

# TECHNICAL SPECIFICATIONS

## DX490LC-7K & DX530LC-7K

### ENGINE

Designed to deliver superior performance and fuel efficiency, the Scania DC13 diesel engine fully meets latest Stage V emission regulations. To optimize machine performance, the engine uses high-pressure fuel injectors, air-to-air inter-cooler and electronic engine controls. 4-Cycle Water-Cooled, Variable Geometry Turbocharged, Diesel Oxidation Catalyst (DOC) & Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF).

#### Model

Scania DC13

#### No. of cylinders

6

#### Rated power at 1800 rpm

SAE J1995 294 kW (394.2 hp)  
SAE J1349 289 kW (387.6 hp)

#### Max. torque

189.8 kgf·m @ 900-1500 rpm

#### Idle (low - high)

750 [±20] - 1900 [±25] rpm

#### Displacement

12700 cm<sup>3</sup>

#### Bore × stroke

130 mm × 160 mm

#### Starter

24 V / 6 kW

#### Batteries - Alternator

2 × 12 V, 200 Ah - 28 V, 100 A

#### Air filter

Double element air cleaner and pre-filtered Cyclone Turbo dust separator

### HYDRAULIC CYLINDERS

High-strength steel piston rods and cylinder bodies. Shock-absorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

Cylinders	Quantity	Bore × rod diameter × stroke (mm)
Boom	2	170 × 115 × 1650
Arm	1	190 × 130 × 1980
Bucket	1	170 × 115 × 1341

### WEIGHT

	Shoe width (mm)	DX490LC-7K (with narrow/wide track)		DX530LC-7K (with narrow/wide track)	
		Machine weight (t)	Ground pressure (kgf/cm <sup>2</sup> )	Machine weight (t)	Ground pressure (kgf/cm <sup>2</sup> )
Triple grouser	600 (Std)	49.8 / 50.4	0.86 / 0.87	52.3 / 52.9	0.91 / 0.92
	750	50.8 / 51.4	0.70 / 0.71	53.3 / 53.9	0.74 / 0.75
	800	51.0 / 51.6	0.66 / 0.67	53.6 / 54.2	0.70 / 0.70
	900	51.6 / 52.2	0.60 / 0.60	54.1 / 54.8	0.62 / 0.63
Double grouser	600	49.8 / 50.4	0.86 / 0.87	52.4 / 53.0	0.91 / 0.92

### HYDRAULIC SYSTEM

The e-EPOS (Electronic Power Optimizing System) is the brain of the excavator – minimizing fuel consumption and optimizing the efficiency of the hydraulic system for all working conditions. To harmonize the operation of the engine and the hydraulics, the e-EPOS is connected to the engine's electronic control unit (ECU) via a data transfer link.

- The hydraulic system enables independent or combined operations
- 2 travel speeds offer either increased torque or high speed
- Cross-sensing pump system for fuel savings
- Auto-deceleration system
- 4 operating modes, 4 power modes
- Flow and pressure control of auxiliary hydraulic circuits from control panel
- Computer-aided pump flow control

#### Main pumps

2 × parallel, bent axis, axial piston pumps  
Maximum flow at 1800 rpm 2 × 390 l/min

#### Pilot pump

Gear pump  
Maximum flow at 1800 rpm 24 l/min

#### Relief valve settings

Implement 380 bar (387.5 kgf/cm<sup>2</sup>)  
Travel 343 bar (350 kgf/cm<sup>2</sup>)  
Swing 294 bar (300 kgf/cm<sup>2</sup>)  
Pilot 40 bar (40.8 kgf/cm<sup>2</sup>)

### SWING MECHANISM

The swing mechanism uses an axial piston motor, driving a 2-stage planetary reduction gear bathed in oil for maximum torque.

- Swing bearing: single-row, shear type ball bearing with induction hardened internal gear
- Internal gear and pinion immersed in lubricant

#### Maximum swing speed

9.2 rpm

#### Maximum swing torque

20130 kgf·m

## CAB

The air-conditioning and heating systems are integrated for optimal climate control. An automatically-controlled fan supplies the pressurized and filtered cab air, which is distributed throughout the cab from multiple vents.

