1:32 **3216**

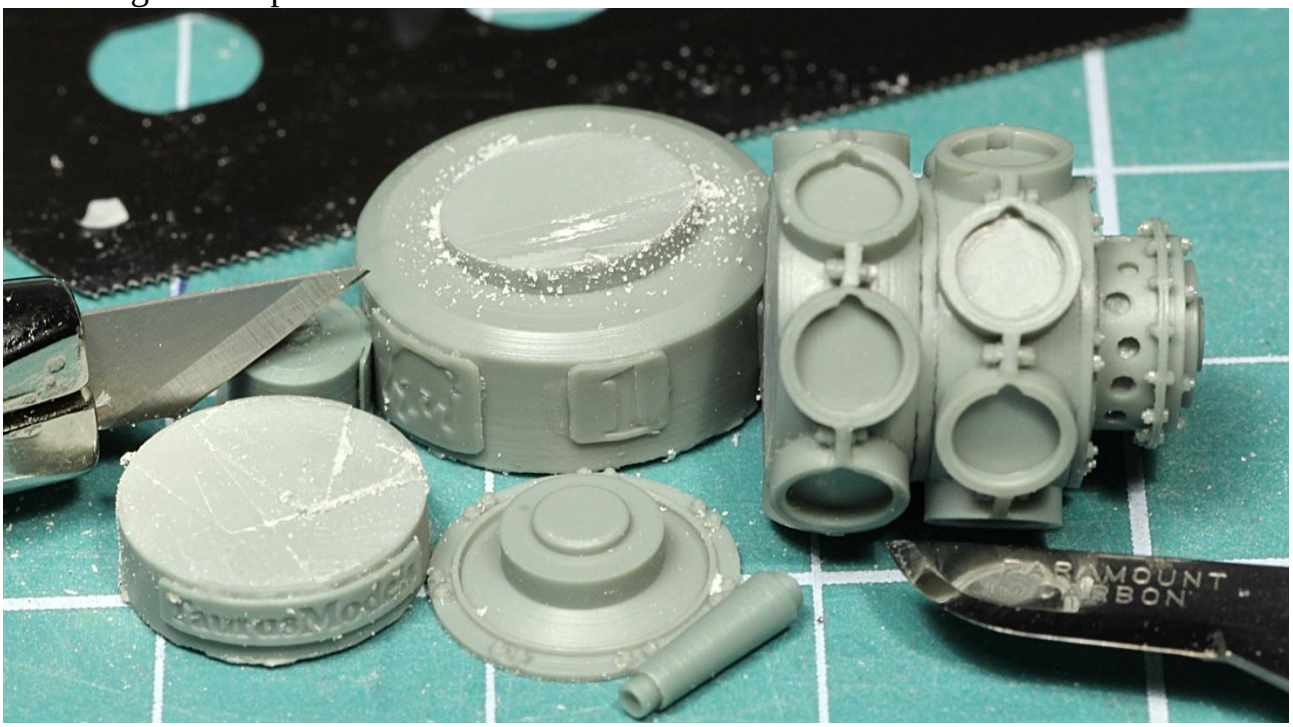
Oberursel U.III

German rotary engine

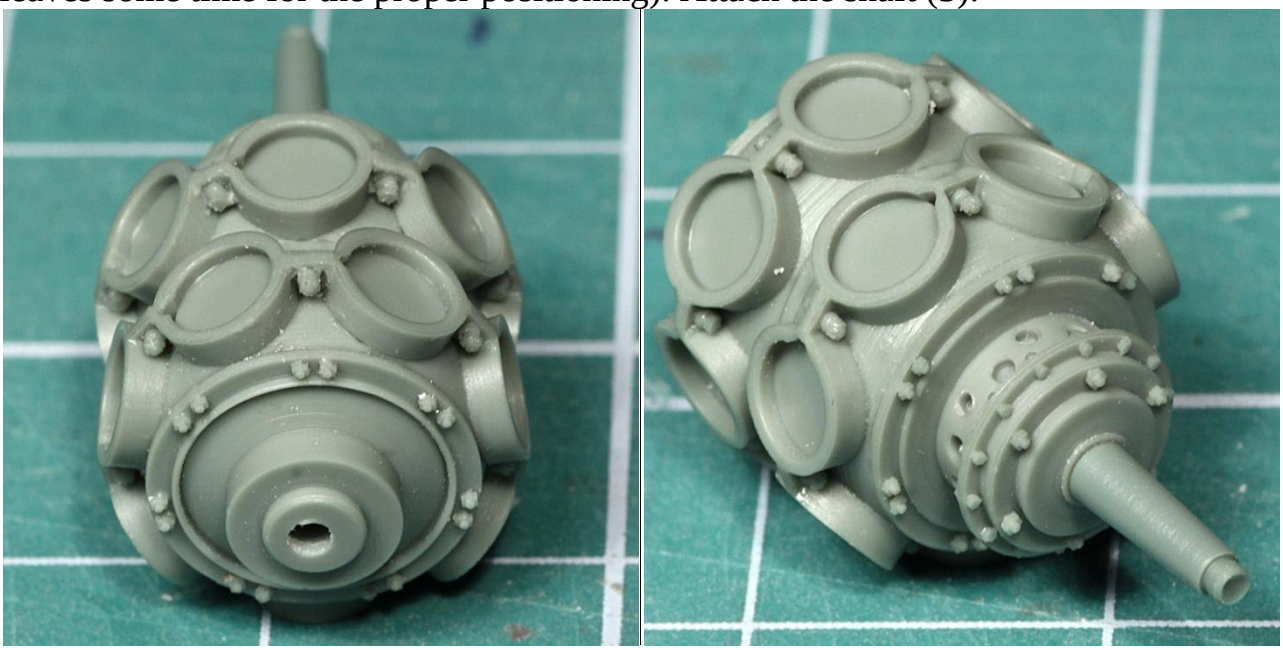
Detailed instruction

Construction of crankcase

Remove the main part of the crankcase (1), back of crankcase (12) and shaft (3) from its casting block using a razor saw or a modeling knife. Leave a little margin of resin. Remove the excess material using a milling cutter. Instead of a milling cutter one can use a surgical scalpel.



