SEN00596-02

Shop Manual

BULLDOZER

GALEO

D155AX-6

SERIAL NUMBERS D155AX-80001 and up

KOMATSU®

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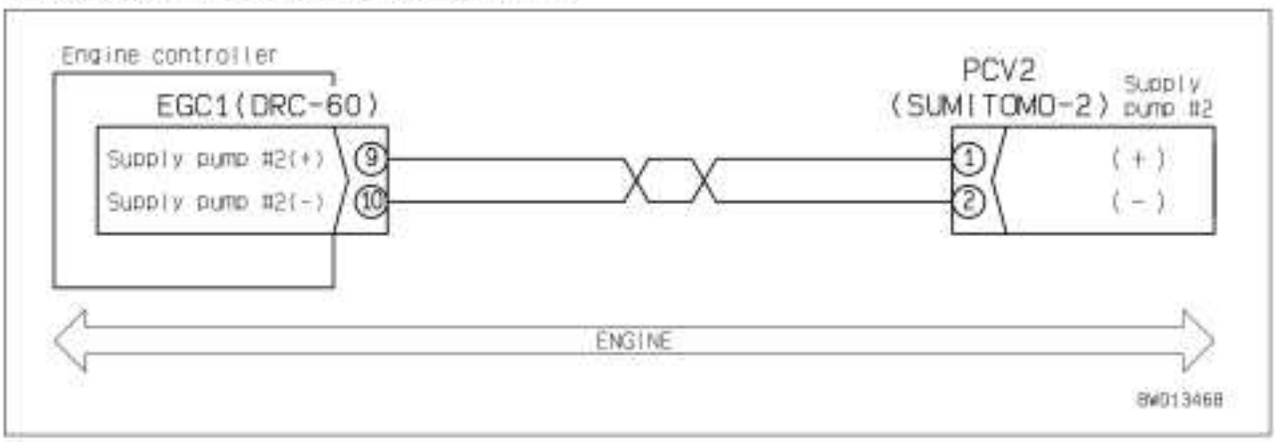
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Failure code [CA273] PCV2 Short Error

Action code	Failure code	Trouble	PCV2 Short Error (Engine controller system)
E03	CA273		
Contents of trouble	• There is short circuit in PCV2 circuit of supply pump.		
Action of controller	• None in particular.		
Problem that appears on machine			
Related information			

	Cause		Standard value in normal state/Remarks on troubleshooting			
Possible causes and standard value in normal state	1	Defective supply pump PCV2 (Internal short circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			PCV2 (male)	Resistance		
			Between (1) – (2)	2.3 – 5.3 Ω		
			Between (1), (2) – chassis ground	Min. 1 MΩ		
	2	Ground fault in wiring harness (Contact with GND circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			Wiring harness between EGC1 (female) (9) – PCV2 (female) (1) and chassis ground	Resistance	Min. 1 MΩ	
			Wiring harness between EGC1 (female) (10) – PCV2 (female) (2) and chassis ground	Resistance	Min. 1 MΩ	
	3	Hot short (Short circuit with 24V circuit) in wiring harness	★ Prepare with starting switch OFF, then turn starting switch ON and carry out troubleshooting.			
			Wiring harness between EGC1 (female) (9) – PCV2 (female) (1) and chassis ground	Voltage	Max. 1 V	
			Wiring harness between EGC1 (female) (10) – PCV2 (female) (2) and chassis ground	Voltage	Max. 1 V	
	4	Defective engine controller	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.			
			EGC1 (female)	Resistance		
			Between (9) – (10)	2.3 – 5.3 Ω		
			Between (9), (10) – chassis ground	Min. 1 MΩ		

Circuit diagram related to supply pump PCV2



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Failure code [DFADKX] RL lever 1: Out of normal range

