SEN00236-05

Shop Manual

WHEEL LOADER

GALEO

WA500-6

SERIAL NUMBERS 55001 and up

ecot3

KOMATSU®

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Troubleshooting by failure code (Display of code), Part 3

Failure code [CA234] (Engine overspeed)

Action code	Failure code	Trouble	Engine overspeed (Engine controller system)
E02	**CA234**		
Contents of trouble	• Engine speed exceeded operating range.		
Action of controller	• Reduce fuel injection rate until engine speed lowers in operating range. • Turns the centralized warning lamp and alarm buzzer ON.		
Problem that appears on machine	• Engine speed changes.		
Related information	• Engine speed can be checked by monitoring function (Code: 01002 ENG SPEED). • Method of reproducing failure code: Start engine and keep running at high idle.		

	Cause		Standard value in normal state/Remarks on troubleshooting
Possible causes and standard value in normal state	1	Defect in related system	If another code is displayed, carry out troubleshooting for it.
	2	Usage is improper.	The method of using the installed machine may be improper, so instruct the operator on how to use the machine properly.
	3	Defective engine controller	If causes 1 and 2 are not the cause of the trouble, the engine controller may be defective. (Since trouble is in system, troubleshooting cannot be carried out.)

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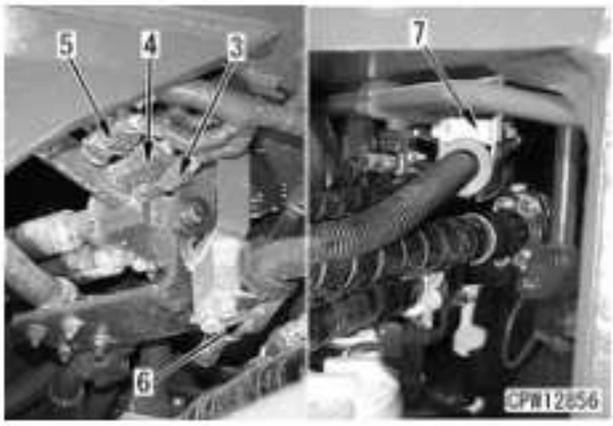
E-10 Horn does not sound or it keeps sounding

Contents of trouble	Horn does not sound or it keeps sounding (Steering wheel specification)
Related information	• The relay, switch, horn, or wiring harness of the horn system is abnormal.

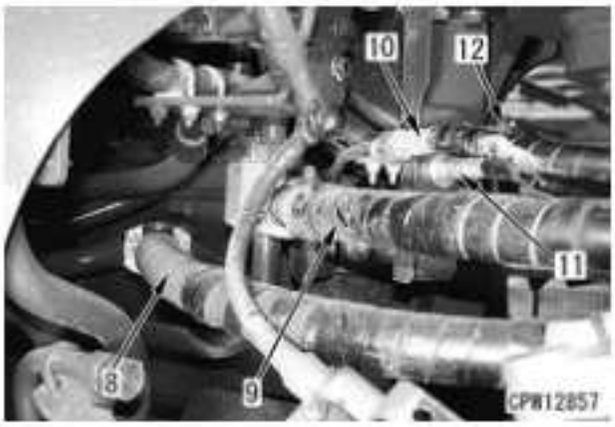
<table>
<tr><th rowspan="2">Possible causes and standard value in normal state</th><th colspan="2">Cause</th><th colspan="3">Standard value in normal state/Remarks on troubleshooting</th></tr>
<tr><td>1</td><td>Defective fuse No. 9 of fuse box A</td><td colspan="3">If the fuse is burn, the circuit probably has a grounding fault, etc. (See cause 7.)</td></tr>
<tr><td rowspan="5">2</td><td rowspan="5">Defective horn relay (L108) (Internal disconnection or short circuit)</td><td colspan="3">★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.</td></tr>
<tr><td>L108 (male)</td><td colspan="2">Resistance</td></tr>
<tr><td>Between (1) and (2)</td><td colspan="2">200 – 400 Ω</td></tr>
<tr><td colspan="3">★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting.</td></tr>
<tr><td colspan="3">When horn relay (L108) is replaced with a relay of the same type, if the condition becomes normal, the horn relay is defective.</td></tr>
<tr><td rowspan="4">3</td><td rowspan="4">Defective steering wheel horn switch (Internal disconnection or short circuit)</td><td colspan="3">★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.</td></tr>
<tr><td>L64 (male)</td><td>Steering wheel horn switch</td><td>Resistance</td></tr>
<tr><td rowspan="2">Between (1) and chassis ground</td><td>ON</td><td>Max. 1 Ω</td></tr>
<tr><td>OFF</td><td>Min. 1 MΩ</td></tr>
<tr><td rowspan="4">4</td><td rowspan="4">Defective joystick lever horn switch (Internal disconnection or short circuit)</td><td colspan="3">★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.</td></tr>
<tr><td>JL2 (male)</td><td>Joystick lever horn switch</td><td>Resistance</td></tr>
<tr><td rowspan="2">Between (9) and (10)</td><td>ON</td><td>Max. 1 Ω</td></tr>
<tr><td>OFF</td><td>Min. 1 MΩ</td></tr>
<tr><td rowspan="5">5</td><td rowspan="5">Defective horn (Internal disconnection or short circuit)</td><td colspan="3">★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting. (Disconnect connector and measure on female side.)</td></tr>
<tr><td>F03, F05</td><td>Horn switch</td><td>Voltage</td></tr>
<tr><td rowspan="2">Between F03 (2) and (1)</td><td>OFF</td><td>Max. 1 V</td></tr>
<tr><td>ON</td><td>20 – 30 V</td></tr>
<tr><td rowspan="2">Between F05 (2) and (1)</td><td>OFF</td><td>Max. 1 V</td></tr>
<tr><td>ON</td><td>20 – 30 V</td></tr>
</table>

