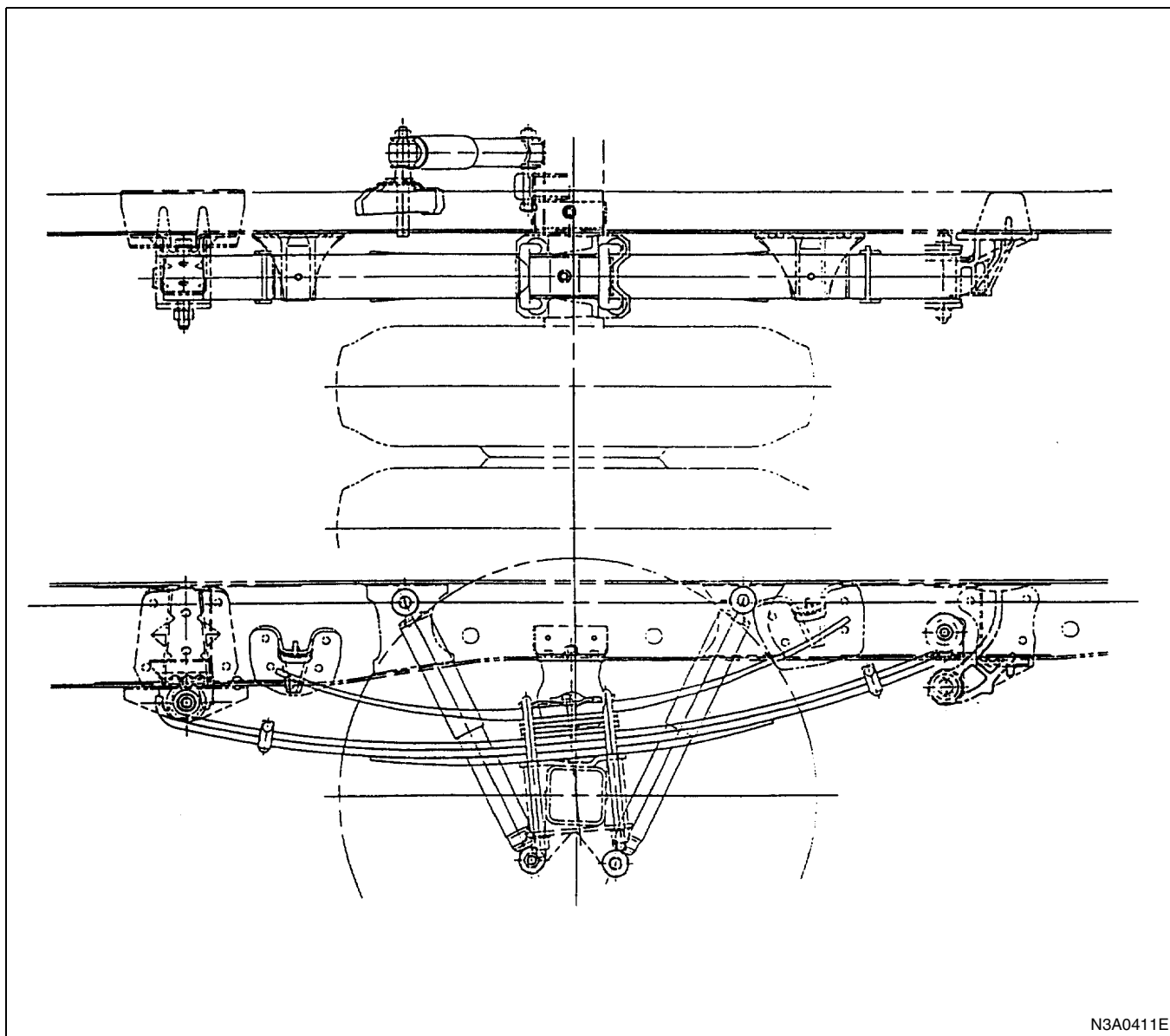

STEERING, SUSPENSION, WHEELS AND TIRES

SECTION 3D REAR SUSPENSION

Contents

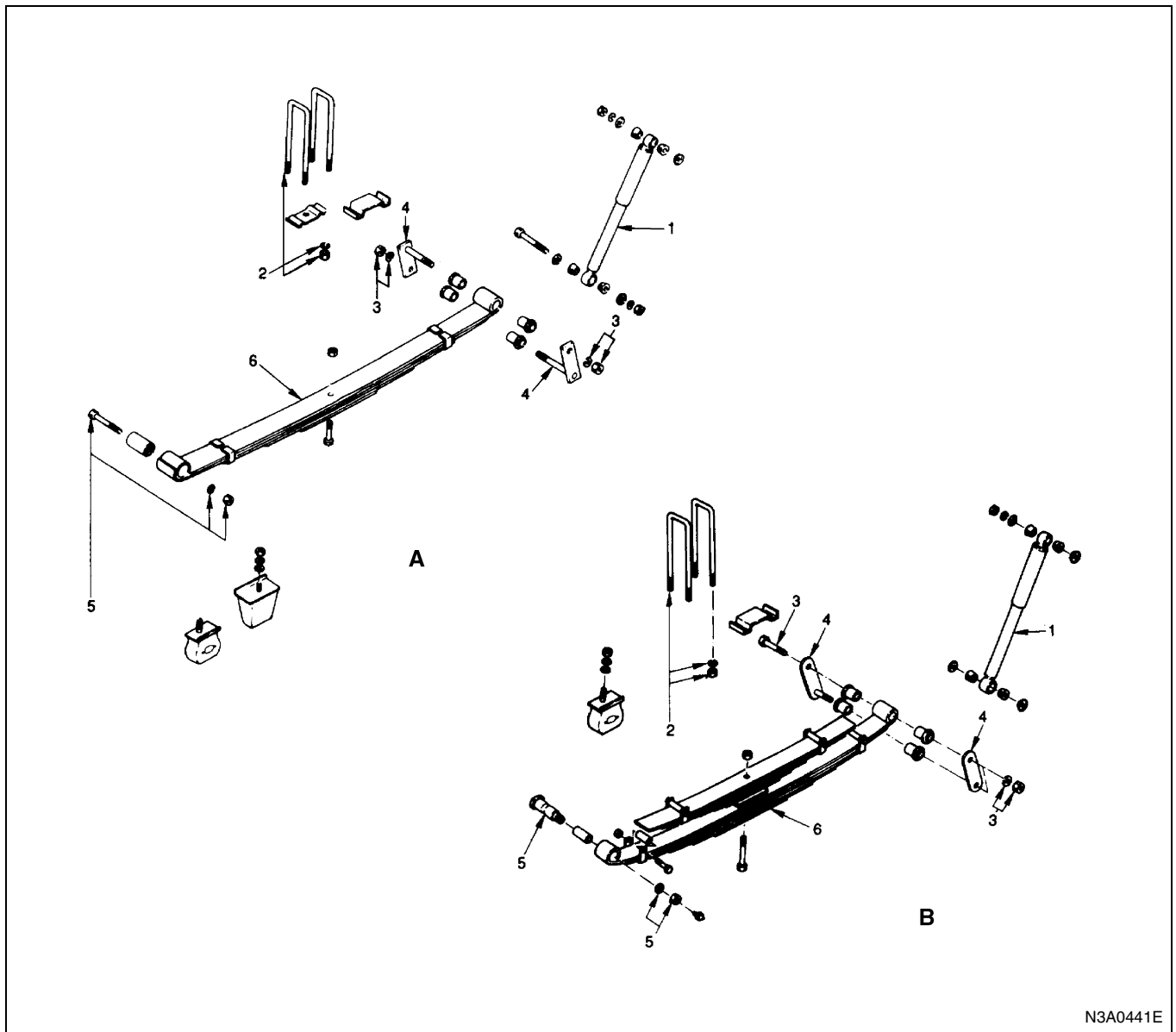
GENERAL DESCRIPTION	3D-2
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Rear Suspension	3D-3

GENERAL DESCRIPTION



ON-VEHICLE SERVICE

Rear Suspension Leaf Spring



N3A0441E

Legend

- | | |
|---------------------------|--------------------------------|
| A. NHR, NKR | 3. Shackle pin, nut and washer |
| B. NPR, NPS | 4. Shackle |
| 1. Shock absorber | 5. Spring pin, nut and washer |
| 2. U-bolt, nut and washer | 6. Leaf spring |

