



WHEEL LOADER | 411/417

411 – Operating weight: 19228lbs (8722kg) Gross engine power: 109hp (81kW)
Full turn tipping load: 12017lbs (5451kg) Standard bucket capacity: 1.8yd³ (1.4m³)

417 – Operating weight: 21189lbs (9602kg) Gross engine power: 125hp (93kW)
Full turn tipping load: 13281lbs (6042kg) Standard bucket capacity: 2.0yd³ (1.6m³)



A QUALITY PROCESS.

WE KNOW THAT A WHEEL LOADER IS A KEY PART OF THE ON-SITE PROCESS. THAT'S WHY THE JCB 411 AND 417 ARE BUILT ON A FOUNDATION OF QUALITY AND RELIABILITY. THE PROCESSES WE'VE USED TO DESIGN AND MANUFACTURE THEM WILL SAFEGUARD YOUR WORKING PROCESS, HOUR AFTER HOUR, DAY AFTER DAY.

We use state-of-the-art manufacturing processes like robot machining, precision paint technology and innovative assembly techniques to achieve the very highest levels of quality.



Designed to work hard.

- 1 Finite element analysis, as well as extensive endurance and rig testing ensure superior structural strength and durability. Cold cell testing guarantees starting performance down to 4°F (-20°C).
- 2 Precision machining provides high tolerances and accurate location of pins and bushes.
- 3 The 411 and 417 can be specified for heavy-duty applications like waste or corrosive material handling.



Protecting ancillaries.

4 A solid cast rear counterweight protects the rear of your machine – including the rear lights and cooling pack – from damage.

5 You can opt for additional guards on the windshield, lights, underbelly and rear grill.

For additional protection, there are impact-resistant fender edges and trims fitted.

Well articulated.

6 The articulation joint has a heavy-duty center pin and an oversized bushing, as well as twin taper roller bearings on the bottom box joints. This can tolerate both vertical and horizontal loads for durability and rigidity.

7 Hoses are neatly routed and clamped through the articulation joint, well away from any pinch points. Steering rams are positioned high up and well protected from possible impact and site damage.

These machines have integral steel fluid tanks for the ultimate in leak protection; a far superior solution to the plastic tanks favored by some competitors.



PRODUCTIVE PERFORMANCE.

THE 411 AND 417 CAN PERFORM GREAT FEATS OF PRODUCTIVITY. WITH HIGH POWER AND TORQUE, BOTH MACHINES MEET TIER 4 FINAL EMISSIONS LEGISLATION WITHOUT THE NEED FOR PERIODIC REGENERATION.

Engine productivity.

1 The EcoMAX 4.4 liter engine achieves maximum engine power (109hp (81kW)) in the 411, 125hp (93kW) in the 417 and peak torque (318lbs-ft (518Nm)) in the 411 and 406lbs-ft (550Nm) in the 417 at low revs for excellent response.

A variable geometry turbocharger provides increased performance at low engine speed for improved cycle times and tractive effort.

Loading productivity.

2 JCB's optional quickhitch makes attachment changes quick and efficient. The quickhitch is designed to be compatible with aftermarket attachments too.

3 Powerful hydraulics result in fast cycle times. The 411 features a double gear pump, while the 417 model features a single variable displacement piston pump hydraulics which can circulate 32.5gpm (123 l/min) on the 411 and 41.2gpm (156 l/min) on the 417 for increased productivity and excellent multi-function capability.

COMMANDPLUS controls.

A choice of 3 or 4-spool hydraulics gives you the scope for invaluable extra versatility. Flow can be adjusted from the cab via the all-new Command Plus controls.



1

There's no need to worry about wasting time and money replacing a diesel particulate filter (DPF) on your loader; its EcoMAX engine meets Tier 4 Final/Stage IV legislation using only exhaust gas recirculation (EGR) and selective catalytic reduction (SCR). This setup also improves fuel economy.



2



3

Loading productivity (continued).

4 So you can perform parallel lifting and use plenty of attachments, both machines are fitted with a high torque (HT) loader arm. This also provides excellent visibility to the attachment at all heights.

Choose from standard lift on either model, or choose high lift (HL) or super high lift (SHL) on the 417 and you can use the machine for higher loading height applications.

Drivetrain productivity.

5 With a choice of axle options you can tailor performance to any application.

> Open differentials are ideal for hard standing ground conditions.

> Limited slip differential axles increase tractive effort and are perfect for soft muddy ground conditions.



EFFICIENT BY DESIGN.

THE JCB 411 AND 417 ARE DESIGNED TO MOVE MORE MATERIAL FOR LESS. TO ACHIEVE THIS, WE'VE DESIGNED THE ENGINE, AXLES, DRIVELINE AND HYDRAULICS TO WORK IN HARMONY WITH EACH OTHER, FOR ULTIMATE EFFICIENCY AND DURABILITY.



Powering it all.

1 No DPF means unnecessary additional fuel piping is eliminated as is the potentially dangerous temperatures involved in regeneration. The fuel that would have been needed to restore your DPF can be used instead for actual productive work.

2 EcoMAX produces high levels of power and torque at engine speeds as low as 1500-1600 rpm for efficient matching of transmission and hydraulics.

3 High back-off brakes reduce viscous drag during travel and rehandling, which boosts fuel efficiency.



1



2



3

Powering it all (continued).

4 A viscous coupled engine fan automatically adjusts its speed depending on ambient temperature, optimizing cooling, saving fuel and lowering noise.

Operating specialty attachments is easy with an in-cab adjustable proportional auxiliary flow rate.

5 Our 4-speed transmission gives you a range of gears to suit a wide range of applications. The operator can choose from manual or automatic gear shifting at the press of a button.

Unloaded spool valves in the valve block mean that arms lower under gravitational, not hydraulic force, reducing fuel consumption.

JCB's innovative variable displacement pump feeds a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control (417 only).



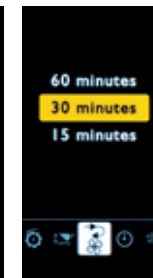
COMMANDPLUS controls.
 JCB Smoothride load suspension limits shock loadings and therefore reduces material spillage and structural stress, as well as increasing operator comfort. The speed of engagement is adjustable from within the cab using the latest state-of-the-art CommandPlus controls.



Adjustable SRS engagement speed.



Adjustable auxiliary control.



Adjustable reversing fan intervals.

COMMANDPLUS.

THE LATEST JCB 411 AND 417 WHEEL LOADERS BOAST OUR ALL-NEW COMMAND PLUS CAB. THIS UNIQUE APPROACH TO ERGONOMICS IS THE RESULT OF A RADICAL RETHINK AND A RIGOROUS RESEARCH PROGRAM. EXPECT BEST-IN-CLASS COMFORT, VISIBILITY, ERGONOMICS AND QUIETNESS.

See the difference.

1 You'll immediately notice the totally redesigned ROPS structure; this has allowed the A pillars to be moved to the same width as the rear of the cab, providing a larger interior with a superb panoramic front windshield. All switches and auxiliary controls are now located on the right-hand A-pillar for easier access.

2 Using your machine's simple, dedicated menu interface is easily done with an intuitive optional rotary controller.

3 Operating your 411 or 417 loader is now easier than ever. All of the controls are seat-mounted, even going as far as to move with the seat suspension. You can also select the control system that's best for your operators: choose from single lever joystick or multi-lever configurations, all using electro-hydraulics for the ultimate in precision.

4 There are two full color LCD screens to navigate the operating menus, one of which doubles as a monitor for the optional rear-view camera and CommandPlus control menu.



The noise level in the cab is an incredibly low 68dB(a): so quiet you can hardly hear the engine running.

5 To keep the operator environment comfortable for working at all times, we've positively pressurized the cab to eliminate dust and fumes.

6 After extensive research into operator ergonomics, we've created the Command Driving Position, which boasts the very optimal control layout for a multitude of different driver shapes and sizes, ranging from an air suspension standard seat to a super deluxe half leather seat, featuring fully adjustable heating and cooling functionality, electrically adjustable lumbar support and adjustable dampers.

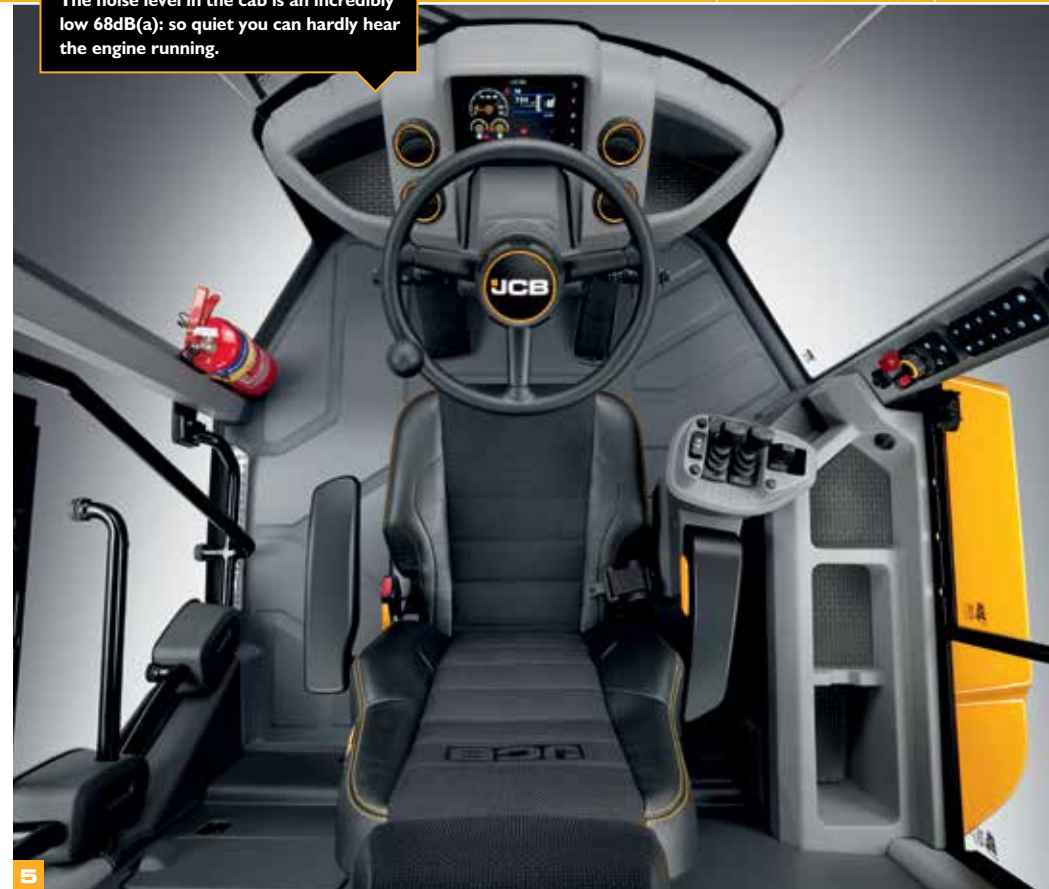
7 A set and forget feature makes operator access even easier. In short, your preferred steering wheel position is stored and can be instantly returned to, even after you've folded the wheel away.