Connect the crankcase elements (2) and (12) using a two-component epoxy glue (this leaves some time for the proper positioning). Attach the shaft (3).



Additional hole at the back of part 12 can be helpful for further assembly - the match or skewer can be used for holding.

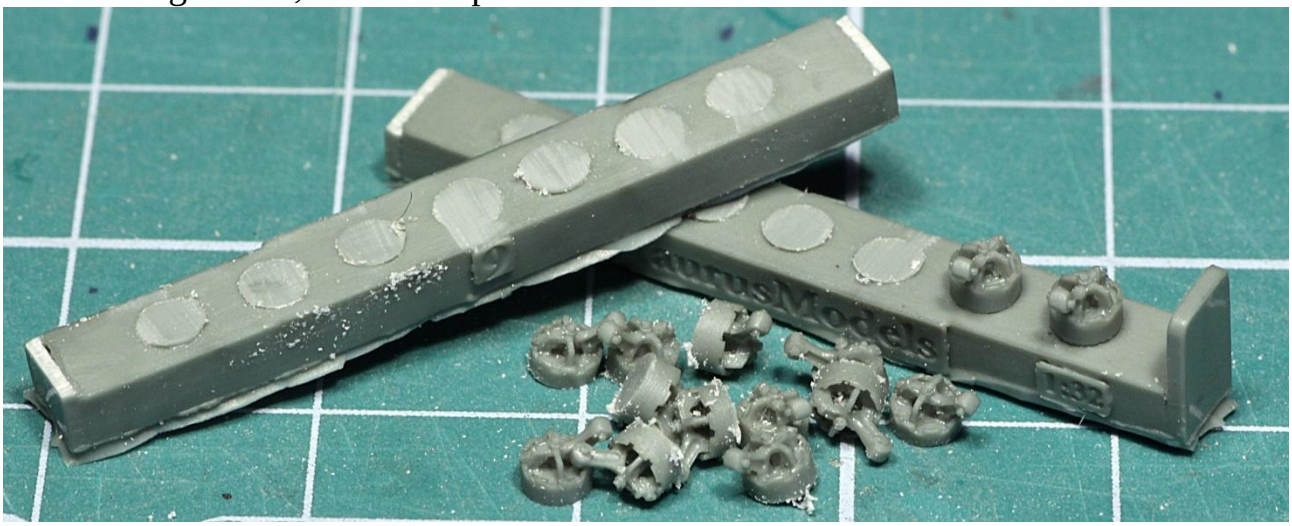
Cylinders placing

Cut the cylinders from their casting blocks.

