

SPECIFICATIONS

ENGINE

Latest generation engine, meeting European requirements for "Low exhaust emissions" Tier III in accordance with directive 97/68/ EC
 Make ISUZU
 Type AJ-4JJ1X
Common rail, turbo, intercooler, fuel cooler
 EGR (Exhaust Gas Recirculator) Yes
 Direct injection Electronically controlled
 Number of cylinders 4
 Bore - Stroke 95.4 x 104.9 mm
 Cubic capacity 2999 cc
 Horsepower EEC80/ 1269 70.9 kW/96 hp @ 2000 rpm
 Maximum Torque 359 Nm @ 1600 rpm

HYDRAULIC SYSTEM

Max output 2 x 129 l/min @ 2000 rpm
 2 axial piston, variable flow pumps Yes
 Attachment/Power Boost 343/363 bar
 Upperstructure swing 294 bar
 Travel 343 bar
 Oil filtration 6 micron
 Type of oil filter Synthetic fiber
Super fine High catch

SWING

Max upperstructure swing speed 14.3 rpm
 Swing torque 33 kN-m

TRAVEL

The travel circuit is equipped with axial piston, variable flow motors
 Max travel speed 5.6 km/h
 Low travel speed 3.4 km/h
 Speed change is controlled from the instrument panel
 Automatic downshifting Yes
 Gradeability 70% (35°)
 Tractive force 11 500 daN

ELECTRICAL SYSTEM

Circuit 24 V
 Batteries 2 x 12 V - 72 A/h
 Circuit equipped with water-proof connectors Yes
 Alternator 24 V - 50 Amp

UNDERCARRIAGE

Upper rollers 2 (LC) 1 (STD)
 Lower rollers 7
 Number of track pads 46 (LC) 43 (STD)
 Type of shoes Triple grouser
 Track pad width Standard 600 mm
 Track guard Option

CIRCUIT AND COMPONENT CAPACITIES

Fuel tank 260 l
 Hydraulic reservoir 82 l
 Hydraulic system 157 l
 Travel reduction gear (per side) 2.1 l
 Swing reduction gear 2.2 l
 Engine oil (including filter change) 17 l
 Cooling system 14.6 l

BUCKETS

GENERAL PURPOSE

SAE capacity	l	190	260	330	450	560	640	720	800
Width	mm	350	450	600	750	900	1000	1100	1200
Weight	kg	270	300	330	370	410	440	470	490

