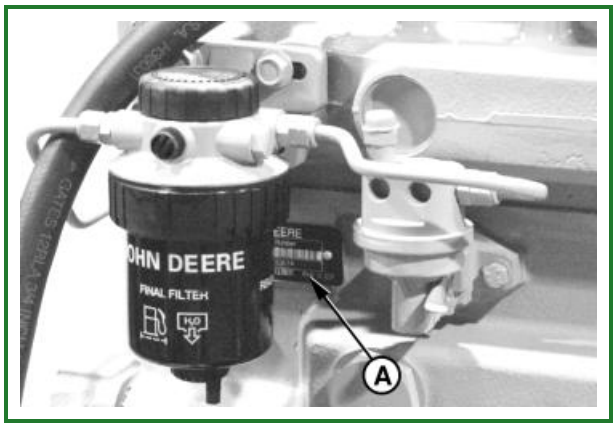
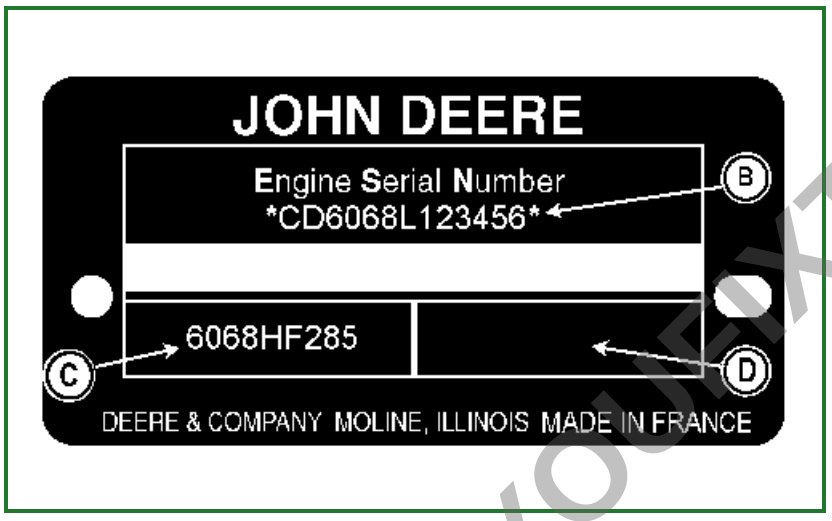
Engine Serial Number Plate Information



RG7778-UN: Engine Serial Number Plate



CD30857-UN: Engine Serial Number/Application Data Plate

LEGEND:

A - Engine Serial Number Plate

B - Engine Serial Number (13 digits)

C - Application Data or Type

D - Internal Factory Identification (Saran engines only)

IMPORTANT:

The engine serial number plate can be easily destroyed. Remove the plate or record the information elsewhere, before “hot tank” cleaning the block.

Engine Serial Number (B)

Each engine has a 13-digit John Deere engine serial number identifying the producing factory, engine displacement, emission “Tier” level and sequential engine number. The following is an example:

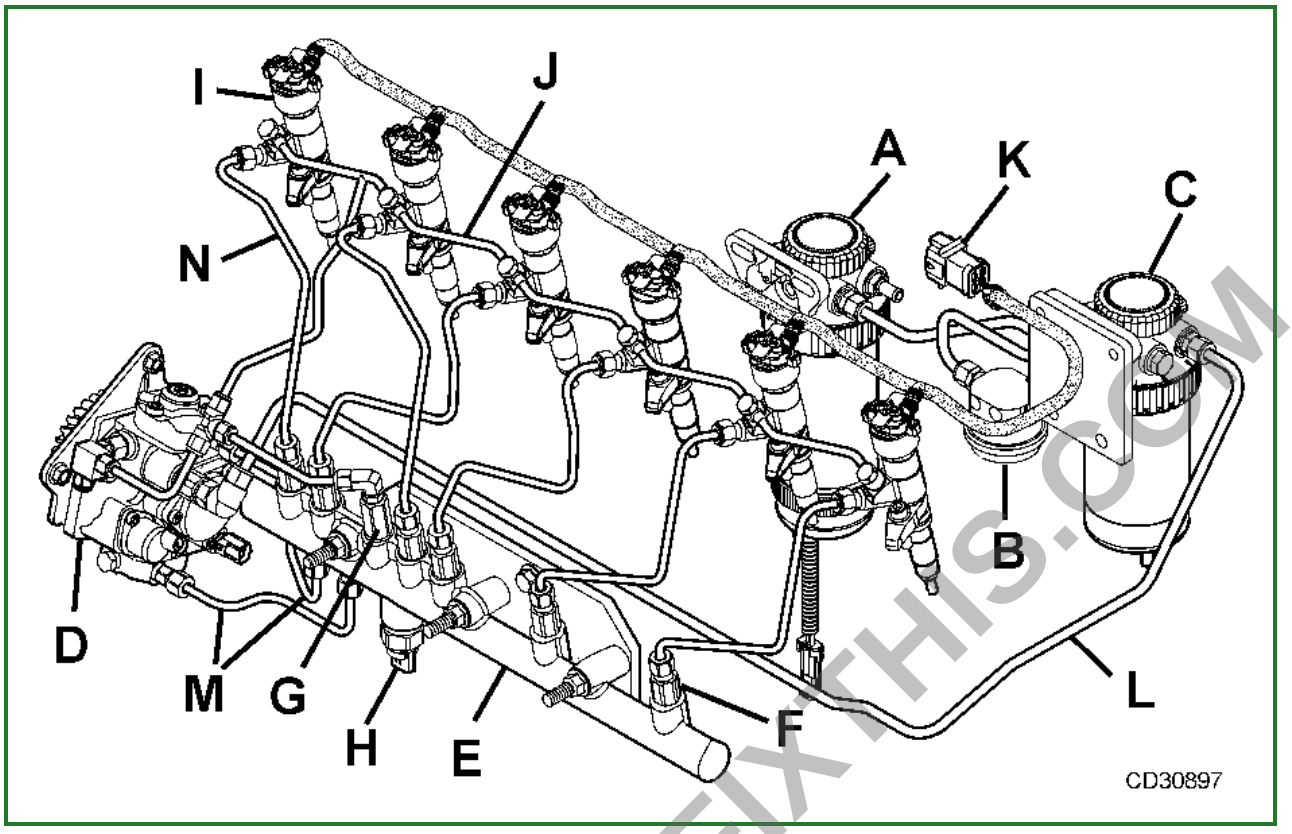
-: Engine Serial Number

CD6068L123456	
CD.....	Factory producing engine
6.....	Number of Cylinders
068.....	Liter displacement (6.8 liters)

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Fuel System Components



CD30897-UN: Fuel system components

LEGEND:

A - Primary fuel filter

B - Fuel transfer pump

C - Final fuel filter

D - High pressure fuel pump

E - High pressure common rail (HPCR)

F - Flow damper

G - Fuel pressure limiter

H - Fuel pressure sensor

I - Electronic injector (EI)

J - Fuel leak-off line

K - Wiring harness

L - Fuel supply line

M - Pump-to-rail high pressure line

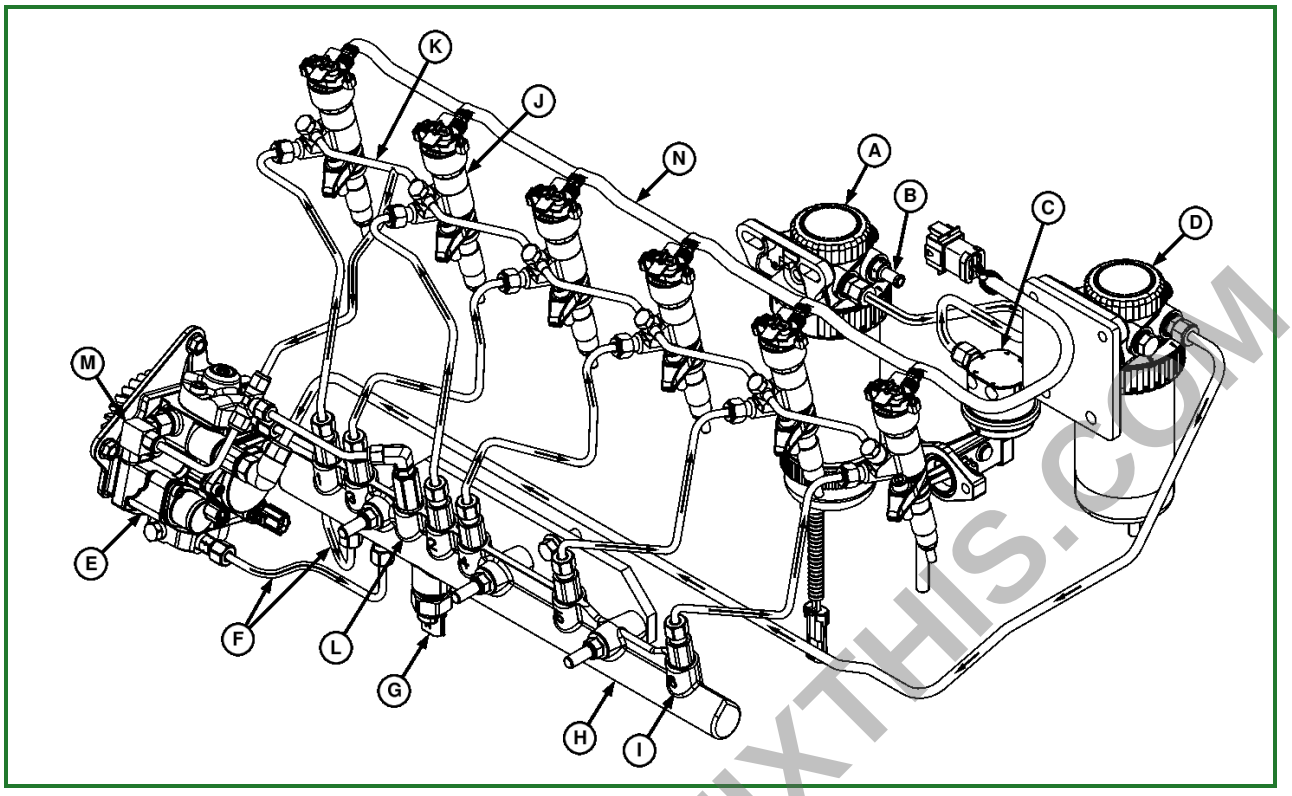
N - High pressure delivery line

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Fuel System Operation



RG15036-UN: Fuel System Operation

LEGEND:

A - Pre-Filter (Fuel)

B - Fuel Inlet

C - Fuel Transfer Pump (Mechanical)

D - Final Fuel Filter

E - High Pressure Fuel Pump

F - High Pressure Fuel Lines

G - Fuel Rail Pressure Sensor

H - High Pressure Common Rail (HPCR)

I - Flow Damper

J - Electronic Injector (EI)

K - Fuel Leak-off Line

L - Pressure Limiter

M - Overflow Orifice

N - Wiring Harness

Low Pressure Fuel

The fuel transfer pump (C) draws fuel from the fuel tank through the prefilter (A), and sends it through the final fuel filter (D) on its way to the high pressure fuel pump (E). The type and location of the prefilter and the fuel transfer pump may vary depending on application requirements.