The heated air-suspension, adjustable operator's seat includes a seat belt. The operator can adjust the ergonomic seat and joystick console separately according to his preferences.

### A-weighted emission sound pressure level at the operator's position, LpAd (ISO 6396:2008)

72 dB(A)

### A-weighted sound power level, LwAd (2000/14/EC)

Declared: 106 dB(A)

Measured: 105 dB(A)

## DRIVE

Each track is driven by an independent, high-torque axial piston motor through a planetary reduction gearbox. Two levers / foot pedals guarantee smooth travel with counter-rotation on demand. The track frame protects the travel motor, brake and planetary gears. The multi-disc track brakes are spring-applied and hydraulic released.

### Travel speed (low - high)

3.2 - 5.6 km/h

### Maximum traction

45.7 t

### Maximum gradeability

35° / 70%

## FLUID CAPACITIES

Fuel tank	626 l
Cooling system (radiator)	52.5 l
AdBlue® (DEF) tank	70 l
Hydraulic oil tank	390 l
Engine oil	45 l
Swing drive	2 × 5 l
Travel device	2 × 9 l

## UNDERCARRIAGE

Extremely robust construction throughout - made of high-quality, durable materials, with all welded structures designed to limit stresses.

- Track rollers lubricated for life
- Idlers and sprockets fitted with floating seals
- Track shoes made of induction-hardened alloy with triple grouser
- Heat-treated connecting pins
- Hydraulic track adjuster with shock-absorbing tension mechanism

### Upper rollers (standard shoe)

3 (variable track)

### Lower rollers

9

### Number of links & shoes per side

53

### Link pitch

215.9 mm

## COMPONENT WEIGHTS

Item	Unit	DX490LC-7K	DX530LC-7K	Remarks
Upper structure without front	kg	11467	11467	Without counterweight
Lower structure assembly	kg	19951	19951	Wide variable track with 600 mm shoes
Counterweight	kg	8500 / 9200	11100	
Front assembly	kg	10670	10635	Based on standard
Boom	mm / kg	6300 / 3540 7100 / 3845 7100 HD / 3905	6300 / 3540 7100 / 3845 7100 HD / 3905 9000 Semi-SLF / 4010 11000 SLF / 4500	Including bushing
Arm	mm / kg	2400 / 1565 2900 / 1640 3350 / 1760 3350 HD / 1795 3980 / 1895	2400 / 1565 2900 / 1640 3350 / 1760 3350 HD / 1795 3980 / 1895 6000 Semi-SLF / 2040 8000 SLF / 2460	Including bushing

## BUCKETS – DX530LC-7K

Bucket Type	Capacity (m³) SAE	Width (mm)		Weight (kg)	Narrow track (3.49 m) / wide track (3.9 m)					Wide track (3.9 m) with 11.1 t c/w	
		W/O side cutters	With side cutters		7.1 m boom / 11.1 t counterweight			6.3 m boom / 11.1 t counterweight		9.0 m boom	11.0 m boom
					2.90 m arm	3.35 m arm	3.98 m arm	2.40 m arm	2.90 m arm	6.0 m arm	8.0 m arm
GP	1.80	1381	1474	1718	A / A	A / A	A / A	A / A	A / A	- / -	- / A
	2.14	1588	1682	1910	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.39	1744	1837	2027	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.86	2037	2130	2279	A / A	B / A	C / A	A / A	A / A	- / -	- / -
R2H	1.80	1232	1266	1831	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.07	1382	1416	1952	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.35	1532	1566	2121	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.72	1732	1766	2283	A / A	B / A	B / A	A / A	A / A	- / -	- / -
	2.91	1832	1866	2411	A / A	B / A	C / A	A / A	A / A	- / -	- / -
	3.28	2032	2066	2572	B / A	C / B	D / B	A / A	B / A	- / -	- / -
R2S	1.94	1350	-	2268	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.22	1500	-	2407.8	A / A	A / A	A / A	A / A	A / A	- / -	- / -
	2.59	1700	-	2593.6	A / A	B / A	B / A	A / A	A / A	- / -	- / -
	2.78	1800	-	2735.7	A / A	B / A	C / B	A / A	A / A	- / -	- / -
	3.15	2000	-	2921.6	C / A	C / B	D / C	A / A	B / A	- / -	- / -
Rock	1.71	1572	-	2075	A / A	A / A	A / A	A / A	A / A	- / -	- / -
SLR	0.93	1173	1236	754	- / -	- / -	- / -	- / -	- / -	- / -	- / A
Semi-SLR	1.27	1376	1445	1160	- / -	- / -	- / -	- / -	- / -	- / A	- / -
Semi-DC*	1.12	1500	-	1040	- / -	- / -	- / -	- / -	- / -	- / A	- / -
	1.37	1800	-	1430	- / -	- / -	- / -	- / -	- / -	- / A	- / -

