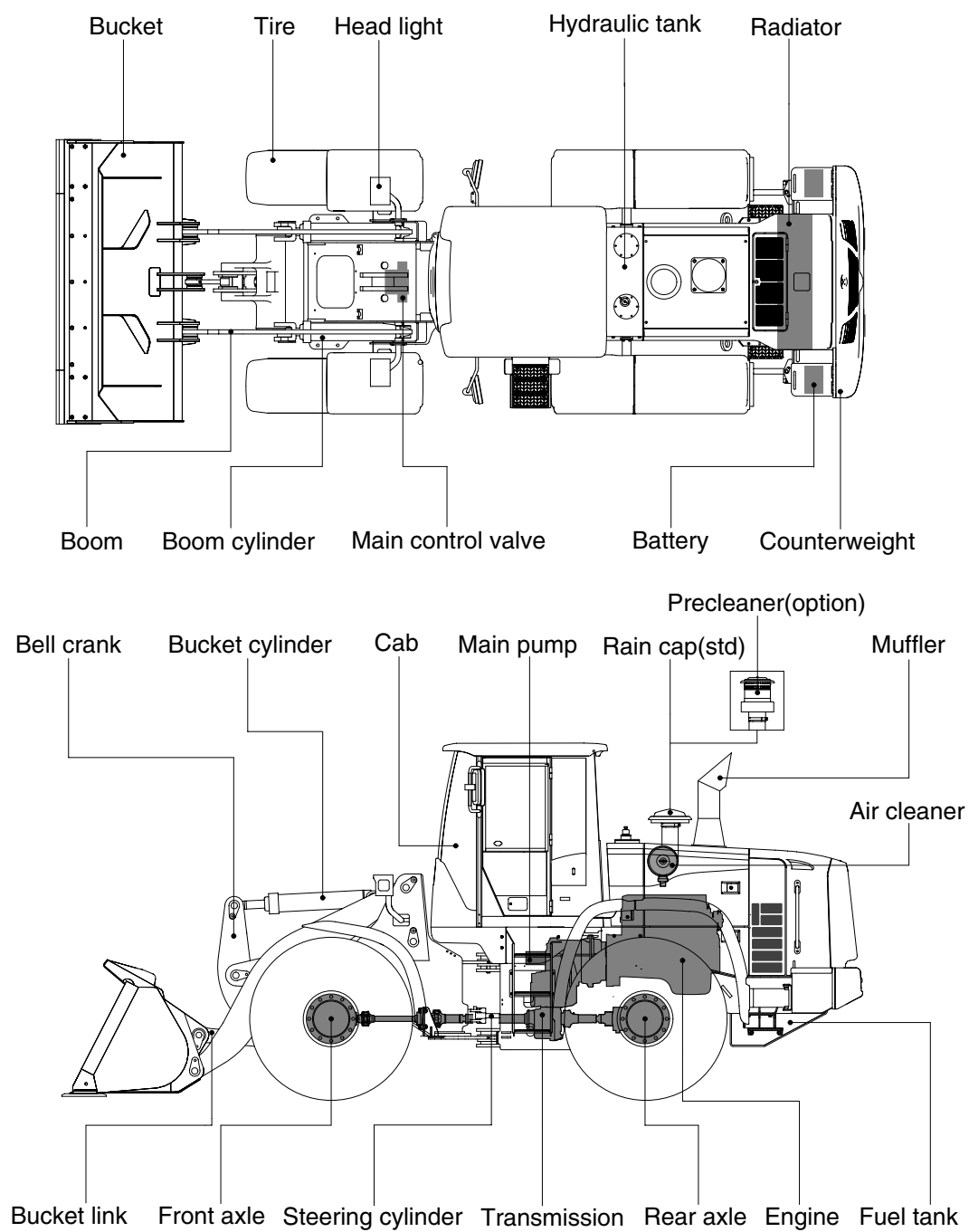


## 2. SPECIFICATIONS

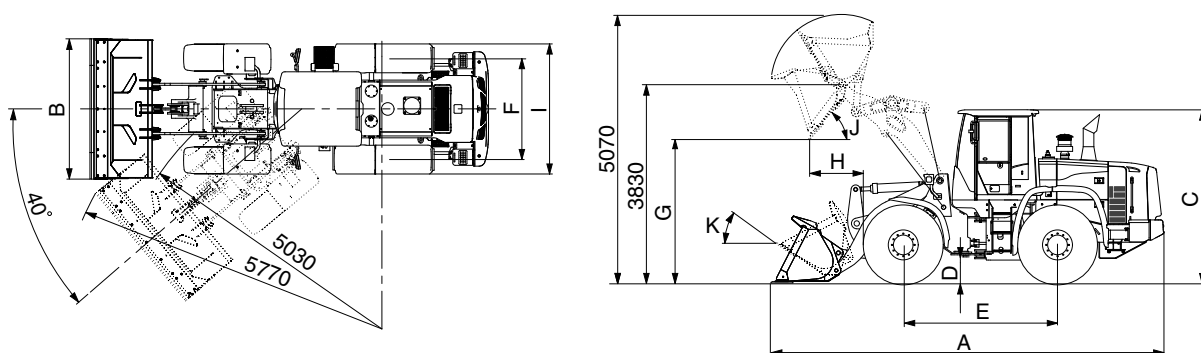
### 1. MAJOR COMPONENTS



7409S2SP05

## 2. SPECIFICATIONS

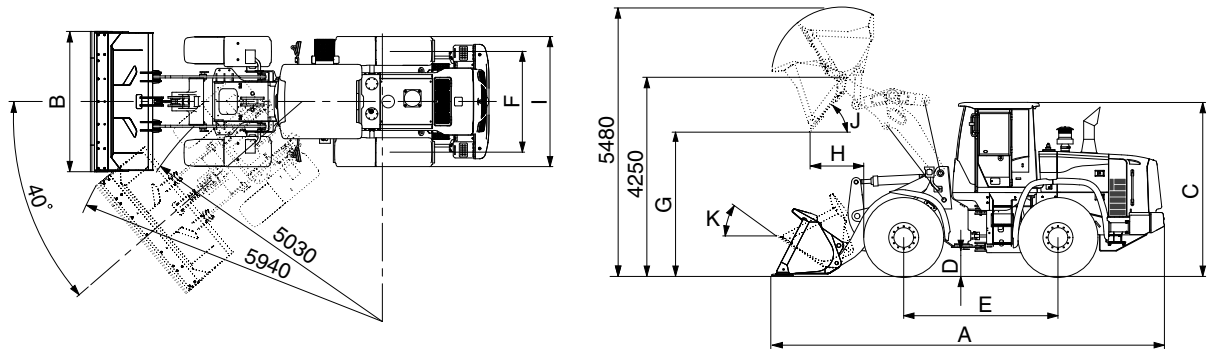
### 1) WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL740-9S)



7409S2SP01

Description			Unit	Specification
Operating weight			kg (lb)	11550 (25460)
Bucket capacity	Struck	m³ (yd³)	1.78 (2.3)	
	Heaped		2.1 (2.7)	
Overall length	A	mm (ft-in)	7260 (23' 10")	
Overall width	B		2550 (8' 4")	
Overall height	C		3310 (10' 10")	
Ground clearance	D		417 (1' 4")	
Wheelbase	E		2900 (9' 6")	
Tread	F		1900 (6' 3")	
Dump clearance at 45°	G		2850 (9' 4")	
Dump reach (full lift)	H		970 (3' 2")	
Width over tires	I		2430 (8' 0")	
Dump angle	J		degree (°)	48
Roll back angle (carry position)	K	47		
Cycle time	Lift (with load)	sec	5.8	
	Dump (with load)		1.3	
	Lower (empty)		3.1	
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	12 (39' 4")
Minimum turning radius (center of outside tire)				5.03 (16' 6")
Gradeability			degree (°)	30
Breakout force			kg (lb)	11880 (26190)
Travel speed	Forward (DANA axle/ZF axle)	First gear	km/hr (mph)	6.9 (4.3) / 7.0 (4.3)
		Second gear		12.5 (7.8) / 12.8 (8.0)
		Third gear		24.1 (15.0) / 24.5 (15.2)
		Fourth gear		40.0 (24.9)
	Reverse (DANA axle/ZF axle)	First gear		7.2 (4.5) / 7.4 (4.6)
		Second gear		13.2 (8.2) / 13.4 (8.3)
		Third gear		25.3 (15.7) / 25.8 (16.0)

