D A E W O O · H Y D R A U L I C · E X C A V A T O R

SOLAR 220LC-V

DAEWOO NEW CRAWLER TYPE EXCAVATOR

- Operating Weight : 20,900 kg (46,100 lb)
- Bucket Capacity (PCSA) : 0.5~1.18 m^3 (0.65~1.54 cu·yd)
- Rated Engine Power : 145 HP / 2,000 rpm
  108 kw / 2,000 rpm

DAEWOO
DAEWOO HEAVY INDUSTRIES & MACHINERY LTD.

Technical Data

Engine

Model ..... DAEWOO DB58TI
Type ..... Water-cooled, 4-cycle, direct injection.
Aspiration ..... Turbocharged
No of cylinders 6
Rated flywheel horse power
DIN 6271, net ..... 108 KW (147 PS) at 2,000 rpm
SAE J1349, net ..... 108KW (145HP) at 2,000 rpm
Piston displacement ..... 5,785 cc (353 cu.in)
Maximum torque ..... 56 kgf.m (549 Nm, 405 lbf.ft) @1,600 rpm
Bore and stroke ..... 102 mm × 118 mm (4.0" × 4.6")
Starting system ..... 24V electric motor
Batteries ..... 2 × 12V × 100 AH

Hydraulic system

New EPOS-V (with load sensing system) allows the operator to maximize work efficiency over a full range of operating conditions and to minimize fuel consumption.

- Hydraulic system assures fully independent and combined operations.
- Automatic 2 speed travel system for high traction force and travel speed.
- Cross-sensing and fuel saving pump system.
- Auto idle system.
- 3-Working / 3-power mode selection system.
- Computer aided engine-pump control.

Main pumps ..... 2 variable displacement axial piston pumps.
Max. oil flow ..... 2 × 212 47 lmp gpm)

Pilot pump ..... Gear pump
Max. oil flow 30

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Cylinders	Q'ty	Bore × Rod dia. × Stroke
Boom	2	120 × 85 × 1,280 mm (4.7" × 3.3" × 50.4")
Arm	1	135 × 95 × 1,538 mm (5.3" × 3.7" × 60.6")
Bucket	1	120 × 80 × 1,050 mm (4.7" × 3.1" × 41.3")

Hydraulic filters

All hydraulic circuits have high-quality hydraulic filters for protection against oil contamination and longer life of hydraulic components. Suction filter is built in suction line, and 10μ full-flow filter in return circuit and swing / travel motor drain lines.

Swing mechanism

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is singlerow, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant. Swing parking brake is spring-set, hydraulic-released disc type. A two position swing lock secures the super-structure for transportation.

· **Swing speed** ..... 0 to 12.1rpm (min^{-1})
· **Rear swing radius** ..... 2,750 mm (9'3")

Drive

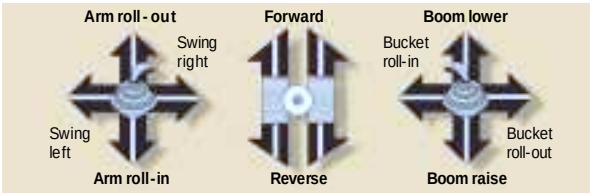
Each track is driven by an independent, high-torque, axial piston motor through planetary reduction gear. Two levers or foot pedal control provide smooth travel or counter-rotation upon demand.

Travel speed (High / Low) ..... 5.5/3.1 km/h (3.4/1.9 mph)
Maximum traction force ..... 20,800 kgf (45,850 lbf)
Gradeability ..... 35 °(70%) continuous

Technical Data

Controls.2implement levers

Pilot pressure control type. Right lever is boom and bucket control, left lever for swing and arm control.



2Travel pedals with levers

Pilot pressure control type. Independent drive at each track allows counter-rotation of the tracks. Levers are detachable.

Super-structure revolving frame

A deep, full-reinforced box section. Heavy-gauge steel plates used for ruggedness.

