UEN00373-01

Shop Manual

HYDRAULIC
EXCAVATOR

GALEO

PC800 -8
PC800LC -8

SERIAL NUMBERS PC800- 50001 and up
PC800LC- 50001

KOMATSU®

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Testing and adjusting item	symbol		Part No.	Part name	Q'ty	Remarks
Testing and adjusting control oil pressure of piston pump	M	1	799-101-5002	Hydraulic tester	1	Pressure gauge: 2.5, 5.9, 39.2, 58.8 MPa {25, 60, 400, 600 kg/cm²}
			790-261-1204	Digital hydraulic tester	1	Pressure gauge: 58.8 MPa {600 kg/cm²}
		2	799-401-2701	Differential pressure gauge	1	
		3	799-101-5220	Nipple	2	Size: 10 × 1.25 mm
			07002-11023	O-ring	2	
Measuring PPC valve output pressure	P	1	799-101-5002	Hydraulic tester	1	Pressure gauge: 2.5, 5.9, 39.2, 58.8 MPa {25, 60, 400, 600 kg/cm²}
			790-261-1204	Digital hydraulic tester	1	Pressure gauge: 58.8 MPa {600 kg/cm²}
		2	799-401-3200	Adapter	1	Size: 03
Measuring outlet pressure of solenoid valve, swing PPC shuttle valve, and swing priority selector valve	Q	1	799-101-5002	Hydraulic tester	1	Pressure gauge: 2.5, 5.9, 39.2, 58.8 MPa {25, 60, 400, 600 kg/cm²}
			790-261-1204	Digital hydraulic tester	1	Pressure gauge: 58.8 MPa {600 kg/cm²}
		2	799-401-3200	Adapter	1	Size: 03
		3	799-401-3300	Adapter	1	Size: 04
		4	799-101-5220	Nipple	2	Size: 10 × 1.25 mm
			07002-11023	O-ring	2	
Measuring fan speed	R		799-203-8001	Multiple tachometer	1	L: 60 – 2000 rpm, H:60 – 19.999 rpm
Measuring fan circuit oil pressure	S		799-101-5002	Hydraulic tester	1	Pressure gauge: 2.5, 5.9, 39.2, 58.8 MPa {25, 60, 400, 600 kg/cm²}
			790-261-1204	Digital hydraulic tester	1	
Measuring oil leakage	T		Purchased	Measuring cylinder	1	
Measuring fan pump EPC solenoid output pressure	U	1	799-101-5002	Hydraulic tester	1	
			790-261-1204	Digital hydraulic tester	1	
		2	799-101-5220	Nipple		Size: 10 x 1.5 mm
			07002-11023	O-ring		
Measuring wear of sprocket	—		796-627-1110	Wear gauge	1	
Measuring coolant temperature and oil temperature	—		799-101-1502	Digital thermometer	1	–99.9 to 1,299 °C
Measuring operating effort and pressing force	—		79A-264-0021	Push-pull scale	1	0 to 294 N {0 to 30 kg}
			79A-264-0091	Push-pull scale	1	0 to 490 N {0 to 50 kg}
Measuring stroke and hydraulic drift	—		Purchased	Scale	1	
Measuring work equipment speed	—		Purchased	Stopwatch	1	
Measuring voltage and resistance	—		Purchased	Multimeter	1	

★ For the model names and part Nos. of the T-adapters and boxes used for troubleshooting for the machine monitor, controllers, sensors, actuators, and wiring harnesses, see TROUBLESHOOTING, Connector arrangement drawing and electric circuit diagram of each system.