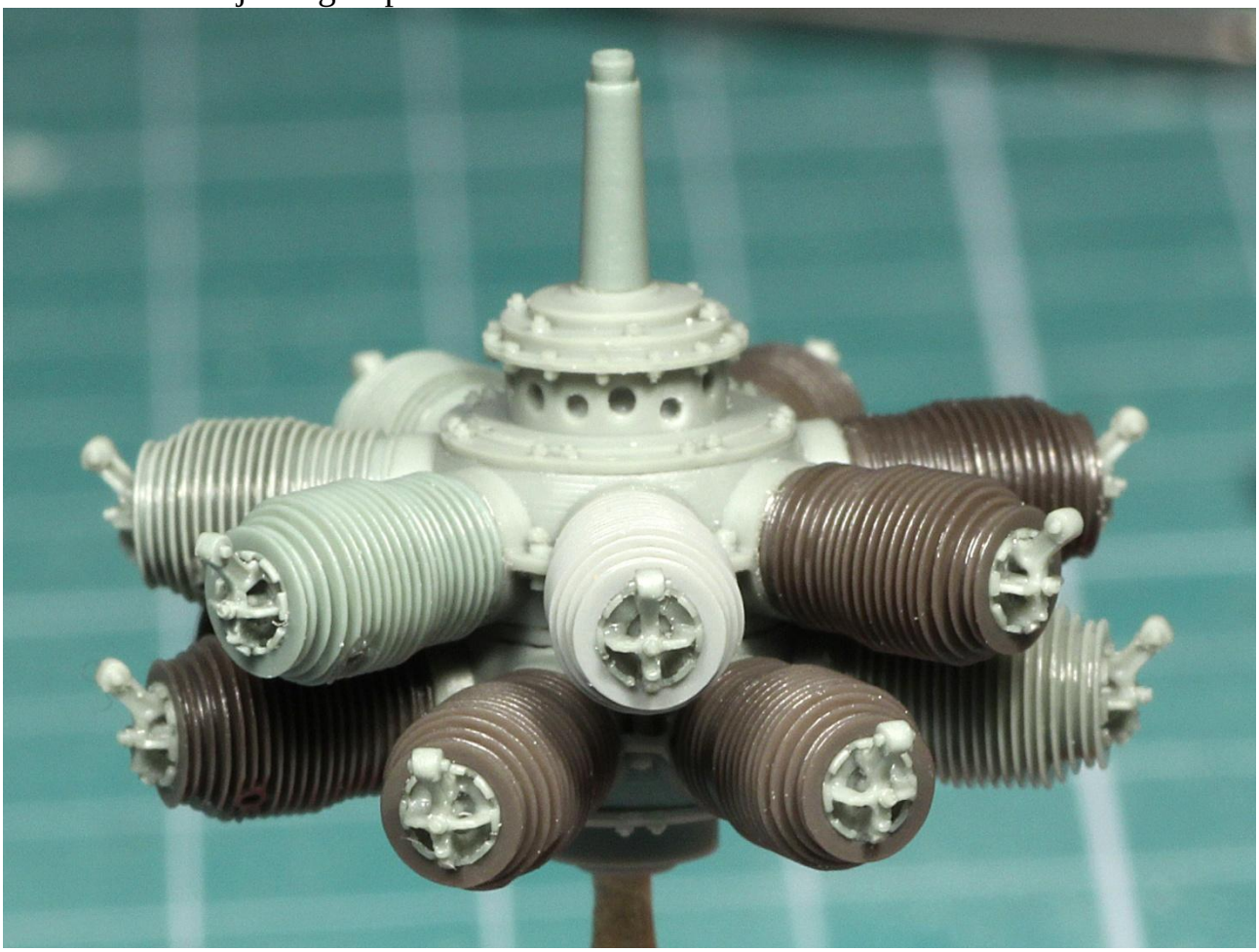
Place the cylinders in the holes in the crankcase - only one correct position is possible. For best results use a two-component epoxy glue to have enough time for the correct alignment of the elements.

Construction of the valve cages.

