SHOP MANUAL

KOMATSU®

WA470-5
WA480-5

MACHINE MODEL	SERIAL NUMBER
WA470-5	**70001 and up**
WA480-5	**80001 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.

- WA470-5, WA480-5 mounts the SAA6D125E-3 engine.
  For details of the engine, see the 125-3 Series Engine Shop Manual.

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SPECIFICATIONS

	Machine model			WA470-5		WA480-5	
	Serial No.			70001 and up		80001 and up	
Weight	Operating weight		kg	22,520		24,065	
	Distribution (front) SAE travel posture		kg	10,260		10,335	
	Distribution (rear) SAE travel posture		kg	11,260		13,730	
Performance	Bucket capacity (piled)		m^3	4.2		4.6	
	Rated load		kN{kg}	65.9{6,720}		76.7{7,820}	
				N mode	P mode	N mode	P mode
	Travel speed	FORWARD 1st	km/h	5.0	5.8	5.7	6.3
		FORWARD 2nd	km/h	9.4	11.2	11.0	12.1
		FORWARD 3rd	km/h	17.1	20.2	20.0	21.6
		FORWARD 4th	km/h	27.7	33.1	32.0	34.3
		REVERSE 1st	km/h	5.3	6.1	6.1	6.6
		REVERSE 2nd	km/h	10.1	11.9	11.7	12.8
		REVERSE 3rd	km/h	18.3	21.4	21.3	22.8
		REVERSE 4th	km/h	29.6	34.7	34.1	35.8
	Max. rimpull	FORWARD	kN {kg}	171.6{17,500}	208.9{21,300}	167.7{17,100}	193.2{19,700}
		REVERSE	kN {kg}	160.8{16,400}	195.8{19,970}	157.9{16,100}	182.1{18,570}
	Gradeability		deg	25		25	
	Min. turning radius	(Center of outside wheel)	mm	5,900		5,900	
		(tip of BOC)	mm	6,940/6,980		6,990/7,030	
Dimensions	Overall length (with BOC)		mm	8,815		9,155	
	Overall width (chassis)		mm	2,920		3,010	
	Bucket width (with BOC)		mm	3,170		3,170	
	Overall height (top of cab)		mm	3, 395		3,500	
	Overall height (Bucket approx. raised to max.)		mm	5,895		6,175	
	Wheel base		mm	3,450		3,450	
	Tread		mm	2,300		2,300	
	Min. ground clearance		mm	460		525	
	Max. height of bucket hinge pin		mm	4,295		4,505	
	Dumping clearance (tip of BOC)		mm	3,205 / 3,120		3,300 / 3,205	
	Dumping reach (tip of BOC)		mm	1,260 / 1,305		1,370 / 1,410	
	Steering angle		deg	40		40	
	Bucket dump angle (max. height)		deg	45		49	
	Bucket tilt angle (travel posture)		deg	50		52	
	Bucket tilt angle (max. height)		deg	65		60	
	Digging depth (10° dump) (tip of BOC)		mm	420/380		395/355	

BOC: Bolt-on cutting edge.

