

NEW



## BACKHOE LOADER | 2DX

Gross power: 36.9kW (49.5hp) Maximum dig depth: 3.02m Maximum shovel capacity: 0.55m<sup>3</sup>



## ONE MACHINE, A WORLD OF APPLICATIONS: INTRODUCING THE JCB 2DX.

IF YOU'RE LOOKING FOR ONE OF THE MOST VERSATILE MULTI-PURPOSE MACHINES ANYWHERE IN THE WORLD, YOU'VE COME TO THE RIGHT PLACE. THE JCB 2DX COMPACT BACKHOE LOADER CAN PERFORM A VAST ARRAY OF TASKS IN ALMOST ANY ENVIRONMENT, MAKING IT THE PERFECT REPLACEMENT FOR COSTLY, TIME-CONSUMING MANUAL LABOUR. WITH ITS CLASSIC JCB BACKHOE DESIGN, THE 2DX IS FAR MORE PRODUCTIVE THAN A CONVENTIONAL TRACTOR TOO. IT'S ALSO BUILT TO LAST, EASY TO OPERATE, COMFORTABLE FOR OPERATORS, SAFE AND SIMPLE TO SERVICE.

The 2DX can be used in a range of applications:

SECTOR	APPLICATIONS
Agriculture	Soil turning, grading, clearing, light haulage, drainage
Utilities	Trenching, pipe/cable laying, material handling
Construction	Soil mixing, excavating, loading
Municipalities	Waste handling, drain cleaning
Plantation	New pits for planting, uprooting, drainage channels, pipe laying





# QUALITY, RELIABILITY AND DURABILITY.

THE JCB 2DX IS DESIGNED FOR HARD WORK AND MADE USING ONLY THE FINEST MATERIALS AND MANUFACTURING PROCESSES. THE ROBUST AND HEAVY-DUTY STRUCTURE ENSURES THE MACHINE WILL LAST IN THE TOUGHEST OF ENVIRONMENTS.



1

## Built to last.

1 We build the JCB 2DX using advanced manufacturing processes like robot machining, precision paint technology and innovative assembly techniques. This ensures a high quality machine, free of defects.



3

2 The JCB 2DX is a purpose-built backhoe loader. This means it's more robust and heavy-duty than a tractor loader, making it perfect for the construction industry.

3 Our durable loader arm design has high breakout forces and lift capacity for great productivity.

4 Axles on the 2DX are designed and manufactured by JCB specifically to suit the machine's application; this also ensures the powertrain is well integrated with the rest of the machine.



2



4



4



**Extra protection.**

- 5 The raised front and rear lights reduce the risk of damage and improve visibility.
- 6 Boom and dipper hoses are enclosed within the rear structure of the machine, ensuring that hoses are protected during trenching.

**A long service life.**

- 7 We fit a water separator as part of the diesel filtration system. This increases fuel pump longevity and provides even greater reliability.
- 8 To protect the engine when operating in dusty environments, the 2DX is fitted with an air pre-cleaner. The pre-cleaner is clearly visible and easily emptied as part of the daily checks.



## PRODUCTIVITY AND PERFORMANCE.

JCB BACKHOES HAVE ALWAYS LED THE WAY IN POWER AND PERFORMANCE, AND THE 2DX IS NO EXCEPTION. IT BOASTS MANY CLASS-LEADING FEATURES DESIGNED TO MAXIMISE YOUR PRODUCTIVITY.

### Getting around.

**1** JCB's 4-speed Synchroshuttle gearbox shifts smoothly with full synchromesh so operators can be sure of getting the right gear for any task. This setup also helps the 2DX to achieve a 28km/h top speed, for fast travel both on and off site.



### Digging performance.

**2** An equal-length boom and dipper means you can dig close to the machine, cutting down on repositioning during trenching, thus saving time and reducing user fatigue.

**3** High ground clearance means you can still operate your machine on even the most challenging terrain.

**4** A narrow, sloping front bonnet provides extra visibility to the front shovel and wheels, maximising the amount of soil moved per shovel load.



