SEN06593-06

Shop Manual

BULLDOZER

D37EXi -24
D37PXi -24
D39EXi -24
D39PXi -24

SERIAL NUMBERS

D37EXi-85001
D37PXi-85001
D39EXi-95001
D39PXi-95001

and up

KOMATSU®

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SPECIFICATIONS: D39EXI-24

Item	Unit	D39EXI-24 460 mm Single shoe
Weight		
Machine weight		
Bare tractor with ROPS cab	kg	8770
Power angle power tilt dozer with ROPS cab	kg	9930
Performance		
Minimum turning radius	-	(Counter-rotation turn)
Gradeability	degree	30
Stability (front, rear, right, and left)	degree	35
Travel speed		
Quick shift mode		
Forward (1st)	km/h	3.4
Forward (2nd)	km/h	5.6
Forward (3rd)	km/h	8.5
Reverse (1st)	km/h	4.1
Reverse (2nd)	km/h	6.5
Reverse (3rd)	km/h	8.5
Variable shift mode		
Forward	km/h	0.8 to 8.5
Reverse	km/h	0.8 to 8.5
Ground pressure		
Bare tractor with ROPS cab	kPa {kg/cm^2}	39.9 {0.41}
Power angle power tilt dozer with ROPS cab	kPa {kg/cm^2}	45.1 {0.46}
Dimensions		
Overall length		
Bare tractor with ROPS cab	mm	3340
Power angle power tilt dozer with ROPS cab (blade full angling)	mm	4910
Overall width		
Bare tractor	mm	2080
Power angle power tilt dozer	mm	2710
Overall height		
When ROPS cab is installed (including GNSS antenna)	mm	3010
Track gauge	mm	1620
Length of track on ground	mm	2345

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FAILURE CODE [CA5392]

Action level	Failure code	Failure	KDOC and KDPF Temperature Sensor Internal Circuit Error (Engine controller system)
L03	CA5392		
Detail of failure	Error is detected in either sensor circuit of the KDOC inlet temperature sensor or the KDOC outlet temperature sensor.		
Action of controller	• Operates the engine with KDOC inlet temperature and KDOC outlet temperature as a default value (250 °C). • Derates engine power for operation. • Stops AdBlue/DEF injection. • Opens the exhaust throttle valve. • Stops regeneration control. • Stops fuel dosing. • Activates Inducement strategy.		
Phenomenon on machine	• NOx emission increases because AdBlue/DEF injection is disabled. • Control of active regeneration is defective. • Soot accumulation is high. • Either of KDOC inlet temperature or KDOC outlet temperature cannot be detected. • Engine power derates according to Inducement strategy.		
Related information	⚠ **KDOC is heated to 500 °C and above. Be careful not to get burn injury.** • The KDOC temperature sensor consists of the KDOC inlet temperature sensor and the KDOC outlet temperature sensor. The controller of integrated sensor communicates with the engine controller through CAN communication. • For KDOC temperature sensor replacement, see DISASSEMBLY AND ASSEMBLY, "REMOVE AND INSTALL KDOC ASSEMBLY". • After completion of repair, check that the failure code is cleared by the following procedure. Procedure: Turn the starting switch to ON position. • The engine power deration is canceled by turning the starting switch to OFF position after this failure code is cleared. (This deration is not canceled by simply failure code being cleared.)		

No.	Cause	Procedure, measuring location, criteria and remarks
1	Defective wiring harness connector	1. See descriptions of wiring harness and connectors in "Electrical equipment" in "CHECKS BEFORE TROUBLESHOOTING" of "RELATED INFORMATION ON TROUBLESHOOTING", and check it. 2. Turn starting switch to ON position. If this failure code is cleared, wiring harness connector is defective.
2	Defective KDOC temperature sensor	1. Turn the starting switch to OFF position. 2. Replace the KDOC temperature sensor. 3. Turn the starting switch to ON position.
		If this failure code is not displayed, the original sensor is defective. (Since this is an internal defect, troubleshooting cannot be performed.)
3	Defective engine controller	If no failure is found by above checks, engine controller is defective. (Since this is an internal defect, troubleshooting cannot be performed.)

