KOBELCO

SERVICE MANUAL

HYDRAULIC EXCAVATOR

SK200-8

SK210LC-8

S5YN0018E 03

APPLICABLE:
SK200-8 - YN11-45001~
SK210LC-8 - YQ11-06001~

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File No. Name of part Part No. Use Applicable Machine	Specification	Description

E - 11

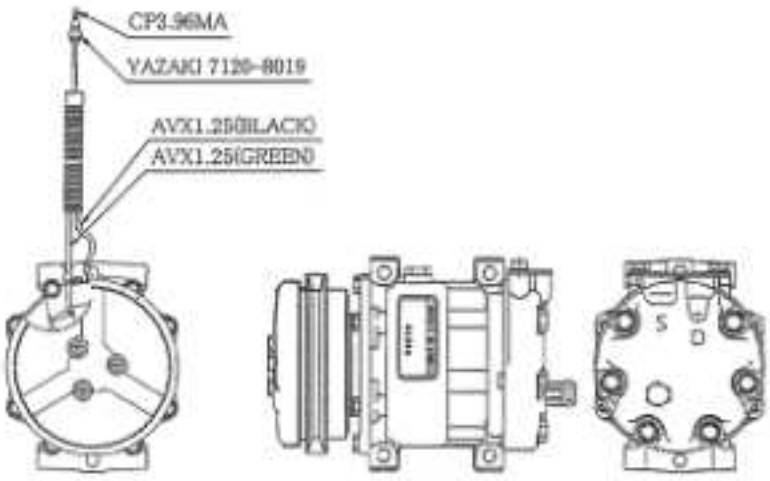
Air-con compressor

YX91V00001F1

Air-con

YX03 - 01601 ~
YX04 - 01773 ~
YX05 - 02001 ~
YN11 - 45001 ~
YQ11 - 06001 ~
LC10 - 07001 ~
YC10 - 03501 ~

Maker's part No.	7360-6000
Rated voltage	DC24V
Max. revolution	4000rpm
V belt	Type B
Refregerant	R-134a
Oil	SP-20:135cc
Cover (Clutch)	



E - 12

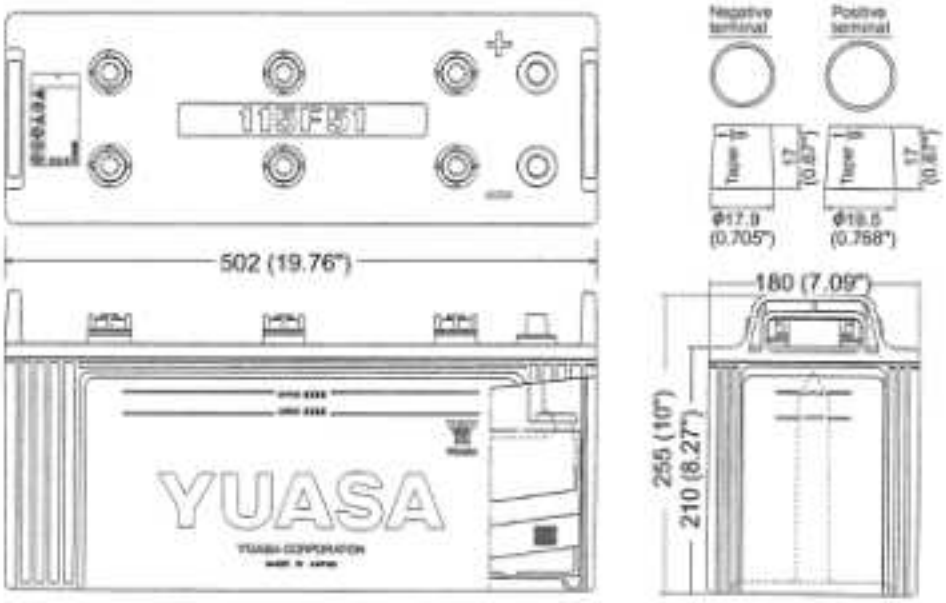
Battery

YN72S00014P1

Power

YN11 - 45001 ~
YQ11 - 06001 ~
LC10 - 07001 ~
YC10 - 03501 ~

Type	115F51
Voltage	12V
Capacity (5HR)	96Ah
Weight (Incl. fluid)	Approx. 26.5kg (58.4 lbs)
Electrolyte	Approx. 6.7 L (1.77 gal)



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46.2 CLASSIFICATION OF FAILURE AND TROUBLESHOOTING

Classify failures into the following 3 types and carry out the troubleshooting.

