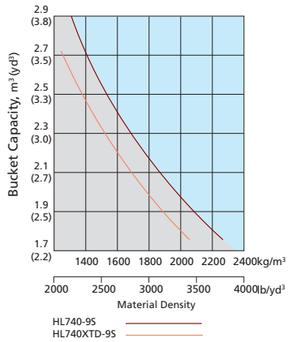
BUCKET SELECTION GUIDE



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)
17.5-25 12PR L2	-308 (-679)	-220 (-480)	-190 (-420)
17.5-25 12PR L3	-248 (-547)	-170 (-375)	-150 (-330)
20.5-25 16PR L2	-64 (-141)	-45 (-100)	-40 (-90)
17.5 R25 XHA*	-160 (-353)	-110 (-240)	-100 (-220)
20.5 R25 XHA*	+507 (+1,118)	+360 (+790)	+310 (+680)

STANDARD EQUIPMENT

Electrical system
Alternator, 70A
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, 820 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 indicator
- job time and distance
- temperature(coolant, hydraulic oil, T/M oil)

Lighting system
- LED dome lights
- 2 stop and tail lights
- 4 turn signals
- brake lights(counterweight)
- 2 head lights on front tower
- 2 working lights on front roof
- 2 working lights on rear roof

Switches
- work load
- clutch cut-off
- hazard
- Ignition key, start/stop switch
- main light(illumination and head light)
- parking
- rear wiper & washer
- work light
- battery mater switch
- pilot cut-off

Starter, electric
Starting and charging system (24-volt)

Cab
Cab (sound suppressed and pressurized) with :
- cigar lighter & ashtray
- coat hook

Automatic climate control
- air conditioner & heater
- defroster
- intermittent wiper and washer, front and rear
- personal storage space: holder, can and cup
- Rear view mirrors (1 inside)
- Rear view mirrors (2 outside)
- 2'' retractable seat belt & adjustable suspension seat with armrests
- tilt / telescopic steering column
- steering wheel with knob
- roller type sunshade (front / rear window)
- tinted safety glass

Magazine pocket
Pedals
- one accelerator pedal
- one brake pedal

Rubber floor mat
Wrist rest
Radio/USB player

Engine
Antifreeze
Engine, Cummins 6BTA5.9
- low Emission Diesel, Tier-1

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 (deaeration type)

Power Train
Brakes : Service, enclosed wet-disc
Parking brake
Torque converter
Transmission, computer-controlled, electronic soft shift, auto-shift and quick-shift features included
Transmission oil cooler

Hydraulics
Boom kickout, automatic
Bucket positioner, automatic
Diagnostic pressure taps
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
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
License plate bracket
Lift and tie-down hooks
Steering stops, cushioned
Tires(20.5-25, 16PR,L3)
Transmission oil gauge level
Vandalism protection caplocks

OPTIONAL EQUIPMENT

24-volt to 12-volt DC converter
Cab, ROPS(ISO3471)/FOPS(ISO3449)
Climate control :
- air conditioner only
- heater only

Beacon light, rotating
Auxiliary, 2 working lights on front roof (Xenon working lights)
Auxiliary, 2 working lights on rear roof
3 piece cutting edge, bolt-on type
Secondary steering system
Fire extinguisher
High lift arrangement with optinal counterweight, 900 kg (1,980 lb)r
3rd spool for auxiliary function
Mud guard
Operator suit
Ride control system
Heated rear view mirrors (2 outside)
Seat
- 2" static seat belt & adjustable mechanical suspension(vinyl)
- 3" static seat belt & adjustable mechanical suspension
- 2'' retractable seat belt & adjustable air suspension (heated)

Fuel warmer

Tires :
- 17.5 - 25, 12PR, L2
- 17.5 - 25, 12PR, L3
- 20.5 - 25, 16PR, L2
- 17.5 R25 XHA
- 20.5 R25 XHA

Tool kit
Tooth, 1 piece, bolt-on type
Guards
- crankcase
- transmission

Wheel chock
HI-Mate (Remote Management System)
Rear view camera
License plate & lamp
Pre-cleaner engine air intake
Limited slip differential
Heavy duty rear axle
Reversible cooling fan

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.