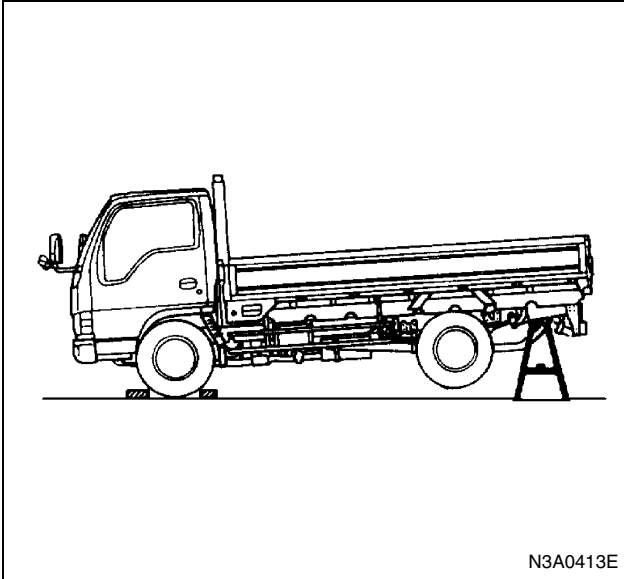
3D-4 REAR SUSPENSION

Removal

Preparation

Make the following preparation before removing the leaf spring.

- 1) Brace the front wheels.
- 2) Jack up the rear axle until the rear wheels are lifted off the ground and position safety stand under the chassis frame.
Refer to "Lifting Instruction" in Section 0A for acceptable lifting point and supportable point location.

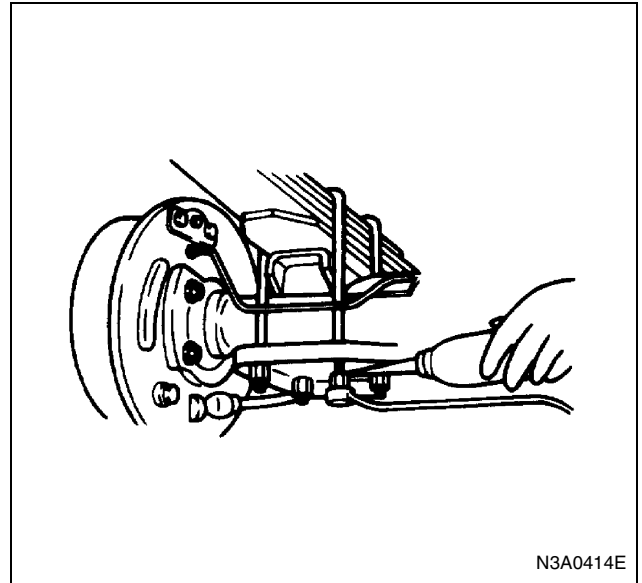


- 3) Position a garage jack under the rear axle.
- 4) For the vehicle model with a stabilizer, remove the mounting portion on the axle side of the stabilizer in advance before removing the leaf spring. (Refer to the removal procedure of the stabilizer.)

1. Shock Absorber

2. U-bolt, Nut and Washer

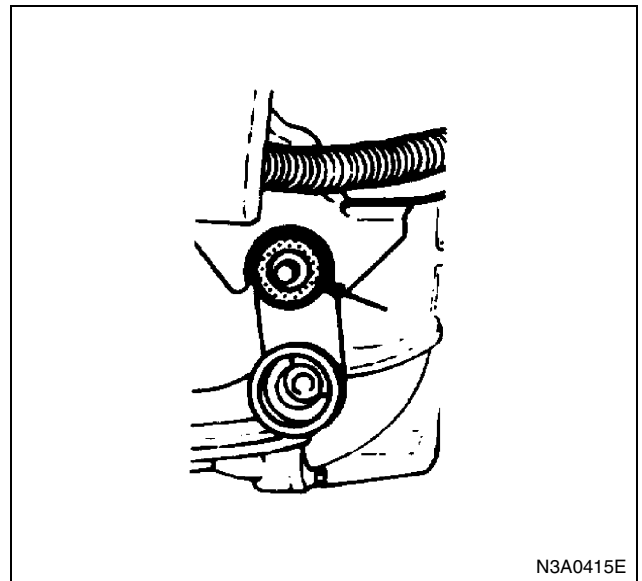
If the U-bolt are heavily rusted, apply a generous amount of oil to the threads before loosening them to prevent seizure.



