



东风乘用车

# 维护与保养



东风乘用车

# Maintenance



- 1、会使用保养日程表查找各附件更换周期和里程
- 2、熟悉E70车辆保养使用的主要液体规格及容量
- 3、能熟练操作E70车各部位需要保养的项目，并形成有体系的保养流程



1. View the replacement cycle and mileage of each accessory according to the maintenance schedule
2. Familiar with the main liquid specifications and capacity used for E70 vehicle maintenance
3. Skilled in the operation of items to be maintained of the E70 vehicle, and form a systematic maintenance process

# 一、保养周期及保养项目表



东风乘用车

车辆完成首次保养后，每行驶**3 个月或5000km**（以先到为限），应进行一次定期保养。

附表所列为E70常规的保养计划。根据天气及空气状况、不同路面情况、个人驾驶习惯及车辆用途，保养间隔可能增加或缩短。

如上个保养周期有未实施的保养项目，在后续保养中应补充实施该项目。

# I. Maintenance interval and items table 东风乘用车

After the first maintenance, the routine maintenance should be performed every **3 months or 5,000 km** (whichever comes earlier).

The annexed table shows the regular maintenance plan for E70. Service interval may be increased or shortened depending on the weather and air conditions, different road conditions, individual driving habits or vehicle applications.

Any maintenance items that have not been implemented the last time should be supplemented in subsequent maintenances.

### 一般行驶环境下保养

下表为一般行驶环境下的保养项目，根据天气和环境、路面状况、个人驾驶习惯和用车情况，您可能还需要进行额外的或更频繁的保养。

下表中最后的时间之后也必须按照类似的间隔进行保养。

[illegible]

## Maintenance under general driving conditions

The following table shows the maintenance items under general driving conditions. You may need additional or more frequent maintenance depending on the weather and environment, road conditions, personal driving habits and vehicle operation.

Maintenance must also be carried out at similar intervals after the last time in the table below.

[illegible]



项目		保养间隔（表格之后时间仍按以下的间隔进行）																
视3个月或5000公里为保养间隔，以先到为准	月份	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
	km×1000	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
底盘和车身保养																		
制动液★										R								R
制动系统和制动液（液位和泄漏情况）	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
制动助力器真空管、接头和单向阀					I				I				I					I
制动片、盘/鼓及相关组件的磨损老化及漏油★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
减速器油			I		I		I		I		I		I		I		I	I
电动助力转向器★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
悬架部分★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
驱动轴★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
车轮、车胎	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
车辆定位（如有必要，进行轮胎换位/动平衡）			I		I		I		I		I		I		I		I	I
车锁、铰链和前舱锁门★	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
安全带、锁扣、卷收器、固定螺栓及调整器	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
各踏板自由间隙、行程及动作	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
空调滤清器★			I		R		I		R		I		R		I		R	R
空调管路、线束检查	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
车辆加装、改装检查（如有请记录）	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

缩写：I=检查视需要调整或更换（材料费另计）、R=更换、L=润滑

备注：带“★”的保养项目应根据“恶劣行驶条件下的保养”说明进行频繁的进行。

Item		Maintenance interval (following intervals must be followed at the time after that shown in the table)																
Every 3 months or 5,000 km, whichever comes first.	Month	1	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
	km×1000	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Maintenance of chassis and body																		
Brake fluid★										R								R
Brake system and brake fluid (level and leakage)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Brake booster vacuum pipe, fitting and check valve					I				I				I					I
Brake pads, discs/drums and related components (wear, aging and oil leakage)★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Reducer oil			I		I		I		I		I		I		I			I
Electric power steering gear★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Drive shaft★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Wheels and tires	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Vehicle positioning (tire rotation/dynamic balancing if necessary)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Vehicle lock, hinge and engine compartment latch ★			I		I		I		I		I		I		I			I
Seat belts, buckles, retractors, fixing bolts and regulator	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Free clearance, travel and action of pedals	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
A/C filter★	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Inspection of A/C pipeline and wire harness			I		R		I		R		I		R		I			R
Inspection of after-market parts installation, modification of vehicle (if any, record it)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

Abbreviations: I = Inspect (adjust or replace as needed, material cost to be charged separately), R = Replace, L = Lubricate.  
Note: Maintenance items with “★” should be carried out frequently according to the instructions in “Maintenance under harsh driving conditions” .

## 恶劣行驶环境下的保养

前面所列的保养间隔是针对一般行驶环境的电动车而言的。如果您的电动车多处于下述恶劣行驶条件，则需要按下表的要求进行更频繁的保养。恶劣行驶条件：

- A-多尘的环境中行驶

B-反复短途行驶

C-在极其恶劣的天气或周围气温极低或极高的地区行驶

D-在温度很高或多山地区行驶

E-在使用多盐或腐蚀性材料路面的地区行驶
- F-在粗糙/多泥的道路上或沙漠里行驶

G-频繁制动或者在多山区的地区行驶

H-经常越野行驶或涉水中行驶

I-持续高速行驶

操作：检查=检查并视需要调整或更换

行驶环境												保养项目	保养操作	保养周期
			D									制动液	更换	每20000km或12个月
				E	F							电动助力转向器	检查	每5000km或3个月
				E	F							悬架部分	检查	每5000km或3个月
				E	F							__驱动轴	检查	每5000km或3个月
A				E	F	G						制动片、盘/鼓及相关组件	检查	每5000km或3个月
				E								车锁、铰链和前舱锁门	润滑	每5000km或3个月
A												空调滤清器	更换	每10000km或6个月

## Maintenance under harsh driving conditions

The maintenance intervals listed above are for electric vehicles under general driving conditions. If your electric vehicle is in the following harsh driving conditions, you need to perform more frequent maintenance as required in the following table. Harsh driving conditions:

A - driving in dusty environment

B - repeated short-distance driving

C - driving under harsh weather conditions or in extremely cold or hot area

D - driving in high temperature or mountainous areas

E - driving in areas with multiple salt or corrosive materials road

F - driving on rough/sludgy roads or deserts

G - frequent braking or driving in mountainous areas

H - frequent off-road driving or wading

I - continuous driving at high speed

Operation: Inspect = inspect and adjust or replace as needed.

Driving conditions												Maintenance item	Operation	Maintenance interval
			D									Brake fluid	Change	Every 20,000km or 12 months
				E	F							Electric power steering gear	Inspection	Every 5,000km or 3 months
				E	F							Suspension part	Inspection	Every 5,000km or 3 months
				E	F							Drive shaft	Inspection	Every 5,000km or 3 months
A				E	F	G						Brake pads, discs/drums and related components	Inspection	Every 5,000km or 3 months
				E								Vehicle lock, hinge and engine compartment latch	Lubrication	Every 5,000km or 3 months
A												A/C filter	Replace	Every 10,000km or 6 months

## 二、E70使用的主要保养辅料数据



东风乘用车

部位	液体名称	型号	每车用量
电机	电机冷却液	DF-3	4.1±0.3L
变速器	变速器润滑油	BOT130M ( 75W-90 )	1±0.1L
制动贮液罐	合成制动液	CTE 4606 ( DOT4 )	0.85L
风窗洗涤器	风窗玻璃清洗液	金玻002	3.5L ( 最大容量 )
空调	制冷剂	R134a	0.52kg
	冷却液	DF-3	1.3±0.1L

# II. Main maintenance materials data of E70



东风乘用车

Position	Fluid name	Type	Consumption per vehicle
Motor	Motor coolant	DF-3	4.1±0.3L
Transmission	Transmission lubricating oil	BOT130M (75W-90)	1±0.1L
Braking fluid reservoir	Synthetic brake fluid	CTE 4606 (DOT4)	0.85L
Windshield washer	Windshield washer fluid	Golden windshield 002	3.5 L (max. capacity)
Air-conditioner	Refrigerant	R134a	0.52kg
	Coolant	DF-3	1.3±0.1L



# 三、保养项目



## 1、前舱保养项目

### 1.1、蓄电池检查



- 通过目测检查蓄电池的外部状态、连接情况及位置是否固定；
  - 检查蓄电池壳体是否损坏。如果破损会有电解液流出, 应迅速用电解液稀释剂或肥皂液处理被电解液所接触的汽车零件并更换蓄电池。
  - 检查蓄电池接线柱及线缆是否氧化、腐蚀；如果只是初步的氧化可以先用开水溶解氧化物, 再在露出的金属表面涂抹润滑脂或抗氧化剂, 可以延长其使用时间；如果严重氧化、腐蚀则必须更换蓄电池接线柱或线缆。
- 在关闭所有车载用电器的情况下检查蓄电池电压, 电压应大于12 V。
- 对于长期不用的蓄电池, 静态电压应大于11.5V。如果低于此数值则必须先给蓄电池充电再使用。
- ( 点火ON后 ) 检查蓄电池正负极之间电压应大于13.8V, 如果低于此数值则需要检查充电系统是否存在故障。

# III. Maintenance items



## 1. Maintenance items of engine compartment

### 1.1 Inspection of Battery



- Visually check the outside conditions, connection of the battery and if it is fixed.
- Check the battery case for damage. Electrolyte may flow out in case of damage, in this case, apply the electrolyte diluent or soap solution to deal with parts which electrolyte contacts immediately. And replace the battery.
- Check the battery terminals and cables for oxidization and corrosion; in case of initial oxidization, it is possible to solve it by using boiling water to dissolve the oxide, and then apply grease or antioxidant on the exposed metal surface, which can extend the service life; in case of serious oxidization and corrosion, it is required to replace battery terminals and cables.
- Check the battery voltage which should be more than **12** V with all on-board electrical equipment powered off.
- For the battery which is not in use for a long period, the static voltage should be more than **11.5** V. If less than this value, charge the battery before using it.
- (After ignition ON) Check that the voltage between the positive and negative terminals of the battery should be greater than **13.8** V. If it is lower than this value, it is necessary to check the charging system for faults.



