

SPECIFICATIONS

HL970

Tier 4 Final Engine



*Photo may include optional equipment.

Net Power

308 HP (230 kW) / 2,100 rpm

Operating Weight

24,040 kg / 52,999 lb

Standard Bucket

4.2 m³ / 5.5 yd³

 **HYUNDAI**
CONSTRUCTION EQUIPMENT

SPECIFICATIONS HL970

ENGINE	
Make/model	SCANIA / DC09 085A
Type	Water-cooled, 4-cycle, turbocharged charge air-cooled, direct-injection, electronically controlled diesel engine
Gross power	311 HP (232 kW) / 2100 rpm
Net power	308 HP (230 kW) / 2100 rpm
Maximum torque	174 kg·m (1259 lb-ft) / 1200 rpm
No. of cylinders	5
Bore x stroke	130 mm (5.12") x 140 mm (5.51")
Displacement	9.3ℓ (568 in ³)
Compression ratio	17.0 : 1
Air cleaner	Dry, two-stage dual elements
Alternator	24 V – 100 Amp
Battery	2 x 12 V – 200 Ah, 925 CCA
Starting motor	24 V - 6.0 kW

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

* Fully automatic power shift, countershaft type with soft-shift in range and direction.

Travel speed, km/h (mph)	4 speed T/M		5 speed T/M with lockup clutch	
	1st	7.3 (4.5)	7.2 (4.5)	7.2 (4.5)
Forward	2nd	12.2 (7.6)	12.4 (7.7)	12.4 (7.7)
	3rd	27.2 (16.9)	28.1 (17.5)	28.1 (17.5)
	4th	40.0 (24.9)	40.0 (24.9)	40.0 (24.9)
	5th			
Reverse	1st	7.3 (4.5)	7.2 (4.5)	7.2 (4.5)
	2nd	12.2 (7.6)	12.4 (7.7)	12.4 (7.7)
	3rd	27.2 (16.9)	28.1 (17.5)	28.1 (17.5)

AXLES	
Drive system	Four-wheel drive system
Mount	Rigid front axle and oscillating rear axle
Rear axle oscillation	Oscillation ±11° of center pin-loaded
Hub reduction	Planetary reduction at wheel end
Differential	Hydraulic lock (front) / conventional (rear)
Reduction ratio	24.666

OVERVIEW				
Description	UNIT	HL970	HL970XT	
Operating weight	kg (lb)	24,040 (52,909)	24,200 (53,352)	
Bucket capacity	Heaped	m ³ (yd ³)	4.2 (5.5)	4.2 (5.5)
	Struck	m ³ (yd ³)	3.6 (4.7)	3.6 (4.7)
Breakout force-bucket		kg (lb)	21,775 (48,006)	21,715 (47,873)
Tipping load	Straight	kg (lb)	19,250 (42,439)	16,100 (35,494)
		kg (lb)	16,660 (36,729)	13,850 (30,534)
	Full turn			

TIRES	
Type	Tubeless, loader design tires
Standard	26.5 R25, L3
Options include	26.5-25, 20PR, L3
	26.5-25, 20PR, L5
	26.5, R25 XHA2, L3
	23.5-25, 20PR, L3
	26.5-25, 28PR, L3
	26.5-25, 32PR, L3

HYDRAULIC SYSTEM	
Type	Load-sensing hydraulic system
Pump	Variable-displacement piston pump, 323 ℓ/min (85 gpm)
Control valve	3 spool (bucket, boom, aux)
System pressure	280 kgf/cm ² (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: 2-160 mm (6.3") x 780 mm (30.7")
	Tilt: 1-180 mm (7.1") x 565 mm (22.2") Tilt: 1-180 mm 7.1" x 570 mm (22.4")
Cycle time	Raise: 5.7 sec
	Dump: 1.4 sec
	Lower: 3.1 sec
	Total: 10.2 sec

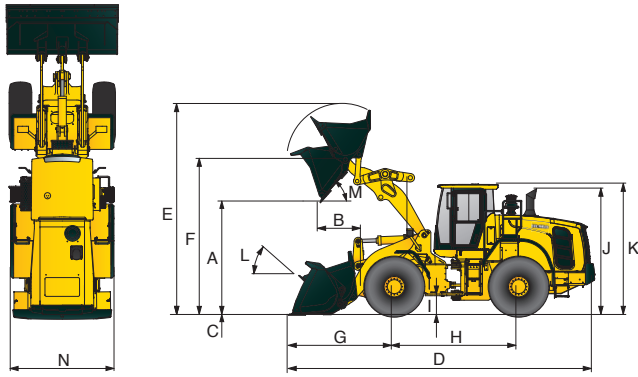
BRAKES	
Service brakes	Hydraulically actuated, wet-disc brakes actuate all 4 wheels independent axle-by-axle system Self-adjusting and wheel speed brake
Parking brake	Spring-applied, hydraulically released brake
Emergency brake	When brake oil pressure drops, indicator light alerts operator and parking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