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9. Disconnect wiring harness connectors JF1 (3), JF2 (4) and JF3 (5) and remove wiring harness clamps (6) and (7).



10. Disconnect hoses (8), (9), (10), (11) and (12).

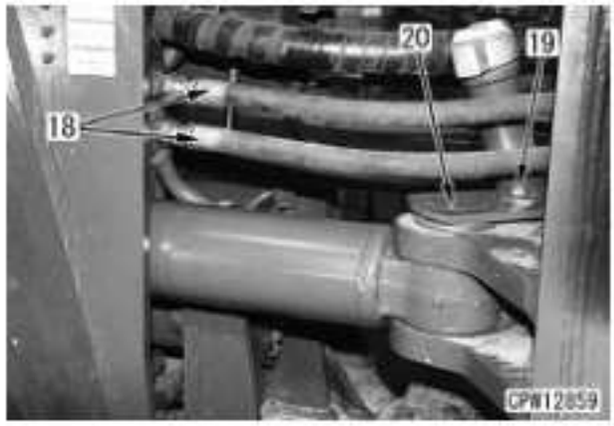


11. Disconnect hoses (13), (14), (15), (16) and (17).

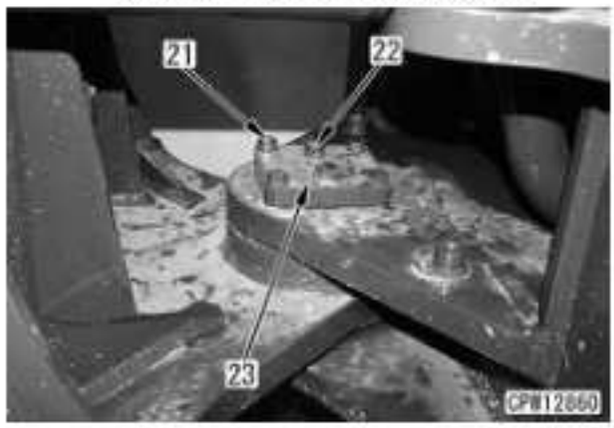


12. Disconnect right and left steering hoses (18).

13. Remove right and left bolts (19) and pull out right and left cylinder bottom pins (20). [*2]
    - ★ After removing the pins, retract the piston rods of the cylinders.
    - ★ Check the quantity and thickness of the shims on the frame.

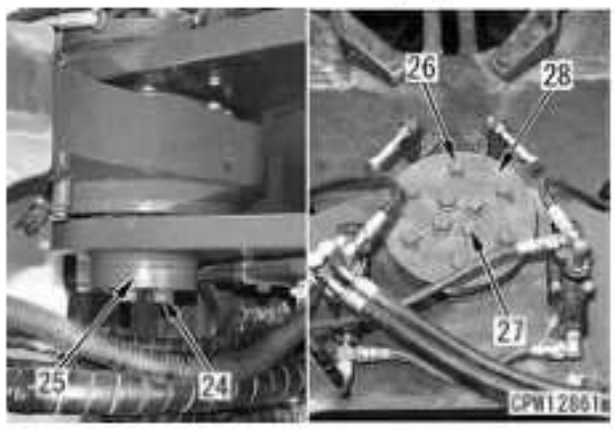


14. Remove bolts (21) and (22) and retainer (22) and pull out lower hinge pin. [*3]
    - ★ After removing the bolts, pull out the pin while adjusting the height of the front frame and rear frame with the jacks.