Specify your 411 or 417 with either air conditioning or automatic climate control to create perfect working temperatures.

With a dedicated media port on board, you can be assured of superb connectivity for all your electronic devices.

A sliding window on both sides of the cab allows easy communication with people outside the machine.

The optional electronic handbrake offers numerous advantages: it's quick and easy to operate, and, because there's no cable, there are fewer holes in the cab. This helps to isolate the operator environment further.



LOW MAINTENANCE LONG INTERVALS.

WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 411 AND 417 TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

Routine maintenance.

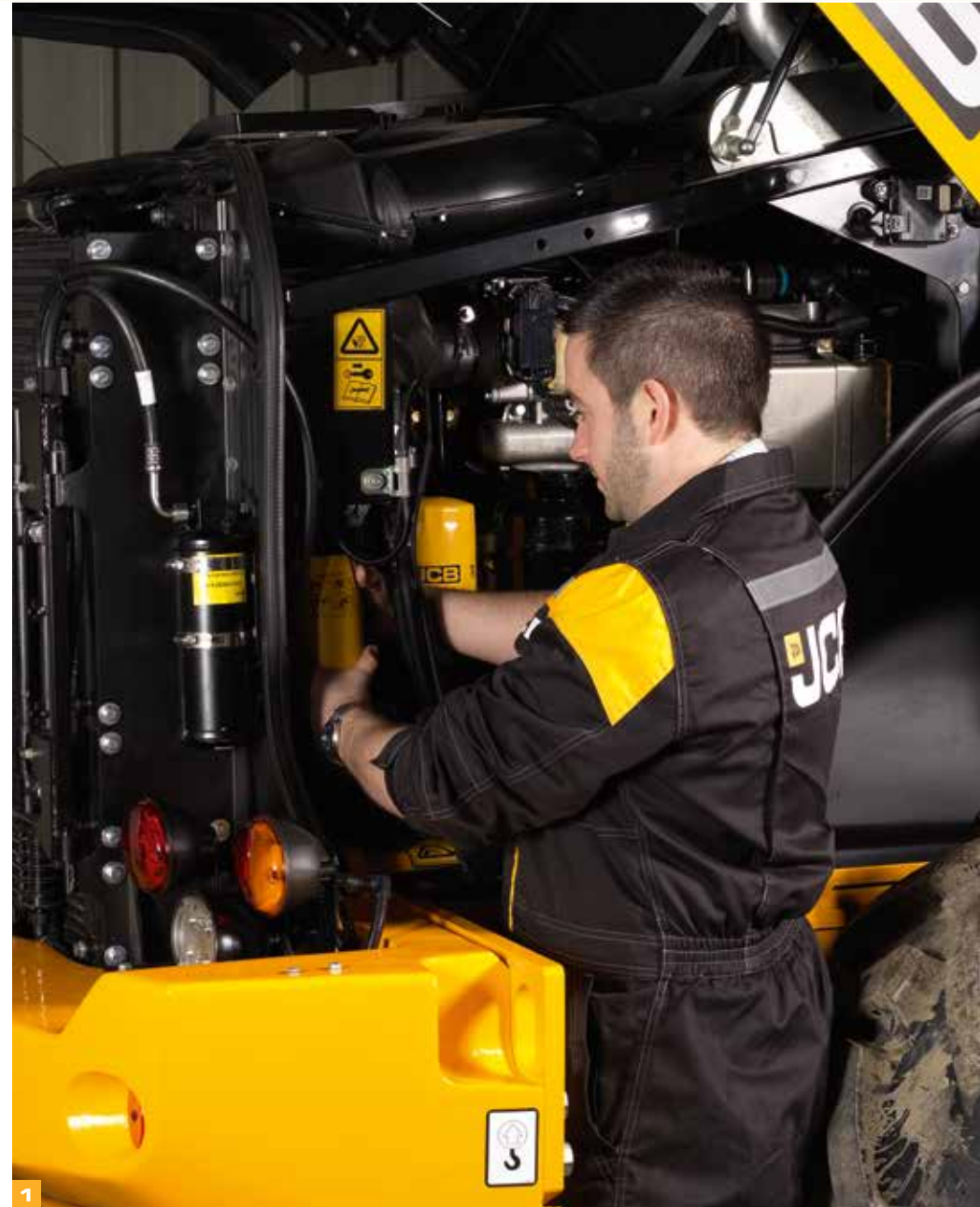
1 Gain access to the engine bay and cooling pack areas easily with the compact single piece engine hood.

2 Accessing the diesel and DEF (Diesel Exhaust Fluid) tanks is similarly straightforward. Both filler points are separated to avoid accidental cross-contamination when refilling.

You can check washer fluid level, engine oil and coolant from inside the cab, with all other routine checks and grease points located at ground level. This makes life both easier and safer.

Most Tier 4 Final/Stage IV engines use a costly Diesel Particulate Filter (DPF) that can cost a lot of money and time when it needs replacing. The EcoMAX engine is DPF-free, reducing your service and run costs.

3 With the optional auto lubrication kit, your machine will take care of its own greasing requirements.



Less servicing, more uptime.

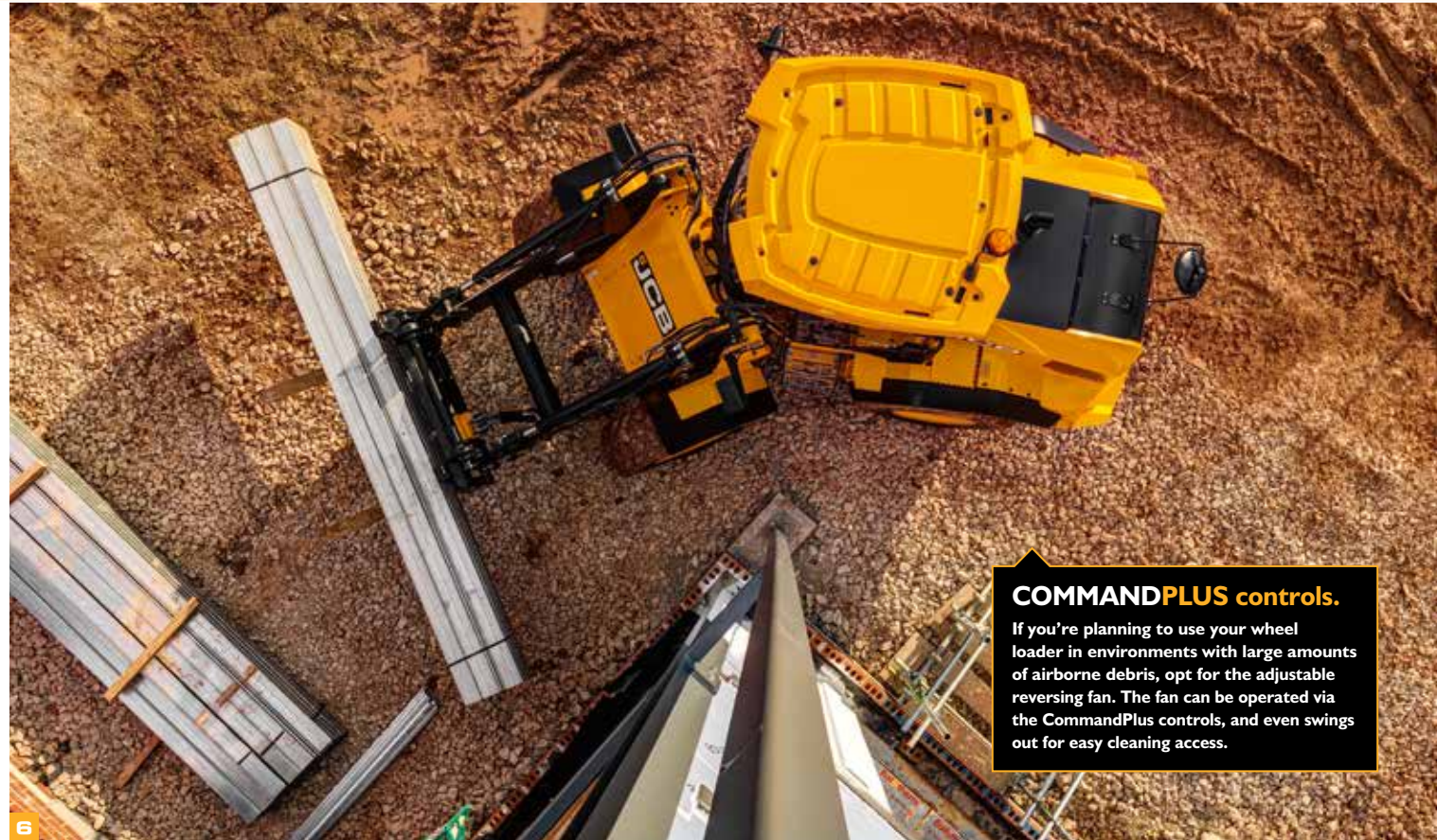
E The CommandPlus cab relays machine condition giving real time alerts, safeguarding both the machine and operator.

The intuitive CommandPlus “help function” provides the operator with meaningful descriptions of the in- cab switch function. Using the “?” button, this allows new or unfamiliar operators to quickly and easily understand machine functions without having to refer to the operators manual.