Operator's cab

A roomy, independent, shock and noise-free operator's cab, 4 side safety glass windows give all-round visibility. Front window slides up and stores in the roof and side window can be left open for ventilation. Fully adjustable reclining seat : fwd./rev. and up/down. Cab cooler(option). ISO standard cab.

Noise Levels (dynamic value)

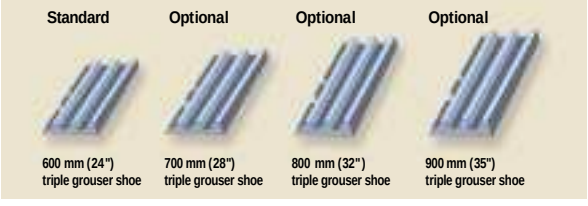
Lpw External noise ..... **104 dB(A)** (95/27/EC)

LpA Operator ear noise **75 dB(A)** (ISO 6396)

76 dB(A) (95/27/EC)

Undercarriage types of shoes

Tractor type undercarriage. Heavy-duty track frame, all welded stress-relieved structure. Top grade materials are used for toughness. Side frames are welded, securely and rigidly, to the track frame. Lifetime-lubricated track rollers, idlers and sprockets with floating seals. Track shoes of induction-hardened rolled alloy with triple grousers. Specially heart-treated connecting pins. Hydraulic track adjusters with shock-



Number of rollers and shoes (each side) ground contact area

Upper rollers 2

(Standard shoe)

Lower rollers 9

Track shoes 49

Overall track length ..... 4,440 mm (14' 7")

Brake

Two oil disc brake on final drive input shafts. Parking brake is spring-set, hydraulic-released disc type.

Weight

Equipped with 5.7 m(18'7") boom, 2.9 m(9' 6") arm, and 0.93 m^3(1.22 yd^3; PCSA heaped) bucket and 600mm(24") shoes.

Shoe type	Shoe width	Operating weight	Ground pressure
Triple grouser	600mm (24")	20,900 kg (46,100 lb)	0.44 kgf/cm^2 (43 kpa, 6.3 psi)
	700mm (28")	21,200 kg (46,740 lb)	0.38 kgf/cm^2 (37 kpa, 5.4 psi)
	800mm (32")	21,500 kg (47,400 lb)	0.34 kgf/cm^2 (33 kpa, 4.8 psi)
	900mm (35")	21,800 kg (48,060 lb)	0.31 kgf/cm^2 (30 kpa, 4.4 psi)

Service refill capacities

	Liters	US gal	Imp gal
Fuel tank	310.0	81.9	68.2
Cooling system	31.0	8.2	6.8
Lubrication	**Liters**	**US gal**	**Imp gal**
Engine oil	19.0	5.0	4.2
Swing drive (each)	5.0	1.3	1.1
Final drive (each)	3.3	0.9	0.7
Hydraulic system	220.0	58.1	48.4
Hydraulic tank	135	35.7	29.7

Safety

- Safety glass windows.
- Spring-set/hydraulic-released disc type parking brake.
- Electric horn.
- Window protector. ..... optional.
- Engine coolant temperature gauge.
- Alarm buzzer(Engine oil pressure and engine coolant temperature).
- Lever lock.

Technical Data

- Monitor for during operation
  (Engine oil pressure, battery charge, engine oil filter clogging, air cleaner clogging and hydraulic oil filter clogging)

Standard equipment

All weather steel cab with all-round visibility. Safety glass windows. Wide screen wiper. Sliding, fold-in front window. Sliding side window. Lockable door. Deluxe fully adjustable reclining seat. Lever lock. Cab heater. Air conditioner.

Backhoe attachments

Boom and arm are of all welded. Low stress, full box section design. Bucket of all welded, high-strength steel structure.

