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REMOVAL

[2WD]

1. Remove wheel nuts, wheel and tire (A) from front hub.

Tightening torque:

107.9 - 127.5 N·m (11.0 - 13.0 kgf·m, 79.6 - 94.0 lb·ft)



NOTICE

Be careful not to damage the hub bolts when removing the wheel and tire.

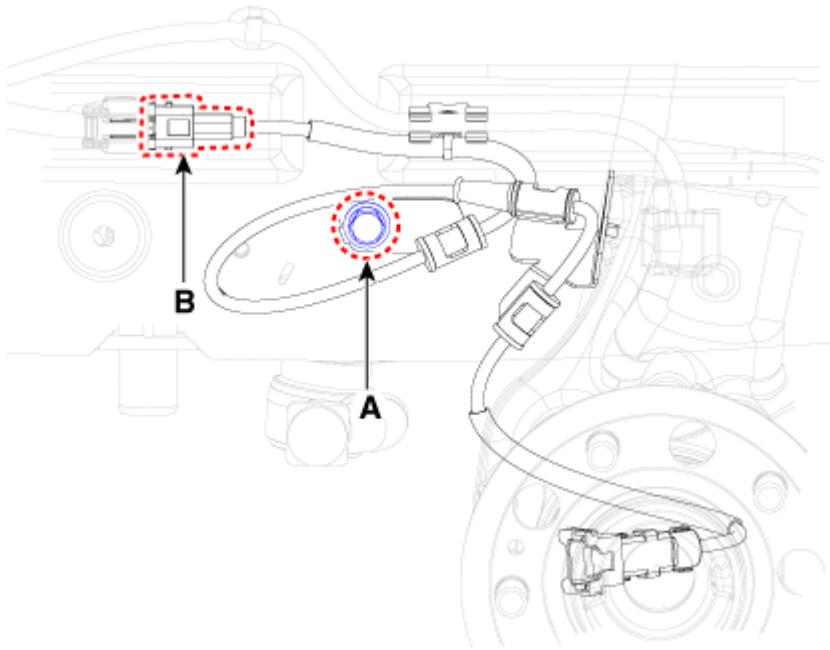
2. Disconnect the front wheel speed sensor connector from the front axle.



3. Loosen the wheel speed sensor bracket bolt (A), and then disconnect the wheel speed sensor connector (B) English ◀ ▶

Tightening torque :

16.7 - 25.5 N·m (2.0 - 3.0 kgf·m, 12.3 - 18.8 lb·ft)



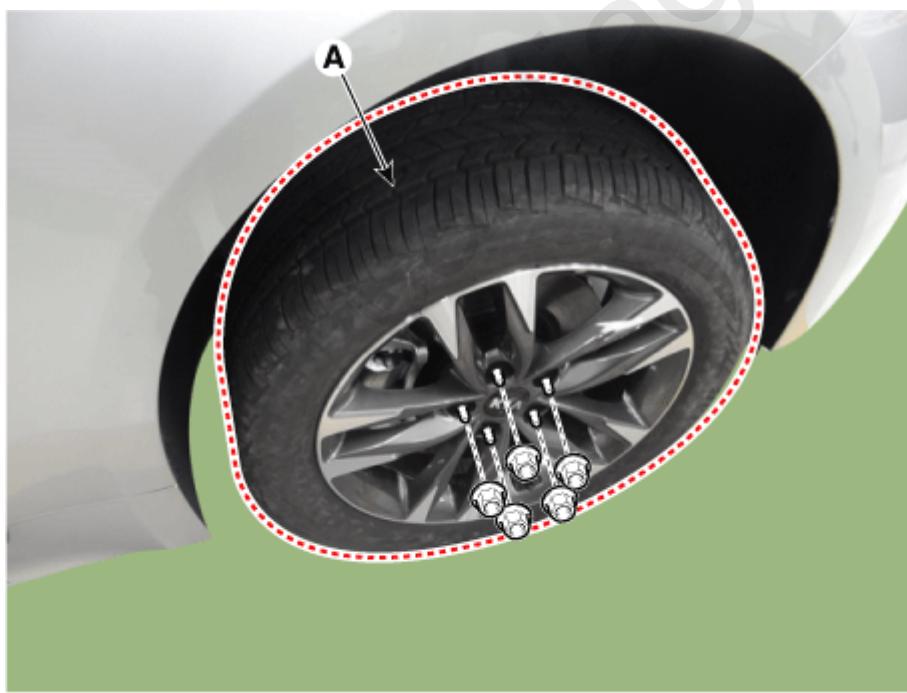
4. Install in the reverse order of removal.

