CEBM012701

Shop Manual

KOMATSU®

WB140-2N
WB150-2N

BACKHOE LOADER

SERIAL NUMBERS **WB140-2N A20637 and up**
WB150-2N A60029 and up

ENGINE S4D106-1

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TROUBLESHOOTING GUIDE

FRONT AXLE

Wheel vibration; front tire resistance; half shaft breakage.	
CAUSES	REMEDY
Incorrect installation	Correct installation
Defective axle	Replace the differential in case it does not survive any of the test phases
Overloading incorrect weight distribution	Remove excessive weight and redistribute load following instructions related to the vehicle
Different rotation radius of the tires	Replace the tire or adjust pressure to have the same radius on both tires
Bent half shaft	Replace half shaft

No differential action; jamming while steering.	
CAUSES	REMEDY
Incorrect installation	Correct installation
Defective axle	Replace the differential in case it does not survive any of the test phases
Broken half shaft	Replace half shaft
Bent half shaft	Replace half shaft

Steering is difficult; vehicle goes straight while trying to turn it.	
CAUSES	REMEDY
Incorrect installation	Correct installation
Defective axle	Replace the differential in case it does not survive any of the test phases
Overloading/incorrect weight distribution	Remove excessive weight and redistribute load following instructions related to the vehicle
Different rotation radius of the tires	Replace the tire or adjust pressure to have the same radius on both tires
Broken half shaft	Replace half shaft

Excess noise	
CAUSES	REMEDY
Incorrect installation	Correct installation
Defective axle	Replace the differential in case it does not survive any of the test phases
Overloading/incorrect weight distribution	Remove excessive weight and redistribute load following instructions related to the vehicle
Different rotation radius of the tires	Replace the tire or adjust pressure to have the same radius on both tires
Bent or broken half shaft	Replace half shaft
Incorrect wheel adjustment	Verify group integrity and wheel side bearings
Contamination in the axle box or incorrect assembly of parts	Look for foreign particles. Check for proper assembly of the various parts of the axle.

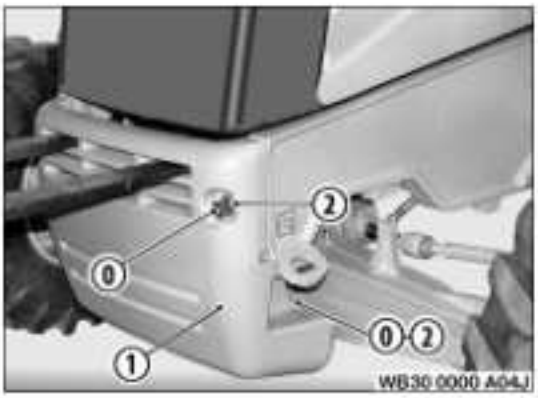
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COUNTERWEIGHT

REMOVAL

WARNING! Fully raise the front working equipment and engage the safety stop. Lower the backhoe to the ground. Set the parking brake.

1. Loosen the front mounting bolts ⑨ slightly first. Using a forklift truck, position the forks into the openings on the counterweight ① front. ✻ 1



2. Tilt the forks back slightly and remove the mounting bolts ⑨ and washers ② carefully.

WARNING! When performing this operation, stand clear of the counterweight in case it should slip off the forks.

3. Remove the counterweight ① carefully.



Counterweight..... 300 kg

INSTALLATION

- Carry out installation in the reverse order of removal.

✻ 1

Counterweight mounting bolts ..... 330 N•m

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LEGEND FOR CAB WIRING SCHEMATIC

