



WHEEL LOADER | 419S

Operating weight: 10613kg Gross engine power: 136kW (183hp) Full turn tipping load: 6695kg Standard shovel capacity: 1.6m³



A QUALITY PROCESS.

WE KNOW THAT A WHEEL LOADER IS A KEY PART OF THE FARM'S PROCESS. THAT'S WHY THE JCB 419S IS 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 -20°C .

2 The front chassis features additional ribs and gussets for maximum strength.

Precision machining provides high tolerances and accurate location of pins and bushes.



Protecting ancillaries.

3 A solid cast rear counterweight protects the rear of the machine - including the rear lights and cooling pack - from damage.

Well articulated.

4 Hoses are neatly routed and clamped through the articulation joint, well away from any pinch points.

5 Designed to tolerate both vertical and horizontal loadings, the articulation joint has a heavy-duty centre pin and oversized bush, as well as twin taper roller bearings on the top box joints.

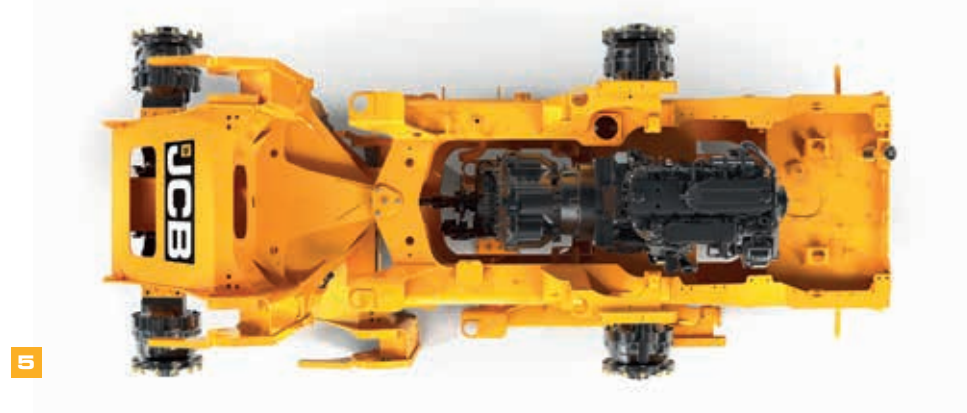
The 419S has integral steel fluid tanks for the ultimate in leak protection; a far superior solution to the plastic tanks favoured by some competitors.



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PRODUCTIVE PERFORMANCE.

THE 419S CAN PERFORM GREAT FEATS OF PRODUCTIVITY. DELIVERING A MASSIVE 183HP, AND WEIGHING UNDER 11 TONNES, THE MACHINE HAS A HUGE POWER-TO-WEIGHT RATIO OF 16.8HP/TONNE FOR ULTIMATE PUSHING, CLIMBING AND ROADING PERFORMANCE.

Drivetrain performance.

1 The Cummins QSB 6.7-litre engine achieves maximum engine power (136kW) and peak torque (841 Nm) 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 changing quick and efficient. The quickhitch is designed to be compatible with aftermarket attachments too.

3 Powerful single variable displacement piston pump hydraulics can circulate an incredible 180 l/min for fast cycles and excellent multi-function capability.

Optional 10 tonnes hydraulic or mechanical tow hitch with hydraulic trailer brakes and 12V trailer electrics further improve versatility on the 419S.

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



Loading productivity (continued).

4 The high torque (HT) arm design on the 419S gives greater visibility to the loader end, as well as offering parallel lift, making it ideal for multi-attachment use. Constant torque throughout the full carriage rotation provides excellent power and attachment control. Choose a HT high lift on the 419S and you can use the machine for higher loading height applications (hopper, trailer and spreader loading).

Drivetrain productivity.

5 The unique 6-speed transmission with torque convertor lock-up in every gear provides closer gear ratios for better acceleration, hill climbing and roading performance. The lock-up element eliminates losses from the torque converter for faster cycle times and improved efficiency.

6 The innovative electronic management can perform progressive clutch cut-off for efficient, productive loader control. This feature controls tractive effort via the transmission, diverting maximum power to the loader hydraulics and reducing service brake wear and fuel consumption.

7 With a choice of axle options you can tailor a 419S to any application.

> Limited slip differential is perfect for soft, muddy terrain with reduced traction.

> Open differentials with an automatic locking front axle differential provide excellent traction in varied ground conditions – ideal for straight line pushing.

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 CommandPlus controls.



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HT Standard Lift

HT High Lift



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EFFICIENT BY DESIGN.

THE JCB 419S IS 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.

An efficient engine.

- 1 A hydraulic cooling fan automatically reacts to ambient temperature and adjusts the fan speed to optimise energy and reduce fuel consumption. An additional benefit of this setup is reduced noise levels.
- 2 Eco Mode caps engine speed at 1800rpm for reduced fuel consumption. Productivity nonetheless remains formidable.
- 3 Our torque lock-up 6 speed transmission gives you up to 100% efficiency in all gears for improved fuel consumption. Closer gear ratios provide lower engine speed in each gear.

Automatic idle returns the engine to 750rpm after 30 seconds of inactivity.



An efficient engine (continued).