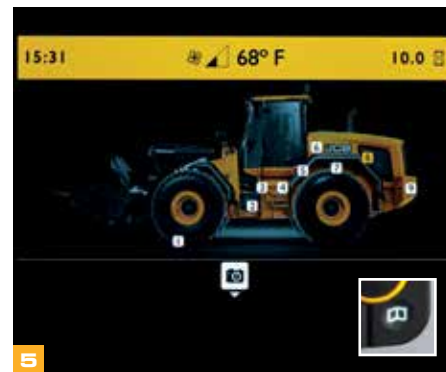
E To prove how good EcoMAX engines are, we’ve tested them for 110,000 hours in 70 different machines across the toughest applications and environments.

Full hydraulic dual circuit braking with multiple oil immersed discs gives the braking system a virtually maintenance-free lifespan.

A cyclonic engine fan scavenge filter provides four times the filtering capacity of a standard air filter. It’s a longer life system, with fewer components and a higher level of efficiency, making for better engine protection. There’s a large 30.6gal (116 liter) fuel tank fitted, with optional 29.3gal (111 liter) auxiliary fuel tank, which ensures maximum working hours between refills.



COMMANDPLUS controls.
If you’re planning to use your wheel loader in environments with large amounts of airborne debris, opt for the adjustable reversing fan. The fan can be operated via the CommandPlus controls, and even swings out for easy cleaning access.



DRIVE SAFELY.

THE NEW JCB 411 AND 417 ARE DESIGNED TO KEEP THE OPERATOR AND YOUR WORKSITE SAFE AT ALL TIMES. GREAT VISIBILITY, NON-SLIP SURFACES AND FULL ROPS/FOPS PROTECTION ARE JUST THE START.



Safely does it.

- 1 Our optional rear-view camera displays an unobstructed rearward view on the in-cab color monitor.
- 2 Superb visibility in dark conditions is guaranteed with JCB's optional LED worklights.
- 3 Interior mirrors, heated exterior mirrors and engine hood mirrors combine to offer excellent views to every corner of your machine.



Safely does it (continued).

4 Access steps on the 411 and 417 are inclined and equally spaced, complemented by well positioned grab handles for three points of contact at all times.

5 Full fender coverage flaps have been carefully designed to keep forward spray to a minimum for all tire options. This increases safety and decreases debris build-up. The battery and tool box are lockable for added security.

The cab is isolator-mounted, compliant with ROPS/FOPS standards, and positively pressurized against dust. You can choose from fresh air and carbon filters as well.

6 Engines fitted with a DPF can pose an increased fire risk because extreme heat can be created in regeneration mode. The new 411 and 417 don't use DPFs, so this is no cause for concern.

7 Non-slip walkways and additional grab handle options allow for safe movement around the machine.



5



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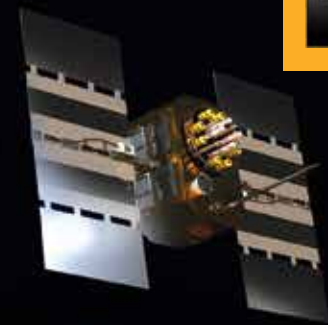
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LIVELINK, WORK SMARTER.

LIVELINK IS AN INNOVATIVE SOFTWARE SYSTEM THAT LETS YOU MANAGE JCB MACHINES REMOTELY – ONLINE, BY EMAIL OR BY MOBILE PHONE. ACCESS EVERYTHING FROM MACHINE ALERTS TO FUEL REPORTS AND HISTORY INFORMATION, WITH ALL DATA STORED AT A SECURE CENTER.

Productivity and cost benefits

By providing information like idle time monitoring and machine fuel consumption, JCB LiveLink helps reduce your fuel usage, saving money and improving productivity. Machine location information can help improve efficiency and perhaps even reduce insurance costs.



Maintenance benefits

Manage machine maintenance easily – accurate hours monitoring and service alerts improve maintenance planning, while real-time location data helps you manage your fleet. Critical machine alerts and maintenance history records are also available.



Security benefits

LiveLink's real-time geofencing alerts tell you when machines move out of predetermined zones, and real-time curfew alerts inform you of unauthorized usage. Further benefits include real-time location information.



A GREAT BUSINESS DECISION.

WE'LL PROVIDE YOU WITH FIRST CLASS SUPPORT AND ASSISTANCE TO SUIT YOUR EXACT BUSINESS NEEDS RIGHT FROM DAY ONE. SO WHEREVER YOU ARE, YOUR MACHINE WILL ALWAYS PERFORM TO ITS FULL POTENTIAL – ONE OF MANY REASONS WHY STARTING A WORKING RELATIONSHIP WITH JCB IS A GREAT BUSINESS DECISION.

Machine selection

Your JCB dealer has the right technical knowledge and expertise to ensure that you assess all the machine options available to you. This includes rental options and new or used machine sales.

Rebuild and refurbishment program

If your business isn't in a position to buy a brand new machine, then JCB's rebuild and refurbishment program can help you to extend the service life of your current vehicle cost-effectively.

Technical support

All local JCB dealers have instant access to factory expertise and technical support to provide you with maximum machine uptime. JCB's Global Parts Centers, meanwhile, deliver around 95% of all parts anywhere in the world within 24 hours.

Component monitoring

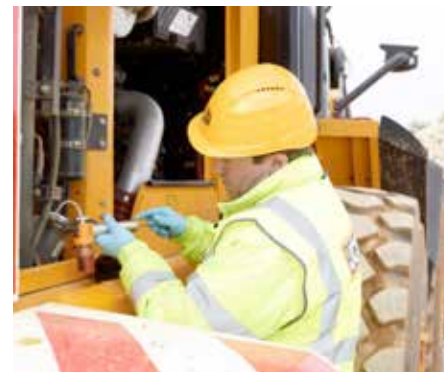
JCB machines benefit from a sophisticated component monitoring program that provides preventive maintenance and oil sampling to keep everything working at its optimum level.

Service support

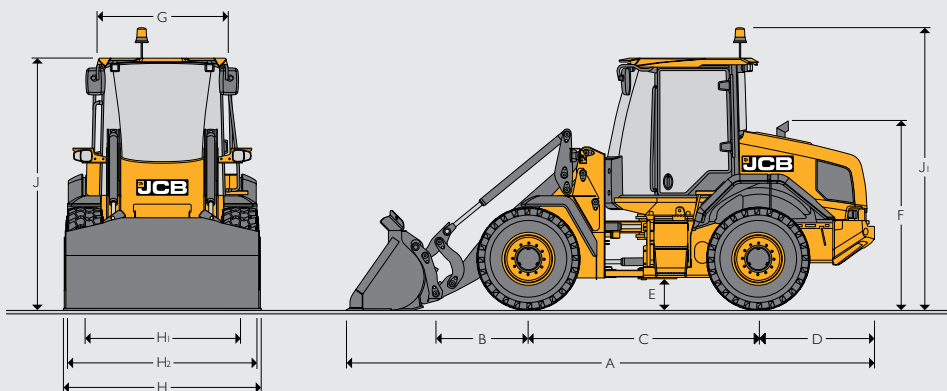
We offer a range of extended warranties, from JCB PremierCover (full comprehensive coverage) to JCB PowertrainCover (engine, axles, transmission and hydraulic pump coverage). Service agreements, as well as service-only or Repair and Maintenance contracts ensure that we have the up-time of your wheel loader totally covered. Our dealer maintenance specialists around the world charge competitive labor rates, and offer non-obligation quotations as well as fast, efficient repair work.

Finance

Finance specialists are always on-hand to provide fast, flexible, competitive quotes. Packages can be tailored to suit your specific business needs.



STATIC DIMENSIONS



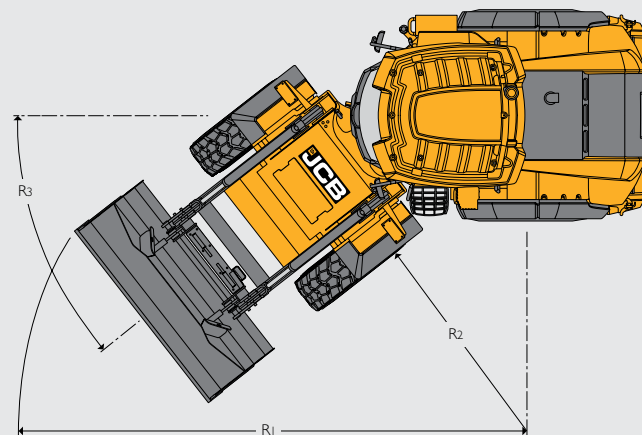
STATIC DIMENSIONS

		411 HT	417 HT	417 HT HL	417 HT SHL	
A	Overall length	ft-in (mm)	20' 5" (6229)	20' 8" (6290)	21' 4" (6491)	23' 5" (7143)
B	Axle to pivot pin	ft-in (mm)	4' 0" (1226)	3' 8" (1110)	4' 4" (1311)	6' 5" (1963)
C	Wheelbase	ft-in (mm)	9' 0" (2750)	9' 2" (2800)	9' 2" (2800)	9' 2" (2800)
D	Axle to counterweight face	ft-in (mm)	4' 6" (1365)	4' 6" (1365)	4' 6" (1365)	4' 6" (1365)
E	Minimum ground clearance	ft-in (mm)	1' 2" (344)	1' 3" (371)	1' 3" (371)	1' 3" (371)
F	Height over exhaust	ft-in (mm)	7' 6" (2293)	7' 7" (2300)	7' 7" (2300)	7' 7" (2300)
G	Width over cab	ft-in (mm)	4' 8" (1431)	4' 8" (1431)	4' 8" (1431)	4' 8" (1431)
H	Maximum width over tires	ft-in (mm)	7' 3" (2204)	7' 8" (2328)	7' 8" (2328)	7' 8" (2328)
Hi	Wheel track	ft-in (mm)	5' 11" (1800)	6' 2" (1880)	6' 2" (1880)	6' 2" (1880)
J	Height over cab	ft-in (mm)	10' 0" (3057)	10' 1" (3084)	10' 1" (3084)	10' 1" (3084)
Ji	Height over raised beacon	ft-in (mm)	11' 3" (3418)	11' 4" (3445)	11' 4" (3445)	11' 4" (3445)
	Front axle weight	lbs (kg)	7621 (3457)	8505 (3858)	8759 (3973)	10013 (4542)
	Rear axle weight	lbs (kg)	11744 (5327)	12917 (5859)	12774 (5794)	12158 (5515)
	Total weight	lbs (kg)	19365 (8784)	21422 (9717)	21533 (9767)	22172 (10057)

411 data based on machine equipped with direct mounted 1.6yd³ (1.2m³) bucket with toe plates and Michelin 15.5 R25 XHA (L3) radial tires.

