

Press Release

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April 2013

Easy Stops for Heavy Trucks: Voith Aquatarder Brakes New MAN TGS/TGX

From long-distance haulage to construction site operation: the new heavy MAN TGS and TGX truck series with Euro 6 engines has the universal workhorse for all requirements. A plus in safety is provided by the MAN PriTarder braking system - a combination of pressure-controlled engine brake and Voith Aquatarder PWR. The system allows almost constant braking outputs of up to 610 kW and protects the service brakes.

Until recently, the MAN PriTarder with the Voith primary retarder was only offered for the TGS and TGX variations with Euro 4 and Euro 5 engines. From now on, the efficient and sustainable braking system is also readily available for the new Euro 6 engines. With output ranges from 360 to 480 HP, these engines are virtually pollution-free. Compared to the Euro 5 versions, their particle emissions are reduced by over 60 percent, while their nitrogen oxide output is a massive 80 percent lower.

The wear-free continuous braking system with Aquatarder is optimal for these vehicles. The system performs up to 90 percent of all braking operations and thus keeps the service brake temperature at a low level. This offers extra safety in the event of an emergency. Be it on downward gradients, during adaptation braking maneuvers or in stop-start traffic: in combination with the EVBec engine brake, the new trucks can be safely

braked in all speed ranges from 10 to 80 km/h. At the same time, the useful life of the service brake is significantly extended. With up to 80 percent less brake dust emissions, the system also makes an important contribution to a cleaner environment. Additionally, there are no waste oil disposal worries or workshop stops for oil changes: the Aquatarder PWR is completely maintenance-free.

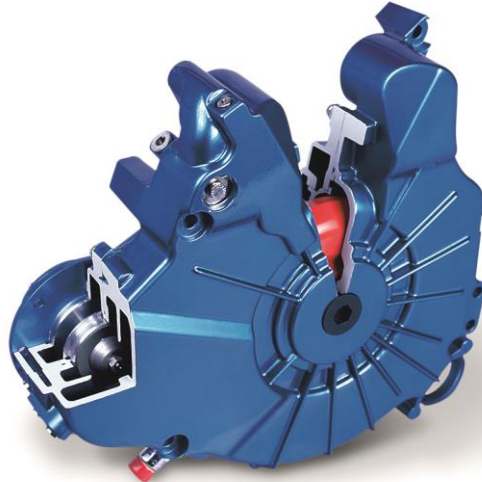
The unit is installed directly at the engine and operates exclusively with the engine coolant. The engine rotor, which is driven by the propshaft, sets the coolant into motion and accelerates it. The water flow is then slowed down by the stator, which counteracts the rotary motion of the rotor. The result: the truck brakes. Braking heat generated during this process is dissipated directly via the vehicle cooling system without the need for an additional heat exchanger.

With only 33 kg, the Aquatarder PWR is an absolute lightweight and thus helps to compensate for the extra weight caused by the Euro 6 technology: due to the compact design of the retarder, the installation space for power take-offs or elements of the vehicle superstructure is not restricted.

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Aquatarder PWR

Voith Turbo, the specialist for hydrodynamic drive, coupling and braking systems for road, rail and industrial applications, as well as for ship propulsion systems, is a Group Division of Voith GmbH.

Voith sets standards in the markets energy, oil & gas, paper, raw materials and transportation & automotive. Founded in 1867, Voith employs more than 42,000 people, generates € 5.7 billion in sales, operates in about 50 countries around the world and is today one of the biggest family-owned companies in Europe.

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