

**131X**  
SERIES



# INTRODUCING THE NEXT IN THE **X** SERIES

Our vision from the start was to design and engineer our most advanced tracked excavator range ever.

The new JCB 13 tonne machine sits perfectly alongside its highly acclaimed 20 tonne big brother.

Our engineering teams have once again obsessed over every minute detail of this new world-class excavator and used the same quality materials and proven components.

The result is another machine in the **X SERIES** to be taken seriously. Another machine to be trusted.



**LORD BAMFORD**, CHAIRMAN, JCB





# **EXTREME STRENGTH**

It's taken 4 years of hydraulic, electronic and electrical development and thousands of hours of extreme endurance testing, to build you a machine that doesn't just look extremely strong, it is extremely strong.







## EXTREME STRENGTH

### Tested to extremes.

**1** Whole machine shaker rig used to replicate 15,000 hours of tracking and vibration.

Our latest dig end which has been proven by machines across the globe.

Exhaustive testing on purpose built electronics and electric rigs to prove connections, layout and software.

**2** 30,000 window and door operation tests completed to prove components quality.

**3** Hot and cold climate testing (55°C to -30°C) performed in controlled conditions and locations around the world.

### Exceptional build quality

**4** Proven undercarriage with fully-welded X frame construction for long-term durability with components supplied by industry-leading suppliers.

**5** Rigid upper frame, flat revolver side skirts and double skinned doors with new plated hinges provide greater strength.

Extremely robust fold back mechanism for cab mirror.

Finite Element Analysis ensures longer life for key components.





### **DIESELMAX RELIABILITY**

Our engine technology is tried and proven; we've built 500,000 Dieselmax units since 2004. To ensure similar longevity, the Dieselmax engines have been tested to 110,000 hours in 70 different machines across the toughest applications and environments.

**EXTREME STRENGTH**



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# EXCEPTIONAL COMFORT

We've used ergonomic design, automotive quality materials and engineering excellence to deliver exceptional comfort. And with ride comfort and the quietest cab in its class, there's enough to make even the most demanding operator extremely happy.











**EXCEPTIONAL COMFORT**

### **LOW NOISE**

Improved cab isolation using latest double cushion viscous mounts reduces vibration and noise into the cab. This helps deliver the lowest in-cab noise of 67 dB(A).

### **CUSTOMER LED ERGONOMICS**

Control layout reviewed and assessed by operators globally, with their feedback directly contributing to the final design.



## Best operator environment.

**1** Spacious JCB CommandPlus cab with high quality injection moulded interior. Industry-leading Grammer seat with wide, adjustable arm rests that reclines 145°.

New track pedal design with T-bars as standard with non-slip coating and optimised ergonomics.

**2** Joystick and switch controls are mounted to pods which are suspended from the seat and move with the operator for optimum control and less fatigue.

**3** Powerful new HVAC, with 11 targeted vents for optimum performance in hot and cold environments. Climate control comes as standard.

**4** Industry standard isolator lever operation prevents accidental activation when exiting the cab.

**5** Spacious luggage tray behind operators seat with 3 independent 12V power supplies. Another handy storage space can be found at the back of the cab in the roof liner, including a hanger for the operator's helmet.

**6** The Bluetooth radio, fitted as standard, is fully integrated into the control screen.

Roof, front, rear and side window blinds comes as standard providing full cab coverage.



# EXCELLENT CONTROL

4 years of hydraulic development combined with proven Japanese components  
have delivered the very best balance of controllability and efficiency.







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## EXCELLENT CONTROL



### Effortless working.

- 1** Proven Japanese hydraulics deliver precise and efficient control.
  - 2** Operator can select Auto-Stop and Auto-Idle depending on preference.
  - 3** Customisable proportional controls allow the operator to set their preference of speed and control of attachments.
- Dozer option adds extra versatility.
- Power boost button increases pressure by 9% for up to 9 seconds to provide extra tearout in tough conditions.
- 4** Tracking speed can be found on the joystick for on the move tracking change, whilst a convenience button lets you configure a range of functions such as radio mute, camera cycle, or front screen wash.
  - 5** Slew drive provides high torque on acceleration and braking for greater controllability and refinement.





EXCELLENT CONTROL

### FACTORY SOLUTIONS

Factory ready solutions for tiltrotators and GPS provides greater operator control.

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# EXTREMELY EASY

Using latest ergonomic design and with the help of customer and operator feedback, the new I31X has been designed to have best-in-class ease of use when working in any application.









A yellow excavator is shown in a construction site, lifting a large concrete pipe into a trench. The excavator's arm is extended, and the pipe is suspended by a chain. The background shows a residential area with houses and another excavator. The sky is blue with some clouds. The excavator has a 'JCB' logo on its side. A white circle with a dot in the center is positioned on the excavator's body, with a line pointing to the text box below.

**EXTREMELY EASY**

#### **HOSE BURST CHECK VALVE**

Factory fitted HBCVs means the machine is ready for lifting operations. Optional bucket HBCVs are available for fork use.



## Best-in-class ease of use.

**1** Start-stop button for ease of start-up means the operator doesn't have to turn the key to start it back up again. The start sequence also allows you to start digging within 2 seconds.

An intuitive menu navigation can be configured into multiple languages to suit most operators.

**2** Pipework shut-off taps now added as standard with SAE fittings, to enable quick connection of attachments when taking a hydraulic option.

**3** Advanced tool select system improves attachment handling by monitoring pressure and flow. There is tool storage as standard for up to 10 tools.

**4** Easy quickhitch provides simplified operation with an override for removing large breakers or fork attachments.

**5** Factory ready option to facilitate easy fitment of 2D and 3D Topcon, Trimble, Leica GPS systems.

**6** The cab includes mounts as standard to allow guards to be fitted in the field and also includes flat front glass for easy replacement.



# **EXPERIENCE GREATER PERFORMANCE**

We've invested years of research and development and listened to thousands of customers like you to build a machine that's ready to perform in the most extreme conditions, on any job site.







