

SECTION **RSU**
 REAR SUSPENSION

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RSU

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PRECAUTIONS

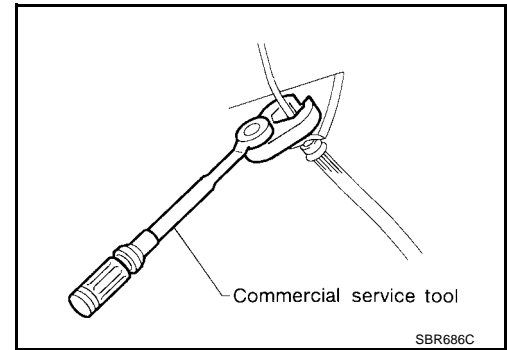
PRECAUTIONS

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Precautions

EES000HW

- When installing rubber parts, final tightening must be carried out under unladen condition* with tires on ground.
*: Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.
- After installing removed suspension parts, check wheel alignment and adjust if necessary.



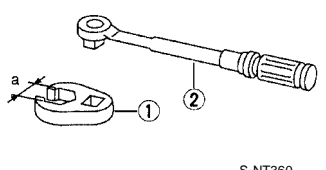
PREPARATION

PREPARATION

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Commercial Service Tools

EES000HX

| Tool name | Description |
|--|--|
| <p>1 Flare nut crowfoot 2 Torque wrench</p>  <p>S-NT360</p> | <p>Removing and installing each brake piping a: 10 mm (0.39 in)</p> |

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NOISE, VIBRATION, AND HARSHNESS (NVH) TROUBLESHOOTING

NOISE, VIBRATION, AND HARSHNESS (NVH) TROUBLESHOOTING

PFP:00003

NVH Troubleshooting Chart

EES000KS

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

| Symptom | | Possible Cause and SUSPECTED PARTS | | | | | | | | | | | | | | | | | Reference page | | | | | |
|------------|-------------------------------|------------------------------------|--|-----------------------------------|--------------------|----------------|----------------------|------------------------|-----------|------------------------|------------------|-----------------------|----------------|---------------------|-----------------|--------------|-------------|------|----------------|-------|------------|--------|----------|---|
| | | Improper installation, looseness | Shock absorber deformation, damage or deflection | Bushing or mounting deterioration | Parts interference | Spring fatigue | Suspension looseness | Stabilizer bar fatigue | Imbalance | Incorrect air pressure | Uneven tire wear | Deformation or damage | Non-uniformity | Incorrect tire size | PROPELLER SHAFT | DIFFERENTIAL | DRIVE SHAFT | AXLE | SUSPENSION | TIRES | ROAD WHEEL | BRAKES | STEERING | |
| SUSPENSION | Noise | x | x | x | x | x | x | | | | | | | | x | x | x | x | | x | x | x | x | |
| | Shake | x | x | x | x | | x | | | | | | | | x | | x | x | | x | x | x | x | |
| | Vibration | x | x | x | x | x | | | | | | | | | x | | x | x | | x | | | | x |
| | Shimmy | x | x | x | x | | | | | | | | | | | | | x | | x | x | x | x | x |
| | Judder | x | x | x | | | | | | | | | | | | | | x | | x | x | x | x | x |
| | Poor quality ride or handling | x | x | x | x | x | | x | | | | | | | | | | x | | x | x | | | |
| TIRES | Noise | x | | | | | | x | x | x | x | x | | x | x | x | x | x | x | | x | x | x | |
| | Shake | x | | | | | | x | x | x | x | | x | x | x | x | x | x | x | | x | x | x | |
| | Vibration | | | | | | | | x | | | | | x | x | x | x | x | x | | | | x | |
| | Shimmy | x | | | | | | x | x | x | x | x | | | | | x | x | x | | x | x | x | |
| | Judder | x | | | | | | x | x | x | x | | | | | | x | x | x | | x | x | x | |
| | Poor quality ride or handling | x | | | | | | | x | x | x | x | | x | | | | x | x | | | x | | |
| ROAD WHEEL | Noise | x | | | | | | x | | | x | | | x | x | x | x | x | x | x | | x | x | |
| | Shake | x | | | | | | x | | | x | | | x | | x | x | x | x | x | | x | x | |
| | Shimmy, Judder | x | | | | | | x | | | x | | | | | | x | x | x | x | | x | x | |
| | Poor quality ride or handling | x | | | | | | | x | | | | | | | | x | x | x | x | | | | |