STEERING SYSTEM	
Type	Load-sensing hydrostatic articulated steering
Pump	Variable-displacement piston pump, 208 ℓ/min (55 gpm)
Relief valve setting	210 kgf/cm ² (2,987 psi)
Cylinder	Double acting 2-95 mm (3.7") x 480 mm (18.9")
Steering angle	40° both right and left angle, respectively
Additional features	Center-point frame articulation Tilt and telescopic steering column

SERVICE REFILL CAPACITIES	
Fuel tank	300 ℓ (79.3 gal)
DEF tank	45 ℓ (11.9 gal)
Cooling system	42 ℓ (11.1 gal)
Crankcase	36 ℓ (9.5 gal)
Transmission	43 ℓ (11.4 gal)
Front axle	51 ℓ (13.5 gal)
Rear axle	40 ℓ (10.6 gal)
Hydraulic tank	152 ℓ (40.2 gal)
Hydraulic system (including tank)	276 ℓ (72.9 gal)

DIMENSIONS

All dimensions are approximate.



Description	UNIT	HL970	HL970XT
Bucket Type	General purpose bolt-on cutting edge		
A. Dumping clearance at max. height and 45° dump angle.	mm (ft-in)	3,080 (10' 1.3")	3,570 (11' 8.6")
B. Reach	Full lift	1,270 (4' 2.0")	1,305 (4' 3.4")
	2,134 mm height (7 feet)	1,905 (6' 3.0")	2,330 (7' 7.7")
C. Digging depth	mm (ft-in)	100 (3.9")	115 (4.5")
D. Overall length	on ground	8,740 (28' 8.1")	9,280 (30' 5.4")
	at carry	8,640 (28' 4.2")	9,145 (30')

Description	UNIT	HL970	HL970XT	
E. Overall height (fully raised)	mm (ft-in)	5,970 (19' 7.0")	6,460 (21' 2.3")	
F. Bucket pivot max. height	mm (ft-in)	4,330 (14' 2.5")	4,815 (15' 9.6")	
G. Front overhang	mm (ft-in)	3,025 (9' 11.1")	3,455 (11' 4.0")	
H. Wheelbase	mm (ft-in)	3,500 (11' 5.8")	3,500 (11' 5.8")	
I. Ground clearance	mm (ft-in)	480 (1' 6.9")	480 (1' 6.9")	
J. Height over exhaust	mm (ft-in)	3,515 (11' 6.4")	3,515 (11' 6.4")	
K. Height over cab	mm (ft-in)	3,590 (11' 9.3")	3,590 (11' 9.3")	
L. Roll-back angle	on ground	43 deg	43 deg	
	at carry	47 deg	49 deg	
M. Dump angle	deg	50	50	
Clearance circle, over bucket (carry position)	mm (ft)	14,030 (46)	14,430 (47.34)	
	Clearance circle, outside of tires	mm (ft)	12,878 (42.25)	12,878 (42.25)
Clearance circle, inside of tires	mm (ft)	6,928 (22.73)	6,928 (22.73)	
	with bucket	mm (ft-in)	3,100 (10' 2.1")	3,100 (10' 2.1")
N. Overall width	without bucket	mm (ft-in)	2,975 (9' 9.1")	2,975 (9' 9.1")
	bucket	mm (ft-in)	2,975 (9' 9.1")	2,975 (9' 9.1")

HL970 / DENSITY OF OPERATING MATERIALS

Loose material	Material Density
Earth/clay	1.5~1.7 tons / m ³ (2,528~2,865 lb / yd ³)
Sand and gravel	1.5~1.7 tons / m ³ (2,528~2,865 lb / yd ³)
Aggregate	25~76 mm (1" to 3")
	19 mm (3/4") and larger
	1.6~1.7 tons / m ³ (2,697~2,865 lb / yd ³)
	1.8 tons / m ³ (3,034 lb / yd ³)

