The MZQ-07A starter motor data:

Rated voltage: 12 Volts

Rated power: 500 Watts

Output shaft speed: 550 rpm (via an internal 4:1 planetary gear set)

Locked rotor current: < 250 Amps with a shaft torque > 29.4 N.m (21.7 ft-lbs)

The starter is a DC series wound motor, a type having low resistance and high torque at low speeds, with current and torque decreasing as speed increases, making it well suited for use as a starting motor.

The starting motor's shaft speed is reduced by a ratio of 2.5:1 to the crankshaft. The crankshaft speed is therefore 550 / 2.5 = 220 rpm. This is more than adequate for the specified cranking speed of 100 rpm for starting a CJ OHV engine.

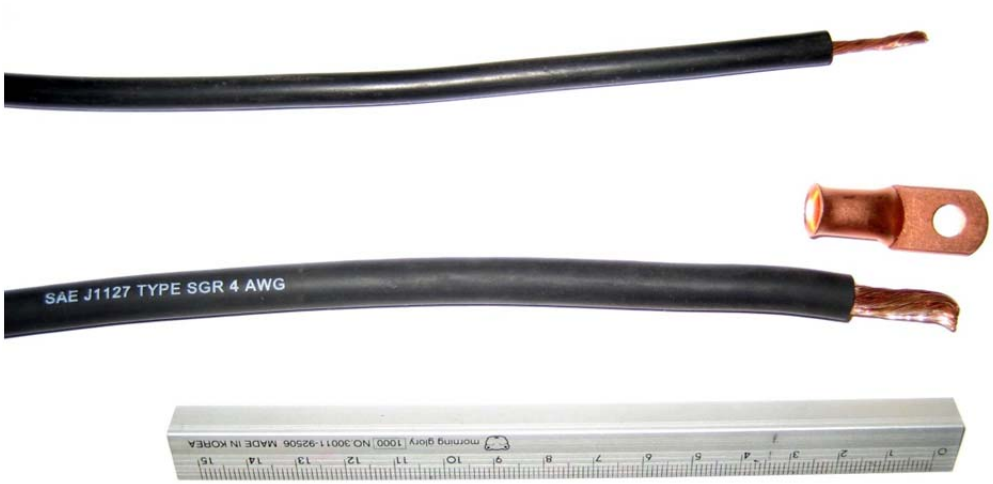
For efficient starting, certain precautions should be taken:

- The starter motor's brushes should not be worn down, and their springs should be strong enough to insure good contact between the brushes and the commutator. The commutator should be clean and free from corrosion.
- A larger capacity battery is better; it has less internal resistance, resulting in higher starting torque. The battery and cable connections must be tight.
- The cable from the battery to the starting motor (and the ground return) should be as short as possible and of an adequate size. A low resistance wire will ensure a higher available voltage at the starter's terminals, resulting in higher starting torque.

As an example, my original battery cables were made with 12 AWG wire. The total cable length is 12 feet, from the battery in the sidecar trunk to the starter and back. When they needed replacement, I used 4 AWG wire.

This may seem like overkill, but it makes sense when you crunch the numbers. The resistance of the original wire (12 AWG) is 1.87 milliohms per foot, and the new wire (4 AWG) is 0.292 milliohms per foot. Since the starter draws over 100 amps, this gives a voltage drop about 2.2 volts with the original cables, and only 0.35 volt with the new ones. The starter kicks over much faster with the new cable.

Data from the Xiang Jiang 750 maintenance manual and from www.pl750.com



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dongliguo93846

二级士官

750起动机维护 [复制链接]

