SEBM005804

SHOP MANUAL

KOMATSU®

avance LOADER

WA180-3

MACHINE MODEL

WA180-3

SERIAL NUMBER

50001 and up

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

- WA180-3 mount the S6D95L and S6D102E engine.
  For details of the engine, see the 95 and 102 Series Engine Shop Manual.

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SPECIFICATIONS

	Machine model			WA180-3	
	Serial No.			50001–52999	53001 and up
Weight	Operating weight		kg	8,700	8,700
	Distribution (front)		kg	3,540	3,435
	Distribution (rear)		kg	5,160	5,265
Performance	Bucket capacity (piled) (with BOC)		m^3	1.7	1.7
	Rated load		kg	2,720	2,720
	Travel speed	FORWARD 1st	km/h	7.2	7.2
		FORWARD 2nd	km/h	12.0	12.0
		FORWARD 3rd	km/h	22.0	22.0
		FORWARD 4th	km/h	34.5	34.5
		REVERSE 1st	km/h	7.7	7.7
		REVERSE 2nd	km/h	12.6	12.6
		REVERSE 3rd	km/h	22.9	22.9
		REVERSE 4th	km/h	35.0	35.0
	Max. rimpull (Forward)		N (kg)	81,350 (8,300)	81,350 (8,300)
	(Reverse)		N (kg)	76,450 (7,800)	76,450 (7,800)
	Gradeability		deg	25	25
	Min. turning radius	Center of outside wheel	mm	4,650	4,650
		Outside portion of chassis	mm	5,385	5,385
Dimensions	Overall length (with BOC)		mm	6,250	6,410
	Overall width (chassis)		mm	2,320	2,320
	Bucket width		mm	2,440	2,440
	Overall height (top of cab)		mm	3,100	3,100
	(Bucket raised)		mm	4,700	4,700
	Wheelbase		mm	2,700	2,700
	Tread		mm	1,820	1,820
	Min. ground clearance		mm	430	430
	Height of bucket hinge pin		mm	3,545	3,545
	Dumping clearance (tip of bucket edge)		mm	2,780	2,780
	(tip of BOC)		mm	2,720	2,720
	Dumping reach (tip of bucket edge)		mm	945	945
	(tip of BOC)		mm	970	970

