CAB & INTERIOR	STD	OPT
Alternator, 95 amp	•	
Alarms, audible and visual	1	
Air filter clogging	•	
Transmission error	•	
Battery voltage	•	
Brake oil pressure	•	
Engine oil pressure	•	
Parking brake	•	
Fuel level	•	
Hydraulic oil temperature	•	
Coolant temperature	•	
Transmission oil temperature	•	
Service brake oil pressure	•	
Coolant level Water in fuel	•	
Alarm, backup	•	
Batteries, PT		
900 CCA, 12V, (2)	•	
Gauges		
Engine coolant temperature		
Fuel level		
Speedometer	•	
Transmission oil temperature	•	
Horn, electric	•	
Indicator lights		
T/C lockup	•	
High beam	•	
Turn signal	•	
FNR joystick steering		•
Pilot cutoff	•	
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)		
LED dome light	•	
2 stop and taillights		
4 turn signals	•	
Brake lights (counterweight)	•	
2 headlights on front tower	•	
2 working lights on front roof	•	
4 working lights on front roof,		_
2 working lights on rear roof		•
4 working lights (2 xenon) 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 grille	•	
Switches Hazard		
Ignition		
Parking	•	
Battery master switch	•	
FNR	•	
Diff lock		•
SCR cleaning / inhibit	•	
Secondary steering test		•
Pilot cutoff	•	
Membrane switches in monitor		
Main light	•	
Work light	•	
Auto grease		•
Quick coupler		•
Ride control	•	
Work load	•	
Beacon lamp		•
Rear wiper	•	
Mirror heat	•	
Auto position	•	
Fine modulation		•
	_	_

CAB & INTERIOR	STD	OPT
Cab (sound suppressed and pressurized)	with	
Cigar lighter and ashtray  Coat hook	•	
Automatic climate control		
Air conditioner and heater	•	
Defroster	•	
Intermittent wiper and washer, front and rear	•	
Seat		
2'' retractable seat belt and adjustable		•
2" static seat belt and adjustable		•
mechanical suspension (heated)		
3" static seat belt and adjustable mechanical suspension		•
2'' retractable seat belt and adjustable air		
suspension (heated)	•	
Personal storage space		
Console box Holder, can and cup		
Rearview mirrors (1 inside)	•	
Rearview mirrors (2 outside)	•	
Rearview mirrors (2 outside, heated)	•	
Steering column, tilt and telescopic	•	
Steering wheel with knob	•	
Roller type sunshade (front window) Roller type sunshade (rear window)	•	•
Tinted safety glass	•	
One door cab	•	
Magazine pocket	•	
Pedals		
1 accelerator pedal 1 brake pedal	•	
Dual-brake pedal		•
Radio / USB player	•	
Bluetooth	•	
Miracast	•	
Rubber floor mat Wrist rest	•	
24-volt to 12-volt DC converter (20A)	•	
	CTD	OPT
ENGINE	STD	OPT
Antifreeze Engine, Cummins QSB6.7	•	
Tier 4 Final / Stage 4	•	
Engine enclosure, lockable	•	
Engine fuel priming pump	•	
Fan guard	•	
Reversible cooling fan	•	
Fuel/water separator Clean emission module	•	
DOC and SCR	•	
Rain cap, engine air intake	•	
Radiator	•	
Starting aid (air intake heater)	•	
Fuel heater	•	
Coolant-level sight gauge		
Coolant-level sight gauge  Engine oil-level dipstick gauge	•	
Coolant-level sight gauge Engine oil-level dipstick gauge Fuel heater (dual)	•	•
Engine oil-level dipstick gauge		•
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject	•	• OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject POWER TRAIN	•	• OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject	•	• OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject POWER TRAIN Brakes: service, enclosed wet-disc	•	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer-	•	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake  Torque converter  Transmission F4 / R3, computer- controlled, electronic soft-shift,	•	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer-	•	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer- controlled, electronic soft-shift, auto-shift and kick-down features Transmission F5 / R3 with lockup clutch	•	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer- controlled, electronic soft-shift, auto-shift and kick-down features Transmission F5 / R3 with lockup clutch Transmission oil sight level	STD  O  O	OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer- controlled, electronic soft-shift, auto-shift and kick-down features Transmission F5 / R3 with lockup clutch Transmission oil sight level Limited-slip differential (front, rear)	STD  O  O  O	• OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer- controlled, electronic soft-shift, auto-shift and kick-down features Transmission F5 / R3 with lockup clutch Transmission oil sight level Limited-slip differential (front, rear) Transmission oil cooler	STD  O  O	• OPT
Engine oil-level dipstick gauge Fuel heater (dual) Air cleaner with auto dust eject  POWER TRAIN  Brakes: service, enclosed wet-disc Parking brake Torque converter Transmission F4 / R3, computer- controlled, electronic soft-shift, auto-shift and kick-down features Transmission F5 / R3 with lockup clutch Transmission oil sight level Limited-slip differential (front, rear)	STD  O  O  O	•

