SECTION FAX
FRONT AXLE

CONTENTS

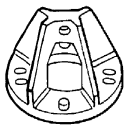
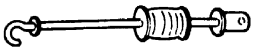
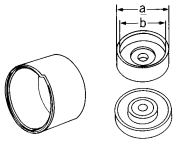
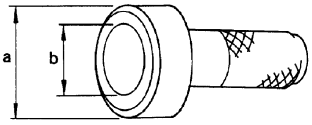
PREPARATION

PFP:00002

Special Service Tools (SST)

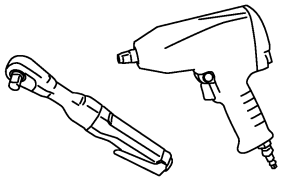
NDS0006D

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
KV40104100 (—) Attachment  ZZA0804D	Removing wheel hub and bearing assembly
ST36230000 (J25840-A) Sliding hammer  ZZA0803D	Removing wheel hub and bearing assembly
KV40105220 (—) Drift a:75 mm (2.95 in) dia. b:62 mm (2.44 in) dia.  ZZA1101D	Removing sensor rotor
KV38100500 (—) Drift a:80 mm (3.15 in) dia. b:60 mm (2.36 in) dia.  ZZA0701D	Installing hub cap

Commercial Service Tools

NDS0006E

Tool name	Description
Power tool  PBIC0190E	● Removing wheel nuts ● Removing brake caliper assembly

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

PFP:00003

NVH Troubleshooting Chart

NDS0006F

Use chart below to help you find the cause of the symptom. If necessary, repair or replace these parts.

Reference page			FAX-4	—	FAX-4	NVH in WT section.	NVH in WT section.	NVH in PS section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Parts interference	Wheel bearing damage	TIRES	ROAD WHEELS	STEERING
Symptom	FRONT AXLE	Noise	×	×		×	×	×
		Shake	×	×		×	×	×
		Vibration	×	×		×		×
		Shimmy	×	×		×	×	×
		Judder	×			×	×	×
		Poor quality ride or handling	×	×	×	×	×	

×: Applicable

FRONT WHEEL HUB AND KNUCKLE

PFP:40202

On-Vehicle Inspection and Service

NDS0006G

Make sure the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

WHEEL BEARING INSPECTION

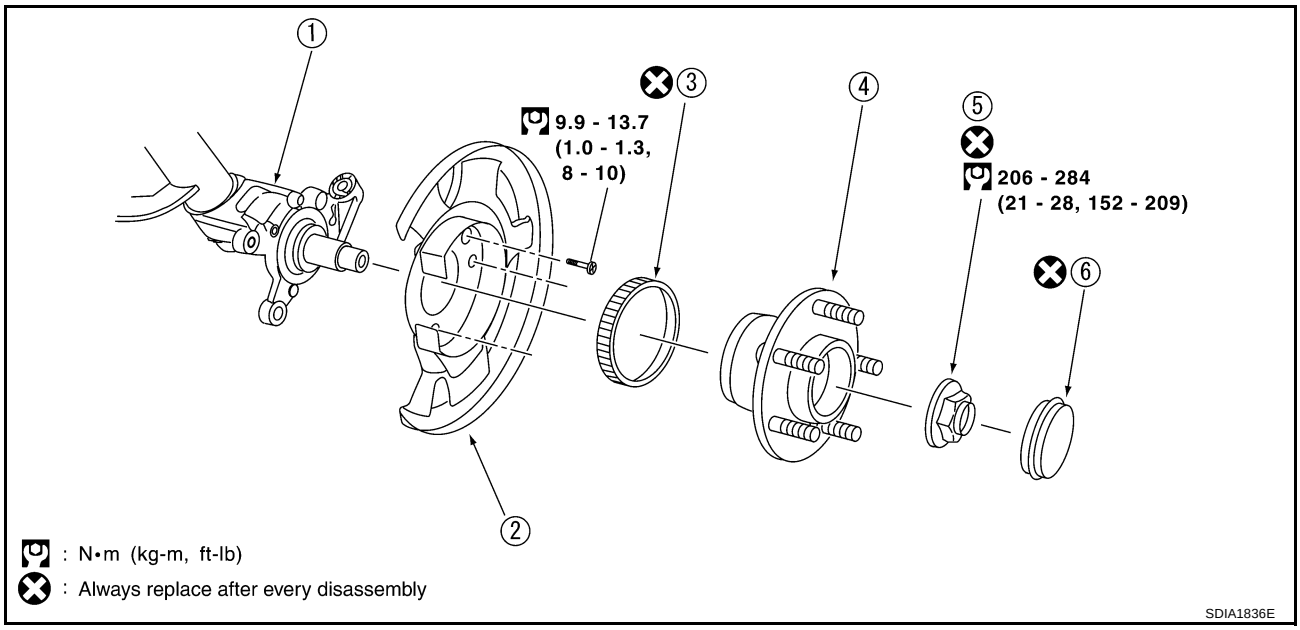
- Move wheel hub and bearing assembly in the axial direction by hand. Make sure there is no looseness of wheel bearing.

