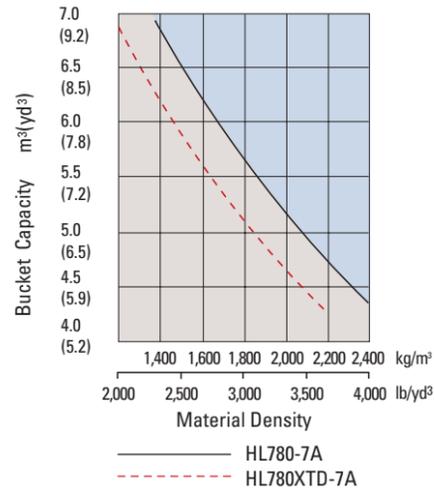


Bucket Selection Guide



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 (-198)	-80 (-176)
29.5-25 28PR L3	+352 (+776)	+280 (+617)	+240 (+529)
29.5-25 28PR L5	+1240 (+2,734)	+980 (+2,160)	+860 (+1,896)
29.5 R25 XHA*	+500 (+1,102)	+400 (+882)	+350 (+772)

Standard Equipment

- Adjustable steering column
- Air cleaner, double-element type (dry type with dust valve)
- Alarm, back-up
- Alternator, 70A
- Anti-freeze
- Automatic boom kickout
- Automatic bucket positioner
- Batteries, 1000 CCA, 12V(2)
- Boom lock safety valve
- Brake system, includes
 - Service, enclosed wet-disc
 - Parking, disc type on front axle
- Cab, ROPS/FOPS (sound suppressed and pressurized) with:
 - Counterweight
 - Cup holder
 - Lighter & ashtray
 - Drawbar, fixed
 - Electrical system
 - Fuel warmer
 - Alarms, audible and visual
- Air filter clogging
- Engine water temperature
- Hydraulic oil temperature
- Low alternator voltage
- Low brake oil pressure
- Low transmission oil pressure
- Parking brake
- Gauges
 - Engine water temperature
 - Fuel level
 - Speedometer
 - Voltmeter
 - T/M oil temp gauge
- Indicator lights
 - High beam
 - Turn signals
- Lights
 - Two cabin lights
 - Two head lights
 - Two rear lights
 - Two stop, and tail lights
 - Four turn signal
- Switches
 - Clutch cut-off
 - Emergency travel
 - Hazard
 - Head light
 - Illumination
 - Parking
 - Rear washer
 - Rear wiper
 - Work light
- Fan, blower
- Fan guard
- Fenders, front and rear
- Frame lock
- Horn, electric
- Intermittent wiper and washers
- Intake air heater
- Sunvisor
- Ladders, left and right
- License plate light
- Master switch
- Muffler
- Radiator
- Hydraulic oil cooler
- Transmission oil cooler
- External axle oil cooler
- Seat
 - Adjustable deluxe suspension
 - Cloth seat with armrests
 - Seat belt
- Wrist rest
- Steering knob
- Differential
 - Front axle (limited slip)
 - Rear axle (limited slip)
- Tires(29.5-25, 22PR L3)
- 2 spool, single lever, pilot control for boom and bucket actuation
- Guard
 - crankcase
 - transmission
 - Rear view mirrors(2 out side)
 - Rear view mirrors(2 in side)

Optional Equipment

- Air conditioner with heater & defroster
- Secondary steering system
- Radio cassette player
- Rotation beacon
- CD player
- Reversible Cooling Fan System
- Fire extinguisher
- Ride control system
- Cutting edge, bolt-on type
- Seat
 - 2" static seat belt & adjustable mechanical suspension(vinyl)
 - 3" retractable seat belt & adjustable mechanical suspension
 - 3" retractable seat belt & adjustable air suspension
- Sliding door window
- Tooth, 2 pieces, bolt-on type
- Joystick with travel switch
- Rear view mirrors, heated
- Tires
 - 29.5-25 28PR L3
 - 29.5-25 28PR L5
 - 26.5-25 32PR L3
 - 29.5 R25 XHA*
- Tool kit
- Valve, 3-spool
- Two lever
- High lift arrangement with additional counter weight, 564kg(1,240lb)

Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine shown may vary according to International standards. All US measurement rounded off to nearest pounds or inches.

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Building a better future
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NEW 7A SERIES

HYUNDAI WHEEL LOADER Applied Tier 3 Engine

HL780-7A



HYUNDAI
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Some of the Photo may include optional equipment.

We build a better future

Hardworking Hyundai Loaders

Meet the new generation wheel loader in Hyundai.

The HL780-7A will give you the satisfaction in higher power, lower fuel consumption, more comfort and lower emission compared to the predecessor.

