

## 8. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Mitsubishi D04FD-TAA
Type	4-cycle turbocharged charge air cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection type
Cylinder bore × stroke	102 × 130 mm (4.02" × 5.12")
Piston displacement	4250 cc (260 cu in)
Compression ratio	16.5 : 1
Rated gross horse power (SAE J1995)	126Hp (94 kW) at 2000 rpm
Maximum torque	47.7 kgf · m (345 lbf · ft) at 1800 rpm
Engine oil quantity	17.5 l (4.6 U.S. gal)
Dry weight	420 kg (930 lb)
High idling speed	2100 ± 50 rpm
Low idling speed	950 ± 100 rpm
Rated fuel consumption	170.6 g/Hp · hr at 2000 rpm
Starting motor	24 V-5.0 kW
Alternator	24 V-50 A
Battery	2 × 12 V × 80 Ah

### 2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 80 cc/rev
Maximum pressure	350 kgf/cm <sup>2</sup> (4980 psi) [380 kgf/cm <sup>2</sup> (5400 psi)]
Rated oil flow	2 × 160 l /min (42.3 U.S. gpm / 35.2 U.K. gpm)
Rated speed	2000 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	30 l /min (7.9 U.S. gpm / 6.6 U.K. gpm)

### 4) MAIN CONTROL VALVE

Item	Specification
Type	11 spools two-block
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	Two fixed displacement axial piston motor
Capacity	117.8 cc/rev
Relief pressure	285 kgf/cm <sup>2</sup> (4053 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> (469~711 psi)
Reduction gear type	2 - stage planetary

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350 kgf/cm <sup>2</sup> (4980 psi)
Reduction gear type	Planetary & differential type
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	11 kgf/cm <sup>2</sup> (156 psi)
Braking torque	49.3 kgf · m (357 lbf · ft)

## 7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 115 × ∅ 80 × 1090 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 120 × ∅ 85 × 1355 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 115 × ∅ 75 × 995 mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

## 8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R160LC-9	Option	500 mm (20")	0.50 kgf/cm <sup>2</sup> (7.11 psi)	49	2490 mm ( 8' 2")
	Standard	600 mm (24")	0.42 kgf/cm <sup>2</sup> (5.97 psi)	49	2590 mm ( 8' 6")
	Option	700 mm (28")	0.37 kgf/cm <sup>2</sup> (5.26 psi)	49	2690 mm ( 8' 10")

## 9) BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
R160LC-9	0.39 m <sup>3</sup> (0.51 yd <sup>3</sup> )	0.34 m <sup>3</sup> (0.44 yd <sup>3</sup> )	3	620 mm (24.4")	740 mm (29.1")
	0.50 m <sup>3</sup> (0.65 yd <sup>3</sup> )	0.44 m <sup>3</sup> (0.58 yd <sup>3</sup> )	4	760 mm (29.9")	880 mm (34.6")
	0.64 m <sup>3</sup> (0.84 yd <sup>3</sup> )	0.55 m <sup>3</sup> (0.72 yd <sup>3</sup> )	5	920 mm (36.2")	1040 mm (40.9")
	0.70 m <sup>3</sup> (0.92 yd <sup>3</sup> )	0.60 m <sup>3</sup> (0.78 yd <sup>3</sup> )	5	990 mm (39.0")	1110 mm (43.7")
	0.89 m <sup>3</sup> (1.16 yd <sup>3</sup> )	0.77 m <sup>3</sup> (1.01 yd <sup>3</sup> )	6	1220 mm (48.0")	1340 mm (52.8")
	◆0.69 m <sup>3</sup> (0.90 yd <sup>3</sup> )	0.62 m <sup>3</sup> (0.81 yd <sup>3</sup> )	5	990 mm (39.0")	-

◆ : Heavy duty bucket