



# JCB JS 130<sub>w</sub>



A WORLD CLASS 13 TONNE  
WHEELED EXCAVATOR FROM JCB.

JCB JS130W

# UNRIVALLED ABILITY GENUINE QUALITY

The JCB JS130W is a European-built wheeled excavator that uses proven Japanese design and components to deliver great productivity, reliability and economy.

Power and performance come from the renowned efficiency of the Isuzu engine while the hydraulic control system is one of the most advanced available. Two boom options allow you to match your exact requirements. Plus, with particularly low noise and smoke emissions, the JCB JS130W is ideally suited to working in urban environments.

- The spacious pressed steel cab is designed to give maximum operator comfort. Large safety glass areas and a spring-assisted sliding front window allow excellent all-round visibility. The lower section is removable which, together with numerous opening windows, provides excellent ventilation. An opening roof hatch (or optional roof window) provides good upward visibility.



- The adjustable steering wheel improves cab access and allows better visibility; comfort and control when roading *0.1"* when working on site.

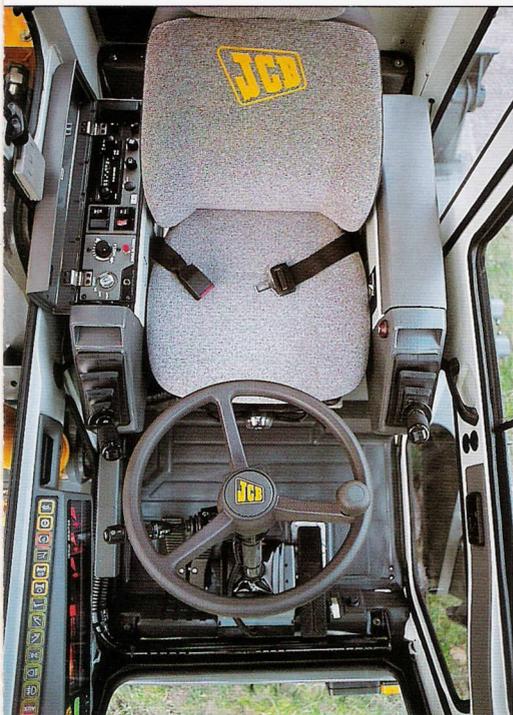
- The highly comfortable suspension seat, fitted as standard, is fully adjustable to ensure the operator remains comfortable and fatigue-free.

- Two speed powershift gearbox can be changed on-the-move for easier machine operation. The combination of this and the load sensing drive motor gives high tractive effort plus excellent road speeds and mobility.

- The large radiator is fitted with a removable fine mesh grille which filters out any debris to ensure maximum cleanliness for more efficient cooling.



- The Isuzu 4 cylinder turbo engine provides 62kW (83hp) to go with its proven reputation for reliability, performance and economy. Low noise and smoke emission levels ensure it's well within R49EC standards. And it has an in-line direct injection fuel system which improves combustion efficiency for lower fuel consumption.



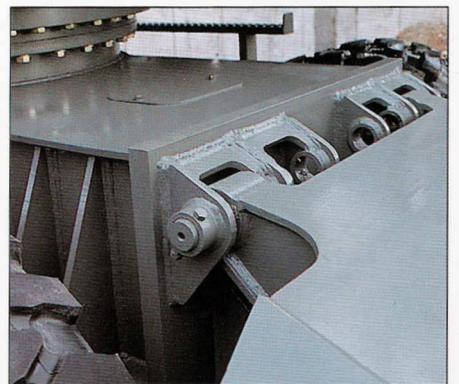


- Enclosed oil-immersed brakes provide safe effective braking whatever the site conditions. They need no adjustment which keeps maintenance to a minimum. And they are sealed from ingress of water and dirt for greater dependability.

