

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins B3.9-C *4BTAA
Type	4-cycle turbocharged diesel engine *Charge air cooled
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 x stroke	102 x 120mm
Piston displacement	3900cc(238cu in)
Compression ratio	17.8 : 1 *18 : 1
Rated gross horse power(SAE J1995)	107Hp (80kW) at 2100rpm
	*115Hp (86kW) at 2100rpm
Maximum torque	46.2kgf · m(334lbf · ft) at 1500rpm
	*47.7kgf · m(345lbf · ft) at 1500rpm
Engine oil quantity	9.5 (2.5U.S. gal) *15.3 (4.0U.S. gal)
Dry weight	329kg(726lb) *317kg
High idling speed	2350 ± 50rpm
Low idling speed	950 ± 100rpm *850 ± 100rpm
Rated fuel consumption	167.8g/Hp · hr at 2100rpm *162g/Hp · hr at 2100rpm
Starting motor	Nippon denso(24V-4.5kW)
Alternator	Delco Remy 24V-50A
Battery	2 x 12V x 80Ah

* : TIER II

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 x 62cc/rev
Maximum pressure	330kgf/cm ² (4690psi)[360kgf/cm ² (5120psi)]
Rated oil flow	2 x 130 /min (34.3U.S. gpm/ 28.6U.K. gpm)
Rated speed	2100rpm

[]: Power boost

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	35kgf/cm ² (500psi)
Rated oil flow	31.5 /min(8.3U.S. gpm/7.0U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	10 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm ² (4690psi) [360kgf/cm ² (5120psi)]
Overload relief valve pressure	380kgf/cm ² (5540psi)

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	64.3cc/rev
Relief pressure	240kgf/cm ² (3410psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	25kgf · m(180lb · ft)
Brake release pressure	30~50kgf/cm ² (426~710psi)
Reduction gear type	2 - stage planetary
Swing speed	13.6rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	330kgf/cm ² (4620psi)
Capacity(max / min)	90.3/56cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	6.0kgf/cm ² (85psi)
Braking torque	40.6kgf · m(294lb · ft)

7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5kgf/cm ² (92psi)
	Maximum	26kgf/cm ² (370psi)
Single operation stroke	Lever	61mm(2.4in)
	Pedal	123mm(4.84in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø105 × Ø75 × 1075mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø115 × Ø80 × 1188mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø100 × Ø70 × 855mm
	Cushion	Extend only
Dozer cylinder(Optional)	Bore dia × Rod dia × Stroke	Ø100 × Ø70 × 270mm
	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.

9) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R140LC-7	Standard	600mm(24")	0.36kgf/cm ² (5.12psi)	46	2600mm(8' 6")
	Option	500mm(20")	0.43kgf/cm ² (6.11psi)	46	2500mm(8' 2")
		700mm(28")	0.32kgf/cm ² (4.55psi)	46	2700mm(8' 10")
R140LCD-7	Option	500mm(20")	0.45kgf/cm ² (6.40psi)	46	2500mm(8' 2")
		600mm(24")	0.38kgf/cm ² (5.40psi)	46	2600mm(8' 6")
R140LCM-7	Option	800mm(32")	0.32kgf/cm ² (4.55psi)	47	2840mm(9' 4")

10) BUCKET

Item		Capacity		Tooth quantity	Width		
		PCSA heaped	CECE heaped		Without side cutter	With side cutter	
R140LC-7	Standard	0.58m ³ (0.76yd ³)	0.50m ³ (0.65yd ³)	5	1030mm(40.6")	1130mm(44.5")	
	Option	☐	0.23m ³ (0.30yd ³)	0.20m ³ (0.26yd ³)	3	520mm(20.5")	620mm(24.4")
		☐	0.40m ³ (0.52yd ³)	0.35m ³ (0.46yd ³)	4	760mm(29.9")	860mm(33.9")
		☐	0.46m ³ (0.60yd ³)	0.40m ³ (0.52yd ³)	4	850mm(33.5")	950mm(37.4")
		☐	0.52m ³ (0.68yd ³)	0.45m ³ (0.59yd ³)	5	935mm(36.8")	1035mm(40.8")
		☐	0.65m ³ (0.85yd ³)	0.55m ³ (0.72yd ³)	5	1110mm(43.7")	1210mm(47.6")
		☐	0.71m ³ (0.93yd ³)	0.60m ³ (0.78yd ³)	6	1205mm(47.4")	-
		☐	0.45m ³ (0.59yd ³)	0.40m ³ (0.52yd ³)	-	1520mm(59.8")	-
		☐	☐0.55m ³ (0.72yd ³)	0.45m ³ (0.59yd ³)	-	1800mm(70.9")	-

☐ : Slope finishing bucket

☐ : Ditch cleaning bucket