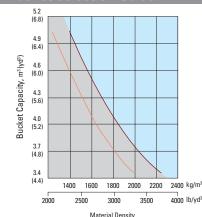
#### **Bucket Selection Guide**



HL770XTD-7A

#### Standard Equipment

HL770-7A

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, 1000 CCA, 12V, (2)

#### Gauges

- · engine coolant temperature · fuel level . hydraulic oil temperature
- · hazard 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

24-volt to 12-volt DC converter

air conditioner with heater

engine rpm

3 spool

Air condition

heater

CD player

· air conditioner

Alarm, back-up

Dual brake pedal

U.S. Operation

Beacon light, rotating

Cutting edge, bolt-on type

Emergency steering system

- · transmission gear range indicator iob 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 arill
- Switches · clutch cut-off
- Ignition key, start/stop switch main light(illumination and head light)
- · parking rear wiper & washer
- · work light master switch
- · full automatic transmission Starter, electric

Fenders(rear-mudguard)

High lift arrangement with

additional counterweight,

Hydraulic control, 2 lever

Hydraulic control, 3 lever

Hydraulic arrangement 3-valve

Fire extinguisher

· crankcase

· transmission

505kg(1110 lb)

Guards

**HEAVY INDUSTRIES CO.,LTD.** 

CONSTRUCTION EQUIPMENT DIVISION

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VOSSENDAAL 11, 2440 GEEL, BELGIUM

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- Cab. ROPS/FOPS (sound suppressed and pressurized) with :

- 2 on front roof
  - steering wheel with knob sunvisor(front window)

seat belt

· tinted safety glass two door cab, fixed glass

with armrests

- Magazine box Pedals one accelerator pedal
- one brake pedal Rubber floor mat Wrist rest

on joystick control lever

Mud quard

Operator suit

Pallet forks

(2 outside)

Lighting, auxilary, 4 on roof

Open Canopy (None-ROPS)

Quick attachment coupler

Rear view mirrors heated

Reversible cooling fan system

Radio cassette player

Ride control system

#### Engine Antifreeze

Engine, Cummins QSL Starting and charging system(24-volt) Low Emission Diesel, Tier3 Engine enclosure, lockable Engine fuel priming pump(Electric)

#### · front/rear window defroster

**Supplemental Specifications** 

-472 (-1041)

-4 (-9)

+164 (+362)

+108 (+238)

+768 (+1,693)

23.5-25 20PR L3

26.5-25 28PR L3

26.5-25 32PR L3

26.5 R25 XHA\*

26.5-25 20PR L5

cigar lighter & ashtray

personal storage space:

holder, can and cup

rear view mirrors (2 inside)

rear view mirrors (2 outside)

seat, adjustable suspension

steering column, tilt and telescopic

intermittent wiper and washer,

coat hook

front and rear

console box

cool & hot box

Fuel/water separator Fuel warmer Muffler, under hood with large exhaust stack Precleaner, engine air intake Radiator Starting aid (air intake heater)

Fan guard

Brakes: Service, enclosed wet-disc Differentials, limited slip(front/rear) Parking brake Torque converter Transmission, computer-controlled,

Water sensor on fuel filter

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.

temperature sensing type

· 2" static seat belt &

suspension(vinyl)

adjustable mechanical

· 3" retractable seat belt

3" retractable seat belt &

adjustable air suspension

#### Others

-345 (-760)

-3 (-7)

+120 (+265)

+80 (+176)

+560 (+1,235)

Articulation locking bar Coolant level sight gauge Counterweight Door and cab locks, one key Drawbar with pin Engine oil level dipstick gauge Ergonomically located and slip resistant, left & right

- handrails
- stens

Guard, bucket cylinder rod Hydraulic oil level sight gauge License plate bracket Lift and tie-down hooks Loader linkage, sealed Z-Bar design

Steering stops, cushioned Tires(26.5-25, 20PR,L3) Transmission oil level dipstick

hydraulically-driven

Doors, service access(locking)

-305 (-672)

-3 (-6)

+106 (+234)

+70 (+154)

+496 (+1,093)