3. Shackle Pin, Nut and Washer

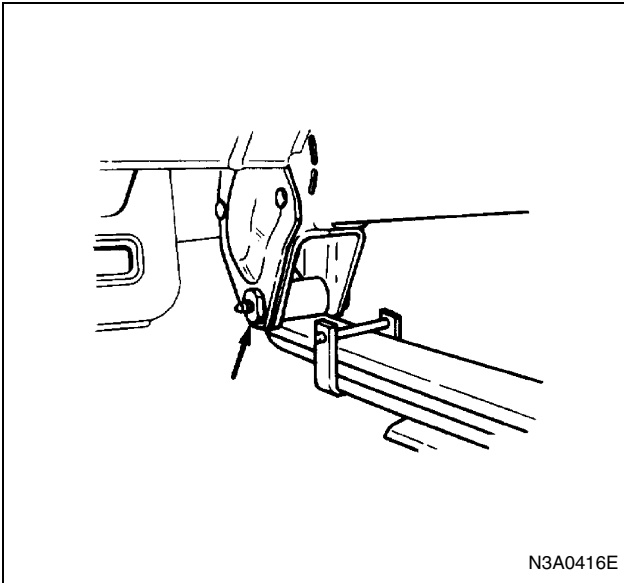
4. Shackle

Take out the rubber bushings after removal of the shackle.



5. Spring Pin, Nut and Washer

Drive out the shackle pin with a hammer using a brass bar after removal of the shackle pin nut.



6. Leaf Spring

Lower the garage jack slowly and remove the rear spring assembly. When removing the rear spring assembly, exercise care not to cause damage to the brake flexible hoses. Also, exercise care not to cause the spring to come down.

Installation and Repair

Make necessary correction or parts replacement if wear, damage or any other abnormal conditions are found through inspection.

Visual Check

Inspect the following parts for wear, damage or other abnormal conditions.

- Leaf spring assembly
- Clip
- Center bolt
- U-bolt
- Spring pin
- Shackle pin
- Shock absorber
- Helper rubber
- Rubber bushing
- Sub spring stopper rubber
- Helper rubber seat

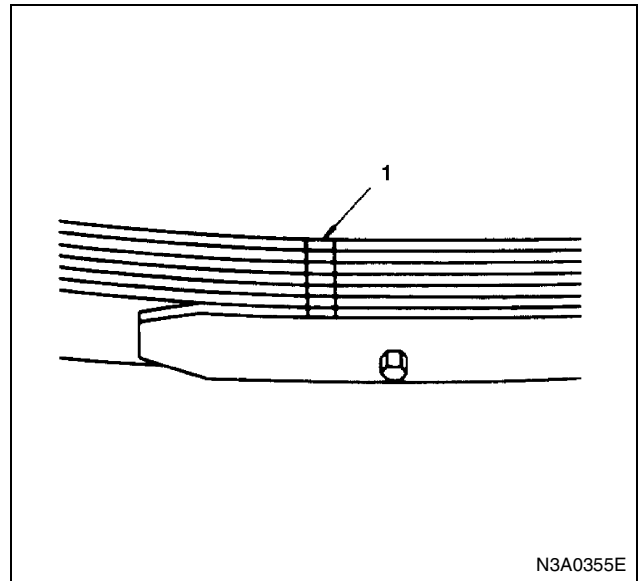
Shock Absorber

1. Inspect for extreme oil leakage. Slight oil leakage is allowed.
2. Inspect for temperature after running. Unchanged temperature indicates deteriorated function.
3. Inspect if large resistance is felt when the shock absorber is expanded and contracted by holding either end, or if play is eliminated after several times of expansion and contraction. The function has deteriorated if the above condition is not observed.
4. Inspect the bushing for wear or deterioration. Replace if abnormality is found.

Leaf Spring Assembly Replacement

- Apply a setting mark (1) across the springs before disassembling the leaf spring assembly.
- Apply grease to both faces of each leaf spring at reassembly.
- Use a bench press for disassembly and reassembly.
- Discard removed center bolt and install a new one.

When replacing the leaf spring assembly, use the leaf spring with the same camber represented by “+”, “-”, “O” on both right and left sides.



Center Bolt

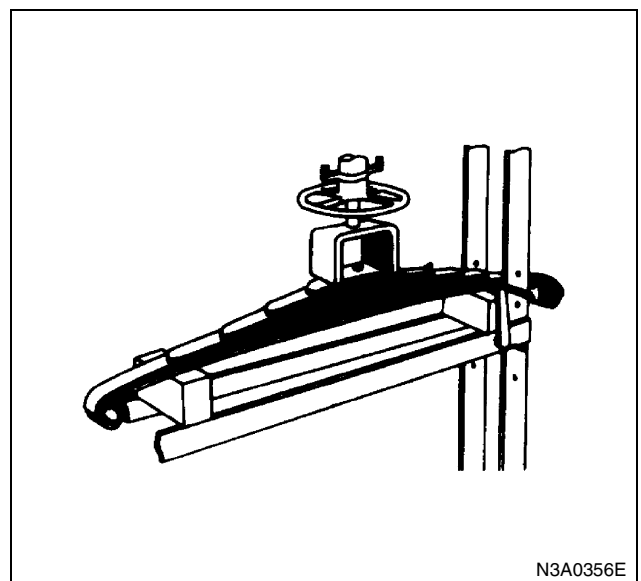
Tighten:

