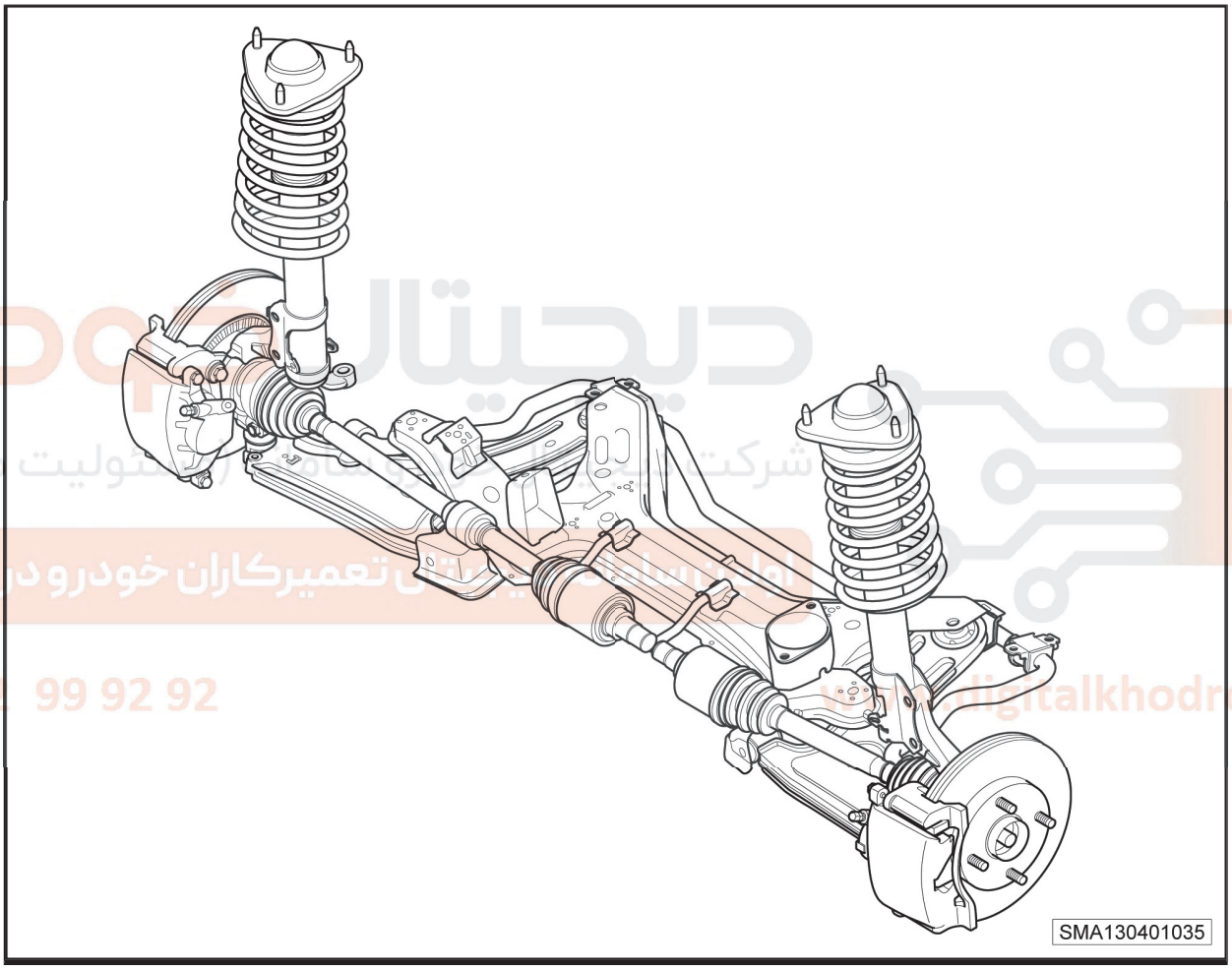
0401 Suspension System

1 General Information

1.1 Overview

Front suspension

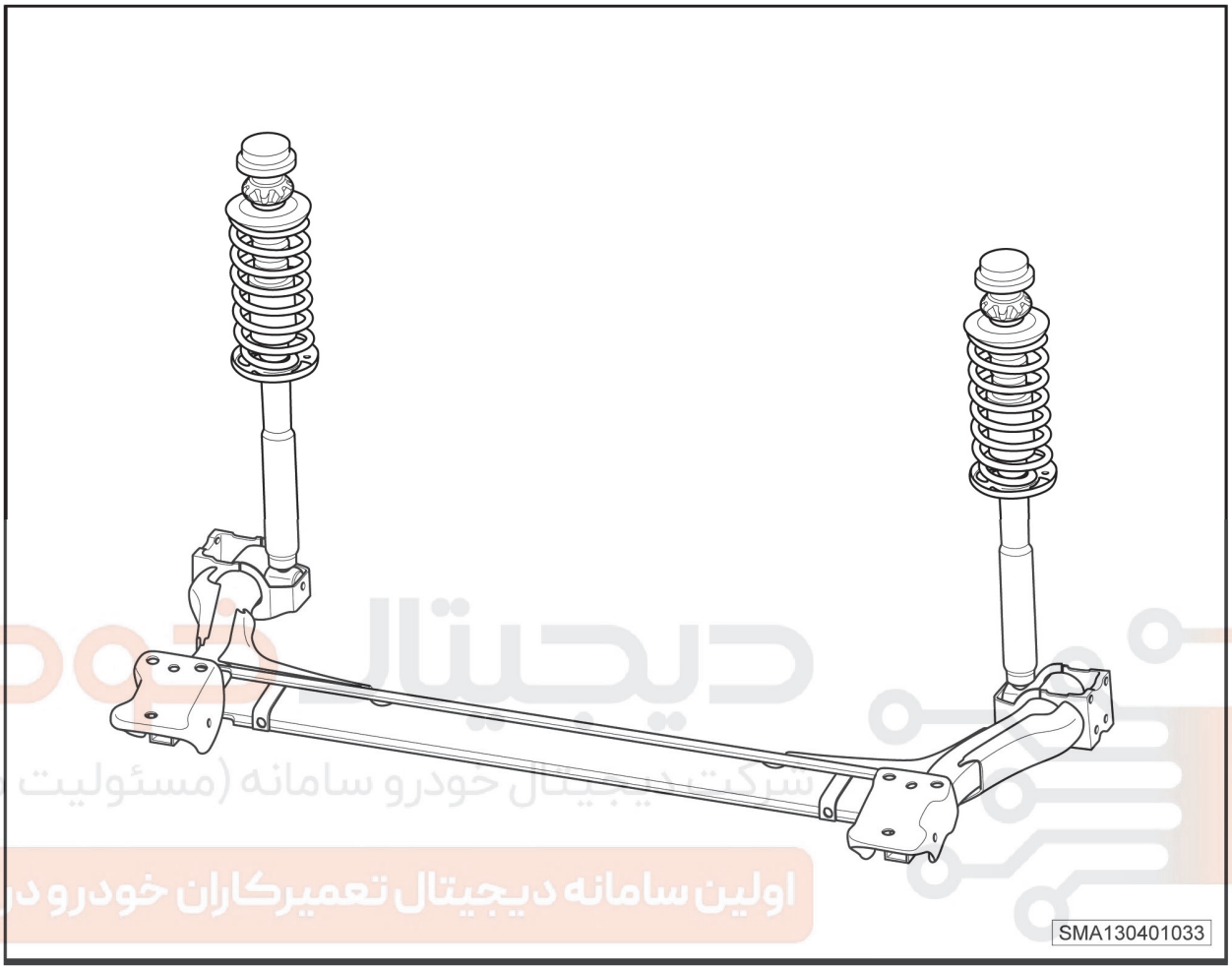


- In this model, the front suspension uses divided steering and power axle, McPherson suspension, cylindrical coil spring and double-acting telescopic shock absorber.
- The suspension upper part is connected with the vehicle body and the lower part touches the ground through wheels.
- The subframe, fixed on the vehicle body with four connecting points, mainly bears various forms of applied force transferred from the control arms and the engine weight.
- Front suspension consists of:

  a. Front shock absorber
  b. Knuckle
  c. Front lower control arm
  d. Front subframe
  e. Front stabilizer bar

f. Axle shaft

Rear suspension



- In this model, the rear suspension uses longitudinal trailing arm type rear axle, which is a semi-independent suspension and features comfort and stability of independent suspension.
- Rear suspension consists of:

  a. Rear shock absorber
  b. Rear axle
  c. Rear axle mounting bracket

⚠ Warning

- In service, be sure to wear necessary protective device to avoid accidents.
- When repairing chassis, be sure to check whether the safety lock of the lifting-jack hoist is locked up.
- When working on the shock absorber spring, prevent the spring unexpectedly bouncing out to injure persons.

1.2 Product specifications

Torque specifications

Component	Torque (N·m)
Wheel nut	110±10
Front wheel axle shaft nut	270±20
Coupling bolt between the front shock absorber and the knuckle	100±10
Coupling bolt between the upper front shock absorber and the vehicle body	60±5
Lock bolt between the knuckle and the front lower control arm	120±10
Coupling bolt between the stabilizer bar and the front lower control arm	35±3
Coupling bolt between the front lower control arm and the vehicle body	130±10
Coupling bolt between the front lower control arm and the front subframe	130±10
Ball nut of the power steering gear link bar	35±3
Lock nut of the toe-in adjusting rod	35±3
Coupling bolt between the front subframe and the engine bracket	75±5
Coupling bolt between the front subframe and the vehicle body	130±10
Fixing nut of the rear wheel hub	230±10
Mounting bolt of the lower rear shock absorber	75±2.5
Coupling bolt between the rear shaft and the rear axle	63±1
Bolt between the rear axle and the mounting bracket	80±8

Inflation pressure of cold tire (kPa)

Vehicle model	Tire type	Inflation pressure (unladen) (Kpa)	Inflation pressure (full-load) (Kpa)	Inflation pressure (spare tire) (Kpa)
SQR7150J150	185/60R15 84H	230/210	240/250	250
SQR7150A137	195/55R15 85V	230/210	240/250	250

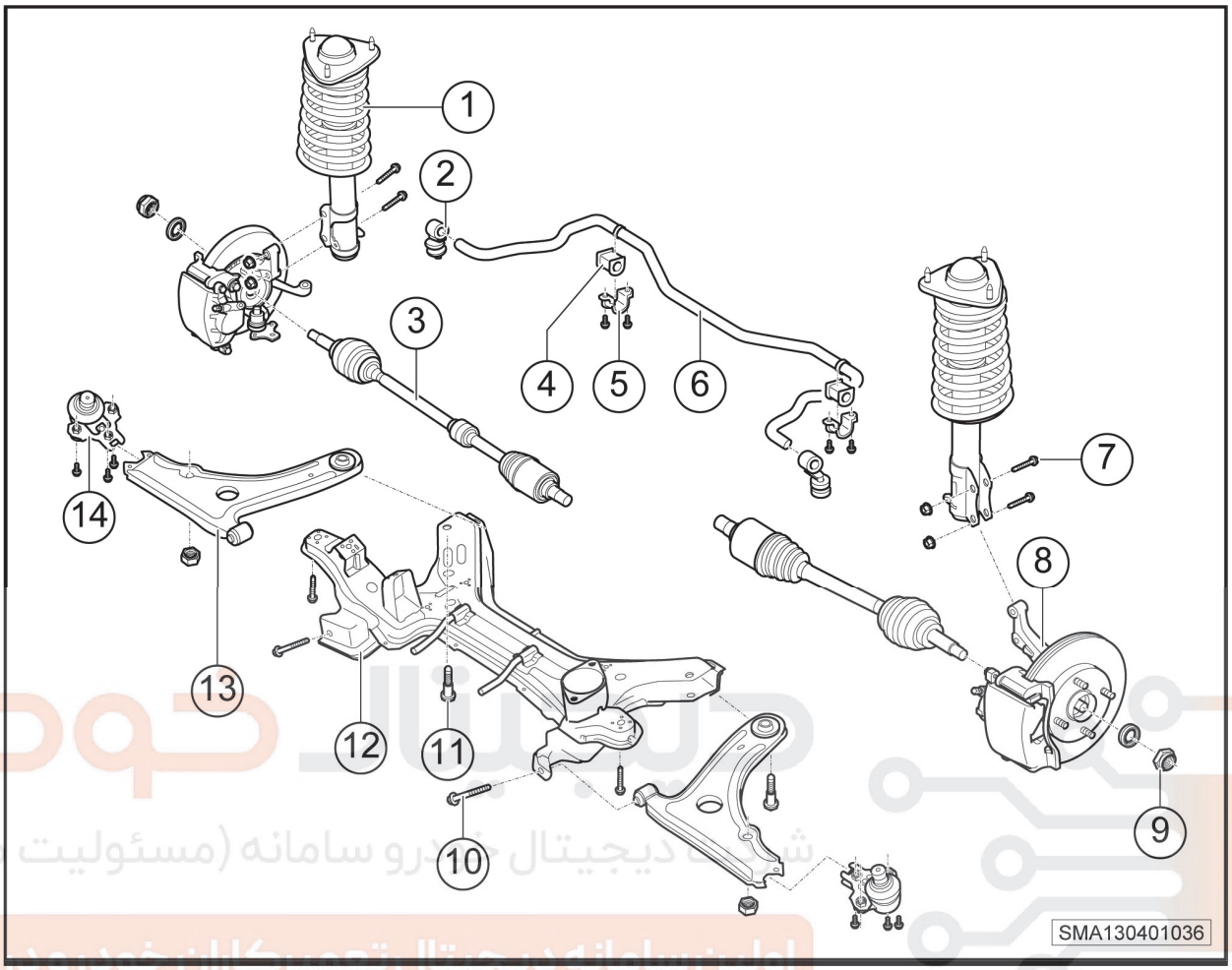
Standard value of front wheel alignment

Item	Standard value
Caster angle of the front wheel	3°18′ ±30′
Camber angle of the front wheel	-30′ ±30′
Front wheel toe-in	0°±10′
Kingpin angle of the front wheel	11°42′ ±30′

