SHOP MANUAL

KOMATSU®

WA150-5

MACHINE MODEL	SERIAL NUMBER
WA150-5	**65001 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.

- WA150-5 mounts the SAA4D102E-2 engine.
  For details of the engine, see the 102 Series Engine Shop Manual.

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Machine model				WA150-5
Serial No.				65001 and up
Steering control	Type			Articulated steering
	Control			Hydraulic control
Hydraulic system	Hydraulic pump	Work equipment and Steering pump		
		• Type		Gear type
		• Theoretical capacity	cm³/rev	63.1
		Brake and cooling fan pump		
		• Type		Gear type
		• Theoretical capacity	cm³/rev	10.5
		Transfer lubrication pump		
		• Type		Gear type
		• Theoretical capacity	cm³/rev	6.4
	Cylinder	Steering cylinder	Type	Reciprocating piston type
			Cylinder inner diameter	mm 55
			Piston rod diameter	mm 30
			Stroke	mm 375
			Max. length between pins	mm 1,020
			Min. length between pins	mm 645
		Lift cylinder	Type	Reciprocating piston type
			Cylinder inner diameter	mm 110
			Piston rod diameter	mm 60
			Stroke	mm 628
			Max. length between pins	mm 1,659
			Min. length between pins	mm 1,031
		Bucket cylinder	Type	Reciprocating piston type
			Cylinder inner diameter	mm 110
			Piston rod diameter	mm 55
			Stroke	mm 452
			Max. length between pins	mm 1,367
			Min. length between pins	mm 915

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Related circuit diagram

This is part of electrical circuit diagram which shows the portion where the failure occurred.

- Connector No.: Indicates (Type - numbers of a pin) (color)
- Arrow: Roughly indicates the location in the machine where it is installed.

Phenomena code table

★ For problem codes marked "See list", see the list below.

Phenomena code	Details	Disconnection	Details
KA	Disconnection	L0	Double engagement
KB	Short circuit	L1	Fill signal is ON when command current is OFF
KK	Drop in power source voltage, input	L2	Fuel pressure is higher than maximum set value
KQ	Non match in model selection signal	L3	Corresponding component cannot be controlled
KR	Defective communication	L4	ON/OFF signals for 2 systems do not match
KT	Abnormality inside controller	L6	Engine signals do not match operating condition or stopped condition of machine
KX	Input signal outside range	L8	Analog signals for 2 systems do not match
KY	Short circuit in power supply line	LC	Speed signals for 2 systems do not match
KZ	Disconnection or short circuit	LD	Switch has been kept pressed for abnormally long time
MA	Function impossible	LH	Fill signal is OFF when command current is ON
NS	Overheat		
ZG	Drop in oil pressure		
ZK	Drop in level		

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c) Head lamp (Hi beam) does not light ON

Action Code	Error Code	Controller Code	Trouble	Each lamps does not function c) Head lamp (Hi beam) does not light ON
-	-	-		
Description of Trouble	• Head lamp (Hi beam) does not light ON due to defective switch, lamp or wiring harness (Ground fault) in the head lamp system.			
Machine monitor or controller Reaction	• No reaction.			
Effect on Machine	• Head lamp (Hi beam) does not light ON when the lamp switch is turned STEP 2.			
Related Information	• If fuse is blown, there is short circuit with ground, so inspect applicable wiring harness (between fuse and lamp) • When circuits for other lamp systems are normal			