High Pressure Fuel

This pump is timed consistent with the engine timing to ensure correct fuel delivery amount for optimum cylinder firing. The high pressure fuel pump raises fuel pressure to the required amount for injection. This high-pressure fuel is routed through the pressurized fuel lines (F) and into the High Pressure Common Rail (HPCR) (H). HPCR evenly distributes fuel to all of the Electronic Injectors (EIs) (J) through the flow dampers (I). The HPCR uses flow dampers to regulate a constant pressure to the EIs. EIs produce measured amounts of fuel into their respective

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Cooling System Test

Special Tools:

- D05104ST — Cooling System Pressure Pump
- JDG10539A — Pressure Test Kit

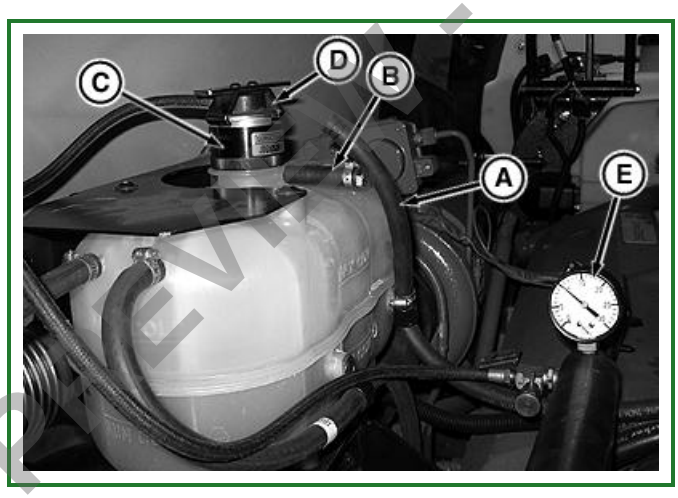
> **⚠ CAUTION:**
>
> ***Explosive release of fluids from pressurized cooling system can cause serious burns.***
>
> ***Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.***

> *NOTE:*
>
> *To test coolant concentration use 75240 refractometer. See Testing Diesel Engine Coolant in Section 01, Group 002.*

Test Surge Tank Cap Pressure

1. Remove surge tank cap and attach to D05104ST tester.
2. Pressurize to the rating listed on the cap. The cap should hold the rated pressure for 10 seconds. If the gauge indicates a pressure drop, the cap is damaged and needs replaced.
3. If there was no pressure drop remove the cap from the gauge, turn it 180 degrees, and retest cap. This verifies that the first measurement was accurate.

Test Cooling System for Leaks



RXA0094868-UN: Pressure Test Surge Tank

LEGEND:

A - Overflow Hose

B - Overflow Hose Plug

C - JDG10539-1 Tank Adapter

D - JDG839-2 Adapter (Application Specific)

E - D05104ST Pressure Tester

1. Allow engine to cool, then carefully remove surge tank cap.

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Electronic Fuel System Repair and Adjustment Specifications

