CRAWLER EXCAVATOR

SERVICE MANUAL

HX210HD, HX220HD

HYUNDAI

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7) REMOTE CONTROL VALVE

Item		Specification
Type		Pressure reducing type
Operating pressure	Minimum	6.5 kgf/cm² (92 psi)
	Maximum	26 kgf/cm² (370 psi)
Single operation stroke	Lever	61 mm (2.4 in)
	Pedal	123 mm (4.84 in)

8) CYLINDER

Item		Specification
Boom cylinder	Bore dia × Rod dia × Stroke	Ø120 × Ø85 × 1290 mm
	Cushion	Extend only
Arm cylinder	Bore dia × Rod dia × Stroke	Ø140 × Ø100 × 1510 mm
	Cushion	Extend and retract
Bucket cylinder	Bore dia × Rod dia × Stroke	Ø120 × Ø85 × 1055 mm
	Cushion	Extend only

※ Discoloration of cylinder rod can occur when the friction reduction additive of lubrication oil spreads on the rod surface.

※ Discoloration does not cause any harmful effect on the cylinder performance.

9) SHOE

Item		Width	Ground pressure	Link quantity	Overall width
HX210HD	Standard	600 mm (24")	0.48 kgf/cm² (6.86 psi)	46	2800 mm (9' 2")
	Option	800 mm (32")	0.42 kgf/cm² (6.03 psi)	46	3000 mm (9' 10")
HX220HD	Standard	600 mm (24")	0.45 kgf/cm² (6.50 psi)	49	2990 mm (9' 10")
	Option	800 mm (32")	0.35 kgf/cm² (5.06 psi)	49	3190 mm (10' 6")

10) BUCKET

Item		Capacity		Tooth quantity	Width	
		SAE heaped	CECE heaped		Without side cutter	With side cutter
HX210HD HX220HD	STD	0.92 m³ (1.20 yd³)	0.80 m³ (1.05 yd³)	5	1080 mm (42.5")	1250 mm (49.2")
	OPT	1.20 m³ (1.57 yd³)	1.00 m³ (1.31 yd³)	5	1330 mm (52.4")	1500 mm (59.1")
		◆0.87 m³ (1.14 yd³)	0.75 m³ (0.98 yd³)	5	1140 mm (44.9")	–
		◆1.20 m³ (1.14 yd³)	1.00 m³ (1.31 yd³)	5	1410 mm (55.5")	–

◆ : Heavy duty bucket

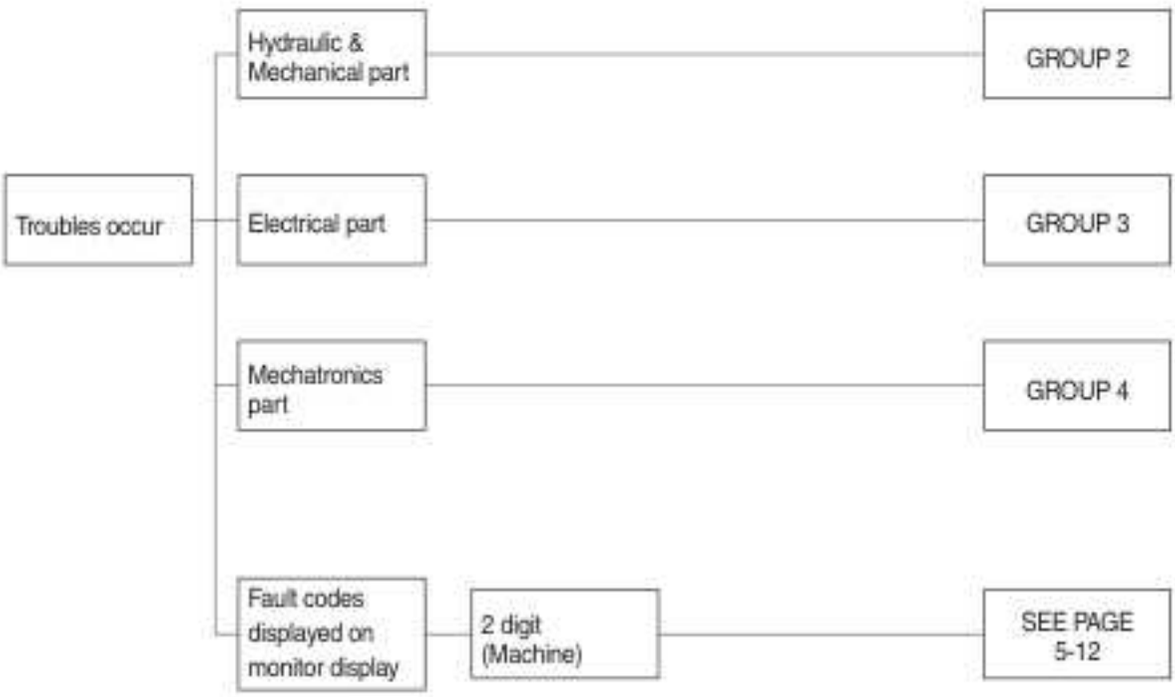
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GROUP 1 BEFORE TROUBLESHOOTING

1. INTRODUCTION

When a trouble is occurred in the machine, this section will help an operator to maintain the machine with easy.

