UEBM001501

SHOP MANUAL

KOMATSU®

PC340LC, 340NLC-7K

MACHINE MODEL	SERIAL NUMBER
PC340LC-7K	**K40001 AND UP**
PC340NLC-7K	**K40001 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.
- PC340LC/NLC-7K mount the SAA6D114E engine.
  For details of the engine, see the 114 Series Engine Shop Manual.

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DIMENSIONS

	Item	Unit	PC340LC-7	PC340NLC-7
A	Overall length	mm	11,140	11,140
B	Overall height	mm	3,290	3,280
C	Overall width	mm	3,190	2,990
D	Track shoe width	mm	700	600
E	Height of cab	mm	3,130	3,130
F	Tail swing radius	mm	3,450	3,450
G	Track overall length	mm	4,955	4,955
H	Length of track on ground	mm	4,030	4,030
	Min. ground clearance	mm	498	498

WORKING RANGES

	Item	Unit	PC340LC-7	PC340NLC-7
A	Max. digging reach	mm	11,100	11,100
B	Max. digging depth	mm	7,380	7,380
C	Max. digging height	mm	10,210	10,210
D	Max. vertical wall depth	mm	6,480	6,480
E	Max. dumping height	mm	7,110	7,110
F	Min. dumping height	mm	2,640	2,640
G	Max. reach at ground level	mm	10,920	10,920

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SPECIFICATIONS

PC340LC-7, PC340NLC-7

				PC340LC-7	PC340NLC-7
Machine model					
Serial Number				40001 and up	
Bucket capacity			m³	1.4	1.4
Operating weight			kg	33,530	33,230
Performance	Working ranges	Max. digging depth	mm	7,380	7,380
		Max. vertical wall depth	mm	6,480	6,480
		Max. digging reach	mm	11,100	11,100
		Max. reach at ground level	mm	10,920	10,920
		Max. digging height	mm	10,210	10,210
		Max. dumping height	mm	7,110	7,110
	Max. digging force		kN {kg}	211.8 {21,600} (226.5	211.8 {21,600} (226.5
	(using power max. function)		kN {kg}	{23,100})	{23,100})
	Swing speed		rpm	9.5	9.5
	Swing max. slope angle		deg.	21	21
	Travel speed		km/h	Lo: 3.2 (※ Mi: 4.5)	Lo: 3.2 (※ Mi: 4.5)
				Hi: 5.5	Hi: 5.5
	Gradeability		deg.	35	35
	Ground pressure		kPa {kg/cm²}	53.0 {0.54}	61.8 {0.63}
	[standard shoe width]		[mm]	[700]	[600]
Dimensions	Overall length (for transport)		mm	11,140	11,140
	Overall width		mm	3,190	3,190
	Overall width of track		mm	3,290	2,990
	Overall height (for transport)		mm	3,280	3,280
	Overall height to chassis		mm	3,130	3,130
	Ground clearance to bottom of upper structure		mm	1,186	1,186
	Min. ground clearance		mm	498	498
	Tail swing radius		mm	3,450	3,450
	Min. swing radius of work equipment		mm	4,310	4,310
	Height of work equipment at min. swing radius		mm	8,520	8,520
	Length of track on ground		mm	4,030	4,030
	Track gauge		mm	2,590	2,590
	Height of machine cab		mm	3,130	3,130

※ : The "Mi" mode is on the multi-monitor specification machine only.