x: Applicable

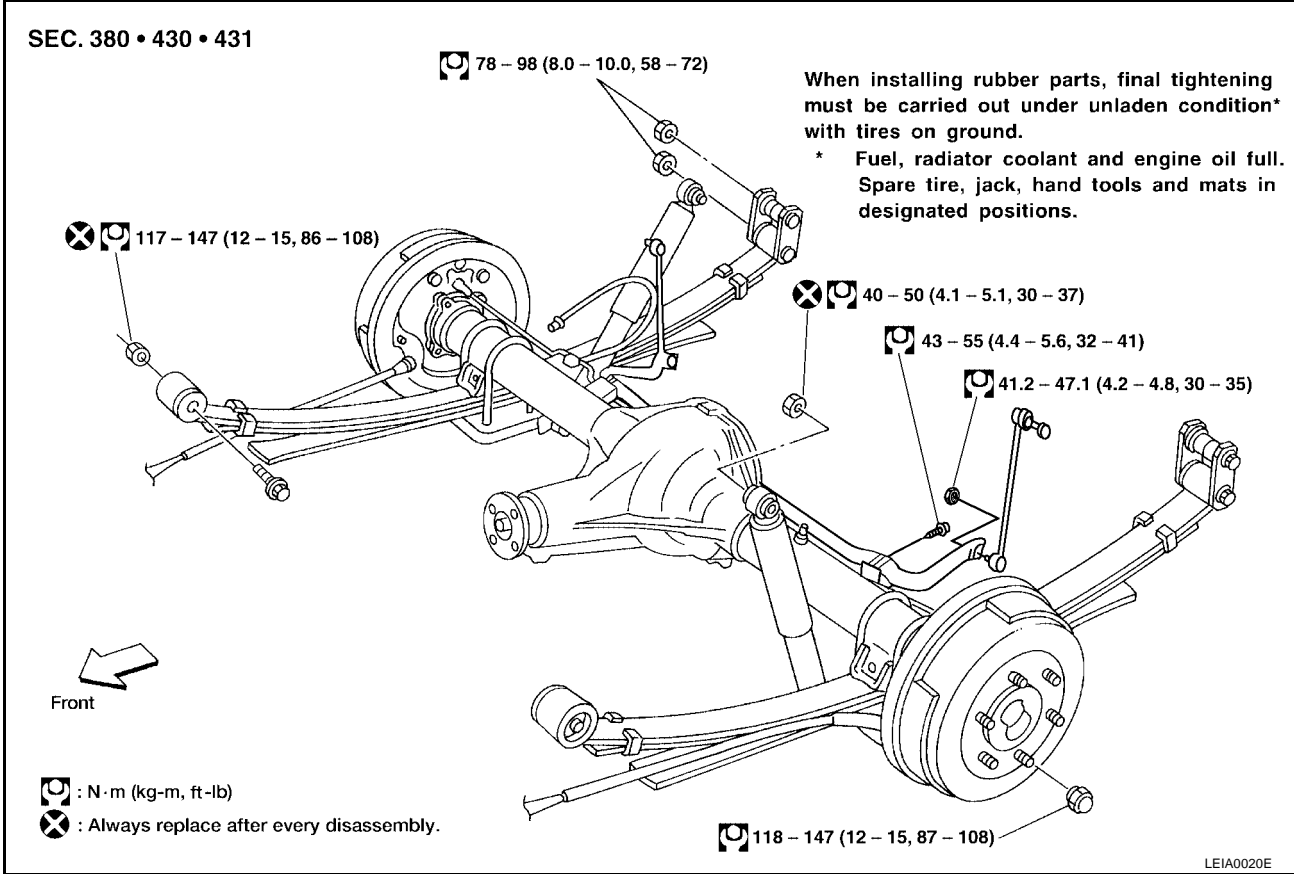
REAR SUSPENSION ASSEMBLY

REAR SUSPENSION ASSEMBLY

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