[AWD]

1. Remove wheel nuts, wheel and tire (A) from front hub.

Tightening torque:

107.9 - 127.5 N·m (11.0 - 13.0 kgf·m, 79.6 - 94.0 lb·ft)



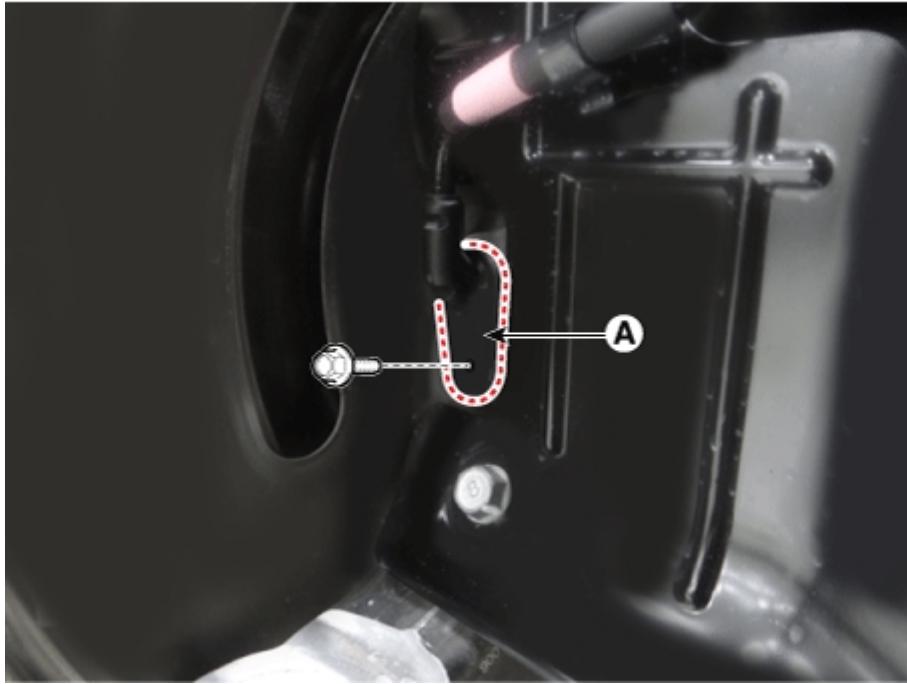
NOTICE

Be careful not to damage the hub bolts when removing the wheel and tire.

2. Loosen the wheel speed sensor bolt and then remove the wheel speed sensor (A).

Tightening torque:

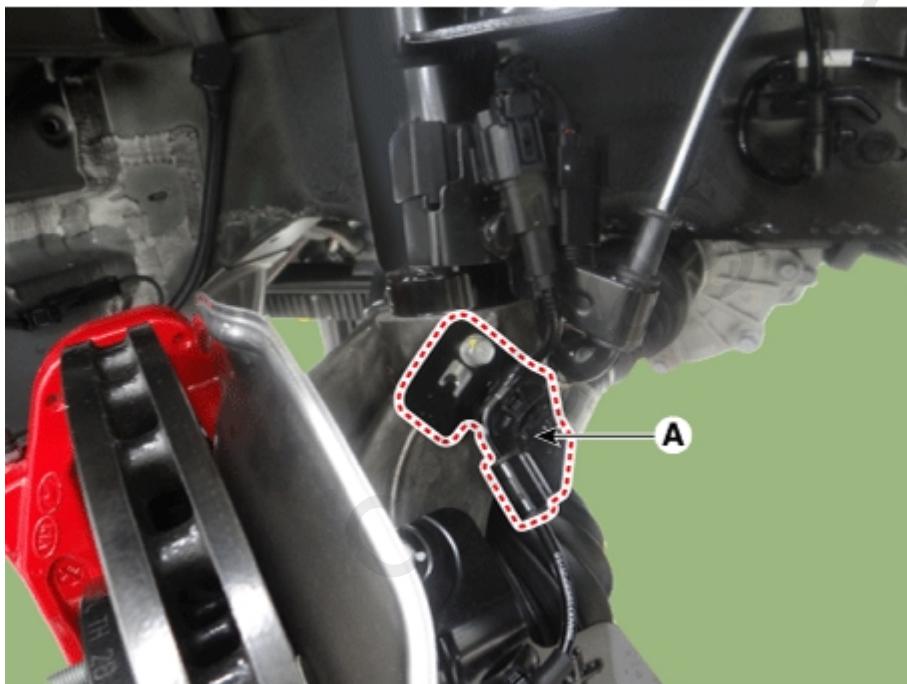
6.9 - 10.8 N·m (0.7 - 1.1 kgf·m, 5.1 - 7.6 lb·ft)



