

7. SPECIFICATIONS FOR MAJOR COMPONENTS

1) ENGINE

Item	Specification
Model	Yanmar 4TN98-EPHYB
Type	4-cycle diesel engine, low emission
Cooling method	Water cooling
Number of cylinders and arrangement	4 cylinders, in-line
Firing order	1-3-4-2
Combustion chamber type	Direct injection type
Cylinder bore × stroke	98 × 110mm(3.85" × 4.33")
Piston displacement	3319cc(203cu in)
Compression ratio	18.5 : 1
Rated gross horse power(SAE J1995)	57Hp at 2400rpm(42.5kW at 2400rpm)
Maximum torque at 1550rpm	20.5kgf · m(148lbf · ft)
Engine oil quantity	11.6 l (3.1U.S. gal)
Dry weight	270kg(595lb)
High idling speed	2400+ 50rpm
Low idling speed	1050 ± 100rpm
Rated fuel consumption	175.6g/Hp · hr at 2400rpm
Starting motor	12V-3.0kW
Alternator	12V-80A
Battery	1 × 12V × 100Ah

2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 26.3cc/rev
Maximum pressure	220kgf/cm ² (3130psi)
Rated oil flow	2 × 58 l /min (15.3U.S. gpm/ 12.8U.K. gpm)
Rated speed	2200rpm

3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	16.2/6.5cc/rev
Maximum pressure	200/30kgf/cm ² (2840/430psi)
Rated oil flow	38.9/15.6 l /min(10.3/4.1U.S. gpm/8.6/3.4U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	10 spools sectional block(+1 optional block)
Operating method	Hydraulic pilot system
Main relief valve pressure	220kgf/cm ² (3130psi)
Overload relief valve pressure	240kgf/cm ² (3410psi)

5) SWING MOTOR

Item	Specification
Type	Two fixed displacement axial piston motor
Capacity	30.4cc/rev
Relief pressure	200kgf/cm ² (2840psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	14kgf · m(101lb · ft)
Brake release pressure	20~40kgf/cm ² (284~570psi)
Reduction gear type	2 - stage planetary
Swing speed	9.3rpm

6) TRAVEL MOTOR

Item	Specification
Type	Bent axis design variable displacement axial piston motor
Relief pressure	220kgf/cm ² (3130psi)
Counterbalance valve	Applied
Capacity	80cc

7) POWER TRAIN

Item	Description		Specification
Gear box	Type		2 speed hydrostatic
	Gear ratio	1st	6.357
		2nd	1.961
Parking brake	Type		Multi disc brake integrated in rear axle
	Maximum braking power		945kgf · m(6835lbf · ft)
Axle	Type		4 wheel drive with differential
	Gear ratio		8.67
	Brake		Multi disc brake

8) REMOTE CONTROL VALVE

Item	Specification	
Type	Pressure reducing type	
Operating pressure	Minimum	5kgf/cm ² (71psi)
	Maximum	20kgf/cm ² (284psi)
Pushrod stroke	6.5/8.5mm(0.26/0.33in)	

9) CYLINDER

Item	Specification	
Boom cylinder	Bore dia × Rod dia × Stroke	ø 110 × ø 65 × 715mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	ø 90 × ø 55 × 850mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	ø 80 × ø 50 × 660mm
	Cushion	Extend only
Dozer cylinder	Bore dia × Rod dia × Stroke	ø 100 × ø 50 × 159mm
	Cushion	-
Boom swing cylinder	Bore dia × Rod dia × Stroke	ø 95 × ø 50 × 535mm
	Cushion	-

※ 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.

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R55W-7A	STD	0.18m ³ (0.24yd ³)	0.15m ³ (0.20yd ³)	5	705mm(27.8")	770mm(30.3")
	OPT	0.07m ³ (0.09yd ³)	0.06m ³ (0.08yd ³)	3	315mm(12.4")	360mm(14.2")