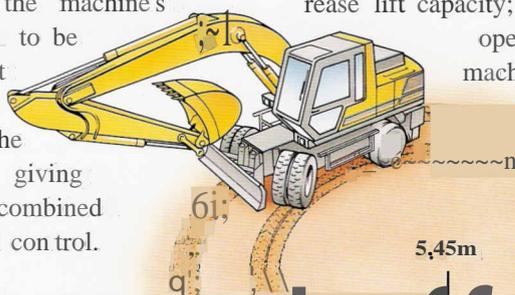
- Boom options provide excellent loadover heights for easy loading of high sided trucks. The Hydraulically Adjustable Boom, with its variable geometry; can work very effectively around obstructions.

- A wide variety of optional hydraulic circuits can be fitted for hammers, auxiliary attachments or grabs. An extensive range of attachments can be used allowing the operator to make the most of the machine's versatility.

- The modular chassis design enables the pin-on fitment of front or rear dozer blade, rear stabilizers and grab stowage bars for flexibility of machine build to suit the job. All combinations of dozer blade and stabilizers are operable from within the cab for maximum convenience.



- Separate forward and reverse pedals enable the machine's travel direction to be changed without the operator's hands leaving the servo levers - giving the utmost in combined excavator/travel control.



- Optional stabilizers, which increase lift capacity; are independently operable to allow the machine to be levelled.



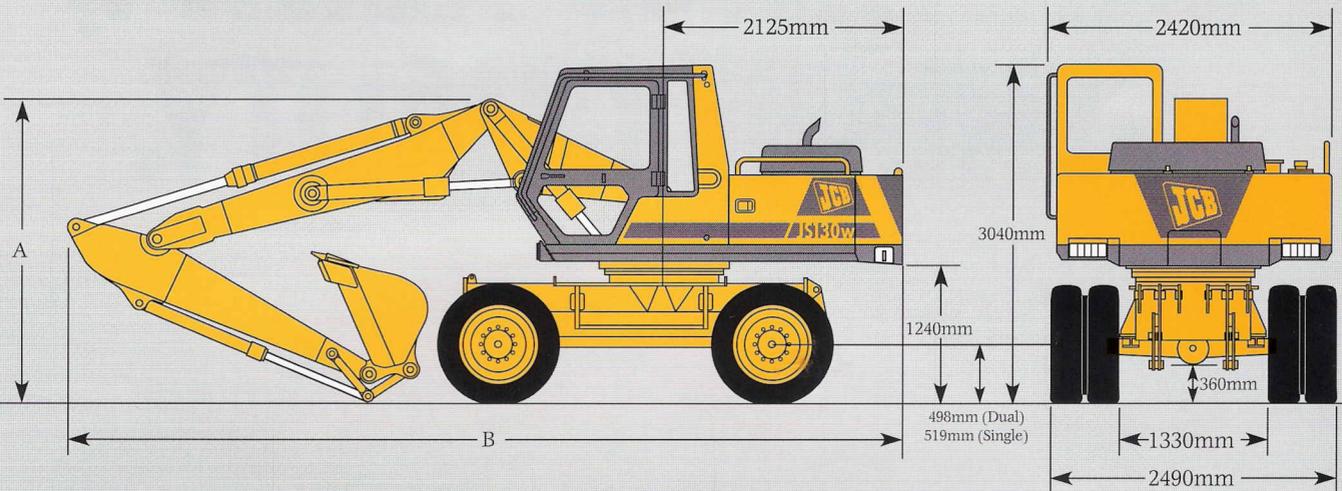
hydraulic system. The selectable work modes match the hydraulic output to the requirements of the job for maximum operating efficiency.

- With the tightest turning circles in its class, the JS130W is unrivalled for the manoeuvrability needed on confined sites.

- Confined site work is not difficult for the JS130W with its small front radius and curved counterweight enabling the machine to operate effectively in limited work spaces; alongside buildings for example.