We've given this compact backhoe a tight turning circle, which makes it very manoeuvrable in many applications, even in confined spaces.



5 Our multi-position rear excavator minimises repositioning; it also means the 2DX can easily dig parallel to walls or in an off-centre position for better visibility to the trench. The digger arm can be quickly and easily positioned and hydraulically locked across the rear frame without the driver leaving the seat.

6 During transit, the excavator folds away within the width of the machine, making everything compact and stable.

7 180 Bar hydraulic system pressure means there are high tearout forces for digging hard ground and achieving quick cycle times.

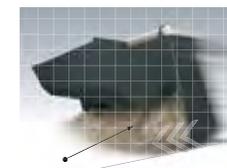
**Versatility.**

8 Our optional extras (compactor, kerb grab, earth drill, excavator quick hitch and breaker) allow you to tailor your 2DX to a huge array of different applications.

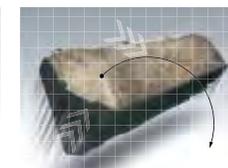
9 With an optional 6-in-1 shovel tool you you can dig, doze, load, grab, grade and backfill, eliminating much manual labour and ensuring great productivity.



5



Dozing



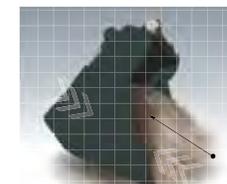
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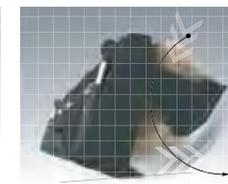
Grabbing



Grading



Digging



Backfilling

9



6



7



8



8

	EFFICIENCY
Excavation	11.77m <sup>3</sup> /litre
Roading	3.9km/litre
Loading	12m <sup>3</sup> /litre

## SERVICEABILITY.

TO ENSURE MAXIMUM RETURN ON INVESTMENT, NATURALLY YOU NEED TO KEEP DOWNTIME TO A MINIMUM. JCB'S 2DX ACHIEVES THIS WITH ITS LONG SERVICE INTERVALS AND RESULTING LOW ANNUAL RUNNING COSTS.

The water-cooled KOEL diesel engine on the JCB 2DX is quick, easy and efficient to service.

### Engine servicing.

**1** An inline diesel filter on this backhoe loader makes for easy maintenance and low running costs.

A durable heavy-duty battery means easy starting every time. The battery is also easy to access.

**2** You can get at remote filters and the oil dipstick with ease under a 2DX's bonnet.

### Other servicing.

**3** We've used flat pane glass on the front screen because potential replacement costs are lower than with curved glass.

**4** Checking the hydraulic oil level is easy, thanks to a simple eye glass gauge.

**5** JCB's patented stabiliser wear pads are easily adjustable and increase machine life.

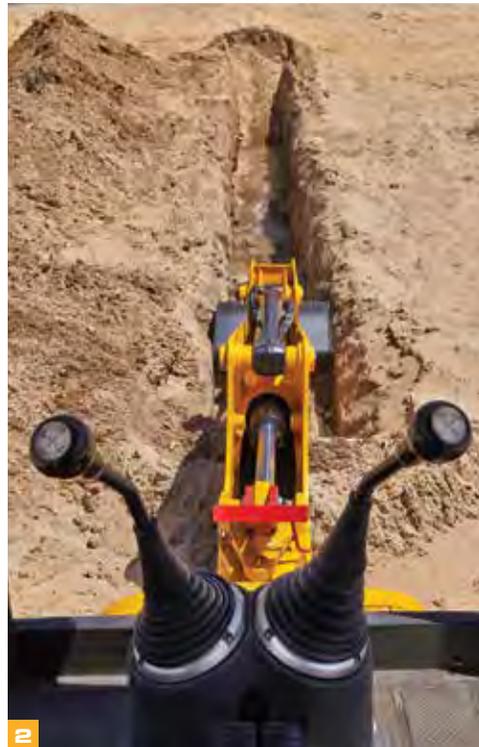
	SERVICE INTERVALS
Engine oil	Every <b>400</b> hours
Engine oil filter	Every <b>400</b> hours
Hydraulic filter	Every <b>400</b> hours
Hydraulic oil	Every <b>1 700</b> hours
Transmission filter	Every <b>400</b> hours
Transmission oil	Every <b>800</b> hours
Axle oil	Every <b>800</b> hours