Components 2WD KA24DE MODEL

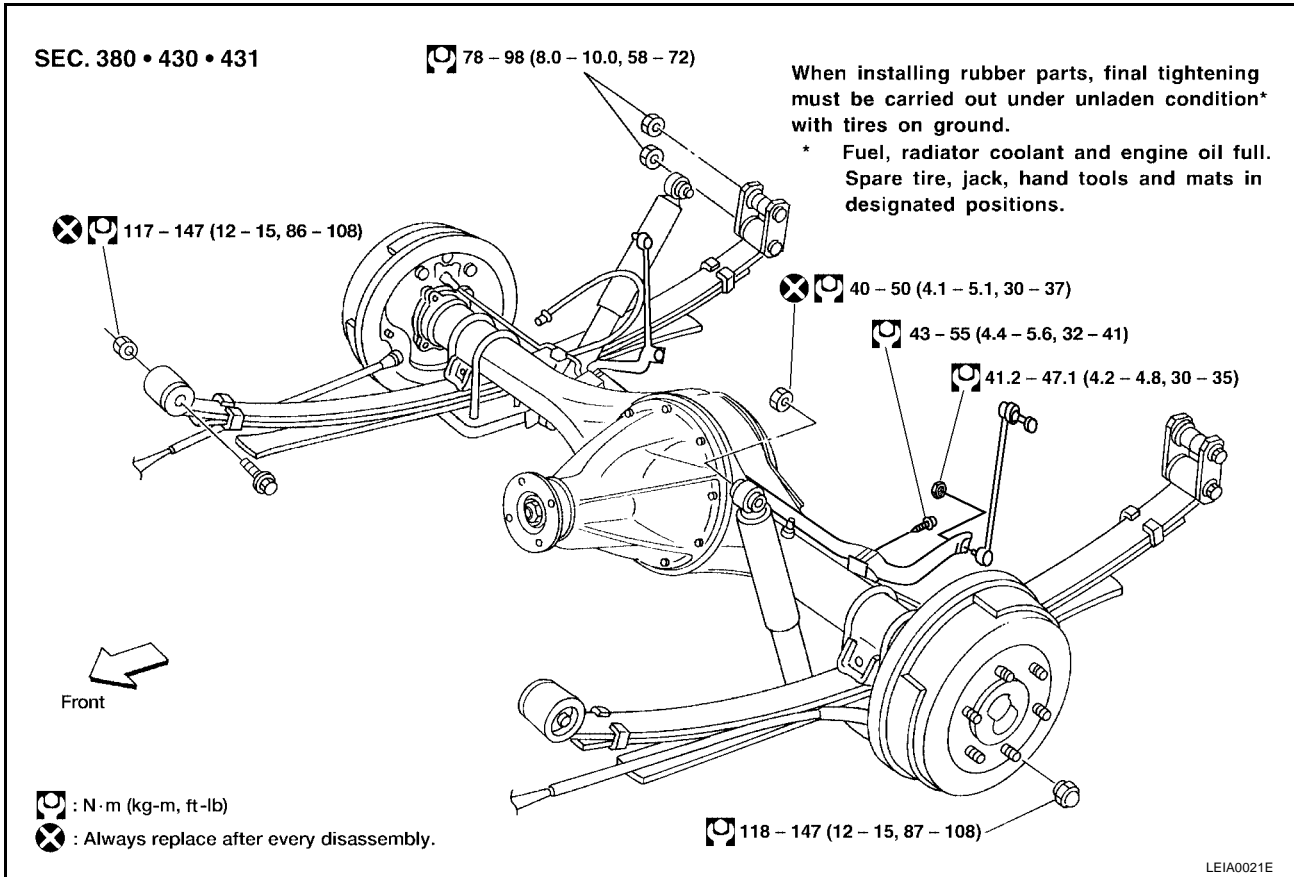
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