- Center bolt to 39 N·m (4 kg·m/29 lb·ft)

Clip Bolt

Tighten:

- Clip bolt to 20 N·m (2 kg·m/14 lb·ft)



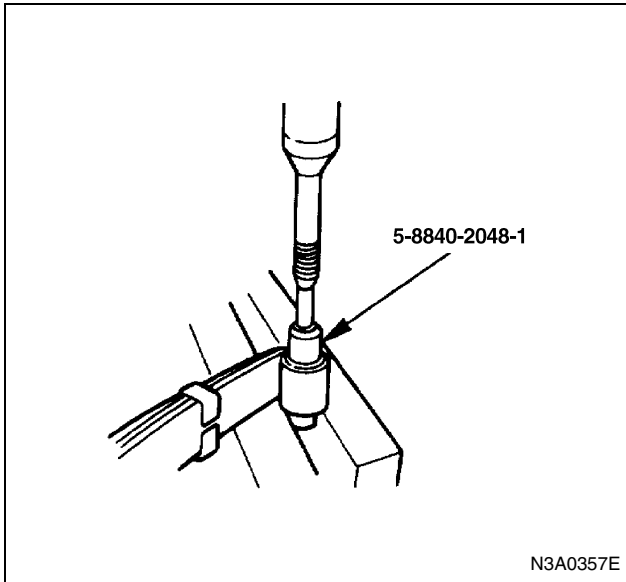
3D-6 REAR SUSPENSION

Bushing Replacement

When replacing bushing, drive out the bushing using a bench press.

Leaf Spring Rubber Bush Remover & Installer: 5-8840-2048-1

Leaf Spring Metal Bush Remover & Installer: 5-8840-2049-1



Measurement of Outer Diameter of Spring Pin

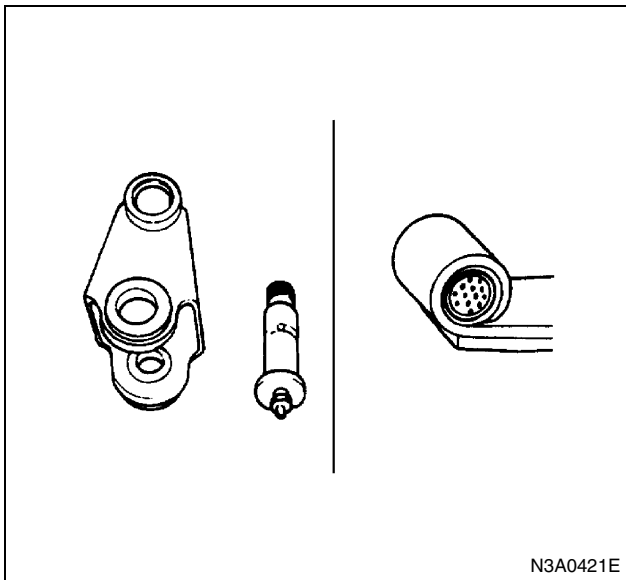
Standard: 25 mm (0.98 in)

Limit: 24.7 mm (0.97 in)

Clearance between Shackle Pin and Bushing

Standard: 0.1 mm (0.0039 in)

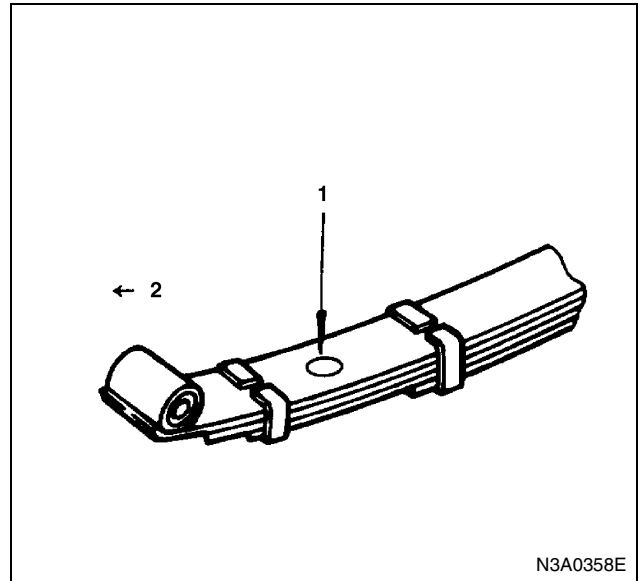
Limit: 0.5 mm (0.019 in)



Installation

1. Leaf Spring

Install the leaf spring assembly with the camber mark (1) turned to front side (2) on the rear axle.