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## EXPERIENCE GREATER PERFORMANCE

### Best-in-class productivity.

- 1** Hydraulic pipes and hoses have a large diameter for increased productivity and efficiency. An innovative hydraulic regeneration system means oil is recycled across the cylinders for faster cycle times and reduced fuel consumption.
- 2** Auto-stop and Auto-idle on the JCB's Dieselmax 430 TCA EU Stage V compliant engine provides fuel saving of up to 5%.
- 3** For extra versatility, JCB offers a full list of auxiliary pipework options including hammer, merged pump flow, auxiliary, and low flow.
- 4** Machine cooling in 55°C heat with air conditioning running has been achieved with a 15% larger hydraulic cooler for optimum airflow.
- 5** The I3IX Stage V has no DEF requirement by using a DOC and DPF for the exhaust after treatment. Resulting in lower running costs.





EXPERIENCE GREATER PERFORMANCE



### NO DEF

There is still no SCR system with the Dieselpmax engine, whilst remaining stage V compliant. Resulting in a machine with a lower cost of ownership and is easier to maintain.

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# EXTRAORDINARY ATTENTION TO DETAIL

Building the new I31X involved a huge investment in state-of-the-art automotive style production facilities.

We introduced new tooling, EPD coating, robot welding and established new relationships with many industry-leading suppliers to bring you not just great excavators but exceptional ones.





## EXTRAORDINARY ATTENTION TO DETAIL

### EPD COATING

EPD coating improves corrosion resistance and ensures 100% coverage of metal components including hard to cover areas like edges and cavities, while powder coat paint guarantees a constant quality finish.

### THOUGHTFUL DESIGN

The whole design is optimised to protect the machine; side bay doors sit back from the edge for protection and the right hand platform corner and handrail sit within the slew radius to prevent damage and scratching.



## World-class finish.

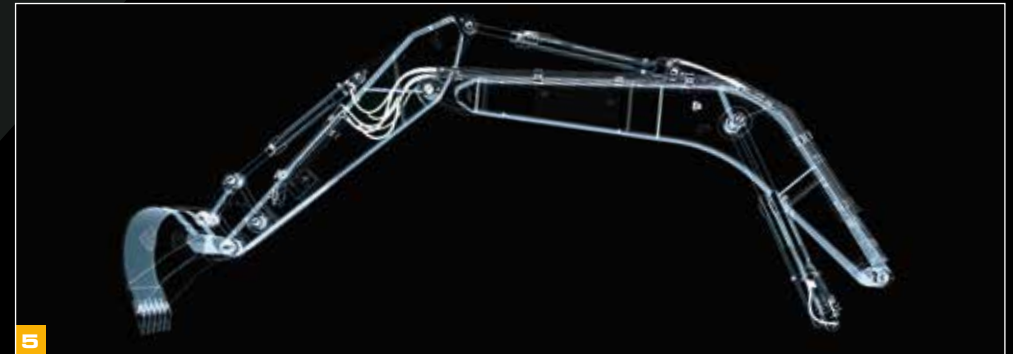
**1** All components are painted in house using a state-of-the-art paint facility to deliver a high quality finish that's checked for paint adhesion and coverage.

All machines undergo 1,232 validation checks including an intense hot test focusing on vibration, pressure and heat to replicate real-life applications.

**2** Significantly reduced vented and open areas means inherently stronger bodywork and reduced painted edges.

**3** Doors are bolted directly to the house frame and remain rust-free due to a zinc coating on all wear faces. All fasteners have a zinc finish (Geomet) for improved corrosion resistance, a new bolt and washer design protects paint from damage.

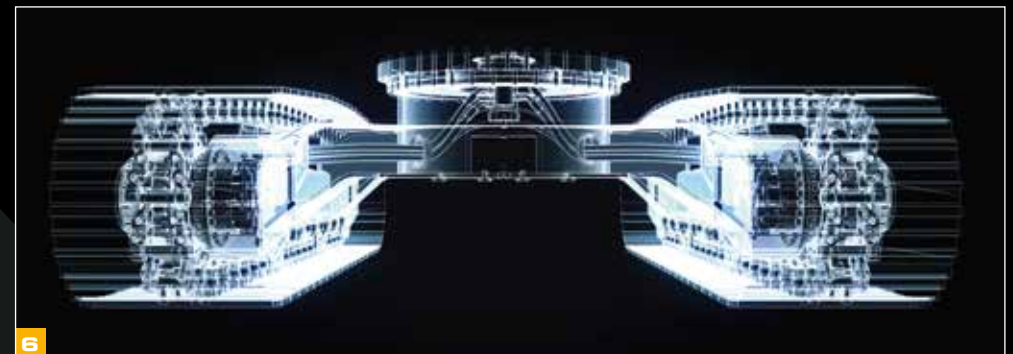
**4** New recessed counterweight design protects the rear end and machine branding from impact damage.



## World-class assembly.

**5** Robot welding of the dig end and undercarriage ensures consistent quality and accuracy.

**6** The slew ring mounting face is machined after manufacturing and welding to ensure a flat surface that reduces slewing noise.



# EXTENDED SERVICE INTERVALS

The new I3IX has been designed with greater productivity in mind and that means spending more time working and less time being serviced. Longer service intervals, quality parts and easy access to maintenance points all help to save you time and money.









## EXTENDED SERVICE INTERVALS

### Simple servicing.

- 1** Grouped greasing points make regular maintenance easier and quicker.
- 2** Standard refuelling pump with and without in-line fuel filter to protect the pump and engine.
- 3** Ground level access to hour meter, HVAC filter, cab air filter and single fuse box. Optional LED convenience lighting for the service bay and upper structure.
- 4** Bolt-on handrails and mirrors for easy replacement if damaged.
- 5** 1,000 hour engine air filter life achieved using a standard fit system with Powercore Nanofilter technology.
- 6** Large single face cooling pack means more efficient cooling and easy access for cleaning.





## EXTENDED SERVICE INTERVALS

### BRONZE BUSHES

Graphite impregnated bronze bushes on the boom and dipper pivots for 250 hour greasing intervals.

### REDUCED SERVICING

Only 10 checks required for a 500 hour service. Main hydraulic filter service interval extended to 2000 hours from 1000 hours and new fuel filter service intervals are now 1000 hours. High grade engine oil only needs to be changed after 500 hours.



# EXCEEDINGLY SAFE

At JCB we take safety very seriously and we make sure this forms an important part of the design process. So whether you're an operator, service engineer or site worker, we make working safer.