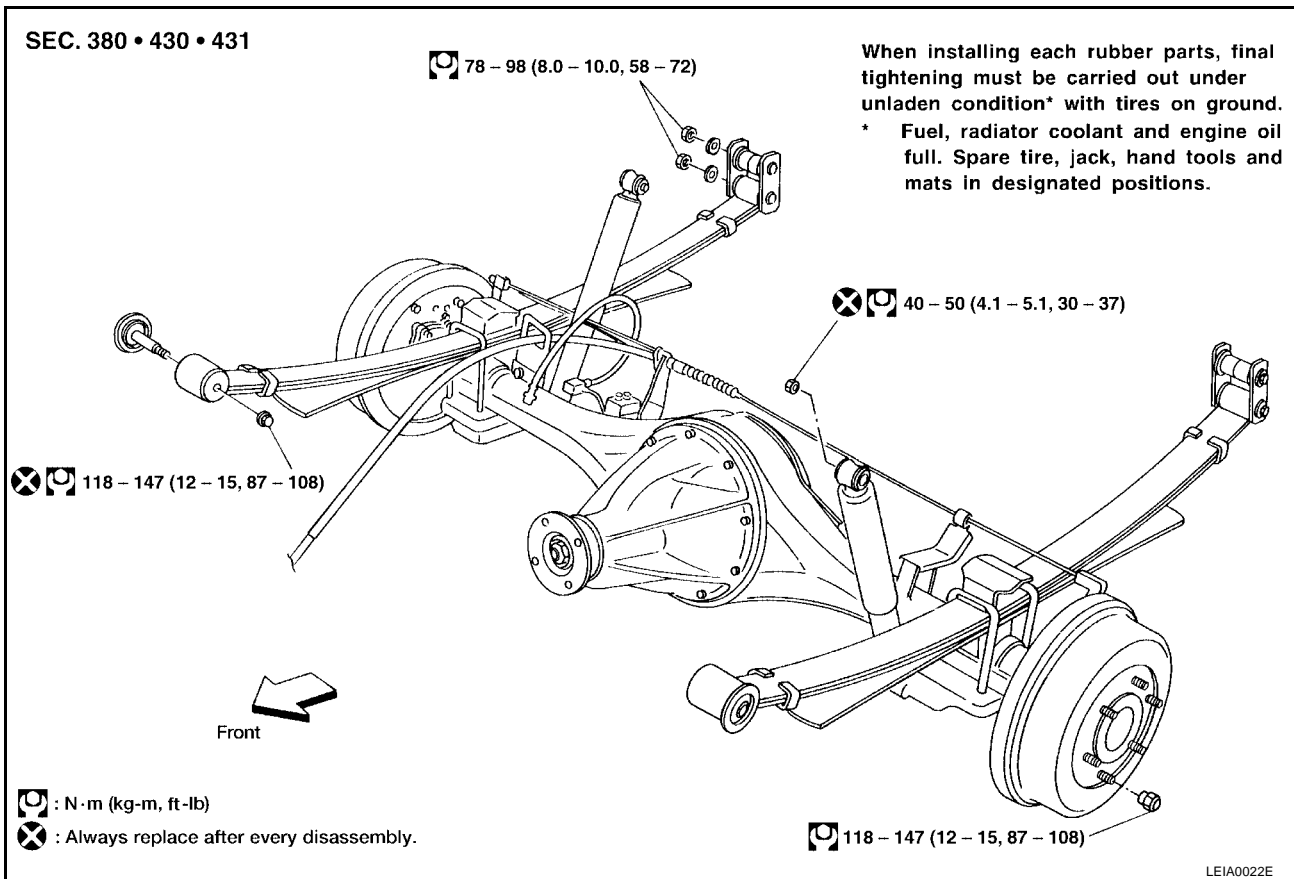
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REAR SUSPENSION ASSEMBLY

