

# SPECIFICATIONS

## HL960A

Powered By Cummins Performance Series Engine



\*Photo may include optional equipment.



**Net Power**  
222 HP (166 kW) at 2,200 rpm

**Operating Weight**  
19,831 kg (43,720 lb) -  
20,031 kg (44,160 lb)

**Bucket Capacity**  
3.3 m<sup>3</sup> (4.3 yd<sup>3</sup>)

 **HYUNDAI**  
CONSTRUCTION EQUIPMENT

# SPECIFICATIONS HL960A

## ENGINE

Maker / Model	CUMMINS / B6.7
Type	Tier 4F/ Stage V Emission Certified, 6 cylinder diesel engine with No Manual Regeneration.
Gross Power (SAE J1995)	225 HP (168 kW) at 2,200 rpm
Net Power (SAE J1349)	222 HP (166 kW) at 2,200 rpm
Max. Power	251 HP (188 kW) at 1,900 rpm
Peak Gross Torque (SAE J1995)	875 lb-ft (1,186 N-m) at 1,300 rpm
Displacement	6.7 L (408 cu in)

\*Stage V & Tier 4 Final Certified

## TRANSMISSION

Travel Speed, km/h (mph)	4 Speed T/M	5 Speed T/M with lock up clutch
Forward	1st	6.4 km/h (3.9 mph)
	2nd	12.1 km/h (7.5 mph)
	3rd	24.5 km/h (15.2 mph)
	4th	39.0 km/h (24.2 mph)
	5th	-
Reverse	1st	6.8 km/h (4.2 mph)
	2nd	12.8 km/h (7.9 mph)
	3rd	25.7 km/h (15.9 mph)

• This is the maximum travel speed of a standard machine with unfilled bucket.

## AXLES

Drive System	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear Axle Oscillation	Oscillating $\pm 12^\circ$ degrees
Hub Reduction	Planetary reduction at wheel end
Differential	Conventional
Reduction Ratio	24.667

## HYDRAULIC SYSTEM

Type	Load sensing hydraulic system	
Implement System		
Maximum Pump Output	239 $\ell$ /min (63.1 gal/min) at 2,130 rpm	
Maximum Operating Pressure	28,000 kPa (4,061 psi)	
Hydraulic Cycle Time with Rated Payload	Raise from Carry Position : 5.9 Sec.	
	Dump, at maximum raise : 1.5 Sec.	
	Lower, empty, float down : 3.5 Sec.	
	Total : 10.9 Sec.	
Cylinder	Type : double acting	
	No. of cylinders-bore $\times$ stroke	
	Lift	2-140 $\times$ 765 mm (2-5.5" $\times$ 30.1")
	HL960A Tilt	1-160 $\times$ 530 mm (1-6.3" $\times$ 20.9")
	HL960A XT Tilt	1-160 $\times$ 530 mm (1-6.3" $\times$ 20.9")

## CABIN

ROPS / FOPS Cabin Meet ISO 3471 and ISO 3449

## OVERVIEW

Description	HL960A	HL960A XT
Operating Weight	19,831 kg (43,720 lb)	20,031 kg (44,160 lb)
Bucket Capacity	Heaped	3.3 m <sup>3</sup> (4.3 yd <sup>3</sup> )
	Struck	2.9 m <sup>3</sup> (3.8 yd <sup>3</sup> )
Breakout Force-Bucket	16,670 kg (36,750 lb)	16,430 kg (36,220 lb)
Tipping Load	Straight	15,792 kg (34,815 lb)
	Full Turn	13,712 kg (30,230 lb)

## TIRES

Type	Tubeless, loader design tires
Standard	23.5 R25, $\star\star$ , L3
Options Include	23.5 R25, $\star$ , XHA
	23.5-25, 20PR, L3
	23.5-25, 20PR, L5
	23.5-25, Solid tire

## BRAKES

Service Brakes	Hydraulically actuated, wet disc brakes actuate all 4 wheels independent axle-by-axle system. Self adjusting & wheel speed brake.
Parking Brake	Spring-applied, hydraulically released brake
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	Variable displacement piston pump, 148.5 $\ell$ /min (39.2 gal/min)
System Pressure	3,046 psi (21,000 kPa)
Cylinder	Double acting 2-80 mm (3.15") $\times$ 424 mm (16.7")
Steering Angle	40° to both right and left angle, respectively
Features	Center-point frame articulation. Tilt and telescopic steering column.

