
PuMA measure

K6x starting response with cold engine / catalytic converter

US 65238240-02 - 02/02/21

Complaint:

During a cold start or while idling in neutral after a brief standstill, the engine runs at higher revolutions, sounds irregular and as if there are misfires (i.e. as if it were only running on 3 cylinders).

If the engine is warm, the engine starts / runs without a problem.

Cause

Carburation in the cold run phase
Fuel grade

Measure

The K67 runs at an increased idle speed on a cold start or after a brief standstill. This is necessary to bring the catalytic converter up to operating temperature as quickly as possible. This heating up of the catalytic converter is implemented in all S models (K6x) and in the future will also be implemented in other vehicles with the EU5 exhaust emission standard.

Engaging the clutch helps to increase the rotational speed of the starter motor / engine a little and make starting easier.

In a small number of vehicles there is also irregular idling associated with noises (banging) from the intake silencer in the first 30 seconds or so of this heating up phase.

In the course of the analysis, it was established that the fuel grade has a considerable impact.

1. With I level K001-20-11-501, a so-called "ignition angle regulator" will be included in a first step, which should reduce misfires and optimise the rotational speed level. The irregular engine operation, however, still cannot be completely evened out with this action.

This I level is expected to be commercially available with ISTA version 4.26.2x as of 10 November 2020.

2. It was also established that, depending on the relevant fuel properties during the heating-up phase, the fuel-air mixture is significantly enriched. As general enrichment is not possible for emission reasons, we are currently working on a "mixture regulator". This detects a ride disturbance during the heating-up phase and enriches the mixture individually.

As the use of this second measure is relevant for homologation, its use is not anticipated until I level K001-21-03-500 at the earliest.

These measures come into effect for the K67, K69 and the K66 (M 1000 RR). With regard to the cold-start behaviour of the K83 and K84, the same causes were established and we are currently working on a solution for these motorcycles.

Validity information

Model series: [K67, K69]
Engine range: [ALL]
Body style: [ALL]

Fault codes: []

Production period: -

Repair overviews
