



**Model:** Vespa GTS 300 hpe, MP3 300 hpe

**Subject:** Failure to start with hot engine

Dear Dealer / Service Centre,

We hereby inform you that in order to solve any problems with irregular engine operation, or starting difficulties with engine hot on the Vespa GTS 300 hpe / MP3 300 hpe models, proceed according to the procedure described below.

### **INTRODUCTION**

The better combustion efficiency of the hot engine, in combination with the foreseen ignition advance, entails the achievement of high pressure in the combustion chamber before the TDC

The failure or difficulty starting the hot engine is actually generated by excessive pressure at the end of compression.



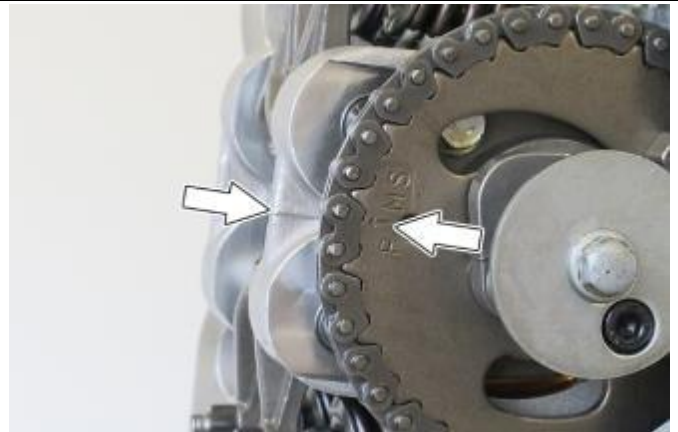
Vespa®



## PROCEDURE

The pressure at the end of compression is attributable to several causes; therefore it is necessary to carry out the following checks:

1. Check the distribution timing by correctly aligning the references of the flywheel and crown-wheel of the distribution with the engine at the TDC



2. Check the correct valve clearance (**Intake 0.10 mm; Outlet 0.15 mm**).





- 
3. Check the correct sliding and the presence of axial play of the decompression mass during the entire excursion with the engine at the TDC (absence of jamming).



- 
4. Check the correct combination of the camshaft and the decompressor classes (A-A, B-B, C-C).





5. Check the rise of the decompression mass from the constant radius of the outlet cam with the mass at rest. The optimal is a rise of **0.45 mm ÷ 0.50 mm**. If necessary combine different categories.



6. Check the pressure at the end of compression, using the dedicated tools and the procedure indicated in the Workshop Manual. If the previous conditions are met, the pressure at the end of compression with an efficient ignition system, **does not exceed 10 bar**.

**N.B.**

The check must be carried out with the battery charged, at room temperature, measuring with a pressure gauge the pressure value (relative) with the engine turning and the corresponding engine revolutions.

#### COMBUSTION CHAMBER PRESSURE CHECK - STARTING

	Engine revolutions (RPM)	Relative pressure (bar)
<b>MIN</b>	400	4,5
<b>MAX</b>	600	8,0



Please accept our  
Best regards,

Piaggio & C. SpA  
Business Unit Aftersales  
Operations & Technical Service