- ladders

- platforms

Fenders(front)

Vandalism protection caplocks

#### 26.5 - 25 20PR 15 26 5 R25 XHA +

Tool kit Tooth, 1 piece, bolt-on type Tooth, 2 pieces, bolt-on type Window, sliding (left and right side) Wheel chock

· 23.5 - 25, 20PR, L3 26.5 - 25, 28PR, L3

Seat

26.5 - 25, 32PR, L3

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

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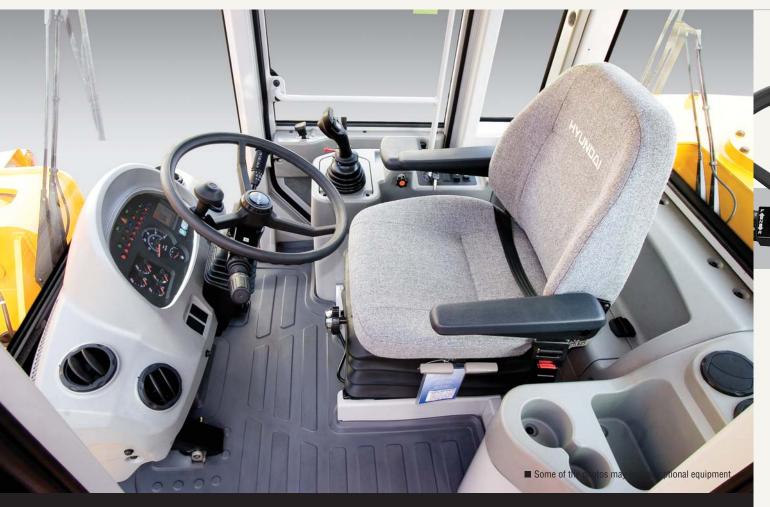


#### NEW 7A SERIES

HYUNDAI WHEEL LOADER







# New Generation, Innovative Solution in Construction **HL770-7A**





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

Adjustable steering column





#### **Joystick Controls**

Pilot-operated controls for bucket operation by the Joystick are easy and comfortable to operate.





#### FNR Switch on Joystick Control Lever

It is possible to change the direction of travel as well as controlling Hydraulic system.(Option)

#### 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  $\leftrightarrow$  4th, 2nd  $\leftrightarrow$  4th).

These exclusive features contribute to a step-up in productivity and reduction of operator's fatigue.

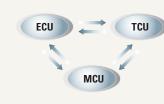
## The Air Conditioning and Heating System



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.



## **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 such as shock absorbers gives smooth operation without losing of the load even over a rough terrain condition.

Therefore the system allows faster travelling and improved safety and productivity.



# New Generation, Innovative Solution in Construction **HL770-7A**



# **CUMMINS QSL Engine**

The CUMMINS QSL electronic control engine combines full-authority electronic controls with the reliable performance. The combination of high pressure common rail system and advanced incylinder combustion technology results in increased power, improved transient response and reduced fuel consumption. And the QSL uses advanced electronics controls to meet the emission standards (EPA Tier3, EU StageIII-A)

# **A Well Rounded System**

Maximize the productivity of your business with HL770-7A. With our vast experience in the production of construction equipment, Hyundai is able to meet the demands of consumers.



Left and right access door



**Bucket cylinder guard** This guard helps to prevent possible damage from load material.



#### Wear plate This close up shows the protective plating found underneath the rear of the bucket and is used to prevent



## **High-rigidity frames**

excessire wear and tear when digging into material.

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.



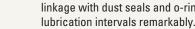
#### Master switch A master switch disconnects the battery power to protect the electrical system.



#### Sealed loader linkage Fully protected fitting is and the sealed loader linkage with dust seals and o-ring will extend



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



#### **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 allows 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 the range, and readjusts the shift pressure applied to the clutches accordingly. This results in smooth gearshifts-even under the load-with no traction interruptions. 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.

# **Accessible and Serviceable**

An ideal arrangement of component parts ensures easy access and convenience for maintenance. Highly accessible engine compartment assures fast and efficient maintenance.

