# SE350 LC-2 SE450 LC-2

**CRAWLER EXCAVATOR SERIES-2** 



	5	E 350LC-2	SE450LC-2					
wer;	250 ps	184 kW	300 ps	221 kW				
SAE	1.55 m³	2.03 yd <sup>3</sup>	1.96 m³	2.56 yd3				
CECE	1.35 m³	1.77 yd³	1.7 m³	2.22 yd3				
Operating Weight;		77600 lb	43740 kg	96430 lb				
	SAE CECE	wer; 250 ps SAE 1.55 m <sup>3</sup> CECE 1.35 m <sup>3</sup>	SAE 1.55 m³ 2.03 yd³ CECE 1.35 m³ 1.77 yd³	wer; 250 ps 184 kW 300 ps SAE 1.55 m³ 2.03 yd³ 1.96 m³ CECE 1.35 m³ 1.77 yd³ 1.7 m³				

# Samsung Series 2 Excavators, Providing Outstanding Power and Economy.

The new series 2 Excavators from Samsung provide more power performance

and durability than ever before.

We've made refinements in the hydraulic system to provide more power and

speed, while also making fine control easier.

At the same time, we've reinforced the steel in the boom, in the track frames

and in the undercarriage to provide longer life in the toughest of applications.

Your operators also will appreciate the comfort and safety features offered

in our unique hi-visibility cab. An in all, these machines offer you the best

value on the market today.



## **MODERN THCHNOLOGY**

By utilizing the latest electro-mechanical technology, Samsung can provide the optimum balance precision and power while offering the highest degree of efficiency and economy.





#### **Switch Board Symbols**

In response to global marketing all switch board functions are identified with internationally accepted symbols. We believe that language should not be a barrier to safety.



A full range of engine speed is available for S and L mood selections



#### Self-Diagnosing Monitor

When there is a problem in the system, a code will indicate the source of the trouble.



#### Auto decel

Engine speed is reduced automatically by pushing this switchduring inactive periods.



#### Travel speed

This switch offers the operator a choice of high or low travel speeds.



This switch checks the various instrument panel warning lights and alarm monitors.



#### Buzzer stop

When alarm buzzer sounds, it may be silenced by pushing this switch.



Sprays washer fluid on to the windshield.



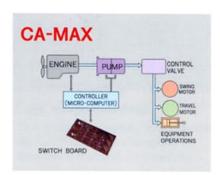
#### Wiper

Offers a choice of three wiper speeds.



#### Head/Boom light

Headlight or combination of headlight and boom light may be selected by pressing this



## Variable Boom-swing Speed

Control (SE350LC-2 Only)

With a simple turn of the variable control dial the operator can vary the combined boom-up and swing-speed functions to fit the working conditions.

#### Computer-Controlled **Engine Speed**

While most other excavators use a mechanical throttle lever to control engine speed, Samsung utilizes a micro computer to improve working efficiency. A simple push on the computer Keypad will increase or decrease engine RPM as

#### Push-button Deceleration

When desired, the engine can be quickly decelerated to idle speed by pushing the auto decel button on the computer keypad. This system helps to reduce fuel consumption.



#### Mode Selection System

Samsung's three mode system makes it possible to select the speed and power to fit job conditions. This feature results in higher productivity and reduced fuel consumption.

#### H mode(heavy duty)

This high capacity mode provides the hydraulic pumps with 100% of engine power when working with hard ground, rock, or for other difficult applications.

#### S mode (medium duty)

A standard mode that balances engine power and fuel costs for general excavating and loading work.

#### L mode (light duty)

An economical mode requiring less engine power for use in light loading, stand by or precision work.

#### Illuminated Switch Baord

A lamp is mounted inside the switch board for easy visibility during night work.

## **OPERATOR COMFORT**

Operator comfort is important in maintaining maximum productivity. That's why we've designed our cab with the operator in mind. Our ultramodern design is luxurious and spacious and offers the additional benefits of conveniently placed controls and reduced noise levels.















#### 1. Removable Front Bottom Window

Improved low angle visibility can be achieved by quick removal of front bottom window.

2. Semi Long Lever

Adoption of the semi-long lever, which is longer than the previous one, enables excellent fine control and requires less power.

#### 3. Stereo/Cassette

The high quality car stereo cassette provides excellent sound reproduction.

## 4. Overload Warning Device (Optional)

The overload warning device is factory adjusted to reflect over-the-side lifting capacity of the boom and arm configuration of the machine.