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Machine model			PC340LC-7	PC340NLC-7
Serial Number			40001 and up	
Engine	Model		SAA6D114E	
	Type		4-cycle, water-cooled, in-line, vertical, direct injection, with turbo charger and aftercooler	
	No. of cylinders - bore x stroke	mm	6 - 114 x 135	
	Piston displacement	l {cc}	8.27 {8,270}	
	Performance: Flywheel horsepower	kW/rpm {HP/rpm}	180.3/1,900 {242/1,900}	
	Performance: Max. torque	Nm/rpm {kgm/rpm}	1,079/1,400 {110/1,400}	
	Performance: Max. speed at no load	rpm	2,160	
	Performance: Min. speed at no load	rpm	900	
	Performance: Min. fuel consumption	g/kWh {g/HPh}	205 {153}	
	Starting motor		24V, 7.5 kW	
	Alternator		24V, 35 A	
	Battery		12V, 126 Ah x 2	
	Radiator core type		CF19-4	
Under-carriage	Carrier roller		2 on each side	
	Track roller		7 on each side	8 on each side
	Track shoe		Assembly-type triple grouser, 45 on each side	Assembly-type triple grouser, 48 on each side
Hydraulic system	Hydraulic pump: Type x No.		HPV125+125, variable displacement, Piston type x2	
	Hydraulic pump: Delivery	l/min	267.5 x 2	
	Hydraulic pump: Set pressure	MPa (kg/cm²)	37.8 {380}	
	Control valve: Type x No.		6-spool type + 1-spool type x 1	
	Control valve: Control method		Hydraulic	
	Hydraulic motor: Travel motor		HMV160ADT-2, Piston type (with brake valve, parking brake): x 2	
	Hydraulic motor: Swing motor		KMF230ABE-5, Piston type (with safety valve, holding brake): x 1 reverse rotation check valve	
	Hydraulic cylinder: Type		Boom: Double acting piston	Arm: Double acting piston / Bucket: Double acting piston
	Hydraulic cylinder: Inside diameter of cylinder	mm	Boom: 140	Arm: 160 / Bucket: 140
	Hydraulic cylinder: Diameter of piston rod	mm	Boom: 100	Arm: 110 / Bucket: 100
	Hydraulic cylinder: Stroke	mm	Boom: 1,480	Arm: 1,825 / Bucket: 1,285
	Hydraulic cylinder: Max. distance between pins	mm	Boom: 3,525	Arm: 4,255 / Bucket: 3,155
	Hydraulic cylinder: Min. distance between pins	mm	Boom: 2,045	Arm: 2,430 / Bucket: 1,870
	Hydraulic tank		Closed box type	
	Hydraulic filter		Tank return side	
	Hydraulic cooler		CFT-1 (Air cooled)	

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POINTS TO REMEMBER WHEN TROUBLESHOOTING

- Stop the machine in a level place, and check that the safety pin, blocks, and parking brake are securely fitted.
- When carrying out the operation with two or more workers, keep strictly to the agreed signals, and do not allow any unauthorized person to come near.
- If the radiator cap is removed when the engine is hot, hot water may spurt out and cause burns, so wait for the engine to cool down before starting troubleshooting.
- Be extremely careful not to touch any hot parts or to get caught in any rotating parts.
- When disconnecting wiring, always disconnect the negative (–) terminal of the battery first.
- When removing the plug or cap from a location which is under pressure from oil, water, or air, always release the internal pressure first. When installing measuring equipment, be sure to connect it properly.

The aim of troubleshooting is to pinpoint the basic cause of the failure, to carry out repairs swiftly, and to prevent reoccurrence of the failure.
When carrying out troubleshooting, and important point is of course to understand the structure and function.
However, a short cut to effective troubleshooting is to ask the operator various questions to form some idea of possible causes of the failure that would produce the reported symptoms.

1. When carrying out troubleshooting, do not hurry to disassemble the components.
If components are disassembled immediately any failure occurs:
- Parts that have no connection with the failure or other unnecessary parts will be disassembled.
- It will become impossible to find the cause of the failure.

It will also cause a waste of manhours, parts, or oil or grease, and at the same time, will also lose the confidence of the user or operator.
For this reason, when carrying out troubleshooting, it is necessary to carry out thorough prior investigation and to carry out troubleshooting in accordance with the fixed procedure.

2. Points to ask user or operator
1) Have any other problems occurred apart from the problem that has been reported?
2) Was there anything strange about the machine before the failure occurred?
3) Did the failure occur suddenly, or were there problems with the machine condition before this?
4) Under what conditions did the failure occur?
5) Had any repairs been carried out before the failure?
When were these repairs carried out?
6) Has the same kind of failure occurred before?

