SEBM031206

SHOP MANUAL

KOMATSU®

PC600-7
PC600LC-7

MACHINE MODEL	SERIAL NUMBER
PC600-7	**20001 and up**
PC600LC-7	**20001 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.

- PC600, 600LC-7 mount SA6D140E-3 engine.
  For details of the engine, see the 140-3 Series Engine Shop Manual.

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Table for error code No. and failure code No.

User code	Error code		Failure code			History division
	Code	Contents	Code	Component	Trouble	
—	E112	Wiper Drive (For) S/C	DY2DKB	Wiper motor (Forward)	Short circuit	Electrical system
—	E113	Wiper Drive (Rev) S/C	DY2EKB	Wiper motor (Reverse)	Short circuit	
—	E114	Washer Drive S/C	DY2CKB	Windshield washer motor	Short circuit	
—	E115	Wiper Working Abnormality	DY20KA	Wiper motor	Disconnection	
—	E116	Wiper Parking Abnormality	DY20MA	Wiper motor	Malfunction	
—	E117	Eng. Controller S-NET Comm. Err.	DAC0KR	Engine controller	Communication trouble (Abnormality in objective component system)	
—	E118	Pump Controller S-NET Comm. Err.	DAB0KR	Pump controller	Communication trouble (Abnormality in objective component system)	
E0E	E128	Monitor Comm. Abnormality	DAFRMC	Monitor CAN communication	Defective operation	
—	E201	CO Cancel Sol. S/C	DW48KB	Cut-off cancel solenoid valve	Short circuit	
E03	E203	Swing Brake Sol. S/C	DW45KB	Swing holding brake solenoid valve	Short circuit	
—	E204	2-stage Relief Sol. S/C	DWK0KB	2-stage relief solenoid valve	Short circuit	
—	E206	Travel Speed Sol. S/C	DW43KB	Travel high-low selector solenoid valve	Short circuit	
—	E207	Flash Light Relay S/C	D163KB	Flash light drive relay	Short circuit	
—	E211	CO Cancel Sol. Disc.	DW48KA	Cut-off cancel solenoid valve	Disconnection	
E03	E213	Swing Brake Sol. Disc.	DW45KA	Swing holding brake solenoid valve	Disconnection	
—	E214	2-stage Relief Sol. Disc.	DWK0KA	2-stage relief solenoid valve	Disconnection	
—	E216	Travel Speed Sol. Disc.	DW43KA	Travel high-low selector solenoid valve	Disconnection	
—	E217	Model selection Abnormality	DA2SKQ	Pump controller model selection wiring harness	Disagreement of model selection signals	
E0E	E218	S-Net Comm. Disc.	DA2SKA	Pump controller S-NET communication	Disconnection	
—	E221	Travel Alarm S/C	DV20KB	Backup alarm buzzer	Short circuit	
—	E224	F Pump P. Sensor Abnormality	DHPAMA	Front pump pressure sensor	Malfunction	
—	E225	R Pump P. Sensor Abnormality	DHPBMA	Rear pump pressure sensor	Malfunction	
—	E226	Press. Sensor Power Abnormality	DA25KP	Output of pump controller power supply	Lowering of output voltage	
—	E227	Engine Speed Sensor Abnormality	DLE2MA	Engine speed sensor	Malfunction	
E02	E232	TVC Sol. S/C	DXA0KB	TVC solenoid valve	Short circuit	
E02	E233	TVC Sol. Disc.	DXA0KA	TVC solenoid valve	Disconnection	
E0E	E257	Pump Comm. Abnormality	DA2RMC	Pump controller CAN communication	Defective operation	
—	E302	Step Light Relay S/C	D195KB	Step light drive relay	Short circuit	
—	E304	Step Light Power Hold Relay S/C	D194KB	Step light power source holding relay	Short circuit	

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WEIGHT TABLE

⚠ This weight table is a guide for use when transporting or handling components

Unit: kg

Machine model	PC600-7	PC600LC-7
Serial Number	20001 and up	20001 and up
Engine assembly	2,305	2,305
• Engine	1,720	1,720
• PTO (incl. lubricating piping)	258	258
• Hydraulic pump	327	327
Radiator, oil cooler assembly	306	306
Hydraulic tank filter assembly (excl. hydraulic oil)	493	493
Fuel tank (excl. fuel)	503	503
Revolving frame	4,345	4,345
Operator's cab	293	293
Operator's seat	35	35
Counterweight	10,750	10,750
Swing machinery	724	724
Control valve	304	304
Swing motor	61 × 2	61 × 2
Travel motor	268 × 2	268 × 2
Center swivel joint	43	43
Track frame assembly (Excluding step, roller guard, shoe assembly, and lower piping)	15,152	15,664
• Center frame	3,998	3,998
• Track frame	2,207 × 2	2,355 × 2
• Swing circle	1136	1,136
• Idler	342 × 2	342 × 2
• Idler cushion	452 × 2	452 × 2
• Carrier roller	50 × 6	50 × 6
• Track roller	108 × 16	108 × 18
• Final drive (incl. travel motor)	994 × 2	994 × 2

