

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 × 160Ah

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	
		R500LC-7A	R500LC-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	10.0rpm

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 115 × 1570mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 190 × ø 130 × 1820mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 170 × ø 115 × 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
R500LC-7A	Standard	★600mm(24")	0.86kgf/cm ² (12.23psi)	53	3540mm(11' 7")
	Option	★700mm(28")	0.75kgf/cm ² (10.67psi)	53	3640mm(11' 11")
		★750mm(30")	0.70kgf/cm ² (9.96psi)	53	3690mm(12' 1")
		★800mm(32")	0.66kgf/cm ² (9.39psi)	53	3740mm(12' 3")
		※ 600mm(24")	0.86kgf/cm ² (12.23psi)	53	3540mm(11' 7")
		※ 700mm(28")	0.75kgf/cm ² (10.67psi)	53	3640mm(11' 11")

★Triple grouser

※ Double grouser

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R500LC-7A	Standard	2.15m³(2.81yd³)	1.92m³(2.51yd³)	5	1415mm(55.7")	1565mm(61.6")
	Option	1.38m³(1.80yd³)	1.25m³(1.63yd³)	4	995mm(39.2")	1145mm(45.1")
		1.65m³(2.16yd³)	1.48m³(1.94yd³)	5	1140mm(44.9")	1290mm(50.8")
		1.84m³(2.41yd³)	1.65m³(2.16yd³)	5	1245mm(49.0")	1395mm(54.9")
		2.56m³(3.35yd³)	2.27m³(2.97yd³)	5	1635mm(64.4")	1785mm(70.3")
		2.79m³(3.65yd³)	2.47m³(3.23yd³)	5	1760mm(69.3")	1910mm(75.2")
		3.03m³(3.96yd³)	2.67m³(3.49yd³)	6	1890mm(74.4")	2040mm(80.3")
		3.20m³(4.19yd³)	2.82m³(3.69yd³)	7	1980mm(78.0")	2130mm(83.9")
		3.60m³(4.71yd³)	3.17m³(4.15yd³)	7	2200mm(86.6")	2350mm(92.5")
		★1.38m³(1.80yd³)	1.20m³(1.57yd³)	4	1100mm(43.3")	1250mm(49.2")
		★1.65m³(2.16yd³)	1.44m³(1.88yd³)	5	1350mm(53.1")	1500mm(59.1")
		◆2.20m³(2.88yd³)	1.80m³(2.35yd³)	5	1840mm(71.3")	-
		◎1.80m³(2.35yd³)	1.50m³(1.96yd³)	5	1560mm(61.4")	-
		◎2.20m³(2.88yd³)	1.80m³(2.35yd³)	5	1810mm(71.3")	-
		◎2.43m³(3.18yd³)	2.10m³(2.75yd³)	5	1860mm(73.2")	-
		◎3.20m³(4.19yd³)	2.80m³(3.66yd³)	7	2080mm(81.9")	-

★ : 9.00m Boom, 5.85m Arm only

◆ : Heavy duty bucket

◎ : Rock bucket(ESCO type)