Instrument panel

Engine coolant temperature gauge. Electric hourmeter. Fuelmeter. Tachometer. Voltmeter. Hydraulic oil pressure gauge. Monitor for during operation(Engine oil pressure, battery charge, air cleaner clogging and hydraulic oil filter clogging). Alarm buzzer (Engine oil pressure and engine coolant temperature).

Miscellaneous

Car stereo. Electric horn. Cigarette lighter. Ashtray. Magazine box. Lockable machine cover. Radiator reserve tank. Air cleaner evacuator. Track guards. Dual type air filters. Fuel filler pump(optional).

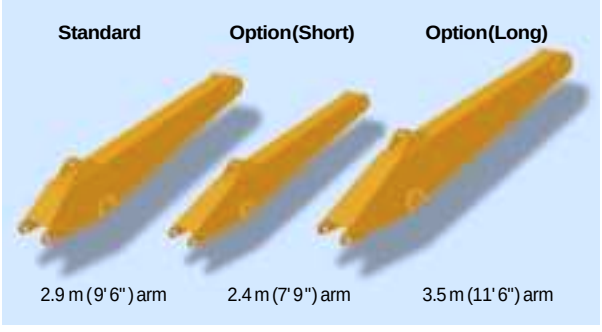
Optional equipment

Buckets. Track shoes. Additional working lamp(on top of cabin). Lock valves on boom and arm for safety.

Digging forces (Maximum radial tooth forces)

	2.9m (9'6") Arm	2.4m (7'9") Arm	3.5m (11'6") Arm
Bucket digging force*	13,100 kgf	13,100 kgf	13,100 kgf
	129 KN	129 KN	129 KN
	28,900 lbf	28,900 lbf	28,900 lbf
Arm digging force*	10,200 kgf	12,300 kgf	9,300 kgf
	100 KN	121 KN	91.3 KN
	22,500 lbf	27,100 lbf	20,500 lbf

*At power boost



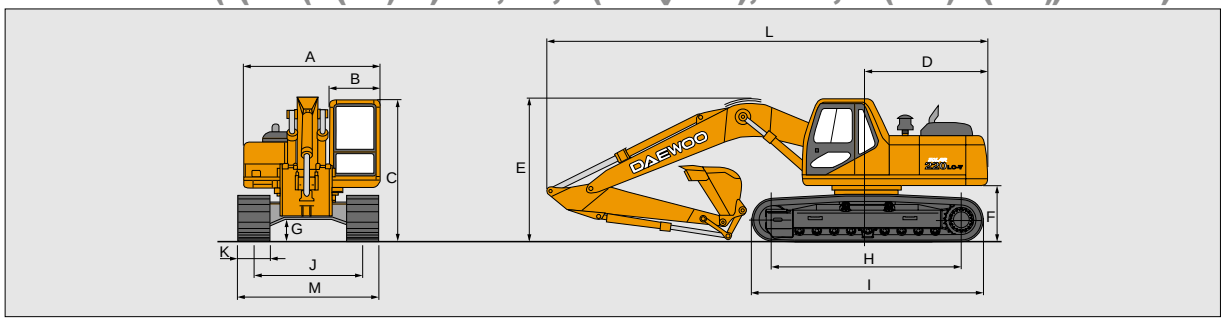
Buckets

Capacity		Width		Weight	Recommendation		
PCSA, heaped	CECE, heaped	Without side cutters	With side cutters		2.4m(7'9")Arm	2.9m(9'6")Arm	3.5m(11'6")Arm
0.50m³ (0.65yd³)	0.45m³	688mm (27")	778mm (31")	500kg (1,100lb)	A	A	A
0.81m³ (1.06yd³)	0.7m³	1,058mm (42")	1,168mm (46")	660kg (1,460lb)	A	A	A
0.93m³ (1.22yd³)	0.8m³	1,180mm (46")	1,290mm (51")	710kg (1,570lb)	A	A	B
1.05m³ (1.37yd³)	0.9m³	1,302mm (51")	1,412mm (56")	760kg (1,680lb)	A	B	B
1.17m³ (1.53yd³)	1.0m³	1,428mm (56")	1,538mm (61")	800kg (1,760lb)	B	B	C
1.18m³ (1.54yd³)	1.1m³	1,560mm (61")	1,670mm (66")	855kg (1,880lb)	B	B	C