The trouble of machine is parted Hydraulic & Mechanical system, Electrical system and Mechatronics system. At each system part, an operator can check the machine according to the troubleshooting process diagram.

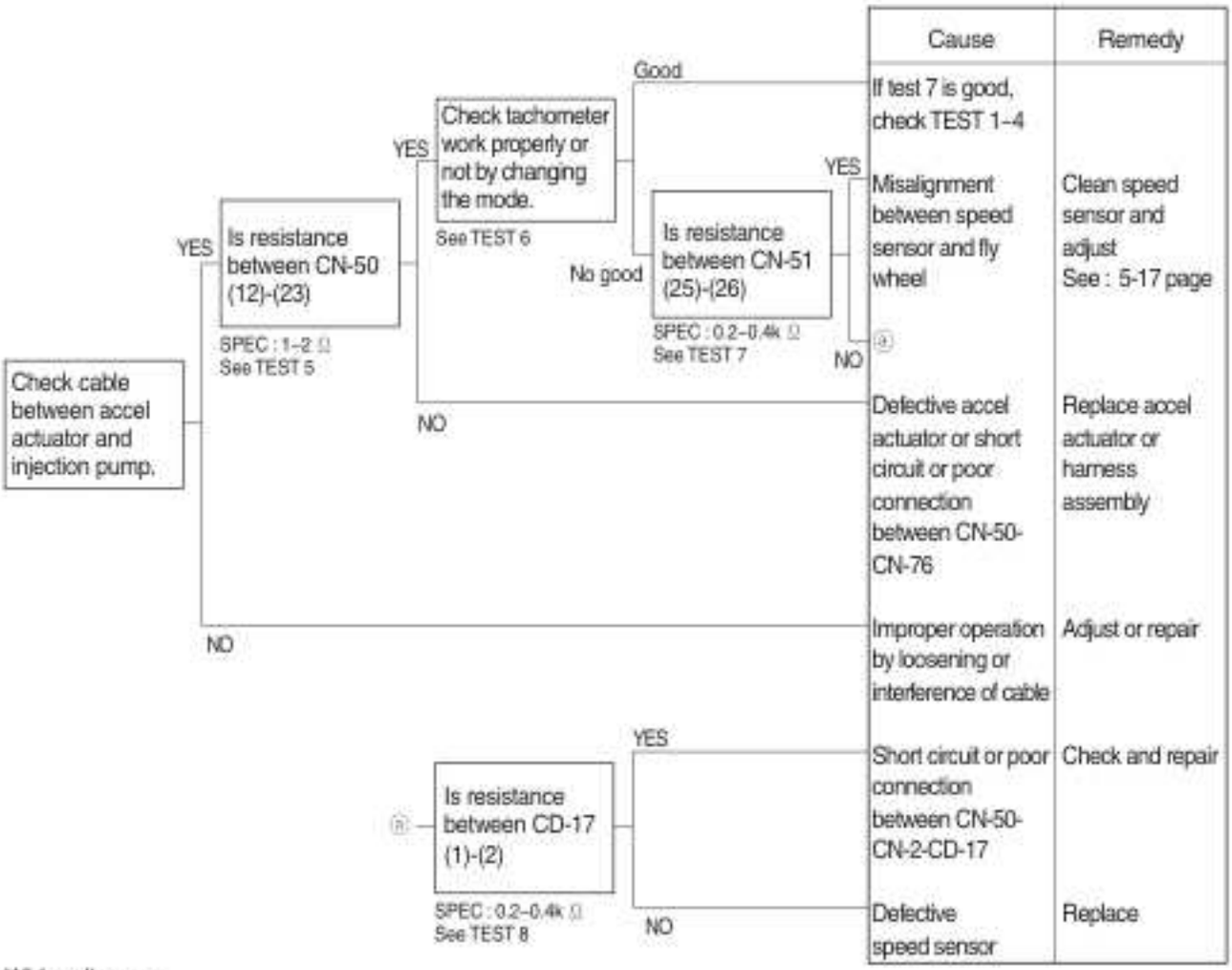


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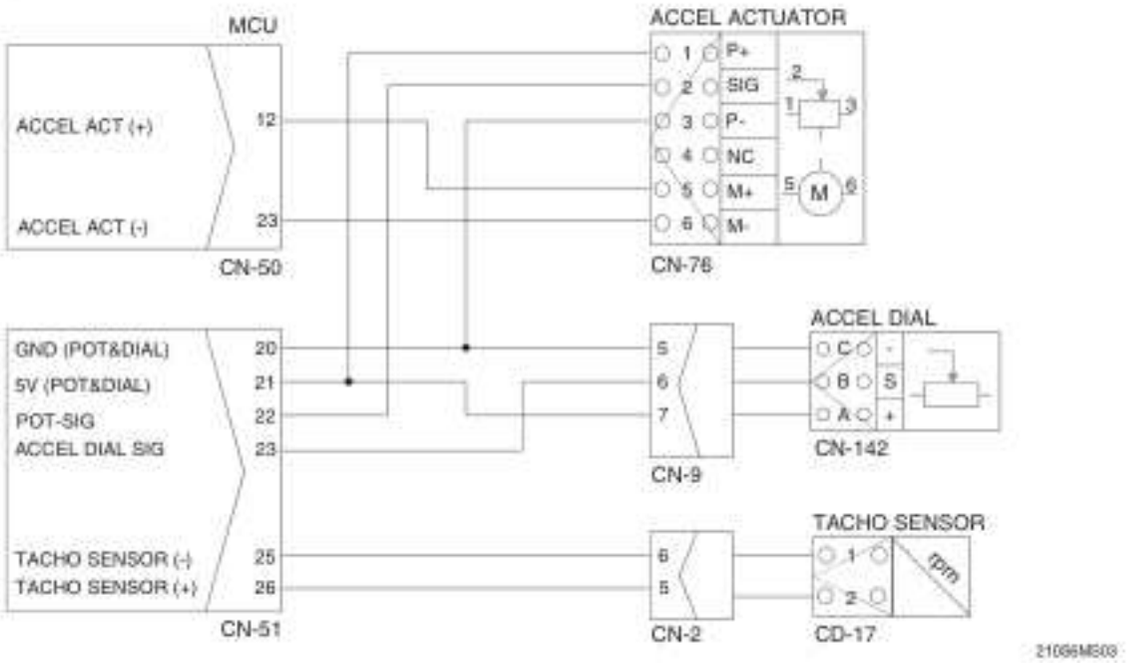
2. ENGINE SPEED IS SLOW AT ALL MODE

※ Before carrying out below procedure, check all the related connectors are properly inserted.

1) INSPECTION PROCEDURE



Wiring diagram



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3) ASSEMBLING PINION GEAR SUB ASSY

