SERVICE MANUAL

WHEELED EXCAVATOR

JCB HYDRADIG 110W

EN - 9813/4400 - ISSUE 1 - 04/2016

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual

⚠

You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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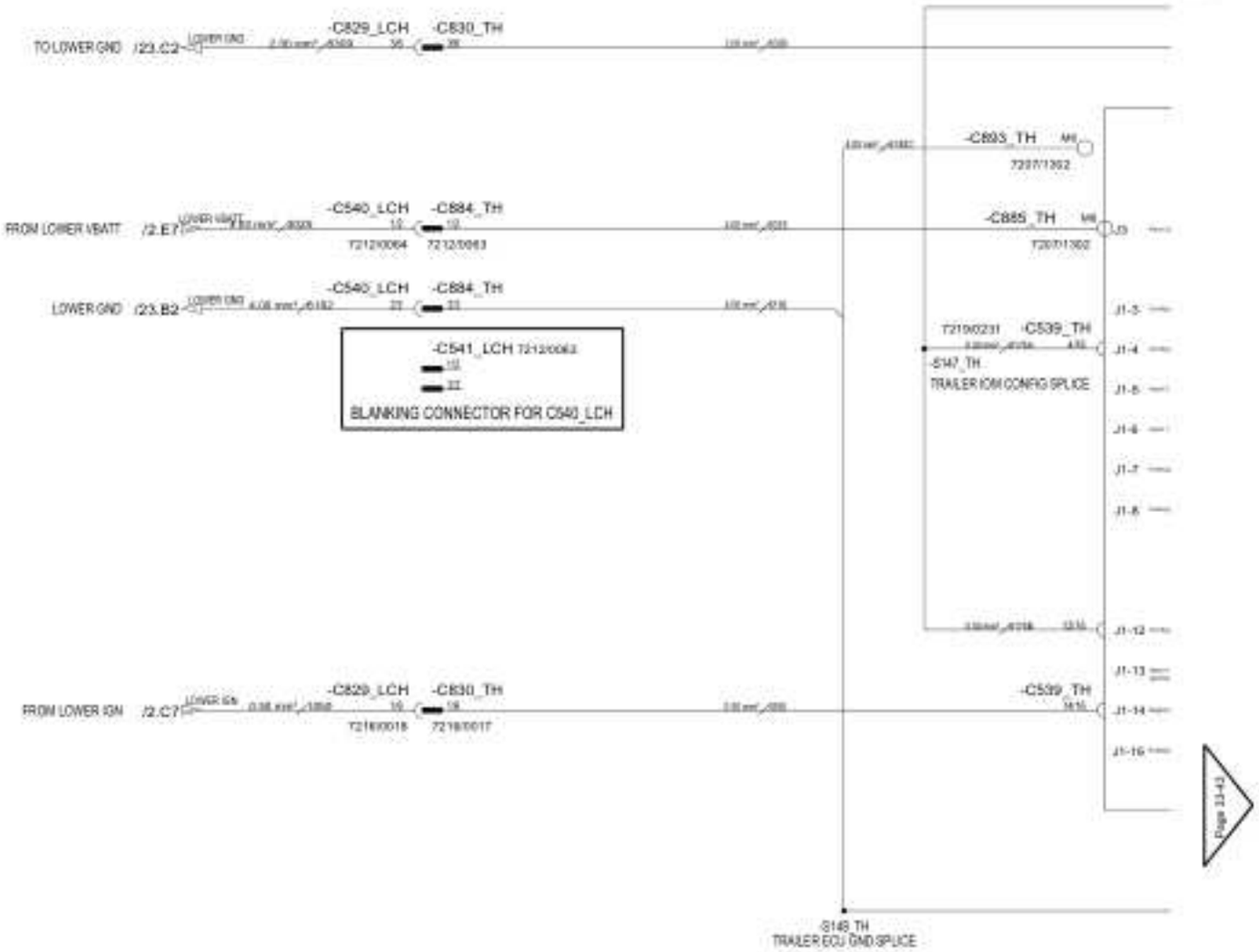
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Figure 693. (Part 1 of 2)



