

G-SERIES WHEEL LOADERS
721G | 821G
STAGE V

CASE
CONSTRUCTION



MOVING
MOUNTAINS

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EXPERTS FOR THE REAL WORLD
SINCE 1842

G-SERIES WHEEL LOADERS



EXPERTS FOR THE REAL WORLD SINCE 1842

- 1842** CASE is founded.
- 1869** The first CASE portable steam engine - road construction is born!
- 1958** The first CASE 4-WD wheel loader, the W9, is introduced.
- 1969** CASE begins skid steer loader production.
- 1998** Ride control on loader backhoes and skid steer loaders: another CASE first. From 1998 CASE Wheel Loaders run FPT engines, leaders in industrial engine technology.
- 2001** The exclusive mid-mounted Cooling Cube in CASE wheel loaders means clean engine, reliability and massive bucket payloads.

HERITAGE

A TRADITION OF INDUSTRY FIRSTS



- 2011** CASE is the first in the industry to launch a 5-speed lock up transmission
- 2012** CASE completes its EU Stage IIIB wheel loader range: a further step forward in emissions reduction and once again the first in the industry.
- 2015** CASE wheel loaders achieve EU Stage IV emissions standards while further increasing fuel efficiency without a DPF.
- 2017** New G series wheel loaders are launched.
- 2019** CASE begins introducing Stage V models in Europe, still without traditional DPF. CASE shows, for the first time ever in the industry, the concept of a Compressed Natural Gas (CNG) wheel loader: ProjectTETRA.

G-SERIES WHEEL LOADERS



HIGH EFFICIENCY with no EGR

The engine was developed and manufactured by our award winning sister company FPT Industrial, which produces over 500,000 engines per year and powers world record winners.

The in-house design leverages advanced technologies developed for commercial vehicles and agriculture, and introduces specific tailored solutions for off-road applications.

The NEF N67, with 6 in-line cylinders and a 6.7 litre displacement, is designed to offer both fuel efficiency and reliability with plenty of power available.

- The air intake flow is increased by a turbocharger with air-to-air cooling.
- The multiple injection delivers best-in-class high torque performance at low rpms.
- No EGR valve is used: 100% fresh air is taken for combustion without traditional DPF and no extra cooling system is needed.

Our engine technology is so reliable that it is trusted by the French Sea Rescue service for their boats: what better guarantee could you wish for?



ENGINE KEEP IT SIMPLE



LOW EMISSIONS

Maintenance-free, built-for-life

To maintain the advantages of the unique and unbeaten HI-eSCR technology, FPT Industrial integrated a maintenance-free device on its SCR catalyst, thus allowing to comply with tightened limits on PM emissions within a compact package. This allows for a very compact engine compartment, resulting in excellent rear visibility. In addition, the maximum temperature reached during normal operating conditions by HI-eSCR 2 is still on average 200° C below a traditional particulate filter.



FPT's Stage V Solution:

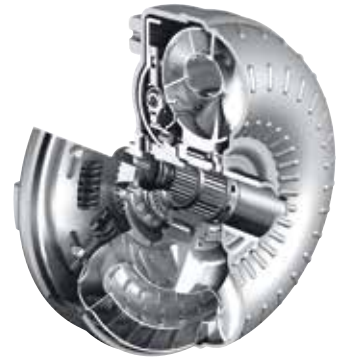
- High Performance
- Low Operating Costs
- Ease of Use

In addition to traditional diesel, the Stage V NEF engines are capable of running also on B7 biodiesel, as well as HVO diesel (an even cleaner and more high-quality alternative to biodiesel, with superior performances in cold weathers).

HI-eSCR2

G-SERIES

WHEEL LOADERS



HIGH EFFICIENCY

ProShift transmission

ProShift transmission provides on average 1.5 litre/hour fuel saving and up to 20% faster cycle time.

This is the result of three premium features:

1. 5-speed transmission

The 5 speeds allow to always work at lower rev's compared to 4-speed transmission. Lower rev's result in lower fuel usage. When the ECO mode is selected not only the engine gives priority to fuel efficiency but also the transmission shifts at lower rev's in order to increase fuel efficiency and noise emission.

