The faults of electric motors



Task 1. Work at pronunciation:

Fault	Поломка, неисправность
Overload	Перегрузка, перегружать
Short circuit	Короткое замыкание
Winding	Обмотка, поворот
Open circuit	Разомкнутая цепь
Fuse	Предохранитель, плавкий предохранитель
Phase unbalance	Фазовый дисбаланс
Bearing failure	Отказ подшипника

Task 2. Pronounce the words.

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Task 3. Read the text. Fill in the gaps. Use the hints.

There are different _____of motors. It is important to know and understand motor faults. Motor faults are divided into 2 types: electrical and mechanical. Common motor faults are overheating, insulation breakdown, overloads, bearing failure, running in reverse, locked rotor, vibration. Electrical motor faults are power surges, voltage drops, phase unbalance,_____. Mechanical faults are heating winding of rotor, locked rotor, winding open circuit, winding short circuit.

A faulty motor operates badly, it doesn't start. If the fuses are faulty or the motor is overloaded, the motor doesn't start. If the circuit in armature winding has an open, the motor doesn't start. The faults should be repaired. One should replace the fuses or reduce motor load or repair the armature winding.

Brushes may spark in case they are in poor condition, the pressure is low or excessive, the motor is overloaded. One should adjust_____, replace the brushes or reduce the load.

Abnormal motor speed means that rotor circuit has poor contact or the motor is overloaded. One should reduce the load or repair the shorting mechanism.

_____should be adjusted if rotor brushes against stator. One should remove the overload or check for slowing down the speed of the motor if the armature winding is overheated.

Air gap
short circuits
the pressure
faults

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