

WHEEL LOADER | 427/437

427 – Operating weight: 13.1-16.5t Gross engine power: 133kW (179hp) Full turn tipping load: 8603kg Standard shovel capacity: 2.4m³ 437 – Operating weight: 14.5-17.8t Gross engine power: 136kW (183hp) Full turn tipping load: 9623kg Standard shovel capacity: 2.7m³



A QUALITY PROCESS.

WE KNOW THAT A WHEEL LOADER IS A KEY PART OF THE ON-SITE PROCESS. THAT'S WHY THE JCB 427 AND 437 ARE BUILT ON A FOUNDATION OF QUALITY AND RELIABILITY. THE PROCESSES WE'VE USED THROUGH DESIGN AND MANUFACTURE WILL SAFEGUARD YOUR WORKING PROCESS, HOUR AFTER HOUR, DAY AFTER DAY.

Designed to work hard.

- 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.
- The new front chassis is more durable than ever; it's been strengthened with additional ribs and gussets for maximum service life.

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

The JCB 427 and 437 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 the machine – including the rear lights and cooling pack – from damage.

You can opt for additional guards on the front screen, lights, underbelly and rear grille.

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

Well articulated.

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

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









PRODUCTIVE PERFORMANCE.

THE 427 AND 437 CAN PERFORM GREAT FEATS OF PRODUCTIVITY. WITH HIGH POWER AND TORQUE, **BOTH MACHINES MEET TIER 4 FINAL/STAGE IV EMISSIONS LEGISLATION WITHOUT NEEDING** A DPF WHICH ELIMINATES THE NEED FOR PERIODIC REGENERATION.

Drivetrain performance.

1 The Cummins QSB 6.7-litre engine achieves maximum engine power (133kW in the 427, 136kW in the 437) and peak torque (841Nm) 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.

- Z JCB's optional quickhitch makes attachment changing quick and efficient. The quickhitch is designed to be compatible with aftermarket attachments too.
- 2 Powerful twin variable displacement piston pump hydraulics can circulate a massive 252 I/min for fast cycles and excellent multi-function capability.

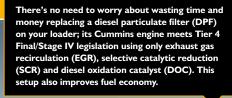
COMMANDPLUS controls.

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.















Loading productivity (continued).

4 You can choose your ideal loader arm on a 427 and 437, with Z-bar linkage (ZX) for high breakout applications or high torque (HT) for parallel lift and multi-attachment use.

Choose a HT high lift on the 427 or 437, or HT super high lift on the 437 and you can use the machine for higher loading height applications.

Drivetrain productivity.

The 427 and 437's optional 5-speed transmission with torque convertor lock-up provides closer 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.

- With a range of axle options, you can tailor performance to any application.
- > Standard differentials are ideal for hard standing ground conditions.
- > Limited slip differentials is perfect for soft, muddy terrain with reduced traction.
- Open differential with an automatic locking front axle differential provide excellent traction in varied ground conditions.





EFFICIENT BY DESIGN.

THE JCB 427 AND 437 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.

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.
- Eco Mode caps engine speed at 1800rpm for reduced fuel consumption. Productivity nonetheless remains formidable.
- Our torque lock-up 5 speed transmission gives you up to 100% efficiency in gears 2 to 5 for improved fuel consumption. Closer gear ratios provide lower engine speed in each gear.









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.
- Unloaded spool valves in the valve block mean that arms lower under gravitational, not hydraulic force, reducing fuel consumption.
- G JCB's innovative variable displacement pumps feed a load-sensing valve block which only consumes power on demand, providing precise, efficient loader control.
- 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.









Adjustable Auxiliary control.



Adjustable reversing fan intervals.







COMMANDPLUS.

THE LATEST JCB 427 AND 437 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 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.
- Using your machine's simple, dedicated menu interface is easily done with an intuitive optional rotary controller.
- Operating your 427 or 437 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.
- 1 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.













- To keep the operator environment comfortable for working at all times, we've positively pressurised the cab to eliminate dust and fumes.
- 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 lumber support and adjustable dampers.
- 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 427 or 437 with either air conditioning or automatic climate control to create perfect working temperatures.

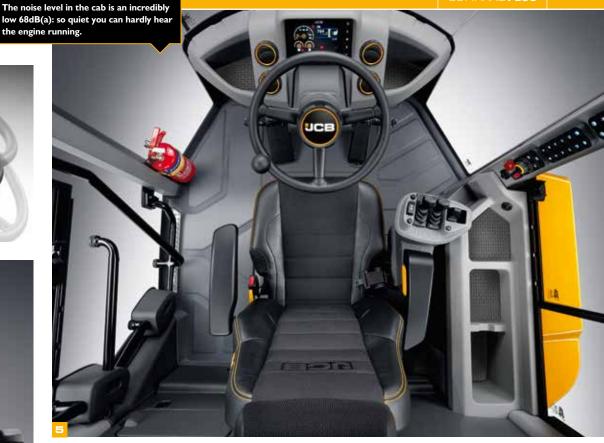
With a dedicated media port on board, you can be assured of superb connectivity for all your electronic devices.

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.











LOW MAINTENANCE LONG INTERVALS.

WHEEL LOADERS NEED TO SPEND THE MAXIMUM AMOUNT OF TIME HARD AT WORK. WE'VE DESIGNED THE 427 AND 437 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 427 and 437 with a large automatic opening single-piece bonnet.
- Accessing the diesel and DEF (Diesel Exhaust Fluid) tanks is similarly straightforward via the lockable grille at the rear of the machine.

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

- 4 A large single-faced wide-core cooling pack package provides unrivalled quick, easy and safe cleaning.
- With the optional auto lubrication kit, your machine will take care of its own greasing requirements.









Less servicing, more service

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.

- By using premium components in the 427 and 437 (Cummins engine, ZF transmissions and axles, Rexroth pumps and Parker valve blocks), we've built in long service life as standard.
- 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 290-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.













DRIVE SAFELY.

THE NEW JCB 427 AND 437 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 colour monitor onboard your 427 and 437.
- 2 Superb visibility in dark conditions is guaranteed with JCB's optional LED lighting.
- S You'll find the rear-view mirrors mounted in front of the A-pillars for improved all-round visibility.

Interior mirrors, heated exterior mirrors and bonnet mirrors 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.

If you plan to use your wheel loader for quarry work, it's worth specifying options such as blue flashing reverse lights, a green operator presence beacon, a rear object detection system, and hi-viz exterior chevrons.













Safely does it (continued).

- Access steps on the 427 and 437 are inclined and equally spaced, complemented by well positioned grab handles for three points of contact at all times.
- 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.
- Door hinges are now mounted on the A-pillar; this simple change has created much better access via a larger and wider door aperture. It also means you can access the rear of your loader more safely.

The battery and tool box are lockable for added security.

- 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.
- Engines fitted with a DPF can pose an increased fire risk because extreme heat can be created in regeneration mode. The new 427 and 437 don't use DPFs, so this is no cause for concern.

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









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.