A. Suitable for materials with density of 3,370 lb/cu·yd (2,000 kg/m³) or less
B. Suitable for materials with density of 2,700 lb/cu·yd (1,600 kg/m³) or less
C. Suitable for materials with density of 1,850 lb/cu·yd (1,100 kg/m³) or less

Specifications & Working Ranges

■Dimensions (5.7 m (18'8") Boom, 2.9 m (9'6") Arm, 600 mm (24") Shoe)



■General specifications

Operating weight	20,900kg (46,100lb)

Bucket

Heaped capacity range	PCSA 0.5 ~ 1.18m³ (0.65 ~ 1.54 cu·yd)

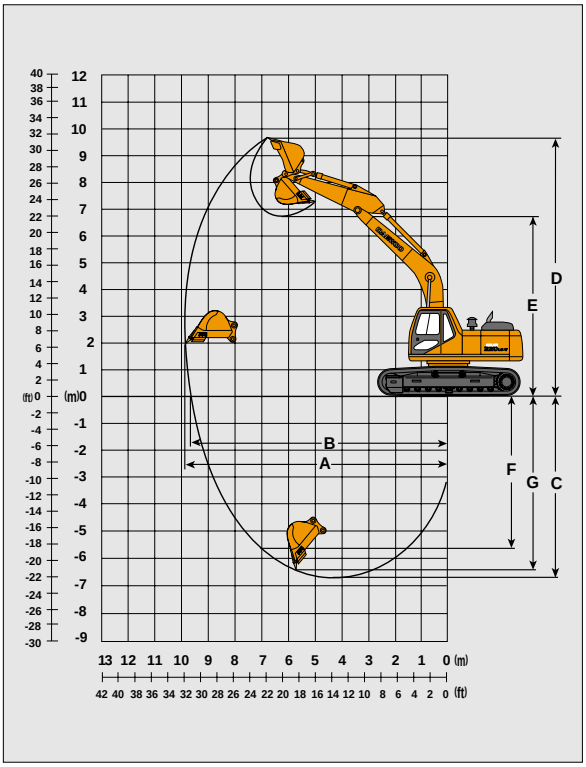
Dimensions

A	Overall width of upper structure	2,710mm(8'9")
B	Overall width of cab	960mm(38")
C	Overall height of cab	3,030mm(9'11")
D	Tail swing radius	2,750mm(9')
E	Overall height	3,100mm(10'2")
F	Clearance under counterweight	1,115mm(3'7")
G	Ground clearance	480mm(19")
H	Tumbler distance	3,645mm(12')
I	Track length	4,440mm(14'7")
J	Track gauge	2,390mm(7'10")
K	Track shoe width	600mm(24")
L	Overall length	9,550mm(31'4")
M	Overall track width with 600mm (24") shoe	2,990mm(9'8")

Maneuverability

Ground pressure	0.44 bar (6.3 psi)
Travel speed (High/Low)	5.5 / 3.1 km/h (3.4 / 1.9 mph)
Gradeability	35° (70 %)
Ground clearance	480 mm (19")