## COMFORT AND EASE OF USE.

IN ORDER TO HELP YOU REAP THE MAXIMUM BENEFIT OF THE JCB 2DX'S SUPERIOR PERFORMANCE, THE CAB IS DESIGNED AROUND THE USER. AS SUCH, YOU'RE ASSURED OF DAY-LONG OPERATOR COMFORT WITH ERGONOMIC AND INTUITIVE CONTROLS.

JCB's 4-speed gearbox with torque converter means there's no need for a clutch; this ensures low user fatigue and eliminates costly repairs due to clutch failures.



### Easy manoeuvring.

The handbrake, which incorporates an electronic drive disconnect when engaged, ensures optimum safety and unnecessary wear on components.

- 1 The large canopy on the 2DX is designed for operators in hot climates, keeping them shielded from direct sun and rain.
- 2 This compact backhoe uses JCB's familiar cross pattern joystick controls so operators can work efficiently and comfortably.

### Easy digging and loading.

- 3 With a narrow, sloping front bonnet, operators get a clear view of the front wheels and shovel.
- 4 A narrow boom and dipper make for great trenching performance.
- 5 High-mounted work lights can be fully adjusted for excellent productivity even in low light conditions.



## SAFETY AND SECURITY.

IT'S CRUCIAL TO KEEP YOUR MACHINERY AND THE PEOPLE AROUND IT SAFE DURING THE WORKING DAY AND BEYOND. THAT'S WHY WE'VE FITTED THE JCB 2DX WITH A WIDE RANGE OF FEATURES TO ENSURE MAXIMUM SAFETY FOR ITS OCCUPANTS AND BYSTANDERS.

### Safe for operators.

**1** Large anti-slip steps of an open grille design mean there's always plenty of grip when getting in or out of this machine.

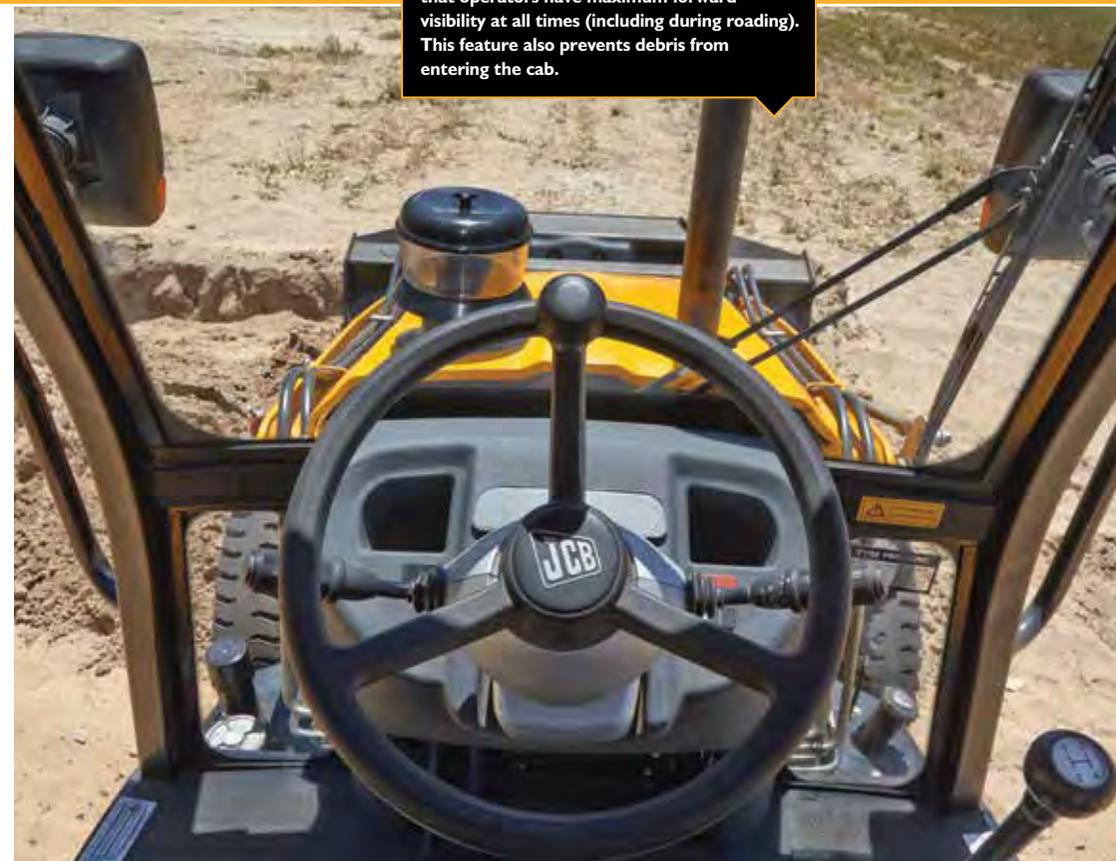
**2** By suspending the foot pedals, debris can't get lodged underneath any of them. This design also makes the footwell easy to clean.

