



FIAT 131 ABARTH RALLY GROUP 4 1/20 SCALE ENGINE FOR TAMIYA KIT

The engine is molded in resin with 3D technology using the scale drawings of the original engine block for the design. I have foreseen two versions: The first to be used together with the kit by installing the engine in the hood of the car. The second allows instead to expose the motor on a trolley. In this case the gearbox is replaced by the flywheel / clutch unit and the exhaust manifold is shorter as it does not have to be connected to the kit's muffler.

The engine also exists in 1/24 scale designed for the Italeri / Esci kit

ASSEMBLY

Print media must be cut very gently using modeling nippers. Once removed, the remaining marks are eliminated with sandpaper and, if necessary, it can be grouted. In certain areas it is necessary to remove the inevitable printing lines with abrasive paper.

The engine is composed of a main body while the other smaller parts are printed separately to simplify the coloring and improve the print detail. It is essential, after the preparation of the parts, to use a PRIMER before painting to increase the adhesion of the color and to check any imperfections that need to be corrected.

PULLEYS AND BELTS

Belts and pulleys are supplied double. A molded unit includes a single unit which includes all the valve distribution, the part relating to the oil and petrol pump and finally the belt with alternator pulleys. There are also three belts with relative pulleys separated from each other. This is to have spare parts and to decide whether to color the three parts together or separately. In any case, on the motor body there are supports of the right height to align the three systems. Given the delicacy of the belts, you must be very careful when removing the print media. In case of breakage, the cyanoacrylate glue is excellent for bonding the resin.

INSTALLATION SEQUENCE

If you use the complete molding of the belts / pulleys it is sufficient to position the part on its supports taking care to completely clean the back of the pulleys which must not have thicknesses as the right heights are already established on the motor body.

If, on the other hand, the three separate parts are used, the first to be installed is the head / distribution unit

Il secondo gruppo da installare è quello della cinghia/pulegge della pompa della benzina/olio. La puleggia di trascinamento deve essere incollata sopra la puleggia rossa del primo gruppo come si vede nei disegni sotto.

Finally, the third group (alternator / water pump) is installed by superimposing the motion pulley (the only one of the three that has no holes on the circular surface) over the crankshaft pulley.

Then the two coolant T-sleeves can be inserted (one on the water pump outlet inclined approximately as in the drawing above and the other on the engine head).

On the left side of the engine then the oil filter (blue part), the starter motor (black part) and the 4 intake horns (cream) must be inserted as illustrated below.

On the right side, instead, the distributor and the exhaust manifolds are inserted (short in the version on trolley and long with fitting if to be included in the tamiya kit)

Trolley version

Engine insertion in the tamiya kit

Before inserting the engine it is necessary to remove the gearbox support on the car chassis (the one indicated in point 9 of the kit instructions) and the pin from part C28 of the kit)

The engine can then be positioned with gearbox and exhausts installed. The connecting pipe that joins the exhaust manifold to the muffler of the kit is slightly longer and must be made to measure (this to leave room for engine positioning). Kit part B14 must not be used.

It may be necessary to file some plastic from the inside of piece B21 to make room for the exhaust manifold.

ENGINE TROLLEY

The motor body used on the trolley has a different oil pan than the one used in the engine block to be included in the kit. In fact, the right cup with cooling fins, due to the breakdown of the tamiya kit, was replaced with the flat road cup otherwise it was not possible to insert the engine into the car. In any case, everything will be hidden by the protective sled. On the motor inserted on the trolley, on the other hand, the sump is the correct one. The carriage support arms are not symmetrical.











