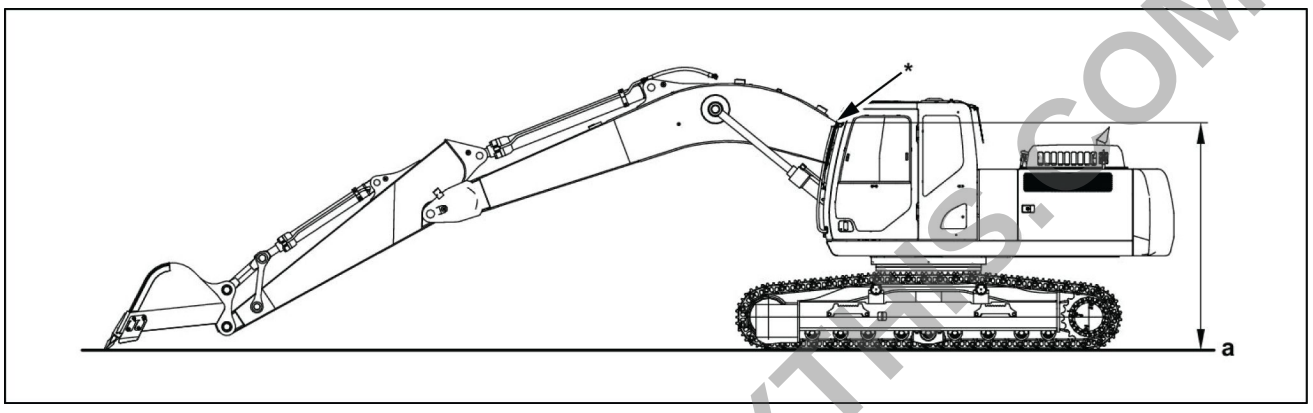
## Boom position

⚠ WARNING:

- If the machine has been modified so that the boom position has been lowered, the machine will not satisfy the ROPS criteria.
- It is necessary to consult with us if it is possible that the boom's position has been lowered by modification.
- The extent to which a boom position has moved cannot be determined in the same way for all machines.




LPIL12CX00001EB 1

a. Ground point

With the tip of the bucket in contact with the ground surface at maximum work radius, if the position (* in the diagram) that overlaps with the cab when viewed from the side is markedly lower than that of a standard machine (standard arm), the machine will not satisfy the ROPS criteria.

Also, with a machine body with a cab mounted that can withstand up to **31 t** (**68343.30 lb**), the effect of mounting a **24 t** (**52910.94 lb**) machine, which is near the restriction weight, and a **21 t** (**46297.08 lb**) machine to the same cab will not be the same.

## 3. Prohibited items

- Modifications that reduce the strength of a platform that has a cab with a ROPS mounted to it. (Actions or modifications that reduce the functionality of the anchoring part at the left-rear of the cab)
- Modifications that effect the strength of the ROPS of a cab.

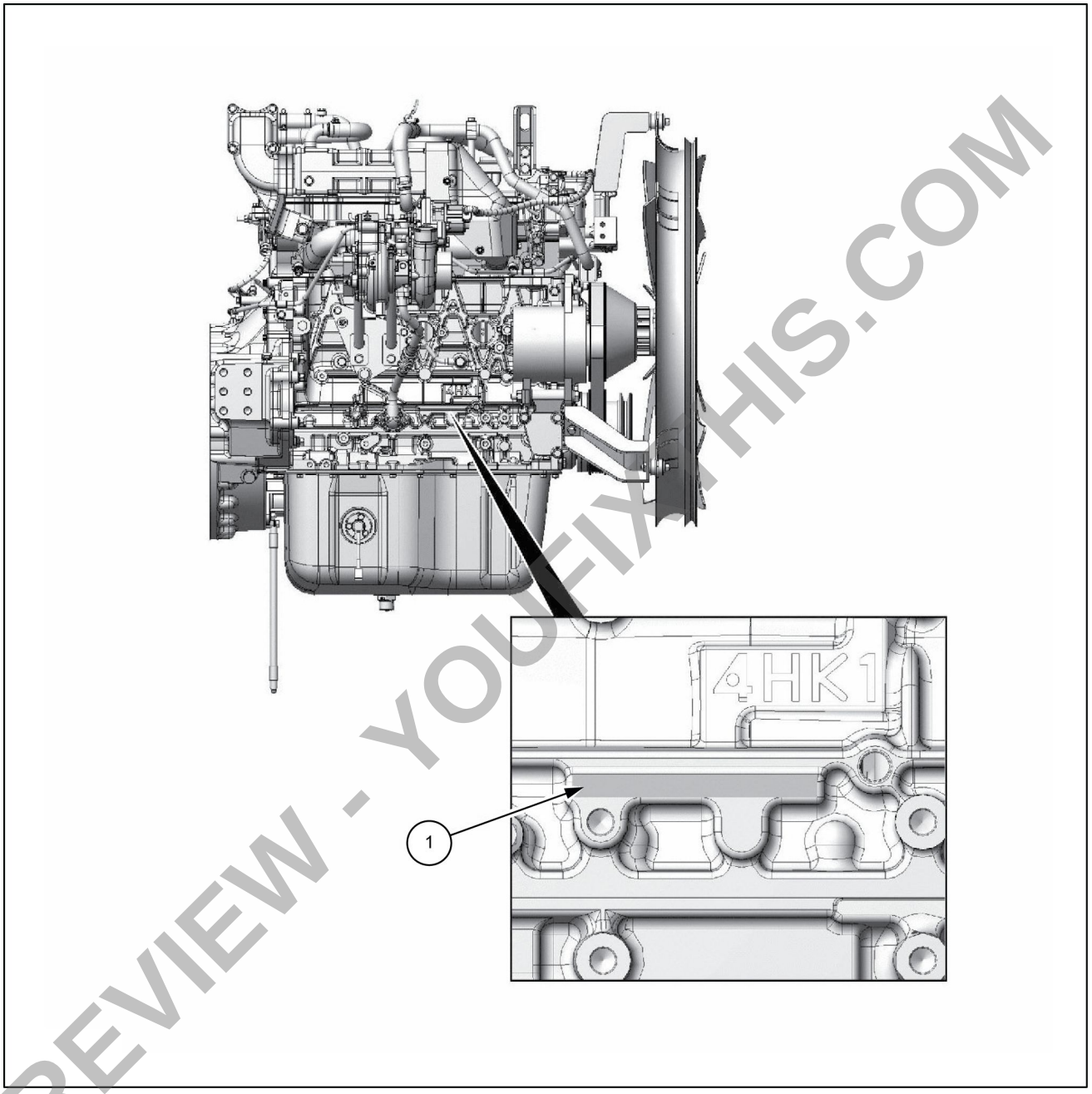
| | |
|---|---|
| Modification prohibited (red part) | All modifications (grinding, welding, drilling holes, removing, etc.) are prohibited |
| Modification permitted under conditions (gray part) | Removal of parts is prohibited<br>Bar welding and making holes [up to diameter **20 mm** (**0.787 in**)] by drilling are possible |