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Figure 742. (Part 1 of 2)

-S58_UCH RH SIDE

Cav Id	Tag	Size	Destination	Cavity Seal
S	8086	1.00 mm²	-C484_UCH:2	
S	8086A	1.00 mm²	-C486_UCH:4	
S	8086C	1.00 mm²	-C797_UCH:F	
S	8086B	1.00 mm²	-C875_UCH:2	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S60_UCH LH SIDE

Cav Id	Tag	Size	Destination	Cavity Seal
S	8085D	1.00 mm²	-C795_UCH:E7	
S	8085	1.00 mm²	-C484_UCH:11	
S	8085A	1.00 mm²	-C485_UCH:4	
S	8085C	1.00 mm²	-C797_UCH:E	
S	8085B	1.00 mm²	-C865_UCH:2	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S61_UCH LH INDICATOR

Cav Id	Tag	Size	Destination	Cavity Seal
S	8087	1.00 mm²	-C484_UCH:8	
S	8087A	1.00 mm²	-C485_UCH:5	
S	8087B	1.00 mm²	-C865_UCH:3	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S62_UCH RH INDICATOR

Cav Id	Tag	Size	Destination	Cavity Seal
S	8088	1.00 mm²	-C484_UCH:4	
S	8088A	1.00 mm²	-C486_UCH:5	
S	8088B	1.00 mm²	-C875_UCH:3	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S63_UCH BRAKE LIGHTS

Cav Id	Tag	Size	Destination	Cavity Seal
S	8089	1.00 mm²	-C484_UCH:10	
S	8089A	1.00 mm²	-C865_UCH:1	
S	8089B	1.00 mm²	-C875_UCH:1	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S64_UCH FOG LIGHTS

Cav Id	Tag	Size	Destination	Cavity Seal
S	8087B	1.00 mm²	-C795_UCH:F8	
S	8087	1.00 mm²	-C484_UCH:9	
S	8087C	1.00 mm²	-C865_UCH:4	
S	8087A	1.00 mm²	-C875_UCH:4	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S65_UCH LH MAIN BEAM

Cav Id	Tag	Size	Destination	Cavity Seal
S	8084C	1.00 mm²	-C795_UCH:F7	
S	8084	1.00 mm²	-C484_UCH:6	
S	8084A	1.00 mm²	-C485_UCH:3	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S66_UCH UPPER ECU GND

Cav Id	Tag	Size	Destination	Cavity Seal
S	4271D	0.50 mm²	-C756_UCH:1	
S	4271G	0.50 mm²	-C851_UCH:1	
S	4271J	0.50 mm²	-C754_UCH:1	
S	4271K	0.50 mm²	-C797_UCH:L	
S	4271A	1.00 mm²	-C795_UCH:C12	
S	4271B	1.00 mm²	-C742_UCH:B	
S	4271C	1.00 mm²	-C742_UCH:F	
S	4271E	1.00 mm²	-C999_UCH:F	
S	4271F	1.00 mm²	-C999_UCH:E	
S	4271	0.75 mm²	-C553_UCH:66	
S	4271L	0.50 mm²	-C749_UCH:1	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S67_UCH UPPER ECU +5V

Cav Id	Tag	Size	Destination	Cavity Seal
S	4272	0.75 mm²	-C570_UCH:19	
S	4272C	1.00 mm²	-C999_UCH:D	
S	4272A	1.00 mm²	-C742_UCH:D	
S	4272B	1.00 mm²	-C742_UCH:C	
S	4272E	1.00 mm²	-C999_UCH:C	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S68_UCH UPPER ECU +5V #1