Standard value of rear wheel alignment

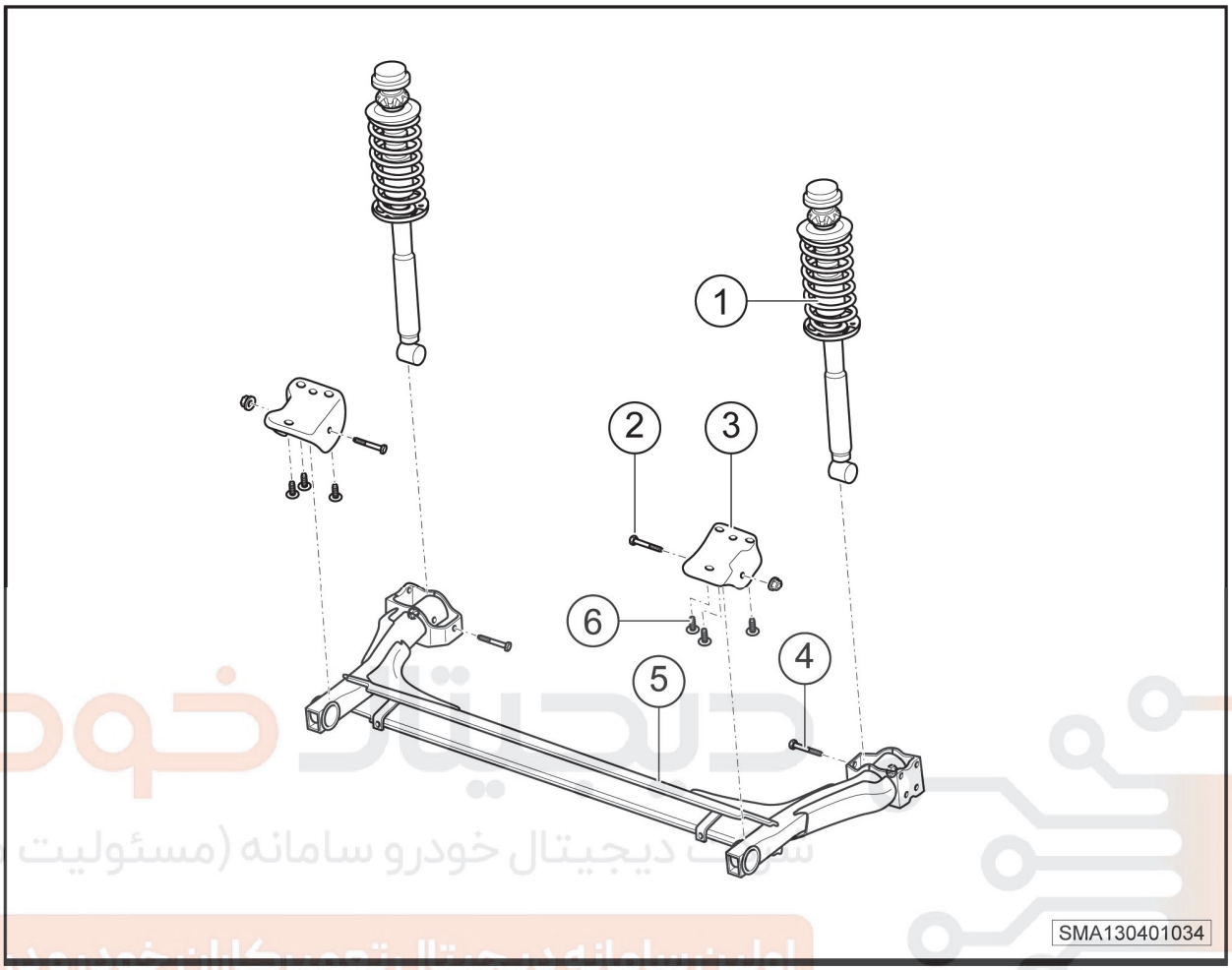
Item	Standard value
Camber angle of the rear wheel	-90′ ±20′
Rear wheel toe-in	10′ ±15′

1.3 The front suspension assembly drawing



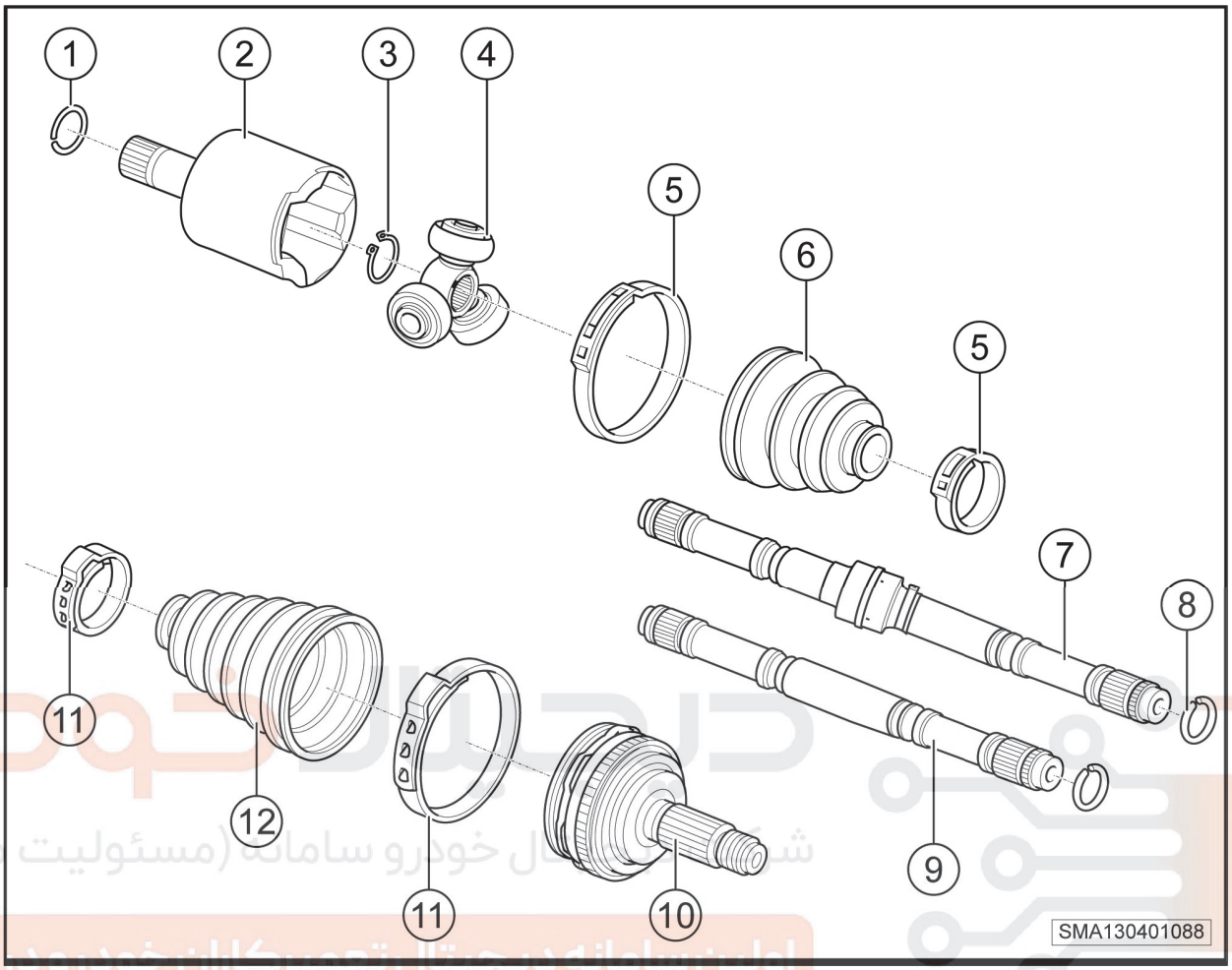
1. Front shock absorber	2. Front stabilizer bar link
3. Axle shaft	4. Front stabilizer bar rubber sleeve
5. Front stabilizer bar rubber sleeve clamp	6. Front stabilizer bar
7. Coupling bolt between the shock absorber and the knuckle	8. Knuckle
9. Axle shaft nut	10. Coupling bolt between the front lower control arm and the front subframe
11. Coupling bolt between the front subframe and the vehicle body	12. Front subframe
13. Front lower control arm	14. Front lower control arm ball joint

1.4 The rear suspension assembly drawing



1. Rear shock absorber	2. Coupling bolt between the rear axle and the rear axle mounting bracket
3. Rear axle mounting bracket	4. Coupling bolt between the rear axle and the rear shock absorber
5. Rear axle	6. Coupling bolt between the rear axle mounting bracket and the vehicle body

1.5 The axle shaft assembly drawing

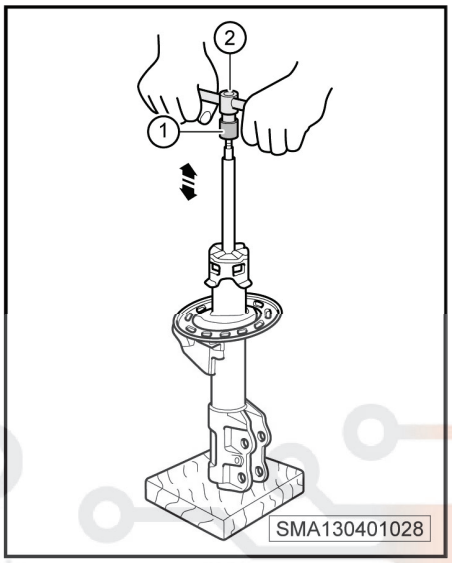


1. Setting ring	2. Inner CV joint
3. Cross shaft circlip	4. Cross shaft
5. Inner CV joint dust cover clamp	6. Inner CV joint dust cover
7. Right axle shaft	8. Stop ring
9. Left axle shaft	10. Outer CV joint
11. Outer CV joint dust cover clamp	12. Outer CV joint dust cover

2 Diagnosis and Inspection

2.1 Checking the front shock absorber

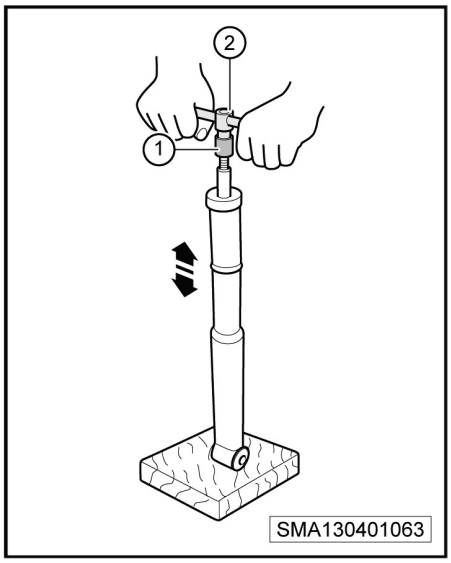
1. As shown in the figure, install a nut at the end of the shock absorber shaft and properly install the sleeve (-1-) and the T wrench (-2-).
2. Manually compress the shock absorber assembly in the (-arrow-) direction to check whether the shock absorber assembly is stably compressed and stretched.When releasing pressure, the shock absorber should be operated smoothly and continuously, otherwise the shock absorber is leaky and it should be replaced.