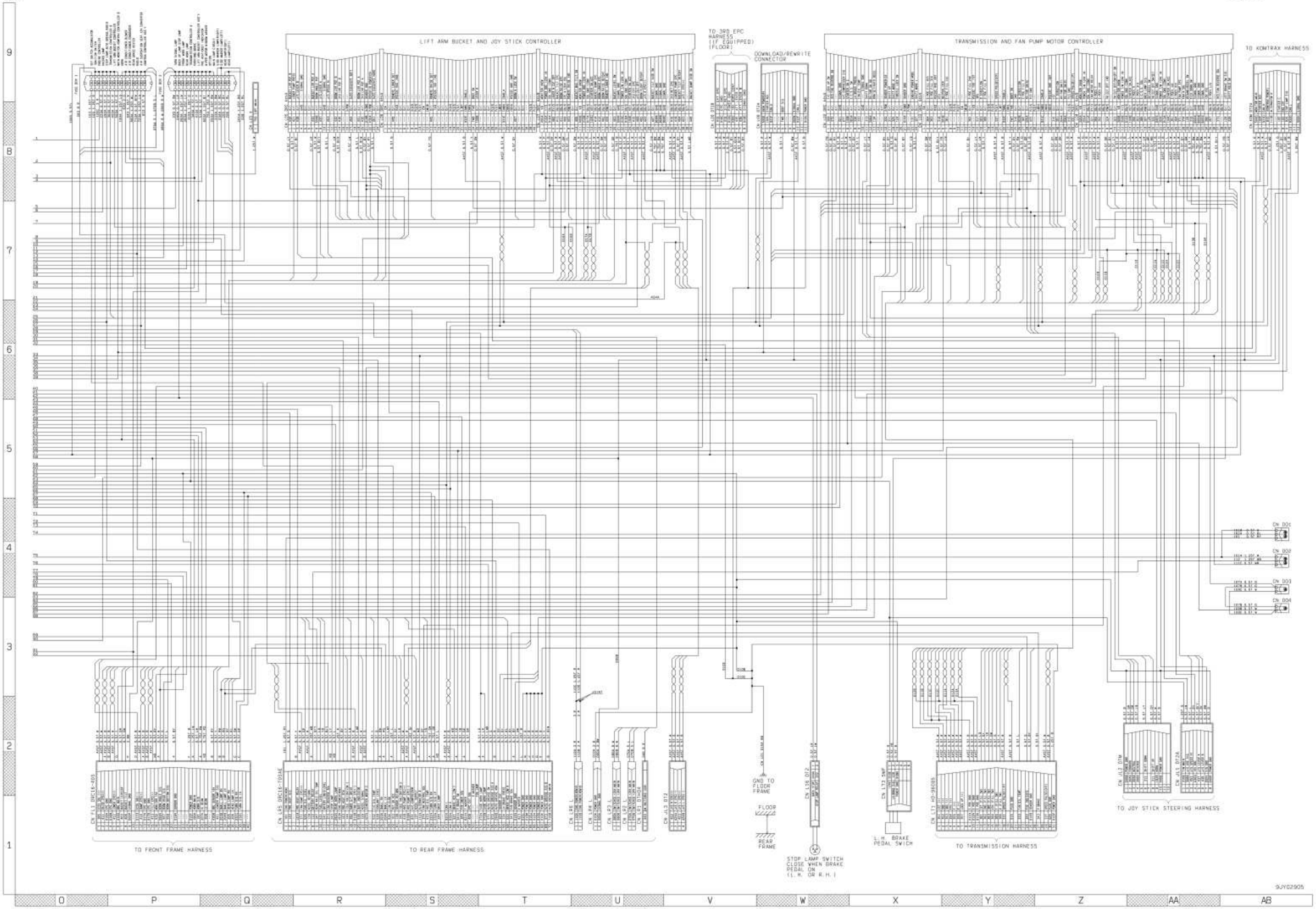


15. Remove 4 bolts (24) and plate (25). [*4]

16. Remove 6 bolts (26), 4 bolts (27) and retainer (28), and pull out the hinge pin. [*5]
    - ★ After removing the bolts, pull out the pin while adjusting the height of the front frame and rear frame with the jacks.
    - ★ Check the quantity and thickness of the shims between retainer (28) and frame.



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