2WD VG33E AND VG33ER MODELS



4WD VG33E AND VG33ER MODELS

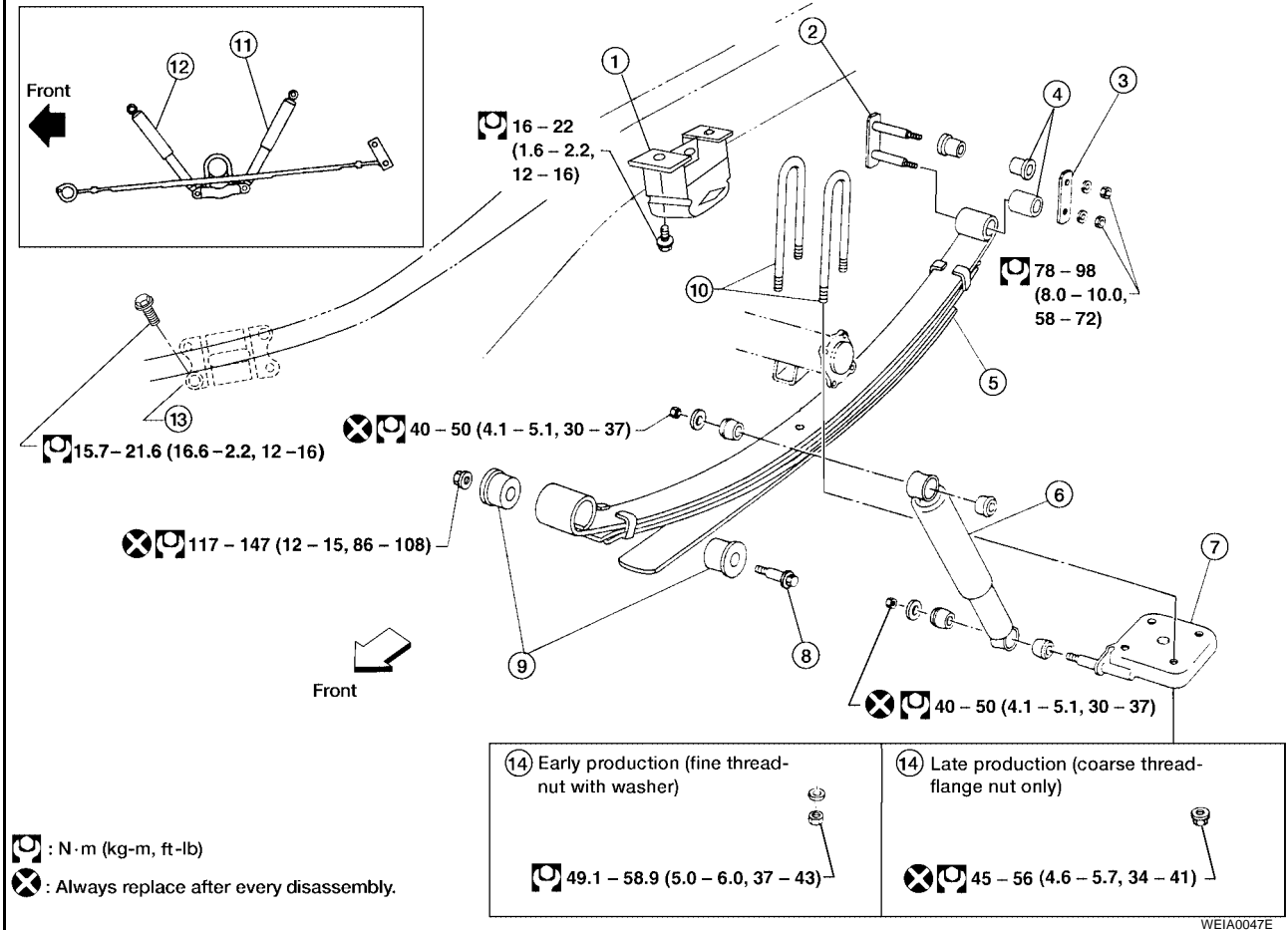


ON-VEHICLE SERVICE

Component

Rear Suspension

SEC. 431



- | | | |
|-----------------------------|----------------------------------|--------------------------------|
| 1. Bumper | 2. Rear spring shackle | 3. Rear spring plate |
| 4. Rear spring bushing | 5. Rear leaf spring | 6. Shock absorber |
| 7. Rear spring pad | 8. Rear spring front bolt | 9. Rear spring bushing |
| 10. Rear spring clip U-bolt | 11. Shock absorber (right side) | 12. Shock absorber (left side) |
| 13. Dynamic damper | 14. Nut (and washer if equipped) | |

CAUTION:

When installing the rubber components, the final tightening of the nuts and bolts must be done with the vehicle in an unladen condition (the fuel, engine coolant, and engine oil at full; the spare tire, jack, hand tools and mats in their designated positions) with the tires on the ground.

NOTE:

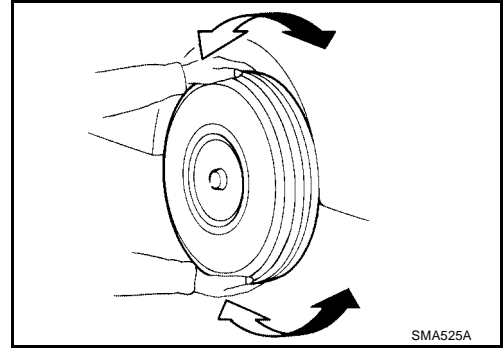
