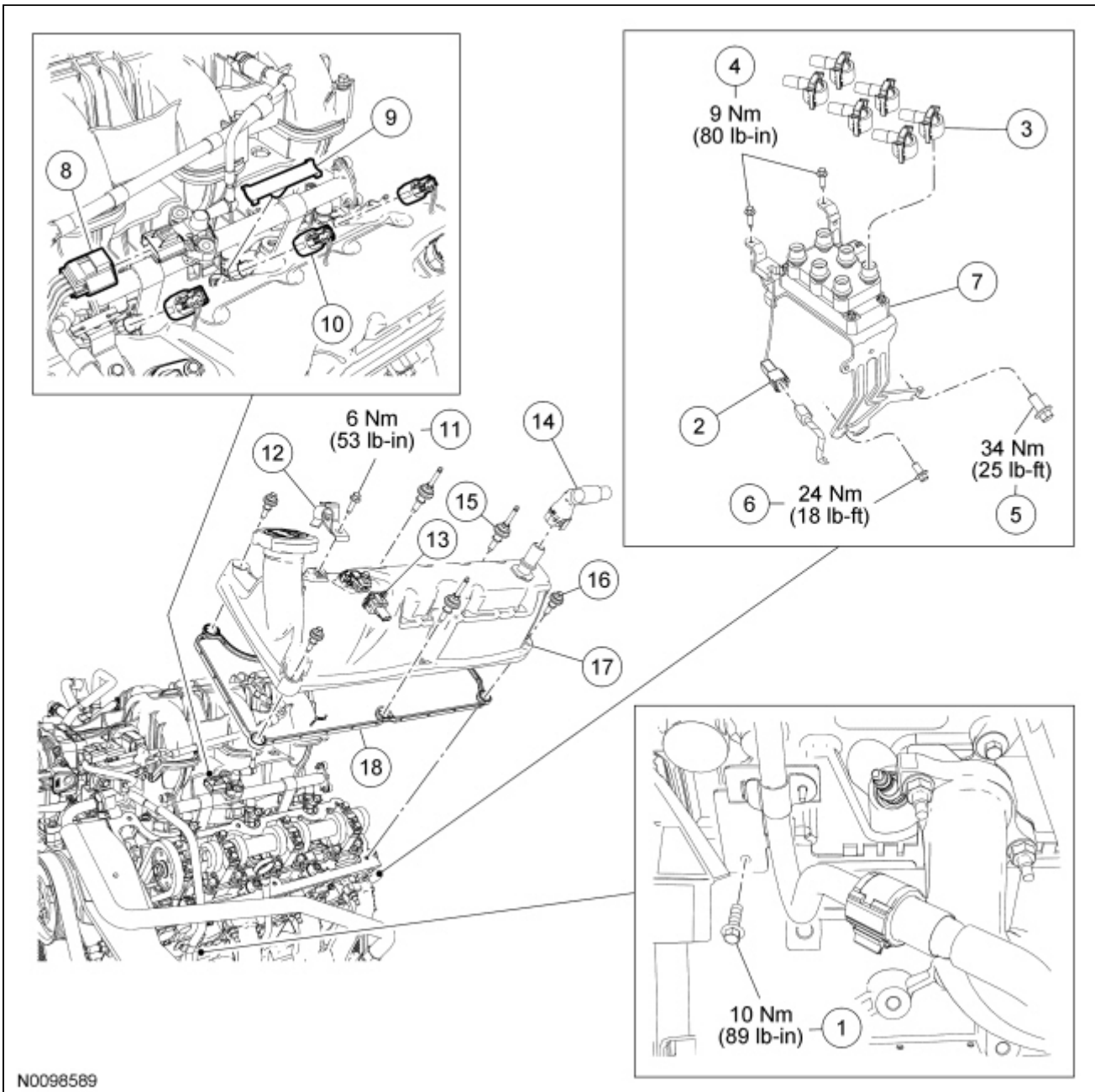


Valve Cover — LH

Material

Item	Specification
Motorcraft® Metal Surface Prep ZC-31-A	—



N0098589

Item	Part Number	Description
1	W500213	Fuel rail supply tube bracket-to-cylinder head bolt
2	14A464	Radio capacitor electrical connector
3	12280	Spark plug wire-to-ignition coil connector (6 required)
4	W500214	Ignition coil bracket upper bolts