(1) Prepare drive shaft pinion gear vertical with ground.

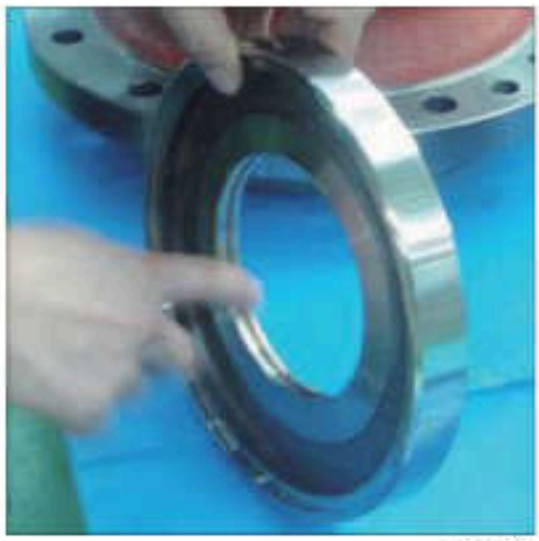


2203A6SM21

(2) Fully apply grease (albania EP02) to O-ring groove of sleeve.

※ Be sure to maintain it vertical with ground when assembling it.

(3) Put O-ring into O-ring groove of sleeve. Fully apply grease on O-ring.



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(4) Assemble taper bearing and sleeve into drive shaft using press jig.
Use special jig for pressing. Leave no space between sleeve and taper bearing.