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Connector No.	Type of Connector	Number of Pins	Device Name	Address					
				Arrangement Drawing	System Diagram				
					ENG	TM	WRK	MON	E
LL5	DT	3	Intermediate connector (Joystick model)	M-5			F-5	K-1	
LL6	DT-T (Gr)	12	Intermediate connector (Joystick model)	Q-1			E-4	K-5	
LL7	DT-T (G)	12	Intermediate connector (Joystick model)	Q-1		I-7	E-4	K-5	
LL8	DT-T (Gr)	8	Intermediate connector (Joystick switch)	Q-1		K-2	C-2		
LR1	DTHD #12	1	Intermediate connector (Slow blow fuse)	X-2	J-2				
LR4	L	2	Intermediate connector (Slow blow fuse)	X-1	J-3				
LR5	DT-T	6	Intermediate connector (Auto grease controller)	X-3				K-1	
LR6	L	2	Intermediate connector (Ground)	X-2	J-3				
LR8	DTHD#8	1	Intermediate connector (Ground)	X-2	J-2	I-2	L-5	K-1	
LR9	DT-T	12	Intermediate connector (Steering, brake oil pressure switch)	X-1		I-3		K-2	
LR10	DT-T	12	Intermediate connector	X-1	J-3	I-3		K-2	D-3
LT1	HD-24	31	Intermediate connector (Transmission)	W-3		I-6		K-4	
NE	YAZAKI	2	Engine NE speed sensor	AB-6	E-1				
OL	DT-T	2	Engine oil level sensor	AC-1				P-8	
PB.PS	DT-T	2	Parking brake solenoid	AI-2		P-8			
PB.SW	DT-T	2	Parking brake indicator switch	AI-2		Q-8		P-8	
PCV1	SUMITOMO	2	Supply pump (No. 1)	Z-4	A-1				
PCV2	SUMITOMO	2	Supply pump (No. 2)	AA-5	A-1				
PFUEL	AMP174 357-2	3	Common rail pressure signal	AB-5	E-2				
PIM	SUMITOMO	3	Boost pressure signal	AC-7	E-2				
R01	Terminal	1	Battery relay	J-2	L-1			X-6	
R02	Terminal	1	Slow blow fuse	L-2	L-2				
R03	Terminal	1	Slow blow fuse	L-2	L-2				
R04	Terminal	1	Battery relay	K-2	L-1			X-6	
R05	Terminal	1	Slow blow fuse	K-2	L-3			X-7	
R06	Terminal	1	Slow blow fuse	K-2	L-2				
R11	Terminal	1	Slow blow fuse	K-2	L-2			X-7	
R13	Terminal	1	Battery relay	L-1	L-2			X-6	
R14	Terminal	1	Battery relay	L-1	L-2			X-6	
R15	Terminal	1	Emergency steering relay	J-1		O-1			
R16	Terminal	1	Emergency steering relay	J-1		O-1			
R22	Terminal	1	Battery	H-9	K-1				
R23	Terminal	1	Battery	H-9	K-1				
R24	DT-T	2	Diode (Battery relay)	I-1	L-4			P-1	
R25	DT-T	2	Diode (Battery relay)	J-2	L-3			P-1	
R26	DT-T	2	Diode (Starting motor)	H-1	L-3			P-1	
R27	DT-T	2	Diode (Starting motor)	I-2	L-3			P-1	
R29	DT-T	2	Oil fan EPC	A-6		Q-3			
R30	M	6	Rear combination lamp (Left)	L-7		Q-2		S-8	B-3
R31	M	6	Rear combination lamp (Right)	I-9		Q-2		S-8	B-4
R32	DT-T	2	Coolant level sensor	B-8				X-8	
R33	DT-T	2	Fuel level gauge sensor	K-3				U-8	
R34	M	2	License lamp	L-6				U-8	
R36	DT-T	3	Steering pump pressure switch	D-1		Q-3		V-8	

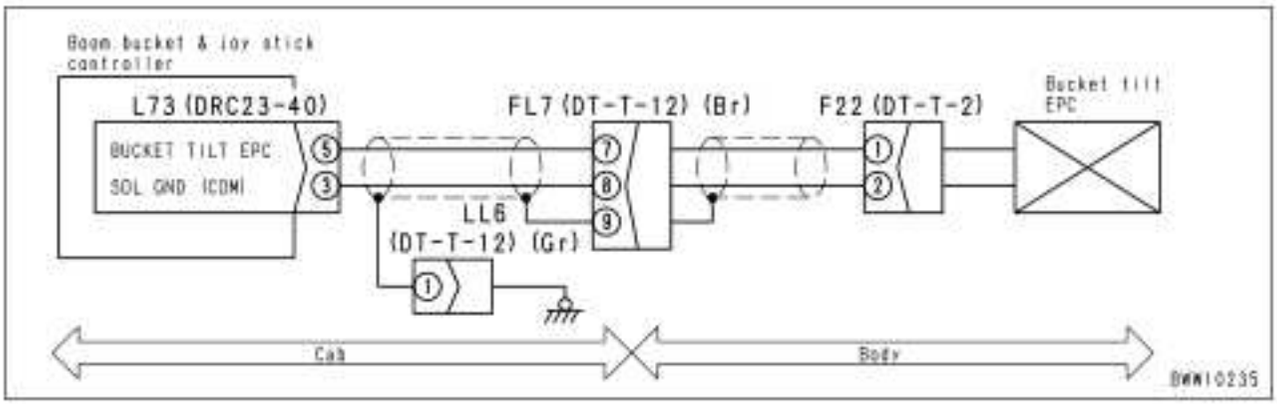
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FAILURE CODE [DW4RKA]

Action Code	Failure Code	Controller Code	Trouble	Disconnected bucket tilt EPC solenoid system
E03	DW4RKA	WRK		
Description Of Trouble	• The bucket tilt EPC solenoid system disconnection prevents output to the lift arm bucket tilt EPC solenoid.			
Controller Reaction	• Stops the output to the bucket tilt EPC solenoid. • Stops the output to the bucket tilt detent.			
Effect on Machine	• The bucket tilt cannot move.			
Related Information	• Can be checked with the monitoring function (Code: 41902).			