HL970 / DENSITY OF OPERATING MATERIALS

Lift arm	Bucket Type	m ³ (yd ³)	Material Density [t/m ³]															
			1.0 (1,686)	1.1 (1,854)	1.2 (2,023)	1.3 (2,191)	1.4 (2,360)	1.5 (2,528)	1.6 (2,697)	1.7 (2,865)	1.8 (3,034)	1.9 (3,203)	2.0 (3,371)	2.1 (3,540)	2.2 (3,708)	2.3 (3,877)	2.4 (4,045)	
Standard General lift arm Purpose	Cutting edge	4.2 (5.5)	4.8 m ³ (6.3 yd ³)															
	Cutting edge	5.2 (6.8)	6.0 m ³ (7.8 yd ³)															
	1-piece bolt-on tooth	4.0 (5.2)	4.6 m ³ (6.0 yd ³)															
	1-piece bolt-on tooth	5.0 (6.5)	5.8 m ³ (7.6 yd ³)															
	2-piece bolt-on tooth	4.0 (5.2)	4.6 m ³ (6.0 yd ³)															
	2-piece bolt-on tooth	5.0 (6.5)	5.8 m ³ (7.6 yd ³)															
	2-piece bolt-on tooth and segment edge	4.2 (5.5)	4.8 m ³ (6.3 yd ³)															
	Spade-nose rock	3.7 (4.8)	4.3 m ³ (5.7 yd ³)															
High-lift arm (XT)	Cutting edge	4.2 (5.5)	4.8 m ³ (6.3 yd ³)															
	Cutting edge	5.2 (6.8)	6.0 m ³ (7.8 yd ³)															
	1-piece bolt-on tooth	4.0 (5.2)	4.6 m ³ (6.0 yd ³)															
	1-piece bolt-on tooth	5.0 (6.5)	5.8 m ³ (7.6 yd ³)															
	2-piece bolt-on tooth	4.0 (5.2)	4.6 m ³ (6.0 yd ³)															
	2-piece bolt-on tooth	5.0 (6.5)	5.8 m ³ (7.6 yd ³)															
	2-piece bolt-on tooth and segment edge	4.2 (5.5)	4.8 m ³ (6.3 yd ³)															
	Spade-nose rock	3.7 (4.8)	4.3 m ³ (5.7 yd ³)															

CAB & INTERIOR	STD	OPT
Alternator, 100 Amp	•	
Alarms, audible and visual		
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		
925 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)	•	
Lighting system		
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 grill	•	
Switches		
Hazard	•	
Ignition	•	
Parking	•	
Battery master switch	•	
FNR	•	
Diff lock	•	
SCR cleaning / inhibit	•	
Secondary steering test		•
Pilot cutoff	•	
Integrated monitor switches		
Main light switch	•	
Work light switch	•	
Auto grease switch	•	
Quick coupler switch	•	
Ride control switch	•	
Work load switch	•	
Beacon lamp switch	•	
Rear wiper switch	•	
Mirror heat switch	•	
Auto position switch	•	
Fine modulation switch	•	

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		
3" 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		
One accelerator pedal	•	
One brake pedal	•	
Dual-brake pedal		•
Radio / USB player	•	
Bluetooth	•	
Miracast	•	
Rubber floor mat	•	
Armrest	•	
24V to 12V DC converter (20 amps)	•	

ENGINE	STD	OPT
Engine, SCANIA, DC09 085A		
Tier 4 Final / Stage 4	•	
Engine enclosure, lockable	•	
Engine fuel priming pump	•	
Fan guard	•	
Reversible cooling fan	•	
Fuel/water separator	•	
Antifreeze	•	
Clean emission module		
DOC and SCR	•	
Radiator	•	
Fuel heater	•	
Coolant-level sight gauge	•	
Engine oil-level dipstick gauge	•	
3-stage air precleaner	•	
Fuel heater (dual)		•
Air cleaner with auto dust eject	•	

POWER TRAIN	STD	OPT
Brakes: service, enclosed wet-disc		
Parking brake	•	
Torque converter	•	
Transmission F4 / R3, computer-controlled, electronic soft-shift, auto-shift and kick-down features included	•	
Transmission F5 / R3 with lockup clutch		•
Transmission oil sight level	•	
Limited slip differential (front, rear)		•
Transmission oil cooler	•	
Transmission oil cooler with thermostat		•
Hydraulic lock differential (front) / Conventional differential (rear)	•	
Front and rear axle coolers		•
Hydraulic lock differential (front) / Limited slip differential differential (rear)		•

POWER TRAIN	STD	OPT
Tires		
26.5 R25, L3	•	
26.5 - 25, 20PR, L3		•
26.5 - 25, 20PR, L5		•
26.5 R25, XHA2, L3		•
23.5-25, 20PR, L3		•
26.5-25, 28PR, L3		•
26.5-25, 32PR, 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, 3 spool	•	
Fingertip 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		•

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 and right	•	
Handrails	•	
Ladders	•	
Platforms	•	
Steps	•	
Hydraulic oil-level sight gauge	•	
Lift and tie-down hooks	•	
Loader linkage, sealed	•	
Z-bar design	•	
Vandalism protection caplocks	•	
Tool kit		•
Tooth, 1 piece, bolt-on type		•
Tooth, 2 pieces, bolt-on type		•
Cutting edge, bolt-on type	•	
Pallet forks		•
Guards		
Crankcase		•
Transmission		•
Half fenders front and rear	•	
Full rear fenders		•
Wheel chock		•
License plate and lamp		•
Hi-mate remote management system		
Mobile	•	
Satellite		•

SAFETY	STD	OPT
Beacon light, rotating		•
Fire extinguisher		•
Operator suit		•
Rearview camera	•	

* 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.



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