SHOP MANUAL

KOMATSU®

D275AX-5

Machine model	Serial number
D275AX-5	**20001 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.

- D275AX-5 mount the SDA6D140E-3 engine.
  For details of the engine, see the 140-3 Series Engine Shop Manual.

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ERROR CODE B@BCZK (RADIATOR COOLANT: LEVEL REDUCTION (ZK))

Action code	Error code	Trouble	Radiator coolant: Level reduction (ZK) (Mechanical system)
—	B@BCZK		
Contents of trouble	• When turning starting switch ON, radiator coolant caution lamp flashes.		
Action of controller			
Problem that appears on machine	• If machine is operated as it is, engine may be damaged.		
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	Radiator coolant level reduction (When system is in normal state)	It is suspected that problem causing radiator coolant level reduction is occurring at present or occurred in past. Investigate cause and damage condition, and correct it.
	2	Defective radiator coolant level caution lamp system	Carry out troubleshooting of radiator coolant level caution lamp system in accordance with "When turning starting switch ON, basic check item flashes" in E mode.

ERROR CODE B@CENS (POWER TRAN OIL: OVERHEAT (NS))

Action code	Error code	Trouble	Power train oil: Overheat (NS) (Mechanical system)
—	B@CENS		
Contents of trouble	• During rotation of engine, power train oil temperature caution lamp flashes.		
Action of controller	• Turns on caution buzzer. (Function of monitor panel)		
Problem that appears on machine	• If machine is operated as it is, power train may be damaged.		
Related information	• Method of reproducing error code: Start engine.		

Possible causes and standard value in normal state		Cause	Standard value in normal state/Remarks on troubleshooting
	1	Power train oil temperature overheat (When system is in normal state)	It is suspected that problem causing power train oil temperature overheat is occurring at present or occurred in past. Investigate cause and damage condition, and correct it.
	2	Defective power train oil temperature overheat caution lamp system	Carry out troubleshooting of power train oil temperature caution lamp system in accordance with "During running of engine, emergency caution item flashes" in E mode.

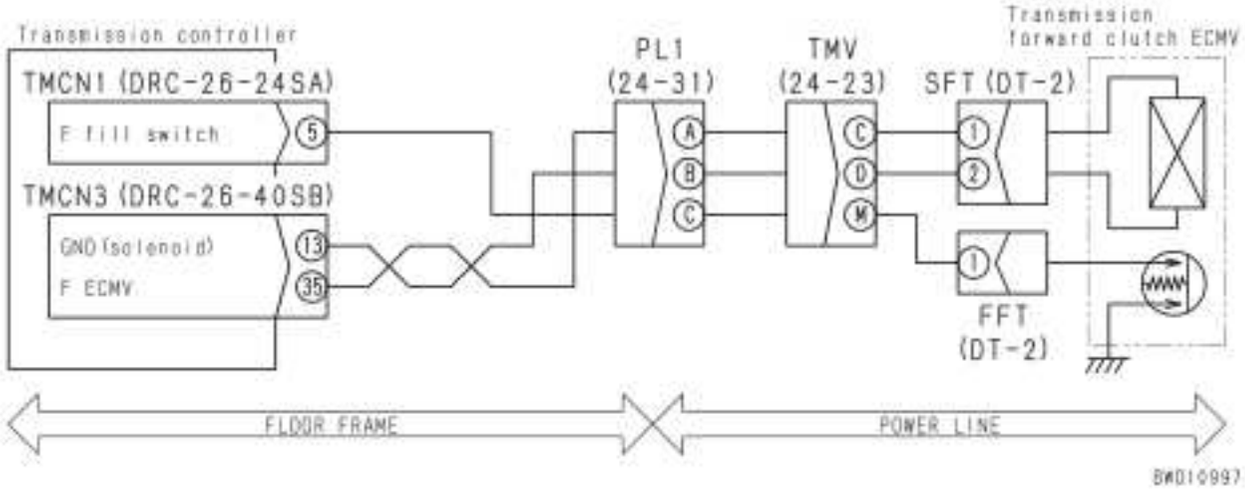
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ERROR CODE DXH8KB (FORWARD CLUTCH ECMV: SHORT CIRCUIT (KB))

Action code	Error code	Trouble	Forward clutch ECMV: Short circuit (KB) (Transmission controller system)
CALL E03	DXH8KB		
Contents of trouble	• When signal was output to transmission forward clutch solenoid circuit, abnormal current flowed.		
Action of controller	• Flashes caution lamp and turns on caution buzzer. • Stops outputting to transmission forward clutch solenoid circuit. • 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 R1.		
Related information	• Output (Current) to forward clutch solenoid can be checked in monitoring mode. (Code 31608, 31622: Output current of forward clutch ECMV) • Method of reproducing service code: Start engine and drive machine forward.		

