#### **BUCKET SELECTION GUIDE**

# 3000 3500 2500 4000 lb/yd Material Density HL 760-9S -HL 760XTD-9S -

#### SUPPLEMENTAL SPECIFICATIONS

Description	Change in operating weight kg(lb)	Change in static tipping load-straight kg(lb)	Change in static tipping load-40° turn kg(lb)
20.5-25 16PR L3	-872 (-1,922)	-670 (-1,470)	-590 (-1,300)
23.5 R25 XHA*	+8 (+18)	+6 (+13)	+5 (+11)

### **STANDARD EQUIPMENT**

**Electrical system** 

Alarms, audible and visual

- air filter clogging transmission error
- alternator voltage
- brake oil pressure
- engine oil pressure - parking brake
- fuel level
- hydraulic oil temperature
- coolant temperature
- service brake oil pressure Alarm, back-up

Batteries, maintenance-free 900 CCA, 12V, (2)

- Gauges
- engine coolant temperature - fuel level
- hydraulic oil temperature
- speedometer - transmission oil temperature
- voltmeter Horn, electric

Indicator lights

- clutch cut-off - high beam
- turn signal
- LCD Display

- clock and fault code - operating hour counter

engine rpm

- transmission gear range Alternator, 70A indicator - iob time and distance

- oil. t/m oil) Lighting system
  - LED dome light
  - 2 stop and tail lights
  - 4 turn signals
  - brake lights(counterweight) - 2 head lights on front tower

- temperature(coolant, hydraulic

- 2 working lights on front roof - 2 working lights on grill Switches
- clutch cut-off
- hazard
- Ignition key, start/stop switch - main light
- (illumination and head light)
- parking
- rear wiper & washer - work light
- Starter, electric Starting and charging system (24-volt)

ROPS(ISO 3471) / FOPS(ISO 3449) (sound suppressed and

- battery master switch

- one brake pedal Radio/USB player Rubber floor mat Wrist rest

Engine

pressurized) with - cigar lighter

- coat hook Automatic climate control

- air conditioner & heater

 defroster intermittent wiper and washer.

front and rear Personal storage space

console box

- holder, can and cup Rear view mirrors (1 inside)

Rear view mirrors (2 outside) 2" static seat belt &

adjustable mechanical suspension

Steering column, tilt Steering wheel with knob Roller type sunshade (front)

Tinted safety glass Two door cab Magazine pocket

Pedals - one accelerator pedal

Engine, HYUNDAI HM8.3

- Low Emission Diesel, Tier-II Engine enclosure, lockable Engine fuel priming pump Fan guard

Fuel/water separator Muffler, under hood with large

> exhaust stack Rain cap, engine air intake Radiator

Starting aid (air intake heater)

**Power Train** 

Brakes: Service, enclosed wet-disc Parking brake Torque converter

Transmission, computer-controlled, electronic soft shift, auto-shift and kick-down features included Transmission oil cooler

Hydraulics

Bucket positioner, automatic Diagnostic pressure taps Hydraulic oil cooler Hydraulic system,

- 2 spool, single lever, pilot control for boom and bucket actuation Steering, load-sensing Remote cooling fan, hydraulically-driven,

temperature sensing type

Others

Articulation locking bar Bucket

- 3.1 m³ Cutting edge, bolt-on type Coolant level sight gauge Counterweight Door and cab locks, one key

Doors, service access(locking) Drawbar with pin Engine oil level dipstick gauge Ergonomically located and slip resistant, left & right

- handrails
- ladders
- platforms

- steps

Fenders(front / rear) Hydraulic oil level sight gauge Lift and tie-down hooks Loader linkage, sealed Z-bar design TiresTires(23.5-25,20PR,L3) Transmission oil site level Vandalism protection caplocks

### **OPTIONAL EQUIPMENT**

24-volt to 12-volt DC converter Beacon light, rotating

- 3.0 m³ 1 piece tooth, bolt-on type - 3.0 m³ 2 piece tooth, bolt-on type

-  $3.2\,\mathrm{m}^{\mathrm{s}}$  1 piece tooth, bolt-on type - 3.2 m³ 2 piece tooth, bolt-on type - 3.3 m³ Cutting edge, bolt-on type

- 3.5 m³ 1 piece tooth, bolt-on type - 3.5 m<sup>3</sup> 2 piece tooth, bolt-on type - Pallet Fork, Pin on type

