



## Breda Lorett presents the new overrunning alternator pulley

### BASIC ANALYSIS

The main aim of this document is to analyse the basic production and functional concepts of two different models of overrunning alternator pulleys.

The characteristics of the system supplied by the aftermarket leader will be compared to those of Breda Lorett's new product, featuring a single closure system.

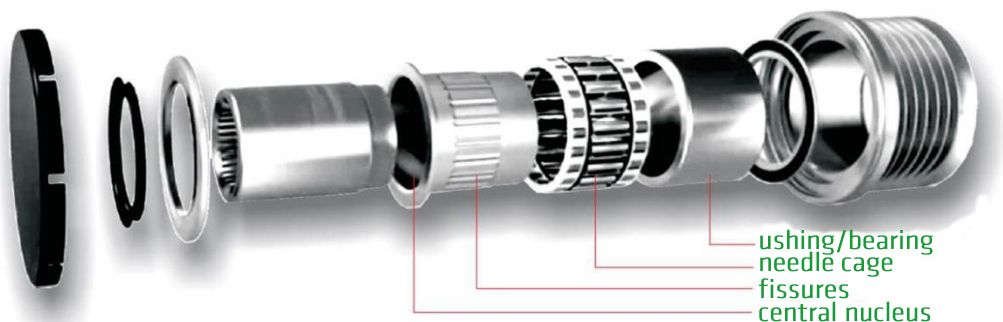
All things considered, they are two high-performance products whose base is formed by the same materials but which feature different surface treatments.

### COMPETITOR'S PULLEY

This pulley's function is based on a central nucleus or axle, which is equipped with a series of small fissures distributed along its length, serving to hold or position a needle cage.

This cage rubs against the bushing or bearing that surrounds it.

It is highly reliable and precise, but its weakness lies in its durability, since entrusting its closure to the fissures on the central nucleus leads to a reduction in the product's lifespan and, at the same time, makes it difficult for it to carry heavy loads in the traction resistance tests.



### WHY IS THE BRED A LORETT PULLEY DIFFERENT?

The Breda Lorett pulley is not a mere reinterpretation of competitors' existing products, it is an entirely new solution aimed above all at improving the functioning of the components subjected to wear and tear.

These basic prerequisites, supported by product testing, have led to the creation of an extremely reliable product with a high level of durability.



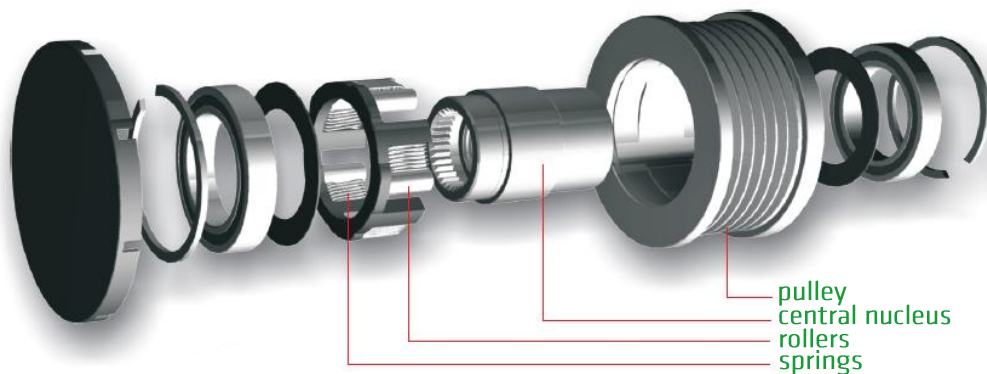
## THE BREDA LORETT PULLEY

The main concept upon which the Breda Loret alternator pulley is founded is the positioning of the nucleus directly on the walls of the pulley through “slip ramps”, allowing the needles to be replaced with high-performance rollers.

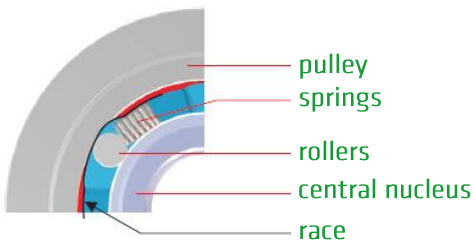
The design of the slope and the curvature of the ramps is the result of extensive studies and tests aimed at maximising the performance and durability of the pulley unit.

In parallel, it was decided to supply a damping system by incorporating compression springs in order to absorb engine vibrations as much as possible, consequently improving the limits of the traction resistance tests.

All this is accompanied by careful materials studies and surface treatments, leading to the creation of a highly competitive product which is absolutely on a par with those produced by the major aftermarket manufacturers.



pulley  
central nucleus  
rollers  
springs



pulley  
springs  
rollers  
central nucleus  
race