## Safer working.

- 1 The I31X boasts anti-slip surfaces and comfortable, well positioned grab handles and an area free of tread plate dimples to allow for kneeling during servicing.
- 2 Flattest, safest operator access to the top of the machine with built in kick strips around the edges.
- 3 Optional twin or 360° cameras helps operators operate safely.
- 4 Operator safety is paramount to JCB and the optional dipper limiter can be configured through the display to avoid a cab strike.





**EXCEEDINGLY SAFE**

### **OPERATOR PROTECTION**

Side guard rails on upper structure as standard. Optional full upper guard rails are available.

### **AUTHORISED USE**

Immobiliser pin code management allows you to remotely authorise usage of the machine – perfect for rental companies.

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# EXTRA SUPPORT

In a world of tough business decisions where the customer rightfully expects the very best in machine back up and a complete package of value added solutions, JCB delivers. Whatever you need and wherever you are, JCB's worldwide customer support is truly first-class.

## Machine efficiency.

By providing information like idle time monitoring and fuel consumption, JCB LiveLink saves you money and improves productivity.

## Machine reliability.

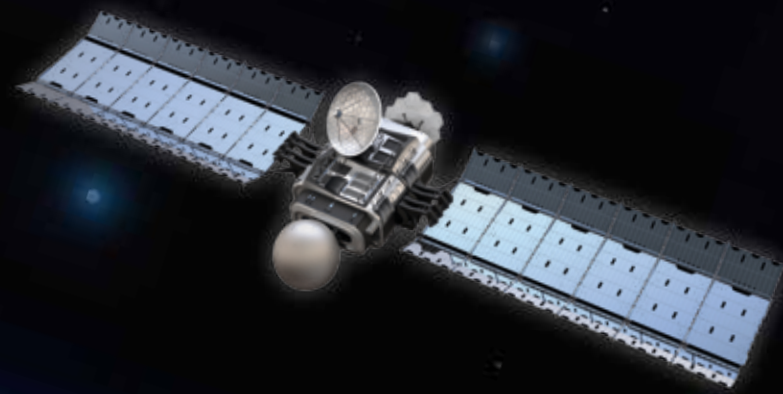
Accurate hours monitoring and service alerts improve maintenance planning and help rental companies with accurate charging. Technical alerts and maintenance history records help you manage your machines.

## Machine monitoring.

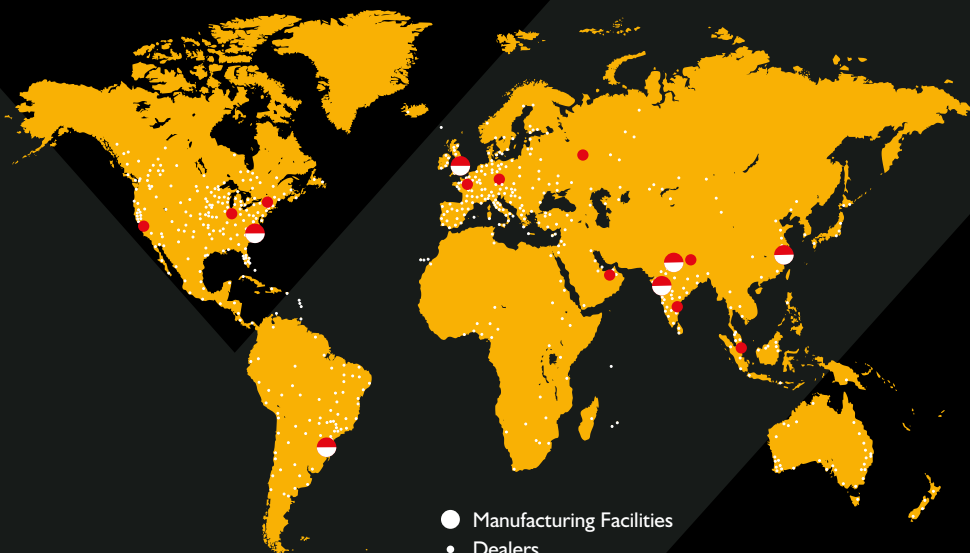
Keep track of what your machine's been doing throughout the day with regular performance reports accessed via the LiveLink website.

## Machine security.

LiveLink's real time geo-fencing alerts tell you when machines move out of predetermined zones. Curfew alerts inform you of unauthorised usage. JCB have a history of working with the police to recover stolen machines and tackle fuel theft.







- Manufacturing Facilities
- Dealers
- Parts Distribution Centres

**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 18 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 offers comprehensive extended warranties 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 LIVELINK and JCB extended warranty packages may not be available in your region, so please check with your local dealer.*



1



2



3

# Innovating Sustainable Solutions

## **Our philosophy:**

Looking after the planet we help to shape.

In a world that's increasingly under pressure from environmental degradation, finding innovative and sustainable solutions to our customers' needs and managing the resources that go into our products is more important than ever.





### Managing energy.

Our efforts to manage energy use in the UK are achieving excellent results – we've reduced energy consumption since 2013, and associated carbon emissions have fallen by 23% in the same period. This approach to energy management is certainly paying off. We've been Carbon Trust Standard certified since 2011, recognising continued improvements to energy efficiency over time.

### Making machines more efficient.

Since 2010, we've delivered fuel efficiency innovations across our range, the overall effect has been striking. Between 2010 and 2019, we've helped save approximately 2.5 billion litres of diesel fuel (enough to fill 1000 Olympic size swimming pools), and reduced our machines' CO2 emissions by 43%.

### Our cleanest engine yet.

Whether it's our own JCB Diesemax engine or 3rd party supplier, our brand new Stage V engine seamlessly integrates into the latest generation of machines.

We've designed all engines above 19kW with AutoStop, a fuel saving feature that shuts down the machine during inactive use, eliminating unwanted idle time and thus saving fuel.

As legislation drives all machines above 19kW towards fitting a Diesel Particulate Filter (DPF), we've designed our solution to provide a regeneration process without any performance interruption and, if required, a manual regeneration can be scheduled. All designed to maximise uptime.

**STAGE V**

### Evolving Engines.

Since 1999, our engines have evolved from Stage I emissions compliance through to our brand new Stage V engines, with great results. We now produce 98% less particulate matter (PM) and 97% less nitrogen oxides (NOx) than one produced in 1999, which is a huge step forward towards near zero emissions.