Additional, 4 working lights

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on front/rear roof

Secondary steering system Fire extinguisher High lift arrangement with

optional counterweight, 1,600kg (3,530 lb) 3rd spool for auxiliary function Extra piping for auxiliary function

Mud guard Heated rear view mirrors (2 outside)

Reversible cooling fan Finger tip lever - 2 spool

2018. 09 Rev. 7

adjustable mechanical suspension - 2" static seat belt &

suspension

Ride control system

adjustable mechanical

- 3" retractable seat belt & adjustable air suspension (heated)

- 2" static seat belt &

Finger tip lever - 3 spool 2 Lever(Joystick) - 3 spool

- 20.5 - 25, 16PR, L3 - 23.5 - 25, 20PR, L5

- 23.5 - 25, 20PR, L3 - 23.5 R25,XHA\* - 23.5 R25,L3 Tool kit

Guards - crankcase - transmission Wheel chock

License plate & lamp (Remote Management System)

- Mobile / Satellite Rearview camera Limited slip differential Fuel warmer Roller types sunshade (rear) Tilt only steering column

Auto grease system

Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to International standards. All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT

▲ HYUNDAI CONSTRUCTION EQUIPMENT

Pre-cleaner, engine air intake

HYUNDAI **CONSTRUCTION EQUIPMENT** 

We build a better future

With Tier 2 Engine installed

HL760-98

# **Pride at Work**

Hyundai Construction Equipment strives to build state-of-the art earthmoving equipment to give every operator maximum performance, more precision, versatile machine preferences, and proven quality. Take pride in your work with Hyundai!



# HL760-98

### **Machine Walk-Around**

### **Reliable Main Components**

#### **Engine Technology**

Well proven, reliable, fuel efficient, low noise HYUNDAI HM8.3 Engine

Robust Bosch in-line mechanical fuel injection pump.

-The most durable fuel system in the most harshest working environments.

#### **Fully Automatic Transmission**

4 step(Manual / Light / Normal / Heavy) shift mode by working condition

Protective transmission at low temperature(Automatic warm-up system)

Self-diagnostic & Memory of malfunction history

Minimum travel shift shock by applying proportional controlling modulation valve / Self adjusting Clutch gap

Kick-down button

#### Axle

Self-adjusting & wheel speed wet disc brake

### **Improved Durability**

Long-life cooling system, designed for additional durability, resistant to thermal shock, impulse and vibration.

### **Enhanced Operator Comfort**

#### Improved Visibility

Larger operator's cab for additional comfort.

Redesigned cab with rounded front glass and larger door glass for a larger field of view.

#### Improved Convenience

Increased cooling & heating capacity with fully automatic climate control system.

Tilting & telescopic steering column.

Adjustable wrist rest for reduced operating stress.

Multiple storage compartments.

AM/FM Radio with MP3 interface and USB input.

Improved ladder with 20 Degree incline and large, deep tread, non-slip cast steps for safer access and exit from the cab.

#### Advanced 5.7" Color Monitor

Easy-to-read new color LCD display.

Self diagnostic & monitoring system with active display of hydraulic system, transmission and electrical component information.

Color, rear-view, back-up camera for improved safety and convenience.

### Serviceability

Reversible, swing-out, cooling fan for easy service and improved cooler maintenance. Ground level access to critical service points, filters and sight gauges for easy maintenance.





### **Wide and Convenient Cab**

The newly designed cabin was conceived for more space, a wider field of view and operator comfort. The front glass is rounded and 17% wider than the previous 7A series. Special attention was given to a clean, open and convenient interior with plenty of visibility on the machine surroundings and the job at hand. This well balanced combination of cab ergonomics puts the operator in the perfect position to work safely and securely. The 9S series cab's fully automatic climate control system features 11 air vents and increased cooling and heating capacity for optimum temperature control. The defroster vents located on the front and rear windows and a PTC (electric pre-heater, Option) make working in cold weather more hospitable.

### Operator Comfort

In the 9S series cabin you can easily adjust the steering column and wrist rest to best suit your preferred comfort level. Pilot-operated joystick controls are easy and comfortable to operate. Roller type sunshades on the front & rear window allow the operator to reduce

glare and improve visibility. Heated side mirrors feature built-in hot wires for guick defrosting during cold weather conditions.