# 三、保养项目



## 1、前舱保养项目

### 1.2、制动液液位检查



- 查看制动液储液罐内的冷却液液位，确保液位在MAX 标记与MIN 标记之间。
- 如果液位过低，请先检查并确认制动系统无泄漏后，将制动液补充至规定的液面高度

# III. Maintenance items



东风乘用车

## 1. Maintenance items of engine compartment

### 1.2. Inspection of brake fluid level



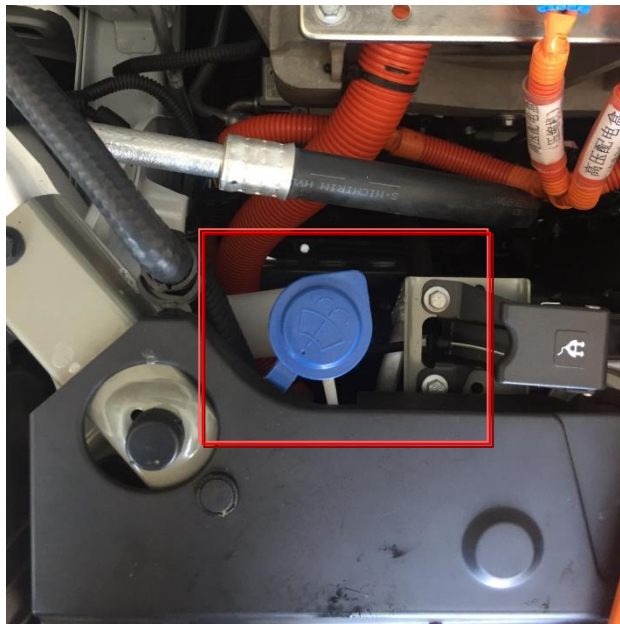
- Check the coolant level in the brake fluid reservoir and ensure that the level is between MAX mark and MIN mark.
- If the fluid level is too low, please first check and make sure the brake system does not leak, and then add brake fluid to the required level.

# 三、保养项目



## 1、前舱保养项目

### 1.3、风窗洗涤液检查



- 打开风窗洗涤液储液罐加注口盖，洗涤液加注至储液罐和加注管上方可视位置即可。

#### 注意

- 风窗洗涤液具有防冻、有效清洁风窗玻璃上的蜡类和油类残余物的作用。请使用乘用车公司制定的风窗洗涤液，严禁加水、酒精或其他不是乘用车公司规定的产品代替。
- 风窗洗涤液为消耗品。

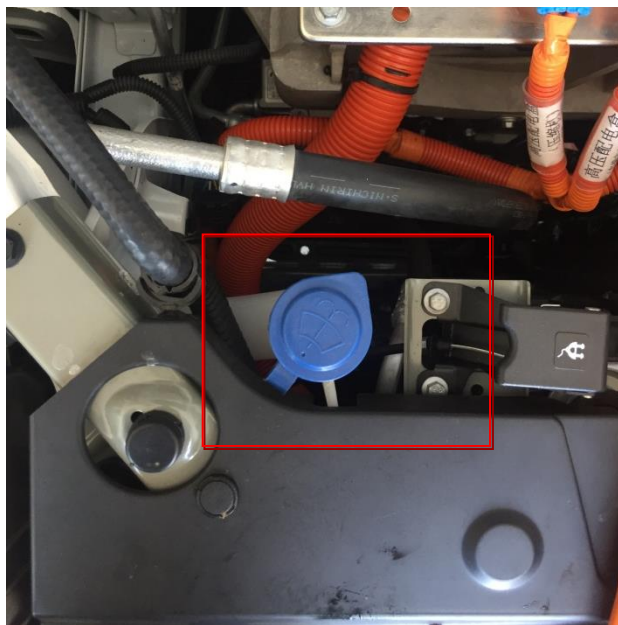
# III. Maintenance items



东风乘用车

## 1. Maintenance items of engine compartment

### 1.3 Inspection of windshield washer fluid



- Open the windshield washer fluid reservoir filler cap, add washer fluid to visible level in the reservoir and filling pipe.

#### Attention

- Windshield washer fluid have functions of anti-freezing and effective cleaning of wax and oil residuals on the windshield. Please use the windshield washer fluid specified by Dongfeng Passenger Vehicle Company.
- The windshield washer fluid is a consumable.

# 三、保养项目



## 1、前舱保养项目

### 1.4、电机冷却液液位检查



- 当电机冷却后，检查副水壶中冷却液液位，确保液位在MAX 标记与MIN 标记之间。
- 如果液位过低，请先检查并确认电机冷却系统无泄漏后，将冷却液补充至规定的液面高度。

#### 注意

- 冷却液是有毒液体。
- 电机冷却液在使用过程中可能会有一定的消耗。



# III. Maintenance items



东风乘用车

## 1. Maintenance items of engine compartment

### 1.4. Inspection of motor coolant level



- When the motor has been cooled, check the coolant level in the brake fluid reservoir and ensure that the level is between MAX mark and MIN mark.
- If the fluid level is too low, please first check and make sure the motor cooling system does not leak, and then add coolant to the required level.

#### Attention

- The coolant is toxic;
- The motor coolant may be consumed during use.



## 1、前舱保养项目

### 1.4、电机冷却液液位检查

**警告！**

- 不要往高温的电机里面直接加入低温的冷却液，电机的铸件可能受到损伤。在添加冷却液前让电机的温度小于50℃。
- 请使用乘用车公司指定的电机冷却液，严禁只用水来当冷却液。只用水来做冷却液可能会对电机控制器的冷却水道造成腐蚀性的伤害。长期的腐蚀性伤害可能造成电驱动系统内部冷却液的泄漏。

### 1.5、电机冷却液的更换

可以通过打开散热器出水口来排放冷却水,具体步骤参见维修手册。

**警告！**

- 不要在电机处于高温的情况下，移除水箱的压力盖或水道的橡胶管。等到冷却液的温度小于50℃ 的时候才打开压力盖或去除水道的橡胶管。高热的冷却液或蒸汽可能会造成人身伤害。



## 1. Maintenance items of engine compartment

### 1.4. Inspection of motor coolant level

#### Warning!

- Do not add low-temperature coolant directly to the high-temperature motor, or the casting of the motor may be damaged. Have the motor temperature be lower than 50 °C before adding coolant.
- Use the motor coolant specified by Dongfeng Passenger Vehicle Company. It is strictly forbidden to use only water as the coolant. Only using water as coolant may cause corrosive damage to the coolant gallery of the MCU. Long-term corrosive damage may cause leakage of coolant inside the electric drive system.

### 1.5. Change of motor coolant

The coolant can be drained by opening the radiator outlet, as detailed in the service manual.

#### WARNING!

- Do not remove the radiator pressure cover or the rubber hose of the coolant gallery while the motor is at a high temperature. Wait until the coolant temperature is below 50 °C before opening the pressure cover or removing rubber hose from the coolant gallery. High temperature coolant or steam may cause personal injury.



# 三、保养项目

## 1、前舱保养项目

### 1.6、空调冷却/电池冷却液位检查



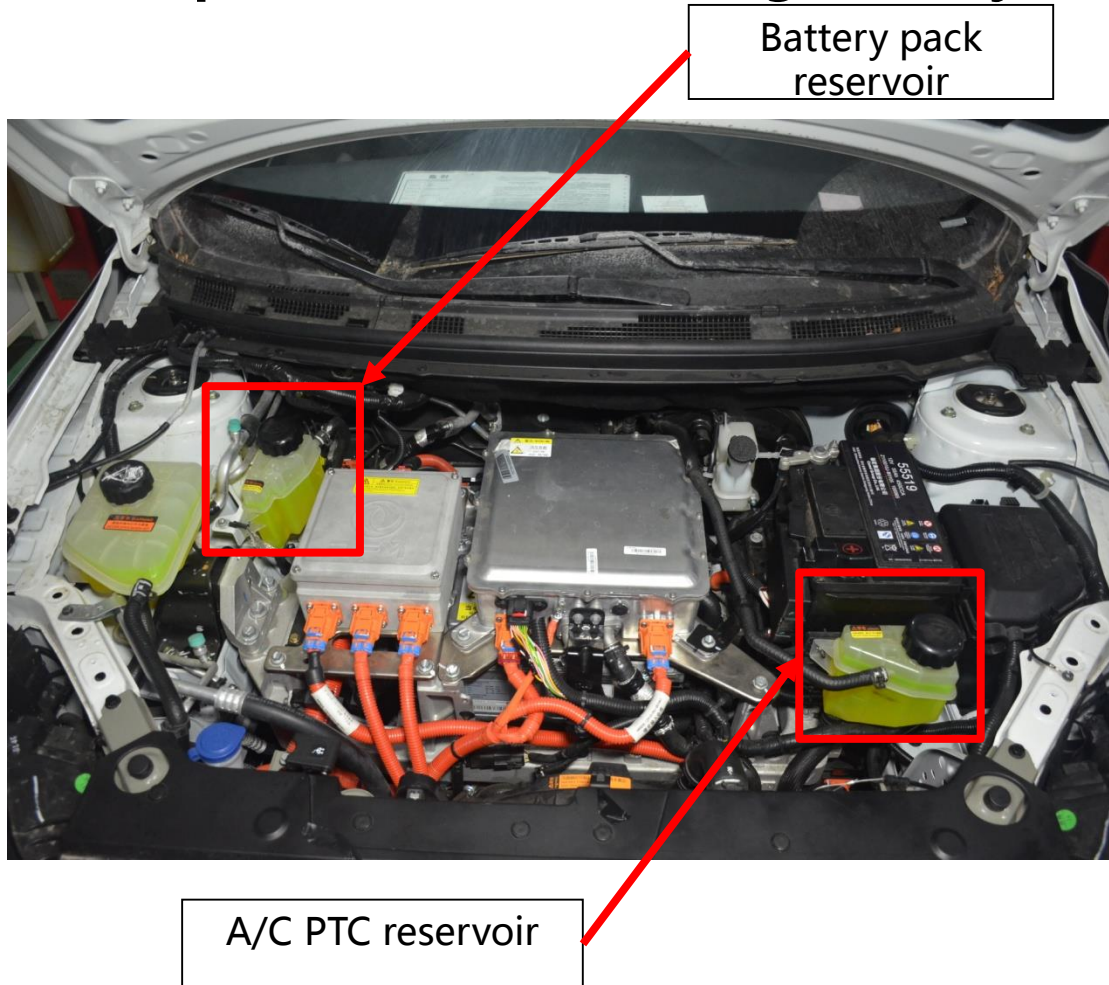
- 检查空调PTC暖水液位及电池组热管理液位是否正常。确保液位MAX 标记与MIN 标记之间。
- 如果液位过低，请先检查并确认系统无泄漏后，将液位补充至规定的液面高度

# III. Maintenance items



## 1. Maintenance items of engine compartment

### 1.6. Inspection of A/C cooling/battery coolant level



- Check if the A/C PTC warm water level and the battery pack thermal management level are normal. Make sure the level between the MAX mark and the MIN mark.
- If the fluid level is too low, please first check and make sure the system does not leak, and then add coolant to the required level.

