SHOP MANUAL

KOMATSU®

WA200-5
WA200PT-5

MACHINE MODEL	SERIAL NUMBER
WA200-5	**65001 and up**
WA200PT-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.

- WA200, 200PT-5 mounts the SAA6D102E-2-A engine.
  For details of the engine, see the 102 Series Engine Shop Manual.

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BEFORE TROUBLESHOOTING CODE DISPLAY

FAILURE CODE AND POSSIBLE CAUSES TABLE

Failure code	Action code	Possible Causes: Defective machine monitor	Defective HST controller	Defective starting switch	Defective monitor panel mode switch 1 [■]	Defective monitor panel mode switch 1 [◇]	Defective monitor panel mode switch 2 [<]	Defective monitor panel mode switch 2 [>]	Defective directional lever	Battery is deteriorated	Defective battery relay	Defective fuse, fusible link	Defective alternator	Defective engine revolution sensor	Defective HST motor 2 solenoid	Defective HST motor 1 solenoid	Defective clutch solenoid	Engine oil pressure drops	Defective engine oil pressure sensor	Engine coolant temperature overheating	Defective engine coolant temperature sensor (high temperature)	Defective engine coolant temperature sensor (low temperature)	Engine coolant level lacks	Defective coolant level sensor	Defective HST oil pressure sensor	HST oil filter clogging	Defective HST oil filter sensor	HST oil temperature overheating	Defective HST oil temperature sensor	Brake oil pressure drops	Defective brake oil pressure sensor	Axle oil temperature overheating	Defective axle oil temperature sensor	Steering oil temperature overheating	Defective steering oil temperature sensor	Defective relay	Wiring harness discontinuity	Ground fault in wiring harness	Hot short in wiring harness
Failures related to HST controller																																								
989F00	E00		●																																				
DHH1KX	E03		●																						●											●	●	●
DLE2LC	E03		●											●																						●		●
DW26KZ	E03		●						●						●																					●	●	●	
DX19KZ	E03		●													●																				●	●	●	
DX20KZ	E03	●	●														●																			●	●	●	
Failures related to monitor																																							
15B0NX	E01	●																								●	●											●	
2G42ZG	E03	●																												●	●					●	●	
989F00	E00		●																																				
989FN1	E02	●														●	●																			●	●	●	
AB00L6	E03	●											●																								●	●	
AB00MA	E03	●								●	●																									●	●	
B@BAZG	E01	●																●	●																		●	
B@BCNS	E02	●																			●	●															●	
B@BCZK	E01	●																					●	●												●		
B@C7NS	E02	●																														●	●					
B@CRNS	E02	●																										●	●									
D5ZHL6	E01	●		●																																●	●	●	●
DAF0KT	E03	●																																					
DAJ0KR	E03	●	●																																		●	●	●
DD15LD	E01	●			●																																	●	●
DD16LD	E01	●				●																																	●
DD17LD	E01	●					●																															●	
DD18LD	E01	●						●																														●	
DDK3KB	E03	●							●																														●
DDS5L6	E03	●							●																												●	●	
DGE2KX	E01	●																				●																●	
DGE3L6	E01	●																					●														●	
DGH1KX	E01	●																											●								●	
DGR1KX	E01	●																															●				●	
DGR4KA	E01	●																															●				●	
DHE4L6	E01	●																	●																		●	

