



Fuelling the Discussion

1st January 2019 - engine legislation change.

Changes to engine legislation will affect many machines regularly used by landscapers and arborists, including chippers. Timberwolf's 'white paper' provides a guide to what is happening and how the company will continue to offer the best range of chippers on the market.

The Legislation

Recognition that diesel engines emit damaging compounds in their exhaust gases has led to an ongoing programme of legislation to limit emissions. This requires engine manufacturers to develop new models to meet this legislation. Machinery manufacturers are obliged to fit the compliant engines to new machines within a specific timescale.

New legal standards have been introduced in 'stages' or 'tiers' to encompass specific groups and power ratings of engines. Regulation (EU) 2106/1628 include engines used in 'non-road mobile machinery'. The key date is 1st January 2019, when 'stage V' requirements come into force.

Currently 'Non-road mobile machinery' includes a range of equipment commonly used by landscapers and arborists, often powered by engines within the ranges of $19 \leq 37\text{kW}$ (Stage IIIA) and $37 \leq 56\text{kW}$ (Stage IIIB). Examples include mowers, self-propelled skid steers, stump grinders and chippers.

Impact on wood chipper machines

Within the industry, most existing hydraulic chippers will not meet the requirements of the new regulations. This means Timberwolf and other manufacturers' machine ranges will either require petrol or new type Stage V diesel engines to be installed, requiring a redesign of current product offerings.

Timescales

Current diesel engines can be supplied until the end of 2018, unless they are within what is known as the transition engine scheme, which most of our range is, being Stage IIIA or IIIB engines. As the manufacturer, Timberwolf is permitted to incorporate these transition engines into a finished machine until the end of June 2020.

How Timberwolf is tackling this issue

Timberwolf will naturally be offering machines with Stage V diesel engines, but we will also offer the customer a range of petrol alternatives.

Stage V diesel engines will be more expensive than the recently launched petrol and current diesel offerings due to the mechanical fuel systems being replaced with more complex and costly high pressure common rail fuel and emission cleaning systems.

In addition, the new diesel engines will require the higher quality EN590 standard of diesel. This is available either from petrol station forecourts as "white" duty paid diesel or from bulk fuel suppliers as the same EN590 standard but dyed red and only for use in machinery, thus saving on the duty. The new EN590 standard for diesel is critically important, failure to ensure this standard will lead to engine damage. In contrast, petrol is of a uniform standard and is suitable for use in the new Timberwolf range of petrol powered machinery.

The Timberwolf Range

Now, with our newly launched petrol chipper range, it allows customers to choose between petrol and diesel engine formats. These petrol engines have been specified and tested to run to the demanding duty cycles required, and are equally durable and suited to the professional working environment. All engines selected by Timberwolf are capable of lasting as long as the rest of the machine if serviced and maintained correctly.

There are further benefits to using petrol engines - some cities have banned diesel usage on plant and machinery within their limits, and many more are planned in the future, but petrol machines can still be used in these locations.

In addition, petrol engines do not require a diesel particulate filter (DPF). DPFs can get blocked if not used regularly in accordance with manufacturer's instructions, which can incur significant service costs to the end user.

Existing Machines on the Market

Customers with existing Timberwolf diesel chippers will still be free to use their machines under the new legislation and will be able to sell on or trade in a second-hand machine. It will also still be possible to purchase a second-hand diesel chipper from the trade and Timberwolf Dealers.

Other Considerations

Petrol is widely and conveniently available for landscapers and tree surgeon crews, compared with red diesel. For more information on fuel storage and supply see the HSE website <http://www.hse.gov.uk/fireandexplosion/petroleum.htm>