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Engine - Overview

## Engine number




SMIL13CEX1711GB 1

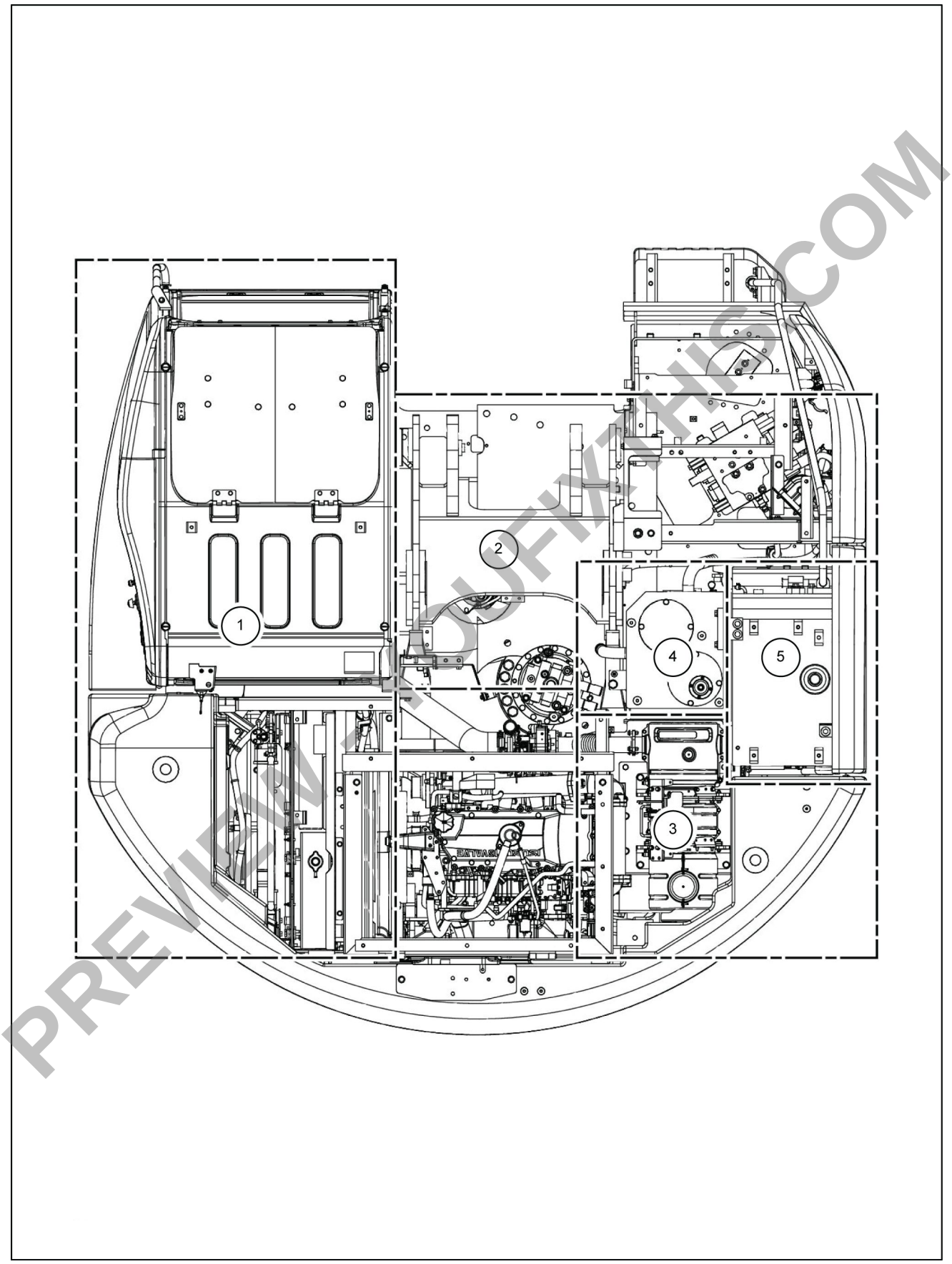
1. Engine number stamp

PREVIEW - YOUFIXTHIS.COM



Download full manual at youfixthis.com

# Hydraulic systems - Overview




SMIL13CEX2168HB 1

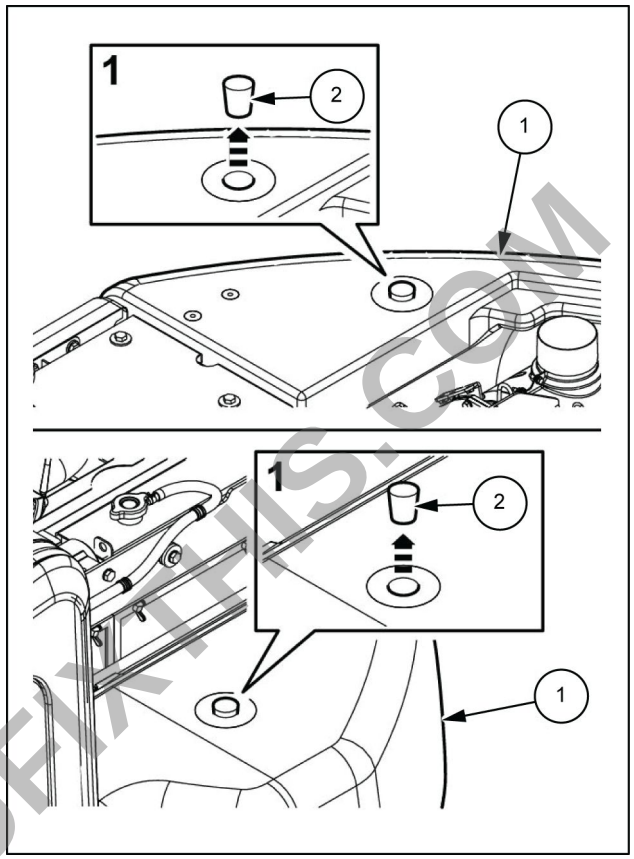
PREVIEW - YOUFIXTHIS.COM



Download full manual at youfixthis.com

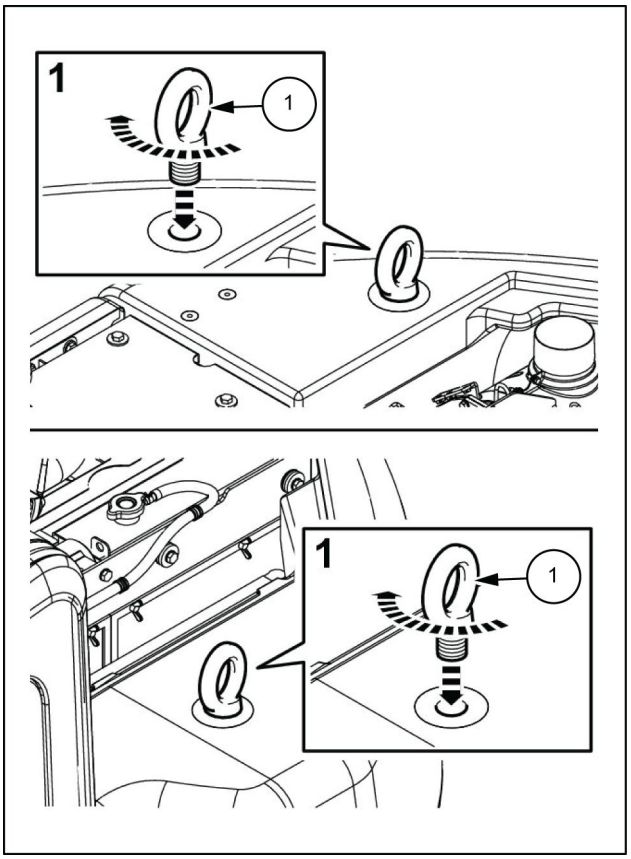
# Counterweight - Remove

1. Remove the following before beginning work.
   - Top cover and rear view mirror with rear view camera
2. Remove the 2 rubber plugs **(2)** from the top of the counterweight **(1)**.




SMIL13CEX2302BB 1

3. Install the 2 eyebolts ( **M42**) **(1)** in place of the removed caps.
   - Apply lubricating oil to the eyebolts.
   - Fully tighten the eyebolts, and then loosen them by a half turn.