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



HL780-7A Additional Option



Reversible Fan

Reversible Hydrostat-Driven Fan is able to clean out dust and foreign bodies located in a radiator and hydraulic oil cooler.



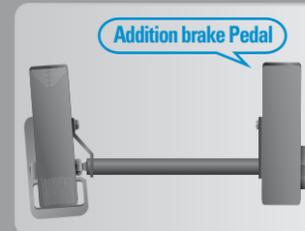
FNR Switch on Joystick Control Lever

It is possible to change the Direction of Travel as well as control working Hydraulic.



Rear View Mirror

Heated rear view mirror adds electric heating to keep mirrors free of ice and mist.



Dual Service Brake Pedals

■ Some of the 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.



The Centralized Display & 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 wheel.



Joystick Controls

Pilot-operated controls for bucket operation by Joystick are easy and comfortable to operate. A new Joystick Lever with travel switch on the top allows operator to change the direction of travel and kick-down shifting including bucket controls (Optional)



The Air Conditioning and Heating System

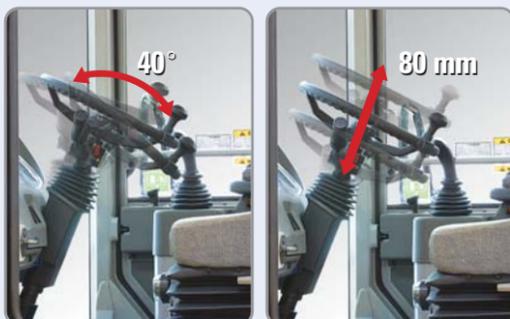


The operator can easily control the temperature and air flow . The defroster on the front windshield and rear window makes it convenient for winter working usage.



Some of the Photo may include optional equipment.

Adjustable steering column



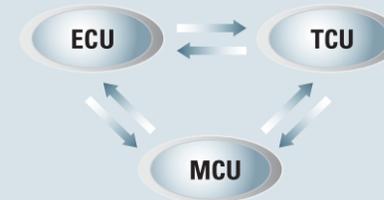
Full automatic shift lever

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's fatigues.



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.



Ride control system (optional)

Ride control system functions as shock absorbers and gives smooth operation with-out losing of the load even over rough terrain condition. So the system allows faster travelling and improved safety and productivity.

A Well Rounded System



Up-to-date hydraulic remote cooling fan

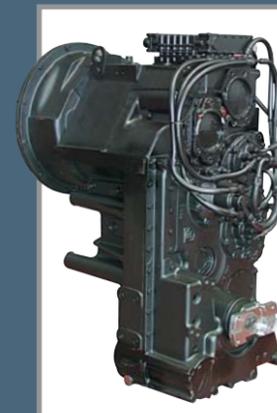
The minimum fuel consumption and low noise by applying hydraulic cooling fan which senses intake air temperature, transmission oil temperature, coolant temperature and hydraulic oil temperature.



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 TierIII, EU StageIII-A)

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 that 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.

Some of the photo may include optional equipment.



Left and right access door



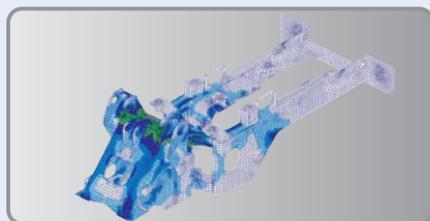
Bucket cylinder guard

This guard helps to prevent possible damage from load material.



Sealed loader linkage

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



High-rigidity frames

Front and rear frames are designed for work in the toughest conditions 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.



Wear plate

This close up shows the protective plate found underneath the rear of the bucket which is used to prevent excess wear when digging into material.



Battery master switch

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



Frame lock

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

Accessible and Serviceable



Some of the Photo may include optional equipment.



Easy Access to All Engine Accessories

Here you find the engine oil check, and filters(fuel, oil, coolant) easily. The large access engine side panels permit easy and safe inspection. The filters 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 & Relay

A concentrated fuse box and relay for easy inspection.



Coolant Sight Gauge

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

Simple air filter replacements

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



Accessible grease fittings

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



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.



Open pin access

You can more readily remove or tighten your front attachment pin with these open connectors surrounding the pin.



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.



