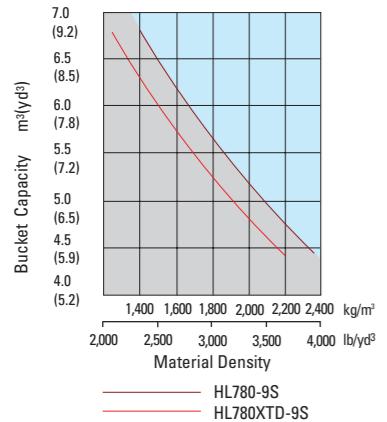


BUCKET SELECTION GUIDE



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)
26.5-25 32PR L3	-112 (-247)	-90 (-200)	-80 (-175)
29.5-25 28PR L3	+352 (+776)	+270 (+595)	+240 (+530)
29.5-25 28PR L5	+1,240 (+2,734)	+960 (+2,160)	+850 (+1,870)
29.5 R25 XHA*	+500 (+1,102)	+390 (+860)	+340 (+750)

STANDARD EQUIPMENT

Electrical system	- transmission gear range indicator - job time and distance - temperature(coolant, hydraulic oil, t/m oil)	Automatic climate control - air conditioner & heater - defroster - intermittent wiper and washer, front and rear	3 operating mode (power / standard / econo) Fan guard Fuel / water separator Muffler, under hood with large exhaust stack	temperature sensing type
Alternator, 70A				Others
Alarms, audible and visual				Articulation locking bar - 5.1m³ Cutting edge, bolt-on type
- air filter clogging				Coolant level sight gauge
- transmission error				Counterweight
- alternator voltage				Door and cab locks, one key
- brake oil pressure	- 1 LED dome lights	Console box		Doors, service access (locking)
- engine oil pressure	- 2 stop and tail lights	Holder, can and cup		Drawbar with pin
- parking brake	- 4 turn signals	Rear view mirrors (1 inside)		Engine oil level dipstick gauge
- fuel level	- brake lights (counterweight)	Rear view mirrors (2 outside)		Ergonomically located and slip resistant, left & right
- hydraulic oil temperature	- 2 head lights on front tower	2" static seat belt & mechanical suspension seat with armrests		- handrails
- coolant temperature	- 2 working lights on front roof	Steering column, tilt		- ladders
- service brake oil pressure	- 2 working lights on grill	Steering wheel with knob		- platforms
Alarm, back-up		Roller type sunshade (front window)		- steps
Batteries, 1,315 CCA, 12V, (2)		Tinted safety glass		Fenders (front / rear)
Gauges	- engine coolant temperature	Two door cab		Guard, bucket cylinder rod
- fuel level	- fuel level	Magazine pocket		Hydraulic oil level sight gauge
- hydraulic oil temperature	- hydraulic oil temperature	Pedals		Lift and tie-down hooks
- speedometer	- speedometer	- one accelerator pedal		Loader linkage, sealed
- transmission oil temperature	- transmission oil temperature	- one brake pedal		Z-Bar design
- voltmeter		Radio/USB player		Tires(29.5-25, 22PR,L3)
Horn, electric		Rubber floor mat		Transmission oil site level
Indicator lights		Wrist rest		Vandalism protection caplocks
- clutch cut-off				
- high beam				
- turn signal				
LCD Display				
- clock and fault code				
- operating hour counter				
- engine rpm				
Cab	ROPS(ISO 3471) / FOPS(ISO 3449) (sound suppressed and pressurized) with :			
	- cigar lighter			
	- coat hook			
Engine	Antifreeze			
	Engine, Cummins QSM11			
	- Low Emission Diesel, Tier3			
	Engine enclosure, lockable			

OPTIONAL EQUIPMENT

24-volt to 12-volt DC converter	- Pallet Fork, Pin on type	Extra piping for auxiliary function	adjustable mechanical suspension	Tool kit
Additional, 4 working lights on front/rear roof	Secondary steering system	3rd spool for auxiliary function	- 3" retractable seat belt & adjustable air suspension (heated)	Wheel chock
Beacon light, rotating	Fire extinguisher	Mud guard	Steering column, tilt and telescopic	Pre-cleaner, engine air intake
- 4.8m³ 2 piece tooth, bolt-on type	Finger tip lever - 2 spool	Heated rear view mirrors (2 outside)	Roller type sunshade(Rear window)	License plate & lamp
- 5.2m³ 2 piece tooth, bolt-on type	Finger tip lever - 3 spool	Reversible cooling fan	Tires :	Hi-Mate
- 5.4m³ Cutting edge, bolt-on type	2 Lever(Joystick) - 3 spool	Ride control system	- 29.5 - 25,22PR L3	(Remote Management System)
- 5.6m³ 2 piece tooth, bolt-on type	Guard	Seat	- 29.5 - 25, 28PR L3	- Mobile / Satellite
- 5.8m³ Cutting edge, bolt-on type	- Transmission	- 2" static seat belt & adjustable mechanical suspension	- 29.5 - 25, 28PR L5	Rearview camera
- 6.7m³ 2 piece tooth, bolt-on type	- crankcase	High lift arrangement with Optional counterweight	- 29.5 R25 L3	Heavy duty axle (Front, Rear)
- 7.0m³ Cutting edge, bolt-on type		1,750kg (3,860lb)	- 29.5 R25 XHA*	Hyd, lock differential (Front)
- 4.8m³ Spade nose & segment, rock				Fuel warmer
				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