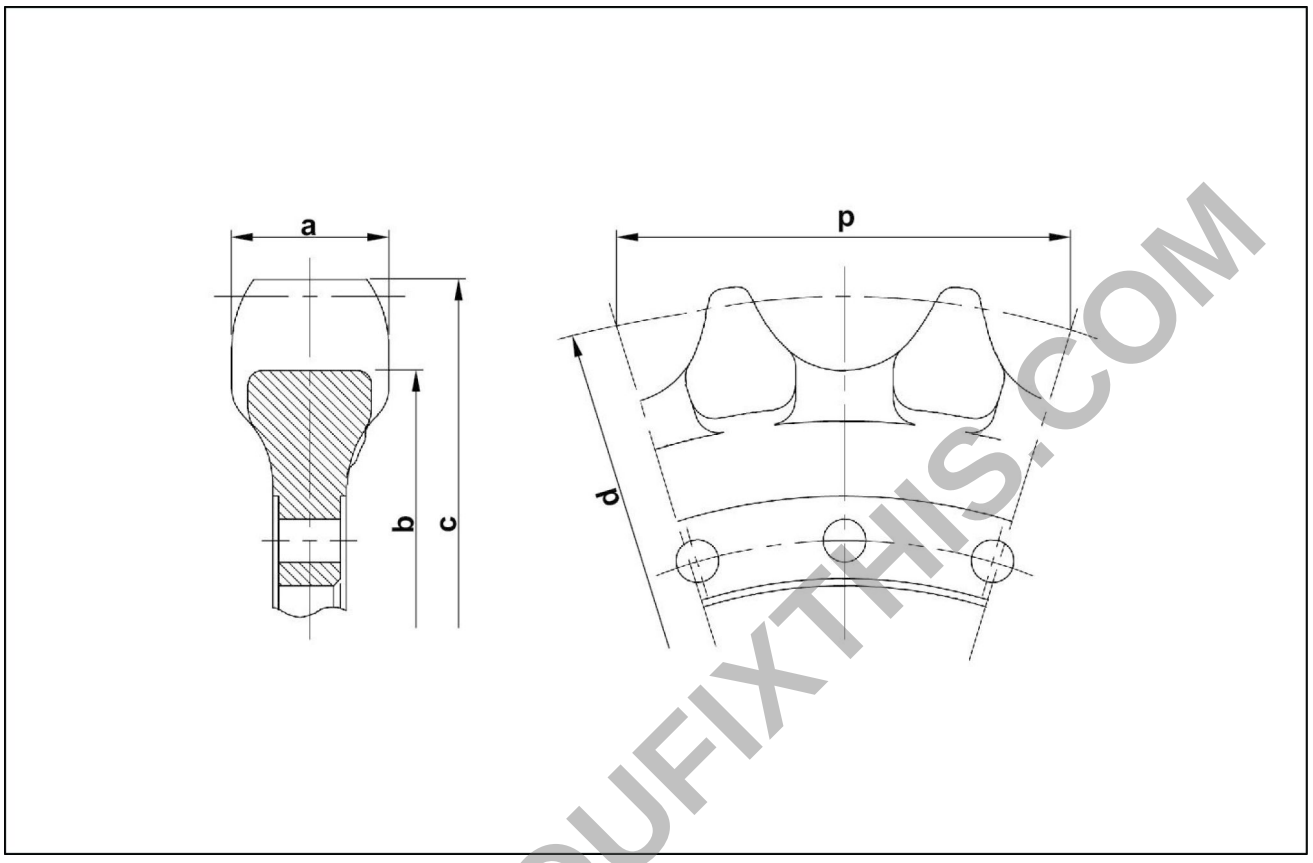



SMIL13CEX2303BB 2

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Sprocket - Service limits




LPIL12CX02085FA 1

* See the gauge list for measurement gauges.

| Part name | Code | Standard value | Usage limit | Judgment | Solution |
|---|---|---|---|---|---|
| Drive sprocket | a | **66 mm** (**2.598 in**) | **56 mm** (**2.205 in**) | Acceptable/ Unacceptable | Cladding by welding or replacement |
| | b | **Ø585.5 mm** (**23.051 in**) | **Ø575.5 mm** (**22.657 in**) | Acceptable/ Unacceptable | |
| | c | **Ø659 mm** (**25.945 in**) | **Ø649 mm** (**25.551 in**) | Acceptable/ Unacceptable | |
| | d | **Ø644.6 mm** (**25.378 in**) | - | Acceptable/ Unacceptable | |
| | p | **190 mm** (**7.480 in**) | - | Acceptable/ Unacceptable | |

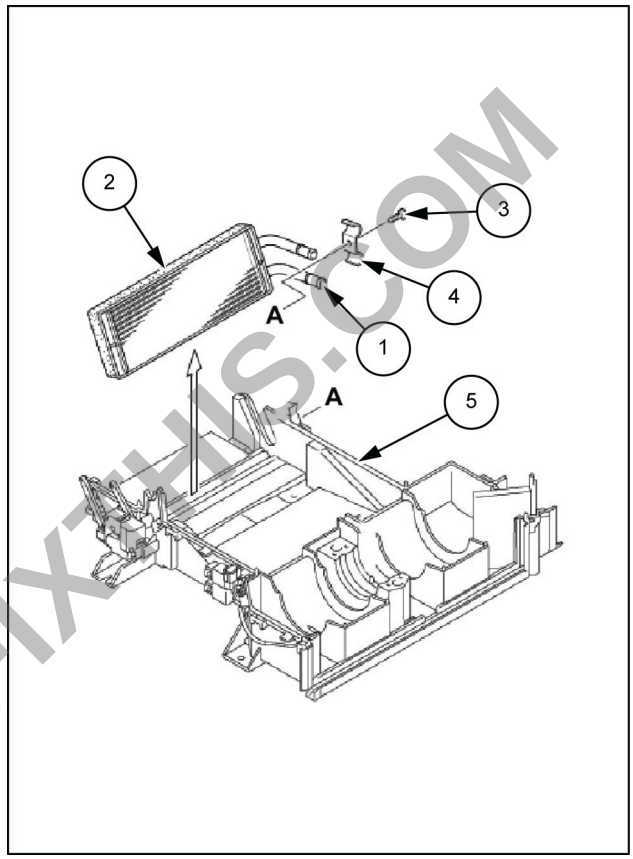
PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Heater core - Remove

⚠ CAUTION: Remove while being careful not to apply excessive force to the pipe.

1. After draining the coolant, remove the heater core **(2)** from the heater hose **(1)**.
2. Remove the 1 Phillips screw **(3)**, remove the pipe clamp **(4)** securing the heater core **(2)**, and remove the heater core **(2)** from the bottom of the unit case **(5)**.
   - Screw size
     Phillips screws **(3)** : **M5 x 16** (0.630)
   - The installation procedure is the reverse of the removal procedure.



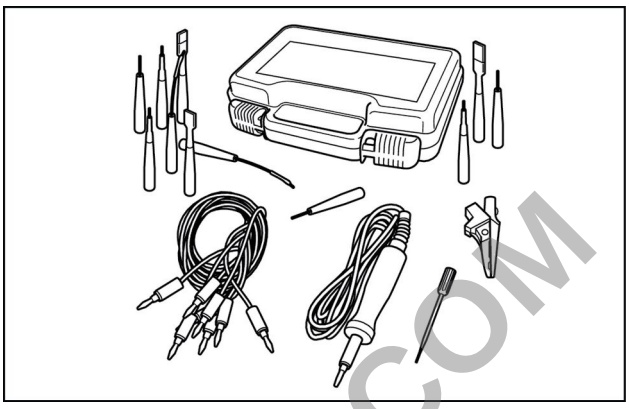

LPIL12CX03024BB 1

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Electrical system - Special tools

| Isuzu reference | CASE CONSTRUCTION tool number | Description |
|---|---|---|
| 5-8840-2835-0 | | Connector test adapter kit |



SMIL14CEX4897AA 1

# Electrical system - Technical Data

## Data reference values

The purpose of data list is for checking the status of the machine and each equipment.

This data is used in trouble diagnosis by comparing the each machine data with standard values, and checking whether the vehicle data is temporarily or always different from the reference values.

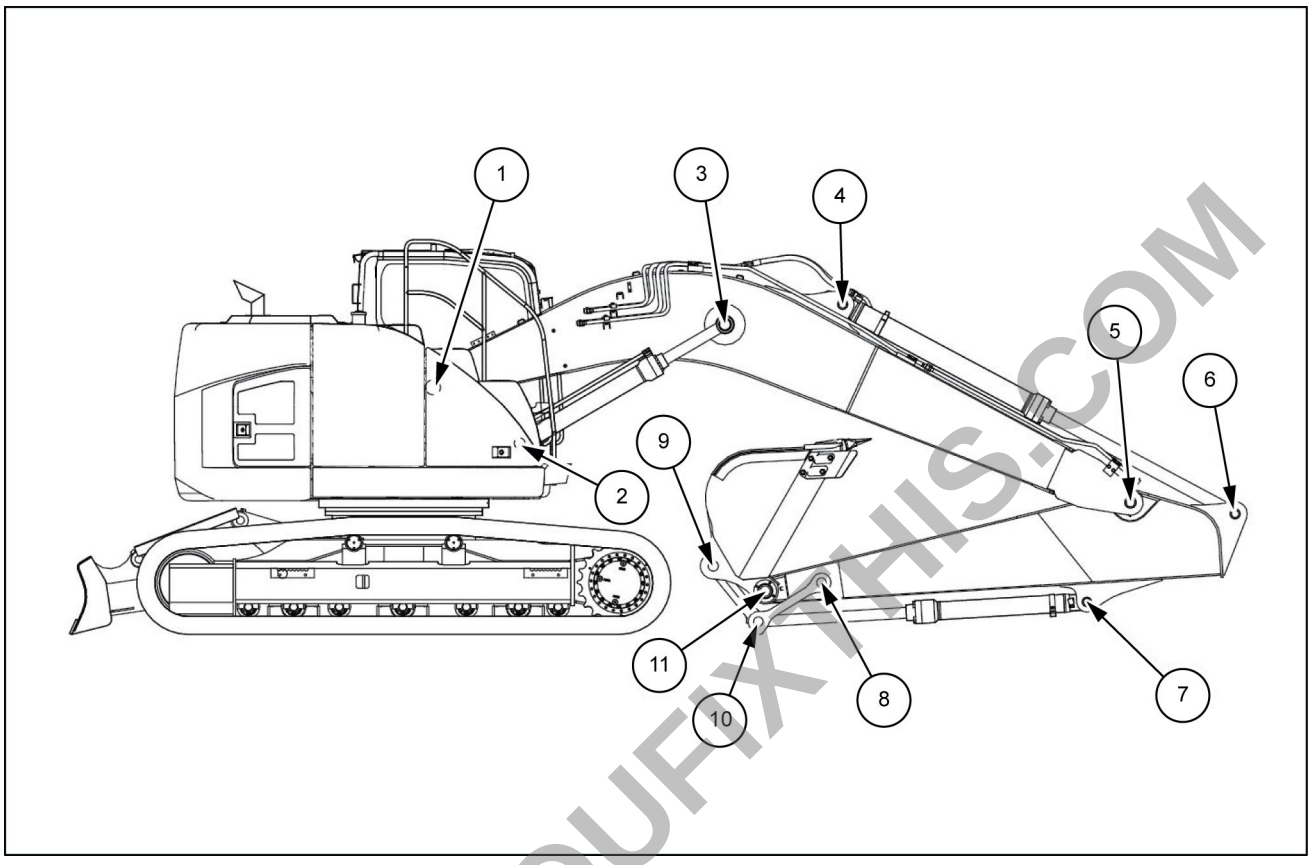
This display menu is subject to change without notice.