HEAVY DUTY

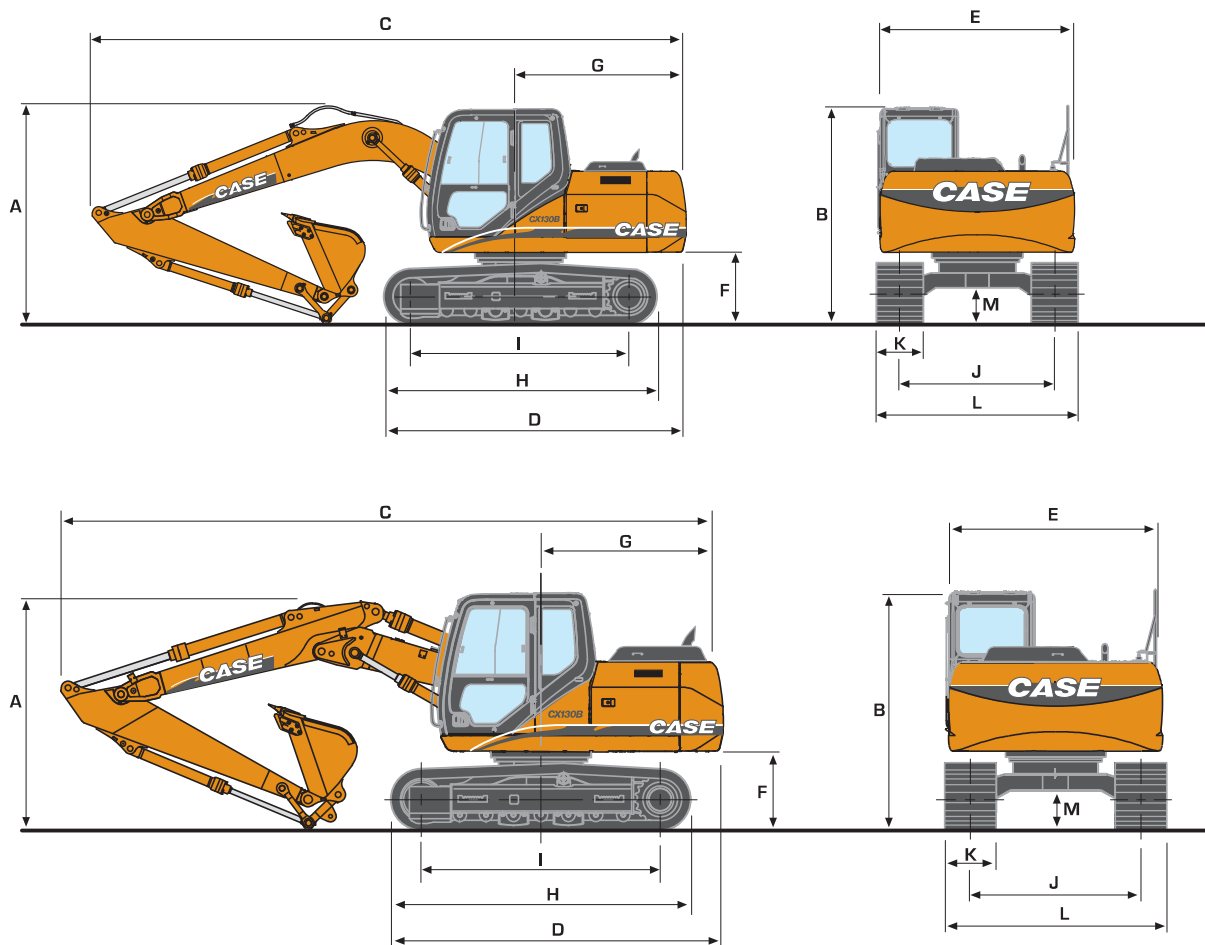
SAE capacity	l	640	720	300	620	760
Width	mm	1000	1100	2200	1520	1800
Weight	kg	450	485	430	469	492

DITCH CLEANING

* For other bucket sizes, please contact your CASE dealer

GENERAL DIMENSIONS

WITH 4.63 m STANDARD MONOBOOM OR 4.74 m 2 PIECE BOOM



			CX130B Mono STD*/LC			CX130B 2 Piece Boom STD/LC		
DIPPER LENGTH			2.10	2.50	3.00	2.10	2.50	3.00
A	Overall height (with attachment)	m	2.82	2.82	2.82	2.82	2.82	2.82
B	Cab height	m	2.79	2.79	2.79	2.79	2.79	2.79
C	Overall length (with attachment)	m	7.62	7.64	7.61	-	-	-
	Overall length (with attachment) LC-undercarriage	m	-	-	-	7.73	7.75	7.72
D	Overall length (without attachment)	m	3.58	3.58	3.58	3.58	3.58	3.58
E	Width of upperstructure	m	2.54	2.54	2.54	2.54	2.54	2.54
F	Upperstructure ground clearance	m	0.89	0.89	0.89	0.89	0.89	0.89
G	Swing radius (rear end)	m	2.13	2.13	2.13	2.13	2.13	2.13
H	Track overall length	m	3.50/3.76	3.50/3.76	3.50/3.76	3.50/3.76	3.50/3.76	3.50/3.76
I	Centre idler to centre sprocket	m	2.79/3.04	2.79/3.04	2.79/3.04	2.79/3.04	2.79/3.04	2.79/3.04
J	Track gauge	m	1.99	1.99	1.99	1.99	1.99	1.99
K	Track shoe width standard	mm	600	600	600	600	600	600
L	Track overall width - 500 mm shoes	m	2.49	2.49	2.49	2.49	2.49	2.49
	- 600 mm shoes	m	2.59	2.59	2.59	2.59	2.59	2.59
	- 700 mm shoes	m	2.69	2.69	2.69	2.69	2.69	2.69
N	Ground clearance	m	0.44	0.44	0.44	0.44	0.44	0.44