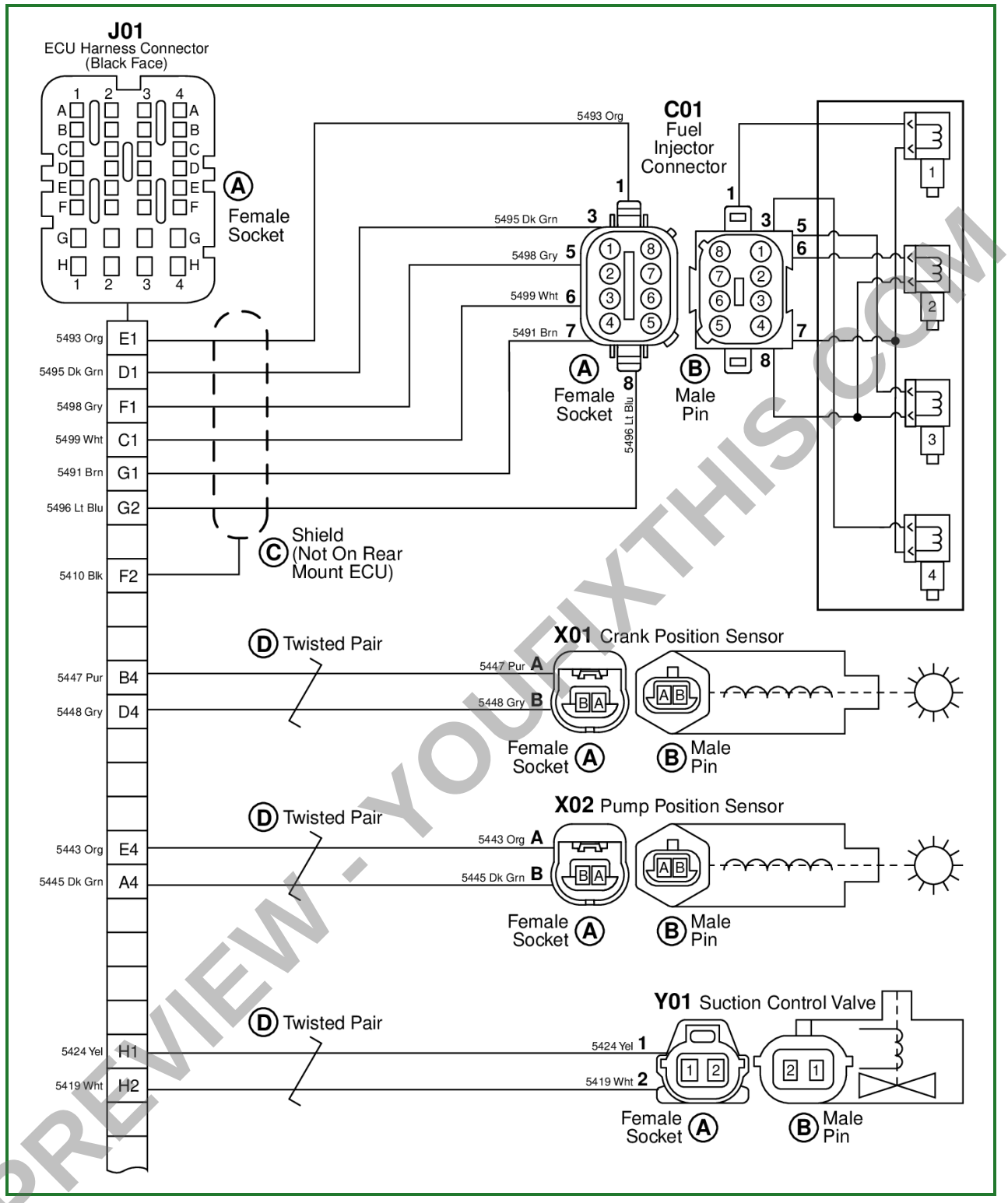
Item	Measurement	Specification
Fuel Filter Mounting Bracket-to-Cylinder Head Cap Screws	Torque	70 N·m (52 lb-ft)
Fuel Filter Base-to-Bracket Cap Screws	Torque	50 N·m (37 lb-ft)
Fittings, Plugs or Accessories-to-Fuel Filter Base	Torque	10 N·m (7 lb-ft)
Inlet and Outlet Fitting-to-Fuel Transfer Pump	Torque	10 N·m (7 lb-ft)
Fuel Transfer Pump Cap Screws	Torque	30 N·m (22 lb-ft)
Electronic Fuel Transfer Pump Cap Screws	Torque	50 N·m (37 lb-ft)
High Pressure Fuel Pump to Adapter Plate	Torque	40 N·m (29.5 lb-ft)
High Pressure Fuel Pump Gear Nut	Torque	95N·m (70 lb-ft)
Pump Position Sensor-to-adapter plate	Torque	15 N·m (11 lb-ft)
Fuel Supply Elbow Fitting Nut-to-High Pressure Pump	Torque	20 N·m (15 lb-ft)
Fuel Leak-off Fitting Nut-to-High Pressure Pump	Torque	15 N·m (11 lb-ft)
High Pressure Fuel Pump Adapter Plate-to-Engine Front Plate	Torque	40 N·m (30 lb-ft)
High Pressure Fuel Lines (both ends)	Torque	30 N·m (22 lb-ft)
Plug to access Gear Timing Mark	Torque	50 N·m (37 lb-ft)
Suction Control Valve-to-Pump Housing	Torque	10 N·m (7 lb-ft)
High Pressure Common Rail Bracket to Engine	Torque	70 N·m (52 lb-ft)
High Pressure Common Rail to Bracket	Torque	70 N·m (52 lb-ft)
High Pressure Delivery Lines to Rail	Torque	30 N·m (22 lb-ft)
High Pressure Delivery Lines to Pump	Torque	30 N·m (22 lb-ft)
Flow Damper	Torque	176 N·m (130 lb-ft)
High Pressure Injector Line (both ends)	Torque	30 N·m (22 lb-ft)
Pressure Limiter	Torque	176 N·m (130 lb-ft)
High Pressure Common Rail Leak Off Line	Torque	6 N·m (4 lb-ft), (53 lb-in.)
Injector Terminal Nut	Torque	2.2 N·m (19.5 lb-in.)
Injector Connector	Torque	2.2 N·m (19.5 lb-in.)
Rocker Arm Cover	Torque	10 N·m (7 lb-in.)
Side Feed Tube Fitting, First Torque	Torque	5 N·m (3.7 lb-ft) (44 lb-in.)
Electronic Injector Clamp Screw	Torque	47 N·m (35 lb-ft)
Side Feed Tube Fitting, Second Torque	Torque	35 N·m (26 lb-ft)
HPCR Delivery Line	Torque	27 N·m (20 lb-ft)
Injector Solenoid Wire Retaining Nut	Torque	2 N·m (1.5 lb-ft) (18 lb-in.)
Heat Shield Cylinder Head Cap Screw	Torque	60 N·m (44 lb-ft)
Heat Shield-to-Rocker Arm Cover	Torque	10 N·m (7 lb-ft)
Suction Control Valve to Pump Housing	Torque	9 N·m (7 lb-in.)

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4.5L 12V ECU Wiring Diagram 1



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RG15052A-UN: 4.5 Liter 12 Volt ECU Wiring Diagram 1 (PTE)

LEGEND:

A - Female Socket

B - Male Pin

C - Shield (Not On Rear Mount ECU)

D - Twisted Pair

C01 - Fuel Injector Connector

J01 - ECU Harness Connector (Black Face)

J1-A4 - [5445 Dark Green] Pump Position Pulse

J1-B4 - [5447 Purple] Crank Position Pulse

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Prevent Machine Runaway

Protect Against High Pressure Spray

Protect Against Noise

Recognize Safety Information

Remove Paint Before Welding or Heating

Replace Safety Signs

Service Cooling System Safely

Service Machines Safely

Stay Clear of Rotating Drivelines

Support Machine Properly

Understand Signal Words

Use Proper Lifting Equipment

Use Proper Tools

Use Steps and Handholds Correctly

Wait Before Opening High-Pressure Fuel System

Wear Protective Clothing

Work in Clean Area

Work In Ventilated Area

Group 001: Engine Identification

Engine Serial Number Plate Information

OEM Engine Option Code Label

Information Relative to Emissions Regulations

Emissions Control System Certification Label

Group 002: Fuels, Lubricants, and Coolant

Diesel Fuel

Diesel Fuel Additive Products

BioDiesel Fuel

Minimizing the Effect of Cold Weather on Diesel Engines

Handling and Storing Diesel Fuel

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Diesel Fuel Additive Products

John Deere diesel engines with high pressure fuel systems rely on high quality diesel fuel to maintain the performance, reliability, and durability customers demand. A variety of diesel fuel aftermarket products may be used to ensure diesel fuel meets those needs:

- Fuel-Protect Diesel Fuel Conditioner
- Diesel Fuel System Clean-Up
- Fuel-Protect Keep Clean
- Performance Formula Conditioner
- Biodiesel Protect 100
- Fuel Test Kits
- FUELSAVER™

These products are available through John Deere Merchandise.