## Idle speed

| Data display item | Idle speed reference value Varies according to the actual machine conditions |
|---|---|
| Battery voltage | **28.3 - 28.5 V** |
| Target engine speed | **500 RPM** |
| Engine speed | **1797 - 1801 RPM** |
| Throttle switch position sensor 1 (APP1) | **0 V** |
| Throttle switch position sensor 2 (APP2) | **0 V** |
| Throttle switch position (APP) | 0% |
| Fuel rail pressure sensor | **2.0 - 2.1 V** |
| Fuel rail pressure feedback | Feedback mode |
| Coolant temperature sensor | **0.4 - 0.5 V** |
| Coolant temperature | **80 - 83 °C** (**176 - 181 °F**) |
| Suction air temperature sensor | **2.4 V** |
| Suction air temperature | **27 °C** (**80.6 °F**) |
| Fuel temperature sensor | **1.3 V** |
| Fuel temperature | **44 °C** (**111 °F**) |
| Barometric pressure sensor | **1.9 V** |
| Barometric pressure | **100 kPa** (**15 psi**) |
| Boost temperature sensor voltage | **4.4 V** |
| Boost pressure sensor | **118 - 119 kPa** (**17 - 17 psi**) |
| No. 1 cylinder fuel correction amount | - |
| No. 2 cylinder fuel correction amount | - |
| No. 3 cylinder fuel correction amount | - |
| No. 4 cylinder fuel correction amount | - |
| Engine mode | Fuel mode |
| EGR valve 1 drive duty | EGR valve 1 drive duty |
| EGR position 1 | Either 1, 2, or 3 has the polarity inverted.<br>(Example: 1=ON, 2=ON, 3=OFF, etc) |

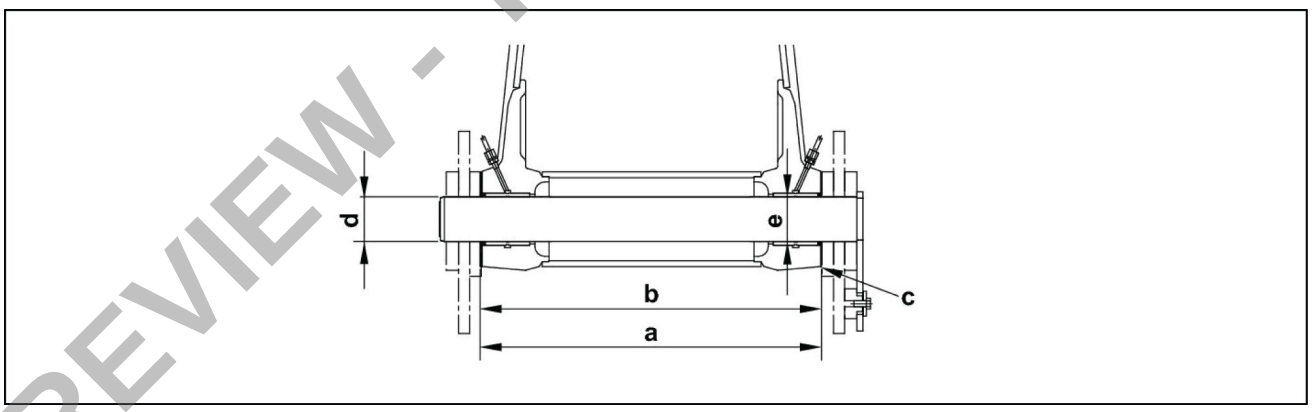

Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

# Boom - Service limits – Attachment (backhoe)




SMIL13CEX1916FB 1

## 1. Boom and swing frame installation section




SMIL13CEX1304EA 2

| Part name | Code | Standard value | Usage limits | Judgment | Solution |
|---|---|---|---|---|---|
| Swing frame | a | **685 mm** (**26.969 in**) | **693 mm** (**27.283 in**) | Acceptable/ Unacceptable | - |
| Boom | b | **681.5 mm** (**26.831 in**) | **679.5 mm** (**26.752 in**) | Acceptable/ Unacceptable | Replacement |
| Clearance | c | **0.5 - 2.5 mm** (**0.020 - 0.098 in**) | Shim adjustment | Acceptable/ Unacceptable | Adjustment with shims |
| Pin | d | **Ø90 mm** (**3.543 in**) | **Ø89 mm** (**3.504 in**) | Acceptable/ Unacceptable | Replacement |
| Bushing (boom) | e | **Ø90 mm** (**3.543 in**) | **Ø91.5 mm** (**3.602 in**) | Acceptable/ Unacceptable | Replacement |



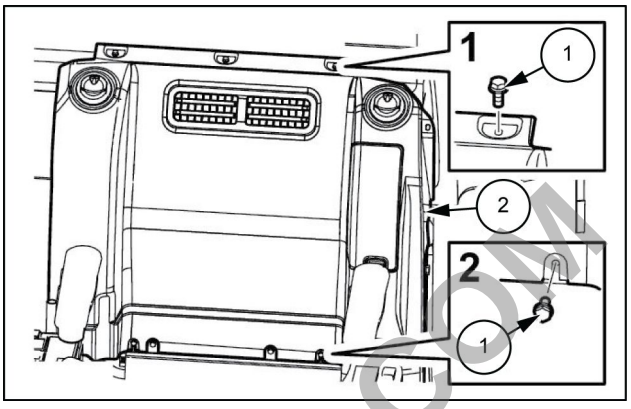
PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

# Cab and platform - Remove

Remove the operator's seat. (For details, see **Operator seat - Remove (90.120)**.)

1. Use a box wrench [ **10 mm**] to remove the 5 bolts **(1)**, and then remove the rear cover **(2)**.

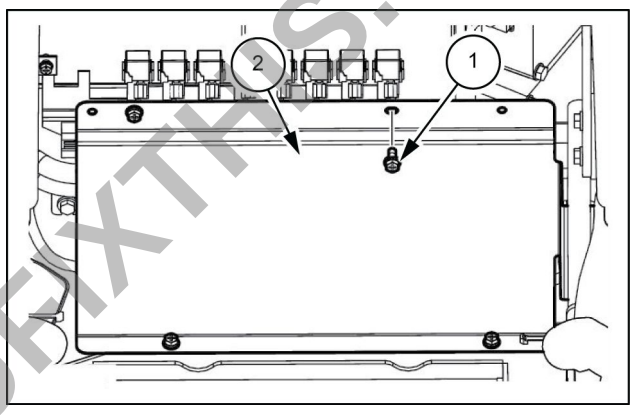
   Tightening torque for bolt **(1)** installation: **5.9 - 7.8 N·m** (**4.35 - 5.75 lb ft**)




LPIL12CX02889AB 1

2. Use a box wrench [ **10 mm**] to remove the 4 bolts **(1)**, and then remove the rear trim assembly **(2)**.

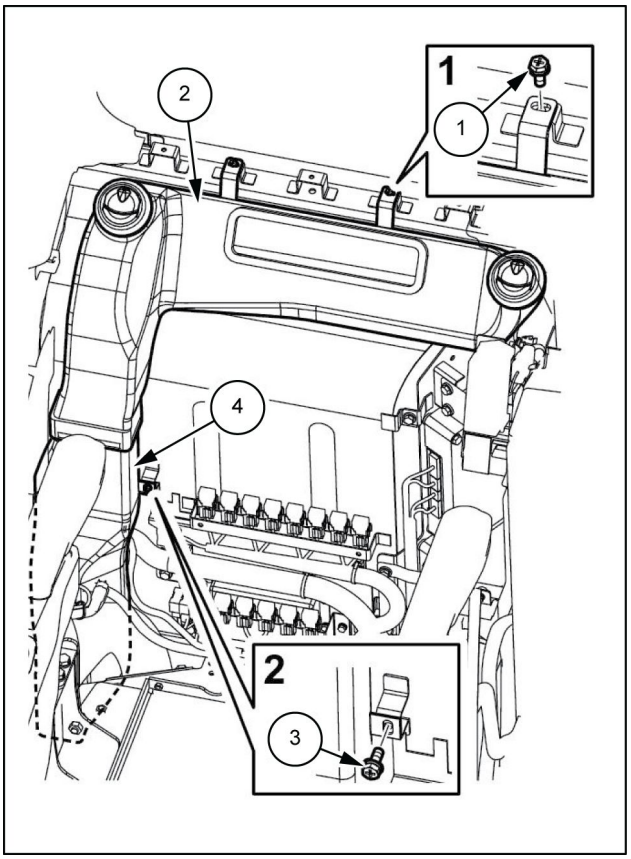
   Tightening torque for bolt **(1)** installation: **5.9 - 7.8 N·m** (**4.35 - 5.75 lb ft**)




LPIL12CX02890AB 2

3. Remove the duct in the cab.
   - Use a box wrench [ **10 mm**] to remove the 2 bolts **(1)**, and then remove the air-conditioner duct **(2)**.
   - Use a box wrench [ **10 mm**] to remove the 1 bolts **(3)**, and then remove the air-conditioner duct **(4)**.