2. Torque converter lock-up

Wheel loaders continuously shift gears and every time diesel saving is achieved with:

- Torque converter lock-up that kills viscous losses from 2nd up to 5th gear
- Engine de-rating during gear shifts that kills torque peaks in the clutch and contributes to lower fuel usage

PROSHIFT TRANSMISSION

GO FASTER, STAY EFFICIENT



EASY TO USE

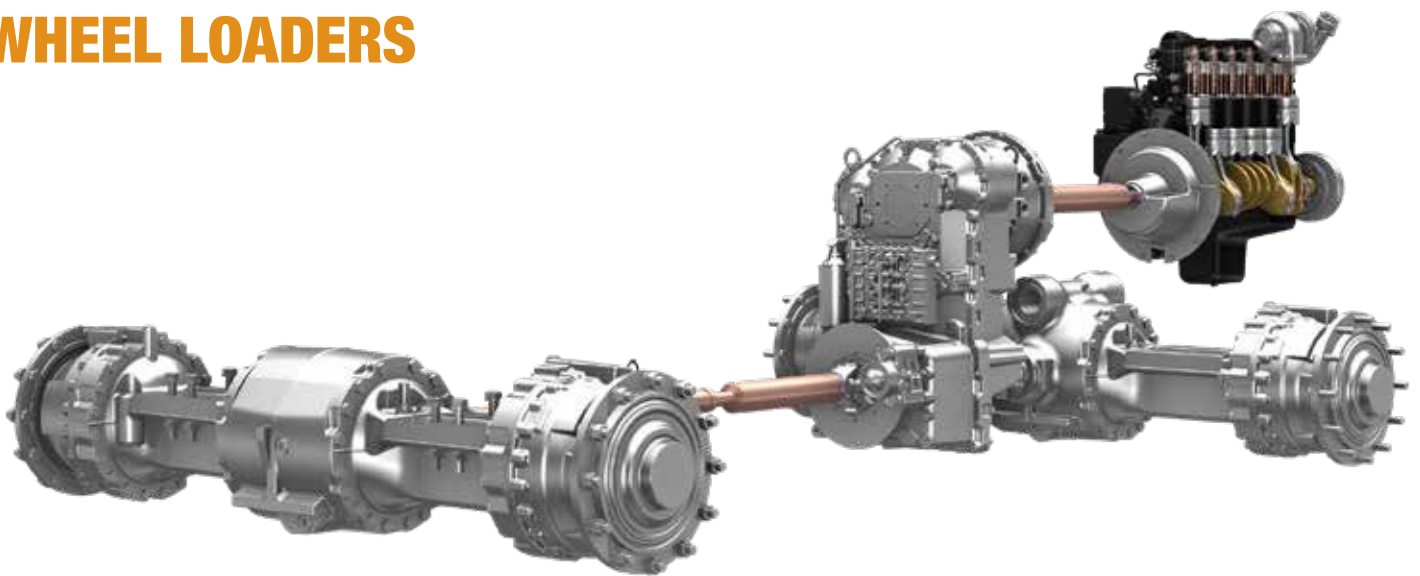
Intelligent Clutch Cut off with Power Inch

3. Power Inch

With Power Inch, positioning the loader is as smooth as with a hydrostatic transmission, with the added advantage of massive pushing power delivered by the torque converter. This also prevents rolling back on slopes.

The automatic start of the transmission in 2nd gear reduces operator fatigue, fuel usage and stress on the torque converter. With the further enhancement of a torque-based 2- to-1 downshift, the transmission will downshift automatically based on machine load or manually with the kick-down button located on the joystick.

G-SERIES WHEEL LOADERS



HIGH RELIABILITY

Heavy-duty axles

The heavy-duty axles are tougher, bigger and easier to service thanks to the 3-piece housing design. Wet multiple disc brakes, made of resistant sintered bronze, are located in each wheel hub. Our heavy-duty axles are engineered to support L5 or solid tyres for very abrasive environments. Solid tyres can be factory fitted.

A higher value results from:

- 20-30% lower tyre wear because of no slippage between the wheels.
- reduced fuel consumption because there is no friction in the differential.
- reduced downtime for maintenance because of fewer moving components with open differentials.



