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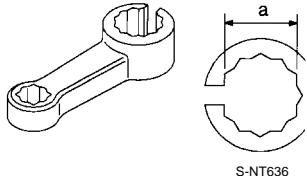
# PREPARATION

## PREPARATION

PFP:00002

### Special Service Tool

EBS000JC

| Tool number<br>Tool name                  | Description  |
|---|--|
| KV10117200<br>Heated oxygen sensor wrench |  <p>Loosening or tightening heated oxygen sensors<br/><b>a: 22 mm (0.87 in)</b></p> |

# EXHAUST SYSTEM

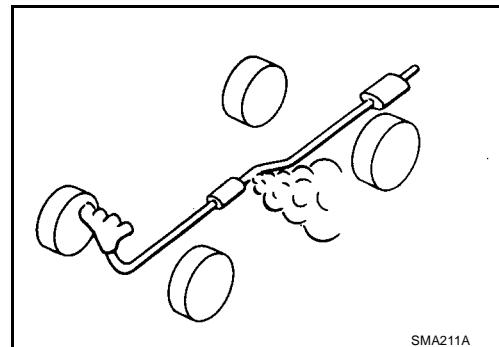
## EXHAUST SYSTEM

PFP:20100

### Checking Exhaust System

EBS000JQ

Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage or deterioration.



SMA211A

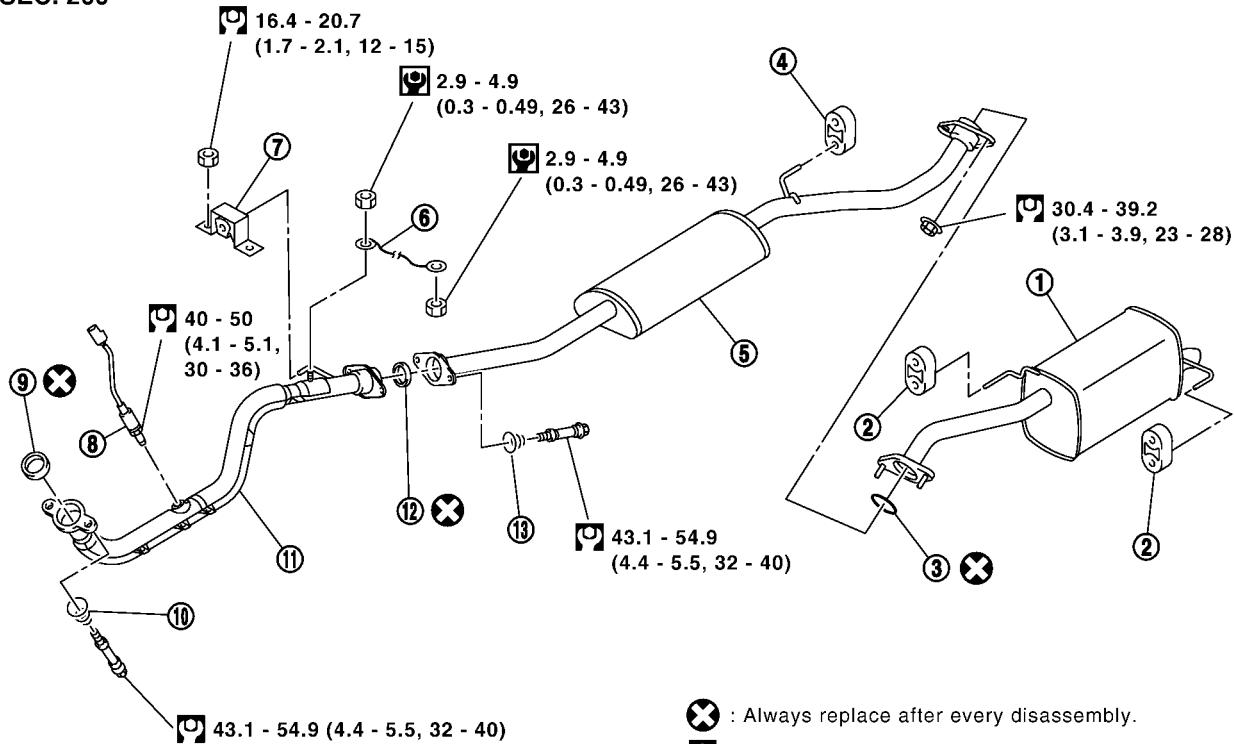
### Removal and Installation

EBS000JD

#### CAUTION:

- Be sure to use genuine exhaust system parts or equivalents which are specially designed for heat resistance, corrosion resistance and shape.
- Perform the operation with the exhaust system fully cooled down because the system is still hot just after the engine stops.
- Be careful not to cut your hand on the insulator edge.

SEC. 200



✖ : Always replace after every disassembly.

Nm : N·m (kg·m, ft-lb)

Nm : N·m (kg·m, in-lb)

PBIC1510E

1. Main muffler
2. Mounting rubber
3. Ring gasket
4. Mounting rubber
5. Center muffler
6. Ground cable
7. Mounting bracket
8. Heated oxygen sensor 2
9. Seal bearing
10. Spring
11. Exhaust front tube
12. Seal bearing
13. Spring

# EXHAUST SYSTEM

## REMOVAL

- Disconnect each joint and mounting.

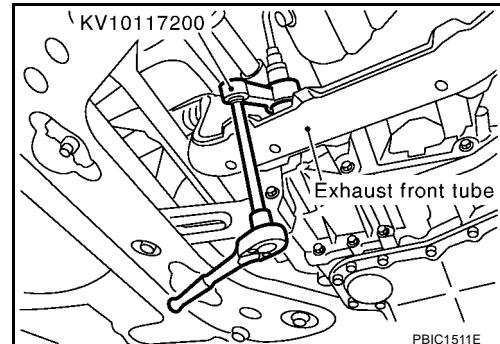
### Heated Oxygen Sensor 2

- When removing heated oxygen sensor 2 on vehicle, perform following procedure.