# GENERAL SPECIFICATION

## STATIC DIMENSIONS



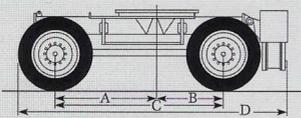
	BOOM	~				~			
		1.96m	2.26m	2.50m	2.91m	1.96m	2.26m	2.50m	2.91m
A	mm	3040	3040	3040	3040	3040	3040	3040	3040
B	mm	7680	7680	7700	7700	7540	7550	7570	7590

## OPERATING WEIGHTS

CHASSIS		<b>tri</b>		<b>(F! (il</b>	~	~
~	kg	12,350	12,790	13,230	13,770	14,110
~	kg	12,850	13,290	13,730	14,270	14,610

Machine equipped with excavating bucket and dual wheels. For single wheels subtract 400kg.

## CHASSIS OPTIONS

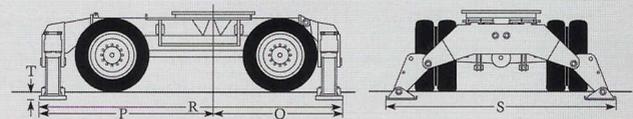


A	Centre of slewing ring to front axle	mm	1500
B	Centre of slewing ring to rear axle	mm	1000
C	Wheelbase	mm	2500
O	Length including rear stabilizers	mm	3950
E	Width over stabilizers (raised)	mm	2480



K	Centre of slewing ring to front stabilizer (laweeel)	mm	2530
L	Length including stabilizers and dazer blade (raised)	mm	4460
M	Ground level to bottom of dazer blade (raised)	mm	450
N	Dazer blade dig depth	mm	130
O	Dazer blade height	mm	500

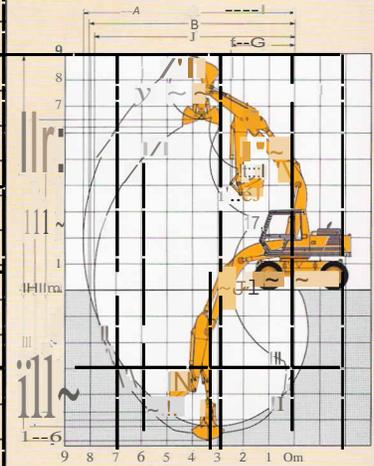
F	Centre of slewing ring to front tyre	mm	1990
G	Centre of slewing ring to rear stabilizer (laweeel)	mm	2090
H	Length including rear stabilizer (raised)	mm	4050
I	Ground level to bottom of rear stabilizer (raised)	mm	450
J	Dazer blade width	mm	2480



P	Centre of slewing ring to front stabilizers	mm	2520
Q	Centre of slewing ring to rear stabilizers	mm	1960
R	Length including front and rear stabilizers	mm	4480
S	Width over stabilizers (laweeel)	mm	3550
T	Stabilizer lift height	mm	130

