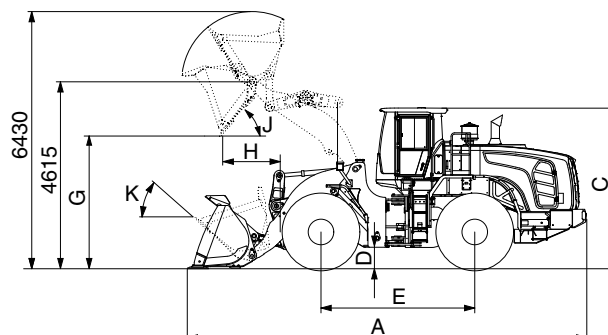
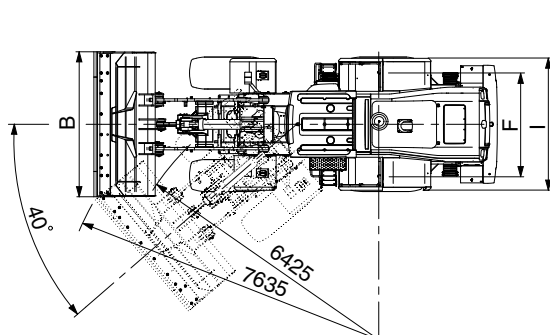


## 1. MAJOR COMPONENTS



## 2. SPECIFICATIONS

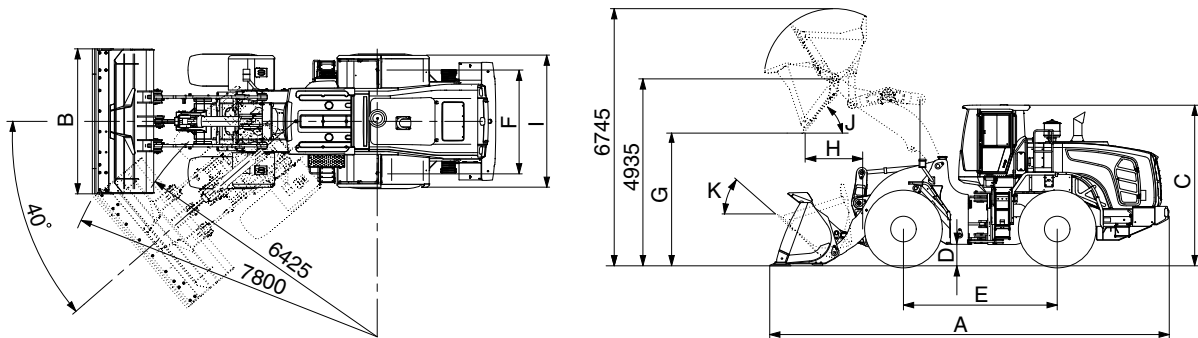
### 1) WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL980 T3)



980A2SE03

Description			Unit	Specification
Operating weight			kg (lb)	30550 (67355)
Bucket capacity	Struck		m³ (yd³)	4.8 (6.3)
	Heaped			5.6 (7.3)
Overall length	A		mm (ft-in)	9610 (31' 6")
Overall width	B			3450 (11' 4")
Overall height	C			3865 (12' 8")
Ground clearance	D			495 (1' 7")
Wheelbase	E			3700 (12' 2")
Tread	F			2440 (8' 0")
Dump clearance at 45°	G			3300 (10' 10")
Dump reach (full lift)	H			1490 (4' 11")
Width over tires	I			3190 (10' 6")
Dump angle	J			degree (°)
Rollback angle (carry position)	K		47	
Cycle time	Lift (with load)		sec	6.2
	Dump (with load)			1.5
	Lower (empty)			4.5
Maximum travel speed			km/hr (mph)	38.2 (23.7)
Braking distance			m (ft-in)	12.3 (40' 4")
Minimum turning radius (center of outside tire)				6.42 (21' 1")
Gradeability			degree (°)	30
Breakeout force			kg (lb)	24670 (54390)
Travel speed	Forward	First gear	km/hr (mph)	6.2 (3.9)
		Second gear		11.7 (7.3)
		Third gear		18.4 (11.4)
		Fourth gear		38.2 (23.7)
	Reverse	First gear		6.2 (3.9)
		Second gear		11.7 (7.3)
		Third gear		25.7 (16.0)

## WITH BOLT-ON CUTTING EDGE TYPE BUCKET (HL980XT T3)



980A2SE03-1

Description			Unit	Specification
Operating weight			kg (lb)	31250 (68895)
Bucket capacity	Struck		m³ (yd³)	4.8 (6.3)
	Heaped			5.6 (7.3)
Overall length	A		mm (ft-in)	9930 (32' 7")
Overall width	B			3450 (11' 4")
Overall height	C			3865 (12' 8")
Ground clearance	D			495 (1' 7")
Wheelbase	E			3700 (12' 2")
Tread	F			2440 (8' 0")
Dump clearance at 45°	G			3620 (11' 11")
Dump reach (full lift)	H			1525 (5' 0")
Width over tires	I			3190 (10' 6")
Dump angle	J		degree (°)	50
Rollback angle (carry position)	K			47
Cycle time	Lift (with load)		sec	6.2
	Dump (with load)			1.5
	Lower (empty)			4.5
Maximum travel speed			km/hr (mph)	38.2 (23.7)
Braking distance			m (ft-in)	12.3 (40' 4")
Minimum turning radius (center of outside tire)				6.42 (21' 1")
Gradeability			degree (°)	30
Brokeout force			kg (lb)	24400 (53795)
Travel speed	Forward	First gear	km/hr (mph)	6.2 (3.9)
		Second gear		11.7 (7.3)
		Third gear		18.4 (11.4)
		Fourth gear		38.2 (23.7)
	Reverse	First gear		6.2 (3.9)
		Second gear		11.7 (7.3)
		Third gear		25.7 (16.0)

