

### III. Workshop manual of wheel system

#### Cautions

- Please use the original wheel.
- In the new tire run-in period should avoid acute start, sharp turn and emergency brake, to avoid the use of harsh conditions to prevent premature damage to the new tire.
- The new tire should be wheel balanced before use.

#### Tire

##### Inspection:

##### 1) Tire Pressure Check

- ① Check tire inflation pressure Please adjust it if it is not in the standard range.

Standard Value:  $230 \pm 10 \text{ kPa}$

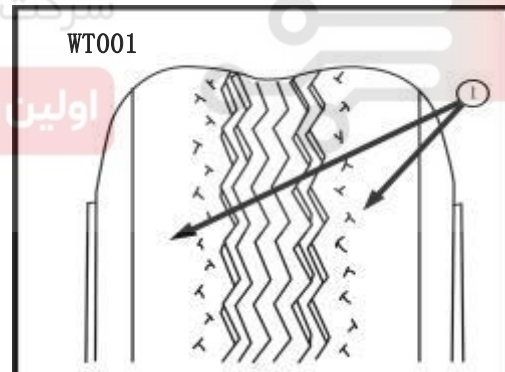
##### Attention:

- Check the tire pressure with by using of the tire pressure gauge with good performance
- Check if the wheel is worn, improperly inflated, cracked or otherwise damaged.
- Tire pressure should often be checked when ambient temperature changes drastically.

- ② Incorrect tire pressure can cause:

- a. Insufficient pressure can cause rapid

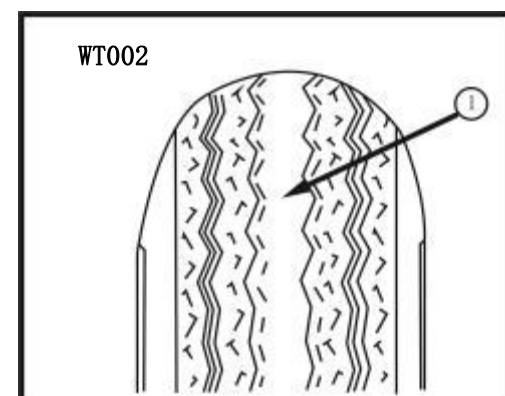
tire shoulder wear, tire deflection, and increased rolling resistance.



- b. Excess pressure can cause rapid wear of the

center of the tire crown

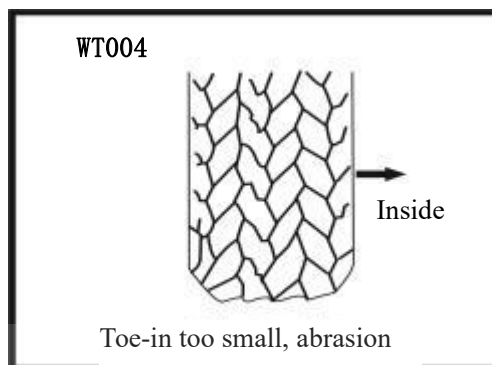
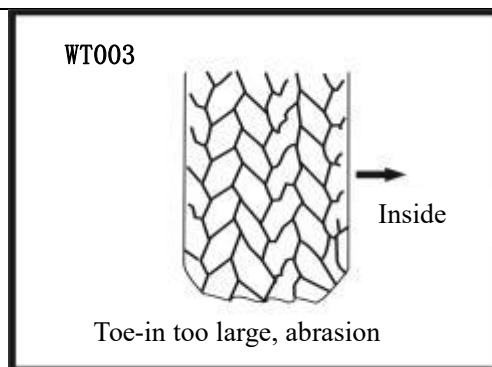
and reduce the tire cushioning capacity.



Chassis System Maintenance Manual

2) Incorrect alignment inspection

Excessive or small front and rear front tires can affect the feathery wear of tires.



3) Tire Tread Check

- ① Check the tire tread depth.

Note: Tire Specification 235 / 60R18 103H

When the tread depth of the tire is used to the limit or less, the wear mark will appear

on the tire tread. When appear wear mark, please replace the tire.

- ② Check tire tread for foreign objects. If so, please clear it.