Front axle cooling system

POWER TRAIN	STD	OPT
Tires		
23.5 R25, L3	•	
23.5 - 25, 20PR, L3		•
23.5 - 25, 20PR, L5		•
23.5 R25, XHA2		•
20.5-25, 16PR, L3		•
Travel speed limiter (20-40 km/h)	•	
HYDRAULIC SYSTEM	STD	OPT
Boom kick-out, automatic	•	
Bucket positioner, automatic	•	
Diagnostic pressure taps	•	
Hydraulic oil cooler	•	
Hydraulic control, 2 spool	•	
Hydraulic control, 3 spool	•	
Joystick control (EH control)	•	
Lever control–single axis (EH control)	-	
Joystick steering		
Ride control system	•	
Secondary steering system	-	•
Extra piping for auxiliary function		-
Quick coupler piping		-
Auto grease system		-
Auto grease system		
OTHER	STD	OPT
Articulation locking bar		
Counterweight	•	•
Additional counterweight  Door and cab locks, one key	•	•
Doors, service access (locking)	•	
Drawbar with pin	-	
	•	
Ergonomically located and slip resistant, left & right	•	
Handrails	•	
Ladders	•	
Platforms	•	
Steps	•	
Fenders (front / rear)	•	
Hydraulic oil level sight gauge	•	
Lift and tie-down hooks	•	
Loader linkage, sealed	•	
Z-bar design	•	
Vandalism protection caplocks	•	
Toolkit		•
Tooth, 1 piece, bolt-on type		•
Tooth, 2 pieces, bolt-on type		•
Cutting edge, bolt-on type		•
Pallet forks		•
Guards		
Crankcase		•
Transmission		•
Mudguards		•
Wheel chock		•
License plate & lamp		•
Hi-Mate remote management system		
		1
Mobile Satallita	•	_
Satellite	•	•
	•	•
Satellite Rearview camera SAFETY	• STD	• OPT
Satellite Rearview camera SAFETY Beacon light, rotating	• STD	OPT
Satellite Rearview camera SAFETY	• STD	OPT •

- \* 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
- All imperial measurements rounded off to the nearest pound or



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1001-WL-SP HL960 Rev 4/2016



**Operating Weight** 

222 HP (166 kW) / 2,200 rpm | 19 425 kg / 42,830 lbs | 3.3 m<sup>3</sup> / 4.3 yd<sup>3</sup>



## **SPECIFICATIONS HL960**

ENGINE	
Make/model	CUMMINS / QSB6.7
Type	Watercooled, 4-cycle, turbocharged
	air-cooled, direct injection, electronically
	controlled diesel engine
Gross power	225 HP (168 kW) / 2,200 rpm
Net power	222 HP (166 kW) / 2,200 rpm
Maximum torque	106 kg·m (770 lb·ft) / 1,500 rpm
No. of cylinders	6
Bore x stroke	107 mm (4.21") x 124 mm (4.88")
Displacement	6.7 (408 in³)
Compression ratio	17.3:1
Air cleaner	Dry, 2-stage dual elements
Alternator	Denso (24V, 95 amp)
Battery	2 x 12V, 900 CCA
Starting motor	24V - 7.8 kW

TRANSMISSION	
Torque converter type	3-element, single-stage, single-phase

<sup>\*</sup> Fully automatic power shift, countershaft type with soft-shift in range and direction.

