CEBM027201

Shop Manual

KOMATSU®

WA470-7

WHEEL LOADER

SERIAL NUMBERS **WA470-7 A47001 and up**

ENGINE **6D125E-6**

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Troubleshooting by failure code (Display of code) (ALL-3840-007-A-00-A)

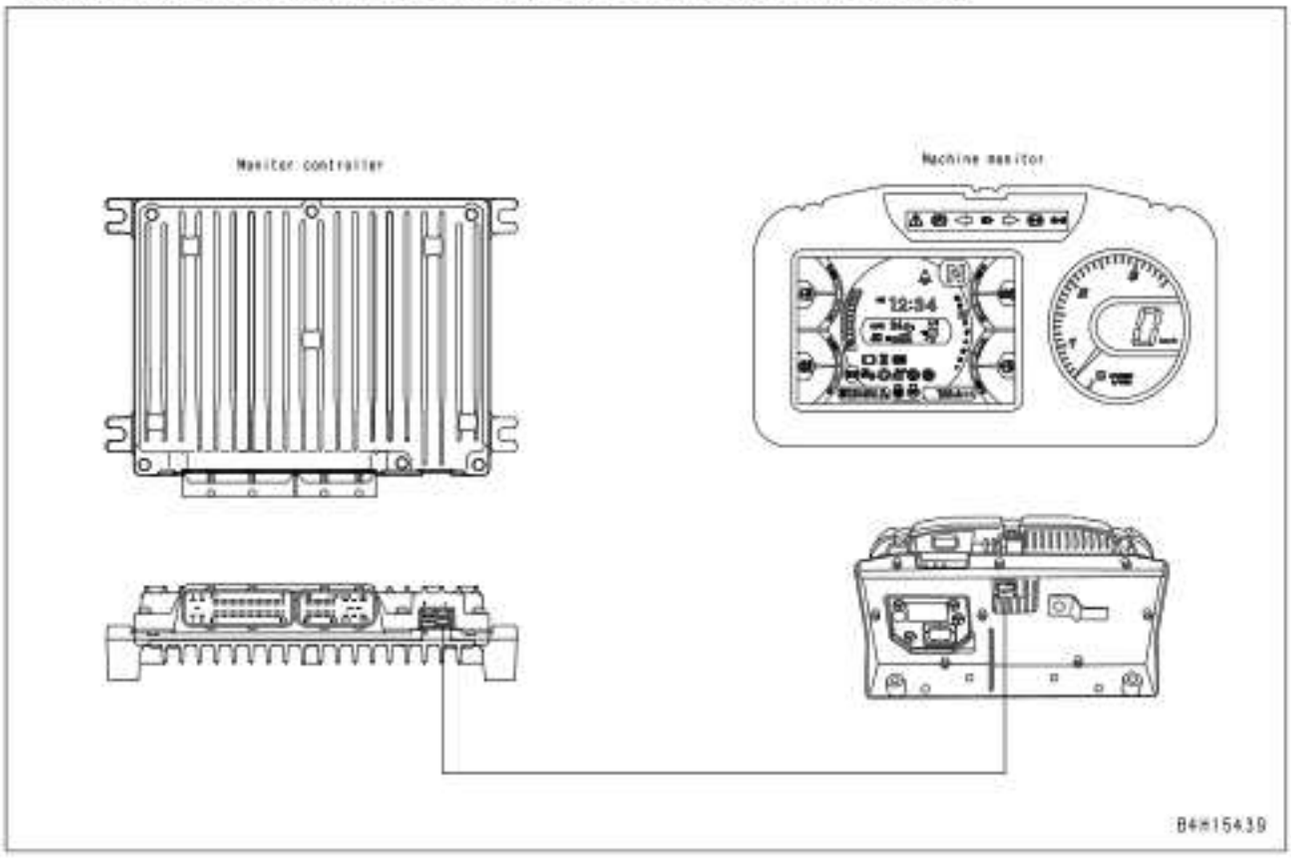
Failure code [1500L0] Double Engagement of T/M Clutches (WA380_7-1500L0-400-A-Z0-A)

Action level	Failure code	Failure	Double Engagement of T/M Clutches (Transmission controller system)
L04	1500L0		
Detail of failure	• Fill switch ON signals from impossible combination of two or more clutches are input.		
Action of controller	• Lights up centralized warning lamp and sounds alarm buzzer. • Even if cause of failure disappears, machine does not become normal until starting switch is turned to OFF position once. • Shifts gear speed to NEUTRAL.		
Problem on machine	• Transmission can be damaged. • Machine cannot travel.		
Related information	• Other failure code (failure code related to clutch pressure control valve system: 15S*L1) is generated together. • Method of reproducing failure code: Start engine and drive machine.		

