

# HL730-9A

With Tier 4 Interim Engine installed

MOVING YOU FURTHER

**HYUNDAI HEAVY INDUSTRIES**



\*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!*



# HL730-9A

## Machine Walk-Around

### Reliable Main Components

#### Engine Technology

Proven, reliable, fuel efficient, low emission, low noise Cummins Tier 4 Interim & EU Stage IIIB QSB4.5 engine

Electronically controlled for optimum fuel to air ratio and clean, efficient combustion

HPCR(High Pressure Common Rail) fuel system / Self-diagnostic system

DOC - Clean emission aftertreatment module

3 engine modes, P (Power), S (Standard), E (Economy) for full power or reduced fuel consumption according to operator preference

#### Fully Automatic Transmission

4 step shift modes (Manual / Light / Normal / Heavy) for different working conditions

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 & FNR switch for operating comfort

#### Axle

Self-adjusting wet disc brake

### Improved Durability

Load sensing hydraulic system with variable displacement piston pump and closed-center MCV (main control valve)

Long-life cooling system with relocated cooling fan & radiator, designed for additional durability, resistant to thermal shock, impulse and vibration

Redesigned steering cylinder lug and bucket link, now cast steel for additional strength and reliability

### 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 and bluetooth hands-free

Improved ladder with 20 degree incline and large, deep tread, aluminum cast steps for safer access and exit from the cab

#### Advanced 5.7" Color Monitor with Touch Screen

Easy-to-read new color LCD display equipped with natural screen movement

Newly designed multimedia function for an enjoyable work

Auto boom kick out and bucket positioner - fully adjustable from within the cab

Integrated load weighing system, viewable through the monitor, for improved work efficiency and overload prevention

Self diagnostic & monitoring system with active display of engine, hydraulic system, transmission and electrical component information

Color, rear-view, back-up camera for improved safety and convenience

### Serviceability

The tilting transmission and hydraulic oil coolers swing open for easy access and regular maintenance

Ground level access to critical service points, filters and sight gauges for easy maintenance

Long life hydraulic filter and oil for reduced operating costs

\*Photo may include optional equipment.

# PRECISION & PERFORMANCE

Innovative hydraulic system technologies make the 9A series wheel loaders fast, smooth and easy to control. 9A series is designed for maximum performance to keep the operator working productively.



\*Photo taken on a hydraulic system test equipment.



## Eco-friendly Cummins QSB4.5 Engine

The CUMMINS QSB4.5 engine combines advanced electronic controls and a self-diagnostic system with reliable performance. The combination of a high pressure common rail system and an advanced in-cylinder combustion technology results in increased power, improved transient response and reduced fuel consumption. The QSB4.5 Cummins engine complies with current emissions standards including EPA Tier 4 interim and EU Stage III-B.

### DOC - Clean Emission Aftertreatment Module

Reduces Particulate Matter (PM) through a chemical reaction with no cleaning or maintenance required. A DOC(Diesel Oxidation Catalyst) consists of a catalytic coating on a cordierite or metallic substrate for oxidizing exhaust particulate matter. It operates in a passive-only mode and can act as a stand alone aftertreatment solution for those engines requiring a moderate PM reduction.

### VGT(Variable Geometry Turbocharger)

Newly designed VGT with electric actuator delivers optimum air flow resulting in cleaner exhaust gas, quick transient acceleration and improved fuel economy by combining the benefits at low & high engine speed.

## Optimized Hydraulic system

The new load sensing hydraulic system with a variable displacement piston pump and closed center main control valve, provide efficient hydraulic power and additional energy savings.

## New Generation ZF Axles



An enhanced axles with more durability and reliability improves driving performance on variable job conditions. Self adjusting brakes that automatically regulate disc clearance, reduce service time and improved brake performance.