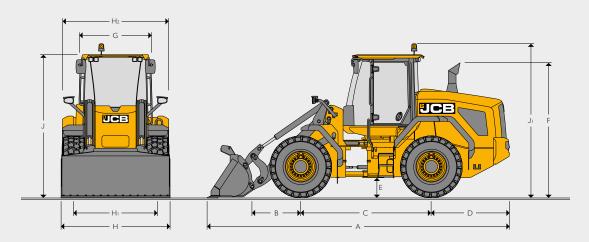




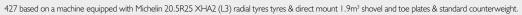




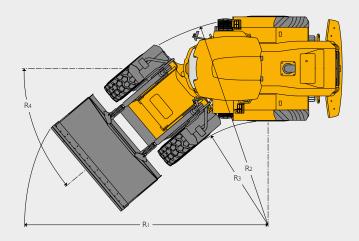
STATIC DIMENSIONS



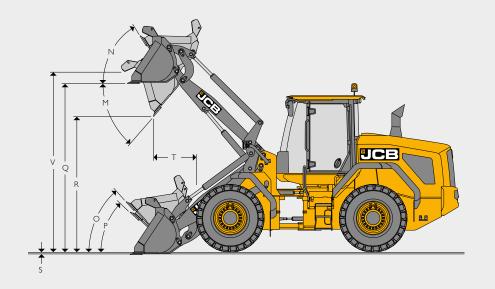
| | | | 427 HT | 427 HT HL | 427ZX | 437 HT | 437 HT HL | 437 HT SHL | 437 ZX |
|----|--|----|--------|-----------|-------|--------|-----------|------------|--------|
| Α | Overall Length | mm | 7070 | 7532 | 7069 | 7301 | 7928 | 8485 | 7306 |
| В | Axle to pivot pin | mm | 1134 | 1596 | 1108 | 1246 | 1873 | 2430 | 1251 |
| С | Wheel base | mm | 3050 | 3050 | 3050 | 3050 | 3050 | 3050 | 3050 |
| D | Axle to counterweight face | mm | 1833 | 1833 | 1833 | 1833 | 1833 | 1833 | 1833 |
| Ε | Minimum ground clearance | mm | 472 | 472 | 472 | 472 | 472 | 472 | 472 |
| F | Height over exhaust | mm | 3133 | 3133 | 3133 | 3133 | 3133 | 3133 | 3133 |
| G | Width over cab roof | mm | 1594 | 1594 | 1594 | 1594 | 1594 | 1594 | 1594 |
| Н | Max width over tyres | mm | 2483 | 2483 | 2483 | 2598 | 2598 | 2598 | 2598 |
| ΗΙ | Wheel track | mm | 1955 | 1955 | 1953 | 2054 | 2054 | 2054 | 2054 |
| H2 | Max width over fenders | mm | 2484 | 2484 | 2477 | 2560 | 2560 | 2560 | 2556 |
| J | Height over cab roof and lowered beacon | mm | 3360 | 3360 | 3360 | 3360 | 3360 | 3360 | 3360 |
| JI | Height over raised beacon | mm | 3720 | 3720 | 3720 | 3720 | 3720 | 3720 | 3720 |
| | Front axle weight | kg | 5888 | 6926 | 6281 | 6503 | 8207 | 9892 | 7121 |
| | Rear axle weight | kg | 7493 | 6654 | 7373 | 8277 | 6992 | 5565 | 8030 |
| | Total weight | kg | 13381 | 13580 | 13654 | 14780 | 15199 | 15457 | 15150 |
| | Height over engine cover from ground fully open | mm | 3611 | 3611 | 3611 | 3611 | 3611 | 3611 | 3611 |
| | Increase in vehicle length with bonnet open (rear grille shut) | mm | +928 | +928 | +928 | +928 | +928 | +928 | +928 |



⁴³⁷ based on a machine equipped with Michelin 20.5R25 XHA2 (L3) radial tyres tyres & direct mount 2.3m³ shovel and toe plates & standard counterweight.



| | | | 427HT | 427 HT HL | 427ZX | 437 HT | 437 HT HL | 437 HT SHL | 437 ZX |
|----|---------------------------------------|---------|-------|-----------|-------|--------|-----------|------------|--------|
| RI | Maximum turn radius over shovel | mm | 5902 | 6035 | 5933 | 6021 | 6286 | 6626 | 6041 |
| R2 | Maximum turn radius over tyre | mm | 5483 | 5483 | 5483 | 5483 | 5483 | 5483 | 5483 |
| R3 | Inside turn radius | mm | 2896 | 2896 | 2896 | 2896 | 2896 | 2896 | 2896 |
| R4 | Articulation angle | degrees | 40 | 40 | 40 | 40 | 40 | 40 | 40 |

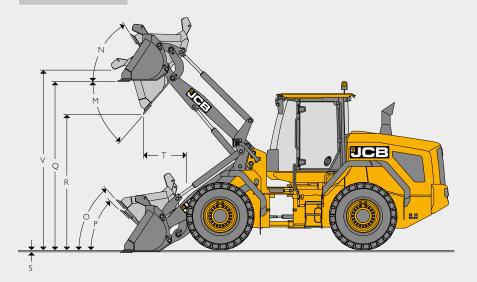


| TYRE SIZE 427 HT | /HT HL | | | | | | | | | |
|------------------|---------------|--------------------|--------|-----------------------|-----------|------------|-----------|------------|----------------|-------------|
| | | | | | F | IT | HT | HL | Dime | nsions |
| Tyre size | Manufacturer | Туре | Rating | Operating weight (kg) | STL kg | FTTL kg | STL kg | FTTL kg | Vertical mm | Width mm |
| 20.5R25 | MICHELIN | XHA2 | L3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20.5R25 | MICHELIN | XTLA | L2 | -112 | -79 | -68 | -67 | -41 | -7 | 4 |
| 20.5R25 | MICHELIN | XLDD2A | L5 | 524 | 369 | 319 | 315 | 192 | 30 | 6 |
| 20.5R25 | MICHELIN | XMINED2 | L5 | 708 | 498 | 431 | 426 | 259 | 58 | 34 |
| 550/65R25 | MICHELIN | XLDD2A | L3 | -76 | -54 | -46 | -46 | -28 | -44 | 21 |
| 20.5R25 | MICHELIN | XSNOPLUS | L2 | -76 | -54 | -46 | -46 | -28 | -11 | 6 |
| 620/75R26 | MICHELIN | MEGAXBIB | N/A | -315.6 | -222 | -192 | -190 | -115 | 68 | 108 |
| 650/65R25 | MICHELIN | XLD | L3 | 551.2 | 388 | 335 | 331 | 202 | -10 | 249 |
| 750/65R26 | MICHELIN | MEGAXBIB | N/A | -66.4 | -47 | -40 | -40 | -24 | 81 | 474 |
| 20.5-25 | G/YEAR | SGL (16 ply) | L2 | -236 | -166 | -144 | -142 | -86 | -5 | 4 |
| 20.5-25 | G/YEAR | HRL (16 ply) | L3 | -24 | -17 | -15 | -14 | -9 | 37 | 4 |
| 20.5R25 | G/YEAR | TL-3A+ | L3 | 292 | 206 | 178 | 176 | 107 | - 11 | 4 |
| 20.5R25 | G/YEAR | RL-5K | L5 | 544 | 383 | 331 | 327 | 199 | 49 | 4 |
| 20.5R25 | JCB | Earthmover | L3 | 92 | 65 | 56 | 55 | 34 | 41 | 12 |
| 20.5-25 | SG REVOLUTION | SE | N/A | 2043.2 | 1439 | 1243 | 1229 | 748 | 17 | 95 |
| 20.5-25 | SG REVOLUTION | S2 C2 DWL | N/A | 2167.2 | 1526 | 1319 | 1303 | 793 | 6 | 95 |
| 20.5-25 | JCB | Sitemaster (16ply) | L3 | -156 | -110 | -95 | -94 | -57 | 21 | -7 |
| 20.5R25 | NOKIAN | GRIP TL | L3 | -200 | -141 | -122 | -120 | -73 | 4 | -7 |