#### 5. Redesigned Duct System

The installation of a new duct system provides a balanced distribution of air flow to the interior for air conditioning/heating/ventilation and to the windows when in defrost mode.

6. Manual Control of Engine Speed

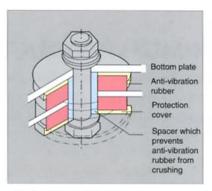
In case abnormality occurs in work mode selection system, simple transfer to manul control can be done by reassembling the lever mounted inside the dab.



#### **Deluxe KAB Seat**

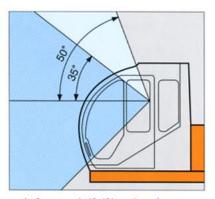
A deluxe KAB seat is installed as standard equipment, providing full adjustment for each operator's weight and size, resulting in the ultimate in operator comfort.

- (i) vertical tilt
- vertical height control
- front-rear control
- ① back of chair angle control
- armrest angle control
- neckrest angle controlneckres height control
- ® adjustment for operator weight



#### **Cab Noise Control**

To improve the operator's environment, the cab is insulated with sound attenuating material. Successfully lowering intruding noise levels to 74dB (A) enhances operator performance, reduces fatigue and stress, paying greater dividends in safety.



## Highest visibility in the industry

The large curved front window offers remarkably increased visibility in the upper line of sight and is easily opened by sliding upward, to the overhead storage position.



#### Touch Keypad Interior Climate Control

The conveniently placed, touch keypad control panel for the intergrated air conditioning/heating unit, allows the operator to quickly optimize system performance.

With a feather touch he can select his comfort zone, utilizing the multivent distribution system for comfort and visibility regardless of weather conditions.

## **MAXIMUM PRODUCTIVITY**

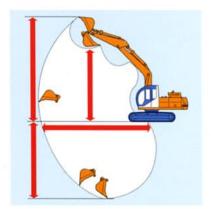
Samsung Hydraulic Excavators match engine power with hydraulic output to provide the right combination of speed and power in any application.





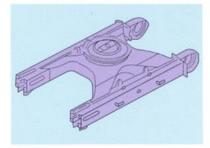
#### High Capacity Cummins Engine

The Cummins engines have long been acknowledged for capacity and durability throughout the world. Its excellent combustion efficiency results in an economical, powerful engine that really proves itself in severe weather conditions. Cold weather starting capacity is excellent, fuel costs are minimal and excellent parts and service support are readily available.



## **Expanded Working Range**

The reach, dig depth and dump height capabilities of Samsung excavators are among the highest in their size classes. You can handle more work with less maneuvering.



#### Increased Lower Frame Durability

The Lower Frame, high stress areas, have been reinforced to handle the poorest ground conditions.



#### Outstanding Digging Performance

High breakout forces provide more than enough power to handle even the toughest job conditions with ease. Samsung hydraulic excavators can also be fitted with a wide range of buckets to increase productivity.

#### Smooth Simultaneous Operation

Refinements to the hydraulic system allow for smooth simultaneous operation of the travel, swing, arm, boom and bucket functions.

#### **Increased Boom Durability**

The Boom has been reinforced to specifically handle tough job applications such as hydraulic breakers, crushers, grapples, shears etc.



