

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification	
Model	Cummins C8.3-C	*Cummins QSB 5.9-C
Type	4-cycle turbocharged diesel engine	
Cooling method	Water cooling	
Number of cylinders and arrangement	6 cylinders, in-line	
Firing order	1-5-3-6-2-4	
Combustion chamber type	Direct injection type	
Cylinder bore × stroke	114 × 135mm(4.49" × 5.32")	*102 × 112(4.02" × 4.72")
Piston displacement	8270cc(505cu in)	*5900cc(360cu in)
Compression ratio	17.3 : 1	*16.3
Rated gross horse power(SAE J1995)	195Hp at 1900rpm(145kW at 1900rpm)	
	*213Hp at 1900rpm(159kW at 1900rpm)	
Maximum torque	62.1kgf · m(449lbf · ft) at 1600rpm	
	*94.7kgf · m(685lbf · ft) at 1500rpm	
Engine oil quantity	18.9 l (4.9U.S. gal)	*23.7 l (6.3U.S. gal)
Dry weight	588kg(1296lb)	*489kg(1012lb)
High idling speed	2093+50rpm	*1950+50rpm
Low idling speed	800±100rpm	*700±50rpm
Rated fuel consumption	166.3g/Hp · hr at 1900rpm	*154.4g/Hp · hr at 1900rpm
Starting motor	Nippon denso(24V-7.5kW)	*(24V-4.5kW)
Alternator	Delco Remy 24V-50A	
Battery	2 × 12V × 160Ah	

* : TIER II

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 136.8cc/rev
Maximum pressure	330kgf/cm ² (4690psi)[360kgf/cm ² (5120psi)]
Rated oil flow	2 × 260 l /min (68.7U.S. gpm/ 57.2U.K. gpm)
Rated speed	1900rpm

[]: 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	28.5 l /min(7.5U.S. gpm/6.3U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm ² (4690psi) [360kgf/cm ² (5120psi)]
Overload relief valve pressure	390kgf/cm ² (5550psi)

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Two fixed displacement axial piston motor
Capacity	169.4cc/rev
Relief pressure	265kgf/cm ² (3770psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	70kgf · m(506lbf · ft)
Brake release pressure	28.5~32kgf/cm ² (405~455psi)
Reduction gear type	2 - stage planetary
Swing speed	11rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	330kgf/cm ² (4620psi)
Capacity(max / min)	279.1/160cc/rev
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	15.7kgf/cm ² (223psi, ~#1214)
	9kgf/cm ² (128psi, #1215~)
Braking torque	78.8kgf · m(570lbf · ft, ~#1214)
	40kgf/cm ² (289psi, #1215~)

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	ø 140 × ø 100 × 1465mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 150 × ø 110 × 1765mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 140 × ø 95 × 1185mm
	Cushion	Extend only
Bucket cylinder (LONG REACH)	Bore dia × Rod dia × Stoke	ø 100 × ø 70 × ø 870
	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.

9) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R290LC-7	Standard	600mm(24")	0.56kgf/cm ² (7.97psi)	48	3200mm(10' 6")
	Option	700mm(28")	0.49kgf/cm ² (6.97psi)	48	3300mm(10' 10")
		800mm(32")	0.44kgf/cm ² (6.26psi)	48	3400mm(11' 1")
		900mm(36")	0.38kgf/cm ² (5.40psi)	48	3500mm(11' 5")
R290NLC-7	Standard	600mm(24")	0.55kgf/cm ² (7.82psi)	48	2990mm(9' 10")
R290LC-7 LONG REACH	Standard	800mm(32")	0.44kgf/cm ² (6.26psi)	48	3400mm(11' 2")
R290LC-7 HIGH WALKER	Standard	600mm(24")	0.62kgf/cm ² (8.82psi)	48	3470mm(11' 5")
	Option	700mm(28")	0.54kgf/cm ² (7.68psi)	48	3570mm(11' 9")
		800mm(32")	0.48kgf/cm ² (6.83psi)	48	3670mm(12' 0")
		*710mm(28")	0.54kgf/cm ² (7.68psi)	48	3580mm(11' 9")

※ : Double grouser.

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		PCSA heaped	CECE heaped		Without side cutter	With side cutter
R290LC-7 R290NLC-7 H/WALKER	Standard	1.27m³(1.66yd³)	1.10m³(1.44yd³)	5	1290mm(50.8")	1410mm(55.5")
	Option	0.79m³(1.03yd³)	0.70m³(0.92yd³)	3	890mm(35.0")	1010mm(39.8")
		1.03m³(1.35yd³)	0.90m³(1.18yd³)	4	1090mm(42.9")	1210mm(47.6")
		◆ 1.07m³(1.40yd³)	0.95m³(1.24yd³)	5	1060mm(42.0")	-
		◆ 1.27m³(1.66yd³)	1.10m³(1.44yd³)	5	1220mm(48.0")	-
		◆ 1.46m³(1.91yd³)	1.28m³(1.67yd³)	5	1370mm(54.0")	-
		1.16m³(1.52yd³)	1.00m³(1.05yd³)	5	1305mm(51.4")	-
		1.50m³(1.96yd³)	1.30m³(1.70yd³)	6	1490mm(58.7")	1610mm(63.4")
		1.73m³(2.26yd³)	1.50m³(1.96yd³)	6	1696mm(66.8")	-
		1.85m³(2.42yd³)	1.60m³(2.09yd³)	5	1800mm(70.9")	-
LONG REACH	Standard	0.52m³(0.68yd³)	0.46m³(0.60yd³)	5	935mm(36.8")	1035mm(40.8")

◆ : Heavy duty bucket

: Rock bucket(ESCO type)