

SPECIFICATION

STAGE V



HYDRADIG | 110W

Operating weight: 11,050 – 12,050kg Engine power: 81kW Maximum roading speed: 40kph



BEST-IN-CLASS VISIBILITY.

The JCB Hydradig 110W provides unrivalled all-round visibility, allowing the operator to see all four wheels, plus a 1m perimeter around the machine at ground level.

Low-level glass allows an all-round unobstructed view, while high power LED worklights as standard provide optimum visibility at night.



GREATER MANOEUVRABILITY.

A tailswing of just 120mm allows working in very confined spaces, while reverse steer as standard, makes working in a single carriageway easy.



ULTIMATE STABILITY.

The JCB Hydradig 110W has a low centre of gravity which provides unrivalled stability, even when digging or lifting from the side.



ULTIMATE VERSATILITY.

Low flow 60l/min and high flow 120l/min auxiliary hydraulic circuits allow the Hydradig to be fitted with a wide range of attachments, making every job possible.



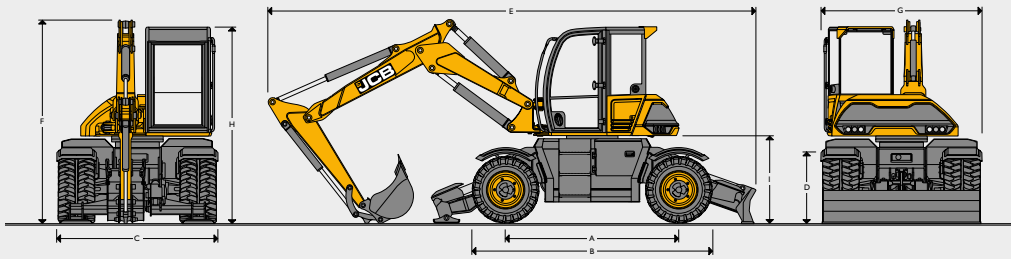
ULTIMATE ADAPTABILITY.

Whether working in urban, rural or highways applications, the JCB Hydradig can be configured to suit all.

ULTIMATE COMFORT.

The JCB CommandPlus cab features a deluxe air suspension seat with heated base, sliding window, climate control and boom suspension as standard, to optimise operator comfort.

STATIC DIMENSIONS



STATIC DIMENSIONS

A	Wheelbase	mm	2650
B	Length over tyres	mm	3689
C	Width over tyres	mm	2420
D	Height over tyres	mm	1016
G	Transport width	mm	2440
H	Height over cab	mm	2988
I	Clearance under counterweight	mm	1319
J	Ground clearance	mm	298

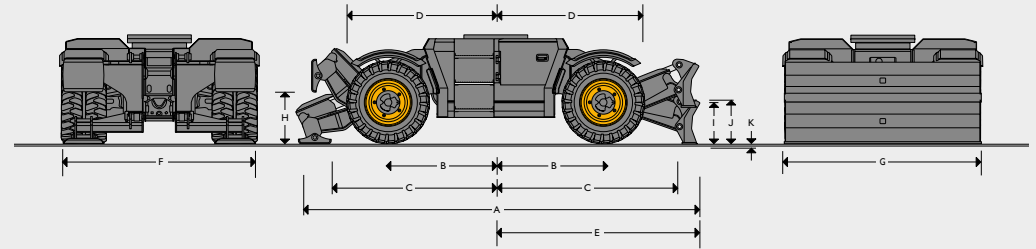
TAB

Dipper lengths		1.65m	2.0m	2.25m
E	Roading length	mm	5899	5899
E	Transport length	mm	7654	7730
F	Roading height	mm	3907	3907
F	Transport height	mm	2988	2988

*Machine is specified with a rear dozer blade. Please check chassis options for alternative specification dimensions.

CHASSIS OPTIONS

Any combination of dozer (parallel/radial), stabiliser or grab stowage bar are available to both front and/or rear of chassis.



