

SAMSUNG

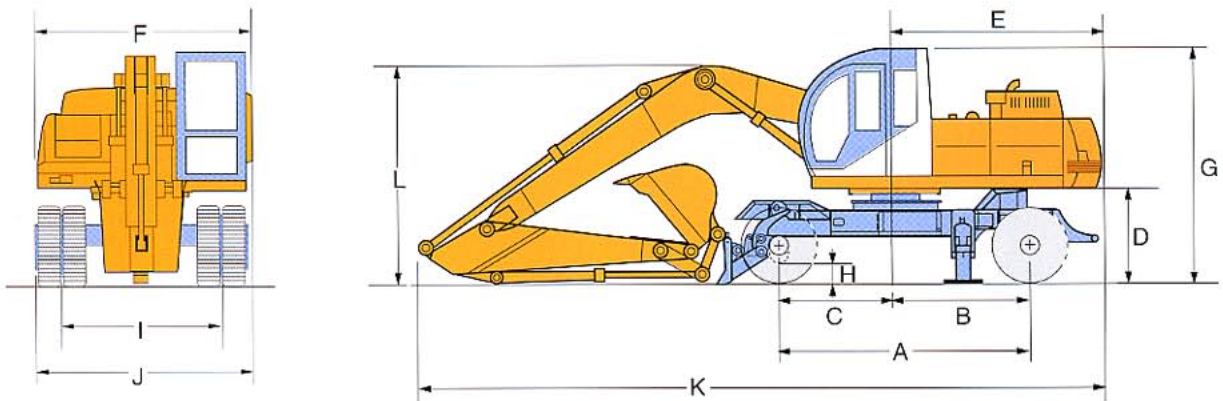
SE210W-2A

WHEEL EXCAVATOR SERIES-2



Flywheel Horsepower ;	138 ps	136 hp
Operating Weight ;	19150 kg	42220 lb
Bucket Capacity ; CECE	0.70 m³	0.92 cu.yd
SAE	0.81 m³	1.06 cu.yd

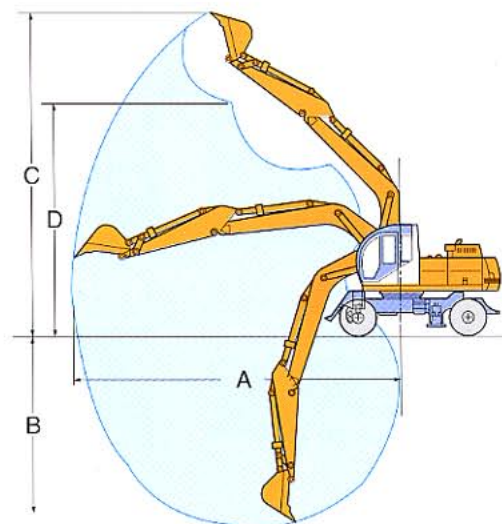
DIMENSIONS



A	Wheel base	3,350mm (10' 12")
B	Center of front axle to swing center	1,815mm (5' 11")
C	Center of rear axle to swing center	1,535mm (5' 0")
D	Clearance under counterweight	1,250 mm (4' 1")
E	Rear-end swing radius	2,850 mm (9' 4")
F	Overall width	2,820 mm (9' 3")
G	Cab height	3,170 mm (10' 5")
H	Minimum ground clearance	320 mm (1' 1")
I	Tread	2,140mm (7' 0")
J	Overall tyre width	2,750 mm (9' 0")
K	Overall length	9,500mm (31' 2")
	Overall length (Drive)	9,540 mm (31' 4")
L	Overall height of boom	3,150 mm (10' 4")
	Overall height of boom (Drive)	3,950 mm (13' 0")

WORKING RANGES

Arm	2,900 mm (9' 6")	
Max. digging Reach (A)	9,800 mm (32' 2")	
Max. digging depth (B)	6,420 mm (21' 1")	
Max. digging Height (C)	9,670 mm (31' 8")	
Max. Dumping Height (D)	6,850 mm (22' 6")	
Digging force	Bucket	12,950 kg (28,550 lb)
	Arm	9,800 kg (21,605 lb)



MODERN TECHNOLOGY

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.



① Engine speed

A full range of engine speed is available for the S and L mode selection.

Mode selection

When mode selection is made, a corresponding indicator light will come on.

