

**NEW**



## **WHEELED LOADING SHOVEL | 422ZX**

Operating weight: 11,900kg Gross engine power: 93kW (125hp) Full turn tipping load: 6,600kg Standard shovel capacity: 1.7m<sup>3</sup>





## DURABILITY AND BUILD QUALITY.

THE JCB 422ZX IS DESIGNED TO WITHSTAND ALL THE HARD WORK YOU CAN THROW AT IT. WE'VE STRESS AND CLIMATE-TESTED IT, AND FITTED ONLY PREMIUM COMPONENTS TO GUARANTEE DURABILITY.



### Extreme testing, extreme durability.

1 Because JCB 422s are used by customers all over the world, we've tested it rigorously in climates ranging from -20°C to 50°C. Its T2 JCB DIESELMAX engine has excellent filtration and robust fuelling to handle varying fuel quality.

2 By using advanced manufacturing and assembly processes, we produce only the very highest precision quality components.

3 IP69 electrics keep out water and dust.

4 The 422ZX is equipped with tried and proven ZF axles.

4 Our durable centre joint features twin taper roller bearings as well as a heavy-duty pin and bush assembly. To protect steer rams and hoses from damage, they're positioned high up above the robust centre joint.



Because industry is tough, we stress test to emulate the toughest digging and dump situations. That means all structures can perform even the most arduous duties over thousands of hours.





## POWER AND PRODUCTIVITY.

TO MAKE SURE THE 422ZX IS AS PRODUCTIVE AS POSSIBLE, WE'VE FITTED IT WITH A SUPREMELY EFFICIENT, TRIED AND TRUSTED POWERTRAIN AND LOADER ARM. AT THE CENTRE OF IT ALL IS OUR WORLD-RENOWNED DIESELMAX ENGINE, WHICH PROVIDES OPTIMUM POWER AND TORQUE AT LOW REVS.

### Where power meets efficiency.

**1** The combination of a JCB DIESELMAX engine with ZF axles and transmission delivers exceptional traction and digging /loading ability.

**2** We've been designing and developing JCB DIESELMAX engines at our dedicated state-of-the-art facility since 2005. With tens of thousands of units in service around the world, we have a formidable reputation for performance and reliability.

**3** A ZF fully automatic 4-speed 4WD powershift transmission automatically senses the perfect gear for any application. For increased traction, there's also a manual gear kickdown function on the loader lever.

**4** The 422ZX has ZF axles with limited slip differentials fitted as standard to provide maximum traction in any ground conditions.

The 422ZX's Z-type loader arm geometry generates maximum breakout forces and increased reach when lorry loading.

We use a simple and very reliable hydraulic circuit that comprises twin gear pumps and an unloader valve block. The versatile optional three spool valve block means you can use attachments like grabs and sweepers. A standard float function means grading and levelling is simplified.



## OPERATOR SAFETY AND COMFORT.

TO GET THE MOST FROM YOUR MACHINE, YOU NEED TO GET THE MOST FROM YOUR OPERATOR. THAT'S WHY WE'VE DESIGNED THE 422ZX TO BE A SAFE AND COMFORTABLE PLACE TO WORK.



### The perfect place to work.

- 1 The 422ZX cab is fully compliant with ROPS/FOPS standards.
- 2 We've fitted air conditioning and a heater, as well as sliding windows on both sides of the cab so that operators stay as comfortable, alert and, therefore, productive as possible.
- 3 The 422ZX's servo loader controls are extremely precise, and provide smooth, low effort, fatigue-free operation.
- 4 All-round visibility is excellent; a modern rear mounted cab design, large glass areas and narrow pillars give a clear view, particularly to the front shovel.
- 5 Large inclined steps and ergonomic grab handles make cab access safe and easy.





# PRODUCTIVITY UP, DOWNTIME DOWN.

WE UNDERSTAND THAT YOU NEED YOUR MACHINERY TO SPEND MOST OF ITS WORKING LIFE IN SERVICE, NOT BEING SERVICED. THAT'S WHY WE'VE BUILT THE 422ZX TO GIVE YOU MAXIMUM PRODUCTIVE UPTIME.

## Productivity up, downtime down.

The 422ZX has long oil and filter change intervals to keep maintenance to a minimum.

**1** Servicing, daily checks and radiator access couldn't be simpler, via fully opening gull-wing type doors.

Remote pressure test points are quick, easy and convenient.

The hydraulic valve block is readily accessible through front access panels.