# 三、保养项目



## 1、前舱保养项目

### 1.7、前舱线束检查



- 检查前舱内线束处周边固定卡夹是否脱落，线束是否破损、老化、腐蚀，连接卡箍是否已经紧固。

#### 注意

- 对于破损的电线检查其老化程度，没有老化的应及时修理包扎。
- 对于严重老化、腐蚀的电线必须予以更换。



# III. Maintenance items



## 1. Maintenance items of engine compartment

### 1.7. Inspection of engine compartment wire harness



- Check the fixing clips of and around the wire harnesses in the engine compartment for falling off, the wire harnesses for damage, aging, corrosion, and if the connecting clamps have been tightened.

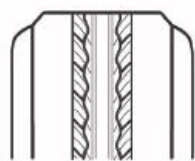
#### Attention

- Check the aging of the damaged cable, and repair and wrap the cable which has not aged.
- Replace the wire which is seriously aged or corroded.

## 2、底盘和车身检查

### 2.1、车轮、车胎检查

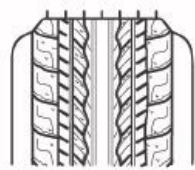
#### (1) 轮胎检查



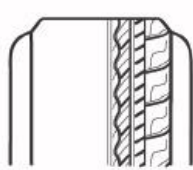
双边磨损



中心磨损



锯齿形磨损



单边磨损

- 检查轮胎是否不平整、过度磨损或损坏，如有不良，请更换轮胎。轮胎花纹极限深度约**1.6mm**。
- 检查每一轮胎气压并调整使其达到规定充气压力。
- 检查每个车轮是否有凹坑（压痕）、变形或裂纹。发现有严重损坏须立即更换。

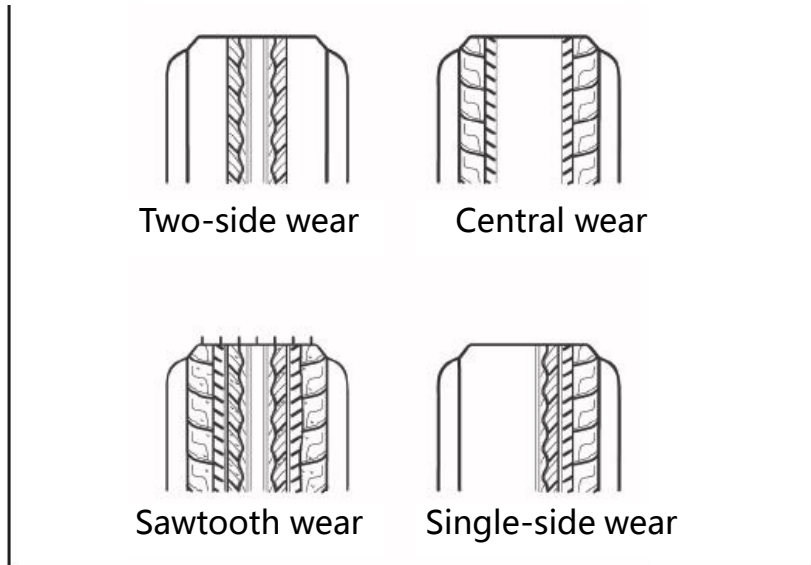
#### 注意

- 检查轮胎的充气压力应在轮胎冷态下进行。
- 在轮胎标牌或汽车用户手册中可找到规定的轮胎充气压力。
- 充气压力严禁超过规定的压力，不然会造成轮胎异常磨损。

## 2. Inspection of chassis and body

### 2.1 Inspection of wheels and tires

#### (1) Inspection of tires



- Check tires for unevenness, over-wear or damage, if any, replace tires. Wear limit of tire tread is about **1.6 mm**.
- Check pressure of each tire and adjust it to the specified inflation pressure.
- Check each wheel for dents, deformation or cracks. Replace it in case of serious deformation.

#### Attention

- Inspection of tire inflation pressure should be done when the tire is in the cold condition.
- See the specified tire inflation pressure in the tire label or user's manual.
- The inflation pressure can never be higher than the specified pressure; otherwise, it will cause abnormal wear of tires.

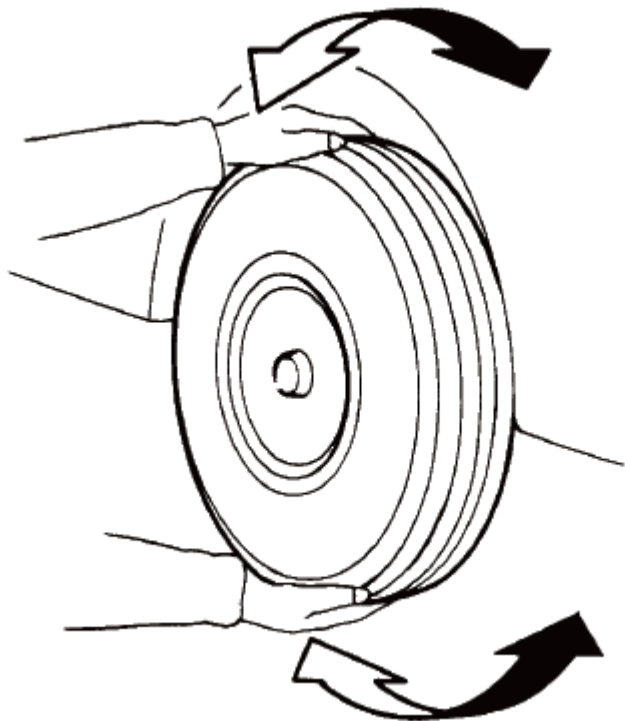
# 三、保养项目



## 2、底盘和车身检查

### 2.1、车轮、车胎检查

#### (2) 车轮轴承检查



- 双手上下左右摇晃车轮检查车轮轴承间隙是否松旷，转动车轮是否有异响，必要时起动车辆挂档行驶，检查是否有异响。

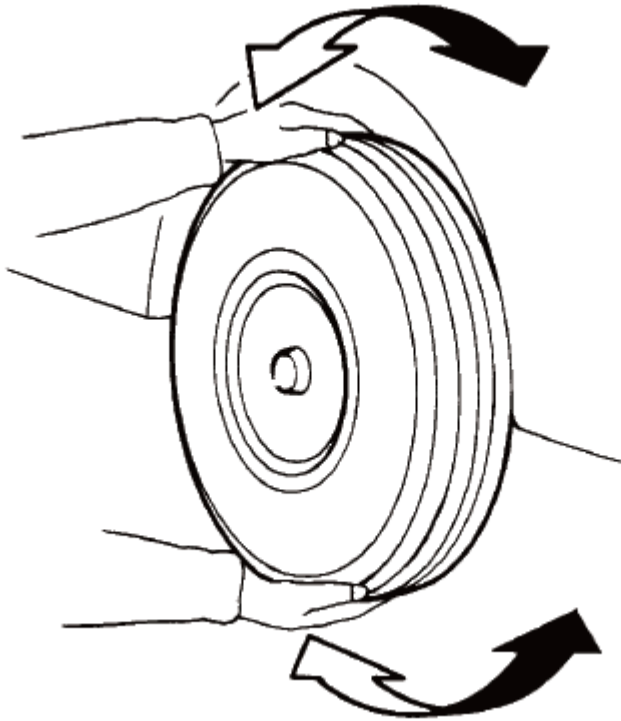
# III. Maintenance items



## 2. Inspection of chassis and body

### 2.1 Inspection of wheels and tires

#### (2) Inspection of wheel bearings



- Shake wheels up and down or from side to side by hands to check the clearance of wheel bearings for looseness, rotate wheels to check for abnormal sound, and if necessary, start the vehicle and get into gear to check for abnormal sound.



