

## 8. SPECIFICATIONS FOR MAJOR COMPONENTS

### 1) ENGINE

Item	Specification
Model	Yanmar 4TNV94L
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	94 × 110mm(3.70" × 4.33")
Piston displacement	3054cc(186cu in)
Compression ratio	19 : 1
Rated gross horse power(SAE J1995)	53Hp at 2200rpm(40kW at 2200rpm)
Maximum torque at 1400rpm	20.6kgf · m(149lbf · ft)
Engine oil quantity	9.2 l (2.4U.S. gal)
Dry weight	260kg(573lb)
High idling speed	2400+ 50rpm
Low idling speed	1050 ± 100rpm
Rated fuel consumption	167.7g/Hp · hr at 2200rpm
Starting motor	12V-3.0kW
Alternator	12V-55A
Battery	1 × 12V × 100Ah

### 2) MAIN PUMP

Item	Specification
Type	Variable displacement tandem axis piston pumps
Capacity	2 × 25cc/rev
Maximum pressure	220kgf/cm <sup>2</sup> (3130psi)
Rated oil flow	2 × 55 l /min (14.5U.S. gpm/ 12U.K. gpm)
Rated speed	2200rpm

### 3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	16.2/4.5cc/rev
Maximum pressure	220/30kgf/cm <sup>2</sup> (3130/430psi)
Rated oil flow	35.6/9.9 l /min(9.4/2.6U.S. gpm/7.8/2.2U.K. gpm)

### 4) MAIN CONTROL VALVE

Item	Specification
Type	Sectional, 10 spools+1 option
Operating method	Hydraulic pilot system+Mechanical control system
Main relief valve pressure	220kgf/cm <sup>2</sup> (3130psi)
Overload relief valve pressure	240kgf/cm <sup>2</sup> (3410psi)

### 5) SWING MOTOR

Item	Specification
Type	Fixed displacement axial piston motor
Capacity	28.87cc/rev(~#1399), 30.4cc/rev(#1400~)
Relief pressure	215kgf/cm <sup>2</sup> (2840psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	14kgf · m(101lbf · ft)
Brake release pressure	20~40kgf/cm <sup>2</sup> (284~570psi)
Reduction gear type	2 - stage planetary
Swing speed	9.6rpm(~#1399), 9.3cc/rev(#1400~)

### 6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	220kgf/cm <sup>2</sup> (3130psi)
Reduction gear type	2-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	9kgf/cm <sup>2</sup> (128psi)
Braking torque	8.4kgf · m(61lbf · ft)

## 7) REMOTE CONTROL VALVE

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

## 8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	∅ 110 × ∅ 65 × 715mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	∅ 90 × ∅ 55 × 850mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	∅ 80 × ∅ 50 × 660mm
	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.

## 9) SHOE

Item	Width	Ground pressure	Link quantity	Overall width
R55-7	400mm(16")	0.33kgf/cm <sup>2</sup> (4.69psi)	40	1900mm( 6' 3")

## 10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
R55-7	STD	0.18m <sup>3</sup> (0.24yd <sup>3</sup> )	0.15m <sup>3</sup> (0.20yd <sup>3</sup> )	5	705mm(27.8")	770mm(30.3")
	OPT	0.07m <sup>3</sup> (0.09yd <sup>3</sup> )	0.06m <sup>3</sup> (0.08yd <sup>3</sup> )	3	315mm(12.4")	360mm(14.2")