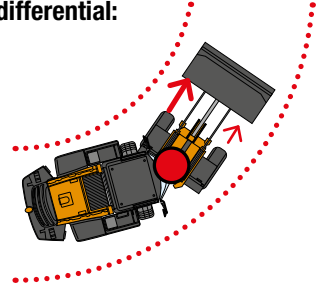
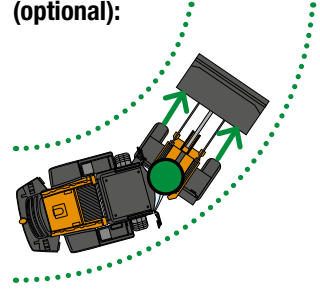
COST SAVINGS

100% auto-lock differential

With open differentials, no friction is applied to reduce wheel slip. As a result, there is less tyre wear and lower energy losses.

With the 100% auto-lock, 100% of the available torque is transmitted to the wheels to provide maximum tractive effort.



Loading on soft ground		Taking a curve on solid ground	
With limited slip differential:  - 70% tractive effort transmitted to the wheels - Automatic engagement	With 100% diff lock (optional):  - 100% tractive effort transmitted to the wheels - Automatic or manual engagement	With limited slip differential:  - Automatic slip limited engagement - Internal losses and wind up - Increased tyre wear	With 100% diff lock (optional):  - No engagement (open diff) - No energy loss - Less tyre wear

CASE COOLING CUBE THE ANTI-CLOGGING SOLUTION



HIGH RELIABILITY

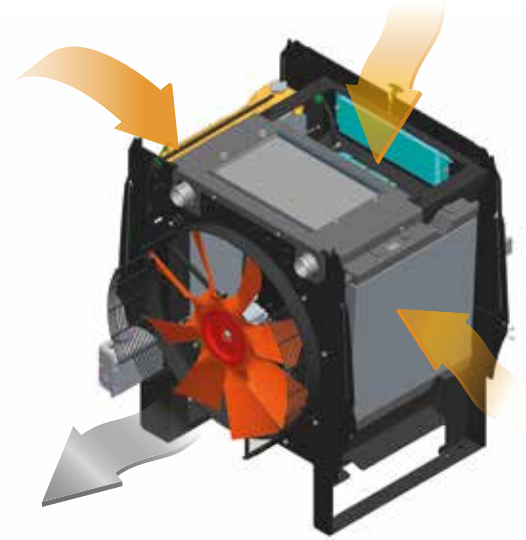
CASE cooling cube

The unique design of the CASE cooling cube, with five radiators mounted to form a cube instead of overlapping, ensures a constant flow of fresh and clean air from the sides and from the top, to maintain constant fluid temperatures.

The cube structure provides easy access to radiators for a more effective cleaning and serviceability: additional cleaning can also be easily done manually, with separate access to each radiator.

Designed for dusty environment

The cooling system is mounted behind the cab, far from the rear bumper of the machine and from the ground: away from the dust.



SUPERIOR COOLING EFFECTIVENESS

Heavy-duty cooling

Handling fertilizer, cereals, animal feed or other materials indoors usually leads to radiator clogging. CASE's solution is the heavy-duty cooling option, which features:

- Extra thin inlet grille that stops bigger particles.
- Sealed radiator covers that ensure the cooling air is 100% filtered.
- Wide core radiators increase self cleaning with the reversible fan and prevent clogging.



HEAVY-DUTY GRILLE OUTSIDE

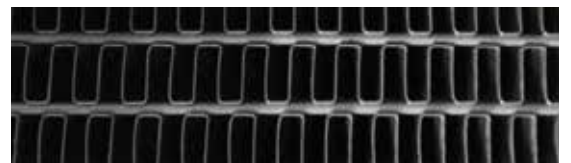


Heavy-duty



Standard

HEAVY-DUTY COOLERS INSIDE



Heavy-duty



Standard

G-SERIES WHEEL LOADERS



NEW CAB

THE ULTIMATE COMFORT



HIGH VISIBILITY

Front visibility

- The one-piece design windshield provides an unobstructed panoramic view.

Rear Visibility

- Multiple rear view convex mirrors, a rear view display, the slim engine hood and rear grid defroster ensure optimum rear visibility.

Night Visibility

- LED lighting is so effective that you won't see any difference between night and day work.



OPERATOR PROTECTION

Noise and vibration

- The new active suspension premium seat features electronic auto-weight adjustment, a dynamic dampening system and a low frequency shock absorption system. Combined with the suspended cab mount and the positioning of the engine at the rear, this reduces the noise and vibrations the operator is subjected to.
- Noise in the cab is not only low (68 dB): it also sounds great.

