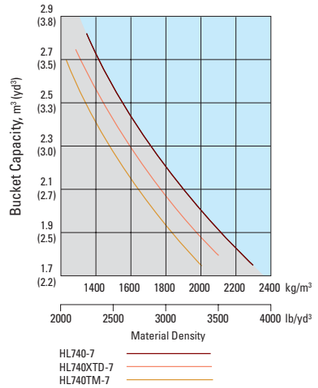
Bucket Selection Guide



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)	-218 (-481)	-192 (-423)
17.5-25 12PR L3	-248 (-547)	-175 (-386)	-155 (-342)
20.5-25 16PR L2	-64 (-141)	-45 (-99)	-40 (-88)
17.5 R25 XHA*	-160 (-353)	-113 (-249)	-100 (-220)
20.5 R25 XHA*	+507 (+1,118)	+358 (+789)	+317 (+699)

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

Batteries, 850 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
- work light

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
- 2 dome lights
- 2 stop and tail lights
- 4 turn signals
- brake lights(counterweight)
- license plate light
- head light 2 on front tower
- working lights 2 on front roof 2 on grill

Switches
- buzzer stop
- clutch cut-off
- hazard
- Ignition key, start/stop switch
- main light(illumination and head light)
- parking
- rear wiper & washer
- work light
- full automatic transmission

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

Cab
Cab, ROPS/FOPS
(sound suppressed and pressurized) with :
- cigar lighter & ashtray
- coat hook
- front/rear window defroster
- intermittent wiper and washer, front and rear
- personal storage space: holder, can and cup
- rear view mirrors (2 inside)
- rear view mirrors (2 outside)
- seat belt
- seat, adjustable suspension with armrests
- tilt / telescopic steering wheel
- steering wheel with knob
- sunvisor (front window)
- tinted safety glass

Magazine box
Pedals
- one accelerator pedal
- one brake pedal

Rubber floor mat
Wrist rest

Engine
Antifreeze
Engine, Cummins QSB5.9-C
- Low Emission Diesel, Tier-II

Engine enclosure, lockable
Engine fuel priming pump
Fan guard
Fuel/water separator
Muffler, under hood with large exhaust stack
Precleaner, engine air intake
Radiator
Starting aid (air intake heater)
Water sensor on fuel filter

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

Hydraulics
Boom lock safety valve
Boom kickout, automatic
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
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)
Guard, bucket cylinder rod
Hydraulic oil level sight gauge
License plate bracket
Lift and tie-down hooks
Steering stops, cushioned
Tires(20.5-25, 16PR,L3)
Transmission oil level dipstick gauge
Vandalism protection caplocks

Optional Equipment

24-volt to 12-volt DC converter
Air condition :
- air conditioner
- air conditioner with heater
- heater

Alarm, back-up
Beacon light, rotating
Lighting, auxilary 4 on roof
Cutting edge, bolt-on type
Differential, Front : no spin
Rear : limited slip
Emergency steering system
Fire extinguisher
Fuel warmer
Hourmeter
High lift arrangement with optional counterweight, 760 kg (1,680 lb)
Hydraulic control, 2 lever
Hydraulic control, 3 lever
Hydraulic arrangement 3-valve
Main disconnect switch
Mud guard
Open Canopy (ROPS/FOPS)
Operator suit
Radio cassette player
Ride control system
Seat
- 2" static seat belt & adjustable mechanical suspension(vinyl)
- 3" static seat belt & adjustable mechanical suspension
- 3" retractable seat belt & adjustable air suspension

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

Standard and optional equipment may vary. Consult your Hyundai dealer for more information. The machine shown may vary according to territorial specification.