750 starter maintenance

发表于 2011-10-12 21:45 | 只看该作者 | 倒序浏览 | 打印

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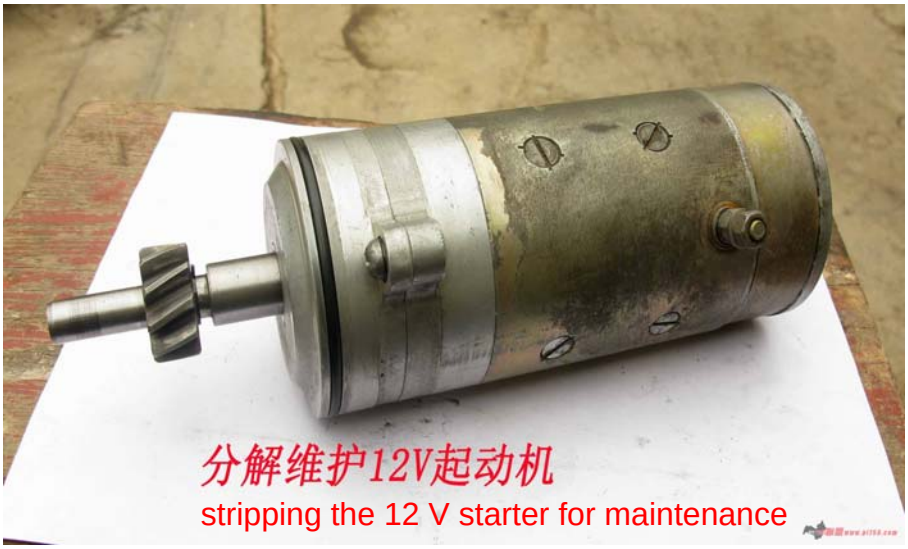
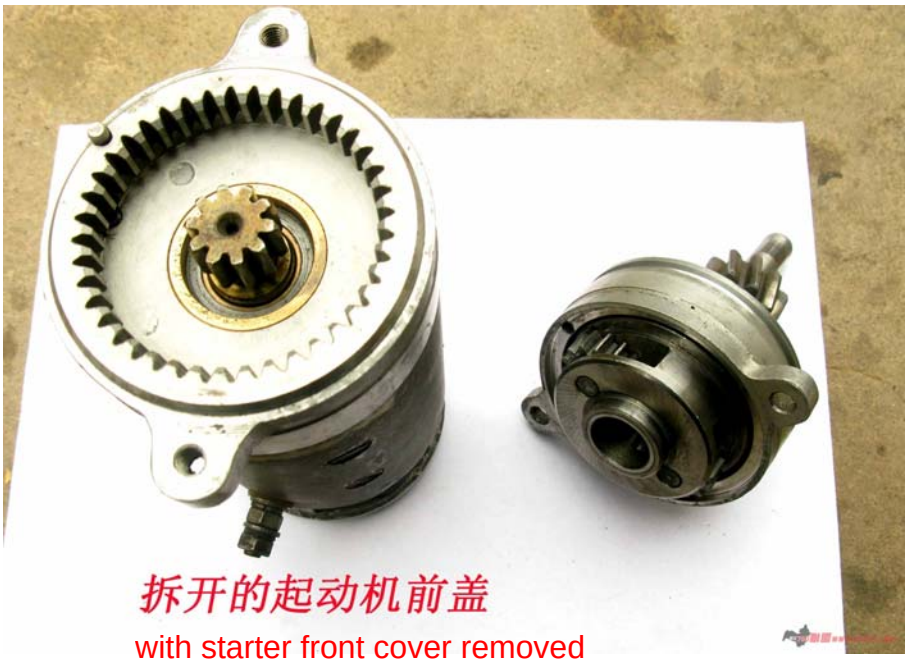
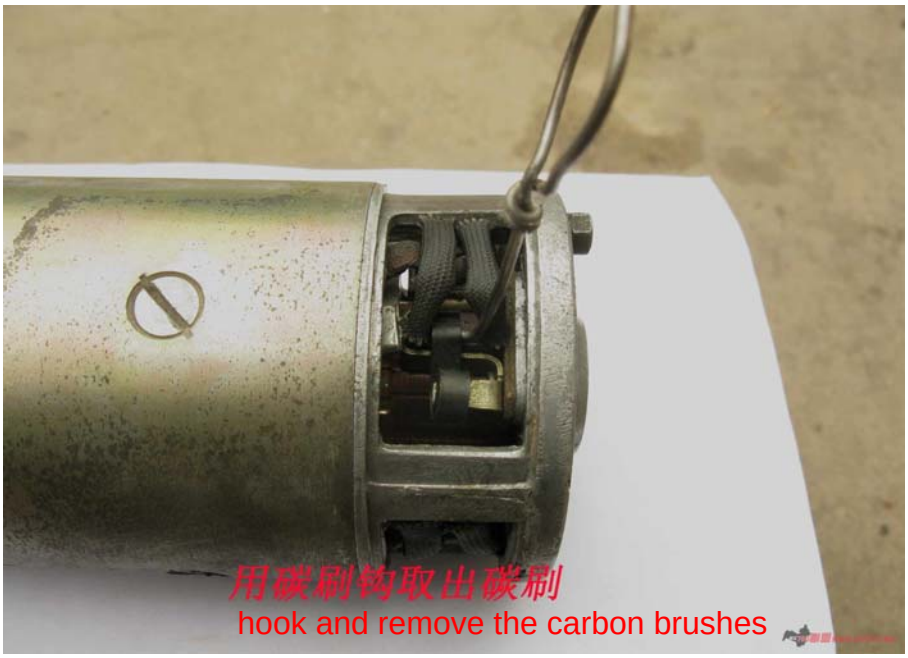
750起动机维护

