

SECTION

RSU

REAR SUSPENSION

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000007948141

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

General Precautions

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- When installing rubber parts, final tightening must be carried out under unladen condition* with tires on ground.
* Fuel, radiator coolant, and engine oil are full. Spare tire, jack, hand tools, and mats are in their designated positions.

PREPARATION

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PREPARATION

Commercial Service Tool

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Tool name	Description
Power tool	Loosening nuts, screws and bolts
 PIIB1407E	

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NOISE VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

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

Reference page															
Possible cause and SUSPECTED PARTS															
Symptoms	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
	Shimmy	x	x	x	x						x	x	x	x	x
	Shudder	x	x	x							x	x	x	x	x
	Poor quality ride or handling	x	x	x	x	x	x					x	x		
		Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mounting deterioration	Parts interference	Spring fatigue	Suspension looseness	PROPELLER SHAFT	REAR FINAL DRIVE	AXLE	TIRES	ROAD WHEEL	BRAKES	STEERING	
		RSU-6	RSU-10	RSU-6	RSU-6	RSU-7	RSU-6	DLN-137, "NVH Troubleshooting Chart" (2S1410), DLN-146, "NVH Troubleshooting Chart" (3S1410)	DLN-190, "NVH Troubleshooting Chart"	RAX-4, "NVH Troubleshooting Chart"	FSU-4, "NVH Troubleshooting Chart"	FSU-4, "NVH Troubleshooting Chart"	BR-5, "NVH Troubleshooting Chart"	ST-5, "NVH Troubleshooting Chart"	

x: Applicable

REAR SUSPENSION ASSEMBLY

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

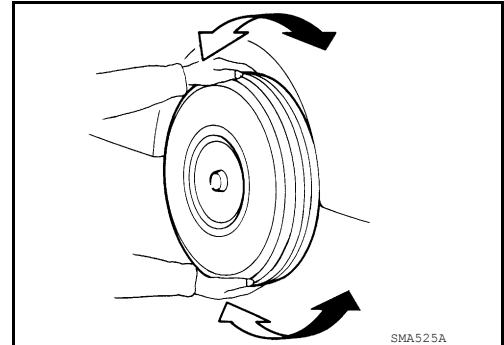
On-Vehicle Inspection and Service

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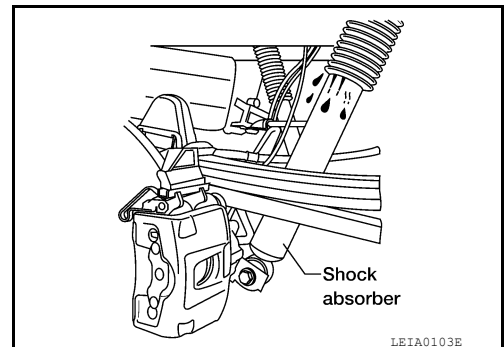
- Check the rear suspension parts for any excessive play, cracks, wear, and other damage.
- Shake each rear wheel to check for any excessive play as shown.
- Tighten all of the nuts and bolts to the specified torque. Refer to [RSU-6, "Exploded View"](#).

CAUTION:

When installing the components with rubber bushings, 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 full; the spare tire, jack, hand tools and mats in their designated positions) with the tires on the ground.



- Check the shock absorbers for oil leaks, deformation, and other damage.
- Check the shock absorber bushings for excessive wear and other damage.