## Variable Operating Modes



9A series wheel loaders are designed to allow the operator to customize the machine's engine power, 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 engine power mode, transmission power shift mode, and clutch cut-off mode. Additionally, the optional ride control system has shock absorbing accumulators that cushion the boom, improves operator comfort and reduces material loss. The versatility of the 9A 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

**3 Mode Clutch Cut-Off System**  
 L(Low) Mode : Short distance & faster loading  
 M(Medium) Mode : General loading  
 H(High) Mode  
 : Less power loss in touque converter and lower temperature on brake side



## Fully Automatic Transmission

Fully automatic transmission designed for 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.

# OPERATOR COMFORT

Operating a 9A 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.

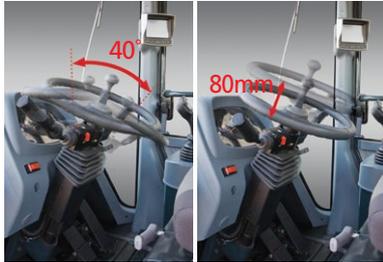


## Wide and Convenient Cab

The newly designed cabin was conceived for more space, a wider field of view and operator comfort. The front windshield is rounded and 17% wider than our previous series. Special attention was given to a clean, open and convenient interior with wide of visibility on the machine surroundings and the job at hand. This well balanced combination of cab ergonomics puts the operator in a perfect position to work safely and conveniently. The 9A 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 at the front and rear windows and the PTC (electric pre-heater) makes working in cold weather more comfortable.

## Operator Comfort

In the 9A 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. An FNR (Forward/Neutral/Reverse) switch on the control lever facilitates easy selection of travel direction. Roller type sunshades of the front window and rear window allow the operator to reduce glare and improve visibility. Heated side mirrors feature built-in hot wires for quick defrosting in cold weather conditions.



Tilting / telescopic steering column



Wrist rest



FNR switch (Option)



Rear sunshade (Option)



Heated side mirrors (Option)



AM/FM Radio with MP3 and Bluetooth Hands-free / AC control

## Reduced Stress

Hyundai's 9A series cabin offers lots of amenities, additional space and a comfortable seat to minimize stress of 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.

## Smart Key System (Option)



User authentication and anti-theft system are reinforced with smart key system (optional).

## Advanced Color Monitor



The advanced new monitor with 5.7 inch wide color LCD with touch screen allows the operator to easily and efficiently control the machine. The operator can adjust boom kick-out and bucket position via overhead switches while monitoring the adjustment settings through the monitor. An integrated load weighing system that contributes to improved work efficiency, can also be viewed through the monitor. 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 to reduce glare and position according to operator preference. Also, newly designed multimedia menu provides music & video player function for an enjoyable work.

## Monitor Tilt Range



# PROFITABILITY

9A 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)

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 tilting transmission and hydraulic oil coolers swing open for easy access and regular maintenance.

And the rear door can be open to over 70 degrees. Conveniently located 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 in the 9A 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. The fan is designed to auto reverse periodically or manually reverse to keep debris from accumulating in the coolers.

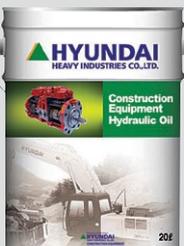


## Full Fenders and Mud Guards (Option)

9A series wheel loaders can be equipped with optional full rear mud guards to reduce material splatter to the cab and machine frame.



Hydraulic filter  
(1,000 hr)



Hydraulic Oil  
(5,000 hr)

## Extended Life Components

The 9A series is designed for longer lubrication intervals and extended component life. Long life hydraulic filters now have 1,000 hours service intervals and Hyundai certified 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

<b>Maker/Model</b>	CUMMINS QSB4.5
<b>Type</b>	Watercooled, 4-cycle, turbocharged, charge aircooled direct injection, electronic controlled diesel engine
<b>Gross power</b>	130 HP(97 kW) / 2,200rpm
<b>Net power</b>	128HP(95 kW) / 2,200rpm
<b>Maximum torque</b>	63 kg-m(457 lb-ft) / 1,500rpm
<b>No. of cylinders</b>	4

※ No derating for continuous operating required up to 1,981m (6,500ft). This engine meets the EPA T4 Interim / EU Stage III-B Emission regulation.