## SERVICE REFILL CAPACITIES

Fuel Tank	260.0 liters (68.6 US gal)
Def Tank	30.0 liters (7.9 US gal)
Cooling System	42.0 liters (11.1 US gal)
Crankcase	18.0 liters (4.7 US gal)
Transmission	33.0 liters (8.7 US gal)
Front Axle	35.0 liters (9.2 US gal)
Rear Axle	35.0 liters (9.2 US gal)
Hydraulic Tank	110.0 liters (29.0 US gal)
Hydraulic System (Including Tank)	200.0 liters (52.8 US gal)

## CAB NOISE LEVEL

Guaranteed noise level presented below can be differed depending on a range of factors such as operating condition, speed of a cooling fan, types of engine and so forth. Hearing protection shall be necessary if an operator is working in the improperly maintained cabin or exposed to a noisy environment by leaving doors and/or windows open.

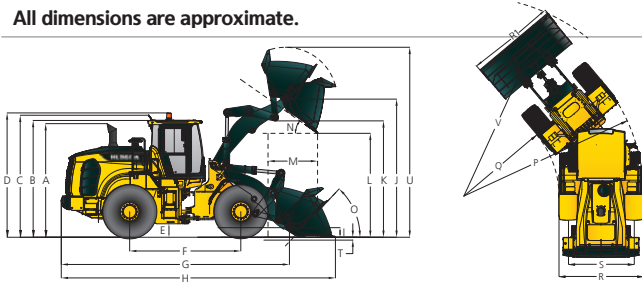
With cooling fan speed at maximum value:

Operator sound pressure level (ISO 6396:2008)	68 dB(A)
Exterior sound power level (ISO 6395:2008)	105 dB(A)

\* Distance of 15 m (49.2 ft), moving forward in second gear ratio.

## HL960A DIMENSIONS

All dimensions are approximate.



Unit : mm (ftn)

Description	HL960A	HL960A XT
A Height to Top of Exhaust Pipe	3,340 (10' 11")	3,340 (10' 11")
B Height to Top of Cabin	3,450 (11' 3")	3,450 (11' 3")
C Height to Top of Product Link Antenna	3,505 (11' 6")	3,505 (11' 6")
D Height to Top of Warning Beacon	3,580 (11' 9")	3,580 (11' 9")
E Ground Clearance	410 (1' 4")	410 (1' 4")
F Wheelbase	3,300 (10' 10")	3,300 (10' 10")
G Overall Length (Without Bucket)	6,870 (22' 6")	7,425 (24' 4")
H Shipping Length (With Bucket Level on Ground)	8,140 (26' 8")	8,695 (28' 6")
I Hinge Pin Height at Carry Position	465 (1' 6")	600 (2')
J Hinge Pin Height at Maximum Lift	4,105 (13' 6")	4,535 (14' 11")

Description		HL960A	HL960A XT
K	Lift Arm Clearance at Maximum Lift	3,455 (11' 4")	3,885 (12' 9")
L	Dump Clearance at Maximum Lift and 45° Discharge	2,935 (9' 8")	3,365 (11')
M	Reach at Maximum Lift and 45° Discharge	1,285 (4' 2")	1,380 (4' 6")
N	Dump Angle at Maximum Lift and Dump (on Stops)	50	50
O	Roll Back Angle	Ground	42
		Carry	47
P	Clearance Circle (Diameter) to Outside of Tires	12,060 (39' 6")	12,060 (39' 6")
Q	Clearance Circle (Diameter) to Inside of Tires	6,430 (21' 1")	6,430 (21' 1")
R	Width Over Tires (Unloaded)	2,770 (9' 1")	2,770 (9' 1")
R1	Overall Width (with bucket)	2,160 (7' 1")	2,160 (7' 1")
S	Tread Width	1,930 (6' 4")	1,930 (6' 4")