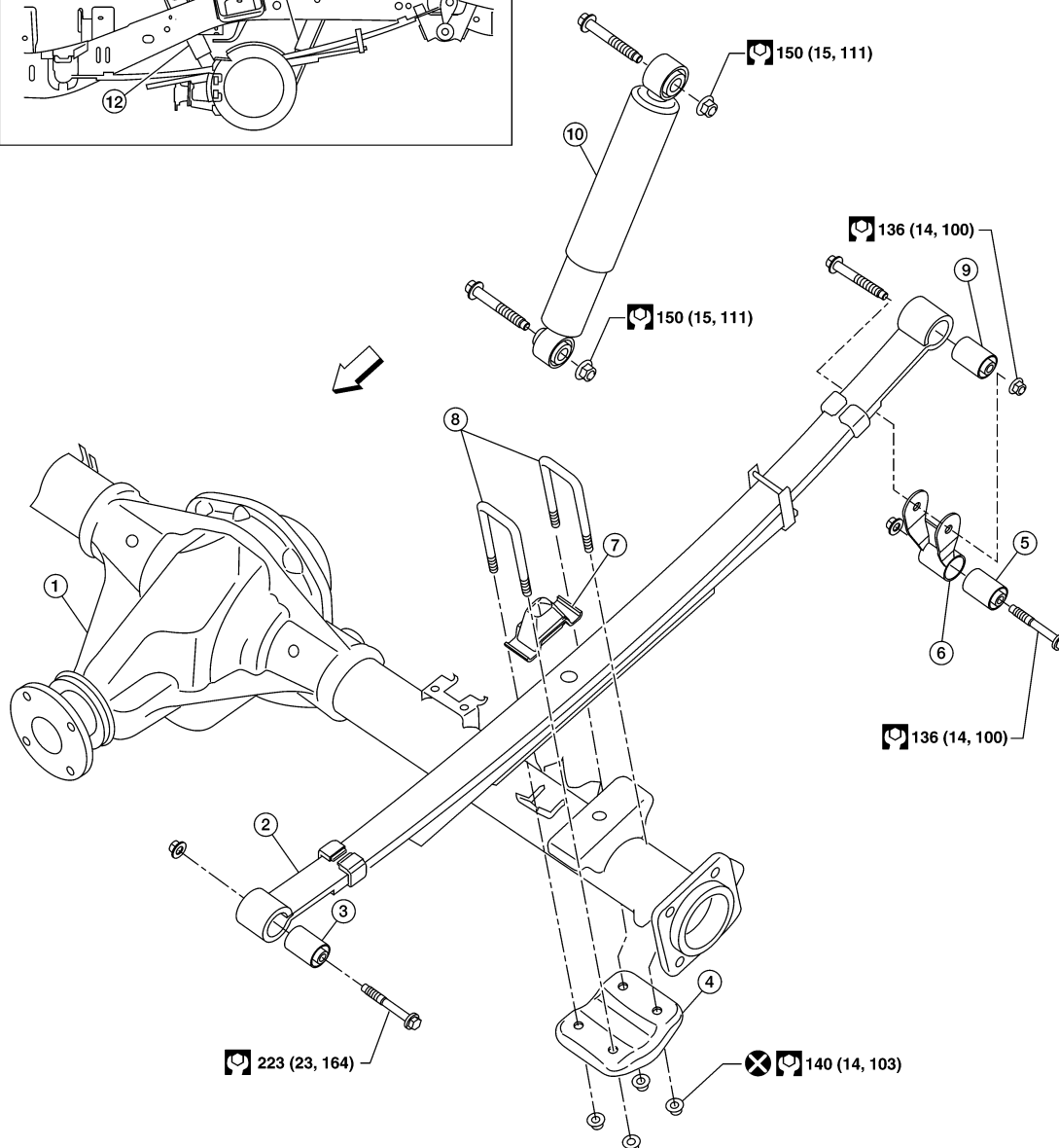


< REMOVAL AND INSTALLATION >

REAR SUSPENSION ASSEMBLY

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Diagram of the front suspension assembly. Callout 11 points to the upper control arm, and callout 12 points to the lower control arm.



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|---------------------|--------------------------------|--------------------------------|
| 1. Rear final drive | 2. Leaf spring | 3. Rear spring bushing (front) |
| 4. Rear spring pad | 5. Rear spring shackle bushing | 6. Rear spring shackle |
| 7. Bumper | 8. Rear spring clip U-bolts | 9. Rear spring bushing (rear) |
| 10. Shock absorber | 11. Shock absorber (LH) | 12. Shock absorber (RH) |