* available with blade as well equal dimensions

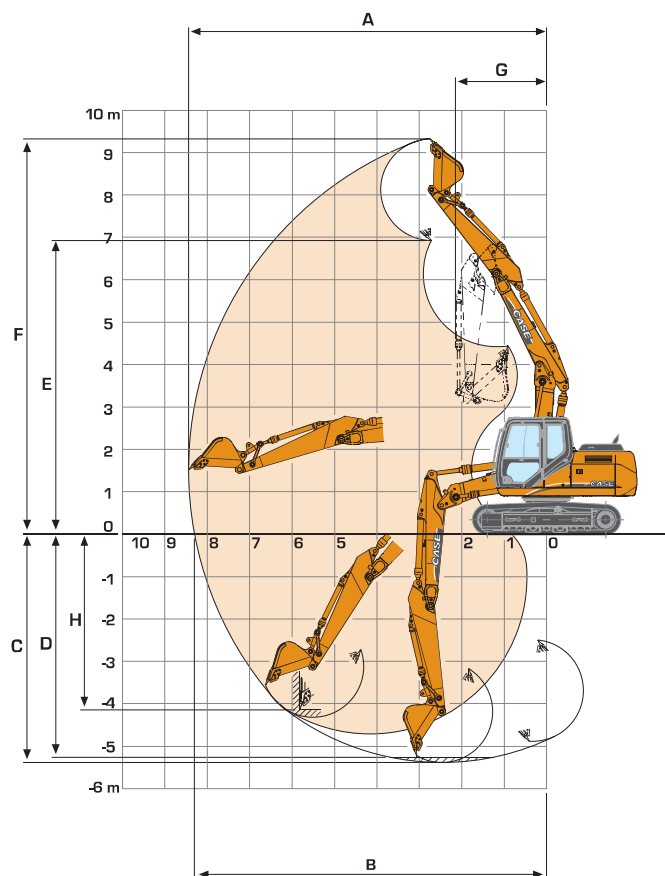
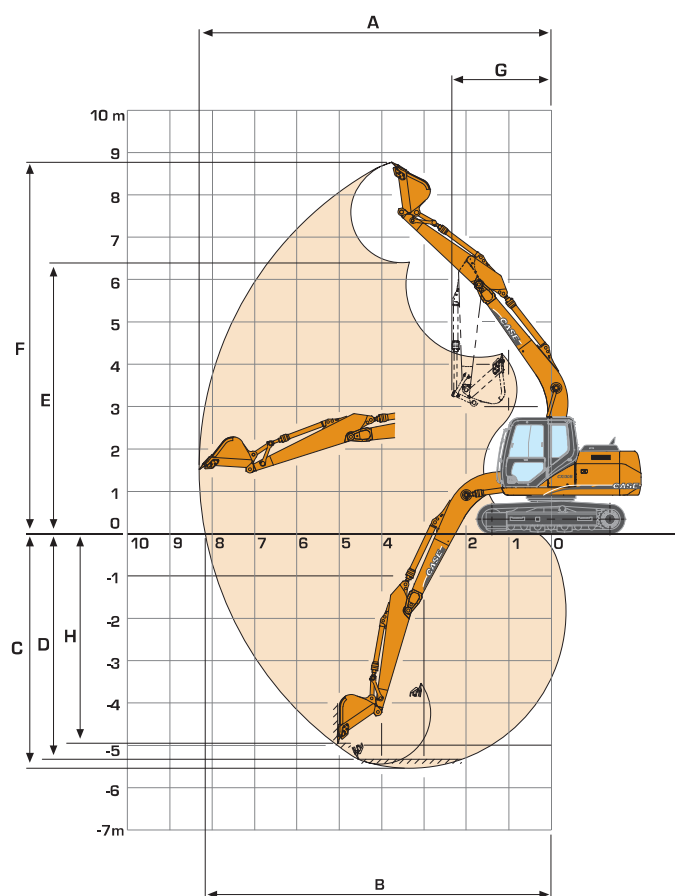
WEIGHT AND GROUND PRESSURE