	Cause		Standard value in normal state/Remarks on troubleshooting		
Possible causes and standard value in normal state	1	Defective forward clutch solenoid (Internal short circuit)	★Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			SFT (male)	Resistance	
			Between (1) – (2)	5 – 15Ω	
			Between (1) – chassis ground	Min. 1MΩ	
	2	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 TMCN3 (female) (35) – SFT (female) (1) with chassis ground	Resistance	Min. 1MΩ
	3	Short circuit in wiring harness (with another wiring harness)	★Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			Short circuit in wiring harness between TMCN3 (female) (35) – SFT (female) (1) with wiring harness between TMCN3 (female) (13) – SFT (female) (2)	Resistance	Min. 1MΩ
	4	Defective transmission controller	★Prepare with starting switch OFF, then carry out troubleshooting without turning starting switch ON.		
			TMCN3	Resistance	
			Between (35) – (13)	5 – 15Ω	
			Between (35) – chassis ground	Min. 1MΩ	

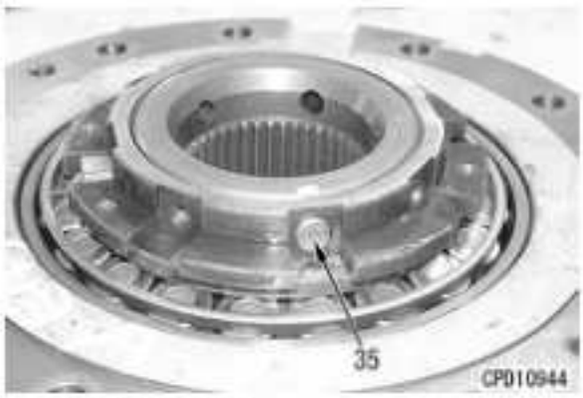
Circuit diagram related to transmission forward clutch ECMV



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vii) After tightening locknut, turn locknut in direction of loosening to a point where 1 of 5 pin insertion holes in pinion shaft and 1 of 8 pin insertion holes in locknut are aligned.
- Angle to loosen: 0 - 9°

viii) Install pin (35) in aligned hole.



ix) Fit plate (34).

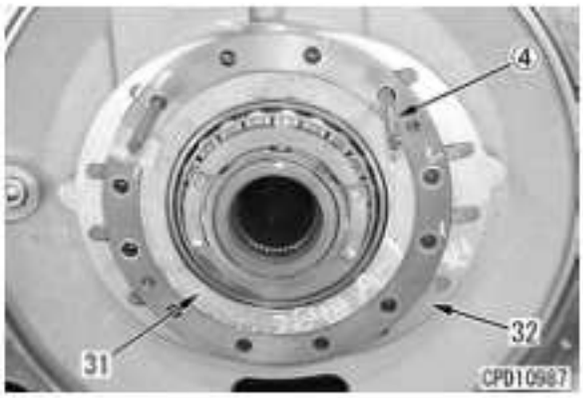
Mounting bolt:
Thread tightener (LT-2)

kgm Mounting bolt:
11.8 - 14.7 Nm {1.2 - 1.5 kgm}



2) Using guide bolt ④, install bevel pinion assembly (31) and shims (32).
★ Assemble the same amount and thickness of shims (32) that was removed.
- Standard shim thickness: 2 mm
- Types of shim thickness:
  0.1 mm, 0.2 mm, 0.5 mm

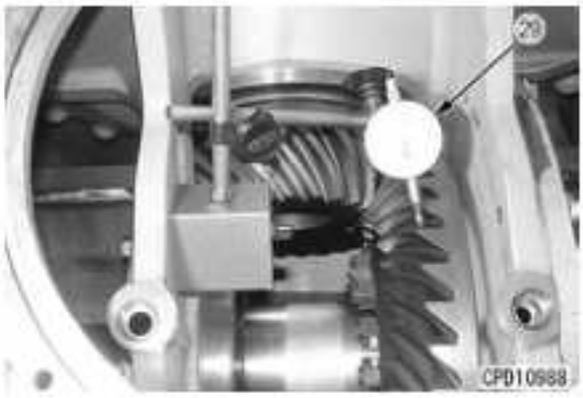
kgm Mounting bolt:
98.1 - 122.6 Nm {10 - 12.5 kgm}