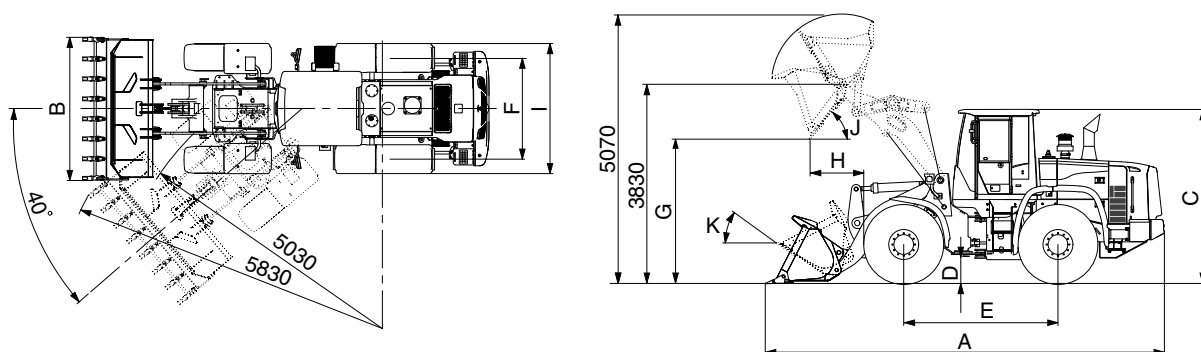
## WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL740XTD-9S)



7409S2SP02

Description			Unit	Specification		
Operating weight			kg (lb)	11850 (26120)		
Bucket capacity	Struck	m³ (yd³)		1.78 (2.3)		
	Heaped			2.1 (2.7)		
Overall length	A	mm (ft-in)		7710 (25' 4")		
Overall width	B			2550 (8' 4")		
Overall height	C			3310 (10' 10")		
Ground clearance	D			417 (1' 4")		
Wheelbase	E			2900 (9' 6")		
Tread	F			1900 (6' 3")		
Dump clearance at 45°	G			3270 (10' 8")		
Dump reach (full lift)	H			965 (3' 2")		
Width over tires	I			2430 (8' 0")		
Dump angle	J			degree (°)		47
Roll back angle (carry position)	K					49
Cycle time	Lift (with load)	sec		5.8		
	Dump (with load)			1.3		
	Lower (empty)			3.1		
Maximum travel speed			km/hr (mph)	40.0 (24.9)		
Braking distance			m (ft-in)	12 (39' 4")		
Minimum turning radius (center of outside tire)				5.03 (16' 6")		
Gradeability			degree (°)	30		
Breakout force			kg (lb)	11730 (25860)		
Travel speed	Forward (DANA axle/ZF axle)	First gear	km/hr (mph)	6.9 (4.3) / 7.0 (4.3)		
		Second gear		12.5 (7.8) / 12.8 (8.0)		
		Third gear		24.1 (15.0) / 24.5 (15.2)		
		Fourth gear		40.0 (24.9)		
	Reverse (DANA axle/ZF axle)	First gear		7.2 (4.5) / 7.4 (4.6)		
		Second gear		13.2 (8.2) / 13.4 (8.3)		
		Third gear		25.3 (15.7) / 25.8 (16.0)		

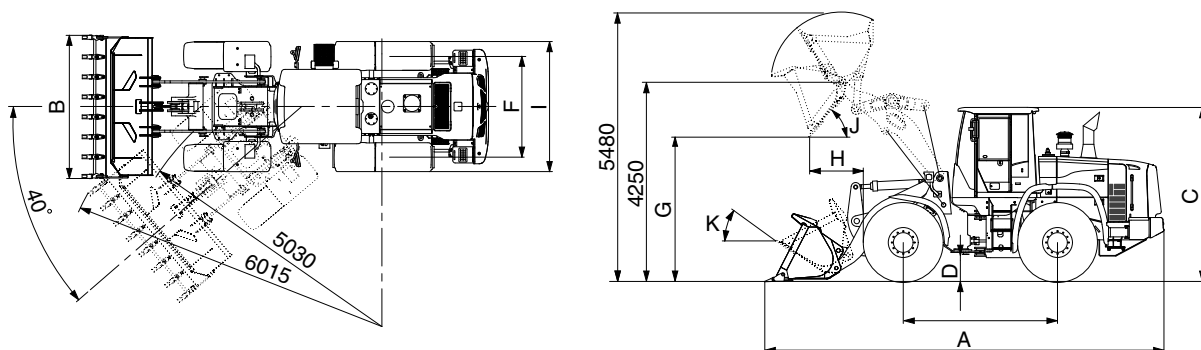
## 2) WITH TOOTH TYPE BUCKET (HL740-9S)



