CEBM004602

Shop Manual

KOMATSU®

avance® plus

WA250-3MC

WHEEL LOADER

SERIAL NUMBERS **WA250-3MC** **A71001** and UP

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PRODUCT PUBLICATIONS INFORMATION

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The Publications listed below are available for this particular machine(s).

DESCRIPTION	FORM NUMBER
PARTS BOOK - PAPER:	
Chassis and Engine	BEPB008201
PARTS BOOK - MICROFICHE:	
Chassis and Engine	BEPM008201
OPERATION AND MAINTENANCE MANUAL:	
Chassis and Engine	CEAM005800
SHOP MANUAL	
Chassis	CEBM004602
Engine	SEBM010009
SAFETY MANUAL	
Machine specific	WLT70-1

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METHOD OF USING TROUBLESHOOTING CHARTS

CATEGORY OF TROUBLESHOOTING CODE NUMBER

Troubleshooting code No.	Component
A - 00	Troubleshooting of Transmission Controller System
D - 00	Troubleshooting of ECSS (Electronically Controlled Suspension System)
E - 00	Troubleshooting of Electrical System
K - 00	Troubleshooting of Maintenance Monitor System
M - 00	Troubleshooting of Main Monitor System
S - 00	Troubleshooting of Engine System
T - 00	Troubleshooting of Hydraulic & Mechanical Systems

METHOD OF USING TROUBLESHOOTING TABLE FOR EACH TROUBLESHOOTING MODE.

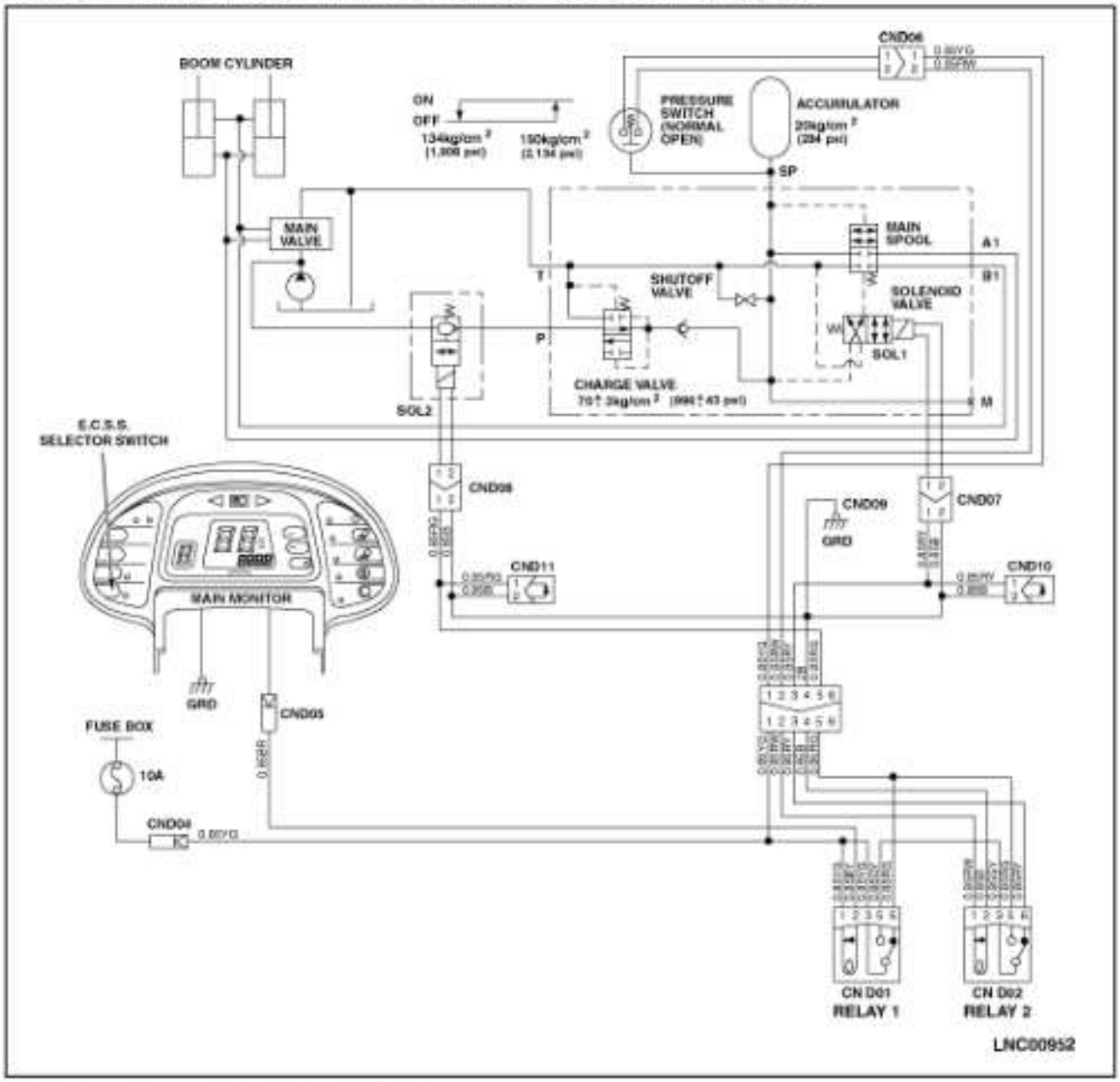
1. Troubleshooting code number and problem.
   The title of the troubleshooting chart gives the troubleshooting code, service code and failure mode (problem with the machine). (See Example (1)).