ЕНИСЕЙ
Единый контакт-центр:
8-800-250-97-99
ООО "Енисей-М"
660118, г. Красноярск, ул. Гайдашовка д. 8, тел: +7 (391) 205-82-84)
655004, г. Абакан, ул. Тувинская 15, тел: +7 (3902) 355-105

www.hyundai-ce.com
2012. 3 Rev. 0

HYUNDAI
HEAVY INDUSTRIES CO.,LTD.
CONSTRUCTION EQUIPMENT
Head Office
1000 BANGEOJINSUNHWAN-DORO, DONG-GU, ULSAN, 682-792, KOREA
TEL:(82)52-202-7722, 9807 FAX:(82)52-202-7720

999009-502210

We build a better future

HL740-9S

*Photo may include optional equipment.

HYUNDAI
HEAVY INDUSTRIES CO.,LTD.

Pride at Work

Hyundai Heavy Industries 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!

*Photo may include optional equipment.

HL740-9S

Machine Walk-Around

Reliable Main Components

Engine Technology
Well proven, reliable, fuel efficient, low noise Cummins 6BTA5.9 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 & 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, steps for safer access and exit from the cab.

Advanced 5.7" Color Monitor
Easy-to-read new color LCD display.
Auto boom kick out and bucket positioner - viewable through the monitor, for improved work efficiency and overload prevention.
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.(Option)
RMS(Remote Management System) works through GPS/satellite technology to provide better customer service and support.(Option)

Serviceability

Reversible, (Option) 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

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 quick defrosting during cold weather conditions.

Tilting / telescopic steering column

Wrist rest

Joystick lever

Front sunshade

Heated (Option) side mirrors

AM/FM Radio with MP3 & Blue-tooth / AC control

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 with Blue-tooth hands-free and USB input, plus Blue-tooth hands-free controls.

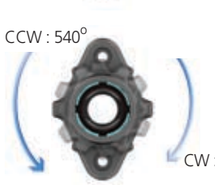
Advanced Color Monitor

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

Horizontal
Total : 30°

Vertical
Total : 14°



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 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.

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

Powerful Cummins 6BTA5.9 Engine

Cummins 6BTA5.9 engine meets Tier1 emission standard. Cummins 6BTA5.9 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 cleaner combustion and lower emission.
Holset HX35 turbocharger optimizes response across the torque curve.

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.

*Photo may include optional equipment.

Hi-mate [Remote Management System](Option)

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.

Easy Access

The cooling 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.

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.)

Full Fenders and Mud Guards (Option)

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

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 6BTA5.9
Type	Watercooled, 4-cycle, turbocharged, direct injection, mechanical controlled diesel engine
Gross power	150 HP(112 kW) / 2,200rpm
Net power	143 HP(107 kW) / 2,200rpm
Maximum torque	68 kg·m(493 lb·ft) / 1,400rpm
No. of cylinders	6

Bore x Stroke	102 mm (4.02") x 120 mm (4.72")
Displacement	5.9 ℓ (359 cu in)
Compression ratio	17.6 : 1
Air cleaner	Dry, Two stages dual elements
Alternator	24V, 90 Amp
Battery	2 x 12V, 115 Ah.
Starting motor	24V, 4.5 kW

※ No derating for continuous operating required up to 2,255m (7,400ft).

TRANSMISSION

Torque converter type	3-elements, single-stage single-phase
Tire	20.5-25, 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	6.9(4.3)
	2nd	12.5(7.8)
	3rd	24.1(15.0)
	4th	40.0(24.9)
Reverse	1st	7.2(4.5)
	2nd	13.2(8.2)
	3rd	25.3(15.7)

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	22.0

HYDRAULIC SYSTEM

Type	Open center system
Pump	167 liters/min (44.2 gal/min)
Control valve	2spool (Bucket, Boom) 3spool (Bucket, Boom, Aux) Pilot pressure controlled type System pressure : 210 kgf/cm²(2986PSI)

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.
Cylinders		Type : Double acting No. of cylinders-bore x stroke;
Lift	HL740-9S/740XTD-9S	2-ø120 mm x 738 mm(4.3" x 29.5")
Tilt	HL740-9S/740XTD-9S	ø140 mm x 505 mm(4.9" x 19.9")
Cycle Time		HL740-9S / HL740XTD-9S
	Raise(with load)	5.8 sec
	Dump	1.3 sec
	Lower(empty)	3.1 sec
	Total	10.2 sec

