

## TECHNICAL BULLETIN No. 011-2011

06-05-2011

## **Model:** 50 cc 4-stroke 4V scooter engine

Subject: valve clearance check

Dear Dealer,

please note that the maintenance schedule specifies that the valve clearance must be checked and, if necessary, adjusted from the first service onward.

This check is of vital importance as during the initial period of use of the engine, the components of the valve timing mechanism and the valve/seat are subject to settling and bedding-in, which may cause the clearance to respectively increase or reduce.

Insufficient valve clearance may severely compromise the seal tightness of the valve seat, resulting in starting and/or idling difficulties. The resulting wear may be so severe as to necessitate the replacement of the cylinder head due to premature deterioration of the valve seats.

Initial analysis of the running-in process indicated that the effects of the settling valve timing components would prevail over the effects of bedding-in between the valves and seats, and that an increase in valve clearance would therefore be more probable during initial engine usage. In real life usage, however, it has been seen that the bedding-in between the valves and seats is in fact the prevailing factor, resulting in a reduction in valve clearance.

Engines built until now were designed to compensate for the former scenario, with slightly smaller valve clearance values than specifications.

For this reason it is all the more important that valve clearance is checked appropriately at the correct mileage intervals.

Best Regards,

Piaggio & C. SpA Spare Parts, Accessories and Aftersales Technical Support/Service BU