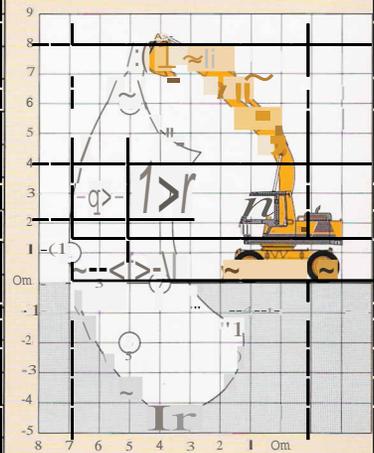
**WORKING RANGES**

BaaM		~				~				
DIPPERARM		1,96m	2,26m	2,50m	2,91m	1,96m	2,26m	2,50m	2,91m	
A	Max digging reach	mm	7780	8080	8270	8540	8280	8570	8800	9135
B	Max digging reach (on ground)	mm	7600	7900	8100	8380	8057	8353	8590	8934
C	Max digging depth	mm	4700	5000	5230	5640	4612	4910	5147	5530
D	Max digging height	mm	8590	8775	8890	8840	9462	9692	9875	10000
E	Max loadover height	mm	6230	6400	6530	6520	7062	7290	7475	7600
F	Max vertical wall cut depth	mm	4370	4760	4900	4940	3830	4125	4360	4705
G	Min. swing radius	mm	2510	2500	2490	2630	2838	2913	2975	3390
H	Max digging depth with grab	mm	5565	5862	6095	6505	5480	5775	6012	6396
I	Max dumping height with grab	mm	5365	5535	5665	5655	6200	6427	6610	6737
J	Max digging reach with grab	mm	8645	8945	9135	9405	9145	9433	9664	10000
	Bucket rotation		184°	184°	184°	184°	184°	184°	184°	184°
	Dipper tearout	kgf	6900	6300	5900	5600	6900	6300	5900	5600
	Bucket tearout	kgf	7600	7600	7600	7600	7600	7600	7600	7600



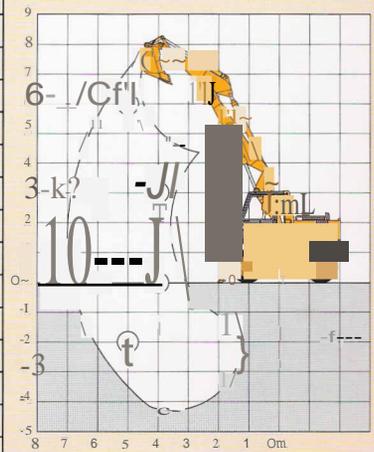
**MONOBOOM LIFT CAPACITIES**

CHASSIS		~		~		~rf		~	
DIPPERARM		2,26m	2,50m	2,26m	2,50m	2,26m	2,50m	2,26m	2,50m
CD	aLE	*2.03	2,45	*2.03	2,59	*2.03	*2.68	*2.03	*2,68
	360°	1,57	1,57	1,94	1,94	*2.03	2,38	*2.03	*2,68
CZ	aLE	*2.72	*2.62	*2.72	*2.62	*2.72	*2.62	*2.72	*2.62
	360°	2.14	2.16	2.60	2.62	*2.72	*2.62	*2.72	*2.62
R	aLE	3.06	3.06	3.24	*3.22	*3.25	*3.22	*3.25	*3.22
	360°	1,96	1,96	2,41	2,41	2,97	2,97	*3.25	*3.22
@	aLE	*2,36	*2,19	*2,36	*2,19	*2,36	*2,19	*2,36	*2,19
	360°	*2,36	*2,19	*2,36	*2,19	*2,36	*2,19	*2,36	*2,19
R	aLE	-	-	-	-	-	-	-	-
	360°	-	-	-	-	-	-	-	-
CID	aLE	*3,64	*3,44	*3,64	*3,44	*3,64	*3,44	*3,64	*3,44
	360°	*3,64	*3,44	*3,64	*3,44	*3,64	*3,44	*3,64	*3,44
J	aLE	*4,65	*4,80	*4,65	*4,80	*4,65	*4,80	*4,65	*4,80
	360°	3,55	3,57	4,41	4,42	*4,65	*4,80	*4,65	*4,80



