

#### 4. SPECIFICATION FOR MAJOR COMPONENTS

##### 1) ENGINE

Item	Specification
Model	Cummins QSB5.9-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	102 × 120mm(4.02" × 4.72")
Piston displacement	5880cc(359cu in)
Compression ratio	18.1 : 1
Rated gross horse power	140hp at 2200rpm
Maximum gross torque at 1500rpm	60kgf · m(434lb · ft)
Engine oil quantity	16.4 l (4.3 U.S. gal)
Dry weight	432kg(952lb)
High idling speed	2330 ± 50rpm
Low idling speed	950 ± 50rpm
Rated fuel consumption	226g/kw · hr
Starting motor	Nippondenso 228000-7902 (24V)
Alternator	Delco Remy 22SI(24V-70Amp)
Battery	2 × 12V × 100Ah

## 2) MAIN PUMP

Item		Specification
Type	Fixed displacement tandem helical gear pump	
Capacity	46+36cc/rev	
Maximum operating pressure	220kgf/cm <sup>2</sup> (3129psi)	
Rated operating speed	2200rpm	
Rated output flow	177 l /min(46.8U.S.gpm)	

## 3) FAN AND BRAKE PUMP

Item	Specification	
	Fan	Brake
Type	Fixed displacement tandem helical gear pump	
Capacity	16.8cc/rev	8.2cc/rev
Maximum operating pressure	150kgf/cm <sup>2</sup> (2130psi)	
Rated operating speed	2200rpm	
Rated output flow	35 l /min(9.2U.S.gpm)	17 l /min(4.5U.S.gpm)

## 4) MAIN CONTROL VALVE

Item		Specification
Type	2 spool(sectional block)	
Operating method	Hydraulic pilot assist	
Main relief valve set pressure	220kgf/cm <sup>2</sup> (3129psi)	
Overload relief valve set pressure	240kgf/cm <sup>2</sup> (3414psi)	

## 5) REMOTE CONTROL VALVE

Item		Specification
Type	Joystick(or with aux lever)	
Control pressure	Minimum	3.7kgf/cm <sup>2</sup> (52.6psi)
	Maximum	30kgf/cm <sup>2</sup> (427psi)

## 6) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 120 × ∅ 70 × 738mm
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 100 × ∅ 50 × 745mm
Steering cylinder	Bore dia × Rod dia × Stroke	∅ 65 × ∅ 40 × 429mm
Quick coupler cylinder	Bore dia × Rod dia × Stroke	∅ 50 × ∅ 25 × 79mm

## 7) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification
Torque converter	Model	ZF 4WG160
	Type	Single-stage, single-phase
Transmission	Type	Full-automatic power shift
	Gear shift	Forward fourth gear, reverse third gear
	Adjustment	Electrical single lever type, kick-down system
Axle	Drive devices	4-wheel drive
	Front	Front fixed location
	Rear	Oscillation $\pm 12^\circ$ of center pin-loaded
Wheels	Tires	20.5-25, 16PR(L3)
Brakes	Travel	Four-wheel, wet-disc type, full hydraulic
	Parking	Spring applied, hydraulic released brake on front axle
Steering	Type	Full hydraulic, articulated
	Steering angle	$40^\circ$ to both right and left angle, respectively