The early production rear spring clip U-bolt is a fine thread with a washer and nut. The late production rear spring clip U-bolt is a coarse thread with a self-locking flange nut, a new flange nut must be used for installation.

Rear Suspension Parts

- Check the rear suspension parts for any excessive play, cracks, wear, and other damage.

ON-VEHICLE SERVICE

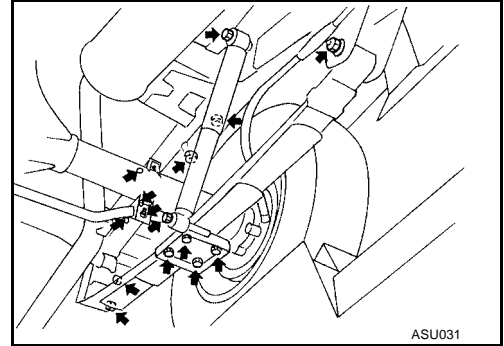
- Shake each rear wheel to check for excessive play.



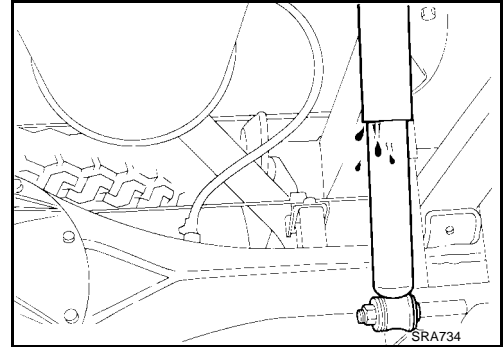
- Retighten all nuts and bolts to the specified torque. Refer to [RSU-7, "Component"](#).

CAUTION:

When installing the rubber components, the final tightening of the nuts and bolts must be done with the vehicle in an unladen condition (the fuel, engine coolant, and engine oil at full; the spare tire, jack, hand tools and mats in their designated positions) with the tires on the ground.



- Check shock absorber for oil leakage and other damage.



- Check shock absorber bushing for excessive wear and other damage.