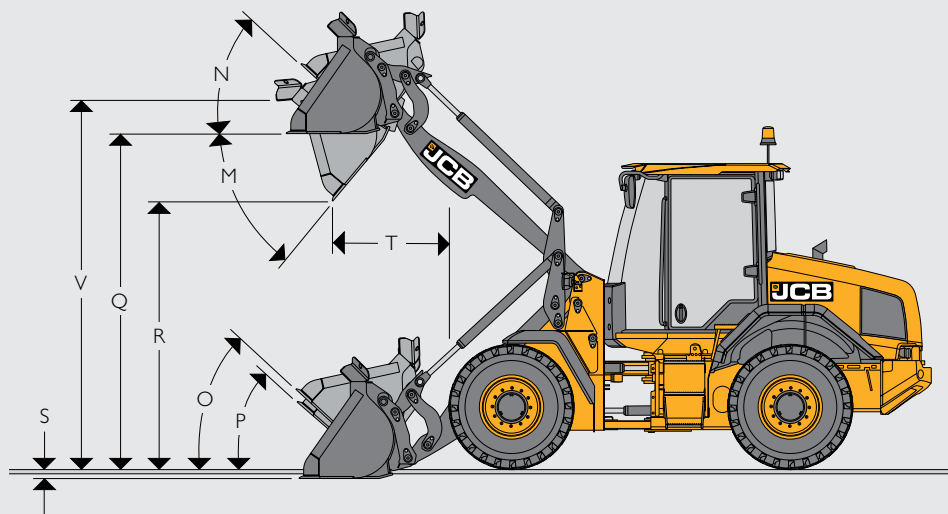
417 data based on machine equipped with direct mounted 2.0yd³ (1.6m³) bucket with toe plates and Michelin 17.5 R25 XHA (L3) radial tires.

TURNING CIRCLE



TURNING CIRCLE

			411 HT	417 HT	417 HT HL	417 HT SHL
R1	Maximum turn radius over bucket	ft-in (mm)	8' 5" (2658)	8' 8" (2705)	8' 4" (2705)	8' 5" (2705)
R2	Inside turn radius	ft-in (mm)	28' 0" (8750)	31' 8" (9540)	31' 4" (9605)	33' 5" (10145)
R3	Articulation angle	degrees	±40	±40	±40	±40



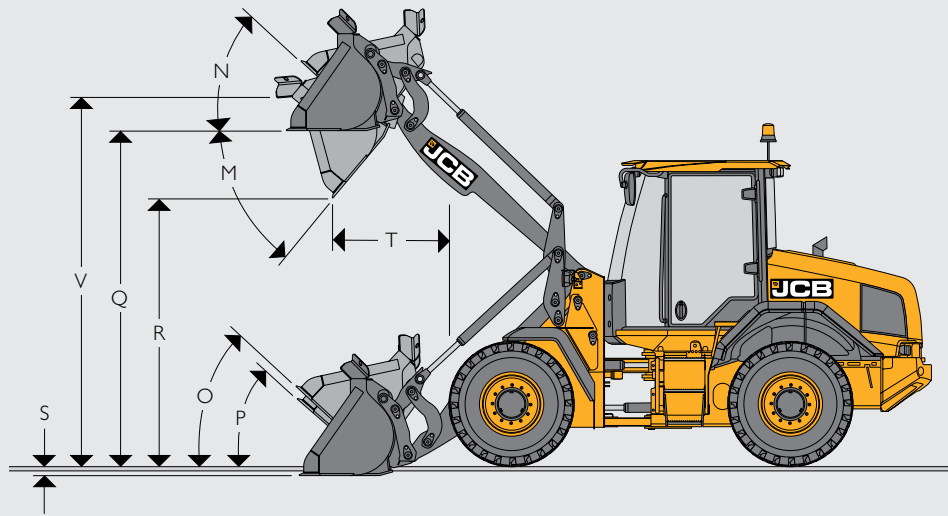
TIRE SIZE 411 HT

Tire size	Brand	Type	Rating	Operating weight lbs (kg)	HT		Dimensions	
					STL lbs (kg)	FRTL lbs (kg)	Vertical in (mm)	Width in (mm)
15.5-25	Goodyear	SGL D/L12 Ply	L2	-291 (-132)	-194 (-88)	-165 (-75)	-0.35 (-9)	-0.2 (-5)
15.5-25	Goodyear	HRL D/L12 Ply	L3	-132 (-60)	-88 (-40)	-75 (-34)	0.55 (14)	-0.2 (-5)
15.5R25	Michelin	XTLA	L2	-97 (-44)	-64 (-29)	-55 (-25)	-0.08 (-2)	-0.28 (-7)
15.5R25	Michelin	X-MINE D2	L5	1411 (640)	939 (426)	798 (362)	2.13 (54)	0.55 (14)
15.5R25	Nokian	LOADER GRIP 2	L3	-123 (-56)	-82 (-37)	-68 (-31)	0.12 (3)	-0.39 (-10)
17.5R25	Michelin	SNOPLUS	L2	608 (276)	406 (184)	344 (156)	0.98 (25)	3.31 (84)
17.5R25	Michelin	XTLA	L2	494 (224)	328 (149)	280 (127)	0.83 (21)	3.74 (95)
17.5R25	Nokian	LOADER GRIP	L2	459 (208)	304 (138)	258 (117)	1.54 (39)	3.19 (81)

LOADER DIMENSIONS 411 HT

Model		411 HT									
		Direct					Quickhitch				
		General purpose					General purpose				
Bucket mounting											
Bucket type		General purpose					General purpose				
Bucket equipment		Tipped teeth		Reversible toeplate			Tipped teeth		Reversible toeplate		
Bucket capacity (SAE heaped)	yd ³ (m ³)	1.57 (1.2)	1.83 (1.4)	1.57 (1.2)	1.83 (1.4)	2.09 (1.6)	1.57 (1.2)	1.83 (1.4)	1.57 (1.2)	1.83 (1.4)	2.09 (1.6)
Bucket capacity (struck)	yd ³ (m ³)	1.32 (1.009)	1.54 (1.18)	1.32 (1.009)	1.54 (1.18)	1.78 (1.362)	1.32 (1.009)	1.54 (1.18)	1.32 (1.009)	1.54 (1.18)	1.78 (1.362)
Bucket width	ft in (mm)	7' 10" (2250)	7' 10" (2400)	7' 5" (2250)	7' 10" (2400)	7' 5" (2400)	7' 10" (2250)	7' 10" (2400)	0 (2250)	0 (2400)	7' 10" (2400)
Bucket weight	lbs (kg)	1164 (528)	1329 (603)	1164 (528)	1329 (603)	1407 (638)	1113 (505)	1279 (580)	1113 (505)	1279 (580)	1354 (614)
Maximum material density *	lbs/yd ³ (kg/m ³)	3924 (2328)	3282 (1947)	3924 (2328)	3282 (1947)	2827 (1677)	3749 (2224)	3120 (1851)	3749 (2224)	3120 (1851)	2682 (1591)
Tipping load straight *	lbs (kg)	14412 (6537)	14092 (6392)	14412 (6537)	14092 (6392)	13887 (6299)	13836 (6276)	13461 (6106)	13836 (6276)	13461 (6106)	13239 (6005)
Tipping load full turn *	lbs (kg)	12313 (5585)	12017 (5451)	12313 (5585)	12017 (5451)	11830 (5366)	11766 (5337)	11424 (5182)	11766 (5337)	11424 (5182)	11224 (5091)
Payload *	lbs (kg)	6158 (2793)	6010 (2726)	6158 (2793)	6010 (2726)	5915 (2683)	5884 (2669)	5712 (2591)	5884 (2669)	5712 (2591)	5613 (2546)
Maximum breakout force	lbf (kN)	16456 (73.2)	15220 (67.7)	16456 (73.2)	15220 (67.7)	14096 (62.7)	15107 (67.2)	14006 (62.3)	15107 (67.2)	14006 (62.3)	12837 (57.1)
M Dump angle maximum	degrees	47	47	47	47	47	47	47	47	47	47
N Roll back angle full height	degrees	41	41	41	41	41	41	41	41	41	41
O Roll back at carry	degrees	46	46	46	46	46	46	46	46	46	46
P Roll back at ground level	degrees	42	42	42	42	42	42	42	42	42	42
Q Load over height	ft in (mm)	11' 0" (3344)	11' 0" (3346)	11' 0" (3344)	11' 0" (3346)	11' 0" (3345)	11' 0" (3363)	11' 0" (3365)	11' 0" (3363)	11' 0" (3365)	11' 1" (3366)
R Dump height (45deg dump)	ft in (mm)	9' 1" (2780)	8' 11" (2718)	9' 1" (2780)	8' 11" (2718)	8' 9" (2668)	9' 0" (2749)	8' 10" (2687)	9' 0" (2749)	8' 10" (2687)	8' 8" (2638)
S Dig depth	ft in (mm)	0' 5" (132)	0' 5" (130)	0' 5" (132)	0' 5" (130)	0' 5" (131)	0' 4" (113)	0' 4" (113)	0' 4" (113)	0' 4" (113)	0' 4" (113)
T Reach at dump height	ft in (mm)	3' 0" (926)	3' 3" (978)	3' 0" (926)	3' 3" (978)	3' 5" (1030)	3' 3" (980)	3' 5" (1042)	3' 3" (980)	3' 5" (1042)	3' 7" (1084)
V Reach maximum (45deg dump) - horizontal arm	ft in (mm)	5' 5" (1661)	5' 8" (1724)	5' 5" (1661)	5' 8" (1724)	5' 10" (1774)	5' 8" (1719)	5' 10" (1782)	5' 8" (1719)	5' 10" (1782)	6' 0" (1832)
Operating weight (includes 176lbs (80Kg) operator and full fuel tank (includes aux tank))	lbs (kg)	19006 (8621)	19154 (8688)	19006 (8621)	19154 (8688)	19229 (8722)	19467 (8830)	19615 (8897)	19467 (8830)	19615 (8897)	19689 (8931)

* Assumes machine is fitted with Michelin 15.5R25 XHA tires.