# 三、保养项目

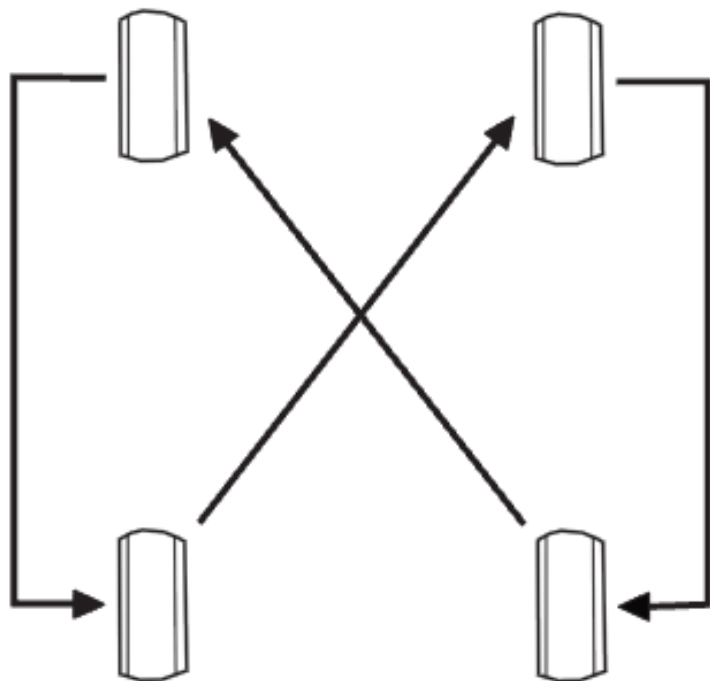


东风乘用车

## 2、底盘和车身检查

### 2.1、车轮、车胎检查

#### (3) 车轮换位



- 轮胎的换位方法可以按左图循环进行，轮胎换位后应该重新调整胎压至规定值。

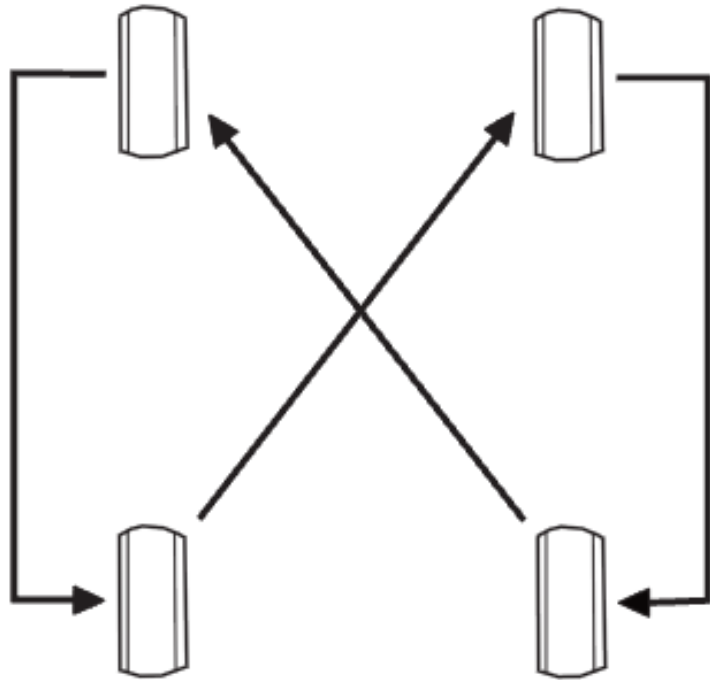
# III. Maintenance items



## 2. Inspection of chassis and body

### 2.1 Inspection of wheels and tires

#### (3) Tire rotation



Tire rotation can be conducted as the cycle shown in the figure above, and after tire rotation, the tire pressure shall be readjusted to the specified value.

## 2、底盘和车身检查

### 2.2、驱动轴（半轴）检查



- 检查防尘罩是否出现裂纹、磨损、损坏或润滑脂是否泄漏。
- 检查驱动轴车轮侧万向节间隙是否过大；变速器侧万向节间隙是否过大，如果间隙过大应拆检驱动轴检查万向节磨损情况。

## 2. Inspection of chassis and body

### 2.2 Inspection of drive shaft (axle shaft)



- Check the dust cover for cracks, wear, damage or if grease leaks.
- Check if the axial clearance of drive shaft universal joint on the wheel side and the lateral clearance of drive shaft universal joint on the transmission side are excessive; in case of excessive clearance, remove and check the drive shaft to check the universal joint for wear.

# 三、保养项目



## 2、底盘和车身检查

### 2.3、转向系统检查

- 保持车辆在路面上直线位置，检查方向盘是否有间隙和喀喇声。
  - 方向盘游隙： $\pm 5^{\circ}$
  - 检查转向机壳体总成和防尘罩是否松动、损坏或润滑脂泄漏。
  - 检查转向机与转向柱总成的连接是否松动。
  - 检查螺栓螺母是否拧紧，然后视需要拧紧。如有不良，请修理或更换受损件。
  - 检查转向拉杆是否松动和损坏。如有，修理或更换受损件。
  - 检查转向拉杆护套和转向齿轮壳是否损坏（泄漏、脱开、裂缝等）。如发现损坏，更换受损件。
- 如果在转向齿轮壳保护套上发现有凹坑，向左或向右转动方向盘直到转不动并保持几秒钟，纠正保护套到原始的形状。
- 检查转向轴的万向接头是否有喀喇声和损坏。如发现喀喇声或损坏，更换受损件。
  - 检查方向盘能否向左或向右完全转动。如果不良，修理或更换受损件。



# III. Maintenance items



东风乘用车

## 2. Inspection of chassis and body

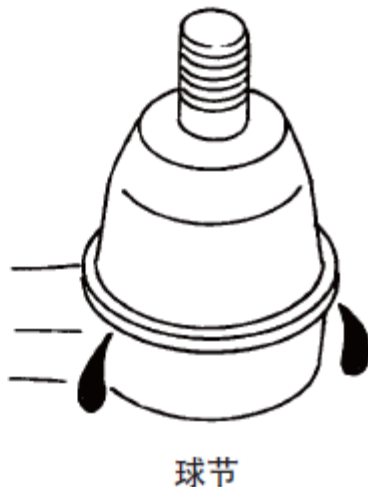
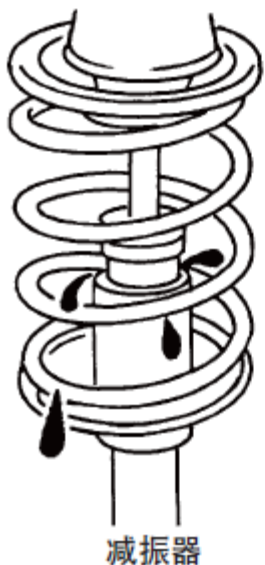
### 2.3 Inspection of steering system

- Keep the vehicle in a straight line on the road, and check the steering wheel for clearance and click sound.
- End play of steering wheel:  $\pm 5^\circ$ .
- Check the steering gear housing assembly and the dust cover for looseness, damage or grease leakage.
- Check connection of steering gear and steering column assembly for looseness.
- Check if bolts and nuts are tightened, and tighten them if necessary. If necessary, repair or replace the damaged parts.
- Check the steering tie rod for looseness or damage. If any, repair or replace the damaged parts.
- Check the steering tie rod sheath and steering gear housing for damage (leakage, disengagement, cracks, etc.) If any, replace the damaged parts. If any dent is found on the steering gear housing protective sleeve, turn the steering wheel leftward or rightward to the end and keep it for several seconds, and then correct the sleeve to the original shape.
- Check the universal joint of steering shaft for click sound and damage. If any, replace the damaged parts.
- Check if the steering wheel can be turned leftward or rightward to the end. If necessary, repair or replace the damaged parts.



## 2、底盘和车身检查

### 2.4、车桥和悬架零件检查

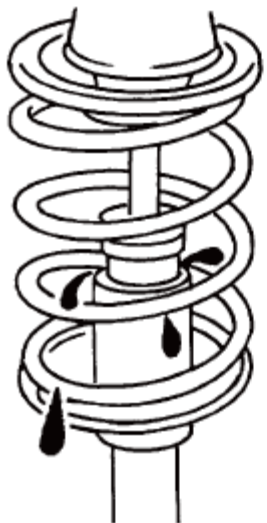


- 检查前后桥和悬架零件是否间隙过大，是否有裂纹、磨损或其他损坏。
- 晃动各个车轮检查是否间隙过大。
- 检查车桥和悬架螺母和螺栓是否松动。
- 检查减震器是否有油泄漏或其它损坏。
- 检查悬架球节有无润滑脂泄漏，检查球节防尘罩是否出现裂纹或其它损坏。

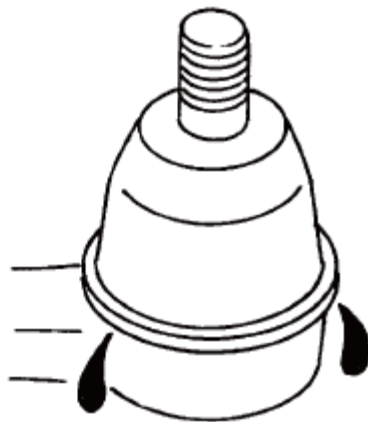


## 2. Inspection of chassis and body

### 2.4 Inspection of axle and suspension parts



Shock absorber



Ball joint

- Check the front and rear axles and suspension parts to see if the gaps are too large, and if there are any cracks, wear or other damage.
- Shake each wheel to check whether the gap is too big.
- Check if the axle and suspension nuts and bolts are loose.
- Check the shock absorber for oil leakage or other damages.
- Check if the suspension ball joint leaks grease, and if the ball joint dust cover is cracked or otherwise damaged.