Heavy duty axles (required with 5 speed and 750 width agricultural tyres and high lift arms) .

| ADER DIMENSIONS 427 HT/HT HL | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|-------|---------|---------|------------|------------|-------|--------|---------|---------|------------|------------|-------|--------|---------|---------|------------|------------|-------|--------|---------|---------|------------|------------|------|
| Model | | | | | | | 427 | HT | | | | | | | | | | | 427 F | HT HL | | | | | |
| Shovel mounting | | | | Dir | ect | | | | | Quicl | khitch | | | | | Dir | ect | | | | | Quic | khitch | | |
| Shovel type | | | | General | purpose | | | | | General | purpose | | | | | General | purpose | | | | | General | purpose | | |
| Shovel equipment | | Tippe | d teeth | | Reversible | e toeplate | | Tipped | d teeth | | Reversible | e toeplate | | Tipped | d teeth | | Reversible | e toeplate | | Tipped | d teeth | | Reversible | e toeplate | |
| Shovel capacity (SAE heaped 100%) | m ³ | 1.8 | 2 | 1.9 | 2.1 | 2.4 | 2.7 | 1.8 | 2 | 1.9 | 2.1 | 2.4 | 2.7 | 1.8 | 2 | 1.9 | 2.1 | 2.4 | 2.7 | 1.8 | 2 | 1.9 | 2.1 | 2.4 | 2.7 |
| Shovel capacity (struck) | m^3 | 1.556 | 1.765 | 1.616 | 1.83 | 2.057 | 2.346 | 1.554 | 1.749 | 1.594 | 1.787 | 2.057 | 2.346 | 1.556 | 1.765 | 1.616 | 1.83 | 2.057 | 2.346 | 1.554 | 1.749 | 1.594 | 1.787 | 2.057 | 2.34 |
| Shovel width | mm | 2550 | 2550 | 2550 | 2550 | 2700 | 2700 | 2550 | 2550 | 2550 | 2550 | 2700 | 2700 | 2550 | 2550 | 2550 | 2550 | 2700 | 2700 | 2550 | 2550 | 2550 | 2550 | 2700 | 270 |
| Shovel weight | kg | 810 | 850 | 810 | 850 | 1136 | 1211 | 800 | 850 | 800 | 850 | 1136 | 1211 | 810 | 850 | 810 | 850 | 1136 | 1211 | 800 | 850 | 800 | 850 | 1136 | 121 |
| Maximum material density * | kg/m³ | 2633 | 2346 | 2494 | 2234 | 1901 | 1667 | 2438 | 2172 | 2310 | 2069 | 1761 | 1544 | 2219 | 1977 | 2102 | 1883 | 1595 | 1398 | 2058 | 1833 | 1949 | 1746 | 1479 | 129 |
| Tipping load straight * | kg | 11038 | 10932 | 11038 | 10932 | 10666 | 10530 | 10260 | 10162 | 10260 | 10162 | 9921 | 9793 | 9316 | 9228 | 9316 | 9228 | 8971 | 8856 | 8677 | 8598 | 8677 | 8598 | 8358 | 824 |
| Tipping load full turn * | kg | 9478 | 9382 | 9478 | 9382 | 9124 | 9000 | 8778 | 8688 | 8778 | 8688 | 8455 | 8337 | 7988 | 7907 | 7988 | 7907 | 7657 | 7550 | 7407 | 7334 | 7407 | 7334 | 7102 | 699 |
| Payload * | kg | 4739 | 4691 | 4739 | 4691 | 4562 | 4500 | 4389 | 4344 | 4389 | 4344 | 4228 | 4168 | 3994 | 3953 | 3994 | 3953 | 3828 | 3775 | 3704 | 3667 | 3704 | 3667 | 3551 | 349 |
| Maximum breakout force | kN | 138 | 128 | 138 | 128 | 123 | 115 | 121 | 113 | 121 | 113 | 106 | 99 | 138 | 128 | 138 | 128 | 123 | 115 | 121 | 113 | 121 | 113 | 106 | 99 |
| Dump angle maximum | degrees | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Roll back angle full height | degrees | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Roll back at carry | degrees | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Roll back at ground level | degrees | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Load over height | mm | 3627 | 3627 | 3612 | 3612 | 3610 | 3610 | 3627 | 3627 | 3612 | 3612 | 3610 | 3610 | 4057 | 4057 | 4042 | 4042 | 4040 | 4040 | 4057 | 4057 | 4042 | 4042 | 4040 | 404 |
| Dump height (45 deg dump) | mm | 2871 | 2767 | 2944 | 2896 | 2860 | 2796 | 2697 | 2647 | 2848 | 2775 | 2739 | 2676 | 3247 | 3197 | 3374 | 3326 | 3290 | 3226 | 3212 | 3127 | 3278 | 3205 | 3169 | 310 |
| Dig depth | mm | 50 | 50 | 47 | 47 | 47 | 47 | 50 | 50 | 47 | 47 | 47 | 47 | 113 | 113 | 110 | 110 | 110 | 110 | 128 | 113 | 110 | 110 | 110 | 110 |
| Reach at dump height | mm | 1022 | 1072 | 897 | 963 | 979 | 1043 | 1142 | 1191 | 1003 | 1069 | 1100 | 1164 | 1184 | 1934 | 1059 | 1109 | 1141 | 1205 | 1195 | 1204 | 1165 | 1231 | 1262 | 132 |
| Pin height | mm | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 3876 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 4306 | 430 |
| Reach maximum (45 deg dump) horizontal arm | mm | 1769 | 1819 | 1644 | 1694 | 1726 | 1790 | 1889 | 1938 | 1751 | 1816 | 1847 | 1911 | 2117 | 2167 | 1992 | 2042 | 2074 | 2138 | 2128 | 2237 | 2099 | 2164 | 2195 | 225 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 13381 | 13425 | 13381 | 13425 | 13685 | 13748 | 13676 | 13720 | 13676 | 13720 | 13957 | 14019 | 13591 | 13635 | 13591 | 13635 | 13895 | 13958 | 13886 | 13930 | 13886 | 13930 | 14167 | 1422 |

^{*}Assumes machine is fitted with Michelin 20.5R25 XHA2 (L3) tyres, 5 speed transmission and non parallel links.