STATIC DIMENSIONS

Front axle / rear axle	Oscillating steering axle / rigid steering axle		
Axles load capacity	14 tonnes		
Axles load oscillation	+/- 8 degrees		
Transmission	Hydrostatic drive via piston motor and stepless transmission		
A	Overall length		
	Rear stabiliser only	mm	4119
	Rear dozer only (raised)	mm	4342
	Front dozer and rear stabiliser (raised)	mm	4773
	Front and rear stabiliser (raised)	mm	4550
B	Centre of slew ring to front and rear axle	mm	1325
C	Centre of slew ring to front stabiliser (rear stabiliser)	mm	2275
D	Centre of slew ring to front tyre face	mm	1844
E	Centre of slew ring to rear dozer blade (lowered)	mm	2498
F	Width over stabilisers	mm	2380
G	Width over dozer blade	mm	2430
H	Stabiliser lift height	mm	652
I	Dozer lift height (clearance)	mm	440
J	Dozer blade height (lowered)	mm	505
K	Dozer dig depth	mm	160

ENGINE	
Model	JCB EcoMAX 448 EU Stage V EPA compliant
Type	4-stroke, 4-cylinder in-line, common rail, direct injection, turbocharged and intercooled diesel
Rated power (ISO 14396)	81 kW (109 hp) @ 2200 rpm
Gross torque (ISO 14396)	516Nm @ 1450 rpm
Piston displacement	4.8 litres
Air filtration	Dry element with secondary safety element and in-cab warning sensor
Starting system	12 volt
Batteries	12 volt
Alternator	12 volt 170 ampere

MAIN HYDRAULIC SYSTEM	
System	Electronically controlled system using two variable displacement piston pumps plus twin gear pumps for steering, brakes and cooling
Services pump	72cc variable displacement axial piston pump
Flow rate @ 2200rpm	158.4 l/min
Excavator main relief pressure	280 bar
Transmission pump – 40kph	85cc variable displacement axial piston pump in a closed loop hydrostatic drive system independent from working hydraulics
Flow rate @ 2200rpm	187 l/min
Transmission absolute pressure	525 bar
Transmission pump – 20kph	65cc variable displacement axial piston pump in a closed loop hydrostatic drive system independent from working hydraulics
Flow rate @ 2200rpm	143 l/min
Transmission absolute pressure	525 bar
High flow auxiliary	
High flow auxiliary pressure	210 bar
High flow auxiliary max. flow	120 l/min
Low flow auxiliary	
Low flow auxiliary pressure	210 bar
Low flow auxiliary max. flow	60 l/min
Second low flow auxiliary pressure	210 bar
Second low flow auxiliary max. flow	60 l/min
Hydraulic cylinders	Hardened, chromed piston rods with end damping on boom raise and dipper in
Filtration	
In tank	125 micron suction strainer
Main return line	10 micron return line filter

SLEW SYSTEM	
Slew motor	Axial piston type
Slew brake	Hydraulic braking plus automatic spring applied disc type parking brake
Slew torque	27.0 kNm
Slew speed	8.9 rpm
Slew gear	11 tooth pinion / 84 tooth ring

TYRES					
	Dual	Single	Wider Floatation	Dual	Floatation
Type	9.00x20 tyres with spacer ring	405/70 x 20 tyres	600/40-22.5 tyres	315/70R22.5 X2 tyres without spacer	550/45 x22.5tyres
Inflation pressure	7.0 bar	4.0 bar	6.0 bar	8.5 bar	3.8 bar

TURNING RADIUS		
	To outside of tyres	To outer edge of front mounted dozer blade
	4-Wheel Steer (mm)	4-Wheel Steer (mm)
Dual wheels	4163	4650
Single wheels	3946	4511
Floatation wheels	3946	4511

