

# SE170W-3

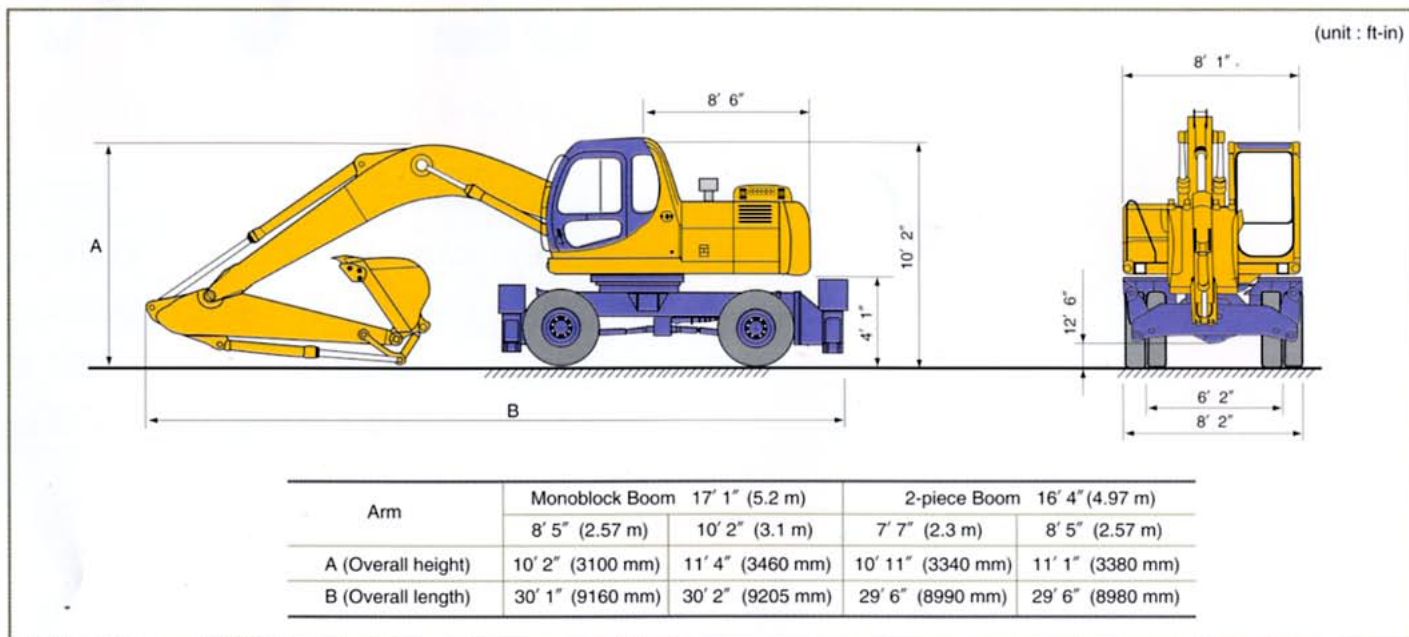
SERIES-3 WHEELED EXCAVATOR

Flywheel Horsepower ;	<b>143</b> hp	<b>107</b> kW
Bucket Capacity ; SAE	<b>0.99</b> yd <sup>3</sup>	<b>0.76</b> m <sup>3</sup>
	CECE <b>0.85</b> yd <sup>3</sup>	<b>0.65</b> m <sup>3</sup>
Operating Weight ;	<b>36970</b> lb ~ <b>40780</b> lb	
	<b>16770</b> kg ~ <b>18500</b> kg	

