	50°	46°	46°	51°	51°	52°
	Dump angle at full height	°	55°	55°	45	45	51°	51°	40°	40°	57°
	Machine operating weight with XHA2 (L3) tyres	kg	11100	11130	11300	11330	11190	11220	11430	11460	11560
	Machine operating weight with VSDL (L5) tyres	kg	11740	11770	11940	11970	11830	11860	12070	12100	12200

## 621G GENERAL DIMENSIONS



### LOADER SPEED:

Raising time (loaded)	6.3 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	4.4 sec
Lowering time (empty, float down)	4.8 sec

621G	Z-bar bucket				XR bucket				XT bucket	
	2.4 m <sup>3</sup> pin-on		2.0 m <sup>3</sup> w/QC		2.1 m <sup>3</sup> pin-on		2.0 m <sup>3</sup> w/QC		2.0 m <sup>3</sup> w/QC	
	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments
Bucket volume (heaped)	m <sup>3</sup>	2.4	2.4	2.0	2.0	2.2	2.1	2.0	2.0	2.0
Bucket volume at 110% filling rate	m <sup>3</sup>	2.6	2.6	2.2	2.2	2.4	2.4	2.2	2.2	2.2
Bucket Payload	kg	4700	4675	4440	4435	3980	3960	3685	3675	3865
Maximum material density	ton/m <sup>3</sup>	1.97	1.99	2.19	2.22	1.83	1.85	1.82	1.84	1.90
Bucket outside width	m	2.49	2.54	2.49	2.49	2.49	2.54	2.49	2.54	2.49
Bucket weight	kg	925	955	1375	1405	880	910	1375	1405	1255
Tipping load - straight	kg	10800	10760	10270	10260	9190	9150	8580	8560	8940
Tipping load - Articulated at 40°	kg	9400	9350	8880	8870	7960	7920	7370	7350	7730
Breakout force	kg	10100	10380	9450	9640	11550	11910	9480	9670	10440
Lift capacity from ground	kg	9860	9790	8710	8780	11520	11480	10820	10810	13450
A Dump height at 45° at full height	m	2.75	2.68	2.7	2.63	3.26	3.19	3.21	3.15	2.57
B Hinge pin height	m	3.83	3.83	3.83	3.83	4.26	4.26	4.24	4.24	3.96
C Overall height	m	5.04	5.04	5.05	5.05	5.46	5.46	5.46	5.46	5.23
D Bucket reach at full height	m	1.08	1.15	1.1	1.18	1	1.07	1.21	1.29	1.1
E Dig depth	cm	9	9	9	8	9	9	9	9	18
L Overall length with bucket on the ground	m	7.47	7.57	7.63	7.56	7.87	7.97	8.03	7.96	7.78
Overall length without bucket	m	6.28	6.28	6.28	6.28	6.69	6.69	6.69	6.69	6.2
R Turning radius to front corner of the bucket	m	5.76	5.81	5.75	5.79	5.92	5.97	5.94	5.99	5.72
Bucket rollback in carry position	°	45°	45°	50°	50°	46°	46°	51°	51°	59°
Dump angle at full height	°	51°	51°	41°	41°	46°	46°	35°	35°	50°
Machine operating weight with XHA2 (L3) tyres	kg	12850	12880	13300	13330	12980	13010	13480	13510	13380
Machine operating weight with VSDL (L5) tyres	kg	13549	13579	13999	14029	13679	13709	14179	14209	14079