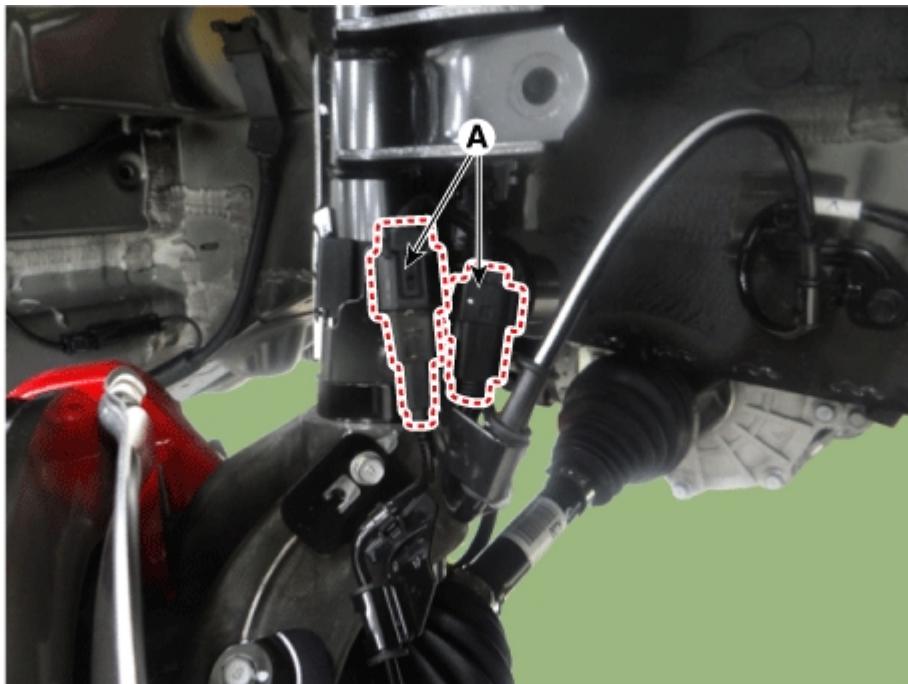
3. Remove the wheel speed sensor bracket.

Tightening torque:

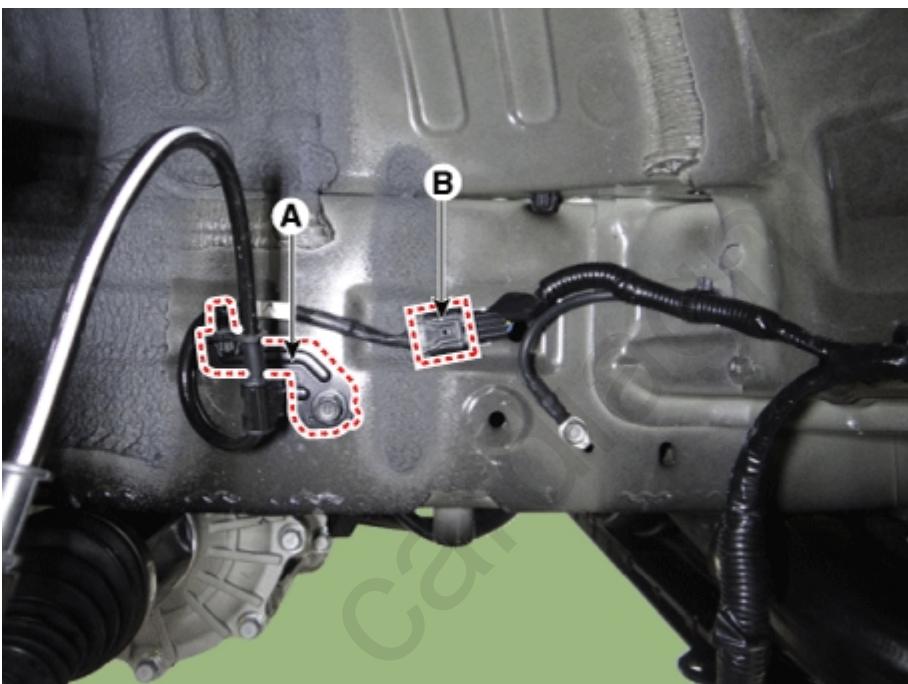
6.9 - 10.8 N·m (0.7 - 1.1 kgf·m, 5.1 - 7.6 lb·ft)



