SCANIA

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Preface to periodic maintenance

PS2024

E2011

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Changes since the previous issue

First edition	

Preface

This Operator's Manual describes operation and provides information in order to plan basic maintenance of Scania engines within PS2024.

A Scania engine is optimised for good economy. Regular maintenance is crucial for the service life of the engine and in order to avoid unplanned stops.

This document describes the periodic maintenance programme, with renewal intervals for components and systems.

Be aware that several factors can affect the maintenance requirements of the engine. This may involve:

- In what type of operation is the engine used?
- Are local adaptations of the maintenance programme required?
- Is the engine used in an environment that requires extra maintenance in addition to the regular maintenance programme?

Planning maintenance

The maintenance programme is the basis for planning the maintenance requirements of the vehicle. Since operating conditions may vary, it is important that the customer and the workshop agree maintenance requirements together, and customise the maintenance.

The maintenance programme is the basis for planning the maintenance requirements of the vehicle.

Operating conditions can vary significantly. Therefore, include these experiences when planning the maintenance.

In addition to the regular maintenance events in the maintenance programme, it is possible to add a number of optional maintenance events.

Start planning maintenance by identifying the following:

Maintenance requirements

1. Engine specification
2. Application and environment where the engine is used
3. Engine oil grade
4. Engine emission class
5. Fuel grade and sulphur content
6. Other components which may have an effect on the interval
7. Fluids or components with expiration dates.

Approved and recommended oil grades for the engine are reported in document **00:16-15, Fuel, lubricants and fluids**.

The option may be to fill with approved oil grades, which would result in shorter change intervals. In this case, it is necessary to make local adaptations to the forms.

The engine must be maintained according to the individual maintenance plan at least once per year.

Start the maintenance plan for a used engine with *L maintenance*.

Maintenance of the engine is not just covered by the maintenance programme, but also by checks performed by the operator.

The Scania maintenance programme

Scania maintenance programme for engines with electric propulsion

The maintenance programme covers a number of points that are divided into the following sections:

- Lubrication system
- Cooling system

WARNING!

It must not be possible to start the engine during maintenance work on it. If the engine starts unexpectedly, there is a serious risk of injury.

There is always a risk of sustaining burns when an engine is hot.

Particularly hot parts are branch pipes, turbochargers, oil sumps and oil in pipes and hoses. The coolant is also hot.

The maintenance programme includes the following:

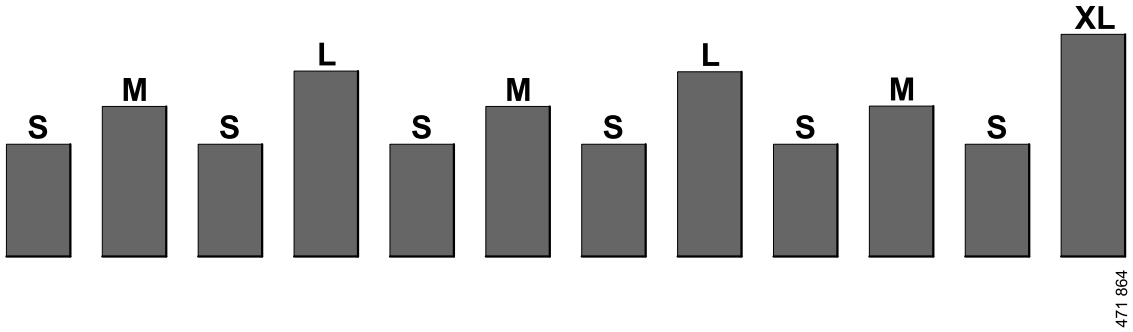
- R maintenance: One event when taken into service.
- S maintenance: Minimum basic maintenance
- M maintenance: More extensive maintenance
- L maintenance: Includes nearly all maintenance items in the form.
- XL maintenance: Includes all maintenance items in the form.

During a period, the following maintenance activities occur: S-M-S-L-S-M-S-LS-M-S-XL.

Type of application, selected engine oil grade and fuel grade determines the number of hours of operation between the current maintenance events.

NOTE:

Clean the engine according to the instructions in the workshop manual.



The illustration shows the order of recommended maintenance events.

Explanation of abbreviations	
Abbreviation	**The term in printed form**
BEV	Battery electric vehicles
HEV	Hybrid Electric Vehicle
PHEV	Plug-in Hybrid Electric Vehicle

Maintenance intervals

Maintenance intervals for the entire installation

Hour-based fixed intervals	500 R						
		Intervals (hours)				At least	
Intervals		**500**	**1000**	**2000**	**6000**	**Every year**	**Every 4 years**
Type of interval		**S**	**M**	**L**	**XL**		
Lubrication system							
Checking fault codes Uploading operational data	**X**	**X**	**X**	**X**	**X**		
Changing the oil in the electric machine					**X**[1]		**X**
Renewing the filter in the electric machine					**X**[1]		**X**
Changing the oil in the electrical air compressor				**X**[2]		**X**	
Renewing the oil separation filter				**X**[2]		**X**	
Renewing the air filter in the electrical air compressor				**X**[2]		**X**	
Cooling system							
Checking the coolant level	**X**	**X**	**X**	**X**	**X**		
Checking the coolant's antifreeze and corrosion protection				**X**	**X**	**X**	
Other							
Checking for leakage		**X**	**X**	**X**	**X**		

1. Check whether the oil and filter in the electric machine should be renewed. See the table Change intervals for electric machine.
2. Check that the maximum operating time of the compressor has not been exceeded.

Maintenance intervals for the electrical air compressor

HEV/PHEV and BEV			
Type	**Oil grade**	**Change interval**[1]	**Comment**
Electrical air compres-sor EACS 2	Castrol Alphasyn T 46 Chevron Cetus PAO 46 Chevron Cetus PAO 68	**Calendar time 1 year Maximum compressor running time 1,500 h.**	Change oil and renew the air filter and oil separation filter.

1. Perform maintenance at the interval that is reached first.

Renewal interval for electric machine

IMPORTANT!

The electric machine is damaged by an incorrect oil grade. Use an approved oil grade according to the specification.

Compo-nent designa-tion/		Oil grade	Oil change intervals
			Perform maintenance at the interval that is reached first.
MG4115-1 505 A01		STO EV	**Calendar time 4 years** 20,000 h