Action code	Failure code	Trouble	RL lever 1: Out of normal range (Work equipment controller system)
E03	**DFADKX**		
Contents of trouble	• In ripper control lever tilt potentiometer 1 and 2 systems, either of failure codes [**DFAEKA**] and [**DFAEKB**] and either of failure codes [**DFAFKA**] and [**DFAFKB**] occurred simultaneously.		
Action of controller	• Limits operation of engine and transmission.		
Problem that appears on machine	• Once machine is stopped, engine speed is limited to medium (half). • Once machine is stopped, travel is limited to F1 and R1.		
Related information	• State of ripper control lever tilt potentiometer signal can be checked with monitoring function. (Code: 73600 Ripper Tilt Lever A Potentio) (Code: 73601 Ripper Tilt Lever B Potentio) • Method of reproducing failure code: Turn starting switch ON + Operate ripper control lever (in tilting direction).		

Possible causes and standard value in normal state	Cause	Standard value in normal state/Remarks on troubleshooting
	Carry out troubleshooting for failure codes [**DFAEKA**], [**DFAEKB**], [**DFAFKA**], and [**DFAFKB**].	

Failure code [DFADKZ] RL lever: Disconnection or short circuit

Action code	Failure code	Trouble	RL lever: Disconnection or short circuit (Work equipment controller system)
E03	**DFADKZ**		
Contents of trouble	• In ripper control lever tilt potentiometer 1 and 2 systems, when starting switch is turned ON, only either side is abnormal and then either of failure codes [**DFAEKA**] and [**DFAEKB**] and either of failure codes [**DFAFKA**] and [**DFAFKB**] occurred simultaneously.		
Action of controller	• Limits operation of engine and transmission.		
Problem that appears on machine	• Once machine is stopped, engine speed is limited to medium (half). • Once machine is stopped, travel is limited to F1 and R1.		
Related information	• State of ripper control lever tilt potentiometer signal can be checked with monitoring function. (Code: 73600 Ripper Tilt Lever A Potentio) (Code: 73601 Ripper Tilt Lever B Potentio) • Method of reproducing failure code: Turn starting switch ON + Operate ripper control lever (in tilting direction).		

Possible causes and standard value in normal state	Cause	Standard value in normal state/Remarks on troubleshooting
	Carry out troubleshooting for failure codes [**DFAEKA**], [**DFAEKB**], [**DFAFKA**], and [**DFAFKB**].	

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H-3 Machine does not start at any gear speed

Trouble	• Machine does not start at any gear speed.
Related information	• Before carrying out troubleshooting, check that power train oil level is normal.

<table>
<tr><td rowspan="15">Possible causes and standard value in normal state</td><td colspan="2">Cause</td><td colspan="3">Standard value in normal state/Remarks on troubleshooting</td></tr>
<tr><td>1</td><td>Defective power train pump</td><td colspan="3">Power train pump may be defective. Check it directly.</td></tr>
<tr><td rowspan="4">2</td><td rowspan="4">Improper set pressure or internal trouble of transmission main relief valve</td><td colspan="3">★ Prepare with engine stopped, then run engine at high idle and carry out troubleshooting.</td></tr>
<tr><td>PCCS lever</td><td colspan="2">Transmission main relief pressure</td></tr>
<tr><td>Neutral</td><td>TM</td><td>Min. 2.84 MPa {Min. 29.0 kg/cm²}</td></tr>
<tr><td colspan="3">★ Prepare with engine stopped, then keep engine stopped and carry out troubleshooting.
Check directly that free length of spring and number of shims are normal and spool moves smoothly.
• Free length of spring (large): 122 mm
• Free length of spring (small): 108 mm
• Number of shims: 6</td></tr>
<tr><td rowspan="6">3</td><td rowspan="6">Malfunction of transmission clutch valve (ECMV)</td><td colspan="3">★ Prepare with engine stopped, then run engine at low idle and carry out troubleshooting (after checking transmission main relief pressure is normal).</td></tr>
<tr><td>PCCS lever</td><td>Transmission clutch</td><td>Clutch pressure</td></tr>
<tr><td>F3 stall</td><td>F</td><td>Min. 2.26 MPa {Min. 23.0 kg/cm²}</td></tr>
<tr><td>R3 stall</td><td>R</td><td>Min. 2.45 MPa {Min. 25.0 kg/cm²}</td></tr>
<tr><td>F1 stall</td><td>1ST</td><td>Min. 2.62 MPa {Min. 26.7 kg/cm²}</td></tr>
<tr><td>F2 stall</td><td>2ND</td><td>Min. 2.40 MPa {Min. 24.5 kg/cm²}</td></tr>
<tr><td></td><td></td><td>F3 stall</td><td>3RD</td><td>Min. 2.62 MPa {Min. 26.7 kg/cm²}</td></tr>
<tr><td>4</td><td>Trouble in transmission clutch</td><td colspan="3">Transmission clutch (F or R) may have trouble in it. Check it directly.</td></tr>
<tr><td rowspan="5">5</td><td rowspan="5">Malfunction of brake</td><td colspan="3">★ Prepare with engine stopped, then run engine at high idle and carry out troubleshooting (after checking transmission main relief pressure is normal).</td></tr>
<tr><td>Brake pedal</td><td>Steering brake</td><td>Brake pressure</td></tr>
<tr><td>Released</td><td rowspan="2">RB
LB</td><td>2.16 MPa {22.0 kg/cm²}</td></tr>
<tr><td>Pressed</td><td>0 MPa {0 kg/cm²}</td></tr>
<tr><td colspan="3">If brake pressure is abnormal, carry out troubleshooting for "H-8 Brake does not work".</td></tr>
</table>