3. Check for oil leakage, abnormal noise and jamming.

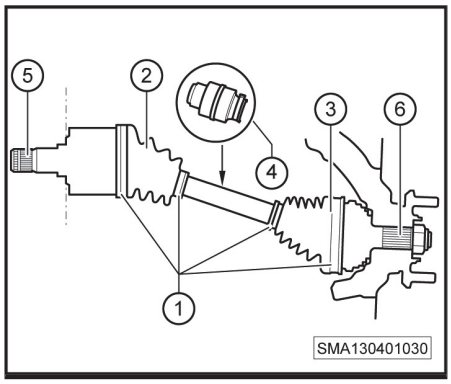
2.2 Checking the rear shock absorber

1. As shown in the figure, install a nut at the end of the rear shock absorber shaft and properly install the sleeve (-1-) and the T wrench (-2-).
2. Manually compress the shock absorber assembly in the (-arrow-) direction to check whether the shock absorber assembly is stably compressed and stretched.When releasing pressure, the shock absorber should be operated smoothly and continuously, otherwise the shock absorber is leaky and it should be replaced.



3. Check for oil leakage, abnormal noise and jamming.

2.3 Checking the axle shaft



1. Check for looseness of the dust cover clamping strap (-1-).Check for crack, damage and grease leakage of the axle shaft inner dust cover (-2-) and the outer dust cover (-3-).Check the right axle shaft shock absorber (-4-) for damage.
2. Check for crack and damage of the inner CV joint (-5-) and the outer CV joint (-6-).In case of any damage, replace the inner CV joint or the outer CV joint as an assembly if necessary.
3. Check for crack and damage of the axle shaft.In case of any damage, replace the axle shaft if necessary.
4. Hold the inner CV joint and manually rotate the front wheel to check for free clearance between the inner CV joint and the outer CV joint.Be sure to make the free clearance meet the specified value. If necessary, replace the axle shaft.

2.4 Checking before wheel alignment

- The vehicle should be in no load condition.
- The fuel tank should be fully-filled.
- The washer jar should be fully filled with washer fluid.
- Spare wheels and vehicle tools should be placed at their positions.
- Check for distortion or damage of the suspension system, the power steering gear link bar and the ball joint.
- Adjust the tire pressure to the specified value.
- Carry out wheel dynamic balance.
- Place the wheel right ahead. Press the brake pedal with the brake pedal loading system.

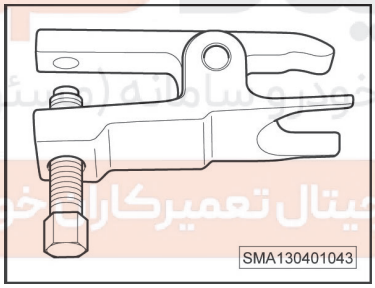
3 Front Wheel Suspension

3.1 Removing and installing the front wheel knuckle

⚠ Warning

- When repairing chassis, be sure to check whether the safety lock of the lifting-jack hoist is locked up.
- It is impermissible to weld or rectify the load-bearing parts of the wheel suspension.
- When removing chassis components, replace self-locking nuts and rusted nuts to assure vehicle safety.

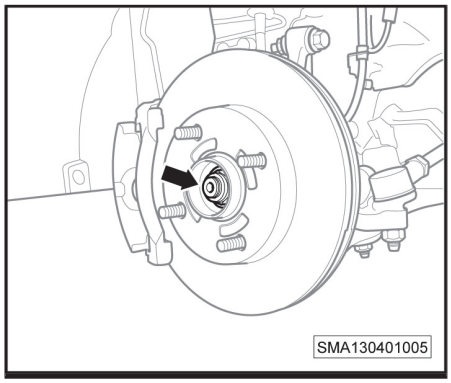
Maintenance tools and common equipment

	
Ball joint separator	

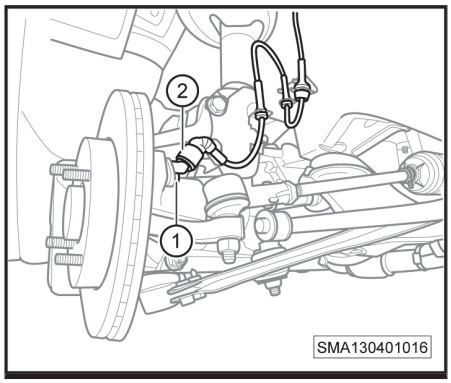
Removal

1. Remove the wheels .=> refer to page 760

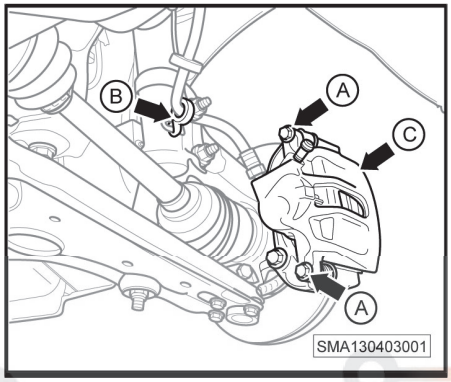
2. Unscrew the axle shaft fixing nut (-arrow-).
   - Tightening torque of the nut: 270±20 N•m



3. Unscrew the fixing bolt of the wheel speed sensor (-1-) and remove the wheel speed sensor (-2-).



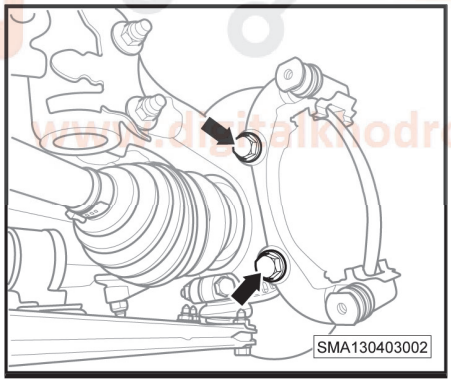
4. Disengage the brake hose clip (-arrow B-), unscrew the fixing bolt of the brake caliper (-arrow A-) and remove the front brake caliper (-arrow C-).
   - Tightening torque of the bolt: 22±1 N•m



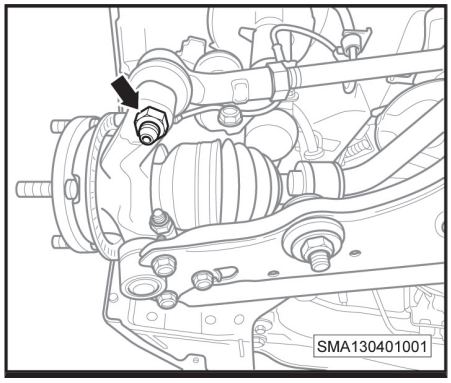
Caution

- It is impermissible to directly suspend the brake caliper, which should be secured with a strap to prevent brake hose damage.

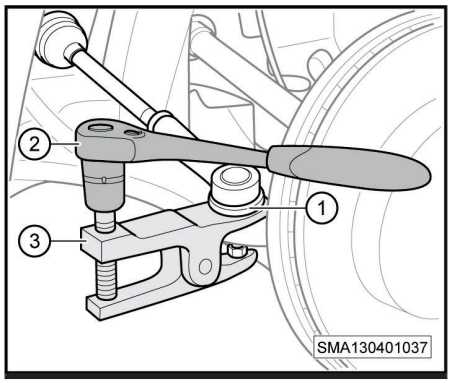
5. Unscrew the brake caliper stretcher bolt (-arrow-) and remove the brake caliper stretcher and the brake disc.
   - Tightening torque of the bolt: 85±5 N•m



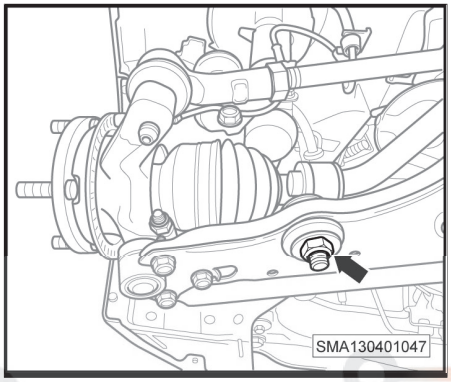
6. Loosen the ball nuts of the power steering gear link bar (-arrow-).
   - Tightening torque of the nut: 35±3 N•m



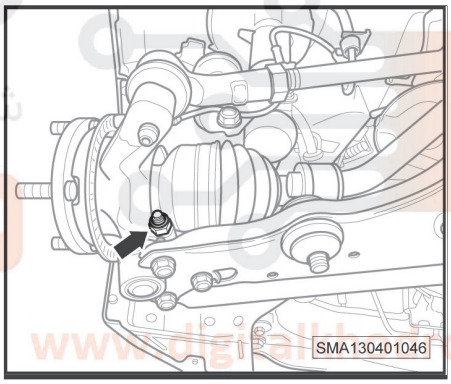
7. Install the ball joint separator (-3-). Tighten the screw of the ball joint separator with the wrench (-2-). Press out the power steering link bar ball joint (-1-) from the knuckle. Unscrew the ball nuts of the power steering gear link bar.



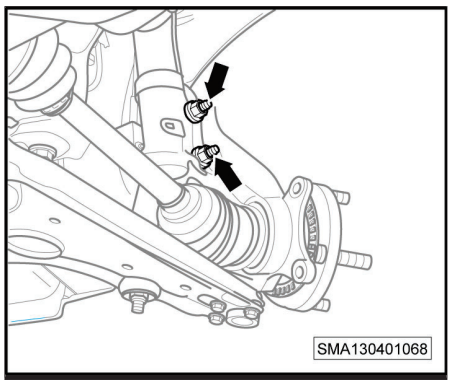
8. Unscrew the fixing nut of the stabilizer bar link (-arrow-).
   - Tightening torque of the nut: 35±3 N•m



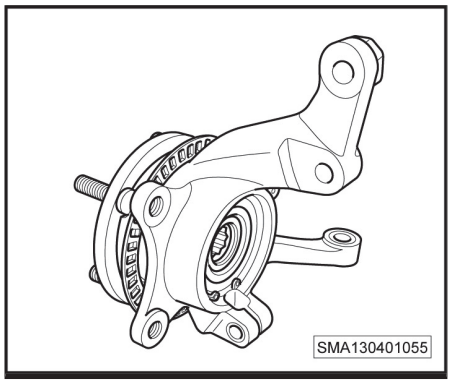
9. Unscrew the lock nut of the coupling bolt between the front lower control arm ball joint and the knuckle (-arrow-) to remove the bolt.
   - Tightening torque of the nut: 120±10 N•m



10. Unscrew the lock nut of the coupling bolt between the knuckle and the shock absorber (-arrow-) to remove the bolt.
    - Tightening torque of the nut: 100±10 N•m



11. Remove the knuckle.



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

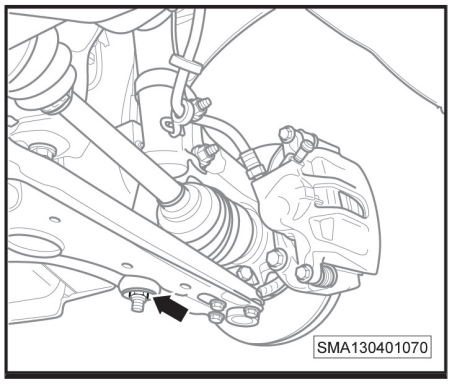
- Please wear a mask to avoid brake pad dust and keep healthy.
- Tighten the fixing bolts with the specified torque.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

3.2 Removing and installing the front lower control arm

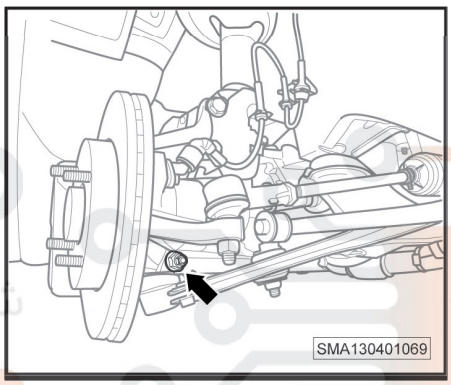
Removal

1. Remove the wheels .=> refer to page 760

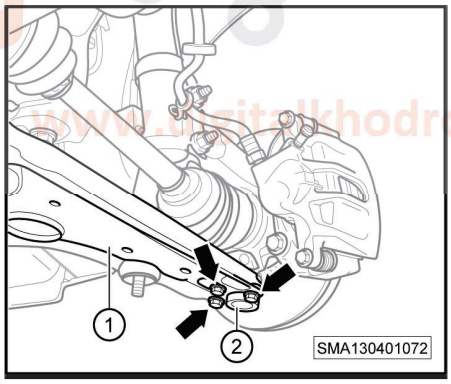
2. Unscrew the fixing nut of the stabilizer bar link (-arrow-).
   - Tightening torque of the nut: 35±3 N•m