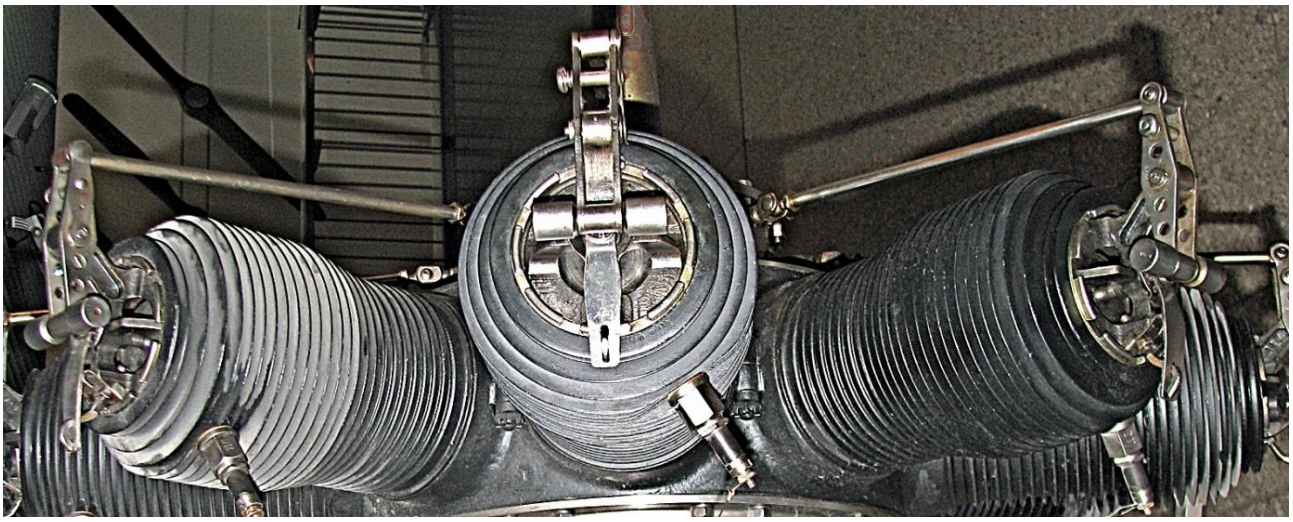
Now You can place cylinders heads (9) on the place. Firstly cut-off those elements from casting blocks, like in the picture below.



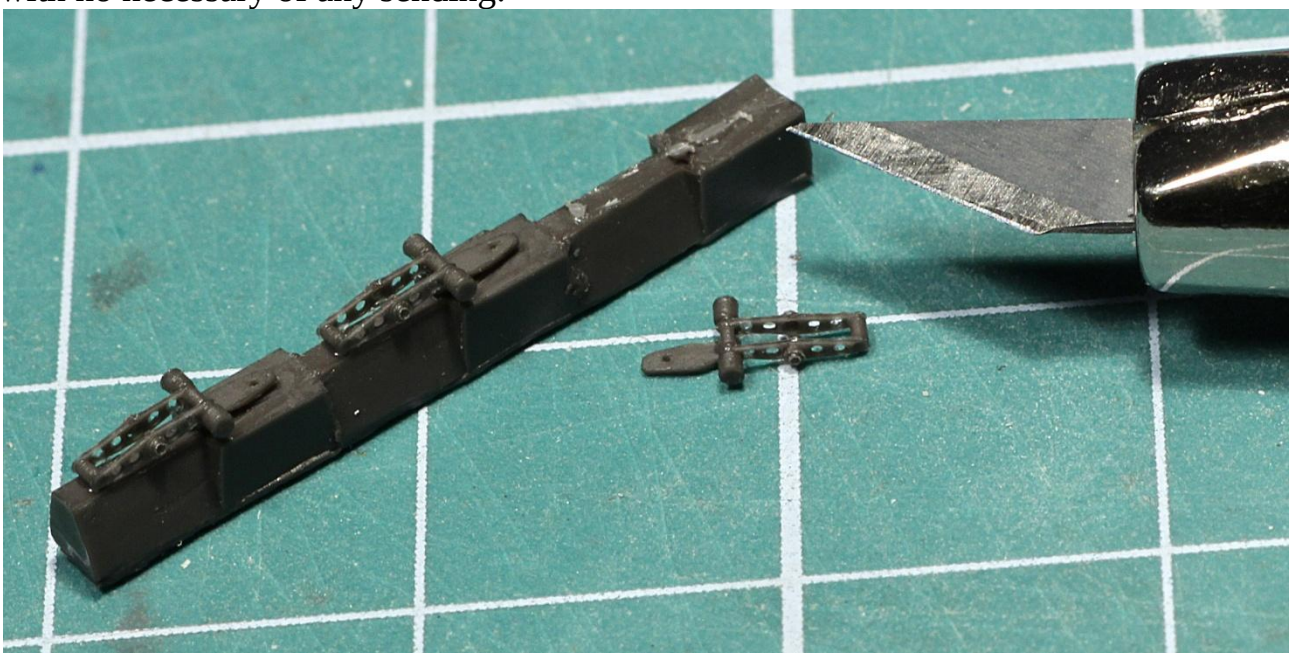
Next put the heads into the holes in cylinders. Use two-component glue, in order to have time for adjusting of positions.