4. Disconnect the ECS connector (A) and then remove the bracket.



5. Remove the bracket (A) and the remove the connector (B).



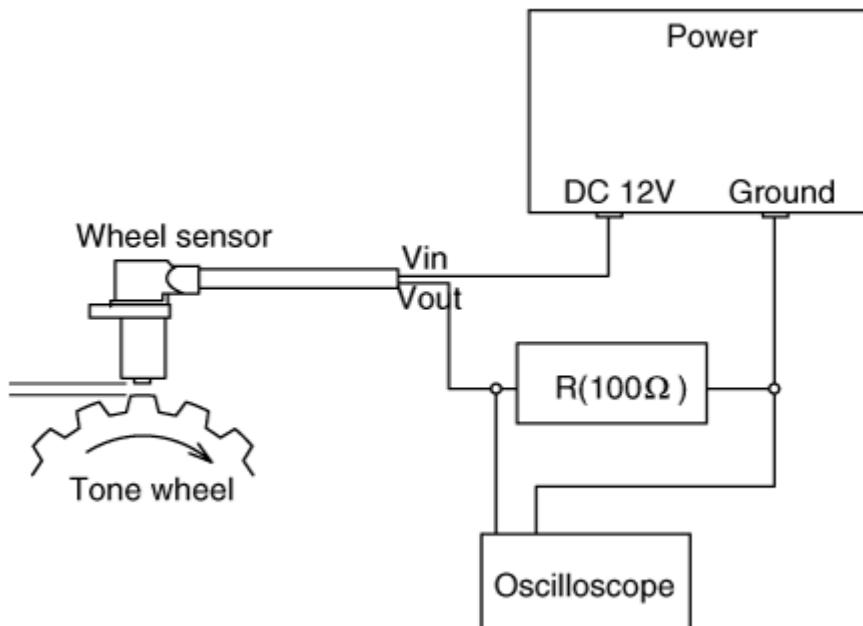
6. Install in the reverse order of removal.

INSPECTION

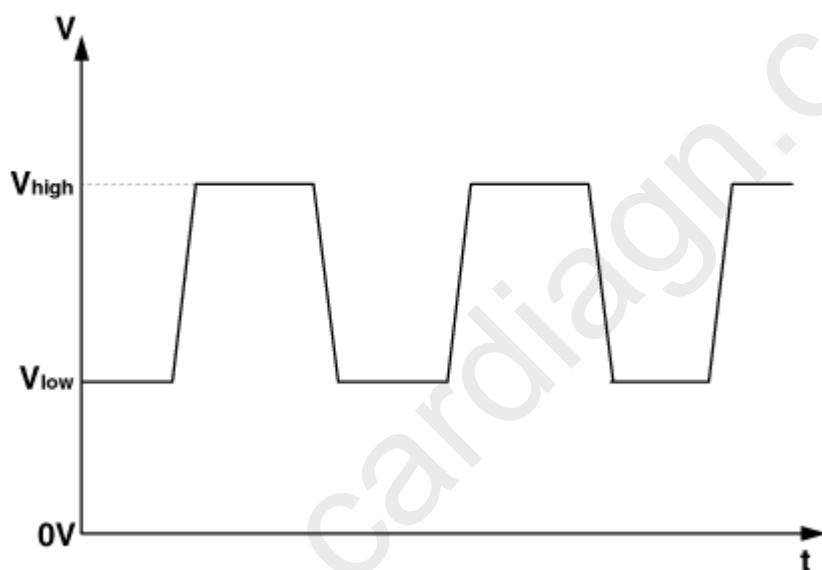
1. Measure the output voltage between the terminal of the wheel speed sensor and the body ground.