2. U-bolt, Nut and Washer

Position the U-bolts and clamp on the leaf spring assemblies and jack up the rear axle.

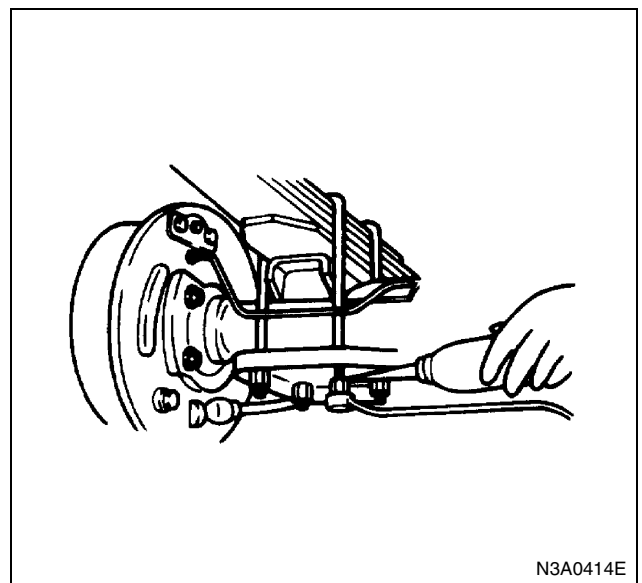
When tightening the nuts, apply oil as necessary to prevent damaging the threads.

Tighten:

- U-bolt nut to

NQR: 284 N·m (29 kg·m/210 lb·ft)

Except NQR: 177 N·m (18 kg·m/130 lb·ft)



3. Spring Pin, Nut and Washer

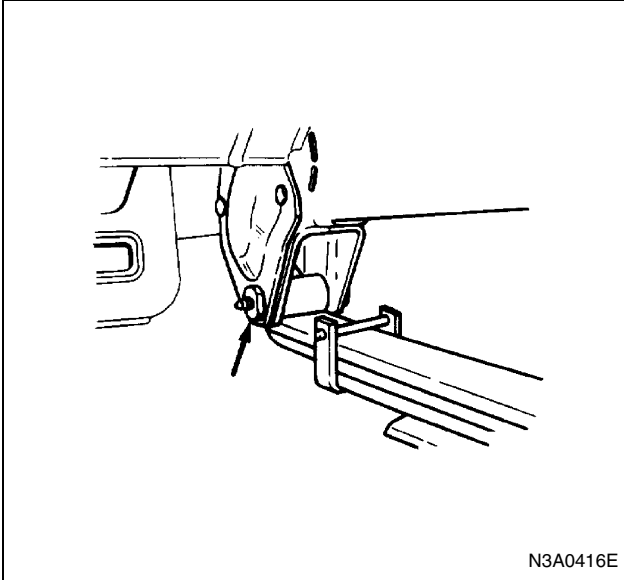
4. Shackle

Finger tighten first, and tighten to specified torque after lowering the vehicle to ground.

Tighten:

- Shackle pin nut to
NHR, NKR Single tire, Flat low: 202 N·m (20.6 kg·m/149 lb·ft)
NKR Dual tire, NPR, NQR, NPS: 332 N·m (33.8 kg·m/244 lb·ft)

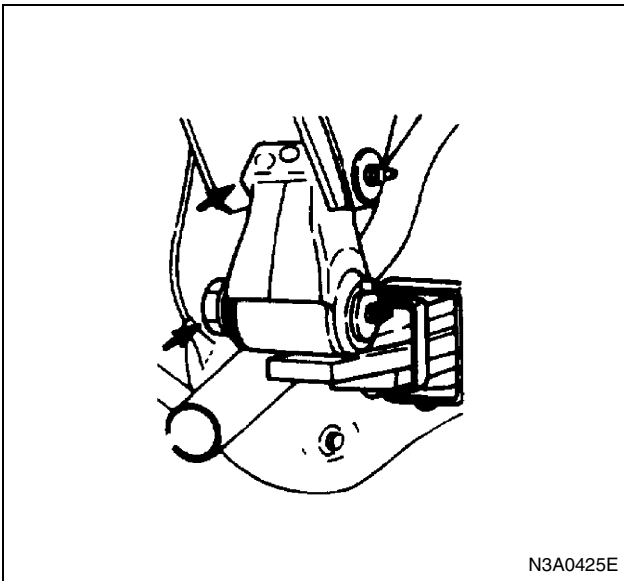
- Shock absorber lower nut to
NHR, NKR Single tire: 61 N·m (6.2 kg·m/45 lb·ft)
NKR Dual Tire: 95 N·m (9.7 kg·m/70 lb·ft)
NPR, NPS, NQR: 40 N·m (4.1 kg·m/30 lb·ft)