Head Office (Sales office)

First tower, 55, Bundang-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea

MOVING YOU FURTHER

HL780-9s

With Tier 3 Engine installed



*Photo may include optional equipment.

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!

HL780-9s



Machine Walk-Around

Reliable Main Components

Engine Technology

Well Proven, reliable, fuel efficient, low noise Cummins Tier-III QSM11 engine.
3 Engine operating mode (Power / Standard / Econo)

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

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 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.

Operator Comfort

Operating a 9S series wheel loader is unique to every operator. Operators can fully customize their work environment and operating preferences to fit their individual needs.



*Photo may include optional equipment.



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

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



Tilting (STD) Telescopic (OPT)

Reduced Stress

Work is stressful enough. Your work environment should be stress free. Hyundai's 9S 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. Sintered brakes discs 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 clean-out.

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.



3 Mode Engine Power Selection
P(Power) Mode : Heavy duty work
S(Standard) Mode : General work
E(Economy) Mode : Light duty work

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

ICCO(Intelligent Clutch Cut-off) System
Improved productivity (more power available for hyd. system) and smooth control of machine speed.



Eco-friendly
Cummins QSM11 Engine

The CUMMINS QSM11 electronic control engine combines full-authority electronic controls with the reliable performance. The combination of improved airflow and evenly dispersed fuel results in increased power, improved transient response and reduced fuel consumption. And the QSM11 uses advanced electronic controls to meet the emission standards.
(EPA Tier-3, EU Stage II-A)



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)



Swing Out Cooling Fan

The engine fan is integrated into the rear door which swings open to over 45 degrees for easy access and regular maintenance.



Wide Open Access

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.



Hydraulic Oil
(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	CUMMINS QSM11
Type	Watercooled, 4-cycle, turbocharged, charge aircooled direct injection, electronic controlled diesel engine
Gross power	348HP (260 kW) / 2,000rpm
Net power	331HP (247 kW) / 2,000rpm
Max. power	365HP (272 kW) / 1,800rpm
Maximum torque	171kg.m (1,235 lb.ft) / 1,400rpm
No. of cylinders	6
Bore x Stroke	125 mm (4.9") x 147 mm (5.8")
Displacement	10.8l (660 cu in)
Compression ratio	16.3 : 1
Air cleaner	Dry, Two stages dual elements
Alternator	24V, 70 Amp
Battery	2 x 12V, 220 Ah.
Starting motor	24V, 7.8kW

※No derating for continuous operating required up to 2,438m (8,000ft).
This engine meets the EPA(Tier III) / EU(Stage III-A) Emission regulation.

TRANSMISSION

Torque converter type	3-elements, single-stage Double-phase
Tire	29.5-25, 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 6.1 (3.8)
	2nd 11.5 (7.1)
	3rd 18.0 (11.2)
	4th 36.5 (22.7)
Reverse	1st 6.1 (3.8)
	2nd 11.5 (7.1)
	3rd 25.0 (15.5)

AXLES

Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	±13° (total 26°)
Hub reduction	Planetary reduction at wheel end
Differential	Conventional
Reduction ratio	27.0

HYDRAULIC SYSTEM

Type	Open centered tandem circuit system
Pump	Gear 529 lpm 139.7 gpm
Control valve	2 Spool (Bucket, Boom) 3 Spool (Bucket, Boom, Aux) Pilot pressure controled type
System pressure	210 kgf/cm² (2,990 psi)
Bucket Controls	Type 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.
Cylinder	Type : Double acting Lift, bore x stroke 2-200 mm (7.0") x 863 mm (34.0") Tilt, bore x stroke 2-160 mm (5.5") x 580 mm (22.6") 2-160 mm (5.5") x 570 mm (25.4")
HL780-95	
HL780XTD-95	
Cycle Time	Raise : 6.7 sec (with load) Dump : 1.4 sec Lower : 3.0 sec (empty) Total : 11.1 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 CO₂ 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. Wheel speed brake.
Parking Brake	Spring-applied, hydraulically released disc brake on transmission output
Emergency Brake	When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies.