HYUNDAI
HEAVY INDUSTRIES CO.,LTD.
CONSTRUCTION EQUIPMENT DIVISION

HEAD OFFICE 1 CHEONHA - DONG, DONG-KU, ULSAN, KOREA
(Sales Office) TEL : (82)(52)230 - 2114 FAX (82)(52)230-7979
U.S. Operation 955 ESTES AVENUE ELK GROVE VILAGE IL., 60007
TEL : (1)847 - 437 - 3333 FAX : (1)847 - 437 - 3574
Europe Operation VOSSENDAAL 11, 2440 GEEL, BELGIUM
TEL : (32)14 - 562200 FAX : (32)14 - 593405 ~ 06

PLEASE CONTACT

www.hyundai-ce.com 2003. 12 rev1

Building a better future
Global Leader

www.hyundai-ce.com

HYUNDAI WHEEL LOADER

NEW 7 SERIES

HL740-7
HL740TM-7

Tier II Engine

- **Cummins QSB5.9-C Engine**
- Gross Power : 104 kW / 140 HP
- Bucket Capacities :
  HL740-7/HL740XTD-7 1.78 to 2.1 m³ (2.3 to 2.7 yd³)
  HL740TM-7 1.7 to 2.0 m³ (2.2 to 2.6 yd³)
- Operating Weight :
  HL740-7 11,500 kg (25,350 lb)
  HL740TM-7 12,050 kg (26,570 lb)
  HL740XTD-7 11,850 kg (26,120 lb)

■ Photo may include optional equipment.

HYUNDAI
HEAVY INDUSTRIES CO.,LTD.

Hardworking Hyundai Loaders

Meet the new generation wheel loader in Hyundai.

The HL740-7 will give you the satisfaction in higher power, lower fuel consumption, more comfort and lower emission.

Come and experience what Hyundai has created for you by bringing together power and up-to-the-minute technology.

Wheel Loader HL740-7 HL740TM-7 HL740XTD-7

Engine

- Electronic Engine Control System
- Engine Protection & Self-diagnosis System
- Max. Power 145 HP

Transmission

- 2 Automatic Selection Mode
- 2 Kick Down Function Mode
- AEB Function

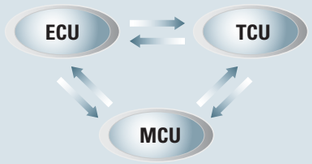
■ Photo may include optional equipment.

Control Center

The all-new, deluxe operating space was engineered with 3-D modeling to be your ultimate control center. The wide, tinted and laminated front windshield has no framing cutting through to ensure excellent visibility.

Up-to-date-technology CAN system

Engine Control Unit(ECU), Transmission Control Unit(TCU) and Machine Control Unit(MCU) realize the optimal performance through the mutual CAN communications.



Adjustable steering column

Full automatic shift lever

A single lever on the left side of the steering column gives the operator fast, easy control of speed and direction. Push the lever forward to go forward, pull it back for reverse.
Travelling is automatically changed from 1st stage to given stage according to travel speed and tractive effort. The operator can select two kinds of automatic modes (1st ↔ 4th, 2nd ↔ 4th). This exclusive feature contributes to a step-up in productivity and reduction of operator fatigue.

The Centralized Display & Attached Instrument Panel

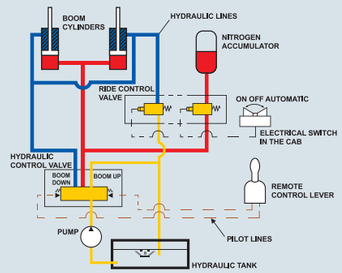
The centralized digital display the status and conditions of your machine at a glance. Easy-to-read gauges and adjustable tilting and telescopic steering with an attached instrument panel provide constant, and accurate information.

Joystick Control Lever

Two kickdown switches located on top of the loader control lever and the gear shifting lever allow the operator to change instantly to 1st stage lower gear, in order to drive at full power into the material.

The Air Conditioning and Heating System

The operator can easily control the temperature and air flow . The defroster on the front windshield and rear window makes it convenient for winter working usage.



