

8. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSM 11
Type	4-cycle turbocharged charge 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	125 × 147.1mm(4.92" × 5.79")
Piston displacement	10800cc(659cu in)
Compression ratio	16.3 : 1
Rated gross horse power(SAE J1995)	362ps at 1900rpm(357Hp / 266kW at 1900rpm)
Maximum torque	170.6kgf · m(1234lbf · ft) at 1400rpm
Engine oil quantity	37.85 l (10U.S. gal)
Dry weight	942kg(2077lb)
High idling speed	1850 ± 50rpm
Low idling speed	700 ± 50rpm
Rated fuel consumption	161.8g/Hp · hr at 1900rpm
Starting motor	Delco Remy 42MT (24V-7.2kW)
Alternator	Delco Remy 24V-50A
Battery	2 × 12V × 200Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 200cc/rev
Maximum pressure	330kgf/cm ² (4690psi)[360kgf/cm ² (5120psi)]
Rated oil flow	2 × 380 l /min (100.4U.S. gpm/83.6U.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 (498psi)
Rated oil flow	28.5 l /min(7.5U.S. gpm/6.3U.K. gpm)

4) MAIN CONTROL VALVE

Item		Specification	
		R450LC-7A	R450LC-7A Long reach
Type		9 spools	
Operating method		Hydraulic pilot system	
Main relief valve pressure		330kgf/cm ² (4695psi) [360kgf/cm ² (5120psi)]	
Overload relief valve pressure	Boom	380kgf/cm ² (5400psi)	380kgf/cm ² (5400psi)
	Arm	380kgf/cm ² (5400psi)	280kgf/cm ² (3980psi)
	Bucket	380kgf/cm ² (5400psi)	280kgf/cm ² (3980psi)

[]: Power boost

5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	148.5cc/rev
Relief pressure	285kgf/cm ² (4050psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	63kgf · m(456lbf · ft)
Brake release pressure	23~50kgf/cm ² (327~711psi)
Reduction gear type	2 - stage planetary
Swing speed	9.0rpm

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	345kgf/cm ² (4910psi)
Capacity(max / min)	160/100cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	17~50kgf/cm ² (242~711psi)
Braking torque	103kgf · m(745lbf · 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	ø 170 × ø 120 × 1570mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 185 × ø 125 × 1820mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 160 × ø 110 × 1370mm
	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
R450LC-7A	Standard	600mm(24")	0.78kgf/cm ² (11.09psi)	53	3340mm(10' 11")
	Option	700mm(28")	0.67kgf/cm ² (9.53psi)	53	3440mm(11' 3")
		750mm(30")	0.63kgf/cm ² (8.96psi)	53	3490mm(11' 5")
		800mm(32")	0.60kgf/cm ² (8.53psi)	53	3540mm(11' 7")
		900mm(36")	0.54kgf/cm ² (7.68psi)	53	3640mm(11' 11")

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		PCSA heaped	CECE heaped		Without side cutter	With side cutter
R450LC-7A	Standard	2.15m ³ (2.81yd ³)	1.85m ³ (2.40yd ³)	5	1610mm(63.4")	1760mm(69.3")
	Option	1.38m ³ (1.80yd ³)	1.20m ³ (1.57yd ³)	4	1100mm(43.3")	1250mm(49.2")
		1.65m ³ (2.16yd ³)	1.44m ³ (1.88yd ³)	5	1350mm(55.9")	1500mm(59.1")
		⊙1.80m ³ (2.35yd ³)	1.50m ³ (1.96yd ³)	5	1560mm(61.4")	-
		1.84m ³ (2.41yd ³)	1.60m ³ (2.09yd ³)	5	1420mm(55.9")	1570mm(61.8")
		◆2.20m ³ (2.88yd ³)	1.80m ³ (2.35yd ³)	5	1840mm(72.4")	-
		⊙2.20m ³ (2.88yd ³)	1.80m ³ (2.35yd ³)	5	1810mm(71.3")	-
		⊙2.43m ³ (3.18yd ³)	2.10m ³ (2.75yd ³)	5	1860mm(73.2")	-
		2.56m ³ (3.35yd ³)	2.20m ³ (2.90yd ³)	6	1870mm(73.6")	2020mm(79.5")
		2.79m ³ (3.65yd ³)	2.40m ³ (3.14yd ³)	7	2020mm(79.5")	2170mm(85.4")
		3.03m ³ (3.96yd ³)	2.60m ³ (3.40yd ³)	7	2170mm(85.4")	2320mm(91.3")
		⊙3.20m ³ (4.19yd ³)	2.80m ³ (3.66yd ³)	5	2080mm(81.9")	-

◆ : Heavy duty bucket

⊙ : Rock bucket(Esco type)