■Working ranges

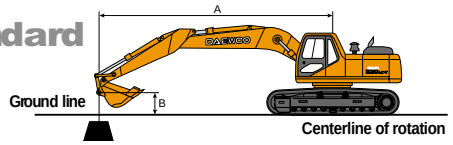


Working ranges

Boom length	5.7 m (18'8")					
Arm length	2.9 m	(9'6")	2.4 m	(7'9")	3.5 m	(11'6")
A. Max. digging reach	9,970 mm	(32'8")	9,450 mm	(31'0")	10,500 mm	(34'5")
B. Max. digging reach at ground level	9,780 mm	(32'1")	9,250 mm	(30'4")	10,320 mm	(33'10")
C. Max. digging depth	6,660 mm	(21'10")	6,160 mm	(20'3")	7,260 mm	(23'10")
D. Max. digging height	9,660 mm	(31'8")	9,250 mm	(30'4")	9,870 mm	(32'5")
E. Max. loading height	6,810 mm	(22'4")	6,440 mm	(21'2")	7,030 mm	(23'1")
F. Max. vertical wall digging depth	5,610 mm	(18'5")	5,340 mm	(17'6")	6,700 mm	(22'0")
G. Max. digging depth (8' level)	6,460 mm	(21'2")	5,910 mm	(19'5")	7,080 mm	(23'3")

Lifting Capacities

■Standard



A : Load radius from centerline of rotation
B : Load point height

Metric (5.7Boom+2.9Arm+4.0CW+600mm Shoe)

Unit : 1,000kg

A(m) / B(m)	2		3		4		5		6		7		8		Max. Reach		
																	A(m)
7											‘3.33	‘3.33			‘3.33	‘3.33	7.02
6											‘3.69	3.69			‘3.33	3.20	7.65
5									‘3.89	‘3.89	‘3.88	3.65	‘3.39	2.89	‘3.40	2.86	8.11
4							‘4.77	‘4.77	‘4.41	‘4.41	‘4.19	3.58	‘4.10	2.85	‘3.53	2.64	8.42
3			‘9.86	‘9.86	‘7.10	‘7.10	‘5.78	‘5.78	‘5.02	4.44	‘4.60	4.49	‘4.33	2.80	‘3.71	2.51	8.60
2			‘5.37	‘5.37	‘8.83	7.96	‘6.78	5.69	‘5.69	4.32	‘5.02	3.41	4.46	2.75	‘3.97	2.44	8.66
1			‘4.78	‘4.78	‘10.17	7.66	‘7.70	5.49	‘6.29	4.21	5.42	3.33	4.40	2.70	3.98	2.43	8.62
0	‘2.95	2.95	‘6.04	‘6.04	‘10.96	7.49	‘8.37	5.37	6.79	4.11	5.35	3.27	4.37	2.67	4.06	2.48	8.46
-1	‘5.31	5.31	‘7.96	‘7.96	‘11.34	7.44	‘8.76	5.31	6.74	4.06	5.31	3.23	4.35	2.65	4.26	2.60	8.18
-2	‘7.66	‘7.66	‘10.48	‘10.48	‘11.33	7.45	‘8.88	5.29	6.71	4.04	5.30	3.22			4.62	2.82	7.75
-3	‘10.18	‘10.18	‘13.52	‘12.12	‘10.95	7.48	‘8.65	5.31	6.73	4.06	5.33	3.25			5.23	3.19	7.16
-4	‘13.24	‘13.24	‘13.15	12.40	‘10.06	7.59	‘8.04	5.38	‘6.45	4.12					‘6.17	3.86	6.35
-5	‘15.57	‘15.57	‘11.02	‘11.02	8.57	7.78	‘6.73	5.54							‘6.66	5.27	5.23

Feet (5.7Boom+2.9Arm+4.0CW+600mm Shoe)

