SEN03320-04

Shop Manual

BULLDOZER

D21A-8E0
D21P-8E0

SERIAL NUMBERS D21A- 90001 and up
D21P- 90001

KOMATSU®

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Composition of shop manual

The contents of this shop manual are shown together with Form No. in a list.

Note 1: Always keep the latest version of this manual in accordance with this list and utilize accordingly.
The marks shown to the right of Form No. denote the following:
○: New issue (to be filed additionally) ●: Revision (to be replaced for each Form No.)

Note 2: This shop manual can be supplied for each Form No.

Note 3: To file this shop manual in the special binder for management, handle it as follows:
- Place a divider on the top of each section in the file after matching the Tub No. with No. indicated next to each Section Name shown in the table below:
- File overview and other materials in sections in the order shown below and utilize them accordingly.

Section Title	Form Number	
Shop Manual, contents binder, binder label and tabs	SEN03320-04	
00 Index and foreword	SEN03321-04	
100 Index	SEN03329-04	●
200 Foreword and general information	SEN03330-01	
01 Specification	SEN03322-02	
100 Specification and technical data	SEN04086-02	
10 Structure, function and maintenance standard	SEN03323-02	
100 Engine and cooling system	SEN04087-00	
210 Power train, Part 1	SEN04088-00	
220 Power train, Part 2	SEN04089-00	
300 Undercarriage and frame	SEN04090-01	
400 Hydraulic system	SEN04091-00	
500 Work equipment	SEN04092-00	
600 Electrical system	SEN04093-01	●
20 Standard value table	SEN03324-00	
100 Standard service value table	SEN03377-00	
30 Testing and adjusting	SEN03325-01	
100 Testing and adjusting	SEN03378-01	
40 Troubleshooting	SEN03326-02	
100 General information on troubleshooting	SEN03379-02	
200 Troubleshooting of electrical system (E-mode)	SEN03380-01	
300 Troubleshooting of hydraulic and mechanical system (H-mode)	SEN03381-00	
400 Troubleshooting of engine (S-mode)	SEN03382-01	
50 Disassembly and assembly	SEN03327-02	
100 General information on disassembly and assembly	SEN03383-02	
200 Engine and cooling system	SEN03384-01	
310 Power train, Part 1	SEN03385-02	
320 Power train, Part 2	SEN03386-02	
400 Undercarriage and frame	SEN03387-01	
500 Hydraulic system	SEN03388-01	
600 Work equipment	SEN03389-01	

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Table of contents

00 Index and foreword
100 Index SEN03329-04
Composition of shop manual 2
Table of contents 4
200 Foreword and general information SEN03330-01
Safety notice 2
How to read the shop manual 7
Explanation of terms for maintenance standard 9
Handling of electric equipment and hydraulic component 11
Handling of connectors newly used for engines 20
How to read electric wire code 23
Precautions when carrying out operation 26
Method of disassembling and connecting push-pull type coupler 29
Standard tightening torque table 32
Conversion table 36

01 Specification
100 Specification and technical data SEN04086-02
Specification dimension drawing 3
Specifications 4
Weight table 10
Table of fuel, coolant and lubricant 12

10 Structure, function and maintenance standard
100 Engine and cooling system SEN04087-00
Engine control 2
210 Power train, Part 1 ..... SEN04088-00
Power train system 2
Power train skeleton 3
Damper and universal joint 5
Power train hydraulic piping drawing 7
Transmission control 8
Steering clutch and brake control 12
Transmission 15
Transmission control valve 34
220 Power train, Part 2 ..... SEN04089-00
Bevel gear shaft, steering clutch and steering brake 2
Final drive 11
Sprocket 14
Steering cylinder 15
Brake cylinder 17
300 Undercarriage and frame SEN04090-01
Main frame and suspension 3
Track frame 4
Idler cushion 8
Idler 10
Track roller 12
Carrier roller 13
Track shoe 14
400 Hydraulic system SEN04091-00
Work equipment hydraulic piping diagram 2
Work equipment control 3
Hydraulic tank and filter 4
Power train and steering pump 5

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Work equipment pump 7
Control valve 8
Operation of work equipment control circuit 14
PPC valve 20
500 Work equipment SEN04092-00
Blade 3
Hydraulic cylinder 6
600 Electrical system SEN04093-01
Monitor system 2
Engine control 3
KOMTRAX system 5
Sensor 7