← Front

LEAF SPRING

< REMOVAL AND INSTALLATION >

LEAF SPRING

Removal and Installation

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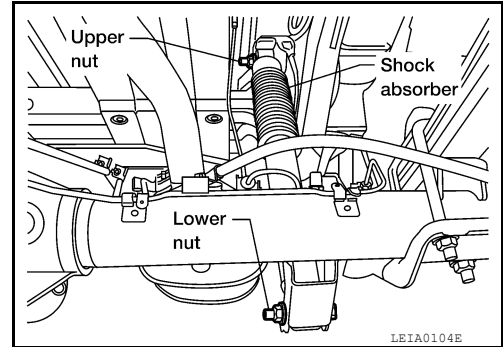
REMOVAL

1. Remove the rear wheel and tire using power tool. Refer to [WT-49. "Rotation"](#).
2. Support the rear final drive assembly with a suitable jack to relieve the tension from the leaf spring.

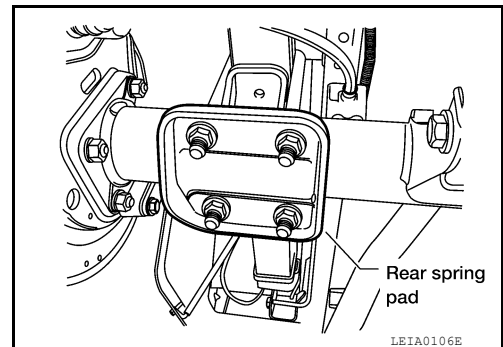
NOTE:

The axle weight should be supported, but there should be no compression in the leaf spring.

3. Remove the shock absorber lower nut and bolt using power tool.



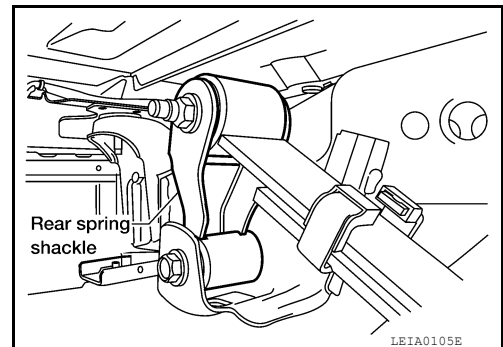
4. Remove the four rear spring clip U-bolt nuts using power tool. Remove the rear spring pad.



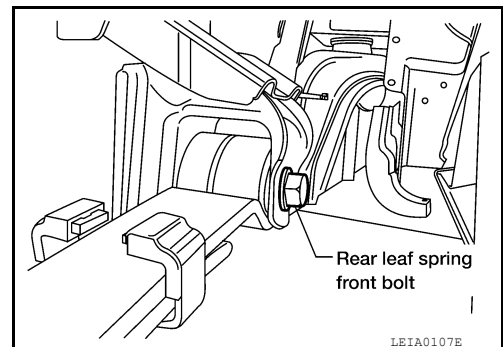
5. Remove the rear spring shackle lower nut and bolt using power tool.

NOTE:

If removing the LH leaf spring, remove the storage box (if equipped) to access the rear spring shackle lower nut and bolt. Refer to [EXT-36. "Removal and Installation"](#).



6. Remove the leaf spring front nut and bolt using power tool.
7. Remove the leaf spring.
8. If necessary, remove the rear spring shackle from the leaf spring using power tool.



INSPECTION AFTER REMOVAL

LEAF SPRING

< REMOVAL AND INSTALLATION >

- Check the leaf spring for any cracks or damage. Replace the leaf spring if necessary.
- Check the rear spring shackle, rear spring clip U-bolts, bumper, and rear spring pad for excessive wear, cracks, straightness, and damage. Replace any components if necessary.
- Check all bushings for deformation and cracks. Replace any bushings if necessary.

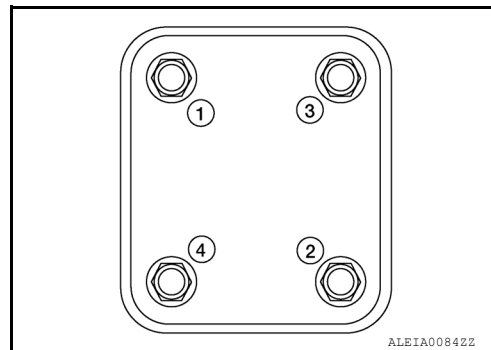
INSTALLATION

1. Apply soapsuds to all of the rubber bushings.
2. Install the rear spring shackle and leaf spring front nut and bolt. Finger-tighten the nuts.
3. Install the rear spring clip U-bolts and bumper on top of the leaf spring.
4. Install the rear spring pad and new rear spring clip U-bolt nuts.