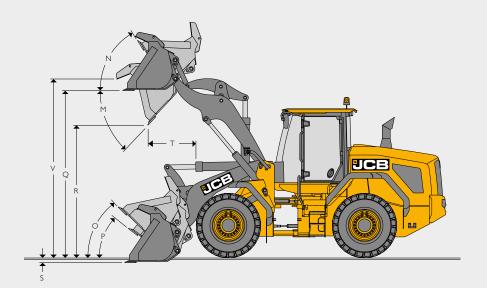


| TYRE SIZE 437 | HT/HT HL/HT SHL | | | | | | | | | | | |
|---------------|---|--------------------|--------|-----------------------|-----------|------------|-----------|------------|-----------|------------|----------------|-------------|
| | | | | | F | IT | HT | HL | HT | SHL | Dimer | nsions |
| Tyre size | Manufacturer | Туре | Rating | Operating weight (kg) | STL kg | FTTL kg | STL kg | FTTL kg | STL kg | FTTL kg | Vertical mm | Width mm |
| 20.5R25 | MICHELIN | XHA2 | L3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20.5R25 | MICHELIN | XTLA | L2 | -112 | -79 | -68 | -67 | -41 | -35 | -24 | -7 | 4 |
| 20.5R25 | MICHELIN | XLDD2A | L5 | 524 | 369 | 319 | 315 | 192 | -24 | -17 | 30 | 6 |
| 20.5R25 | MICHELIN | XMINED2 | L5 | 708 | 498 | 431 | 426 | 259 | -24 | -17 | 58 | 34 |
| 550/65R25 | MICHELIN | XLDD2A | L3 | -76 | -54 | -46 | -46 | -28 | 163 | 114 | -44 | 21 |
| 20.5R25 | MICHELIN | XSNOPLUS | L2 | -76 | -54 | -46 | -46 | -28 | 220 | 155 | -11 | 6 |
| 620/75R26 | MICHELIN | MEGAXBIB | N/A | -315.6 | -222 | -192 | -190 | -115 | -99 | -70 | 68 | 108 |
| 650/65R25 | MICHELIN | XLD | L3 | 551.2 | 388 | 335 | 331 | 202 | 170 | 120 | -10 | 249 |
| 750/65R26 | MICHELIN | MEGAXBIB | N/A | -66.4 | -47 | -40 | -40 | -24 | -22 | -15 | 81 | 474 |
| 20.5-25 | G/YEAR | SGL (16 ply) | L2 | -236 | -166 | -144 | -142 | -86 | -56 | -39 | -5 | 4 |
| 20.5-25 | G/YEAR | HRL (16 ply) | L3 | -24 | -17 | -15 | -14 | -9 | 91 | 64 | 37 | 4 |
| 20.5R25 | G/YEAR | TL-3A+ | L3 | 292 | 206 | 178 | 176 | 107 | 191 | 135 | 11 | 4 |
| 20.5R25 | G/YEAR | RL-5K | L5 | 544 | 383 | 331 | 327 | 199 | -7 | -5 | 49 | 4 |
| 20.5R25 | BKT | XL GRIP | L3 | -1392.8 | -981 | -847 | -837 | -510 | 29 | 20 | 41 | 12 |
| 20.5-25 | SG REVOLUTION | SE | N/A | 2043.2 | 1439 | 1243 | 1229 | 748 | 634 | 446 | 17 | 95 |
| 20.5-25 | SG REVOLUTION | S2 C2 DWL | N/A | 2167.2 | 1526 | 1319 | 1303 | 793 | 672 | 473 | 6 | 95 |
| 20.5-25 | JCB | Sitemaster (16ply) | L3 | -156 | -110 | -95 | -94 | -57 | 31 | 22 | 21 | -7 |
| 20.5R25 | NOKIAN | L3 | -200 | -141 | -122 | -120 | -73 | -62 | -44 | 4 | -7 | |
| | avy Duty Counterweiş e with solid cushion ty | | | 312 | 642 | 580 | 527 | 476 | 435 | 393 | - | - |

Heavy duty axles (required with 5 speed and 750 width agricultural tyres and high lift arms).

| ADER DIMENSIONS 437 HT/HT HL | | | | | 427 | · · · | | | | | | | 437 H | T | | | | | | | 42711 | T CL II | | | |
|---|----------------|--------|---------|------------|------------|--------|---------|------------|------------|--------|---------|------------|------------|--------|---------|------------|------------|--------|---------|------------|------------|---------|---------|------------|------------|
| Model | | | | | 437 | ні | | | | | | | 437 H | II HL | | | | | | | 437 H | I SHL | | | |
| Shovel mounting | | | | rect | | | | khitch | | | Dii | | | | ~ | khitch | | | | rect | | | | khitch | |
| Shovel type | | | Genera | l purpose | | | | purpose | | | | purpose | | | | purpose | | | | purpose | | | | purpose | |
| Shovel equipment | | Tipped | d teeth | Reversible | e toeplate | Tipped | d teeth | Reversible | e toeplate | Tipped | d teeth | Reversible | e toeplate | Tipped | d teeth | Reversible | e toeplate | Tipped | d teeth | Reversible | e toeplate | Tipped | l teeth | Reversible | e toeplate |
| Shovel capacity (SAE heaped 100%) | m ³ | 2.3 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 |
| Shovel capacity (struck) | m ³ | 1.984 | 2.27 | 2.057 | 2.346 | 1.984 | 2.27 | 2.057 | 2.346 | 1.984 | 2.27 | 2.057 | 2.346 | 1.984 | 2.27 | 2.057 | 2.346 | 1.984 | 2.27 | 2.057 | 2.346 | 1.984 | 2.27 | 2.057 | 2.346 |
| Shovel width | mm | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 |
| Shovel weight | kg | 1151 | 1224 | 1163 | 1236 | 1124 | 1199 | 1136 | 1211 | 1151 | 1224 | 1163 | 1236 | 1124 | 1199 | 1136 | 1211 | 1151 | 1224 | 1163 | 1236 | 1124 | 1199 | 1136 | 1211 |
| Maximum material density * | kg/m³ | 2016 | 1759 | 1932 | 1694 | 1872 | 1634 | 1794 | 1573 | 1618 | 1412 | 1550 | 1360 | 1506 | 1314 | 1444 | 1266 | 1313 | 1143 | 1258 | 1101 | 1215 | 1056 | 1164 | 1017 |
| Tipping load straight * | kg | 10930 | 10796 | 10930 | 10796 | 10194 | 10066 | 10194 | 10066 | 8809 | 8703 | 8809 | 8703 | 8246 | 8143 | 8246 | 8143 | 7182 | 7078 | 7182 | 7078 | 6685 | 6585 | 6685 | 6585 |
| Tipping load full turn * | kg | 9271 | 9149 | 9271 | 9149 | 8613 | 8496 | 8613 | 8496 | 7441 | 7342 | 7441 | 7342 | 6930 | 6834 | 6930 | 6834 | 6040 | 5943 | 6040 | 5943 | 5587 | 5493 | 5587 | 5493 |
| Payload * | kg | 4636 | 4575 | 4636 | 4575 | 4307 | 4248 | 4307 | 4248 | 3720 | 3671 | 3720 | 3671 | 3465 | 3417 | 3465 | 3417 | 3020 | 2972 | 3020 | 2972 | 2793 | 2747 | 2793 | 2747 |
| Maximum breakout force | kN | 147 | 134 | 147 | 134 | 131 | 122 | 131 | 122 | 147 | 134 | 147 | 134 | 131 | 122 | 131 | 122 | 153 | 139 | 153 | 139 | 136 | 124 | 136 | 127 |
| Dump angle maximum | degrees | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Roll back angle full height | degrees | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Roll back at carry | degrees | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 |
| Roll back at ground level | degrees | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 |
| Load over height | mm | 3760 | 3760 | 3755 | 3755 | 3760 | 3760 | 3755 | 3755 | 4414 | 4414 | 4409 | 4409 | 4414 | 4414 | 4409 | 4409 | 4981 | 4981 | 4976 | 4976 | 4981 | 4981 | 4976 | 4976 |
| Dump height (45 deg dump) | mm | 2794 | 2730 | 2962 | 2871 | 2709 | 2645 | 2850 | 2786 | 3448 | 3384 | 3616 | 3525 | 3363 | 3299 | 3504 | 3440 | 4011 | 3947 | 4179 | 4088 | 3926 | 3862 | 4067 | 4003 |
| Dig depth | mm | 132 | 132 | 106 | 106 | 132 | 132 | 106 | 106 | 127 | 127 | 101 | 101 | 127 | 127 | 101 | 101 | 105 | 105 | 79 | 79 | 105 | 105 | 79 | 79 |
| Reach at dump height | mm | 1115 | 1174 | 1011 | 1070 | 1192 | 1250 | 1088 | 1146 | 1115 | 1174 | 1011 | 1070 | 1192 | 1250 | 1088 | 1146 | 1139 | 1198 | 1035 | 1094 | 1216 | 1274 | 1112 | 1197 |
| Pin height | mm | 4021 | 4021 | 4021 | 4021 | 4021 | 4021 | 4021 | 4021 | 4675 | 4675 | 4675 | 4675 | 4675 | 4675 | 4675 | 4675 | 5242 | 5242 | 5242 | 5242 | 5242 | 5242 | 5242 | 5242 |
| Reach maximum (45 deg dump) horizontal arm | mm | 1954 | 2018 | 1850 | 1914 | 1739 | 2103 | 1935 | 1999 | 2444 | 2508 | 2340 | 2404 | 2229 | 2593 | 2425 | 2489 | 2919 | 2983 | 2815 | 2879 | 2704 | 3068 | 2900 | 2964 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 14780 | 14843 | 14780 | 14843 | 15052 | 15114 | 15052 | 15114 | 15199 | 15262 | 15199 | 15262 | 15471 | 15533 | 15471 | 15533 | 15457 | 15520 | 15457 | 15520 | 15729 | 15791 | 15729 | 15791 |