### 3. WEIGHT

Item		kg	lb
Front frame assembly		3,005	6,625
Rear frame assembly		3,365	7,420
Front fender (LH/RH)		58 / 50	130 / 115
Rear fender (LH/RH)		100 / 96	225 / 215
Counterweight (HL980 T3)		1,200	2,650
Counterweight (HL980XT T3)		1,750	3,860
Cab assembly		953	2,105
Engine assembly		860	1,900
Transmission assembly		840	1,855
Driveshaft (front)		37	85
Driveshaft (center)		46	105
Driveshaft (rear)		48	110
Driveshaft (upper)		14	35
Front axle (include differential)		1,814	4,000
Rear axle (include differential)		1,814	4,000
Tire 1EA (29.5 R25, ★★. L3)		860	1,900
Hydraulic tank assembly		268	595
Fuel tank assembly		472	1,045
Main pump assembly		49	110
Steering pump assembly		49	110
Fan & brake pump assembly		14	35
Main control valve (2 spool/3 spool)		85/104	190/230
Steering valve (priority valve)		49	110
Boom assembly	HL980 T3	2,129	4,695
	HL980XT T3	2,243	4,945
Bell crank assembly		645	1425
Bucket link		103	230
5.6 m³ bucket, with bolt on cutting edge		2835	6255
Boom cylinder assembly (LH / RH)		299 / 299	660 / 660
Bucket cylinder assembly (HL980 T3 / HL980XT T3)		306 / 306	675 / 675
Steering cylinder assembly (LH / RH)		60 / 60	135 / 135
Seat (Including suspension and armrest)		71	160
Under guard kit		123	275
Engine hood assembly		469	1035
Battery (1 EA)		53	120

## 4. SPECIFICATION FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Cummins X12
Type	4-cycle turbocharged, charge air cooled electronic controlled diesel engine
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	132 × 144 mm (5.2" × 5.7")
Piston displacement	11800 cc (720 cu in)
Compression ratio	17.0 : 1
Gross power	335 hp (250 kW) at 2100 rpm
Net power	330 hp (246 kW) at 2100 rpm
Maximum power	370 hp (276 kW) at 1700 rpm
Peak gross torque	171 kgf · m (1235 lbf · ft) at 1400 rpm
Engine oil quantity	34 ℓ (9.0 U.S. gal)
Wet weight	860 kg (1896 lb)
Starting motor	24 V - 7.5 kW
Alternator	28 V - 110 Amp
Battery	2 × 12 V × 220 Ah

### 2) MAIN PUMP

Item	Specification
Type	Load sensing hydraulic system
Pump	Variable displacement piston pump
Rated oil quantity	452 ℓ /min (119.3 U.S.gpm)
System pressure	280 kgf/cm <sup>2</sup> (3980 psi)

### 3) STEERING PUMP

Item	Specification
Type	Load sensing hydrostatic articulated steering
Pump	Variable displacement piston pump
Rated oil quantity	237 ℓ /min (62.6 U.S.gpm)
System pressure	210 kgf/cm <sup>2</sup> (3046 psi)

#### 4) FAN + BRAKE PUMP

Item	Specification	
	Fan pump	Brake pump
Type	Piston pump	
Capacity	45 cc/rev	
Maximum operating pressure	250 kgf/cm <sup>2</sup> (3980 psi)	150 kgf/cm <sup>2</sup> (2130 psi)
Rated oil quantity (at 2200rpm)	99 ℓ /min (26.1 U.S.gpm)	
Engine high rpm	2100 rpm	

#### 5) MAIN CONTROL VALVE

Item	Specification
Type	2 spool / 3 spool
Operating method	Hydraulic pilot assist
Main relief valve pressure	280 kgf/cm <sup>2</sup> (3980 psi)
Overload relief valve pressure	340 kgf/cm <sup>2</sup> (4840 psi) / *300 kgf/cm <sup>2</sup> (4267 psi)

\* : Bucket dump

#### 6) ELECTRO-HYDRAULIC BLOCK

Item	Specification
Type	Proportional pressure reducing valve
Control current	0~950 mA
Resistance	10.5 Ω
Normal flow	12 ℓ /min (3.17 U.S.gpm)

#### 7) 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)

#### 8) 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

## 9) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø 180 × Ø 105 × 885 mm
Bucket cylinder (HL980 T3)	Bore dia × Rod dia × Stroke	Ø 200 × Ø 110 × 550 mm
Bucket cylinder (HL980XT T3)	Bore dia × Rod dia × Stroke	Ø 200 × Ø 110 × 545 mm
Steering cylinder	Bore dia × Rod dia × Stroke	Ø 105 × Ø 55 × 460 mm

## 10) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification
4-speed transmission	Model	ZF 4WG 310
	Type	Converter
		Single-stage, single-phase
	Transmission	
	Full-automatic power shift	
	Converter stall ratio	
	2.51 : 1	
	Gear shift	
Axle	Forward fourth gear, reverse third gear	
	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	
Wheels	135 ℓ /min (35.7 U.S.gpm) at 2000 rpm	
	Travel speed	
	See the page 2-2.	
Brakes	Drive devices	
	4-wheel drive	
	Front	
Steering	Front fixed location	
	Rear	
	Oscillation ± 12° of center pin-loaded	
Travel	Tires	
	29.5 R25, ★★. L3	
Parking	Travel	
	Four-wheel, wet-disc type, full hydraulic	
Steering angle	Parking	
	Spring applied, hydraulic released brake on T/M	
Type	Type	
	Full hydraulic, articulated	
Steering angle	Steering angle	
	40° to both right and left angle, respectively	