Ride control system (optional)

The ride control system is available for smooth travelling as option.
It significantly reduces machine bouncing and absorbs the shocks in the machine, enhancing the productivity of the machine. This system reduces the fatigue of the driver as well as the stress on the structures and components.
The system is consisted of accumulators in the hydraulic lift circuit, hydraulic control valve and selection switch.
❶ Off position : Function is cancelled ❷ On position : Function is available
❸ Auto position : Function is available when the machine travels above 9.5km/hr(6.0mph). If the machine travels under 8 km/hr (5.0 mph), the function is cancelled automatically.

A Well Rounded System

Up-to-date hydraulic remote cooling fan

The minimum fuel consumption and low noise by applying hydraulic cooling fan sensing intake air temperature, transmission oil temperature, coolant temperature and hydraulic oil temperature.

Engine

The CUMMINS QSB5.9-C 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 QSB5.9-C used advanced electronics controls to meet the thoughts emission standards (EPA TierⅡ, EU StageⅡ)

Multi Function Transmission

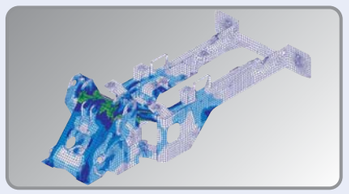
The newly developed transmission control represents the beating heart of transmission. The hydraulic system for gearshifts is working with proportional valves, which allow a very precise control of the clutches. For each gearchange, the control unit performs a monitoring function to ensure the specified shift curve is adhered to, and readjusts the shift pressure applied to the clutches accordingly. This results in smooth gearshifts-even under load-with no traction interrupt.This helps to avoid standstill of the vehicle, sudden load changes and torque peaks under all conditions, for example application on steep terrain with full load. In addition, there is the option for the driver to make gearshifts manually.

Axle

Inboard type brake discs.
Heavy duty axle.

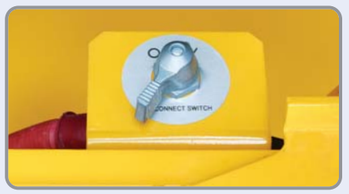
Bucket cylinder guard

This guard helps to prevent possible damage from load material.



High-rigidity frames

Front and rear frames are designed for work in the toughest applications to provide high rigidity for the power train and loader equipment. The high-rigidity frames, together with the reinforced loader linkage, resist loading stress and shock.



Battery master switch

A master switch disconnects the battery power to protect the electrical system from excess electrical drainage.

Sealed loader linkage

Fully protected fitting and the sealed loader linkage with dust seals and o-ring will extend lubrication intervals remarkably.

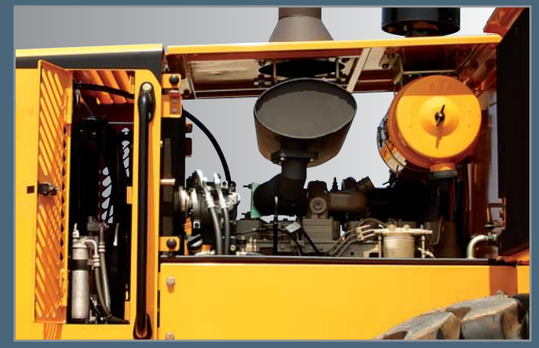
Frame lock

Machine can be locked by this locking bar to prevent movement during transportation.

Drive Shaft

Permanent lubricating drive shaft. There is no need to add grease periodically.

Accessible and Serviceable



Easy Access to All Engine Accessary

Here you find the engine oil check, and the main and pre-filters. The large access engine side panels permit easy and safe inspection. The fuel filter can be spun on and off for quick replacements.

Cabin Air Fresh Filter

The internal pressure is maintained to be slightly higher than that of outside to exclude dust and to reduce noise levels.

Fuse Box

A concentrated fuse box for easy inspection.