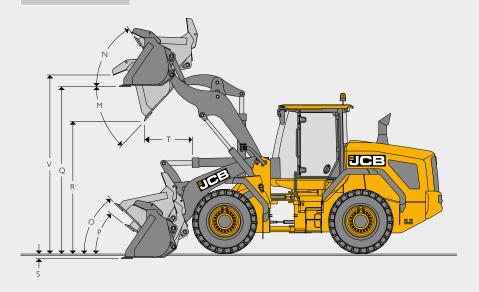
^{*}Assumes machine is fitted with Michelin 20.5R25 XHA2 (L3) tyres, 5 speed transmission and non parallel links.



| TYRE SIZE 427 ZX | | | | | | | | |
|------------------|---------------|--------------------|--------|-----------------------|-----------|------------|----------------|-------------|
| | | | | | Z | Х | Dime | nsions |
| Tyre size | Manufacturer | Туре | Rating | Operating weight (kg) | STL kg | FTTL kg | Vertical mm | Width mm |
| 20.5R25 | MICHELIN | XHA2 | L3 | 0 | 0 | 0 | 0 | 0 |
| 20.5R25 | MICHELIN | XTLA | L2 | -112 | -75 | -65 | -7 | 4 |
| 20.5R25 | MICHELIN | XLDD2A | L5 | 524 | 352 | 304 | 30 | 6 |
| 20.5R25 | MICHELIN | XMINED2 | L5 | 708 | 475 | 411 | 58 | 34 |
| 550/65R25 | MICHELIN | XLDD2A | L3 | -76 | -51 | -44 | -44 | 21 |
| 20.5R25 | MICHELIN | XSNOPLUS | L2 | -76 | -51 | -44 | -11 | 6 |
| 620/75R26 | MICHELIN | MEGAXBIB | N/A | -315.6 | -212 | -183 | 68 | 108 |
| 650/65R25 | MICHELIN | XLD | L3 | 551.2 | 370 | 320 | -10 | 249 |
| 750/65R26 | MICHELIN | MEGAXBIB | N/A | -66.4 | -45 | -39 | 81 | 474 |
| 20.5-25 | G/YEAR | SGL (16 ply) | L2 | -236 | -158 | -137 | -5 | 4 |
| 20.5-25 | G/YEAR | HRL (16 ply) | L3 | -24 | -16 | -14 | 37 | 4 |
| 20.5R25 | G/YEAR | TL-3A+ | L3 | 292 | 196 | 169 | 11 | 4 |
| 20.5R25 | G/YEAR | RL-5K | L5 | 544 | 365 | 316 | 49 | 4 |
| 20.5R25 | BKT | XL GRIP | L3 | -1392.8 | -935 | -808 | 41 | 12 |
| 20.5-25 | SG REVOLUTION | SE | N/A | 2043.2 | 1371 | 1185 | 17 | 95 |
| 20.5-25 | SG REVOLUTION | S2 C2 DWL | N/A | 2167.2 | 1454 | 1257 | 6 | 95 |
| 20.5-25 | JCB | Sitemaster (16ply) | L3 | -156 | -105 | -90 | 21 | -7 |
| 20.5R25 | NOKIAN | GRIP TL | L3 | -200 | -134 | -116 | 4 | -7 |

| DADER DIMENSIONS 427 ZX | | | | | | | | | | | | | |
|---|---------|-------|---------|---------|----------|-------------|-------|-------|---------|--------|------------|------------|-------|
| Model | | | | | | | 42 | 7 ZX | | | | | |
| Shovel mounting | | | | Dir | rect | | | | | Quio | khitch | | |
| Shovel type | | | | General | purpose | | | | | Genera | l purpose | | |
| Shovel equipment | | Tippe | d teeth | | Reversib | le toeplate | | Tippe | d teeth | | Reversible | e toeplate | |
| Shovel capacity (SAE heaped 100%) | m³ | 2 | 2 | 1.9 | 2.1 | 2.4 | 2.7 | 1.8 | 2 | 1.9 | 2.1 | 2.4 | 2.7 |
| Shovel capacity (struck) | m³ | 1.724 | 1.724 | 1.612 | 1.785 | 2.057 | 2.346 | 1.554 | 1.749 | 1.594 | 1.787 | 2.057 | 2.346 |
| Shovel width | mm | 2550 | 2550 | 2550 | 2550 | 2700 | 2700 | 2550 | 2550 | 2550 | 2550 | 2700 | 2700 |
| Shovel weight | kg | 1040 | 1140 | 925 | 1040 | 1262 | 1329 | 800 | 850 | 800 | 850 | 1136 | 1211 |
| Maximum material density * | kg/m³ | 2218 | 2171 | 2361 | 2112 | 1792 | 1571 | 2292 | 2040 | 2172 | 1943 | 1653 | 1447 |
| Tipping load straight * | kg | 10318 | 10126 | 10427 | 10318 | 10037 | 9907 | 9636 | 9537 | 9636 | 9537 | 9303 | 9174 |
| Tipping load full turn * | kg | 8872 | 8684 | 8971 | 8872 | 8603 | 8483 | 8252 | 8162 | 8252 | 8162 | 7934 | 7814 |
| Payload * | kg | 4436 | 4342 | 4485 | 4436 | 4301 | 4241 | 4126 | 4081 | 4126 | 4081 | 3967 | 3907 |
| Maximum breakout force | kN | 135 | 135 | 145 | 135 | 129 | 120 | 126 | 118 | 126 | 118 | 113 | 106 |
| Dump angle maximum | degrees | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Noll back angle full height | degrees | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Roll back at carry | degrees | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Roll back at ground level | degrees | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| 2 Load over height | mm | 3645 | 3645 | 3640 | 3640 | 3638 | 3638 | 3645 | 3645 | 3640 | 3640 | 3638 | 3638 |
| Dump height (45 deg dump) | mm | 2797 | 2797 | 2973 | 2925 | 2889 | 2825 | 2726 | 2694 | 2852 | 2804 | 2768 | 2704 |
| Dig depth | mm | 33 | 33 | 30 | 30 | 32 | 32 | 33 | 33 | 30 | 30 | 32 | 32 |
| Reach at dump height | mm | 1111 | 1111 | 936 | 986 | 1019 | 1083 | 1182 | 1232 | 1057 | 1107 | 1140 | 1204 |
| / Pin height | mm | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 | 3904 |
| Reach maximum (45 deg dump) horizontal arm | mm | 1858 | 1858 | 1683 | 1733 | 1766 | 1830 | 1929 | 1979 | 1804 | 1854 | 1907 | 1951 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 13687 | 13866 | 13654 | 13687 | 13929 | 13997 | 14016 | 14060 | 14016 | 14060 | 14297 | 14359 |

