Engine - 1.5L EcoBoost (118kW/160PS) – I4 - Engine - Overview

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Description and Operation

General information

The 1.5L EcoBoost engine is a 1.5L, 4 cylinder turbocharged direct petrol injection engine. It has an aluminium cylinder block and cylinder head with twin camshafts and 4 valves per cylinder.

Both the inlet and exhaust camshafts are driven by a timing belt, and their timing can be varied by VCT (variable camshaft timing) units. Fuel injection is provided by a direct fuel injection system which improves fuel consumption, emissions, and driving performance.

Main Features

Compared to the 1.6L EcoBoost, the 1.5L EcoBoost has in essence been modified as follows:

- The 1.5L EcoBoost uses a CAC (charge air cooler) which is integrated into the engine's inlet manifold. It is a water to air intercooler which means that it uses coolant to cool the hot charge air.
- The CAC radiator is independent of the engine radiator.

The cooling system for the 1.5L EcoBoost can be split into two separate systems:

- Engine cooling system
- Charge air cooling system

Advantage:

- Cooler charge air temperatures result in increased engine power and torque as well as efficiency.
- Having an independent radiator for the charge air system allows for cooler charge air temperatures as compared to cooling the charge air with the engine coolant system.