TRAVEL SPEED	
Max. roading speed	40 kp/h
Drawbar pull	45 kNm
Steering	Fully hydraulic system with 4-wheel steer, 2-wheel steer and crab steer

BRAKES	
Brakes	All hydraulic dual circuit brake system with positive brake back off
Parking brake	Built into the transmission
Gradability	26.6° / 50% maximum continuous

SERVICE CAPACITIES		
Fuel tank	litres	157
Engine coolant	litres	28
Engine oil	litres	14
Hydraulic system	litres	190
Hydraulic tank	litres	130
Transmission (dropbox)	litres	1
Axle differentials (each)	litres	Front = 18, rear = 14
Axle hubs (each)	litres	2
DEF fluid capacity	litres	19

OPERATING WEIGHTS

Machine equipped with no bucket, 75kg operator, 154kg fuel, dual tyres, 2000mm dipper.

		TAB	
No dozer, no stabiliser	kg		11050
Rear dozer	kg		11650
Rear stabiliser	kg		11550
Front dozer and rear stabiliser	kg		12050
Front stabiliser and rear stabiliser	kg		12000

BUCKET AND ARM COMBINATIONS

Bucket options		GP Bucket							
Bucket width	mm	250	300	400	450	500	600	800	900
Bucket capacity	m ³	0.06	0.08	0.11	0.13	0.15	0.19	0.27	0.31
Bucket weight	kg	102	109	107	113	120	135	166	179
T.A.B.									
1.65m		□	□	□	□	□	□	□	□
2.00m		□	□	□	□	□	□	□	□
2.25m		□	□	□	□	□	□	□	□

□ = Material weight up to 2000kg/m³.

● = Material weight up to 1600kg/m³.

■ = Material weight up to 1200kg/m³.

The above are to subject to ground conditions and are a guide only.

STANDARD/OPTIONAL EQUIPMENT

ENGINE

JCB EcoMAX 448 EU Stage V EPA Compliant 81kW engine	•
Start pre-heat	•
DEF tank	•
One touch idle	•
Auto-idle function	•
DOC and SCRf system	•
2x12v 1000CCA batteries	•
Fuel filter with water separator	•
Electronic engine control	•
Engine auto stop	•
Fuel cooler	•
Refuelling pump	+
Cold climate kit	+

SAFETY

Battery isolator	•
Key	•
2GO	•
Lockable fuel cap	•
Full LED worklights (2x boom, 2x cab front, 2x cab rear, 2x cab side)	•
Rear-view camera	+
Fire extinguisher	+
FOPS level 2 guard	+
Heavy duty front screen guard	+
Reverse alarm kit	+

CAB & INTERIOR

Sound-insulated and 4 shock mounted cab	•
Deluxe high fabric air suspension seat with heated base	•
Height adjustable arm rests	•
Sliding window	•
Immobiliser	•
7" colour monitor with rotary control	•
Front window wiper	•
Retractable seatbelt	•
12V power socket	•
Sunblind	•
13 air circulation vents	•
Momentary park brake (defaults on)	•
Locking brake pedal	•
Travel speed indicator	•
Highway / site mode	•
Rear fog lights	•
Full climate control with air conditioning	•
Rain visor	+
Rear screen wiper with wash	•
Radio	•

HYDRAULIC SYSTEM

Boom / Arm/ Bucket hose burst check valves	•
ISO / SAE changeover	•
Bucket to grab changeover	+
Smooth ride system	•
Hand held tool circuit	+
Hydraulic quickhitch	+
Proportional controls	•
Hammer / Auxiliary with low flow pipework	•
Hammer / Auxiliary with 2x low flow pipework	+
Blanking caps for hydraulic pipework	+
Bio oil	+
Panolin oil	+

LOWER STRUCTURE

2/4 and Crab steering modes	•
Reverse steer	•
Single tyres	+
Dual tyres	+
Flotation tyres	+
Dozer blade (front / rear)	+
Stabilisers (front / rear)	+
Wheel fenders	•
Grab stowage bar	+
Stabiliser street pads	+
Clevis towing kit	+
Rockinger towing kit	+
Side exit exhaust	+