# 三、保养项目

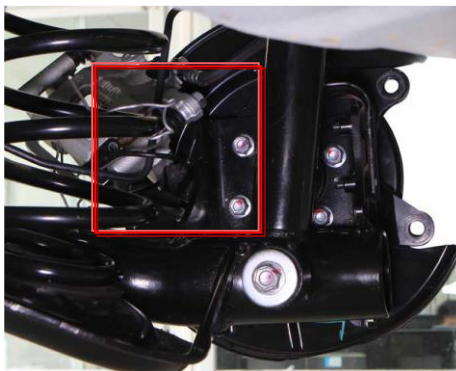
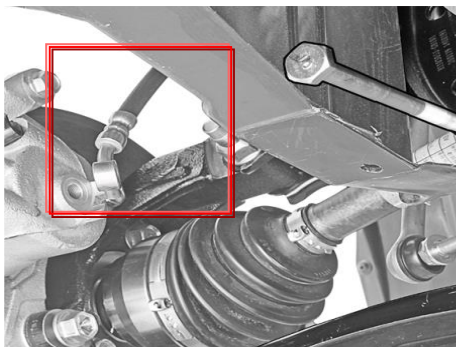


## 2、底盘和车身检查

### 2.5、制动系统检查

( 1 ) 制动液更换

( 2 ) 制动系统管路检查



- 检查制动管路是否与其他运动部件干涉。
- 检查前后制动器上、车身下部制动软管是否正确连接，是否有泄漏、裂缝、擦伤、局部变形和其他损伤。

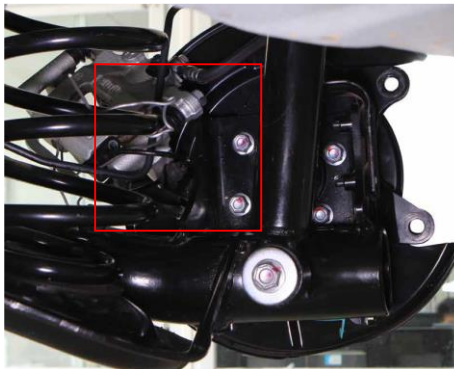
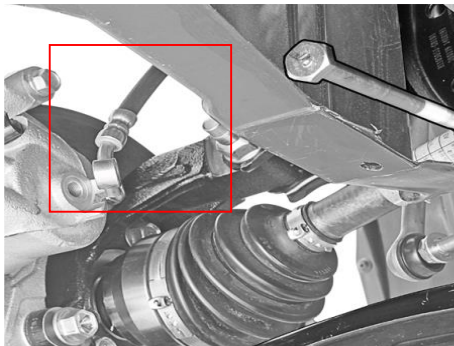
# III. Maintenance items



## 2. Inspection of chassis and body

### 2.5 Inspection of brake system

- (1) Change of brake fluid
- (2) Inspection of Brake System Pipeline



- Check if the brake pipeline interferes with other moving parts.
- Check if the brake hoses on front and rear brakes and under the body are connected correctly, and involve any leaks, cracks, scratches, partial deformation and other damages.

# 三、保养项目



## 2、底盘和车身检查

### 2.5、制动系统检查

#### (3) 制动盘、片磨损检查



- 使用测量工具检查制动盘/片的厚度。



- 使用测量工具检查前制动盘的跳动量。

注意：

- 检查两侧制动片磨损是否均匀一致，如果不一致，则检查其不正常的原因。

# III. Maintenance items



## 2. Inspection of chassis and body

### 2.5 Inspection of brake system

#### (3) Wear Inspection of Brake Disc and Brake Lining



- Check the thickness of the front brake disc/pad with a measuring tool.



- Check the runout of the front brake disc with a measuring tool.

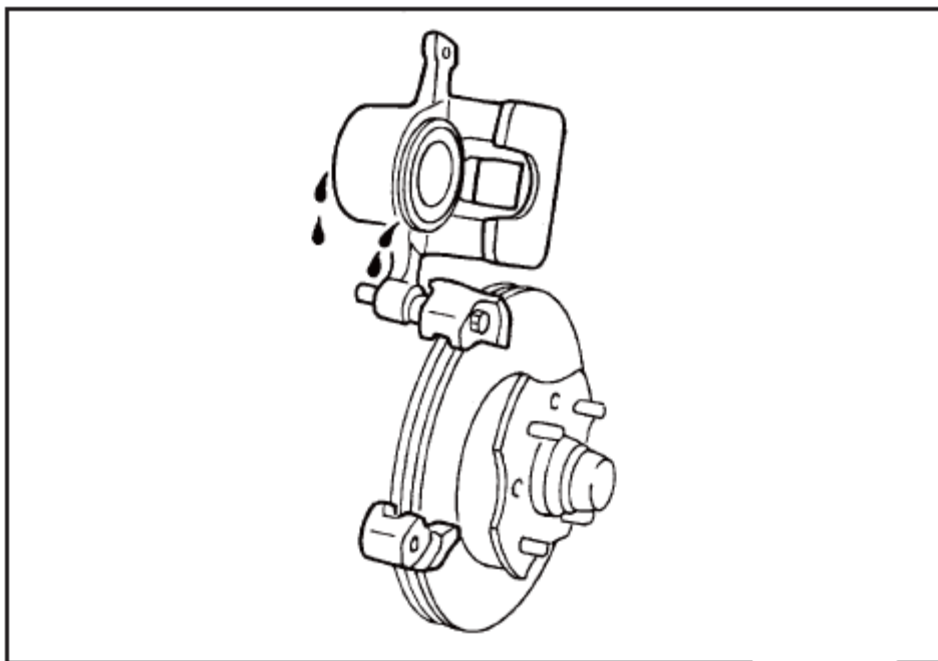
#### Note:

- Check if brake pads on both sides are worn to the same extent, if not, find out reasons of abnormality.

## 2、底盘和车身检查

### 2.5、制动系统检查

#### (4) 制动钳检查



- 检查制动钳是否磨损，活塞防尘套是否破损、开裂或损坏；
- 活动销是否卡滞、防尘套是否磨损、开裂或损坏。

# III. Maintenance items

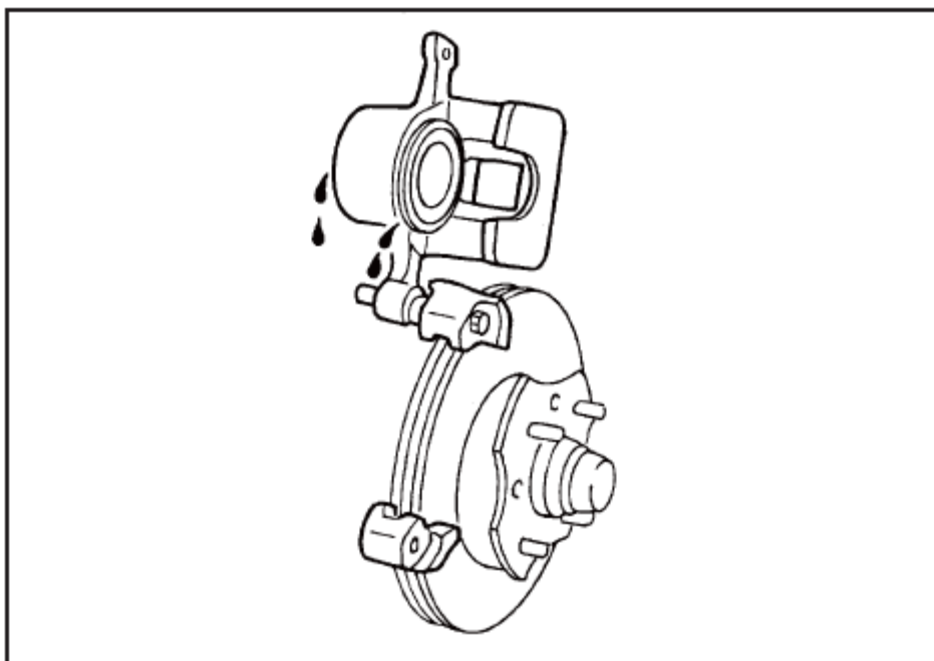


东风乘用车

## 2. Inspection of chassis and body

### 2.5 Inspection of brake system

#### (4) Inspection of brake caliper



- Check the brake caliper for wear, and the piston dust cover for cracks or ;
- Check the movable pin for seizure, and the dust boot for wear, cracks or damage.

# 三、保养项目



## 2、底盘和车身检查

### 2.5、制动系统检查

#### ( 5 ) 驻车制动检查



- 将车辆顶到合适位置，通过操纵开关将电子驻车制动启用。检查车辆后轮应该制动，不可以转动。
- 通过操纵开关将电子驻车制动解除，驻车制动松开，检查车辆后轮应该同时可以自由转动无拖滞。



# III. Maintenance items



## 2. Inspection of chassis and body

### 2.5 Inspection of brake system

#### (5) Inspection of parking brake



- Jack the vehicle to a proper position, and apply the parking brake via the control switch. Check that rear wheels can brake, but not rotate.
- When releasing the parking brake via the control switch, check that rear wheels can rotate freely at the same time without seizure.