Weight = kg
Ground pressure = bar

	Mono STD		Mono LC		Mono w/BLADE		2 piece boom STD		2 piece boom LC		2 piece boom w/BLADE	
	W	G.P.	W	G.P.	W	G.P.	W	G.P.	W	G.P.	W	G.P.
shoes 500 mm rubberlink	12600	0.41	12900	0.38	13300	0.43	13100	0.42	13300	0.40	14000	0.45
shoes 500 mm steel	12500	0.40	12800	0.38	13300	0.43	13000	0.42	13300	0.40	13800	0.45
shoes 600 mm steel	12700	0.34	13000	0.32	13500	0.36	13200	0.36	13500	0.34	14000	0.38
shoes 700 mm steel	13000	0.30	13300	0.28	13800	0.32	13500	0.31	13900	0.29	14300	0.34

PERFORMANCE DATA

WITH 4.63 m STANDARD MONOBOOM OR 4.74 m 2 PIECE BOOM



DIPPER LENGTH

			CX130B Mono STD/LC*			CX130B 2 Piece Boom STD/LC		
DIPPER LENGTH			2.50	3.01	2.11	2.50	3.01	2.11
A	Maximum digging reach	m	8.31	8.77	7.96	8.44	8.91	8.09
B	Maximum digging reach at ground level	m	8.17	8.64	7.81	8.30	8.78	7.94
C	Maximum digging depth	m	5.54	3.05	5.15	5.39	5.90	5.01
D	Digging depth - 2.44 m level bottom	m	5.33	5.87	4.91	5.26	5.88	4.87
E	Max dump height	m	6.39	6.68	6.17	6.92	7.28	6.55
F	Overall reach height	m	8.77	9.05	8.55	9.32	9.68	9.05
G	Minimum swing radius - attachment	m	2.34	2.66	2.36	2.15	2.37	2.16
H	Vertical straight wall dig depth	m	4.95	5.35	4.06	4.15	4.63	3.77
Digging force								
	- w/ o Power Boost	daN	6200	5600	7000	6200	5600	7000
	- with Power Boost	daN	6600	6000	7400	6600	6000	7400
Breakout force								
	- w/ o Power Boost	daN	9000	9000	9000	9000	9000	9000
	- with Power Boost	daN	9500	9500	9500	9500	9500	9500

CX130B

LIFTING CAPACITY

WITH 4.63 m STANDARD BOOM

Values are expressed in kilos

 Front 360°	REACH											
	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	At max reach						
												m

2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 399 kg

6.0 m											2154 *	2154 *	5.38
4.5 m					2910 *	2910 *	2749 *	1981			1489 *	1489 *	6.58
3.0 m			4905 *	4905 *	3738 *	3084	2690	1891			1518 *	1384	7.09
1.5 m			7680 *	5267	4089	2808	2563	1772			1647 *	1275	7.24
0 m			7754	4862	3860	2601	2456	1672			1893	1281	7.08
-1.5 m	5243 *	5243 *	7658	4781	3762	2512	2407	1627			2105	1423	6.57
-3 m	8223 *	8223 *	7757	4864	3789	2536					2703	1836	5.61
-4.5 m			5698 *	5129							4259 *	3376	3.89

2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 409 kg

6.0 m					3054 *	3054 *					2932 *	2932 *	4.76
4.5 m					3281 *	3260	2511 *	1952			1828 *	1828 *	6.20
3.0 m			5688 *	5688 *	4890 *	3037	2673	1877			1870 *	1522	6.73
1.5 m			8079	5137	4053	2779	2559	1770			2038	1400	6.89
0 m			7735	4851	3858	2602	2468	1686			2074	1414	6.72
-1.5 m	5806 *	5806 *	7714	4833	3792	2542	2444	1663			2342	1596	6.18
-3 m	9455 *	9455 *	7672 *	4955	3854	2599					3139	2141	5.15
-4.5 m													