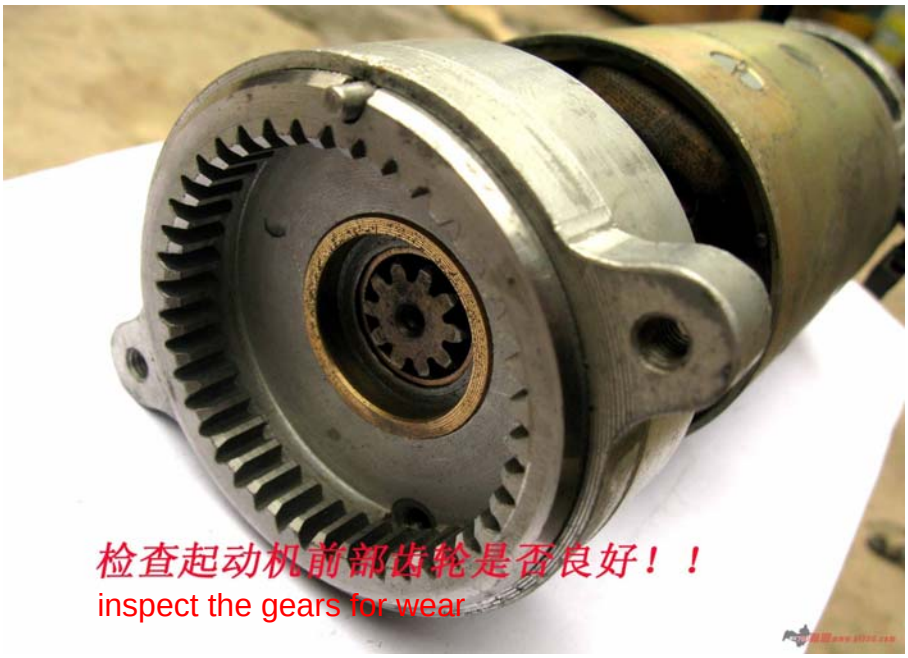


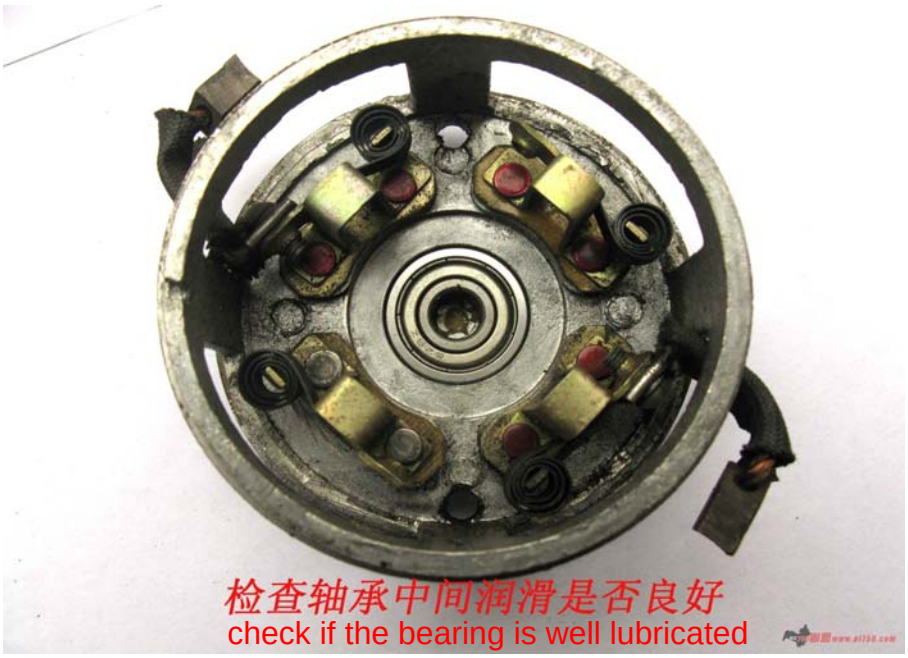


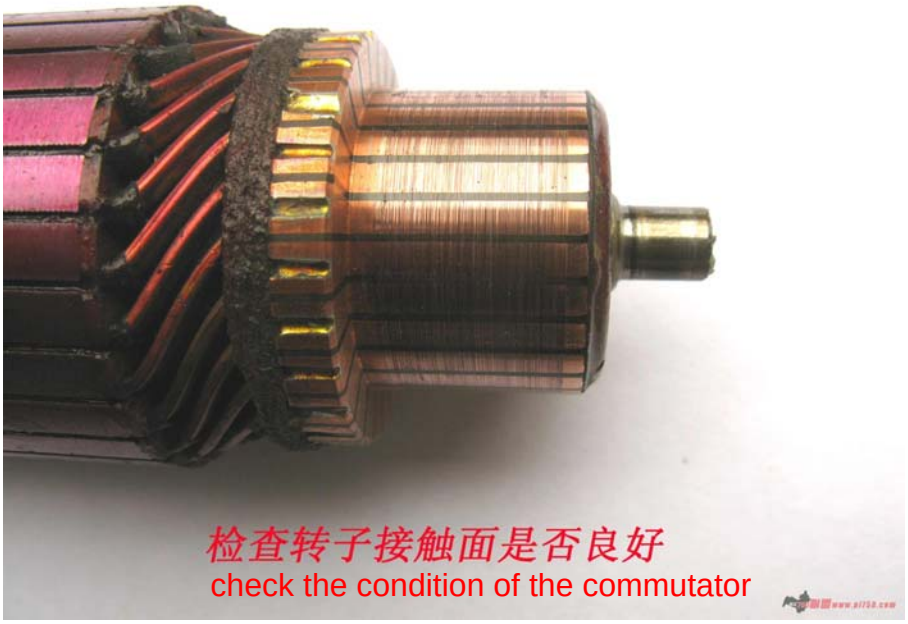