3. Check before troubleshooting
1) Check the oil level
2) Check for any external leakage of oil from the piping or hydraulic equipment.
3) Check the travel of the control levers.
4) Check the stroke of the control valve spool.
5) Other maintenance items can be checked externally, so check any item that is considered to be necessary.

4. Confirming failure
- Confirm the extent of the failure yourself, and judge whether to handle it as a real failure or as a problem with the method of operation, etc.
  - ★ When operating the machine to reenact the troubleshooting symptoms, do not carry out any investigation or measurement that may make the problem worse.

5. Troubleshooting
- Use the results of the investigation and inspection in Items 2 – 4 to narrow down the causes of failure, then use the troubleshooting flowchart to locate the position of the failure exactly.
  - ★ The basic procedure for troubleshooting is as follows.
    1)Start from the simple points.
    2)Start from the most likely points.
    3)Investigate other related parts or information.

6. Measures to remove root cause of failure
- Even if the failure is repaired, if the root cause of the failure is not repaired, the same failure will occur again.
To prevent this, always investigate why the problem occurred. Then, remove the root cause.

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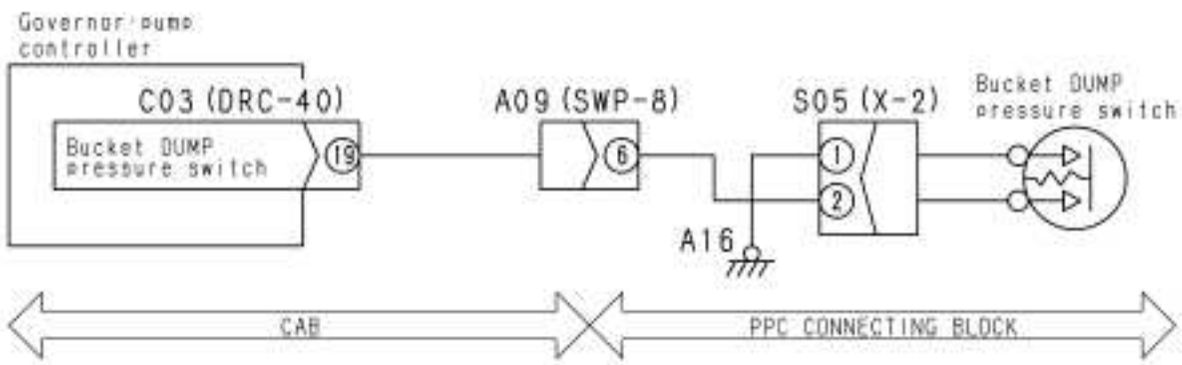
E-26 "Bucket DUMPING" is not correctly displayed in monitor function

Failure information	• "Bucket DUMPING" is not correctly displayed in the monitor function (special function) on the monitor panel.
Relative information	—

Presumed cause and standard value in normalcy

	Cause	Standard value in normalcy and references for troubleshooting			
1	Bucket DUMPING PPC hydraulic switch fault (Internal disconnection and short-circuiting)	★Turn the engine starting switch OFF for the preparations, and keep the engine running during the troubleshooting.			
		S05 (male)	Bucket control lever	Resistance value	
		Between ① and ②	NEUTRAL	Above 1 MΩ	
			DUMPING	Below 1 Ω	
2	Disconnection of wiring harness (Disconnection or defective contact with connector)	★Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
		Wiring harness between C03 (female) ⑲ and S05 (female) ②		Resistance value	Below 1 Ω
		Wiring harness between S05 (female) ① and grounding		Resistance value	Below 1 Ω
3	Grounding fault of wiring harness (Contact with grounding (GND) circuit)	★Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
		Between wiring harness between C03 (female) ⑲ and S05 (female) ② and grounding		Resistance value	Above 1 MΩ
4	Short-circuiting of wiring harness (Contact with 24 V circuit)	★Turn the engine starting switch OFF for the preparations, and hold it in the ON position during the troubleshooting.			
		Between wiring harness between C03 (female) ⑲ and S05 (female) ② and grounding		Voltage	Below 1 V
5	Governor • pump controller defective	★Turn the engine starting switch OFF for the preparations, and hold it in the ON position during the troubleshooting.			
		C03	Bucket control lever	Voltage	
		Between ㉛ and grounding	NEUTRAL	20 – 30 V	
			DUMPING	Below 1 V	