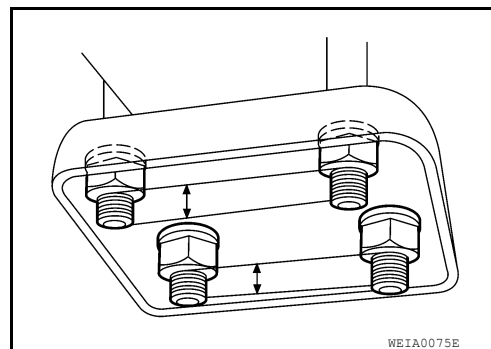
CAUTION:

Use new rear spring clip U-bolt nuts for installation.

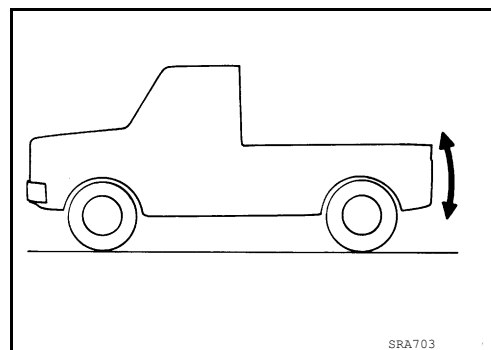
5. Tighten the rear spring clip U-bolt nuts diagonally and evenly in the order shown using the following sequence:



- a. Tighten the rear spring clip U-bolt nuts until the rear spring pad contacts the rear final drive axle case.
- b. Tighten the rear spring clip U-bolt nuts diagonally and evenly to 50 N·m (5.1 kg·m, 37 ft·lb).
- c. Tighten the rear spring clip U-bolt nuts to specification so the lengths of all the exposed rear spring clip U-bolt threads under the rear spring pad are equal in length as shown. Refer to [RSU-6, "Exploded View"](#).



6. Install the shock absorber lower nut and bolt. Finger-tighten the nut.
7. Install the rear wheel and tire. Refer to [WT-49, "Rotation"](#).
8. Remove the jack supporting the rear final drive assembly and bounce the rear of the vehicle to stabilize the suspension. (unladen)



9. Tighten the rear spring shackle nuts, rear leaf spring front nut and shock absorber nuts to specification. Refer to [RSU-6, "Exploded View"](#).

CAUTION:

When installing the components with rubber bushings, the final nut tightening must be carried out under unladen* conditions with the tires on level ground.

LEAF SPRING

< REMOVAL AND INSTALLATION >

* (Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.)

10. Install the storage box (if equipped). Refer to [EXT-36, "Removal and Installation"](#).

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SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

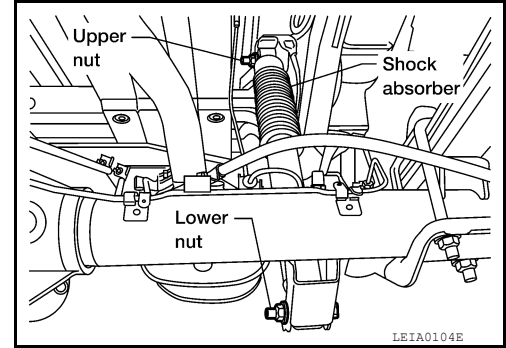
SHOCK ABSORBER

Removal and Installation

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REMOVAL

1. Support the rear final drive and suspension assembly using a suitable jack.
2. Remove the shock absorber upper and lower nuts and bolts using power tool.
3. Remove the shock absorber.



INSPECTION AFTER REMOVAL

Inspect the shock absorber for any oil leaks, cracks, or deformations. Replace the shock absorber as necessary.

INSTALLATION

Installation is in the reverse order of removal.

Shock absorber upper and lower nuts : Refer to [RSU-6, "Exploded View"](#).