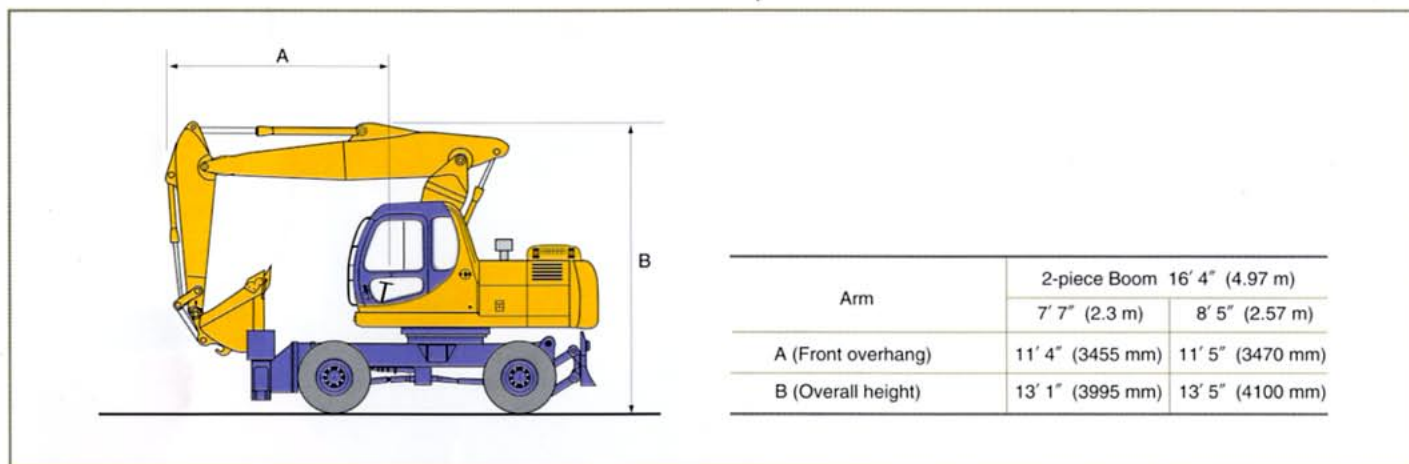


# DIMENSIONS

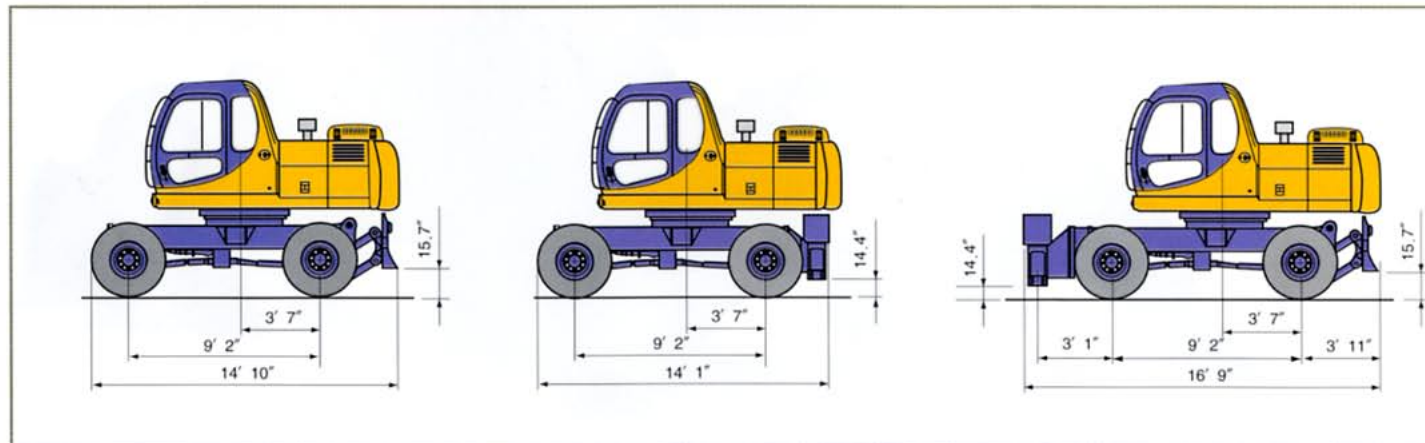
## ● Transport



## ● Travel (2-piece Boom)

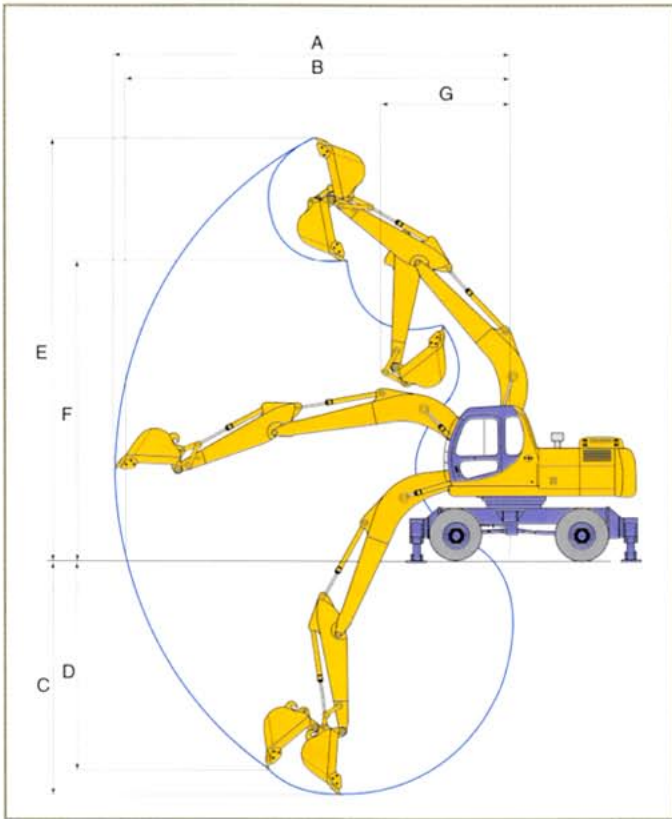


## ● Undercarriage

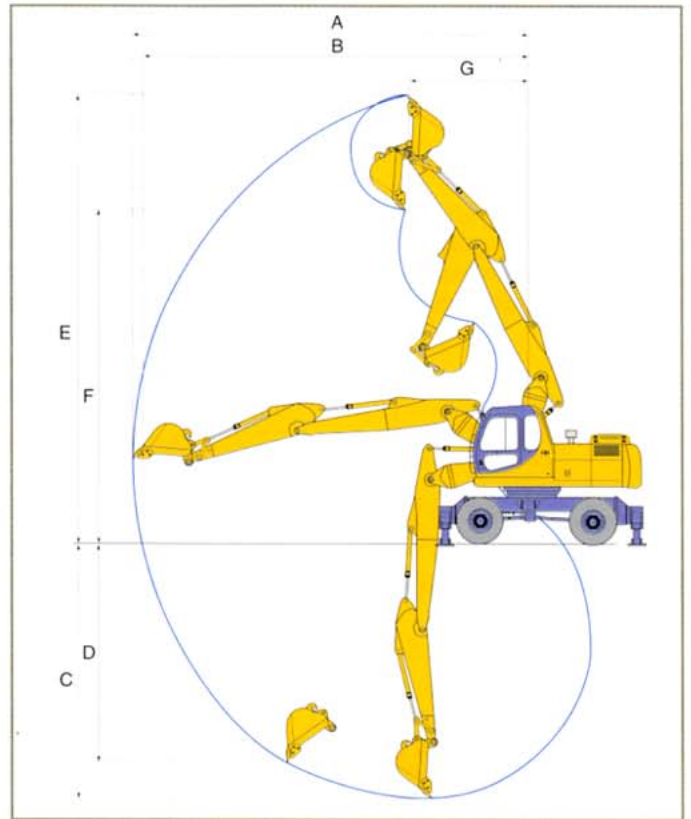


# WORKING RANGES

## ● With Monoblock Boom



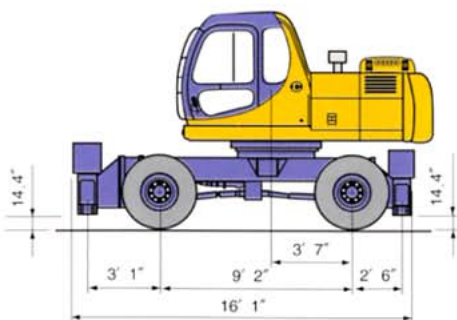
## ● With 2-piece Boom



Arm	Standard 8' 5" (2.57 m)	Long 10' 2" (3.1 m)
Max. digging reach (A)	30' 1" (9170 mm)	31' 6" (9600 mm)
Max. digging reach on ground (B)	29' 5" (8960 mm)	30' 10" (9400 mm)
Max. digging depth (C)	19' 4" (5900 mm)	21' 0" (6400 mm)
Max. vertical digging depth (D)	15' 9" (4790 mm)	16' 10" (5120 mm)
Max. cutting height (E)	30' 11" (9420 mm)	31' 6" (9590 mm)
Max. dumping height (F)	21' 11" (6680 mm)	22' 6" (6870 mm)
Min. front swing radius (G)	10' 1" (3080 mm)	10' 1" (3080 mm)
Max. digging force	Bucket	23260 lb(10550 kg)
	Arm	17660 lb(8010 kg)

Arm	Standard 7' 7" (2.3 m)	Long 8' 5" (2.57 m)
Max. digging reach (A)	28' 9" (8760 mm)	29' 8" (9040 mm)
Max. digging reach on ground (B)	28' 0" (8540 mm)	29' 0" (8830 mm)