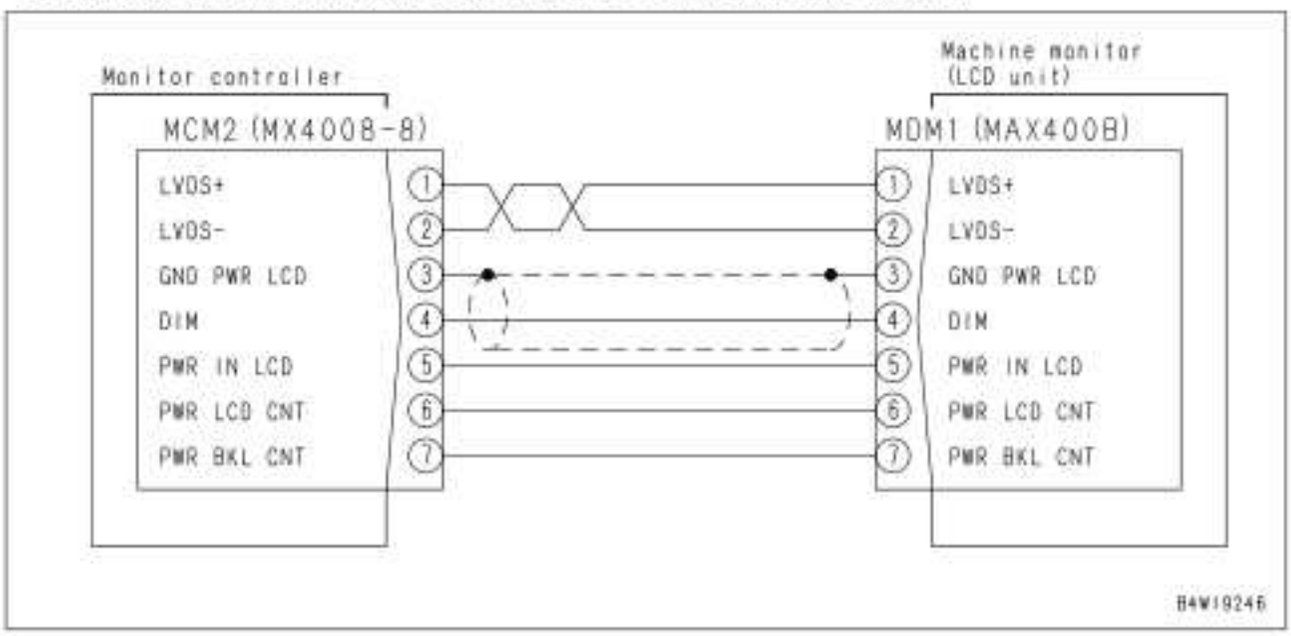
No.	Cause	Procedure, measuring location, criteria and remarks
1	Generation of failure code (15S*L1) related to clutch pressure control valve	Perform troubleshooting for generated failure code.
2	Defective hydraulic or mechanical system of clutch ECMV	Clutch ECMV may malfunction. Perform troubleshooting of hydraulic and mechanical systems.

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Wiring harness between monitor controller and LCD unit of machine monitor



Circuit diagram between monitor controller and LCD unit of machine monitor



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H-35 Fan speed is abnormal (too high or low, or fan does not rotate)

