ConSite Fault Code

3364-7A

ConSite Fault Name

Abnormal Urea Water Quality Sensor (No Response from Mechanical System or Out of Adjustment)

Target Models

Wheel loaders: ZW140-6/62Z7B, ZW150-6/67Z7B

Recommended Action

The urea water quality sensor is abnormal and it is likely that the engine output power is lower than in the normal condition. Immediately contact the customer and check the machine condition.

Fault Condition

If an abnormal signal of the urea water quality sensor is detected, this alarm is issued.

Expected Phenomenon

- The engine trouble indicator and the urea alarm indicator on the monitor panel illuminate.
- The engine output power drops.

Situation to be confirmed with Operator

- Operating Circumstances: How was the machine being operated?
- Failure Timeline: When and how did the failure become noticeable?
- Fault Phenomenon: What was the phenomenon? Did it occur all of sudden or gradually become noticeable?

Key Parts

Urea water sensor unit XB00013666

Recommended Tools

General repair tools, MaintenancePRO Dr., Digital multimeter, Wire harness repair kit, Short pins, Urea water densitometer

Standard Time for Diagnosis and Repair

3 hours

Precautions

- When disconnecting connectors, turn the key switch to OFF position.
- · Check if connectors are tightly fit before disconnecting them.
- Check if there is any breakage or corrosion of connector pins.
- When you check continuity of connectors and wire harnesses, use short pins of appropriate sizes. (Do not use paper clips.)
- Block the front and rear tires so that the machine won't move. Also, do not stand in front or back of the machine.
- When you need to disconnect the coolant pipings of the urea water sensor unit, check to see if the coolant temperature is low enough before disconnection.

Safety

When doing failure diagnosis, work safely by following the safety instructions described in the "Safety" section of the technical manual of the applicable model.



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Failure Diagnosis Procedures

Visually inspect the connector of the urea water sensor unit and its pins. Abnormal. Normal. Repair or replace faulty connectors and/or wires.

Refer to "Detailed Material 1"

Inspection of the urea water and measurement of the density

- Take a sample of urea water from the urea water tank.
- · Is the urea water contaminated?
- Is the density within the standard range? (Standard range: 32.5 ± 1.5%)

Abnormal. Normal. Replace the urea water.

Inspection of the urea water sensor unit

· Is the sensor unit correctly installed?

Abnormal.

· Are foreign materials or air bubbles stuck to the quality sensor? Or, is urea crystallized on the sensor?

Replace the urea water sensor unit. Check for fault codes with MaintenancePRO Dr. by pressing the "Retry" button on its screen. The fault code The fault code 3364-7 goes out. 3364-7 doesn't go out. Replace the ECM. Completed.

Remarks

- · Use the urea water specified in the operator's manual.
- Don't fill the tank with urea water beyond the full level.
- Wear rubber gloves when handling urea water.
- Measure the density of the urea water with a urea water densitometer.
- Use an on-market densitometer or the one provided by Cummins (P/No. 4919318)
- When there is an abnormality with the urea water, refer to "Clean DEF tank" of Group 6 "Adjustment" of Section 4 "Operational Performance and Tests" of **Technical Manual** (Troubleshooting).

Additional Diagnosis

- 1. Check connectors for any faulty contacts by disconnecting them.
- 2. Check connector terminals for any corrosion or foreign materials.
- 3. Visually inspect connectors and wire harnesses for any damage.

Normal.



EMERGENCY



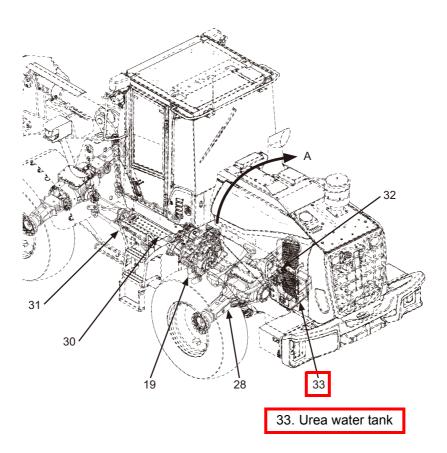




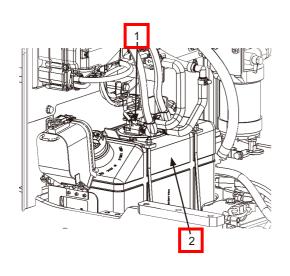
Detailed Material 1

Layout Drawing

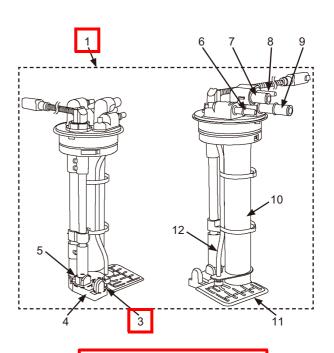
Main components



Urea water tank



- 1. Urea water sensor unit
- 2. Urea water tank



3. Urea water quality sensor