5. Shackle Pin Nut and Washer
Finger tighten first, and tighten to specified torque after lowering the vehicle to ground.

Tighten:

- Spring pin nut to
NHR: 137 N·m (14 kg·m/101 lb·ft)
Except NHR: 177 N·m (18 kg·m/130 lb·ft)



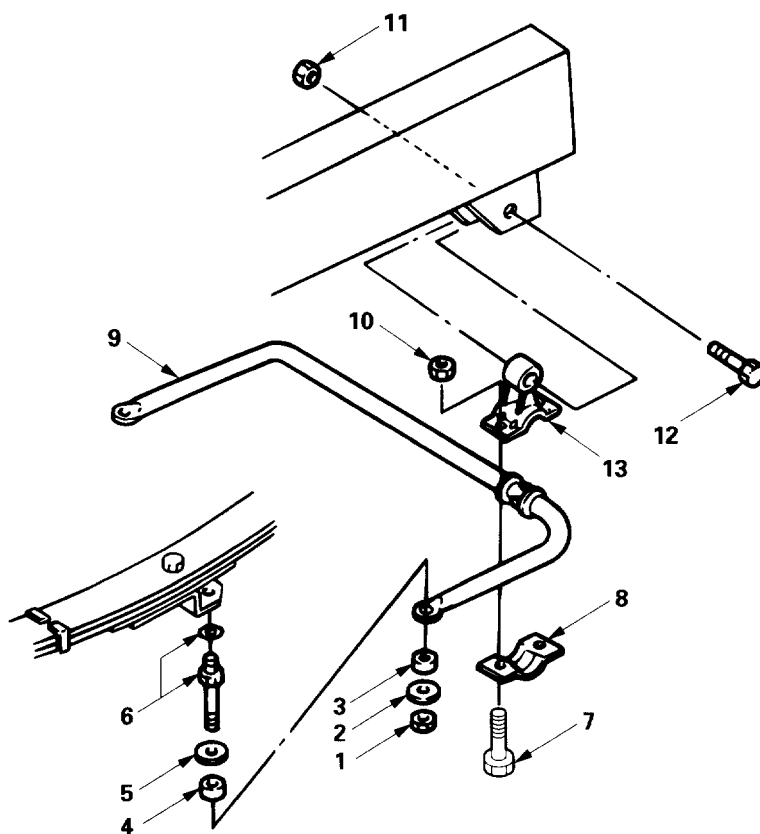
6. Shock Absorber

Tighten:

- Shock absorber upper nut to
NHR, NKR single tire: 61 N·m (6.2 kg·m/45 lb·ft)
Except above models: 95 N·m (9.7 kg·m/70 lb·ft)

3D-8 REAR SUSPENSION

Stabilizer



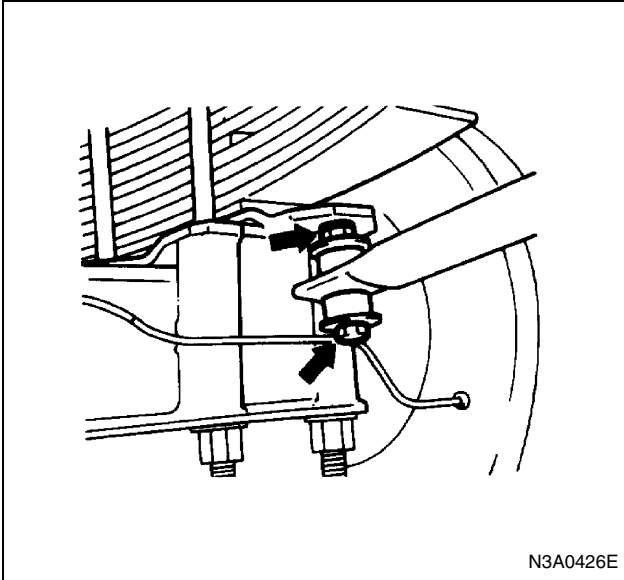
N3A0373E

Legend

- | | |
|--------------------------------|-------------------|
| 1. Nut | 8. Rod link cap |
| 2. Washer | 9. Stabilizer bar |
| 3. Rubber bushing | 10. Nut |
| 4. Rubber bushing | 11. Nut |
| 5. Washer | 12. Bolt |
| 6. Stud bolt and spring washer | 13. Rod link |
| 7. Bolt | |