Travel speed, k	m/h (mph)	4 speed T/M	5 speed T/M with lockup clutch
Forward	1st	6.4 (4.0)	6.7 (4.2)
	2nd	12.1 (7.5)	11.8 (7.3)
	3rd	24.3 (15.1)	18.1 (11.2)
	4th	39.5 (24.5)	28.2 (17.5)
	5th		40.0 (24.9)
Reverse	1st	6.7 (4.2)	7.1 (4.4)
	2nd	12.7 (7.9)	12.4 (7.7)
	3rd	25.6 (15.9)	29.4 (18.5)

AXLES	
Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	±11° center pin-loaded
Hub reduction	Planetary reduction at wheel end
Differential	Conventional
Reduction ratio	24.666

	UNIT	HL960	HL960XT
Operating weight		19 425	20 225
		(42,830)	(41,940)
aped	m³ (yd³)	3.3 (4.0)	3.3 (4.0)
uck	m³ (yd³)	2.9 (3.8)	2.9 (3.8)
ucket	kg (lb)	16 670	16 430
		(35,160)	(34,500)
aight	kg (lb)	15 580	14 180
		(34,350)	(31,263)
lturn	kg (lb)	13 630	12 180
		(30,047)	(26,850)
	t aped uck ucket aight	t kg (lb)  apped m³ (yd³)  uck m³ (yd³)  ucket kg (lb)  aight kg (lb)	t kg (lb) 19 425 (42,830) apped m³ (yd³) 3.3 (4.0) auck m³ (yd³) 2.9 (3.8) aucket kg (lb) 16 670 (35,160) aight kg (lb) 15 580 (34,350) I turn kg (lb) 13 630

TIRES	
Туре	Tubeless, loader design tires
Standard	23.5 R25, ★, L3
Options include	23.5-25, 20 PR, L3
	23.5-25, 20 PR, L5
	23.5, R25 XHA2
	20.5-25, 16PR, L3

HYDRAULIC SYSTEM Type	Load-sensing hydraulic system
.,,pc	Variable-displacement piston pump,
Pump	246 lpm (65 gpm)
6	2-spool (bucket, boom)
Control valve	3-spool (bucket, boom, aux)
System pressure	280 kgf/cm² (3,983 psi)
Lift circuit	Valve has four functions:
	raise, hold, lower and float
	Can adjust automatic kick-out from
	horizontal to full lift
Tilt circuit	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: 2-140 mm (5.5") x 765 mm (30.1"
HL960	Tilt: 1-160 mm (6.3") x 530 mm (20.9"
HL960XT	Tilt: 1-180 mm (7.1") x 515 mm (20.3"
Cycle times	Raise: 5.9 sec
	Dump: 1.3 sec
	Lower: 3.1 sec
	Total: 10.3 sec

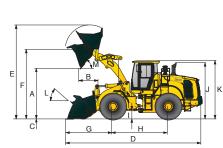
BRAKES	
Service brakes	Hydraulically actuated, wet-disc
	brakes actuate all 4 wheels
	Independent axle-by-axle system
	Self-adjusting and wheel speed brake
Parking brake	Spring-applied, hydraulically
	released brake
Emergency brake	When brake oil pressure drops,
	indicator light alerts operator, and
	parking brake automatically applies

STEERING SYSTEM	
Туре	Load-sensing hydrostatic articulated
	steering
Pump	Variable-displacement piston pump,
	120 lpm (32 gpm)
Relief valve setting	250 kgf/cm <sup>2</sup> (3,556 psi)
Cylinder	Double acting
	2-75 mm (2.9") x 424 mm (16.7")
Steering angle	40° both right and
	left angle, respectively
Additional features	Center-point frame articulation
	Tilt and telescopic steering column

SERVICE REFILL CAP	PACITIES
Fuel tank	300 ℓ (79.3 gal)
DEF tank	27 Q (7.1 gal)
Cooling system	42 Q (11.1 gal)
Crankcase	18 Q (4.8 gal)
Transmission	33 Q (8.7 gal)
Front axle	35 ℚ (9.2 gal)
Rear axle	35 ℓ (9.2 gal)
Hydraulic tank	110 ℓ (29.1 gal)
Hydraulic system	200 (52.8 gal)
(including tank)	

## DIMENSIONS All dimensions are approximate.





B 1 11					
Description		UNIT	HL960	HL960XT	
Bucket type		General purpose bolt-on cutting edge			
A. Dumping clearance at		mm	2 935	3 365	
max. height and 45°		(ft-in)	(9' 7.5")	(11' 0.5")	
dump an	gle				
B. Reach	Full lift	mm	1 295	1 390	
		(ft-in)	(4' 3.0")	(4' 6.7")	
	2 134 mm	mm	1 825	2 230	
	height	(ft-in)	(5' 11.9")	(7' 3.8")	
	(7 feet)				
C. Digging depth		mm (in)	90 (3.5")	145 (5.7")	
D. Overall	on ground	mm	8 140	8 695	
length		(ft-in)	(26' 8.5")	(28' 6.3")	
	at carry	mm	8 030	8 530	
		(ft-in)	(26' 4.1")	(27' 11.8")	