Disposal

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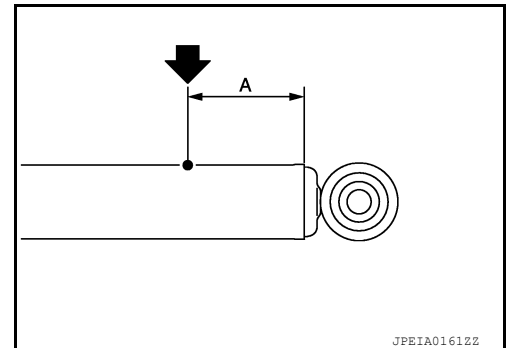
1. Set shock absorber horizontally with the piston rod fully extended.
2. Drill 2 – 3 mm (0.08 – 0.12 in) hole at the position (●) from top as shown to release gas gradually.

CAUTION:

- Wear eye protection (safety glasses).
- Wear gloves.
- Be careful with metal chips or oil blown out by the compressed gas.

NOTE:

- Drill vertically in this direction (↕).
- Directly to the outer tube avoiding brackets.
- The gas is clear, colorless, odorless, and harmless.



(A) : 20 – 30 mm (0.79 – 1.18 in)

3. Position the drilled hole downward and drain oil by moving the piston rod several times.

CAUTION:

Dispose of drained oil according to the law and local regulations.

SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specification (Rear)

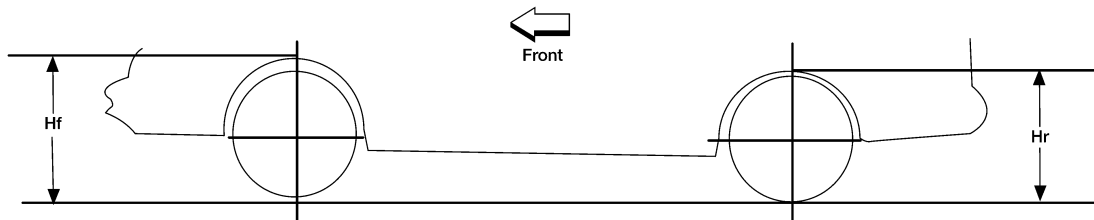
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Suspension type	Rigid axle with semi-elliptic leaf spring
Shock absorber type	Double-acting hydraulic

Wheelarch Height (Unladen*1)

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Unit: mm (in)



LEIA0085E

Drive type		2WD				4WD*2				4WD*3			
Wheel base		Short		Long		Short		Long		Short		Long	
Body		King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab	King Cab	Crew Cab
Front wheel arch height (Hf)	P265/70R18	912 (35.91)	914 (35.98)	912 (35.91)	914 (35.98)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)	949 (37.36)	951 (37.44)
	P275/70R18	922 (36.30)	925 (36.42)	922 (36.30)	925 (36.42)	960 (37.80)	962 (37.87)	959 (37.76)	962 (37.87)	960 (37.80)	962 (37.87)	959 (37.76)	962 (37.87)
	P275/60R20	917 (36.10)	919 (36.18)	917 (36.10)	920 (36.22)	955 (37.60)	957 (37.68)	954 (37.56)	957 (37.68)	955 (37.60)	957 (37.68)	954 (37.56)	957 (37.68)
Rear wheel arch height (Hr)	P265/70R18	952 (37.48)	954 (37.56)	950 (37.40)	951 (37.44)	991 (39.02)	994 (39.13)	989 (38.94)	991 (39.02)	991 (39.02)	993 (39.09)	989 (38.94)	991 (39.02)
	P275/70R18	962 (37.87)	965 (37.99)	960 (37.80)	962 (37.87)	1002 (39.45)	1004 (39.53)	1000 (39.37)	1002 (39.45)	1001 (39.41)	1004 (39.53)	1000 (39.37)	1002 (39.45)
	P275/60R20	957 (37.68)	959 (37.76)	955 (37.60)	956 (37.64)	996 (39.21)	999 (39.33)	995 (39.17)	996 (39.21)	996 (39.21)	998 (39.29)	995 (39.17)	996 (39.21)

*1: Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2: Without tow package.

*3: With tow package.