2. Distinguishing conditions.
   Even with the same failure mode (problem), the method of troubleshooting may differ according to the model, component, or problem. In such cases, the failure mode (problem) is further divided into sections marked with small letters (for example, (a)), so go to the appropriate section to carry out troubleshooting.
   If the troubleshooting table is not divided into sections, start the troubleshooting from the first check item in the failure mode. (See Example (2)).

3. Method of following troubleshooting chart.
   - Check or measure the item inside □ YES/NO, and according to the answer, follow either the YES line or the NO line to go to the next □ condition box. (Note: The number at the top right corner of the □ condition box is an index number; it does not indicate the order to follow.)
   - Following the YES or NO lines according to the results of the check or measurement will lead finally to the Cause column. Check the cause and take the action given in the Remedy column on the right. (See Example (3))
   - Below the □ condition box, there are the methods for inspection or measurement, and the judgement values.
     If the judgement values below the □ condition box are correct or the answer to the question inside the □ condition box is YES, follow the YES line. If the judgement value is not correct, or the answer to the question in NO, then follow the NO line.
   - Below the □ condition box is given the preparatory work needed for inspection and measurement, and the judgement values. If this preparatory work is neglected, or the method of operation or handling is mistaken, there is the danger that it may cause mistaken judgement or the equipment may be damaged. Therefore, before starting inspection or measurement, always read the instructions carefully, and start the work in order from the first item 1.

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ECSS - ELECTRICAL / HYDRAULIC SCHEMATIC



ECSS - WORKING CHART

ECSS SWITCH (SYSTEM ON - OFF)	LIFT CYLINDER PRESSURE kgf/cm² (lbf/in²)	SOLENOID		SYSTEM FUNCTION
		SOL 1 (ECSS VALVE)	SOL 2 (CHARGING VALVE)	
OFF	0 - 210 (0 - 2986.9)	X	O	
ON	0 - 150 (0 - 2133.5)	O	X → O	
	150 - 210 (2133.5 - 2986.9)	X	O	