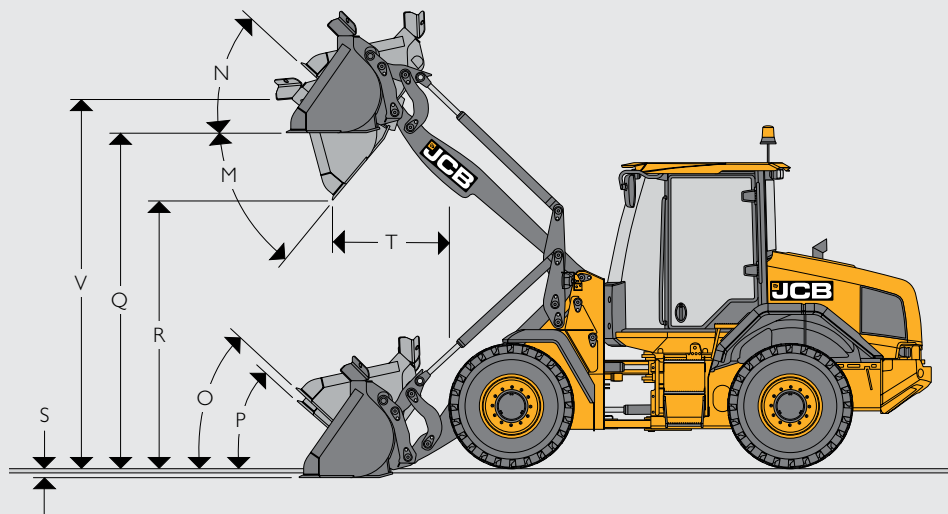
TIRE SIZE 417 HT

Tire size	Brand	Type	Rating	Operating weight lbs (kg)	HT			Dimensions	
					STL lbs (kg)	FRTL lbs (kg)	Vertical in (mm)	Width in (mm)	
17.5-25	SG Revolution	S2C2		3721 (1688)	904 (410)	769 (349)	1.1 (28)	0.47 (12)	
17.5-25	SG Revolution	SE		3721 (1688)	904 (410)	769 (349)	1.1 (28)	0.47 (12)	
17.5R25	Goodyear	SGL	L2	-406 (-184)	-276 (-125)	-234 (-106)	0.08 (2)	0.35 (9)	
17.5R25	Goodyear	HRL	L3	-115 (-52)	-77 (-35)	-66 (-30)	0.59 (15)	0.08 (2)	
17.5R25	Michelin	XTLA	L3	-203 (-92)	-137 (-62)	-117 (-53)	-0.24 (-6)	0.43 (11)	
17.5R25	Michelin	XSNOPPLUS	L2	-88 (-40)	-60 (-27)	-51 (-23)	-0.08 (-2)	0 (0)	
17.5R25	Michelin	X-MINE D2	L5	1332 (604)	904 (410)	769 (349)	2.32 (59)	1.26 (32)	
17.5R25	Nokian	L GRIP	L2	-238 (-108)	-161 (-73)	-137 (-62)	0.47 (12)	-0.12 (-3)	
17.5R25	BKT	XL GRIP	L3	-150 (-68)	-101 (-46)	-86 (-39)	1.57 (40)	-0.12 (-3)	
17.5R25	JCB	Earthmover	L3	229 (104)	154 (70)	132 (60)	1.22 (31)	-0.04 (-1)	
20.5R25	Michelin	XHA	L3	1111 (504)	754 (342)	642 (291)	2.44 (62)	7.09 (180)	
500/70R24	Michelin	XMCL		-432 (-196)	-293 (-133)	-249 (-113)	0.04 (1)	6.42 (163)	
600/55R26.5	Trelleborg	Twin Radial	Radial	309 (140)	209 (95)	179 (81)	0.91 (23)	15.28 (388)	

LOADER DIMENSIONS 417 HT

Model	417 HT								
	Direct				Quickhitch				
	General purpose				General purpose				
Bucket mounting	Direct				Quickhitch				
Bucket type	General purpose				General purpose				
Bucket equipment	Tipped teeth		Reversible toeplate		Tipped teeth		Reversible toeplate		
Bucket capacity (SAE heaped)	yd ³ (m ³)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)
Bucket capacity (struck)	yd ³ (m ³)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)
Bucket width	ft in (mm)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)
Bucket weight	lbs (kg)	1451 (658)	1539 (698)	1499 (680)	1587 (720)	1418 (643)	1506 (683)	1466 (665)	1554 (705)
Maximum material density *	lbs/yd ³ (kg/m ³)	3690 (2189)	3182 (1888)	3690 (2189)	3182 (1888)	3519 (2088)	3037 (1802)	3519 (2088)	3037 (1802)
Tipping load straight *	lbs (kg)	15953 (7236)	15743 (7141)	15953 (7236)	15743 (7141)	15282 (6932)	15088 (6844)	15282 (6932)	15088 (6844)
Tipping load full turn *	lbs (kg)	13512 (6129)	13320 (6042)	13512 (6129)	13320 (6042)	12890 (5847)	12714 (5767)	12890 (5847)	12714 (5767)
Payload *	lbs (kg)	6757 (3065)	6660 (3021)	6757 (3065)	6660 (3021)	6446 (2924)	6358 (2884)	6446 (2924)	6358 (2884)
Maximum breakout force	lbf (kN)	15737 (70)	14523 (64.6)	15737 (70)	14523 (64.6)	14590 (64.9)	13466 (59.9)	14590 (64.9)	13466 (59.9)
M Dump angle maximum	degrees	50	50	50	50	51	50	51	50
N Roll back angle full height	degrees	43	43	43	43	43	43	43	43
O Roll back at carry	degrees	44	44	44	44	43	43	43	43
P Roll back at ground level	degrees	41	41	41	41	41	41	41	41
Q Load over height	ft in (mm)	11' 0" (3341)	11' 0" (3343)	11' 0" (3341)	11' 0" (3343)	10' 11" (3339)	11' 0" (3358)	10' 11" (3339)	11' 0" (3358)
R Dump height (45deg dump)	ft in (mm)	8' 11" (2714)	8' 9" (2666)	8' 11" (2714)	8' 9" (2666)	8' 9" (2661)	8' 8" (2631)	8' 9" (2661)	8' 8" (2631)
S Dig depth	ft in (mm)	0' 4" (110)	0' 4" (109)	0' 4" (110)	0' 4" (109)	0' 4" (92)	0' 4" (92)	0' 4" (92)	0' 4" (92)
T Reach at dump height	ft in (mm)	3' 1" (930)	3' 2" (973)	3' 1" (930)	3' 2" (973)	3' 3" (993)	3' 5" (1031)	3' 3" (993)	3' 5" (1031)
Reach maximum (45deg dump) - horizontal arm	ft-in (mm)	5' 5" (1639)	5' 6" (1688)	5' 5" (1639)	5' 6" (1688)	5' 7" (1697)	5' 9" (1746)	5' 7" (1697)	5' 9" (1746)
Operating weight (includes 176lbs (80Kg) operator and full fuel tank (includes aux tank))	lbs (kg)	20701 (9390)	20779 (9425)	20701 (9390)	20779 (9425)	21164 (9600)	21242 (9635)	21164 (9600)	21242 (9635)

*Assumes machine is fitted with Michelin 17.5 R25 XHA tires.



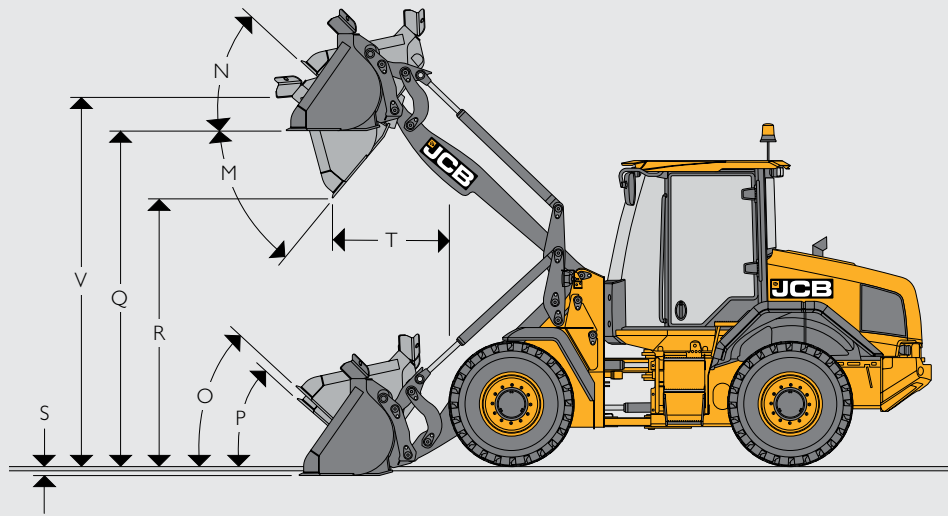
TIRE SIZE 417 HT HL

Tire size	Brand	Type	Rating	Operating weight lbs (kg)	HT HL			Dimensions	
					STL lbs (kg)	FTTL lbs (kg)	Vertical in (mm)	Width in (mm)	
17.5-25	SG Revolution	S2C2		3721 (1688)	851 (386)	723 (328)	1.1 (28)	0.47 (12)	
17.5-25	SG Revolution	SE		3721 (1688)	851 (386)	723 (328)	1.1 (28)	0.47 (12)	
17.5R25	Goodyear	SGL	L2	-406 (-184)	-260 (-118)	-220 (-100)	0.08 (2)	0.35 (9)	
17.5R25	Goodyear	HRL	L3	-115 (-52)	-73 (-33)	-62 (-28)	0.59 (15)	0.08 (2)	
17.5R25	Michelin	XTLA	L3	-203 (-92)	-130 (-59)	-110 (-50)	-0.24 (-6)	0.43 (11)	
17.5R25	Michelin	XSNOPPLUS	L2	-88 (-40)	-57 (-26)	-49 (-22)	-0.08 (-2)	0 (0)	
17.5R25	Michelin	X-MINE D2	L5	1332 (604)	851 (386)	723 (328)	2.32 (59)	1.26 (32)	
17.5R25	Nokian	L GRIP	L2	-238 (-108)	-152 (-69)	-130 (-59)	0.47 (12)	-0.12 (-3)	
17.5R25	BKT	XL GRIP	L3	-150 (-68)	-95 (-43)	-82 (-37)	1.57 (40)	-0.12 (-3)	
17.5R25	JCB	Earthmover	L3	229 (104)	146 (66)	126 (57)	1.22 (31)	-0.04 (-1)	
20.5R25	Michelin	XHA	L3	1111 (504)	714 (324)	611 (277)	2.44 (62)	7.09 (180)	
500/70R24	Michelin	XMCL		-432 (-196)	-276 (-125)	-234 (-106)	0.04 (1)	6.42 (163)	
600/55R26.5	Trelleborg	Twin Radial	Radial	309 (140)	198 (90)	170 (77)	0.91 (23)	15.28 (388)	