# Improved Start-up in Cold Weather Conditions

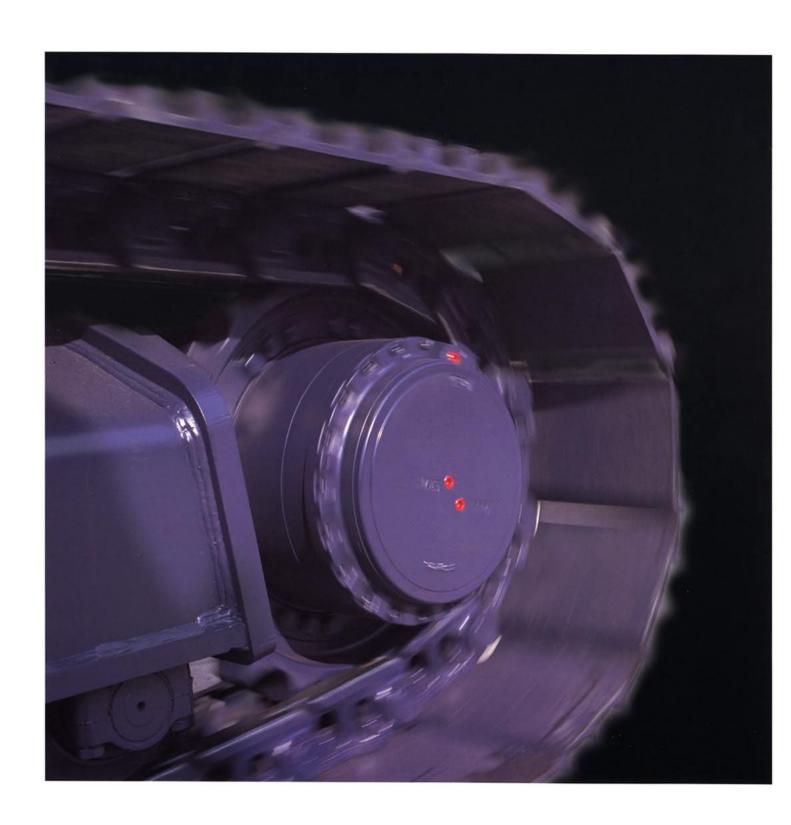
An electric air heater and fuel warmer are provided as optional equipment. Heating the fuel prior to start-up prevents filter blockage for easier cold weather starts.

#### **Increased Working Stability**

A heavier counterweight provides increased balance and stability with various work attachments such as hammers, speciality buckets and forestry fronts.

## ADVANCED DESIGN CONCEPT

Samsung Hydraulic Excavators have been computer-designed to provide greater structural integrity, stability and durability which will extend the service life of major structural components.















#### 1. Travel Motor Covers

Travel motor covers protect the motors and hydraulic lines from external damage.

#### 2. Large Boom Light

Apart from the body head light, two separate large boom lights are installed to enhance the work conditions at night.

#### 3. Track Guard

The center-mounted track guard helps to prevent track disengagement. (only SE350LC-2)

#### 4. Track Guard

Heavy duty track guard protect lower rollers and prevent track disengagement on rough terrain. (only SE450LC-2)

#### 5. Recessed Tail Lights

Tail lights are recessed into the counterweight to protect against breakage. (except for SE450LC-2)

#### 6. Anti-slip Step

Provides the operator with sure footing when entering or exiting the cab.

#### **Two Speed Travel**

This feature allows the operator to travel in low gear when working in rough terrain or when slow movement is desired, and high gear for travel between job areas.

#### Increased Boom Durability

The bending profile at the boom curve area has been smoothed to reduce the effects of load shocks which can cause cracks in the boom.



#### **Hydraulic Safety Lock**

All controls become inoperable when the left side control console is raised. This feature provides extra safety as well as increased room for the operator.

#### **Automatic Swing Brake**

The swing brake is automatically applied when the swing movement stops, which will prevent drift of the upper structure during slope operations.

## Stronger Undercarriage Components

By increasing the hardness of the pins and bushings and improving the material composition of the links, rollers, idlers, and sprockets, we've added more usable life to our undercarriage. Travel motor covers have also been increased in thickness for better protection of the motor and piping.

#### **Reinforced Frames**

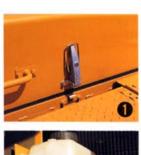
Both upper and lower frames have been reinforced for longer life.



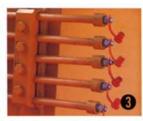
## **EASY MAINTENANCE**

The spacious engine room and lift-up side covers make access to the engine compartment fast and easy.















#### 1. Engine Hood Locks

Locks are installed on the engine hood and side doors to protect against vandalism.

## 2. Auto Fuel Pump(Option)

Allows easier fueling when desired.

#### 3. Centralized Grease Injection Points

Easier, feather lubrication of the swing ring and attachments.

#### 4. Cooling Water Auxiliary Tank

Enables easy check and replenishment of coolant by opening the side door.

#### 5. Easy Bucket Adjustment

The flange can be disassembled to adjust the bucket fit for extened life and less noise.

#### 6. Precleaner(Option)

Increased the air filter replacement period by attaching largecapacity precleaner.

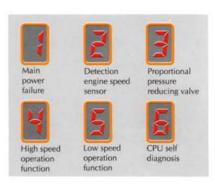
#### **Simplified Hydraulics**

Samsung excavators utilize fewer hydraulic lines and hoses. As a result, maintenance is minimized and fewer parts are required.



## **Large Capacity Radiator**

The large capacity radiator provides excellent engine cooling and protects against overheating.