Cab air

- Primary and recirculation filtration efficiency now reaches 99% of particles with improved dust capacity and longer replacement intervals. When working in particularly tough conditions, additional active carbon filters can be fitted.

Cab access

- Access is easier and safer thanks to the optimised handrails and the pull-type handle.



OPERATING COMFORT

Seat and controls

- The seat mounted armrest gives more accurate control and comfort. It features 3rd/4th function proportional control integrated in the joystick, as well as the option of replacing the joystick with two or three (for the 3rd function) fingertip levers.
- New joystick steering: the operator handles two equally sized joysticks, just like on an excavator, which reduces fatigue. It features speed proportional sensitivity and slow/medium/fast settings.
- The suspended seat includes seat heaters which warm it up in the cold winter mornings.

User interface

- The premium control interface with 8" color display offers intuitive navigation through the machine's information and settings.
- The hands free calling kit features an integrated microphone connected to the radio via Bluetooth.

Life on board

- The CASE electrically powered cool box keeps your lunch fresh all day long.
- Multiple storage areas enable you to store documents, beverages and personal objects conveniently.

MAINTENANCE AND ADDITIONAL OPTIONS

EASINESS AND PROTECTION



The layout of the components under the hood is optimised and results in easier maintenance



Hood opening and battery on/off switches. In case of flat battery, hood can be opened externally with remote jump start



Grouped drains for clean and quick oil changes



SAFE AND EASY MAINTENANCE

Ground level serviceability

- One-piece electric hood

The positioning of the engine at the rear and the easy-to-open electric hood provide fast access to the service points. Jumper cables are available as standard for jump starting the engine if the battery is low.

- Grouped service points

Don't be surprised if you don't see any safety handrails around the hood or steps behind the rear wheels, all service points are easily accessible at ground level. You can do a fast visual check of the hydraulic and transmission oil levels. The three drains are grouped together on the left side, so that fluids are easy and quick to replace.

- Greater safety

All the main service points are easily accessible from the ground, so you can carry out your daily maintenance safely and efficiently.

G-SERIES WHEEL LOADERS

Waste Handler guards for 721G and 821G



Windshield guard



Cylinder guards ejectors

- Lift cylinder guard
- Metal wrapped hoses
- Debris ejector



Rear light guards



Front light guards



Bottom guards (front and rear)



Articulation and front cover



MAIN REASONS TO CHOOSE THE G-SERIES



OPERATOR PROTECTION

- Viscous cab suspension
- Pressurized cab with high efficiency filtration
- Low noise (68 dB) and vibration



BEST-IN-CLASS VISIBILITY

- One-piece design windshield, high-efficiency lighting, convex rear mirrors and rear view camera provide optimum visibility 24 hours a day



HIGH PRODUCTIVITY

- Up to 38% payload-to-weight ratio
- Best-in-class breakout force



HIGH EFFICIENCY

- Optimized combustion efficiency with Hi-eSCR 2
- Optimized power transmission with 5-speed transmission and lock-up clutch





SUPERIOR COMFORT

- Seat mounted console
- Premium control interface with 8" display
- Hands-free calling kit
- Multiple storage areas
- Active suspension premium seat



SAFE AND EASY MAINTENANCE

- The rear mounted engine below the electric easy-to open hood is accessible at ground level.
- Grouped drains rationalise maintenance operations.



HIGH RELIABILITY

- Heavy-duty axles
- 100% differential lock
- Best-in-class cooling system with cube layout

TELEMATICS

ANTICIPATION AND CONTROL



THE SCIENCE BIT

The CASE SiteWatch telematics system uses a high-tech control unit mounted on each machine to collate information from that machine and from GPS satellites. This data is then sent wirelessly through the mobile communication networks to the CASE Telematics Web Portal.