X = OFF
O = ON

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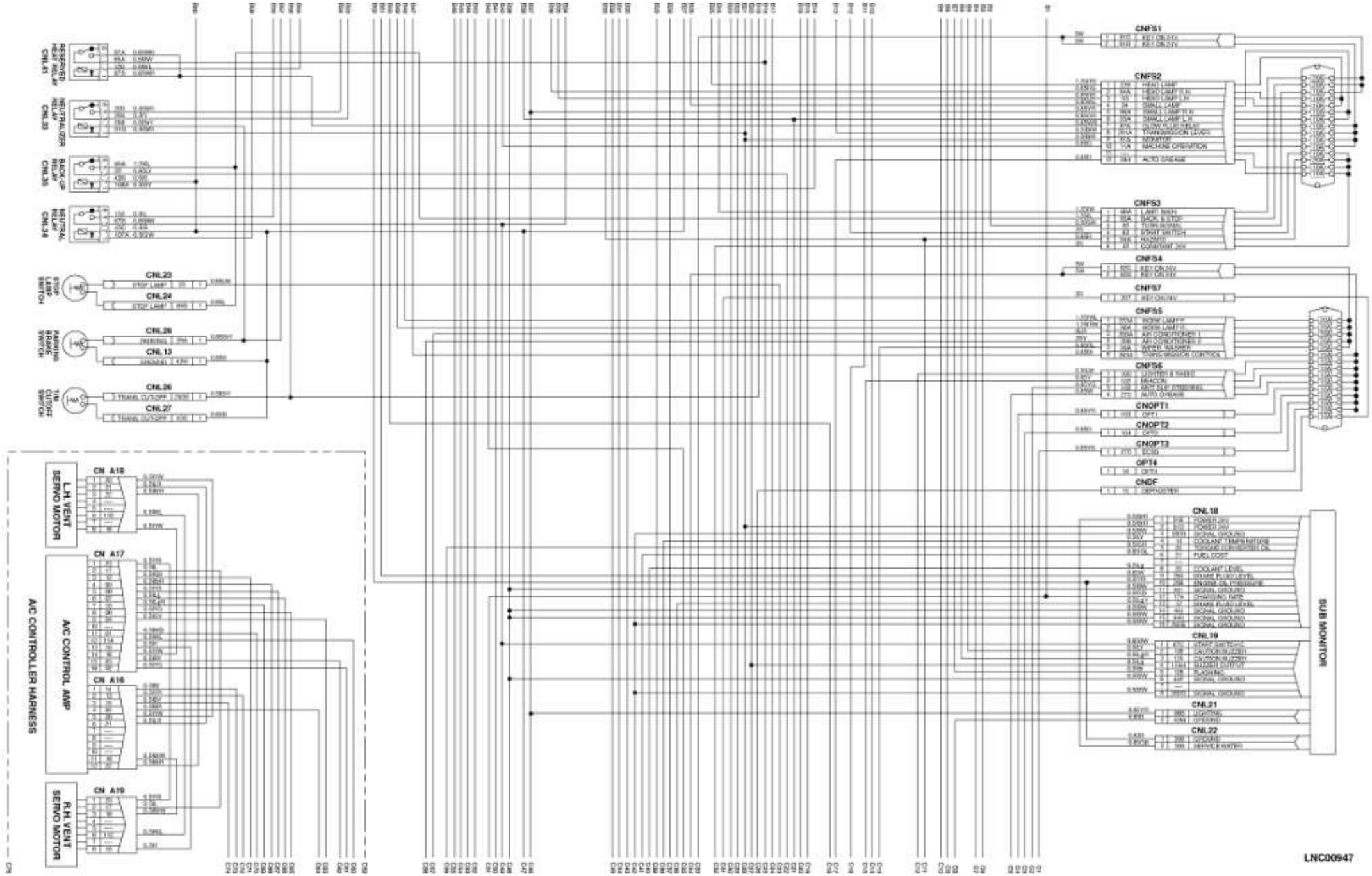
No.	Criteria					Remedy
		Standard size			Repair limit		
		Free length	Installed length	Installed load	Free length	Installed load	
12	Main regulator valve spring	82.55 mm (3.25 in)	62.6 mm (2.47 in)	230 ±11.5 N (52 ±3 lbf)	79.3 mm (3.12 in)	207 N (47 lbf)	Replace
13	Priority valve spring	69.5 mm (2.74 in)	52.6 mm (2.07 in)	254 ±12.7 N (57 ±3 lbf)	66.7 mm (2.63 in)	228 N (51 lbf)	
14	Quick return valve spring	48.0 mm (1.89 in)	41.0 mm (1.61 in)	0.8 ±0.04 N (3 ±1 ozf)	46.1 mm (1.82 in)	0.7 N (2.5 ozf)	
15	Modulation fill valve spring (inner)	41.8 mm (1.65 in)	40.0 mm (1.57 in)	24.1 ±1.2 N (5 ±1 lbf)	40.1 mm (1.58 in)	21.7 N (5 lbf)	
16	Modulation fill valve spring (outer)	43.6 mm (1.72 in)	24.3 mm (0.96 in)	138 ±7 N (31 ±2 lbf)	41.9 mm (1.65 in)	125 N (28 lbf)	
17	Accumulator spring (outer)	99.6 mm (3.92 in)	99.6 mm (3.92 in)	0	95.6 mm (3.76 in)	-	
18	Accumulator spring (inner 1)	35.6 mm (1.40 in)	35.6 mm (1.40 in)	0	34.2 mm (1.35 in)	-	
19	Accumulator spring (inner 2)	40.8 mm (1.61 in)	40.8 mm (1.61 in)	0	39.2 mm (1.54 in)	-	

Torque values

Item	lbf ft	Nm
a	49 ± 5	66.2 ± 7.4
b	36 ± 4	49.0 ± 4.9

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ELECTRICAL WIRING DIAGRAM (3/6)



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