Cav Id	Tag	Size	Destination	Cavity Seal
S	4270H	0.50 mm²	-C754_UCH:2	
S	4270G	0.50 mm²	-C797_UCH:J	
S	4270C	0.50 mm²	-C756_UCH:2	
S	4270E	0.50 mm²	-C851_UCH:3	
S	4270A	0.50 mm²	-C795_UCH:C11	
S	4270	0.75 mm²	-C570_UCH:55	
S	4270B	0.50 mm²	-C749_UCH:2	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S71_UCH CAN2 HI

Cav Id	Tag	Size	Destination	Cavity Seal
S	4902K	0.50 mm²	-C837_UCH:1	
S	4902H	0.50 mm²	-C795_UCH:E10	
S	4902J	0.50 mm²	-S107_UCH:S	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S72_UCH CAN2 LO

Cav Id	Tag	Size	Destination	Cavity Seal
S	4901K	0.50 mm²	-C837_UCH:2	
S	4901H	0.50 mm²	-C795_UCH:E11	
S	4901J	0.50 mm²	-S108_UCH:S	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S73_UCH CAN2 S

Cav Id	Tag	Size	Destination	Cavity Seal
S	4900K	0.50 mm²	-C837_UCH:3	
S	4900J	0.50 mm²	-C825_UCH:1	
S	4900H	0.50 mm²	-C795_UCH:E12	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S74_UCH CAN HI

Cav Id	Tag	Size	Destination	Cavity Seal
S	4402T	0.50 mm²	-C795_UCH:D10	
S	4402V	0.50 mm²	-S77_UCH:S	
S	4402U	0.50 mm²	-C543_UCH:11	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S75_UCH CAN LO

Cav Id	Tag	Size	Destination	Cavity Seal
S	4401T	0.50 mm²	-C795_UCH:D11	
S	4401V	0.50 mm²	-S78_UCH:S	
S	4401U	0.50 mm²	-C543_UCH:3	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S76_UCH CAN S

Cav Id	Tag	Size	Destination	Cavity Seal
S	4400T	0.50 mm²	-C795_UCH:D12	
S	4400U	0.50 mm²	-C543_UCH:1	
S	4400V	0.50 mm²	-S76_UCH:S	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S77_UCH CAN HI

Cav Id	Tag	Size	Destination	Cavity Seal
S	4402K	0.50 mm²	-S82_UCH:S	
S	4402W	0.50 mm²	-C492_UCH:1	
S	4402V	0.50 mm²	-S74_UCH:S	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S78_UCH CAN LO

Cav Id	Tag	Size	Destination	Cavity Seal
S	4401K	0.50 mm²	-S81_UCH:S	
S	4401W	0.50 mm²	-C492_UCH:9	
S	4401V	0.50 mm²	-S75_UCH:S	

7000/3104 In Line Ultrasonic Splice
Additional Components
7000/3212 ; 45

-S79_UI
Cav Id
S
S
S
7000/3104
Additional
7000/3212

-S80_UI
Cav Id
S
S
S
7000/3104
Additional
7000/3212

-S81_UI
Cav Id
S
S
S
7000/3104
Additional
7000/3212

-S82_UI
Cav Id
S
S
S
7000/3104
Additional
7000/3212

-S84_UI
Cav Id
S
S
S
S
S
S
S
7000/3104
Additional
7000/3212

-S85_UI
Cav Id
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7000/3104
Additional
7000/3212

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Table 37. Lubricating Oil - Contaminated

Cause	Remedy
Coolant in the lubricating oil, internal engine component leaks.	Check oil cooler O-rings. If necessary change the oil cooler.
Lubricating oil sludge excessive.	Change oil and filter. Review oil and filter change period. If operating in arduous applications, change more frequently. Make sure the correct lubricating oil is being used.
Fuel in the lubricating oil, engine operating too cold.	Review the operation for excessive idling resulting in the engine running below normal temperature.
ECM or electrical sensor fault.	Check the electronic fault codes. Check the electrical connections at the ECM and sensors.
One or more fuel injectors worn or malfunctioning.	Check the electronic fault codes. Check the electrical connections at the injectors.