SiteWatch: centralised fleet control benefits at your fingertips

Measure your true asset availability and optimise it

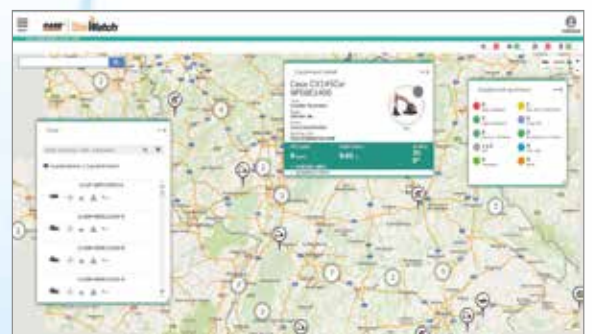
- Eliminate the “phantom fleet”: SiteWatch allows to identify spare units or under loaded machines on each site.
- Become able to reallocate units where they are more needed.
- Forward maintenance planning is easier since the actualised working hours are always available.
- Extend the benefits of SiteWatch to the rest of your fleet: SiteWatch can be installed on the units of other brands as well.

Challenge your Total Cost of Ownership!

- Being able to compare the fuel usage of different machine types will allow you choose the right equipment.
- Save on transport costs with planned and grouped maintenance tasks.
- Peace of mind, optimised uptime and lower repair costs: with preventive maintenance you can for example be alerted if the engine needs to be serviced and avoid a disruptive breakdown.
- Be able to compare your asset Return on Investment on different sites.
- Your equipment is used only during working hours. You can set up alerts so that you know if it is in use during the weekend or at night.
- Integrate with the programmed maintenance package, so that you can be sure every machine is at the right place at the right time.

More safety, lower insurance premium

- Keep thieves away: dissuade them from attacking your asset because it is geo-localised. SiteWatch is hidden so that thieves can't find it quickly.
- Your fleet is used only where you decide. You can define a virtual fence and receive an email when a machine exits that perimeter.



SPECIFICATIONS

ENGINE

	721G	821G
FPT engine	N67	N67
Cylinders	6	6
Displacement (l)	6.7	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 2 (DOC+SCRoF)	
Emission level	Compliant with EU Stage V	
Max. power (kW)	145	172
Max. power (hp)	195	230
(@rpm)	2000	1800
(ISO 14396)		
Max. torque (Nm)	950	1184
(@rpm)	1300	1300
(ISO 14396)		

TRANSMISSION

ProShift: 5-speed powershift with lock up (optional). 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	7
Forward 2 (km/h)	13	11
Forward 3 (km/h)	19	17
Forward 4 (km/h)	30	26
Forward 5 (km/h)	40	40
Reverse 1 (km/h)	8	7
Reverse 2 (km/h)	14	12
Reverse 3 (km/h)	31	28
4-speed ZF Powershift with Intelligent Clutch Cut Off (ICCO)		
Forward 1 (km/h)	8	7
Forward 2 (km/h)	13	12
Forward 3 (km/h)	25	23
Forward 4 (km/h)	37	37
Reverse 1 (km/h)	8	7
Reverse 2 (km/h)	13	13
Reverse 3 (km/h)	26	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	20.5R25	23.5R25
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BRAKES

	721G	821G
Service brake	Maintenance free, self-adjusting wet 4-wheel disc brakes.	
Brake disc area (m²/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 (cm²)	82	82

HYDRAULICS

Valves	Rexroth Closed-center, Load sensing hydraulic. Main valve with 3 sections.	
Steering	The steering orbitrol 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 721G).	
(l/min)	206	236
(@rpm)	2000	2000

AUXILIARY HYDRAULIC CIRCUIT

Max flow (l/min)	206	236
Max pressure (bar)	249-255	249-255

SERVICE CAPACITIES

Fuel tank (l)	246	288
AdBlue tank (l)	41.3	41.3
Cooling system (l)	28	30
Engine oil (l)	13	13
Hydraulic oil tank (l)	91	91
Total hydraulic system oil (l)	180	180
Front and Rear Axles (l)	35+35	40+40
Transmission oil (l)	34	34

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)	103	104
(2000/14/EC)		
Vibrations	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s²	