### Added safety.

The reversing alarm makes this backhoe loader safer for site workers and members of the public alike.

**3** To provide handy safe storage for operators, there's a large lockable toolbox.

**4** JCB's lockable front grill design ensures machine security as it prevents access to the battery and isolator.



Our large front screen with wiper guarantees that operators have maximum forward visibility at all times (including during roading). This feature also prevents debris from entering the cab.

## 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 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.

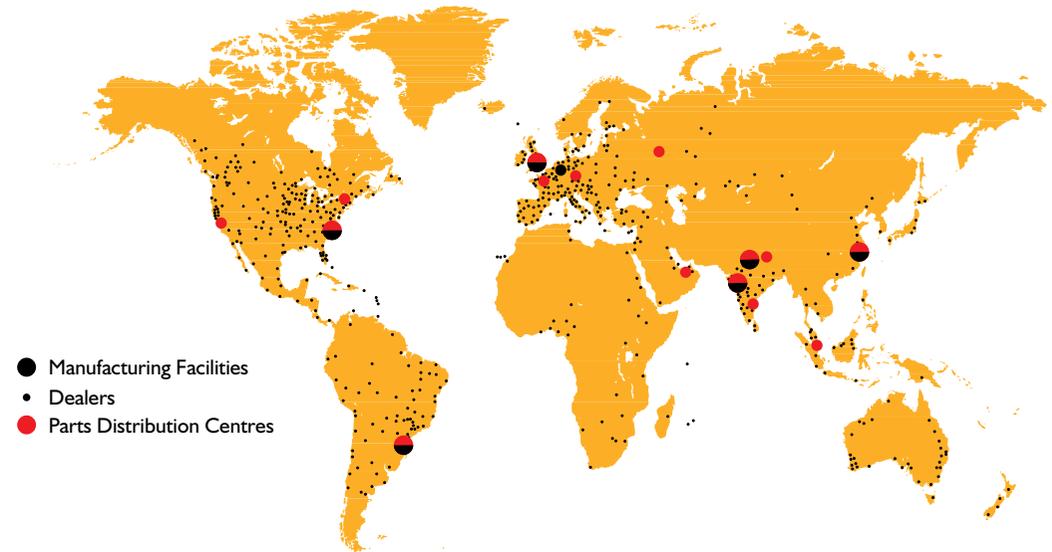
2 The global network of JCB Parts Centres is another model of efficiency; with 15 regional bases, we can deliver around 95% of all parts anywhere in the world within 24 hours. Our genuine JCB parts are designed to work in perfect harmony with your machine for optimum performance and productivity.



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.