New Generation, Innovative Solution in Construction **HL770-7A** 





#### **Accessible grease fittings**

Grease fittings are highlighted and available around the machine for the 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 counterclockwise.



#### **Chromium - Plated PIN is applied**

With the application of Chromium Plated PIN whose durability and precision are improved and the life cycle became longer.



#### 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 pipings.



#### Oil sight gauge

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



#### **Transmission oil port**

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





#### Central electric controllers & Fuse Box

Electric controllers for Hyundai loader are centralized to improve serviceability. A concentrated fuse box for easy inspection.



#### **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.



#### **Coolant Sight Gauge**

The coolant sight gauge is installed on the top of radiator for conve-nient checks of coolant level.

#### **Easy Access to All Engine Accessaries**

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



#### Up-to-date hydraulic remote cooling fan



The minimum fuel consumption and low noise is realized by applying hydraulic cooling fan that senses coolant temperature, intake air temperature, transmission oil temperature and hydraulic oil temperature.(Option)

## Specification

## Engine

Maker/Model	CUMMINS QSL
Туре	4-cycle, turbocharged, charge aircooled direct injection, electronic controlled diesel engine
Gross power	280HP(209 kW) / 2,000rpm
Net power	266HP(198 kW) / 2,000rpm
Maximum power	310HP(231 kW) / 1,700rpm
Maximum torque	148kg·m(1,070 lb·ft) / 1,400rpm
No. of cylinders	6

Bore x Stroke	114 mm (4.5") x 145 mm (5.7")
Displacement	8.9 $\ell$ (543 cu in)
Compression ratio	17.8 : 1
Air cleaner	Dry, dual elements
Alternator	24V, 70 Amp
Battery	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) complete with fan, air cleaner, alternator, water pump, lubricating oil pump and fuel pump. No derating for continuous operating required up to 1,829m (6,000ft). This engine meets the EPA(Tier 3-A) / EU(Stage III-A) Emission regulation.

**Bucket Controls** 

## **Transmission**

Torque converter type	3-elements, single-stage single-phase
Stall torque ratio	2.985 :1
Tire	26.5-25.13

★ 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	7.3(4.7)
	2nd	12.1(8.0)
	3rd	25.7(14.7)
	4th	36.7(22.6)
Reverse	1st	7.3(5.0)
	2nd	12.1(8.4)
	3rd	25.7(15.3)

## Axles

Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	$\pm$ 13 $^{ m o}$ (total 26 $^{ m o}$ )

Hub reduction	Planetary reduction at wheel end
Differential	Limited slip differential
Reduction ratio	24.685

## Mydraulic System

Туре	Open-centered, tandem circuit system. Pilot-operated controls. Closed with pressure and vacuum relief.	
Pump	Vane type, 425 liters/min (108.6 gal/min)@governed rpm	
Control Valve  Relief Valve Setting	Two function valve with single or two lever controls : Optional third-function valve with auxiliary lever. 210 kg/cm² (2,990 psi)	
Pilot System Type  Relief Valve Setting	Pilot oil pressure is generated by the pilot oil supply unit. 30 kg/cm²(427 psi)	

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.
Cylinder	Type: Double acting No. of cylinders-bore x stroke; Lift 2-180 mm(7.1") x 765 mm(30.1") Tilt 1-200 mm(7.9") x 570 mm(22.4")
Cycle Time	Raise : 5.5 sec (with load) Dump : 1.3 sec Lower : 2.8 sec (empty) Total : 9.6 sec

## Specification

## 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 disc brake on front axle input shaft
Emergency Brake	When brake oil pressure drops, indicator light alerts operator and parking brake automatically applies.