  Axial end play : 0.05 mm (0.002 in) or less

- Rotate wheel hub and make sure there are no unusual noises or other irregular condition. If there are any irregular conditions, replace wheel hub and bearing assembly.

Removal and Installation

NDS0006H

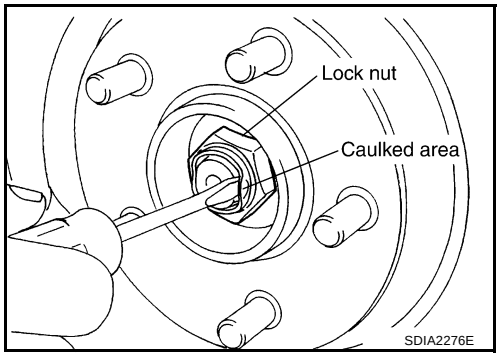


1. Strut assembly
2. Splash guard
3. Sensor rotor
4. Wheel hub and bearing assembly
5. Lock nut
6. Hub cap

REMOVAL

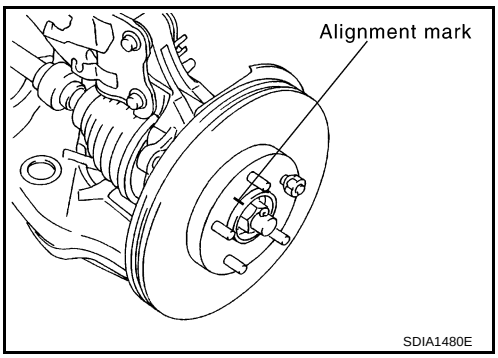
1. Remove tire from vehicle with a power tool.
2. Remove brake caliper with a power tool. Hang it in a place where it will not interfere with work. Refer to BR-23, "FRONT DISC BRAKE" .

   NOTE:
   Avoid depressing brake pedal while brake caliper is removed.
3. Use a hub cap pliers (suitable tool) to remove hub cap from wheel hub and bearing assembly.
4. Pull up caulked area of lock nut with a flat-bladed screwdriver.