# 三、保养项目



## 2、底盘和车身检查

### 2.5、制动系统检查

#### (6) 制动助力器检查



- 检查制动助力器是否有破损；
- 检查真空管是否有破损。接头是否正常连接

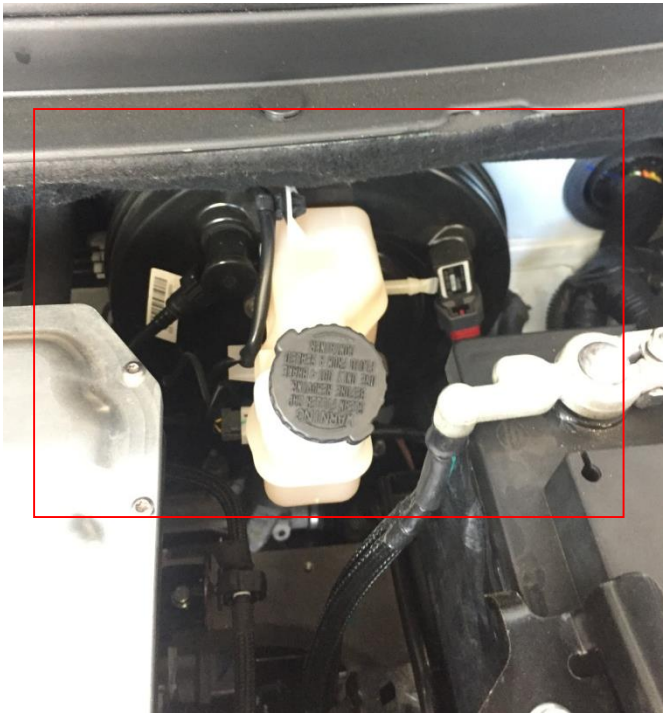
# III. Maintenance items



## 2. Inspection of chassis and body

### 2.5 Inspection of brake system

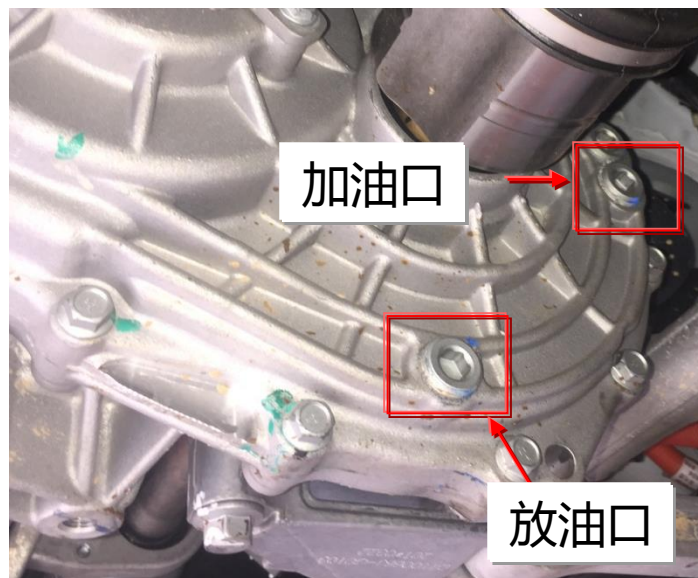
#### (6) Inspection of brake booster



- Check the brake booster for damage;
- Check the vacuum pipe for damage, and the Joint properly connected.

## 2、底盘和车身检查

### 2.6、减速器油的更换



- 通过减速器底部的放油口和侧面的加油口进行减速器油的更换，具体步骤参见维修手册。

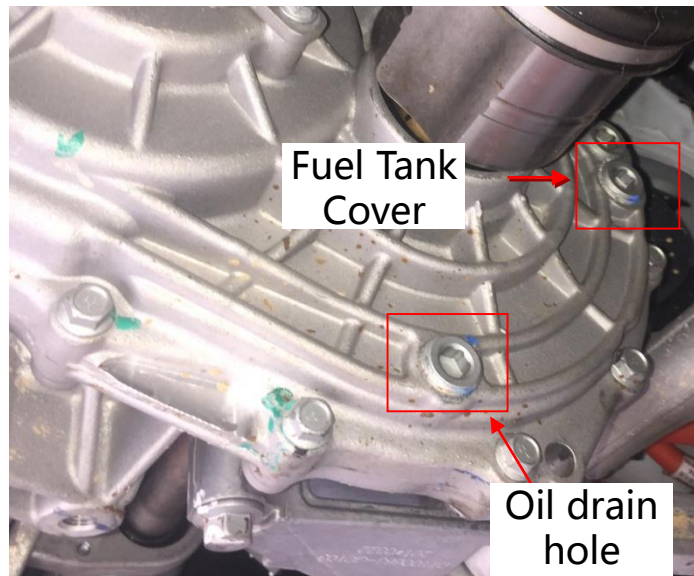
# III. Maintenance items



东风乘用车

## 2. Inspection of chassis and body

### 2.6. Change of reducer oil

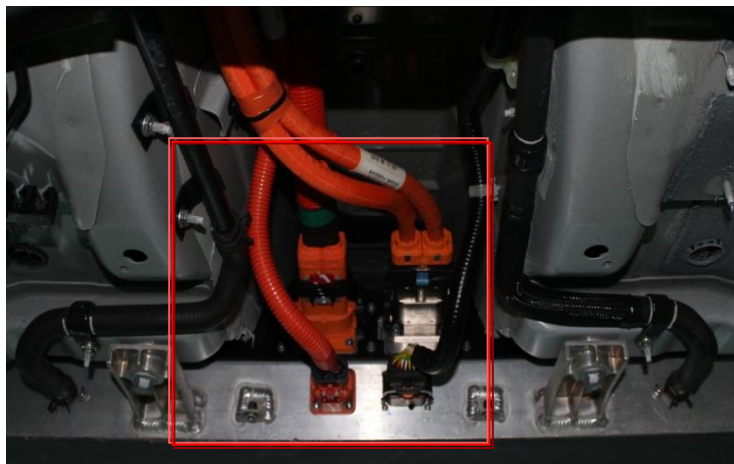


- Change the reducer oil through the oil drain hole on the bottom of the reducer and the oil filler on the side. For details, see the service manual.

## 2、底盘和车身检查

### 2.7、电驱动系统的检查

- (1) 检查电驱动各部件信号线束插头是否可靠安装
- (2) 检查电驱动各部件高压线束插头是否可靠安装或拧紧
- (3) 检查电驱动各部件各接线盒及控制器盒盖的螺栓是否拧紧
- (4) 检查电驱动各部件是否可靠固定，推各部件，应牢固可靠，不摇晃





# III. Maintenance items

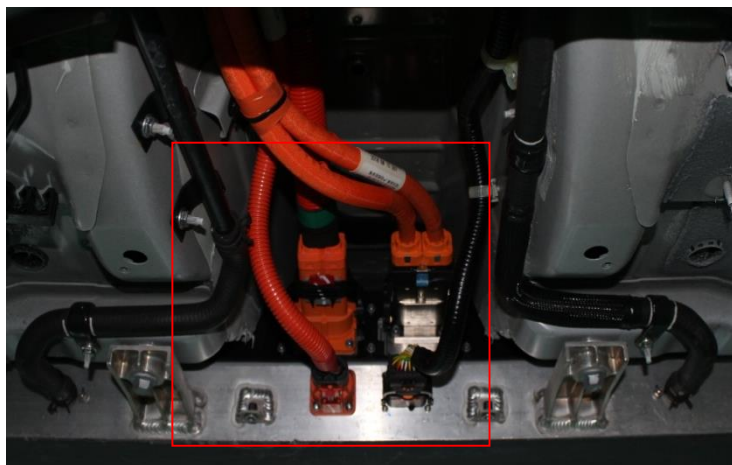


东风乘用车

## 2. Inspection of chassis and body

### 2.7. Inspection of electric drive system

- (1) Check if the signal wire harness connector of each component of the electric drive system is reliably installed.
- (2) Check if the high voltage wire harness connector of each component of the electric drive system is reliably installed.
- (3) Check if the bolts of each junction box and controller box cover of the electric drive system are tightened.
- (4) Check if the components of the electric drive system are reliably fixed, and they should be firm and reliable without shaking if they are pushed.





# 三、保养项目

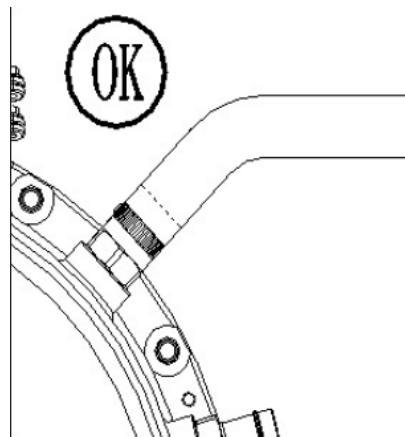
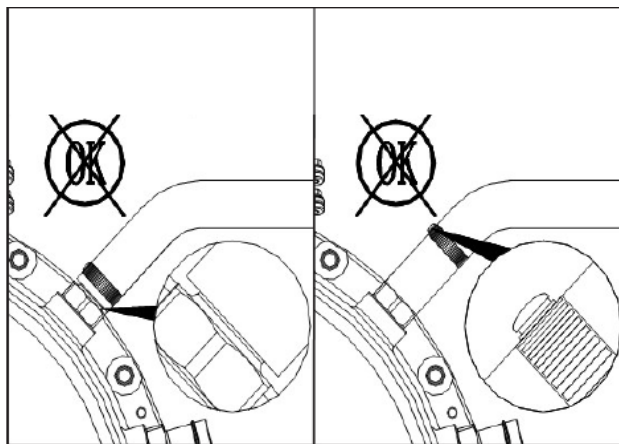
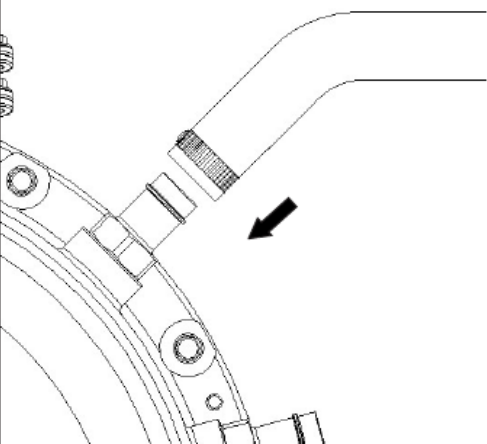


