

## 7. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Cummins QSB6.7
Type	4-cycle turbocharged diesel engine, low emission
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	107 × 124mm (4.2" × 4.9")
Piston displacement	6700cc (409cu in)
Compression ratio	17.2 : 1
Rated gross horse power (SAE J1995)	164Hp at 1900rpm (122kW at 1900rpm)
Maximum torque at 1400rpm	66.9kgf · m (484lbf · ft)
Engine oil quantity	24 l (6.3U.S. gal)
Dry weight	556kg (1226lb)
High idling speed	1950 ± 50rpm
Low idling speed	850 ± 100rpm
Rated fuel consumption	164.3g/Hp · hr at 1900rpm
Starting motor	Nippon denso (24V-4.5kW)
Alternator	Delco Remy (24V-50A)
Battery	2 × 12V × 100Ah

### 2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 117cc/rev
Maximum pressure	330kgf/cm <sup>2</sup> (4694psi) [360kgf/cm <sup>2</sup> (5120psi)]
Rated oil flow	2 × 222 l /min (58.6U.S. gpm/ 48.8U.K. gpm)
Rated speed	1900rpm

[ ] : Power boost

### 3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40kgf/cm <sup>2</sup> (570psi)
Rated oil flow	28.5 l /min(7.5U.S. gpm/6.3U.K. gpm)

### 4) MAIN CONTROL VALVE

Item	Specification
Type	11 spools two-block
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm <sup>2</sup> (4695psi) [360kgf/cm <sup>2</sup> (5120psi)]
Overload relief valve pressure	390kgf/cm <sup>2</sup> (5550psi)

[ ]: Poer boost

### 5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	151cc/rev
Relief pressure	240kgf/cm <sup>2</sup> (3414psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59kgf · m (427lb · ft)
Brake release pressure	33~50kgf/cm <sup>2</sup> (470~711psi)
Reduction gear type	2 - stage planetary

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement bent-axis axial piston motor
Relief pressure	360kgf/cm <sup>2</sup> (5120psi)
Counter balance valve	Applied
Capacity (Max/min)	160/65cc/rev

## 7) POWER TRAIN

Item	Description	Specification	
Transmission	Type	2 speed power shift transmission	
	Gear ratio	1st	4.87
		2nd	1.20
Parking brake	Type	Multi disc brake integrated in transmission	
	Maximum braking power	2937kgf · m (21240lb · ft)	
Axle	Type	4 wheel drive with differential	
	Gear ratio	16.0	
	Brake	Multi disc brake	

## 8) REMOTE CONTROL VALVE

Item	Specification	
Type	Pressure reducing type	
Operating pressure	Minimum	6.5kgf/cm <sup>2</sup> (92psi)
	Maximum	26kgf/cm <sup>2</sup> (370psi)
Single operation stroke	Lever	61mm (2.4in)

## 9) CYLINDER

Item	Specification	
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 120 × ∅ 85 × 1290mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 140 × ∅ 100 × 1510mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 125 × ∅ 85 × 1055mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	∅ 120 × ∅ 85 × 226mm
	Cushion	Extend only
Outrigger cylinder	Bore dia × Rod dia × Stroke	∅ 130 × ∅ 80 × 427mm
	Cushion	-
2 Piece boom Adjust cylinder	Bore dia × Rod dia × Stroke	∅ 160 × ∅ 100 × 1040mm
	Cushion	Extend only

## 10) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
Standard	0.80m <sup>3</sup> (1.05yd <sup>3</sup> )	0.70m <sup>3</sup> (0.92yd <sup>3</sup> )	5	1090mm (42.9")	1210mm (47.6")
Option	0.51m <sup>3</sup> (0.67yd <sup>3</sup> )	0.45m <sup>3</sup> (0.59yd <sup>3</sup> )	3	700mm (27.6")	820mm (32.3")
	0.87m <sup>3</sup> (1.14yd <sup>3</sup> )	0.75m <sup>3</sup> (0.98yd <sup>3</sup> )	5	1000mm (39.4")	1120mm (44.1")
	0.92m <sup>3</sup> (1.20yd <sup>3</sup> )	0.80m <sup>3</sup> (1.05yd <sup>3</sup> )	5	1150mm (45.3")	1270mm (50.0")
	1.10m <sup>3</sup> (1.44yd <sup>3</sup> )	0.96m <sup>3</sup> (1.26yd <sup>3</sup> )	5	1320mm (52.0")	1440mm (56.7")
	1.20m <sup>3</sup> (1.57yd <sup>3</sup> )	1.00m <sup>3</sup> (1.31yd <sup>3</sup> )	5	1400mm (55.1")	1520mm (60.0")
	1.34m <sup>3</sup> (1.75yd <sup>3</sup> )	1.15m <sup>3</sup> (1.50yd <sup>3</sup> )	6	1550mm (61.1")	1670mm (65.7")
	◆ 0.74m <sup>3</sup> (0.97yd <sup>3</sup> )	0.65m <sup>3</sup> (0.85yd <sup>3</sup> )	5	985mm (38.8")	-
	◆ 0.90m <sup>3</sup> (1.18yd <sup>3</sup> )	0.80m <sup>3</sup> (1.05yd <sup>3</sup> )	5	1070mm (42.1")	-
	◆ 1.05m <sup>3</sup> (1.37yd <sup>3</sup> )	0.92m <sup>3</sup> (1.20yd <sup>3</sup> )	5	1430mm (56.3")	-
	⊙ 0.87m <sup>3</sup> (1.14yd <sup>3</sup> )	0.75m <sup>3</sup> (0.98yd <sup>3</sup> )	5	1140mm (44.9")	-
	■ 0.75m <sup>3</sup> (0.98yd <sup>3</sup> )	0.65m <sup>3</sup> (0.85yd <sup>3</sup> )	-	1790mm (70.5")	-

◆ : Heavy duty bucket

⊙ : Rock bucket

■ : Slope finishing bucket