**HYDRAULICALLY ADJUSTABLE BOOM LIFT CAPACITIES**

CHASSIS		~		~!		~		~	
DIPPERARM		2,26m	2,50m	2,26m	2,50m	2,26m	2,50m	2,26m	2,50m
CD	aLE	2.35	2.35	2.50	2.50	*2,59	*2,59	*2,59	*2,59
	360°	1,46	1,46	1,83	1,83	2,28	2,29	*2,59	*2,59
CZ	aLE	*2.99	*2.94	*2.99	*2.94	*2.99	*2.94	*2.99	*2.94
	360°	2.02	2.03	2,48	2.50	*2.99	*2.94	*2.99	*2.94
R	aLE	2.93	2.93	*3.05	*3.07	*3.05	*3.07	*3.05	*3.07
	360°	1,82	1,81	2,27	2,27	2,84	2,84	*3.05	*3.07
@	aLE	*3.00	*2.90	*3.00	*2.90	*3.00	*2.90	*3.00	*2.90
	360°	*3.00	*2.90	*3.00	*2.90	*3.00	*2.90	*3.00	*2.90
R	aLE	-	-	-	-	-	-	-	-
	360°	-	-	-	-	-	-	-	-
CID	aLE	*4.50	*4,38	*4.50	*4,38	*4.50	*4,38	*4.50	*4,38
	360°	3.81	3.88	*4.50	*4,38	*4.50	*4,38	*4.50	*4,38
J	aLE	*4.11	*4,21	*4.11	*4,21	*4.11	*4,21	*4.11	*4,21
	360°	3.29	3.30	*4.11	4.15	*4.11	*4,21	*4.11	*4,21



Unit: 1000kg

aLE = Lift capacity over least stable end. 360° = Lift capacity full circle.

Notes: 1. Lifting capacities are based on the ISA standard, 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, stabilized and equipped with twin tyres, an approved lifting point and bucket.

STANDARD EXCAVATING BUCKETS		
t5l	~	WEIGHT
cu.m	mm	kg
0.20	500	305
0.27	600	390
0.39	750	420
0.51	900	445
0.59	1000	490
0.67	1100	520
0.75	1200	555

QUICKHITCH EXCAVATING BUCKETS		
t5l	~	WEIGHT
cu.m	mm	kg
0.27	500	260
0.34	600	300
0.42	750	330
0.50	900	350
0.60	1000	385
0.70	1100	420

DIGGING GRABS					
1	6	~	~1	11	WEIGHT
cu.m	mm	mm	mm	mm	kg
0.15	300	1465	1290	1590	560
0.20	400	1465	1290	1590	570
0.25	500	1465	1290	1590	580
0.30	600	1465	1290	1590	590
0.35	700	1465	1290	1590	600
0.40	800	1465	1290	1590	610

When grab is used a suspension link is required. The additional length of the link should be taken into account.

ENGINE
<p>Model: Isuzu 4BDI PTA-05</p> <p>Type: Water cooled, 4-stroke, 4-cylinder in-line, direct injection, turbocharged diesel.</p> <p>Net Power (SAE J1349 &amp; 80/1269/EC) 62kW (83hp) at 2200 rev/min.</p> <p>Gross Power 64kW (86hp)</p> <p>Piston displacement 3.85litres (235 cujn.)</p> <p>Bore/stroke 102mm/118mm (4.0 in/4.6 in)</p> <p>Air filtration: Dry element with safety element and in-cab warning indicator.</p>

EXCAVATOR END
<p>Monoboam or hydraulically adjustable boom with choice of dipper lengths to match the requirements of reach, lift capacity and tearout.</p> <p>Bucket tipping links: fabricated type with choice of 1 tonne lift, max capacity lift and no-lift point - with optional link stowage lock (for grabwork)</p>

CAB
<p><b>Structure</b></p> <p>Cab frame is a pressed steel structure conforming to ISO dimensional standards and is hydraulically damped anti-vibration mounted. Safety glass windscreen, tinted side and rear windows plus roof hatch allow for ventilation. Optional opening polycarbonate roof window and rain guard provide continuous upward visibility whilst minimising rain ingress.</p> <p><b>Dimensions</b></p> <p>945mm wide, 1625mm high.</p> <p>Equipment comprises: High comfort, fully adjustable suspension seat, independently adjustable sliding armrests and serve hand controllers for fatigue-free all-day operation. Non-slip steps and handrails are provided for cab access.</p> <p><b>Noise Levels</b></p> <p>Interior noise level: 74 LpA</p> <p>External noise level: 101 LWA, in compliance with EC regulations.</p>