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



## OVER SIXTY YEARS AND COUNTING.

AT MORE THAN SIXTY YEARS OF AGE, JCB'S ICONIC BACKHOE LOADER IS JUST AS FRESH AND INNOVATIVE TODAY AS IT WAS WHEN IT WAS FIRST CONCEIVED. BACK THEN, COMPANY FOUNDER JOSEPH CYRIL BAMFORD INVENTED THE ENTIRE BACKHOE LOADER CONCEPT, WHEN HE COMBINED A LIGHTWEIGHT BACKHOE WITH A TRACTOR LOADER. FOR THE FIRST TIME, A SINGLE MACHINE COMBINED A FRONT SHOVEL AND REAR EXCAVATOR ARM.

Today's JCB continues to innovate and is the world's best selling backhoe.



**THE 50'S.** The JCB MKI Major Loader.



**THE 60'S.** The JCB I.



**THE 70'S.** The JCB 3CIII.

## The world's first... and still the best.

Throughout the intervening years, JCB has continued to improve on this basic concept by using innovative thinking and advanced engineering principles. In the process, many of our innovations have become industry-standard features. Like four-wheel drive, for example, as well as extending dippers, torque converter drive, powershift transmissions, all-wheel steer, sideshift chassis, powerslide, and skid steer.

As a direct result of our innovative thinking and pioneering spirit, our backhoe loader range has led the world in terms of both features and sales. Today, we're the biggest-selling backhoe loader manufacturer on the planet, and have been for decades.

## An innovative future.

We recognise that a large part of our success is down to the fact that we listen to what our customers want. And we'll be continuing this trend, always striving to build the most productive, dependable and efficient machines that technology will allow. In an increasingly tough market, we're already attaching particular importance to versatility, residuals and fuel efficiency, all of which you'll find in abundance on this latest range of backhoe loaders.



**THE 80'S.** The JCB 3CX.



**THE 90'S.** The JCB 3CX Sitemaster.

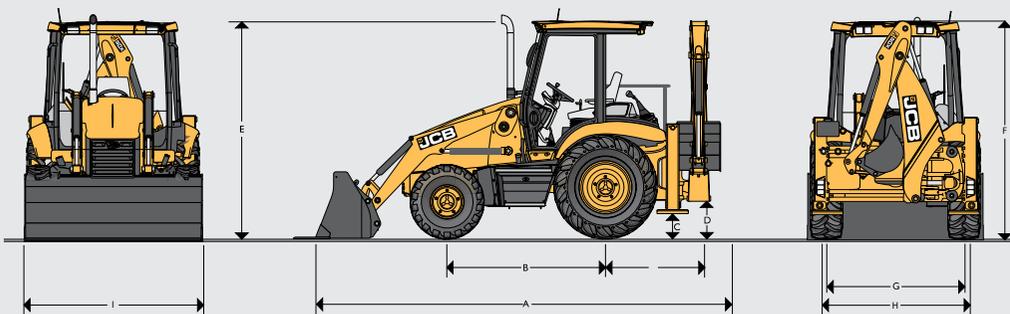


**THE 00'S.** The JCB 3CX Eco.



**THE FUTURE?**

STATIC DIMENSIONS



		2DX Super
A	Overall length	m 5.5
B	Wheelbase	m 1.99
C	Minimum ground clearance	m 0.33
D	Slew ground clearance	m 0.51
E	Height to top of cab	m 2.65
F	Overall height	m 2.47
G	Track width – rear	m 1.42
H	Track width – front	m 1.62
I	Width over bucket	m 1.88

