

7. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins B3.9-C
Type	4-cycle, turbocharged, charge air cooled, diesel engine, low emission
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(4.02" x 4.72")
Piston displacement	3900cc(238cu in)
Compression ratio	18 : 1
Rated gross horse power(SAE J1995)	115Hp at 2100rpm(86kW at 2100rpm)
Maximum torque	47.7kgf · m(345lbf · ft) at 1500rpm
Engine oil quantity	15.3 (4.0U.S. gal)
Dry weight	320kg(705lb)
High idling speed	2350+ 50rpm
Low idling speed	850 ± 100rpm
Rated fuel consumption	164g/Hp · hr at 2100rpm
Starting motor	Nippon denso(24V-4.5kW)
Alternator	Delco Remy (24V-50A)
Battery	2 x 12V x 80Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement axial piston pump
Capacity	2 x 62cc/rev
Maximum pressure	330kgf/cm ² (4694psi) [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	40kgf/cm ² (570psi)
Rated oil flow	29.3 /min(7.7U.S. gpm/6.4U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	11 spools mono-block
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm ² (4695psi) [360kgf/cm ² (5120psi)]
Overload relief valve pressure	380kgf/cm ² (5540psi)

[]: Poer boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	64.3cc/rev
Relief pressure	240kgf/cm ² (3414psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	25kgf · m(181lb · ft)
Brake release pressure	30~50kgf/cm ² (427~711psi)
Reduction gear type	2 - stage planetary
Swing speed	13.6rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement bent-axis axial piston motor
Relief pressure	360kgf/cm ² (5120psi)
Counter balance valve	Applied
Capacity	107cc/rev

7) POWER TRAIN

Item	Description	Specification	
Transmission	Type	2 speed power shift transmission	
	Gear ratio	1st	5.35
		2nd	1.39
Parking brake	Type	Multi disc brake integrated in transmission	
	Maximum braking torque	156kgf · m(1128lb · ft)	
Axle	Type	4 wheel drive with differential	
	Gear ratio	13.714	
	Brake	Multi disc brake	

8) REMOTE CONTROL VALVE

Item	Specification	
Type	Pressure reducing type	
Operating pressure	Minimum	6.5kg/cm ² (92psi)
	Maximum	26kg/cm ² (370psi)
Single operation stroke	Lever	82.7mm(3.3in)

9) 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 × Ø65 × 855mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	Ø100 × Ø65 × 236mm
	Cushion	Extend only
Outrigger cylinder	Bore dia × Rod dia × Stroke	Ø110 × Ø75 × 475mm
	Cushion	-
2 Piece boom Adjust cylinder	Bore dia × Rod dia × Stroke	Ø145 × Ø90 × 613mm
	Cushion	Extend only

10)BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R140W-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