NOTICE

- In order to protect the wheel speed sensor, when measuring output voltage, a 100Ω resister must be used as shown.



2. Compare the change of the output voltage of the wheel speed sensor to the normal change of the output voltage as shown below.



$V_{low} : 0.59V - 0.84V$

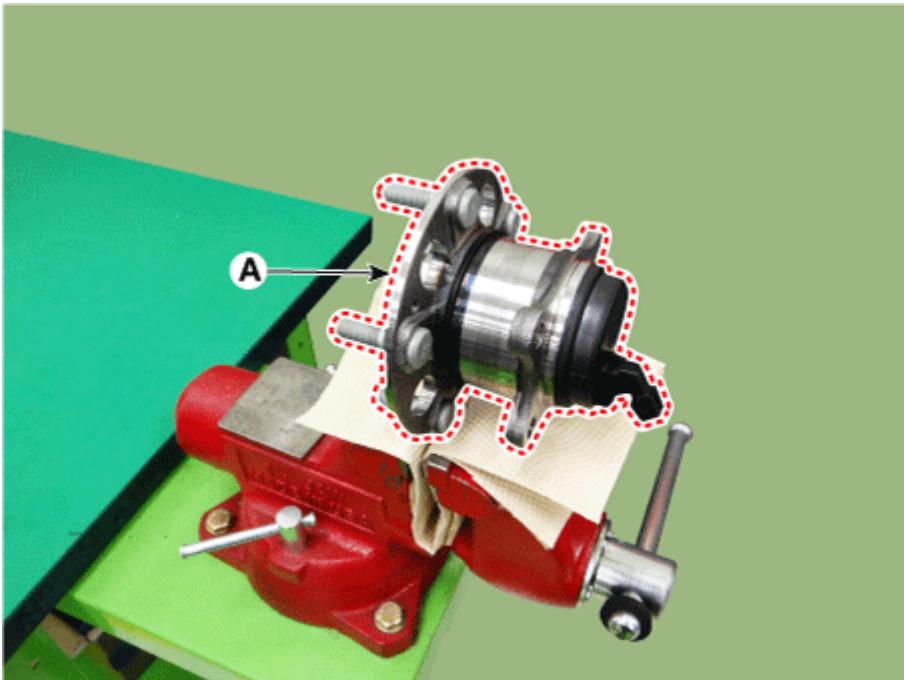
$V_{high} : 1.18V - 1.68V$

Frequency range : 1 - 2,500Hz

REPLACEMENT

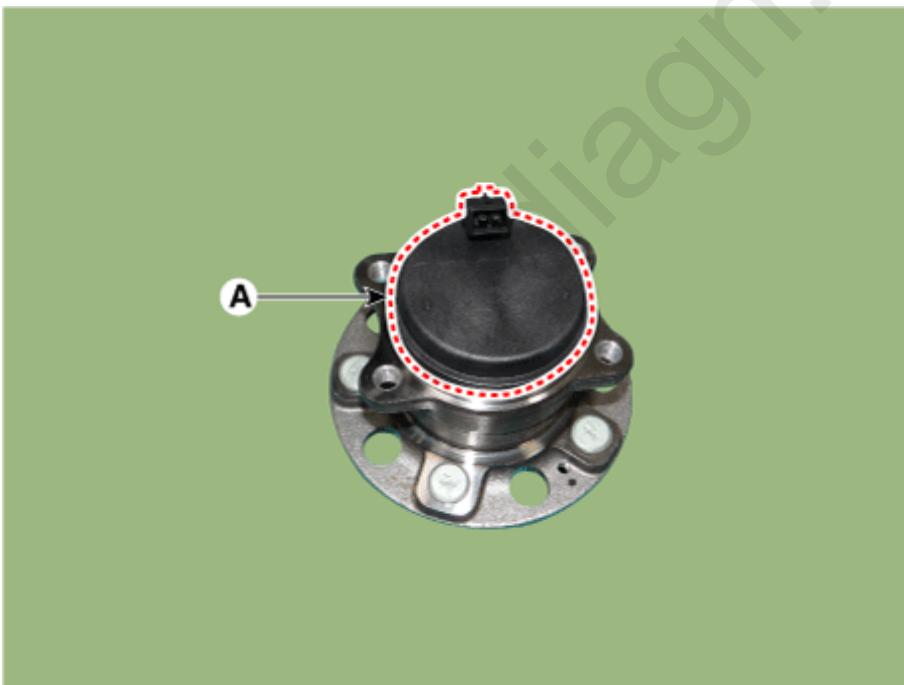
Rear Wheel Speed Sensor Cap

1. Remove the rear wheel hub bearing assembly.
(Refer to Driveshaft and axle - "Rear Axle Assembly")
2. Fix the rear hub bearing assembly (A) on the vise.

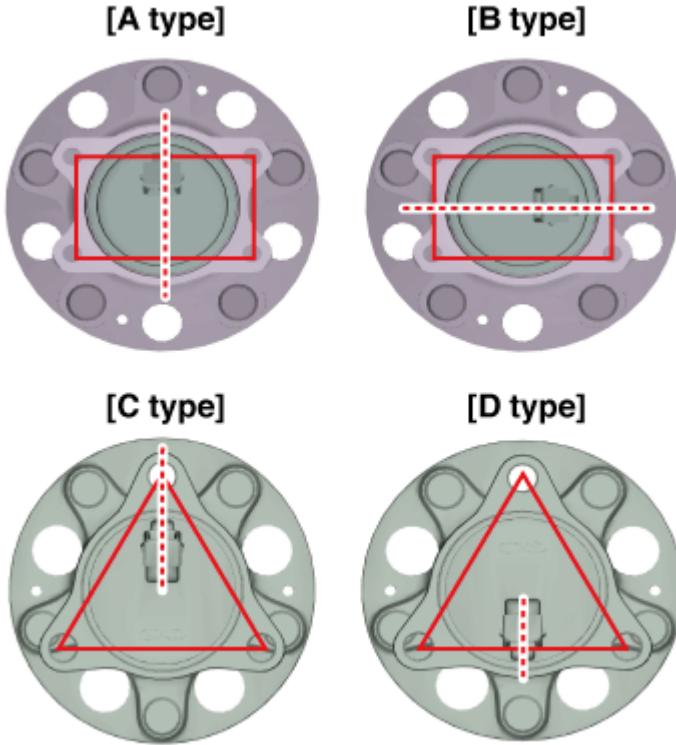