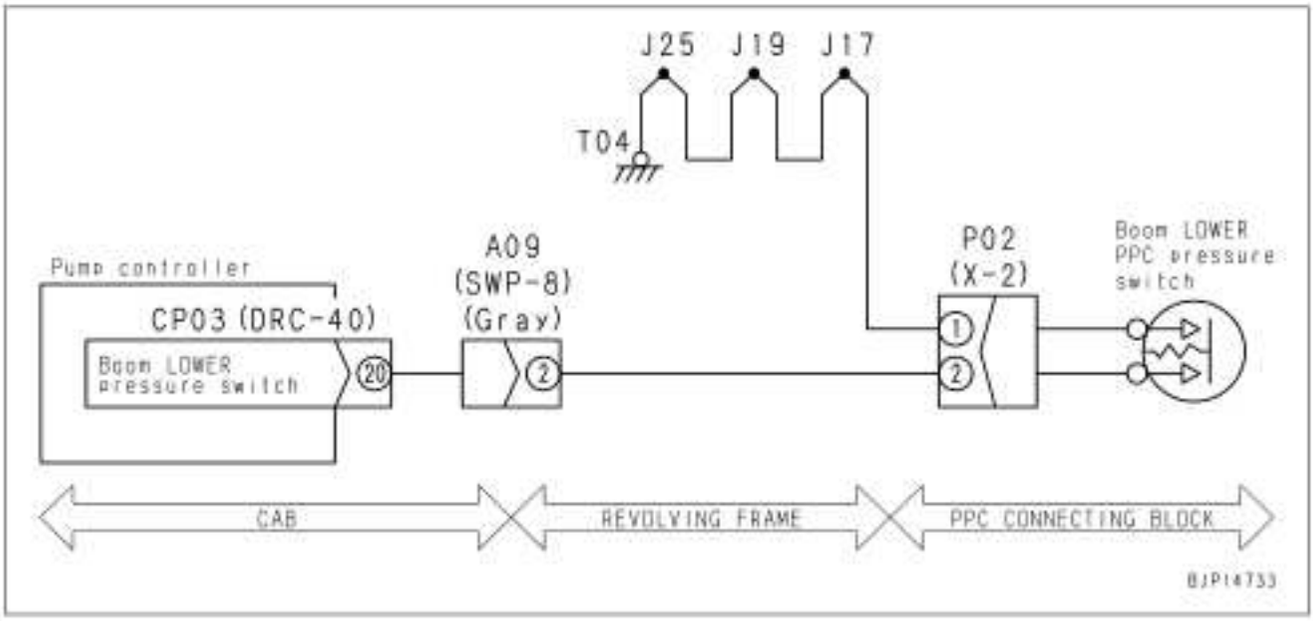
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E-19 "Boom LOWER" is not correctly displayed in monitor function

Failure phenomenon	• "Boom LOWER" is not correctly displayed in monitor function	"Boom LOWER" is not correctly displayed in the monitor function on the machine monitor.
Relative information	• Monitoring code: 01900 (Pressure switch 1)	

	Cause		Standard value in normalcy and references for troubleshooting			
Presumed cause and standard value in normalcy			★Turn the engine starting switch OFF for the preparations, and keep the engine running during the troubleshooting.			
	1	Boom LOWER PPC hydraulic switch fault (Internal disconnection or short-circuiting)	P02 (male)	R.H. work equipment control lever	Resistance	
			Between (1) – (2)	NEUTRAL	Min. 1 MΩ	
				Boom LOWER	Max. 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 CP03 (female) (20) – P02 (female) (2)		Resistance	Max. 1 Ω
			Wiring harness between P02 (female) (1) – J17 – J19 – J25 – chassis ground		Resistance	Max. 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.			
			Wiring harness between CP03 (female) (20) – P02 (female) (2) and chassis ground		Resistance	Min. 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.			
			Wiring harness between CP03 (female) (20) – P02 (female) (2) and chassis ground		Voltage	Max. 1 V
	5	Defective pump controller	★Turn the engine starting switch OFF for the preparations, and start the engine during the troubleshooting.			
			CP03	R.H. work equipment control lever	Voltage	
			Between (20) – chassis ground	NEUTRAL	20 – 30 V	
				Boom LOWER	Max. 1 V	

Circuit diagram related to boom LOWER PPC hydraulic switch



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Troubleshooting of engine (S-mode)

Method of using troubleshooting chart

The troubleshooting chart consists of the "questions", "check items", "causes", and "troubleshooting" blocks.
The questions and check items are used to pinpoint high probability causes by simple inspection or from phenomena without using troubleshooting tools.
Next, troubleshooting tools or direct inspection are applied to check the narrowed causes in order from the most probable one to make final confirmation according to the troubleshooting procedure.