   Tightening torque for bolt **(1)** and **(3)** installation: **2.9 - 3.9 N·m** (**2.14 - 2.88 lb ft**)




LPIL12CX02891BB 3

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# SPECIAL TOOL INDEX

| Genuine | Reference | PAGE |
|---|---|---|
| 380300009 [Angle Gauge] | Cylinder heads - Special tools | 10.3 / 3 |
| 380001721 [Nozzle Sleeve Installer] | Cylinder head - Special tools | 10.3 / 4 |
| 380300014 [Valve Guide Remover / Installer] | Cylinder head - Special tools | 10.3 / 5 |
| 380002626 [Compression Gauge Adapter] | Cylinder head - Special tools | 10.3 / 5 |
| 380300015 [Compression Gauge Adaptor] | Cylinder head - Special tools | 10.3 / 5 |
| 380300013 [Valve Guide Oil Seal Installer] | Valve guide - Special tools | 10.3 / 7 |
| 380300022 [Piston Ring Compressor] | Piston - Special tools | 10.4 / 3 |
| 380300005 [Piston Ring Setting Tool] | Piston - Special tools | 10.4 / 3 |
| 380002574 [Slinger Puller] | Crankshaft - Special tools | 10.5 / 3 |
| 380002611 [Oil Seal Installer Kit] | Crankshaft - Special tools | 10.5 / 3 |
| 380002613 [Crankshaft Gear Puller] | Crankshaft - Special tools | 10.5 / 4 |
| 380002630 [Main Filter Wrench] | Fuel filters - Special tools | 10.7 / 3 |
| 380002602 [Sliding Hammer] | Fuel injectors - Special tools | 10.8 / 3 |
| 380002601 [Fuel Injector Remover] | Fuel injectors - Special tools | 10.8 / 3 |
| 380002630 [Main Filter Wrench] | Engine oil filter - Special tools | 10.15 / 3 |

PREVIEW - YOUFIXTHIS.COM



Download full manual at youfixthis.com

# CX235C SR EXCAVATOR
# ELECTRICAL SCHEMATIC
## 47807073EN - 1/2

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

87507705-3

# CX235C SR EXCAVATOR
# HYDRAULIC SCHEMATIC

47807072EN - 1/2

64010215-3

PREVIEW
YOUFIXTHIS.COM
Download full manual at youfixthis.com

[35.352] Hydraulic swing system ..... 35.10
[35.353] Hydraulic travel system ..... 35.11
[35.354] Hydraulic central joint ..... 35.12
[35.736] Boom hydraulic system ..... 35.13
[35.737] Dipper hydraulic system ..... 35.14
[35.738] Excavator and backhoe bucket hydraulic system ..... 35.15
[35.741] Dozer blade cylinders ..... 35.16
[35.734] Tool quick coupler hydraulic system ..... 35.17
[35.525] Auxiliary hydraulic valves and lines ..... 35.18
Frames and ballasting ..... 39
[39.140] Ballasts and supports ..... 39.1
Tracks and track suspension ..... 48
[48.130] Track frame and driving wheels ..... 48.1
[48.100] Tracks ..... 48.2
[48.134] Track tension units ..... 48.3
[48.138] Track rollers ..... 48.4
Cab climate control ..... 50
[50.100] Heating ..... 50.1
[50.200] Air conditioning ..... 50.2
[50.104] Ventilation ..... 50.3
Electrical systems ..... 55
[55.000] Electrical system ..... 55.1
[55.100] Harnesses and connectors ..... 55.2
[55.015] Engine control system ..... 55.3
[55.201] Engine starting system ..... 55.4
[55.301] Alternator ..... 55.5
[55.302] Battery ..... 55.6
[55.202] Cold start aid ..... 55.7

PREVIEW - YOUFIXTHIS.COM



Download full manual at youfixthis.com

## Fuel leak off pipe assembly installation

1. Temporarily tighten the fuel leak-off pipe **(3)** to the cylinder head assembly **(2)**.

   > ⚠ CAUTION:
   > Use new gaskets.

2. Temporarily tighten the fuel leak-off pipe **(3)** to the common rail assembly **(1)**.

   > ⚠ CAUTION:
   > Use new gaskets.

3. Temporarily tighten the fuel leak-off pipe **(3)** to the fuel supply pump **(4)**.
   - Tighten the fuel feed pipe together.

   > ⚠ CAUTION:
   > Use new gaskets.

4. Securely tighten the fuel leak-off pipe **(3)** to the cylinder head assembly **(2)**.

   Tightening torque: **12 N·m** (**8.85 lb ft**)

5. Securely tighten the fuel leak-off pipe **(3)** to the common rail assembly **(1)**.

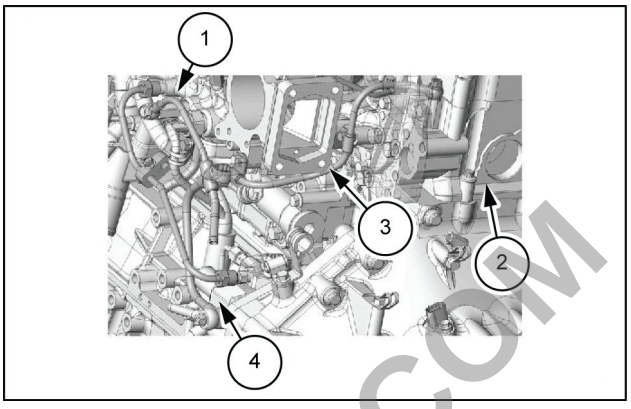
   Tightening torque: **24 N·m** (**17.70 lb ft**)

6. Securely tighten the fuel leak-off pipe **(3)** to the fuel supply pump **(4)**.

   Tightening torque: **24 N·m** (**17.70 lb ft**)

7. Install the clip to the fuel leak-off pipe **(3)**.

   Tightening torque: **8 N·m** (**5.90 lb ft**)



SMIL13CEX1419AB 15

## Fuel pipe installation

1. Install the fuel pipe to the fuel supply pump and the common rail assembly.

   > ⚠ CAUTION:
   > Use new fuel pipes.

   Tightening torque: **44 N·m** (**32.45 lb ft**)

2. Install the clip to the bracket.

   Tightening torque: **9 N·m** (**6.64 lb ft**)

## Injector installation

> ⚠ CAUTION:
> When reusing an injector, do not change the installation position.

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

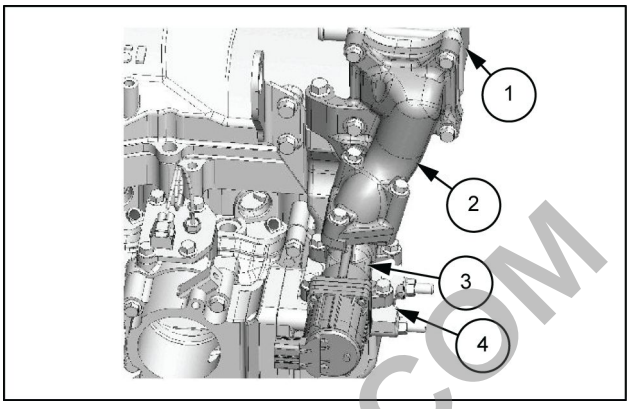
## EGR valve installation

1. Install the EGR valve **(3)** to the EGR pipe D **(4)**.

   Tightening torque: **24 N·m** (**17.70 lb ft**)

   > ⚠ CAUTION:
   > Use new gaskets.