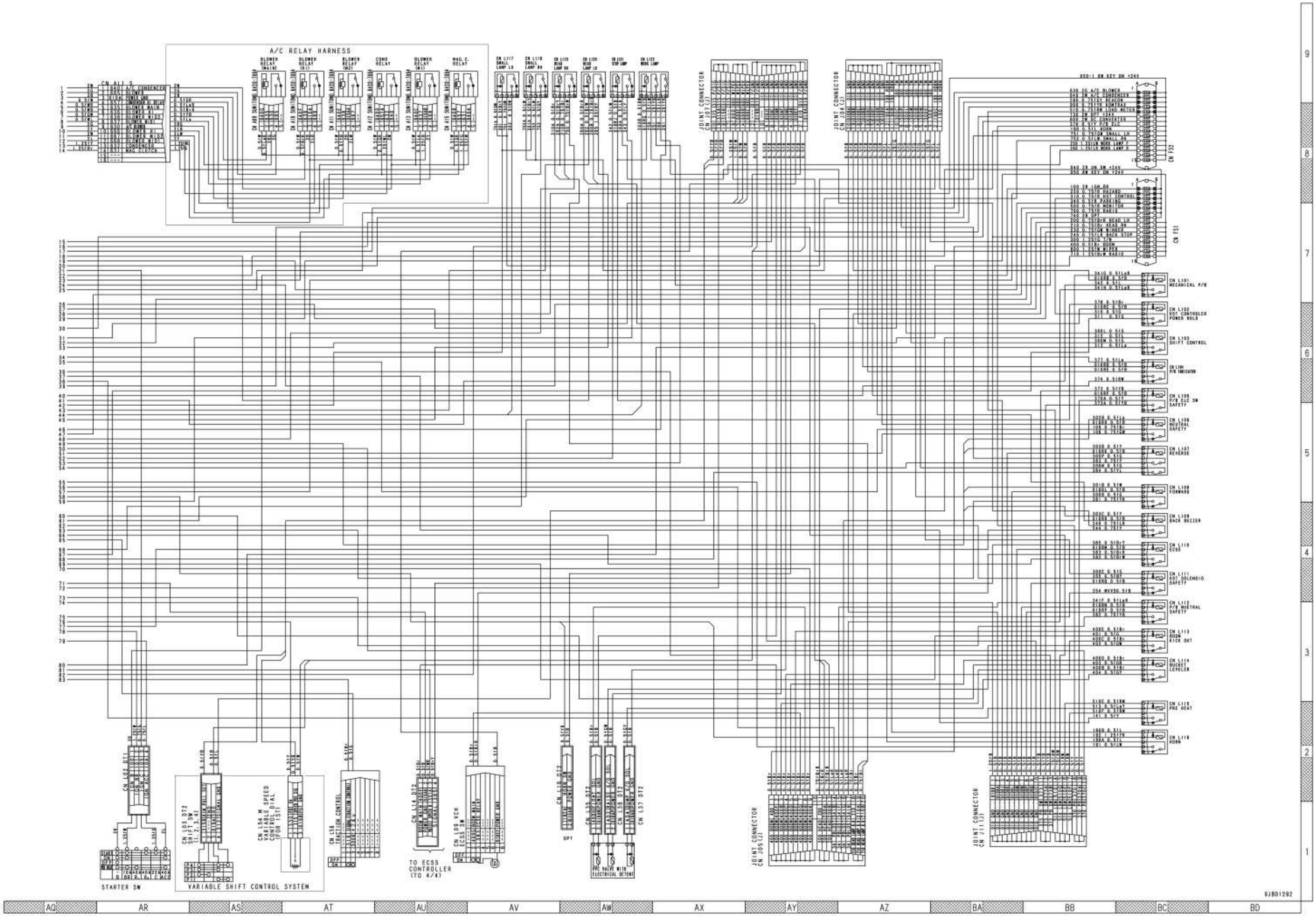
	Causes		Standard Value in Normal State and Remarks on Troubleshooting			
Possible Causes and Standard Values	1	Defective head lamp	1) Turn starting switch OFF. 2) Disconnect connector HEAD L, HEAD R. 3) Insert T-adapter. 4) Connect connector. 5) Turn starting switch ON.			
			Between HEAD L (3) and chassis ground	Turn lamp switch STEP 2 and dimmer switch Hi.	Voltage	20 - 30V
			Between HEAD R (3) and chassis ground	Turn lamp switch STEP 2 and dimmer switch Hi.	Voltage	20 - 30V
	2	Defective lamp switch and dimmer switch	1) Turn starting switch OFF. 2) Disconnect connector L04. 3) Insert T-adapter. 4) Connect connector. 5) Turn starting switch ON.			
			Between L04 (Male) (2) and (3)	Turn lamp switch OFF.	Resistance	Min. 1MΩ
				Turn lamp switch 1 STEP.	Resistance	Min. 1MΩ
				Turn lamp switch STEP 2.	Resistance	Max. 1Ω
			Between L04 (Male) (4) and (3)	Turn dimmer switch Lo.	Resistance	Max. 1Ω
				Turn dimmer switch Hi.	Resistance	Min. 1MΩ
			Between L04 (Male) (5) and (3)	Turn dimmer switch Lo.	Resistance	Min. 1MΩ
				Turn dimmer switch Hi.	Resistance	Max. 1Ω
	3	Wiring harness discontinuity (Disconnection or defective contact)	1) Turn starting switch OFF. 2) Disconnect connector L04, HEAD L, HEAD R. 3) Connect T-adapter.			
			Wiring harness between L04 (Female) (5) and J03 (4), (2) and HEAD L (Female) (2)		Resistance	Max. 1Ω
			Wiring harness between L04 (Female) (5) and J03 (4), (2) and HEAD R (Female) (2)		Resistance	Max. 1Ω

Related circuit diagram

★ See "TROUBLESHOOTING CODE [E-10.(a)]".

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ELECTRICAL CIRCUIT DIAGRAM 1/4 (4/4)
(Machines equipped with ROPS cab)



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