

ENGINE			
Maker / Model	Hyundai 6BTAA-5.9 (HM5.9)		
Type	Water cooled, 4 cycle Diesel, 6-Cylinders in line, direct injection, Turbocharged, charge air cooled, Low emission		
Rated Flywheel Horse Power	SAE	J1995 (gross)	148 HP (110 kW) at 2,000 rpm
		J1349 (net)	145 HP (108 kW) at 2,000 rpm
	DIN	6271/1 (gross)	150 PS (110 kW) at 2,000 rpm
		6271/1 (net)	147 PS (108 kW) at 2,000 rpm
Max. Torque	64 kgfm (463 lbft) at 1,300 rpm		
Bore X Stroke	102 X 120 mm (4" X 4.7")		
Piston Displacement	5,900 cc (360 in <sup>3</sup> )		
Batteries	2 X 12 V X 100 Ah		
Starting Motor	24 V, 4.5 kW		
Alternator	24 V, 70 Amp		

HYDRAULIC SYSTEM	
MAIN PUMP	
Type	Variable displacement tandem-axis piston pumps
Max. Flow	2X234 l/min (61.8 US gpm / 51.4 UK gpm)
Sub-Pump for Pilot Circuit	Gear pump
Cross-sensing and fuel saving pump system	

HYDRAULIC MOTORS	
Travel	Two speed axial pistons motor with brake valve and parking brake
Swing	Axial piston motor with automatic brake

RELIEF VALVE SETTING	
Implement Circuits	350 kgf/cm <sup>2</sup> (4,978 psi)
Travel	350 kgf/cm <sup>2</sup> (4,978 psi)
Swing Circuit	265 kgf/cm <sup>2</sup> (3,769 psi)
Pilot Circuit	40 kgf/cm <sup>2</sup> (568 psi)
Service Valve	Installed

HYDRAULIC CYLINDERS	
No. of Cylinder	Boom: 2-120 X 1,290 mm (4.7" X 50.8")
Bore X Stroke	Arm: 1-140 X 1,510 mm (5.5" X 59.4") Bucket: 1-120 X 1,055 mm (4.72" X 41.5")

DRIVES & BRAKES	
Drive Method	Fully hydrostatic type
Drive Motor	Axial piston motor, in-shoe design
Reduction System	Planetary reduction gear
Max. Drawbar Pull	21,100 kgf (46,500 lbf)
Max. Travel Speed (high / low)	5.7 km/hr (3.54 mph) / 3.5 km/hr (2.17 mph)
Gradeability	35(70 %)
Parking Brake	Multi wet disc

CONTROL	
Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.	
Pilot Control	Two joysticks with one safety lever (LH): Swing and arm, (RH): Boom and bucket (ISO)
Traveling and Steering	Two levers with pedals
Engine Throttle	Electric, Dial type
Lights	One light mounted on the boom and one in the battery box



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SWING SYSTEM	
Swing Motor	Fixed displacement axial pistons motor
Swing Reduction	Planetary gear reduction
Swing Bearing Lubrication	Grease-bathed
Swing Brake	Multi wet disc
Swing Speed	12.2 rpm

SERVICE CAPACITIES			
	liter	US gal	UK gal
Fuel Tank	340	89.8	74.8
Engine Coolant	20	5.3	4.4
Engine Oil	20	5.3	4.4
Swing Device	6.2	1.3	1.1
Final Drive (Each)	4.5	1.6	1.3
Hydraulic System (Including Tank)	275	72.6	60.5
Hydraulic Tank	160	42.3	35.2

\*( ):option

#### UNDERCARRIAGE

The X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes.

Model	HX210S	HX220S
Center Frame	X-leg type	X-leg type
Track Frame	Pentagonal box type	Pentagonal box type
No. of Shoes on Each Side	46 EA	49 EA
No. of Carrier Rollers on Each Side	2 EA	2 EA
No. of Track Rollers on Each Side	7 EA	9 EA
No. of Rail Guards on Each Side	1 EA	2 EA

#### OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 5,680 mm (18' 8") boom, 2,920 mm (9' 7") arm, SAE heaped 0.92m<sup>3</sup> (1.20 yd<sup>3</sup>) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

MAJOR COMPONENT WEIGHT	
Upperstructure	5,600 kg (12,350 lb)
Counterweight	3,600 kg (7,937 lb)
Boom (with Arm Cylinder)	1,950 kg (4,300 lb)

OPERATING WEIGHT					
Type	Shoes		Operating Weight		Ground Pressure
	Width mm (in)		kg (lb)		
Triple Grouser	600 (24")	HX210S	20,830 (45,920)	0.48 (6.81)	
		HX220S	21,260 (46,870)	0.45 (6.45)	
	700 (28")	HX220S	21,750 (47,950)	0.40 (5.66)	
		HX210S	21,380 (47,140)	0.42 (5.99)	
	800 (32")	HX220S	22,040 (48,590)	0.35 (5.02)	
		HX220S LR	24,390 (53,770)	0.39 (5.55)	

