

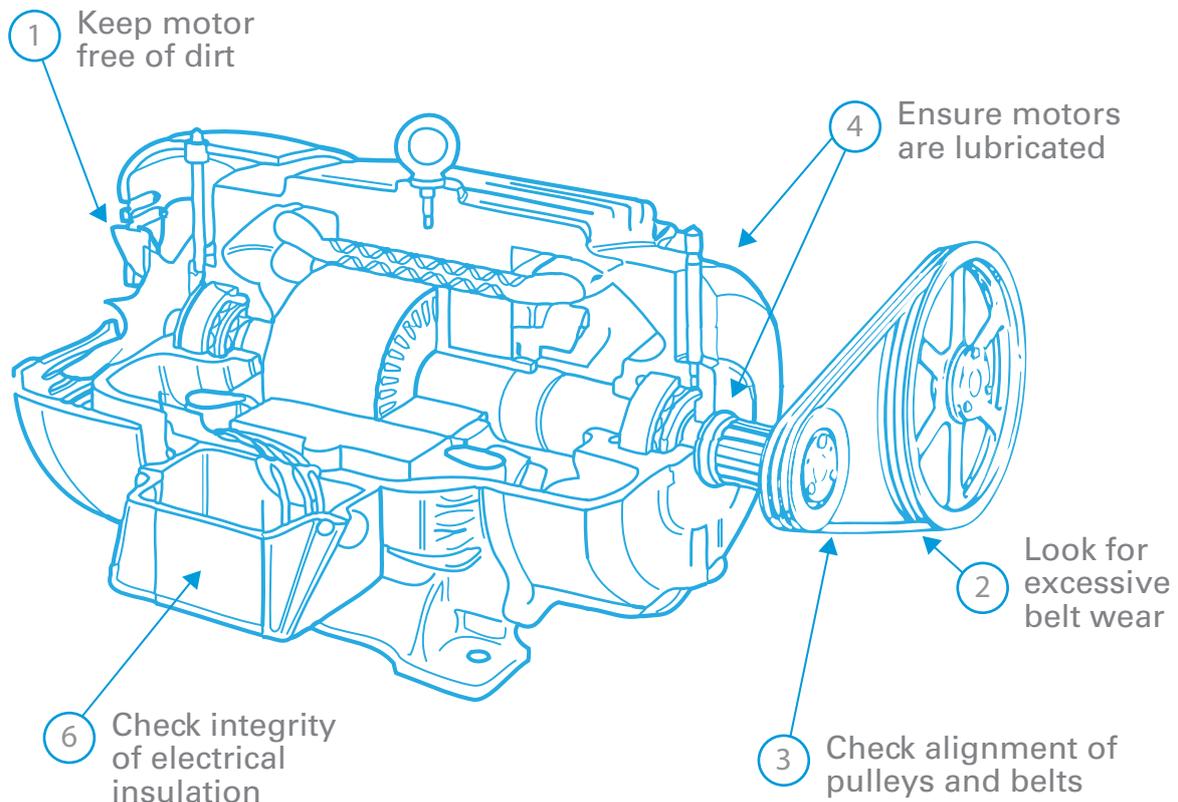
Maintenance checklist

– Motors

Poor maintenance can affect electric motor efficiency. This checklist summarises simple preventive checks for electric motors as part of a regular maintenance schedule. Maintenance can then be carried out as appropriate.

Understanding your motor

The diagram below provides you with a quick summary of what should be reviewed as part of motor maintenance. The numbered elements of the motor correspond to the more detailed checklist that can be found on page 2.



Maintenance musts	Complete Y/N	Action/comment
1. Make sure that motors are kept free of dirt and debris. If fitted, ensure the cooling fan and cooling fins are clear, and adequate cooling airflow is achieved.	<input type="checkbox"/>	
2. Examine drive belts, look for signs of excess wear, and ensure they are seated correctly on the pulleys. Check belts are correctly tensioned in accordance with the manufacturer's specifications. Where belts are in parallel ensure they are equally tensioned.	<input type="checkbox"/>	
3. Check alignment of pulleys and belts, and correct where necessary. Ensure all motor and equipment mountings are secure.	<input type="checkbox"/>	
4. Carry out lubrication checks and ensure motors and related equipment are sufficiently lubricated. Many motors are fitted with sealed bearings – look for signs of grease leakage which could indicate seal failure and a potential risk to the bearings; replace seals or bearings where necessary. For motors with externally lubricated bearings check the maintenance regime and determine whether this meets the manufacturer's recommendations.	<input type="checkbox"/>	
5. Assess the noise level and type of noise the motor is making: Ask operators if it has changed recently? This could be a sign of impending failure.	<input type="checkbox"/>	
6. Your electrician should carry out routine checks for electrical integrity of insulation, (usually at least annually), and at the same time: <ul style="list-style-type: none"> • Check for loose electrical terminals, ensure they are tightened according to the manufacturer's specifications. • Measure the supply voltage and ensure a) it is within 10% or less of the motors nominal rated voltage and b) the line voltages are balanced to within 1% (see CTV016 - "Motors technology overview" for further guidance). • Carry out thermographic imaging on larger motors, switchgear and transmissions to assist identification of hot spots and problem areas. 	<input type="checkbox"/>	
7. For motor controls, and force cooled motors, check air filters in cooling/ ventilation systems, ensure they are clean and replace according to the suppliers recommended schedule.	<input type="checkbox"/>	