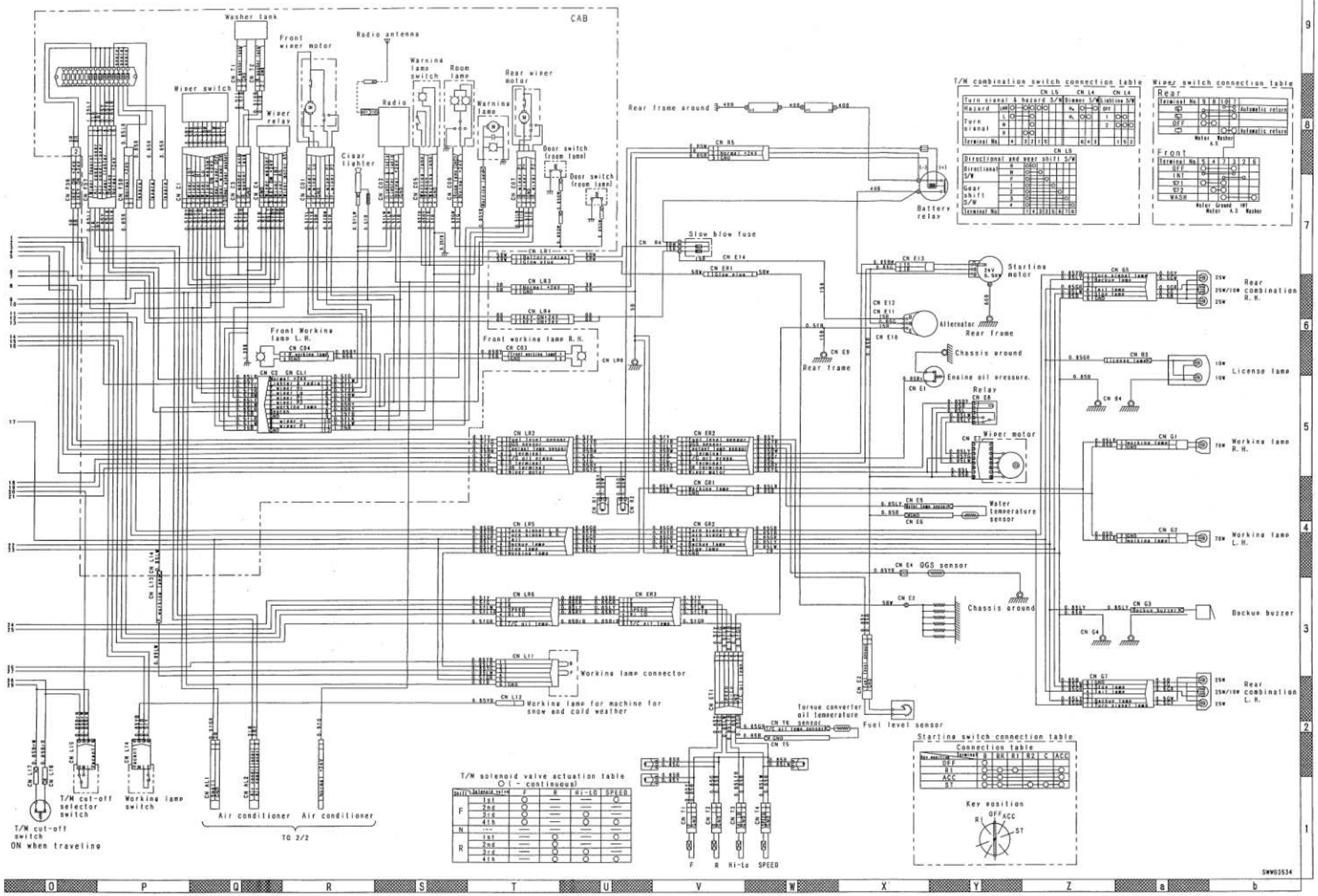
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Machine model			WA180-3	
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Dimensions	Bucket dump angle	deg	46	46
	Bucket tilt angle (SAE carring position)	deg	46	46
	Digging depth (10° dump)(tip of bucket edge)	mm	245	245
	(tip of BOC)	mm	285	285
Engine	Model		Komatsu S6D95L	Komatsu S6D102E-1
	Type		4-cycle, water-cooled, in-line, 6-cylinder, direct injection, with turbocharger	
	No. of cylinders – bore x stroke	mm	6 – 95 x 115	6 – 102 x 120
	Piston displacement	ℓ (cc)	4.89 (4,890)	5.88 (5,880)
	Flywheel horsepower	kW{HP}/rpm	82{110}/2,400	81{109}/2,400
	Maximum torque	Nm{kgm}/rpm	417{42.5}/1,600	417{42.5}/1,600
	Fuel consumption ratio	g/kWh{g/HPh}	218{162}	218{162}
	High idling speed	rpm	2,600	2,600
	Low idling speed	rpm	750	755
	Starting motor		24V 5.5kW	24V 4.5kW
	Alternator		24V 35A	24V 35A
	Battery		12V 110Ah x 2	12V 110Ah x 2
Power train	Torque converter		3-element, 1-stage, single-phase (Komatsu TCA30-6A)	
	Transmission		Spur gear, constant-mesh multiple-disc, hydraulically actuated, modulation type	
	Reduction gear		Spiral bevel gear	
	Differential		Straight bevel gear, torque proportioning	
	Final drive		Planetary gear, single reduction	
Axle, wheel	Drive type		Front/rear-wheel drive	
	Front axle		Fixed-frame, semi-floating	
	Rear axle		Center pin support type, semi-floating	
	Tire		18.4-24-10PR(L-2)	
	Wheel rim		W16L x 24	
	Inflation pressure Front tire	kPa{kg/cm²}	216 {2.2}	
	Rear tire	kPa{kg/cm²}	216 {2.2}	
Brakes	Main brake		Front/rear wheel independent braking wet-type sealed disc brakes with hydraulic booster	
	Parking brake		Thrust shaft (transmission shaft) braking, wet-type disc brake, mechanical type	

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Steering system	Type			Articulated type	
	Structure			Fully hydraulically power steering	
Hydraulic system	Hydraulic pump type (Hydraulic+Steering pump)			Gear type (SAL(2)40+14)	
	Delivery		ℓ/min.	144	
	Control valve	Set pressure for work equipment	MPa {kg/cm²}	Spool type 20.59 {210}	
		Set pressure for steering	MPa {kg/cm²}	Orbit-roll valve type 20.59 {210}	
	Cylinder	Boom cylinder No. – bore x stroke	mm	Reciprocating piston 2 – 110 x 618	
		Bucket cylinder No. – bore x stroke	mm	Reciprocating piston 1 – 120 x 423	
		Steering cylinder No. – bore x stroke	mm	Reciprocating piston 2 – 60 x 340	
Work equipment	Link type			Single link	
	Bucket edge type			Flat edge with BOC	

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