Max. digging depth (C)	17' 3" (5260 mm)	18' 3" (5560 mm)
Max. vertical digging depth (D)	13' 9" (4200 mm)	14' 9" (4490 mm)
Max. cutting height (E)	31' 6" (9610 mm)	32' 3" (9830 mm)
Max. dumping height (F)	22' 4" (6800 mm)	23' 0" (7010 mm)
Min. front swing radius (G)	9' 5" (2860 mm)	9' 8" (2940 mm)
Max. digging force	Bucket	23260 lb(10550 kg)
	Arm	19110 lb(8670 kg)

(unit : ft-in)



## LIFTING CAPACITIES

### ● Bucket & Arm Combination

Bucket		Narrow Bucket	Standard Bucket	Reinforced Bucket	Wide Bucket
Bucket capacity (SAE/CECE)		0.76/0.65yd <sup>3</sup> (0.58/0.5 m <sup>3</sup> )	0.99/0.85yd <sup>3</sup> (0.76/0.65 m <sup>3</sup> )	0.99/0.85yd <sup>3</sup> (0.76/0.65 m <sup>3</sup> )	1.23/1.0yd <sup>3</sup> (0.94/0.8 m <sup>3</sup> )
Bucket width (with/without side cutter)		35.6"/31.3" (905/795 mm)	43.3"/39.0" (1100/990 mm)	43.3"/39.0" (1100/990 mm)	51"/46.7" (1295/1185 mm)
No. of teeth		4 (★)	5 (★)	5 (★)	5 (★)
Application		Trenching	General purpose	Extreme service	Loading service
Arm options	Arm 7' 7" / 8' 5" (2.3/2.57m)	○	○	○	□
	Long arm 10' 2" (3.1m)	○	□	□	×