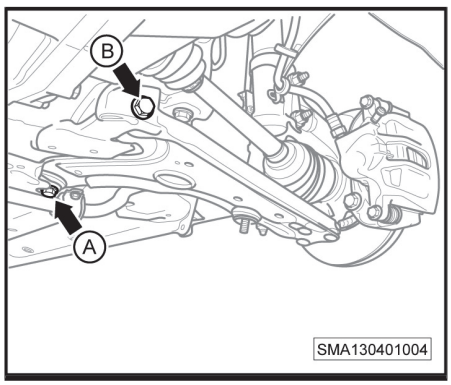
3. Unscrew the lock nut of the coupling bolt between the front lower control arm ball joint and the knuckle (-arrow-) to remove the bolt. Separate the front lower control arm ball joint from the front wheel knuckle.
   - Tightening torque of the nut: 120±10 N•m



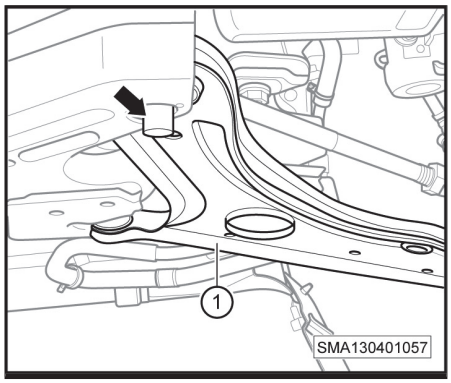
4. Unscrew the ball joint fixing bolts (-arrow-) of the front lower control arm (-1-) to remove the front lower control arm ball joint (-2-).



5. Unscrew the coupling bolt between the front lower control arm and the vehicle body (-arrow A-) and unscrew the coupling bolt between the front lower control arm and the subframe (-arrow B-).
   - Tightening torque of the bolts (-arrow A-) and (-arrow B-): 130±10 N•m



6. Pull out the coupling bolt sleeve between the front lower control arm and the vehicle body (-arrow-) to remove the front lower control arm (-1-).
   - Tightening torque of the nut: 35±3 N•m



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

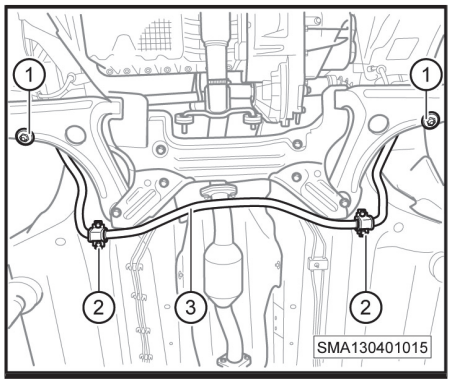
- Tighten the fixing bolts with the specified torque.
- Check the front lower control arm ball joint for damage, replace it if necessary.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

3.3 Removing and installing the stabilizer bar

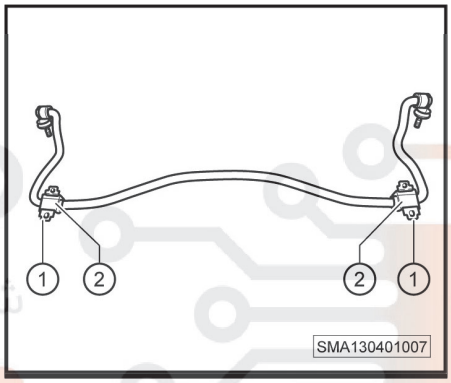
Removal

1. Lift the vehicle safely.

2. Unscrew the fixing nut of the stabilizer bar link (-1-) and the coupling bolt between the stabilizer bar rubber sleeve clamp and the vehicle body (-2-) to remove the stabilizer bar (-3-).
   - Tightening torque of the nut (-1-): 35±3 N•m
   - Tightening torque of the bolt (-2-): 25±3 N•m



3. Disengage the rubber sleeve clamp (-1-) to remove the rubber sleeve (-2-).



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

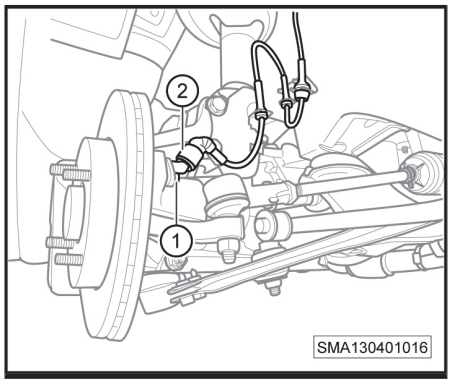
- Tighten the fixing bolts with the specified torque.
- Be sure to install the stabilizer bar rubber sleeve with the opening facing forward.

3.4 Removing and installing the front shock absorber

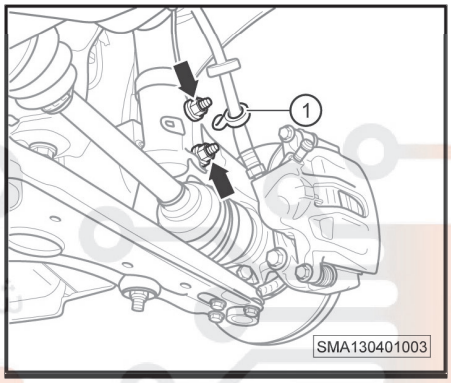
Removal

1. Remove the wheels .=> refer to page 760

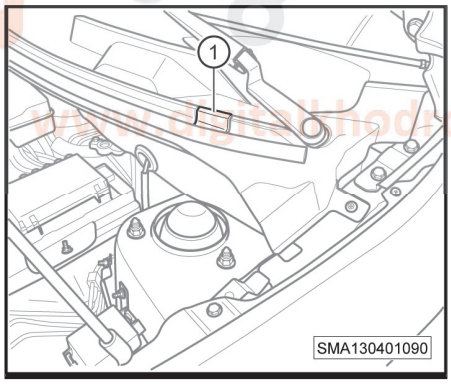
2. Unscrew the fixing bolt of the wheel speed sensor (-1-) and remove the wheel speed sensor (-2-).



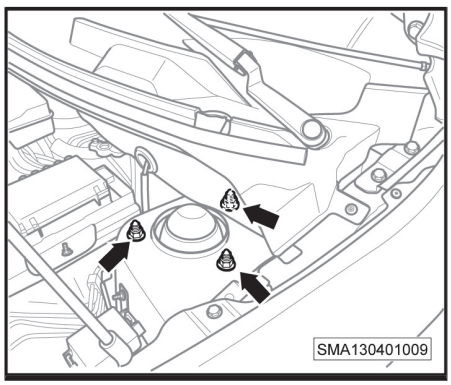
3. Disengage the brake hose clip (-1-), unscrew the assembly nuts of the shock absorber and the knuckle (-arrow-) to remove the bolts.
   - Tightening torque of the nut: 100±10 N•m



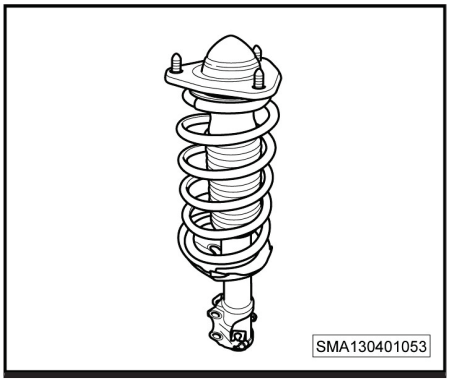
4. Remove the decorative cover of the shock absorber nut (-1-).



5. Unscrew three fixing nuts connecting the mounting bracket on the upper shock absorber with the vehicle body (-arrow-).
   - Tightening torque of the nut: 60±5 N•m



6. Remove the shock absorber assembly.



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

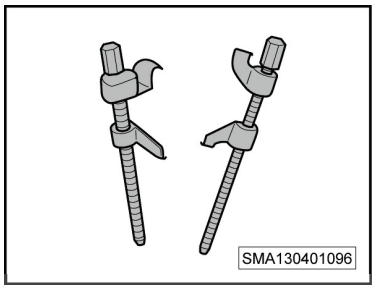
- Tighten fixing nuts with the specified torque.
- Before installing wheels, clean the joint surface between the brake disc and the wheel inner side.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

3.5 Disassembling and assembling the front shock absorber spring

⚠ Warning

- When working on the shock absorber spring, the spring should not be overly compressed. It is workable that the spring is compressed to the extent that the nut can be rotated. Avoid spring damage and body injuries.

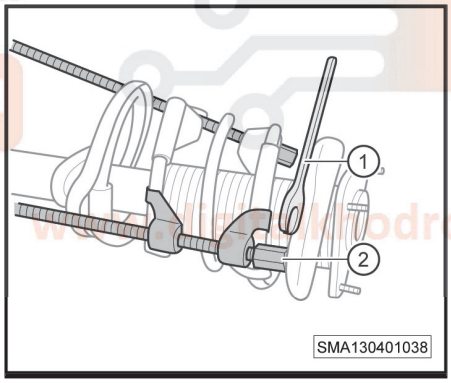
Maintenance tools and common equipment

	
Spring compressor	

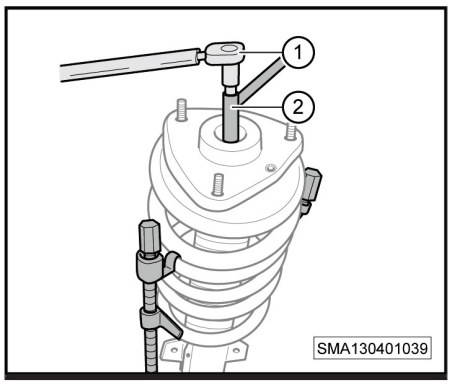
Disassembly

1. Remove the shock absorber.=> refer to page 613

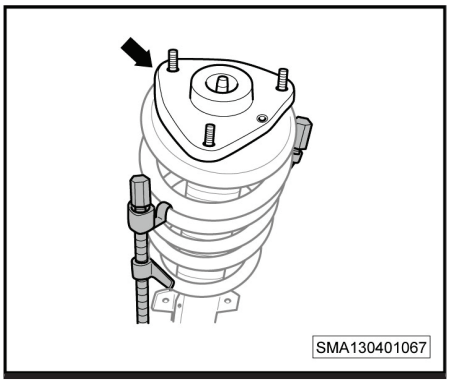
2. Install the spring compressor (-2-). Tighten the screw of the spring compressor with the wrench (-1-) to compress the spring.



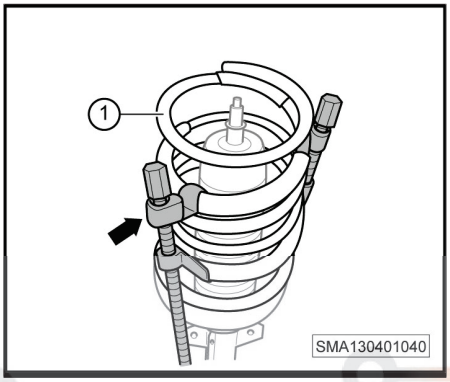
3. Fix the shock absorber shaft with the wrench (-1-). Unscrew the nuts on the shock absorber shaft with the wrench (-2-).
   - Tightening torque of the nut: 25±3 N•m



4. Remove the upper mounting bracket of the shock absorber spring (-arrow-).



5. Remove the shock absorber compressor (-arrow-) and the shock absorber spring (-1-) together.



6. Loosen the compressor screw to release the shock absorber spring force. Separate the compressor from the shock absorber spring.

Assembly

Assembly shall follow the reverse sequence of the disassembly procedure.

Caution

- Tighten fixing nuts with the specified torque.
- Check and confirm that assembling the shock absorber is completed.

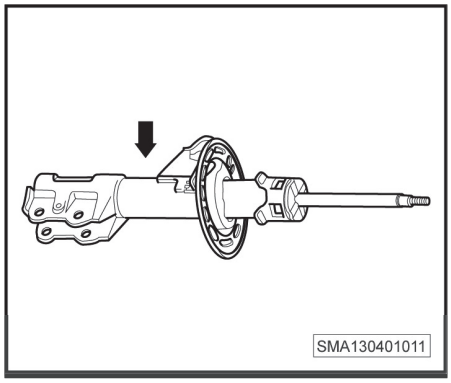
3.6 Processing the front shock absorber

⚠ Warning

- The shock absorber contains nitrogen and oil under negative pressure.
- Before processing, be sure to release the inside pressure of the shock absorber in case it explodes or injures people.
- Be sure to wear goggles to avoid body injuries when the shock absorber is releasing pressure.