③ Travel

Engine speed is transferred to the travel pedal.

④ Buzzer stop

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

⑤ Check

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

⑥ Head/Boom light

Headlight or combination of headlight and boom light can be selected by pressing this switch.

⑦ Auto decel

Engine speed is reduced to idle by pushing this switch during inactive periods. .

⑧ Lock axle

This switch sets oscillating axle lock.

⑨ Stabilizer

This switch controls outrigger or dozer blade.

⑩ Washer

Sprays washer fluid on the windshield.

⑪ Wiper

It offers a choice of three wiper speeds.

⑫ Heater

It offers a choice of high or low fan speed.

Mode Selection System

A 3-mode system makes it possible to select a convenient power mode according to job site conditions.

This combination with infinite engine speed control results in reduced fuel costs.

H mode (heavy duty)

H mode utilizes 100% of hydraulic power when working in difficult situations, such as hard ground, stone or rock floor.

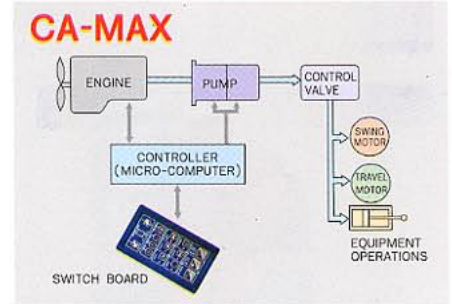
S mode (medium duty)

A standard mode utilizes 90% hydraulic power and balances engine power and fuel cost.

Most frequently used in general excavation and loading work.

L mode (light duty)

An economical mode utilizes 60% of hydraulic power requiring less engine power. Used in light load, idling, or precision work.



Electro-mechanical Control

Hydraulic pump output automatically controlled by means of Samsung's own computerized CA-MAX system. In any working condition, it is possible to use 100% of engine power.

Computer-Controlled Engine Speed

The engine speed is controlled by a micro-computer, operated simply by one touch of an electronic switch.

Push-button Auto-deceleration

Engine speed can be reduced during inactive periods, simply by pressing a button, resulting in increased fuel economy and reduced noise level.

EASY MAINTENANCE



Fuel Filler Pump (Option)



Allows easier fueling when desired.

Easy Replacement of Bucket Teeth



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

Easy Access Oil Filter

Spin-on vertical engine oil filter is conveniently located, making it easy to change.

Easy Bucket Adjustment

Adjustment can be easily made by adding or deleting shims to prevent noise and excessive wear.

Grease Fittings

All equipment grease points are easily greased from ground level.

Simplified Hydraulics

By adapting a high quality control valve of the mono block design, piping is simplified. Fewer parts in very minimal maintenance requirements result.

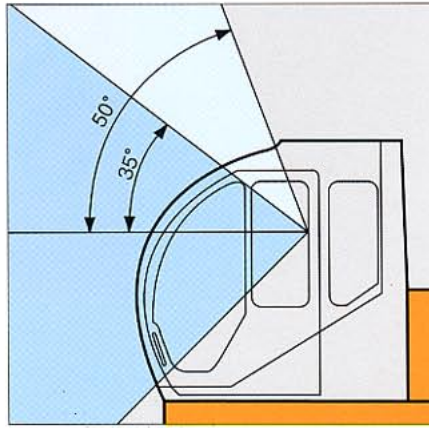
Large Capacity Radiator



The large capacity, radiator system provides excellent engine cooling efficiency. Radiator fins are designed to prevent plugging

by insects or dust and are easily accessible if cleaning is required.

OPERATOR COMFORT



KAB/Seating

- ① vertical tilt
- ② vertical height control
- ③ front-rear control
- ④ back of chair angle control
- ⑤ armrest angle control
- ⑥ headrest angle control
- ⑦ headrest height control
- ⑧ adjustment for operator weight



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 operator comfort.

Redesigned Duct System

The installation of a new duct system provides a balanced distribution of air flow to the interior and increases front window defrost.



New Joystick Lever

New joystick control enables excellent fine control and requires less effort.

Touch Keypad Interior Climate Control

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

The operator can select his comfort zone, utilizing the multi-vent distribution system for comfort and visibility regardless of weather conditions.



Highest visibility in the industry

The large curved front window offers a wide area of increased visibility in the upper line of sight and is easily stored by sliding upward to the overhead storage position.

