SHOP MANUAL

KOMATSU®

D275A-5

Machine model	Serial number
D275A-5	**25001 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.

- D275A-5 mounts the SDA6D140E-3 engine.
  For details of the engine, see the 140-3 Series Engine Shop Manual.

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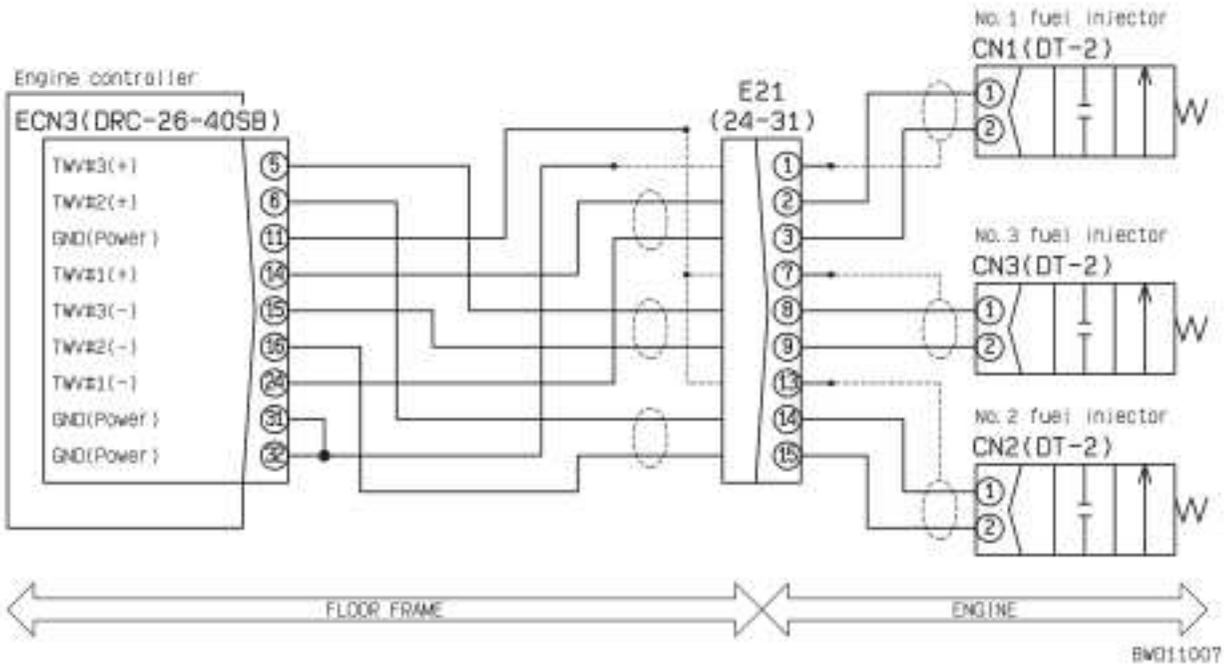
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	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	5	Defective harness hot short (Contact with 24V circuit)	★Prepare with starting switch OFF, then turn starting switch ON for troubleshooting.		
			Wiring harness between ECN3 (female) ⑭ – CN1 (female) ① with chassis ground	Voltage	Max. 1V
			Wiring harness between ECN3 (female) ㉔ – CN1 (female) ② with chassis ground	Voltage	Max. 1V
			Wiring harness between ECN3 (female) ⑤ – CN2 (female) ① with chassis ground	Voltage	Max. 1V
			Wiring harness between ECN3 (female) ⑯ – CN2 (female) ② with chassis ground	Voltage	Max. 1V
			Wiring harness between ECN3 (female) ⑤ – CN3 (female) ① with chassis ground	Voltage	Max. 1V
			Wiring harness between ECN3 (female) ⑮ – CN3 (female) ② with chassis ground	Voltage	Max. 1V

Circuit diagram related to No.1, 2, and 3 injector solenoids



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ERROR CODE DH40KX (COMMON RAIL PRESSURE SENSOR: INPUT IS OUT OF NORMAL RANGE (KX))

Action code	Error code	Trouble	Common rail pressure sensor: Input is out of normal range (KX) (Engine controller system)
CALL E03	DH40KX		
Contents of trouble	• Common rail pressure sensor signal is out of normal range.		
Action of controller	• Flashes caution lamp and turns on caution buzzer. • 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	• Special adapter (799-601-9420) is necessary for troubleshooting for common rail pressure sensor. • Common rail pressure (pressure) can be checked in monitoring mode. (Code 36400: Common rail pressure) • Method of reproducing error code: Turn starting switch ON or start engine.		