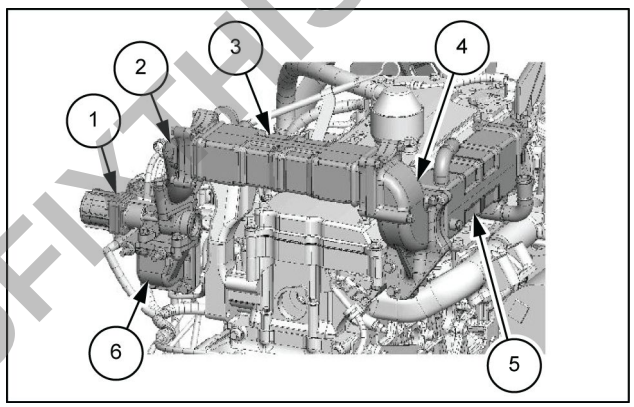
2. Connect the harness connector to the EGR valve **(3)**.
   1. EGR cooler C
   2. EGR pipe C




SMIL13CEX1480AB 51

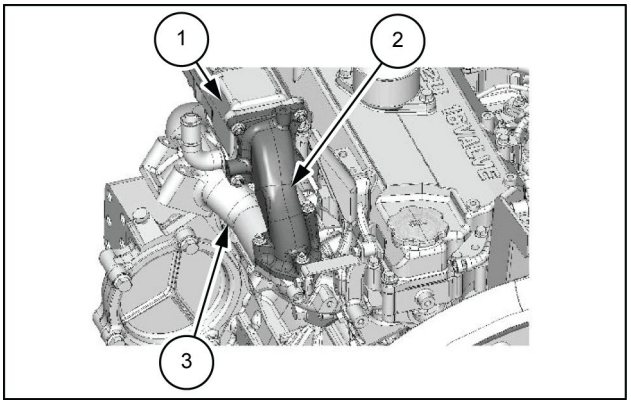
## EGR cooler assembly installation

1. Temporarily tighten the EGR pipe C **(2)** to the EGR valve **(1)**.
2. Temporarily tighten the EGR cooler B **(3)** to the EGR pipe C **(2)**.
3. Temporarily tighten the EGR pipe B **(4)** to the EGR cooler B **(3)**.
4. Temporarily tighten the EGR cooler A **(5)** to the EGR pipe B **(6)**.




SMIL13CEX1479AB 52

5. Temporarily tighten the EGR pipe A **(2)** to the EGR cooler A **(1)** and the exhaust manifold **(3)**.
   - Complete tightening order of the EGR cooler assembly




SMIL13CEX1478AB 53

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Pump - Flow test

1. Measure the flow.
   When measuring the flow, position the workers as in the diagram on the right.
   (Worker 1 **(1)**: Work supervisor, pressure adjustment)
   (Worker 2 **(2)**: Operator)
   (Worker 3 **(3)**: Flow, pressure measurement, recording)
2. At the signal from the work supervisor, the operator starts the engine.
3. Check the hydraulic oil temperature on the monitor. **50 °C** (**122 °F**).
   Check that the engine rotation and pump milli-amp is normal.
4. The operator signals the arm-out relief operation to worker 1.

   1. Ignition key

5. Worker 2 lowers the arm-out port relief. (Min: **24 MPa** (**3481 psi**)) P1+P2)
6. Start of flow measurement
7. The arm-out relief operation is carried out.
8. Data measured in units of **2 MPa** (**290 psi**) ( P1+P2).

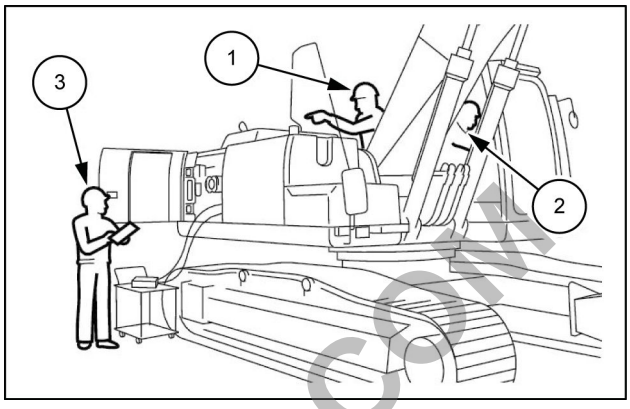
   * The measurement is carried out from **24 - 76 MPa** (**3481 - 11024 psi**)) and ends when the maximum pressure is reached.

9. Remove the flow meter.

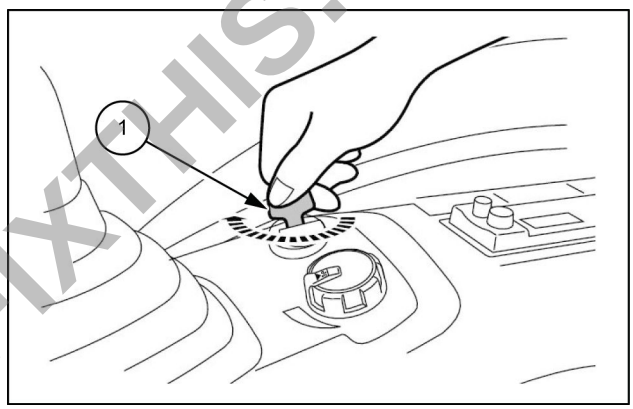
   * Because the maximum limit of the flow meter pressure gauge is exceeded starting from **40 MPa** (**5802 psi**).

10. Reset the arm-in port relief valve to normal pressure. (For details on this adjustment, see **Hydraulic systems - Adjust – Main pressure (35.000)**)
11. Remove the pressure gauges etc. and put everything back to normal.

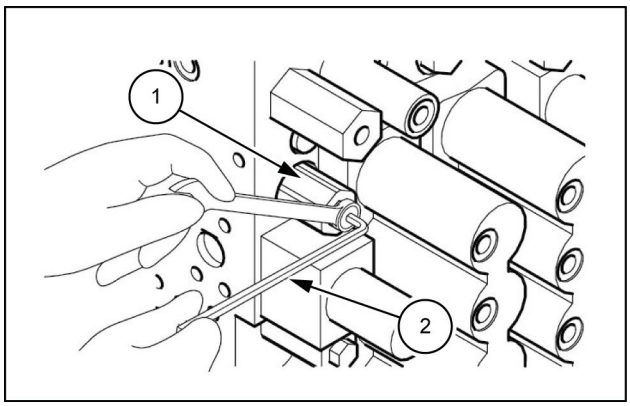
    1. Lock nut **17 mm** (**0.669 in**)
    2. Hexagon wrench **6 mm**




LPIL12CX01656AB 1




LPIL12CX01657AB 2




LPIL12CX01658AB 3

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Cushion valve - Disassemble

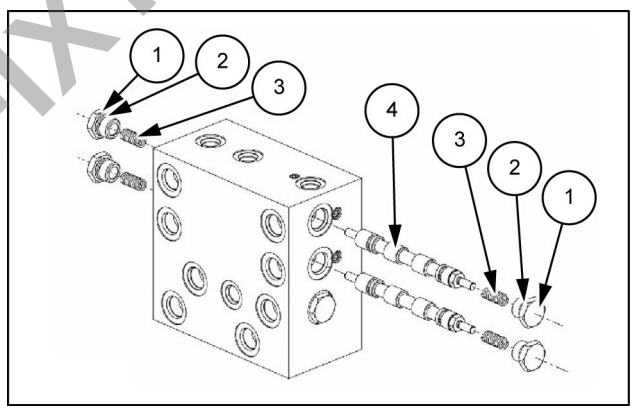
This valve has a structure that forms small gaps. It is precision processed and the parts are carefully selected and fit together, so do not disassemble it as much as possible.

If assembly and disassembly is unavoidable, pay attention to the following. (The product warranty may be invalidated.)

- Only disassemble in a clean location with minimal dirt.
- Use only clean tools and cleaning oil and handle them with care.
- Use plugs, caps to cover ports to prevent any entry of dirt and clean the outside of the assembly.
- Check the internal structure before starting work, and carefully study the disassembly objective and scope.

## Reverse operation spool section

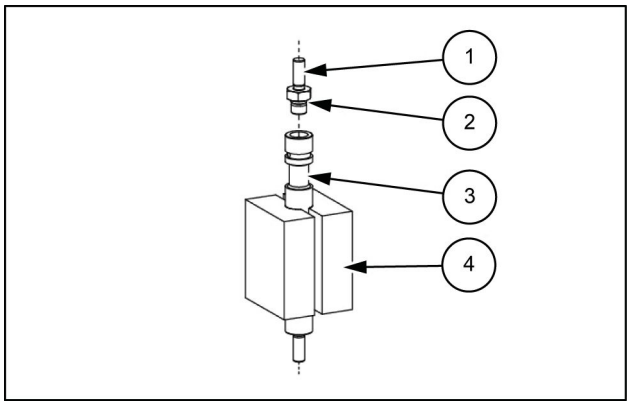
1. Remove the plugs **(1)** and O-rings **(2)**.
   - Remove the springs **(3)**.
   - Remove the spools **(4)** with the cap screws and O-rings assembled in them.




LPIL12CX01884AB 1

2. Fasten the spool **(3)** assemblies taken out in Step **1** in a vise.
   - Remove the cap screws **(1)** and O-rings **(2)**.

> ⚠ CAUTION: Use a piece of wood (jig) **(4)** to prevent scratches.