^{*}Assumes machine is fitted with Michelin 20.5R25 XHA2 (L3) tyres and 5 speed transmission.



| TYRE SIZE 437 ZX | | | | | | | | |
|------------------|------------------------|-------------------------------|----------|-----------------------|-----------|------------|----------------|-------------|
| | | | | | Z | X | Dime | nsions |
| Tyre size | Manufacturer | Туре | Rating | Operating weight (kg) | STL kg | FTTL kg | Vertical mm | Width mm |
| 20.5R25 | MICHELIN | XHA2 | L3 | 0 | 0 | 0 | 0 | 0 |
| 20.5R25 | MICHELIN | XTLA | L2 | -112 | -61 | -53 | -7 | 4 |
| 550/65R25 | MICHELIN | XLD | L3 | -76 | -41 | -36 | -44 | 21 |
| 20.5R25 | MICHELIN | XSNOPLUS | L2 | -76 | -41 | -36 | -11 | 6 |
| 20.5R25 | MICHELIN | XLDD2A | L5 | 524 | 286 | 247 | 30 | 6 |
| 20.5R25 | MICHELIN | XMINED2 | L5 | 708 | 386 | 334 | 58 | 34 |
| 620/75R26 | MICHELIN | MEGAXBIB | N/A | -318.8 | -174 | -150 | 68 | -7 |
| 650/65R25 | MICHELIN | XLD | L3 | 548 | 299 | 259 | -10 | 134 |
| 750/65R26 | MICHELIN | MEGAXBIB | N/A | -69.6 | -38 | -33 | 81 | 359 |
| 20.5-25 | G/YEAR | SGL (16 ply) | L2 | -180 | -98 | -85 | -5 | 26 |
| 20.5R25 | G/YEAR | TL-3A+ | L3 | 292 | 159 | 138 | 11 | 17 |
| 20.5R25 | G/YEAR | RL-5K | L5 | 616 | 336 | 291 | 49 | 26 |
| 20.5-25 | G/YEAR | HRL (16 ply) | L3 | -24 | -13 | -11 | 37 | 26 |
| 20.5R25 | BKT | XL GRIP | L3 | -112.88 | -62 | -53 | 41 | 12 |
| 20.5-25 | SG REVOLUTION | SE | N/A | 2040 | 1114 | 962 | 17 | -20 |
| 20.5-25 | SG REVOLUTION | S2 C2 DWL | N/A | 2164 | 1181 | 1021 | 6 | -20 |
| 20.5-25 | JCB | Sitemaster (16ply) | L3 | 100 | 55 | 47 | 21 | -7 |
| 20.5R25 | NOKIAN | GRIP TL | L3 | -200 | -109 | -94 | 4 | -7 |
| Optional Heavy D | outy Counterweight (No | t available with solid cushic | n tyres) | 312 | 646 | 584 | - | - |

| OADER DIMENSIONS 437 ZX | | | | | | | | | | |
|---|----------------|-------|--------------|-----------------|----------|-------------|-------|---------|------------|------------|
| Model | | | | | | 437 ZX | | | | |
| Shovel mounting | | | | Direct | | | | Quick | khitch | |
| Shovel type | | | | General purpose | | | | General | purpose | |
| Shovel equipment | | | Tipped teeth | | Reversib | le toeplate | Tippe | d teeth | Reversible | e toeplate |
| Shovel capacity (SAE heaped 100%) | m ³ | 2.3 | 2.6 | 2.6 | 2.4 | 2.7 | 2.3 | 2.6 | 2.4 | 2.7 |
| Shovel capacity (struck) | m ³ | 1.984 | 2.274 | 2.274 | 2.057 | 2.346 | 1.984 | 2.274 | 2.057 | 2.346 |
| Shovel width | mm | 2740 | 2740 | 2740 | 2700 | 2700 | 2740 | 2740 | 2700 | 2700 |
| Shovel weight | kg | 1250 | 1317 | 1361 | 1262 | 1329 | 1124 | 1199 | 1136 | 1211 |
| Maximum material density * | kg/m³ | 1984 | 1738 | 1693 | 1901 | 1674 | 1842 | 1607 | 1765 | 1547 |
| Tipping load straight * | kg | 10684 | 10568 | 10348 | 10684 | 10568 | 9966 | 9840 | 9966 | 9840 |
| Tipping load full turn * | kg | 9125 | 9039 | 8802 | 9125 | 9039 | 8471 | 8355 | 8471 | 8355 |
| Payload * | kg | 4562 | 4519 | 440 | 4562 | 4519 | 4236 | 4177 | 4236 | 4177 |
| Maximum breakout force | kN | 176 | 162 | 162 | 176 | 162 | 157 | 144 | 157 | 144 |
| Dump angle maximum | degrees | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Roll back angle full height | degrees | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | 52 |
| Roll back at carry | degrees | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 44 |
| Roll back at ground level | degrees | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Load over height | mm | 3760 | 3760 | 3760 | 3755 | 3755 | 3760 | 3760 | 3755 | 3755 |
| Dump height (45 deg dump) | mm | 2841 | 2776 | 2776 | 2982 | 2900 | 2756 | 2691 | 2897 | 2765 |
| Dig depth | mm | 131 | 131 | 131 | 105 | 105 | 131 | 131 | 105 | 105 |
| Reach at dump height | mm | 1151 | 1225 | 1215 | 1047 | 1006 | 1236 | 1300 | 1132 | 1091 |
| Pin height | mm | 4021 | 4021 | 4021 | 4021 | 4021 | 4021 | 402 | 4021 | 4021 |
| Reach maximum (45 deg dump) horizontal arm | mm | 1903 | 1967 | 1967 | 1799 | 1850 | 1980 | 2044 | 1876 | 1927 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 15150 | 15218 | 15418 | 15150 | 15218 | 15518 | 15580 | 15518 | 15580 |

^{*}Assumes machine is fitted with Michelin 20.5R25 XHA2 (L3) tyres and 5 speed transmission.