### Road to Zero Emissions.

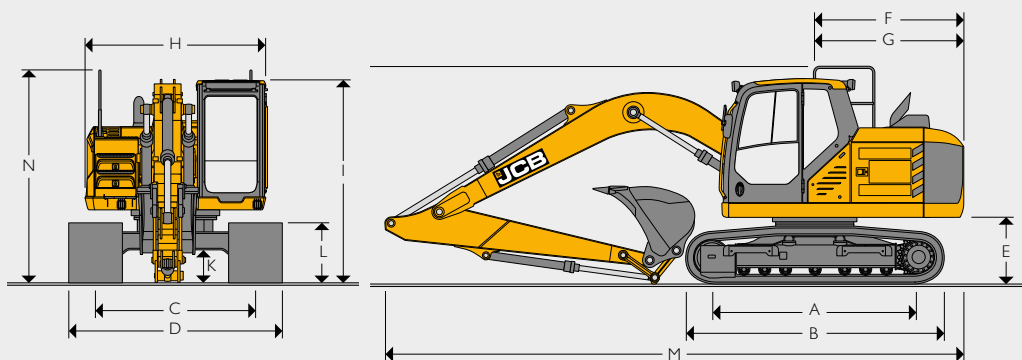
There is a new zero emissions sector emerging and it's emerging very quickly. It's for this reason we have put ourselves at the forefront of alternative power technologies and developed the first ever electric JCB mini excavator.

With urbanisation, machines are operating more closely to people as well as working underground, indoors, and noise and emission restrictive environments.





## STATIC DIMENSIONS



## STATIC DIMENSIONS

| Model          |   |    | I31X LC |      |      |
|----------------|---|----|---------|------|------|
| A              | Track length on ground                    | mm | 2865    |      |      |
| B              | Undercarriage overall length              | mm | 3590    |      |      |
| C              | Track gauge                               | mm | 1990    |      |      |
| D              | Width over tracks (500 mm trackshoes)     | mm | 2490    |      |      |
| D              | Width over tracks (600 mm trackshoes)     | mm | 2590    |      |      |
| D              | Width over tracks (700 mm trackshoes)     | mm | 2690    |      |      |
| D              | Width over tracks (850 mm trackshoes)     | mm | 2840    |      |      |
| E              | Counterweight clearance                   | mm | 905     |      |      |
| F              | Tail length                               | mm | 2103    |      |      |
| G              | Tail swing radius                         | mm | 2150    |      |      |
| H              | Width of upper superstructure             | mm | 2490    |      |      |
| I              | Height over cab                           | mm | 2866    |      |      |
| I              | Height over cab (vandal guard – optional) | mm | 3172    |      |      |
| I              | Height over cab (FOPS guard)              | mm | 2965    |      |      |
| J              | Height over grab rail                     | mm | 3002    |      |      |
| K              | Ground clearance                          | mm | 425     |      |      |
| L              | Track height                              | mm | 811     |      |      |
|                |   |    | Mono    |      |      |
| Dipper lengths |   |    | 2.5m    | 2.7m | 3.0m |
| M              | Transport length                          | mm | 7659    | 7654 | 7604 |
| N              | Transport height                          | mm | 3002    | 3209 | 3289 |

## ENGINE

|                     |  |
|---------------------|--|
| Model               | JCB Dieselmix 430 TCA EU Stage V Compliant   |
| Type                | 4-stroke, 4-cylinder in-line, common rail, direct injection, turbocharged and intercooled diesel |
| Rated power         | 55kW (74 hp) at 2200rpm (ISO 14396)  |
| Piston displacement | 3.0 Litres   |
| Air filtration      | Dry element with secondary safety element and in cab warning indicator                           |
| Starting system     | 24 volt  |
| Batteries           | 2 x 12 volt  |
| Alternator          | 24V 100A   |
| Maximum torque      | 400Nm  |
| Bore and stroke     | 92mm & 112mm   |

## SWING SYSTEM

|              |   |
|--------------|---|
| Swing motor  | Axial piston  |
| Swing brake  | Hydraulic braking plus automatic spring applied disc type parking brake |
| Swing torque | 36.0 kNm  |
| Swing speed  | 13.1 rpm  |
| Swing gear   | Large diameter, internally toothed fully sealed grease bath lubricated  |
| Dipstick     | Remote  |

## TRACK DRIVE

|                 |  |
|-----------------|--|
| Type            | Fully hydrostatic, two speed with autoshift                                |
| Travel motors   | Variable swash axial piston type, fully guarded within undercarriage frame |
| Final drive     | Planetary reduction, bolt-on sprockets                                     |
| Service brake   | Hydraulic counter balance valve  |
| Park brake      | Disc type, spring applied, automatic hydraulic release                     |
| Gradeability    | 70% (35 deg) continuous  |
| Travel speed    | LC   |
|                 | High – 6.6 km/h  |
|                 | Low – 3.8 km/h   |
| Tractive effort | 116 kNm  |



**HYDRAULIC SYSTEM****Pumps**

|                         |   |
|-------------------------|---|
| Main pumps              | 2 variable displacement axial piston type |
| Maximum flow            | 2 X 130 l/min                             |
| Servo pump              | Gear type                                 |
| Servo pump maximum flow | 30 l/min                                  |

**Control valve**

A combined four and five spool control valve with auxiliary service spool as standard

**Relief valve settings**

|                  |         |
|------------------|---------|
| Boom/Arm/Bucket  | 314 bar |
| With power boost | 343 bar |
| Swing circuit    | 279 bar |
| Travel circuit   | 343 bar |
| Pilot control    | 40 bar  |

**Filtration**

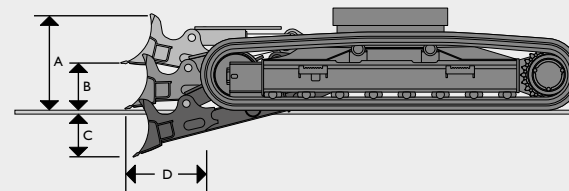
|                         |   |
|-------------------------|---|
| In tank                 | 105 micron, suction strainer            |
| Main return line        | 10 micron, glass fibre element          |
| Pilot drain line        | 10 micron, glass fibre element          |
| Pilot line              | 10 micron, glass fibre element          |
| Hydraulic hammer return | 10 micron, reinforced microform element |