Unit : 1,000 lb

A(ft) / B(ft)	5		10		15		20		25		Max. Reach		
													A(ft)
25							‘7.58	‘7.58			‘7.40	‘7.40	21.93
20							‘8.00	‘8.00	‘7.36	6.97	‘7.36	6.97	25.26
15							‘9.31	‘9.31	‘8.94	6.65	‘7.65	5.98	27.28
10			‘21.64	‘21.64	‘14.39	‘14.39	‘11.17	9.19	‘9.85	6.48	‘8.25	5.50	28.27
5			‘8.89	‘8.89	‘20.04	15.37	‘13.14	8.79	10.22	6.29	8.75	5.37	28.34
0	‘7.29	‘7.29	‘13.62	‘13.62	‘22.47	14.75	14.04	8.51	10.08	6.16	8.96	5.47	27.50
-5	‘12.02	‘12.02	‘21.35	‘21.35	‘23.12	14.62	13.91	8.40	10.11	6.17	9.62	5.87	25.65
-10	‘22.08	‘22.08	‘31.73	31.42	‘22.21	14.90	14.09	8.53			11.53	7.04	22.52
-15	‘33.59	‘33.59	‘27.35	‘27.35	‘18.53	15.32	‘14.12	9.61			‘14.00	9.44	17.50

■Option

Metric (5.7Boom+2.4Arm+4.0CW+600mm Shoe)

Unit : 1,000kg

A(m) / B(m)	2		3		4		5		6		7		8		Max. Reach		
																	A(m)
7									*3.93	*3.93					*4.08	*4.08	6.44
6									*4.01	*4.01	*4.14	3.62			*4.19	3.56	7.13
5							‘4.59	*4.59	*4.34	*4.34	*4.26	3.59			*4.32	3.15	7.61
4			*8.33	*8.33	*6.24	*6.24	*5.34	*5.34	*4.83	4.53	*4.54	3.53			*4.47	2.89	7.95
3					*7.95	*7.95	*6.31	5.79	*5.42	4.39	*4.90	3.45	4.48	2.77	4.42	2.73	8.14
2					*9.61	7.82	*7.31	5.62	*6.04	4.27	*5.29	3.38	4.43	2.73	4.32	2.66	8.20
1					*10.69	7.56	*8.10	5.45	*6.60	4.17	5.40	3.32	4.39	2.70	4.32	2.65	8.16
0			*5.28	*5.28	*11.26	7.47	*8.62	5.35	6.78	4.10	5.35	3.27	4.44	2.72	4.44	2.72	8.00
-1	*5.47	*5.47	*8.30	*8.30	*11.38	7.44	*8.89	5.32	6.74	4.06	5.32	3.24			4.69	2.87	7.69
-2	*8.66	*8.66	*11.73	*11.73	*11.15	7.47	*8.84	5.31	6.74	4.07	5.33	3.25			5.16	3.15	7.23
-3	*12.00	*12.00	*13.63	12.25	*10.59	7.60	*8.46	5.36	6.78	4.10					5.98	3.64	6.59
-4	*16.11	*16.11	*12.08	12.08	*9.47	7.69	*7.52	5.47							*6.64	4.58	5.71
-5			*9.98	9.98	*7.34	*7.34									*7.11	6.95	4.41

Feet (5.7Boom+2.4Arm+4.0CW+600mm Shoe)

Unit : 1,000 lb

A(ft) / B(ft)	5		10		15		20		25		Max. Reach		
													A(ft)
25							*8.91	*8.91			*8.91	*8.91	20.00
20							*9.01	*9.01			*9.25	7.76	23.55
15					*11.67	*11.67	*10.19	9.43	*9.71	6.60	*9.71	6.56	25.69
10			*19.67	*19.67	*17.13	15.97	*11.97	9.09	10.35	6.41	9.69	5.99	26.75
5					*21.18	15.15	*13.72	8.73	10.19	6.26	9.51	5.85	26.82
0			*12.97	*12.97	*22.96	14.71	14.02	8.50	10.06	6.15	9.78	5.99	25.93
-5	*15.18	*15.18	*23.80	*23.80	*23.11	14.79	13.96	8.44			10.64	6.50	23.95
-10	*27.14	*27.14	*31.26	*31.26	*21.33	14.98	*14.11	8.72			13.19	8.03	20.59
-15			*23.83	*23.83							*15.04	11.54	14.86

Metric (5.7Boom+3.5Arm+4.0CW+600mm Shoe)