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ELECTRICAL CIRCUIT DIAGRAM

CAB AND FLOOR

ENGINE

TRANSMISSION

FRONT OF MACHINE

R.H. SIDE OF MACHINE

REAR OF MACHINE

L.H. SIDE OF MACHINE

AIR CONDITIONER

TRAVEL ON INDICATE FOR EMERGENCY

WORK EQUIPMENT ON INDICATE OR EMERGENCY

(LEGEND (EN))

This electrical circuit diagram of (#1) shows a connection of each harness to connector & connector as mentioned below.
(HARNESS) YB07A70107P1(#1),A1-#1000(MACHINE)(#1)

Connector number & type
Wiring size
Size & color of wire
Terminal No.
Circuit number
Connector or terminal number
Harness number
YB07A70107P1(#1)
P/N number
Page

<	120	0.5 GR	0.5P	0.5GR	0.5	WHITE	male connector
>	120	0.5 GR	0.5P	0.5GR	0.5	WHITE	female connector
100	150	0.5 LGR	0.5P	0.5LGR	0.5	YELLOW	fuse
100	150	0.5 LGR	0.5P	0.5LGR	0.5	YELLOW	ground
4	10	2 GR	2P	2GR	2	YELLOW	ground

male connector X3387F
female connector X3387M
C=#1
A=20A
J=2.

● OTHER PARTS split flower line (POWER) into the other line is shown.
別機種は電源(POWER)線を分岐線を示す。

● OTHER GND to non-Ground line (GROUND) to the other line is shown.
別機種はアース線(GROUND)線を分岐線を示す。

COLOR CODE

Symbol	Color	Symbol	Color	Symbol	Color
W	White	P	Pink	BR	Brown
B	Black	LB	Light Blue	GR	Gray
R	Red	DB	Dark Blue	SB	Sky Blue
G	Green	LG	Light Green	OR	Orange
Y	Yellow	DG	Dark Green	LGR	Light Gray
L	Blue	V	Violet	DGR	Dark Gray