**Hydraulic cylinders**

|        | Quantity | Bore mm | Rod diameter mm |
|--------|----------|---------|-----------------|
| Boom   | 2        | 100     | 75              |
| Arm    | 1        | 115     | 80              |
| Bucket | 1        | 95      | 70              |

**SERVICE CAPACITIES**

|                                  |        |      |
|----------------------------------|--------|------|
| Fuel tank                        | Litres | 260  |
| Engine coolant                   | Litres | 19.7 |
| Engine oil                       | Litres | 14   |
| Swing reduction gear             | Litres | 2.2  |
| Track reduction gear (each side) | Litres | 3.5  |
| Hydraulic system                 | Litres | 126  |
| Hydraulic tank                   | Litres | 133  |

**OPTIONAL BLADE**

|   |                            |    |      |
|---|----------------------------|----|------|
| A | Blade height               | mm | 901  |
| B | Blade lift above ground    | mm | 448  |
| C | Blade cut below ground     | mm | 508  |
| D | Blade forward of track     | mm | 412  |
|   | Dozer width – 500mm tracks | mm | 2490 |
|   | Dozer width – 600mm tracks | mm | 2610 |
|   | Dozer width – 700mm tracks | mm | 2710 |

**Additional machine weight with blade**

|  |              |    |     |
|--|--------------|----|-----|
|  | 500mm tracks | kg | 806 |
|  | 600mm tracks | kg | 814 |
|  | 700mm tracks | kg | 821 |

**SOUND LEVEL**

|  |           |
|--|-----------|
| Sound level in cab according to ISO 6396                               | 67 dB LpA |
| External sound level according to ISO 6395 and EU Directive 2000/14/EC | 99 dB LwA |

SPECIFICATION I31X

| UNDERCARRIAGE                   |  |       |       |       |
|---------------------------------|--|-------|-------|-------|
| Carriage options                | LC – Long Carriage.  |       |       |       |
| Construction                    | Fully welded 'X' frame type with central bellyguarding and sloping sidemembers with dirt relief holes under top rollers. |       |       |       |
| Recovery point                  | Front and rear.  |       |       |       |
| Track type                      | Sealed and lubricated.   |       |       |       |
| Upper and lower rollers         | Heat treated, sealed and lubricated.   |       |       |       |
| Track adjustment                | Grease cylinder type.  |       |       |       |
| Track idler                     | Sealed and lubricated, with spring cushioned recoil.   |       |       |       |
| Track shoe options              | 500mm  | 600mm | 700mm | 850mm |
|                                 | •▲■  | •■    | •     | •     |
| No. of upper rollers (per side) | 2  |       |       |       |
| No. of lower rollers (per side) | 7  |       |       |       |
| No. of track guides (per side)  | 2 optional   |       |       |       |
| No. of track shoes (per side)   | 44   |       |       |       |

TRIPLE GROUSER ●  
GEOGRIP ▲  
RUBBER SHOES ■

| BUCKET AND ARM COMBINATION       |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
|----------------------------------|----|-----------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|-------------------|------|-----------|------|------|------|------|------|--|
| Bucket options                   |    | GP Bucket |      |      |      |      |      |      |      | HD Bucket |      |      |      |      |      | Ditch Maintenance |      | HD Bucket |      |      |      |      |      |  |
| Bucket width                     | mm | 450       | 600  | 700  | 800  | 900  | 1000 | 1250 | 1350 | 458       | 610  | 762  | 915  | 991  | 1219 | 1524              | 1836 | 600       | 700  | 800  | 1000 | 1200 | 1300 |  |
| Bucket capacity                  | m³ | 0.21      | 0.35 | 0.42 | 0.50 | 0.54 | 0.66 | 0.81 | 0.89 | 0.20      | 0.26 | 0.34 | 0.43 | 0.50 | 0.61 | 0.65              | 0.79 | 0.35      | 0.42 | 0.50 | 0.66 | 0.81 | 0.89 |  |
| Bucket weight                    | kg | 307       | 342  | 366  | 401  | 425  | 460  | 506  | 542  | 275       | 310  | 357  | 402  | 424  | 493  | 475               | 535  | 336       | 364  | 402  | 455  | 520  | 547  |  |
| I31X LC                          |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 2.5 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 2.7 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 3.0 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| I31X LCD                         |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 2.5 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 2.7 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |
| 3.0 m Quickhitch (No Quickhitch) |    |           |      |      |      |      |      |      |      |           |      |      |      |      |      |                   |      |           |      |      |      |      |      |  |

□ = Suitable for general excavating materials up to 1800kg/m³.  
■ = Suitable for grading and loading materials up to 1500kg/m³.  
● = Suitable for light excavating materials up to 1200kg/m³.  
X = Not recommended.