Specification

HL780-7A HL780XTD-7A



Engine

Maker/Model	CUMMINS / QSM11
Type	4-cycle, turbocharged, charge aircooled direct injection, electronic controlled diesel engine
Gross power	335HP(250 kW) / 2,000rpm
Net power	320HP(239 kW) / 2,000rpm
Maximum 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	11 ℓ (660 cu in)
Compression ratio	16.3 : 1
Air cleaner	Dry, dual elements
Alternator	24V, 70 Amp
Battery (5HA)	2 x 12V, 160 Ah.
Starting motor	24V, 7.5 kW

Net power output of standard engine as installed in this vehicle(per SAE J1349) is complete with fan, air cleaner, alternator, water pump, lubricating oil pump and fuel pump. 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

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

Torque converter type	3-elements, single-stage single-phase	
Stall torque ratio	2.987 : 1	
Travel speed	km/h (mph)	
29.5-25, L3		
Forward	1st	6.2(3.9)
	2nd	11.4(7.1)
	3rd	17.5(10.9)
	4th	34.0(21.1)
Reverse	1st	6.2(3.9)
	2nd	11.4(7.1)
	3rd	23.6(14.7)

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	Limited slip differential
Reduction ratio	27.0
Axle oil cooling	External oil cooling

Brakes

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

Steering system

Type	Full hydraulic power steering
Pump	Vane type, 270 liters/min(71.3 gal/min) @ governed rpm
Relief valve setting	210 kg/cm ² (2,990 psi)
Cylinder	Double acting
Type	Double acting
Bore x stroke	110mm(4.3") x 480mm(18.9")
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
- adjustable steering column

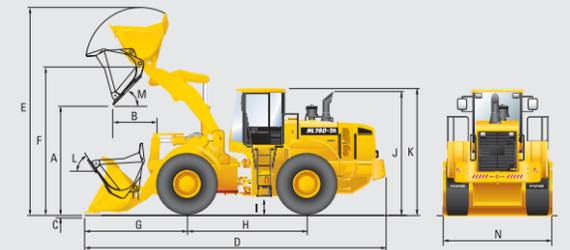
Hydraulic system

Type	Open-centered, tandem circuit system. Pilot-operated controls. Closed with pressure and vacuum relief.
Pump	Vane type, 482 liters/min (127 gal/min)@governed rpm
Control valve	Two function valve with single or two lever controls : Optional third-function valve with auxiliary lever.
relief valve setting	210 kg/cm ² (2,990 psi)
Pilot system	Pilot oil pressure is generated by the pilot oil supply unit
Relief valve setting	30 kg/cm ²
Bucket controls	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	Double acting
Type	Double acting
Lift, bore x stroke	200 mm(7.9") x 863 mm(34.0")
Tilt, bore x stroke	160 mm(6.3") x 580 mm(22.8")
Cycle time	Raise: 6.4 sec (with load) Dump : 1.4 sec Lower : 3.0 sec (empty) Total : 10.8 sec

Service refill capacities

Fuel tank	470 liters (124.2 USgal)
Cooling system	65 liters (17.2 USgal)
Crankcase	38 liters (10.0 USgal)
Transmission	43 liters (11.4 USgal)
Front axle	60 liters (15.9 USgal)
Rear axle	60 liters (15.9 USgal)
Hydraulic tank	210 liters (55.4 USgal)
Hydraulic system (including tank)	360 liters (90.0 USgal)

Dimensions



Description	UNIT	HL780-7A	HL780XTD-7A
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	mm (ft-in)	1,365(4' 6")
	7ft height	mm (ft-in)	2,070(6' 9")
C. Digging depth	mm (in)	95(3.7")	110(4.3")
D. Overall length	on ground	mm (ft-in)	9,440(32' 2")
	at carry	mm (ft-in)	9,340(30' 8")
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")
G. Front overhang	mm (ft-in)	3,080(10' 1")	3,510(11' 6")
H. Wheelbase	mm (ft-in)	3,700(12' 2")	3,700(12' 2")
I. Ground clearance	mm (ft-in)	475(1' 7")	475(1' 7")
J. Height over exhaust	mm (ft-in)	3,720(12' 2")	3,720(12' 2")
K. Height over cab	mm (ft-in)	3,805(12' 6")	3,805(12' 6")
L. Roll-back angle	on ground	deg	42
	at carry	deg	48
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")
	without bucket	mm (ft-in)	3,220(10' 7")

Overview

Description	UNIT	HL780-7A	HL780XTD-7A
Operating weight	kg (lb)	29,300 (64,600)	30,000 (66,100)
Bucket capacity	Heaped	m ³ (yd ³)	5.1 (6.7)
	Struck	m ³ (yd ³)	4.3 (5.6)
Breakout force-bucket	kg (lb)	24,820 (54,720)	23,880 (52,650)
Tipping load	Straight	kg (lb)	24,130 (53,200)
	Full turn	kg (lb)	20,800 (45,850)

Tires

Type	Tubeless, loader design tires
Standard	29.5-25, 22 PR, L3
Options include	26.5-25, 32 PR, L3 29.5-25, 28 PR, L3 29.5-25, 28 PR, L5 29.5 R25 XHA★