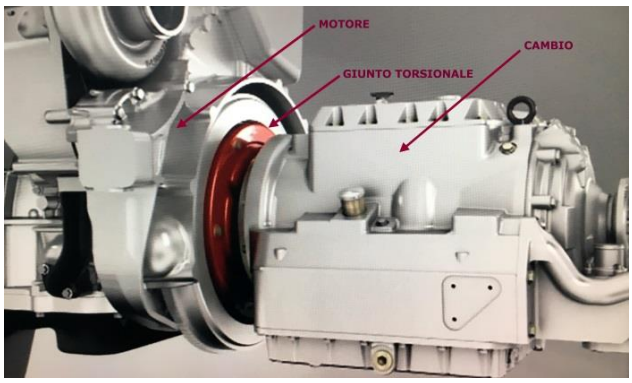
NOTICE TO OUR CUSTOMERS

TORSIONAL DAMPERS for Voith gearboxes

In a transmission of the motion of a motor vehicle, the Torsional Damper, together with the motor flywheel, has the function of dampening the torsional stresses coming from the motor (torsional vibrations, peaks of torque), or to transmit the driving torque, in order to make more fluid and regular the transmission of the motion from the engine, to the gearbox, to the wheels and, therefore, to the vehicle (the bus in our case).
The Torsional Damper is normally interposed between the engine and the gearbox.




In the buses equipped with Voith gearboxes, for example, the Torsional Damper is connected (by screws) to the engine flywheel with its outer casing flange and to the gearbox Input Shaft through the slotted central hub.
The damper contains a series of coil springs of various dimensions that absorb and return the torsional energy and other components which absorb the torsional energy by exploiting the viscosity of the oil of which the coupling is full.

The Torsional Damper duration is closely related to the coupling between gearbox shaft and the central damper hub.
If this coupling is not precise or, in other words, if the backlash between shaft and hub is excessive, the duration of the torsional damper is drastically reduced. In fact, due to the torsional stress from the engine (torque, torsional vibrations and impulses), the backlash between shaft and hub teeth increases progressively over time, up to reach values that lead to theeth destruction.
It is important to be aware that the initial clearence between shaft and hub teeth strongly affects the damper life: the greater is the initial clearence, the shorter is the damper life.
For this reason Dinet dampers and shafts are carachterized by very tight coupling tolerances.

VERY IMPORTANT
During the preventive maintenance of the transmission, both Torsional Damper and Input Shaft have to be replaced with new components. On the base of what said before, if only the damper is replaced, its life will be much shorter due to teeth wear.
In case the Input Shaft will not be replaced, Dinet cannot be considered responsible of shortening of damper life.