**2** Cab roof rails make glass cleaning and beacon mounting safe and easy for the operator.

**3** A conveniently placed toolbox provides safe and secure storage.

**4** Ground level daily checks and eye level fluid gauges provide vital information quickly and easily.

**5** The 422ZX has oil-immersed disc brakes for a long, virtually maintenance free lifespan.

**6** Our single face cooling pack makes it simple to clean and maintain the cooling matrix.

	SERVICE INTERVALS
Engine oil and oil filter	Every <b>500</b> hours
Hydraulic oil	Every <b>2000</b> hours
Hydraulic filter	Every <b>500</b> hours
Transmission filter	Every <b>1000</b> hours
Transmission oil	Every <b>1000</b> hours
Axle oil	Every <b>1000</b> hours



## VALUE ADDED.

JCB'S WORLDWIDE CUSTOMER SUPPORT IS FIRST CLASS. WHATEVER YOU NEED AND WHEREVER YOU ARE, WE'LL BE AVAILABLE QUICKLY AND EFFICIENTLY TO HELP MAKE SURE YOUR MACHINERY IS PERFORMING TO ITS FULL POTENTIAL.



1

1 Our Technical Support Service provides instant access to factory expertise, day or night, while our Finance and Insurance teams are always on hand to provide fast, flexible, competitive quotes.

2 The global network of JCB Parts Centres is another model of efficiency; with 16 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.



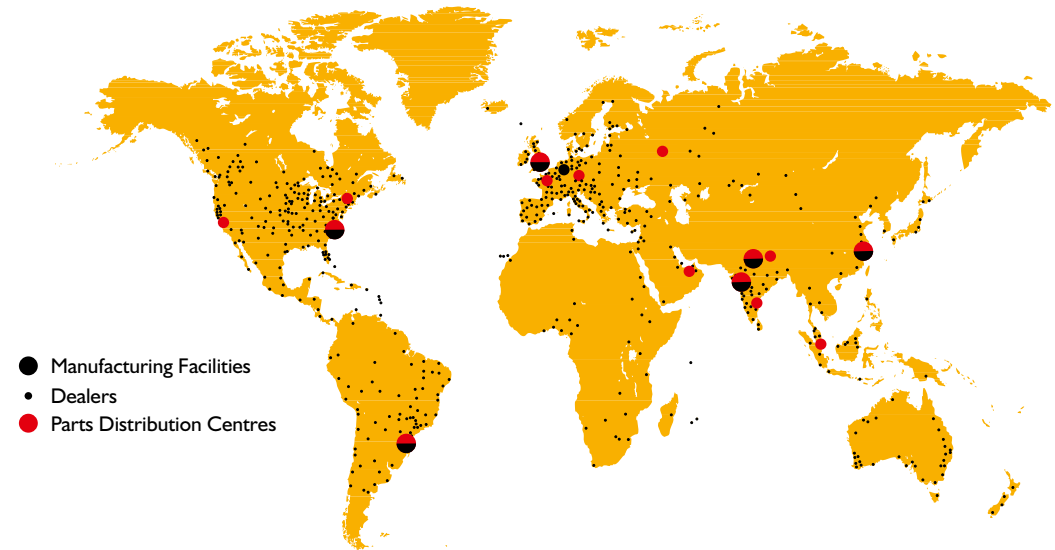
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3 JCB Assetcare offers comprehensive extended warranties and service agreements, as well as service-only or repair and maintenance contracts. Irrespective of what you opt for, our Maintenance teams around the world charge competitive labour rates, and offer non-obligation quotations as well as fast, efficient insurance repair work.



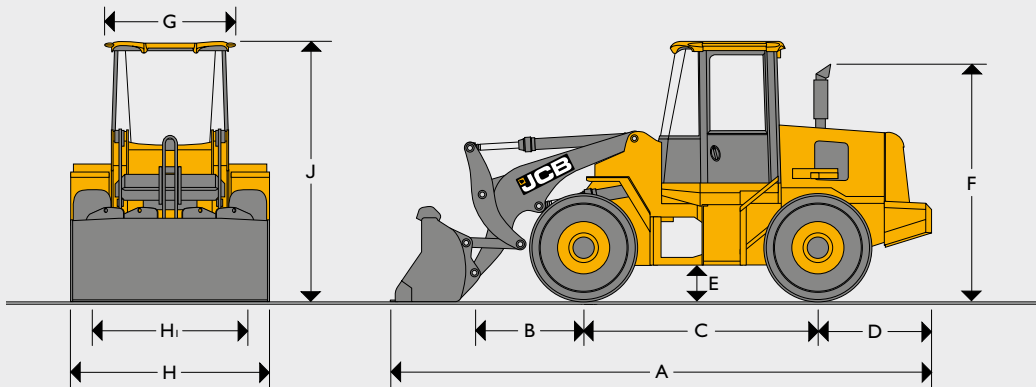
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Note: JCB ASSETCARE may not be available in your region, so please check with your local dealer.