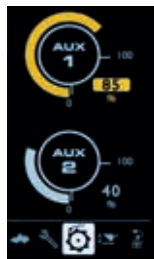
- 4 Wheel speed braking means the brakes rotate at the same speed as the wheels for heat and drag reduction, as well as improved fuel economy and access for maintenance and repairs.
- 5 Unloaded spool valves in the valve block mean that arms lower under gravitational, not hydraulic force, reducing fuel consumption.
- 6 JCB's innovative variable displacement pump feeds a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control.
- 7 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.



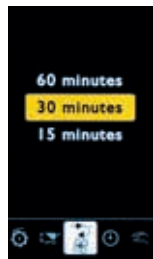
COMMANDPLUS controls.
 JCB Smoothride load suspension limits shock loadings and therefore reduces material spillage and structural stress, as well as increasing operator comfort. The speed of engagement is adjustable from within the cab using the latest state-of-the-art CommandPlus controls.



Adjustable SRS engagement speed.



Adjustable Auxiliary control.



Adjustable reversing fan intervals.



COMMANDPLUS.

THE LATEST JCB 419S WHEEL LOADER BOASTS OUR ALL-NEW COMMAND PLUS CAB. THIS UNIQUE APPROACH TO ERGONOMICS IS THE RESULT OF A RADICAL RETHINK AND A RIGOROUS RESEARCH PROGRAMME. 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 windscreen. 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 419S 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 multilever configurations, all using electro-hydraulics for the ultimate in precision.

4 There are two full colour 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 pressurised the cab to eliminate dust and fumes.

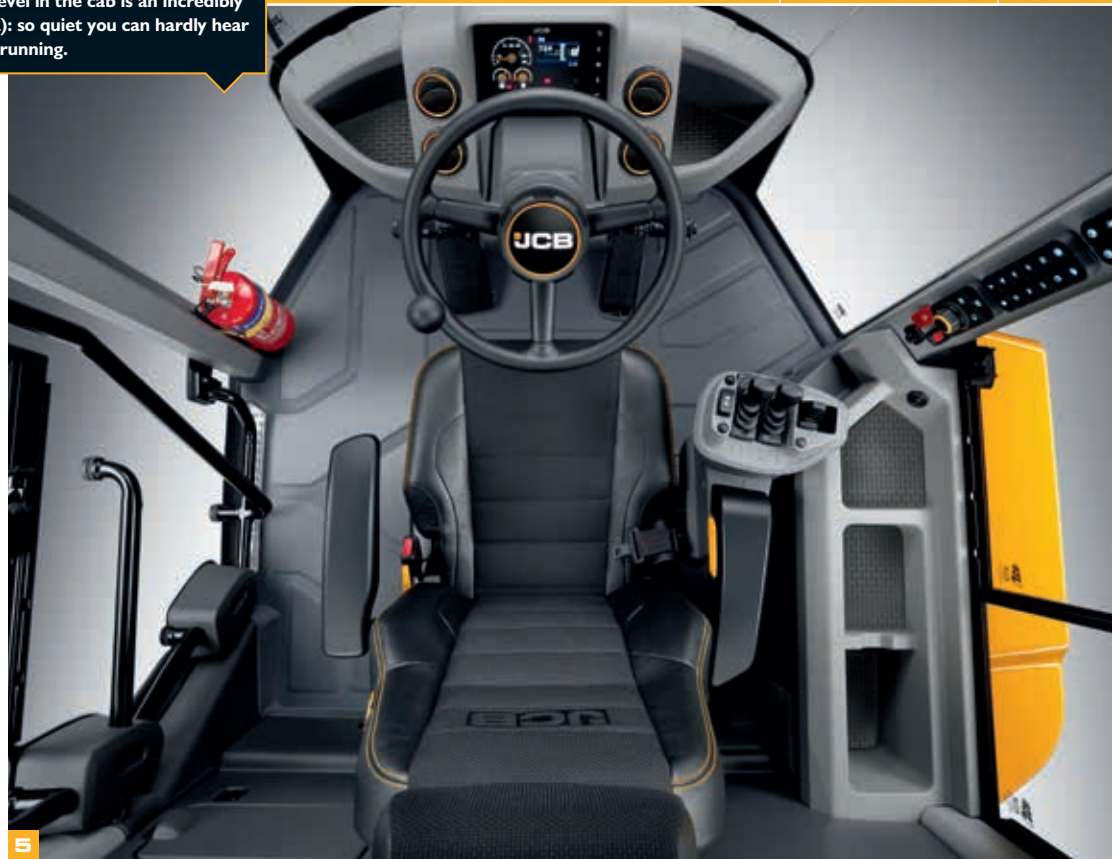
6 After extensive research into operator ergonomics, we've devised the Command Driving Position, which boasts the very optimal control layout for a multitude of different driver shapes and sizes available, ranging from an air suspension standard seat to a super deluxe half leather seat, featuring fully 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 419S 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 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.

8 Opt for the in-cab cool box, keeping food and beverages cool.



LOW MAINTENANCE LONG INTERVALS.

WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 419S TO DO JUST THAT, WITH LONG SERVICE INTERVALS AND QUALITY COMPONENTS.

Routine maintenance.

1 It's easy to get to the engine on a new JCB 419S with a large opening single-piece bonnet.

2 Accessing the DEF (Diesel Exhaust Fluid) tank is similarly straightforward via the rear of the machine.

You can check washer fluid levels, 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.