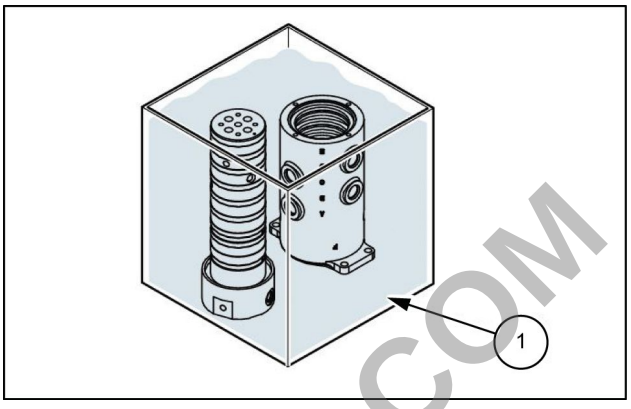

LPIL12CX01885AB 2

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Hydraulic swivel - Assemble

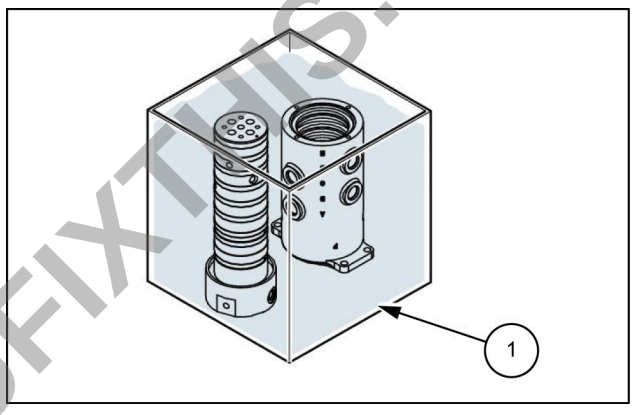
1. Place parts in a rough cleaning container filled with kerosene **(1)** to clean off any adhered matter that can form sharp points and cause scratches.
   - Immerse in kerosene until dust, grease, and other adhered matter comes off and floats to the surface.




LPIL12CX02114AB 1

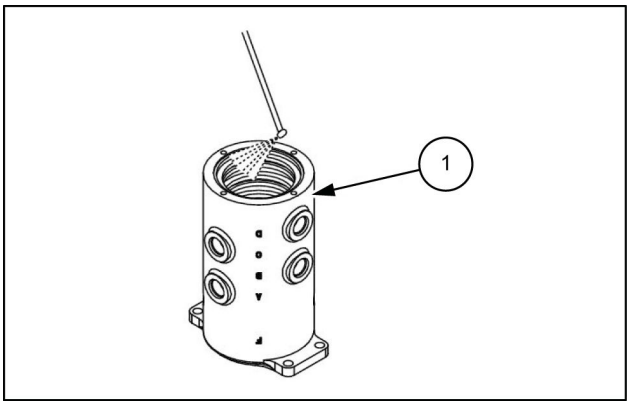
2. Place parts in a finish cleaning container filled with kerosene **(1)** and clean while gently moving the parts.

   After cleaning, wipe away the kerosene with a clean rag.
   - Place the parts in a location free of dust and moisture and use compressed air to dry the parts. After drying, coat parts with engine oil.
   - Polish away burrs, barbs, and scratches with a whetstone.




LPIL12CX02115AB 2

3. Use cleaning fluid or compressed air to clean the rotor **(1)**.
   After cleaning, check inside the rotor and in the groove sections for burrs, barbs and scratches and for scratches caused by striking.

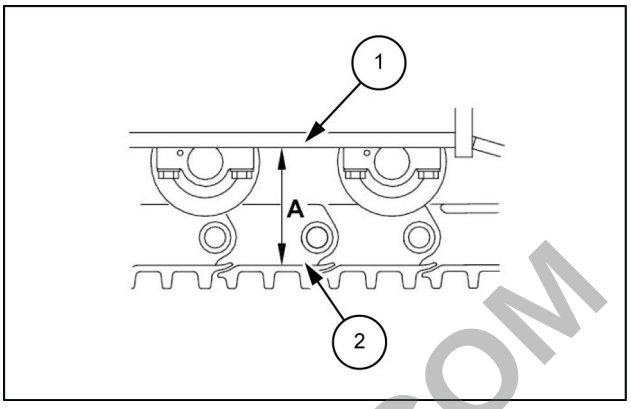



LPIL12CX02116AB 3

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

5. Adjust the tension so that the distance indicated with A between the frame bottom **(1)** of the center area of the lower side frame and the lowest hanging part of the top of the shoe plate **(2)** is as follows.
   - Steel shoe **300 - 330 mm** (**11.811 - 12.992 in**)
   - Link chain **260 - 280 mm** (**10.236 - 11.024 in**)




LPIL12CX01243AB 5

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

## Preparatory check

### Visual inspection of engine room

When implementing the diagnostic procedures, carefully make a visual inspection of the engine room.

This inspection can often lead to solving a problem without taking extra steps.

- Visually inspect all air hoses for punched holes, cuts, disconnections, and appropriate piping.
- Visually inspect the hoses that are difficult to see behind other components.
- For every harness in the engine room, visually inspect that all harnesses are properly connected.

Inspect that there are no burned or worn areas, that the harnesses are properly fastened and that they are not in contact with sharp edges or the hot exhaust manifold or pipes.

### Checking the machine maintenance status

If the maintenance of the actual machine is not performed correctly, the monitor may illuminate.

Restricted oil filters, fuel filters, and crankcase deposits due to lack of oil changes or improper oil viscosity can trigger actual unit faults that were not previously monitored prior to OBD.

Poor vehicle maintenance cannot be classified as a non-machine failure, but since the sensitivity of OBD system checks is high, actual unit maintenance schedules must be further closely followed.

### Non-OEM parts

All the OBD system checks are adjusted to operate with the genuine parts.

Therefore, when a commercially sold sensor or switch, etc. is installed, a wrong diagnosis is made, and the monitor comes On.

Accordingly, if general commercially-available sensors or switches are installed, this will cause mistakes in diagnosis and the monitor to show an abnormality display.

If a commercially-available electronic device such as a mobile phone, stereo or anti-theft device is inappropriately installed, an EMI may be emitted to the control system.

As the result, false sensor information is generated causing the monitor to come on.

When conducting a trouble diagnoses, either turn “OFF” the power for all commercially sold parts or remove them, and then check the failure again.

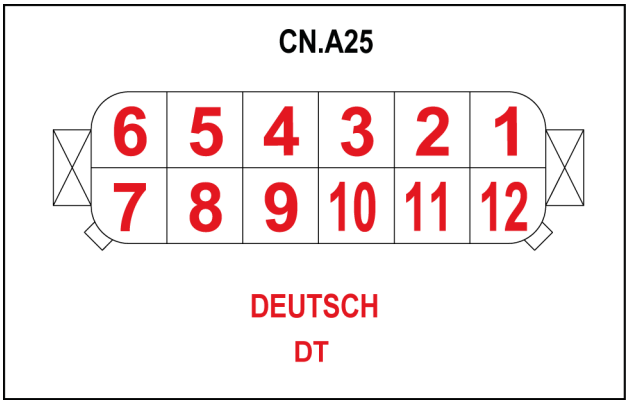
NOTE:

Related system failure

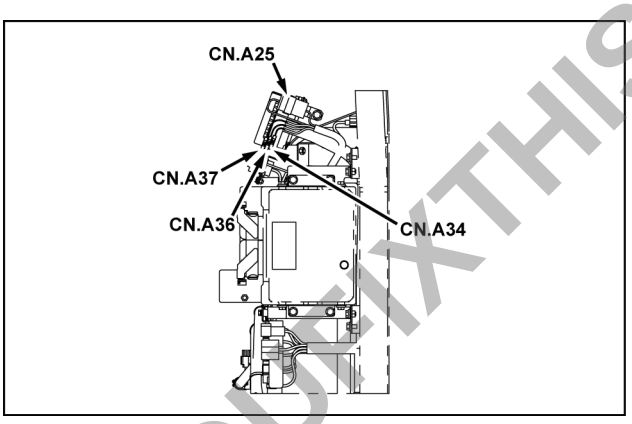
PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

