

## 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
Piston displacement	4250cc (260cu in)
Compression ratio	16.5 : 1
Rated gross horse power (SAE J1995)	119 Hp (89 kW) at 2000 rpm
Maximum torque	45.4 kgf · m (328 lbf · ft) at 1700 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	850 ± 100 rpm
Rated fuel consumption	165 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 × 65 cc/rev
Maximum pressure	350 kgf/cm <sup>2</sup> (4980 psi) [380 kgf/cm <sup>2</sup> (5400 psi)]
Rated oil flow	2 × 123.5 l /min (32.6 U.S. gpm / 27.2 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	28.5 l /min (7.5 U.S. gpm / 6.3 U.K. gpm)

### 4) MAIN CONTROL VALVE

Item	Specification
Type	11 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	72 cc/rev
Relief pressure	285 kgf/cm <sup>2</sup> (4053 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	25 kgf · m (181 lbf · ft)
Brake release pressure	15~50 kgf/cm <sup>2</sup> (213~711 psi)
Reduction gear type	2 - stage planetary

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	365 kgf/cm <sup>2</sup> (5190 psi)
Capacity (max / min)	86/45 cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	9.5 kgf/cm <sup>2</sup> (135 psi)
Braking torque	40.6 kgf · m (294 lbf · ft)

## 7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 105 × ∅ 75 × 1075 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 115 × ∅ 80 × 1138 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 100 × ∅ 70 × 840 mm
	Cushion	Extend only
Dozer cylinder (option)	Bore dia × Rod dia × Stroke	∅ 100 × ∅ 65 × 236 mm
	Cushion	-

※ 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
R140LC-9	Standard	600 mm (24")	0.36 kgf/cm <sup>2</sup> (5.12 psi)	46	2600 mm ( 8' 6")
	Option	500 mm (20")	0.43 kgf/cm <sup>2</sup> (6.11 psi)	46	2500 mm ( 8' 2")
		700 mm (28")	0.31 kgf/cm <sup>2</sup> (4.41 psi)	46	2700 mm ( 8' 10")
R140LCD-9	Standard	600 mm (24")	0.38 kgf/cm <sup>2</sup> (5.40 psi)	46	2600 mm ( 8' 6")
	Option	500 mm (20")	0.45 kgf/cm <sup>2</sup> (6.40 psi)	46	2500 mm ( 8' 2")
		700 mm (28")	0.33 kgf/cm <sup>2</sup> (4.70 psi)	46	2700 mm ( 8' 10")
R140LCM-9	Standard	800 mm (32")	0.32 kgf/cm <sup>2</sup> (4.55 psi)	47	2910 mm ( 9' 7")
	Option	710mm (28")	0.32 kgf/cm <sup>2</sup> (4.55 psi)	46	2820 mm ( 9' 3")

## 9) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R140LC-9	Standard	※ 0.58 m <sup>3</sup> (0.76 yd <sup>3</sup> )	0.50 m <sup>3</sup> (0.65 yd <sup>3</sup> )	5	1000 mm (39.4")	1100 mm (43.3")
	Option	0.23 m <sup>3</sup> (0.30 yd <sup>3</sup> )	0.20 m <sup>3</sup> (0.26 yd <sup>3</sup> )	3	520 mm (20.5")	620 mm (24.4")
		0.40 m <sup>3</sup> (0.52 yd <sup>3</sup> )	0.35 m <sup>3</sup> (0.46 yd <sup>3</sup> )	4	750 mm (29.5")	850 mm (33.5")
		0.46 m <sup>3</sup> (0.60 yd <sup>3</sup> )	0.40 m <sup>3</sup> (0.52 yd <sup>3</sup> )	4	840 mm (33.1")	940 mm (37.0")
		0.52 m <sup>3</sup> (0.68 yd <sup>3</sup> )	0.45 m <sup>3</sup> (0.59 yd <sup>3</sup> )	5	915 mm (36.0")	1015 mm (40.0")
		0.65 m <sup>3</sup> (0.85 yd <sup>3</sup> )	0.55 m <sup>3</sup> (0.72 yd <sup>3</sup> )	5	1105 mm (43.5")	1205 mm (47.4")
		0.71 m <sup>3</sup> (0.93 yd <sup>3</sup> )	0.60 m <sup>3</sup> (0.78 yd <sup>3</sup> )	5	1190 mm (46.9")	1290 mm (50.8")
		★ 0.45 m <sup>3</sup> (0.59 yd <sup>3</sup> )	0.40 m <sup>3</sup> (0.52 yd <sup>3</sup> )	-	1520 mm (59.8")	-
		◎ 0.55 m <sup>3</sup> (0.72 yd <sup>3</sup> )	0.45 m <sup>3</sup> (0.59 yd <sup>3</sup> )	-	1800 mm (70.9")	-

★ : Ditch cleaning bucket

◎ : Slope finishing bucket