Remark			Standard		

★ : Horizontal and vertical pin type are available  
 ○ : Applicable for general purpose up to 2000kg/m<sup>3</sup>

○ : Applicable for light duty up to 1600kg/m<sup>3</sup>  
 × : Not usable

### ● Monoblock Boom

Bucket 0.99 yd<sup>3</sup>, front : outrigger / rear : outrigger  
 Boom 17 ft 1 in + Arm 8 ft 5 in

unit: lb

B	A	5 ft	10 ft	15 ft	20 ft	25 ft	Max. Reach
25 ft	Front Side						* 5940 5940 17.53 ft
20 ft	Front Side				* 5990 * 5990		* 5830 * 5830 21.81 ft
15 ft	Front Side			* 6790 * 6790	* 6610 * 6610		* 5830 * 5830 24.31 ft
10 ft	Front Side	* 13680 * 13680	* 9310 * 9310	* 7860 * 7860	* 7290 6740	* 6160 * 6160	25.60 ft
5 ft	Front Side	* 11190 * 11190	* 12510 * 12510	* 9330 * 9330	* 8040 6550	* 6870 6200	25.84 ft
0 ft	Front Side	* 11360 * 11360	* 15000 14420	* 10690 9130	* 8580 6400	* 8180 6370	25.07 ft
5 ft	Front Side	* 14340 * 14340	* 17460 * 17460	* 16130 14160	* 11490 8960	* 9690 7140	23.19 ft
10 ft	Front Side	* 18290 * 18290	* 24220 * 24220	* 15850 14210		* 11300 9100	19.87 ft
15 ft	Front Side		* 20260 * 20260			* 14330 * 14330	14.08 ft