	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective common rail pressure sensor (Internal trouble)	★ Prepare with starting switch OFF, turn starting switch ON and carry out troubleshooting.		
			PFUEL	Voltage	
			Between ① – ③	4.6 – 5.4V	
			Between ② – ③	0.3 – 5.7V	
	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 ECN2 (female) ⑲ – PFUEL (female) ①	Resistance	Max. 1Ω
			Wiring harness between ECN2 (female) ㊵ – PFUEL (female) ②	Resistance	Max. 1Ω
			Wiring harness between ECN2 (female) ㊴ – PFUEL (female) ③	Resistance	Max. 1Ω
	3	Short circuit with chassis ground in wiring harness (Contact with ground circuit)	★ Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			Short circuit of wiring harness between N2 (female) ⑲ – PFUEL (female) ① with chassis ground	Resistance	Min. 1MΩ
			Short circuit of wiring harness between ECN2 (female) ㊵ – PFUEL (female) ② with chassis ground	Resistance	Min. 1MΩ
			Short circuit of wiring harness between ECN2 (female) ㊴ – PFUEL (female) ③ with chassis ground	Resistance	Min. 1MΩ
	4	Defective engine controller	★ Prepare with starting switch OFF, turn starting switch ON and carry out troubleshooting.		
			ECN2	Voltage	
			Between ⑲ – ㊴	4.6 – 5.4V	
			Between ㊵ – ㊴	0.3 – 5.7V	

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H-3 MACHINE DOES NOT MOVE IN ANY SPEED RANGE

Trouble	• Machine does not move in any speed range.
Related information	• Confirm that the oil quantity on the power train is normal before troubleshooting.

	Cause		Standard value in normal state/Remarks on troubleshooting
Possible causes and standard value in normal state	1	Defective power train pump	The power train pump is assumed to be defective; directly check it.
	2	Defective and Internally defective set pressure of transmission main relief valve	★ Prepare with starting switch OFF, then drive the engine in high idling mode for troubleshooting.
			PCCS lever: Full neutral; Transmission main relief pressure: Min. 2.94MPa {Min. 30kg/cm²}
			★ Prepare with the starting switch OFF, then carry out troubleshooting without turning the starting switch ON.
			Directly check that the spring length and the number of shims are normal and also that the spool rotates smoothly. • Free length of large spring: 122mm • Free length of small spring: 108mm • Number of shims: 6
	3	Defective transmission valve (ECMV) function	★ Prepare with starting switch OFF, then drive the engine in low idling mode for troubleshooting. (Before this, confirm that the transmission main relief pressure is normal.)
			Transmission clutch: FWD; Clutch pressure: Min. 2.65MPa {Min. 27kg/cm²}
			Transmission clutch: REV; Clutch pressure: Min. 2.65MPa {Min. 27kg/cm²}
			Transmission clutch: 1ST; Clutch pressure: Min. 2.65MPa {Min. 27kg/cm²}
			Transmission clutch: 2ND; Clutch pressure: Min. 2.65MPa {Min. 27kg/cm²}
			Transmission clutch: 3RD; Clutch pressure: Min. 2.65MPa {Min. 27kg/cm²}
	4	Internally defective transmission clutch	The transmission clutch (2nd or 3rd speed) is assumed to be defective internally; directly check it.
	5	Defective brake function	★ Move to a flat place, and drive the engine in high idling mode for troubleshooting. (Before this, confirm that the transmission main relief pressure is normal.)
			Brake pedal: Release; Brake hydraulic pressure (left/right): Min. 2.45MPa {Min. 25kg/cm²}
			Brake pedal: Pedal; Brake hydraulic pressure (left/right): 0 {0}
			When the hydraulic pressure is abnormal, carry out troubleshooting "Brake does not work."
	6	Defective steering clutch	★ Prepare with starting switch OFF, then run the engine at high idling for troubleshooting (after checking that the transmission main relief pressure is normal).
			PCCS lever: Left stroke end; Left clutch pressure: 0 {0}
			PCCS lever: Right stroke end; Left clutch pressure: 1.77 ± 0.29MPa {18 ± 3kg/cm²}
			PCCS lever: Left stroke end; Right clutch pressure: 1.77 ± 0.29MPa {18 ± 3kg/cm²}
			PCCS lever: Right stroke end; Right clutch pressure: 0 {0}
			PCCS lever: Left stroke end; Left brake pressure: 0 {0}
			PCCS lever: Right stroke end; Left brake pressure: Min. 2.45MPa {Min. 25kg./cm²}
			PCCS lever: Left stroke end; Right brake pressure: Min. 2.45MPa {Min. 25kg./cm²}
			PCCS lever: Right stroke end; Right brake pressure: 0 {0}
			If the oil pressure is abnormal, carry out troubleshooting in "Machine cannot be steered".
	7	Slip of steering clutch	The steering clutch is assumed to be defective internally; directly check it.