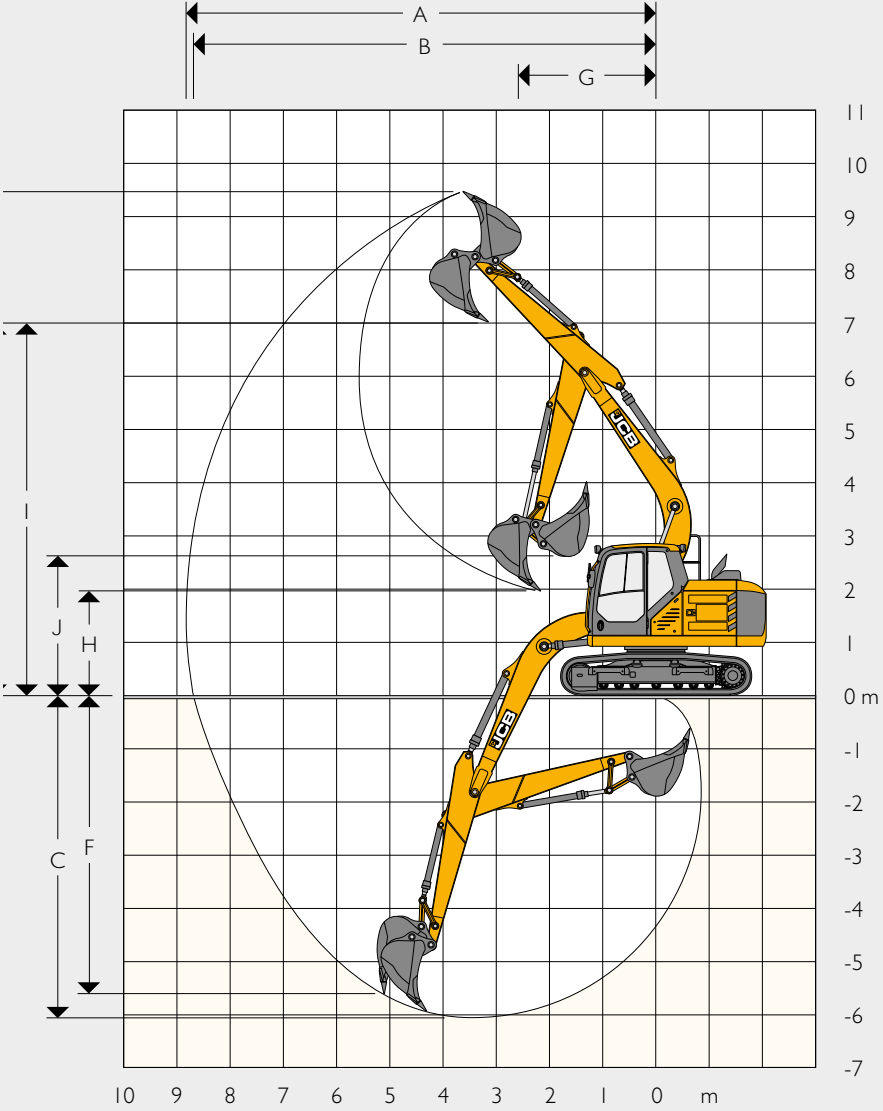
These recommendations are given as a guide based on typical operating conditions.  
Please contact your distributor for the correct selection of buckets and attachments to suit the application.

| WEIGHTS AND GROUND BEARING PRESSURES   |                    |             |             |             |
|--|--------------------|-------------|-------------|-------------|
| Figures include standard 442kg bucket, operator, full fuel tank and 2.5m dipper. |                    |             |             |             |
|  |                    | 500mm shoes | 600mm shoes | 700mm shoes |
| I31 LC Monoboam  |                    |             |             |             |
| Machine weight   | kg                 | 14388       | 14604       | 14819       |
| Ground bearing pressure  | kg/cm <sup>2</sup> | 0.50        | 0.42        | 0.37        |



WORKING RANGE – MONOBOOM 4.7M

| Dipper length: |                                   |         | 2.5m | 2.7m | 3.0m |
|----------------|-----------------------------------|---------|------|------|------|
| A              | Maximum digging reach             | mm      | 8385 | 8564 | 8841 |
| B              | Maximum digging reach (on ground) | mm      | 8240 | 8422 | 8704 |
| C              | Maximum digging depth             | mm      | 5564 | 5764 | 6063 |
| D              | Maximum digging height            | mm      | 9164 | 9288 | 9503 |
| E              | Maximum dumping height            | mm      | 6684 | 6806 | 7007 |
| F              | Maximum vertical wall cut depth   | mm      | 5098 | 5295 | 5592 |
| G              | Minimum swing radius              | mm      | 2212 | 2506 | 2575 |
| H              | Minimum dumping height            | mm      | 2393 | 2267 | 1975 |
| I              | Maximum swing height              | mm      | 6707 | 6833 | 7034 |
| J              | Minimum swing height              | mm      | 3108 | 2922 | 2630 |
| K              | Bucket struck radius              | mm      | 1248 | 1248 | 1248 |
| L              | Bucket rotation                   | degrees | 182  | 182  | 182  |
|                | Maximum dipper tearout            | Kgf     | 6587 | 6445 | 5986 |
|                | Maximum bucket tearout            | Kgf     | 9432 | 9432 | 9432 |



## STANDARD/OPTIONAL EQUIPMENT

## ENGINE

|   |   |
|---|---|
| JCB, Stage V compliant, water cooled diesel turbocharged after cooled electronic 4 cylinder 3 litre engine. | • |
| Start pre-heat  | • |
| One touch idle  | • |
| Auto-idle function  | • |
| Automatic engine shutdown   | • |
| Fan guard   | • |
| Heavy duty batteries  | • |
| Fuel filter with sedimenter   | • |
| Electronic engine control   | • |
| Fuel cooler   | • |
| Refuelling pump   | • |
| Additional fuel filter with water separator   | • |
| Reversing fan   | + |

## SAFETY

|   |   |
|---|---|
| Side guard rails on upper structure and steps                       | • |
| Rear view camera  | • |
| Battery Isolator  | • |
| Key   | • |
| Lockable fuel cap   | • |
| Lockable hydraulic tank cap   | • |
| Work lights (Level 1 – 2 revolving frame, 2 boom mounted)           | • |
| Roll over protective structure (ROPS)                               | • |
| Travel alarm  | • |
| Additional Light Options (Levels 2 & 3 available in halogen or LED) | + |
| White noise alarm   | + |
| Cab Guard   | + |
| Green beacon linked to seat belt                                    | + |
| Fire extinguisher (1kg Powder)                                      | + |
| Vandal guards   | + |
| Chevron counterweight   | + |
| Rotating roof beacon  | + |
| 2 x counterweight beacons   | + |
| Twin camera   | + |
| 360 degree camera   | + |
| Full upper surrounding handrails                                    | + |
| Arm limiter   | + |

## CAB &amp; INTERIOR

|   |   |
|---|---|
| Sound-insulated and 4 dual shock mounted cab  | • |
| Opening front window and removable lower front window   | • |
| Upper door sliding glass in 2 directions  | • |
| Upper windscreen wiper  | • |
| 4 button joysticks  | • |
| Travel pedals and T handle levers   | • |
| 2 foot rests  | • |
| Immobiliser   | + |
| Loudspeakers and connection for radio   | • |
| Standard cab filtration   | • |
| Electric dual tone horn   | • |
| Interior cab light  | • |
| 3 x 12v sockets   | • |
| 7" colour monitor   | • |
| Retractable 2" seatbelt   | • |
| Fixed roof glass  | • |
| Roof blind  | • |
| Cool box  | • |
| Cup holder  | • |
| Climate Control   | • |
| Rear window blind   | • |
| 3" seat belt  | + |
| 2" hi vis seat belt   | + |
| 3" hi vis seat belt   | + |
| Front blind   | • |
| Side window blind   | • |
| Bluetooth radio (Linked to pod controls and screen)   | • |
| Carbon air filter   | + |
| Deluxe seat: Heated, adjustable air suspension seat with adjustable headrest.   | • |
| Super deluxe seat: Heated and air ventilation, adjustable air suspension seat with adjustable head rest and electric lumbar support | + |
| Rain guard visor  | + |
| Dual front wiper  | + |
| <b>UNDERCARRIAGE</b>  |   |
| Greased and sealed track links  | • |
| Twin track guards   | + |
| 600, 700, 800, 850mm triple grouser shoe  | + |
| 500, 600, 700 dozer   | + |

