

**ONE COMPANY, OVER 300 MACHINES.**

Your nearest JCB dealer

**Mini Excavator 48Z-1/51R-1/55Z-1/57C-1**

Operating weight: 4792/5112/5366/5483kg Net engine power: 33.1/33.4kW

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**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2866MM BOOM, 1570MM DIPPER, NO BUCKET. 55Z-1**

Load Point	2.0m					3.0m					4.0m					5.0m					Capacity at maximum reach	Distance		
	Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg					
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**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2866MM BOOM, 1820MM DIPPER, NO BUCKET. 57C-1**

Load Point	2.0m					3.0m					4.0m					5.0m					Capacity at maximum reach	Distance			
	Height m	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg	Dozer Up kg	Dozer Down kg	Over Side kg						
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- Notes:**
- 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.
  - Lift capacities assume that the machine is on firm level ground and equipped with an approved lifting point.
  - A bucket must be fitted when lifting. The weight of this bucket must be deducted from the above lift capacities.
  - Lift capacities may be limited by local regulations. Please refer to your dealer.



**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2700MM BOOM, 1450MM DIPPER, NO BUCKET.** 482-1

Load Point	2.0m				3.0m				4.0m				5.0m				Capacity at maximum reach					
	Height m	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Distance m		
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**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2700MM BOOM, 1570MM DIPPER, NO BUCKET.** 518-1

Load Point	2.0m				3.0m				4.0m				5.0m				Capacity at maximum reach					
	Height m	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Dipper Up kg	Dipper Down kg	Over Side kg	Distance m		
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Lift capacity over front.



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 and equipped with an approved filling point.
3. A bucket must be fitted when lifting. The weight of this bucket must be deducted from the above lift capacities.
4. Lift capacities may be limited by local regulations. Please refer to your dealer.

**SERVICE CAPACITIES**

Machine model	48Z-1	51R-1	55Z-1	57C-1
Fuel tank	ltr	76		
Engine coolant	ltr	Stage 3A: 12 / Tier 4: 9.2		
Engine oil	ltr	Stage 3A: 9.1 max / Tier 4: 8 max		
Hydraulic system	ltr	100		112
Hydraulic tank	ltr	55		62

**OPERATOR ENVIRONMENT**

Machine model	48Z-1	51R-1	55Z-1	57C-1
Cab/canopy height	mm	2351	2561	2561
Cab/canopy height with FOGS guard LEVEL I	mm	2575	2585	2585
Cab/canopy length	mm	1291	1491	1491
Cab/canopy width	mm	1020		
Door aperture width	mm	552		595