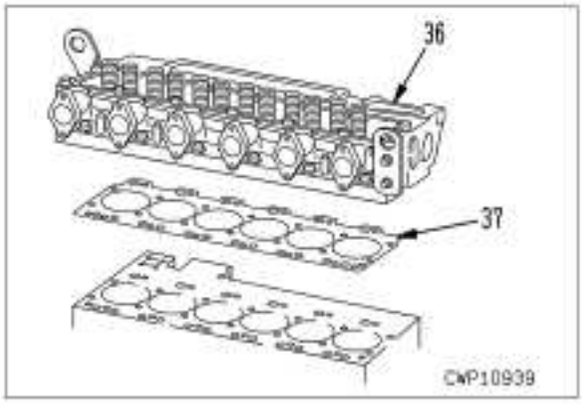
Electrical Circuit Diagram for Bucket DUMPING PPC hydraulic Switch



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30. Remove cylinder head gasket (37).



INSTALLATION

- Install in reverse order of removal.

1

★ Refer to the Inspection and Adjustment of Air Compressor Belt Tension section in the TESTING AND ADJUSTING chapter in this manual.

2

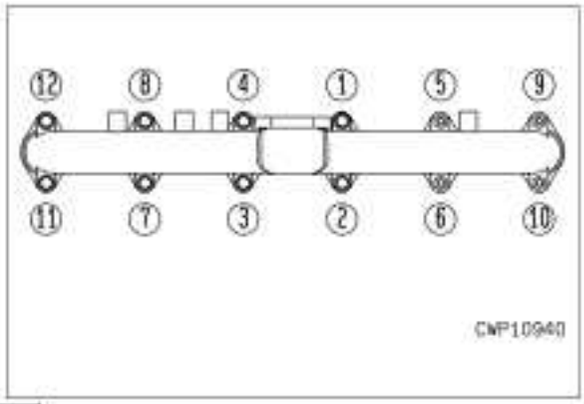
N·m V clamp:
6.9 - 8.8 Nm {0.7- 0.9 kgm}

3

★ Tighten the bolts in the sequence indicated in the figure at right.

N·m Exhaust manifold mounting bolt:

1st step: Tighten to 23.5 ± 4 Nm {2.4 ± 0.41 kgm} in the sequence of b through l@.
2nd step: Tighten to 23.5 ± 4 Nm {2.4 ± 0.41 kgm} in the sequence of b through e.
3rd step: Tighten to 43.1 ± 6 Nm {4.4 ± 0.61 kgm} in the sequence of b through l@
4th step: Tighten to 43.1 ± 6 Nm {4.4 ± 0.61 kgm} in the sequence of b through e.



4

N·m Fuel tube joint bolt:
36 ± 5 Nm {3.67 ± 0.51 kgm}

N·m Joint bolt :
24 ± 4 Nm {2.45 ± 0.41 kgm}

5

N·m Head cover mounting bolt:
23.5 ± 3.9 Nm {2.4 ± 0.4 kgm}

6

N·m Sleeve nut:
24 ± 4 Nm {2.45 ± 0.41 kgm}

7

N·m Mounting bolt:
24 ± 4 Nm {2.45 ± 0.41 kgm}

8

★ Coat the surface of the oil boot with oil when installing the nozzle holder assemblies.
★ Coat a shim at the tip of the nozzle holder assembly with a small amount of grease so that it will firmly stay on the tip.