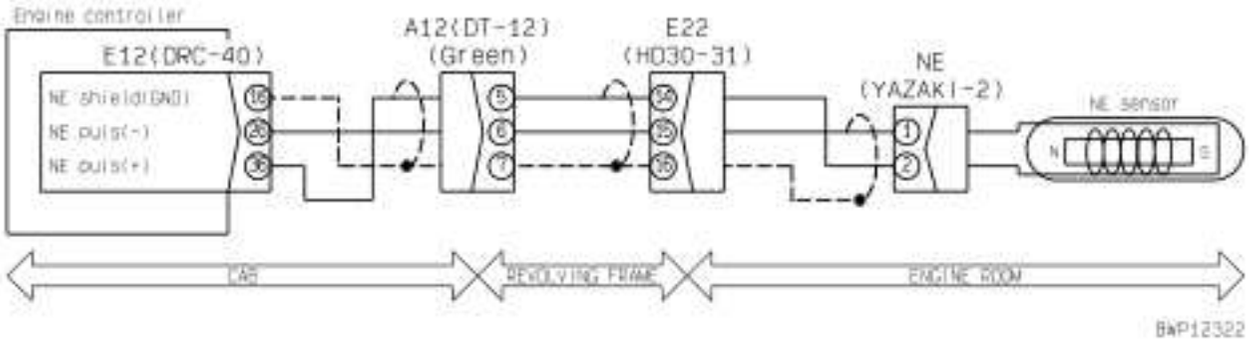
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Error Code in Electrical System E91B (Engine Ne sensor problem)

User Code	Error Code	Failure Code	Failure phenomenon	Engine Ne sensor problem (Engine controller system)
E11	E91B	DLE3LC		
Failure content	• Cranking angle cannot be judged from the engine Ne speed sensor signal.			
Response from controller	• The machine is driven with limited output. • When the failure cause disappears of itself, the machine operation returns to normalcy.			
Phenomenon occurring on machine	• The output lowers (The engine output lowers about 20% and the pump absorption torque is reduced). • The output lowers (Only the pump absorption torque is reduced). • The engine speed does not rise above low idling.			
Relative information	• Input from the engine Ne speed sensor (rpm) can be checked in the monitoring function. (Code No. 01002: Engine speed) • Special adapter (799-601-9410) is necessary for troubleshooting for the engine Ne speed sensor.			

Presumed cause and standard value in normalcy		Cause	Standard value in normalcy and references for troubleshooting			
	1	Engine Ne speed sensor defective (Internal disconnection or short-circuiting)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			NE (male)	Resistance value		
			Between (1) and (2)	85 – 210 Ω		
			Between (1), (2) and grounding	Above 1 MΩ		
	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 E12 (female) (36) and NE (female) (2)	Resistance value	Below 1 Ω	
			Wiring harness between E12 (female) (26) and NE (female) (1)	Resistance value	Below 1 Ω	
	3	Grounding fault of wiring harness (Contact with grounding circuit)	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			Between wiring harness between E12 (female) (36) and NE (female) (2) and grounding	Resistance value	Above 1 MΩ	
			Between wiring harness between E12 (female) (26) and NE (female) (1) and grounding	Resistance value	Above 1 MΩ	
	4	Engine controller defective	★ Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.			
			E12 (female)	Resistance value		
			Between (36) and (26)	85 – 210 Ω		
			Between (36), (26) and grounding	Above 1 MΩ		