LOADER DIMENSIONS 417 HT HL

Model		417 HT HL							
		Direct				Quickhitch			
		General purpose				General purpose			
Bucket mounting									
Bucket type		General purpose				General purpose			
Bucket equipment		Tipped teeth		Reversible toeplate		Tipped teeth		Reversible toeplate	
Bucket capacity (SAE heaped)	yd ³ (m ³)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)
Bucket capacity (struck)	yd ³ (m ³)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.36)
Bucket width	ft in (mm)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)
Bucket weight	lbs (kg)	1451 (658)	1539 (698)	1499 (680)	1587 (720)	1418 (643)	1506 (683)	1466 (665)	1554 (705)
Maximum material density *	lbs/yd ³ (kg/m ³)	3437 (2039)	2967 (1760)	3437 (2039)	2967 (1760)	3278 (1945)	2811 (1668)	3278 (1945)	2811 (1668)
Tipping load straight *	lbs (kg)	14877 (6748)	14696 (6666)	14877 (6748)	14696 (6666)	14262 (6469)	14092 (6392)	14262 (6469)	14092 (6392)
Tipping load full turn *	lbs (kg)	12582 (5707)	12416 (5632)	12582 (5707)	12416 (5632)	12004 (5445)	11766 (5337)	12004 (5445)	11766 (5337)
Payload *	lbs (kg)	6292 (2854)	6208 (2816)	6292 (2854)	6208 (2816)	6003 (2723)	5884 (2669)	6003 (2723)	5884 (2669)
Maximum breakout force	lbf (kN)	15737 (70)	14523 (64.6)	15737 (70)	14523 (64.6)	14590 (64.9)	13466 (59.9)	14590 (64.9)	13466 (59.9)
M Dump angle maximum	degrees	47	47	47	47	47	46	47	46
N Roll back angle full height	degrees	43	43	43	43	43	43	43	43
O Roll back at carry	degrees	43	43	43	43	43	43	43	43
P Roll back at ground level	degrees	42	42	42	42	42	42	42	42
Q Load over height	ft in (mm)	11' 8" (3559)	11' 8" (3554)	11' 8" (3559)	11' 8" (3554)	11' 8" (3568)	11' 8" (3567)	11' 8" (3568)	11' 8" (3567)
R Dump height (45deg dump)	ft in (mm)	9' 5" (2930)	9' 5" (2878)	9' 7" (2930)	9' 5" (2878)	9' 6" (2890)	9' 4" (2839)	9' 6" (2890)	9' 4" (2839)
S Dig depth	ft in (mm)	0' 5" (116)	0' 4" (111)	0' 5" (116)	0' 4" (111)	0' 4" (96)	0' 4" (96)	0' 4" (96)	0' 4" (96)
T Reach at dump height	ft in (mm)	3' 3" (986)	3' 5" (1034)	3' 3" (986)	3' 5" (1034)	3' 5" (1046)	3' 7" (1097)	3' 5" (1046)	3' 7" (1097)
Reach maximum (45deg dump) - horizontal arm	ft-in (mm)	5' 10" (1790)	6' 0" (1839)	5' 10" (1790)	6' 0" (1839)	6' 1" (1848)	6' 3" (1897)	6' 1" (1848)	6' 3" (1897)
Operating weight (includes 176lbs (80Kg) operator and full fuel tank (includes aux tank)	lbs (kg)	20845 (9455)	20922 (9490)	20845 (9455)	20922 (9490)	21308 (9665)	21385 (9700)	21308 (9665)	21385 (9700)

*Assumes machine is fitted with Michelin 17.5 R25 XHA tires.



TIRE SIZE 417 HT SHL

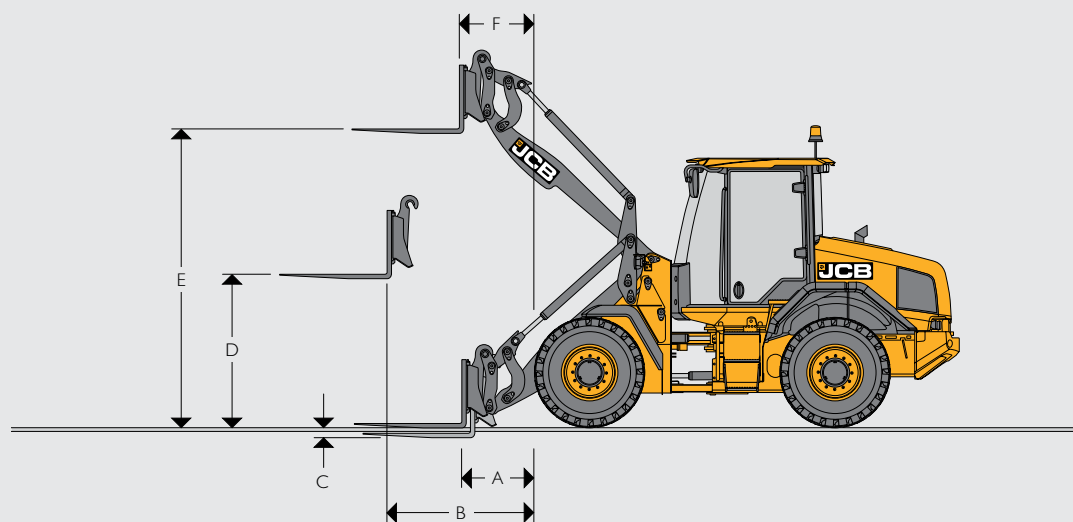
Tire size	Brand	Type	Rating	Operating weight lbs (kg)	HT SHL			Dimensions	
					STL lbs (kg)	FRTL lbs (kg)	Vertical in (mm)	Width in (mm)	
17.5-25	SG Revolution	S2C2		3721 (1688)	692 (314)	589 (267)	1.1 (28)	0.47 (12)	
17.5-25	SG Revolution	SE		3721 (1688)	692 (314)	589 (267)	1.1 (28)	0.47 (12)	
17.5R25	Goodyear	SGL	L2	-406 (-184)	-212 (-96)	-181 (-82)	0.08 (2)	0.35 (9)	
17.5R25	Goodyear	HRL	L3	-115 (-52)	-60 (-27)	-51 (-23)	0.59 (15)	0.08 (2)	
17.5R25	Michelin	XTLA	L3	-203 (-92)	-106 (-48)	-90 (-41)	-0.24 (-6)	0.43 (11)	
17.5R25	Michelin	XSNOPPLUS	L2	-88 (-40)	-46 (-21)	-40 (-18)	-0.08 (-2)	0 (0)	
17.5R25	Michelin	X-MINE D2	L5	1332 (604)	692 (314)	589 (267)	2.32 (59)	1.26 (32)	
17.5R25	Nokian	L GRIP	L2	-238 (-108)	-123 (-56)	-106 (-48)	0.47 (12)	-0.12 (-3)	
17.5R25	BKT	XL GRIP	L3	-150 (-68)	-77 (-35)	-66 (-30)	1.57 (40)	-0.12 (-3)	
17.5R25	JCB	Earthmover	L3	229 (104)	119 (54)	101 (46)	1.22 (31)	-0.04 (-1)	
20.5R25	Michelin	XHA	L3	1111 (504)	578 (262)	492 (223)	2.44 (62)	7.09 (180)	
500/70R24	Michelin	XMCL		-432 (-196)	-225 (-102)	-192 (-87)	0.04 (1)	6.42 (163)	
600/55R26.5	Trelleborg	Twin Radial	Radial	309 (140)	161 (73)	137 (62)	0.91 (23)	15.28 (388)	

