5W/30 Engine Oils explained

When emission regulations changed in 2011, vehicle manufacturers changed their designs to comply. These changes brought about a greater need to use the proper engine oil for each application. Granville oil explains some of the specifications of 5W/30 oil and their meaning.

Regulations changed in 2011, designed to further reduce vehicle emissions and set a common standard for replacement parts. Most manufacturers now produce vehicles that comply with the new standards, by fitting exhaust after treatment devices, mainly diesel particulate filters (DPF) or three way catalytic convertors (TWC), together with the need for Low SAPS oils (Sulphated Ash, Phosphorus and Sulphur), High temperature/shear rate viscosity oils (HTHS) AdBlue to lower emissions.

Using the correct engine oil is vitally important, even if the vehicle is not in warranty. The exhaust after treatment device needs to be looked after so that it can regenerate and clean the soot particles held within, prior to emitting them out through the exhaust, whilst retaining a small amount of ash.

Failure to look after these devices will result in expensive repairs - or even replacement of the unit. DPFs are designed to accept a certain size of emission particle, governed by the specification of the recommended oil for the vehicle. Put simply - using the wrong oil means the emission particles will be of the wrong size and over a period of time will clog the DPF, not allowing regeneration, causing the vehicle to lose performance and power.

Remember - even though the warranty may have expired, the DPF or TWC remains fitted to the vehicle and needs to function properly.

Engine oils are complex formulations to meet the exacting specifications of the engine manufacturer, they are formulated to obtain the desired fuel economy, service intervals and emissions.

The information below outlines the ACEA oil sequences. (Taken from ACEA Website)

A/B: Petrol and Diesel engine oils

A1/B1 Stable, stay-in-grade oil intended for use at extended drain intervals in petrol engines and car & light van diesel engines, specifically designed to be capable of using low friction oils with a high temperature/high shear rate. The oils are suitable for use in some engines. Consult owner manual or handbook if in doubt.

A3/B3 Stable, stay-in-grade oil intended for use in high performance petrol and light van diesel engines and/or for extended drain intervals where specified by the engine manufacturer, and/or for year-round use of low viscosity oils, and/or for severe operating conditions as defined by the engine manufacturer.

A3/B4 Stable, stay-in-grade oil intended for use in high performance petrol and direct injection diesel engines, but also suitable for applications described under A3/B3.

A5/B5 Stable, stay-in-grade oil intended for use at extended drain intervals in high performance petrol engines and car & light van diesel engines designed to be capable of using low friction low viscosity oils with a High temperature/High shear rate. These oils are unsuitable for use in some engines. Consult owner manual or handbook if in doubt.

C: Catalyst compatibility oils

C1 Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines requiring low friction, low viscosity, low SAPS oils with a minimum HTHS viscosity of 2.9 mPa.s. These oils will increase the DPF and TWC life and maintain the vehicles fuel economy. Warning: these oils have the lowest SAPS limits and are unsuitable for use in some engines. Consult owner manual or handbook if in doubt.

C2 Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines designed to be capable of using low friction, low viscosity oils with a minimum HTHS viscosity of 2.9mPa.s. These oils will increase the DPF and TWC life and maintain the vehicle's fuel economy. Warning: these oils are unsuitable for use in some engines. Consult owner manual or handbook if in doubt.

C3 Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines, with a minimum HTHS viscosity of 3.5mPa.s. These oils will increase the DPF and TWC life. Warning: these oils are unsuitable for use in some engines. Consult owner manual or handbook if in doubt.

C4 Stable, stay-in-grade oil intended for use as catalyst compatible oil in vehicles with DPF and TWC in high performance car and light van diesel and petrol engines requiring low SAPS oil with a minimum HTHS viscosity of 3.5mPa.s. These oils will increase the DPF and TWC life. Warning: these oils are unsuitable for use in some engines. Consult owner manual or handbook if in doubt.

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