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2.1)Option for Dual Mode Selection :

1. It helps to increase machine implement speed

Mode	Default	Option
	RPM/EPPR	RPM/EPPR
Version	21:C3.5	21:C4.5
S	1910/15 bar	1980/13 bar
H	2050/4 bar	2080/12 bar
M	2110/13 bar	2200/11 bar

2.1.1) Process for Dual Mode Selection :

Initially the machine was set to default mode version i.e- 21:C3.5

Step 1: Press the select button on the cluster
Step 2: select setting option
Step 3: Press the select button on cluster



Image 1



Image 2

Step 4: Select Dual mode using arrows button on cluster.
Step 5: Press the select button on cluster.
Step 6: Change mode from 21:C3.5 to 21:C4.5 as shown below
Step 7: Press the select button on cluster
Step 8: Press Escape button 2 times



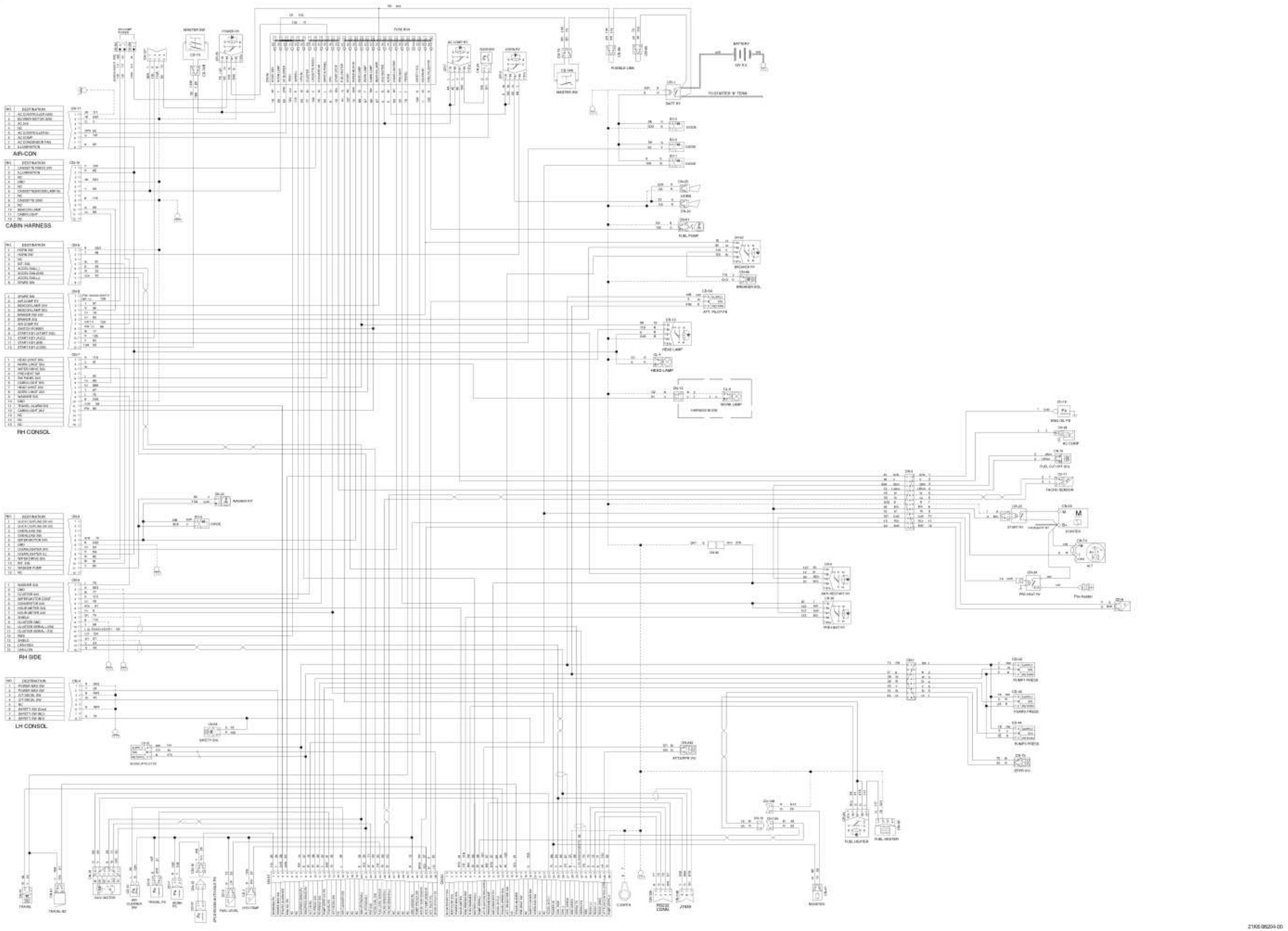
Image 3



Image 4

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· ELECTRICAL CIRCUIT (1/2)



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