with starter front cover removed



hook and remove the carbon brushes

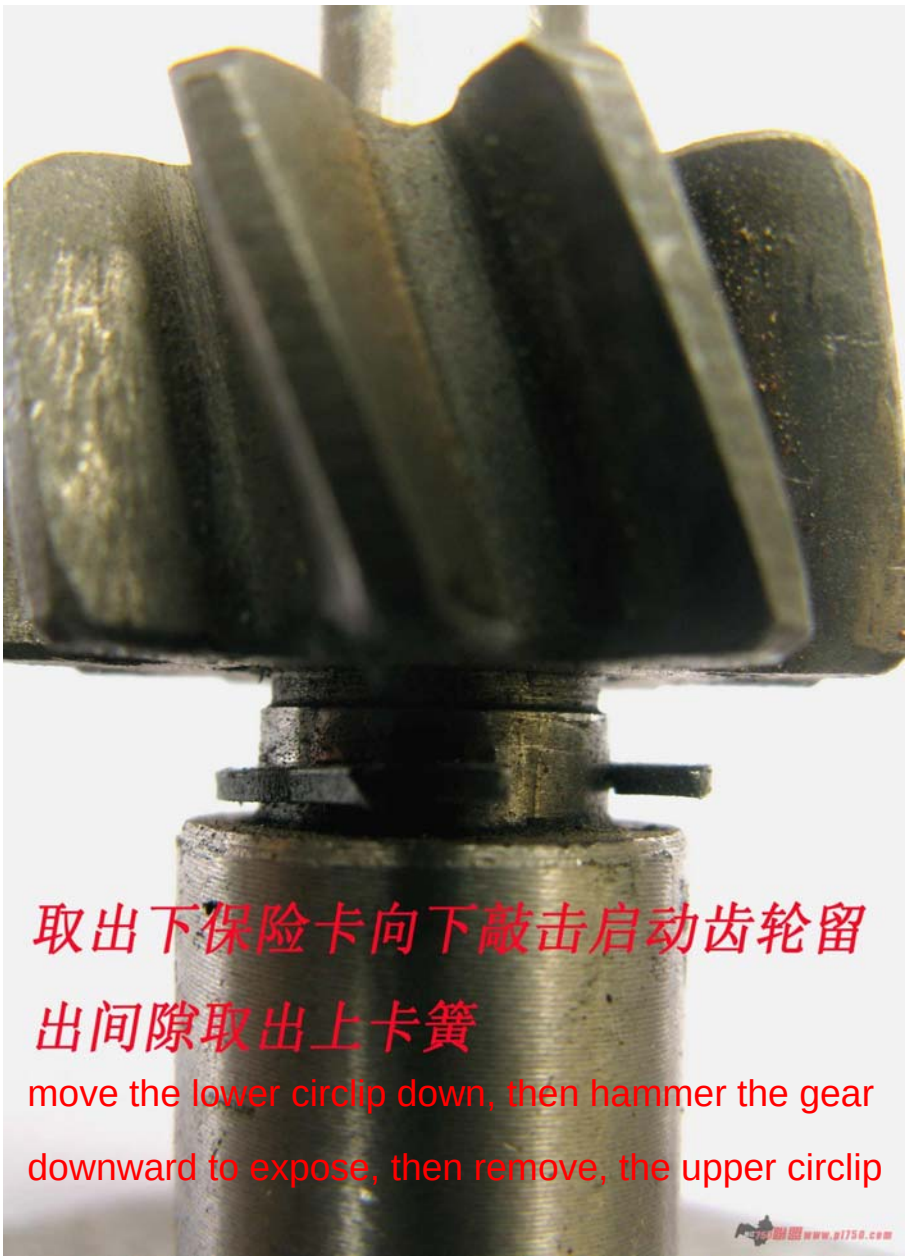

检查起动机前部齿轮是否良好！！
inspect the gears for wear


