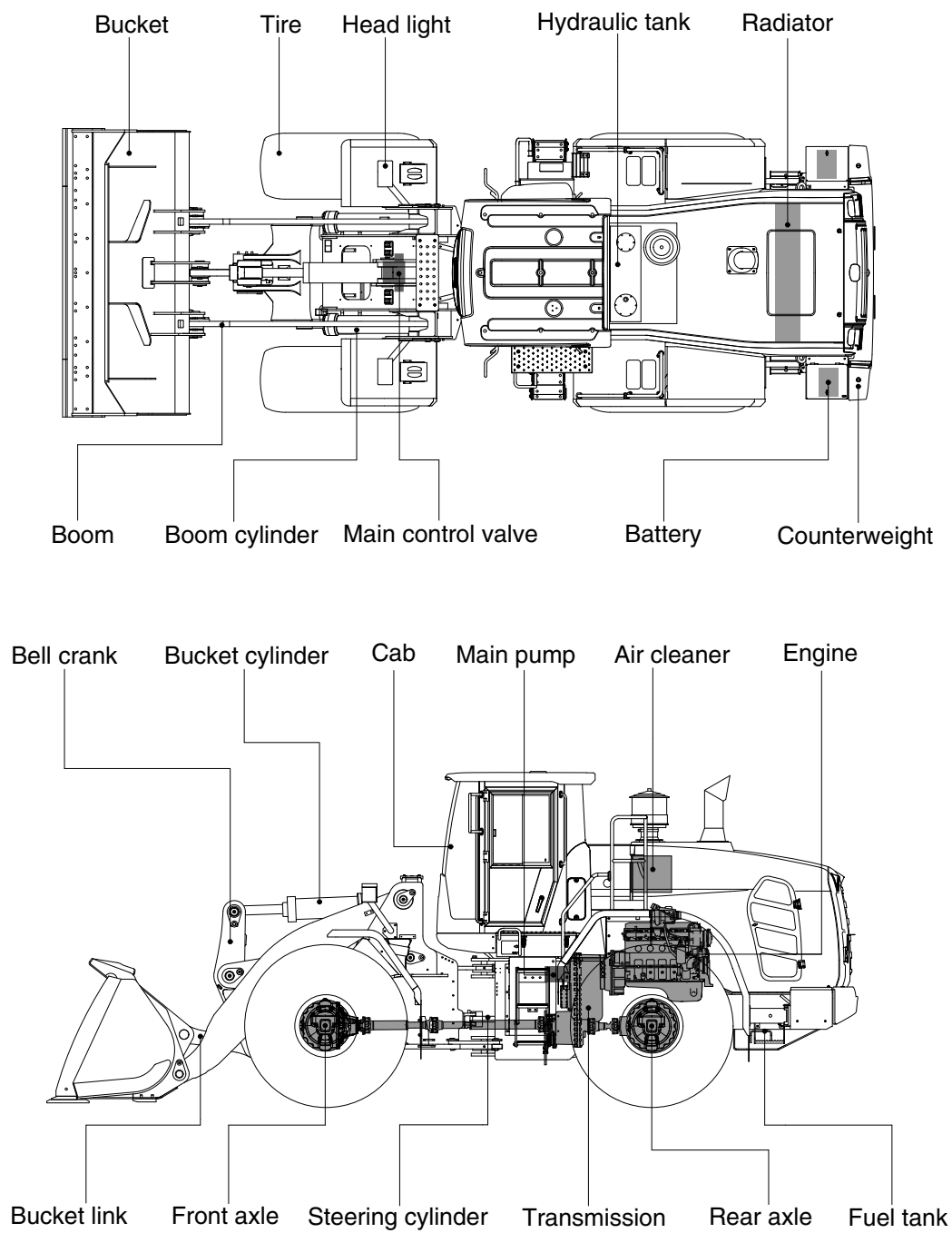


2. SPECIFICATIONS

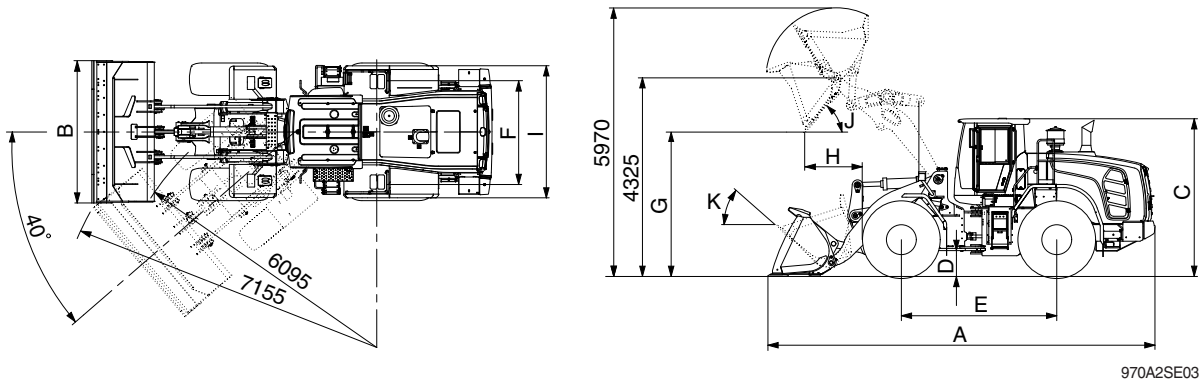
1. MAJOR COMPONENTS



970SA2SE01

2. SPECIFICATIONS

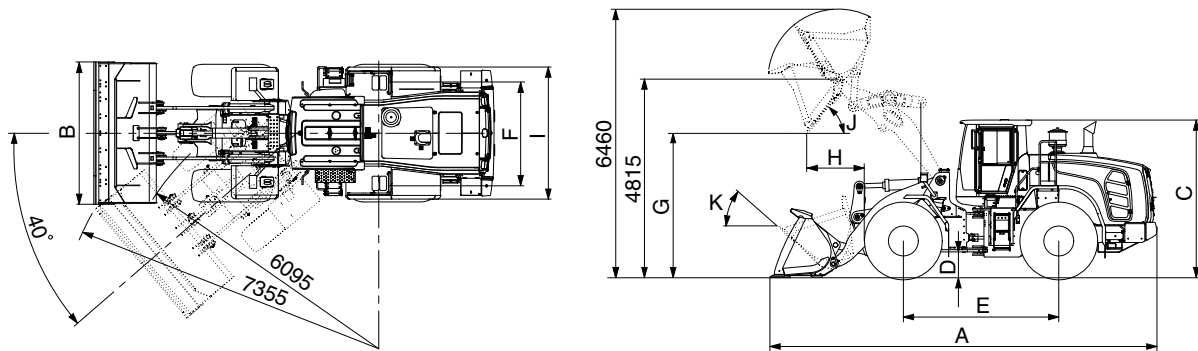
1) WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL970 T3)



970A2SE03

Description			Unit	Specification
Operating weight			kg (lb)	23800 (52475)
Bucket capacity	Struck		m³ (yd³)	4.6 (6.0)
	Heaped			4.2 (5.5)
Overall length	A		mm (ft-in)	8740 (28' 8")
Overall width	B			3100 (10' 2")
Overall height	C			3590 (11' 9")
Ground clearance	D			480 (1' 7")
Wheelbase	E			3500 (11' 6")
Tread	F			2300 (7' 7")
Dump clearance at 45°	G			3080 (10' 1")
Dump reach (full lift)	H			1270 (4' 2")
Width over tires	I			2980 (9' 9")
Dump angle	J			degree (°)
Roll back angle (carry position)	K		47	
Cycle time	Lift (with load)		sec	6.0
	Dump (with load)			1.5
	Lower (empty)			4.3
Maximum travel speed			km/hr (mph)	40.0 (24.9))
Braking distance			m (ft-in)	13.3 (43' 8")
Minimum turning radius (center of outside tire)				6.09 (20' 0")
Gradeability			degree (°)	30
Breakout force			kg (lb)	21715 (47875)
Travel speed	Forward	First gear	km/hr (mph)	7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)
		Fourth gear		40.0 (24.9)
	Reverse	First gear		7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)