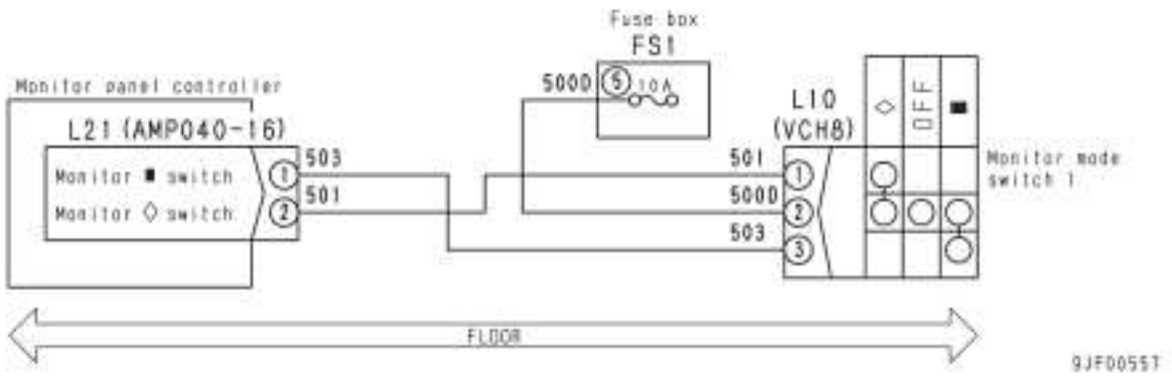
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[MON-10] (Input failure in monitor panel mode selector switch 1 [◇] (Panel switch 2))

Action code	Failure code	Controller code	Trouble	Input failure in monitor panel mode selector switch 1 [◇] (Panel switch 2)
Not set	Not set	Not set		
Contents of trouble	• The monitor panel mode selector switch 1 [◇] (Panel switch 2) input circuit is always in the OPEN state.			
Action of monitor panel or controller	• Activates an alarm.			
Problem that appears on machine	• The monitor does not work.			
Related information				

	Causes		Standard Value in Normal State and Remarks on Troubleshooting			
Possible causes and standard value in normal state	1	Defective monitor panel mode selector switch 1 [◇]	1) Turn starting switch OFF. 2) Disconnect connector L10. 3) Connect T-adapter.			
			Between L10 (Female) (2) and (1)	When monitor panel mode selector switch 1 [◇] is turned ON.	Resistance	Max. 1Ω
				Other than above.	Resistance	Min. 1MΩ
	2	Disconnection in wiring harness (Disconnection in wiring or defective contact in connector)	1) Turn starting switch OFF. 2) Disconnect Connectors L21, L10, fuse FS1 (5). 3) Connect T-adapter.			
			Wiring harness between L21 (Female) (2) and L10 (Female) (1)		Resistance	Max. 1Ω
			Wiring harness between L10 (Female) (2) and fuse FS1 (5)		Resistance	Max. 1Ω
	3	Ground fault in wiring harness	1) Turn starting switch OFF. 2) Disconnect Connectors L21, L10, fuse FS1 (5). 3) Connect T-adapter.			
			Wiring harness between L21 (Female) (2) and L10 (Female) (1)	Resistance between L21 (Female) (2), L10 (Female) (1) and chassis ground		Min. 1MΩ
			Wiring harness between L10 (Female) (2) and fuse FS1 (5)	Resistance between L10 (Female) (2), fuse FS1 (5) and chassis ground		Min. 1MΩ
			★ In the above case, the fuse is blown.			
	4	Defective machine monitor	1) Turn starting switch OFF. 2) Disconnect connector L21. 3) Insert T-adapter. 4) Connect connector. 5) Turn starting switch ON.			
			Between L21 (Female) (2) and chassis ground	When monitor panel mode selector switch 1 [◇] is turned ON.	Voltage	20 - 30V
				Other than above.	Voltage	Max. 1V

Related circuit diagram



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[*7]

Fuel injection tube nut (on injection pump side): **24 ± 4 Nm {2.45 ± 0.41 kgm}**
Fuel injection tube nut (on nozzle holder side): **30 ± 5 Nm {3.06 ± 0.51 kgm}**

[*8]

Thermostat housing mounting bolt: **24 ± 4 Nm {2.45 ± 0.41 kgm}**

[*9]

Engine stop solenoid bracket mounting nut: **14 – 21 Nm {1.4 – 2.1 kgm}**

[*10]

Air hose clamp: **8.8 ± 0.5 Nm {90 ± 5 kgcm}**

[*11]