  1. Disconnect harness connector.
  2. Use a heated oxygen sensor wrench (special service tool) for removal of heated oxygen sensor 2.

**CAUTION:**

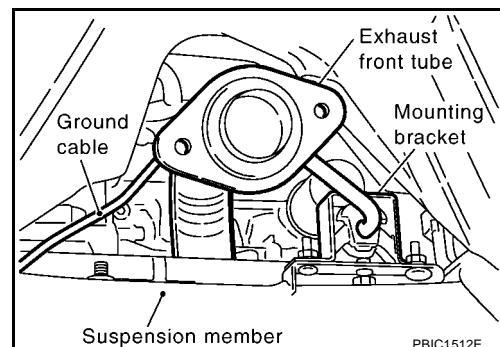
- Do not apply impact while handling.



PBIC1511E

### Exhaust Front Tube

1. Disconnect center muffler connecting points.
2. Remove the ground cable on vehicle.
3. Remove mount bracket mounting nuts on suspension member.
4. Disconnect three way catalyst connecting points to remove exhaust front tube.



PBIC1512E

## INSTALLATION

Install in the reverse order of removal paying attention to the following.

- Remove all deposits, such as old gasket, from the sealing surfaces of each connection. Connect firmly without any leaks.
- When installing exhaust pipe assembly, temporarily tighten nuts on the exhaust manifold side mounting bolts and vehicle side mounting nuts. After making sure there is no unusual tension on each part, tighten nuts and bolts to the specified torque.
- Be careful not to twist or apply excess tension in any direction when installing mounting rubbers.
- Because thickness is different between center muffler rear side mounting rubber and main muffler side mounting rubbers, install thick mount rubber at main muffler side.
- Install seal bearing unit in the following procedures.
- When installing heated oxygen sensor 2, use heated oxygen sensor wrench (special service tool: KV10117200).

**CAUTION:**

- Do not apply impact while handling.
- Do not use heated oxygen sensor 2 after being dropped on a solid concrete floor, from a height of 0.5 m (1.6 ft) or higher. Replace it with a new one.
- Do not tighten heated oxygen sensor 2 to a torque larger than specified. Excess tightening may result in damage of heated oxygen sensor 2, causing MI to turn ON.
- when using heated oxygen sensor wrench (special service tool: KV10117200), tighten to the middle of specified torque because length of tool may induce slight indication increase. Do not tighten to the maximum specified torque.

# EXHAUST SYSTEM

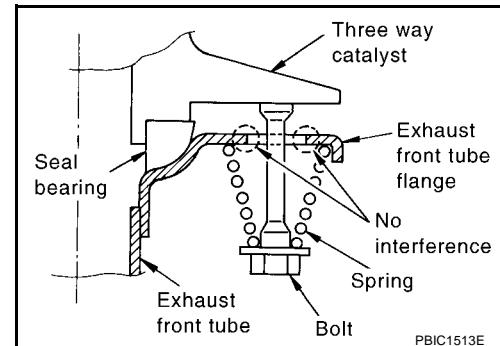
## Three Way Catalyst to Exhaust Front Tube

1. Securely insert seal bearing into three way catalyst side in the direction shown in figure.

**CAUTION:**

**Be careful not to damage seal bearing surface when installing.**

2. With spring large diameter side facing to exhaust front tube flange, tighten mounting bolt.
  - Be careful that mounting bolt does not interfere with flanged area, and tighten it.



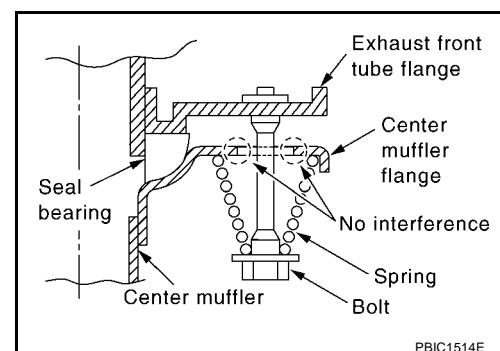
## Exhaust Front Tube to Center Muffler

1. Securely insert seal bearing into exhaust front tube side in the direction shown in figure.

**CAUTION:**

**Be careful not to damage seal bearing surface when installing.**

2. With spring large diameter side facing to center muffler flange, tighten mounting bolt.
  - Be careful that mounting bolt does not interfere with flanged area, and tighten it.



## INSPECTION AFTER INSTALLATION

With the engine running, check the joint of tube for exhaust gas leak and unusual noise.

# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

### Tightening Torque

EBS000JE

Unit: N·m (kg-m, ft-lb)

Unit: N·m (kg-m, in-lb)<sup>\*2</sup>

|  |   |
|--|---|
| Exhaust system connecting parts          |   |
| Three way catalyst to Exhaust front tube | 43.1 - 54.9 (4.4 - 5.6, 32 - 40)              |
| Exhaust front tube to Center muffler     | 43.1 - 54.9 (4.4 - 5.6, 32 - 40)              |
| Center muffler to Main muffler           | 30.4 - 39.2 (3.1 - 3.9, 23 - 28)              |
| Heated oxygen sensor 2                   | 40 - 50 (4.1 - 5.1, 30 - 36)                  |
| Exhaust front tube mounting bracket      | 16.4 - 20.7 (1.7 - 2.1, 12 - 15)              |
| Ground cable                             | 2.9 - 4.9 (0.3 - 0.49, 26 - 43) <sup>*2</sup> |