NOTE:

Not all products will be available in all markets.

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D - Injector connection

E - Upper portion of leak-off line

F - Dual banjo sealing washer

G - Leak-off banjo fitting bolt

NOTE:

The fuel leak-off line is composed of several portions which can be serviced separately.

Lower portions between rail and high pressure pump

1. Remove leak off line portion concerned
2. Check and replace parts as necessary.
3. Install parts then tighten tube nut until seated on fitting shoulder.

Upper portion between T-fitting (C) and injector (D)

1. Disconnect fuel leak-off from T-fitting (C) and from injectors (D).
2. Remove the upper portion of leak-off line (E).
3. Check and replace parts as necessary.
4. Install banjo fitting bolt (G) with new dual banjo sealing washers (F) at each injector port.
5. Tighten fuel leak-off banjo bolt to specification.

Item	Measurement	Specification
Fuel leak-off banjo bolt	Torque	25 N·m (18 lb.-ft.)

6. Install leak-off line in T-fitting connection (C) then tighten tube nut until tube nut seated on fitting shoulder.

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chamber above the diaphragm. As the eccentric lobe is turned past its peak height, return spring decompresses, pushing the diaphragm back into its original position. As the diaphragm is returned to its original position, the increased volume of fuel in the chamber above the diaphragm pushes shut the inlet check valve, and opens the outlet check valve, allowing fuel into the fuel outlet chamber. As this sequence is repeated, fuel pressure is developed in the fuel outlet chamber, causing fuel to exit the transfer pump and flow into the final filter.

As the camshaft lobe rotates to the low side, return spring (E) forces diaphragm upward. The resulting fuel pressure closes the inlet check valve and opens outlet check valve (B), delivering fuel through outlet (A) to the final fuel filter.

A hand primer lever (H) is provided for manually forcing fuel through the system to bleed air from the fuel filter, lines, etc.

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Intake Air Heater Operation

The Intake Air Heater function is not included on all engines. The intake air heater is used to increase intake manifold air temperature to improve cold starting. When the operator turns the key from “OFF” to “ON”, the ECU calculates the fuel, determines if the temperature is below the set point, turns on the “Air Heater Indicator” light on the dash, and energizes the air heater relay. The air heater relay will in turn energize the air heater coils located in the intake manifold. The ECU will keep the air heater relay energized for an amount of time that is determined by the measured temperature. When the ECU has determined that the preheat time is adequate, it will turn off the “Air Heater Indicator” light and de-energize the air heater relay. If the operator turns the ignition from “ON” to “START” at this time, the engine will crank and start.

If the operator turns the key from “START” to “ON” without waiting for the “Air Heater Indicator” light to turn off, the ECU will de-energize the air heater relay and a key-off/key-on cycle is required before preheating is allowed again.

Anytime the engine cranks but does not start, a key-off/key-on cycle will be required before preheating is allowed again.

For application specific information on air heater times vs. temperatures, see APPLICATION SPECIFICATIONS .

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6. Ignition ON, engine OFF.

Is the fuel pressure that was indicated by the gauge within 30 kPa (4 psi) of the Low-Pressure Fuel - Actual Pressure data point?

Record of Actual Results:

Result:

YES:
Low-pressure fuel system is functioning correctly.

NO:
GO TO 31

31 Low-Pressure Fuel Sensor Atmospheric Pressure Check

Action:

1. Ignition OFF, engine OFF.
2. Remove low pressure fuel sensor and reconnect sensor to wire harness.
3. Disconnect low pressure fuel pump 2-wire connector to prevent pump from operating.
4. Ignition ON, engine OFF.
5. Monitor Low-Pressure Fuel - Actual Pressure data point.

Does the Low-Pressure Fuel - Actual Pressure data point indicate 0 kPa (0 psi) within +/- 7 kPa (1 psi)?

Record of Actual Results:

Result:

YES:
GO TO 33

NO:
GO TO 32

32 Barometric Air Pressure Check

Action:

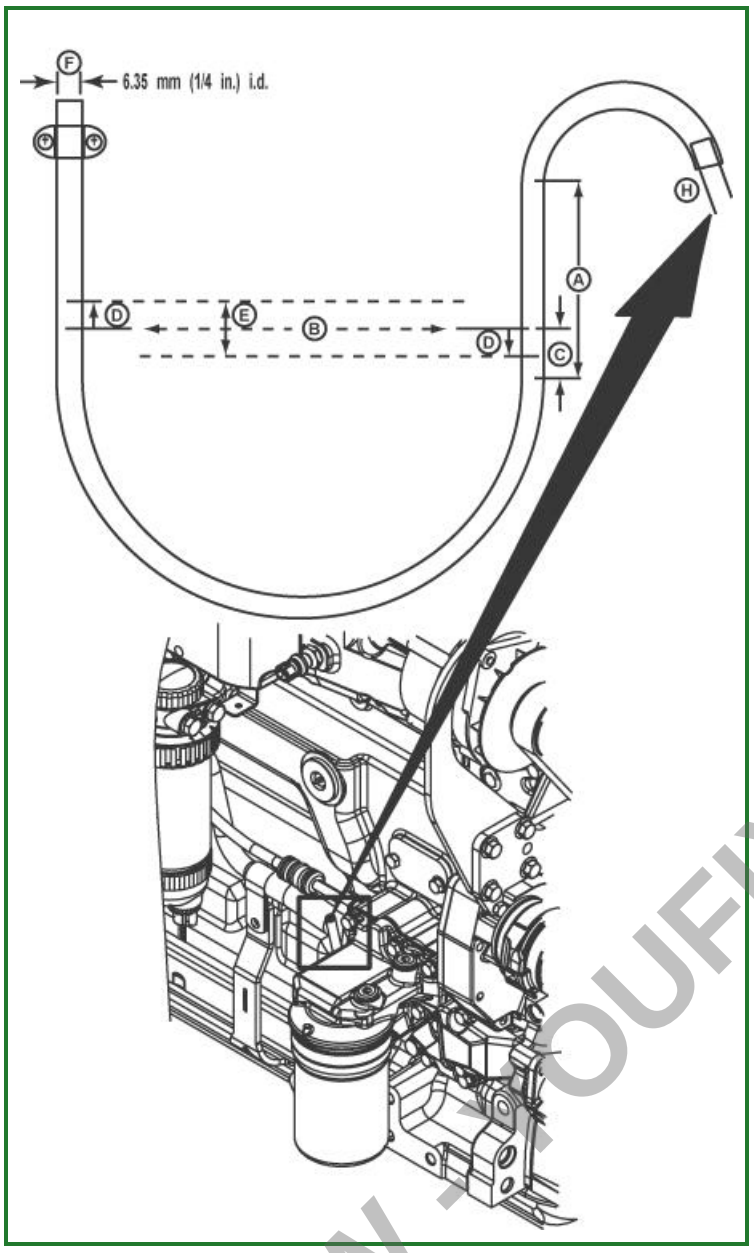
Monitor Barometric Air Pressure and Manifold Air Pressure - Absolute data points.

Are the two data points within 10 kPa (1.5 psi) of each other?

Record of Actual Results:

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RG15141-UN: Blow-by Test Setup

LEGEND:

A - 30.5 cm (12 in.) Vertical Tubing, Both Sides

B - Fluid Level Prior to Start of Test

C - Minimum 76.2 mm (3 in.) Vertical Fluid Prior to Start of Test

D - Maximum Allowable Vertical Fluid Travel 25.4 mm (1.0 in.) Each Side

E - Max. Allow. Total Vertical Fluid Travel 50.8 mm (2.0 in.) Both Sides

F - 9.53 mm (0.375 in.) o.d. (outer dimension) 6.35 mm (1/4 in) i.d. (inner dimension) Tubing (minimum length 91.4 cm (3 ft))

G - Oil Dipstick Tube

Most blow-by comes from combustion gas leakage past any of three places: piston rings, valve guides, or sealing ring in the turbocharger. As blow-by increases, crankcase pressure also increases. Measuring crankcase pressure is the best way to determine whether or not there is excess leakage past the piston rings, valve guides, or turbocharger seal.

NOTE:

the following items are required

- *A small amount of antifreeze or colored water.*

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Load Profile Information Test — Instructions

Overview

The Engine Load Profile Information interactive test is a tool meant to allow the John Deere technician to determine usage of the engine over time. This usage data can assist when diagnosing certain problems. The load information is displayed from left to right with zero engine speed and zero load percentage displayed as the start point on the lower left with the maximum load and maximum speed operating points displayed on the upper right hand side of the graph.

> *NOTE:*
>
> *Do not compare the Percent Load at Current Speed parameter directly with the Engine Load Profile Information test results. The two parameters are calculated differently and cannot be used in direct comparison.*

> *NOTE:*
>
> *Total engine hours and amount of time stored in the Engine Load Profile Information may not be the same based on whether or not the ECU has been replaced and whether the original data was transferred to the new ECU. Whenever possible, make sure to connect the old ECU when prompted during the ECU Programming process.*

The test displays information in two ways or views, an ***updated view*** and ***original view*** . The updated view provides the following features

Updated View

The view will be selected for the technician when the test is started. If the test cannot automatically identify the vehicle or engine model that matches the database, the data will be displayed in the original view. Data will be displayed as a percentage of overall engine operating time. Generally it can be assumed that the percentages displayed are based on the total engine hours displayed in the same screen. See warning #2 for exceptions. A four color system will be used to highlight the areas of operation that are the most significant. The colors in order from least amount of time to most amount of time are white, yellow, orange, and dark orange. A blue reference curve will be displayed overtop of the data. The blue reference curve represents the general operating range of that application. The updated view is intended for all Tier-3 and later applications that have Flex Power, except Generator Set and Marine applications.

Also, the current list of applications which will be displayed using the updated view is expanding daily. Currently that list includes most Tier 3 AG and C&F applications. IT4 applications will be released shortly. All other updates will coincide with the release dates of other new engine models.

Original view

The original view displays time at load (Y-axis) and engine speed (X-axis) on a 15 by 15 grid. This load data is considered raw and may or may not appear to be skewed (up or down) based on the application and what the user expects to see within that data. Please see the note at the beginning of the procedure for the explanation.

If you run the test and it displays the data in the original view please see the list of applications later in this solution that can be accurately reviewed without assistance from DTAC. If your engine/application uses the original view to display the data and it is not on the list you will need to contact DTAC for additional assistance.

Application List

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Action:

On the ECU, measure the resistance between the power (terminal J2-A3) and signal (terminal J2-A4).

Was the resistance between 120k and 180k ohms?

Record of Actual Results:

Result:

YES:
Reconnect all connectors. Run HARNESS DIAGNOSTIC MODE TEST in Service ADVISOR.

