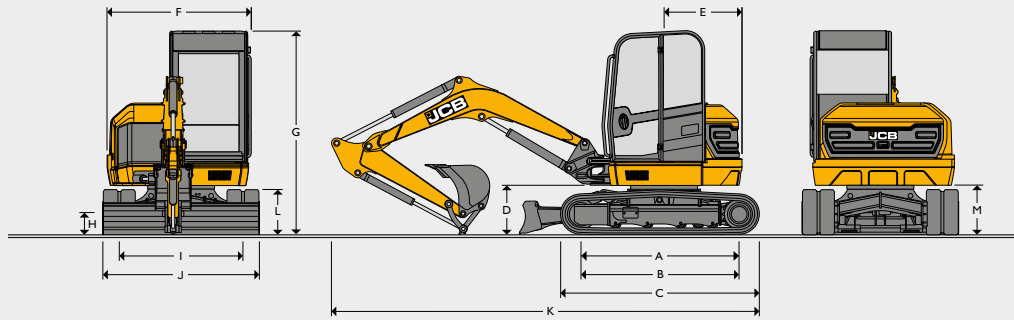


## STATIC DIMENSIONS



Machine model	48Z-I	51R-I	55Z-I	57C-I	
A Sprocket idler centres	mm		1985		
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 Tailswing radius	mm	975	1030	1000	1300
F Overall width of superstructure	mm	1820	1850	1845	
G Height over cab	mm	2551		2561	
H Ground clearance	mm	300			
I Track gauge	mm	1550			
J Width over tracks	mm	1950			
K Transport length with standard dipper	mm	5353	5349	5518	5495
L Track height	mm	560			
M Counterweight clearance	mm	618			

## ENGINE

Machine model	Standard		Optional	
	48Z-I, 51R-I, 55Z-I, 57C-I		48Z-I, 51R-I, 55Z-I, 57C-I	
Model	Stage 3A 404D-22		Tier 4 Final KDI 1903	
Fuel	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
Gradeability	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-I	51R-I	55Z-I	57C-I	
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-I	51R-I	55Z-I	57C-I
Pump	cc		63	
Nominal output @ 2000rpm	lpm		126	
Excavator/track main relief pressure	bar		240	
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-I	51R-I	55Z-I	57C-I	
Operating weight* (400mm rubber tracks)	kg	4792	5112	5366	5483
Shipping** weight (400mm rubber tracks)	kg	4662	4982	5236	5353
With FOGs guard – stage I	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.

## SERVICE CAPACITIES

Machine model	48Z-I	51R-I	55Z-I	57C-I
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	2551		2561
Cab/canopy height with FOGS guard LEVEL I	mm	2575		2585
Cab/canopy length	mm	1291		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 bands(light, 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, "2GO" hydraulic isolation, Midback suspension seat, removable floormat, 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 slew 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 tie down and lifting points, JCB Livelink, CESAR datatag (UK only).

## OPTIONAL EQUIPMENT

Air-conditioning with 8 adjustable air vents, Adjustable sunblind, FOPS guard stage I, 400mm or 550mm steel tracks, 400mm Geo GripRoad 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 quickhitch, Hydraulic quickhitch, Hydraulic quickhitch ready pipework, General purpose digging eco buckets, Ditch/grading eco buckets, Hydraulic hammers, Rotating/strobe beacon, Travel alarm, Toolkit, Greasegun & cartridge, Fire extinguisher, Exterior cab mounted mirrors, Interior mirror, Electric refuelling pump, JCB Immobiliser (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, Tilt 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, Bushed kingpost, Electronic single-double acting change over valve.

## NOISE AND VIBRATION – TIER 3 - PERKINS MACHINES

		Uncertainty		Measurement conditions
Noise at the operator station (LpA)	77dB	(KpA)	1dB	ISO 6396: 2008
Noise emission from the machine (LwA)	93dB	(KwA)	2dB	ISO 6395: 1988
Hand arm vibration (m/s <sup>2</sup> )				
Tracking duty	≤2.5	(K)	*	EN ISO 5349-2: 2001 (Based upon a test cycle defined in SAE J 1166)
Low idle and excavating duty	≤2.5	(K)	*	EN ISO 5349-2: 2001 (Based upon a test cycle defined in SAE J 1166)
Whole body vibration (m/s <sup>2</sup> )	0.25	(K)	0.13	ISO 2631-1: 1997 (Based upon a test cycle defined in SAE J 1166)