3 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 Cummins engine is DPF-free, reducing your servicing and running costs.

4 A large single-faced wide-core cooling pack package with auto reverse fan, provides unrivalled quick, easy and safe cleaning.

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



Less servicing, more service.

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

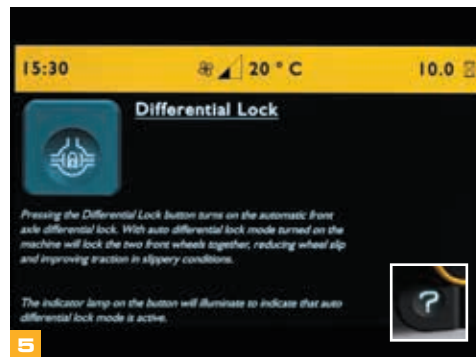
The intuitive CommandPlus help function provides the operator with meaningful descriptions of in-cab switch function. Using the “?” button, this allows new or unfamiliar operators to quickly and easily understand machine functions without having to refer to the operators manual.

6 By using premium components in the 419S (Cummins engine, ZF transmission and axles, Rexroth pump and Husco valve block), we've built in long service life as standard.

7 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 250-litre fuel tank fitted, which ensures maximum working hours between refills.

Heating and ventilation filters are conveniently located behind an external access panel. The main fuse board and relays have been repositioned next to the door for easy access.



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 for easy debris removal.



DRIVE SAFELY.

THE NEW JCB 419S IS DESIGNED TO KEEP THE OPERATOR AND YOUR FARM SAFE AT ALL TIMES. GREATER VISIBILITY, NON-SLIP SURFACES AND FULL ROPS/ FOPS PROTECTION ARE JUST THE START.

Safely does it.

1 Our rear-view camera displays an unobstructed rearward view on the in-cab colour monitor onboard your 419S.

2 Superb visibility in dark conditions is guaranteed with JCB's optional 360 degree LED lighting.

3 You'll find the rear-view mirrors mounted in front of the A-pillars for improved all-round visibility.

Interior mirrors, electrical adjustable heated exterior mirrors and rear camera combine to offer excellent views to every corner of your machine.

4 Visibility over the rear bonnet is excellent because the air cleaner is underneath the bonnet and the exhaust stack is located centrally.



Safely does it (continued).

5 Access steps on the 419S are inclined and equally spaced, complemented by well positioned grab handles for three points of contact at all times.

6 Full fender coverage flaps have been carefully designed to keep forward spray to a minimum for all tyre options. This increases safety and decreases debris build-up.

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

8 Engines fitted with a DPF can pose an increased fire risk because extreme heat can be created in regeneration mode. The new 419S doesn't use a DPF, so this is no cause for concern.

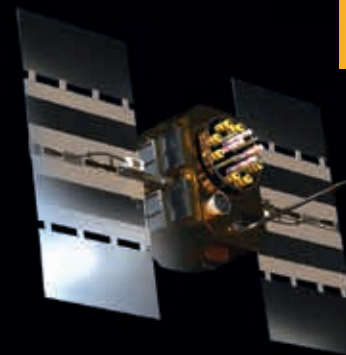


LIVELINK, WORK SMARTER.

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 CENTRE.

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 unauthorised 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 Programme.

If your business isn't in a position to buy a brand new machine, then JCB's Rebuild and Refurbishment programme 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 the maximum machine uptime. JCB's Global Parts Centres, meanwhile, deliver around 95% of all parts anywhere in the world within 24 hours.

Component monitoring.

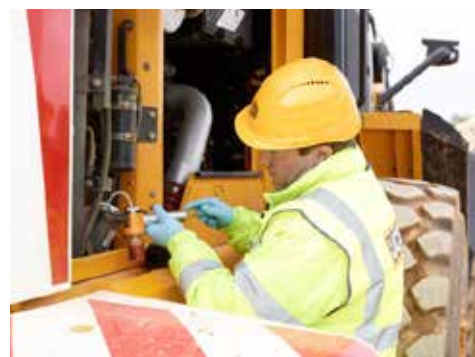
JCB machines benefit from a sophisticated component monitoring programme that provides preventative maintenance and oil sampling to keep everything working at its optimum level.

Service support.