DIG END

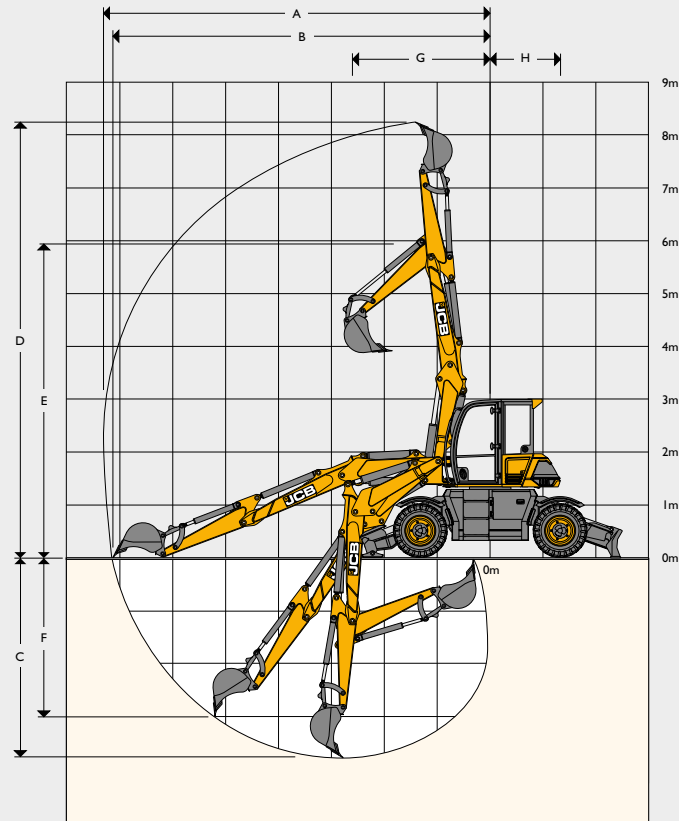
Lifting shackle tipping link	•
Bucket ram guard	+

OTHER

Cruise control	•
LiveLink telematics (5yr)	•
Remote fuel drain	+
Wheel chocks	+
Auto up function for dozer and stabilisers	+
Reversible fan	•

STANDARD •
OPTIONAL +

WORKING RANGE – TAB



Based on 1.65m dipper.

WORKING RANGE: TAB

Dipper length		1.65m	2.0m	2.25m
A	Max. digging reach	mm	7420	8020
B	Max. digging reach (on ground)	mm	7165	7785
C	Max. digging depth	mm	3810	4160
D	Max. digging height	mm	8195	8545
E	Max. loadover height	mm	5659	5837
F	Max. vertical wall cut depth	mm	3000	3315
G	Min. swing radius	mm	2500	2750
H	Min. tailswing radius	mm		1342
	Boom swing left	degrees		50
	Boom swing right	degrees		70
	Bucket rotation	degrees		184
	Dipper tearout	kNm	48,3	42,3
	Bucket tearout	kNm		39
			60,2	

LIFT CAPACITIES: 1.65M DIPPER WITH STABS AND DOZER DEPLOYED

TAB

Reach	3m		4m		5m		6m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
4.5m	1827*	1827*	2105*	2105*	1767*	1767*	-	-	1516*	1298	5964
3.0m	-	-	2566*	2212	1954*	1684	1512*	1277	1384*	1106	6518
1.5m	-	-	2913*	2188	2147*	1604	1625*	1232	1395*	1060	6632
0m	-	-	2691*	2129	2024*	1556	1500*	1213	1230*	1060	6339
-1.0m	2789*	2789*	2250*	1940	1695*	1461	-	-	1042*	1042*	5887