Bucket 0.99 yd<sup>3</sup>, front : outrigger / rear : outrigger  
 Boom 17 ft 1 in + Arm 10 ft 2 in

unit: lb

B	A	5 ft	10 ft	15 ft	20 ft	25 ft	Max. Reach
25 ft	Front Side						* 5040 * 5040 19.56 ft
20 ft	Front Side				* 5000 * 5000		* 4680 * 4680 23.46 ft
15 ft	Front Side				* 5720 * 5720	* 5900 * 5900	* 4670 * 4670 25.80 ft
10 ft	Front Side	* 12000 * 12000	* 8020 * 8020	* 7020 * 7020	* 6610 * 6610	* 4920 * 4920	27.01 ft
5 ft	Front Side	* 18080 * 18080	* 11320 * 11320	* 8600 * 8600	* 7460 6520	* 5460 * 5460	27.24 ft
0 ft	Front Side	* 12030 * 12030	* 14160 * 14160	* 10130 9110	* 8240 6350	* 6410 5760	26.51 ft
5 ft	Front Side	* 8320 * 8320	* 17290 * 17290	* 15750 14080	* 11170 8880	* 8810 6360	24.74 ft
10 ft	Front Side	* 15910 * 15910	* 24950 * 24950	* 15970 14030	* 11350 8850	* 10230 7820	21.67 ft
15 ft	Front Side		* 22000 * 22000	* 14400 14300		* 12750 12170	16.56 ft

### ● 2-piece Boom

Bucket 0.99 yd<sup>3</sup>, front : outrigger / rear : outrigger  
 Boom 16 ft 4 in + Arm 7 ft 7 in

unit: lb

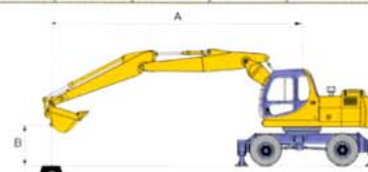
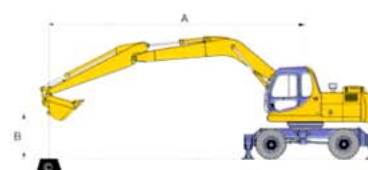
B	A	10 ft	15 ft	20 ft	Max. Reach
25 ft	Front Side		* 5790 * 5790		* 6130 * 6130 15.68 ft
20 ft	Front Side		* 5240 * 5240	* 6630 * 6630	* 6260 * 6260 20.36 ft
15 ft	Front Side		* 6810 * 6810	* 6970 * 6970	* 6110 * 6110 23.04 ft
10 ft	Front Side	* 13650 * 13650	* 9430 * 9430	* 8310 * 8310	* 6360 * 6360 24.38 ft
5 ft	Front Side	* 11150 * 11150	* 12950 * 12950	* 9910 9790	* 7010 6980 24.64 ft
0 ft	Front Side	* 11290 * 11290	* 15990 14950	* 11590 9490	* 8260 7210 23.83 ft
5 ft	Front Side	* 19980 * 19980	* 17830 14700	* 12860 9340	* 11780 8180 21.84 ft
10 ft	Front Side		* 18280 14760		* 16600 12890 16.31 ft