LOADER DIMENSIONS 417 HT SHL

Model		417 HT HL							
		Direct				Quickhitch			
		General purpose				General purpose			
Bucket mounting									
Bucket type									
Bucket equipment		Tipped teeth		Reversible toeplate		Tipped teeth		Reversible toeplate	
Bucket capacity (SAE heaped)	yd ³ (m ³)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)	1.83 (1.4)	2.09 (1.6)
Bucket capacity (struck)	yd ³ (m ³)	1.54 (1.18)	1.78 (1.362)	1.54 (1.18)	1.78 (1.362)	1.54 (1.18)	1.78 (1.36)	1.54 (1.18)	1.78 (1.362)
Bucket width	ft in (mm)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)	7' 10" (2400)
Bucket weight	lbs (kg)	1451 (658)	1539 (698)	1499 (680)	1587 (720)	1418 (643)	1506 (683)	1466 (665)	1554 (705)
Maximum material density *	lbs/yd ³ (kg/m ³)	2527 (1499)	2181 (1294)	2527 (1499)	2181 (1294)	2392 (1419)	2063 (1224)	2392 (1419)	2063 (1224)
Tipping load straight *	lbs (kg)	11107 (5038)	10970 (4976)	11107 (5038)	10970 (4976)	10589 (4803)	10461 (4745)	10589 (4803)	10461 (4745)
Tipping load full turn *	lbs (kg)	9251 (4196)	9125 (4139)	9251 (4196)	9125 (4139)	8757 (3972)	8638 (3918)	8757 (3972)	8638 (3918)
Payload *	lbs (kg)	4625 (2098)	4564 (2070)	4625 (2098)	4564 (2070)	4378 (1986)	4319 (1959)	4378 (1986)	4319 (1959)
Maximum breakout force	lbf (kN)	15737 (70)	14523 (64.6)	15737 (70)	14523 (64.6)	14590 (64.9)	13466 (59.9)	14590 (64.9)	13466 (59.9)
M Dump angle maximum	degrees	45	45	45	45	45	45	45	45
N Roll back angle full height	degrees	47	47	47	47	47	47	47	47
O Roll back at carry	degrees	45	45	45	45	45	47	45	47
P Roll back at ground level	degrees	44	43	44	43	43	45	43	45
Q Load over height	ft in (mm)	13' 9" (4202)	13' 9" (4199)	13' 9" (4202)	13' 9" (4199)	13' 10" (4216)	13' 10" (4216)	13' 10" (4216)	13' 10" (4216)
R Dump height (45deg dump)	ft in (mm)	11' 9" (3575)	11' 7" (3522)	11' 9" (3575)	11' 7" (3522)	11' 7" (3538)	11' 5" (3488)	11' 7" (3538)	11' 5" (3488)
S Dig depth	ft in (mm)	0' 6" (148)	0' 6" (152)	0' 6" (148)	0' 6" (152)	0' 5" (132)	0' 5" (132)	0' 5" (132)	0' 5" (132)
T Reach at dump height	ft in (mm)	3' 6" (1074)	3' 8" (1122)	3' 6" (1074)	3' 8" (1122)	3' 8" (1130)	3' 10" (1180)	3' 8" (1130)	3' 10" (1180)
Reach maximum (45deg dump) - horizontal arm	ft-in (mm)	7' 7" (2319)	7' 9" (2369)	7' 7" (2319)	7' 9" (2369)	7' 10" (2377)	8' 0" (2427)	7' 10" (2377)	8' 0" (2427)
Operating weight (includes 176lbs (80Kg) operator and full fuel tank (includes aux tank)	lbs (kg)	22035 (9995)	22112 (10030)	22035 (9995)	22112 (10030)	22498 (10205)	23237 (10540)	22498 (10205)	22575 (10240)

*Assumes machine is fitted with Michelin 17.5 R25 XHA tires.

LOADER DIMENSIONS – FORK FRAME WITH FORKS



LOADER DIMENSIONS – FORK FRAME WITH FORKS

		Parallel fork				Non parallel fork			
		411 HT	417 HT	417 HT HL	417 HT SHL	411 HT	417 HT	417 HT HL	417 HT SHL
Fork carriage width	ft-in (mm)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)	4' 11" (1500)
Length of tines	ft-in (mm)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)	4' 0" (1220)
A Reach at ground level	ft-in (mm)	3' 0" (924)	2' 7" (787)	3' 2" (969)	5' 4" (1620)	3' 0" (923)	2' 7" (785)	3' 3" (984)	5' 4" (1631)
B Reach at arms horizontal	ft-in (mm)	5' 0" (1527)	4' 9" (1459)	5' 3" (1590)	6' 11" (2115)	5' 0" (1512)	4' 9" (1447)	5' 3" (1596)	6' 11" (2118)
C Below ground level	ft-in (mm)	0' 3" (78)	0' 2" (57)	0' 2" (55)	0' 3" (79)	0' 2" (62)	0' 3" (68)	0' 3" (64)	0' 3" (88)
D Arms, horizontal height	ft-in (mm)	5' 6" (1671)	5' 9" (1745)	5' 9" (1744)	5' 9" (1744)	5' 4" (1626)	5' 8" (1735)	5' 8" (1735)	5' 8" (1735)
E Arms, maximum height	ft-in (mm)	11' 2" (3395)	11' 2" (3395)	11' 10" (3618)	14' 0" (4267)	11' 2" (3414)	11' 1" (3385)	11' 10" (3599)	14' 0" (4257)
F Reach at maximum height	ft-in (mm)	2' 8" (823)	2' 9" (829)	2' 8" (806)	2' 9" (846)	2' 7" (776)	2' 8" (817)	2' 8" (819)	2' 10" (853)
Payload*	lbs (kg)	7408 (3360)	8206 (3722)	7676 (3482)	5798 (2630)	7665 (3477)	8188 (3714)	7641 (3466)	5781 (2622)
Tipping load straight	lbs (kg)	10908 (4948)	12081 (5480)	11402 (5172)	8768 (3977)	11228 (5093)	12136 (5505)	11354 (5150)	8741 (3965)
Tipping load full turn (40°)	lbs (kg)	9259 (4200)	10258 (4653)	9597 (4353)	7249 (3288)	9581 (4346)	10234 (4642)	9553 (4333)	7227 (3278)
Attachment weight	lbs (kg)	959 (435)	959 (435)	959 (435)	959 (435)	948 (430)	948 (430)	948 (430)	948 (430)

Assumes the fitment of Michelin 15.5R25 XHLA (L3) tires for 411 and Michelin 17.5R25 XHA (L3) tires for 417.

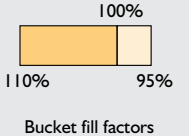
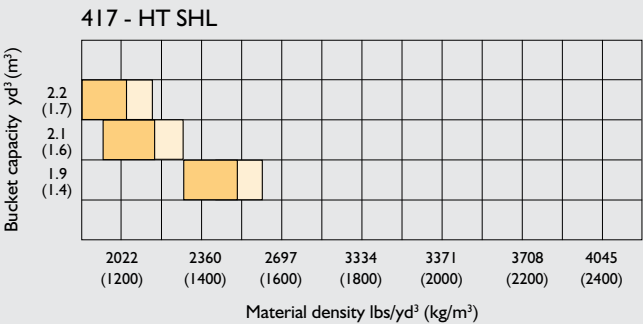
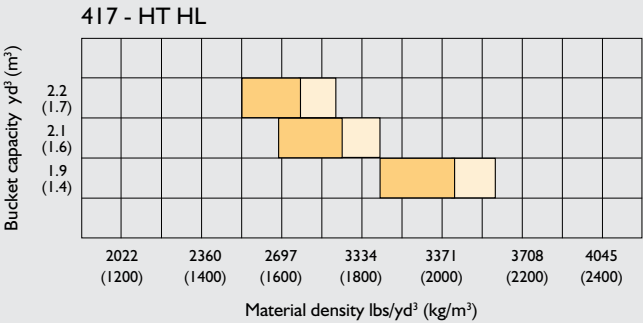
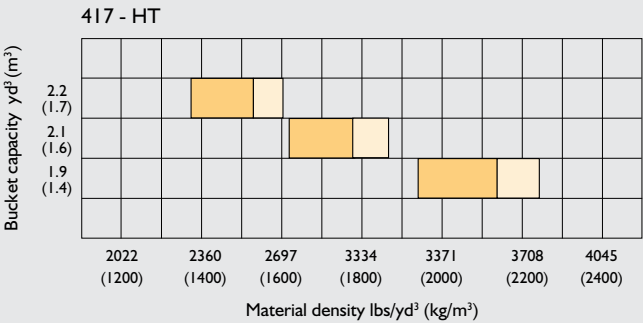
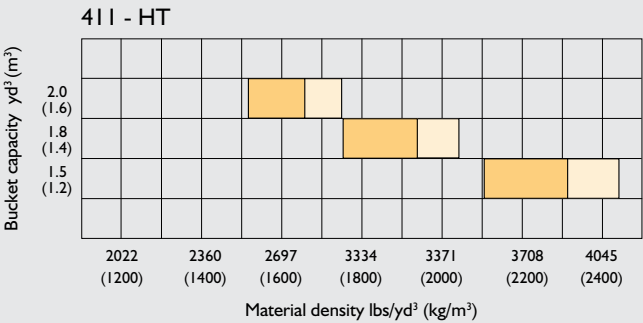
* At the center of gravity distance 19.6" (500mm). Based on 80% of FTTL as defined in ISO 8313.

Manual fork spacing's at 1.96" (50mm) increments. Fork section 3.94" x 1.96" (100mm x 50mm).

MATERIAL DENSITY

Material	Loose density		Fill factor
	lb/yd ³	kg/m ³	
Snow (fresh)	337	200	110
Peat (dry)	674	400	100
Sugar beet	893	530	100
Coke (loose)	961	570	85
Barley	1011	600	85
Petroleum coke	1146	680	85
Wheat	1230	730	85
Coal bituminous	1289	765	100
Fertiliser (mixed)	1736	1030	85
Coal anthracite	1763	1046	100
Earth (dry) (loose)	1938	1150	100
Nitrate fertilizer	2107	1250	85
Sodium chloride (dry) (salt)	2191	1300	85
Cement Portland	2427	1440	100
Limestone (crushed)	2579	1530	100
Sand (dry)	2613	1550	100
Asphalt	2697	1600	100
Gravel (dry)	2781	1650	85
Clay (wet)	2832	1680	110
Sand (wet)	3186	1890	110
Fire clay	3506	2080	100
Copper (concentrate)	3877	2300	85
Slate	4720	2800	100
Magnetite	5401	3204	100

MATERIAL DENSITY



ENGINE			
		411	417
Type		4 stroke direct injection	4 stroke direct injection
Model		JCB EcoMAX T4F	JCB EcoMAX T4F
Capacity	in (liters)	269 (4.4)	269 (4.4)
Bore	in (mm)	4.06 (103)	4.06 (103)
Stroke	in (mm)	5.2 (132)	5.2 (132)
Aspiration		Turbo charged	Turbo charged
Cylinders		4	4
Max gross power (SAE J1995/ISO 14396)	hp (kW) @ 2200rpm	108.6 (81)	124.7 (93)
Max torque	lbft (Nm)	318 (516) @ 1450	406 (550) @ 1500
Engine driven fan (non reversing)			
Net power at maximum fan speed (ISO 9249)	hp (kW) @ 2200rpm	100.2 (74.7)	116.3 (86.7)
Net power at minimum fan speed (ISO 9249)	hp (kW) @ 2200rpm	104.6 (78)	120.7 (90)
Hydraulic reversing fan (option)			
Net power at maximum fan speed (ISO 9249)	hp (kW) @ 2200rpm	94.5 (70.5)	110.6 (82.5)
Net power at minimum fan speed (ISO 9249)	hp (kW) @ 2200rpm	100.6 (75)	116.7 (87)