检查轴承中间润滑是否良好
check if the bearing is well lubricated



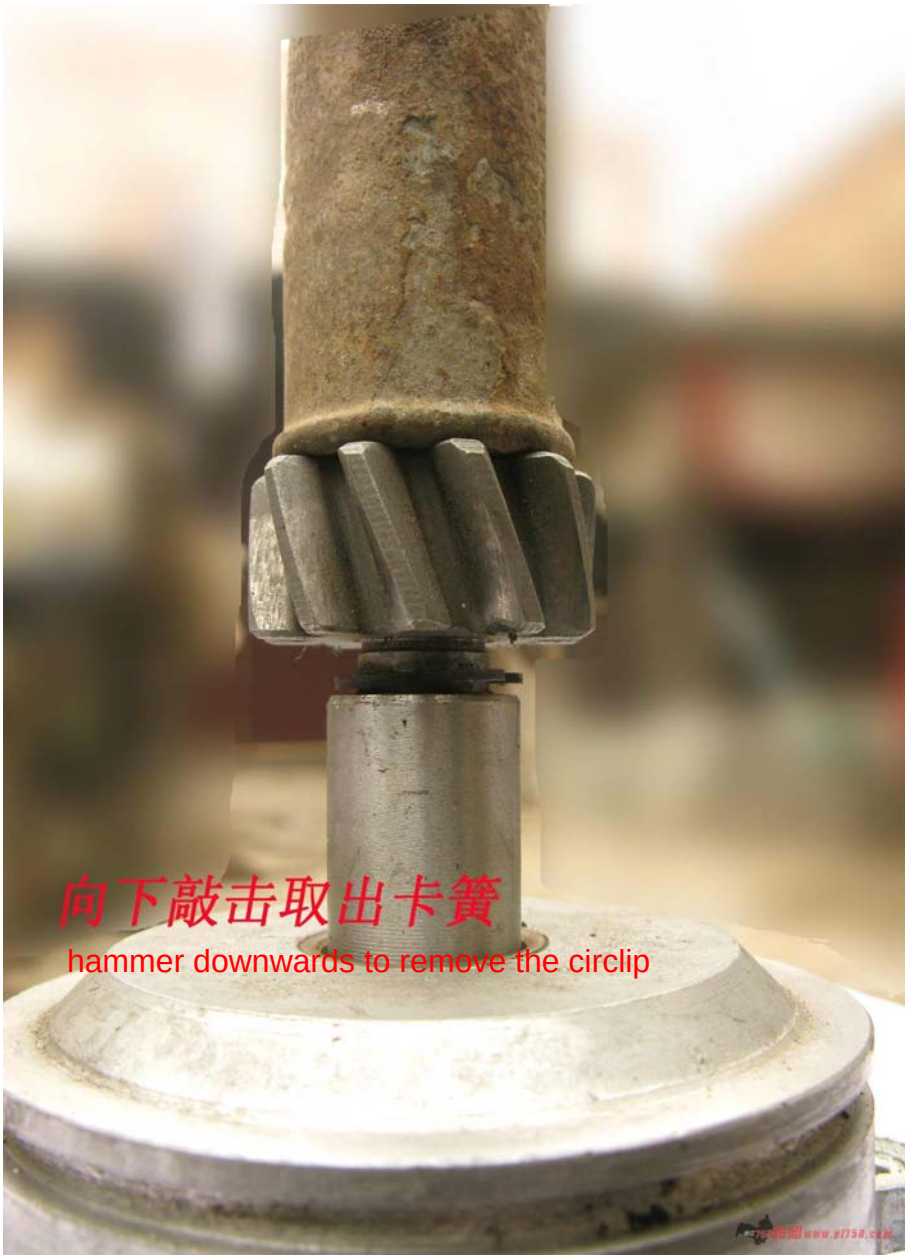
检查转子接触面是否良好