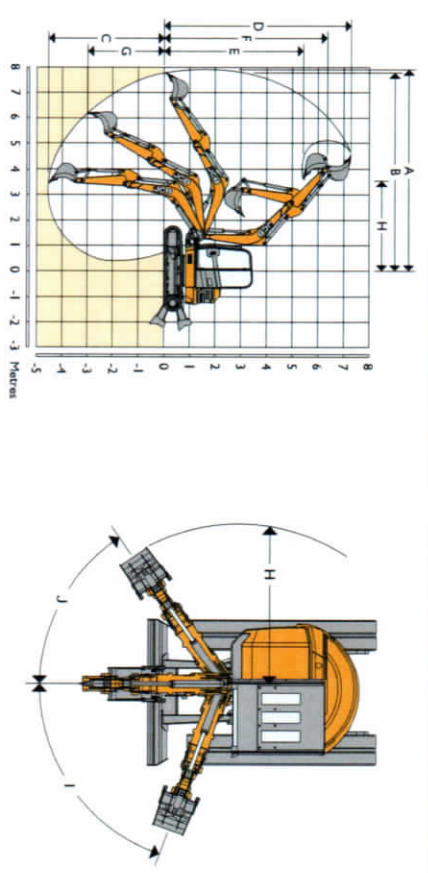
**STANDARD EQUIPMENT**

Fully glazed ROPS & TOPS certified cab with programmable intermittent wiper with wash/wipe, 3 speed heater/demister with 4 adjustable air vents, Colour LCD display, Digital clock, Internal lockable toolbox, Cup holder, Coat hook, stowage net, 12v accessory socket, Interior light, Full audio/visual warning systems, Auto idle throttle, Below idle system, one touch idle, 4 power handlight, eco, heavy & heavy plus), ISO servo controls with electro-hydraulic dozer lever, Electro-proportional thumb controlled high flow single acting auxiliary, 10 selectable auxiliary flow rates, Joystick mounted hammer switch, Neutral start, Full control isolation, "ZGC" hydraulic isolation, Midback suspension seat, removable floor mat, Beacon ready kit, Two speed tracking, Auto-kickdown track motors, 400mm short pitch rubber tracks, Double element air cleaner, Heavy-duty alternator, Heavy-duty battery, Hydraulic slow braking with disc type park brake, ORFS hydraulics, Colour coded hydraulic hoses, 500 hour dig end greasing intervals, Heavy duty boom cylinder guard, Protected boom worklight, Quick release auxiliary couplers, 100% steel bodywork, dedicated the down and lifting points, JCB LiveLink, CESAR datalog (UK only).

**OPTIONAL EQUIPMENT**

Air-conditioning with 8 adjustable air vents, Adjustable sunblind, FOGPS guard stage 1, 400mm or 550mm steel tracks, 400mm Case Ground Liner tracks, Fan guards, Battery isolator (standard for EU), High back seat or deluxe heated high back air-suspension seat, Radio installation, Electro-proportional thumb controlled low flow auxiliary, Hose burst check valve/lifting kit (dozer, boom & dipper), Bucket-to-grab change over valve, Mechanical quick hitch, Hydraulic quick hitch, Hydraulic quick hitch ready pipework, General purpose digging eco buckets, Ditch/grading eco buckets, Hydraulic hammers, Reaming/stroke beacon, Travel alarm, Toolkit, Greasegun & cartridge, Fire extinguisher, Exterior cab mounted mirrors, Interior mirror, Electric, reducing pump, JCB IntraRolliser (Unique key or keypad system), Dozer float, 4-way angled dozer blade, Dual pattern controls (ISO/SAE change-over), Thumb ready dipper, Special paint options, LED or Halogen worklights (either with follow me home function) ROPS & TOPS certified canopy, The rotate ready installation, Media socket, Radio ready kit, Worklight guards (cab), Dipper/crowd Ram guards, Rearview camera, Rearview angled mirror, JCB impact protection front screen, Buried kingpost, Electronic, single-double acting change over valve.

**WORKING RANGE**

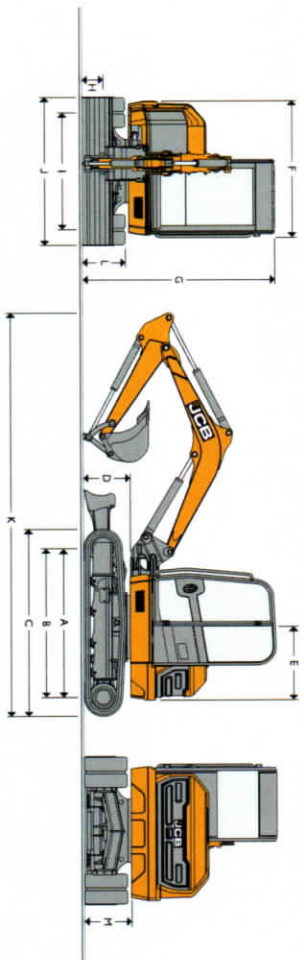


	48Z-1	51R-1	55Z-1	57C-1
Dipper length	mm	1450	1570	1870
Boom length	mm	2700	2866	
A Max digging reach	mm	5846	5962	6119
B Max digging reach on ground	mm	5714	5832	5995
C Max digging depth – dozer up	mm	3327	3447	3606
D Max digging depth – dozer down	mm	3532	3652	3843
E Max digging height	mm	5387	5473	5664
F Max dump height	mm	4001	4088	4274
G Max height to dipper nose pivot pin	mm	4679	4764	4970
H Max vertical wallcut depth	mm	1971	2069	2052
I Min front swing radius (no offset)	mm	2599	2631	2641
J Min front swing radius (fully offset)	mm	2123	2151	2160
K Boom swing left	degrees		70	
L Boom swing right	degrees		55	
M Bucket rotation	degrees		181	
N Dipper rotation	degrees		121	
O Bucket tearout	kN	38		42
P Dipper tearout	kN	22	21	29
Q Slew speed	rpm		8.3	26