Electrical circuit diagram related to engine Ne speed sensor



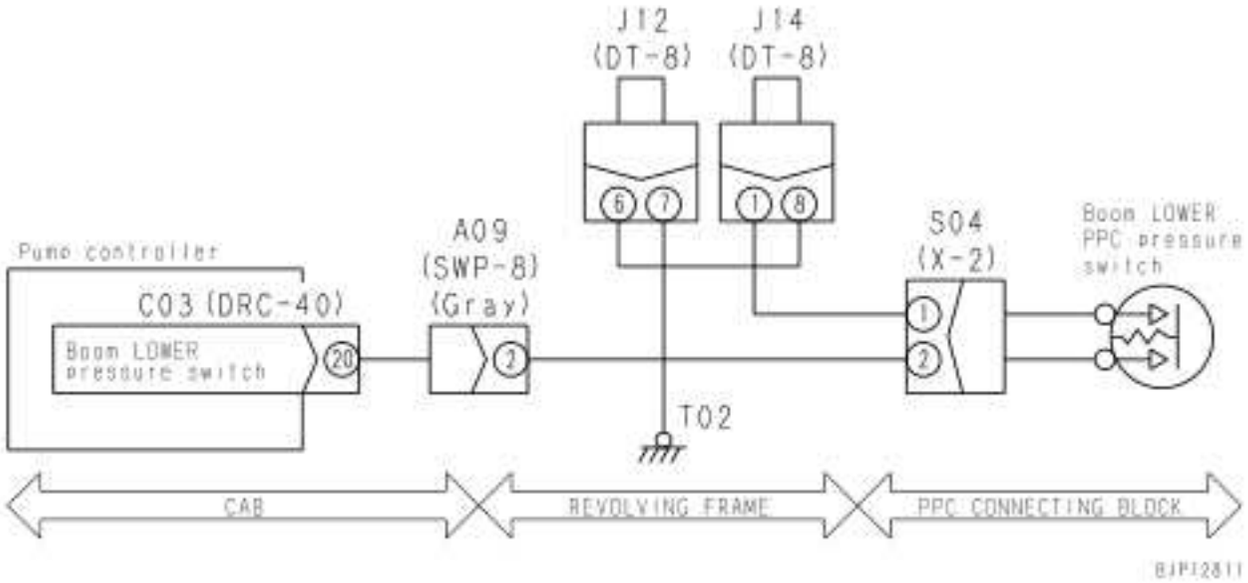
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E-20 "Boom Lower" is not correctly displayed in monitoring function

Failure information	• "Boom Lower" is not correctly displayed in monitoring function	"Boom Lower" is not correctly displayed in the monitoring 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	Boom Lower PPC pressure switch defective (Internal disconnection or short-circuiting)	★ Turn the engine starting switch OFF for the preparations, and keep the engine running during the troubleshooting.			
			S04 (male)	R.H. work equipment control lever	Resistance value	
			Between (1) and (2)	NEUTRAL	Above 1 MΩ	
				Boom LOWER	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) (20) and S04 (female) (2)		Resistance value	Below 1 Ω
			Wiring harness between S04 (female) (1) to J14 to J12 and grounding		Resistance value	Below 1 Ω
	3	Grounding fault of wiring harness (Contact with grounding 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) (20) and S04 (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) (20) and S04 (female) (2) and grounding		Voltage	Below 1 V
	5	Pump controller defective	★ Turn the engine starting switch OFF for the preparations, and start the engine during the troubleshooting.			
			C03	R.H. work equipment control lever	Voltage	
			Between (20) and grounding	NEUTRAL	20 – 30 V	
				Boom LOWER	Below 1 V	

Electrical circuit diagram related to boom Lower PPC pressure switch

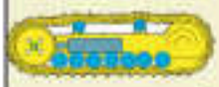


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UNDERCARRIAGE INSPECTION

(Program form No.: SELA195001)

KUC



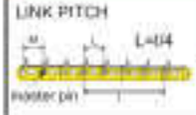
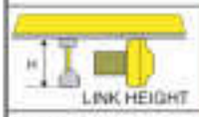
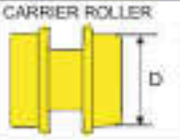
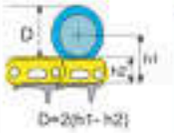
Komatsu Undercarriage Inspection

Customer name:

Address:

Model	PC600-7	Serial#		Equip#	
Location		SMR			
Soil condition		Dealer			
Working condition		Inspector			
		Insp.Date(yyyy/mm/dd)			

