



Filter Knowledge, Unfiltered

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Oil Pump Prime

Immediately after an oil change, one of the most confusing issues to face the typical do-it-yourselfer or professional mechanic is lack of oil pressure on engine start-up.

Although not a common occurrence, it is possible that the oil pump may lose its prime during the oil change.

When the used engine oil is drained from the engine, the oil may also drain from the oil pump pickup tube and possibly from the oil pump itself. When new engine oil is added, the pump's pickup tube inlet again becomes submerged, trapping air in the tube on the suction side of the oil pump. The trapped air will cause cavitation of the pump and prevent it from producing oil flow and subsequent oil pressure. The low oil pressure light will remain on or the oil pressure gauge will register little or no pressure when the engine is started.

Many installers tend to blame this on the oil filter and assume that the filter is blocking the flow of oil. Since the filter is now suspect, the installer will install a second filter. Sometimes this solves the problem because the trapped air was released when the first filter was removed. In such a case, the oil filter is not the problem; often there is a simple solution.

If the low oil pressure light remains on or the oil pressure gauge reads little or no pressure within 30 seconds of engine start-up, stop the engine. Remove the filter and fill with clean oil (if possible) and reinstall. Oil pressure should return to normal within ten seconds after starting the engine. If the above procedure fails, it may be necessary to remove the filter and use an oil squirt can, with clean engine oil, to squirt oil into the oil filter's mounting base inlet hole, which is adjacent to the threaded mounting stud. Next reinstall the filter. This should prime the pump.

Replacing the oil in the crankcase immediately after draining will prevent the oil pump from losing its prime.

Make sure the oil filter is installed correctly. Printed installation instructions will be found either on the filter itself or on the filter box.

For additional information, contact:

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