Unit : 1,000kg

A(m) / B(m)	2		3		4		5		6		7		8		9		Max. Reach		
																			A(m)
7											*3.08	*3.08					*3.07	*3.07	7.70
6											*3.14	*3.14	*3.36	2.95			*3.07	2.80	8.28
5											*3.37	*3.37	*3.46	2.92			*3.12	2.53	8.70
4									‘3.82	*3.82	*3.71	3.61	*3.67	2.87	*3.20	2.36	*3.20	2.36	9.00
3			*8.19	*8.19	*5.89	*5.89	*5.01	*5.01	*4.47	*4.47	*4.14	3.52	*3.95	2.81	*3.58	2.28	*3.37	2.24	9.16
2			*10.19	*10.19	*7.73	*7.73	*6.09	5.76	*5.19	4.37	*4.63	3.43	*4.26	2.74	3.68	2.24	*3.57	2.18	9.21
1			*6.43	*6.43	*9.25	7.71	*7.13	5.53	*5.87	4.21	*5.09	3.32	4.39	2.69	3.64	2.21	3.58	2.17	9.17
0	*3.13	*3.13	*6.57	*6.57	*10.40	7.51	*7.92	5.36	*6.45	4.09	5.34	3.25	4.34	2.64	3.65	2.21	3.65	2.20	9.03
-1	*4.86	*4.86	*7.75	*7.75	*11.04	7.38	*8.49	5.27	6.70	4.02	5.27	3.19	4.30	2.60			3.80	2.29	8.76
-2	*6.76	*6.76	*9.57	*9.57	*11.27	7.33	*8.77	5.21	6.65	3.98	5.24	3.16	4.29	2.59			4.07	2.46	8.37
-3	*8.90	*8.90	*12.13	11.89	*11.16	7.37	*8.75	5.21	6.64	3.97	5.25	3.17					4.52	2.73	7.82
-4	*11.40	*11.40	*13.99	12.08	*10.61	7.42	*8.38	5.26	6.69	4.01	5.31	3.22					5.27	3.20	7.09
-5	*14.64	*14.64	*12.50	12.25	*9.53	7.54	*7.52	5.37	*6.10	4.11							*6.07	4.06	6.11
-6			*9.84	*9.84	*7.48	*7.48											*6.67	6.18	4.71

Feet (5.7Boom+3.5Arm+4.0CW+600mm Shoe)

Unit : 1,000 lb

A(ft) / B(ft)	5		10		15		20		25		30		Max. Reach		
															A(ft)
20									*7.38	6.84			*6.77	6.12	27.29
15							*8.04	*8.04	*7.96	6.70			*7.00	5.33	29.16
10			*20.82	*20.82	*12.38	*12.38	*10.07	9.29	*8.99	6.50	*7.57	4.80	*7.47	4.78	30.08
5			*13.51	*13.51	*17.92	15.18	*12.21	8.84	*10.17	6.27	7.89	4.78	7.87	4.76	30.15
0	*6.72	*6.72	*14.21	*14.21	*21.58	14.84	*13.97	8.50	10.02	6.09			8.04	4.86	29.36
-5	*12.31	*12.31	*19.58	*19.58	*22.72	14.34	14.30	8.57	9.93	6.01			8.54	5.16	27.65
-10	*18.95	*18.95	*28.41	*28.41	*22.69	14.62	13.78	8.27					9.96	6.03	24.78
-15	*27.44	*27.44	*30.60	*30.60	*20.28	14.94	*13.44	8.85					12.63	7.66	20.31
-20			*20.16	*20.16									*14.71	13.61	13.54

Note
1. Load point is the hook on the back of the bucket.
2. „Rated loads are based on hydraulic capacity.
3. Rated loads do not exceed 87% of hyd . Capacity or 75% of tipping capacity.

: Rating over front
: Rating over side or 360 degree
0 : Ground

*Specifications are subject to change without prior notice.

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