## STATIC DIMENSIONS

Standard operating weight: 11900kg (24912lb) Maximum engine power: 125hp (93kW) Standard loader capacity: 1.7m<sup>3</sup>



Machine model	422ZX		
A Overall length with standard bucket	mm		6720
B Axle to pivot pin	mm		1392
C Wheelbase	mm		2850
D Axle to counterweight	mm		1398
E Minimum ground clearance	mm		431
F Height over exhaust	mm		2902
G Width over cab	mm		1229
H Width over tyres	mm		2290
Hi Wheel track	mm		1846
J Height over cab	mm		3156

## ENGINE

Model	JCB TCAE 93kW
Type	4 stroke, direct injection
Aspiration	Turbo charged
No. of cylinders	4
Bore/Stroke	103 X 132mm
Displacement	4.4 Litres
Gross Power	93kW (125hp)
Max. Torque	525Nm @1300rpm
Emission	Tier-2 conforms to CMVR norms

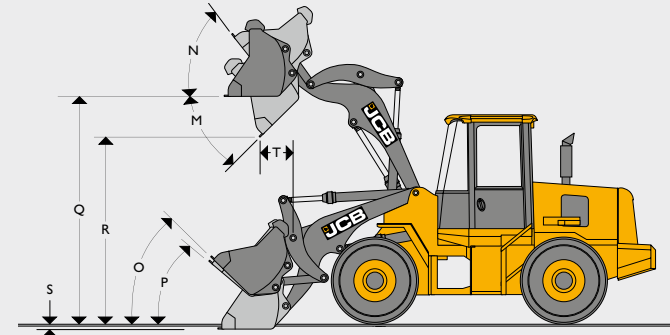
## SERVICE CAPACITIES

Hydraulic system	litres	125
Fuel tank	litres	195
Engine coolant	litres	23
Engine oil	litres	14
Transmission	litres	21
Rear axle	litres	23
Front axle	litres	23

## SPEED

Maximum speeds in each gear	Forward (kph)	Reverse (kph)
1st	5.66	5.96
2nd	11.07	11.66
3rd	19.95	20.9
4th	32.72	-

## PERFORMANCE DIMENSIONS



M Dump angle maximum	45°	Bucket width	mm	2348
N Roll back angle at full height	52°	Bucket weight - with tooth	kg	875
O Roll back angle at carry	46.5°	Payload	kg	3300
P Roll back angle at ground level	42°	Tipping load straight	kg	7500
Q Load over height	mm	Tipping load full turn	kg	6600
R Dump height (45° dump)	mm	Maximum breakout force	kgf	10379
S Dig depth	mm	Reach maximum (45° Dump)	mm	1800
T Reach at dump height	mm	Pin height maximum	mm	3794
Bucket capacity (SAE heaped)	m <sup>3</sup>	Inside turn radius	mm	2809
Bucket capacity (struck)	m <sup>3</sup>	Maximum turn radius	mm	5658

## BRAKES

**Service:** Hydraulic power braking on all wheels operating pressure 40 bar. Dual circuit with accumulator back-up provides maximum safety under all conditions. Outboard mounted, oil immersed, multi-plate disc brakes.  
**Parking:** Mechanical disc type operating on front axle shaft.

## STEERING

Q-Amp hydraulic system with integrated priority valve operating at 190 bar to provide low effort and smooth response. Steer ram located high in chassis to provide protection from damage. Adjustable steering column. Steering angle:  $\pm 40^\circ$

## TYRES

**Standard:** 17.5x25 (20PR) E3/L3 (heavy duty - trac XL). Manufacturer: Ceat India.

## ELECTRICS

24 volt negative ground system, 55 amp alternator with 2 X110 AH low maintenance batteries. Ignition key start/stop. Other electrical equipment includes 2 front and 2 rear work lights, rear registration plate lights, parking lights, direction indicators.

## HYDRAULICS

Twin gear pump directly mounted on transmission. Twin spool remote mounted valve block with float. Main services are servo actuated from hydraulic remote lever (joystick) and loader control through accumulator back-up hydraulic supply unit. **System pressure:** 245 bar

## LOADER

Heavy-duty three-ram geometry (Z bar linkage) providing high breakout forces with excellent loading characteristics. The pin, bush and sealing design on all pivot pins provide extended maintenance intervals.

## TRANSMISSION

4-wheel drive, automatic powershift transmission, electrically operated selector and gear change incorporating a speed inhibitor and modulation for responsive on-the-move direction and ratio changes. Single stage integral torque converter. **Type:** Automatic Powershift **Make and model:** ZF4WG-115

## AXLES

**Type:** Planetary hub reduction **Make and model:** ZF MTL 3065-11 front and rear  
**Overall axle ratio:** 23.68:1 **Rear axle oscillations:**  $\pm 12^\circ$





**ONE COMPANY, OVER 300 MACHINES.**

Your nearest JCB dealer

### **422ZX Wheeled Loading Shovel**

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Standard shovel capacity: 1.7m<sup>3</sup>

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