SEN00046-09

Shop Manual

BULLDOZER

D65EX -15E0
D65PX -15E0
D65WX -15E0

SERIAL NUMBERS D65EX- 69001
D65PX- 69001
D65WX- 69001
and up

ecot3

KOMATSU®

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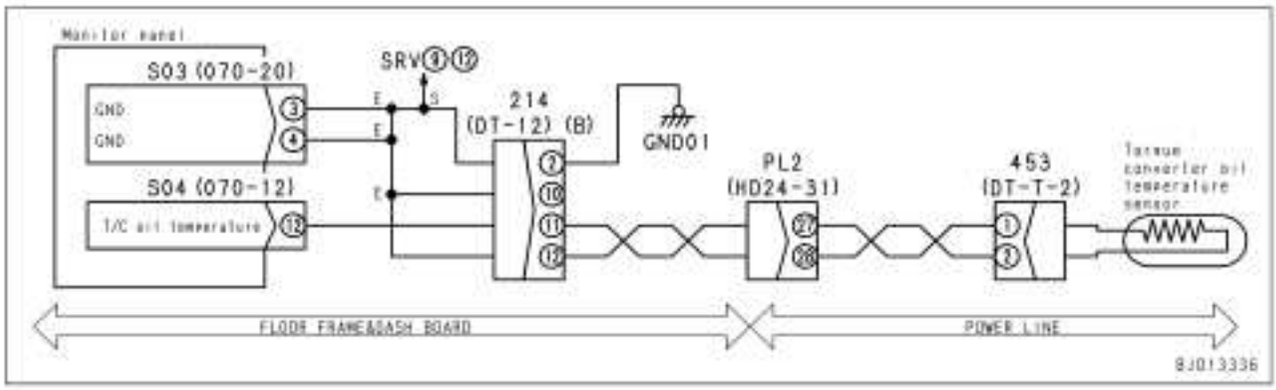
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Failure code [DGT1KA] Power train oil temperature sensor: Disconnection

Action code	Failure code	Symptom of failure	Power train oil temperature sensor: Disconnection (Steering and transmission controller system)
E01	DGT1KA		
Failure content	• Even though coolant temperature rises, power train oil temperature sensor signal remains to be low temperature.		
Controller's action	• Nothing particular.		
Symptoms that appears on machine	• Power train oil temperature on monitor panel is not displayed normally. • Fan speed is limited to half. • Gear shift shock of transmission increases.		
General information	• Power train oil temperature status (temperature) can be checked in monitoring mode. (Code 30100: Power train oil temperature) • Method of reproducing failure code: Turn starting switch ON or start engine.		

	Cause		Standard value when normal and remarks for troubleshooting			
Possible causes and the standard values when normal	1	Defective power train oil temperature sensor (Internal disconnection)	★ Prepare with starting switch OFF and diagnose with starting switch still OFF.			
			453 (male)	Resistance		
			Between (1) – (2)	3.5 – 90 kΩ (10 – 100°C)		
			Between (1), (2) – chassis ground	Min. 1 MΩ		
	2	Disconnection in wiring harness (Disconnection or defective contact of connectors)	★ Prepare with starting switch OFF and diagnose with starting switch still OFF.			
			Wiring harness between S04 (female) (12) – 453 (female) (1)	Resistance	Max. 1 Ω	
			Wiring hamess between S03 (female) (3) (4) – 453 (female) (2)	Resistance	Max. 1 Ω	
	3	Defective monitor panel	★ Prepare with starting switch OFF and diagnose with starting switch still OFF.			
			S03, S04 (female)	Resistance		
			S04 (12) – S03 (3) (4)	3.5 – 90 kΩ (10 – 100°C)		

Circuit diagram related to power train oil temperature sensor



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Contents of troubleshooting table

★ The following information is summarized in the troubleshooting table and the related electrical circuit diagram. Before carrying out troubleshooting, understand that information fully.

Symptom of failure	Symptom of failure **that has appeared in the machine**
General information	**Information related to troubles occurred or troubleshooting**

	Cause		Standard value when normal and remarks for troubleshooting
Possible causes and the standard values when normal	1 2 3 4	**Cause by which a trouble is assumed to be caused (The order number indicates a serial number, not a priority sequence.)**	**<Described contents>** **• Standard value when normal required to judge the possible cause** **• Remarks required to judge whether the cause is right or not** **<Symptoms of defective harness>** **• Disconnection in wiring** **The connector contact is defective or the wiring harness is disconnected.** **• Defective grounding** **A harness not connected to GND (ground) circuit comes into contact with the GND (ground) circuit.** **• Hot short defect** **A harness not connected to the electric power supply (24 V) circuit comes into contact with the electric power supply (24 V) circuit.** **• Short circuit** **A harness abnormally comes into contact with a harness of separate circuit.** **<Points to remember when troubleshooting>** **(1) Method of indicating connector numbers and handling T-adapter** **For troubleshooting, insert or connect the T- adapter as described below unless especially specified.** **• When "male" or "female" is not indicated for a connector number, disconnect the connector, and insert the T-adapter in both the male and female.** **• When "male"or "female" is indicated for a connector number, disconnect the connector, and insert the T-adapter in only either the male or female.** **(2) Pin number description sequence and tester lead handling** **For troubleshooting, connect the plus (+) and minus (–) leads of the tester as described below unless especially specified.** **• Connect the plus (+) lead to a pin number or harness indicated in the front.** **• Connect the minus (–) lead to a pin number or harness indicated in the rear.**