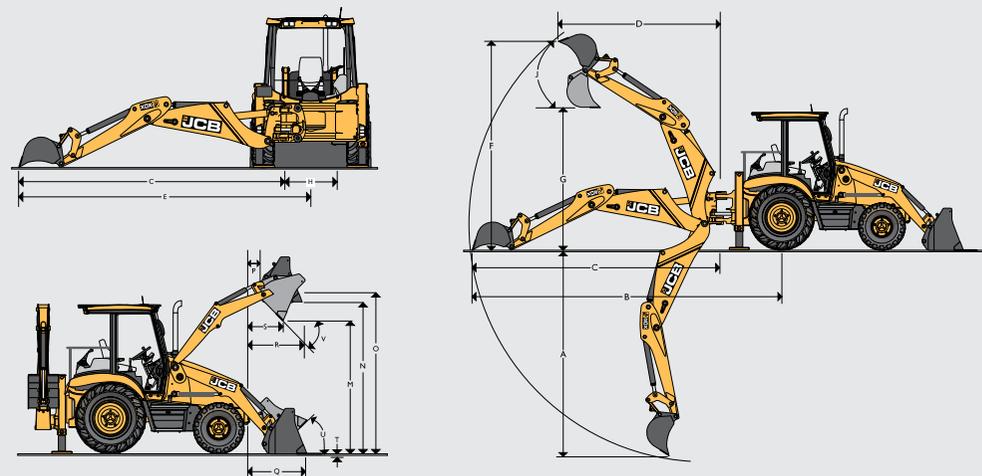
ENGINE

Model	KOEL 4R810, water cooled, BS 1111 diesel
Aspiration	Naturally aspirated
No. of cylinders	4
Displacement	3.2 litres
Gross power @ 2200rpm	49.5hp (as per SAEJ 1995)
Gross torque @ 1400rpm	203Nm (as per SAEJ 1995)

SERVICE CAPACITIES

Hydraulic system	l 60
Fuel tank	l 60
Engine coolant	l 13.5
Engine oil	l 8
Transmission	l 16
Rear axle	l 11

EXCAVATOR/LOADER PERFORMANCE



Excavator performance			
A	Maximum dig depth	m	3.02
B	Reach – ground level to rear wheel centre	m	5.18
C	Reach – ground level to slew centre	m	3.93
D	Reach at full height to slew centre	m	1.98
E	Side reach to centre line of machine	m	4.36
F	Maximum working height	m	3.88
G	Maximum load over height	m	2.82
H	King post travel	m	0.86
J	Bucket rotation – power	degrees	182
	Bucket tearout force	kgf	3120
	Dipper tearout force	kgf	1750
	Lift capacity to bucket pivot at full reach (no bucket fitted) (SAE J31)	kg	850
Loader performance		0.55 cu.m GP Shovel	
M	Dump height	m	2.20
N	Load over height	m	2.81
O	Pin height	m	2.96
P	Pin forward reach	m	0.44
Q	Reach at ground	m	1.46
R	Maximum reach at full height	m	1.31
S	Reach at full height – bucket dumped	m	0.91
T	Below ground level dig depth	m	0.10
U	Rollback at ground	degrees	45
V	Dump angle	degrees	46
	Bucket breakout force	kgf	2610
	Loader arm breakout force	kgf	1600
	Payload	kg	800

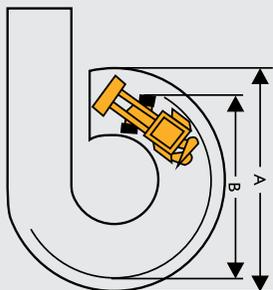
**TRANSMISSION**

JCB Synchro-shuttle transmission: It provides superb drive power in all conditions. It consists of a 4-speed, full synchromesh gearbox with integral torque convertor and electrically operated reversing power shuttle.

- Easy-to-use, column mounted electric reversing shuttle which can change machine direction while allowing operator to keep hands on the steering wheel leading to fast cycle times.
- The pedal layout and conventional 4-pattern gear lever with transmission disconnect switch adds to the overall ease of operation. On-the-move gear changes are possible.
- Torque convertor stall ratio is 2.67:1

		2DX	
Manufacturer		JCB	
Type		Synchroshuttle	
Gears forward/reverse		4 forward/2 reverse	
Shuttle control – F/R		Power shuttle	
Forward		Gear	Gear
1st	Km/hr	4.55	4.55
2nd	Km/hr	7.76	7.76
3rd	Km/hr	16.4	Not recommended
4th	Km/hr	28	Not recommended

Speeds may vary dependant on tyre selection.