Fuel tank	430 liters (113.6 USgal)
Cooling system	56 liters (14.8 USgal)
Crankcase	23 liters (6.1 USgal)
Transmission	52 liters (13.7 USgal)

#### Overview

Service Refill Capacities

Description		UNIT	HL770-7A	HL770XTD-7A
Operating weight		kg (lb)	23,100 (50,930)	23,850(52,580)
Bucket capacity	Heaped	m³ (yd³)	4.0 (5.2)	4.0(5.2)
	Struck	m³ (yd³)	3.45 (4.5)	3.45(4.5)
Breakout force-bucket		kg (lb)	20,760 (45,770)	20,430(45,040)
	Straight	kg (lb)	17,570 (38,730)	15,840(34,920)
	Full turn	kg (lb)	15,250 (33,620)	13,400(29,540)

## Steering System

Туре		Full hydraulic power steering
Pump		Vane type, 270 liters/min (65.5 gal/min)
Relief Val	ve Setting	210 kg/cm²(2,990 psi)
Cylinder	Type Bore x Stroke	Double acting 100mm(3.9") x 480mm(18.9")
Steering A	\ngle	40°(each direction)

#### Features

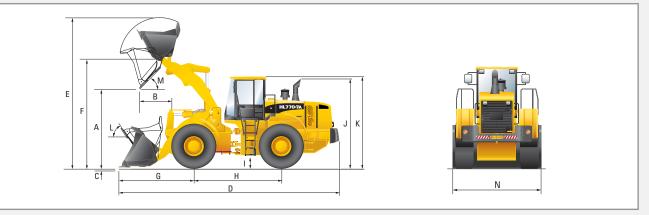
- Center-point frame articulation
- Flow-amplified, load-sensing, pressure-compensated system
   Steering-wheel operated metering pump controls flow to steering cylinders
   Tilt and telescopic steering column

Front axle	78 liters (20.6	USgal)
Rear axle	53 liters (14.0	USgal)
Hydraulic tank	200 liters (52.9	USgal)
Hydraulic system (including tank)	320 liters (84.6	USgal)

## Tires

Туре	Tubeless, loader design tires
Standard	26.5-25, 20 PR, L3
Options include	26.5 R25 XHA* 26.5-25, 28 PR, L3 26.5-25, 32 PR, L3 23.5-25, 20 PR, L3 26.5-25, 20 PR, L5

## **Dimensions**



B 1.0		LINUT	111 770 74	111 770VTD 7A
Descripti	on	UNIT	HL770-7A	HL770XTD-7A
Bucket Type		General purpose bolt-on cutting edge		
A. Dumping clearance at max. height and 45° dump angle.		mm (ft-in)	3,117 (10′ 3″)	3,570 (11′ 9″)
B. Reach	Full lift	mm (ft-in)	1,254 (4′ 1″)	1,260 (4′ 2″)
D. Neduli	7ft height	mm (ft-in)	1,890 (6' 2")	2,250 (7′ 5″)
C. Digging depth		mm (in)	98 (3.9")	130 (5.1")
D. Overall length	on ground	mm (ft-in)	8,635 (28' 4")	9,100 (29' 10")
D. Overall length	at carry	mm (ft-in)	8,530 (28')	9,020 (29' 7")
E. Overall height (fully raised)		mm (ft-in)	5,870 (19′ 3″)	6,320 (20′ 9″)
F. Bucket pivot max. height		mm (ft-in)	4,310 (14' 2")	4,760 (15' 7")

Description			UNIT	HL770-7A	HL770XTD-7A
G.	Front overhang		mm (ft-in)	2,940 (9' 8")	3,350 (12')
Н.	Wheelbase		mm (ft-in)	3,440 (11' 3")	3,440 (11′ 3″)
l.	Ground clearance		mm (ft-in)	480 (1′ 7″)	480 (1' 7")
J.	Height over exhaust		mm (ft-in)	3,470 (11′ 5″)	3,470 (11′ 5″)
K.	Height over cab		mm (ft-in)	3,550 (11' 8")	3,550 (11' 8")
L.	Roll-back angle	on ground/at carry	deg	44 / 49	44 / 50
M.	. Dump angle		deg	48	48
	Clearance circle		mm (ft-in)	14,070 (46′ 2″)	14,450 (47′ 5″)
N.	Overall width	with bucket	mm (ft-in)	3,100 (10′ 2″)	3,100 (10′ 2″)
		without bucket	mm (ft-in)	2,975(9' 9")	2,975(9' 9")