

## 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 borexstroke	107×124 mm (4.2"×4.9")
Piston displacement	6700 cc (409 cu in)
Compression ratio	17.2 : 1
Rated gross horse power (SAE J1995)	176 Hp at 1900 rpm (131 kW at 1900 rpm)
Maximum torque at 1400 rpm	81.4 kgf·m (799 lbf·ft)
Engine oil quantity	24l (6.3 U.S. gal)
Dry weight	556 kg (1226 lb)
High idling speed	2000±50 rpm
Low idling speed	850±100 rpm
Rated fuel consumption	165.9 g/Hp·hr at 1900 rpm
Starting motor	Nippon denso (24 V-4.5 kW)
Alternator	Delco Remy (24 V-50 A)
Battery	2 × 12 V × 100 Ah

### 2) MAIN PUMP

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

[ ]: Power boost

### 3) GEAR PUMP

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

### 4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm <sup>2</sup> (4980 psi) [380 kgf/cm <sup>2</sup> (5400 psi)]
Overload relief valve pressure	400 kgf/cm <sup>2</sup> (5690 psi)

[ ]: Power boost

### 5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	151 cc/rev
Relief pressure	265 kgf/cm <sup>2</sup> (3770 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	59 kgf · m (427 lbf · ft)
Brake release pressure	33~50 kgf/cm <sup>2</sup> (470~711 psi)
Reduction gear type	2 - stage planetary

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement bent-axis axial piston motor
Rated pressure	380 kgf/cm <sup>2</sup> (5400 psi)
Counter balance valve	Applied
Capacity	160/61 cc/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 torque	2937 kgf · m (21240 lbf · ft)	
Axle	Type	4 wheel drive with differential	
	Gear ratio	16.0	
	Brake	Multi disc brake	

## 8) REMOTE CONTROL VALVE

Item	Description	Specification
Type		Pressure reducing
Operating pressure	Maximum	6.5 kgf / cm <sup>2</sup> (92 psi)
	Maximum	25 kgf / cm <sup>2</sup> (360 psi)
Single operation stroke	Lever (1, 3 port)	90 mm (3.5 in)
	Lever (2, 4 port)	130 mm (4.4 in)

## 9) CYLINDER

Item	Specification	
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 120 × ∅ 85 × 1290 mm
	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	∅ 125 × ∅ 75 × 206mm
	Cushion	Extend only
Outrigger cylinder	Bore dia × Rod dia × Stroke	∅ 130 × ∅ 80 × 427mm
	Cushion	-
Adjust boom 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	0.80 m <sup>3</sup> (1.05 yd <sup>3</sup> )	0.70 m <sup>3</sup> (0.92 yd <sup>3</sup> )	5	1000 mm (39.4")	1120 mm (44.1")
Option	0.51 m <sup>3</sup> (0.67 yd <sup>3</sup> )	0.45 m <sup>3</sup> (0.59 yd <sup>3</sup> )	3	700 mm (27.6")	820 mm (32.3")
	0.87 m <sup>3</sup> (1.14 yd <sup>3</sup> )	0.75 m <sup>3</sup> (0.98 yd <sup>3</sup> )	5	1090 mm (42.9")	1120 mm (47.6")
	0.92 m <sup>3</sup> (1.20 yd <sup>3</sup> )	0.80 m <sup>3</sup> (1.05 yd <sup>3</sup> )	5	1150 mm (45.3")	1270 mm (50.0")
	1.10 m <sup>3</sup> (1.44 yd <sup>3</sup> )	0.96 m <sup>3</sup> (1.26 yd <sup>3</sup> )	5	1320 mm (52.0")	1440 mm (56.7")
	1.20 m <sup>3</sup> (1.57 yd <sup>3</sup> )	1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )	5	1400 mm (55.1")	1520 mm (60.0")
	1.34 m <sup>3</sup> (1.75 yd <sup>3</sup> )	1.15 m <sup>3</sup> (1.50 yd <sup>3</sup> )	6	1550 mm (61.0")	1670 mm (65.7")
	◆0.74 m <sup>3</sup> (0.97 yd <sup>3</sup> )	0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> )	5	985 mm (38.8")	-
	◆0.90 m <sup>3</sup> (1.18 yd <sup>3</sup> )	0.80 m <sup>3</sup> (1.05 yd <sup>3</sup> )	5	1070 mm (42.1")	-
	◆1.05 m <sup>3</sup> (1.37 yd <sup>3</sup> )	0.92 m <sup>3</sup> (1.20 yd <sup>3</sup> )	5	1290 mm (50.8")	-
	⊙0.87 m <sup>3</sup> (1.14 yd <sup>3</sup> )	0.75 m <sup>3</sup> (0.98 yd <sup>3</sup> )	5	1140 mm (44.9")	-
	■0.75 m <sup>3</sup> (0.98 yd <sup>3</sup> )	0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> )	-	1790 mm (70.5")	-

◆ : Heavy duty bucket

⊙ : Rock bucket

■ : Slope finishing bucket