Stereo/Cassette

The high quality car stereo cassette provides excellent sound reproduction.

ADVANCED DESIGN CONCEPT

Service Brake System

Wet multiple disc brakes ensure even braking on muddy terrain. They are sealed to stay free of dirt and other abrasive contaminants. Two completely independent brake systems are provided for the front and rear axles for fail-safe braking.



High Capacity Cummins Engine

The Cummins 6BT5.9-C engine has long been acknowledged for performance and durability in 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 is readily available.

Undercarriage Design

Technologically stronger materials result in increased life on undercarriage components.



All Wheel Drive

4-wheel hydrostatic drive is designed for applications in even the most severe underfooting.

Hydraulic Safety Lock System

All control levers become inoperable when the left control arm is raised. This assures safety and easy exit and entrance of the cab.



Flexible Complex Operation

Samsung's hydraulic system is designed to provide more flexible operation in all five functions; travel, swing, arm, boom and bucket, while operations remain smooth and fast throughout the work cycle.

SPECIFICATIONS

OPERATING WEIGHT

Operating weight include 5.6m (18' 4") boom,
2.9m (9' 6") Arm, front outrigger and rear dozer blade,
SAE heaped 0.81m³ (1.06 cu.yd) bucket.
Operating weight 19,150kg (42,220 lb)

ELECTRICAL SYSTEM

Voltage 24 V
Batteries in series 2
rating (total) 150 Ah
Alternator 50 Ah
Starter 7.2 kW

HYDRAULIC SYSTEM

The unique CA-MAX hydraulic system can ensure high efficiency and minimize working time at any job site.

No. of selectable modes 3
Main pump:

Type 2 × variable axial piston pumps
Maximum flow 2 × 200l/min
Sub-pump for control circuit Gear pump
Steering pump Gear pump
Hydraulic motors

Travel 1 × variable axial piston motor
with counter-balance
Swing 1 × axial piston motor

Relief valve setting:

Implement 320kg/cm² (4,552 PSI)
Travel circuit 320kg/cm² (4,552 PSI)
Swing 240kg/cm² (3,556 PSI)

Hydraulic cylinders

Boom lift 2
bore × stroke 120 × 1,355mm (4.7" × 53.3")
Arm 1
bore × stroke 135 × 1,610mm (5.3" × 63.4")
Bucket 1
bore × stroke 120 × 1,165mm (4.7" × 45.9")

High strength piston rods and tubes are used, and a cylinder cushion mechanism is provided for all cylinders to assure shock-free operation and extend cylinder life.

SWING

Swing brake automatic, disc type, spring applied
hydraulically released

Swing reduction oil bath, planetary reduction
Swing speed 11.8 rpm
Swing circle lubrication grease bath

The oil immersed disc brake is automatically actuated within 5-8 seconds after swing stop.

TIRES

Double 10.00 × 20 - 14PR

ENGINE

Model CUMMINS 6BT5.9-C

Flywheel horsepower:

138ps(102kW)at 2100rpm

136hp(102kW)at 2100rpm

Max. torque 53kg.m(383.3 lb.ft)/1600rpm

No.of cylinders.....6

Bore and stroke 102 mm × 120 mm (4" × 4.7")

Displacement 5880cc(358.8 cu.in)

TRANSMISSION

Hydrostatic transmission with variable displacement type axial piston motor.

Travel speed forward, reverse

1st 8.8 km/h (5.5 mph)

2nd 30.5 km/h (19.0 mph)

gradeability 29.5° (57%)

BRAKE SYSTEM

Service brake: Dual circuit and full Hydraulic power brake with multi, wet discs on all four wheels.

Parking brake: Double plate brake applied by hydraulic parking cylinder.

Emergency brake: By progressive parking brake lever with transfer gearbox.

STEERING SYSTEM

Type Open center none reaction

Pump Fixed displacement gear pump

Steering cylinder One, double-effect

Min. turning radius,
center of outer wheel 8,850mm(29' 0")

AXLES

Rear rigid axle

Oscillating front axle ±6.8°

The front axle can be locked hydraulically in any position; safety valves lock the axle in case of faults.

Max Tractive effort 10,044kg (22,143 lb)

Front axle load 9,249kg (20,390 lb)

Rear axle load 9,956kg (21,949 lb)

Type Full floating with planetary gear.