- 4) Check if them have cracks or other damages

Measure the wheel jump value if it has.

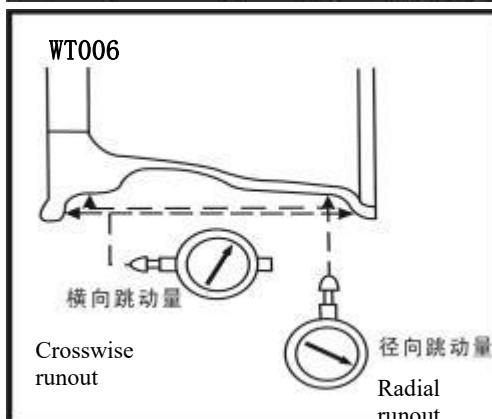
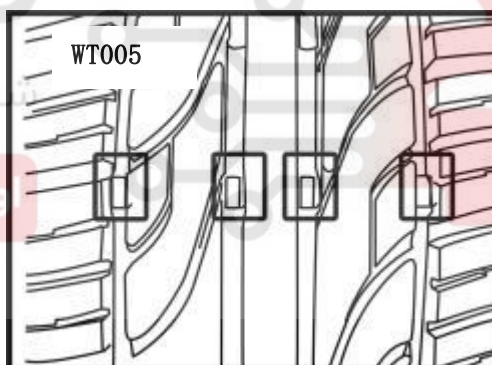
- ① Remove the tire and put the wheel on the wheel balancer.

- ② Set dial gauge as shown in the figure.

Wheel jump value, please refer to “maintenance data and specification”. If the jump value surpass the limit value, please replace it

**Tire transposition:**

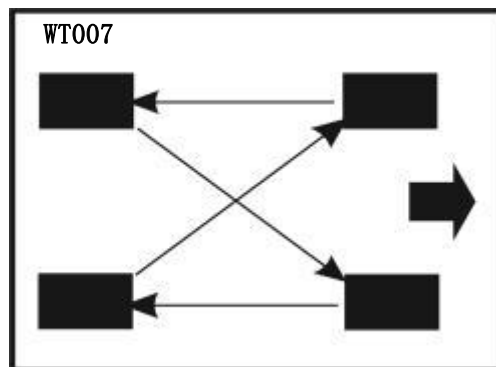
- The tires should be transposed after 8000km.



Chassis System Maintenance Manual

Replacement of the new tires should be carried out at the same time the tire change.

Note: The recommended tire replacement as shown.



**Replace:**

① After the normal driving for 50000km, wheel should be replaced.

②The tire also needs to be replaced if one of the following conditions occurs:

- There are at least 3 wear markings on the tire tread.
- Tire rubber cord or cord.
- Tire tread or shoulder cracking, the emergence of ply.
- Tire bulge, uplift or stratification.
- The tire is punctured, scratched or otherwise damaged, the degree of which is difficult to repair.

Wheel Assembly

**Removal and Installation:**

1) Disassemble

① Remove the wheel nut.

■ Tightening torque: 100~120N·m

② Remove the tire assembly

2) installation

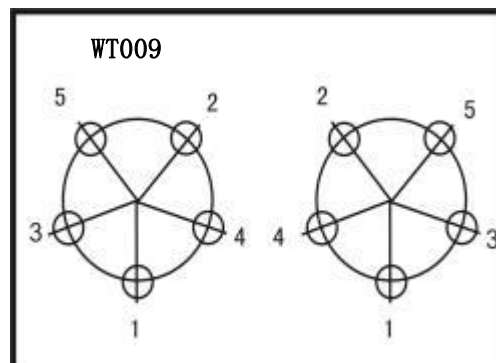
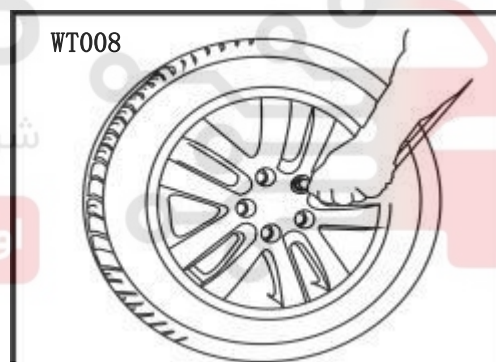
Install the tire assembly and tire nuts.