A: Suitable for materials with a density less than or equal to 2100 kg/m³

C: Suitable for materials with a density less than or equal to 1500 kg/m³

-: Not recommended

Based on ISO 10567 and SAE J296, arm length without quick-coupler. For reference only.

B: Suitable for materials with a density less than or equal to 1800 kg/m³

D: Suitable for materials with a density less than or equal to 1200 kg/m³

\* Ditch cleaning bucket

## DEVELON BUCKETS

4 More. More choice - More durable - More strength - More performance!

### General Construction Bucket



The General purpose bucket is designed for digging and re-handling soft to medium materials (e.g. materials with low wear characteristics such as top-soil, loam, coal).

### Heavy Construction Bucket



The Heavy duty bucket is designed for mass excavations in dense materials such as hard packed clay, shot limestone, limited rock content and gravel.

### Severe Mining Bucket



The Severe duty bucket is designed for durability in digging compact materials like loose or blasted rock, hard packed clay and stone.

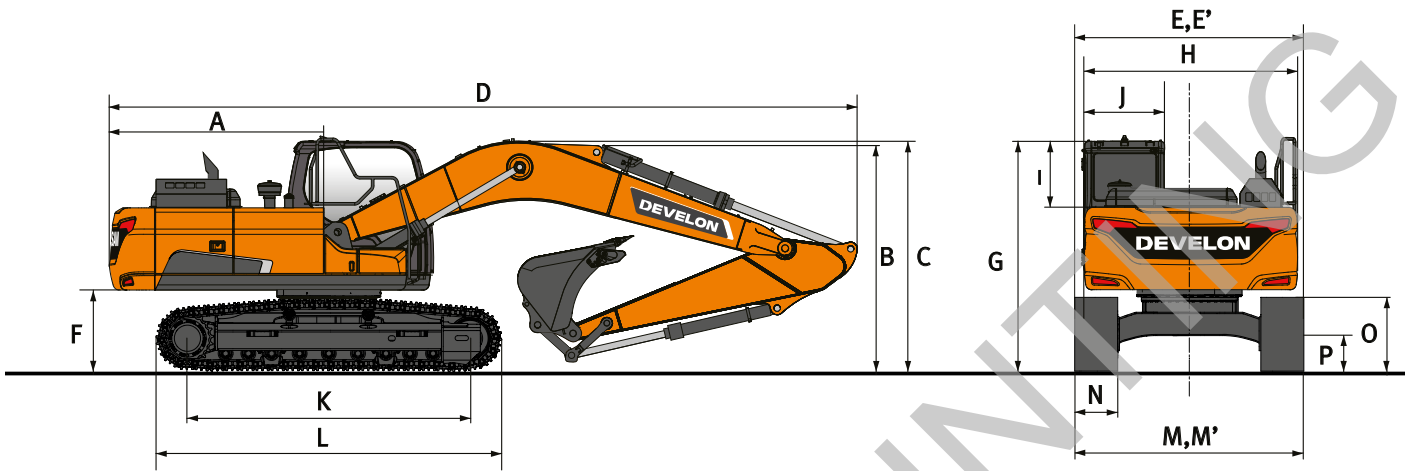
### X-treme Mining Bucket



The X-treme duty bucket is designed as a long-life version of the Severe duty bucket for digging in the most abrasive materials.