SHOCK ABSORBER

SHOCK ABSORBER

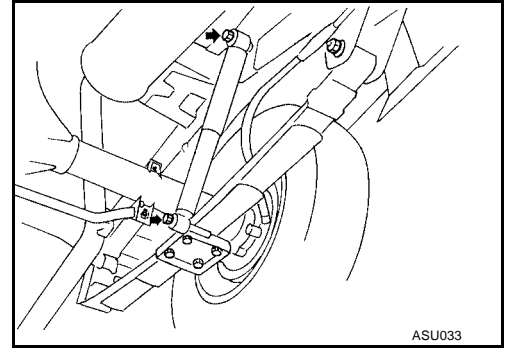
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Removal and Installation

EES00012

1. Remove shock absorber by disconnecting upper and lower end.
2. Install in the reverse order of removal.

Refer to [RSU-7, "Component"](#) .



EES00013

Inspection

- If oil leakage, cracks and deformation occurs, replace shock absorber assembly.
- If rubber bushings are cracked and deformed, replace rubber bushings.

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LEAF SPRING

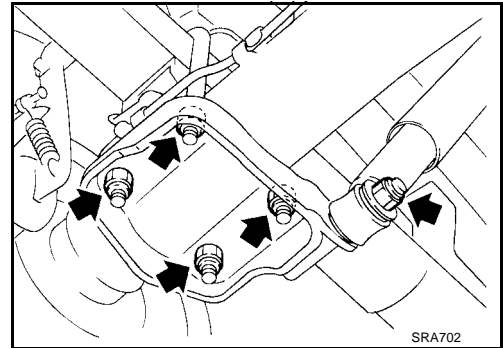
LEAF SPRING

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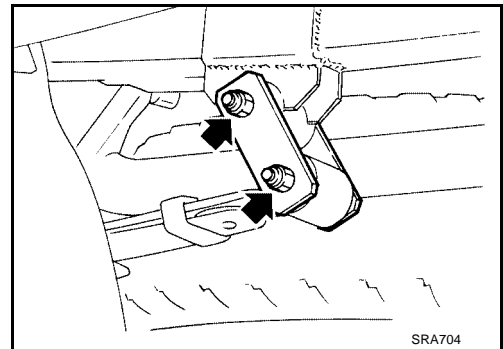
Removal

EES00014

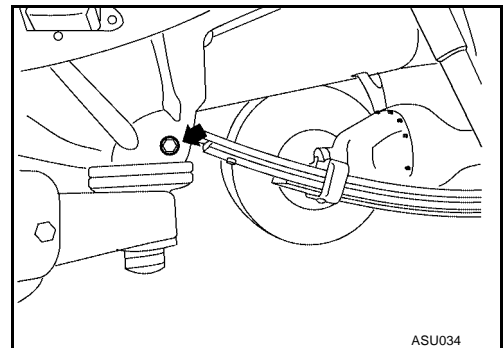
1. Disconnect shock absorber lower end, and remove U-bolts. **Support axle with jack stand prior to removing leaf spring.**



2. Remove the spring shackle.



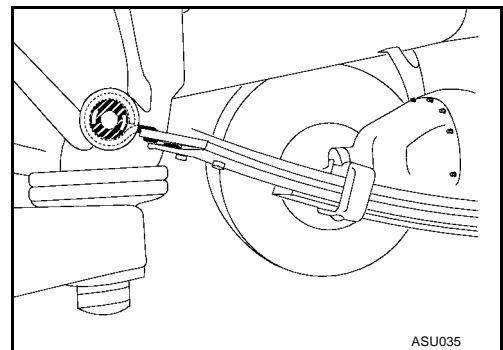
3. Remove the front pin.
4. Remove the leaf spring.



Inspection

EES00015

- Check leaf spring for cracks. Replace if necessary.
- Check front bracket and pin, shackle, U-bolts and spring pad for wear, cracks, straightness and damaged threads. Replace if necessary.
- Check all bushings for deformation and cracks. Replace if necessary.
(4WD models: Rear spring front bushing)
Make sure that front bushing is properly installed.