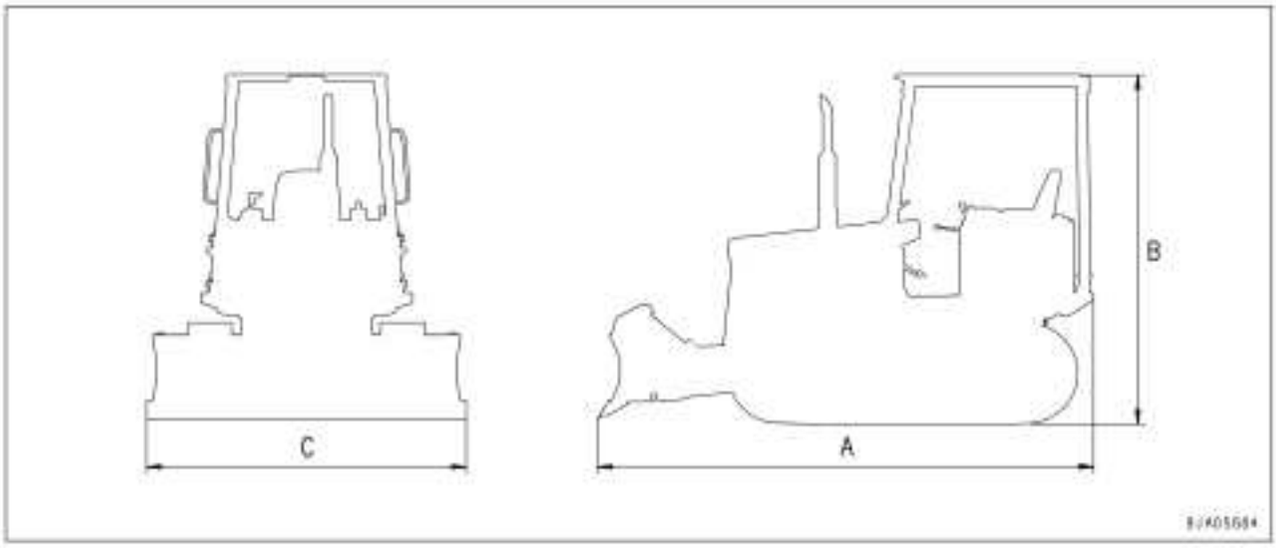
20 Standard value table
100 Standard service value table SEN03377-00
Standard value table for engine 2
Standard value table for chassis 3

30 Testing and adjusting
100 Testing and adjusting SEN03378-01
List of testing, adjusting, and troubleshooting tools 2
Measuring engine speed 3
Measuring exhaust gas color 4
Adjusting valve clearance 5
Measuring compression pressure 7
Testing and adjusting fuel injection timing 8
Bleeding air from fuel circuit 10
Measuring engine oil pressure 10
Testing and adjusting fan belt tension 11
Replacing fan belt 11
Adjusting fuel control linkage 12
Measuring power train oil pressure 14
Adjusting PPC valve 15
Bleeding air from steering circuit 15
Measuring and adjusting work equipment main relief pressure 16
Bleeding air from hydraulic cylinders 17
Bleeding air from angle cylinder circuit 18
Adjusting fuel control lever 19
Adjusting travel of inching pedal 20
Adjusting brake pedal, brake cylinder 21
Adjusting brake lining clearance 23

40 Troubleshooting
100 General information on troubleshooting SEN03379-02
Points to remember when troubleshooting 2
Sequence of events in troubleshooting 3
Checks before troubleshooting 4
Classification and steps for troubleshooting 6
Types and locations of connectors 7
Connection table for connector pin numbers 9
T- branch box and T- branch adapter table 45
200 Troubleshooting of electrical system (E-mode) SEN03380-01
Before carrying out troubleshooting in E-MODE 2
Information contained in troubleshooting table 3
E-1 The engine does not start 4
E-2 The engine does not stop 10

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Specification dimension drawing



	Item		Unit	D21A-8E0		D21P-8E0	
				Steel crawler specification	Rubber crawler specification	Steel crawler specification	Rubber crawler specification
	Machine weight		kg	3,940	3,980	4,320	4,340
	Engine model		—	Komatsu 4D94LE-2 Diesel engine			
	Engine rated output • Net [ISO 9249/SAE J1349] • Gross [SAE J1995] (*1)		kW{HP}/rpm	32.4 {43.4}/2,450 33.2 {44.5}/2,450			
A	Overall length		mm	3,365	3,365	3,350	3,350
B	Overall height		mm	2,450	2,490	2,475	2,510
C	Overall width		mm	2,170	2,170	2,560	2,560
	Travel speed (1st/2nd)	Forward	km/h	2.6/4.4	2.8/4.8	2.6/4.4	2.8/4.8
		Reverse	km/h	3.3/5.6	3.6/6.1	3.3/5.6	3.6/6.1

*1: Indicates the value of the engine alone.
★ The engine rated output is indicated in the net value and gross value. Gross denotes the rated output measured of an independent engine. While, net denotes the value measured of an engine under the condition essentially the same as that when it is installed on machine.

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H-3 Excessive time lag when starting or shifting gear checks before troubleshooting

Checks before troubleshooting

- Is the level of oil in the transmission case correct?
- Is oil leaking from piping or valve joint?

Checks for abnormalities

- Use the "Standard value table" to check that the time lag is actually excessive.