TRANSMISSION					
		411		417	
		Smooth shift Powershift			
Type / Model		ZF 4WG115			
Torque convertor stall ratio		3.01:1		2.3:1	
		Forward	Reverse	Forward	Reverse
1 st gear	mph (kph)	3.42 (5.5)	24.85 (40)	3.36 (5.4)	3.54 (5.7)
2 nd gear	mph (kph)	8.08 (13)	24.85 (40)	7.95 (12.8)	8.39 (13.5)
3 rd gear	mph (kph)	17.90 (28.8)	18.70 (30.1)	17.65 (28.4)	18.52 (29.8)
4 th gear	mph (kph)	24.85 (40)	-	24.85 (40)	-

LOADER HYDRAULICS			
		411	417
Pump type		Double gear pump	Variable placement piston pump
Pump 1 maximum flow	gal/min (l/min)	13.3 (50.6)	41.2 (156)
Pump 1 maximum pressure	PSI (bar)	3190 (220)	3480 (240)
Pump 2 maximum flow	gal/min (l/min)	19.1 (72.6)	-
Pump 2 maximum pressure	PSI (bar)	3336 (230)	-
Hydraulic cycle times at full engine revs		411	417
Arms raise (full bucket)	Seconds	5.0	4.9
Bucket dump (full bucket)	Seconds	1.1	2.1
Arms lower (empty bucket)	Seconds	3.7	3.3
Total cycle	Seconds	9.8	10.3

AXLES	
411	
Type	Epicyclic hub reduction
Make & model	JCB PD70 (front & rear)
Overall axle ratio	18.16:1
Rear axle oscillation	± 11°
417	
Type	Epicyclic hub reduction
Make & model	JCB PD87 (front & rear)
Overall axle ratio	20.18:1
Rear axle oscillation	± 11°
STEERING	Hydraulic power steering system with emergency steering.
BRAKES	Hydraulic power braking on all wheels. In board mounted, oil immersed, multi-plate disc brakes. Mechanically or Electro-Hydraulically activated disc type parking brake operating on transmission output shaft.
CAB	In-cab noise level – 68dB(A).

ELECTRICAL SYSTEM			
		411	417
System voltage	Volt	24	
Alternator output	Amp hour	100	
Battery capacity	Amp hour	2 x 110	

SERVICE FILL CAPACITIES			
		411	417
Hydraulic system	gal (liters)	40.9 (155)	
Hydraulic tank	gal (liters)	30.9 (117)	
Fuel tank	gal (liters)	30.6 (116)	
Engine oil sump	gal (liters)	3.7 (14)	
Transmission oil system	gal (liters)	7.1 (27)	
Axle oil (front)	gal (liters)	6.6 (25)	
Axle oil (rear)	gal (liters)	6.6 (25)	
Engine coolant system	gal (liters)	6.8 (26)	
DEF	gal (liters)	5.2 (20)	

EQUIPMENT

SERVICE AND MAINTENANCE

5 year LiveLink telematics	•
Engine oil remote drain and fill	•
Grouped pressure test points	•
Lockable tool box	•
Lubrication points accessible from ground level	•
Transmission oil level sight gauge	•
Hydraulic level sight gauge	•

ENGINE

Air cleaner – cyclonic pre-filter with engine fan scavenge system	•
Fixed viscous mounted fan	•
Automatically reversing cooling fan	+
Crankcase breather oil trap	•
DEF fluid	•
Epoxy coated radiator / coolers	+
Fuel filter	•
Fuel pre-filter with water trap	•
Hydraulically driven cooling fan	•
-20° cold start	•
SCR engine emission control	•
Waste gated turbo	•
Widcore radiator	•

ELECTRICAL

100 amp alternator	•
Amber rotating beacon	•
Electrical adjustable mirrors	•
Heated mirrors	•
External battery isolator	•
Fold down beacon arm	•
Halogen front and rear working lights	•
Full road light kit	•
Integrated rear view camera	+
LED front and rear working lights	+
LED 360° work lights	+
Number plate light kit	+
Radio wiring and speakers	•
Reverse alarm	•
Smart reverse alarm	+
White noise reverse alarm and light	+

DRIVE TRAIN

4 speed transmission 20kph	+
4 speed transmission 40kph	+
Gear kick down on loader control lever	•
Loader lever direction control	•
Neutral start	•
Open differential	•
Limited slip differentials front and rear	+
Oscillating rear axle	•
Foot brake operated transmission disconnect (selectable)	•
Selectable automatic powershift	•
Speed limiter 20kph	+
Steering column single lever shift control (direction and gear)	•
Transmission cooler bypass	+

BRAKE SYSTEM

Multi-plate wet disc brakes	•
Parking disc brake on transmission output shaft	•
Mechanical hand operated park brake	•
Electrical hydraulic park brake	+
Independent accumulator backup for electric park brake	+

OPERATOR STATION

Fully glazed cab	•
Front windshield guards	+
Air conditioning	•
Climate control	+
Single lever joystick	•
Multi-lever hydraulic controls	+
Proportional electro-hydraulic auxiliary control	+
Electronic adjustment of SRS (Smooth Ride System) cut-in speed	+
Electronic adjustment of reverse fan interval	+
Air suspension cloth seat	•
Deluxe heated air suspension cloth seat	+
Super deluxe heated & cooled air suspension half leather seat	+
Front roller blind	•
Rear roller blind	+
Cab air intake filter	•
Carbon cab air intake filter	+
12V in cab power socket	•
2 x 12V in cab power socket	+
24V in cab power socket	+
Reversing camera (color)	+
Fold away adjustable steering column	•
ROPS / FOPS safety structure	•
Interior light	•

OPERATOR STATION (CONTINUED)

Front primary display screen	•
Secondary A post display screen, rotary control menu interface	+
A post mounted membrane switches	•
2" (50mm) seatbelt	•
3" (75mm) seatbelt	+
Fire extinguisher (UK & USA only)	+
Two speed intermittent front windshield wipe / wash and self-park	•
Single speed rear windshield wipe/wash and self-park	•
3 speed heater/demisting	•
LH and RH sliding opening windows	•
Floor mat	•
Cup holder	•
Steering wheel spinner knob	•
Internal rear view mirror	•
Tinted cab glass	•
Multimedia port (USB and 3.5mm)	+
Operator storage	•
Laminated windshield	•
Heated rear window	•
Loader control isolator	•
Horn	•
Adjustable armrest	•
Removable storage rubber mats	•

FRONT PRIMARY DISPLAY

Warning lights

Direction indicators	•
Master warning	•
High coolant temperature	•
Battery charging condition	•
Low fuel level	•
Engine oil pressure	•
Hazard lamps	•
Park brake state	•
Road lights	•
Main beam lights	•
Rear fog lights	•
Engine pre-heat	•
Brake system pressure	•
Low steering pressure	•

Buzzer alerts

Engine air filter blocked	•
Diesel exhaust fluid (DEF)	•
Torque reduction in case of malfunction	•
Amber warning lamp	•

EQUIPMENT

FRONT PRIMARY DISPLAY (CONTINUED)

Gauge display

Engine speed	•
Coolant temperature	•
Fuel level	•

LCD screen display

Current gear	•
Torque reduction in case of malfunction	•
Amber warning lamp	•
Diesel exhaust fluid (DEF)	•
Secondary steer system pressure	•
Steer mode	•
Ground speed	•
Engine Speed (numeric display)	•
Clock	•
Hydraulic state	•
SRS (Smooth Ride System)	+
Beacon	•
Front work lamps	•
Rear work lamps	•
Heated rear window	•
Transmission sump temperature	•

Data screens

DEF level	•
Hydraulic oil temperature	•
Torque convertor temperature	•
Volume of fuel remaining	•
Total fuel used (resettable)	•
Instantaneous fuel use	•
Average fuel use (resettable)	•
Current date	•
Machine hours	•
Trip distance (resettable)	•
Hours to service	•
Daily checks	•
Engine oil level	•
DEF level	•

RIGHT HAND SECONDARY DISPLAY - OPTIONAL

Clock	•
Climate control	•
Fan speed	•
In-cab temperature set	•
Machine hours	•
Rear view camera	•
Fuel use	•

RIGHT HAND SECONDARY DISPLAY - OPTIONAL (CONTINUED)

Time and date	•
Auxiliary flow rate	+
Hydraulic oil temperature	•
Transmission oil temperature	•

Machine settings screen

Coolant temperature	•
Engine oil pressure	•
Air filter	•
Transmission sump temperature	•
Transmission torque convertor temperature	•
Hydraulic oil temperature	•
Battery voltage	•
Help display	•
On-screen handbook	•

HYDRAULIC SYSTEM

Smoothride system (SRS)	+
Hydraulic quickhitch with in-cab isolation	+
Auxiliary ARV kit	+
Auxiliary hydraulic service	+
Twin auxiliary hydraulic service	+
Emergency steer back-up	•
JCB biodegradable hydraulic oil	+
Electronic hydraulic isolation	•
Automatic boom kick-out. Detent	•
Automatic bucket positioner	•
Front loader float	•
Hydraulic oil cooler	•

EXTERNAL EQUIPMENT

Front and rear fenders	•
Front adjustable mud flaps	•
Front wheel spray guards	•
Automatic greasing system	+
Grease gun and cartridge	+
Mesh air intake screens	•
Flexible bottom step	•
Full width rear counterweight	•
Recovery hitch	•
Lifting / tie down lugs	•
Auxiliary fuel tank	+

PROTECTIVE EQUIPMENT

Front cab screen guards	+
Wastemaster package: includes front and rear light guards, windshield guard, Wastemaster decal.	+
Rear grill guard	+
Loader arm safety strut	•
Light guards	+
Belly guard kit	+
Articulation joint safety strut	•

OTHER EQUIPMENT

High lift loader end (417 only)	+
Super high lift loader end (417 loader only)	+

STANDARD •

OPTIONAL +







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