

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	800 ± 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 ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Rated oil flow	2 × 130 l /min (34.3 U.S. gpm / 28.6 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 ² (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
Operating method	Hydraulic pilot system
Main relief valve pressure	350 kgf/cm ² (4980 psi) [380 kgf/cm ² (5400 psi)]
Overload relief valve pressure	400 kgf/cm ² (5690 psi)

[]: Power boost

5) SWING MOTOR

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

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350 kgf/cm ² (4970 psi)
Capacity (max / min)	77/45 cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	9.5 kgf/cm ² (135 psi)
Braking torque	19.7 kgf · m (280.2 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 105 × ∅ 75 × 1105 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 × ∅ 70 × 250 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
R145CR-9	Standard	500 mm (20")	0.46 kgf/cm ² (6.54 psi)	45	2500 mm (8' 2")
	Option	600 mm (24")	0.39 kgf/cm ² (5.55 psi)	45	2600 mm (8' 6")
		700 mm (28")	0.34 kgf/cm ² (4.83 psi)	45	2700 mm (8' 10")
R145CRD-9	Standard	500 mm (20")	0.49 kgf/cm ² (6.97 psi)	45	2500 mm (8' 2")
	Option	600 mm (24")	0.41 kgf/cm ² (5.81 psi)	45	2600 mm (8' 6")
		700 mm (28")	0.36 kgf/cm ² (5.12 psi)	45	2700 mm (8' 10")
R145LCR-9	Standard	500 mm (20")	0.47 kgf/cm ² (6.68 psi)	46	2500 mm (8' 2")
	Option	600 mm (24")	0.39 kgf/cm ² (5.55 psi)	46	2600 mm (8' 6")
		700 mm (28")	0.34 kgf/cm ² (4.83 psi)	46	2700 mm (8' 10")

BUCKET

Item	Capacity		Tooth quantity	Width	
	SAE heaped	CECE heaped		Without side cutter	With side cutter
R145CR-9	0.52 m ³ (0.68 yd ³)	0.45 m ³ (0.59 yd ³)	5	915 mm (36.0")	1015 mm (40.0")
	0.23 m ³ (0.30 yd ³)	0.20 m ³ (0.26 yd ³)	3	520 mm (20.5")	620 mm (24.4")
	0.40 m ³ (0.52 yd ³)	0.35 m ³ (0.46 yd ³)	4	750 mm (29.5")	850 mm (33.5")
	0.46 m ³ (0.60 yd ³)	0.40 m ³ (0.52 yd ³)	4	840 mm (33.1")	940 mm (37.0")
	0.58 m ³ (0.76 yd ³)	0.50 m ³ (0.65 yd ³)	5	1000 mm (39.4")	1100 mm (43.3")
	0.65 m ³ (0.85 yd ³)	0.55 m ³ (0.72 yd ³)	5	1105 mm (43.5")	1205 mm (47.4")
	0.71 m ³ (0.93 yd ³)	0.60 m ³ (0.78 yd ³)	5	1190 mm (46.9")	1290 mm (50.8")
	★0.45 m ³ (0.59 yd ³)	0.40 m ³ (0.52 yd ³)	-	1520 mm (59.8")	-
	◎0.55 m ³ (0.72 yd ³)	0.45 m ³ (0.59 yd ³)	-	1800 mm (70.9")	-

★ : Ditch cleaning bucket

◎ : Slope finishing bucket