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## Preventive maintenance

### Preventive maintenance periods

These preventive maintenance periods apply to average conditions of operation. Check the periods given by the manufacturer of the equipment in which the engine is installed. If necessary, use the shorter periods. When the operation of the engine must conform to the local regulations, these periods and procedures may need to be adapted to ensure correct operation of the engine.

The service intervals can be reduced for operation in adverse conditions. The intervals must not be extended unless Perkins Engines Company Limited have approved the changes as indicated in the Perkins Warranty. It is good preventive maintenance to check for leakage and loose fasteners at each service. These maintenance periods apply only to engines that are operated with fuel and lubricating oil which conform to the specifications given in this handbook.

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## Schedule for engines in normal use

The preventive maintenance operations must be applied at the interval (hours or months) which occurs first.

- A - Every 10 hours or daily
- B - Every 400 hours or 12 months
- C - Every 1200 hours or 24 months

A	B	C	Operation
•			Check the amount of coolant
•			Check the level of the lubricating oil
•			Check the restriction indicators for the air filters and, when necessary, renew the filter elements
•			Drain the water/sediment from the primary fuel filter
	•		Check the condition and the tension of all drive belts
	•		Check the specific gravity and the pH value of the coolant
	•		Renew the lubricating oil
	•		Renew the canisters of the lubricating oil filter
	•		Renew the canister of the main fuel filter
	•		Clean the primary fuel filter
	•		Ensure that the mounting nuts for the turbochargers are tightened securely
	•		Check that the air charge cooler and the radiator are clean and free from debris
		•	Check the timing of the fuel injection pump
		•	Check that the drive coupling bolts of the fuel injection pump are tightened to 120 Nm (88 lbf ft)
		•	Ensure that the fuel injectors are checked and corrected or renewed, if necessary*
		•	Ensure that the tappet clearances are checked and adjusted, if necessary*

\* By a person who has had the correct training.

**In addition to the operations listed above, the operations listed below must be applied at 12 month intervals:**

- Drain and flush the coolant system and renew the coolant mixture
- Check the turbochargers, ensure that they are checked and corrected if necessary\*
- Ensure that the alternator is checked and corrected if necessary\*

## Schedule for engines in intermittent use

For engines which are in use for a total of less than 400 hours in every twelve months, the schedule below must be used:

The preventive maintenance operations must be applied at the interval (hours or months) which occurs first.

**A** - Monthly

**B** - Every 200 hours or 12 months

**C** - Every 1000 hours or 24 months

A	B	C	Operation
•			Check the amount of coolant
•			Check the level of the lubricating oil
•			Check the restriction indicators for the air filters and, when necessary, renew the filter elements
•			Start and run the engine with 30% load (minimum), until normal temperature of operation is reached
•			Drain the water/sediment from the primary fuel filter
	•		Check the condition and the tension of all drive belts
	•		Check the specific gravity and the pH value of the coolant
	•		Renew the lubricating oil
	•		Renew the canisters of the lubricating oil filter
	•		Renew the canister of the main fuel filter
	•		Clean the primary fuel filter
	•		Ensure that the mounting nuts for the turbochargers are tightened securely
	•		Check the timing of the fuel injection pump
	•		Check that the drive coupling bolts of the fuel injection pump are tightened to 120 Nm (88 lbf ft)
	•		Ensure that the fuel injectors are checked and corrected or renewed, if necessary*
	•		Ensure that the tappet clearances are checked and adjusted, if necessary*

\* By a person who has had the correct training.

**In addition to the operations listed above, the operations listed below must be applied at 12 month intervals:**

- Drain and flush the coolant system and renew the coolant mixture
- Check the turbochargers, ensure that they are checked and corrected if necessary\*
- Check that the air charge cooler and the radiator are clean and free from debris
- Ensure that the alternator is checked and corrected if necessary\*