Nozzle holder: **60 Nm {6.1 kgm}**

[*12]

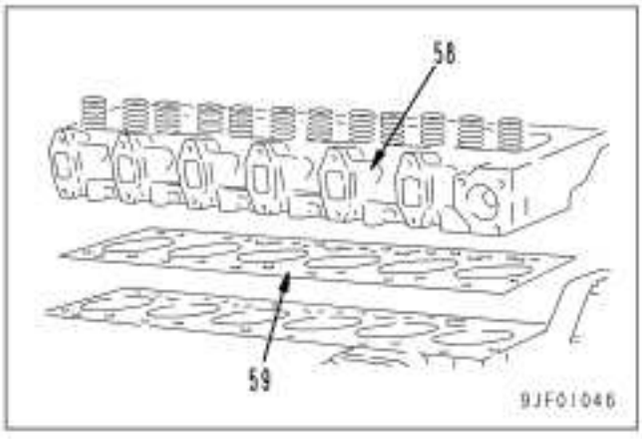
Cylinder head cover mounting bolt: **24 ± 4 Nm {2.45 ± 0.41 kgm}**

[*13][*14][*15][*16]

★ Install the rocker arm assembly and cylinder head assembly according to the following procedure.
★ Check that there is not dirt or foreign matter on the mounting face of the cylinder head or in the cylinder.

1. Set cylinder head gasket (59) to the cylinder block.
   ★ Check that the gasket is matched to the hole of the block.

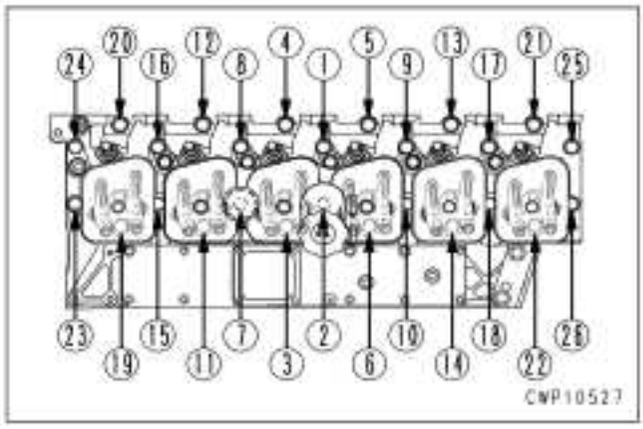
2. Sling cylinder head assembly (58) and set it to the cylinder block.