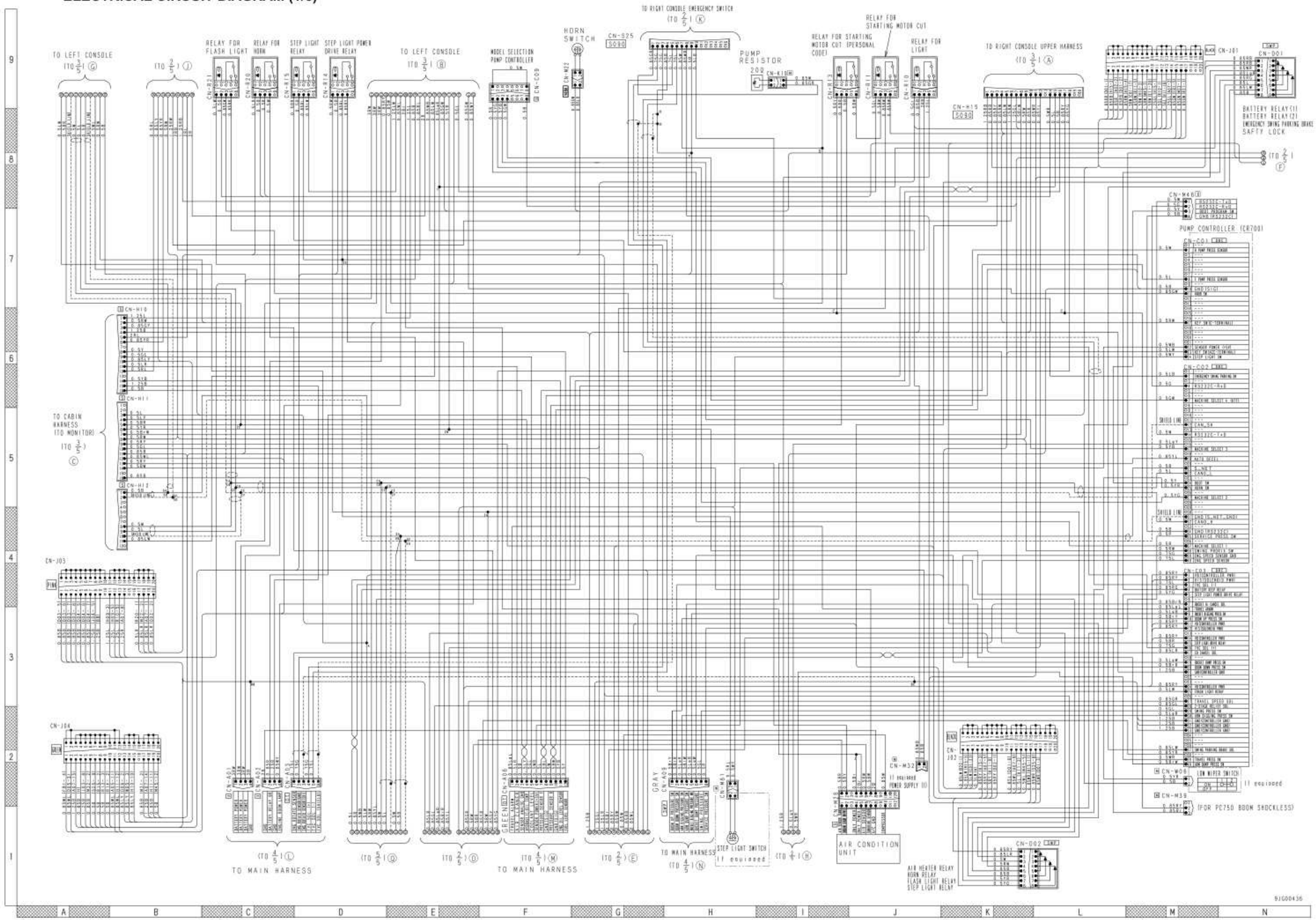
Work Order No											
Wet, AR, HD or Dry	DRY										
Shoe width (mm)											
Shoe type	DOUBLE										
Wear type	NORMAL										

			New	100% Wear	Measured mm	Wear %	SMR New	SMR Rebuilt	Hours on Parts:	Comments/Observation
LINK PITCH 	R	LH	914.4	926.4						
		RH	914.4	926.4						
	M	LH	228.60	231.60						
		RH	228.60	231.60						
 LINK HEIGHT	H	LH	133.0	123.0						
		RH	133.0	123.0						
BUSHING 	D	LH	7.25	67.5			New	Turned		
		RH	7.25	67.5			New	Turned		
GROUSER HIGHT 	H	LH	46.0	25.0						
		RH	46.0	25.0						
CARRIER ROLLER 	Front	LH	180.0	170.0						
		RH	180.0	170.0						
	Rear	LH	180.0	170.0						
		RH	180.0	170.0						
IDLER 	Front	LH	22.5	28.5						
		RH	22.5	28.5						
	Rear	LH	22.5	28.5						
		RH	22.5	28.5						
TRACK ROLLER  D=2(h1- h2)	1	LH	220.0	208.0						
	2	LH	220.0	208.0						
	3	LH	220.0	208.0						
	4	LH	220.0	208.0						
	5	LH	220.0	208.0						
	6	LH	220.0	208.0						
	7	LH	220.0	208.0						
	8	LH	220.0	208.0						
	9	LH	220.0	208.0						
	10	LH	220.0	208.0						
	1	RH	220.0	208.0						
	2	RH	220.0	208.0						
	3	RH	220.0	208.0						
	4	RH	220.0	208.0						
	5	RH	220.0	208.0						
	6	RH	220.0	208.0						
	7	RH	220.0	208.0						
	8	RH	220.0	208.0						
	9	RH	220.0	208.0						
	10	RH	220.0	208.0						
SPROCKET 	H	LH	0.0	6.0						
		RH	0.0	6.0						

Remarks:

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ELECTRICAL CIRCUIT DIAGRAM (1/5)



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