# DIMENSIONS

## DX490LC-7K & DX530LC-7K



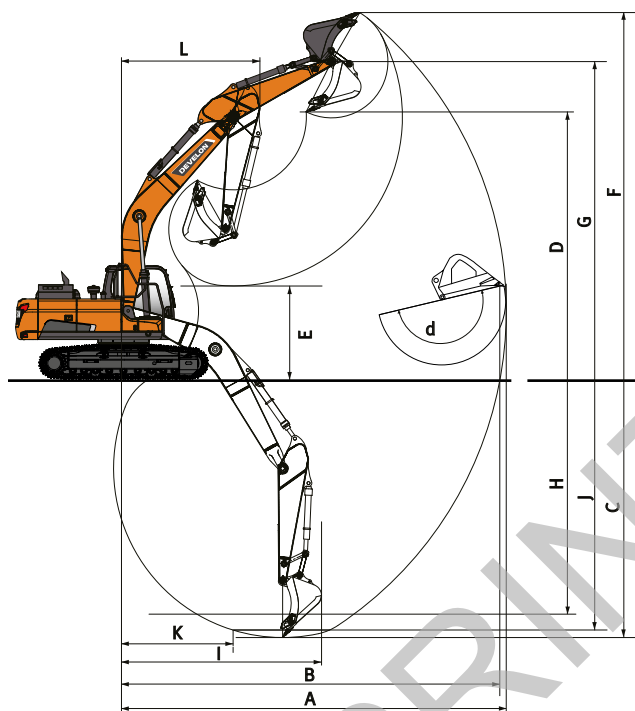
### DIMENSIONS

	Unit	DX490LC-7K & DX530LC-7K (variable track)						DX530LC-7K	
		7100		7100 HD		6300		9000	11000
<b>Boom length</b>	<b>mm</b>	<b>7100</b>		<b>7100 HD</b>		<b>6300</b>		<b>9000</b>	<b>11000</b>
<b>Arm length</b>	<b>mm</b>	<b>2900</b>	<b>3350</b>	<b>3980</b>	<b>3350 HD</b>	<b>2400</b>	<b>2900</b>	<b>6000</b>	<b>8000</b>
<b>Bucket capacity</b>	<b>m<sup>3</sup></b>	<b>2.39</b>	<b>2.14</b>	<b>1.80</b>	<b>1.71</b>	<b>3.28</b>	<b>2.91</b>	<b>1.27</b>	<b>0.92</b>
A Tail swing radius	mm	3800	3800	3800	3800	3800	3800	3800	3800
B Shipping height (boom)	mm	3800	3580	3815	3580	4010	4125	3765	3935
C Shipping height (hose)	mm	3895	3705	3910	3705	4060	4165	3910	4070
D Shipping length	mm	12330	12230	12310	12230	11720	11530	14155	16195
E Shipping width (wide)	mm	3340	3340	3340	3340	3340	3340	3340	3340
E' Shipping width (narrow)	mm	2990	2990	2990	2990	2990	2990	2990	2990
F Counterweight clearance**	mm	1430	1430	1430	1430	1430	1430	1430	1430
G Height over cab	mm	3350	3350	3350	3350	3350	3350	3350	3350
H House width	mm	2990	2990	2990	2990	2990	2990	2990	2990
H House width (incl. catwalk)	mm	3296	3296	3296	3296	3296	3296	3296	3296
I Cab height above house	mm	845	845	845	845	845	845	845	845
J Cab width	mm	1010	1010	1010	1010	1010	1010	1010	1010
K Tumbler distance	mm	4475	4475	4475	4475	4475	4475	4475	4475
L Track length	mm	5455	5455	5455	5455	5455	5455	5455	5455
M Undercarriage width (wide)	mm	3340 / 3900*	3340 / 3900*	3340 / 3900*	3340 / 3900*	3340 / 3900*	3340 / 3900*	3340 / 3900*	3340 / 3900*
M' Undercarriage width (narrow)	mm	2990 / 3490*	2990 / 3490*	2990 / 3490*	2990 / 3490*	2990 / 3490*	2990 / 3490*	2990 / 3490*	2990 / 3490*
N Shoe width	mm	600	600	600	600	600	600	600	600
O Track height**	mm	1180	1180	1180	1180	1180	1180	1180	1180
P Ground clearance**	mm	730	730	730	730	730	730	730	730

\* : retracted / extended (without side steps, + 200 mm with side steps)