CAPACITIES (Refilling)

Engine 16.4 l (4.3US gal)

Transmission 8 l (2.1US gal)

Axle 23 l × 2 (6 × 2US gal)

Coolant 29.7 l (7.8US gal)

Fuel tank 300 l (79.3US gal)

CONTROLS

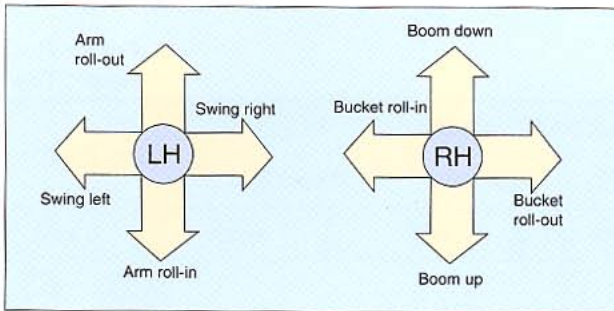
• 2 Joy stick levers

Pilot pressure control shockless type levers enable the operator to work with less fatigue. Right lever is for boom and bucket control, left is for swing and arm.

• Accelerator pedal

In travel mode speed is controlled only by accelerator pedal.

• ISO Type



BUCKET

Capacity		Width		Weight	Remark
CECE heaped	SAE heaped	without side cutter	with side cutter		
0.7m ³ (0.92cu.yd)	0.81m ³ (1.06cu.yd)	1,050mm (41")	1,205mm (47.4")	690kg (1,520lb)	STD (○)

NOTE. ○ : Suitable for materials with density of 2000kg/m³ or less

SAFETY

- Electrically operated air horn
- Spring set/hydraulic-released double plate type parking brake.
- Spring set/hydraulic-released disc type swing brake
- Hydraulic safety lock
- Main relief valves, anti cavitation valves, overload relief valves, hydraulic brake valves
- Monitoring system

Gauge: Engine rpm

Water temperature

Hydraulic oil temperature

Fuel level

Hour meter

Warning lamps:

Engine oil low pressure

Indicating lights:

Battery charge

Fuel low level

Air cleaner restriction

Water separator

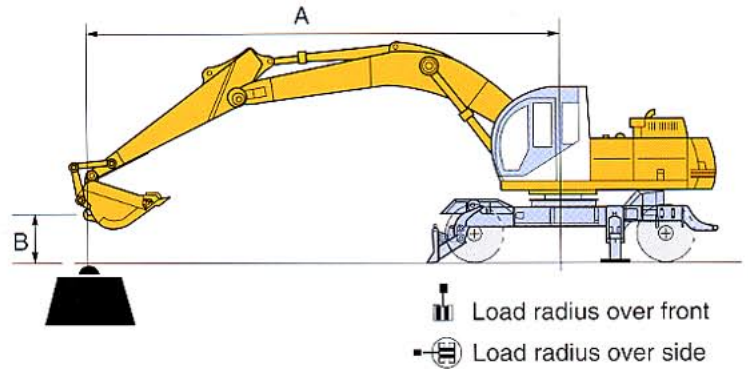
STANDARD EQUIPMENT

- Air cleaner
- Alternator
- Batteries
- Control levers, pilot-operated
- Cab, all-weather sound suppressed, includes;
 - Ashtray
 - Coat hook
 - Cigar lighter
 - Floor mat
 - Horn
 - Lockable door
 - Pull-up type front window
 - Removable lower windshield
 - Seat
 - Seat belt
 - Windshield wiper with 3-speeds
- Light : Boom RH/LH
Frame RH/LH
- Self-diagnostic
- Tool box, locking
- Water separator, fuel line

OPTIONAL EQUIPMENT

- Air conditioner
- Air heater
- Anti-stone insert
- Back-up alarm
- Cab heater
- Fuel filler pump
- Fuel warmer
- Pre-cleaner
- Tool kit

LIFTING CAPACITIES



Boom - 5.6m (18' 4")
 Arm - 2.9m (9' 6")
 Bucket Capacity - 0.81m³ (1.06yd³)