**TURNING CIRCLE****Inner wheels braked**

A* Outside loader bucket	9.70m
B Outside wheels	7.44m

**Inner wheels not braked**

A Outside loader bucket	11.0m
B Outside wheels	7.90m

\*Standard bucket in travel position.

**BACKHOE ATTACHMENTS – GP BUCKETS**

Width		Capacity	
inch	mm	Rated m <sup>3</sup>	Struck m <sup>3</sup>
9	230	-	0.028
12	305	0.040	0.033
14	350	0.048	0.039
16	405	0.057	0.045
18	450	0.065	0.051
24	600	0.091	0.070
30	750	0.117	0.089

**STEERING**

Front wheel full power hydrostatic system utilising the main hydraulic pump via a steering priority valve. In the event of engine failure, emergency steering is maintained.

**BRAKES**

**Service:** Hydraulically actuated, dual line, self adjusting compensated oil immersed, multi-disc type on the rear axle, well protected from dirt, water etc. requiring no maintenance. Operated through independent pedals linked together for normal use.

Two independently operable foot pedals enable machine to manoeuvre in tight spaces.

**Parking:** Electrically operated by switch, dust proof, self adjusting, oil immersed sealed parking discs inside the gearbox.

**HYDRAULIC SYSTEM**

• Main relief valve: 180bar • Pump type: 2 section displacement gear • Pump capacity: 69lpm@2200rpm  
 • Filtration through suction strainer and return line JCB Filtermatic filter • During excavation the circuit automatically varies hydraulic power to match digging conditions for extra performance, control and power • Careful routing of hydraulic hoses and pipework guards against site damage and allows easy servicing •

**CANOPY**

- Front glass with wiper provided for operator comfort whilst driving.
- Excellent operator safety.
- Floor mats and plenty of legroom minimises fatigue and provides extra comfort to the operator.
- Adjustable operator seat combined with ergonomically positioned controls and soft touch steering wheel allows an operator to work uninterrupted for long hours.
- Canopy provides easy 'walk-through' access. Other features include seat belt, large convex rear view mirror, front screen wiper, front and rear horn, hazard warning system, lockable tool box and helper seats (2+1).
- Instrumentation panel is positioned on the right hand side and includes engine speed, engine hours, fuel level, water temperature and 12v aux power socket. Easily visible when operating either end.
- Audible and visual fault warning system for alternator charging, coolant temperature, engine oil pressure, blocked air filter, transmission oil pressure and temperature and hand brake on.

**AXLES**

**Rear:** Drive axle rigidly mounted, incorporates JCB Max-Trac torque proportioning differential, driven by short propshaft from gear box.

**Front:** 2WD steer axle, centrally pivoted with oscillation angle of 16°.

**ELECTRICS**

100 ampere-hour 12 volts battery system with alternator and full road lighting.

**TYRES**

**Front:** 7.5x16-16PR

**Rear:** 14.9x24-12PR

**WEIGHT**

**Shipping:** 4530kg

**BACKHOE ATTACHMENTS – HAMMERMMASTER HM266Q**

Weight	Tool diameter	Carrier weight	Impact energy	Oil flow min/max.	Operating pressure min/max.	Blow rate min/max.	Sound power level
kg	mm	t	J	lpm	bar	bpm	dB(A)
224	65	2.8 - 6.0	376	42 - 75	100 - 150	720 - 1400	118

**BACKHOE ATTACHMENTS – DITCH MAINTENANCE**

Width	Capacity	Carrier weight
inch	mm	m <sup>3</sup>
47	1200	0.12

**OTHER**

Kerb grab installation (manual)

Earth drill

Quick hitch – excavator (manual)

6-in-1 bucket

Compactor



**ONE COMPANY, OVER 300 MACHINES.**

Your nearest JCB dealer

**2DX Backhoe Loader**

Gross power: 36.9kW (49.5hp) Maximum dig depth: 3.02m Maximum shovel capacity: 0.55m<sup>3</sup>

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Download the very latest information on this product range at: [www.jcbafrika.com](http://www.jcbafrika.com)

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