	Causes		Standard Value in Normal State and Remarks on Troubleshooting		
Possible Causes and Standard Values	1	Defective bucket tilt EPC solenoid	1) Turn starting switch OFF. 2) Disconnect connector F22. 3) Insert and connect T-adapter.		
			Between F22 (Male) (1) – (2)	Resistance	9 – 10.2 Ω
			Between F22 (Male) (1) – body	Resistance	1 MΩ and above
	2	Wiring harness discontinuity (Disconnection or defective contact)	1) Turn starting switch OFF. 2) Disconnect connectors L73 and F22. 3) Connect T-adapter.		
			Wiring harness between L73 (Female) (5) – F22 (Female) (1)	Resistance	1 Ω and below
			Wiring harness between L73 (Female) (3) – F22 (Female) (2)	Resistance	1 Ω and below
	3	Defective work equipment controller	1) Turn starting switch OFF. 2) Disconnect connector L73. 3) Connect T-adapter.		
			Between L73 (Female) (5) – (3)	Resistance	9 – 10.2 Ω

Related circuit diagram



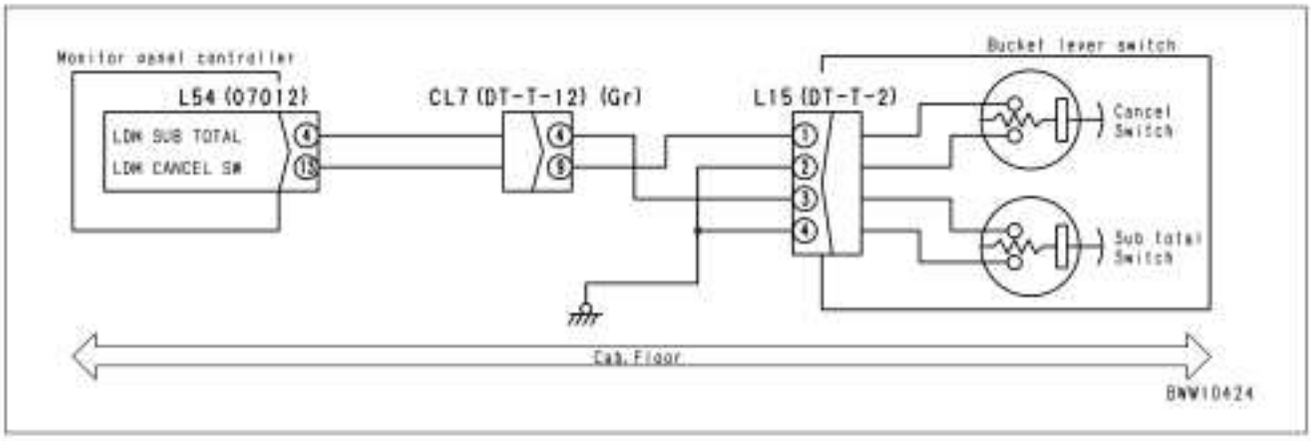
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TROUBLESHOOTING CODE [MON-16]

Troubleshooting Code	Failure Code	Controller Code	Trouble	Defective subtotal switch
MON-16	—	(MON)		
Description of Trouble	• The subtotal switch input circuit is in the OPEN state.			
Controller Reaction	• No reaction.			
Effect on Machine	• The load meter subtotal operation is impossible.			
Related Information	• Applied to the load meter specification. • The subtotal switch input signal (0/1) can be checked with the monitoring function (Code: 40904, D-IN-32).			