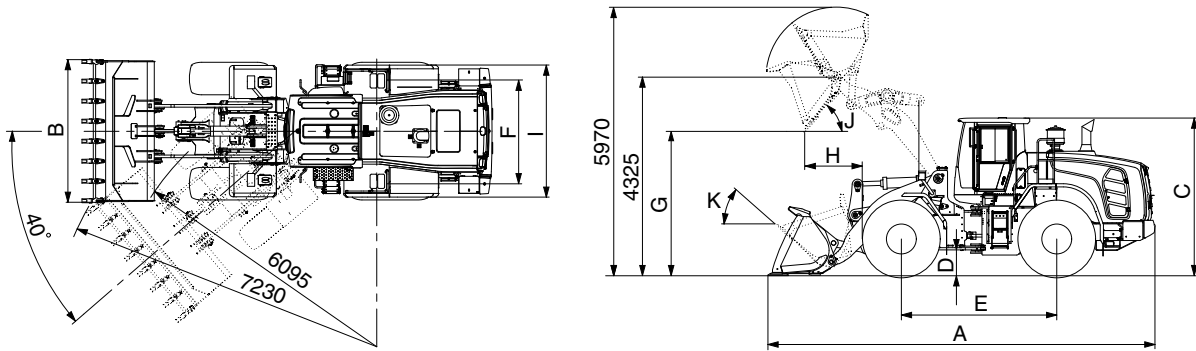
WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL970XT T3)



970A2SE03-1

Description			Unit	Specification
Operating weight			kg (lb)	24600 (54235)
Bucket capacity	Struck		m³ (yd³)	4.6 (6.0)
	Heaped			4.2 (5.5)
Overall length	A		mm (ft-in)	9280 (30' 5")
Overall width	B			3100 (10' 2")
Overall height	C			3590 (11' 9")
Ground clearance	D			480 (1' 7")
Wheelbase	E			3500 (11' 6")
Tread	F			2300 (7' 7")
Dump clearance at 45°	G			3570 (11' 9")
Dump reach (full lift)	H			1255 (4' 1")
Width over tires	I			2980 (9' 9")
Dump angle	J			degree (°)
Rollback angle (carry position)	K		49	
Cycle time	Lift (with load)		sec	6.0
	Dump (with load)			1.5
	Lower (empty)			4.3
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	13.3 (43' 8")
Minimum turning radius (center of outside tire)				6.09 (20' 0")
Gradeability			degree (°)	30
Breakout force			kg (lb)	21775 (48010)
Travel speed	Forward	First gear	km/hr (mph)	7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)
		Fourth gear		40.0 (24.9)
	Reverse	First gear		7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)

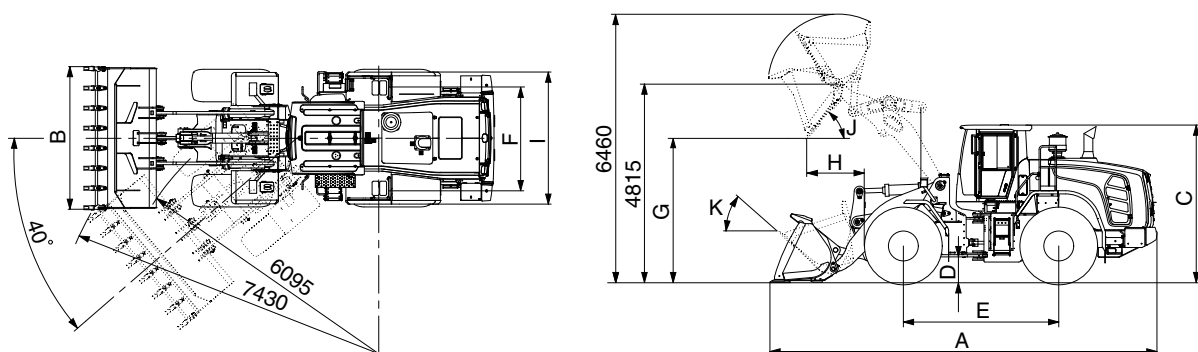
2) WITH TOOTH TYPE BUCKET (HL970 T3)