427/437 WHEEL LOADER SPECIFICATION

| ENGINE | | | |
|--|-------------------|-----------------------------|--------------------------|
| | | 427 | 437 |
| Туре | | Cum | mins |
| Model | | Q | SB . |
| Capacity | litres | 6. | 7 |
| Aspiration | | Turbo C | Charged |
| Cylinders | | 6 | |
| Max gross power to SAE J1995/ISO 14396 | kW (hp) | 133 (179) @ 1700 rpm | 136 (183) @ 2000 rpm |
| Rated gross power to SAE J1995/ISO 14396 | kW (hp) @ 2100rpm | 118 (158) | 129 (173) |
| Nett power to ISO 9249 | kW (hp) @ 2100rpm | 109 (146) | 120 (161) |
| Max torque | Nm @ 1500rpm | 84 | H |
| Valves per cylinder | | 4 | |
| Air cleaner | | Cyclonic pre filter with en | gine fan scavenge system |
| Fan drive type | | Hydraulically dri | ven cooling fan |
| Emissions | | EU Stage IV, U | S EPA Tier 4F |

| TRANSMISSION | | | | | | | | | |
|--------------|-----|--------------------|---------|---------|----------------------------|---------|----------------------|------------------------|---------|
| | | 42 | 27 | 42 | 27 | 4 | 37 | 43 | 37 |
| | | 4 speed no conv | | | vith lock up (optional) | | on-lock up rerter | 5 speed w converter | |
| Туре | | | | | Z | Ϋ́F | | | |
| Model | | 4WC | G160 | 5W0 | 3160 | 4W0 | 3190 | 5WC | G960 |
| | | Forward | Reverse | Forward | Reverse | Forward | Reverse | Forward | Reverse |
| 1 | kph | 6.6 | 6.9 | 6.8 | 7.2 | 6.8 | 7.2 | 7.0 | 7.4 |
| 2 | kph | 13.1 | 13.8 | 12.5 | 13.1 | 12.8 | 13.4 | 12.7 | 13.4 |
| 3 | kph | 23.5 | 24.7 | 19.2 | 30.1 | 24.6 | 25.7 | 19.5 | 31.8 |
| 4 | kph | 38.5 | | 28.6 | | 38.0 | | 30.2 | |
| 5 | kph | | | 40.0 | | | | 40.0 | |

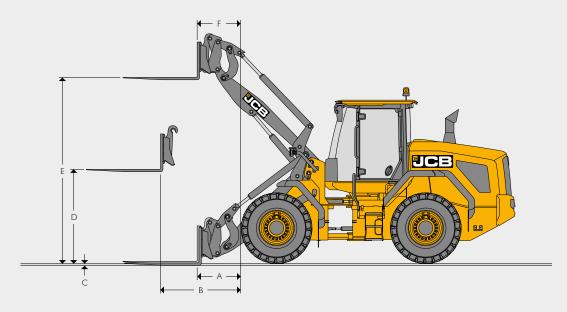
Please note the above data is based on Michelin 20.5R25 XHA2 (L3) tyres, figures may vary depending on tyres fitted.

| AXLES | | | | | |
|-----------------------|--|--|--|--|--|
| Model | 427 | | | | |
| Туре | Standard | Heavy duty | | | |
| Make and model | ZF MT-L 3075 II (front), ZF MT-L 3075 II (rear) | ZF MT-L 3085 II (front), ZF MT-L 3075 II (rear) | | | |
| Overall axle ratio | 21.53 : 1 | 21.53 : 1 | | | |
| Rear axle oscillation | +/- 10.5 Degrees | +/- 10.5 Degrees | | | |
| Model | 437 | | | | |
| Туре | Heavy duty | | | | |
| Make and model | ZF MT-L 3085 II (front), ZF MT-L 3075 II (rear) | | | | |
| Overall axle ratio | 21.53 : 1 | | | | |
| Rear axle oscillation | +/- 10.5 Degrees | | | | |

| HYDRAULICS | | | | | |
|---|---------|-----------------------|-------|--|--|
| | | 427 | 437 | | |
| Pump type | | Variable displacement | | | |
| Pump I max. flow | I/min | 126 | 126 | | |
| Pump I max. pressure | bar | 250 | 250 | | |
| Pump 2 max. flow | l/min | 126 | 126 | | |
| Pump 2 max. pressure | bar | 160 | 160 | | |
| Hydraulic cycle times at full engine revs | | | | | |
| Arms raise (full bucket) | Seconds | 5.08 | 6.24 | | |
| Shovel dump (full bucket) | Seconds | 1.41 | 1.96 | | |
| Arms lower (empty bucket) | Seconds | 3.3 | 4.63 | | |
| Total cycle | Seconds | 9.79 | 12.83 | | |

| CAB | In-cab noise level – 68dB(A). |
|----------|---|
| STEERING | Hydraulic power steering. |
| BRAKES | Hydraulic power braking on all wheels. In-board mounted, oil immersed, multi-plate disc brakes. Parking brake, electro-hydraulic disc type operating on transmission output shaft. |

| SERVICE FILL CAPACITIES | | | |
|-------------------------|--------|-----|-----|
| | | 427 | 437 |
| Hydraulic system | litres | 210 | |
| Fuel tank | litres | 290 | |
| DEF Tank | litres | 40 | |