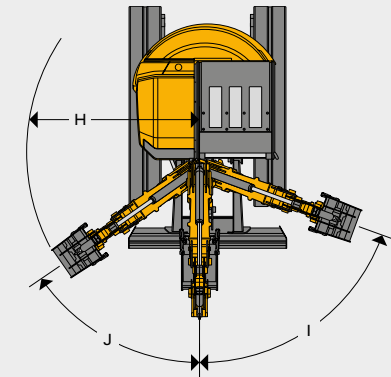
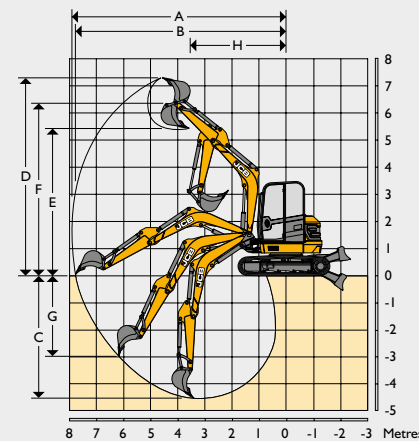
\* Based on 50% uncertainty of measurement.

## NOISE AND VIBRATION – TIER 4 - KOHLER MACHINES

		Uncertainty		Measurement conditions
Noise at the operator station (LpA)	76dB	(KpA)	± 1dB	ISO 6396: 2008
Noise emission from the machine (LwA)	96dB	(KwA)	± 1dB	ISO 6395: 1988
Hand arm vibration (m/s <sup>2</sup> )				
Tracking duty	≤2.5	(K)	*	EN ISO 5349-2: 2001 (Based upon a test cycle defined in SAE J 1166)
Low idle and excavating duty	≤2.5	(K)	*	EN ISO 5349-2: 2001 (Based upon a test cycle defined in SAE J 1166)
Whole body vibration (m/s <sup>2</sup> )	0.25	(K)	0.13	ISO 2631-1: 1997 (Based upon a test cycle defined in SAE J 1166)

\* Based on 50% uncertainty of measurement.

## WORKING RANGE


















	48z-1	51r-1	55z-1	57c-1	
Dipper length	mm	1450	1570	1820	
Boom length	mm	2700		2866	
A Max digging reach	mm	5846	5962	6119	6260
B Max digging reach on ground	mm	5714	5832	5995	6144
C Max digging depth – dozer up	mm	3327	3447	3606	3856
Max digging depth – dozer down	mm	3532	3652	3843	4077
D Max digging height	mm	5387	5473	5664	5846
E Max dump height	mm	4001	4088	4274	4456
F Max height to dipper nose pivot pin	mm	4679	4764	4970	5152
G Max vertical wallcut depth	mm	1971	2069	2052	2254
H Min front swing radius (no offset)	mm	2599	2631	2641	2608
Min front swing radius (fully offset)	mm	2123	2151	2160	2155
I Boom swing left	degrees	70			
J Boom swing right	degrees	55			
Bucket rotation	degrees	181			
Dipper rotation	degrees	121			
Bucket tearout	kN	38		42	
Dipper tearout	kN	22	21	29	26
Slew speed	rpm	8.3			
















## 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		

**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2700MM BOOM, 1450MM DIPPER, NO BUCKET. 48Z-I**

Load Point	2.0m			3.0m			4.0m			5.0m			Capacity at maximum reach			
																Distance
Height	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
4.0													817*	817*	637	3.9
3.5							815*	815*	611				683	666*	526	4.3
3.0							861*	861*	653				705	887*	518	4.4
2.5				1009*	1009*	1009*	905*	905*	638				638	887*	465	4.7
2.0				1244*	1244*	953	966*	966*	615				585	914*	435	4.8
1.5				1427*	1427*	885	810	1044*	570	565	827*	411	585	914*	405	4.8
1.0				1193	1644*	840	803	1148*	555	570	931*	405	570	931*	405	5.0
0.5				1163	1766*	818	765	1175*	540	552	812*	397	570	948*	405	4.9
0.0				1140	1818*	773	743	1227*	540				593	966*	420	4.8
-0.5	1620*	1620*	1217	1125	1818*	758	735	1227*	525				608	957*	443	4.5
-1.0	1913	2332*	1230	1110	1705*	758	720	1114*	518				653	957*	450	4.4
-1.5	1938	2383*	1242	1126	1492*	769	721	926*	507				662	857*	492	4.1
-2.0	1861*	1861*	1270	1110*	1110*	790							814*	814*	614	3.6
-2.5													792*	792*	792*	2.9