Bucket 0.99 yd<sup>3</sup>, front : outrigger / rear : outrigger  
 Boom 16 ft 4 in + Arm 8 ft 5 in

unit: lb

B	A	10 ft	15 ft	20 ft	25 ft	Max. Reach
25 ft	Front Side					* 5780 * 5780 17.19 ft
20 ft	Front Side			* 5860 * 5860		* 5420 * 5420 21.54 ft
15 ft	Front Side		* 5980 * 5980	* 6370 * 6370		* 5270 * 5270 24.08 ft
10 ft	Front Side	* 11660 * 11660	* 8620 * 8620	* 7750 * 7750	* 6550 * 6550	* 5450 * 5450 25.37 ft
5 ft	Front Side	* 11290 * 11290	* 12190 * 12190	* 9420 * 9420	* 8050 6810	* 5950 * 5950 25.61 ft
0 ft	Front Side	* 11210 * 11210	* 15420 15000	* 11190 9490		* 6920 6730 24.83 ft
5 ft	Front Side	* 19240 * 19240	* 17510 14680	* 12590 9300		* 10740 7540 22.93 ft
10 ft	Front Side		* 18280 14670			* 13400 9650 19.57 ft

- Notes : 1. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift Capacity Standards.  
 2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.  
 3. Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.



## SPECIFICATIONS

### OPERATING WEIGHT

Bucket ..... 0.99 yd<sup>3</sup> (0.76 m<sup>3</sup>)

Type	Monoblock Boom	2-piece Boom
Arm length	8' 5" (2.57 m)	7' 7" (2.3 m)
Rear blade	36970 lb (16770 kg)	38360 lb (17400 kg)
Rear outriggers	37410 lb (16970 kg)	38800 lb (17600 kg)
Front outriggers rear blade	38960 lb (17670 kg)	40340 lb (18300 kg)
Four outriggers	39400 lb (17870 kg)	40780 lb (18500 kg)

### ENGINE

Model ..... Cummins B5.9-C  
 Flywheel horsepower ..... 143 hp (145 ps/107 kW) at 1900 rpm  
 Max. torque ..... 456 lb·ft (63 kg·m) at 1500 rpm  
 No. of cylinders ..... 6  
 Displacement ..... 359 in<sup>3</sup> (5880 cc)  
 Bore and stroke ..... 4.0" × 4.7" (102 mm × 120 mm)

### HYDRAULIC SYSTEM

The advanced ACS hydraulic system ensures high efficiency and minimizes work time at any job site.

No. of modes ..... 4 working modes  
 3 travel modes

#### Pumps

##### Main pump:

Type ..... 2 × Variable displacement axial piston pumps  
 Maximum flow ..... 2 × 52.8 gpm (2 × 200 l /min)  
 Pilot pump ..... Gear pump  
 Steering pump ..... Gear pump  
 Brake pump ..... Gear pump

#### Hydraulic motors

Travel ..... Variable displacement axial piston motor  
 Swing ..... Fixed displacement piston motor with mechanical brake

#### Relief valve setting

Implement ..... 4550/4980 psi (320/350 kg/cm<sup>2</sup>)  
 Travel circuit ..... 4980 psi (350 kg/cm<sup>2</sup>)  
 Steering circuit ..... 2130 psi (150 kg/cm<sup>2</sup>)  
 Swing circuit ..... 3840 psi (270 kg/cm<sup>2</sup>)  
 Pilot circuit ..... 570 psi (40 kg/cm<sup>2</sup>)

#### Hydraulic cylinders: Monoblock boom

Boom ..... 2  
 bore × stroke ..... 4.5" × 45.9" (∅ 115 × 1165 mm)  
 Arm ..... 1  
 bore × stroke ..... 4.7" × 58.9" (∅ 120 × 1495 mm)  
 Bucket ..... 1  
 bore × stroke ..... 4.5" × 39.0" (∅ 115 × 990 mm)

#### Hydraulic cylinders: 2-piece boom

1st boom ..... 2  
 bore × stroke ..... 4.7" × 36.2" (∅ 120 × 920 mm)  
 2nd boom ..... 1  
 bore × stroke ..... 6.3" × 31.9" (∅ 160 × 810 mm)  
 Arm ..... 1  
 bore × stroke ..... 4.7" × 58.9" (∅ 120 × 1495 mm)  
 Bucket ..... 1  
 bore × stroke ..... 4.5" × 39.0" (∅ 115 × 990 mm)

### SWING

Swing brake ..... Automatic mechanical brake with hydraulic control  
 Swing reduction ..... 2 stage planetary reduction gear  
 Swing speed ..... 12.3 rpm  
 Swing circle lubrication ..... Grease bath

### TRANSMISSION

Hydrostatic transmission with variable displacement axial piston motor.