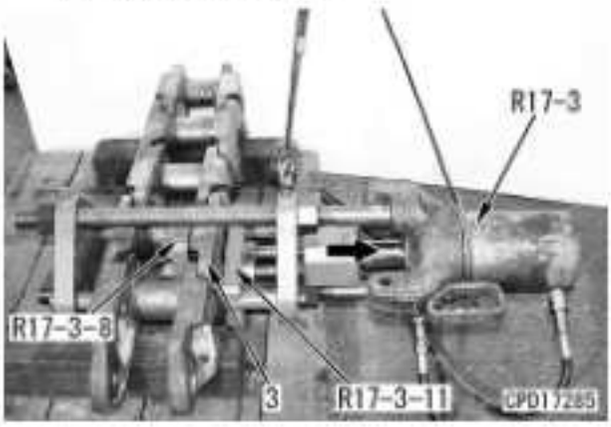
Related circuit diagram

- This is the excerpted circuit diagram related to troubleshooting.
- Connector No.: Indicates (model – number of pins) (color)
- Indication of "Connector No. and Pin No." from the branch or junction point: Indicates the branch destination or the splice location in the same harness
- Arrow (⇨): **Indicates the approximate mounting place on machine**

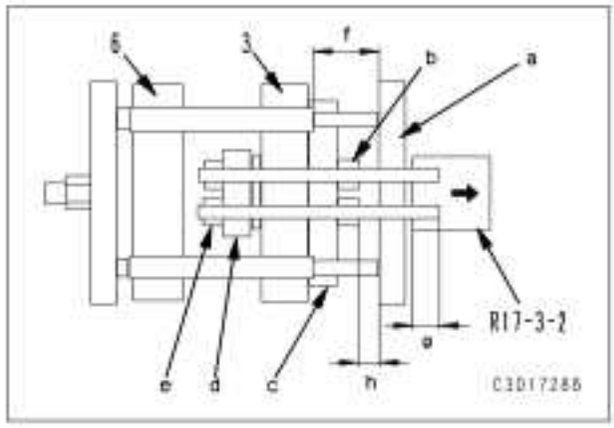
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4. Regular link

1) Set the link assembly on a flat place.
2) Sling tool **R17-3** and set it to the link assembly.
3) While lifting tool **R17-3**, hold outer link (3) between tool **R17-3-11** and **R17-3-8** and align the tools with the pin.
   ★ Hold and fix outer link (3) securely. If it is not fixed securely, the right and left pin may not come out simultaneously.
   ★ Tool **R17-3-8** is set diagonally since it is applied to the rusted surface of outer link (3). Using shims, adjust tool **R17-3-8** in parallel with tool **R17-3-11**.
4) Operate tool **R17-1** (See the tool list) to press tool **R17-3-8** in the direction of the arrow and remove outer link (3).
5) Remove tool **R17-3**.

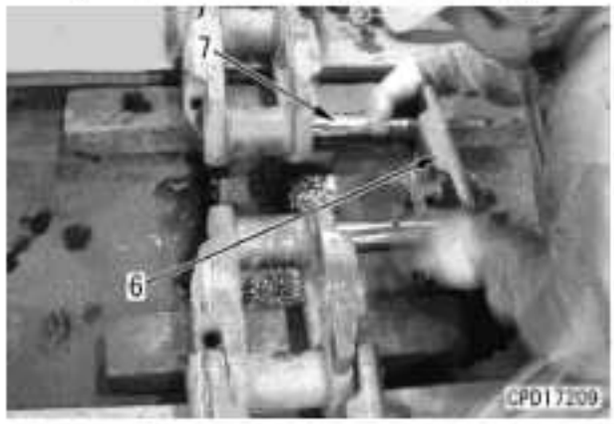


- Condition when disassembled (See the tool list)
  a. Thickness of tool **R17-3-3**: **36 mm**
  b. Thickness of tool **R17-3-12**: **22 mm**
  c. Thickness of tool **R17-3-11**: **32 mm**
  d. Thickness of tool **R17-3-8**: **32 + 6 mm**
  e. Thickness of tool **R17-3-12**: **22 mm**
  f. Dimension: **90 mm**
  g. Dimension: **35 mm**
  h. Pulling distance: **25 mm**
  Arrow: Moving direction of tool **R17-3-2** cylinder
  (3) Outer link
  (6) Outer link

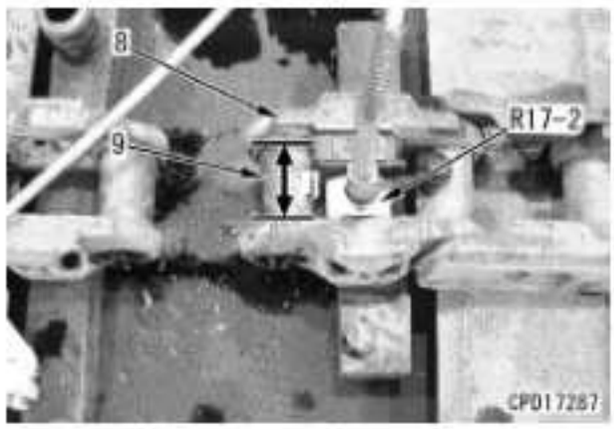


5. Pins and bushing

1) Remove outer link (6) and 2 pins (7).