Table 38. Lubricating Oil - Pressure Low

Cause	Remedy
Oil level incorrect.	Check oil level.
Incorrect lubricating oil (specification of viscosity).	Make sure the correct lubricating oil is being used. Check for reduced viscosity from dilution with fuel. Fuel dilution in lubricating oil can originate from a defective high pressure fuel pump driveshaft seal. Review oil and filter change period. If operating in arduous applications, change more frequently.
Pressure switch or gauge fault.	Verify the pressure switch is functioning correctly.
Lubricating oil filter blocked.	Change lubricating oil filter. Review oil and filter change period. If operating in arduous applications, change more frequently.
Lubricating oil filter drain down valve not fitted.	Change lubricating oil filter.
Suction pump pressure relief valve stuck open.	Check/replace seal.
Oil pump pressure relief valve stuck open.	Replace oil pump assembly.
Lubricating oil pump worn.	Replace oil pump assembly.

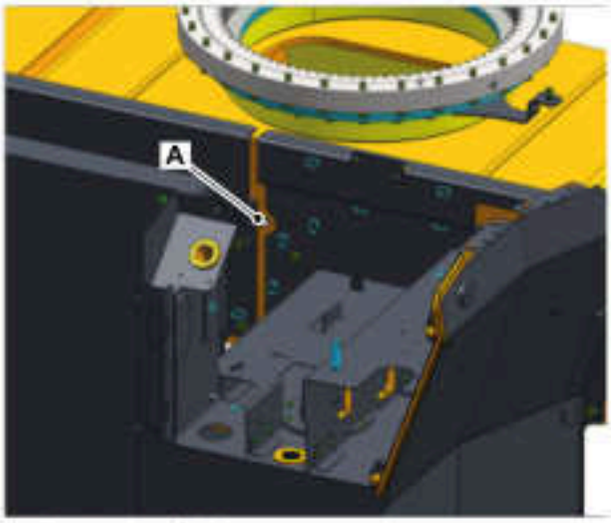
Table 39. Lubricating Oil - Pressure High

Cause	Remedy
Incorrect lubricating oil (specification of viscosity).	Make sure the correct lubricating oil is being used.
Pressure switch or gauge fault.	Verify the pressure switch is functioning correctly.
Engine running too cold.	Check and if necessary replace the engine thermostat.
Oil pump pressure relief valve stuck closed.	Replace oil pump assembly.

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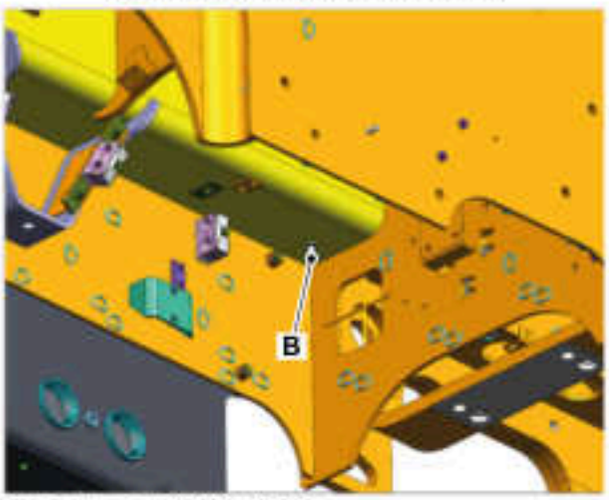
Component Identification