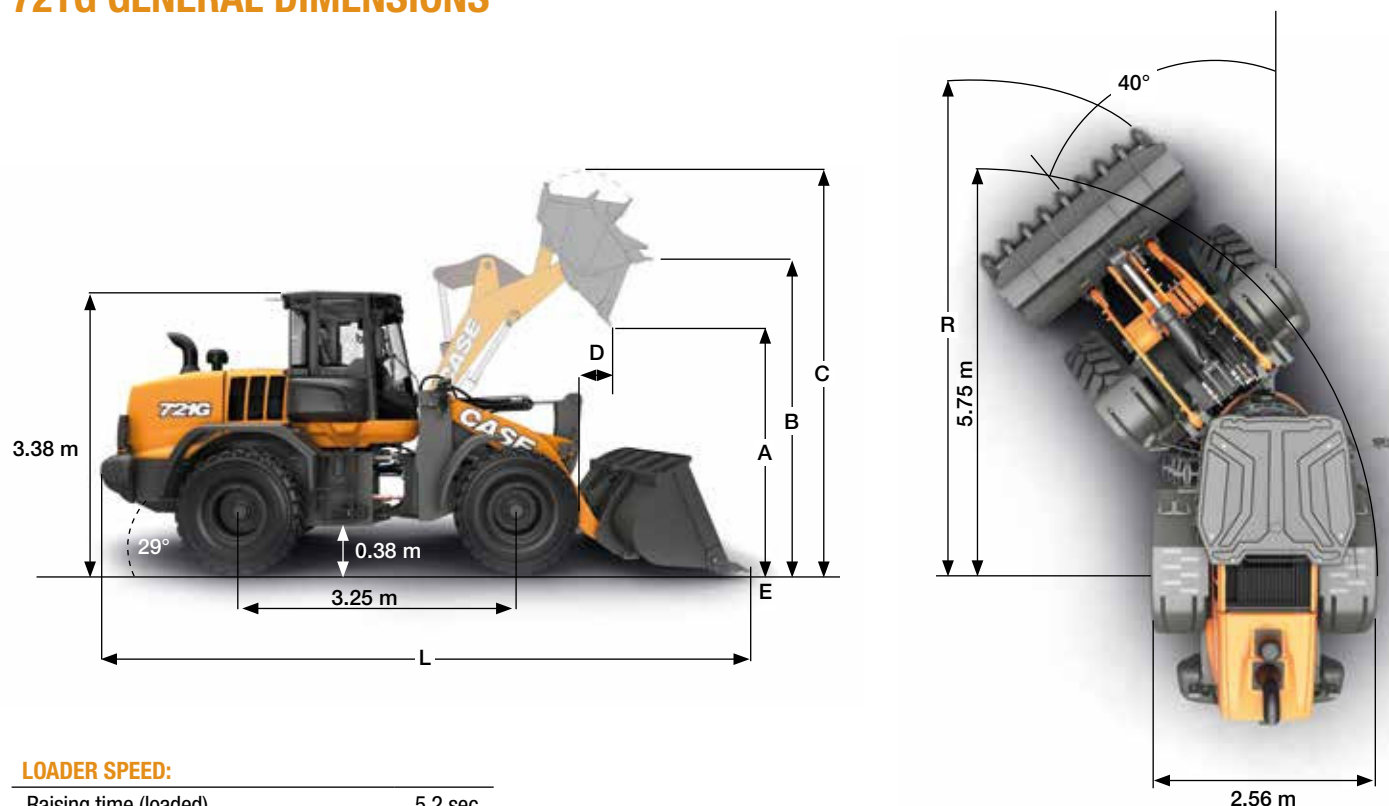
ELECTRICAL SYSTEM

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

G-SERIES

WHEEL LOADERS

721G GENERAL DIMENSIONS

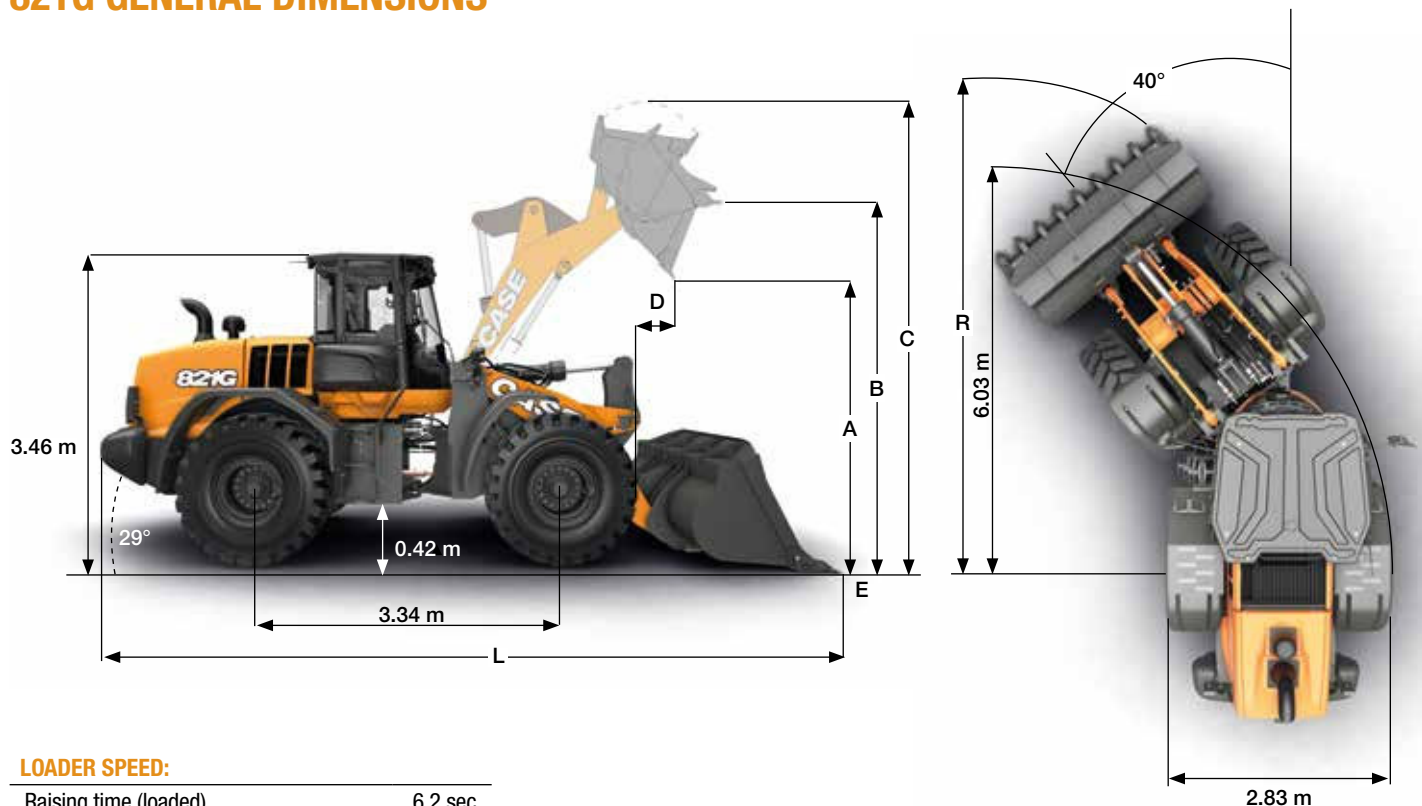


LOADER SPEED:

Raising time (loaded)	5.2 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	2.5 sec
Lowering time (empty, float down)	2.4 sec

721G		Z-bar bucket				XR bucket				XT bucket	
		2.8 m ³ pin-on		2.7 m ³ w/QC		2.8 m ³ pin-on		2.7m ³ w/QC		2.7 m ³ w/QC	
		edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments
	Bucket volume (heaped)	m ³	2.8	2.8	2.7	2.7	2.8	2.8	2.7	2.7	2.7
	Bucket volume at 110% filling rate	m ³	3.1	3.1	3.0	2.9	3.1	3.1	3.0	2.9	3.0
	Bucket Payload	kg	5495	5440	4765	4730	4580	4535	3985	4035	4270
	Maximum material density (100% filling rate)	ton/m ³	1.95	1.95	1.76	1.77	1.62	1.63	1.47	1.51	1.58
	Bucket outside width	m	2.71	2.726	2.69	2.69	2.71	2.726	2.69	2.69	2.49
	Bucket weight	kg	1220	1305	1705	1765	1220	1305	1705	1765	1634
	Tipping load - straight	kg	12640	12530	11040	10980	10610	10520	9300	9410	9890
	Tipping load - Articulated at 40°	kg	10990	10880	9530	9460	9160	9070	7970	8070	8540
