# 8. SPECIFICATIONS FOR MAJOR COMPONENTS

## 1) ENGINE

| Item | Specification |
|---|---|
| Model | Cummins QSB6.7 |
| 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 | 107 × 124 mm (4.2" × 4.9") |
| Piston displacement | 6700 cc (409 cu in) |
| Compression ratio | 17.2 : 1 |
| Rated gross horse power (SAE J1995) | 195 Hp at 1900 rpm (146 kW at 1900 rpm) |
| Maximum torque | 95.0 kgf · m (687 lbf · ft) at 1400 rpm |
| Engine oil quantity | 24 ℓ (6.3 U.S. gal) |
| Dry weight | 556 kg (1225 lb) |
| High idling speed | 1950+ 50 rpm |
| Low idling speed | 850± 100 rpm |
| Rated fuel consumption | 167.4 g/Hp · hr at 1900 rpm |
| Starting motor | Nippon denso (24V-4.5 kW) |
| Alternator | Delco Remy 24V-50A |
| Battery | 2 × 12V × 100 Ah |

## 2) MAIN PUMP

| Item | Specification |
|---|---|
| Type | Variable displacement tandem axis piston pumps |
| Capacity | 2 × 117 cc/rev |
| Maximum pressure | 350 kgf/cm$^2$ (4980 psi) [380 kgf/cm$^2$ (5400 psi)] |
| Rated oil flow | 2 × 222 ℓ /min (58.7 U.S. gpm/ 48.8 U.K. gpm) |
| Rated speed | 1900 rpm |

[ ] : Power boost

### 3) GEAR PUMP

| Item | Specification |
|---|---|
| Type | Fixed displacement gear pump single stage |
| Capacity | 15 cc/rev |
| Maximum pressure | 40 kgf/cm$^2$ (570 psi) |
| Rated oil flow | 28.5 ℓ /min (7.45 U.S. gpm / 6.27 U.K. gpm) |

### 4) MAIN CONTROL VALVE

| Item | Specification |
|---|---|
| Type | 9 spools |
| Operating method | Hydraulic pilot system |
| Main relief valve pressure | 350 kgf/cm$^2$ (4980 psi) [380 kgf/cm$^2$ (5400 psi)] |
| Overload relief valve pressure | 400 kgf/cm$^2$ (5690 psi) |

[ ] : Power boost

### 5) SWING MOTOR

| Item | Specification |
|---|---|
| Type | Axial piston motor |
| Capacity | 148.5 cc/rev |
| Relief pressure | 300 kgf/cm$^2$ (4270 psi) |
| Braking system | Automatic, spring applied hydraulic released |
| Braking torque | 70 kgf · m (506 lbf · ft) |
| Brake release pressure | 35 kgf/cm$^2$ (500 psi) |
| Reduction gear type | 2 - stage planetary |

### 6) TRAVEL MOTOR

| Item | Specification |
|---|---|
| Type | Axial piston motor |
| Relief pressure | 350 kgf/cm$^2$ (4980 psi) |
| Capacity (max / min) | 93.5/161.5 cc/rev |
| Reduction gear type | Planetary differential |
| Braking system | Automatic, spring applied hydraulic released |
| Brake release pressure | 8.2 kgf/cm$^2$ (116 psi) |
| Braking torque | 50 kgf · m (362 lbf · ft) |

### 7) CYLINDER

| Item | | Specification |
|---|---|---|
| Boom cylinder | Bore dia × Rod dia × Stroke | ø 135 × ø 95 × 1345 mm |
| | Cushion | Extend only |
| Arm cylinder | Bore dia × Rod dia × Stroke | ø 145 × ø 105 × 1620 mm |
| | Cushion | Extend and retract |
| Bucket cylinder | Bore dia × Rod dia × Stroke | ø 130 × ø 90 × 1185 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 |
|---|---|---|---|---|---|
| R250LC-9 | Standard | 600 mm (24") | 0.51 kgf/cm² (7.25 psi) | 51 | 3180 mm (10' 5") |
| | Option | 700 mm (28") | 0.44 kgf/cm² (6.26 psi) | 51 | 3280 mm (10' 9") |
| | | 800 mm (32") | 0.39 kgf/cm² (5.55 psi) | 51 | 3380 mm (11' 1") |
| | | 900 mm (36") | 0.35 kgf/cm² (4.98 psi) | 51 | 3480 mm (11' 5") |
| R250NLC-9 | Standard | 600 mm (24") | 0.51 kgf/cm² (7.25 psi) | 51 | 2980 mm ( 9' 9") |
| R250LC-9 HIGH WALKER | Standard | 600 mm (24") | 0.53 kgf/cm² (7.54 psi) | 48 | 3180 mm (10' 5") |
| | Option | 700 mm (28") | 0.46 kgf/cm² (6.54 psi) | 48 | 3280 mm (10' 9") |
| | | 800 mm (32") | 0.41 kgf/cm² (5.83 psi) | 48 | 3380 mm (11' 1") |
| | | ★700 mm (28") | 0.47 kgf/cm² (6.68 psi) | 48 | 3280 mm (10' 9") |

★: Double grouser

### 9) BUCKET

| Item | | Capacity | | Tooth quantity | Width | |
|---|---|---|---|---|---|---|
| | | SAE heaped | CECE heaped | | Without side cutter | With side cutter |
| R250LC-9 R250NLC-9 R250LC-9 H/WALKER | Standard | 1.08 m³ (1.41 yd³) | 0.95 m³ (1.24 yd³) | 5 | 1130 mm (44.5") | 1250 mm (49.2") |
| | Option | 0.60 m³ (0.78 yd³) | 0.55 m³ (0.72 yd³) | 3 | 760 mm (29.9") | 880 mm (34.6") |
| | | 0.79 m³ (1.03 yd³) | 0.70 m³ (0.92 yd³) | 3 | 890 mm (35.0") | 1010 mm (39.8") |
| | | 1.03 m³ (1.35 yd³) | 0.90 m³ (1.18 yd³) | 4 | 1090 mm (42.9") | 1210 mm (47.6") |
| | | 1.27 m³ (1.66 yd³) | 1.10 m³ (1.44 yd³) | 5 | 1290 mm (50.8") | 1410 mm (55.5") |
| | | ◈1.07 m³ (1.40 yd³) | 0.95 m³ (1.24 yd³) | 5 | 1150 mm (45.3") | - |
| | | ◈1.15 m³ (1.50 yd³) | 1.00 m³ (1.31 yd³) | 5 | 1210 mm (47.6") | - |
| | | ◈1.27 m³ (1.66 yd³) | 1.10 m³ (1.44 yd³) | 5 | 1310 mm (51.6") | - |
| | | ◈1.46 m³ (1.91 yd³) | 1.28 m³ (1.67 yd³) | 5 | 1460 mm (57.5") | - |
| | | ⊙1.16 m³ (1.52 yd³) | 1.00 m³ (1.31 yd³) | 5 | 1340 mm (52.8") | - |
| | | 1.50 m³ (1.96 yd³) | 1.30 m³ (1.70 yd³) | 6 | 1490 mm (58.7") | 1610 mm (63.4") |

◈ : Heavy duty bucket ⊙ : Rock bucket