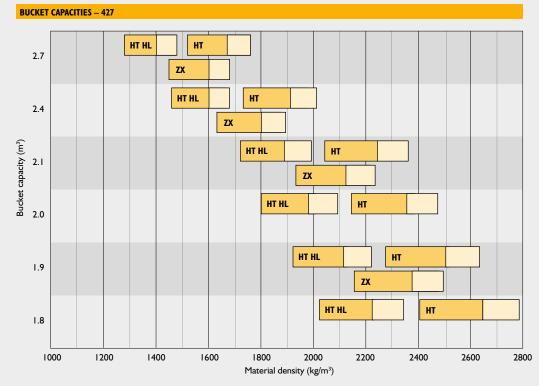


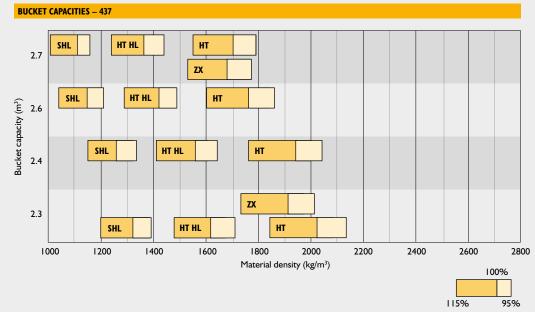
| LOADER DIMENSIONS WITH FORKS | | | | | | | | | | | | |
|---|----|----------|--------------|----------|--------------|----------|-------------|--------------|----------|--------------|--------------|----------|
| | | 427HT | | 427HT HL | | 427ZX | 427ZX 437HT | | 437HT HL | | 437 HT SHL | 437ZX |
| | | Parallel | Non parallel | Parallel | Non parallel | Parallel | Parallel | Non parallel | Parallel | Non parallel | Non parallel | Parallel |
| Fork carriage width | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Length of tines | mm | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 | 1220 |
| A Reach at ground level | mm | 769 | 769 | 1238 | 1238 | 769 | 882 | 882 | 1518 | 1518 | 2079 | 882 |
| B Reach at arms horizontal | mm | 1546 | 1546 | 1895 | 1895 | 1546 | 1636 | 1636 | 2126 | 2126 | 2596 | 1636 |
| C Top of tine above ground with arms down | mm | -52 | -25 | 11 | 38 | -52 | 8 | 16 | 3 | 11 | -11 | 8 |
| D Arms, horizontal height | mm | 1906 | 1867 | 1906 | 1867 | 1906 | 1946 | 1936 | 1946 | 1936 | 1936 | 1946 |
| E Arms, maximum height | mm | 3718 | 3695 | 4148 | 4125 | 3718 | 3828 | 3818 | 4482 | 4472 | 5035 | 3828 |
| F Reach at maximum height | mm | 802 | 824 | 848 | 875 | 802 | 873 | 882 | 875 | 889 | 907 | 873 |
| Tipping load straight | kg | 10224 | 10980 | 7944 | 8399 | 8772 | 9070 | 9639 | 7640 | 8047 | 4949 | 9376 |
| Tipping load full turn (40°) | kg | 9587 | 9475 | 6852 | 7247 | 7550 | 7731 | 8219 | 6491 | 6839 | 5676 | 8040 |
| Payload* | kg | 7670 | 7580 | 5481 | 5798 | 6040 | 6184 | 6575 | 5193 | 5471 | 3631 | 6432 |
| Attachment weight | kg | 429 | 429 | 429 | 429 | 429 | 429 | 429 | 429 | 429 | 429 | 429 |
| Operating weight (includes 75kg operator and full fuel and DEF tanks) | kg | 13027 | 13027 | 13237 | 13237 | 13666 | 14421 | 14421 | 14840 | 14840 | 15098 | 14887 |

^{*} At the centre of gravity distance 600mm. Based on 80% of FTTL as defined in ISO 14397-1:2007. Assume the fitment of Michelin 20.5R25 XHA2 (L3) and 5 speed transmission.

Bucket fill factors

| Material | Loose density | Fill factor |
|------------------------------|---------------|-------------|
| | kg/m³ | % |
| 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 bitumous | 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 |





| EQUIPMENT (CONTINUED) | | | | | |
|---|---|--|---|---|---|
| FRONT PRIMARY DISPLAY | | FRONT PRIMARY DISPLAY (CONTINUED) | | HYDRAULIC SYSTEM (CONTINUED) | |
| Warning lights (continued) | | Data screens (continued) | | Front loader float | • |
| Road lights | • | Trip distance (resettable) | • | Constant auxiliary flow | • |
| Main beam lights | • | Hours to service | • | Indicator glass for hydraulic oil level | • |
| Rear fog lights | • | Daily checks | | Hydraulic oil cooler | • |
| Engine pre-heat | • | Engine oil level | • | | |
| Brake system pressure | • | DEF level | • | EXTERNAL EQUIPMENT | |
| Differential lock | • | | | Front and rear fenders | • |
| Low steering pressure | • | RIGHT HAND SECONDARY DISPLAY (OPTIONAL) | | Full rear fenders | + |
| Buzzer alerts | | Clock | • | Front adjustable mud flaps | • |
| Engine air filter blocked | • | Climate control | • | Front wheel spray guards | • |
| Diesel exhaust fluid (DEF) | • | Fan speed | • | Full tyre width coverage fenders | • |
| Torque reduction in case of malfunction | • | In cab temperature set | • | Rear object detection radar system with in cab display | + |
| Amber warning lamp | • | Machine hours | • | Automatic greasing system | + |
| Stop engine | • | Rear view camera with full-screen reverse mode | • | Grease gun and cartridge | + |
| Gauge display | | Fuel use | • | One piece electrical opening bonnet | • |
| Engine speed | • | Adjustable smooth ride engagement speed | + | Mesh air intake screens | • |
| Coolant temperature | • | Adjustable reverse fan intervals | + | Flexible bottom step | • |
| Fuel level | • | Adjustable auxiliary flow | + | Full width rear counterweight | • |
| LCD screen display | | Adjustable constant flow | + | Recovery hitch | • |
| Current gear | • | Time and date | • | Lifting / tie down lugs | • |
| Stop engine | • | Hydraulic oil temperature | • | Rear counterweight chevrons | + |
| Torque reduction in case of malfunction | • | Transmission oil temperature | • | Heavy duty rear counterweight (+312kg) only on 437 | + |
| Amber warning lamp | • | Machine settings screen | | Rockinger rear towing hitch with hydraulic braking system (427 AGRI only) | + |
| Diesel exhaust fluid (DEF) | • | Coolant temperature | • | 7, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, | |
| Engine air filter blocked | • | Engine oil pressure | • | PROTECTIVE EQUIPMENT | |
| Secondary steer system pressure | • | Air filter | • | Front cab screen guards | + |
| Torque lockup | • | Transmission sump temperature | • | Wastemaster package: includes front and rear light guards, front screen | · |
| Steer mode | • | Transmission torque convertor temperature | • | guard, front and rear belly guards, rear light guards, widecore radiator, | + |
| Ground speed | • | Hydraulic oil temperature | • | Wastemaster decal. | |
| Engine speed (numeric display) | • | Park brake pressure | • | Heavy duty rear grille guard (available black or white) | + |
| Clock | • | Battery voltage | • | Safety strut loader arm | • |
| Hydraulic state | • | Help display | • | Light guards | + |
| Smoothride system (SRS) | + | On-screen handbook | | Front belly guard kits | + |
| Beacon | | OTF-3CI CCTT Hai Indbook | | Rear belly guard kits | + |
| Front work lamps | • | HYDRAULIC SYSTEM | | Articulation joint safety strut | • |
| Rear work lamps | • | Smoothride system (SRS) | + | | |
| Heated rear screen | • | Hydraulic quick hitch with in cab isolation | + | OTHER EQUIPMENT | |
| | | , | | HT High Lift loader end (427 and 437) | + |
| Transmission sump temperature Data screens | | Auxiliary ARV kit | + | HT Super High Lift loader end (437 only) | + |
| | | Auxiliary hydraulic service | - | Parallel lift HT loader arms | + |
| DEF level Hydraulic oil temperature | • | Twin picton purpos with priority steer | + | | |
| , | | Twin piston pumps with priority steer | • | STANDARD • | |
| Torque convertor temperature | • | Emergency steer back-up | | | |
| Volume of fuel remaining | • | JCB biodegradable hydraulic oil | + | OPTIONAL + | |
| Total fuel used (resettable) | • | Electronic hydraulic isolation | • | | |
| Instantaneous fuel use | • | Automatic boom kick-out. Detent | • | | |
| Average fuel use (resettable) | • | Automatic bucket positioner | • | | |
| Current date | • | | | | |

Machine hours







ONE COMPANY, OVER 300 MACHINES.

Wheel Loader 427/437

427 – Operating weight: 13.1-16.5t Gross engine power: 133kW (179hp) Full turn tipping load: 8603kg Standard shovel capacity: 2.4m³

437 – Operating weight: 14.5-17.8t Gross engine power: 136kW (183hp) Full turn tipping load: 9623kg Standard shovel capacity: 2.7m³

 ${\sf JCB\ Sales\ Limited,\ Rocester,\ Staffordshire,\ United\ Kingdom\ ST14\ 5JP.}$

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