Coolant Sight Gauge

The coolant sight gauge is installed on the radiator top tank for convenient checks of coolant level.

Accessible grease fittings

Grease fittings are highlighted and available around the machine for fast access when doing your service checks.

Simple air filter replacements

The air cleaner is easily replaceable by turning the wing nut on the outer shell counter-clockwise.

Central electric controllers

Electric controllers for this Hyundai loader are centralized to improve service access.

Remote type drain port

It is now easier to change your engine oil, coolant and hydraulic oil with the remote drain port.

Hydraulic tank

The hydraulic tank is located behind the cab to increase the accessibility of hydraulic hoses and pipes.

Oil sight gauge

The hydraulic oil check sight gauge is installed on the side of the hydraulic tank for convenient checks from ground level.

Transmission oil port

The transmission oil change port is also located for open accessibility and comes with an anti-vandalism lock for your machine protection.

Engine

Maker/Model	Cummins QSB5.9-C
Type	4-cycle, turbocharged, electronic controlled diesel engine
Gross power	140HP(104 kW) / 2,200rpm
Net power	133HP(99 kW) / 2,200rpm
Maximum power	145HP(108 kW) / 2,000rpm
Maximum torque	60kg·m(434 lb·ft) / 1,500rpm
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	18.0 : 1
Air cleaner	Dry, dual elements
Alternator	24V, 70 Amp
Battery	2 x 12V, 100 Ah.
Starting motor	24V, 3.7 kW
Cooling	Hydraulic remote cooling system

Net power output of standard engine as installed in this vehicle(per SAE J1349) complete with fan, air cleaner, alternator, water pump, lubricating oil pump and fuel pump. No derating for continuous operating required up to 3048m (10000ft). This engine meets the EPA(Tier Ⅱ) / EU(Stage Ⅱ) Emission regulation.

Transmission

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. Two mode automatic shifting system.

Torque converter type		3-elements, single-stage single-phase
Stall torque ratio		2.910 :1
Travel speed km/h (mph) 20.25-25, L3		
Forward	1st	6.9 (4.3)
	2nd	12.6 (7.8)
	3rd	24.0 (14.9)
	4th	38.2 (23.8)
Reverse	1st	7.3 (4.5)
	2nd	13.3 (8.3)
	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	Limited slip front & Conventional rear
Reduction ratio	22.846

Hydraulic system

Type	Open-centered, tandem circuit system. Pilot-operated controls. Closed with pressure and vacuum relief.
Pump	Helical gear type, 177 liters/min (46.8 USgpm)@governed rpm
Control valve	Two function valve with single or two lever controls : Optional third-function valve with auxiliary lever.
Relief valve setting	220 kg/cm² (3,130 psi)
Pilot system	
Type	Pilot oil pressure is generated by the pilot oil supply unit
Relief valve setting	30 kg/cm² (427 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 No. of cylinders-bore x stroke;
Lift	2-120 mm(4.7") x 738 mm(29.1")
Tilt HL740-7	1-140 mm(5.5") x 500 mm(19.7")
HL740TM-7	2-100 mm(3.9") x 745 mm(29.3")

Cycle time	HL740-7/HL740XTD-7	HL740TM-7
Raise (with load)	5.5 sec	5.5 sec
Dump	1.2 sec	1.4 sec
Lower (empty)	2.8 sec	2.8 sec
Total	9.5 sec	9.7 sec

Brakes

Service brakes	Hydraulically actuated, wet disc brakes actuate all 4 wheels independent axle-by-axle system. Single pedal braking including clutch cut off switch.
Parking brake	Spring-applied, hydraulically released wet disc brake in front axle .
Emergency brake	When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies.