Methods:

Place the shock absorber on a horizontal plane and stretch the shock absorber main shaft. Drill a hole with a diameter of 2-3 mm of the shock absorber shaft (-arrow-) to release gas inside the shock absorber.

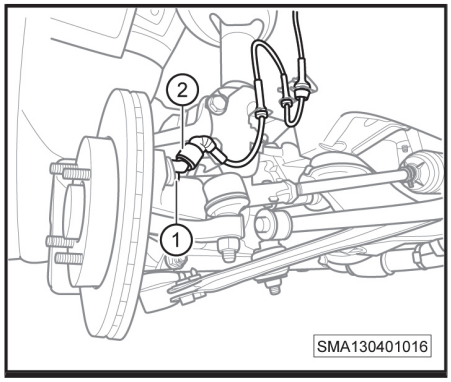


3.7 Removing and installing the axle shaft

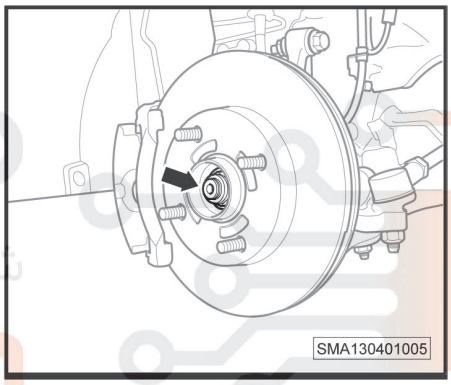
Removal

1. Remove the wheels.=> refer to page 760
2. Drain the transmission oil .=> refer to page 37

3. Unscrew the fixing bolt of the wheel speed sensor (-1-) and remove the wheel speed sensor (-2-).

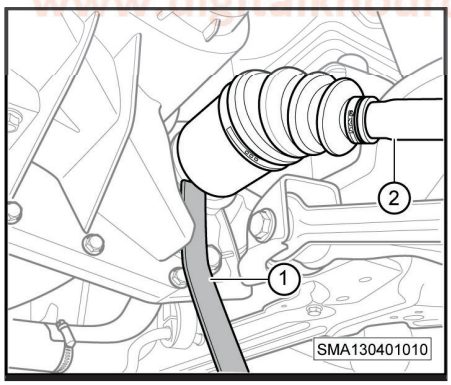


4. Unscrew the axle shaft fixing nut (-arrow-).
   - Tightening torque of the nut: 270±20 N•m

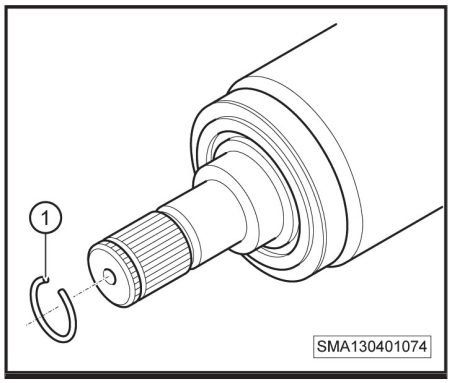


5. Remove the knuckle .

6. As shown in the figure, pry out the axle shaft (-2-) with the crowbar (-1-).



7. Remove the setting ring (-1-).



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

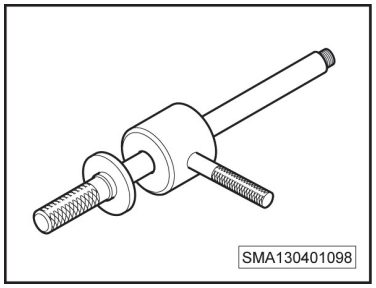
- Avoid damaging dust cover on the CV joint.
- It is impermissible to stretch the axle shaft with huge force to avoid the inner CV joint from falling out.
- Pull out the axle shaft straight to avoid oil seal damage.
- Carefully use the crowbar to avoid oil seal damage.
- Tighten the fixing bolts with the specified torque.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

3.8 Disassembling and assembling the axle shaft

Caution

- It is impermissible to mark on the rolling surface of the roller.

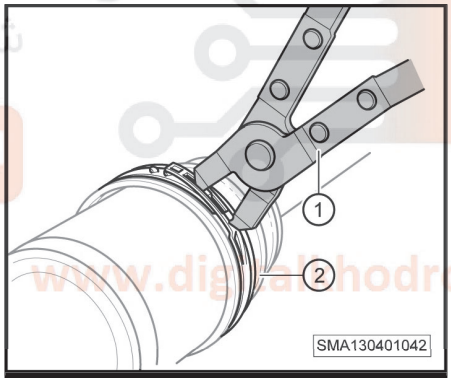
Maintenance tools and common equipment

	
Inertia hammer component	

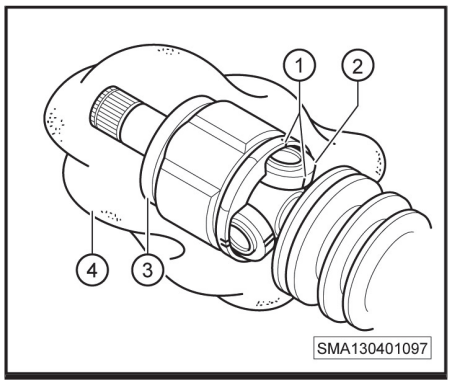
3.8.1 Inner CV joint

Disassembly

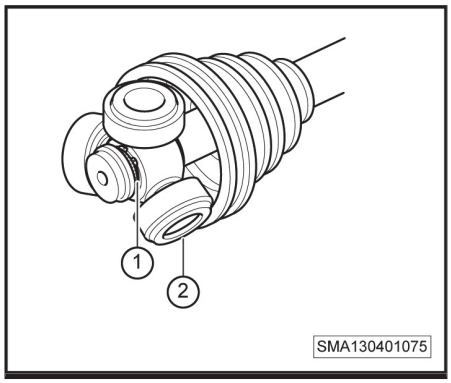
1. Loosen the lock catch of the dust cover clamp (-2-) with the general dust cover clamp pliers (-1-). Carefully operate to avoid damaging the dust cover.



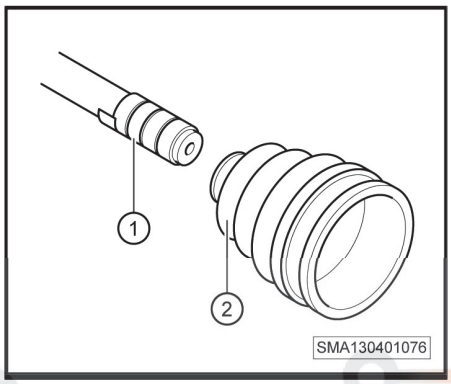
2. Make a mark (-1-) on the roller cover (-2-) and the inner CV joint (-3-) to identify the position of the inner CV joint from roller to groove.Remove the inner CV joint and place it on a clean cloth (-4-).



3. Pull out the cross shaft circlip (-1-) and remove the cross shaft (-2-).



4. Bind the spline on the axle shaft with the tape (-1-), and remove the dust cover (-2-).



5. Remove the tape.

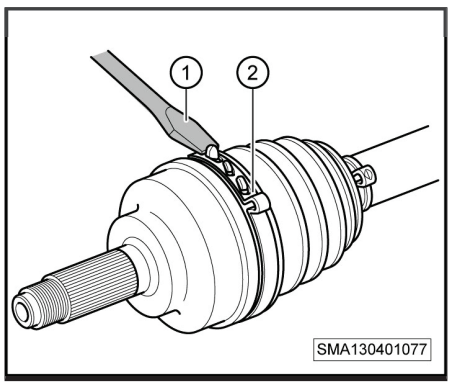
Assembly

Assembly shall follow the reverse sequence of the disassembly procedure.

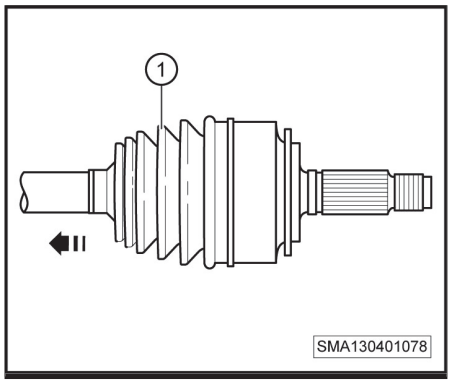
3.8.2 Outer CV joint

Disassembly

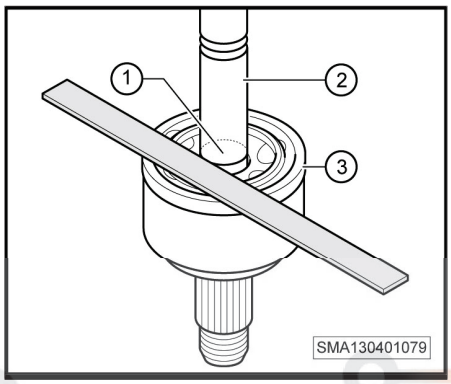
1. Pry out lock catches of three clamps with the screwdriver (-1-), and remove the dust cover clamp (-2-).Carefully operate to avoid damaging the dust cover.



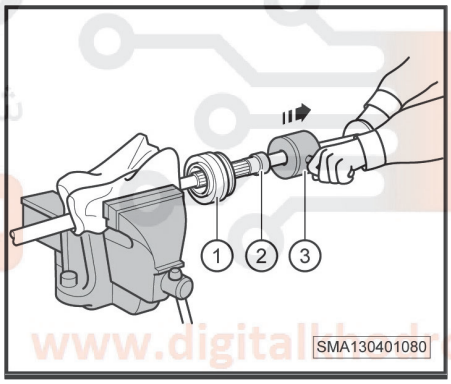
2. Carefully slide the outer dust cover (-1-) to the inner CV joint side in the (-arrow-) direction.



3. Make a mark (-1-) at the same height of the axle shaft (-2-) and the outer CV joint edge (-3-) to check with ease whether they are properly installed.

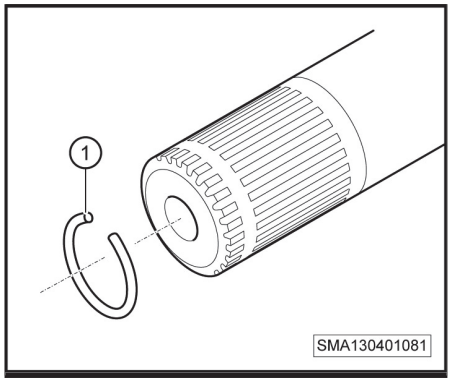


4. Wrap the axle shaft with a cloth and securely wedge it in the bench vice.Connect the axle shaft with the screwed connector (-2-). Pull the inertia hammer component (-3-) in the (-arrow-) direction and remove the outer CV joint (-1-).

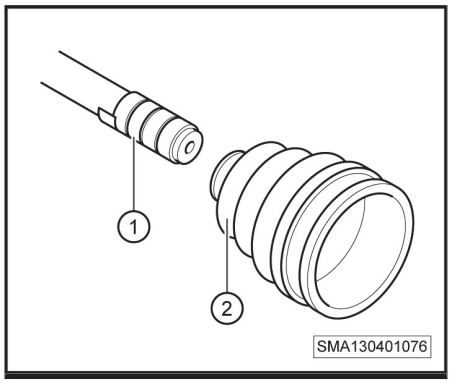


5. Remove the axle shaft from the bench vice.

6. Remove the stop ring (-1-) from the axle shaft.



7. Bind the spline on the axle shaft with the tape (-1-), and remove the dust cover (-2-).



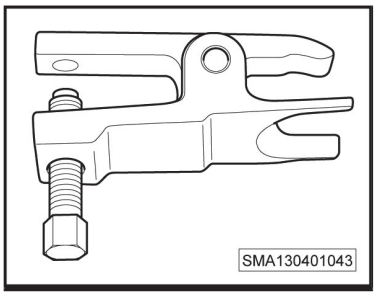
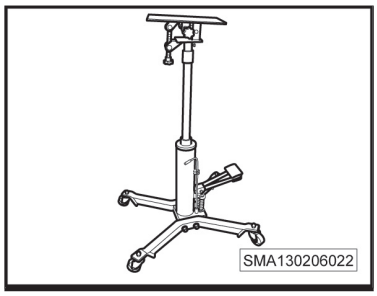
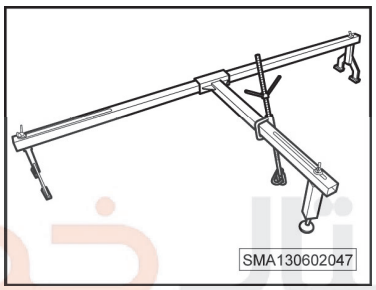
8. Remove the tape.