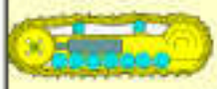
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UNDERCARRIAGE TROUBLESHOOTING REPORT (IMPACT)

(Program form No.: SELA195001)

KUC

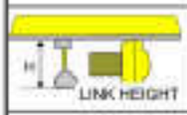
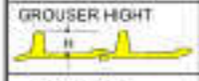
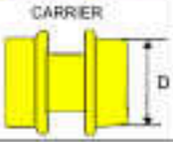
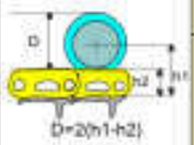
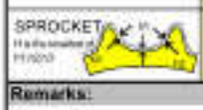
Komatsu Undercarriage Inspection



Customer name:

Address:

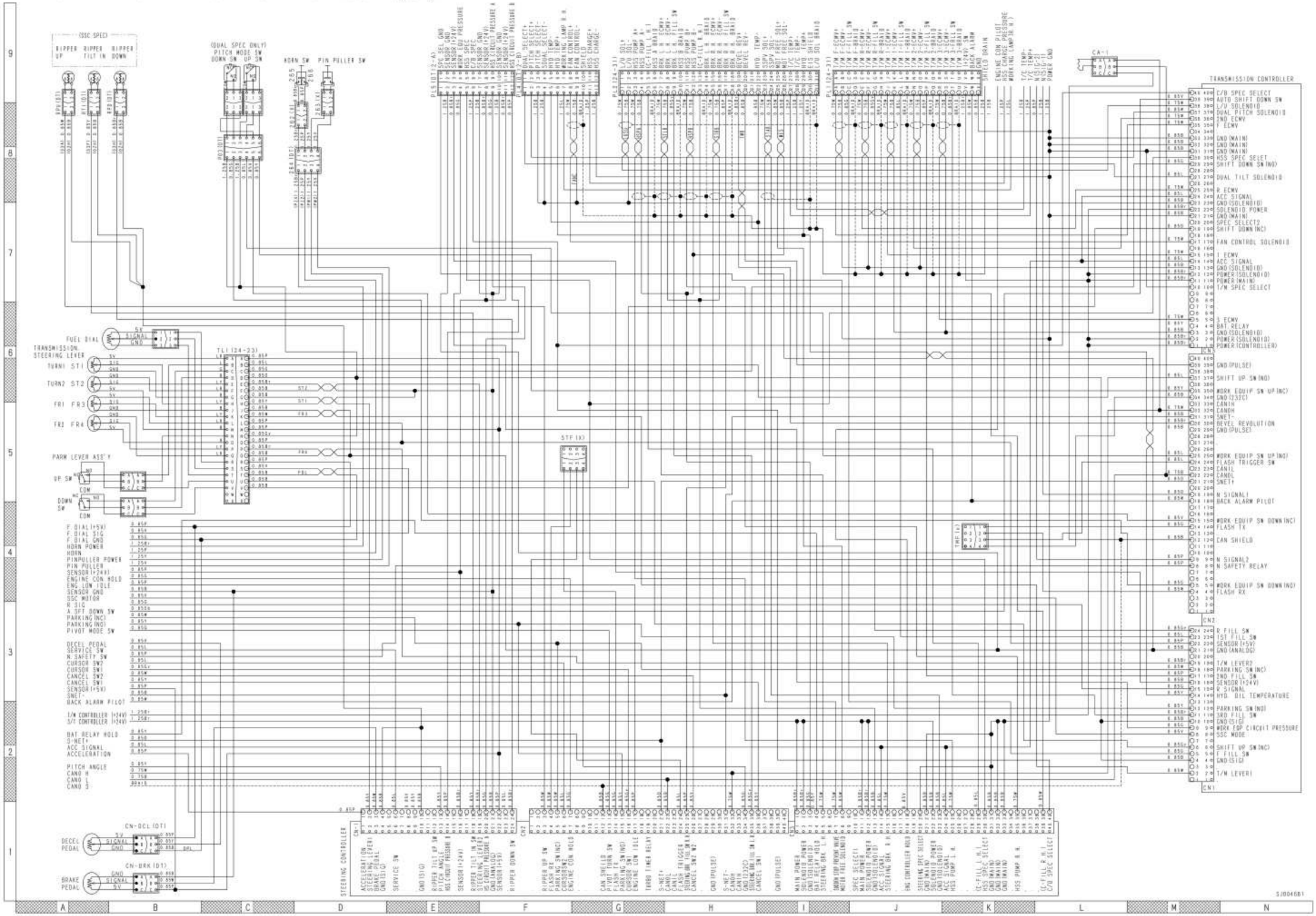
Model	D275A-5	Serial#	Equip#	Work Order No	
Location		SMR		Wet,AR,HD or Dry	Wet
Soil condition		Dealer		Shoe width (mm)	
Working condition		Inspector		Shoe type	SINGLE
		Insp.Date(yy/mm/dd)		Wear type	IMPACT

			New	100% Wear	Measured mm	Wear %	SMR New	SMR Rebuilt	Hours on Parts:	Comments/Observation
LINK PITCH 	R	LH	1042.4	1054.4						
		RH	1042.4	1054.4						
	M	LH	260.60	263.60						
		RH	260.60	263.60						
 LINK HEIGHT		LH	166.0	148.0						
		RH	166.0	148.0						
BUSHING 		LH	90.5	84.5			New	Turned		