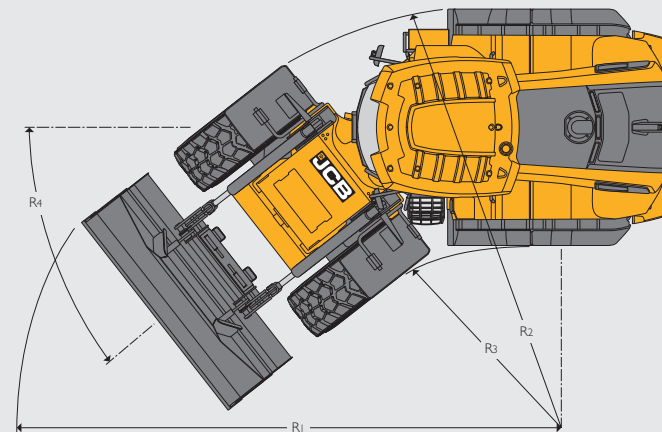
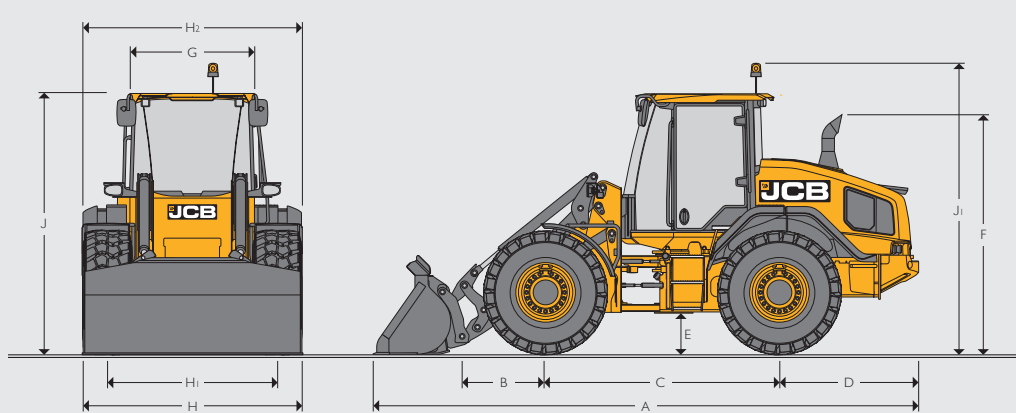
We offer a range of extended warranties, from JCB PremierCover (full comprehensive cover) to JCB PowertrainCover (engine, axles, transmission and hydraulic pump cover). Service agreements, as well as service-only or Repair and Maintenance contracts ensure that we have the up-time of your wheel loading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

Finance and Insurance.

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



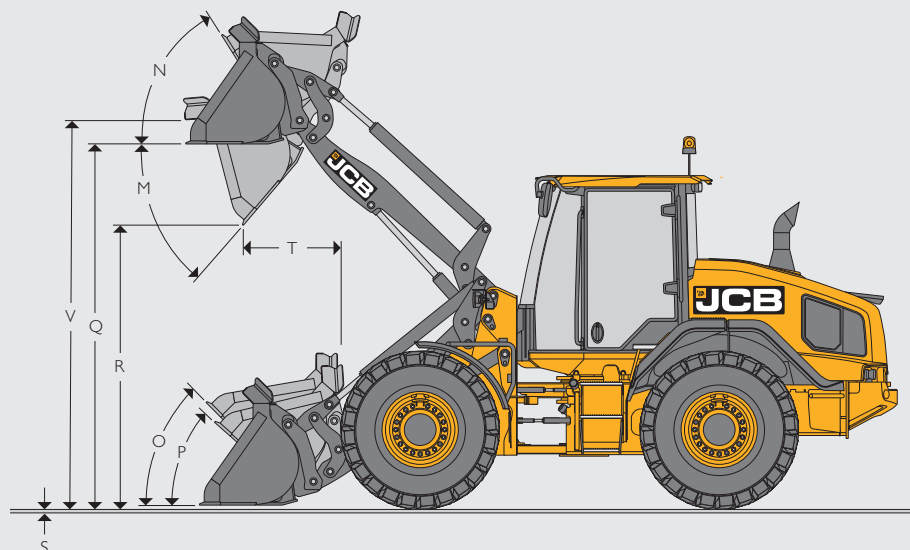
STATIC DIMENSIONS



| | | 419S HT | 419S HT HL |
|----|---|----------|------------|
| A | Overall length | mm 6627 | 6877 |
| B | Axle to pivot pin | mm 1004 | 1213 |
| C | Wheelbase | mm 2850 | 2850 |
| D | Axle to counterweight face | mm 1700 | 1700 |
| E | Minimum ground clearance | mm 502 | 502 |
| F | Height over exhaust | mm 2930 | 2930 |
| G | Width over cab roof | mm 1540 | 1540 |
| H | Maximum width over tyres | mm 2674 | 2674 |
| H1 | Wheel track | mm 2080 | 2080 |
| H2 | Maximum width over fenders | mm 2700 | 2700 |
| J | Height over cab roof and lowered beacon | mm 3191 | 3191 |
| J1 | Height over raised beacon | mm 3559 | 3559 |
| | Pin height (maximum) | mm 3700 | 3910 |
| | Front axle weight | kg 4779 | 4894 |
| | Rear axle weight | kg 5834 | 5769 |
| | Total weight | kg 10613 | 10663 |

| | | 419S HT | 419S HT HL |
|----|---------------------------------|------------|------------|
| R1 | Maximum turn radius over shovel | mm 5740 | 5847 |
| R2 | Maximum turn radius over tyre | mm 5503 | 5503 |
| R3 | Inside turn radius | mm 2791 | 2791 |
| R4 | Articulation angle | degrees 38 | 38 |

