

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSL
Type	4-cycle turbocharged charger air cooled 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 × 145 mm (4.49" × 5.70")
Piston displacement	8900 cc (540 cu in)
Compression ratio	17.8 : 1
Rated gross horse power (SAE J1995)	296 Hp at 1850 rpm (221 kW at 1850 rpm)
Maximum torque	148 kgf · m (1070 lbf · ft) at 1400 rpm
Engine oil quantity	31.7 l (8.4 U.S. gal)
Dry weight	740 kg (1630 lb)
Low idling speed	800 ± 100 rpm
High idling speed	1700 + 50 rpm
Rated fuel consumption	164.8 g/Hp · hr at 1850 rpm
Starting motor	Denso (24V-7.5 kW)
Alternator	Delco Remy 24V-50A
Battery	2 × 12V × 160Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 175 cc/rev
Maximum pressure	330 kgf/cm ² (4690 psi) [360 kgf/cm ² (5120 psi)]
Rated oil flow	2 × 306 l /min (80.8 U.S. gpm / 67.3 U.K. gpm)
Rated speed	1750 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	27 l /min (7.1 U.S. gpm/5.9 U.K. gpm)

4) MAIN CONTROL VALVE

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

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Axial piston motor
Capacity	233 cc/rev
Relief pressure	290 kgf/cm ² (4120 psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	107 kgf · m (773 lbf · ft)
Brake release pressure	30~50 kgf/cm ² (427~711 psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	360 kgf/cm ² (5120 psi)
Capacity (max / min)	114.2/185.2 cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	8.5 kgf/cm ² (121 psi)
Braking torque	44.4 kgf · m (321 lbf · ft)

7) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 160 × ∅ 110 × 1500 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 170 × ∅ 120 × 1760 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 150 × ∅ 105 × 1295 mm
	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.

8) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
R380LC-9	Standard	600 mm (24")	0.68 kgf/cm ² (9.67 psi)	51	3340 mm (10' 11")
	Option	700 mm (28")	0.59 kgf/cm ² (8.39 psi)	51	3440 mm (11' 3")
		750 mm (30")	0.56 kgf/cm ² (7.96 psi)	51	3490 mm (11' 5")
		800 mm (32")	0.52 kgf/cm ² (7.39 psi)	51	3540 mm (11' 7")
		900 mm (36")	0.47 kgf/cm ² (6.68 psi)	51	3640 mm (11' 11")

9) BUCKET

Item		Capacity		Tooth quantity	Width		
		SAE heaped	CECE heaped		Without side cutter	With side cutter	
R380LC-9	Standard	1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.8 yd ³)	5	1440 mm (56.7")	1570 mm (61.8")	
			1.46 m ³ (1.91 yd ³)	1.27 m ³ (1.66 yd ³)	4	1380 mm (54.3")	1510 mm (59.4")
		◆	1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.83 yd ³)	5	1540 mm (60.6")	-
		◎	1.44 m ³ (1.88 yd ³)	1.27 m ³ (1.66 yd ³)	5	1280 mm (50.4")	-
		◎	1.62 m ³ (2.12 yd ³)	1.40 m ³ (1.83 yd ³)	5	1545 mm (60.8")	-
		◎	1.86 m ³ (2.43 yd ³)	1.60 m ³ (2.1 yd ³)	5	1725 mm (67.9")	-
			1.86 m ³ (2.43 yd ³)	1.60 m ³ (2.1 yd ³)	5	1620 mm (63.8")	1750 mm (68.9")
			2.10 m ³ (2.75 yd ³)	1.80 m ³ (2.4 yd ³)	6	1810 mm (71.3")	1940 mm (76.4")
			2.32 m ³ (3.03 yd ³)	2.00 m ³ (2.62 yd ³)	6	1990 mm (78.3")	2120 mm (83.5")

◆ : Heavy duty bucket

◎ : Rock bucket (esco type)