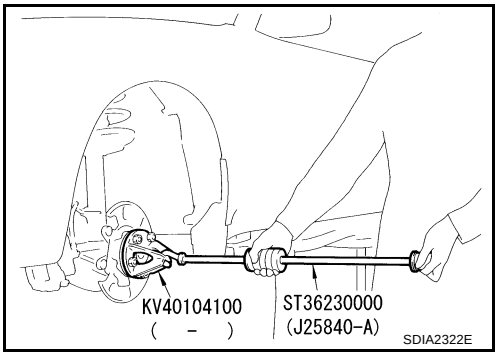


5. Put alignment marks on disc rotor and wheel hub and bearing assembly.
6. Remove disc rotor.

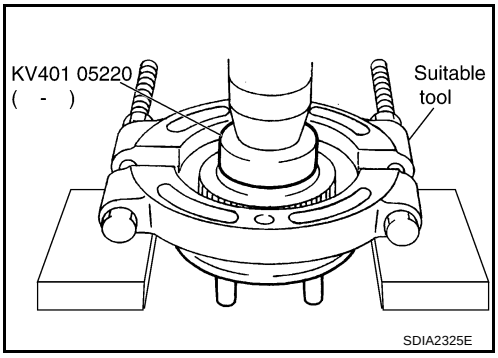
NOTE:
If it is difficult to remove disc rotor, remove it by tapping with rubber hammer.



7. Remove lock nut, then remove wheel hub and bearing assembly from strut assembly.
   - When it is hard to remove wheel hub and bearing assembly from strut assembly due to burnout, use the attachment (SST) and sliding hammer (SST) for removal.
8. Remove fixing screws of splash guard, then remove splash guard from strut assembly.



9. As shown in the figure, using a puller (suitable tool) and drift (SST) to remove wheel hub and bearing assembly from sensor rotor.



INSPECTION AFTER REMOVAL

Check for deformity, cracks and damage on each parts, replace if there are.

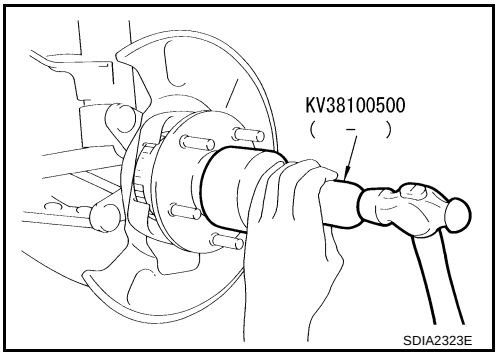
INSTALLATION

- Refer to FAX-4, "Removal and Installation" for tightening torque. Install in the reverse order of the removal.

NOTE:
Refer to component parts location and do not reuse non-reusable parts.

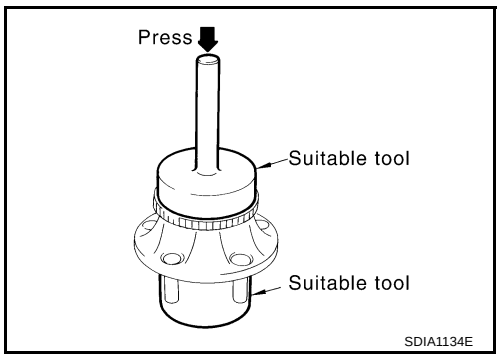
- Install hub cap using the drift (SST).

NOTE:
Do not reuse hub cap.

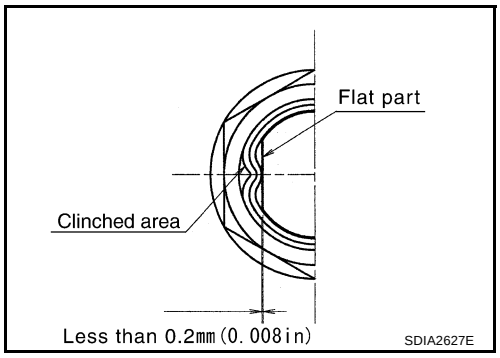


- Press-fit sensor rotor into wheel hub and bearing assembly using a drift (suitable tool).

  NOTE:
  - Do not reuse sensor rotor.
  - Sensor rotor must be installed with its grooved side facing inboard.



- After installation of lock nut, be sure to perform clinching. Refer to figure for clinching procedure.
- After removing/installing or replacing axle components, check wheel alignment. Refer to FSU-5, "Wheel Alignment Inspection" .
- After adjusting wheel alignment, adjust neutral position of steering angle sensor. Refer to BRC-6, "Adjustment of Steering Angle Sensor Neutral Position" .



SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

Wheel Bearing

NDS0006I

Axial end play	0.05 mm (0.002 in) or less