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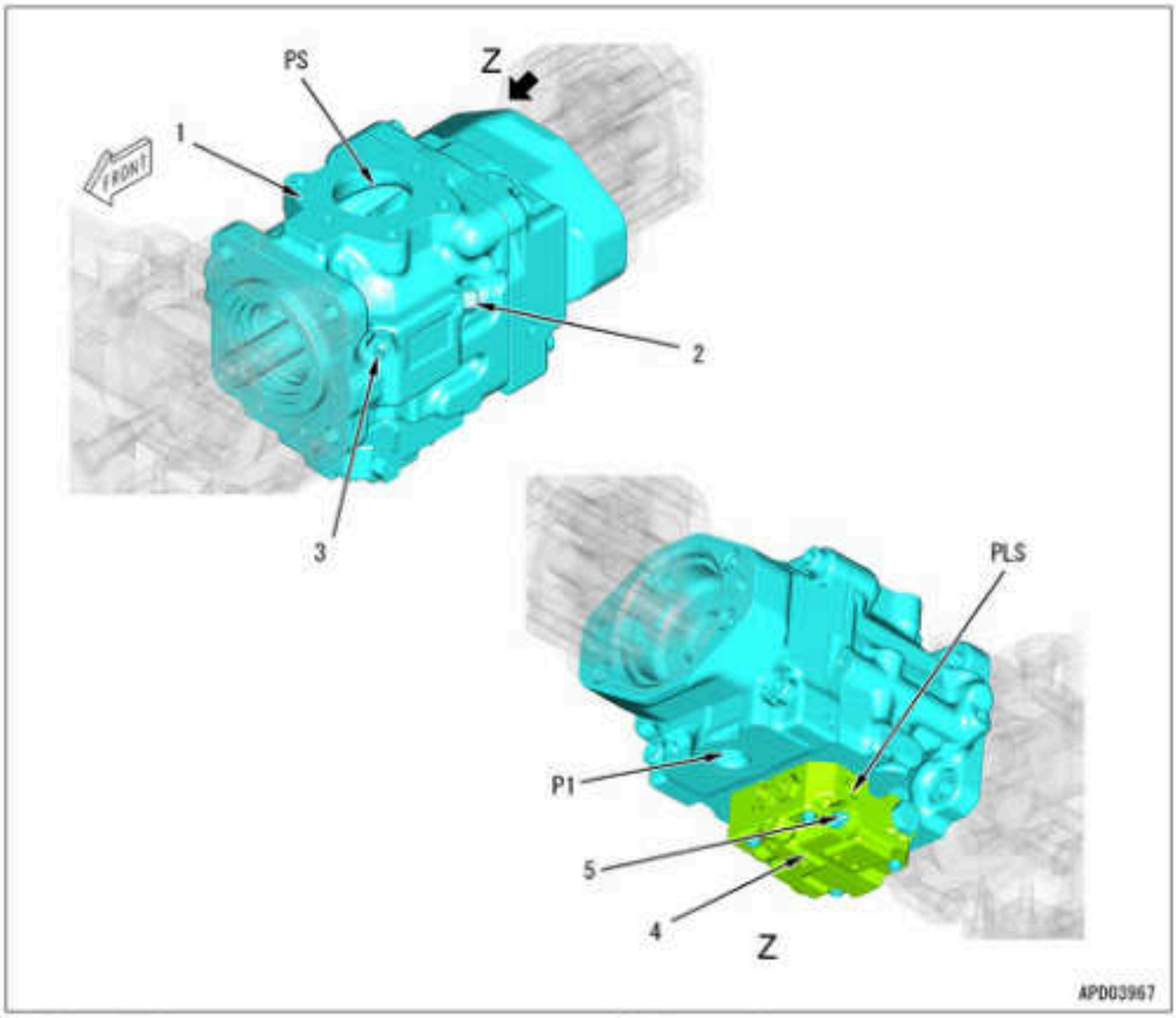
<table>
<tr><th>No.</th><th>Cause</th><th colspan="3">Procedure, measuring location, criteria and remarks</th></tr>
<tr><td rowspan="6">26</td><td rowspan="6">Ground fault in wiring harness 2 (contact with ground circuit)</td><td colspan="3">1. Turn the starting switch to OFF position.
2. Disconnect connectors KEY, 11, PLR, 4, CM01, ST1, CK02.
3. Connect T-adapter to each female side of KEY, 11, PLR, and 4.
4. Remove fuse No.5 in fuse box F01.</td></tr>
<tr><td rowspan="4">Resistance</td><td>Between ground and KEY (female) (3) or 11 (female) (3)</td><td>Min. 1 MΩ</td></tr>
<tr><td>Between ground and 11 (female) (5) or PLR (female) (3)</td><td>Min. 1 MΩ</td></tr>
<tr><td>Between ground and PLR (female) (6) or 4 (female) (1)</td><td>Min. 1 MΩ</td></tr>
<tr><td>Between PLR (female) (2) and ground</td><td>Min. 1 MΩ</td></tr>
<tr><td rowspan="2">27</td><td rowspan="2">Hot short circuit in wiring harness</td><td colspan="3">1. Turn the starting switch to OFF position.
2. Turn the starting switch to ON position.</td></tr>
<tr><td>Voltage</td><td>Between T16 terminal and ground</td><td>Max. 1 V</td></tr>
</table>