BRAKES

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

STEERING SYSTEM

Type		Load-sensing hydrostatic articulated steering
Pump		Gear type, 83.5 ℓ/min (22.1 gal/min)@governed rpm
Relief Valve Setting		210 kg/cm²(2,986 psi)
Cylinder	Type	Double acting
	Bore x Stroke	65mm x 429mm(2.6" x 16.9")
Steering Angle		40°(each direction)

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

SERVICE REFILL CAPACITIES

Fuel tank	230 liters (60.8 USgal)
Cooling system	34 liters (9.0 USgal)
Crankcase	15 liters (4.0 USgal)
Transmission	25 liters (6.6 USgal)

Front axle	21.8 liters (5.8 USgal)
Rear axle	21.8 liters (5.8 USgal)
Hydraulic tank	106 liters (28 USgal)
Hydraulic system (including tank)	154 liters (40.7 USgal)

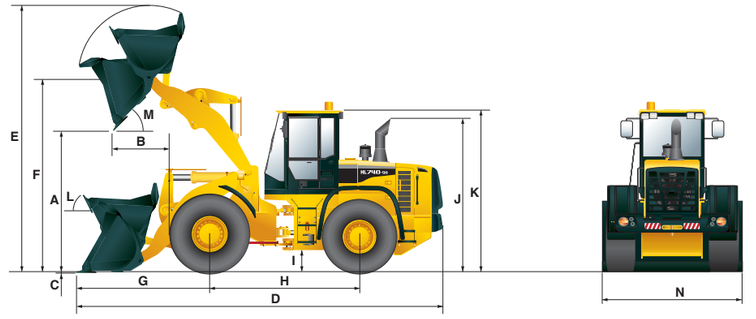
OVERVIEW

Description		**UNIT**	**HL740-9S**	**HL740XTD-9S**
Operating weight		kg (lb)	11,550 (25,460)	11,850 (26,120)
Bucket capacity	Heaped	m³(yd³)	2.1 (2.7)	2.1 (2.7)
	Struck	m³(yd³)	1.78 (2.3)	1.78 (2.3)
Breakout force-bucket		kg (lb)	11,880 (26,190)	11,730 (25,860)
Tipping load	Straight	kg (lb)	9,120 (20,110)	8,320 (18,340)
	Full turn	kg (lb)	7,890 (17,390)	7,130 (15,720)

TIRES

Type	Tubeless, loader design tires
Standard	20.5-25, 16 PR, L3
Options include	17.5-25, 12 PR, L3 20.5-25, 16 PR, L2 20.5 R25 XHA★ 20.5-25, 16 PR, L5

DIMENSIONS



Description		**UNIT**	**HL740-9S**	**HL740XTD-9S**
Bucket Type			General purpose bolt-on cutting edge	
A. Dumping clearance at max. height and 45° dump angle.		mm (ft-in)	2,850 (9′ 4″)	3,270 (10′ 9″)
B. Reach	Full lift	mm (ft-in)	970 (3′ 2″)	965 (3′ 2″)
	7ft height	mm (ft-in)	1,500 (4′ 11″)	1,860 (6′ 1″)
C. Digging depth		mm (in)	93 (3.7″)	130 (5.1″)
D. Overall length	on ground	mm (ft-in)	7,260 (23′ 10″)	7,710 (25′ 4″)
	at carry	mm (ft-in)	7,210 (23′ 8″)	7,685 (25′ 3″)
E. Overall height (fully raised)		mm (ft-in)	5,070 (16′ 8″)	5,480 (18′)
F. Bucket pivot max. height		mm (ft-in)	3,830 (12′ 7″)	4,250 (13′ 11″)

Description		**UNIT**	**HL740-9S**	**HL740XTD-9S**
G. Front overhang		mm (ft-in)	2,400 (7′ 10″)	2,810 (9′ 3″)
H. Wheelbase		mm (ft-in)	2,900 (9′ 6″)	2,900 (9′ 6″)
I. Ground clearance		mm (ft-in)	417 (1′ 4″)	417 (1′ 4″)
J. Height over exhaust		mm (ft-in)	3,170 (10′ 5″)	3,170 (10′ 5″)
K. Height over cab		mm (ft-in)	3,310 (10′ 10″)	3,310 (10′ 10″)
L. Roll-back angle	on ground	deg	42	42
	at carry	deg	47	49
M. Dump angle		deg	48	47
Clearance circle		mm (ft-in)	11,540 (37′ 10″)	11,880 (39′)
N. Overall width		mm (ft-in)	2,550 (8′ 4″)	2,550 (8′ 4″)