东风乘用车

## 2、底盘和车身检查

### 2.7、电驱动系统的检查

#### ( 5 ) 检查水道是否可靠连接



#### 注意!

- 水管应将整个水嘴包住；
- 喉管的锁紧螺丝或弹性夹箍需要拧紧；
- 喉管或弹性夹箍的安装位置应在水嘴上；
- 水管如果老化，需要更换；

# III. Maintenance items

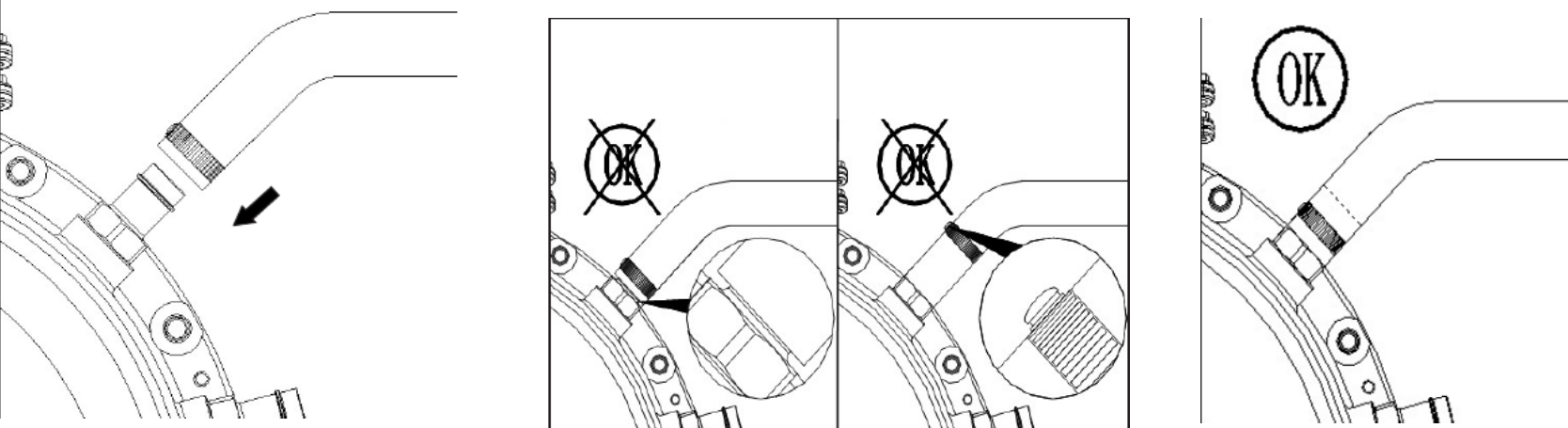


东风乘用车

## 2. Inspection of chassis and body

### 2.7. Inspection of electric drive system

(5) Check if the water duct is connected reliably



#### Note!

- The water pipe should wrap the entire water nozzle;
- The locking screw or elastic clamp of the hose needs to be tightened;
- The hose or elastic clamp should be installed on the nozzle;
- If the water pipe is aged, replace it.



## 2、底盘和车身检查

### 2.7、电驱动系统的检查

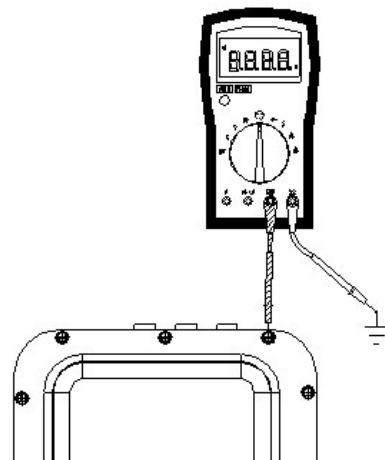
(6) 检查产品外壳是否与车身良好接地

1. 把万用表的工作模式调整到电阻档

2. 将万用表的黑色测试表笔与高压各部件连接螺栓接触；将万用表的红色测试表笔和整车底盘的大梁接触。在控制器可靠接地的情况下，电阻值小于1ohm。

注意：

- 万用表测试表笔接触的螺栓表面无氧化层；
- 万用表电阻测试精度需要达到0.1Ohm 精度级别；



## 2. Inspection of chassis and body

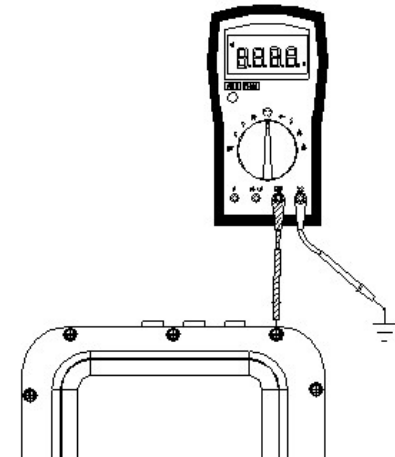
### 2.7. Inspection of electric drive system

(6) Check if the product casing, together with the body, is well grounded.

1. Adjust the working mode of the multimeter to the resistance range.
2. Connect the black probe lead of the multimeter to the connecting bolts of the high voltage components; connect the red probe lead of the multimeter to the cross beam of the chassis of the vehicle. In the case of a reliable grounding of the control unit, the resistance shall be less than 1 ohm.

#### Note:

- The surface of the bolt contacted by the multimeter probe shall be free of oxide layer;
- Multimeter resistance test accuracy needs to reach 0.1 Ohm accuracy level;



## 2、底盘和车身检查

### 2.7、电驱动系统的检查

(7) 检查温度反馈及扇热风扇是否正常

当车辆开始行驶一段时间后，观察风扇及水泵是否正常启动。



(8) 检查信号线的排布

检查信号线的排布是否合理。

确保信号线本身安全耐用性的同时，也不会损坏其它部件。



(9) 检查电力线的排布

检查电力线的排布是否合理。

确保电力线本身安全耐用性的同时，也不会损害其他部件。



a) 注意电力线的排布范围的四周有可能损伤电缆绝缘层的尖角毛刺；

b) 电力线的固定要求：电力线不能悬挂在空中，要贴在车身上，以防电力线卷入传动轴。

# III. Maintenance items



东风乘用车

## 2. Inspection of chassis and body

### 2.7. Inspection of electric drive system

(7) Check if the temperature feedback and if the cooling fan is normal.

When the vehicle starts to drive for a period of time, observe if the fan and the water pump can be started normally.

(8) Check the arrangement of the signal lines.

Check if the signal lines are arranged properly.

Ensure that the signal lines are safe and durable without damaging other components.

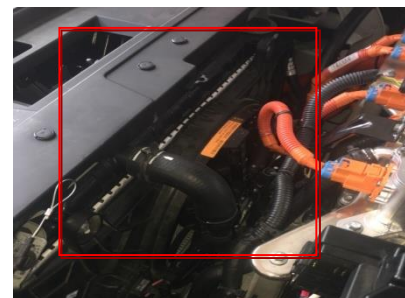
(9) Check the arrangement of the electric lines.

Check if the electric lines are arranged properly.

Ensure that the electric lines are safe and durable without damaging others components.

a) Note that no sharp corner or burrs that may damage the cable insulation around the layout of the electric line is allowed;

b) Fixing requirements for electric lines: electric lines should not be suspended in the air and should be attached to the vehicle body to prevent the electric lines from being caught in the drive shaft.



# 三、保养项目



东风乘用车

## 2、底盘和车身检查

### 2.7、电驱动系统的检查

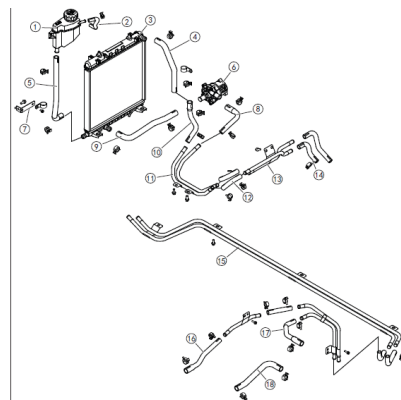
#### ( 10 ) 检查水道的排布

检查水道的排布是否合理。

确保水道本身安全耐用性的同时，也不会损害其他部件。

a) 注意水道的排布范围的四周有可能损伤水道的尖角毛刺；

b) 水道的固定要求：从电机出来的水道应以最短的距离固定到车身上，其余部分的水道要贴在车身上，以防电力线卷入传动轴。



#### ( 11 ) 电脑诊断

清除所有控制单元中储存的故障记忆





# III. Maintenance items



东风乘用车

## 2. Inspection of chassis and body

### 2.7. Inspection of electric drive system

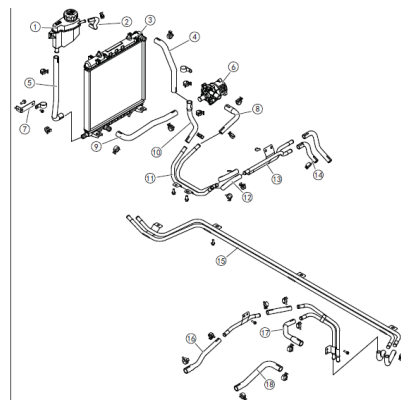
(10) Check the arrangement of the water ducts.

Check if the water ducts are arranged properly.

Ensure that the water ducts are safe and durable without damaging others components.

a) Note that no sharp corner or burrs that may damage the cable insulation around the layout of the water ducts is allowed;

b) Fixing requirements of water ducts: The water ducts from the motor should be fixed to the vehicle body at the shortest distance, and the rest of the water ducts should be attached to the vehicle body to prevent the electric lines from being caught in the drive shaft.



(11) Diagnose the ECU.

Clear fault memory stored in all control units.