Assembly

Assembly shall follow the reverse sequence of the disassembly procedure.

3.9 Removing and installing the front subframe

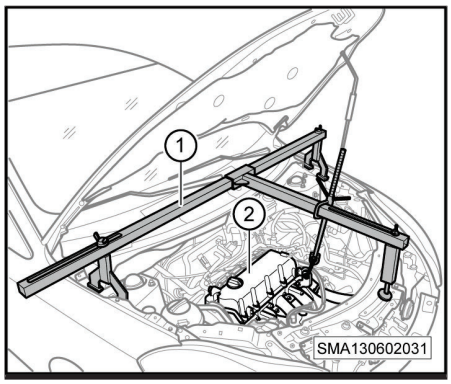
Maintenance tools and common equipment

	
Ball joint separator	Jack
	
Engine hanger	

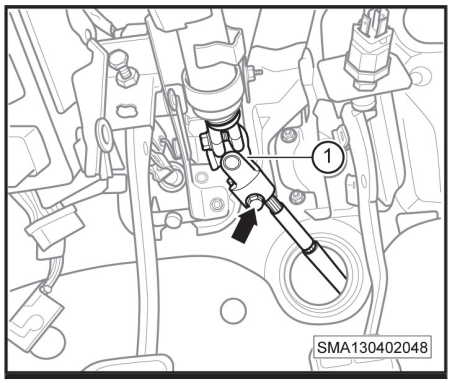
Removal

1. Switch off all current consumers and ignition switch.
2. Disconnect the battery negative cable.
3. Remove the battery and the battery tray .=> refer to page 976
4. Drain the power steering fluid .=> refer to page 40

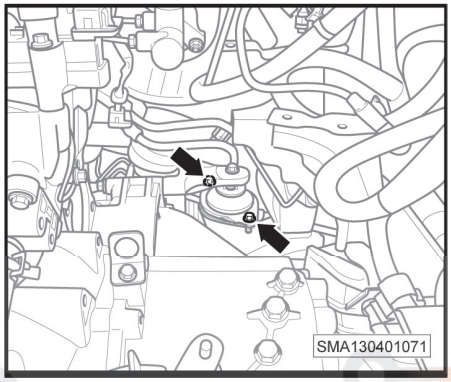
5. As shown in the figure, fix the engine (-2-) with the engine hanger (-1-).



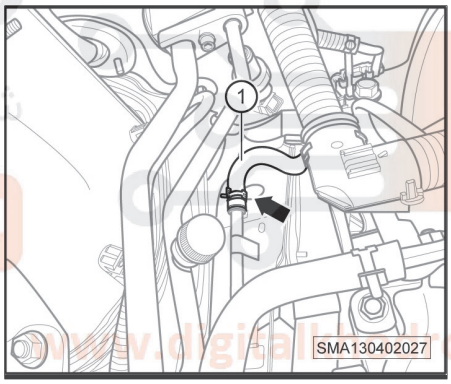
6. Unscrew the assembly bolt (-arrow-) of the steering universal joint (-1-).
   - Tightening torque of the bolt: 25±3 N•m



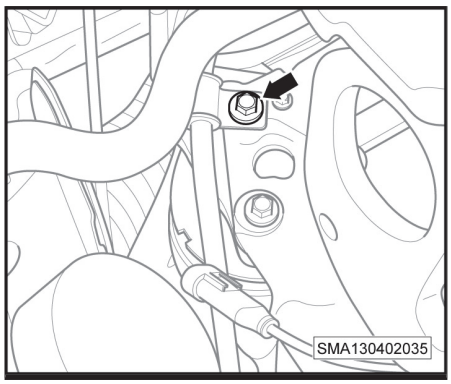
7. Unscrew the coupling bolts between the front subframe and the transaxle bracket (-arrow-).



8. Disengage the return pipe clamp of the power steering gear (-arrow-) to disconnect the power steering gear return pipe (-1-).

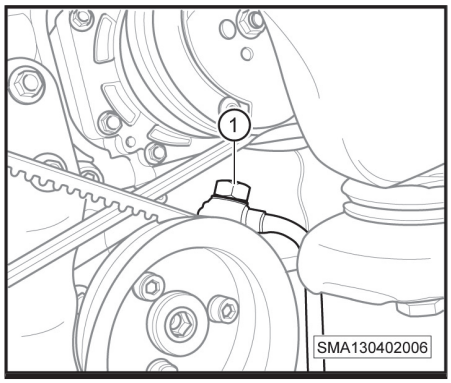


9. Unscrew the fixing bolt of the power steering pump high pressure pipe clamping fastener (-arrow-).



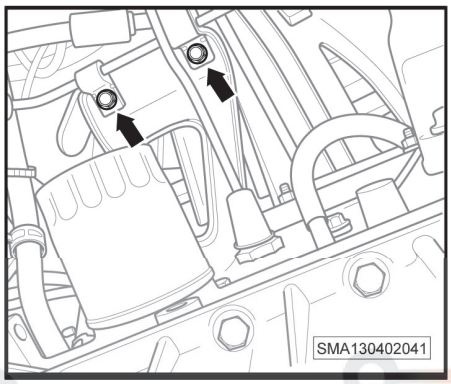
10. Unscrew the hollow bolt of the power steering pump (-1-).

- Tightening torque of the bolt: 45±3 N•m



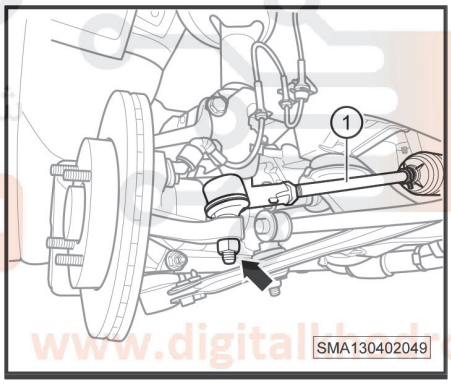
11. Unscrew the coupling bolts between the power steering pipe and the intake manifold (-arrow-).

- Tightening torque of the bolt: 18±3 N•m

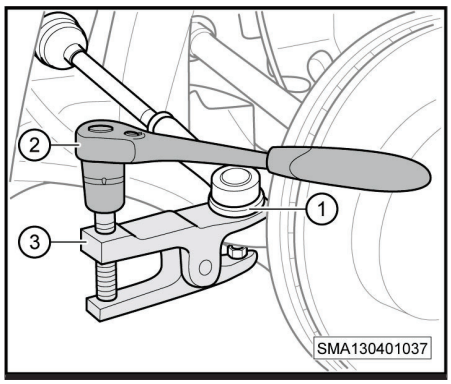


12. Loosen the ball joint lock bolt (-arrow-) of the power steering gear link bar (-1-).

- Tightening torque of the nut: 35±4 N•m

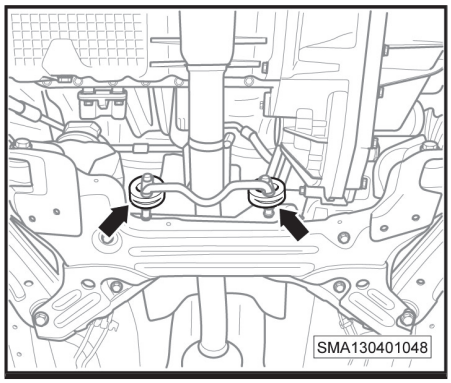


13. Install the ball joint separator (-3-). Tighten the screw of the ball joint separator with the wrench (-2-). Press out the power steering link bar ball joint (-1-) from the knuckle. Unscrew the ball nuts of the power steering gear link bar.



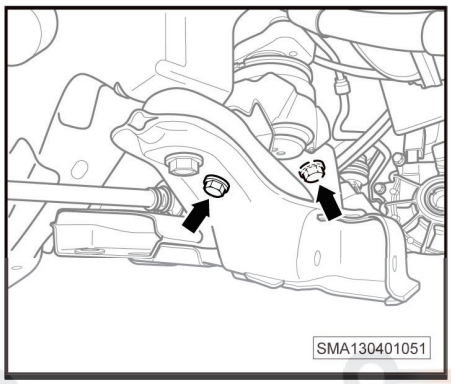
14. Remove the front lower control arm .=> refer to page 610

15. Disengage the joint hanger between exhaust pipe and front subframe (-arrow-).



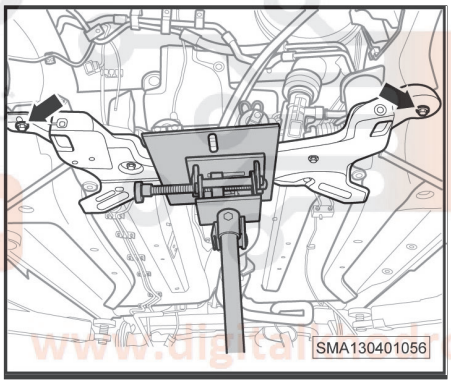
16. Unscrew the coupling bolts between the front subframe and the engine bracket (-arrow-).

- Tightening torque of the bolt: 75±5 N•m



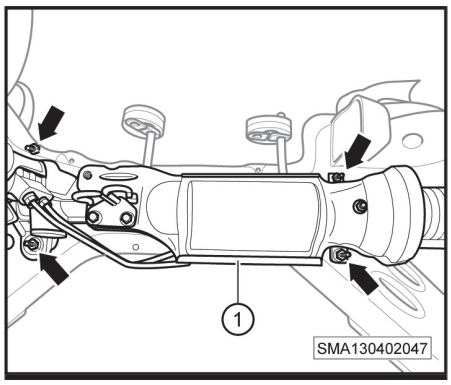
17. Jack up the front subframe. Unscrew the coupling bolts between the front subframe and the vehicle body (-arrow-) to remove the front subframe and the power steering gear together.

- Tightening torque of the bolt: 130±10 N•m



18. Unscrew the assembly nuts of the front subframe and the power steering gear (-arrow-) to separate the front subframe (-1-) from the power steering gear (-2-).

- Tightening torque of the nut: 30±3 N•m



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

- Tighten the fixing bolts with the specified torque.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

4 Rear Wheel Suspension

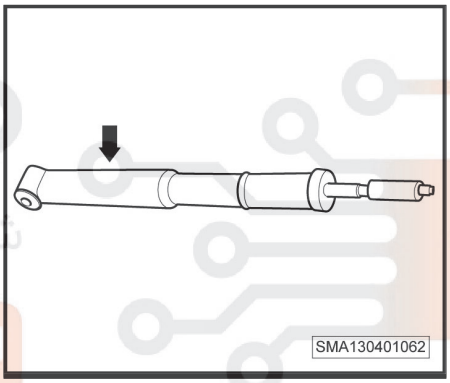
4.1 Processing the rear shock absorber

⚠ Warning

- The shock absorber contains nitrogen and oil under negative pressure.
- Before processing, be sure to release the inside pressure of the shock absorber in case it explodes or injures people.
- Be sure to wear goggles to avoid body injuries when the shock absorber is releasing pressure.

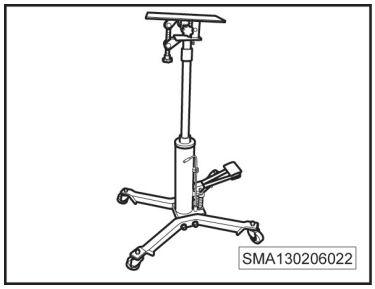
Methods:

Place the shock absorber on a horizontal plane and stretch the shock absorber main shaft. Drill a hole with a diameter of 2-3 mm of the shock absorber shaft (-arrow-) to release gas inside the shock absorber.