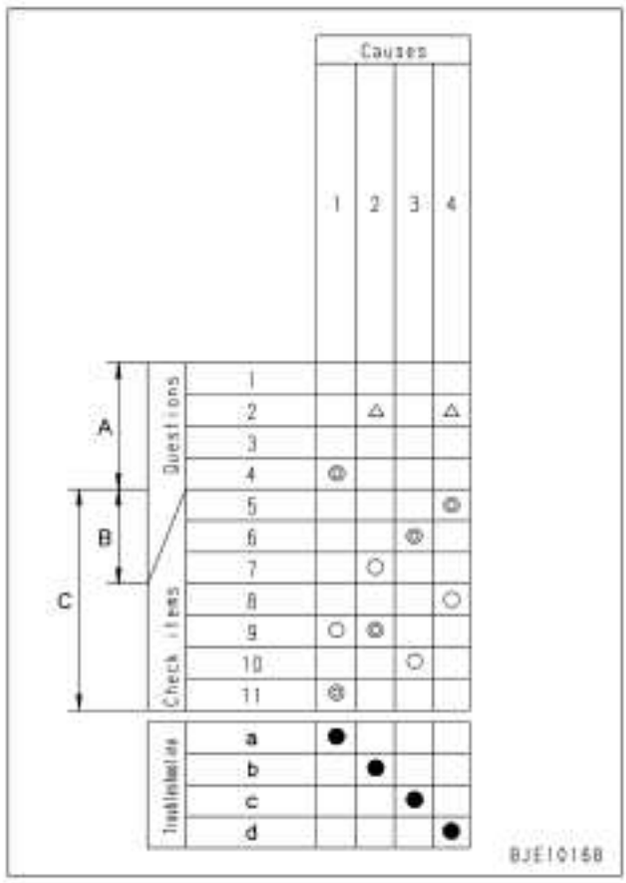
Questions:
Items to be drawn from the user or operator. They correspond to **A** and **B** in the chart on the right.
The items in **A** are basic ones. The items in **B** can be drawn from the user or operator, depending on their level.

Check items:
Simple check items used by the serviceman to narrow the causes. They correspond to **C** in the chart on the right.

Causes:
Items to be narrowed from the questions and check items.
The serviceman narrows down the probable causes from **A**, **B**, and **C**.

Troubleshooting:
Items used to find out the true cause by verifying the narrowed causes finally in order from the most probable one by applying troubleshooting tools or direct inspection.
Items listed in the [Questions] and [Check items] and related to the [Causes] are marked with △, ○, and ◎.

△ : Causes to be referred to for questions and check items
○ : Causes related to questions and check items
◎ : Causes highly probable among ones marked with
★ When narrowing the "causes", apply the items marked with ◎ before those marked with ○.
When narrowing the "causes", do not apply the items marked with △ (If no items have other marks and the causes cannot be narrowed, however, you may apply them.)



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UNDERCARRIAGE INSPECTION

(Program form No.: **********)

KUC

Komatsu Undercarriage Inspection

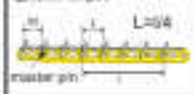
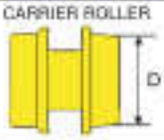
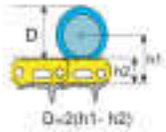


Customer name:

Address:

Model	PC800-8	Serial#		Equip#	
Location		SMR			
Soil condition		Dealer			
Working condition		Inspector			
		Insp.Date(yyyy/mm/dd)		(yyyy/mm/dd)	