Figure 705. Lower Chassis Earth Point - Left Hand Pod



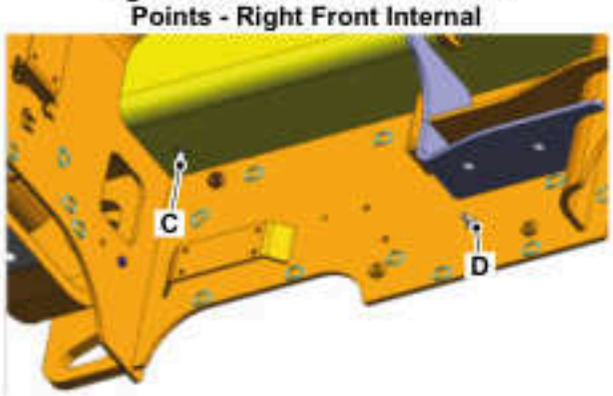
A Earth point C902

Figure 706. Lower Chassis Earth Point - Left Front Internal



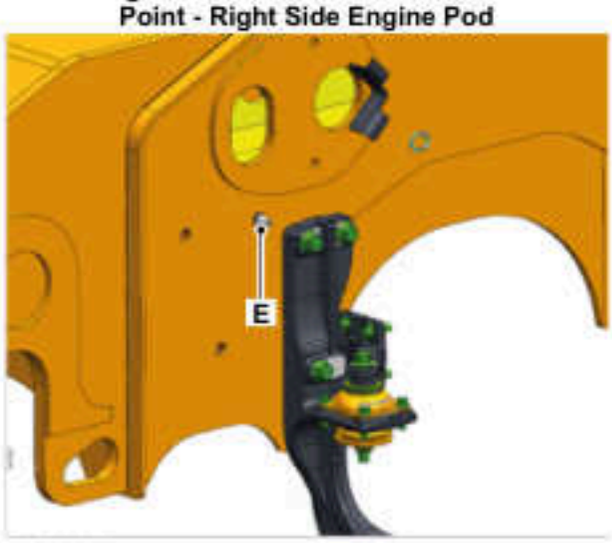
B Earth point C760, C881

Figure 707. Lower Chassis Earth Points - Right Front Internal



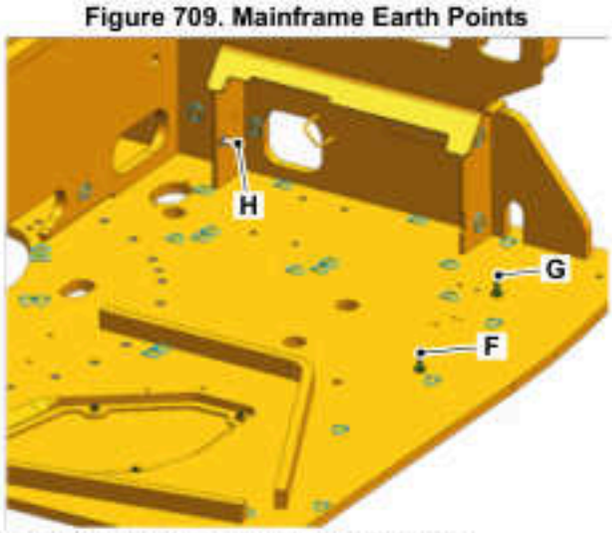
C Earth point C753, C738
D Earth point C737, C752, C745

Figure 708. Lower Chassis Earth Point - Right Side Engine Pod



E C901

Figure 709. Mainframe Earth Points



F Earth connection to operator station
G Earth point C872, C873
H Earth point C867, C868, C869, C870, C871