#### **Self-Diagnosing Monitor System**

This system monitors 6 vital machine functions. If trouble occurs in one of these functions, the monitor will identify it and eliminate the need for further troubleshooting procedures.



#### Easy Replacement of Bucket Teeth

Samsung bucket teeth are connected with a single side pin for quick and easy replacement.

#### **Engine Cooling Fan**

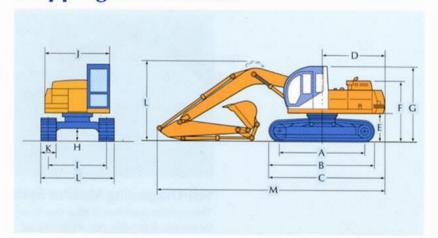
The engine cooling fan is made of a tough plastic material to reduce noise while maintaining excellent air flow efficiency.



### **Easy Access Oil Filter**

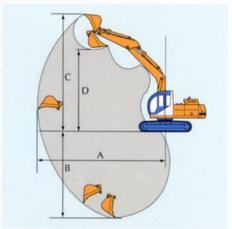
The engine oil filter is conveniently located for easy access to inspect or change.

## **Shipping Dimensions**



	SE350LC-2	SE450LC-2
A. Distance between tumblers	4,020mm (13'2")	4,370mm (14'4")
B. Undercarriage length	4,960mm (16'3")	5,380mm (17'8")
C. Length of base machine	5,775mm (18'11")	6,440mm (21'2")
D. Tail swing radius	3,290mm (10'10")	3,800mm (12'6")
E. Counterweight clearance	1,230mm (4'0")	1,200mm (3'11")
F. Height without cab	2,800mm (9'2")	2,800mm (9'2")
G. Overall height of cab	3,205mm (10'6")	3,250mm (10'8")
H. Min. ground clearance	535mm (1'9")	550mm (1'10")
I. Track gauge	2,690mm (8'10")	2,870mm (9'5")
J. Upper Frame Width	2,960mm (9'9")	2,960mm (9'9")
K. Track shoe width	600mm (2'0")	600mm (2'0")
L. Overall width	3,290mm (10'10")	3,470mm (11'5")
M. Overall length	10,970mm (36'0")	11,950mm (39'2")
N. Overall height of boom	3,395mm (11'2")	3,390mm (11'1")

## **Working Ranges**



	SE350LC-2	SE450LC-2
Boom Length	6,450mm (21'2")	7,000mm (23'0")
Dipper Stick	3,100mm	3,350mm
Length	(10'2")	(11'0")
Max. Digging	11,200mm	12,040mm
Reach (A)	(36'9")	(39'6")
Max. Digging	7,600mm	7,740mm
Depth (B)	(24'11")	(25'5")
Max. Digging	7,440mm	7,590mm
Depth (8' level)	(24'5")	(24'11")
Max. Digging	11,400mm	10,980mm
Height (C)	(37'5")	(36'0")
Max. Dumping	8,190mm	7,610mm
Height (D)	(26'10")	(25'0")

## **Specifications**

	SE350LC-2	SE450LC-2
<ul> <li>Operating Weight</li> </ul>	35200kg (77600 lb)	43740kg (96430 lb)
■ Bucket Capacity	0.9 ~ 1.6m <sup>3</sup> (CECE) 1.31 ~ 2.51cu.yd (SAE. PCSA)	1.7 ~ 2.1m³ (CECE) 2.56 ~ 3.20cu.yd (SAE, PCSA)

## **■** Engine

Model	Cummins LTA 10-C	Cummins LTA 10-C
Туре	Water Cooled 6 Cylinder	Water Cooled 6 Cylinder
Flywheel Horsepower	250ps/247hp/184kw at 1700rpm	300ps/296hp/221kw at 2000rpm
Max. Torque	114kg.m (825 ft.lb) at 1300rpm	135kg.m (976 ft.lb) at 1300rpm
Fuel Tank Capacity	5251 (139 US gallon)	6501 (172 US gallon)

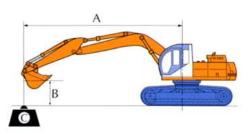
## ■ Hydraulic

Туре	2 Variable Axial Piston Pumps	2 Variable Axial Piston Pumps
System Pressure	320kg/cm² (4552 psi)	320kg/cm² (4552 psi)
Max. Flowrate	2×280 l /min (2×74 US gallon/min)	2×330 1 /min (2×87 US gallon/min)