## HL960A OPERATING SPECIFICATIONS WITH BUCKETS

Linkage Bucket Type	Standard Linkage General Purpose - Pin On				General Purpose - Hook On	High Lift Linkage Change
	Bolt-On Cutting Edges	1 Piece Tooth	2 Piece Tooth	2 Piece Tooth & Segment	Bolt-On Cutting Edges	
Capacity - Rated	3.3 m³ (4.3 yd³)	3.2 m³ (4.2 yd³)	3.2 m³ (4.2 yd³)	3.3 m³ (4.3 yd³)	3.3 m³ (4.3 yd³)	-
Capacity - Rated at 110% Fill Factor	3.6 m³ (4.7 yd³)	3.5 m³ (4.6 yd³)	3.5 m³ (4.6 yd³)	3.6 m³ (4.7 yd³)	3.6 m³ (4.7 yd³)	-
Width	2,900 mm (9' 6" ft/in)	2,950 mm (9' 8" ft/in)	2,970 mm (9' 9" ft/in)	2,970 mm (9' 9" ft/in)	2,900 mm (9' 6" ft/in)	-
Dump Clearance at Maximum Lift and 45° Discharge	2,935 mm (9' 7" ft/in)	2,810 mm (9' 3" ft/in)	2,775 mm (9' 2" ft/in)	2,775 mm (9' 2" ft/in)	2,755 mm (9' 1" ft/in)	430 mm (1' 5" ft/in)
Reach at Maximum Lift and 45° Discharge	1,285 mm (4' 3" ft/in)	1,370 mm (4' 6" ft/in)	1,390 mm (4' 7" ft/in)	1,390 mm (4' 7" ft/in)	1,465 mm (4' 10" ft/in)	95 mm (4" ft/in)
Digging Depth	90 mm (3.5" ft/in)	115 mm (4.5" ft/in)	125 mm (4.9" ft/in)	125 mm (4.9" ft/in)	90 mm (3.5" ft/in)	55 mm (2" ft/in)
Shipping Length (with Bucket)	8,140 mm (26' 8" ft/in)	8,290 mm (27' 2" ft/in)	8,330 mm (27' 4" ft/in)	8,330 mm (27' 4" ft/in)	8,395 mm (27' 7" ft/in)	555 mm (1' 10" ft/in)
Overall Height with Bucket at Maximum Lift	5,640 mm (18' 6" ft/in)	5,640 mm (18' 6" ft/in)	5,640 mm (18' 6" ft/in)	5,640 mm (18' 6" ft/in)	5,820 mm (19' 1" ft/in)	430 mm (1' 5" ft/in)
Loader Clearance Circle with Bucket at Carry Position	13,410 mm (44' ft/in)	13,570 mm (44' 6" ft/in)	13,620 mm (44' 8" ft/in)	13,620 mm (44' 8" ft/in)	13,570 mm (44' 6" ft/in)	450 mm (1' 6" ft/in)
Static Tipping Load. Straight (No Tire Deflection)	14,300 kg (31,525 lb)	14,500 kg (31,965 lb)	14,500 kg (31,965 lb)	14,250 kg (31,415 lb)	13,080 kg (28,835 lb)	-1,350 kg (-2,975 lb)
Static Tipping Load. Articulated (No Tire Deflection)	12,410 kg (27,360 lb)	12,580 kg (27,735 lb)	12,580 kg (27,735 lb)	12,360 kg (27,250 lb)	11,350 kg (25,020 lb)	-1,300 kg (-2,865 lb)
Breakout Force	16,670 kg (36,750 lb)	17,705 kg (39,030 lb)	17,705 kg (39,030 lb)	16,670 kg (36,750 lb)	13,870 kg (30,580 lb)	-240 kg (-530 lb)
Operating Weight*	19,200 kg (42,330 lb)	19,125 kg (42,160 lb)	19,125 kg (42,160 lb)	19,250 kg (42,440 lb)	19,590 kg (43,190 lb)	830 kg (1,830 lb)

\* All height and tire related dimensions are with standard 20.5 R25, ★, L3 tires.

## HL960A BUCKET SELECTION CHART

Standard lift arm - General Purpose

Type	m³ (yd³)	Material Density [ton / m³]													
		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4
Cutting Edge	3.3 (4.32)	3.8 m³ (4.97 yd³)										3.1 m³ (4.05 yd³)			
1-Bolt on Tooth	3.2 (4.19)	3.7 m³ (4.84 yd³)					3.0 m³ (3.92 yd³)					3.0 m³ (3.92 yd³)			
2-Bolt on Tooth	3.2 (4.19)	3.7 m³ (4.84 yd³)					3.0 m³ (3.92 yd³)					3.0 m³ (3.92 yd³)			
2-Bolt on Tooth & Segment edge	3.3 (4.32)	3.8 m³ (4.97 yd³)					3.1 m³ (4.05 yd³)					3.1 m³ (4.05 yd³)			
Cutting Edge Q/C	3.3 (4.32)	3.8 m³ (4.97 yd³)					3.1 m³ (4.05 yd³)					3.1 m³ (4.05 yd³)			