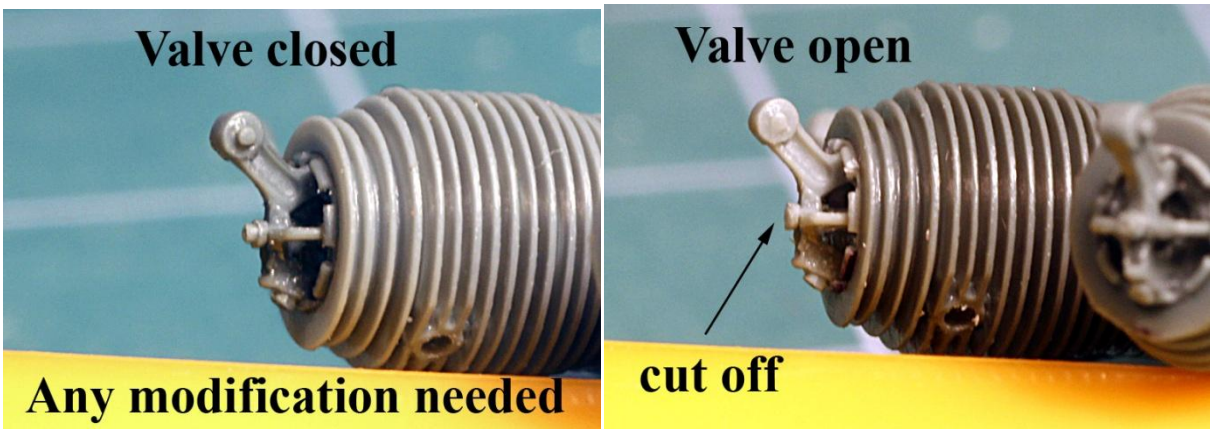
Be sure of the correct geometry of the cylinders heads.

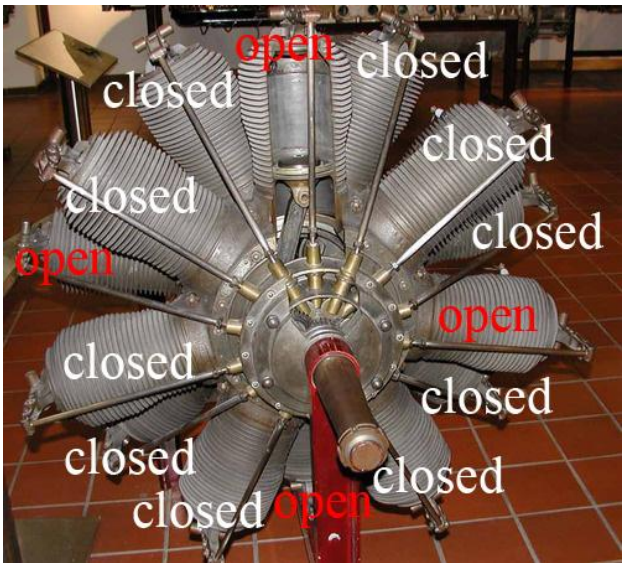


And now crucial moment in Oberursel's assembly: cutting of the valve rockers arms (element 5) from the casting blocks. It's very easy, but: **DO NOT USE RAZOR SAW OR SENDING PAPER. USE ONLY VERY SHARP MODELING KNIFE**! I'm using Olfa AK-3 with a new blade. Few fine cuts, and You have perfect element, with no necessary of any sending.



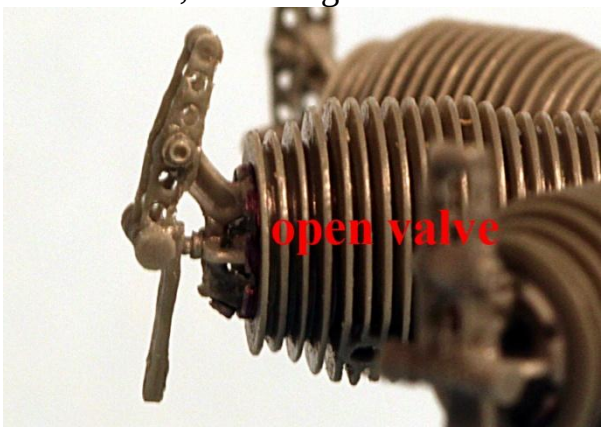
Now You should consider, if You want to show ignition sequence. In the case of open valve, You should modify cylinder's head just a little, as shown into the picture below.