3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 339 kg

6.0 m							1912 *	1912 *			1683 *	1683 *	6.14
4.5 m							2619 *	2043			1427 *	1427 *	7.09
3.0 m					3279 *	3176	2742	1940	1610 *	1269	1448 *	1249	7.56
1.5 m			6792 *	5475	4166	2878	2599	1805	1781	1214	1553 *	1153	7.70
0 m	2633 *	2633 *	7829	4943	3895	2632	2470	1686	1728	1163	1709	1150	7.55
-1.5 m	4676 *	4676 *	7619	4648	3754	2504	2396	1616			1866	1255	7.08
-3 m	7174 *	7174 *	7651	4775	3739	2491	2404	1623			2292	1550	6.20
-4.5 m	10701 *	10701 *	6761 *	4969	3873	2612					3610	2446	4.71

LC - 2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 399 kg

6.0 m											2154 *	2154 *	5.38
4.5 m					2910 *	2910 *	2749 *	2034			1489 *	1489 *	6.58
3.0 m			4905 *	4905 *	3738 *	3161	3118	1945			1518 *	1428	7.09
1.5 m			7680 *	5403	4792	2884	2987	1826			1647 *	1317	7.24
0 m			8401 *	4998	4554	2678	2877	1726			1916 *	1324	7.08
-1.5 m			9063 *	4917	4451	2589	2827	1680			2457 *	1471	6.57
-3 m			8108 *	5000	4479	2613					3172	1894	5.61
-4.5 m			5698 *	5265							4259 *	3469	3.89

LC - 2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 409 kg

6.0 m					3054 *	3054 *					2932 *	2932 *	4.76
4.5 m					3281 *	3281 *	2511 *	2005			1828 *	1828 *	6.20
3.0 m			5688 *	5688 *	4090 *	3114	3099	1930			1870 *	1568	6.73
1.5 m			8313 *	5273	4753	2855	2982	1824			2043 *	1445	6.89
0 m			7904 *	4987	4549	2678	2889	1740			2405 *	1461	6.72
-1.5 m			8904 *	4969	4481	2619	2863	1716			2743	1647	6.18
-3 m			7672 *	5091	4546	2676					3681	2205	5.15
-4.5 m													

LC - 3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 339 kg

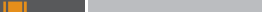
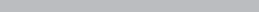
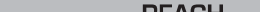
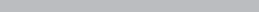
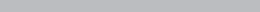
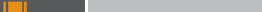
6.0 m							1912 *	1912 *			1683 *	1683 *	6.14
4.5 m							2619 *	2096			1427 *	1427 *	7.09
3.0 m					3279 *	3253	2983 *	1993	1610 *	1310	1448 *	1289	7.56
1.5 m			6792 *	5611	4405 *	2954	3024	1859	2082	1255	1553 *	1192	7.70
0 m			8699 *	5059	4590	2709	2892	1739	1968 *	1204	1770 *	1191	7.55
-1.5 m			9146 *	4884	4442	2581	2815	1669			2187 *	1298	7.08
-3 m			8560 *	4911	4427	2567	2824	1677			2691	1601	6.20
-4.5 m			6761 *	5105	4343 *	2689					4045 *	2518	4.71

