



Installation Instructions

18SP529—Install Coolant Filter/Inhibitor Kit 23528770

Introduction

This kit is intended for remote installation on a Detroit Diesel Series 50® or Series 60® engine. The kit includes the items listed in Table 1.

Part Number	Qty.	Description
23507291	1	Adaptor Assembly, Precharge Filter Element
11509512	3	Bolt, M8 -1.25 X 25.0 in. L. Large Hex Flange
23516489	1	Filter Element, Spin-on Coolant Inhibitor (Need Release)
8924998	1	Elbow, 90-degree, 3/8 in. Flared Tube to 1/4 NPTF
8929837	1	Elbow, 45-degree, 3/8 in. Flared Tube to 1/4 in. NPTF
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Table 1. Service Kit 23528770 Parts List

Installation of Service Kit

Install the service kit as follows:



CAUTION:

To avoid injury from hot surfaces, allow the engine to cool before removing any component. Wear protective gloves.



CAUTION:

To avoid injury from accidental engine startup while servicing the engine, disconnect/disable the starting system.

1. With the engine at ambient temperature (cool to the touch) and the starting system disconnected/disabled, place a clean container under the engine to catch the coolant that will drain from the engine radiator.

2. Drain the coolant until it is below the level of the fresh water pump. If coolant is to be reused, cover and set aside to prevent contamination. If coolant is not to be reused, dispose of it in an environmentally friendly manner, according to state and/or federal (EPA) recommendations.
3. Install the shutoff valves in the inlet (side) port and outlet (top) port of the adaptor. Valves should be in the closed position.

NOTICE:

To prevent possible cooling system damage caused by over-inhibiting, the Power Cool® Need Release® element included in this kit should be installed only in a precharged cooling system. Detroit Diesel recommends using a TMC RP329A type coolant, such as Detroit Diesel Power Cool. The element is designed for extended service. However, the cooling system should be tested every preventive maintenance interval with a Detroit Diesel Power Trac® 3-Way coolant test strip.

NOTICE:

To avoid damaging the filter element or seal, do not over tighten the element.
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4. Before installing the element, ensure the threaded insert is secure in the adaptor head. If loose, torque to 41 - 54 N•m (30 - 40 lb-ft).
5. Install the spin-on precharge element in the adaptor head following the instructions printed on the element or element package.
6. Remote mount the filter adaptor in the selected location.
7. Remove the drain cock from the engine water pump and install the 90-degree elbow. Connect the short hose assembly between the elbow and the shutoff valve on the inlet (side) port of the adaptor.
8. Install the 45-degree elbow in the coolant gallery opening on the front-right side of the cylinder head. Connect the long hose assembly between the elbow and the valve in the outlet (top) port of the adaptor.
9. Refill the cooling system with required coolant. ¹
10. With the cooling system filled, open both drain valves on the adaptor, start the engine, and check for leaks.

¹For current coolant requirements, refer to publication **7SE298, *Coolant Requirements for Detroit Diesel Engines***, available under “Service Information” on the Detroit Diesel corporate website: www.detroitdiesel.com.

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