4.2 Removing and installing the rear shock absorber

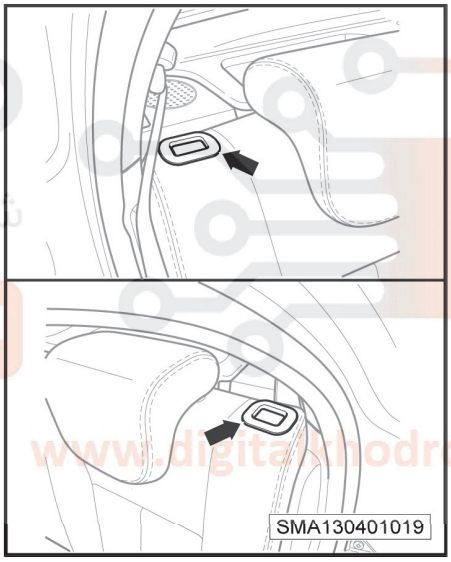
Maintenance tools and common equipment

 SMA130206022	
Jack	

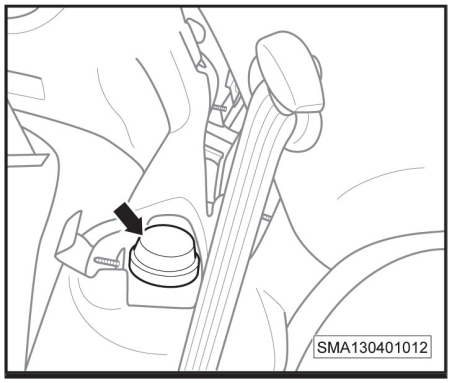
Removal

1. Be sure to prop the vehicle firmly and lift it.

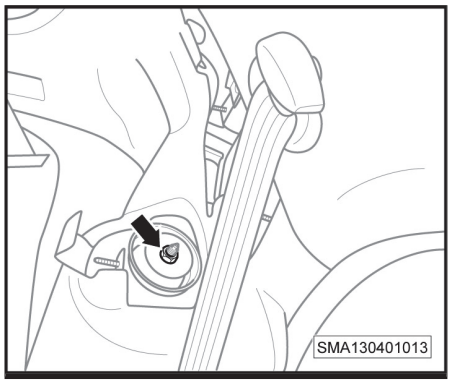
2. Press left and right locking buttons of the rear seat backrest (-arrow-) and pull up the rear seat backrest.


SMA130401019

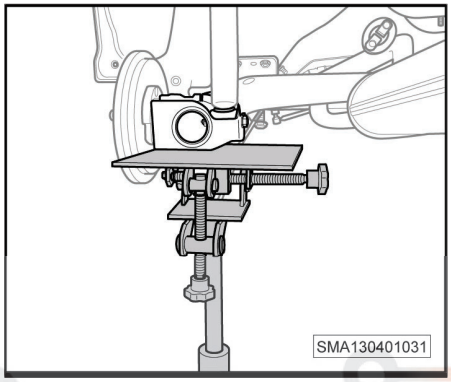
3. Remove the upper rubber cover of the rear shock absorber (-arrow-).


SMA130401012

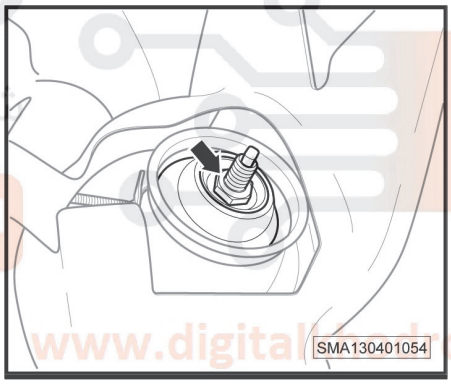
4. Unscrew the fixing nut of the rear shock absorber (-arrow-).
   - Tightening torque of the nut: 25±3 N•m



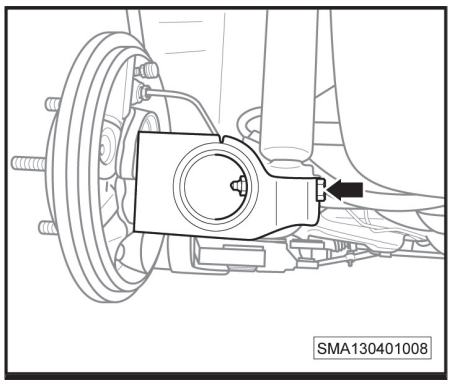
5. Jack up the rear axle.



6. Unscrew the assembly nuts of the rear shock absorber and the vehicle body (-arrow-) with special tools.
   - Tightening torque of the nut: 15±1 N m



7. Unscrew the mounting bolts of the lower rear shock absorber (-arrow-).
   - Tightening torque of the bolt: 75±2.5 N•m



Note

- When removing the left rear shock absorber, remove the main silencer.

8. Remove the rear shock absorber.

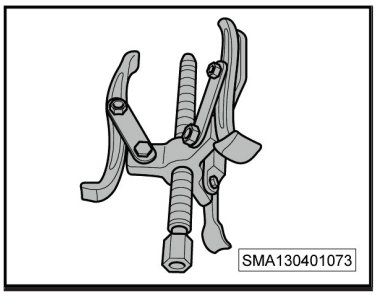
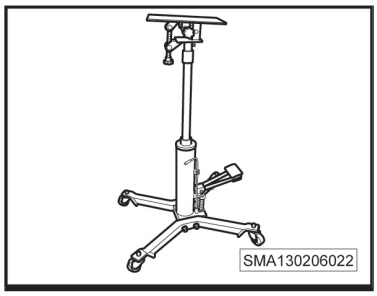
Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

- Tighten the fixing bolts with the specified torque.
- After installing, check the wheel alignment. If necessary, adjust the wheel alignment.

4.3 Removing and installing the rear axle

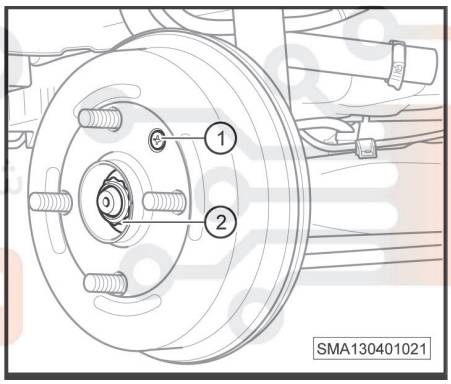
Maintenance tools and common equipment

	
Puller	Jack

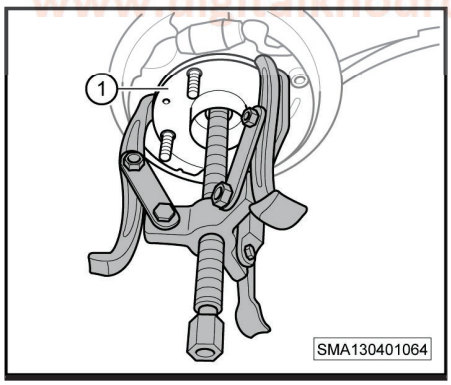
Removal

1. Be sure to prop the vehicle firmly and lift it.
2. Remove the wheels .=> refer to page 760

3. Unscrew the brake drum fixing bolt (-1-) and the rear wheel hub fixing nut (-2-) to remove the brake drum.
   - Tightening torque of the nut: 230±20 N•m

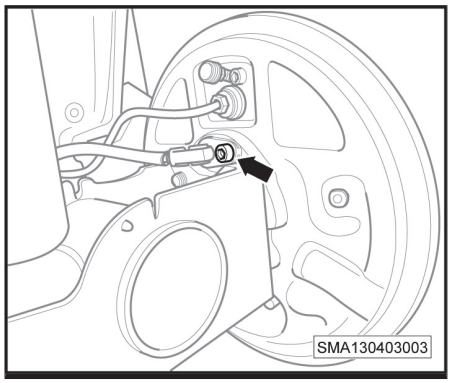


4. Pull out the rear wheel hub (-1-) with the puller.

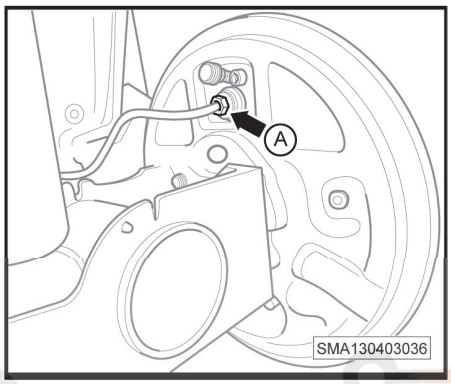


5. Remove the rear brake shoe .=> refer to page 727

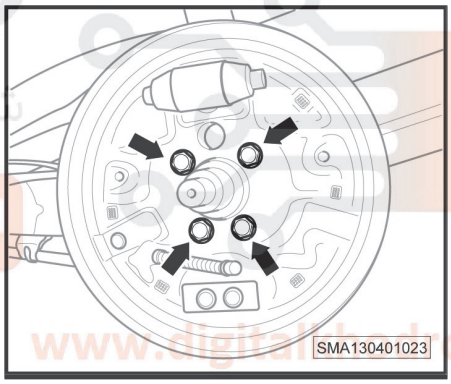
6. Unscrew the rear wheel speed sensor bolt (-arrow-) to remove the sensor.
   - Tightening torque of the bolt: 10±1 N•m



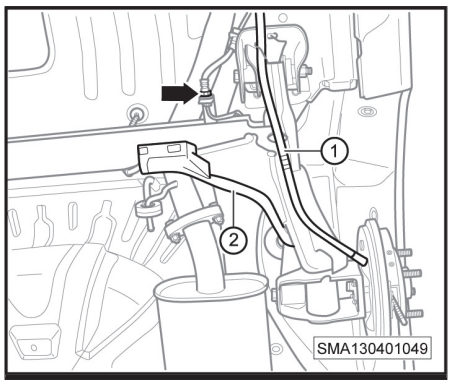
7. Unscrew the brake pipe bolt (-A-).
   - Tightening torque of the bolt: 16.5±2.5 N•m



8. Unscrew the rear main shaft fixing bolt (-arrow-) to remove the rear main shaft.
   - Tightening torque of the bolt: 63±1 N•m

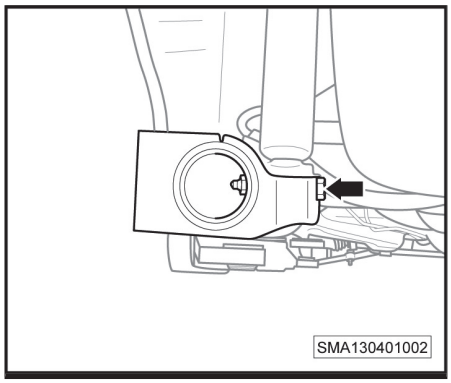


9. Remove the parking brake guy cable (-1-) to disengage the harness clamp on the rear axle (-2-). Unscrew the brake pipe nut (-arrow-) to disconnect the brake pipe.

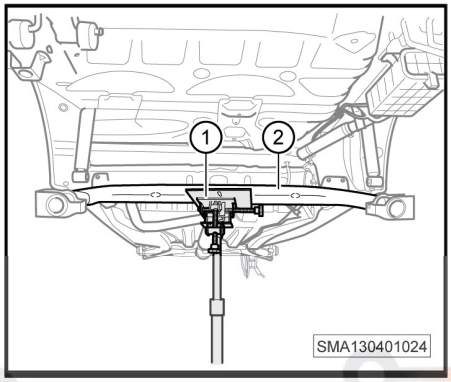


10. Remove the main silencer.=> refer to page 226

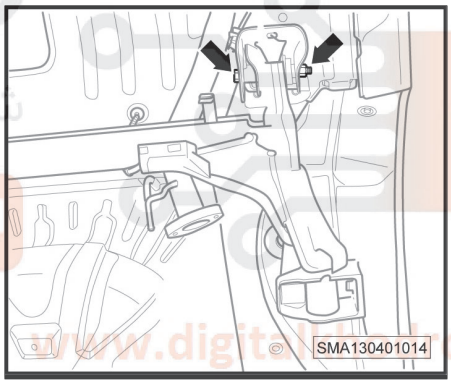
11. Unscrew the mounting bolts of the lower rear shock absorber (-arrow-).
    - Tightening torque of the bolt: 75±2.5 N•m



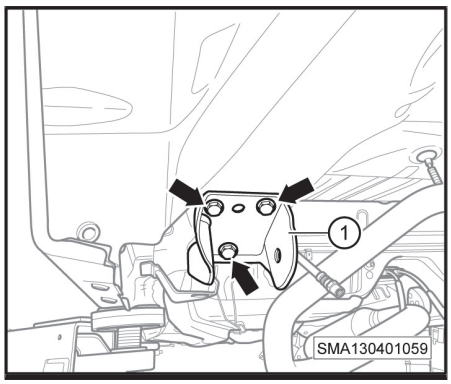
12. As shown in the figure, place the jack (-1-) in the middle of the rear axle (-2-).