ITEM	DESCRIPTION	SHEET	ITEM	DESCRIPTION	SHEET	ITEM	DESCRIPTION	SHEET	ITEM	DESCRIPTION	SHEET	ITEM	DESCRIPTION	SHEET
EV1	MP Bucket Open Solenoid	5 of 5	H16	Cab Light	4 of 5	P1	Tachometer	2 of 5	C1	A/C Magnetic Clutch	5 of 5	X67	Seat Sensor, 3 Pin	5 of 5
EV2	MP Bucket Close Solenoid	5 of 5	H17	Front Work Light	4 of 5	P2	Hour Meter	2 of 5	XC1	Lighter Socket	3 of 5	XA	Alternator, 2 Pin	5 of 5
EV3	Diff Lock Solenoid	5 of 5	H18	Front Work Light	4 of 5	P3	Fuel Level Gauge	2 of 5	X1	Engine Harness, 11 Pin	2 of 5	XAM	Fuel Shutoff Valve, 3 Pin	5 of 5
EV4	Boom Lock Solenoid	5 of 5	H19	Beacon Light	4 of 5	P4	Coolant Temp Gauge	2 of 5	X2	Lights and Gear Shift, 9 Pin	1 of 5	XD1	Light Switch, 9 Pin	1 of 5
F1A	Low Beam Fuse, 15A	1 of 5	H20	Rear Work Light	4 of 5	R30	Heating Start	5 of 5	X3	Front Line, 11 Pin	1 of 5	XD2	Gear Shift, 5 Pin	1 of 5
F1B	Right Light Fuse, 3A	2 of 5	H21	Rear Work Light	4 of 5	R31	Fuel Level Sender	5 of 5	X4	Not Used, 11 Pin	1 of 5	XM9	Fuel Pump, 2 Pin	5 of 5
F1C	Left Light Fuse, 3A	2 of 5	H22	Indicators Warn Light	1 of 5	R32	Coolant Temp Sender	5 of 5	X5	Cab Controls, 11 Pin	3 of 5	XS	Instrument Panel, 6 Pin	2 of 5
F2A	Fuse, 10A Not Used	2 of 5	H23	High Beam Warn Light	1 of 5	R33	Alternator	5 of 5	X6	Trans Solenoids, 9 Pin	1 of 5	XT1	Fuel Shutoff Timer, 4 Pin	5 of 5
F2B	Cab Fuse, 15A	3 of 5	H24	Brake Oil Warn Light	1 of 5	S1	ECO Power Button	5 of 5	X7	Not Used, 9 Pin	3 of 5	XT2	Preheat Timer, 4 Pin	5 of 5
F2C	Hazard Fuse, 10A	2 of 5	H25	Diff Lock Warn Light	1 of 5	S2	Boom Unlock Switch	4 of 5	X8	Side Dashboard, 17 Pins	2 of 5	XK12	Seat Unit, 6 Pin	5 of 5
F3A	Stp Seat DL Fuse, 7.5A	2 of 5	H28	Right Front Light	2 of 5	S4	Blower Motor Switch	3 of 5	X9	Front Dashboard, 17 Pins	1 of 5	XK13	Stop Light Diff Lock, 6 Pin	4 of 5
F3B	Instr. Warn RTD, 10A	2 of 5	H29	Left Front Light	1 of 5	S6	Starting Switch	2 of 5	X10	To Engine Harness, 13 Pin	4 of 5			
F3C	MPB Declutch Fuse, 7.5A	1 of 5	H36	Rear Left Side Lights	4 of 5	S10	Declutch Button	5 of 5	X11	2 Way Power, 2 Pin	4 of 5			
F4A	4WD Ft Washer Fuse, 7.5A	2 of 5	H37	Rear Right Side Lights	4 of 5	S13	Battery Cut Off Switch	5 of 5	X12	Front Cross Over, 2 Pin	4 of 5			
F4B	F/R BUA Fuse, 10A	1 of 5	H38	Courtesy Light	4 of 5	S15	Hand Brake Switch	3 of 5	X16	AC Clutch, 2 Pin	5 of 5			
F4C	High Beam Fuse, 15A	1 of 5	HA1	Horn	5 of 5	S16	Brake Oil Level Low Switch	1 of 5	X17	Side Dashboard, 21 Pin	2 of 5			
F5A	Heater Relay Fuse, 10A	3 of 5	HA2	Buzzer	2 of 5	S17	Brake Pressure Switch	1 of 5	X18	Front Cable, 5 Pin	2 of 5			
F5B	Rear Work Light, 15A	3 of 5	HA3	Fuel Shut Off Relay	3 of 5	S18	Brake Pressure Switch	1 of 5	X19	Front Dashboard, 9 Pin	2 of 5			
F5C	Front Work Light, 15A	2 of 5	HA4	Back Up Alarm	3 of 5	S19	Seat Sensor	5 of 5	X20	Blower Motor	3 of 5			
F6A	Rear Wiper Front Horn, 15A	3 of 5	K01	Starter Relay	5 of 5	S21	Coolant High Temp Switch	5 of 5	X21	Fuel Level Indicator, 3 Pin	5 of 5			
F6B	Light Sel Horn Relay, 7.5A	1 of 5	K02	Preheat Relay	5 of 5	S22	Air Filter Clogged Switch	5 of 5	X22	Washer Pump, 2 Pin	2 of 5			