**Attention:**

■ If install manually, please pre-tighten in order, and then tighten in the diagonal order.

■ If tighten manually, set proper tighten torque, tighten once.

■ Tighten the wheel nuts in the sequence shown below strictly .



**Wheel balance:**

1) Disassemble

① Disassemble the wheel to be adjusted.

② Remove the old balancer on each side of the wheel and remove any foreign material from the

## Chassis System Maintenance Manual

## tire tread

**Attention:**

- Be careful not to scratch the wheel in disassembly.
- Remove the adhesive tape on the tire if it is a new tire.

## 2) Wheel Balance Adjustment

① Center hole-oriented, the wheel mounted on the balancer, starting tire balancing machine.

② When the two sides balance value are displayed on screen of wheel balancer, select the balance block with weight value closest to the displayed value and install to the designated position or place with designated wheel to the wheel

**Attention:**

- The inner balance weight should be installed after the outer balance weight is installed.
- Before installing the balance block, always to clean the mating surface of the road wheel.
- The balance block can not be reused, each should be replaced.
- Do not install more than three blocks.
- Always use the original balance block.
- Do not place the block on another block.

③ Start the wheel balancer again.

④ Depending on the position (or angle) indicated by the wheel balancer, knock in the balance weight inside the wheel.

⑤ Start the balancer. Confirm that the remaining inner and outer imbalance value  $\leq 5g$ . If there is any side of the residual imbalance value is more than 5g, re-install the balance block.

**Malfunction Diagnosis**

Common Malfunction Diagnosis Table

Malfunction Symptom	Possible Causes of Malfunction	Solution
Steering wheel circumference vibration	Excessive deflection of tires and rims	Replace
	Wheel nut loose	Locked
	Tires are not balanced	Adjust
	Tire wear uneven	Adjustment or replacement
	Tire pressure is not enough	Adjust
	Front wheel bearing damaged or worn	Adjustment or replacement
	Steering system failure	Adjustment or replacement
Tires wear out early	Suspension system failure	Adjustment or replacement
	Tire pressure is not correct	adjustment
Tire noise	Tire pressure is not correct	Adjust
	Tire deterioration	Replace
Road noise or body vibration	Tire pressure is not enough	Adjust
	Tires are not balanced	Adjust
	Wheel or tire deformation	Repair or Replace
	Tires wear unevenly	Adjustment or replacement
Shake up and down the	Excessive deflection of tires and rims	Replace

## Chassis System Maintenance Manual

Malfunction Symptom	Possible Causes of Malfunction	Solution
steering wheel	Wheel nut loose Tires are not balanced Engine bracket rubber break or worn Transmission bracket rubber cracked or worn	Locked Adjust Replace Replace
Steering wheel unilateral	Tire pressure is not correct Tires over worn or worn out evenly Steering system failure Brake system failure Suspension system failure	Adjust Adjustment or replacement Adjustment or replacement Adjustment or replacement Adjustment or replacement
Unstable driving	Tire pressure uneven on both sides Wheel or tire deformation Wheel nut loose Steering system failure Suspension system failure	Adjust Repair or Replace Locked Adjustment or replacement Adjustment or replacement
Brakes unilateral	Tire pressure uneven on both sides Brake system failure	Adjust Adjustment or replacement
Steering wheel is too heavy	Tire pressure is not enough Steering system failure Suspension system failure	Adjust Adjustment or replacement Adjustment or replacement
Bad back of Steering wheel back	Tire pressure is not enough Steering system failure Suspension system failure	Adjust Adjustment or replacement Adjustment or replacement

## Repair Data and Specification

Technical Specification Table

Project		Parameter
Wheel Runout	Radial Direction	0.3mm
	Axial Direction	0.3mm
Tire Pressure (Cold State)		230±10kPa
Tire Specification		235/60R18 103H

Tightening Torque Table

Item	Tightening Torque
Wheel Nut	100~120N·m