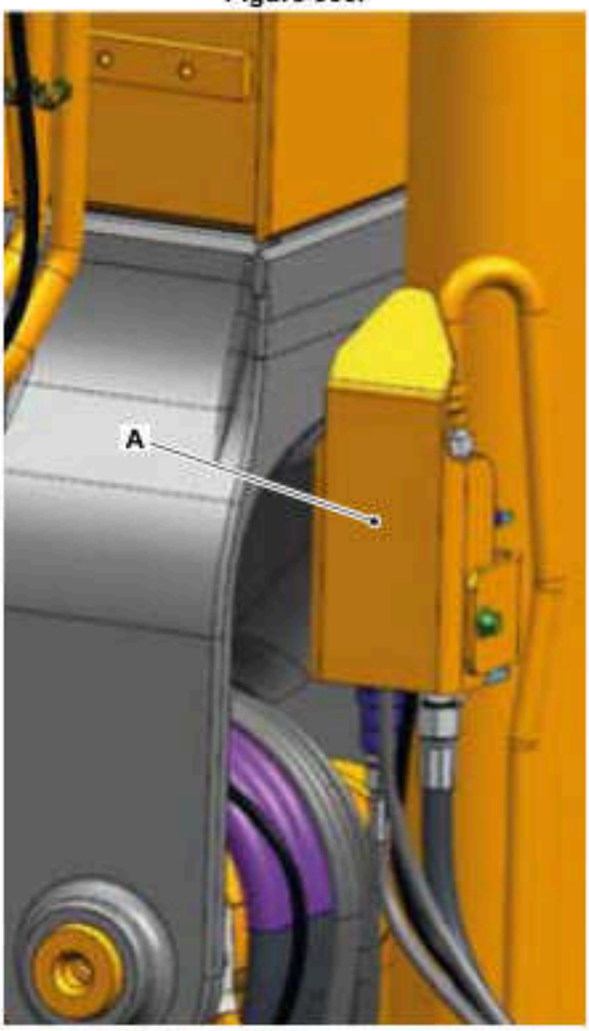
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Remove and Install

Remove

1. Make the machine safe. Refer to (PIL 01-03).
2. Remove the protective plate.

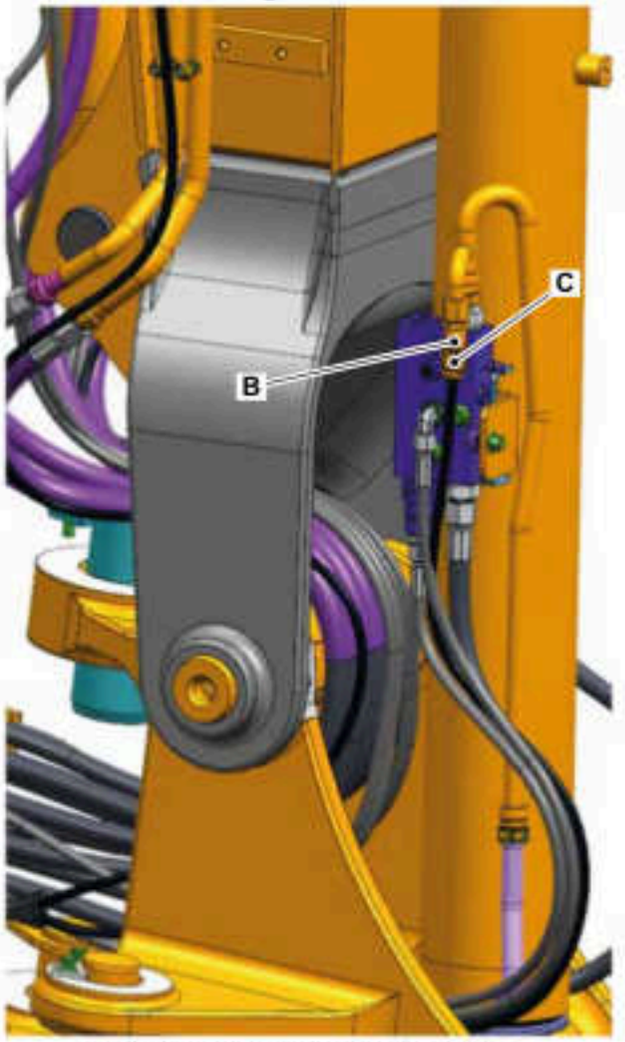
Figure 906.



A Protective plate

3. Disconnect the electrical connector from the boom pressure overload sensor.

Figure 907.



B Boom pressure overload sensor
C Electrical connector

4. Remove the boom pressure overload sensor.

Install

1. Installation is the reversal of the removal procedure.

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