970A2SE04

Description			Unit	Specification
Operating weight			kg (lb)	23710 (52275)
Bucket capacity	Struck		m³ (yd³)	4.4 (5.8)
	Heaped			4.0 (5.2)
Overall length	A		mm (ft-in)	8890 (29' 2")
Overall width	B			3150 (10' 4")
Overall height	C			3590 (11' 9")
Ground clearance	D			480 (1' 7")
Wheelbase	E			3500 (11' 6")
Tread	F			2300 (7' 7")
Dump clearance at 45°	G			2955 (9' 8")
Dump reach (full lift)	H			1355 (4' 6")
Width over tires	I			2980 (9' 9")
Dump angle	J			degree (°)
Rollback angle (carry position)	K		47	
Cycle time	Lift (with load)		sec	6.0
	Dump (with load)			1.5
	Lower (empty)			4.3
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	13.3 (43' 8")
Minimum turning radius (center of outside tire)				6.09 (20' 0")
Gradeability			degree (°)	30
Breakout force			kg (lb)	22990 (50685)
Travel speed	Forward	First gear	km/hr (mph)	7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)
		Fourth gear		40.0 (24.9)
	Reverse	First gear		7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)

WITH TOOTH TYPE BUCKET (HL970XT T3)



970A2SE04-1

Description			Unit	Specification
Operating weight			kg (lb)	24510 (54035)
Bucket capacity	Struck		m³ (yd³)	4.4 (5.8)
	Heaped			4.0 (5.2)
Overall length	A		mm (ft-in)	9430 (31' 11")
Overall width	B			3150 (10' 4")
Overall height	C			3590 (11' 9")
Ground clearance	D			480 (1' 7")
Wheelbase	E			3500 (11' 6")
Tread	F			2300 (7' 7")
Dump clearance at 45°	G			3445 (11' 4")
Dump reach (full lift)	H			1340 (4' 5")
Width over tires	I			2980 (9' 9")
Dump angle	J			degree (°)
Rollback angle (carry position)	K		49	
Cycle time	Lift (with load)		sec	6.0
	Dump (with load)			1.5
	Lower (empty)			4.3
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	13.3 (43' 8")
Minimum turning radius (center of outside tire)				6.09 (20' 0")
Gradeability			degree (°)	30
Breakout force			kg (lb)	23050 (50820)
Travel speed	Forward	First gear	km/hr (mph)	7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)
		Fourth gear		40.0 (24.9)
	Reverse	First gear		7.0 (4.3)
		Second gear		11.8 (7.3)
		Third gear		26.2 (16.3)

3. WEIGHT

Item		kg	lb
Front frame assembly		2149	4740
Rear frame assembly		2340	5160
Front fender (LH & RH)		43/43	95/95
Counterweight (HL970 T3)		1100	2425
Counterweight (HL970XT T3)		1600	3527
Cab assembly		1208	2665
Engine assembly		738	1630
Transmission assembly (4-speed)		760	1680
Driveshaft (front)		41	95
Driveshaft (center)		39	90
Driveshaft (rear)		21	50
Front axle (include differential)		1200	2650
Rear axle (include differential)		1280	2825
Tire (26.5 R25, ★★, L3) / 1EA		712	1570
Hydraulic tank assembly		232	515
Fuel tank assembly		381	845
Main pump assembly		84	190
Fan & brake pump assembly		14	35
Main control valve (2 spool/3 spool)		90/106	200/235
Flow amplifier		28	65
Boom assembly	HL970 T3	1630	3595
	HL970XT T3	1940	4280
Bell crank assembly		483	1065
Bucket link		76	170
4.2 m³ bucket, with bolt on cutting edge		2221	4900
4.0 m³ bucket, with tooth		2156	4755
3.7 m³ bucket (Spade nose rock type)		2808	6195
Boom cylinder assembly (LH/RH)		200/200	445/445
Bucket cylinder assembly	HL970 T3	209	465
	HL970XT T3	233	515
Steering cylinder assembly (LH/RH)		44/44	100/100
Under guard kit		73	165
Engine hood assy		355	785
Mud guard assy (LH/RH)		45/40	100/90
Quick coupler assy (ISO type)		685	1515
Battery (1EA)		52	115

4. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	HYUNDAI HE8.9
Type	4-cycle turbocharged, charge air cooled diesel engine
Control type	Electronic control
Cooling method	Water cooled
Number of cylinders and arrangement	6 cylinders, in-line
Firing order	1-5-3-6-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	114 × 145 mm (4.5" × 5.7")
Piston displacement	8900 cc (543 cu in)
Compression ratio	17.8 : 1
Gross power	280 hp (209 kW) at 2000 rpm
Net power	275 hp (205 kW) at 2000 rpm
Maximum power	280 hp (209 kW) at 2000 rpm
Peak gross torque	148 kgf · m (1070 lbf · ft) at 1400 rpm
Engine oil quantity	22.7 ℓ (6.0 U.S. gal)
Wet weight	738 kg (1627 lb)
Starting motor	24 V - 7.8 kW
Alternator	24 V - 70 Amp
Battery	2 × 12 V × 200 Ah

2) MAIN PUMP

Item	Specification	
	Steering	Loader
Type	Variable tandem piston pump	
Capacity	110 cc/rev	61 cc/rev
Maximum operating pressure	210 kgf/cm ² (2990 psi)	280 kgf/cm ² (3980 psi)
Rated oil quantity (at 2200 rpm)	242 ℓ /min (63.9 U.S.gpm)	134 ℓ /min (35.4 U.S.gpm)
Maximum speed	2100 rpm	

3) FAN + BRAKE PUMP

Item	Specification
Type	Variable piston pump
Capacity	28 cc/rev
Maximum operating pressure	250 kgf/cm ² (3560 psi)
Rated oil quantity (at 2200rpm)	62 ℓ /min (16.3 U.S.gpm)
Maximum speed	2100 rpm

4) MAIN CONTROL VALVE

Item	Specification
Type	2 spool / 3 spool
Operating method	Hydraulic pilot assist
Main relief valve pressure	280 kgf/cm ² (3980 psi)
Overload relief valve pressure	340 kgf/cm ² (4840 psi)

5) REMOTE CONTROL VALVE (EH TYPE)

Item	Specification
Type	Fingertip
Axle	Single axle for boom, bucket, auxiliary
Operating voltage	4.5~5.5 V
Output signal	0.5~4.5 V (neutral 2.5 V)

6) REMOTE CONTROL VALVE (FNR TYPE)

Item	Specification
Type	Joystick
Axle	Two axle for boom, bucket, roller for auxiliary
Operating type	CAN J1939
Baud rate	500 kbps

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø 165 × Ø 95 × 780 mm
Bucket cylinder (HL970 T3)	Bore dia × Rod dia × Stroke	Ø 180 × Ø 95 × 565 mm
Bucket cylinder (HL970XT T3)	Bore dia × Rod dia × Stroke	Ø 180 × Ø 95 × 570 mm
Steering cylinder	Bore dia × Rod dia × Stroke	Ø 95 × Ø 50 × 468 mm

8) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification
Transmission	Model	ZF 4WG 260
	Type	Converter
		Single-stage, single-phase
	Transmission	
	Full-automatic power shift	
	Gear shift	
	Forward fourth gear, reverse third gear	
Transmission	Control	
	Electrical single lever type, kick-down system	
	Automatic kick down from 2nd to 1st gear	
	FNR switch on joystick lever (option)	
	Pump rated flow	
	115 ℓ /min (30.4 U.S.gpm) at 2000 rpm	
	Travel speed	
	See the page 2-2.	
Axle	Drive devices	
	4-wheel drive	
	Front	
Axle	Front fixed location	
	Rear	
	Oscillation ± 12° of center pin-loaded	
Wheels	Tires	
		26.5 R25, ★★, L3
Brakes	Travel	
	Four-wheel, wet-disc type, full hydraulic	
Brakes	Parking	
	Spring applied, hydraulic released brake on T/M	
Steering	Type	
	Full hydraulic, articulated	
Steering	Steering angle	
	40° to both right and left angle, respectively	