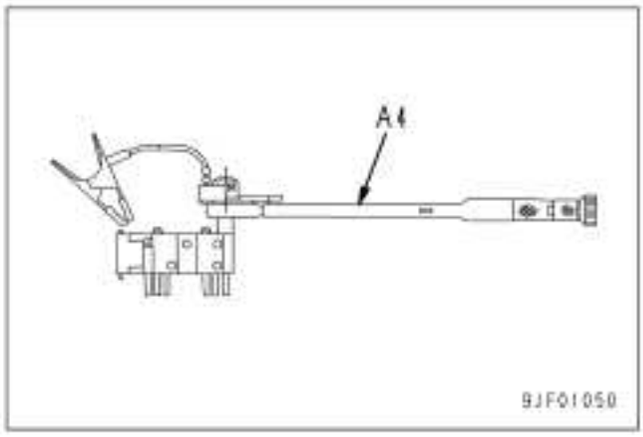


3. Tighten the cylinder head bolts in 3 times in the order shown in the following figure.

Threads and seat of mounting bolt: **Engine oil**

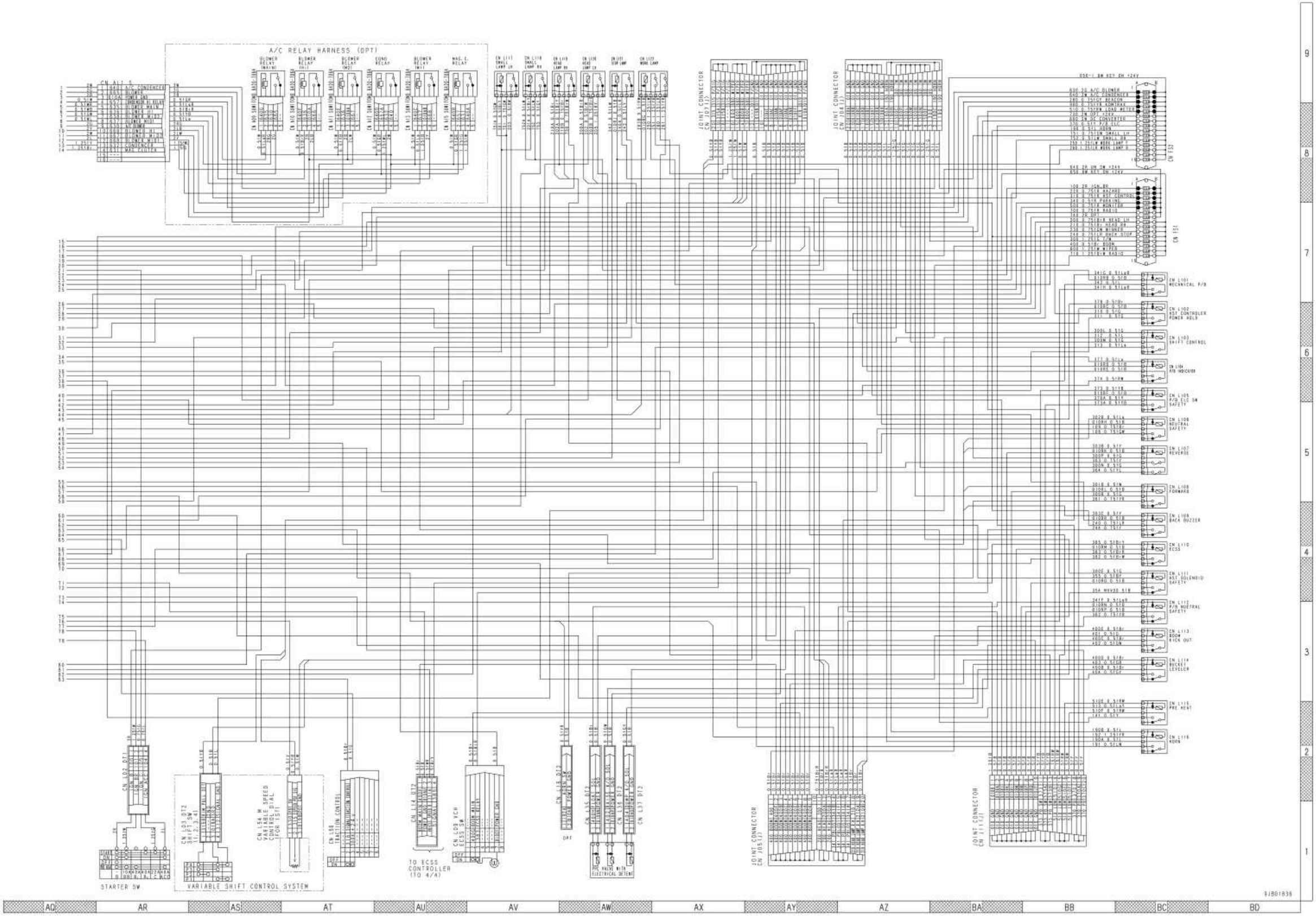
Cylinder head bolt:
1st time: Tighten the bolts to **90 ± 5 Nm {9.18 ± 0.51 kgm}** in the order of 1 - 26.
2nd time: Tighten the bolts to **120 ± 5 Nm {12.24 ± 0.51 kgm}** in the order of 3, 6, 11, 14, 19, and 22.
3rd time:
- When using tool **A4**
  Using angle tightening wrench **A4**, retighten them **90° ± 5°**. (Angle tightening)





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



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