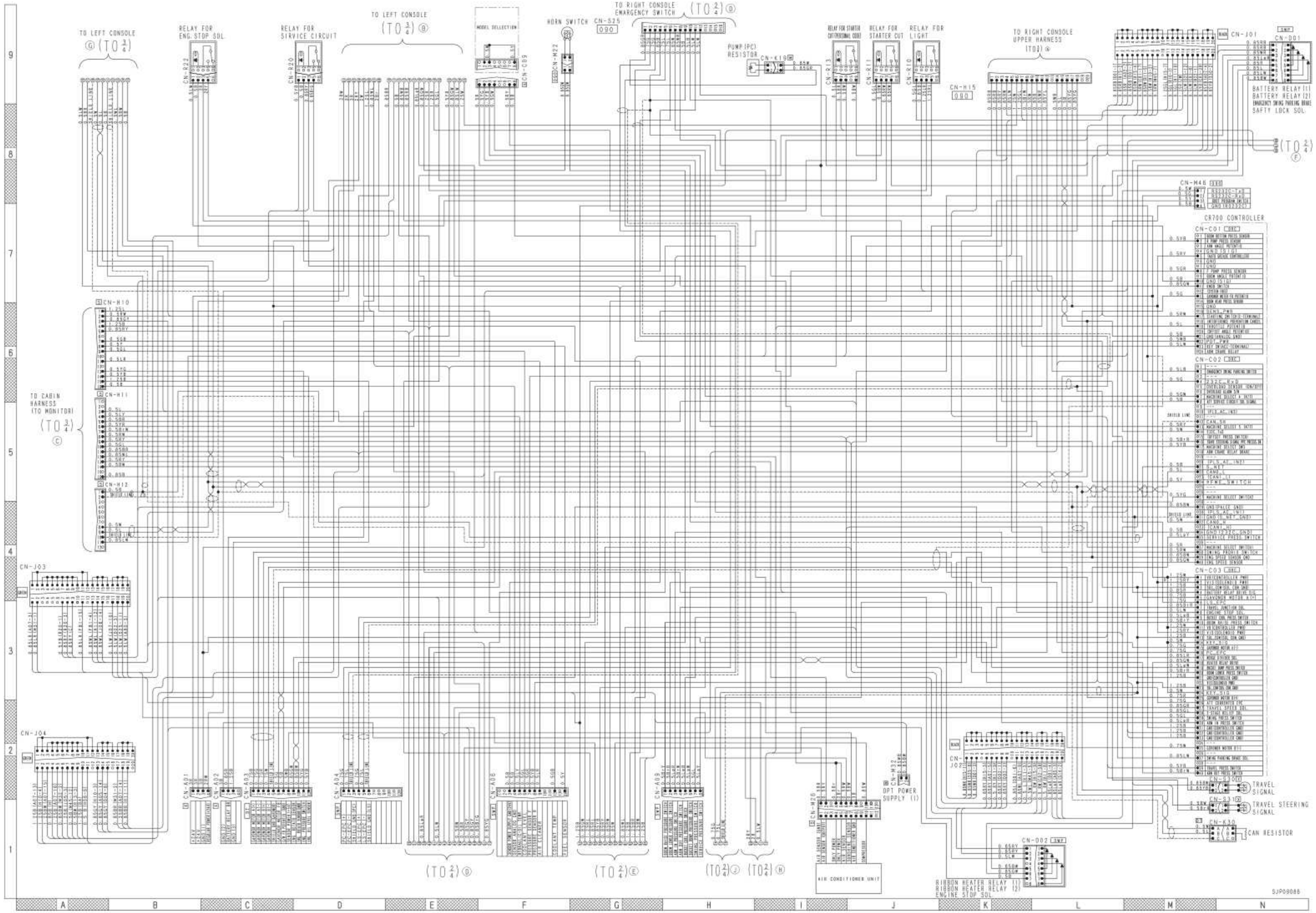
9, **10**, **11**

- Mount the rocker arm assembly and the cylinder head assembly in the following manner.

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ELECTRICAL CIRCUIT DIAGRAM (1/4)

FOR MULTI MONITOR



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