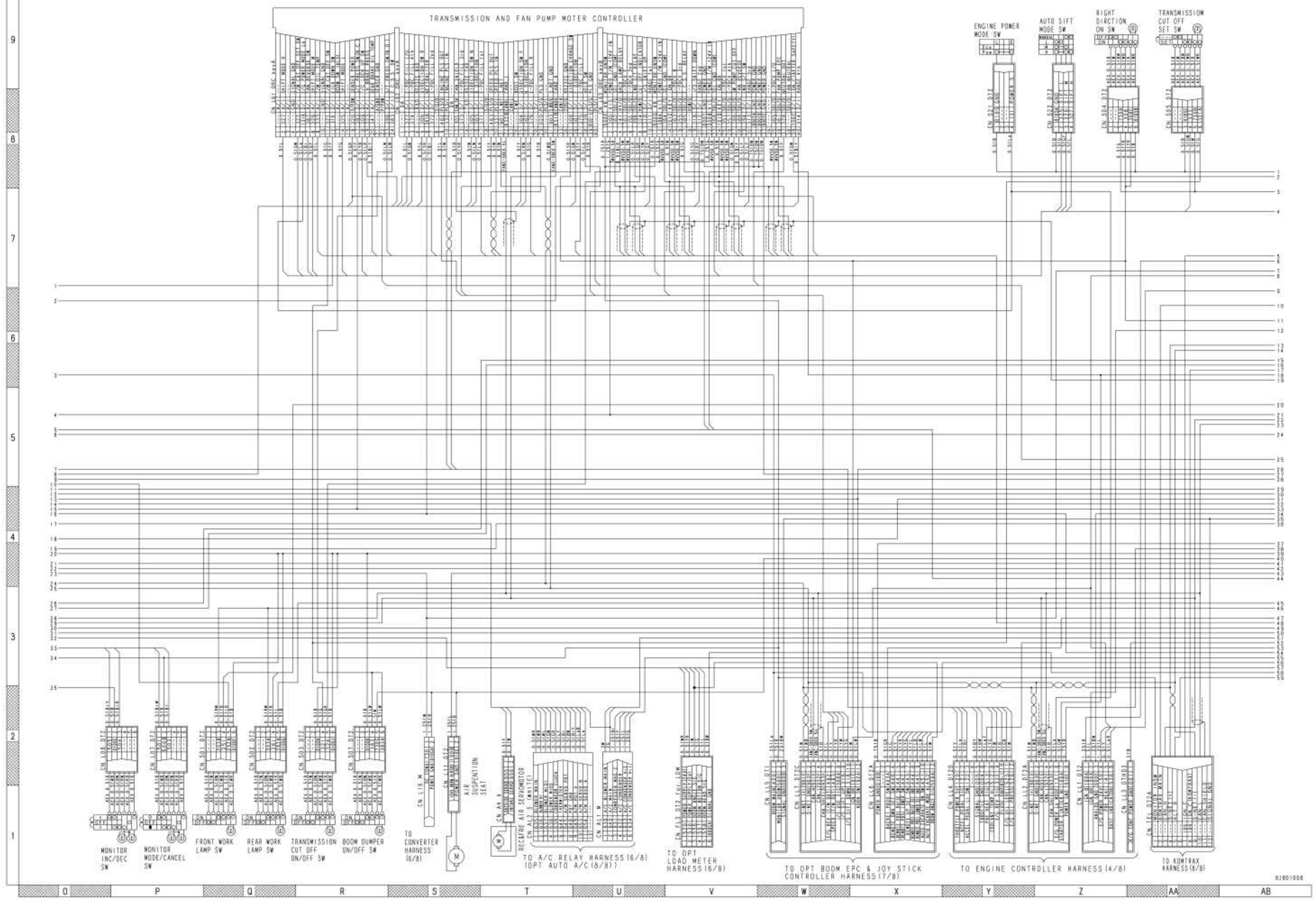
	Causes		Standard Value in Normal State and Remarks on Troubleshooting			
Possible Causes and Standard Values	1	Defective subtotal switch (Bucket lever for OPT LDM)	1) Turn starting switch OFF. 2) Disconnect connector L15. 3) Connect T-adapter.			
			Between L15 (Female) (3) – (4)	Subtotal switch: ON	Resistance	1 Ω and below
				Others	Resistance	1 MΩ and above
	2	Harness disconnection (Disconnection or defective contact)	1) Turn starting switch OFF. 2) Disconnect connectors L54 and L15. 3) Connect T-adapter.			
			Between L54 (Female) (4) – L15 (Female) (3)		Resistance	1 Ω and below
	3	Hot short circuit in wiring harness	1) Turn starting switch OFF. 2) Disconnect connectors L54 and L15. 3) Connect T-adapter. 4) Turn starting switch ON.			
			Between L54 (Female) (4), L15 (Female) (3) – body		Voltage	1 V and below
	4	Defective monitor panel	1) Turn starting switch OFF. 2) Disconnect connector L54. 3) Connect T-adapter. 4) Turn starting switch ON.			
			Between L54 (Female) (4) – body	Subtotal switch: ON	Voltage	1 V and below
				Others	Voltage	20 – 30 V

Related circuit diagram



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ELECTRICAL CIRCUIT DIAGRAM 2/8 (2/4)



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