<b>Bore x Stroke</b>	107 mm (4.21") x 124 mm (4.88")
<b>Displacement</b>	4.5ℓ(275 cu in)
<b>Compression ratio</b>	17.2 : 1
<b>Air cleaner</b>	Dry, Two stages dual elements
<b>Alternator</b>	24V, 70 Amp
<b>Battery</b>	2 x 12V, 100 Ah.
<b>Starting motor</b>	24V, 4.8 kW

## TRANSMISSION

<b>Torque converter type</b>	3-elements, single-stage single-phase
<b>Tire</b>	17.5-25, 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.

<b>Travel speed</b>		<b>km/h (mph)</b>
<b>Forward</b>	1st	6.8(4.2)
	2nd	12.4(7.7)
	3rd	24.1(15.0)
	4th	39.2(24.4)
<b>Reverse</b>	1st	7.2(4.5)
	2nd	13.1(8.1)
	3rd	25.3(15.7)

## AXLES

<b>Drive system</b>	Four-wheel drive system
<b>Mount</b>	Rigid front axle and oscillating rear axle
<b>Rear axle oscillation</b>	±10° (total 20°)

<b>Hub reduction</b>	Planetary reduction at wheel end
<b>Differential</b>	Conventional
<b>Reduction ratio</b>	19.84

## HYDRAULIC SYSTEM

<b>Type</b>	Load-sensing hydraulic system
<b>Pump</b>	Variable axial piston type, 126 lpm 33.3 gal/min
<b>Control valve</b>	2spool (Bucket, Boom) 3spool (Bucket, Boom, Aux) Pilot pressure controlled type System pressure : 250 kgf/cm <sup>2</sup> (3.556PSI)

<b>Bucket Controls</b>	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.	
<b>Cylinders</b>		Type : Double acting	
		No. of cylinders-bore x stroke;	
Lift	HL730-9A/730XTD-9A/730TM-9A	2-ø100 mm x 750 mm(3.9" x 29.5")	
Tilt	HL730-9A	ø110 mm x 510 mm(4.3" x 20")	
	730XTD-9A	ø110 mm x 515 mm(4.3" x 20.3")	
	HL730TM-9A	2-ø90 mm x 775 mm(3.5" x 30.5")	
<b>Cycle Time</b>		HL730-9A / HL730XTD-9A	HL730TM-9A
	Raise(with load)	5.4 sec	5.4 sec
	Dump	1.0 sec	1.4 sec
	Lower(empty)	2.8 sec	2.8 sec
	Total	9.2 sec	9.6 sec

## BRAKES

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

## STEERING SYSTEM

<b>Type</b>	Load-sensing hydrostatic articulated steering	
<b>Pump</b>	Piston pump, 126 l/min (33.3 gal/min)@governed rpm	
<b>Relief Valve Setting</b>	210 kg/cm <sup>2</sup> (2,986 psi)	
<b>Cylinder</b>	Type Bore x Stroke	Double acting 60mm x 412mm(2.4" x 16.9")
<b>Steering Angle</b>	40°(each direction)	

### Features

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

## SERVICE REFILL CAPACITIES

<b>Fuel tank</b>	200 liters (52.8 USgal)
<b>Cooling system</b>	30 liters (7.9 USgal)
<b>Crankcase</b>	11 liters (2.9 USgal)
<b>Transmission</b>	20 liters (5.3 USgal)

<b>Front axle</b>	17.0 liters (4.5 USgal)
<b>Rear axle</b>	17.0 liters (4.5 USgal)
<b>Hydraulic tank</b>	130 liters (34.0 USgal)
<b>Hydraulic system (including tank)</b>	164 liters (43.0 USgal)