CONTROLS
<p><b>Excavator:</b> serve controls, to ISO control pattern. give easy operation of boom/bucket and dipper/swing. Levers are mounted in slideable armrests which are independently adjustable to the seat. The left hand lever incorporates the one-touch decelerator and horn buttons and the right hand lever has a two-way switch for auxiliary service operation. Raising of the left hand armrest isolates all controls. Separate panel mounted switch isolates excavator controls only - for road travel.</p> <p>The hydraulic boom adjustment rams are operated via in-floor mounted pedals (also used for forward/reverse drive) after selecting the panel-mounted changeover switch.</p> <p><b>Axle locks:</b> to lock-out front axle oscillation. Choice of operation provided - either directly via panel mounted switch or in conjunction with footbrake operation.</p> <p><b>Dozer blade:</b> operated via right hand serve lever following selection of panel mounted switch.</p> <p><b>Stabilizers:</b> left and right stabilizers operable by the right hand servo lever following selection of one or both panel mounted switches enabling combined or independent stabilizer operation from within the cab.</p> <p><b>Travel:</b> forward/reverse drive selection via separate floor mounted control pedals. Effective hydrostatic braking available by deselection of drive pedal.</p> <p>Gear change is operated via floor mounted button allowing on-the-move gear change. The automatic speed change of the drive motor can be limited to low speed only by a panel mounted switch for fine control over rough terrain.</p> <p>Optional creep speed reduces travel and excavator speeds to give fine control at full engine speed.</p> <p><b>Brakes:</b> wheel brakes are footpedal operated with lock-down latch for use when excavating/lifting. A panel mounted switch operates the parkbrake.</p> <p><b>Steering:</b> 'soft-touch', open-spoked steer wheel mounted on adjustable slimline steer column for maximum visibility when excavating, ease of cab access and most comfortable driving position.</p> <p><b>Lights and Wipers:</b> side lights, head lights and fog light are panel switch operated with turning indicators selectable via steer column mounted stalk along with wash/wipe, intermittent wipe and warning horn. Reversing lights automatically selected.</p>

ELECTRICS
<p>Starting system 24V</p> <p>Batteries 2 x 12V Heavy duty</p> <p>Alternator 24V, 40 ampere</p> <p>Includes key operated isolator, full road lights and two working lights. Additional rear and cab roof mounted work lights optional.</p> <p>Mainframe mounted plug-in power socket fitted for rotating beacon/inspection lamp operation. Refuelling pump optional.</p>

INSTRUMENTS
<p>The SCM (Service Check Maintenance) monitor gives audible and visual warnings of engine and hydraulic overheat, low engine oil pressure, air intake restriction, low battery charge, engine coolant level, 101 brake accumulator and steering pressure.</p> <p>Indicator lights monitor swing brake, engine preheat, engine and hydraulic warm-up, H/S/L work modes, (F) fine control mode, and headbeam and turn indicator selection.</p> <p>Also, digital doek fitted and LED gauges continuously monitor fuel level (with low fuel warning), engine temperature and hydraulic oil temperature.</p> <p>H/S/L selects pump displacement to suit digging condition, ie (H) heavy, (S) standard or (L) light, for greater operating economy in easy dig situations.</p> <p>Built into the arm rest for "hidden-from-view" vandal protection, the following are incorporated:-</p> <ol style="list-style-type: none"> <li>1. Start/stop engine pre-heat switch</li> <li>2. Check/stop-alarm control</li> <li>3. Engine speed dial</li> <li>4. Engine shutdown switch</li> <li>5. Excavator controls isolator switch</li> <li>6. Horn tone selection switch</li> <li>7. Radio</li> <li>8. Work lights switch</li> <li>9. Heater switch</li> <li>10. H/S/L mode select switch</li> <li>11. Idle/Fine mode select switch</li> <li>12. CAPS Manual back-up switch</li> <li>13. Caps Manual throttle switch</li> </ol> <p>Also fitted to the armrest consoles are the hazard warning switch, the cigar lighter and (where fitted) a slew brake lock switch.</p>

# GENERAL SPECIFICATION

## CHASSIS

**Structure:** high strength welded box section with tapered form for maximum front steering and axle oscillation angles. Modular design provides pin-on front or rear mounted dozer blade, rear mounted stabilizers and grab stowage bar. Front stabilizers are fully welded-on units.