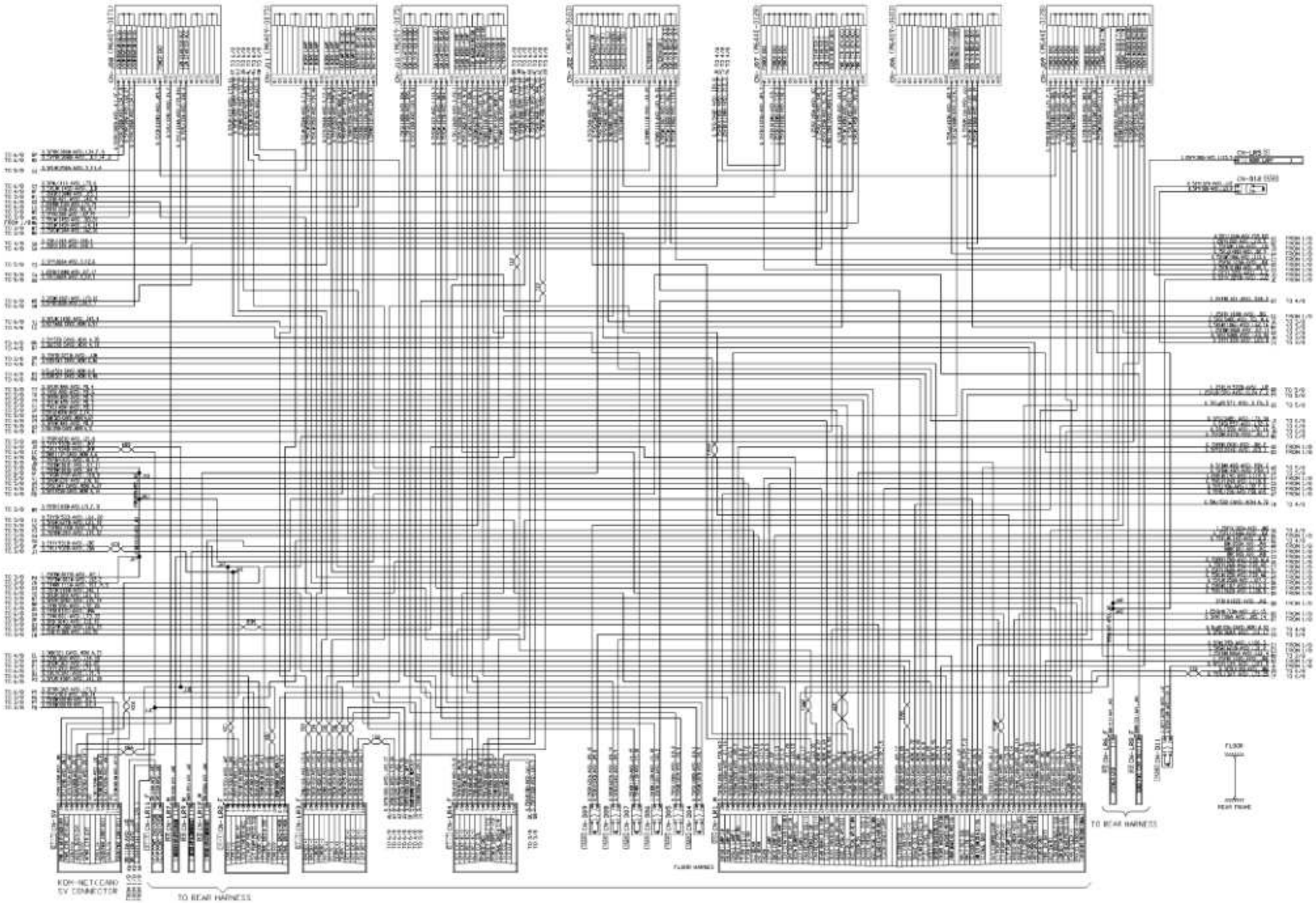
(WA470_7-FTP-400-A-Z0-A)

Failure	Fan speed is abnormal (too high or low, or fan does not rotate).
Related information	• When engine is started for first time after hydraulic oil replacement, fan may temporarily rotates at higher speed but this is normal. • If any failure code is displayed, perform troubleshooting for that failure code first. (DW7BKA, DW7BKB, DW7BKY, DLM3KA, DLM3LC, LA00L3, DX16KA, DX16KB, DB16KY, DGT1KA, DGT1KB, or DGH2KX) • Engine speed can be checked with monitoring function. (Monitoring code: 01001) • Radiator fan speed can be checked with monitoring function. (Monitoring code: 10009)

No.	Cause	Procedure, measuring location, criteria and remarks		
1	Defective engine speed	★ For measuring procedure, see "Testing engine speed" in "Testing and adjusting".		
		Engine speed	Engine low idle	825 ± 25 rpm
			Engine high idle	2,170 ± 50 rpm
		If engine speed is not increased to specification, perform troubleshooting for "S-5 Engine runs rough or is unstable".		
2	Defective fan speed	★ Perform troubleshooting with engine at high idle.		
		Fan speed	Coolant temperature: Min. 95°C Torque converter oil temperature: Min. 105°C Hydraulic oil temperature: Min. 95°C	1,300 ± 200 rpm
3	Defective PTO (fan pump drive)	Fan pump drive of PTO may be defective.		
4	Malfunction of accumulator charge valve (relief valve)	★ Be ready with engine stopped, then perform troubleshooting with engine at high idle.*		
		Fan motor drive pressure	Fan adjustment mode: 100% Hydraulic oil temperature: 50°C	14.3 ± 2.1 MPa {146 ± 22 kg/cm²}
5	Defective fan pump	If pressure does not reach specified value after relief valve is adjusted in check on cause (4), fan pump may have internal defect. Check strainer of self-pressure reducing valve inlet for metal particles.		
6	Malfunction of fan motor (direction selector valve)	★ Be ready with engine stopped, then perform troubleshooting with engine at full speed and fan in reverse rotation mode.		
		Fan reverse solenoid output pressure	Fan adjustment mode: 100% Hydraulic oil temperature: 50°C	1.98 to 3.04 MPa {20.2 to 31.0 kg/cm²}
		★ Release remaining pressure from hydraulic tank and piping, and then perform troubleshooting with engine stopped. • Check direction selector valve spool in valve body for seizure or sticking. (Spool shall move smoothly and shall not be caught.) • Take direction selector spool from valve body, and check it for defects and dirt.		
7	Defective fan motor	If no failure is found by checks on causes (1) to (6), fan motor may have internal defect.		

*: This means the accelerator pedal is fully depressed. (There is no need to operate the work equipment lock switch or to lower the boom to the minimum position.)

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