SEBM027202

SHOP MANUAL

KOMATSU®

D65EX-12
D65PX-12
(EU SPEC.)

MACHINE MODEL	SERIAL NUMBER
D65EX-12	**65209 and up**
D65PX-12	**65275 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

- D65EX/PX-12 mount the SA6D125E-3 engine.
  For details of the engine, see the SA6D125E Series Engine Shop Manual.

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Machine model			D65EX-12	D65PX-12
Serial Numbers			65209 and up	65275 and up
Power train system	Bevel gear shaft		Spiral bevel gear, force feed lubrication gear pump	
	HSS steering: HSS steering system		Differential planetary gear type, hydraulic motor drive type, hand operated, hydraulically actuated	
	HSS steering: Master brake		Wet type, multiple disc, spring boosted, foot operated, hydraulically actuated	
	Final drive		1-stage spur gear, 1-stage planetary gear, splash type lubrication	
Undercarriage	Suspension		Semi-rigid, floating beam	
	Carrier roller (each side)		2	
	Track roller (each side)		7	8
	Track shoe	510 m	Assembly type, single grouser, 39 on each side, pitch: 203.2 mm	–
		950 mm	–	Assembly type, special swamp shoe, 45 on each side pitch: 203.2 mm
Power train, lubrication pump			Gear type (SAL(2)-045+045)	
PPC pump			Gear type (SBR(1)-014) Max. discharge pressure: 20.6 MPa (210 kg/cm²) Theoretical discharge amount: 49.4 ℓ/min/3,500 rpm	
HSS motor			Piston type (HMF95DT), swash plate angle 16°, with brake valve Permissible peak pressure: 47 MPa (480 kg/cm²) Rated flow (theoretical value): 183.2 ℓ/min/1,908 rpm	
Steering, work equipment hydraulic system	Hydraulic pump		Variable swash plate type (HPV95), CLSS, load sensing type Permissible peak pressure: 47 MPa (480 kg/cm²)	

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ERROR CODE AD00MA (COMMON RAIL: DEFECTIVE FUNCTION (MA))

Action code	Error code	Trouble	Common rail: See the list. (MA) (Engine controller system)
CALL E03	AD00MA		
Contents of trouble	• The fuel pressure of common rail became high (level 2).		
Action of controller	• Flashes caution lamp and turns on caution buzzer. • Limits output and engine speed for operation.		
Problem that appears on machine	• Engine output and speed reduces.		
Related information	• The fuel state (fuel pressure) of common rail can be checked in monitoring mode. (Code 36400: Common rail pressure) • Method of reproducing error code: Engine start		

Possible causes and standard value in normal state	Cause	Standard value in normal state/Remarks on troubleshooting
	Carry out troubleshooting for error code [AD00L2].	

ERROR CODE AD10L3 (FUEL SUPPLY PUMP: SEE THE LIST. (L3))

Action code	Error code	Trouble	Fuel supply pump: See the list. (L3) (Engine controller system)
CALL E03	AD10L3		
Contents of trouble	• Non-pressure transmission (level 1) occurred in fuel supply pump.		
Action of controller	• Flashes caution lamp and turns on caution buzzer. • Limits output for operation.		
Problem that appears on machine	• Engine output reduces.		
Related information	• The pressure transmission state (fuel pressure) of fuel supply pump can be checked in monitoring mode. (Code 36400: Common rail pressure) • Method of reproducing error code: Engine start		

Possible causes and standard value in normal state	Cause		Standard value in normal state/Remarks on troubleshooting
	1	Defective related system	Check the displayed error code. If another code is displayed, first carry out troubleshooting for the code.
	2	Inappropriate fuel	The fuel used may be inappropriate; directly check it.
	3	Defective low-pressure circuit equipment	The low-pressure circuit equipment is assumed to be defective; see Note 2 for troubleshooting.
	4	Clogged filter strainer	The filter strainer is assumed to be clogged; see Note 1 for troubleshooting.
	5	Defective electric system of fuel supply pump PCV	Carry out troubleshooting for error codes [AD11KA], [AD11KB], [AD51KA], and [AD51KB].
	6	Defective fuel supply pump	The fuel supply pump is assumed to be defective; directly check it.
	7	Defective common rail pressure sensor	The common rail pressure sensor is assumed to be defective; directly check it.
	8	Defective pressure limiter	The pressure limiter is assumed to be defective mechanically; directly check it.
	9	Defective fuel injector	The fuel injector is assumed to be defective; see Note 3 for troubleshooting.

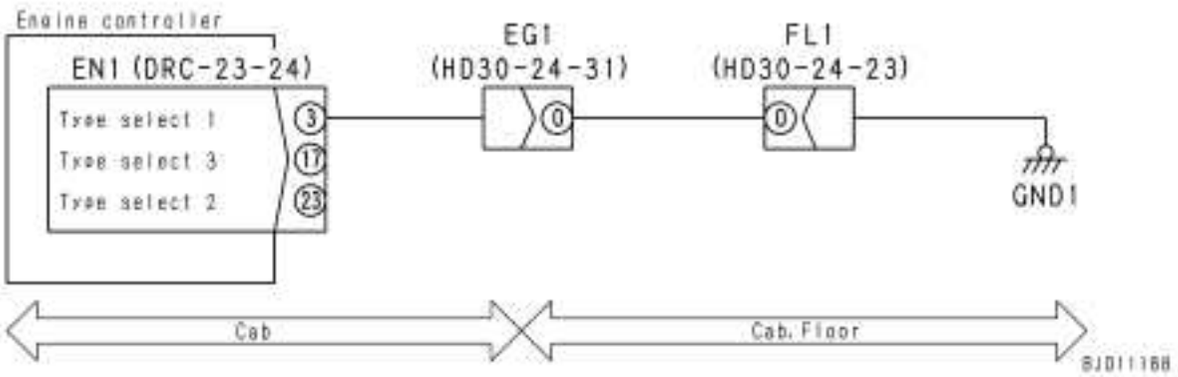
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ERROR CODE DB29KQ (ENGINE CONTROLLER TYPE SELECT: TYPE SELECT SIGNAL INCONSISTENCY (KQ))