Description		UNIT	HL960	HL960XT
E. Overall height		mm	5 640	6 070
(fully raised)		(ft-in)	(18' 6.0")	(19' 11.0")
F. Bucket piv	ot height	mm	4 105	4 535
(max)		(ft-in)	(13' 5.6")	(14' 10.5")
G. Front ove	erhang	mm	2 810	3 275
		(ft-in)	(9' 2.6")	(10' 8.9")
H. Wheelba	se	mm	3 300	3 300
		(ft-in)	(10' 9.9")	(10' 9.9")
I. Ground cl	earance	mm	410	410
		(ft-in)	(1' 4.1")	(1' 4.1")
J. Height ov	er exhaust	mm	3 360	3 360
		(ft-in)	(11' 0.3")	(11' 0.3")
K. Height ov	er cab	mm	3 450	3 450
		(ft-in)	(11' 3.8")	(11' 3.8")
L. Rollback	on ground	deg	42	42
angle	at carry	deg	47	48
M. Dump ar		deg	50	50
Clearance c	ircle, over	mm	13 150	13 600
bucket (carr	y position)	(ft)	(43.14)	(44.62)
Clearance c	ircle,	mm	11 836	11 836
outside of ti	res	(ft)	(38.83)	(38.83)
Clearance c	ircle,	mm	6 368	6 368
inside of tire	es .	(ft)	(20.89)	(20.89)
N. Overall	with	mm	2 900	2 900
width	bucket	(ft-in)	(9' 6.2")	(9' 6.2")
	without	mm	2 770	2 770
	bucket	(ft-in)	(9' 1.1")	(9' 1.1")

HL960 / DENSITY	OF OPERATING MATERIALS			
Loose material		Material Density		
Earth/clay		1.5~1.7 tons / m³ (2,528~2,865 lbs / yd³)		
Sand and gravel		1.5~1.7 tons / m³ (2,528~2,865 lbs / yd³)		
Aggregate	25~76 mm (1" to 3")	$1.6 \sim 1.7 \text{ tons / m}^3 (2,697 \sim 2,865 \text{ lbs / yd}^3)$		
	19 mm (3") and larger	1.8 tons / m³ (3,034 lbs / yd³)		

Lift arm	Bucket	Type	Struck	Heaped
Entum Backet	Cutting edge	3.0 m³ (3.9 yd³)	3.4 m³ (4.4 yd³)	
		Cutting edge	2.9 m³ (3.8 yd³)	3.3 m³ (4.3 yd³)
		1-piece bolt-on tooth	2.8 m³ (3.7 yd³)	3.2 m³ (4.2 yd³)
Standard	General	2-piece bolt-on tooth	2.8 m³ (3.7 yd³)	3.2 m³ (4.2 yd³)
lift arm purpose	1-piece bolt-on tooth	2.7 m³ (3.6 yd³)	3.1 m³ (4.0 yd³)	
		2-piece bolt-on tooth	2.7 m³ (3.6 yd³)	3.1 m³ (4.0 yd³)
		1-piece bolt-on tooth with segment	2.9 m³ (3.8 yd³)	3.3 m <sup>3</sup> (4.3 yd <sup>3</sup> )
		2-piece bolt-on tooth with segment	2.9 m³ (3.8 yd³)	3.3 m³ (4.3 yd³)
		Cutting edge	3.0 m³ (3.9 yd³)	3.4 m³ (4.4 yd³)
		Cutting edge	2.9 m³ (3.8 yd³)	3.3 m³ (4.3 yd³)
	General purpose	1-piece bolt-on tooth	2.8 m³ (3.7 yd³)	3.2 m³ (4.2 yd³)
		2-piece bolt-on tooth	2.8 m³ (3.7 yd³)	3.2 m³ (4.2 yd³)
		1-piece bolt-on tooth	2.7 m³ (3.6 yd³)	3.1 m³ (4.0 yd³)
		2-piece bolt-on tooth	2.7 m³ (3.6 yd³)	3.1 m³ (4.0 yd³)
		1-piece bolt-on tooth with segment	2.9 m³ (3.8 yd³)	3.3 m³ (4.3 yd³)
		2-piece bolt-on tooth with segment	2.9 m³ (3.8 yd³)	3.3 m³ (4.3 yd³)