STEERING SYSTEM

Type	Full hydraulic power steering
Pump	Gear, 292 liters/min (77.1 gal/min)
Relief Valve Setting	210 kg/cm² (2,990 psi)
Cylinder	Type Double acting Bore x Stroke 110mm (4.1") x 480mm (18.9")
Steering Angle	40°(each direction)

Features
- Center-point frame articulation.
- Load-sensing, flow amplified system.
- Tilt and telescopic steering column.

Front axle	58 liters (15.3 USgal)
Rear axle	58 liters (15.3 USgal)
Hydraulic tank	230 liters (60.8 USgal)
Hydraulic system (including tank)	336 liters (88.8 USgal)

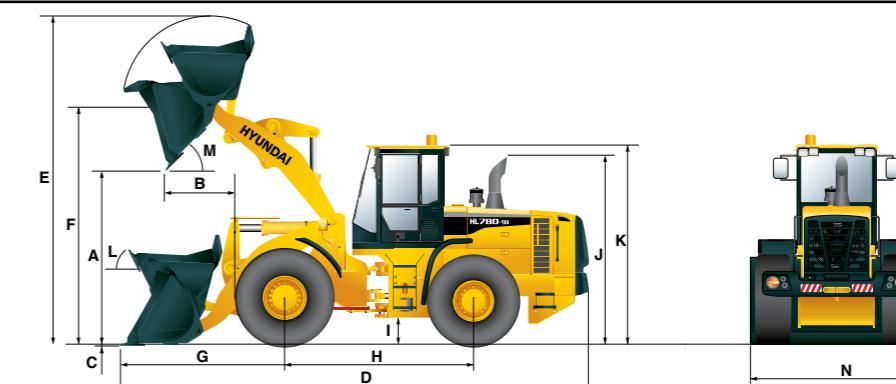
TIRES

Type	Tubeless, loader design tires
Standard	29.5-25, 22 PR, L3
Options include	29.5-25, 22PR L3 29.5-25, 28 PR, L3 29.5-25, 28 PR, L5 29.5 R25 L3 29.5 R25 XHA*

OVERVIEW

Description	UNIT	HL780-95	HL780XTD-95
Operating weight	kg (lb)	29,500 (65,040)	30,200 (66,580)
Bucket capacity	Heaped Struck m³(yd³)	5.1 (6.7) 4.3 (5.6)	5.1 (6.7) 4.3 (5.6)
Breakout force-bucket	kg (lb)	24,820 (54,720)	23,880 (52,650)
Tipping load	Straight Full turn kg (lb)	23,940 (52,780) 20,770 (45,790)	21,660 (47,750) 18,660 (41,140)

DIMENSIONS



Description	UNIT	HL780-95	HL780XTD-95
Bucket Type			General purpose bolt-on cutting edge
A. Dumping clearance at max. height and 45° dump angle.	mm (ft-in)	3,300 (10' 10")	3,720 (12' 2")
B. Reach	Full lift 7ft height mm (ft-in)	1,365 (4' 6") 2,070 (6' 9")	1,430 (4' 8") 2,440 (8')
C. Digging depth	mm (in)	95 (3.7")	110 (4.3")
D. Overall length	on ground at carry mm (ft-in)	9,475 (31' 1") 9,400 (30' 10")	9,970 (32' 9") 9,920 (32' 7")
E. Overall height (fully raised)	mm (ft-in)	6,160 (20' 3")	6,590 (21' 7")
F. Bucket pivot max. height	mm (ft-in)	4,510 (14' 10")	4,930 (16' 2")

Description	UNIT	HL780-95	HL780XTD-95
G. Front overhang	mm (ft-in)	3,080 (10' 1")	3,510 (11' 6")
H. Wheelbase	mm (ft-in)	3,700 (12' 2")	3,720 (12' 2")
I. Ground clearance	mm (ft-in)	495 (1' 7")	495 (1' 7")
J. Height over exhaust	mm (ft-in)	3,720 (12' 2")	3,720 (12' 2")
K. Height over cab	mm (ft-in)	3,880 (12' 9")	3,880 (12' 9")
L. Roll-back angle (on ground/at carry)	deg	42 / 48	42 / 49
M. Dump angle	deg	47	47
Clearance circle	mm (ft-in)	15,170 (49' 9")	15,580 (51' 1")
N. Overall width	with bucket mm (ft-in)	3,450 (11' 4")	3,450 (11' 4")
	without bucket mm (ft-in)	3,220 (10' 7")	3,220 (10' 7")