No.	Classes of failure	Troubleshooting
A	When error code after self-diagnosis is displayed on gauge cluster	Carry out troubleshooting according to the error code.
B	When no failure is detected currently but error code after self diagnosis is remained in trouble history	When it is hard to recreate the failure situation, cancel the data in the history and reproduce the failed situation or suppose the cause according to the troubleshooting by error code, and then repair it.
C	When error code after self diagnosis is not displayed or is not remained in the history	• Carry out troubleshooting according to instructions in Chapter 47 "TROUBLESHOOTING BY TROUBLE". • Carry out troubleshooting according to instructions in Chapter 48 "TROUBLE DIAGNOSIS MODE".

46.3 THE BLOWN FUSE OF MECHATRO CONTROLLER

If the fuse of mechatro controller has blown, the following display appears on the gauge cluster.

(1) The blown fuse of mechatro controller

a. Blown fuse 5A of mechatro controller :
"DATA COMMUNICATION ERROR" is displayed on the gauge cluster in the condition where the controller program is not executed.

b. Blown fuse 20A of mechatro controller
The controller functions normally but the power supply applied when the controller drives the solenoid, etc. stops.
Many error codes are displayed on the gauge cluster.
D013, D023, D033, D063,
E013, E023, F021

46.4 TROUBLESHOOTING BY ERROR CODE

When error code was displayed on the gauge cluster with the aid of self-diagnosis display function, carry out the troubleshooting referring to applicable page in the contents of error codes.

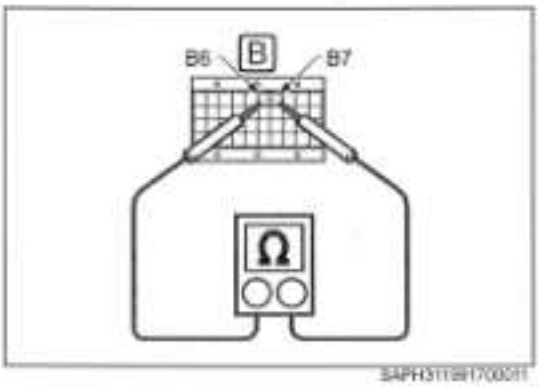
Error Code	Trouble	Described page
A015	Engine adjustment (A adjustment) is not adjusted yet or is failed.	46-7
A025	Pump propo. valve adjustment (B adjustment) is not adjusted yet or is failed.	46-7
A035	Unload valve adjustment (C adjustment) is not adjusted yet or is failed.	46-8
A215	Written data of ROM adjustment data is incorrect.	46-8
A225	Writing of ROM adjustment data is incorrect.	46-9
A235	Written data of ROM hour meter data is incorrect.	46-9
A245	Writing of ROM hour meter data is incorrect.	46-10
A255	Writing of proportional valve adjustment data is incorrect.	46-10
B012	Incorrect output of boom up pressure sensor	46-11
B013	Disconnection of boom up pressure sensor	46-11
B014	Short-circuit of boom up pressure sensor	46-12
B022	Incorrect output of boom down pressure sensor	46-12
B023	Disconnection of boom down pressure sensor	46-13
B024	Short-circuit of boom down pressure sensor	46-13

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Engine speed main sensor circuit malfunction (DTC code P0335)

JP311991700601004

1	Measurement of resistance between terminals



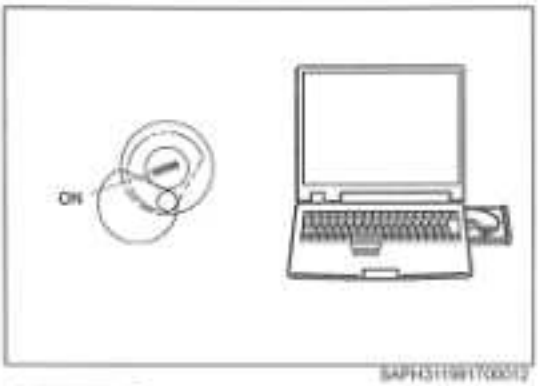
SAPH311991700011

1. Set the starter key to "OFF" and connect the signal check harness.
2. Disconnect the ECU side connector of the signal check harness and measure the resistance between terminal B6 and terminal B7.
   Standard value : Approx. 125.5 ± 17 Ω (20 °C{68 °F})

NG → [3] Go to measurement of resistance between sensor terminals.