*Hydraulic pressure factor: 870 %. Without asterisk: Stability factor: 75.0 %

LIFTING CAPACITY

WITH 4.63 m STANDARD BOOM

Values are expressed in kilos

 Front 360°	REACH					
	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	At max reach
						
	m					

BLADE - 2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 399 kg

6.0 m											2154 *	2154 *	5.38
4.5 m					2910 *	2910 *	2749 *	2111			1489 *	1489 *	6.58
3.0 m			4905 *	4905 *	3738 *	3272	2736	2022			1518 *	1491	7.09
1.5 m			7680 *	5601	4157	2996	2609	1903			1647 *	1379	7.24
0 m			7886	5195	3929	2789	2502	1803			1916 *	1388	7.08
-1.5 m	5243 *	5243 *	7789	5115	3830	2700	2453	1758			2146	1540	6.57
-3 m	8223 *	8223 *	7888	5197	3857	2724					2754	1978	5.61
-4.5 m			5698 *	5462							4259 *	3604	3.89

BLADE - 2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 409 kg

6.0 m					3054 *	3054 *					2932 *	2932 *	4.76
4.5 m					3281 *	3281 *	2511 *	2083			1828 *	1828 *	6.20
3.0 m			5688 *	5688 *	4090 *	3225	2719	2008			1870 *	1636	6.73
1.5 m			8210	5470	4121	2967	2604	1901			2043 *	1510	6.89
0 m			7866	5184	3926	2789	2514	1817			2114	1528	6.72
-1.5 m	5806 *	5806 *	7845	5167	3860	2730	2490	1794			2387	1722	6.18
-3 m	9455 *	9455 *	7672 *	5289	3923	2787					3195	2299	5.15
-4.5 m													

BLADE - 3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 339 kg

6.0 m							1912 *	1912 *			1683 *	1683 *	6.14
4.5 m							2619 *	2174			1427 *	1427 *	7.09
3.0 m					3279 *	3279 *	2788	2070	1610 *	1369	1448 *	1348	7.56
1.5 m			6792 *	5808	4235	3065	2645	1936	1816	1314	1553 *	1250	7.70
0 m	2633 *	2333 *	7960	5256	3963	2820	2516	1816	1762	1264	1743	1250	7.55
-1.5 m	4676 *	4676 *	7751	5082	3822	2692	2442	1747			1904	1362	7.08
-3 m	7174 *	7174 *	7783	5109	3807	2678	2450	1754			2336	1675	6.20
-4.5 m	10701 *	10701 *	6761 *	5303	3942	2800					3674	2623	4.71

*Hydraulic pressure factor: 87.0 %. Without asterisk: Stability factor: 75.0 %



LIFTING CAPACITY

WITH 4.74 m 2 PIECE BOOM

Values are expressed in kilos

 Front 360°	REACH											
	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	At max reach						
												m

2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 398 kg

6.0 m					3110*	3110*					2120*	2120*	5.58
4.5 m					3710*	3440*	2820	2030			1440*	1440*	6.75
3.0 m	13120*	13120*	6750*	6230	4490	3350	2800	1990			1460*	1290	7.24
1.5 m	12340*	12340*	8370	6010	4390	3260	2700	1890			1580*	1180	7.39
0 m	8830*	8830*	8340	5640	4280	2950	2550	1740			1790	1180	7.23
-1.5 m	10150*	10150*	8230	5190	4020	2710	2420	1610			1990	1310	6.73
-3 m	10770*	10770*	8040	5030	3830	2540					2530	1680	5.80
-4.5 m													

2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 408 kg

6.0 m					3460*	3400*					2870*	2800	4.98
4.5 m					4350*	3430	2770	1960			1770*	1720	6.36
3.0 m	12360*	12360*	7380*	6180*	4480	3350	2750	1940			1800*	1420	6.88
1.5 m	10540*	10540*	8380	6030	4420	3190	2650	1840			1930	1290	7.04
0 m	8710*	8710*	8410*	5520	4230	2900	2520	1700			1960	1300	6.87
-1.5 m	10950*	10950*	8190	5160	3970	2660	2410	1610			2210	1460	6.34
-3 m	11630*	11630*	8030	5020	3850	2550					2770*	1950	5.35
-4.5 m													