**LIFT CAPACITIES – 400MM RUBBER TRACKS, 2700MM BOOM, 1570MM DIPPER, NO BUCKET. 51R-I**

Load Point	2.0m			3.0m			4.0m			5.0m			Capacity at maximum reach			
																Distance
Height	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
4.0							787*	787*	649				713*	713*	636	4.0
3.5							809*	809*	657				628*	628*	534	4.4
3.0							853*	853*	698				879*	879*	540	4.5
2.5							905*	905*	690				638	887*	458	4.9
2.0				1244*	1244*	1244*	1001*	1001*	630	585	896*	428	585	896*	428	5.0
1.5				1514*	1514*	953	848	1096*	638	585	922*	443	585	922*	443	5.0
1.0				1253	1636*	908	878	1183*	585	578	931*	405	578	931*	405	5.1
0.5				1215	1844*	863	795	1262*	555	593	957*	413	593	957*	413	5.0
0.0				1223	1949*	848	788	1305*	555	562	848*	397	593	966*	435	4.9
-0.5	1869*	1869*	1230	1163	1888*	810	795	1296*	548				608	966*	443	4.7
-1.0	2115	2627*	1245	1178	1766*	765	765	1183*	540				653	948*	473	4.5
-1.5	2343	3086*	1251	1224	1630*	836	783	1037*	550				628	874*	508	4.3
-2.0	2485*	2485*	1272	1242	1348*	852							840*	840*	615	3.8
-2.5	1578*	1578*	1578*	835*	835*	835*							750*	750*	750*	3.1



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 lifting 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.
















## 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	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
4.5													935*	935*	816	3.7
4.0							1038	1152*	738				814	829*	651	4.3
3.5							1039	1124*	739				696	770*	557	4.6
3.0							1175*	1175*	743				795	1192*	563	4.8
2.5				1401*	1401*	1401*	1235*	1235*	743	728	1201*	510	728	1201*	510	5.0
2.0				1688*	1688*	1088	1005	1383*	728	668	1209*	480	668	1209*	480	5.1
1.5				1545	2114*	1095	1005	1523*	705	660	1227*	458	660	1227*	458	5.2
1.0				1493	2384*	1005	960	1653*	675	653	1244*	458	653	1244*	458	5.2
0.5				1433	2584*	968	923	1766*	668	653	1262*	458	653	1262*	458	5.1
0.0				1320	2462*	953	893	1731*	630	653	1262*	465	653	1262*	465	5.0
-0.5	2002*	2002*	1464	1328	2471*	900	870	1697*	630	642	1050*	436	675	1244*	495	4.9
-1.0	1995	2854*	1463	1283	2271*	900	863	1610*	630				720	1235*	533	4.6
-1.5	1995	3484*	1483	1395	2176*	915	891	1450*	601				668	1140*	523	4.5
-2.0	2018	2889*	1506	1412	1834*	931	910	1096*	619				792	1085*	618	4.0
-2.5	1984*	1984*	1542	1274*	1274*	960							947*	947*	810	3.4

## 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	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Dozer Up	Dozer Down	Over Side	Distance
m	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	m
4.5							793*	793*	793*				761*	761*	761*	4.0
4.0							1037*	1037*	1037*				800	826*	748	4.5
3.5							1025*	1025*	1025*				732	774*	714	4.8
3.0							1088*	1088*	1088*	894	904*	670	929	1114*	668	4.9
2.5							1133*	1133*	1133*	915	1114*	671	864	1118*	623	5.2
2.0				1540*	1540*	1540*	1273*	1273*	949*	908	1148*	666	833	1128*	596	5.3
1.5				1864*	1864*	1447	1399*	1399*	915	902	1189*	641	802	1138*	581	5.4
1.0				1883	2196*	1380	1243	1549*	918	877	1209*	649	781	1131*	563	5.4
0.5				1916	2398*	1307	1221	1618*	893	861	1232*	629	788	1143*	571	5.4
0.0				1817	2483*	1294	1202	1682*	869	869	1253*	632	800	1158*	578	5.3
-0.5	3249*	3249*	2056*	1775	2439*	1214	1171	1680*	830	842	1208*	620	957	1156*	596	5.1
-1.0	3240*	3240*	2240*	1706	2310*	1200	1139	1602*	819				1002	1135*	623	4.9
-1.5	3650	3902*	2238	1782	2221*	1249	1144	1491*	828				697	974*	679	4.7
-2.0	3683	3727*	2264	1796	1952*	1261	1157	1258*	840				806	1063*	778	4.3
-2.5	2862*	2862*	2304	1823	1527*	1286							990*	990*	963	3.7
-3.0	1575*	1575*	1575*										759*	759*	759*	2.9



Lift capacity over front.

## 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 capacity full circle.