13. Unscrew the coupling bolts between the rear axle and the rear axle mounting bracket (-arrow-) to carefully remove the rear axle.
    - Tightening torque of the bolt: 80±8 N•m



14. Unscrew the fixing bolt of the rear axle bracket (-arrow-) to remove the rear axle mounting bracket (-1-).



Installation

Installation shall follow the reverse sequence of the removal procedure. Please pay attention to the following notes:

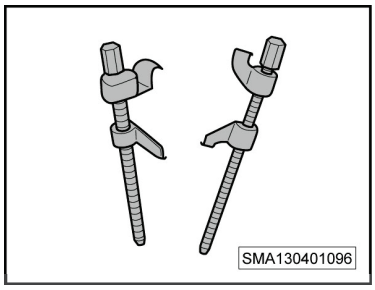
- Tighten the fixing bolts with the specified torque.
- After installing, drain the brake system.

4.4 Removing and installing the rear shock absorber spring

⚠ Warning

- When working on the shock absorber spring, the spring should not be overly compressed. It is workable that the spring is compressed to the extent that the nut can be rotated. Avoid spring damage and body injuries.

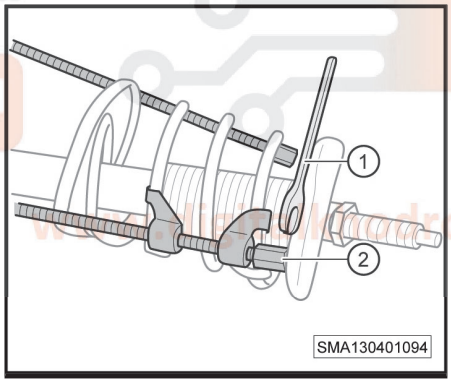
Maintenance tools and common equipment

	
Spring compressor	

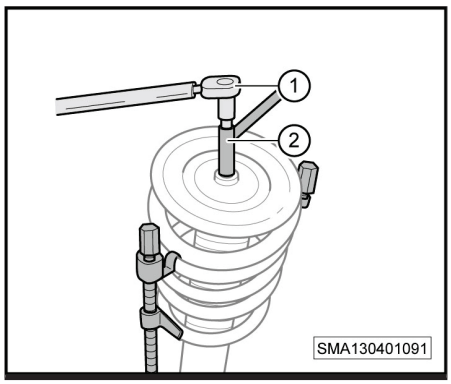
Disassembly

1. Remove the shock absorber .=> refer to page 629

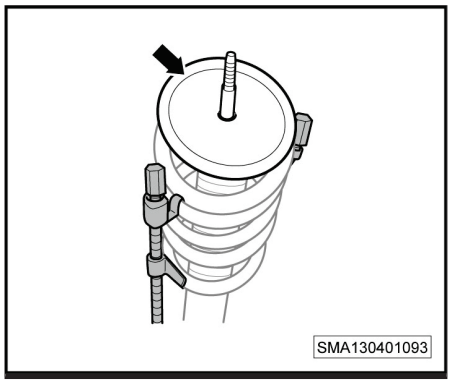
2. Install the spring compressor (-2-).Tighten the screw of the spring compressor with the wrench (-1-) to compress the spring.



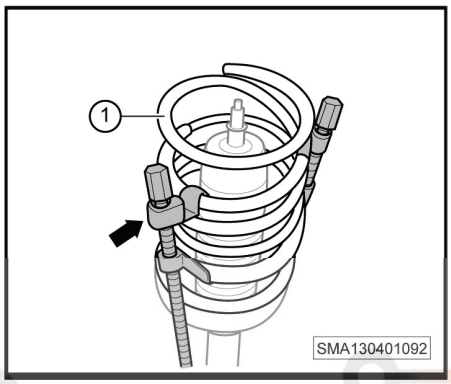
3. Fix the shock absorber shaft with the wrench (-1-). Unscrew the nuts on the shock absorber shaft with the wrench (-2-).
   - Tightening torque of the nut: 25±3 N•m



4. Remove the upper mounting bracket of the rear shock absorber spring (-arrow-).



5. Remove the compressor (-arrow-) and the shock absorber spring (-1-) together.

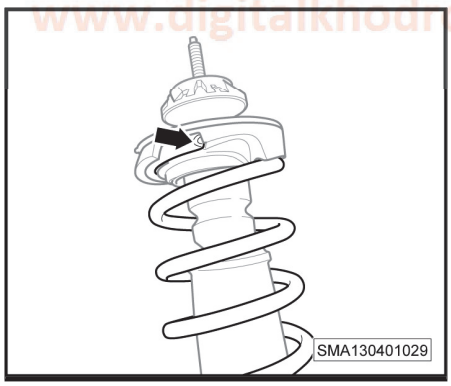


6. Loosen the compressor screw to release the shock absorber spring force. Separate the compressor from the shock absorber spring.

Assembly

Assembly shall follow the reverse sequence of the disassembly procedure.Please pay attention to the following notes:

- When assembling the shock absorber spring, be sure to properly install it (-arrow-).



- Tighten fixing nuts with the specified torque.
- Check and confirm that assembling the shock absorber is completed.

5 Wheel Alignment

5.1 Wheel alignment instructions

Note

- Install and align the measuring equipment as required. Be sure to operate according to the instructions provided by the equipment manufacturer.
- If necessary, the wheel alignment gauge manufacturer should instruct operation.
- Maintain the wheel alignment gauge on time.
- Carefully use the wheel alignment gauge.

Service technician must observe the following wheel alignment steps:

1. Check caster angle of the front wheel
2. Check camber angle of the front wheel
3. Check camber angle of the rear wheel
4. Check the rear wheel toe-in
5. Check the front wheel toe-in

Inspect wheel alignment before removing or replacing the following parts:

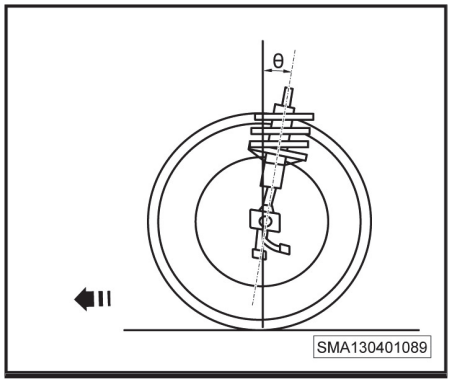
- Front lower control arm
- Front lower control arm ball joint
- Knuckle
- Front shock absorber
- Power steering gear
- Power steering gear link bar ball joint
- Front subframe

5.2 Checking the caster angle of the front wheel

Standard value of the caster angle of the front wheel

Item	Standard value
Caster angle of the front wheel	3°18′ ±30′

It is unnecessary to adjust the caster angle of the front wheel θ in driving the vehicle.The caster angle of the front wheel aims to keep the vehicle direction stable and provide the steering return capability.



5.3 Adjusting the camber angle of the front wheel

Note

- The camber angle of the front wheel can be adjusted through the diameter difference of coupling bolt bores between the shock absorber and the knuckle or through clearance fit between the lower control arm and the lower control arm ball joint.

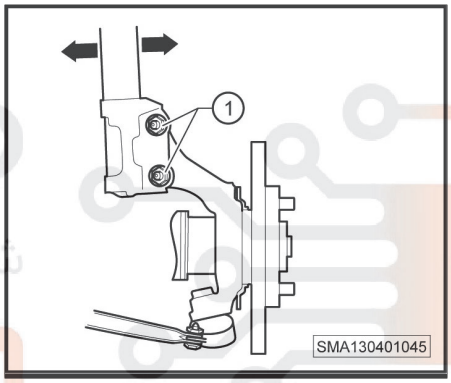
Standard value of the camber angle of the front wheel

Item	Standard value
Camber angle of the front wheel	-30′ ±30′

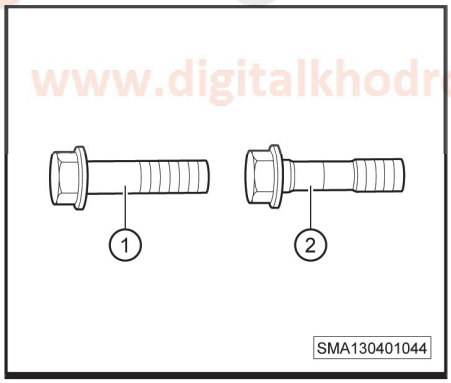
Methods:

1. Lift the vehicle front. Be sure to prop the vehicle firmly. Remove the front wheel.

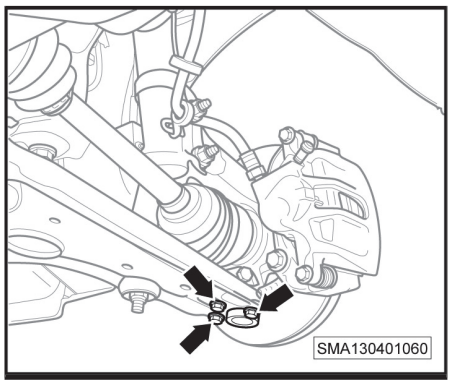
2. Loosen the coupling bolts between the shock absorber and the knuckle (-1-). Move from left to right in the (-arrow-) direction and adjust the camber angle.
   - Tightening torque of the bolt: 100±10 N•m



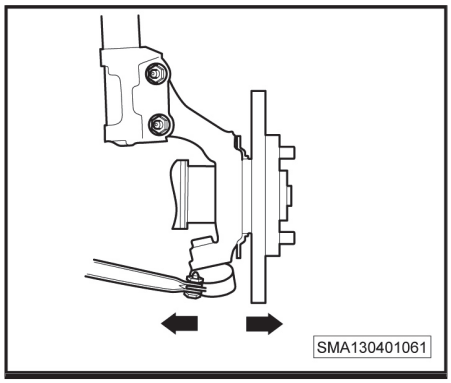
3. If further alignment is necessary, replacing the coupling bolts between the front shock absorber and the knuckle, adjust the camber angle of wheels. Replace M12 bolt (-1-) with M11 bolt (-2-). It is permissible to adjust the camber angle by about 1°.



4. Loosen the assembly bolts of the lower control arm ball joint (-arrow-).



5. Pull the knuckle from left and right in the (-arrow-) direction and adjust the camber angle.



6. Install the wheels.

5.4 Adjusting the front wheel toe-in

Standard value of the front wheel toe-in

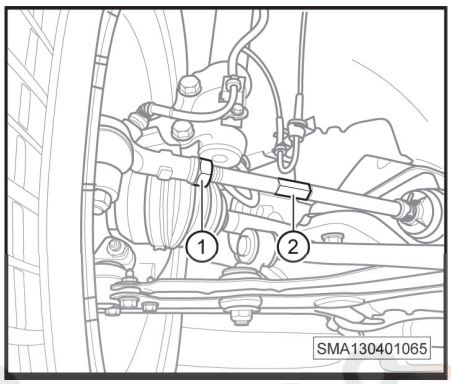
Item	Standard value
Front wheel toe-in	0°±10′

Adjustment:

1. Install the wheel alignment gauge as required.

2. Loosen the lock nut of the front wheel toe-in adjusting rod (-1-). If necessary, rotate the toe-in adjusting rod (-2-) until it meets the specified value.
   - Tightening torque of the bolt: 55±5 N•m

3. Fix the front wheel toe-in adjusting rod (-2-) with the tools. Tighten the lock nut of the front wheel toe-in adjusting rod (-1-).

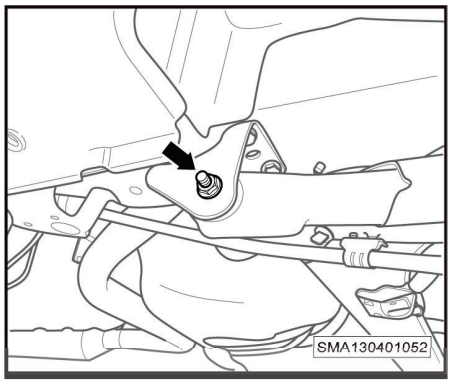


5.5 Checking the rear wheel rake and the rear wheel toe-in

Standard values of the rear wheel rake and the rear wheel toe-in

Item	Standard value
Camber angle of the rear wheel	-90′ ±20′
Rear wheel toe-in	10′ ±15′

1. Measure the height of the center point of the coupling bolt between the rear axle and the vehicle body (-arrow-) to the left and right ground.



2. Different vehicle heights on the left and right imply damage or distortion on some parts of the front and rear suspension. If necessary, replace the damaged or distorted parts.
3. Check the rear wheel rake.If the rear wheel rake does not meet the specified value, check for damage or distortion of the rear suspension and wheels. If necessary, replace the damaged or distorted parts.
4. Check the rear wheel toe-in. If the rear wheel toe-in differs greatly on the left and right, check for damage or distortion of the rear suspension and wheels. If necessary, replace the damaged or distorted parts.