## HYDRAULIC SYSTEM

|   |   |
|---|---|
| Bucket regeneration   | • |
| One touch power boost   | • |
| Cushion control   | • |
| Cylinder cushioning and contamination seals                           | • |
| 2 speed track motors  | • |
| Oil cooler  | • |
| 10 attachment settings through the display                            | • |
| High, merged, medium and low flow options (shut off taps as standard) | + |
| Advanced tool select to control flow and pressure                     | + |
| Proportional control joystick sliders with electronic foot pedal      | + |
| Bio oil   | + |
| Panolin oil   | + |
| Quickhitch pipework   | + |
| Hydraulic quickhitch  | + |
| ISO/SAE change over   | + |
| SAE to BSP converters on high flow auxiliary pipework                 | + |
| Quick release couplings   | + |
| Hose burst check valves (Boom, Arm)                                   | + |
| Twin HBCV For bucket cylinder   | + |
| Auxiliary vent to tank  | + |
| Attachment case drain   | + |

## DIG END

|                                |   |
|--------------------------------|---|
| Grouped greasing               | • |
| Auto greasing                  | + |
| Dippers 2.5m, 2.7m, 3.0m       | + |
| HD dipper 2.5m, 3.0m           | + |
| Lifting hook tipping link      | + |
| Lifting shackle tipping link   | + |
| Bucket ram guard               | + |
| Guards for boom mounted lights | + |











## OTHER

|  |   |
|--|---|
| Ground level visible hour meter                      | • |
| Large toolbox  | • |
| Livelink telematics                                  | • |
| Wide core radiators                                  | + |
| HD slew bearing seal                                 | + |
| 10mm heavy duty plates for upper and lower structure | + |
| Flyscreen (Cooling Pack + Condenser)                 | + |
| Guards for work lights                               | + |
| Service bay & access lighting                        | + |
| GPS systems  | + |











**STANDARD** •  
**OPTIONAL** +













LIFT CAPACITIES – DIPPER LENGTH: 2.5M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET I31X LC MONO

| Reach             | 3m  |   | 4m  |   | 5m  |   | 6m  |   | Capacity at Max. Reach  |   |      |
|-------------------|---|---|---|---|---|---|---|---|---|---|------|
|                   |  |  |  |  |  |  |  |  |  |  |      |
| Load Point Height | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | mm   |
| 6m                |   |   | 2776*   | 2776*   | 2975*   | 2975*   |   |   | 2230*   | 2230*   | 5539 |
| 4.5m              |   |   | 3173*   | 3173*   | 3086*   | 3086*   | 3071*   | 2520  | 2065*   | 2065*   | 6484 |
| 3m                | 5341*   | 5341*   | 4192*   | 4192*   | 3628*   | 3218  | 3322*   | 2441  | 2049*   | 1912  | 6984 |
| 1.5m              | 7036*   | 6272  | 5387*   | 4138  | 4306*   | 3022  | 3194  | 2332  | 2147*   | 1802  | 7137 |
| 0m                | 6455*   | 5975  | 5286  | 3914  | 4145  | 2877  | 3453  | 2243  | 2383*   | 1829  | 6965 |
| – 1.5m            | 8294*   | 5946  | 5366  | 3844  | 4238  | 2819  | 3454  | 2213  | 2865*   | 2024  | 6442 |
| – 3m              | 7287*   | 6056  | 5598*   | 3898  | 3757  | 2866  |   |   | 3251  | 2564  | 5468 |

LIFT CAPACITIES – DIPPER LENGTH: 2.7M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET I31X LC MONO

| Reach             | 3m  |   | 4m  |   | 5m  |   | 6m  |   | Capacity at Max. Reach  |   |      |
|-------------------|---|---|---|---|---|---|---|---|---|---|------|
|                   |  |  |  |  |  |  |  |  |  |  |      |
| Load Point Height | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | mm   |
| 6m                |   |   |   |   | 2779*   | 2779*   |   |   | 2329*   | 2329*   | 5770 |
| 4.5m              |   |   | 2959*   | 2959*   | 2926*   | 2926*   | 2924*   | 2528  | 2173*   | 2095  | 6680 |
| 3m                | 4964*   | 4964*   | 3979*   | 3979*   | 3479*   | 3226  | 3202*   | 2440  | 2164*   | 1828  | 7167 |
| 1.5m              | 7347*   | 6316  | 5205*   | 4148  | 4180*   | 3020  | 3110  | 2324  | 2267*   | 1724  | 7316 |
| 0m                | 6618*   | 5950  | 5195  | 3897  | 4072  | 2860  | 3397  | 2226  | 2510*   | 1745  | 7148 |
| – 1.5m            | 8335*   | 5890  | 5353  | 3808  | 4220  | 2790  | 3452  | 2184  | 2581  | 1918  | 6640 |
| – 3m              | 7459*   | 5984  | 5698*   | 3848  | 3850  | 2821  |   |   | 3164  | 2390  | 5700 |