Large capacity toolbox standard (1100mm x 430mm x 330mm), second additional toolbox optional.

### Chassis Options

**Dozer Blade:** front or rear pin mount, operated via twin ram parallellinkage, full width curved blade with cutting edge plus flat base for machine stabilization. Rams have lock valves for hose-burst protection and prevent downward drift of blade when travelling.

**Stabilisers:** front welded-on or rear pin mount, independently operable outrigger type to enable machine levelling on uneven ground and lift wheels deal' of the ground. Cylinder mounted lock valves provide hose-burst protection and guards over piston rods fitted for dirt/debris protection.

**Grab Stowage:** heavy duty, pin mounted stowage bar on either chassis, front dozer blade or front stabilizer frame.

**Transmission:** hydrostatic drive via piston motor and powershift transmission. Motor is load-sensing, variable displacement type with two selectable speed/torque ranges. The powershift transmission has two speed ratios with on-the-move speed change. High speed downshift prevention and downhill overspeed valve provided for transmission and operator protection.

	Site range	Road range
Travel speed: Low ratio	5kph	7kph
High ratio	17kph	25kph
optional creep speed	2.5kph	

**Axles:** fourwheel drive via compact differentials and planetary hub reduction gears. Front steering axle oscillates for rough ground mobility and has oscillation lock-out via chassis mounted rams for stability when excavating/lifting.

Axle load capacity:	26 tonnes
Axle oscillation:	+/- 8.5 degrees
Gross clearance	360mm

**Steering:** fully hydraulic system; priority valve in main hydraulics feeds the directional control valve and steer ram. Single balanced steer ram gives equal steering lock and is enclosed in front axle casing for protection.

### Turning radius:

To outside of tyres	5.45m
To outer edge of front mounted dozer blade	6.06m

**Brakes:** hydrostatic braking provided via drive motor. A hydraulic, dual circuit brake system with built-in accumulators for safety, operating fully enclosed oil-immersed multi-plate disc brakes (on all four wheels) for long life and low maintenance.

**Parking Brake:** built into the transmission the brake is spring applied, hydraulically released for safety. Also functions as emergency dynamic brake.

## SWING SYSTEM

Swing motor: axial piston type  
Swing Brake: automatic hydraulic braking plus automatic, spring applied disc type parking brake.

Final drive: planetary reduction.

Swing speed: 12.6rpm

Swing gear: large diameter, internally toothed fully sealed and grease bath lubricated.

Swing lock: mechanical pin operable from within the cab for translocation.

## MAIN HYDRAULIC SYSTEM

**System** Load-sensed hydraulic system with twin variable flow piston pumps providing flow-on-demand and swing cut-off function for maximum efficiency. Single piece control valve distributes flow for simultaneous operation of excavator, swing and travel as required. Return oil is cooled via the radiator mounted full size cooler, with bypass when on warm-up, and then to tank via the fine full flow filter. Quick-fit pressure test points fitted as standard.

**CAPS** Computer Aided Power control System includes: engine speed sensing; digging mode selector; selectable boom control modes; manual bypass; one-touch decelerator and machine status monitoring.

**Main pumps:** 2 variable displacement axial piston type

Maximum flow 2x 1391/min

Main circuit pressure 295 bar

Servo pump: gear type

Maximum flow 221/min

Servo pressure 40bar

**Optional Circuits.** Combined hammer/auxiliary: incorporates changeover valve and large bore pipework for single and two-way flow to dipper end. Pipework finishes with flat-face, screw-on self-sealing couplings.