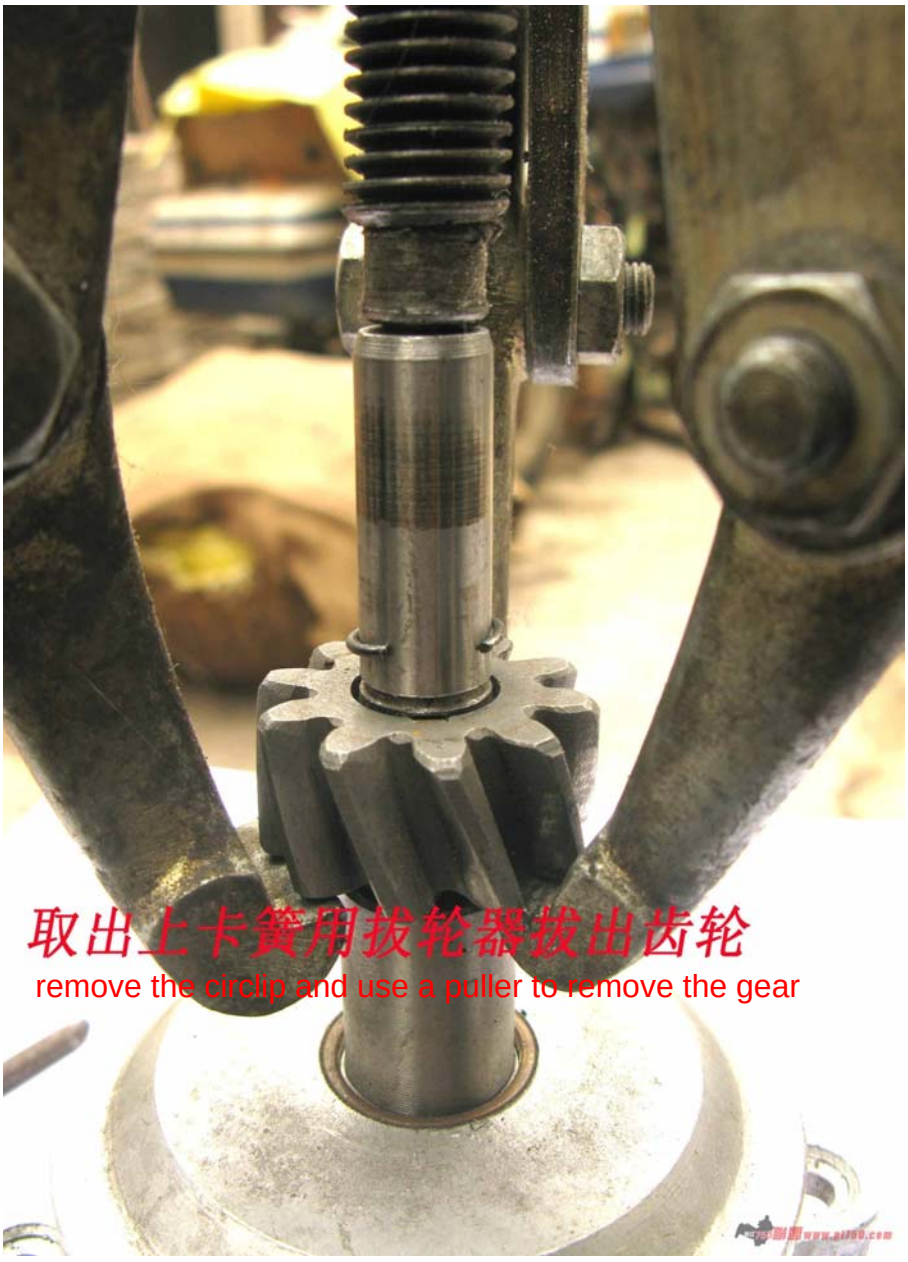
check the condition of the commutator

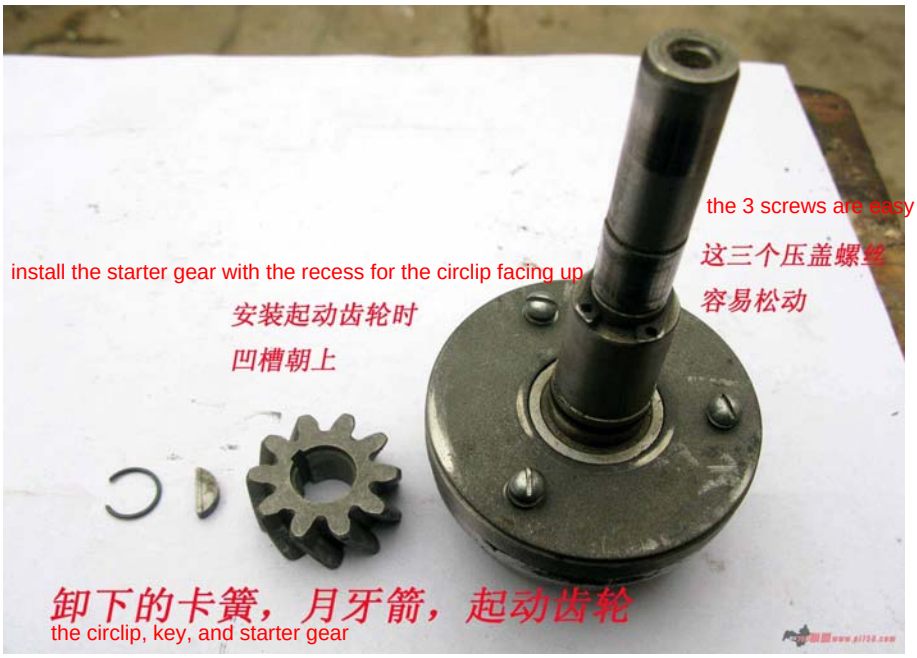


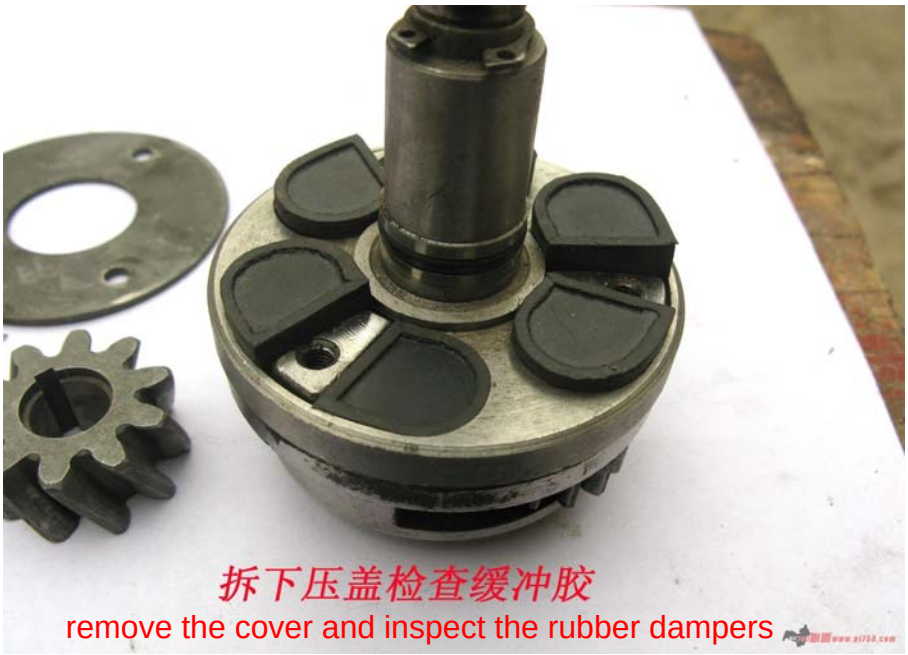
取出下保险卡向下敲击启动齿轮留出间隙取出上卡簧

move the lower circlip down, then hammer the gear downward to expose, then remove, the upper circlip