NO:
Replace ECU. Run HARNESS DIAGNOSTIC MODE TEST in Service ADVISOR.

13 Occurrence Count Check

Action:

Review stored information and look at occurrence count for 000091.03.

Is occurrence recorded in step 1 greater than 5?

Record of Actual Results:

Result:

YES:
GO TO 14

NO:
GO TO 15

14 Terminal Check

Action:

1. Ignition OFF, Engine OFF
2. Perform TERMINAL TEST on the Primary Analog Throttle harness connector.

Were any problems found?

Record of Actual Results:

Result:

YES:
Repair problem, Run HARNESS DIAGNOSTIC MODE TEST in Service ADVISOR.

NO:
GO TO 15

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3. Set S1 to position 1 on Diagnostic Test Box.
4. Connect multimeter to Diagnostic Test Box.
5. Ignition ON, Engine OFF.
6. Press and hold S3 on Diagnostic Test Box.
7. Monitor voltage on multimeter.
8. Perform Wiggle Test .

Does voltage remain between 4.8 and 5.2 V?

Record of Actual Results:

Result:

YES:
GO TO 6

NO:
GO TO 5

5 Open or High Resistance Circuit Check

Action:

1. Press and hold both S2 and S3 buttons on Diagnostic Test Box.
2. Monitor voltage on multimeter.

Does voltage now remain between 4.8 and 5.2 V?

Record of Actual Results:

Result:

YES:
Repair open or high resistance in return wire. Perform Verification Procedure .

NO:
Repair open or high resistance in supply wire. Perform Verification Procedure .

6 Signal Circuit Check

Action:

1. Ignition OFF, Engine OFF.
2. Connect Diagnostic Test Box:
   - A to P04 connector female socket C (+).
   - B to P04 connector female socket A (-).

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2. In Service ADVISOR, monitor fuel rail pressure input voltage.

   Fuel Rail Pressure Input Voltage

3. Perform Wiggle Test .

Does sensor input voltage ever read greater than 4.9 V?

Record of Actual Results:

Result:

YES:
Repair harness problem. Perform Verification Procedure .

NO:
GO TO 9

9 Terminal Check

Action:

1. Ignition OFF, Engine OFF.
2. Disconnect fuel rail pressure sensor connector P05.
3. Perform Terminal Test on sensor and P05 connector.

Were any problems found?

Record of Actual Results:

Result:

YES:
Repair harness problem. Perform Verification Procedure .

NO:
GO TO 10

10 Terminal Check

Action:

1. Disconnect ECU connector J01.
2. Perform Terminal Test on J01 connector female sockets D3, E2, and E3. Also test corresponding ECU male pins.

Were any problems found?

Record of Actual Results:

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000611.04 —
Injector Shorted to Ground

The ECU detects that injector wiring is shorted to ground.

000611.04 — Injector Shorted to Ground Diagnostic Procedure

Troubleshooting Sequence:
000611.04

When DTC is Displayed:
The engine is cranking or running and the error condition is active. The DTC is also displayed during the Harness Diagnostic Mode Test in Service ADVISOR, provided fuel rail pressure is below 5 MPa (725 psi).

Related Information:
The ECU detects that injector wiring is shorted to ground.
The ECU has two internally-connected terminals which provide a shared high voltage supply to all the injectors.
The ECU switches the low side (ground) to control each individual injector.
This DTC can be caused by a short to ground of injector high side or low side wiring, or by an injector coil that is shorted to ground.

Alarm Level:
Stop

Control Unit Response:
The ECU will not permit the engine to operate when this DTC is active.

Additional References:
For further electronic injector information, see ELECTRONIC INJECTOR (EI) OPERATION in Section 03, Group 130 earlier in this manual.

> *NOTE:*
>
> *The wiring diagrams provided are for a typical John Deere supplied OEM harness. Wire number, colors, and jumper connectors do not apply to all applications.*

For wiring information:
- see 4.5L 12V ECU WIRING DIAGRAM 1
- see 4.5L 24V ECU WIRING DIAGRAM 1
- see 6.8L 12V ECU WIRING DIAGRAM 1
- see 6.8L 24V ECU WIRING DIAGRAM 1

located in Section 06, Group 210 later in this manual.

For more information on connector and terminal testing see TERMINAL TEST in Section 04, Group 160 earlier in this manual.

> **IMPORTANT:**
>
> **When directed to run the HARNESS DIAGNOSTIC MODE TEST the engine temperature should be above freezing. It is recommended that the engine temperature be at least room temperature 20° C (68° F). This test is located in Service ADVISOR.**

> **IMPORTANT:**

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IMPORTANT:

Terminal damage occurs if anything other than the specified flex probe from JDG10466 Flex Probe Kit is used.

Flex probes:
Sensor:
- JDG10446 — Female — Purple/Gray
- JDG10447 — Male — Purple/Gray

ECU (large terminal):
- JDG10234 — Female — Orange/Green
- JDG10415 — Male — Orange/Green

ECU (small terminal):
- JDG10244 — Female — Orange/Blue
- JDG10416 — Male — Orange/Blue

Tools:
- JDG10273 — Diagnostic Test Box
- JT07306 — Digital Multimeter
- J-35616-20 — Test Leads

000637.06 — Crankshaft Position Circuit Has Low-Resistance Diagnostic Procedure

1 Read DTCs and Store Snapshot Information

Action:

1. Connect Service ADVISOR, see Connecting to Service ADVISOR in Section 04, Group 160.

   NOTE:

   When DTCs are cleared, Snapshot information for ALL DTCs is cleared.

2. Ignition ON, Engine OFF.
3. If any DTCs have snapshot capture or snapshot recording information, save the information. For instructions on saving and using snapshot information, see Snapshot Instructions in Section 04, Group 160.
4. In Service ADVISOR, perform Control Unit Information and Overview Test.