\*\* : without grouser

# WORKING RANGE DX490LC-7K & DX530LC-7K



## WORKING RANGE

	Unit	DX490LC-7K & DX530LC-7K (variable track)						DX530LC-7K	
		7100			7100 HD	6300		9000	11000
<b>Boom length</b>	mm	7100			7100 HD	6300		9000	11000
<b>Arm length</b>	mm	2900	3350	3980	3350 HD	2400	2900	6000	8000
<b>Bucket capacity</b>	m <sup>3</sup>	2.39	2.14	1.80	1.71	3.28	2.91	1.27	0.92
A Max. digging reach	mm	11720	12125	12670	12125	10305	10735	16060	19615
B Max. digging reach (ground)	mm	11455	11865	12425	11865	10000	10445	15870	19455
C Max. digging depth	mm	7340	7790	8405	7790	6260	6755	11795	15125
D Max. loading height	mm	7725	7865	8025	7865	6650	6750	9800	11890
E Min. loading height	mm	3580	3130	2510	3130	3505	2980	2076	1465
F Max. digging height	mm	10920	11050	11205	11050	9495	9630	12755	14435
G Max. bucket pin height	mm	9550	9690	9850	9690	8455	8555	11415	13355
H Max. vertical wall depth	mm	4045	4370	4930	4370	590	1155	10300	12805
I Max. radius vertical	mm	9710	9970	10235	9970	9845	10095	9515	12165
J Max. digging depth (8° level)	mm	7165	7635	8265	7635	6020	6535	11670	15010
K Min. radius (8° level)	mm	3885	3895	3905	3895	3195	3175	4885	6165
L Min. swing radius	mm	5235	5210	5185	5210	4740	4715	6525	7825
d Bucket angle	°	181.2	189.1	180.9	189.1	184.5	186.2	175.2	177.6

## DIGGING FORCES (ISO)













	Unit	DX490LC-7K & DX530LC-7K (variable track)						DX530LC-7K	
		7100			7100 HD	6300		9000	11000
<b>Boom length</b>	mm	7100			7100 HD	6300		9000	11000
<b>Arm length</b>	mm	2900	3350	3980	3350 HD	2400	2900	6000	8000
<b>Bucket capacity</b>	m <sup>3</sup>	2.39	2.14	1.80	1.71	3.28	2.91	1.27	0.92
BUCKET (Normal/Press. Up)	ton	29.0 / 30.8	29.0 / 30.8	29.0 / 30.8	30.7 / 32.6	28.4 / 30.1	28.4 / 30.1	19.2 / 20.3	14.3 / 15.2
ARM (Normal/Press. Up)	ton	24.4 / 25.8	21.4 / 22.7	19.1 / 20.3	21.4 / 22.7	28.3 / 30.0	24.4 / 25.8	13.8 / 15.1	10.9 / 11.9

# LIFTING CAPACITIES

## DX530LC-7K

TRACK WIDTH: 3490 MM • W/O BUCKET

(UNIT: 1000 KG)

A	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		Max. reach		A
													
<b>Boom 6.3 m • Arm 2.4 m • Shoe 600 mm • Counterweight 11.1 t</b>													
7.5 m											14.15*	14.15*	6.84
6.0 m					15.27*	15.27*	14.00*	12.52			13.93*	11.89	7.74
4.5 m					17.15*	16.99	14.67*	12.24			13.99*	10.54	8.28
3.0 m					19.17*	16.24	15.62*	11.88			14.21*	9.92	8.51
1.5 m					20.56*	15.70	16.34*	11.58			14.53*	9.82	8.47
0.0 m			27.81*	23.55	20.86*	15.44	16.43*	11.42			14.90*	10.25	8.15
-1.5 m			25.85*	23.68	19.87*	15.44	15.27*	11.47			15.20*	11.43	7.52
-3.0 m	27.77*	27.77*	22.09*	22.09*	16.90*	15.73					15.14*	14.20	6.48