3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 398 kg

6.0 m							2130*	2090			1670*	1670*	6.32
4.5 m					3070*	3070*	2850*	2130			1380*	1370	7.25
3.0 m			4600*	4600*	4230*	3380*	2880	2100	1830	1250	1400*	1160	7.71
1.5 m	12090*	12090*	8160*	6020	4390	3290	2790	1990	1780	1190	1500*	1060	7.86
0 m	9910*	9910*	8280*	5830	4370	3030	2630	1820	1700	1120	1620	1060	7.70
-1.5 m	9870*	9870*	8320	5260	4080	2760	2460	1650			1760	1150	7.24
-3 m	10980*	10980*	8050	5030	3850	2550	2370	1570			2150	1420	6.39
-4.5 m	11200*	11200*	6650*	4950	3190*	2540					2860*	2420	4.64

LC - 2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 398 kg

6.0 m					3110*	3110*					2120*	2120*	5.58
4.5 m					3710*	3510	2940*	2080			1440*	1440*	6.75
3.0 m		13120*	6750*	6340	4730*	3410	3210	2050			1460*	1330	7.24
1.5 m		12340*	8720*	6120	4960	3330	3120	1940			1580*	1220	7.39
0 m		8830*	9050*	5770	4960	3020	2980	1790			1820	1220	7.23
-1.5 m		10150*	9140*	5320	4740	2780	2850	1660			2300	1350	6.73
-3 m		10770*	8960*	5170	4540	2610					2770	1740	5.80
-4.5 m													

LC - 2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 408 kg

6.0 m					3460*	3460*					2870*	2870*	4.98
4.5 m					4350*	3500	2900*	2020			1770*	1770*	6.36
3.0 m		12360*	7380*	6300	5000*	3420*	3180	1990			1800*	1460	6.88
1.5 m		10540*	8880*	6140	4980*	3270	3080*	1890			1950*	1340	7.04
0 m		8710*	9100*	5660	4960	2980	2950	1760			2280*	1350	6.87
-1.5 m		10950*	9230*	5300	4680	2740	2850	1660			2600	1520	6.34
-3 m		11630*	8410*	5170	4560	2630					2770*	2020	5.35
-4.5 m													

LC - 3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 398 kg

6.0 m							2130*	2130*			1670*	1670*	6.32
4.5 m					3070*	3070*	2850*	2180			1380*	1380*	7.25
3.0 m			4600*	4600*	4230*	3440	3270	2150	1950*	1290	1400*	1200	7.71
1.5 m		12090*	8160*	6130	4970	3350	3210	2040	2080	1240	1500*	1100	7.86
0 m		9910*	8980*	5970	4920	3110	3060	1870	2010	1160	1690*	1100	7.70
-1.5 m		9870*	9040*	5390	4810	2840	2900	1700			2070*	1190	7.24
-3 m		10980*	9210*	5170	4560	2630	2810	1620			2540	1470	6.39
-4.5 m		11200*	6650*	5090	3190*	2620					2860*	2490	4.64

*Hydraulic pressure factor: 87.0 %. Without asterisk: Stability factor: 75.0 %

LIFTING CAPACITY

WITH 4.74 m 2 PIECE BOOM

Values are expressed in kilos

 Front 360°	REACH											
	1.5 m	3.0 m	4.5 m	6.0 m	7.5 m	At max reach						

BLADE - 2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 398 kg

6.0 m					3110*	3110*					2120*	2120*	5.58
4.5 m					3710*	3450	2860	2030			1440*	1440*	6.75
3.0 m	13120*	13120*	6750*	6240	4550	3350	2840	2000			1460*	1290	7.24
1.5 m	12340*	12340*	8470	6020	4450	3260	2740	1900			1580*	1180	7.39
0 m	8830*	8830*	8430*	5650	4360	2950	2600	1740			1820*	1180	7.23
-1.5 m	10150*	10150*	8370	5200	4090	2720	2470	1610			2030	1310	6.73
-3 m	10770*	10770*	8180	5040	3900	2540					2580	1690	5.80
-4.5 m													