		RH	90.5	84.5			New	Turned		
GROUSER HIGHT 		LH	88.0	30.0						
		RH	88.0	30.0						
CARRIER 	Front	LH	200.0	175.0						
		RH	200.0	175.0						
	Rear	LH	200.0	175.0						
		RH	200.0	175.0						
IDLER 	Front	LH	21.0	33.5						
		RH	21.0	33.5						
	Rear	LH	21.0	33.5						
		RH	21.0	33.5						
TRACK ROLLER  D=2(h1-h2)	1	LH	255.0	195.0						
	2	LH	255.0	195.0						
	3	LH	255.0	195.0						
	4	LH	255.0	195.0						
	5	LH	255.0	195.0						
	6	LH	255.0	195.0						
	7	LH	255.0	195.0						
	8	LH	255.0	195.0						
	9	LH	255.0	195.0						
	10	LH	255.0	195.0						
	1	RH	255.0	195.0						
	2	RH	255.0	195.0						
	3	RH	255.0	195.0						
	4	RH	255.0	195.0						
	5	RH	255.0	195.0						
	6	RH	255.0	195.0						
	7	RH	255.0	195.0						
	8	RH	255.0	195.0						
	9	RH	255.0	195.0						
	10	RH	255.0	195.0						
SPROCKET 		LH	0.0	8.0						
		RH	0.0	8.0						

Remarks:

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DIAGRAM FOR ELECTRICAL CIRCUIT (3/4)



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