Action code	Error code	Trouble	Engine controller type select: Type select signal inconsistency (KQ) (Engine controller system)
CALL E03	DB29KQ		
Contents of trouble	• Type select signal directly acquired by engine controller is inconsistent with type select signal acquired via communication.		
Action of controller	• Flashes caution lamp and turns on caution buzzer. • Controls it as default-set type.		
Problem that appears on machine	• Machine does not provide normal output.		
Related information	• Method of reproducing error code: Turn starting switch ON.		

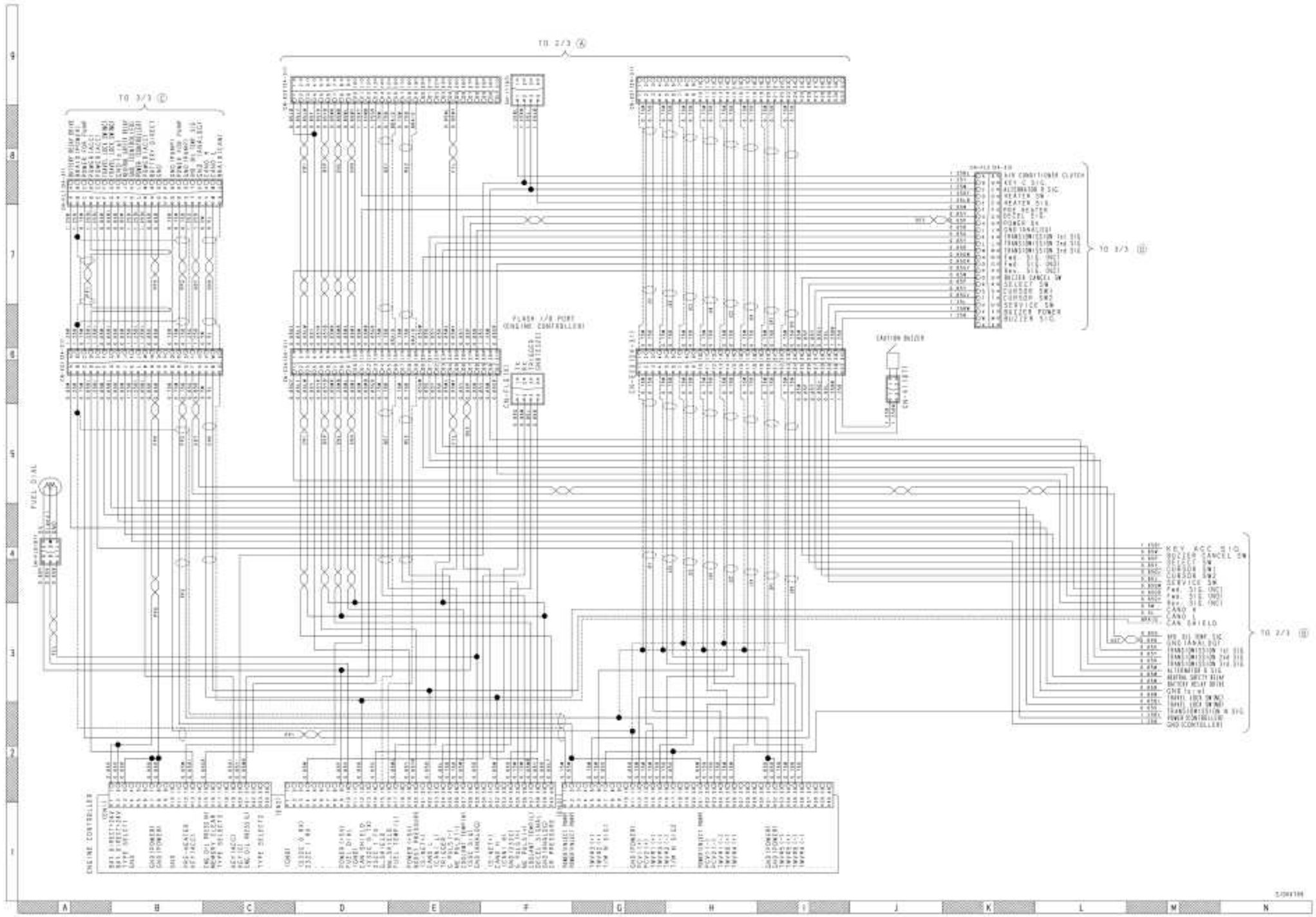
Possible causes and standard value in normal state		Cause	Standard value in normal state/Remarks on troubleshooting		
	1	Unsuitable engine controller or wiring harness	Check part No. of engine controller and wiring harness again.		
	2	Disconnection in wiring harness (Disconnection in wiring or defective contact in connector)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			Wiring harness between EN1 (female) ③, ⑰, ㉓ – chassis ground	Resistance	Max. 1Ω
	3	Defective engine controller	★ Prepare with starting switch OFF, turn starting switch ON and carry out troubleshooting.		
			EN1	Voltage	
			Between ③ – chassis ground	Max. 1V	

Circuit diagram related to engine controller type select



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ELECTRICAL CIRCUIT DIAGRAM (1/3)



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