Front : Tire
 Rear : Tire

Lifting Point	Rated Lifting Capacity, Load Radius (A)										Max. Reach	
	1.5m (5ft)		3m (10ft)		4.5m (15ft)		6m (20ft)		7.5m (25ft)		Front	Side
	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side		
7.5m (25ft)											2767 (*6100)	2703 (5960)
6.0m (20ft)							3225 (*7110)	2926 (6450)			2631 (*5800)	1887 (4160)
4.5m (15ft)							3751 (*8270)	2749 (6060)	3651 (*8050)	1719 (3790)	2663 (*5870)	1483 (3270)
3.0m (10ft)			8537 (*18820)	8296 (18290)	5543 (*12220)	4259 (9390)	4495 (*9910)	2549 (5620)	3565 (7860)	1601 (3530)	2831 (*6240)	1266 (2790)
1.5m (5ft)			5661 (*12480)	5661 (*12480)	7339 (*16180)	3742 (8250)	5117 (11280)	2322 (5120)	3443 (7590)	1492 (3290)	2840 (6260)	1170 (2580)
Ground Level			4327 (*9540)	4327 (*9540)	8006 (17650)	3384 (7460)	4894 (10790)	2136 (4710)	3338 (7360)	1402 (3090)	2917 (6430)	1184 (2610)
-1.5m (-5ft)	4237 (*9340)	4237 (*9340)	8138 (*17940)	6314 (13920)	7825 (17250)	3243 (7150)	4772 (10520)	2032 (4480)	3293 (7260)	1356 (2990)	3257 (7180)	1343 (2960)
-3.0m (-10ft)	8614 (*18990)	8614 (*18990)	13554 (*29880)	6477 (14280)	7847 (17300)	3261 (7190)	4772 (10520)	2032 (4480)			4069 (8970)	1724 (3800)
-4.5m (-15ft)			11943 (*26330)	6809 (15010)	8056 (17760)	3429 (7560)					6459 (14240)	2803 (6180)

Boom - 5.6m (18' 4")
 Arm - 2.9m (9' 6")
 Bucket Capacity - 0.81m³ (1.06yd³)

Front : Outrigger
 Rear : D/Blade

Lifting Point	Rated Lifting Capacity, Load Radius (A)										Max. Reach	
	1.5m (5ft)		3m (10ft)		4.5m (15ft)		6m (20ft)		7.5m (25ft)		Front	Side
	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side		
7.5m (25ft)											2767 (*6100)	2767 (*6100)
6.0m (20ft)							3225 (*7110)	3225 (*7110)			2631 (*5800)	2631 (*5800)
4.5m (15ft)							3751 (*8270)	3751 (*8270)	3652 (*8050)	3026 (6670)	2663 (*5870)	2663 (*5870)
3.0m (10ft)			8537 (*8820)	8537 (*18820)	5543 (*12220)	5543 (*12220)	4495 (*9910)	4391 (9680)	4042 (*8910)	2899 (6390)	2831 (*6240)	2391 (5270)
1.5m (5ft)			5661 (*12480)	5661 (*12480)	7339 (*16180)	6704 (14780)	5375 (*11850)	4137 (9120)	4495 (*9910)	2781 (6130)	3157 (*6960)	2282 (5030)
Ground Level			4327 (*9540)	4327 (*9540)	8650 (*19070)	6291 (13870)	6146 (*13550)	3928 (8660)	4903 (*10810)	2685 (5920)	3865 (*8520)	2336 (5150)
-1.5m (-5ft)	4237 (*9340)	4237 (*9340)	8138 (*17940)	8138 (*17940)	9235 (*20360)	6128 (13510)	6604 (*14560)	3815 (8410)	5112 (*11270)	2635 (5810)	5076 (*11190)	2608 (5750)
-3.0m (-10ft)	8614 (*18990)	8614 (*18990)	13554 (*29880)	13386 (29510)	9126 (*20120)	6146 (13550)	6577 (*14500)	3815 (8410)			5802 (*12790)	3261 (7190)
-4.5m (-15ft)			11943 (*26330)	11943 (*26330)	8106 (*17870)	6337 (13970)					7008 (*15450)	5144 (11340)

Note : 1. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift Capacity Standards.
 2. They 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 may vary by the region without notice.
 * All material contained within are confidential to Samsung Global Sales Force and may not be copied without the pre-approval of Samsung.
 * Materials and specifications are subject to change without notice.

*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. 21 1 435 1138
Printed in Korea 98.08-3
Volvo, Seoul

English
KOR