419 Data based on machine equipped with quick hitch mounted 1.6 m³ bucket with toe plates and 620/75R26 tyres.



| TYRE SIZE | | | | | | | | | | |
|-----------|--------------|----------|--------|-----------------------|---------|---------|------------|---------|-------------|----------|
| Tyre size | Manufacturer | Type | Rating | Operating weight (kg) | 419S HT | | 419S HT HL | | Dimensions | |
| | | | | | STL kg | FTTL kg | STL kg | FTTL kg | Vertical mm | Width mm |
| 17.5R25 | Michelin | XHA2 | L2 | -100 | -68 | -61 | -64 | -57 | -104 | -262 |
| 17.5R25 | Michelin | XSNOPLUS | L2 | -120 | -84 | -75 | -80 | -71 | -108 | -260 |
| 20.5R25 | Michelin | XHA2 | L2 | 344 | 234 | 208 | 221 | 197 | -68 | -220 |
| 20.5R25 | Michelin | XSNOPLUS | L2 | 260 | 177 | 158 | 167 | 149 | -79 | -240 |
| 500/70R24 | Michelin | XMCL | - | -360 | -245 | -218 | -231 | -206 | -129 | -99 |
| 620/70R26 | Michelin | CERAXBIB | - | -44 | -30 | -27 | -28 | -25 | -57 | 30 |
| 750/65R26 | Michelin | MEGAXBIB | - | 320 | 217 | 194 | 205 | 183 | 13 | 210 |
| 620/75R26 | BKT | AGRIMAX | - | 68 | 46 | 41 | 44 | 39 | 18 | 40 |
| 750/65R26 | BKT | AGRIMAX | - | 320 | 217 | 194 | 205 | 183 | 13 | 210 |

LOADER DIMENSIONS 419S/419S HL

| Model | | 419S HT | | | | 419S HT HL | | | |
|---|-------------------|-----------------|---------------------|--------------|---------------------|-----------------|---------------------|--------------|---------------------|
| | | Direct | | Quickhitch | | Direct | | Quickhitch | |
| Shovel mounting | | Direct | | Quickhitch | | Direct | | Quickhitch | |
| Shovel type | | General purpose | | | | General purpose | | | |
| Shovel equipment | | Tipped teeth | Reversible toeplate | Tipped teeth | Reversible toeplate | Tipped teeth | Reversible toeplate | Tipped teeth | Reversible toeplate |
| Shovel capacity (SAE heaped) | m ³ | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Shovel capacity (struck) | m ³ | 1.36 | 1.36 | 1.36 | 1.36 | 1.36 | 1.36 | 1.36 | 1.36 |
| Shovel width | mm | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 | 2400 |
| Shovel weight | kg | 698 | 720 | 683 | 705 | 698 | 720 | 683 | 705 |
| Maximum material density * | kg/m ³ | 2178 | 2178 | 2092 | 2092 | 2044 | 2044 | 1952 | 1952 |
| Tipping load straight * | kg | 7801 | 7801 | 7504 | 7504 | 7276 | 7276 | 7002 | 7002 |
| Tipping load full turn * | kg | 6970 | 6970 | 6695 | 6695 | 6542 | 6542 | 6247 | 6247 |
| Payload * | kg | 3485 | 3485 | 3347 | 3347 | 3271 | 3271 | 3123 | 3123 |
| Maximum breakout force | kN | 92 | 92 | 92 | 92 | 82 | 82 | 82 | 82 |
| M Dump angle maximum | degrees | 50 | 50 | 50 | 50 | 46 | 46 | 46 | 46 |
| N Roll back angle full height | degrees | 58 | 58 | 58 | 58 | 61 | 61 | 61 | 61 |
| O Roll back at carry | degrees | 45 | 45 | 45 | 45 | 48 | 48 | 48 | 48 |
| P Roll back at ground level | degrees | 42 | 42 | 42 | 42 | 45 | 45 | 45 | 45 |
| Q Load over height | mm | 3477 | 3477 | 3492 | 3492 | 3689 | 3689 | 3702 | 3702 |
| R Dump height (45 deg dump) | mm | 2750 | 2750 | 2715 | 2715 | 2997 | 2997 | 2958 | 2958 |
| S Dig depth | mm | 18 | 18 | 0 | 0 | 35 | 35 | 20 | 20 |
| T Reach at dump height | mm | 840 | 840 | 898 | 898 | 897 | 897 | 960 | 960 |
| V Pin height | mm | 3700 | 3700 | 3700 | 3700 | 3910 | 3910 | 3910 | 3910 |
| Reach maximum (45deg dump) - horizontal arm | mm | 1601 | 1601 | 1659 | 1659 | 1663 | 1663 | 1721 | 1721 |
| Operating weight (includes 75Kg operator and full fuel and DEF tanks) | kg | 10403 | 10403 | 10613 | 10613 | 10453 | 10453 | 10663 | 10663 |

Assumes machine is fitted with 620/75 R26 tyres, quickhitch and 1.6m³ shovel with toe plate.

* Based on 50% FTTL as defined in ISO 14397-1:2007.

| ENGINE | | | |
|--|---|-----------|--|
| Type | Cummins | | |
| Model | QSB | | |
| Capacity | litres | 6.7 | |
| Aspiration | Turbo Charged | | |
| Cylinders | 6 | | |
| Max gross power to SAE J1995/ISO 14396 | kW (hp) @ 2100rpm | 129 (173) | |
| Nett power to ISO 9249 | kW (hp) @ 2000rpm | 136 (183) | |
| Max torque | Nm @ 1500rpm | 841 | |
| Valves per cylinder | 4 | | |
| Air cleaner | Cyclonic pre-filter with engine fan scavenge system | | |
| Fan drive type | Hydraulically driven cooling fan | | |
| Emissions | EU Stage IV, US EPA Tier 4F | | |

| TRANSMISSION | | | |
|--------------------------------|--------|----------|-------------------|
| 6 speed with lock up converter | | | |
| Make | ZF | | |
| Model | 6WG160 | | |
| | | Forward | Reverse |
| 1 | kph | 5.45 | 5.73 (non-locked) |
| 2 | kph | 8.56 | 13.94 |
| 3 | kph | 13.22 | 32.07 |
| 4 | kph | 20.35 | - |
| 5 | kph | 30.42 | - |
| 6 | kph | 40 (48)* | - |

Note: Figures are dependant on tyre configurations and vary slightly.