High lift arm - General Purpose

Type	m³ (yd³)	Material Density [ton / m³]													
		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4
Cutting Edge	3.3 (4.32)	3.8 m³ (4.97 yd³)					3.1 m³ (4.05 yd³)					3.1 m³ (4.05 yd³)			
1-Bolt on Tooth	3.2 (4.19)	3.7 m³ (4.84 yd³)					3.0 m³ (3.92 yd³)					3.0 m³ (3.92 yd³)			
2-Bolt on Tooth	3.2 (4.19)	3.7 m³ (4.84 yd³)					3.0 m³ (3.92 yd³)					3.0 m³ (3.92 yd³)			
2-Bolt on Tooth & Segment Edge	3.3 (4.32)	3.8 m³ (4.97 yd³)					3.1 m³ (4.05 yd³)					3.1 m³ (4.05 yd³)			
Cutting Edge Q/C	3.3 (4.32)	3.8 m³ (4.97 yd³)					3.1 m³ (4.05 yd³)					3.1 m³ (4.05 yd³)			

115% 100% 95%

ENGINE	STD	OPT
<b>ENGINE, CUMMINS, B6.7</b>		
3 Stage air precleaner	•	
Alternator, 95A	•	
Fuel warmer	•	
Engine oil level dipstick gauge	•	
Fuel / water separator	•	
VG (Variable Geometry Turbo)	•	
<b>CLEAN EMISSION MODULE</b>		
DOC, DPF and SCR	•	
Active Emission Regeneration (No Manual Regeneration Required)		
Stage V Certified Emissions	•	
EGR Free	•	
Automatic Regeneration	•	
<b>COOLING SYSTEM</b>		
Antifreeze	•	
Auto Reversing Fan (adjustable Time/ Interval Frequencies) w/ Manual Override	•	
Coolant Level Sight Gauge	•	
Fan guard	•	
Wide Fin Radiator	•	
<b>POWER TRAIN</b>		
<b>TRANSMISSION</b>		
Transmission F4/R3, computer controlled, electronic soft shift, auto-shift and kick-down features included	•	
Transmission oil sight level	•	
Wide Fin Transmission Oil Cooler	•	
<b>AXLE</b>		
Conventional (Rear)	•	
Hydraulic lock differential (Front)	•	
Limited slip differential (Front / Rear)		•
<b>BRAKE</b>		
Parking brake	•	
Service brake (Enclosed wet-disc)	•	
<b>TIRES</b>		
23.5 R25, ★★, L3	•	
23.5 R25, ★, XHA		•
23.5-25, 20PR, L3		•
23.5-25, 20PR, L5		•
23.5-25, Solid Tire		•
<b>HYDRAULIC SYSTEM</b>		
Diagnostic pressure taps	•	
Hyundai Bio Hydraulic Oil (VG46)		•
Hydraulic oil level sight gauge	•	
Hydraulic Oil VG32		•
Hydraulic Oil VG46	•	
Wide Fin Hydraulic Oil Cooler	•	
<b>HYDRAULIC CONTROL</b>		
Fingertip		•
Joystick		•
<b>ELECTRO-HYDRAULIC CONTROL</b>		
Boom kickout, automatic	•	
Bucket positioner, automatic	•	
Extra piping for auxiliary function		•
Fingertip	•	
Joystick	•	
Quick coupler piping	•	
Ride control system	•	
<b>CAB &amp; INTERIOR</b>		
<b>ALARMS, AUDIBLE AND VISUAL</b>		
Air filter clogging	•	
Battery voltage	•	
Brake oil pressure	•	
DEF low level	•	
Engine coolant level	•	
Engine coolant temperature	•	
Engine oil pressure	•	
Fuel level	•	
Hydraulic oil temperature	•	
Parking brake	•	
Service brake oil pressure	•	
Seat belt ON/OFF	•	
Transmission error	•	

