

INTAKE MANIFOLD

 **It is lively recommended to carefully read this document in every part before beginning to work on the vehicle or the motor.**

GENERAL INFORMATIONS

The intake manifold is a very important part for the engine fuel feeding system and a right choice of it secures the vehicle safety, also it influences positively fuel consumption and the reaching of best vehicle performances.

The intake manifold has the function to connect the carburettor with engine in an elastic way securing the perfect keeping of different connections with air and fuel, an adequate resistance to heat's transfer between engine and carburettor.

The right choice of intake manifold is subordinate to the engine model and the diameter of carburettor which suits on engine.

The two extremities of intake manifold have to suit perfectly to the connection flanges that there are on carburettor and engine.

There are several types of intake manifolds. They are different for their dimensions, geometric form and raw materials.

The first two elements of the intake manifold influence the engine performances significantly.

In general, the short and rectilineal intake manifolds favour the reaching of high spin engine's regimes and best power and, so, they are preferable than very long intake manifolds or which have an irregular conformation.

The materials normally used to produce intake manifolds are aluminium alloy or plastic composite materials on which some times there are some parts made in elastomer in order to avoid the transmission of heat and vibrations between engine and carburettor.

The parts in elastomer are used on intake manifolds when it is requested best performances about insulation of vibrations and heat from engine to carburettor.

 **Use the type of intake manifold defined from the applicability table that can be found in the catalogue, on the pages of Web Site, www.adler.it, or demand it by e-mail at the address adige@adler.it.**

ASSEMBLING INSTRUCTIONS

 **The fitting and maintenance operations must be done exclusively by an authorized workshop.**

The assembly of the intake manifold is generally an enough simple operation, it needs few minutes and it does not need of complex operations of preliminary disassembling.

The intake manifold's assembling and disassembling on the engine must be executed respecting all instructions and using all tools defined on the **Producer's Workshop Manual**.

It is advised to apply to a specialized mechanic for the assembling of the intake manifold.

The replacement of intake manifold on engine can require a new control of engine's calibration in according to the prescriptions contained in the intake manifold packaging. The new intake manifold calibration requires a very specific competence and it must be made by a competent person. The wrong calibration of the carburettor can cause serious problems of safety drive and excessive fuel consumption.

If in the intake manifold's box are contained some packing, they must be mounted in agreement with the specific instructions contained in the box. The bad keeping of intake manifold packing can cause problems of safety driver and excessive fuel consumption.

If the assembly of original packing on intake manifold is previewed, it is always advised to mount new original washers and of the type prescribed from the producer of the vehicle. The bad keeping of the packing can cause problems of safety drive and excessive fuel consumption.

The screws of blocking of intake manifold must be locked to the serration brace

defined in the **Producer's Workshop Manual**.

The wrong serration brace of the nut of blocking of the intake manifold can cause problems of safety drive and excessive fuel consumption.

The screws of blocking of intake manifold in bad conditions, must be replaced with a new one of the same type and quality. Their break or their unscrewing can cause serious problems of safety drive and excessive fuel consumption.

It is very important to verify the condition of the intake manifold every 5000 km and every disassembling of the engine or the transmission. The presence of fissures and, in general, the bad condition of the intake manifold can cause serious problems of safety drive and excessive fuel consumption.

GENERAL CAUTIONS

Before starting any maintenance or servicing on the vehicle, always follow a few general rules.

Make sure that the working place is clean, well aerated and perfectly lit.

Always switch the engine off before starting to work on the vehicle. Particularly, the engine must be switched off when operating in closed places without any exhaust gas vent system.

Lift the vehicle with a suitable equipment above a flat hard floor.

Always work in a clean area, wearing working clothes and safety garments or devices as prescribed by law.

Keep off unauthorized persons, the young, particularly children.

Stop the engine, remove the key and wait for the engine and the exhaust system to cool to prevent burns. Pay attention to all engine or vehicle parts (i.e.: exhaust system, braking system) which may still be hot.

Pay the utmost attention to the presence of flames, heat sources or warm objects into the room: most of the liquids in the vehicle are generally highly inflammable.

Never swallow any vehicle or engine component or liquid. Particularly, liquids can be highly injurious or toxic.

Waste lubricant or components must be delivered only to the dedicated waste

disposal centres; they must not be otherwise disposed of.

Always check that the packing is sealed and complete and there are no missing or damaged parts.

Always check the vehicle overall conditions before installing the intake manifold.

It is specially recommended to always follow the instructions carefully for safety reasons. Any and every liability for any damage or injury to persons and/or property arising out of a wrong or inaccurate installation is hereby rejected. An improper use or the modification of the intake manifold, a wrong installation or the installation not in compliance with the prescribed instructions will automatically invalidate any product warranty.

The Intake manifold is a vehicle component for which homologation may be required according to the relevant laws in force.

The intake manifold is a vehicle component subject to the approval of the vehicle manufacturer.

After the installation of the intake manifold the vehicle might require a new homologation.

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