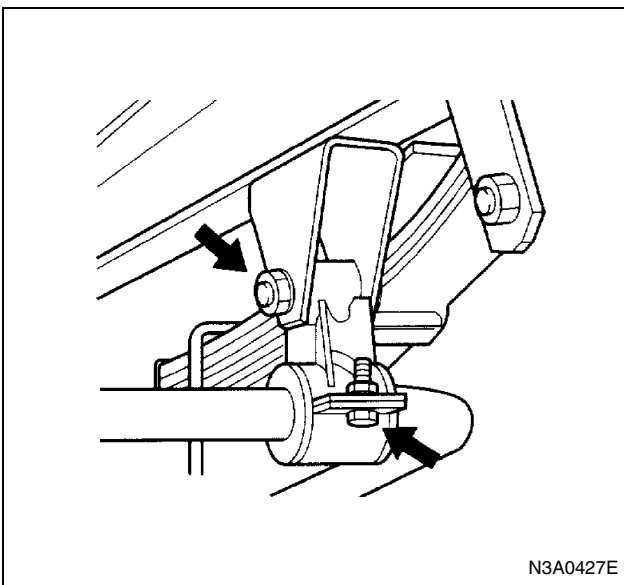
Removal

1. Nut
2. Washer
3. Rubber Bushing
4. Rubber Bushing
5. Washer
6. Stud Bolt and Spring Washer



N3A0426E

7. Bolt
8. Rod Link Cap
9. Stabilizer Bar
10. Nut
11. Nut
12. Bolt
13. Rod Link



N3A0427E

Inspection and Repair

Make necessary correction or parts replacement if wear, damage or any other abnormal conditions are found through inspection.

Stabilizer

Inspect the stabilizer bar and attachments for the following conditions:

1. Cracks, bends or damage to the bar.
 2. Worn bushings.
 3. Damaged brackets.
- Replace any worn or damaged parts.

Installation

Notice:

During installation, place the vehicle on flat ground and tighten each part to the specified torque.

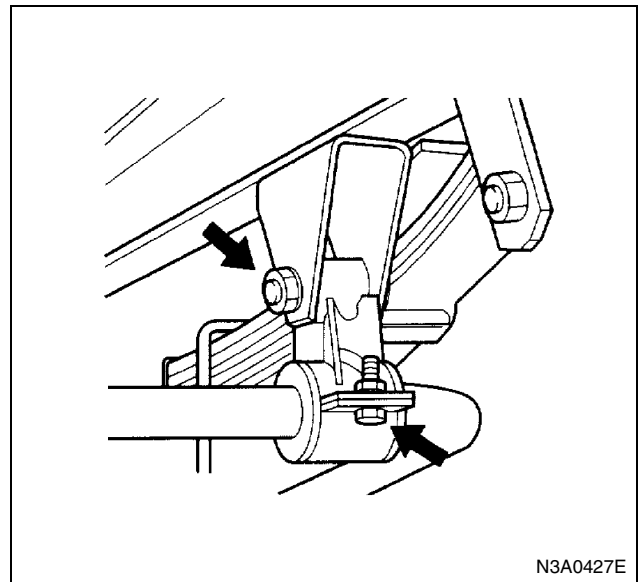
1. Stabilizer Bar
2. Rod Link
3. Rod Link Cap
4. Bolt
5. Nut
6. Bolt
7. Nut

Tighten:

- Nut to

Rod link cap nut: 57 N·m (5.8 kg·m/42 lb·ft)

Rod link bracket nut: 127 N·m (13 kg·m/94 lb·ft)



N3A0427E

8. Stud Bolt and Spring Washer
9. Washer
10. Rubber Bushing
11. Rubber Bushing
12. Washer
13. Nut

3D-10 REAR SUSPENSION

Tighten:

- Stud bolt and nut to
Stud bolt: 117 N·m (11.9 kg·m/86 lb·ft)
Nut: 29 N·m (3.0 kg·m/22 lb·ft)