**NOTICE**

- When fixing on the vise, use a cloth not to be damaged the hub bearing assembly.
- Be careful if excessive force for fixing on the vise may damage the hub bearing assembly.

3. Check the direction of the sensor cap (A).

**NOTICE**

Before removing the sensor cap, check the direction of the sensor cap connector.



4. Remove the sensor cap by hammering on a gap between sensor cap and hub bearing assembly using a scraper (A).

**NOTICE**

- In order to widen the gap little by little, hammering around the bearing cap 10-20 times.

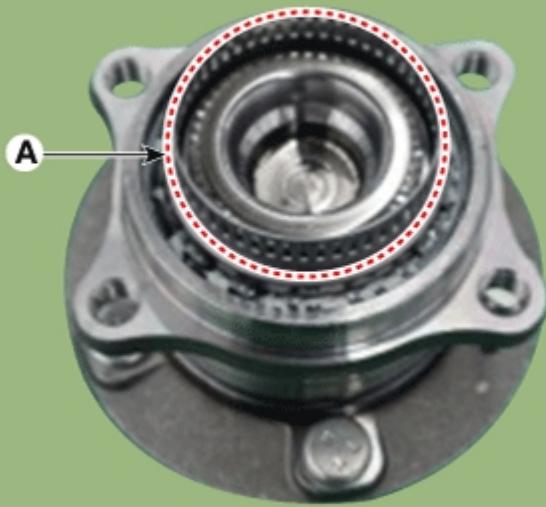


- When removing the sensor cap, remove it in a straight direction not to damage the tone wheel or encoder.