7409S2SP03

Description			Unit	Specification
Operating weight			kg (lb)	11550 (25460)
Bucket capacity	Struck	m³ (yd³)		1.7 (2.2)
	Heaped			2.0 (2.6)
Overall length	A	mm (ft-in)		7370 (24' 2")
Overall width	B			2600 (8' 6")
Overall height	C			3310 (10' 10")
Ground clearance	D			417 (1' 4")
Wheelbase	E			2900 (9' 6")
Tread	F			1900 (6' 3")
Dump clearance at 45°	G			2770 (9' 1")
Dump reach (full lift)	H			1035 (3' 5")
Width over tires	I			2430 (8' 0")
Dump angle	J			degree (°)
Roll back angle (carry position)	K	47		
Cycle time	Lift (with load)	sec		5.8
	Dump (with load)			1.3
	Lower (empty)			3.1
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	12 (39' 4")
Minimum turning radius (center of outside tire)				5.03 (16' 6")
Gradeability			degree (°)	30
Breakout force			kg (lb)	12810 (28240)
Travel speed	Forward (DANA axle/ZF axle)	First gear	km/hr (mph)	6.9 (4.3) / 7.0 (4.3)
		Second gear		12.5 (7.8) / 12.8 (8.0)
		Third gear		24.1 (15.0) / 24.5 (15.2)
		Fourth gear		40.0 (24.9)
	Reverse (DANA axle/ZF axle)	First gear		7.2 (4.5) / 7.4 (4.6)
		Second gear		13.2 (8.2) / 13.4 (8.3)
		Third gear		25.3 (15.7) / 25.8 (16.0)

## WITH TOOTH TYPE BUCKET (HL740XTD-9S)



7409S2SP04

Description			Unit	Specification
Operating weight			kg (lb)	11850 (26120)
Bucket capacity	Struck		m³ (yd³)	1.7 (2.2)
	Heaped			2.0 (2.6)
Overall length	A		mm (ft-in)	7890 (25' 11")
Overall width	B			2600 (8' 6")
Overall height	C			3310 (10' 10")
Ground clearance	D			417 (1' 4")
Wheelbase	E			2900 (9' 6")
Tread	F			1900 (6' 3")
Dump clearance at 45°	G			3170 (10' 5")
Dump reach (full lift)	H			1045 (3' 5")
Width over tires	I			2430 (8' 0")
Dump angle	J			degree (°)
Roll back angle (carry position)	K		49	
Cycle time	Lift (with load)		sec	5.8
	Dump (with load)			1.3
	Lower (empty)			3.1
Maximum travel speed			km/hr (mph)	40.0 (24.9)
Braking distance			m (ft-in)	12 (39' 4")
Minimum turning radius (center of outside tire)				5.03 (16' 6")
Gradeability			degree (°)	30
Breakout force			kg (lb)	12650 (27890)
Travel speed	Forward (DANA axle/ZF axle)	First gear	km/hr (mph)	6.9 (4.3) / 7.0 (4.3)
		Second gear		12.5 (7.8) / 12.8 (8.0)
		Third gear		24.1 (15.0) / 24.5 (15.2)
		Fourth gear		40.0 (24.9)
	Reverse (DANA axle/ZF axle)	First gear		7.2 (4.5) / 7.4 (4.6)
		Second gear		13.2 (8.2) / 13.4 (8.3)
		Third gear		25.3 (15.7) / 25.8 (16.0)