#### ■ Performance

Swing Speed	9.6rpm	8.0rpm
Travel Speed	3.3/4.6km/h (2.1/2.9mph)	2.8/4.3km/h (1.7/2.7mph)
Digging Force (Bucket/Stick)	20.0/15.2ton (44090/33510 lb)	22.3/19.1ton (49160/42110 lb)
Tractive Effort (1sp/2sp)	24.0/17.5ton (52910/38580lb)	33.1/21.0ton (72970/46300lb)
Ground Pressure	0.67kg/cm <sup>2</sup> (9.53psi) at 600mm shoe 0.52kg/cm <sup>2</sup> (7.39psi) at 800mm shoe	0.77kg/cm <sup>2</sup> (11.0psi) at 600mm shoe 0.60kg/cm <sup>2</sup> (8.54psi) at 800mm shoe

## **Lifting Capacities**



## SE350LC-2 (Shoe 600mm+Bucket 1.35m3)

A: Load radius

B: Load point height, kg (lb)

	A	1.5	m	3.0m		4.5m		6.0	)m	7.5	m	9.5m		max.	
	B	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	7.5m									*5938 (*13091)	*5938 (*13091)			*4085 (*9006)	*4085 (*900
	6.0m									*7013 (*15461)	6458 (14237)			*3912 (*8624)	*391 (*862
· No.	4.5m							*8872 (*19559)	*8872 (*19559)	*7757 (*17101)	6279 (13843)	*5619 (*12388)	4401 (9702)	*3921 (*8644)	*392 (*864
Boom 6.45m	3.0m					*15145 (*33389)	13683 (30165)	*10757 (*23715)	8710 (19202)	*8761 (*19314)	6024 (13280)	6697 (14764)	4315 (9513)	*4103 (*9045)	391 (862
+	1.5m					*18071 (*39839)	12754 (28117)	*12466 (*27482)	8232 (18148)	8957 (19747)	5774 (12729)	6578 (14502)	4204 (9268)	*4440 (*9788)	3820 (842)
Arm	0m					*19289 (*42524)	12392 (27319)	12619 (27820)	7933 (17489)	8759 (19310)	5594 (12332)	6492 (14312)	4125 (9094)	*5021 (*11069)	393 (868
3.1m	-1.5m			*14015 (*30897)	*14015 (*30897)	*19317 (*42586)	12363 (27255)	12494 (27544)	7824 (17249)	8678 (19131)	5520 (12169)	1,1,1,5,3,4,1		*5960 (*13139)	431 (951
	-3.0m	*16505 (*36387)	*16505 (*36387)	*21338 (*47042)	*21338 (*47042)	*18373 (*40505)	12536 (27637)	12564 (27698)	7885 (17383)	8749 (19288)	5585			*7654 (*16874)	511
	-4.5m			*22617 (*49861)	*22617 (*49861)	*16104 (*35503)	12915 (28472)	*11777 (*25963)	8148 (17963)					*9758 (*21512)	687 (1514
	7.5m													*7139 (*15739)	691 (1523
	6.0m							*8055 (*17758)	*8055 (*17758)	*7612 (*16781)	6293 (13873)			*6860 (*15123)	541
Boom	4.5m					*12481 (*27515)	*12481 (*27515)	*9546 (*21045)	9032	*8241 (*18168)	6140 (13536)			*6909 (*15232)	465
6.45m	3.0m							*11333 (*24985)	8495 (18728)	9100 (20062)	5900 (13007)			6680 (14727)	427 (942
+	1.5m							12761 (28133)	8053 (17754)	8850 (19511)	5673 (12507)			6557 (14455)	417
Arm 2.6m	0m					*19095 (*42097)	12201 (26898)	12484 (27522)	7811 (17220)	8687 (19151)	5526 (12183)			6800 (14991)	431 (951
	-1.5m			*13917 (*30681)	*13917 (*30681)	*18902 (*41671)	12283 (27079)	12430 (27403)	7763 (17114)	8655 (19081)	5497			7520 (16579)	478 (1055
	-3.0m			*24226 (*53408)	*24226 (*53408)	*17593 (*38785)	12542 (27650)	12579 (27732)	7894 (17403)					9099 (20060)	581
	-4.5m			*20121 (*44359)	*20121	*14729 (*32471)	13031 (28728)	10343 (22802)	8307 (18314)					*10336 (*22787)	830