LEAF SPRING

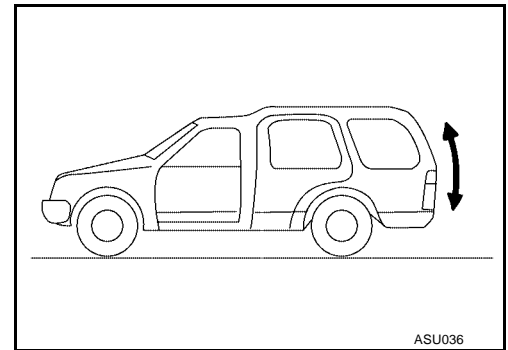
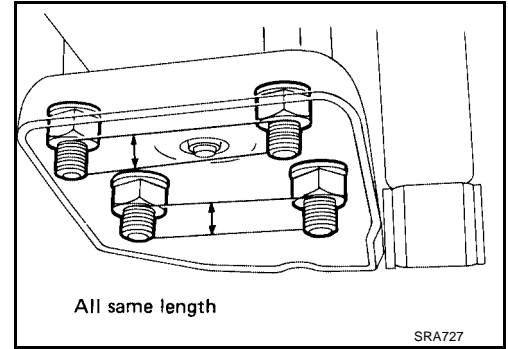
EES00016

Installation

1. Apply soapsuds to rubber bushing.
2. Install spring shackle and front pin, and finger tighten the nuts.
3. Install spring pad and nuts under leaf spring or axle case.
4. Tighten U-bolt mounting nuts diagonally.
Tighten U-bolts so that the lengths of all U-bolts under spring pad are the same.

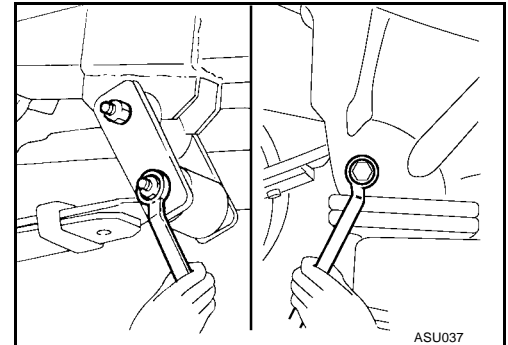
Refer to [RSU-7, "Component"](#) .

5. Install shock absorber, and finger tighten the nuts.
6. Remove stands and bounce the vehicle to stabilize suspension. (Unladen)



7. Tighten spring shackle nuts, front pin nuts and shock absorber nuts.
When installing rubber parts, final tightening must be carried out under unladen condition* with tires on the ground.
*** Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.**

Refer to [RSU-7, "Component"](#) .



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STABILIZER BAR

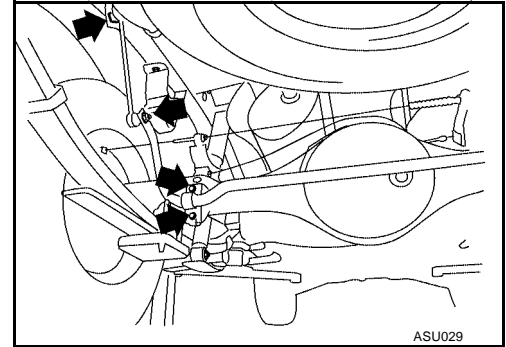
STABILIZER BAR

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Removal

EES00017

Remove stabilizer bar connecting bolts and clamp bolts.



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Inspection

EES00018

- Check stabilizer bar for twist and deformation.
- Check rubber bushing for cracks, wear and deterioration. Replace if necessary.

Installation

EES00019

Install in the reverse order of removal.

Refer to [RSU-5, "Components"](#) .

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

General Specifications (Rear)

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| | |
|---------------------|---|
| Suspension type | Rigid axle with semi-elliptic leaf spring |
| Shock absorber type | Double-acting hydraulic |

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SERVICE DATA AND SPECIFICATIONS (SDS)