***CONNECTOR CN.A25 – CN.A25 (Female)***




SMIL15CEX2292AA 13



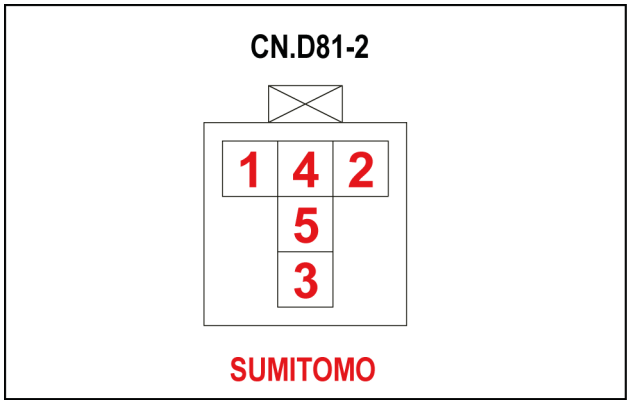

SMIL15CEX2291AA 14

| Pin | From | Wire ID | Description | Color-Size | Frame |
|---|---|---|---|---|---|
| 1 | CN.A44-M-P-10 | 065D | | Y | **SHEET 25** |
| 3 | CN.A44-M-P-9 | 066D | | YL | |
| 7 | CN.A29-P-2 | 065B | | W | **SHEET 21** |
| 8 | CN.A44-M-P-11 | 069D | | BY | **SHEET 25** |
| 12 | CN.A29-P-3 | 066B | | WL | **SHEET 21** |

PREVIEW YOUFIXTHIS.COM


Download full manual at youfixthis.com

***CONNECTOR CN.D81-2 – STOP RELAY (Female)***




SMIL15CEX2939AA 11

| Pin | From | Wire ID | Description | Color- Size | Frame |
|---|---|---|---|---|---|
| 1 | SP- 845C-P-X | 847 | | L-0.85 | **SHEET 16** |
| 2 | CN.D76- P-3 | 822D | | YL-0.85 | |
| 3 | SP- 845C-P-X | 846A | | L-0.85 | |
| 4 | CN.D81- 5-P-2 | 894 | | WR-0.85 | |
| 5 | CN.D81- 6-P-1 | 893 | | BrR- 0.85 | |

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Exhaust Gas Recirculation (EGR) electrical system - Service instruction

## DPD regeneration taking excessively long - symptoms

Regeneration is taking longer than expected or it is taking longer than previously.

## DPD regeneration taking excessively long - diagnosis

## Preliminary inspection

Inspect the fuel quality.

Check the scan tool data list.

Check service information.

Check if DPD regeneration and engine warm-up control are being confused.

Check the state of and habits in operator operation.

Check if execution of manual regeneration started with the engine cold during DPD regeneration.

Check if the idling time is too long during DPD regeneration.

Check if there is frequent operation at low speed during DPD regeneration.

Check if the engine operation time is short during DPD regeneration.

Check if the engine throttle switch is turned ON/OFF frequently during DPD regeneration.

Check if the work environment temperature is excessively high during DPD regeneration.

## Sensor inspection

Inspect the hose of the DPD differential pressure sensor and inspect for incorrect or disconnected pipes.

(There is a specified installation direction for the DPD differential pressure sensor hoses.)

Inspect for DPD differential pressure sensor hose and pipe clogging, crushing, or twisting.

Inspect for incorrect DPD differential pressure sensor installation.

Inspect for DPD differential pressure sensor damage.

Inspect for any dirt or foreign matter blocking the entrance of the DPD differential pressure sensor.

Check the exhaust differential pressure in the scan tool data display to check for DPD differential pressure sensor abnormality and any lag in operations.

Check the exhaust gas temperature sensor at various temperatures to inspect for the possibility of sensor abnormality.

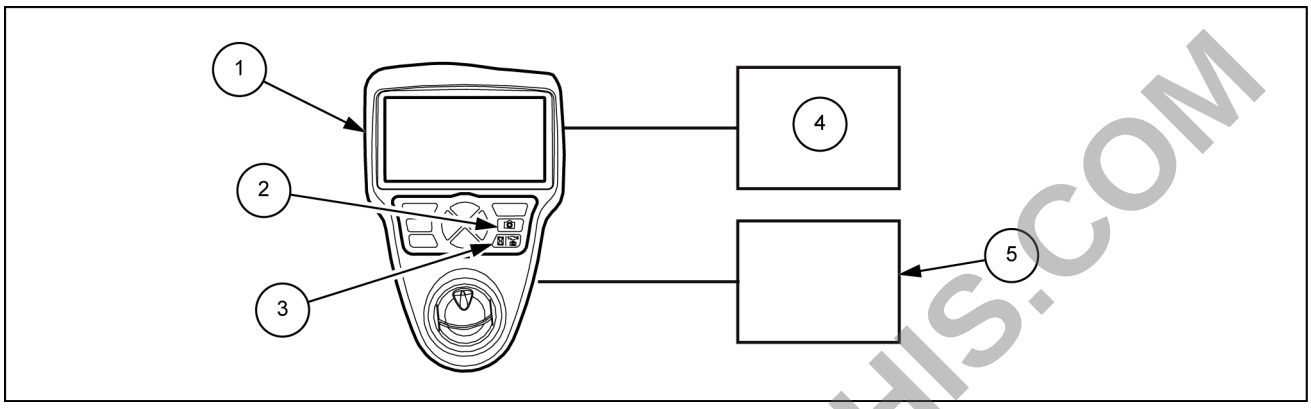
PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# Camera - Dynamic description – Back/Side view monitor

## Purpose

Displays an image on the monitor from the camera that is installed on the shovel. (Improves rear visibility. Improves safety)




SMIL14CEX0442EB 1

1. Monitor
2. Camera screen switch
3. Camera select switch
4. Rear camera
5. Side camera

## Operation explanation

1. When the key is turned “ON”, the camera screen can be viewed by pressing the camera screen switch.
   - Pressing the camera screen switch alternates between the work screen and the camera screen.
   - The camera screen can be selected with or without gauge.
2. Pressing the camera select switch while the camera screen is displayed, the camera to display can be switched.
   - To perform camera selection, camera “ON” must be set in the camera setting screen.
   - The camera select switch is enabled when multiple cameras are set.
3. If image interruption due to camera trouble (disconnection, etc.) is detected, the camera screen turns black and ERROR is displayed. (The gauges are displayed.)

* When the camera select switch is pressed in the work screen, the trip meter select switch function is activated.

* The camera screen switch is disabled if no cameras are mounted.

PREVIEW - YOUFIXTHIS.COM


Download full manual at youfixthis.com

# P0183-Fuel temperature sensor, high input

## Control Module : ECM

**Solution:**

1. Check and diagnose the below fault codes before you proceed with the diagnostics code 0183

   Diagnostic trouble code 1655

2. Turn OFF the ignition switch.

   Disconnect the fuel temperature sensor harness connector **CN.E8** from the fuel temperature sensor.

   Turn ON the ignition switch.

   Measure the voltage between the fuel temperature sensor signal circuit and normal ground.

   If the reading is more than or equal to **5.5 V**, inspect to see if there is a short circuit to the battery or ignition power supply with the signal circuit between the ECM and the fuel temperature sensor.

   A. If a problem is found, repair the signal circuit.

   B. If there are no problems, proceed to Step **3**.

3. Connect the test cable with fuse between the fuel temperature sensor signal circuit and ground circuit.

   Check the fuel temperature sensor display on the trouble diagnosis scan tool.

   If the reading is less than or equal to the **0.1 V**, inspect to see if there is a short circuit to the **5 V** power supply circuit with the signal circuit between the ECM and the fuel temperature sensor.

   A. If a problem is found, repair the signal circuit.

   B. If there are no problems,proceed to Step **4**.

4. Inspect to see if there is a poor connection with the fuel temperature sensor harness connector **CN.E8**.

   A. If a problem is found, repair the fuel temperature sensor harness connector **CN.E8**.

   B. If the fuel temperature sensor harness connector **CN.E8** is normal, replace the fuel temperature sensor. (Refer to " **Rotary injection pump - Remove (10.218)**" and " **Rotary injection pump - Install (10.218)**")

   C. If there are no problems,proceed to Step **5**.

   ***NOTE:*** *Do not replace the fuel temperature sensor separately. If a problem is found, replace the fuel supply pump.*

5. Connect the test cable with fuse between the fuel temperature sensor signal circuit and normal ground.

   Check the fuel temperature sensor display with the trouble diagnosis scan tool.

   ***NOTE:***
   - *The fuel pressure sensor shares the ground circuit with other sensors.*
   - *The diagnostic trouble code set on a sensor which shares this circuit may be detected.*

   A. If the reading is less than or equal to the **0.1 V**, inspect to see if there is an open circuit or high resistance with the ground circuit between the ECM and fuel temperature sensor.

   B. If a problem is found, repair the ground circuit.

   C. If there are no problems, proceed to Step **6**.

6. Inspect to see if there is an open circuit or high resistance in the signal circuit between the ECM and the fuel temperature sensor.

   A. If a problem is found, repair the signal circuit.


Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM

# PREVIEW ONLY

You're viewing 25 of 2731 pages

## The full manual includes:

- All 2731 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

**GET FULL MANUAL NOW**

**Case CX235C SR Service Manual**

**Scan or click anywhere**
**youfixthis.com**

*Click anywhere on this page to get the full manual*