   Control Unit Information and Overview

5. In Service ADVISOR, perform Harness Diagnostic Mode Test.

   Harness Diagnostic Mode Test

Is DTC 000637.06 active?

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Record of Actual Results:

Result:

YES:
GO TO 7

NO:
GO TO 4

4 Injector and Harness Check

Action:

1. Ignition OFF, Engine OFF.
2. Reconnect C01.
3. Ignition ON, Engine OFF.
4. Verify Fuel Rail Pressure - Actual data point is below 5 MPa (725 psi).

   Fuel Rail Pressure - Actual

   NOTE:

   Fuel Rail Pressure - Actual must be below 5 MPa (725 psi) or the Harness Diagnostic Mode Test results will be invalid.

5. In Service ADVISOR, perform Harness Diagnostic Mode Test.

   Harness Diagnostic Mode Test

Are any of the following DTC's 000651.06, 000652.06, 000653.06, 000654.06, 000655.06, 000656.06 active?

Record of Actual Results:

Result:

YES:
GO TO 5

NO:
GO TO 10

5 Injector Harness Check

Action:

1. Ignition OFF, Engine OFF.
2. Gain access to fuel injectors by removing rocker arm cover.

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NO:
GO TO 10

5 Check Injector Harness Terminals

Action:

1. Ignition OFF, Engine OFF.
2. Gain access to fuel injectors by removing the rocker arm cover.
3. Inspect the terminals and nuts for Injector #5.

Were any problems found?

Record of Actual Results:

Result:

YES:
Repair problem. Perform Verification Procedure .

NO:
GO TO 6

6 Injector Harness Check

Action:

1. Connect alligator clips and jumper wire between the terminals on Injector #5.
2. Ignition ON, Engine OFF.
3. Verify Fuel Rail Pressure - Actual data point is below 5 MPa (725 psi).

   Fuel Rail Pressure - Actual

   NOTE:

   Fuel Rail Pressure - Actual must be below 5 MPa (725 psi) or the Harness Diagnostic Mode Test results will be invalid.

4. In Service ADVISOR, perform Harness Diagnostic Mode Test.

   Harness Diagnostic Mode Test

Is DTC 000655.05 active?

Record of Actual Results:

Result:

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Result:

YES:
Fix problem. GO TO 13

NO:
GO TO 9

9 Check ECU Harness for Open Wire

Action:

1. Ignition OFF, Engine OFF.
2. On ECU harness, measure resistance from connector C08, terminal K to ECU connector J2, terminal K1.
3. On ECU harness, measure resistance from connector C08, terminal Q to ECU connector J2, terminal G3.

Was either measurements greater than 5 ohms?

Record of Actual Results:

Result:

YES:
Fix open wire in ECU harness. GO TO 13

NO:
GO TO 10

10 Check ECU Harness for Shorted Wire

Action:

1. Ignition OFF, Engine OFF.
2. On ECU harness connector C08, measure resistance from terminal K to each terminal of C08.

Were any measurements less than 100 ohms?

Record of Actual Results:

Result:

YES:
Fix shorted wire in ECU harness. GO TO 13

NO:
ECU has not been reprogrammed. GO TO 11

NO:
ECU has been reprogrammed. GO TO 12

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1 Read DTCs and Store Snapshot Information

Action:

1. Ignition ON, engine OFF.

> *NOTE:*
>
> *When DTCs are cleared Snapshot information for ALL DTCs will be cleared.*

2. Connect Service ADVISOR, see CONNECTING TO SERVICE ADVISOR earlier in this Group.
3. Write down all DTCs and their occurrence count. If any DTCs have snapshot capture or snapshot recording information, save the information. For instructions on saving and using snapshot information, see SNAPSHOT INSTRUCTIONS earlier in this Group.
4. Refresh Codes.

Did 001349.04 reappear active?

Record of Actual Results:

Result:

YES:
GO TO 2

NO:
GO TO 16

2 Terminal Check

Action:

1. Ignition OFF, Engine OFF.
2. Disconnect Dual Fuel Rail Pressure sensor connector P05.
3. Perform a TERMINAL TEST on connector P05.

Were any problems found?

Record of Actual Results:

Result:

YES:
Repair problem. Run HARNESS DIAGNOSTIC MODE TEST in Service ADVISOR.

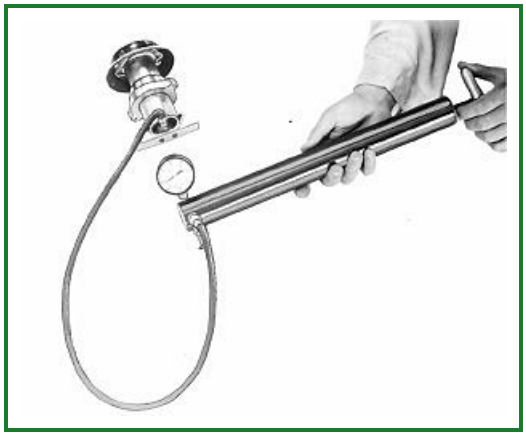
NO:
GO TO 3

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D05104ST

Cooling System Pressure Pump



R26406N-UN: D05104ST

- Use to pressure test radiator cap and cooling system.

BK34394,00002FC-19-20131128

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Engine Oil Pressure.	000100.01	Less than 1kPa (0.14psi): 770 rpm Less than 118kPa (17psi): 775 rpm Less than 205kPa (29psi): 1500 rpm Less than 240kPa (35psi): 2000 rpm	60%
Fuel Rail Pressure	000157.03 000157.04	Out of Range Code Detected.	50%
Water In Fuel	000097.16	Water Detected	50%

DN22556,0000470-19-20080606

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