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WORK EQUIPMENT AND COOLING FAN PUMP

STRUCTURE OF WORK EQUIPMENT AND COOLING FAN PUMP

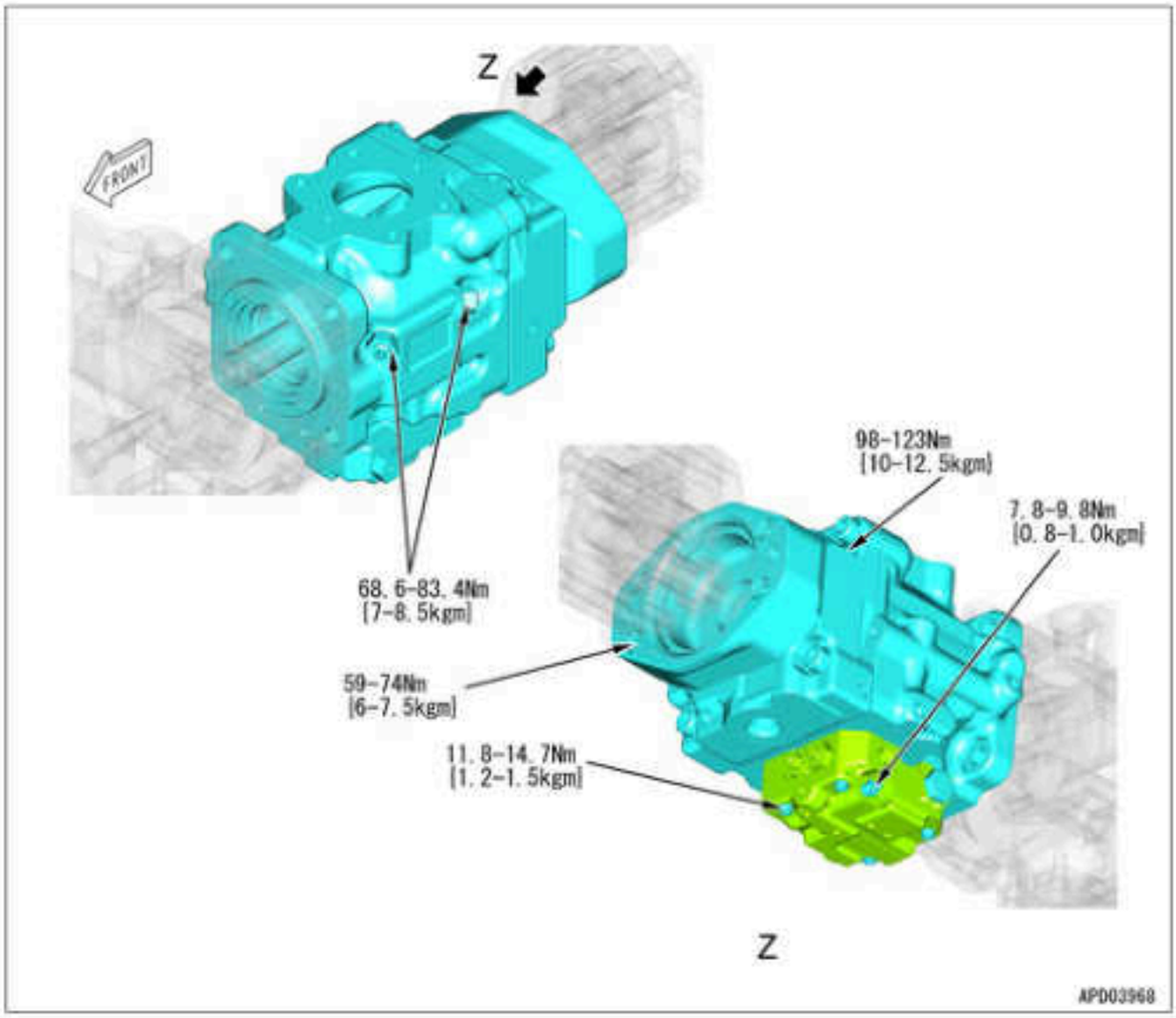
General view



P1: Pump discharge port
PS: Pump suction port
PLS: Load pressure input port
1: Pump body
4: Servo valve
2: Min. swash plate adjustment plug
5: Bleeder
3: Max. swash plate adjustment plug