AM/FM Radio with MP3/ AC control

Tilting / telescopic steering column(OPT)

### **Reduced Stress**

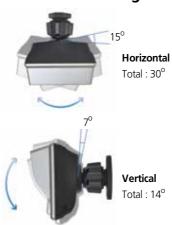
Work is stressful enough. Your work environment should be stress free. Hyundai's 95 series cabin offers lots of amenities, additional space and a comfortable seat to minimize stress to the operator. A powerful climate control system provides the operator with optimum air temperature. An advanced audio system with AM/FM stereo with MP3 interface and USB input, plus remotely located controls is perfect for listening to music favorites.

### **Advanced Color Monitor**



The advanced new monitor with 5.7 inch wide color LCD screen allows the operator to easily and efficiently control the machine. Self diagnostics, color rear-view camera maintenance check lists and start-up machine security, were integrated into the monitor to make the machine more versatile and the operator more productive. The new monitor display unit is mounted on an adjustable swivel mount to reduce glare and position according to operator preference.

### **Monitor Tilt Range**







# **Precision & Performance**

Innovative hydraulic system technologies make the 9S series wheel loader fast, smooth and easy to control. 9S series wheel loaders are designed for maximum performance to keep the operator working productively.



\*Photo may include optional equipment.

### **Improved Durability & Reliability**



An enhanced axle improves driving over variable ground conditions. Self adjusting brakes that automatically regulate disc clearance, reduce service time and improve brake reliability and performance. Service and clean-out are easier on the 9S series, now equipped with a completely redesigned, parallel-mounted, cooler configuration and non louvered fins to prevent clogging. All coolers are designed with aluminum bar plate configuration and undergo strict factory tests for thermal shock, impulse and vibration to assure long term durability. Top mounted non-louvered aluminum air condenser and variable displacement A/C compressor are designed for maximum cooling capacity, energy savings and easy cleanout.

### Variable Operating Modes



9S series wheel loaders are designed to allow the operator to customize automatic transmission shift timing and clutch cut-off activation based on the job condition and personal operator preference. Convenient rotary type switches allow for easy adjustment of transmission power shift mode, and clutch cut-off mode. Additionally, if equipped with the optional ride control system, the operator has the option to turn the system on or off with an overhead switch. The ride control system has a shock absorbing accumulator that cushions the boom, improves operator comfort and reduces material loss. The versatility of the 9S series operating modes contributes to improved productivity, enhanced operator comfort and reduced fuel consumption.

### 4 Mode Transmission Power Shift System M(Manual) Mode

Auto L(Light) Mode: Light duty & long distance carry
Auto N(Normal) Mode: General excavating & loading
Auto H(Heavy) Mode: Heavy duty excavating & loading

#### 3 Mode Clutch Cut-Off System

L(Low) Mode : Short distance & faster loading M(Medium) Mode : General loading H(High) Mode : Slope ground



Eco-friendly HYUNDAI HM 8.3

Hyundai HM8.3 Engine meets all current Tier2 / Stage2 standards. Hyundai HM8.3 Engines have been proven durable and reliable in some of the most remote locations and harshest working environments in the world. A robust in-line fuel pump delivers more power at high injection pressure for

A robust in-line fuel pump delivers more power at high injection pressure to cleaner combustion and lower emission.



Fully Automatic Transmission

Fully automatic transmission designed for maximum durability, minimum power loss, improved travel speed and low noise. Improved clutch control and minimized shifting shock when traveling, contribute to a smoother ride. Error messages and transmission fault history are recorded and accessible through the monitor.

# **Profitability**

9S series is designed to maximize profitability through improved efficiencies, enhanced service features and longer life components.





### Hi-MATE (Remote Management System)

Hi-MATE, Hyundai's proprietary remote management system, provides operators and dealer service personnel access to vital service and diagnostic information on the machine from any computer with internet access. Users can pinpoint machine location using digital mapping and set machine work boundaries, reducing the need for multiple service calls. Hi-MATE saves time and money for the owner and dealer by promoting preventative maintenance and reducing machine downtime.



