

4. SPECIFICATION FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Cummins QSM 11
Type	4-cycle turbocharged, charge air cooled diesel engine
Control type	Electronic control
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 mm (4.92" × 5.79")
Piston displacement	10800 cc (659 cu in)
Compression ratio	16.3 : 1
Rated gross horse power	353 ps at 2000 rpm
Maximum gross torque at 1400 rpm	171 kgf · m (1237 lbf · ft)
Engine oil quantity	38 l (10 U.S. gal)
Wet weight	984 kg (2170 lb)
High idling speed	2130 ± 50 rpm
Low idling speed	800 ± 50 rpm
Rated fuel consumption	162 g/ps-hr
Starting motor	Delco Remy 42MT (24 V)
Alternator	Delco Remy 22SI (24 V - 70 Amp)
Battery	2 × 12V × 220Ah

2) MAIN PUMP

Item	Specification	
	Steering pump	Loader pump
Type	Variable double piston pump	
Capacity	110 cc/rev	100 cc/rev
Maximum operating pressure	280 kgf/cm ² (3980 psi)	
Rated oil quantity	220 l /min (58.1 U.S.gpm)	200 l /min (52.8 U.S.gpm)
Rated speed	2000 rpm	

3) FAN + BRAKE PUMP

Item	Specification	
	Fan pump	Brake pump
Type	Fixed displacement tandem gear pump	
Capacity	26.7 cc/rev	26.4 cc/rev
Maximum operating pressure	170 kgf/cm ² (2420 psi)	
Rated oil quantity	53.4 l /min (14.1 U.S.gpm)	52.8 l /min (13.9 U.S.gpm)
Rated speed	2000 rpm	

4) MAIN CONTROL VALVE

Item	Specification
Type	2 spool
Operating method	Hydraulic pilot assist
Main relief valve pressure	280 kgf/cm ² (3980 psi)
Overload relief valve pressure	340 kgf/cm ² (4840 psi)
Overload relief valve pressure (dump)	310 kgf/cm ² (4410 psi)

5) REMOTE CONTROL VALVE

Item	Specification	
Type	Pressure reducing type	
Operating	Minimum	5 kgf/cm ² (71 psi)
	Maximum	30 kgf/cm ² (427 psi)
Single operation angle	degree	17

6) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 180 × ∅ 105 × 863 mm
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 140 × ∅ 75 × 575 mm
Steering cylinder	Bore dia × Rod dia × Stroke	∅ 105 × ∅ 55 × 480 mm

7) DYNAMIC POWER TRANSMISSION DEVICES

Item		Specification	
Transmission	Model	ZF 4WG310	
	Type	Converter	Single-stage, double-phase
		Transmission	Full-automatic power shift
	Converter stall ratio	2.987 : 1	
	Gear shift	Forward fourth gear, reverse third gear	
	Control	Electrical single lever type, kick-down system, Automatic kick down from 2nd to 1st gear FNR Switch on joystick lever (option)	
	Pump rated flow	105 ℓ /min (27.7 U.S.gpm) at 2000 rpm	
Axle	Drive devices	4-wheel drive	
	Front	Front fixed location	
	Rear	Oscillation 13° of center pin-loaded	
Wheels	Tires	29.5-25, 22PR (L3)	
Brakes	Travel	Four-wheel, wet-disc type, full hydraulic	
	Parking	Spring applied, hydraulic released brake	
Steering	Type	Full hydraulic, articulated	
	Steering angle	40° to both right and left angle, respectively	