5	W500041	Ignition coil bracket lower bolt (M12)
6	W500023	Ignition coil bracket lower bolt (M8)
7	12A310	Ignition coil and bracket assembly
8	14A464	Fuel rail pressure and temperature sensor electrical connector (part of 12B637)
9	13A506	Wiring harness retainer (part of 12B637)
10	14A464	Fuel injector electrical connector (3 required) (part of 12B637)
11	W500213	Fuel rail supply tube bracket-to-valve cover bolt
12	—	Fuel rail supply tube bracket (part of 9E964)
13	14A464	Camshaft Position (CMP) sensor electrical connector (part of 12B637)
14	6758	Crankcase ventilation tube
15	6C519	LH valve cover stud bolt (3 required)
16	6C519	LH valve cover bolt (3 required)
17	6A505	LH valve cover assembly
18	6584	LH valve cover gasket

Removal

NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

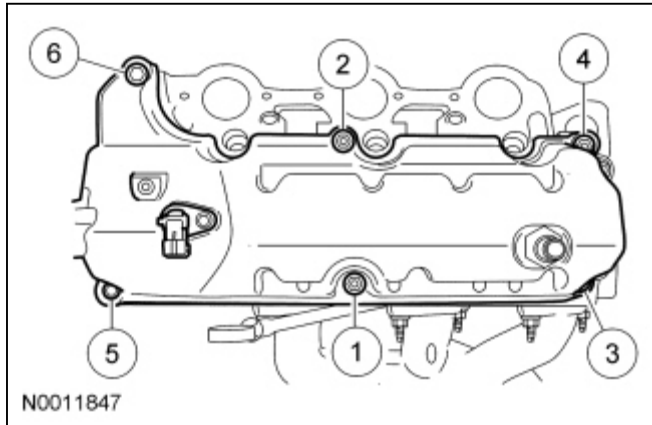
1. Disconnect the radio capacitor electrical connector.
2. Disconnect the 6 spark plug wires from the ignition coil.
3. Remove the 2 upper ignition coil bracket bolts.
4. Remove the 2 lower ignition coil bracket bolts and remove the ignition coil and bracket assembly.
5. Remove the fuel rail supply tube bracket-to-cylinder head bolt.
6. Remove the fuel rail supply tube bracket-to-valve cover bolt.
 - Position the fuel rail supply tube aside.
7. Disconnect the crankcase ventilation tube from the valve cover and position the tube aside.
8. Disconnect the Camshaft Position (CMP) sensor electrical connector.
9. Disconnect the fuel rail pressure and temperature sensor electrical connector.
10. Disconnect the 3 LH fuel injector electrical connectors.
 - Detach the wiring retainer from the valve cover stud bolt and position the wiring harness aside.
11. Detach the spark plug wire retainer from the valve cover stud bolt.
12. Remove the 3 bolts, the 3 stud bolts and the LH valve cover.

Installation

1. **NOTE:** Clean the valve cover and cylinder head sealing surfaces with metal surface prep. Inspect and install a new gasket as necessary.

Position the LH valve cover and install the 3 bolts and the 3 stud bolts.

- Tighten in the sequence shown to 10 Nm (89 lb-in).



2. Attach the spark plug wire retainer to the valve cover stud bolt.
 3. Position the wiring harness, attach the wiring retainer to the valve cover stud bolt and then connect the 3 LH fuel injector electrical connectors.
 4. Connect the fuel rail pressure and temperature sensor electrical connector.
 5. Connect the [CMP](#) sensor electrical connector.
 6. Connect the crankcase ventilation tube to the valve cover.
 7. Position the fuel rail supply tube and install the fuel rail supply tube bracket-to-valve cover bolt.
 - Tighten to 6 Nm (53 lb-in).
 8. Install the fuel rail supply tube bracket-to-cylinder head bolt.
 - Tighten to 10 Nm (89 lb-in).
 9. Install the ignition coil and bracket assembly and the lower bolts.
 - Tighten the M8 bolts to 24 Nm (18 lb-ft).
 - Tighten the M12 bolt to 34 Nm (25 lb-ft).
 10. Install the upper ignition coil bracket bolts.
 - Tighten to 9 Nm (80 lb-in).
 11. Connect the 6 spark plug wire to the ignition coil.
 12. Connect the radio capacitor electrical connector.
-