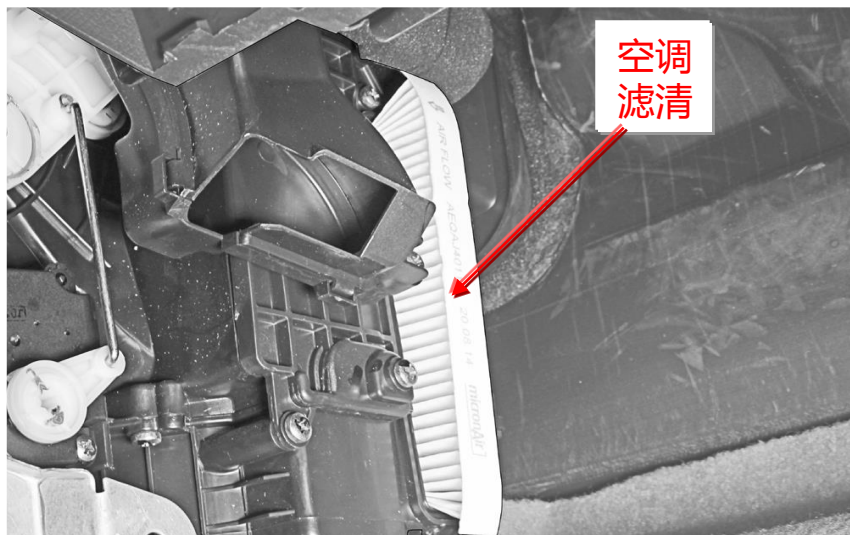


# 三、保养项目



## 2、底盘和车身检查

### 2.8、空调检查



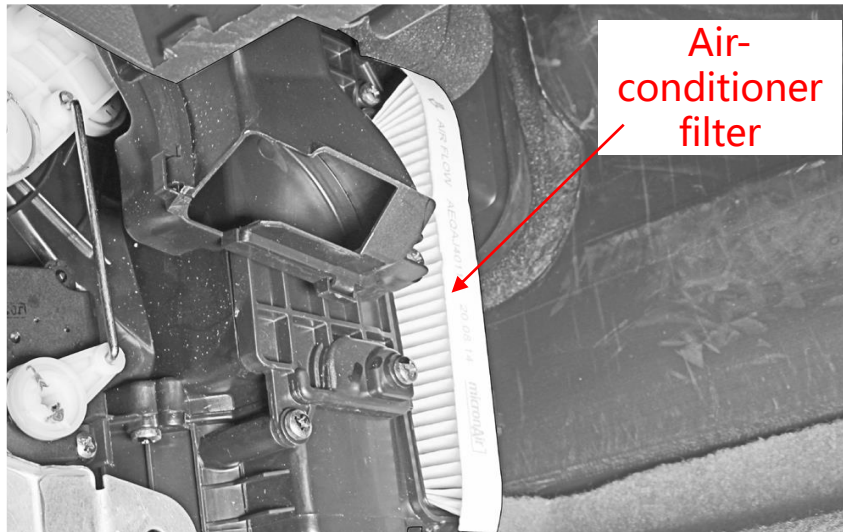
- 点火ON，检查空调面板的功能；
- 旋转风扇控制按钮，检查出风口的风量是否变化；
- 操作某个模式按钮后，会有相应的出风口吹风；
- 按下“A/C”开关后，按钮上的指示灯亮，旋转冷暖调节转盘后，出风口吹风温度有冷暖的变化。
- 按照周期要求定期清洁或更换空调

# III. Maintenance items



## 2. Inspection of chassis and body

### 2.8. Inspection of A/C



- Check the function of the A/C panel with ignition ON;
- Operate the fan control knob and check if air volume at the air outlet changes;
- Operating a mode button can allow for air blowing at the corresponding air outlet;
- After the "A/C" switch is pressed, the indicator on the button will come on. After the cooling and heating adjustment dial is turned, the air outlet temperature of the air vent will increase or decrease;
- Regularly clean or replace A/C as required by the cycle.

## 2、底盘和车身检查

### 2.9、安全带、锁扣、卷收器和调整装置检查



- 检查安全带是否断裂、磨损或损坏。
- 在扣上和打开时，检查扣环和压舌功能是否正常。
- 检查固定器是否松动。
- 检查卷收器动作是否灵活。

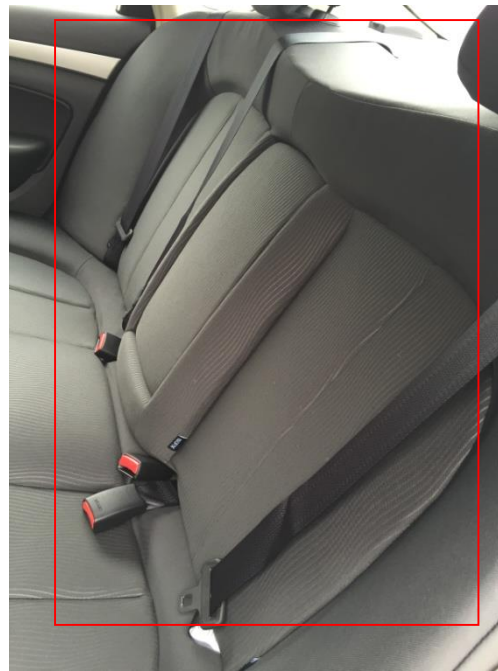


# III. Maintenance items



## 2. Inspection of chassis and body

### 2.9 Inspection of Seat Belts, Buckles, Retractors and Regulating Devices



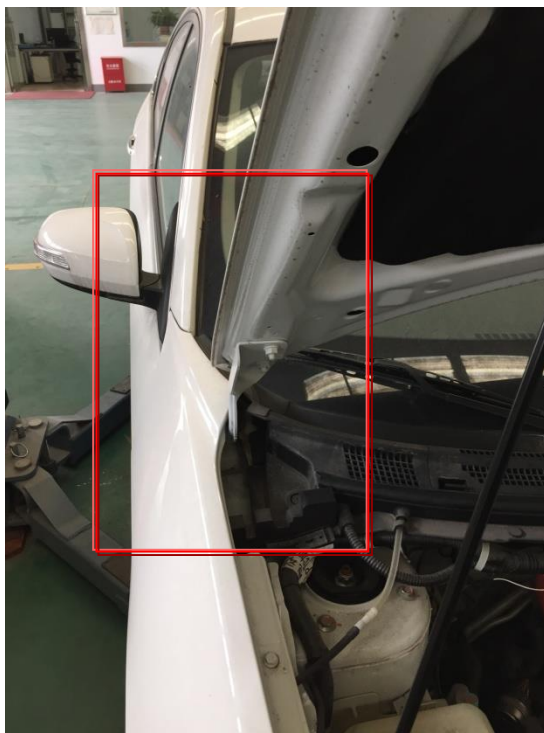
- Check the seat belt for breakage, wear or damage.
- Check if the buckle and the latch plate operate normally when fastening and releasing the seat belt.
- Check if the holder is loose.
- Check if the operation of the retractor is flexible.

# 三、保养项目



## 2、底盘和车身检查

### 2.10、润滑门锁、铰链和前罩盖锁闩



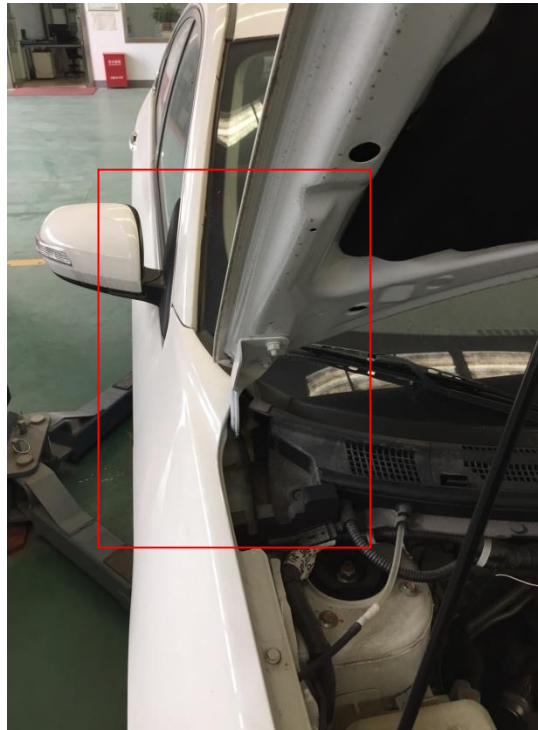
- 检查车门、前舱盖和后背门开启关闭是否自如，并且关闭时，看上去密合。如发现不良，应对铰链及锁机构进行润滑，必要时调整铰链、更换锁系统。

# III. Maintenance items



## 2. Inspection of chassis and body

### 2.10 Lubrication of door locks, hinges, and engine hood latch



- Check if the doors, engine hood and trunk lid can be opened or closed freely and have good sealing as they are closed. If any fault is found, lubricate hinges and lock mechanisms, and if necessary, adjust hinges or replace the lock system.



# 三、保养项目



东风乘用车

## 2、底盘和车身检查

### 2.11、充电端口检查



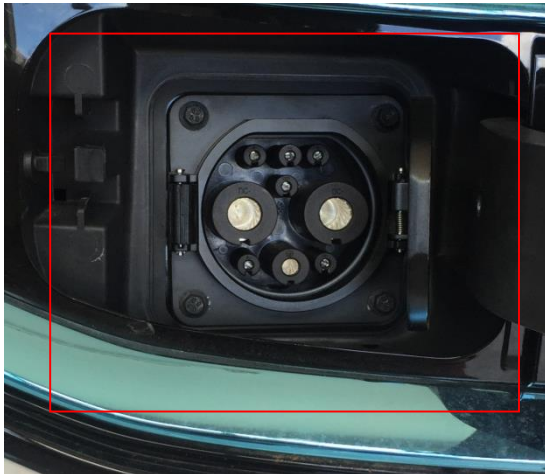
- 检查快慢充电口盖是否能正常打开和关紧
- 检查快慢充电塑料保护盖是否能正常打开和关紧
- 检查快慢充电接口是否清洁干净(可用风枪清洁), 且能保证正常连接充电。

# III. Maintenance items



## 2. Inspection of chassis and body

### 2.11. Inspection of charging port



- Check if the charging port caps of quick and slow chargers can be opened and closed properly.
- Check if the plastic charging protective caps of quick and slow chargers can be opened and closed properly.
- Check if the charging interface of quick and slow chargers is clean (to be cleaned with a air gun) and that proper connection and charging can be ensured.



按照要求对E70进行一次40000km保养操作



Perform a 40,00km maintenance for the E70 as required.