CONNECTOR LOCATION

CONNECTOR	ADDRESS	CONNECTOR	ADDRESS	CONNECTOR	ADDRESS
1	A-6	101	B-5	201	C-2
2	A-6	102	B-5	202	C-2
3	A-6	103	B-5	203	C-2
4	A-6	104	B-5	204	C-2
5	A-6	105	B-5	205	C-2
6	A-6	106	B-5	206	C-2
7	A-6	107	B-5	207	C-2
8	A-6	108	B-5	208	C-2
9	A-6	109	B-5	209	C-2
10	A-6	110	B-5	210	C-2
11	A-6	111	B-5	211	C-2
12	A-6	112	B-5	212	C-2
13	A-6	113	B-5	213	C-2
14	A-6	114	B-5	214	C-2
15	A-6	115	B-5	215	C-2
16	A-6	116	B-5	216	C-2
17	A-6	117	B-5	217	C-2
18	A-6	118	B-5	218	C-2
19	A-6	119	B-5	219	C-2
20	A-6	120	B-5	220	C-2
21	A-6	121	B-5	221	C-2
22	A-6	122	B-5	222	C-2
23	A-6	123	B-5	223	C-2
24	A-6	124	B-5	224	C-2
25	A-6	125	B-5	225	C-2
26	A-6	126	B-5	226	C-2
27	A-6	127	B-5	227	C-2
28	A-6	128	B-5	228	C-2
29	A-6	129	B-5	229	C-2
30	A-6	130	B-5	230	C-2
31	A-6	131	B-5	231	C-2
32	A-6	132	B-5	232	C-2
33	A-6	133	B-5	233	C-2
34	A-6	134	B-5	234	C-2
35	A-6	135	B-5	235	C-2
36	A-6	136	B-5	236	C-2
37	A-6	137	B-5	237	C-2
38	A-6	138	B-5	238	C-2
39	A-6	139	B-5	239	C-2
40	A-6	140	B-5	240	C-2
41	A-6	141	B-5	241	C-2
42	A-6	142	B-5	242	C-2
43	A-6	143	B-5	243	C-2
44	A-6	144	B-5	244	C-2
45	A-6	145	B-5	245	C-2
46	A-6	146	B-5	246	C-2
47	A-6	147	B-5	247	C-2
48	A-6	148	B-5	248	C-2
49	A-6	149	B-5	249	C-2
50	A-6	150	B-5	250	C-2
51	A-6	151	B-5	251	C-2
52	A-6	152	B-5	252	C-2
53	A-6	153	B-5	253	C-2
54	A-6	154	B-5	254	C-2
55	A-6	155	B-5	255	C-2
56	A-6	156	B-5	256	C-2
57	A-6	157	B-5	257	C-2
58	A-6	158	B-5	258	C-2
59	A-6	159	B-5	259	C-2
60	A-6	160	B-5	260	C-2
61	A-6	161	B-5	261	C-2
62	A-6	162	B-5	262	C-2
63	A-6	163	B-5	263	C-2
64	A-6	164	B-5	264	C-2
65	A-6	165	B-5	265	C-2
66	A-6	166	B-5	266	C-2
67	A-6	167	B-5	267	C-2
68	A-6	168	B-5	268	C-2
69	A-6	169	B-5	269	C-2
70	A-6	170	B-5	270	C-2
71	A-6	171	B-5	271	C-2
72	A-6	172	B-5	272	C-2
73	A-6	173	B-5	273	C-2
74	A-6	174	B-5	274	C-2
75	A-6	175	B-5	275	C-2
76	A-6	176	B-5	276	C-2
77	A-6	177	B-5	277	C-2
78	A-6	178	B-5	278	C-2
79	A-6	179	B-5	279	C-2
80	A-6	180	B-5	280	C-2
81	A-6	181	B-5	281	C-2
82	A-6	182	B-5	282	C-2
83	A-6	183	B-5	283	C-2
84	A-6	184	B-5	284	C-2
85	A-6	185	B-5	285	C-2
86	A-6	186	B-5	286	C-2
87	A-6	187	B-5	287	C-2
88	A-6	188	B-5	288	C-2
89	A-6	189	B-5	289	C-2
90	A-6	190	B-5	290	C-2
91	A-6	191	B-5	291	C-2
92	A-6	192	B-5	292	C-2
93	A-6	193	B-5	293	C-2
94	A-6	194	B-5	294	C-2
95	A-6	195	B-5	295	C-2
96	A-6	196	B-5	296	C-2
97	A-6	197	B-5	297	C-2
98	A-6	198	B-5	298	C-2
99	A-6	199	B-5	299	C-2
100	A-6	200	B-5	300	C-2

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