



Rudolf Diesel's high-tech legacy: MAN presents new TGX D38 flagship

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In the run-up to the IAA Commercial Vehicles, MAN is presenting its new TGX D38 flagship vehicle. MAN engineers have created this high-performance truck for demanding transport tasks and heavy-duty haulage, which included developing a specially-designed powertrain with numerous efficiency-enhancing features. At the core of the vehicle is the newly-developed D38 six-cylinder in-line engine with 15.2 liters displacement and an output of between 520 and 640 hp. This completes MAN's launch of high-end additions to its Euro 6 engine range. The D38 stands for MAN's competence in engine expertise – since Rudolf Diesel developed the first engine at MAN, numerous evolutionary steps have turned diesel technology into an indispensable source of power for commercial vehicles. The TGX D38 will be celebrating its world premiere and sales launch at the IAA Commercial Vehicles 2014 (September 25 to October 2) in Hanover.

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The completely redesigned engine combines a number of ideas by MAN's developers, making it a highly reliable and at the same time fuel-efficient motor. The generator set is geared towards reducing overall operating costs over the vehicle's useful life. Key aspects include reliability and a long service life, low fuel consumption and engine maintenance. MAN's TGX D38 deliberately avoids setting any new records in terms of hp and instead, combines high performance with low fuel consumption.

New transmission functions also contribute to achieving this goal. As a result of so-called "speed shifting", the gearbox changes more quickly between the three highest gears 10, 11 and 12. The time interval during which traction is interrupted becomes shorter, which means that more momentum is maintained and the vehicle saves fuel.

The new "EfficientRoll" transmission function has been designed for slightly downhill sections of motorways and roads. However, it also helps to save fuel on almost flat rolling terrain, since the vehicle reacts by itself to slightly downhill slopes en route. The new MAN TipMatic 2 then shifts automatically into neutral gear, allowing the vehicle to roll without the engine braking effect detracting from the vehicle's speed. As a result, the vehicle continues to carry the momentum gained from slight downhill gradients onto subse-



quent level stretches or up slight rises. If the truck accelerates beyond the specified or allowed speed in rolling mode, the MAN TipMatic 2 automatically re-engages the clutch. The clutch also automatically engages as soon as the driver brakes, speeds up or the cruise control accelerates the vehicle in order to maintain speed.

The "Idle Speed Driving" function uses the high torque created by the 15.2-liter engine at very low speed, making slow rolling more comfortable and more fuel-efficient. This is extremely practical in stop-and-go traffic or when rolling up to a roundabout. In driving situations like these, the vehicle continues to roll at idle speed with a closed clutch, provided the driver does not brake.

The new GPS-based cruise control also makes a valuable contribution to saving fuel. "EfficientCruise" registers the route ahead, including any approaching uphill or downhill stretches and adjusts the speed accordingly in order to optimize consumption. Thanks to saved map material, "EfficientCruise" is able to identify uphill and downhill sections along the road ahead. This allows the truck to make automatic use of highly predictive driving techniques by specifically gathering momentum before a hill and rolling over the crest at reduced speed at the end of the rise. By using "EfficientCruise" for long-haul and distribution transportation, a truck's fuel consumption can be reduced by up to six percent without any time being lost en route. This assistance system supports the driver during long hauls by taking over the demanding task of stepping on the gas with great foresight, even for hours at a time.