TRACK WIDTH: 3900 MM • W/O BUCKET

Boom 6.3 m • Arm 2.9 m • Shoe 600 mm • Counterweight 11.1 t

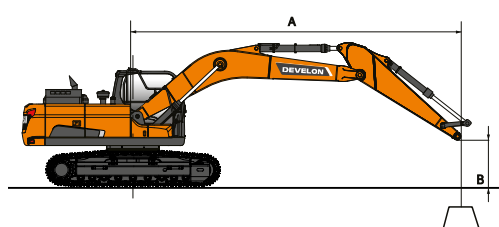
7.5 m											12.66*	12.66*	7.36
6.0 m							13.12*	13.12*			12.50*	12.50*	8.20
4.5 m			20.82*	20.82*	16.23*	16.23*	13.99*	13.99*			12.81*	11.38	8.71
3.0 m					18.45*	18.45*	15.10*	13.92			13.32*	10.77	8.93
1.5 m					20.14*	18.68	16.03*	13.57			13.68*	10.68	8.89
0.0 m			28.23*	28.23*	20.83*	18.31	16.41*	13.35			14.10*	11.10	8.59
-1.5 m	25.30*	25.30*	26.84*	26.84*	20.30*	18.22	15.83*	13.30			14.52*	12.23	7.99
-3.0 m	31.42*	31.42*	23.75*	23.75*	18.14*	18.14*					14.77*	14.75	7.03
-4.5 m			17.71*	17.71*							14.18*	14.18*	5.49



Boom 7.1 m • Arm 2.9 m • Shoe 600 mm • Counterweight 11.1 t

9.0 m											11.78*	11.78*	7.38
7.5 m							11.84*	11.84*			11.12*	11.12*	8.50
6.0 m					14.22*	14.22*	12.49*	12.49*	11.64*	10.89	10.93*	10.43	9.23
4.5 m					16.40*	16.40*	13.58*	13.58*	12.04*	10.70	11.08*	9.55	9.68
3.0 m					18.55*	18.55*	14.73*	13.58	12.60*	10.46	11.54*	9.12	9.88
1.5 m					19.95*	18.06	15.63*	13.20	13.05*	10.25	11.97*	9.04	9.85
0.0 m			18.79*	18.79*	20.34*	17.76	16.01*	12.96	13.14*	10.12	12.18*	9.32	9.58
-1.5 m			25.44*	25.44*	19.75*	17.70	15.67*	12.90	12.47*	10.13	12.35*	10.07	9.05
-3.0 m	28.38*	28.38*	22.87*	22.87*	18.09*	17.86	14.23*	13.02			12.36*	11.59	8.21
-4.5 m	22.68*	22.68*	18.60*	18.60*	14.65*	14.65*					11.84*	11.84*	6.95

Boom 7.1 m • Arm 3.35 m • Shoe 600 mm • Counterweight 11.1 t

9.0 m							11.14*	11.14*			8.66*	8.66*	7.92
7.5 m							11.14*	11.14*			8.23*	8.23*	8.96
6.0 m							11.88*	11.88*	11.07*	10.99	8.11*	8.11*	9.66
4.5 m			20.84*	20.84*	15.59*	15.59*	13.03*	13.03*	11.60*	10.77	8.22*	8.22*	10.09
3.0 m			21.39*	21.39*	17.86*	17.86*	14.28*	13.66	12.25*	10.49	8.55*	8.55*	10.28
1.5 m			16.84*	16.84*	19.52*	18.14	15.31*	13.23	12.82*	10.25	9.13*	8.52	10.25
0.0 m			21.19*	21.19*	20.23*	17.74	15.87*	12.94	13.08*	10.08	10.07*	8.75	9.99
-1.5 m	17.04*	17.04*	26.23*	26.23*	19.96*	17.62	15.78*	12.82	12.77*	10.03	11.61*	9.38	9.49
-3.0 m	26.21*	26.21*	23.99*	23.99*	18.66*	17.71	14.75*	12.89			11.96*	10.63	8.69
-4.5 m	25.84*	25.84*	20.25*	20.25*	15.89*	15.89*	11.80*	11.80*			11.74*	11.74*	7.51



 : Rating over front.  
 : Rating over side or 360°.

- Lifting capacities are in compliance with ISO 10567:2007(E).
- The load point is at the end of the arm.
- \* = The nominal loads are based on hydraulic capacity.
- The nominal loads shown do not exceed 75% of tipping loads or 87% of hydraulic lifting capacity.
- For lifting capacity with bucket, simply subtract the actual weight of the bucket from the values.
- The configurations indicated do not necessarily reflect the standard equipment of the machine.