

VOLVO WHEEL LOADERS

**L90F**



Document Title: <b>Basic checks</b>	Function Group: <b>090</b>	Information Type: <b>Service Information</b>	Date: <b>10/27/2020</b>
Profile: <b>L90F Volvo</b>			

## Basic checks

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L90F Volvo	Arvika	25001	49999
L90F Volvo	Iran	40000	49999
L90F Volvo	Asheville	68101	69999
L90F Volvo	Pederneiras	71501	79999

### NOTE!

Basic data must always be collected and error codes and parameters must always be checked before the basic check is started; see [Troubleshooting, general](#).

Basic check is performed on each main system. The purpose of the basic check is that it shall give quick and certain information about the status in the sub-system included in each main system.

Each basic check is divided into a number of checks to be performed in order.

If the basic check does not help to locate the cause of the malfunction, the information obtained helps as guidance for continued troubleshooting together with other service information.

The basic check(s) to be performed is determined by the information obtained when the basic data was collected; see [Collection of basic data](#).

### Basic checks:

- [Engine, basic check](#)
- [Electrical system, basic check](#)
- [Power transmission, basic check](#)
- [Brake system, basic check](#)
- [Parking brake, basic check](#)
- [Steering and hydraulics, basic check](#)

Document Title: <b>Accelerator Pedal</b>	Function Group: <b>271</b>	Information Type: <b>Service Information</b>	Date: <b>10/27/2020</b>
Profile: <b>L90F Volvo</b>			

## Accelerator Pedal

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L90F Volvo			

The function transfers the throttle pedal's position to a throttle application on the engine and engages the secondary function 'Limp Home' in case of a system error/malfunction.

Throttle pedal SE2702 consists of two sensors signals; position primary and position secondary. position secondary works like a back-up if the signal from position primary is incorrect.

### NOTE!

If hand throttle is installed, it will work even if there is a system error/malfunction.

See also [Wiring diagram 205](#)

Input signals	Conditions for output functions	Output functions
<ul style="list-style-type: none"> <li>○ Throttle pedal, SE2702</li> </ul>	<ul style="list-style-type: none"> <li>○ 3-100%</li> <li>○ throttle pedal applied</li> </ul>	<ul style="list-style-type: none"> <li>○ Desired throttle setting</li> </ul>
<ul style="list-style-type: none"> <li>○ Monitoring, SE2702</li> </ul>	<ul style="list-style-type: none"> <li>○ System error, signal position primary outside limit values</li> </ul>	<ul style="list-style-type: none"> <li>○ Limp Home — function</li> <li>○ Amber central warning</li> <li>○ Check — Accelerator failure</li> </ul>
<ul style="list-style-type: none"> <li>○ Monitoring, SE2702</li> </ul>	<ul style="list-style-type: none"> <li>○ System error, signal position primary and position secondary outside limit values</li> </ul>	<ul style="list-style-type: none"> <li>○ Limp Home — function</li> <li>○ Amber central warning</li> <li>○ Check — Acc. pedal sensor</li> </ul>

Document Title: <b>Air cleaner, description</b>	Function Group: <b>256</b>	Information Type: <b>Service Information</b>	Date: <b>10/27/2020</b>
Profile: <b>L90F Volvo</b>			

## Air cleaner, description

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L90F Volvo			

The air cleaner prevents dust and other contaminants from entering the engine. The air passes after having circulated in the pre-cleaner through the main filter and then the safety filter. There is a combined pressure-drop and air temperature sensor at the inlet between the filter housing and the turbo. The pressure-drop function shows when the filter starts to clog up with a symbol on the information panel.

### Air filter pressure — Software

The function monitors the extent to which the air filter is blocked and informs the operator when changing is required or if system malfunction occurs.

See also [Wiring diagram 202](#)

Input signals	Conditions for output functions	Output functions
<ul style="list-style-type: none"> <li>○ Air filter pressure, SE2502</li> </ul>	<ul style="list-style-type: none"> <li>○ High vacuum pressure (clogged filter)</li> </ul>	<ul style="list-style-type: none"> <li>○ Amber central warning</li> <li>○ Check — Clogged air filter engine</li> </ul>
<ul style="list-style-type: none"> <li>○ Monitoring, SE2502</li> </ul>	<ul style="list-style-type: none"> <li>○ No or incorrect signal. See Diagnostics</li> </ul>	<ul style="list-style-type: none"> <li>○ Amber central warning</li> <li>○ Check — Engine failure</li> </ul>

### Temperature induction air — Software

The function monitors the temperature of the induction air and informs the operator if system malfunction occurs.

The temperature is used internally in the E-ECU for engine control.

Temperature induction air is also used as input signal for cooling fan control, [Cooling fan description](#).

See also [Wiring diagram 202](#).

Input signals	Conditions for output functions	Output functions
<ul style="list-style-type: none"> <li>○ Monitoring, SE2501</li> </ul>	<ul style="list-style-type: none"> <li>○ System error, signal outside limits See Diagnostics</li> </ul>	<ul style="list-style-type: none"> <li>○ Amber central warning</li> <li>○ Check — Engine system failure</li> </ul>

Document Title: <b>Charging batteries</b>	Function Group: <b>170</b>	Information Type: <b>Service Information</b>	Date: <b>10/27/2020</b>
Profile: <b>L90F Volvo</b>			

## Charging batteries

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Valid for serial numbers			
Model	Production site	Serial number start	Serial number stop
L90F Volvo			

### Explosion hazard

Charging produces hydrogen in the battery, which mixes with oxygen to produce an explosive mixture. A short circuit, naked flame or spark near a battery can cause a powerful explosion. Always switch off the charging current before removing the charger clamps. Ensure appropriate ventilation, especially if the battery is charged in a confined area.

### Corrosive sulphuric acid

The battery electrolyte contains corrosive sulphuric acid. Electrolyte spilled on bare skin must be removed immediately. Wash with soap and plenty of water. If electrolyte gets into your eyes or onto any other sensitive part of the body, rinse immediately with plenty of water and seek immediate medical attention.

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