Travel speed ..... Forward, reverse  
 1st ..... 5.3 mph (8.6 km/h)  
 2nd ..... 19.9 mph (32 km/h)  
 Gradeability ..... 32° (62%)

### BRAKE SYSTEM

Service brake : ..... Dual circuit hydraulic system with multi wet discs on four wheels.  
 Parking brake : ..... Multi discs with negative actuation, by hydraulic control.

### STEERING SYSTEM

Type ..... Hydraulically actuated, open center none reaction type steering system  
 Steering cylinder ..... One, double-effect  
 Min. turning radius, center of outer wheel ..... 23' 3" (7080 mm)

### AXLES

Type ..... Full floating with planetary gear  
 Oscillating angle ..... ± 8°  
 Max. tractive effort ..... 22930 lb (10400 kg)

### CAPACITIES (Refilling)

Engine ..... 6.3 gal (24 l)  
 Transmission ..... 1.0 gal (3.8 l)  
 Swing drive ..... 1.6 gal (6.0 l)  
 Swing grease bath ..... 7.1 gal (27 l)  
 Axle ..... Front : 3.6 gal (13.7 l)  
 Rear : 4.3 gal (16.2 l)  
 Coolant ..... 7.0 gal (26.5 l)  
 Hydraulic tank ..... 52.8 gal (200 l)  
 Fuel tank ..... 77.9 gal (295 l)

### ELECTRICAL SYSTEM

Voltage ..... 24 V  
 Batteries in series ..... 2  
 rating (total) ..... 150 Ah  
 Alternator ..... 50 Ah  
 Starter ..... 7.5 kW

### TIRES

Double ..... 10 × 20-14PR  
 Single ..... 18.00 × 22.5

## STANDARD EQUIPMENT

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- Adjustable monitor
- Air cleaner
- Air conditioner / heater(integrated)
- Alternator (50 A)
- Automatic deaeration system
- Automatic idling system
- Auxiliary hydraulic valve
- Batteries
- Battery sealing cover
- Boom / arm holding valve
- Bucket cylinder cushion
- Cab, all-weather sound suppressed, includes:
  - Ashtray
  - Cigar lighter
  - Door locks
- Floormat
- Horn
- Hot & cool box
- Pull-up type front window
- Removable lower windshield
- Safety glasses
- Seat
- Seat belt
- Windshield wiper with intermittent feature
- Dampening cab mountings
- Dozer blade, rear mounted
- Engine restart prevention circuit
- Integrated mode selection system
- Joysticks, pilot-operated
- Low emission engine
- Light :
  - Frame mounted, two
  - Boom mounted, two
- Master switch
- Mirrors
- Monoblock boom
- One touch power boost
- Outriggers, front mounted
- Precleaner
- Safe engine start / stop function
- Self-diagnostic system
- Starting motor (24 volt, 7.5kW)
- Tilttable steering column
- Tire : 10.00 × 20 -14PR
- Tool box, locking
- Water separator, fuel line

## OPTIONAL EQUIPMENT

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- Air heater
- Block heater : 120V, 240V
- Cab guard
- Falling object guard (FOG)
- Fuel filler pump
- Fuel warmer
- Heater only
- Overload warning device
- Purifier
- Spare parts
- Stereo cassette radio (AM / FM)
- Tire : 18.00 × 22.5
- Tool kit
- Two piece boom
- Undercarriage options (outriggers & dozer blade)
- Vandalism kit

*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**

**Volvo Construction  
Equipment Group**

Ref. No. 22 1 435 1136  
Printed in Korea 98.07-5  
Volvo, Seoul

English  
KOR