### Remote-mounted Cooling Fan

The remote mounted, hydraulically powered cooling fan regulates fan speed according to working temperatures for coolant, intake air, transmission oil and hydraulic oil. This new fan design contributes to reduced fuel consumption and machine noise. (Option: The fan is designed to auto reverse periodically or manually reverse to keep debris from accumulating on the coolers)



### Easy Access

The engine fan is integrated into the rear door which swings open to over 45 degrees for easy access and regular maintenance. Conveniently located coolant and transmission oil site gauges make checking fluid levels fast and efficient. Ground-line access to fuel and oil filters grease fittings, fuses, machine computer components and wide open compartments makes service more convenient on the 9S series.



## Full Fenders and Mud Guards (Option)

9S series wheel loaders can be equipped with optional full rear fenders and front and rear mud flaps to reduce material splatter to the cab and machine frame.



Hydraulic O (5.000 hr)

### **Extended Life Components**

The 9S series is designed for longer lubrication intervals and extended component life. Hydraulic oil can last up to 5,000 hours before changing. Also, a new center pivot roller bearing design, now double tapered, requires less maintenance as well. Long life and extended wear components save the operator time and money.

# **Specifications & Dimensions**

### **ENGINE**

Maker/Model	HYUNDAI HM 8.3
Туре	4-cycle, turbocharged, charge aircooled direct injection, diesel engine
Gross power	215 HP(160 kW) / 2,200rpm
Net power	205 HP(152 kW) / 2,200rpm
Maximum torque	99 kg·m(716lb·ft) / 1,400rpm
No. of cylinders	6
Bore x Stroke	114 mm (4.49") x 135 mm (5.31")
Displacement	8.30 (506 cu in)
Compression ratio	18:1
Air cleaner	Dry, dual elements
Alternator	24V, 70 Amp
Battery	2 x 12V
Starting motor	24V, 7.5 kW

<sup>\*\*</sup>No derating for continuous operating required up to 3,048m (10,000ft). This engine meets the EPA(Tier II) / EU(Stage II) Emission regulation.

### **TRANSMISSION**

Torque converter type	3-elements, single-stage single-phase
Tire	23.5 R25, L3*

% Full automatic power shift, countershaft type with soft-shift in range and direction. Properly matched torque converter to engine and transmission for excellent working ability

Travel speed		km/h (mph)
Forward	1st	6.4(4.0)
	2nd	12.1(7.5)
	3rd	24.2(15.0)
	4th	38.4(23.9)
Reverse	1st	6.8(4.2)
	2nd	12.8(8.0)
	3rd	25.4(15.8)

### **AXLES**

Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	±12° (total 24°)
Hub reduction	Planetary reduction at wheel end
Differential	Conventional
Reduction ratio	24.666

### **HYDRAULIC SYSTEM**

Туре		Open centered, tandem circuit system pilot operated controls
Pump		Gear type, 282 liters/min (74.4 gal/min)@governed rpm
Control valve		2 Spool (Bucket, Boom) 3 Spool (Bucket, Boom, Aux)
System pre	ssure	210 kgf/cm² (2,986psi)
Bucket Controls	Туре	Pilot operated lift and tilt circuit, single-lever(joystick) control standard.
	Lift Circuit	The valve has four functions; raise, hold, lower and float. Can adjust automatic kickout from horizontal to full lift.
	Tilt Circuit	The valve has three functions; tilt back, hold and dump. Can adjust automatic bucket positioner to desired load angle.
<b>Cylinder</b>	HL760-9S HL760XTD-9S	Type : Double acting No. of cylinders-bore x stroke; Lift 2-160 mm(6.3") x 757 mm(29.8") Tilt 1-180 mm(7.1") x 530 mm(20.8") Tilt 1-180 mm(7.1") x 515 mm(20.3")
Cycle Time		Raise: 6.2 sec Dump: 1.4 sec Lower: 3.0 sec Total: 10.6 sec

### **AIR CONDITIONING SYSTEM**

The air condition system for the machine contains the fluorinated greenhouse gas with global warming potential of R134a. (Global Warming Potential: 1430)

The system hold 0.85kg refrigerant consisting of a CO<sub>2</sub> equivalent 1.22kg metric tonne. For more information, Please refer to the manual.

### **BRAKES**

Service Brakes	Hydraulically actuated, wet disc brakes actuate all 4 wheels independent axle-by-axle system. Self adjusting & wheel speed brake.
Parking Brake	Spring-applied, hydraulically released brake
Emergency Brake	When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies.