**HYUNDAI**  
CONSTRUCTION EQUIPMENT

MOVING YOU FURTHER

Gross Power  
148 HP(110 kW) at 2,000rpm

Net Power  
145 HP(108 kW) at 2,000rpm

Bucket Capacity  
0.52 ~ 1.2m<sup>3</sup>

Operating Weight  
HX210S 20,830 kg / 45,920 lb  
HX220S 21,260 kg / 46,870 lb



# HX220 S





# OPERATOR'S COMFORT FOREMOST. WIDE CAB EXCEEDS INDUSTRY STANDARDS.

## Improved Intelligent Display



Instrument Panel is installed in front of RH console box. It is easy to check all critical systems with easy-to-read indicators.

## Smooth Travel Pedal and Foot Rests



## Easy-to-Reach Control Panels



Switches and other essential controls are located near the operator. This helps keep operator movement to a minimum, enhancing control with less operator fatigue.

## Wide Cab with Excellent Visibility



The cab is roomy and ergonomically designed with low noise level and good visibility. A full view front window and large rear and side windows provide excellent visibility in all directions.

## Highly Sensitive Joystick and Easy Entrance



New joystick grips for precise control have been equipped with double switches.  
 - Left: One touch deceleration  
 - Right: Horn / Optional

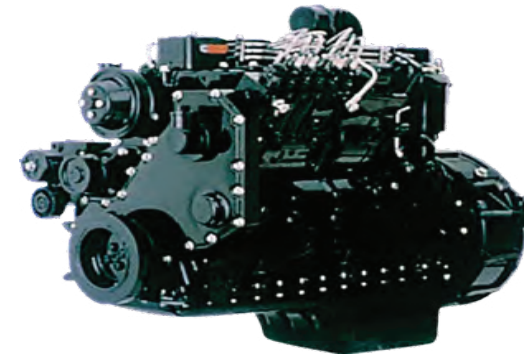
## Wide, Comfortable Operating Space



All the controls are designed and positioned according to the latest ergonomic research. Reinforced pillars have also been added for greater cab rigidity.

# BUILT FOR MAXIMUM POWER, PERFORMANCE, RELIABILITY.

## Hyundai 6BTAA-5.9(HM5.9) Engine



The six cylinders, turbo-charged, 4 cycle, charger air cooled engine is built for power, reliability, economy and low emissions.

## Reinforced Bucket and Bucket Linkage



Sealed and adjustable bucket linkage provides less wear of pins and bushes as well as silent operation. The design includes bucket link durability and anti wear characteristics. Additional reinforcement plates on cutting edge section. Reinforced bucket is made with thicker steel and additional lateral plate.

## Powerful and Preciser Swing Control



Improved shock absorbing characteristics make stopping a precise and smooth action.

**A More Reliable Way To Reach You Dream.**



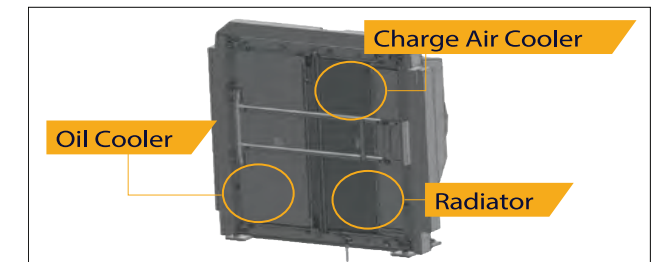
The Hyundai 6BTAA-5.9(HM5.9) engine has been designed with 40% fewer parts than the competition. The weight of the machine is reduced without sacrificing strength. You get a proven power plant that meets ecological concerns, without paying a premium for technology you don't need.

## Strong and Stable Lower Frame



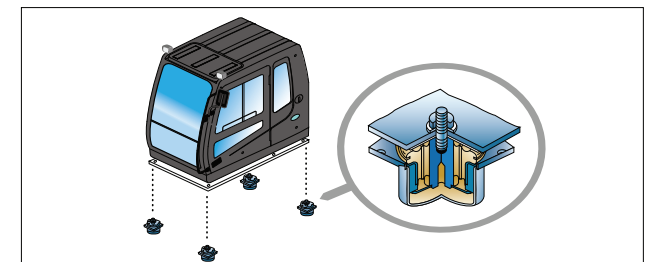
Reinforced box-section frame welded, low-stress, high-strength steel guarantees safety and resistance against external impact when driving on rough ground and working on wet sites through high tensile strength steel panels, with highly durable upper and lower rollers and track guards.

## Single Layer Cooling System



1. Improved cooling performance by changing over to 3 column type structure in a row
2. Easy to clean without disassembling anentire radiator total assembly

## Minimization of Shock and Vibration through Cab Mounting System



The application of Viscous Mounting to the cabin support provides the operator with a much improved ride. The operator work efficiency will increase as the shock and noise level in the cabin decreases.