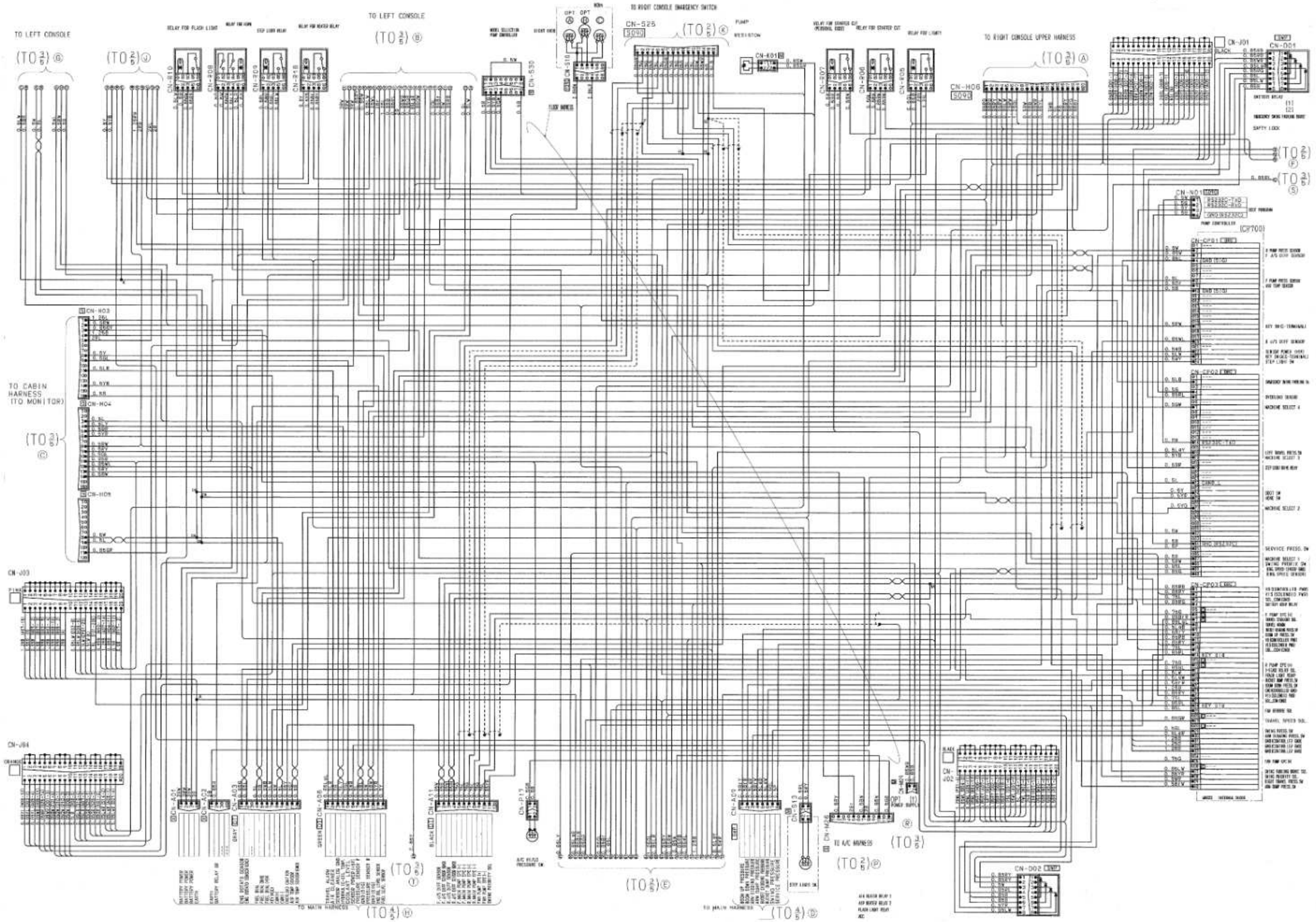
Work Order No											
Wet, AR, HD or Dry	DRY										
Shoe width (mm)											
Shoe type	DOUBLE										
Wear type	NORMAL										

			New	100% Wear	Measured mm	Wear %	SMR New	SMR Rebuilt	Hours on Parts:	Comments/Observation
LINK PITCH 	R	LH	1042.4	1054.4						
		RH	1042.4	1054.4						
	M	LH	260.60	263.60						
		RH	260.60	263.60						
 LINK HEIGHT	H	LH	156.0	143.0						
		RH	156.0	143.0						
BUSHING 	D	LH	87.5	82.5			New	Turned		
		RH	87.5	82.5			New	Turned		
GROUSER HIGHT 	H	LH	50.0	25.0						
		RH	50.0	25.0						
CARRIER ROLLER 	Front	LH	175.0	155.0						
		RH	175.0	155.0						
	Rear	LH	175.0	155.0						
		RH	175.0	155.0						
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	255.0	243.0						
	2	LH	255.0	243.0						
	3	LH	255.0	243.0						
	4	LH	255.0	243.0						
	5	LH	255.0	243.0						
	6	LH	255.0	243.0						
	7	LH	255.0	243.0						
	8	LH	255.0	243.0						
	9	LH	255.0	243.0						
	10	LH	255.0	243.0						
	1	RH	255.0	243.0						
	2	RH	255.0	243.0						
	3	RH	255.0	243.0						
	4	RH	255.0	243.0						
	5	RH	255.0	243.0						
	6	RH	255.0	243.0						
	7	RH	255.0	243.0						
	8	RH	255.0	243.0						
	9	RH	255.0	243.0						
	10	RH	255.0	243.0						
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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