KOBELCO

SHOP MANUAL

EXCAVATOR

SK100

SK120LC

S5YPU0003E-03 NA

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APPLICABLE:
SK100 . . . . . YW-02801~
SK120LC . . . . . YPU-00501~

MidWestTech | Kobelco SK100, SK120LC Hydraulic Excavator Service Manual | Publication S5YPU0003E-03

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(2) Check the error acction detail

SK150ALSO P48CU38741

EXAMPLE OF NORMAL DISPLAYS ON MARKⅢ MULTI-DISPLAY ☞ Figures are displayed, but the data has no relation.

No.	DIAGNOSIS DISPLAY	CONTENTS OF DISPLAYS	SK60	SK100	SK120	SK200	SK220	REMARKS
1	P/No.	Controller P/No	2480U332F10	2480U332F9	2480U332F8	2480U332F6	2480U332F7	
2	S1 wtmp	Thermo switch temperature	OPEN	←	←	←	←	
3	S2 opre	E/G Oil pressure switch	OPEN	←	←	←	←	
4	S3 cpu	Mechatro 1P connector	CLOS	←	←	←	←	
5	S4 smod	S mode select switch	—	CLOS	←	←	←	S mode
			H.FC OPEN	S.FC.D OPEN	←	←	←	H.FC.D mode
6	S5 hmod	H mode select switch	H. CLOS	←	←	←	←	H mode
			FC. OPEN	S.FC.D OPEN	←	←	←	S.FC.D mode
7	S6 att	ATT Boost switch	OPEN	←	←	OFF OPEN / ON CLOS	OPEN	
8	S7 des	Auto accel pressure switch	OPEN	←	←	←	←	Decel SW. ON
			CLOS	←	←	←	←	Decel SW. OFF
			CLOS	←	←	←	←	Lever operating
9	S8 bmp	Buzzer stop switch	OPEN	←	←	←	←	
10	S9 jpin	Controller inside switch	CLOS	←	←	←	←	
11	S10 keys	Key switch BR terminal	CLOS	←	←	←	←	
12	S11 lims	Stepping motor limit switch	OPEN	←	←	←	←	
13	S12 boom	Slewing pressure switch	OPEN	OPEN	←	←	←	Lever neutral
			OPEN	CLOS	←	←	←	Slewing
14	AD1 accel	Accel potentiometer	5	4	3	2	2	Low
			242	251	252	253	254	High
15	AD2 boom	Loading potentiometer	0	2	1	1	1	Up
			0	96	97	97	95	In
			0	255	255	255	255	Down
16	AD3 motA	Stepping motor A phase current value	36 ~ 38	35~38	33~37	33~38	34~38	
17	AD4 motB	Stepping motor B phase current value	37 ~ 38	37	34~38	33~38	34~38	
18	AD5 isvP	KPSS solenoid valve current value (Current value measured by controller)	0	7~8	11~14	10~12	11~13	E/G Low no load
			0	29~32	40	35~37	32~34	E/G Low arm relief
			0	7~8	7~8	7~8	7~8	E/G High no load
			0~1	7~8	7~8	7~8	7~8	E/G High arm relief
19	AD6 isvB	Loading solenoid current value (Correct value measured by controller)	0	7~16 (38~42)	9~16 (38~42)	7~16 (38~42)	7~14 (38~42)	
20	I1 pump	KPSS solenoid valve current value mA (Controller instructed value)	150	150mA	228~281mA	212~235mA	236~251mA	E/G Low no load
			800	590~640mA	900mA	713~730mA	652~686mA	E/G Low arm relief
			150	150mA	150mA	150mA	150mA	E/G High no load
			200	150mA	150mA	150mA	150mA	E/G High arm relief
21	I2 boom	Loading solenoid current value mA (Controller instructed value)	100	100mA (800mA)	100mA (800mA)	100mA (800mA)	100mA (800mA)	
22	POS	Stepping motor position	161	308	214	227	200	Low idle
			509	537	442	432	424	High idle
23	r.p.m	E/G revolution	873 888	871 878	864 883	868 886	865 866	Low idle
			2331 2346	2472 2490	2320 2334	2292 2315	2301 2318	High idle
24	18V	Source voltage 18V or more	OVER	←	←	←	←	

(1) The engine does not stop.

(2) The engine does not start.

(3) Check engine rpm by the multi-display.

(4) The engine stops or the engine revolution falls when loaded.

(5) Stepping motor actuate error.

(6) The height (Hi) idling revolution is low.

(7) Engine revolution is low.(at both Hi and Lo).

(8) CPU display comes out.

Blown fuse	Check fuses (For controller 5A)
Controller out of order	
Link interfere with each other	Check links for interference
Heater relay burnout	Check coil resistance. Sdtandard value: about 12Ω Check fuse [For key switch 15A (~ m/c), 20A (~ m/c)]
Governor clearance not adjusted correctly	HI side (E/G stopped & key ON); Accel Hi check governor clearance 0.2mm (0.008")
	STOP side (E/G stopped & key ON); →Key off, less than 4sec governor clearance 0.1mm (0.004")
Key switch relay faulty	Check coil resistance. Sdtandard value: about 250Ω
Controller poor contact	Shake harnesses.

OPEN indication comes out when the key switch is turned off. — Yes → Check the stepping motor.

No → Check the diode between the controller and the key switch relay. (Not use m/c~) → Replace diodes.

Replace the potentiometer.

Check the connector into the stepping motor by shaking hand. — No → Replace the stepping motor.

Is resistance valve of solenoid not normal? Standard valve 13.5±0.7Ω — No → Replace solenoed valve.

Multiply the reading of item 18 by 20, compare it with the value of item 20 and check if they are equal. — No → Check that the proportionate valve is not stuck. Also check the hydraulic systems.

Yes → Yes

The stepping motor gears are worn out. (cause)

Replace fuses.

Replace controller.

Change battery or replace it.

Correct interference.

Replace the heater relay.

Readjust.

Replace the key switch relay.

Replace or correct the terminals.

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