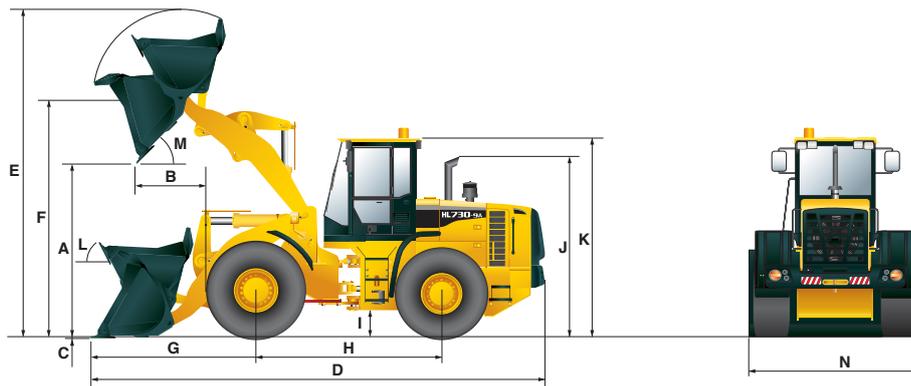
## OVERVIEW

Description	UNIT	HL730-9A	HL730XTD-9A	HL730TM-9A	
Operating weight	kg (lb)	10,500 (23,149)	10,700 (23,589)	10,900 (24,030)	
Bucket capacity	Heaped	m <sup>3</sup> (yd <sup>3</sup> )	1.9 (2.5)	1.9 (2.5)	1.7 (2.2)
	Struck	m <sup>3</sup> (yd <sup>3</sup> )	1.6 (2.1)	1.6 (2.1)	1.45 (1.9)
Breakout force-bucket	kg (lb)	9,150 (20,170)	9,070 (20,000)	9,960 (21,960)	
Tipping load	Straight	kg (lb)	8,740 (19,268)	7,870 (17,350)	7,475 (16,479)
	Full turn	kg (lb)	7,630 (16,821)	6,780 (14,947)	6,425 (14,164)

## TIRES

<b>Type</b>	Tubeless, loader design tires
<b>Standard</b>	17.5-25, 12 PR, L3
<b>Options include</b>	17.5-25, 12 PR, L2 17.5 R25 XHA*

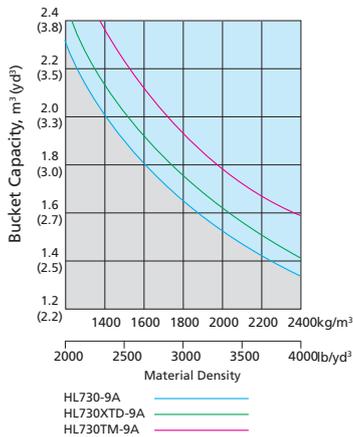
## DIMENSIONS



Description	UNIT	HL730-9A	HL730XTD-9A	HL730TM-9A	
Bucket Type	General purpose bolt-on cutting edge				
A. Dumping clearance at max. height and 45° dump angle.	mm (ft-in)	2,700 (8' 10")	3,035 (9' 11")	2,785 (9' 2")	
B. Reach	Full lift	mm (ft-in)	1,040 (3' 5")	1,010 (3' 4")	1,130 (3' 8")
	7ft height	mm (ft-in)	1,470 (4' 10")	1,730 (5' 8")	1,600 (5' 3")
C. Digging depth	mm (in)	103 (4.1")	117 (4.6")	95 (3.7")	
D. Overall length	on ground	mm (ft-in)	7,000 (22' 96")	7,290 (23' 91")	7,110 (23' 32")
	at carry	mm (ft-in)	6,945 (22' 78")	7,255 (23' 8")	6,920 (22' 7")
E. Overall height (fully raised)	mm (ft-in)	4,850 (15' 11")	5,190 (17')	4,900 (16' 1")	
F. Bucket pivot max. height	mm (ft-in)	3,640 (11' 11")	3,980 (13' 1")	3,795 (12' 5")	