LIFT CAPACITIES – DIPPER LENGTH: 3.0M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET I31X LC MONO

| Reach             | 3m  |   | 4m  |   | 5m  |   | 6m  |   | Capacity at Max. Reach  |   |      |
|-------------------|---|---|---|---|---|---|---|---|---|---|------|
|                   |  |  |  |  |  |  |  |  |  |  |      |
| Load Point Height | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | mm   |
| 6m                |   |   |   |   | 2515*   | 2515*   | 2376*   | 2376*   | 2038*   | 2038*   | 6121 |
| 4.5m              |   |   | 2650*   | 2650*   | 2701*   | 2701*   | 2728*   | 2555  | 1913*   | 1913*   | 6985 |
| 3m                | 4421*   | 4421*   | 3673*   | 3673*   | 3271*   | 3259  | 3038*   | 2458  | 1907*   | 1719  | 7451 |
| 1.5m              | 6885*   | 6425  | 4945*   | 4193  | 4005*   | 3040  | 2995  | 2331  | 1995*   | 1624  | 7594 |
| 0m                | 7085*   | 5961  | 5876*   | 3904  | 3974  | 2861  | 3322  | 2221  | 2196*   | 1639  | 7434 |
| – 1.5m            | 8386*   | 5847  | 5336  | 3785  | 4196  | 2770  | 3447  | 2163  | 2232  | 1785  | 6947 |
| – 3m              | 7705*   | 5912  | 5033  | 3800  | 3963  | 2780  | 3089  | 2196  | 2968  | 2173  | 6055 |













Lift capacity front and rear.













Lift capacity full circle.

- Notes:
1. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked\* are based on hydraulic capacity.
  2. Lift capacities assume that the machine is on firm, level ground.
  3. Lift capacities may be limited by local regulations. Please refer to your dealer.

| LIFT CAPACITIES – DIPPER LENGTH: 2.5M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET |   |   |   |   |   |   |   |   |   |   | I3IX LCD MONO |
|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Reach   | 3m  |   | 4m  |   | 5m  |   | 6m  |   | Capacity at Max. Reach  |   |               |
|   |  |  |  |  |  |  |  |  |  |  |               |
| Load Point Height   | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | mm            |
| 6m  |   |   | 2776*   | 2776*   | 2975*   | 2975*   |   |   | 2230*   | 2230*   | 5539          |
| 4.5m  |   |   | 3173*   | 3173*   | 3086*   | 3086*   | 3071*   | 2647  | 2065*   | 2065*   | 6484          |
| 3m  | 5341*   | 5341*   | 4192*   | 4192*   | 3628*   | 3377  | 3322*   | 2568  | 2049*   | 2018  | 6984          |
| 1.5m  | 7036*   | 6597  | 5387*   | 4352  | 4306*   | 3182  | 3194  | 2458  | 2147*   | 1906  | 7137          |
| 0m  | 6455*   | 6299  | 5286  | 4126  | 4145  | 3037  | 3453  | 2371  | 2383*   | 1936  | 6965          |
| – 1.5m  | 8294*   | 6270  | 5366  | 4058  | 4238  | 2978  | 3454  | 2340  | 2865*   | 2141  | 6442          |
| – 3m  | 7287*   | 6380  | 5598*   | 4112  | 3757  | 3026  |   |   | 3251  | 2706  | 5468          |

| LIFT CAPACITIES – DIPPER LENGTH: 2.7M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET |   |   |   |   |   |   |   |   |   |   | I3IX LCD MONO |
|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Reach   | 3m  |   | 4m  |   | 5m  |   | 6m  |   | Capacity at Max. Reach  |   |               |
|   |  |  |  |  |  |  |  |  |  |  |               |
| Load Point Height   | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | kg  | mm            |
| 6m  |   |   |   |   | 2779*   | 2779*   |   |   | 2329*   | 2329*   | 5770          |
| 4.5m  |   |   | 2959*   | 2959*   | 2926*   | 2926*   | 2924*   | 2655  | 2173*   | 2173*   | 6680          |
| 3m  | 4964*   | 4964*   | 3979*   | 3979*   | 3479*   | 3386  | 3202*   | 2568  | 2164*   | 1930  | 7167          |
| 1.5m  | 7347*   | 6640  | 5205*   | 4362  | 4180*   | 3179  | 3110  | 2450  | 2267*   | 1824  | 7316          |
| 0m  | 6618*   | 6274  | 5195  | 4111  | 4072  | 3020  | 3397  | 2353  | 2164  | 1848  | 7148          |
| – 1.5m  | 8335*   | 6214  | 5353  | 4022  | 4220  | 2950  | 3452  | 2312  | 2581  | 2031  | 6640          |
| – 3m  | 7459*   | 6308  | 5698*   | 4061  | 3850  | 2980  |   |   | 3164  | 2524  | 5700          |

| LIFT CAPACITIES – DIPPER LENGTH: 3.0M, MONOBOOM: 4.7M, TRACKSHOES: 500MM, NO BUCKET |  |  |  |  |  |  |  |  |  |  | I3IX LCD MONO |
|---|--|--|--|--|--|--|--|--|--|--|---------------|
| Reach   | 3m   |  | 4m   |  | 5m   |  | 6m   |  | Capacity at Max. Reach   |  |               |
|   |  |  |  |  |  |  |  |  |  |  |               |
| Load Point Height   | kg   | kg   | kg   | kg   | kg   | kg   | kg   | kg   | kg   | kg   | mm            |
| 6m  |  |  |  |  | 2515*  | 2515*  | 2376*  | 2376*  | 2038*  | 2038*  | 6121          |
| 4.5m  |  |  | 2650*  | 2650*  | 2701*  | 2701*  | 2728*  | 2682   | 1913*  | 1913*  | 6985          |
| 3m  | 4421*  | 4421*  | 3673*  | 3673*  | 3271*  | 3271*  | 3038*  | 2585   | 1907*  | 1817   | 7451          |
| 1.5m  | 6885*  | 6749   | 4945*  | 4407   | 4005*  | 3199   | 2995   | 2458   | 1995*  | 1720   | 7594          |
| 0m  | 7085*  | 6285   | 5066   | 4118   | 3974   | 3020   | 3322   | 2348   | 2196*  | 1737   | 7434          |
| – 1.5m  | 8386*  | 6171   | 5336   | 3999   | 4196   | 2930   | 3447   | 2290   | 2232   | 1892   | 6947          |
| – 3m  | 7705*  | 6236   | 5033   | 4014   | 3963   | 2938   | 3089   | 2323   | 2968   | 2299   | 6055          |



Lift capacity front and rear.



Lift capacity full circle.

#### Notes:

1. Lifting capacities are based on ISO 10567, that is: 75% of minimum tipping load or 87% of hydraulic lift capacity, whichever is the less. Lifting capacities marked\* are based on hydraulic capacity.
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Your nearest JCB dealer

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