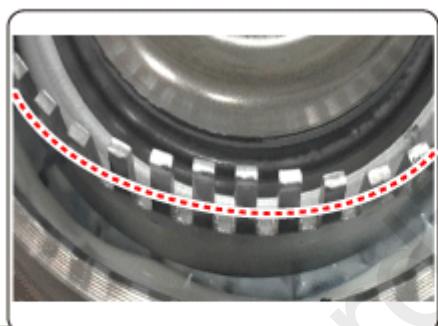


- Be careful not to damage the hub bearing assembly when using the hammer.

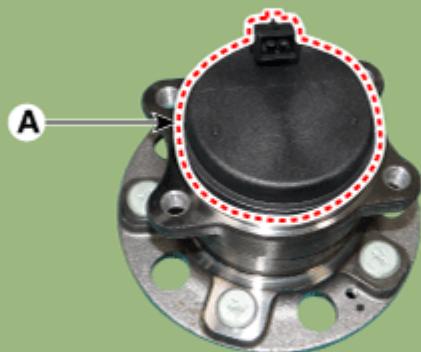
5. Check if distorted or damaged the tone wheel or encoder (A).

**NOTICE**

- Check if damaged the tone wheel or encoder after removing the sensor cap and replace the hub bearing if it was deformed.
- If the tone wheel is deformed, it may arise MIL ON or other problems.



6. Position the sensor cap to the same direction of sensor cap connector (A) as you checked before removing.

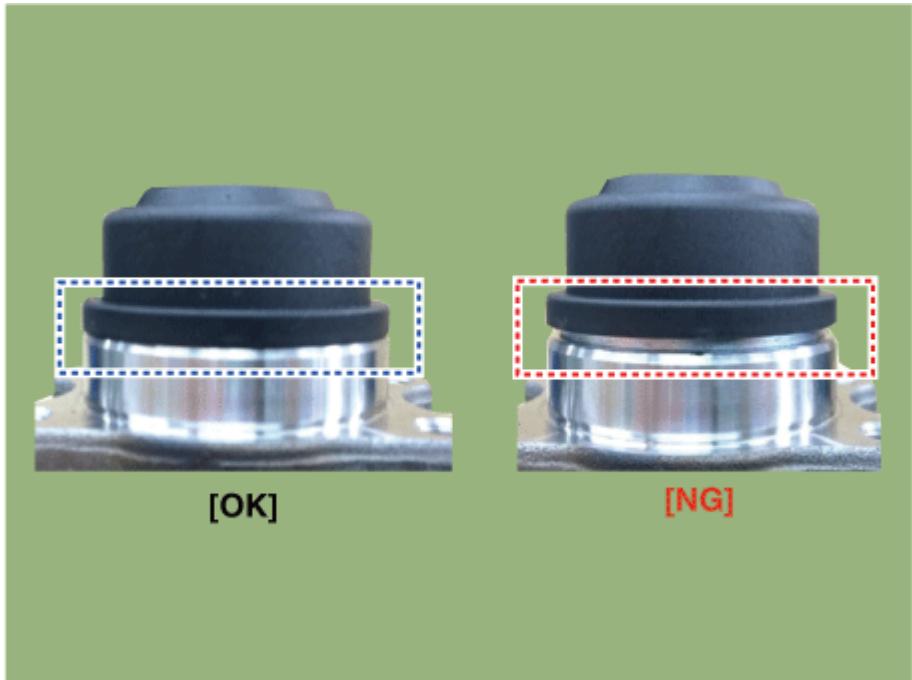
**NOTICE**

Before installing the sensor cap, do not let any foreign material and contaminant into the hub bearing assembly.

7. Install the sensor cap (A) with the special service tool (09527-2W110).

**NOTICE**

- Be careful not to tilt to one side when installing the sensor cap as it may damage the tone wheel or encoder.
- When sensor cap installation, hammering it until the gap disappeared between the sensor cap and hub bearing assembly.



- Special Service Tools guide.

SST No.	SST Inner diameter	Sensor cap outer diameter
09527-2W110	Φ82.1	Φ81.2, Φ81.4
09527-1S010	Φ58.9	Φ58.4
09527-AL100	Φ60	Φ59.5
09527-AL200	Φ65.9	Φ65.3
09527-AL300	Φ67.4	Φ67.2
09527-AL400	Φ73.2	Φ72.6
09527-AL500	Φ87.2	Φ86.6

8. Install the rear wheel hub bearing assembly.
(Refer to Driveshaft and axle - "Rear Axle Assembly")

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