	Breakout force	kg	14600	15000	12130	12430	14540	14940	11990	12290	11940
	Lift capacity from ground	kg	13710	13620	12440	12400	11370	11280	10345	10360	13920
A	Dump height at 45° at full height	m	2.92	2.82	2.73	2.63	3.33	3.26	3.13	3.02	2.8
B	Hinge pin height	m	3.979	3.979	3.98	3.98	4.37	4.37	4.37	4.37	4.16
C	Overall height	m	5.32	5.32	5.53	5.53	5.91	5.91	5.93	5.93	5.58
D	Bucket reach at full height	m	1.12	1.22	1.17	1.25	1.13	1.21	1.17	1.26	1.16
E	Dig depth	cm	8	9	7	8	8	8	7	8	12
L	Overall length with bucket on the ground	m	7.65	7.80	7.84	7.98	8.00	8.15	8.20	8.34	8.00
	Overall length without bucket	m	6.53	6.53	6.53	6.53	6.85	6.85	6.85	6.85	6.52
R	Turning radius to front corner of the bucket	m	6.32	6.38	6.41	6.46	6.52	6.58	6.59	6.65	6.41
	Bucket rollback in carry position	°	44°	44°	38°	38°	43	43	37°	37°	61°
	Dump angle at full height	°	50°	50°	51°	51°	50	50	51°	51°	47°
	Machine operating weight with XHA2 (L3) tyres	kg	14770	14850	15290	15370	14970	14990	15490	15570	15390
	Machine operating weight with VSDL (L5) tyres	kg	15469	15549	15989	16069	15669	15689	16189	16269	16089