Maximum flow 1391/min

Maximum pressure 295 bar

(pre-set to 175 bar)

**Combined hammer/auxiliary/grab operation:** combined hammer/auxiliary circuit with additional changeover valves and hoses incorporated to deliver bucket ram flow down the dipper end pipes to operate grab rams.

Maximum flow for grab ram operation 1391/min

Maximum pressure for grab ram operation 255 bar

Grab rotation: separate flow control circuit to dipper end for powered grab rotation

Maximum flow 51/min

Maximum pressure 150 bar

**Hydraulic Cylinders:** Double acting type with hardened, chromed piston rods and end cushioning on boom and dipper cylinders.

Load-hold valve fitted to the lift circuit as standard with boom cylinder mounted hose-burst protection valve also optional. Dipper cylinder hose burst protection valve also optional.

## SERVICE CAPACITIES

Fuel tank	240 lt
Engine coolant	178lt
Engine oil	121t
Swing reduction gear	1.71t
Hydraulic system	157lt
Hydraulic tank	83.0 lt
Transmission	3.4 lt
Axle differentials (each)	9.0lt
Hydraulic pumps (each)	0.91lt

## STANDARD /OPTIONAL EQUIPMENT

Worldwide cooling package	Std
Double element air cleaner	Std
Engine fan guard	Std
Cold start preheat	Std
Heavy duty alternator	Std
Electrics isolator	Std
Road lights	Std
Exterior rear view mirrors	Std
Cab and engine soundproofing	Std
Cab heater	Std
Windscreen demister/defroster	Std
Windscreen wash/wipe	Std
Tinted side/rear glass	Std
Opening roof hatch	Std
Suspension seat	Std
Seat belt	Std
Radio, Clock, Interior light	Std
Coat hook	Std
Cigar lighter & ash tray	Std
Removable floor mat	Std
Selectable two level horn	Std
Plug-in power socket	Std
Auxiliary pipework mounting brackets	Std
Q-fit (HSP) pressure test points	Std
Boom holding valve	Std
Upperstructure undercovers	Std
Handrails and non-slip pads/steps	Std
Tool/storage box & toolkit	Std
General purpose buckets	opt
Ditch/grading buckets	opt
Quickhitch adaptor and buckets	opt
Hydraulic hammers	opt
Combined hammer/auxiliary circuit	opt
Bucket to grab operation circuit	opt
Combined hammer/auxiliary/grab circuit	opt
Grab rotation circuit	opt
Hose-burst protection valve - boom	opt
Hose-burst protection valve - dipper	opt
Tipping link with lift point choice	opt
Tipping link with stowage lock	opt
Propshaft guard	opt
Refuelling pump	opt
Additional work lights	opt
Rotating beacon	opt
Sun visor	opt
Opening roof window	opt
Rain guard (cab front)	opt
Overload warning indicator	opt
Fire extinguisher	opt
Additional toolbox	opt
Creep speed	opt
Grapple/attachment	opt

## TYRES

Twins: 10.00 x 20 (16PR) with spacer ring
Singles: 18R x 20 (16PR) (Radials)

Availability may vary according to region. Please consult your local distributor.

# SETTING THE STANDARDS BY WHICH OTHERS ARE JUDGED.

JCB's total commitment to its products and customers has helped it grow from a one-man business into Britain's largest privately owned manufacturer of backhoe loaders, tractors, crawler excavators, wheeled excavators, telescopic handlers, wheeled loaders, rough terrain fork lifts, mini excavators and skid steers.

By making constant and massive investments in the latest production technology; the JCB factory has become one of the most advanced in Europe.

By leading the field in innovative research and design, extensive testing and stringent quality control, JCB machines have become renowned all over the world for performance, value and reliability.

And with a global sales and service network of over 400 distributors and agents, the company exports over 70% of its production to all five continents.

Through setting the standards by which others are judged, JCB has become one of Britain's most impressive success stories.



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