Description	UNIT	HL730-9A	HL730XTD-9A	HL730TM-9A
G. Front overhang	mm (ft-in)	2,365 (7' 9")	(8' 9")	2,470 (8' 1")
H. Wheelbase	mm (ft-in)	2,800 (9' 18")	2,800 (9' 18")	2,800 (9' 18")
I. Ground clearance	mm (ft-in)	370 (1' 3")	370 (1' 3")	370 (1' 3")
J. Height over exhaust	mm (ft-in)	3,061 (9' 11")	3,061 (9' 11")	3,061 (9' 11")
K. Height over cab	mm (ft-in)	3,170 (10' 5")	3,170 (10' 5")	3,170 (10' 5")
L. Roll-back angle	on ground	deg	42	42
	at carry	deg	47	49
M. Dump angle	deg	48	48	50
Clearance circle	mm (ft-in)	11,160 (36' 61")	11,430 (37' 5")	11,140 (36' 54")
N. Overall width	mm (ft-in)	2,450 (8')	2,450 (8')	2,400 (7' 10")

## 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)
<b>17.5-25 12PR L2</b>	-60 (-132)	-50 (-110)	-40 (-88)
<b>17.5 R25 XHA*</b>	80 (176)	60 (132)	50 (110)

## 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, 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
- 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
  - 1 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
  - detent enable
  - kick down set
  - 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, ROPS(ISO3471)/FOPS(ISO3449) (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 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 QSB4.5
  - low Emission Diesel, Tier4 Interim, EU StageIIIB
- 3 operating mode
  - power/standard/economy
- Engine enclosure, lockable
- Engine fuel priming pump
- Fan guard
- Fuel/water separator
- Fuel warmer
- DOC
- Rain cap, engine air intake
- Radiator (deaeration type)
- Starting aid (air intake heater)
- Water sensor on fuel filter
- Power Train**
- Brakes : Service, enclosed wet-disc
- Parking brake
- Torque converter
- Transmission, computer-controlled, electronic soft shift, auto-shift and kick down-shift features included
- Transmission oil cooler
- Hydraulics**
- Boom kickout, automatic
- Bucket positioner, automatic
- Diagnostic pressure taps
- Hydraulic system
  - 2 spool, single leverm pilot control

- for boom and bucket actvation
- Steering, load-sensing
- Remote cooling fan, hydraulically-driven, temperature sensing type
- Others**
- Articulation locking bar
- Coolant level sensor
- Counterweight (300kg)
- 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
- Lift and tie-down hooks
- Steering stops, cushioned
- Tires(17.5-25, 12PR,L3)
- Transmission oil level sight gauge
- Vandalism protection caplocks

## OPTIONAL EQUIPMENT

- |  |   |   |                              |                                    |
|--|---|---|------------------------------|------------------------------------|
| 24-volt to 12-volt DC converter                                  | Fire extinguisher   | Seat  | Tires :                      | Guards                             |
| Climate control :  | High lift arrangement with optional counterweight, 410 kg   | - 2" static seat belt & adjustable mechanical suspension(vinyl) | - 17.5 - 25, 12PR, L2        | - crankcase                        |
| - air conditioner only   |   | - 3" static seat belt & adjustable mechanical suspension        | - 17.5 R25 XHA               | - transmission                     |
| - heater only  |   | - 2" retractable seat belt & adjustable air suspension (heated) | Tool kit                     | Wheel chock                        |
| Beacon light, rotating   | Hydraulic control Fingertip (2spool & 3spool)               |   | Tooth, 1 piece, bolt-on type | HI-Mate                            |
| Auxiliary, 2 working lights on front roof (Xenon working lights) | 3rd spool for aux function joystick with travel switch(FNR) |   | Tooth, 2 piece, bolt-on type | (Remote Management System)         |
| Auxiliary, 2 working lights on rear roof                         | Mud guard   |   |                              | Rear view camera                   |
| 3 piece cutting edge, bolt-on type                               | Operator suit   |   |                              | Dual-brake pedal                   |
| Secondary steering system  | Ride control system   |   |                              | Roller type sunshade (rear window) |
|  | Heated rear view mirrors (2 outside)                        |   |                              | License plate, bracket & lamp      |
|  |   |   |                              | Pre-cleaner engine air intake      |
|  |   |   |                              | Limited slip differential          |

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**  
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