F6C	Direction Lights, 10A	2 of 5	K03	Fuel Shut Off Relay	5 of 5	S23	Lo Eng Oil Pres Switch	5 of 5	X23	Optional, 2 Pin	1 of 5			
F7A	Fuse, 7.5A Not Used	1 of 5	K04	AC Blower Relay	3 of 5	S24	Fuel Gauge	5 of 5	X24	Front Wiper, 4 Pin	1 of 5			
F7B	Front Horn Fuse, 10A	1 of 5	K05	Return to Dig Relay	2 of 5	S26	Trans Oil Temp Switch	3 of 5	X25	Blower Motor, 2 Pin	3 of 5			
F7C	Fuel Shut Off Fuse, 7.5 A	2 of 5	K06	Power ECO Unit	5 of 5	S27	Return to Dig Sensor	3 of 5	X26	Rear Line, 8 Pin	4 of 5			
FUG1	Key Switch Fuse, 60A	5 of 5	KC	Load Fan Heater Relay	3 of 5	S37	Rear Door Switch	3 of 5	X27	Valve Lines, 6 Pin	5 of 5			
FUG2	Preheat Switch Fuse, 80A	5 of 5	K1	Forward Direction Relay	1 of 5	S1A	4WD Switch	1 of 5	X28	Loader Lever, 12 Pin	5 of 5			
FUG3	FSO Power Fuse, 40A	5 of 5	K2	Reverse Direction Relay	1 of 5	S1L	Rear Work Light Switch	3 of 5	X29	Declutch Button, 2 Pin	5 of 5			
FUG4	Heater A/C Fuse, 40A	5 of 5	K3	4WD Relay	1 of 5	S2A	Front Wiper/Washer Switch	1 of 5	X30	Transfer Fuel Pump, 2 Pin	5 of 5			
G1	Battery	5 of 5	K4	Neutral Position Relay	2 of 5	S2L	Rear Wiper/Washer Switch	3 of 5	X31	Cab, 5 Pin	4 of 5			
G2	Alternator	5 of 5	K5	Low Beam Relay	1 of 5	S3A	Front Work Light	1 of 5	X32	Radio, 2 Pin	3 of 5			
H1	Preheat Warn Light	2 of 5	K6	Main Beam Relay	1 of 5	S3L	Rotary Beacon Switch	3 of 5	X33	Wiper and Beacon, 7 Pin	3 of 5			
H2	Alternator Warn Light	2 of 5	K7	Gear Relay	1 of 5	S4A	Warning Switch	1 of 5	X34	Right Front Light, 6 Pin	2 of 5			
H3	Coolant Warn Light	2 of 5	K8	Front Horn Relay	1 of 5	S4L	Horn Switch	3 of 5	X35	Left Front Light, 6 Pin	1 of 5			
H4	Eng Oil Pressure Warn Light	2 of 5	K9	Flasher Unit	1 of 5	S5L	Optional Switch	3 of 5	X38	F and R Solenoids, 4 Pin	1 of 5			
H5	Air Filter Warn Light	2 of 5	K12	Seat Unit	5 of 5	SM2	Power Button	5 of 5	X39	Proximity, 3 Pin	3 of 5			
H6	Hyd Oil Filter Warn Light	2 of 5	K13	Stop Light, Diff Lock Unit	4 of 5	SM3	MPB Grab Button	5 of 5	X40	Flasher Unit, 13 Pin	1 of 5			
H7	Opt Warn Light	2 of 5	KT1	Fuel Shut Off Timer	5 of 5	SM4	Converter Declutch Button	5 of 5	X41	4WD Solenoid, 2 Pins	1 of 5			
H8	Opt Warn Light	2 of 5	KT2	Preheater Timer	5 of 5	SM5	MPB Open Button	5 of 5	X43	Power Relay, 7 Pin	3 of 5			
H9	Coolant Warn Light	1 of 5	M1	Starter Motor	5 of 5	SM6	Differential Lock Button	5 of 5	X45	Power ECO Unit, 5 Pin	5 of 5			
H10	Converter Temp Warn Light	1 of 5	M2	Washer Pump	2 of 5	Y0	Fuel Shutoff Solenoid Valve	5 of 5	X46	Rear Wiper, 4 Pin	5 of 5			
H11	4WD Warn Light	1 of 5	M3	Windshield Wiper Motor	5 of 5	Y1	Eco Power Solenoid Valve	5 of 5	X47	Beacon Light, 2 Pin	4 of 5			
H12	Low Fuel Warn Light	1 of 5	M4	Blower Motor	3 of 5	Y2	4WD Solenoid	1 of 5	X53	AC Interface, 1 Pin	3 of 5			
H13	Komatsu Logo Light	1 of 5	M5	Transfer Fuel Pump	5 of 5	Y4	Forward Solenoid	1 of 5	X59	Front Line Cross, 6 Pin	4 of 5			
H14	Komatsu Logo Light	1 of 5	M8	Windshield Wiper Motor	1 of 5	Y5	Reverse Solenoid	1 of 5	X60	Optional, 1 Pin	1 of 5			
H15	Lighter Light	3 of 5	M9	Fuel Pump	5 of 5	Y6	Return to Dig Magnet	3 of 5	X63	Alternator Resistance, 2 Pin	5 of 5			

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