OK

2	Check of diagnosis code



SAPH311991700012

1. Connect the ECU side connector of the signal check harness. After deleting the past failure, Start the engine and confirm that no diagnostic code is put out.
   Standard : No diagnostic code

NG → Contact failure of ECU connector, ECU failure, short-circuit of harness

OK

Normal

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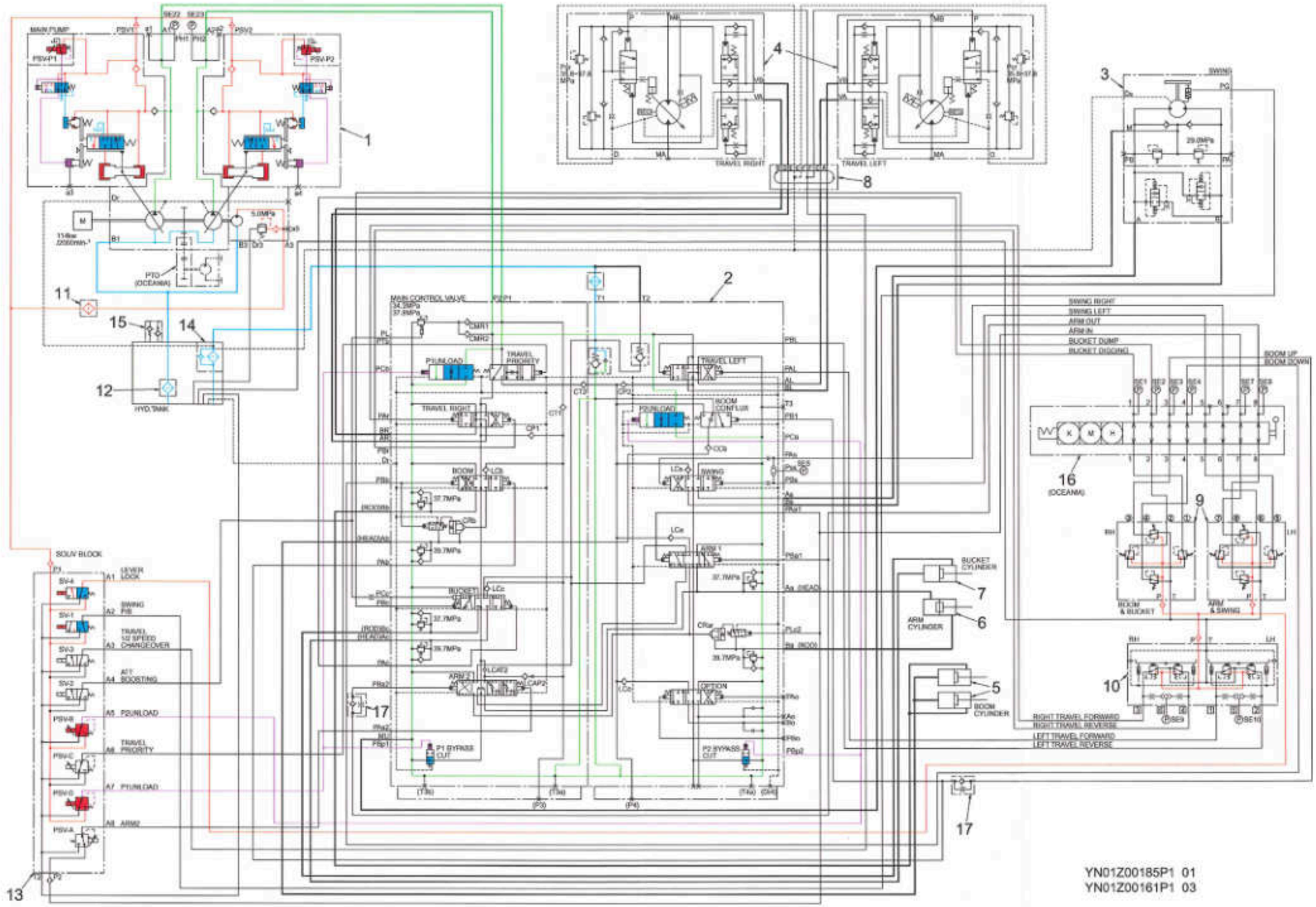


Fig. 22-12 PRESSURE DRAIN (RELEASE) CIRCUIT : At pressure release mode.

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