* Over run option 21.527:1 and 48kph engine calibration, only when fitted with 620/75 R26 tyres and 750/65 R26 tyres.

| AXLES | |
|-----------------------|---------------|
| Make | ZF |
| Model | MT-L 3075 II |
| Overall axle ratio | 21.527 : 1 |
| Rear axle oscillation | +/- 9 Degrees |

All available with limited slip differential, open differential with auto-locking front.

| ELECTRICAL SYSTEM | | |
|-------------------|----------|---------|
| System voltage | Amps | 24 |
| Alternator output | Amp hour | 120 |
| Battery capacity | Amp hour | 2 x 110 |

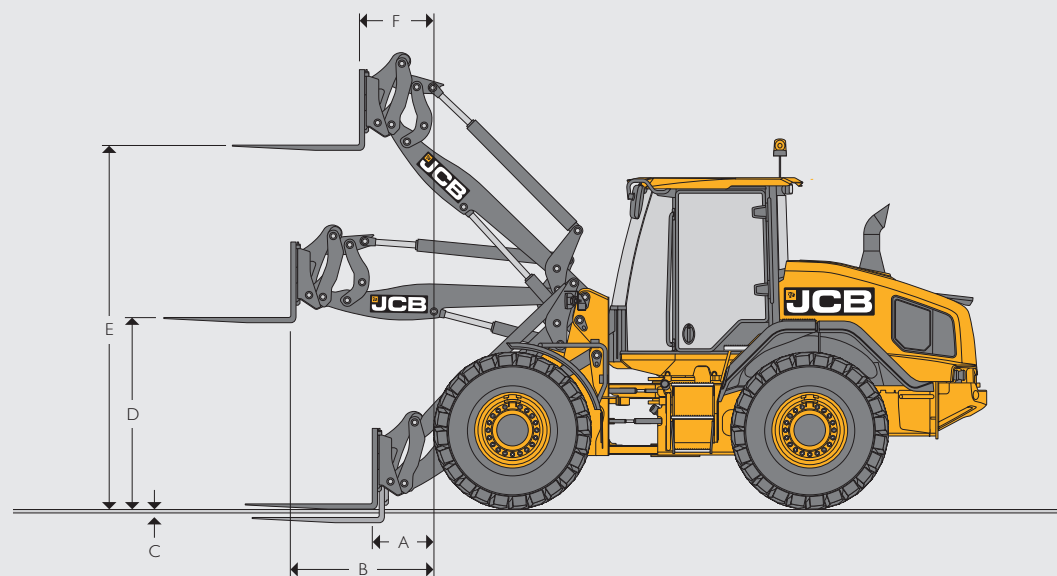
| HYDRAULICS | | |
|---|-----------------------|------|
| Pump type | Variable displacement | |
| Pump 1 max. flow | l/min | 180 |
| Pump 1 max. pressure | bar | 230 |
| Hydraulic cycle times at full engine revs | | |
| Arms raise (full bucket) | Seconds | 3.86 |
| Shovel dump (full bucket) | Seconds | 1.53 |
| Arms lower (empty bucket) | Seconds | 2.4 |
| Total cycle | Seconds | 7.79 |

| SERVICE FILL CAPACITIES | | |
|------------------------------|--------|------|
| Hydraulic system | litres | 155 |
| Fuel tank and auxiliary tank | litres | 250 |
| DEF Tank | litres | 23.8 |

| | |
|-----------------|---|
| STEERING | Hydraulic power steering system and emergency steering. |
| BRAKES | Hydraulic power braking on all wheels. In-board mounted, sintered multi-plate disc brakes. Parking brake, electro-hydraulic disc type operating on transmission output shaft. |

| NOISE AND VIBRATION | | | | |
|---------------------------------|------------------|--------|-------------|---|
| | | | Uncertainty | Measurement conditions. |
| Noise at the operator station | LpA | 68 dB | +/- 1 dB | Determined in accordance with the test method defined in ISO 6396 and the dynamic test condition defined on 2000/14/EC. |
| Noise emission from the machine | LWA | 104 dB | +/- 1 dB | Guaranteed equivalent sound power (external noise) determined in accordance with the dynamic test conditions defined in 2000/14/EC. |
| Whole body vibration | m/s ² | 0.53 | +/- 0.11 dB | ISO 2631-1:1997 normalised to an 8h reference period and based upon a test cycle comprising of loader work (soil). |
| Hand-arm vibration | m/s ² | <2.5 | N/A | ISO 5349-2:2001 dynamic test conditions. |