5. Adjusting backlash, tooth contact

1) Adjusting backlash
i) Put probe of dial gauge ㉙ in contact with tooth face at tip of bevel gear.
ii) Fix bevel pinion in position, and read scale when bevel gear is moved backward and forward (in direction of rotation).
- Standard value of backlash:
  0.25 - 0.33 mm

★ Measure at 3 places on diametrically opposite sides.



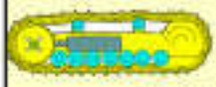
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UNDERCARRIAGE TROUBLESHOOTING REPORT (NORMAL)

(Program form No.: SELA195001)

KUC

Komatsu Undercarriage Inspection



Customer name:

Address:

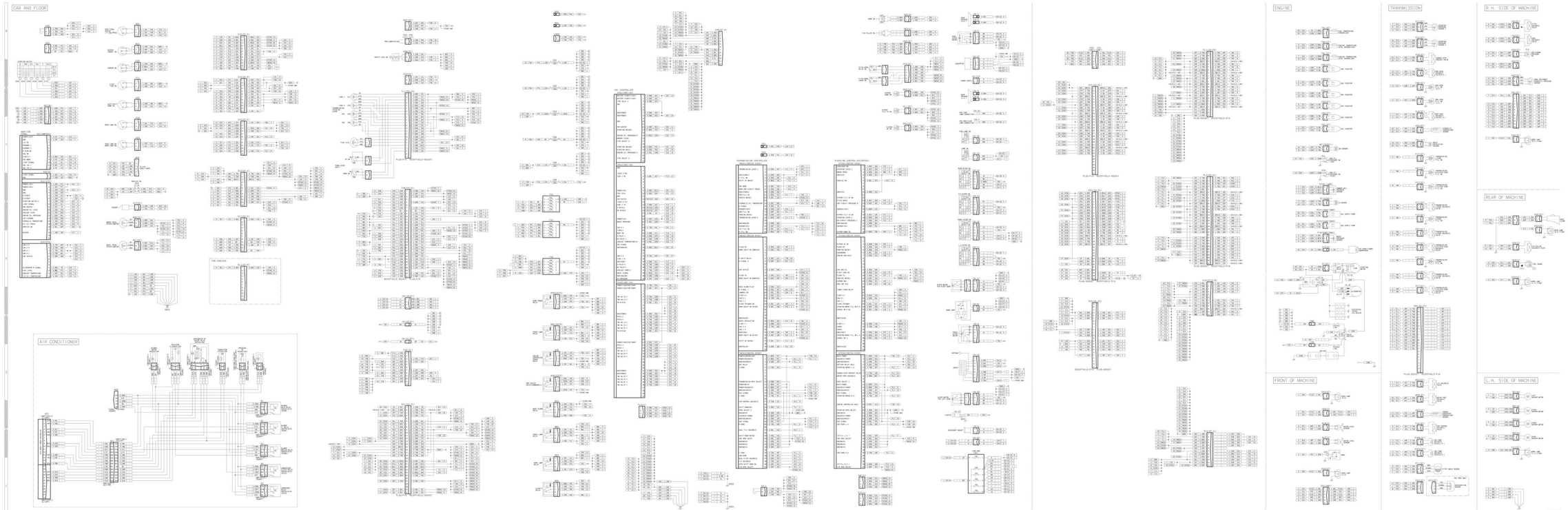
Model	D275AX-5	Serial#	Equip#	Work Order No	
Location		SMR		Wet,AR,HD or Dry	Wet
Soil condition		Dealer		Shoe width (mm)	
Working condition		Inspector		Shoe type	SINGLE
Insp.Date(yy/mm/dd)				Wear type	NORMAL

			New	100% Wear	Measured mm	Wear %	SMR New	SMR Rebuilt	Hours or 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	82.0			New	Turned		
		RH	90.5	82.0			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	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 (A1 SIZE) D275AX-5



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