CAB & INTERIOR	STD	OPT
<b>ALARMS, AUDIBLE AND VISUAL</b>		
Transmission oil temperature	•	
<b>GAUGES</b>		
Diesel Exhaust Fluid (DEF) level	•	
Engine coolant temperature	•	
Fuel level	•	
Horn, electric	•	
Speedometer	•	
Transmission oil temperature	•	
<b>INDICATOR LIGHTS</b>		
Clutch Cut Off	•	
Differential Lock	•	
Engine auto stop	•	
FNR	•	
High beam	•	
Parking brake	•	
Pilot cut off	•	
Ride control	•	
Seat belt ON/OFF	•	
Turning light	•	
<b>LCD DISPLAY</b>		
Clock and fault code	•	
DEF level	•	
DEF low level	•	
Engine rpm	•	
Horn, electric	•	
Job time and distance	•	
Operating hour counter	•	
Transmission gear range	•	
<b>BATTERIES</b>		
850CCA, 12V, 2PCS	•	
<b>LIGHTING SYSTEM</b>		
Brake lights(Counterweight)	•	
LED dome light	•	
2 Head lights on front tower	•	
2 Head lights (LED) on front tower		•
2 Stop and tail lights	•	
4 Turn signals	•	
2 Working lights on front roof		•
4 Working lights on front roof		•
2 Working lights on rear roof		•
4 Working lights (LED) on front roof		•
2 Working lights (LED) on rear roof		•
2 Working lights on grill	•	
2 Working lights (LED) on grill	•	
<b>SWITCHES</b>		
Battery master switch	•	
Differential Lock	•	
Emergency steering		•
FNR shifter	•	
Hazard	•	
Parking	•	
Pilot cut off	•	
<b>SYSTEM MEMORY SETTINGS</b>		
Autolube, integrated in secondary display		•
Auto position	•	
Beacon light		•
Fine modulation	•	
Main light	•	
Mirror heat	•	
Quick coupler	•	
Rear wiper	•	
Ride control	•	
Work light	•	
Work load	•	
<b>IGNITION</b>		
Key	•	
Push Start Button		•
<b>CAB (SOUND SUPPRESSED)</b>		
24V to 12V DC converter (20A)	•	
Coat hook	•	
Magazine pocket	•	
One door cab	•	
Radio / USB player	•	

CAB & INTERIOR	STD	OPT
<b>CAB(SOUND SUPPRESSED)</b>		
Roller type sunshade (Front window)	•	
ROPS / FOPS CAB.	•	
Rubber floor mat	•	
Steering column, tilt and telescopic	•	
Steering wheel with knob	•	
Tinted safety glass	•	
Wrist rest	•	
<b>DOOR</b>		
Door and cab locks, one key	•	
Doors, service access (Locking)	•	
Doors, service access (Remote control)		•
<b>AUTOMATIC CLIMATE CONTROL</b>		
Air conditioner & heater	•	
Defroster	•	
Intermittent wiper and washer, front and rear	•	
<b>SEAT</b>		
3" Retractable seat belt & adjustable air suspension (Heated)	•	
<b>PERSONAL STORAGE SPACE</b>		
Console box	•	
Holder, can and cup	•	
<b>PEDALS</b>		
Accel pedal without ECO switch	•	
Dual-brake pedal		•
One accelerator pedal	•	
One brake pedal	•	
<b>SAFETY</b>		
Alarm, back-up	•	
Boom safety lock		•
Emergency steering		•
Emergency stop	•	
Fire extinguisher		•
<b>OBJECT DETECTION</b>		
AAVM - All Around View Monitoring		•
IMOD (Intelligent Moving Object Detection)		•
RADAR + Secondary Mornitor		•
<b>OTHERS</b>		
2nd Monitor		•
3 Spool MCV	•	
5 speed T/M with lockup clutch		•
Air Compressor		•
Auto Engine Shut Down	•	
Auto Grease System		•
Articulation Locking Bar	•	
Heavy Counterweight	•	
Hi-Mate, Satellite		•
ISO Quick Coupler	•	
LED Beacon Lamp		•
License Plate & 10W LED Lamp		•
Lift and tie-down hooks	•	
Loader linkage, sealed	•	
Sun Shade on Rear Window of Cabin		•
Vandalism protection caplocks	•	
Wheel Chocks		•
<b>SAFETY</b>		
Handrails	•	
Ladders	•	
Platforms	•	
Steps	•	
<b>TELEMATICS</b>		
ECD (Engine Connected Diagnostics)	•	
Hi MATE	•	
<b>GUARDS</b>		
Belly-Pan Guard		•
Crankcase	•	
Fenders (Front)	•	
Fenders (Rear)		•
Transmission	•	

\* Standard and optional equipment may vary. Contact your Hyundai dealer for more information. The machine may vary according to international standards.  
 \* The photos may include attachments and optional equipment that are not available in your area.  
 \* Materials and specifications are subject to change without advance notice.  
 \* All imperial measurements rounded off to the nearest pound or inch.

PLEASE CONTACT



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