LIFT CAPACITIES: 1.65M DIPPER OFF DUAL TYRES

TAB

Reach	3m		4m		5m		6m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
4.5m	1827*	1827*	2105*	2105*	1767*	1422	-	-	1516*	1030	5964
3.0m	-	-	2566*	1886	1954*	1358	1512*	1018	1384*	878	6518
1.5m	-	-	2913*	1725	2147*	1276	1625*	983	1395*	845	6632
0m	-	-	2691*	1688	2024*	1242	1500*	971	1230*	909	6339
-1.0m	2789*	2789*	2250*	1719	1695*	1256	-	-	1042*	1042*	5887

LIFT CAPACITIES: 2.00M DIPPER WITH STABS AND DOZER DEPLOYED

TAB

Reach	3m		4m		5m		6m		Capacity at Max Reach		
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	mm
4.5m	-	-	1908*	1908*	-	-	1385*	1194	1336*	1152	6358
3.0m	-	-	2412*	2412*	1844*	1590	-	-	1232*	1006	6874
1.5m	-	-	2846*	2196	2095*	1596	1559*	1222	1241*	968	6982
0m	-	-	2766*	2104	2052*	1532	1568*	1191	1142*	985	6706
-1.0m	3182*	3182*	2406*	2074	1810*	1530	1275*	1099	991*	991*	6288

 Lift capacity front and rear.

Notes:

1. For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.

2. 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.











3. Lift capacities assume that the machine is on firm, level ground.

4. Lift capacities may be limited by local regulations. Please refer to your dealer.



Lift capacity full circle.

LIFT CAPACITIES: 2.0M DIPPER OFF DUAL TYRES **TAB**

Reach	3m		4m		5m		6m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
4.5m	-	-	1908*	1908*	-	-	1385*	1043	1336*	919	6358
3.0m	-	-	2412*	1920	1844*	1365	-	-	1232*	795	6874
1.5m	-	-	2846*	1729	2095*	1268	1559*	972	1241*	766	6982
0m	-	-	2766*	1662	2052*	1219	1568*	949	1142*	818	6706
-1.0m	3182*	3182*	2406*	1673	1810*	1223	1275*	959	991*	991*	6288


LIFT CAPACITIES: 2.25M DIPPER WITH STABS AND DOZER DEPLOYED **TAB**

Reach	3m		4m		5m		6m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
4.5m	-	-	1582*	1582*	1598*	1598*	1325*	1325*	1226*	1057	6636
3.0m	-	-	2149*	2149*	1770*	1526	1386*	1195	1135*	940	7127
1.5m	-	-	2777*	2204	2056*	1600	1512*	1217	1142*	906	7231
0m	-	-	2795*	2088	2063*	1520	-	-	1081*	932	6967
-1.0m	2908*	2908*	2500*	2078	1871*	1510	1369*	1171	950*	950	6570

LIFT CAPACITIES: 2.25M DIPPER OFF DUAL TYRES **TAB**

Reach	3m		4m		5m		6m		Capacity at Max Reach		mm
											
Load Point Ht.	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	
4.5m	-	-	1582*	1582*	1598*	1598*	1325*	1052	1226*	848	6636
3.0m	-	-	2149*	2149*	1770*	1372	1386*	1018	1135*	740	7127
1.5m	-	-	2777*	1734	2056*	1270	1512*	965	1142*	713	7231
0m	-	-	2795*	1645	2063*	1204	-	-	1081*	759	6967
-1.0m	2908*	2908*	2500*	1646	1871*	1202	1369*	933	950*	950*	6570

 Lift capacity front and rear.

 Lift capacity full circle.

- Notes:**
1. For lifting capacity including bucket, subtract total weight of bucket or bucket and quickhitch from above values.
 2. 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.
 3. Lift capacities assume that the machine is on firm, level ground.
 4. Lift capacities may be limited by local regulations. Please refer to your dealer.







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JCB HYDRADIG

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