821G GENERAL DIMENSIONS



LOADER SPEED:

Raising time (loaded)	6.2 sec
Dump time (loaded)	1.2 sec
Lowering time (empty, power down)	2.9 sec
Lowering time (empty, float down)	2.5 sec

821G		Z-bar bucket				XR bucket			
		3.4 m³ pin-on		3.2 m³ pin-on		3.2 m³ pin-on		2.8 m³ pin-on	
		edge	teeth + segments	edge	teeth + segments	edge	teeth + segments	edge	teeth + segments
	Volume, heaped (heaped)	m³	3.4	3.4	3.2	3.2	3.2	2.8	2.8
	Bucket volume at 110% filling rate	m³	3.8	3.8	3.5	3.5	3.5	3.1	3.1
	Bucket Payload	kg	6390	6335	6405	6350	5080	5185	5135
	Maximum material density	ton/m³	1.87	1.85	2.00	1.98	1.59	1.85	1.83
	Bucket outside width	m	2.95	2.98	2.95	2.98	2.95	2.95	2.98
	Bucket weight	kg	1570	1650	1540	1620	1540	1390	1470
	Tipping load - straight	kg	14670	14570	14700	14600	11750	11970	11870
	Tipping load - Articulated at 40°	kg	12780	12670	12810	12700	10160	10370	10270
	Breakout force	kg	15040	15400	15440	15800	15700	18020	18530
	Lift capacity from ground	kg	17720	17630	18050	17960	13900	14140	14050
A	Dump height at 45° at full height	m	2.94	2.86	2.96	2.87	3.39	3.51	3.43
B	Hinge pin height	m	4.12	4.11	4.12	4.12	4.56	4.56	4.56
C	Overall height	m	5.49	5.49	5.45	5.45	5.89	5.74	5.74
D	Bucket reach at full height	m	1.16	1.24	1.14	1.22	1.25	1.14	1.22
E	Dig depth	cm	7	8	7	8	14	13	14
L	Overall length with bucket on the ground	m	8.08	8.2	8.05	8.17	8.53	8.36	8.48
	Overall length without bucket	m	6.78	6.78	6.78	6.78	7.24	7.24	7.24
R	Turning radius to front corner of the bucket	m	6.63	6.68	6.62	6.67	6.87	6.81	6.87
	Bucket rollback in carry position	°	45°	45°	45°	45°	43°	43°	43°
	Dump angle at full height	°	55°	55°	55°	55°	49°	49°	49°
	Machine operating weight with XHA2 (L3) tyres	kg	18200	18280	18170	18250	18440	18280	18360
	Machine operating weight with VSDL (L5) tyres	kg	19098	19178	19068	19148	19338	19178	19258

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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 Industrial reserves the right to modify machine specifications without incurring any obligation relating to such changes.

Conforms to directive 2006/42/EC

CASE
00800-2273-7373

The call is free from a land line.
Check in advance with your Mobile Operator if you will be charged. Toll free number not available from all calling areas.