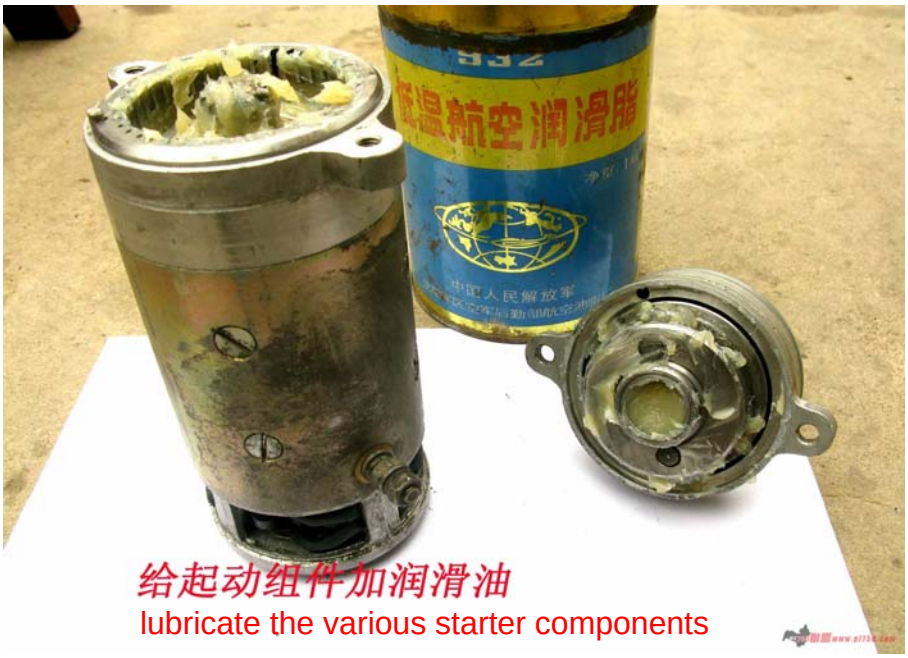

向下敲击取出卡簧
hammer downwards to remove the circlip


取出上卡簧用拔轮器拔出齿轮
remove the circlip and use a puller to remove the gear

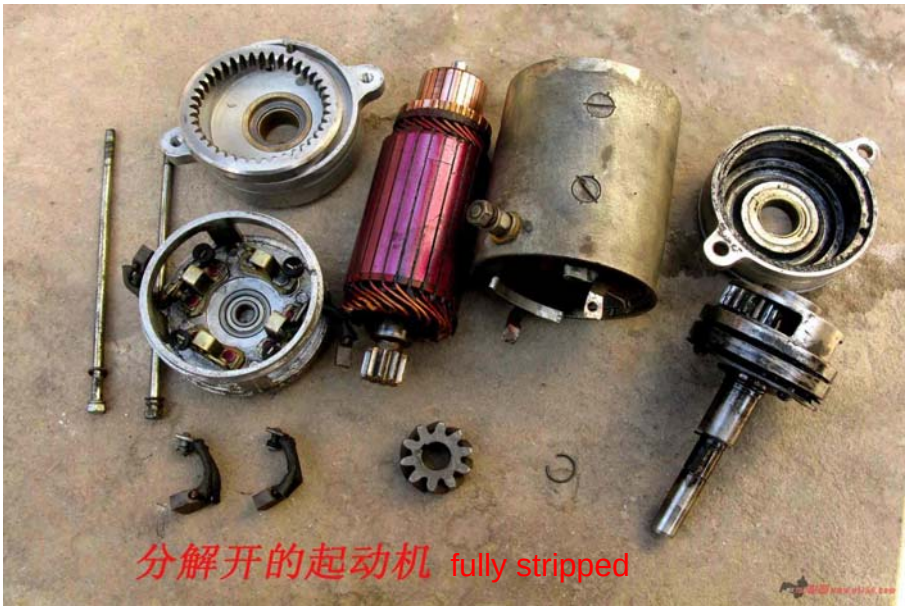

the 3 screws are easy to lose
这三个压盖螺丝
容易松动
install the starter gear with the recess for the circlip facing up
安装起动齿轮时
凹槽朝上
卸下的卡簧，月牙箭，起动齿轮
the circlip, key, and starter gear



拆下压盖检查缓冲胶
remove the cover and inspect the rubber dampers



给起动组件加润滑油
lubricate the various starter components



分解开的起动机 fully stripped