**DOZER**

Machine model	48Z-1	51R-1	55Z-1	57C-1
Dozer length	mm	1141		
Max height above ground	mm	433		
Dig depth below ground	mm	464		
Approach angle	degrees	31		
Width	mm	1962		
Height	mm	400		

## STATIC DIMENSIONS



Machine model	48Z-1	51R-1	55Z-1	57C-1
A Sprocket idler centres	mm	1985	55Z-1	57C-1
B Track length on ground	mm	1985		
C Undercarriage overall length – rubber	mm	2490		
Undercarriage overall length – steel	mm	2490		
D Kingpost clearance	mm	631		
E Talkswing radius	mm	975	1030	1000
F Overall width of superstructure	mm	1820	1850	1845
G Height over cab	mm	2551	300	2561
H Ground clearance	mm	300	1550	
I Track gauge	mm	1950		
J Width over tracks	mm	5353	5349	5518
K Transport length with standard dipper	mm	560		5495
L Track height	mm	618		
M Counterweight clearance	mm			

## ENGINE

Machine model	Standard	Optional
Model	48Z-1, 51R-1, 55Z-1, 57C-1 Stage 3A 404D-22	48Z-1, 51R-1, 55Z-1, 57C-1 Tier 4 Final KDI 1903
Fuel	Diesel	Diesel
Cooling	Water cooled	
Gross power ISO 14396	kW 35.7 (@ 2600rpm)	36 (@ 2200rpm)
Net power	kW 33.1 (@ 2600rpm)	33.4 (@ 2200rpm)
Gross torque ISO 14396	Nm 143 (@ 1800rpm)	225 (@ 1500rpm)
Displacement	cc 2179	1903
Gradability	degrees 35	30
Starter motor	kW 2	2
Battery	volt / amps 12V / 75Ah	12V / 75Ah
Alternator	amps (Air con) 85	100

## UNDERCARRIAGE

Machine model	48Z-1	51R-1	55Z-1	57C-1
No. of top rollers	1			
No. of bottom rollers	4			
Track width rubber (STD)	mm 400			
Track width steel	mm 400			
Ground bearing pressure (400mm tracks)	kg/cm <sup>2</sup> 0.30	0.32	0.35	0.36
Ground bearing pressure (550mm tracks)	kg/cm <sup>2</sup> 0.22	0.23	0.25	0.26
Track tensioning		Grease		
Travel speed – low	kph 3			
Travel speed – high	kph 4.6			
Tractive effort	kN 35.7	36.5	38.1	40

## HYDRAULIC SYSTEM

Machine model	48Z-1	51R-1	55Z-1	57C-1
Machine model				
Pump	cc	63		
Nominal output @ 2000rpm	lpm	126		
Excavator/track main relief pressure	bar	240		265
Slew main relief pressure	bar	216		
Auxiliary hydraulic pressure (Low)	bar	190		
Auxiliary hydraulic pressure (High)	bar	190		
Auxiliary hydraulic flow (Low)	lpm	40		
Auxiliary hydraulic flow (High)	lpm	90		
Hydraulic pump		Piston		

## WEIGHTS

Machine model	48Z-1	51R-1	55Z-1	57C-1
Operating weight* (400mm rubber tracks)	kg 4792	5112	5366	5483
Shipping** weight (400mm rubber tracks)	kg 4662	4982	5236	5353
With FOGS guard – stage 1	kg	+ 16		
Aircon (includes FOGS guard-stage 1)	kg	+ 61		+ 66
With steel tracks (400mm)	kg	+ 154		
With steel tracks (550mm)	kg	+ 276		
With Geo grip tracks (400mm)	kg	+ 176		
With 4 way dozer	kg	+ 219		
Hydraulic quickhitch installation weight	kg	+ 72.5		

\* Operating weight to ISO 6016 including cab, rubber tracks, standard dipper, 600mm bucket, full tanks and a 75kg operator.

\*\* Shipping weight to ISO 6016 is mass of the base machine without an operator, with the fuel level at 10% of tank capacity.



NEW



**MINI EXCAVATOR** | 48Z-I/51R-I/55Z-I/57C-I

Operating weight: 4792/5112/5366/5483kg    Net engine power: 33.1/33.4kW