## SE450LC-2 (Shoe 600mm+Bucket 1.7m³)

	A	1.5	m	3.0	)m	4.5m		6.0m		7.5m		9.5m		max.	
	В	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE	FRONT	SIDE
	9.0m	1								*7094 (*15639)	*7094 (*15639)			*6484 (*14295)	*6484 (*14295
	7.5m									*7440 (*16402)	*7440 (*16402)			*6081 (*13406)	*6081 (*13406
Boom 7.0m	6.0m									*8015 (*17670)	*8015 (*17670)	*7587 (*16726)	6600 (14550)	*5982 (*13188)	5954 (13126
	4.5m					*14417 (*31784)	*14417 (*31784)	*10767 (*23737)	*10767 (*23737)	*8987 (*19813)	8907 (19636)	*8022 (*17685)	6473 (14270)	*6087 (*13419)	5345 (11784
+	3.0m					*18569 (*40937)	*18569 (*40937)	*12797 (*28212)	12088 (26649)	*10112 (*22293)	8522 (18788)	*8629 (*19023)	6287 (13860)	*6381 (*14067)	5036
Arm	1.5m					*16954 (*37377)	*16954 (*37377)	*14459 (*31876)	11485 (25320)	*11131 (*24539)	8183 (18040)	*9215 (*20315)	6109 (13468)	*6900 (*15212)	4961 (10937
3.35m	0m					*19790 (*43629)	17452 (38475)	*15408 (*33968)	11154 (24590)	*11825 (*26069)	7959 (17546)	9531 (21012)	5989 (13203)	•7710 (•16997)	5113 (11272
	-1.5m			*15152 (*33404)	*15152 (*33404)	*21187 (*46709)	17527 (38640)	*15584 (*34356)	11066 (24396)	*12031 (*26523)	7878 (17368)	9507 (20959)	5967 (13155)	8828 (19462)	5546 (12227
	-3.0m			*23196 (*51138)	*23196 (*51138)	*19869 (*43803)	17804 (39251)	*14945 (*32948)	11175 (24636)	*11540 (*25441)	7951 (17529)			*9248 (*20388)	6415
	-4.5m			*23452 (*51702)	*23452 (*51702)	*17371 (*38296)	*17371 (*38296)	*13171 (*29037)	11486 (25322)	*9681 (*21343)	8257 (18203)			*9457 (*20849)	8170 (18012)
	9.0m													*9285 (*20470)	*9285 (*20470)
	7.5m									*8764 (*19321)	8764 (19321)			*8823 (*19451)	8680
	6.0m							*10026 (*22103)	*10026 (*22103)	*8945 (*19720)	8945 (19720)			*8710 (*19202)	7068 (15582
Boom	4.5m							*11561 (*25487)	*11561 (*25487)	9632 (21235)	8527 (18799)	*8779 (*19354)	6345 (13988)	*8763 (*19319)	6202
7.0m	3.0m							*13233 (*29173)	*11091 (*24451)	10483 (23111)	8048 (17743)	*9103 (*20068)	6122 (13496)	*8919 (*19663)	5759 (12696
+ Arm	1.5m							*14444 (*31843)	*10529 (*23212)	11220 (24735)	7686 (16944)	*9443 (*20818)	5941 (13097)	8973 (19782)	5629 (12410
2.55m	0m							*14905 (*32859)	*10327 (*22767)	11617 (25611)	7508 (16552)	9430 (20789)	5884 (12972)	9279 (20456)	5799 (12784
	-1.5m					*19099 (*42105)	16599 (36594)	*14622 (*32236)	*10384 (*22892)	11480 (25309)	7533 (16607)			*9682 (*21345)	6350 (13999
	-3.0m			*21468 (*47328)	*21468 (*47328)	*17285 (*38106)	16980 (37434)	*13483 (*29724)	*10672 (*23527)	10397 (22921)	7830 (17262)			*9848 (*21711)	7545 (16634
	-4.5m					*14034 (*30939)	*14034 (*30939)	*10743 (*23684)	*10743 (*23684)					*9585 (*21131)	*9585 (*21131

Note: 1. Ratings are based on SAE J1097, ISO10567.

- 2. Indicated loads do not exceed 75% of tipping, machine situated on firm level, uniform supporting surface or 87% of full hydraulic capacity. 3.Ratings marked "•" are limited by hydraulic capacity.

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.



Volvo Construction Equipment Group