### STEERING SYSTEM

Туре	Load sensing hydrostatic articulated steering
Pump	Gear type, 141 liters/min (37.2 gal/min)
Relief Valve Setting	210 kg/cm <sup>2</sup> (2,986 psi)
<b>Cylinder</b> Type Bore x Stroke	Double acting 80mm(2.9") x 440mm(17.3")
Steering Angle	40°(each direction)

#### Features

- Center-point frame articulation.
- Tilt and telescopic steering column.

### **SERVICE REFILL CAPACITIES**

Fuel tank	263 liters (69.5 USgal)
Cooling system	39 liters (10.3 USgal)
Crankcase	20 liters (5.3 USgal)
Transmission	32 liters (8.5 USgal)

### **OVERVIEW**

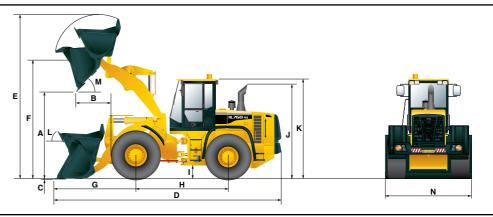
Description		UNIT	HL760-9S	HL760XTD-9S
Operating weight		kg (lb)	17,600 (38,800)	18,400 (40,560)
Bucket capacity	Heaped	m³(yd³)	3.1 (4.0)	3.1 (4.0)
	Struck	m³(yd³)	2.7 (3.5)	2.7 (3.5)
Breakout force-bucket		kg (lb)	15,950 (35,160)	15,650 (34,500)
Tipping load	Straight	kg (lb)	13,950 (30,750)	12,400 (27,340)
	Full turn	kg (lb)	12,060 (26,590)	10,660 (23,500)

Front axle	35 liters (9.2 USgal)
Rear axle	35 liters (9.2 USgal)
Hydraulic tank	163 liters (43.1 USgal)
Hydraulic system (including tank)	260 liters (68.7 USgal)

### **TIRES**

Туре	Tubeless, loader design tires
Standard	23.5-25,20PR,L3
Options include	20.5-25,16PR,L3 23.5-25,20PR,L3 23.5-25,20PR,L5 23.5 R25,XHA* 23.5 R25,L3

### **DIMENSIONS**



Descrip	otion		UNIT	HL760-9S	HL760XTD-9S
Bucket Type			General purpose bolt-on cutting edge		
A. Dumping clearance at max. height and 45° dump angle.			mm (ft-in)	3,000 (9′ 10″)	3,490 (11′ 5″)
B. Rea	Reach	Full lift	mm (ft-in)	1,190 (3' 11")	1,215 (4')
D. Nec		7ft height	mm (ft-in)	1,720 (5′ 8″)	2,180 (7' 2")
C. Digging depth			mm (in)	90 (3.5")	90 (3.5")
D 0	Overall length	on ground	mm (ft-in)	8,065 (26' 6")	8,620 (28' 3")
D. Ove		at carry	mm (ft-in)	8,000 (26′ 3″)	8,580 (28' 2")
E. Ove	. Overall height (fully raised)			5,540 (18' 2")	6,030 (19' 9")
F. Buc	Bucket pivot max. height			4,105 (13' 6")	4,600 (15′ 1″)

Des	scription		UNIT	HL760-9S	HL760XTD-9S				
G.	Front overhang	3	mm (ft-in)	2,745 (9')	3,210 (10′ 6″)				
Н.	Wheelbase		mm (ft-in)	3,300 (10′ 10″)	3,300 (10′ 10″)				
I.	Ground clearance		mm (ft-in)	420 (1′ 5″)	420 (1′ 5″)				
J.	Height over exhaust		mm (ft-in)	3,290 (10′ 10″)	3,290 (10′ 10″)				
K.	Height over cab		mm (ft-in)	3,485 (11′ 5″)	3,440 (11′ 3″)				
L.	Roll-back angle	on ground	deg	42	42				
		at carry	deg	47	49				
M.	Dump angle		deg	47	47				
	Clearance circle	9	mm (ft-in)	13,120 (43' 1")	13,590 (44' 7")				
N.	Overall width	with bucket	mm (ft-in)	2,900 (9' 6")	2,900 (9' 6")				
		without bucket	mm (ft-in)	2,770 (9' 1")	2,770 (9' 1")				