2) Using tool **R17-3**, increase dimension (j) of inner link (8) a little.
   ★ Increase dimension (j) of inner link (8) to a degree that bushing (9) can be pulled out lightly. If dimension (j) is increased too much, the oil seal on the opposite side to the disassembled side may be broken.
3) Remove bushing (9).



6. Oil seal and ring

Remove the oil seal and spacer from the removed link and clean them thoroughly.

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Electrical circuit diagram
D65EX-15E0 Serial No.: 69001 – 71068
D65PX-15E0 Serial No.: 69001 – 71068
D65WX-15E0 Serial No.: 69001 – 69104

CAB AND FLOOR

CAB LESS SPEC

AIR CONDITIONER

ENGINE

TRANSMISSION

CONTROL VALVE

L.H. SIDE OF MACHINE

FRONT OF MACHINE

REAR OF MACHINE

KOMTRAX

SW HARNESS FOR EMERGENCY

(Legend 凡例)

This electrical circuit diagram briefly shows a connection of each harness to symbolize a connector as mentioned below.
この電気回路図は、下記のようにハーネスとコネクタの接続を簡略化して表しています。

Connector number & type
コネクタ番号と形状

Wire & color of wire
ワイヤの色と線径

Circuit number
回路番号

Connector or terminal number at the linked connector
接続先のコネクタまたは端子番号

Pin number
ピン番号

例 (Ex.)

- Male connector 雄コネクタ
- Female connector 雌コネクタ
- Fuse ヒューズ
- Terminal 端子
- Ground アース

- OTHER PART to split Power line (POWER) into the other line is shown.
  他の部品へ分かれる電源線（POWER）を表しています。
- OTHER GND to join Ground line (GROUND) to the other line is shown.
  他の部品へ合流するアース線（GROUND）を表しています。

COLOR CODE
色コード

SYMBOL	COLOR	SYMBOL	COLOR	SYMBOL	COLOR
W	White 白色	B	Black 黒色	BR	Brown 茶色
R	Red 赤色	G	Green 緑色	Y	Yellow 黄色
L	Blue 青色	P	Pink ピンク色	O	Orange 橙色
GR	Gray 灰色	LG	Light green 薄緑色	SB	Sky blue 空色
V	Violet 紫色	GB	Green black 緑黒色	RW	Red white 赤白色
LW	Blue white 青白色	YR	Yellow red 黄赤色	YB	Yellow black 黄黒色
YG	Yellow green 黄緑色	BW	Black white 黒白色	LR	Blue red 青赤色
GW	Green white 緑白色	LY	Blue yellow 青黄色		

CONNECTOR LOCATION
コネクタ位置

CONNECTOR No.	ADDRESS	CONNECTOR No.	ADDRESS	CONNECTOR No.	ADDRESS
1	A-2	38	C-8	101	A-4
2	A-2	39	C-8	102	A-4
3	A-2	40	C-8	103	A-4
4	A-2	41	C-8	104	A-4
5	A-2	42	C-8	105	A-4
6	A-2	CAN	B-3, B-4, C-3, C-4	106	A-4
7	A-2	43	C-8	107	A-4
8	A-2	44	C-8	108	A-4
9	A-2	45	C-8	109	A-4
10	A-2	46	C-8	110	A-4
11	A-2	47	C-8	111	A-4
12	A-2	48	C-8	112	A-4
13	A-2	49	C-8	113	A-4
14	A-2	50	C-8	114	A-4
15	A-2	51	C-8	115	A-4
16	A-2	52	C-8	116	A-4
17	A-2	53	C-8	117	A-4
18	A-2	54	C-8	118	A-4
19	A-2	55	C-8	119	A-4
20	A-2	56	C-8	120	A-4
21	A-2	57	C-8	121	A-4
22	A-2	58	C-8	122	A-4
23	A-2	59	C-8	123	A-4
24	A-2	60	C-8	124	A-4
25	A-2	61	C-8	125	A-4
26	A-2	62	C-8	126	A-4
27	A-2	63	C-8	127	A-4
28	A-2	64	C-8	128	A-4
29	A-2	65	C-8	129	A-4
30	A-2	66	C-8	130	A-4
31	A-2	67	C-8	131	A-4
32	A-2	68	C-8	132	A-4
33	A-2	69	C-8	133	A-4
34	A-2	70	C-8	134	A-4
35	A-2	71	C-8	135	A-4
36	A-2	72	C-8	136	A-4
37	A-2	73	C-8	137	A-4