LOADER DIMENSIONS WITH FORKS



LOADER DIMENSIONS WITH FORKS

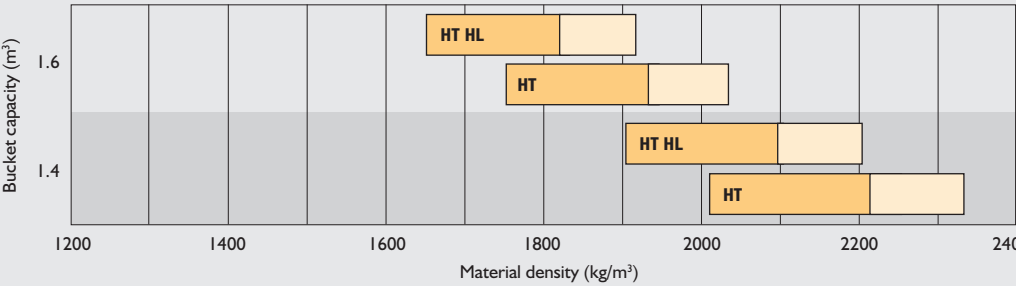
| | | 419S HT | | 419S HT HL | |
|---|----|----------|--------------|------------|--------------|
| | | Parallel | Non parallel | Parallel | Non parallel |
| Fork carriage width | mm | 1500 | 1500 | 1500 | 1500 |
| Length of tines | mm | 1220 | 1220 | 1220 | 1220 |
| A Reach at ground level | mm | 652 | 650 | 844 | 859 |
| B Reach at arms horizontal | mm | 1433 | 1421 | 1565 | 1571 |
| C Top of tine above ground with arms down | mm | 26 | 37 | 25 | 34 |
| D Arms, horizontal height | mm | 1852 | 1842 | 1852 | 1842 |
| E Arms, maximum height | mm | 3509 | 3499 | 3719 | 3709 |
| F Reach at maximum height | mm | 797 | 785 | 804 | 792 |
| Tipping load straight | kg | 6769 | 6744 | 6347 | 6322 |
| Tipping load full turn (40°) | kg | 6028 | 6017 | 5651 | 5640 |
| Payload* | kg | 4822 | 4814 | 4521 | 4512 |
| Attachment weight | kg | 435 | 430 | 435 | 430 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 10343 | 10343 | 10393 | 10393 |

* At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 8313.
Machine is installed with 620/75R25 tyres, HT loader arm with non parallel links. Quickhitch, Fork and Frame 1500mm wide.

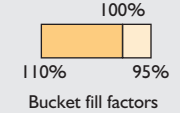
MATERIAL DENSITY

| Material | Loose density kg/m ³ | Fill factor % |
|------------------------------|------------------------------------|------------------|
| Snow (fresh) | 200 | 110 |
| Peat (dry) | 400 | 100 |
| Sugar beet | 530 | 100 |
| Coke (loose) | 570 | 85 |
| Barley | 600 | 85 |
| Petroleum coke | 680 | 85 |
| Wheat | 730 | 85 |
| Coal bituminous | 765 | 100 |
| Fertiliser (mixed) | 1030 | 85 |
| Coal anthracite | 1046 | 100 |
| Earth (dry) (loose) | 1150 | 100 |
| Nitrate fertiliser | 1250 | 85 |
| Sodium chloride (dry) (salt) | 1300 | 85 |
| Cement portland | 1440 | 100 |
| Limestone (crushed) | 1530 | 100 |
| Sand (dry) | 1550 | 100 |
| Asphalt | 1600 | 100 |
| Gravel (dry) | 1650 | 85 |
| Clay (wet) | 1680 | 110 |
| Sand (wet) | 1890 | 110 |
| Fire clay | 2080 | 100 |
| Copper (concentrate) | 2300 | 85 |
| Slate | 2800 | 100 |
| Magnetite | 3204 | 100 |

BUCKET CAPACITIES



HT = Standard height arm HT HL = High Lift arm HT SHL = Super high lift arm



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 | • |

ENGINE

| | |
|---|---|
| Air cleaner – cyclonic pre filter with engine fan scavenge system | • |
| 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 | • |
| Manual opening rear bonnet | • |
| -20° cold start | • |
| SCR engine emission control | • |
| Waste gated turbo | • |
| Widcore radiator | • |
| Block heater (240V or 110V) | + |

ELECTRICAL

| | |
|---------------------------------------|---|
| 120 amp alternator | • |
| Amber rotating beacon | • |
| Twin amber beacons | + |
| Electrical adjustable mirrors | • |
| Heated mirrors | • |
| External battery isolator | • |
| Fold down beacon arm | • |
| Halogen front and rear working lights | • |
| Hazard warning lights | • |
| Integrated rear view camera | • |
| LED front and rear working lights | + |
| LED 360° working lights | + |
| Number plate light kit | + |
| Parking lights | • |
| Radio wiring and speakers | • |
| Rear fog light | • |
| Reverse alarm and light | • |
| Reversing object detection system | + |
| Road lights front and rear | • |
| Smart reverse alarm and light | + |
| Turn signals | • |
| White noise reverse alarm and light | + |
| Work lights on rear counterweight | • |