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MAINTENANCE STANDARD OF WORK EQUIPMENT AND COOLING FAN PUMP



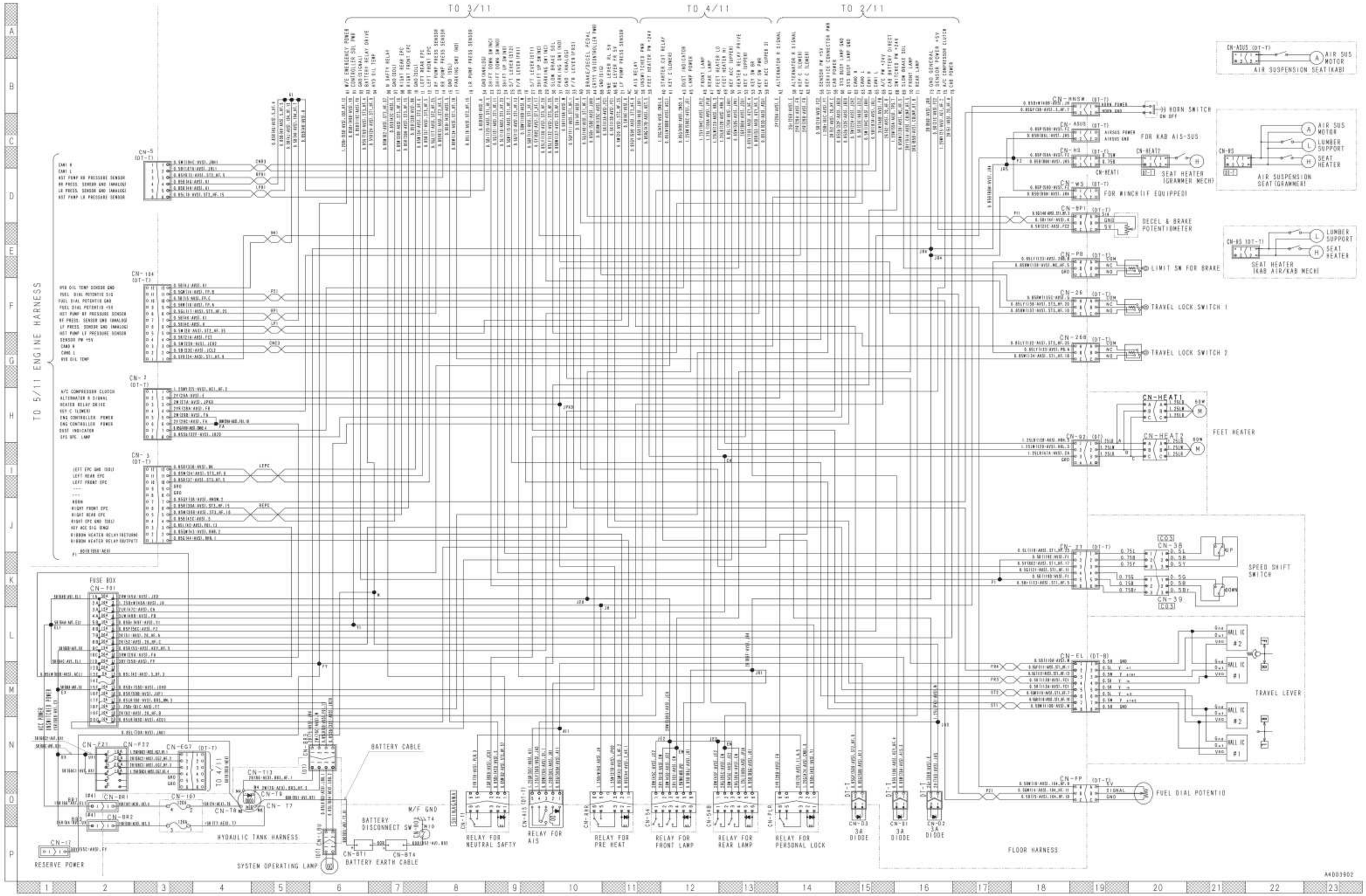
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ELECTRICAL CIRCUIT DIAGRAM (1/11)

D37EXI-24,D37PXI-24,D39EXI-24,D39PXI-24

REMARK

This figure includes the equipment and devices that are unavailable as optional items in some areas.



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