### 3. WEIGHT

Item		kg	lb
Front frame assembly		880	1940
Rear frame assembly		1270	2800
Front fender (LH & RH)		31	68
Counterweight	HL740-9S	700	1540
	HL740XTD-9S	900	1980
Cab assembly		610	1340
Engine assembly		437	963
Transmission assembly		410	904
Drive shaft (front)		18	40
Drive shaft (center)		16	35
Drive shaft (rear)		12	26
Front axle (include differential)		650	1430
Rear axle (include differential)		645	1420
Tire (20.5-25, 16PR, L3)		203	448
Hydraulic tank assembly		170	375
Fuel tank assembly		220	485
Main pump assembly		28	62
Fan & brake pump assembly		7	15
Main control valve (2/3 spool)		21/28	46/62
Boom assembly	HL740-9S	725	1600
	HL740XTD-9S	815	1800
Bell crank assembly		230	510
Bucket link		37	80
2.3 m <sup>3</sup> bucket, with bolt on cutting edge		940	2070
2.2 m <sup>3</sup> bucket, with tooth		905	2000
Boom cylinder assembly		90	198
Bucket cylinder assembly		111	245
Steering cylinder assembly		19	42
Seat		40	88
Battery		28	62

## 4. SPECIFICATION FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Cummins 6BTA5.9
Type	4-cycle turbocharged diesel engine.
Cooling method	Water cooling
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	102 × 120 mm (4.0" × 4.7")
Piston displacement	5880 cc (359 cu in)
Compression ratio	17.6 : 1
Rated gross horse power	150 hp at 2200 rpm
Maximum gross torque at 1400rpm	68 kgf·m (493 lbf·ft)
Engine oil quantity	15ℓ (4.0 U.S. gal)
Dry weight	413 kg (963 lb)
High idling speed	2300 ± 50 rpm
Low idling speed	950 ± 25 rpm
Rated fuel consumption (at rated)	223 g/kw·hr
Starting motor	Lucas (24 V-4.5 kW)
Alternator	Lucas (24 V-90 Amp)
Battery	2 × 12 V × 115 Ah

## 2) MAIN PUMP

Item	Specification
Type	Gear pump
Capacity	40.4 + 40.4 cc/rev
Maximum operating pressure	210 kgf/cm <sup>2</sup> (2990 psi)
Rated operating speed	2200 rpm
Rated output flow	167 l /min (44.2 U.S.gpm)

## 3) FAN AND BRAKE PUMP

Item	Specification	
	Fan	Brake
Type	Fixed displacement tandem helical gear pump	
Capacity	9.1 cc/rev	9.1 cc/rev
Maximum operating pressure	120 kgf/cm <sup>2</sup> (1710 psi)	150 kgf/cm <sup>2</sup> (2130 psi)
Rated operating speed	2200 rpm	2200 rpm
Rated output flow	21 l /min (5.5 U.S.gpm)	21 l /min (5.5 U.S.gpm)

## 4) MAIN CONTROL VALVE

Item	Specification
Type	2 spool (sectional block)
Operating method	Hydraulic pilot assist
Main relief valve set pressure	210 kgf/cm <sup>2</sup> (2990 psi)
Overload relief valve set pressure	240 kgf/cm <sup>2</sup> (3410 psi)

## 5) REMOTE CONTROL VALVE

Item	Specification
Type	Joystick (or with aux lever)
Control pressure	Minimum 3.7 kgf/cm <sup>2</sup> (52.6 psi)
	Maximum 30 kgf/cm <sup>2</sup> (427 psi)

## 6) CYLINDER

Item	Specification
Boom cylinder	Bore dia × Rod dia × Stroke ø 120 × ø 70 × 738 mm
Bucket cylinder	Bore dia × Rod dia × Stroke ø 140 × ø 75 × 505 mm
Steering cylinder	Bore dia × Rod dia × Stroke ø 65 × ø 40 × 429 mm



## 7) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification
Torque converter	Model	ZF 4WG160
	Type	Single-stage, single-phase
	Ratio	2.3 : 1
Transmission	Type	Full-automatic power shift
	Gear shift	Forward fourth gear, reverse third gear
	Control	Electrical single lever type, kick-down system
	Pump rated flow	85 ℓ /min (22.5 U.S.gpm) at 2000 rpm
Axle	Drive devices	4-wheel drive
	Front	Front fixed location
	Rear	Oscillation $\pm 12^\circ$ of center pin-loaded
Wheels	Tires	20.5-25, 16PR (L3)
Brakes	Travel	Four-wheel, wet-disc type, full hydraulic
	Parking	Spring applied, hydraulic released brake on front axle
Steering	Type	Full hydraulic, articulated
	Steering angle	40° to both right and left angle, respectively