DRIVE TRAIN

| | |
|---|---|
| 6 speed transmission with lock-up torque converter | • |
| Epicyclical wheel hub reduction | • |
| Fixed front axle | • |
| Gear kick down on loader control lever | • |
| Indicator glass for transmission oil level | • |
| Loader lever direction control | • |
| Neutral start | • |
| Open differential with automatic locking - 100% (front axle only) | + |
| Limited slip differentials front and rear | + |
| Oscillating rear axle | • |
| Power-inch intelligent clutch cut off on footbrake (selectable) | • |
| Selectable automatic power shift | • |
| Steering column single lever shift control (direction and gear) | • |
| Transmission cooler bypass | + |

BRAKE SYSTEM

| | |
|---|---|
| Multi-plate wet disc brakes | • |
| Sintered brake pads | • |
| Dual circuit hydraulic power | • |
| Wheel speed braking | • |
| Parking disc brake on transmission output shaft | • |
| Electrical hydraulic park brake actuation | • |

OPERATOR STATION

| | |
|---|---|
| Fully glazed cab | • |
| Air conditioning | • |
| Climate control | + |
| Single lever joystick | • |
| Multi-lever hydraulic controls | + |
| Proportional electro hydraulic auxiliary control | • |
| Deluxe heated air suspension cloth seat | • |
| Super deluxe heated and cooled air suspension half leather seat | + |
| Front roller blind | • |
| Rear roller blind | • |
| Cab air intake filter | • |
| Carbon cab air intake filter | + |
| 2 x 12V in-cab power socket | • |
| 24V in-cab power socket | + |
| Reversing camera (colour) | • |
| Fold away adjustable steering column | • |
| ROPS/FOPS safety structure | • |
| Interior light | • |
| Front primary display screen | • |
| Secondary A post display screen, rotary control menu interface | • |
| A post mounted membrane switches | • |
| Variable fan speed control on climatic control system | + |

OPERATOR STATION (CONTINUED)

| | |
|---|---|
| 50 mm seat belt | • |
| 75 mm seat belt | + |
| Fire extinguisher (UK only) | + |
| Two speed intermittent front windscreen wipe/wash and self-park | • |
| Single speed rear windscreen 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 | • |
| Multi-media port (USB and 3.5mm) | • |
| Operator stowage | • |
| Laminated windscreen | • |
| Heated rear screen | • |
| Loader control isolator | • |
| Horn | • |
| Adjustable armrest | • |
| Removable storage rubber mats | • |
| In-cab coolbox (fridge) | + |
| Floor carpet | + |

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 | • |
| Differential lock | • |
| Low steering pressure | • |
| Buzzer alerts | |
| Engine air filter blocked | • |
| Diesel exhaust fluid (DEF) | • |
| Torque reduction in case of malfunction | • |
| Amber warning lamp | • |
| Stop engine | • |

EQUIPMENT (CONTINUED)

FRONT PRIMARY DISPLAY

| | |
|---|---|
| Gauge display | |
| Engine speed | • |
| Coolant temperature | • |
| Fuel level | • |
| LCD screen display | |
| Current gear | • |
| Stop engine | • |
| Torque reduction in case of malfunction | • |
| Amber warning lamp | • |
| Diesel exhaust fluid (DEF) | • |
| Engine air filter blocked | • |
| Secondary steer system pressure | • |
| Torque lockup | • |
| Steer mode | • |
| Ground speed | • |
| Engine speed (numeric display) | • |
| Clock | • |
| Hydraulic state | • |
| Smoothride system (SRS) | + |
| Beacon | • |
| Front work lamps | • |
| Rear work lamps | • |
| Heated rear screen | • |
| 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

| | |
|--|---|
| Clock | • |
| Climate control | • |
| Fan speed | • |
| In-cab temperature set | • |
| Machine hours | • |
| Rear view camera | • |
| Fuel use | • |
| 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 | • |
| Park brake pressure | • |
| 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 | + |
| Single piston pump with priority steer | • |
| Emergency steer back-up | • |
| JCB biodegradable hydraulic oil | + |
| Electronic hydraulic isolation | • |
| Automatic boom kick-out. Detent | • |
| Automatic bucket positioner | • |
| Front loader float | • |
| Indicator glass for hydraulic oil level | • |
| Hydraulic oil cooler | • |

EXTERNAL EQUIPMENT

| | |
|---|---|
| Front and rear fenders | • |
| Front removable mud flaps | • |
| Front wheel spray guards | • |
| Full tyre width coverage fenders | • |
| Automatic greasing system | + |
| Grease gun and cartridge | + |
| One piece manual opening bonnet | • |
| Mesh air intake screens | • |
| Flexible bottom step | • |
| Full width rear counterweight | • |
| Recovery hitch | • |
| 10,000kg hydraulic tow hitch with trailer brakes (12V or 24V electrics) | + |
| 10,000kg Rockinger tow hitch with trailer brakes (12V or 24V electrics) | + |
| Lifting / tie down lugs | • |
| Rear counterweight chevrons | + |
| Stainless steel exhaust stack | + |
| PROTECTIVE EQUIPMENT | |
| Rear grille guard | + |
| Safety strut loader arm | + |
| Light guards | + |
| Rear belly guard kit | + |
| Articulation joint safety strut | • |

OTHER EQUIPMENT

| | |
|-------------------------|---|
| HT High Lift loader end | + |
|-------------------------|---|

STANDARD •

OPTIONAL +





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