BLADE - 2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 408 kg

6.0 m					3460*	3410					2870*	2810	4.98
4.5 m					4350*	3440	2820	1970			1770*	1720	6.36
3.0 m	12360*	12360*	7380*	6200	4540	3360	2800	1950			1800*	1420	6.88
1.5 m	10540*	10540*	8470	6050	4470	3200	2700	1840			1950*	1300	7.04
0 m	8710*	8710*	8500	5530	4310	2910	2570	1710			2000	1310	6.87
-1.5 m	10950*	10950*	8330	5180	4040	2670	2460	1610			2250	1470	6.34
-3 m	11630*	11630*	8170	5040	3920	2560					2770*	1960	5.35
-4.5 m													

BLADE - 3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 398 kg

6.0 m							2130*	2090			1670*	1670*	6.32
4.5 m					3070*	3070*	2850*	2140			1380*	1380	7.25
3.0 m			4600*	4600*	4230*	3380	2920	2100	1870	1250	1400*	1170	7.71
1.5 m	12090*	12090*	8160*	6040	4450*	3300	2830	2000	1810	1200	1500*	1070	7.86
0 m	9910*	9910*	8370	5850	4430*	3040	2680	1830	1740	1120	1650	1060	7.70
-1.5 m	9870*	9870*	8460	5270	4160	2770	2510	1660			1800	1150	7.24
-3 m	10980*	10980*	8190	5050	3920	2560	2420	1570			2200	1420	6.39
-4.5 m	11200*	11200*	6650*	4960	3190*	2550					2860*	2420	4.64

BLADE DOWN - 2.50 m dipper 600 mm shoes and bucket of 0.50 m³ - 398 kg

6.0 m					3110*	3110*					2120*	2120*	5.58
4.5 m					3710*	3450	2940*	2030			1440*	1440*	6.75
3.0 m		13120*	6750*	6240	4730*	3350	3750*	2000			1460*	1290	7.24
1.5 m		12340*	8720*	6020	5460*	3260	4060*	1900			1580*	1180	7.39
0 m		8830*	9050*	5650	5740*	2950	4140*	1740			1820*	1180	7.23
-1.5 m		10150*	9140*	5200	5790*	2720	4030*	1610			2300*	1310	6.73
-3 m		10770*	8960*	5040	5270*	2540					2770*	1690	5.80
-4.5 m													

BLADE DOWN - 2.11 m dipper 600 mm shoes and bucket of 0.55 m³ - 408 kg

6.0 m					3460*	3410					2870*	2810	4.98
4.5 m					4350*	3440	2900*	1970			1770*	1720	6.36
3.0 m		12360*	7380*	6200	5000*	3360	3920*	1950			1800*	1420	6.88
1.5 m		10540*	8880*	6050	5620*	3200	4150*	1840			1950*	1300	7.04
0 m		8710*	9100*	5530	5770*	2910	4180*	1710			2280*	1310	6.87
-1.5 m		10950*	9230*	5180	5870*	2670	3800*	1610			2950*	1470	6.34
-3 m		11630*	8410*	5040	4670*	2560					2770*	1960	5.35
-4.5 m													

BLADE DOWN - 3.01 m dipper 600 mm shoes and bucket of 0.37 m³ - 398 kg

6.0 m							2130*	2090			1670*	1670*	6.32
4.5 m					3070*	3070*	2850*	2140			1380*	1380	7.25
3.0 m			4600*	4600*	4230*	3380	3550*	2100	1950*	1250	1400*	1170	7.71
1.5 m		12090*	8160*	6040	5210*	3300	3910*	2000	2500*	1200	1500*	1070	7.86
0 m		9910*	8980*	5850	5690*	3040	4120*	1830	2460*	1120	1690*	1060	7.70
-1.5 m		9870*	9040*	5270	5720*	2770	4140*	1660			2070*	1150	7.24
-3 m		10980*	9210*	5050	5690*	2560	3430*	1570			2720*	1420	6.39
-4.5 m		11200*	6650*	4960	3190*	2550					2860*	2420	4.64

*Hydraulic pressure factor: 87.0 %. Without asterisk: Stability factor: 75.0 %