No.	Problems \ Remedy	Causes: Case – Pump a: Strainer clogged	Case – Pump b: Air sucked in at pump suction side	Case – Pump c: Defective pump	Control valve d: Deterioration of modulation valve spring, defective operation of spool	Control valve e: Clogged throttle of quick return valve	Control valve f: Defective operation of quick return valve spool	Transmission g: Defective transmission clutch seal ring, groove
	Remedy	C	△ ×	×	△ ×	C	△ ×	×
1	Transmission pump generates abnormal noise when oil temperature is low	○						
2	Time lag is excessive in any gear speed range	○		○	○	○	○	
3	Time lag is normal in some speed ranges							○
4	Transmission modulating pressure is low in any gear speed range	○		○	○	○		
5	When transmission modulating pressure is measured, oil pressure gauge indicator is unstable and fluctuates violently	○						

★ If none of the above problems appear, the steering clutch is slipping.

Troubleshooting tools	Hydraulic tester	
	Thermistor temperature gauge	

×: Replace △: Repair
A: Adjust C: Clean

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D21A-8E0
D21P-8E0

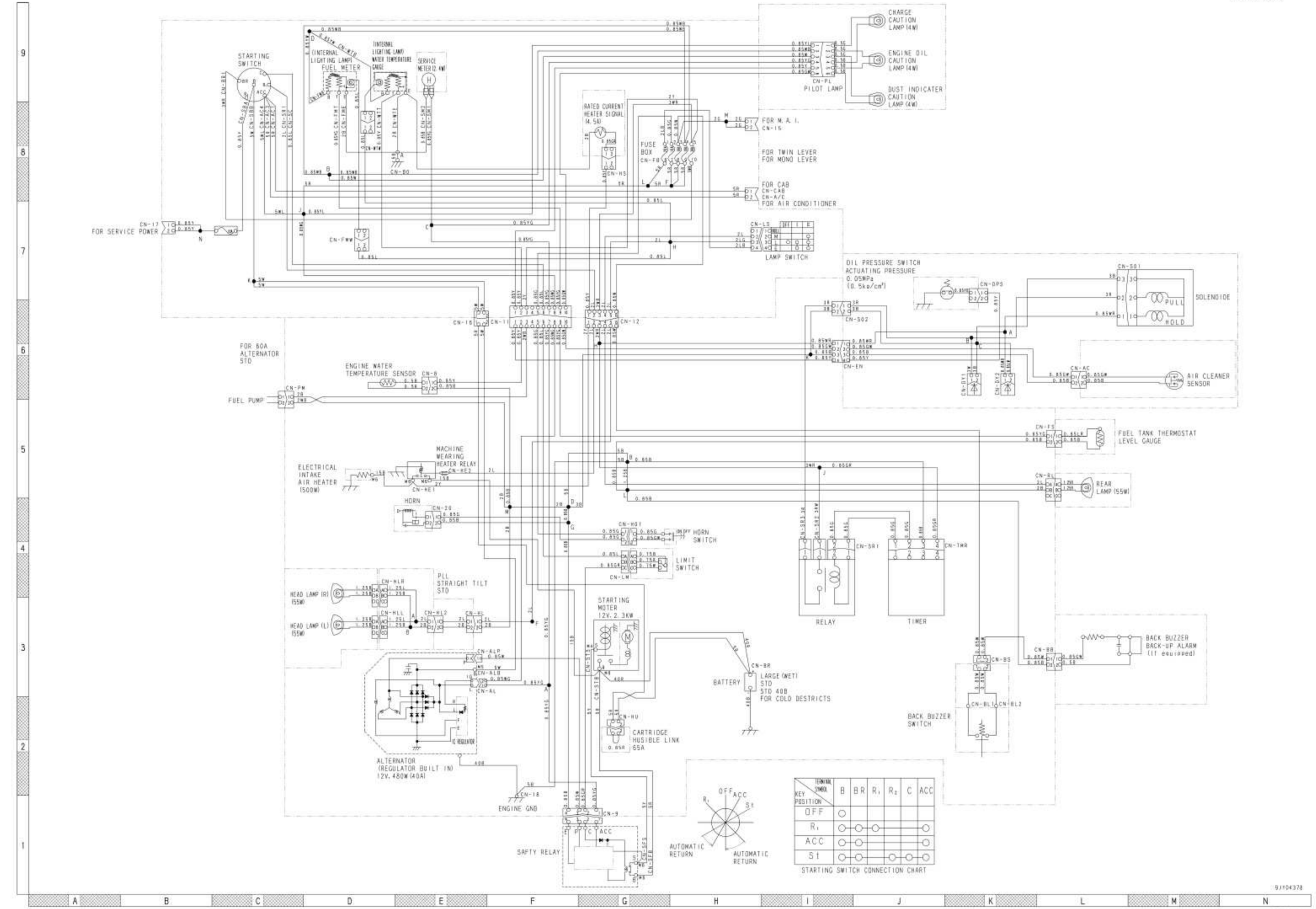
Machine model	Serial number
D21A-8E0	90001 and up
D21P-8E0	90001 and up

90 Diagrams and drawings
100 Hydraulic diagrams and drawings

Power train hydraulic circuit diagram 3
Work equipment hydraulic circuit diagram 7

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Electrical circuit diagram



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