

4. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSB4.5
Type	4-cycle turbocharged and after cooled diesel engine
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-2-4
Combustion chamber type	Direct injection type
Cylinder bore × stroke	107 × 124mm(4.21" × 4.88")
Piston displacement	4500cc(275cu in)
Compression ratio	17.2 : 1
Rated gross horse power	125hp at 2100rpm
Maximum gross torque at 1400rpm	56kgf · m(408lbf · ft)
Engine oil quantity	11 l (2.9 U.S. gal)
Dry weight	371kg(818lb)
High idling speed	2230 ± 50rpm
Low idling speed	950 ± 25rpm
Rated fuel consumption	237g/kw · hr
Starting motor	Nippondenso 228000-7902 (24V-3.7kw)
Alternator	Delco Remy 24SI(24V-70Amp)
Battery	2 × 12V × 100Ah

2) MAIN PUMP

Item	Specification
Type	Fixed displacement helical gear pump
Capacity	36+32.3cc/rev
Maximum operating pressure	210kgf/cm ² (2990psi)
Rated operating speed	2100rpm
Rated output flow	140 l /min(40U.S.gpm)

3) FAN AND BRAKE PUMP

Item	Specification	
	Fan	Brake
Type	Fixed displacement tandem helical gear pump	
Capacity	14cc/rev	8.7cc/rev
Maximum operating pressure	100kgf/cm ² (1422psi)	150kgf/cm ² (2130psi)
Rated operating speed	2100rpm	
Rated output flow	29 l /min(7.7U.S.gpm)	18 l /min(4.8U.S.gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	2 spool(sectional block)
Operating method	Hydraulic pilot assist
Main relief valve set pressure	210kgf/cm ² (2990psi)
Overload relief valve set pressure	240kgf/cm ² (3414psi)

5) REMOTE CONTROL VALVE

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

6) CYLINDER

Item	Specification
Boom cylinder	Bore dia × Rod dia × Stroke ∅ 105 × ∅ 65 × 772mm
Bucket cylinder	Bore dia × Rod dia × Stroke ∅ 120 × ∅ 70 × 510mm
Steering cylinder	Bore dia × Rod dia × Stroke ∅ 60 × ∅ 35 × 412mm

7) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification
Torque converter	Model	ZF 4WG130
	Type	Single-stage, single-phase
Transmission	Type	Full-automatic power shift
	Gear shift	Forward fourth gear, reverse third gear
	Control	Electrical single lever type, kick-down system
Axle	Drive devices	4-wheel drive
	Front	Front fixed location
	Rear	Oscillation $\pm 13^\circ$ of center pin-loaded
Wheels	Tires	17.5-25, 12PR(L3)
Brakes	Travel	Four-wheel, wet-disc type, full hydraulic
	Parking	Spring applied, hydraulic released brake in front axle
Steering	Type	Full hydraulic, articulated
	Steering angle	40° to both right and left angle, respectively