Steering system

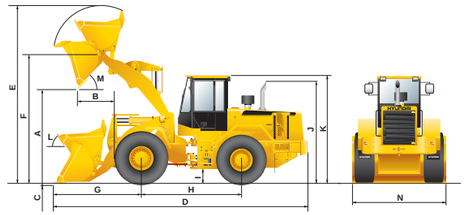
Type	Full hydraulic power steering
Pump	Gear type, 99 liters/min(26.2 USgpm) @ governed rpm
Relief valve setting	210 kg/cm² (2,990 psi)
Cylinder	
Type	Double acting
Bore x stroke	65 mm(2.5") x 420 mm(16.5")
Steering angle	40°(each direction)

Features
- Center-point frame articulation
- Flow-amplified, load-sensing system
- Steering-wheel operated metering pump controls flow to steering cylinders
- Tilt and telescopic steering column

Service refill capacities

Fuel tank	228 liters (60.2 USgal)
Cooling system	35 liters (9.2 USgal)
Crankcase	16.4 liters (4.3 USgal)
Transmission	24 liters (6.3 USgal)
Front axle	21.2 liters (5.6 USgal)
Rear axle	21.2 liters (5.6 USgal)
Hydraulic tank	105 liters (27.7 USgal)
Hydraulic system (including tank)	165 liters (43.6 USgal)

Dimensions



mm(ft-in)

Description		UNIT	HL740-7	HL740XTD-7	HL740TM-7
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")	2,915 (9' 7")
B. Reach	Full lift	mm(ft-in)	970 (3' 2")	965 (3' 2")	1,275 (4' 2")
	7ft height	mm(ft-in)	1,500 (4' 11")	1,860 (6' 1")	1,790 (5' 10")
C. Digging depth(mm (in))		mm(ft-in)	93 (3.7")	130 (5.1")	100 (3.9")
D. Overall length	on ground	mm(ft-in)	7,270 (23' 10")	7,750 (25' 5")	7,550 (24' 9")
	at carry	mm(ft-in)	7,230 (23' 9")	7,720 (25' 4")	7,390 (24' 3")
E. Overall height (fully raised)		mm(ft-in)	5,070 (16' 8")	5,480 (18')	5,150 (16' 11")
F. Bucket pivot max. height		mm(ft-in)	3,830 (12' 7")	4,250 (13' 11")	3,990 (13' 1")
G. Front overhang		mm(ft-in)	2,400 (7' 10")	2,810 (9' 3")	2,625 (8' 7")
H. Wheelbase		mm(ft-in)	2,900 (9' 6")	2,900 (9' 6")	2,900 (9' 6")
I. Ground clearance		mm(ft-in)	417 (1' 4")	417 (1' 4")	417 (1' 4")
J. Height over exhaust		mm(ft-in)	2,900 (9' 6")	2,900 (9' 6")	2,900 (9' 6")
K. Height over cab		mm(ft-in)	3,260 (10' 8")	3,260 (10' 8")	3,260 (10' 8")
L. Roll-back angle	on ground	deg	42	42	50
	at carry	deg	47	49	54
M. Dump angle(deg)		deg	48	48	50
Clearance circle		mm(ft-in)	11,770 (38' 7")	12,110 (39' 9")	11,940(38' 10")
N. Overall width		mm(ft-in)	2,550 (8' 4")	2,550 (8' 4")	2,550 (8' 4")

Overview

Description		UNIT	HL740-7	HL740XTD-7	HL740TM-7
Operating weight		kg (lb)	11,500 (25,350)	11,850(26,120)	12,050 (26,570)
Bucket capacity	Heaped	m³ (yd³)	2.1 (2.7)	2.1(2.7)	2.0 (2.6)
	Struck	m³ (yd³)	1.78 (2.3)	1.78(2.3)	1.7 (2.2)
Breakout force-bucket		kg (lb)	11,880(26,190)	11,730(25,860)	10,650(23,480)
Tipping load	Straight	kg (lb)	9,180(20,240)	8,320(18,340)	7,950(17,530)
	Full turn	kg (lb)	7,930(17,490)	7,210(15,900)	6,860(15,120)

Tires

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