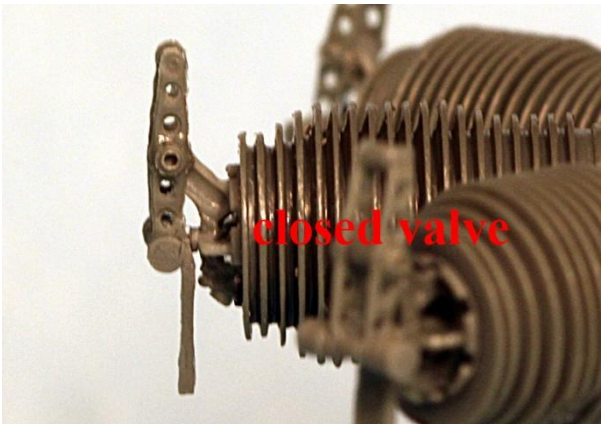




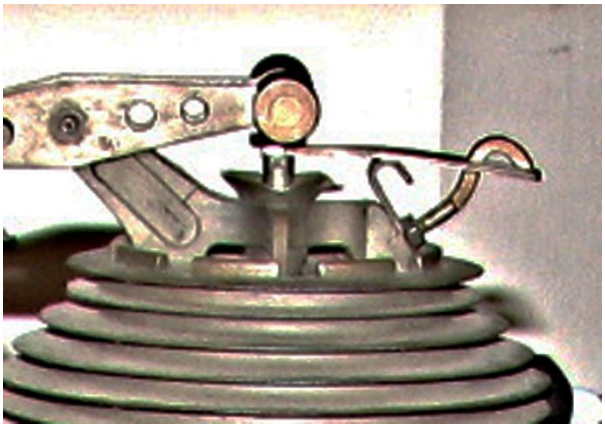
The valves sequence is as follow: **closed, open, closed, open, closed, closed, closed, closed, closed**.

And assembling of valve lifters (5) to cylinders head. It's really easy - You can mount it on "click", and use glue for stabilization.

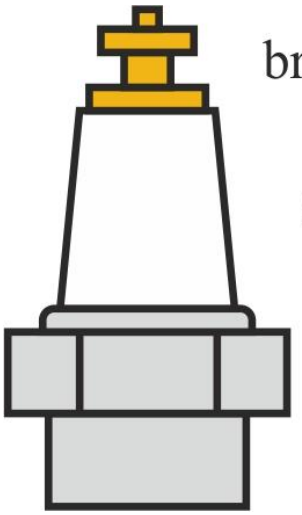


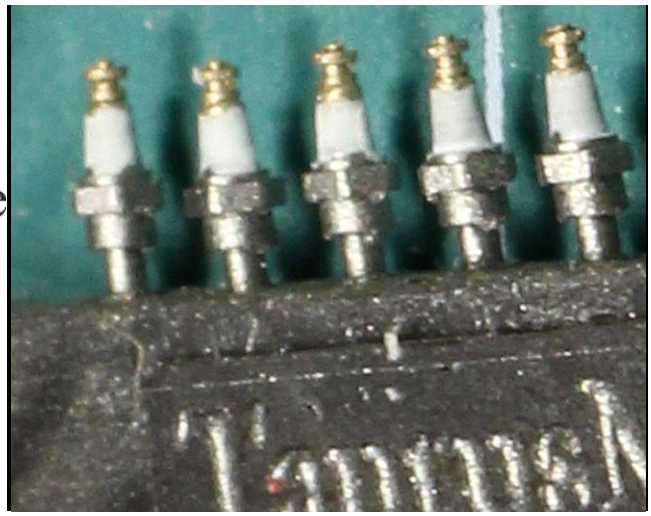


Next You should make imitation of the valves springs. To this end you can use attached wire with diameter of 0,2mm. Cut appropriate piece of wire, bend it and thread this through a hole in the element 5. Next use cyanoacrylte glue for attaching it in correct position

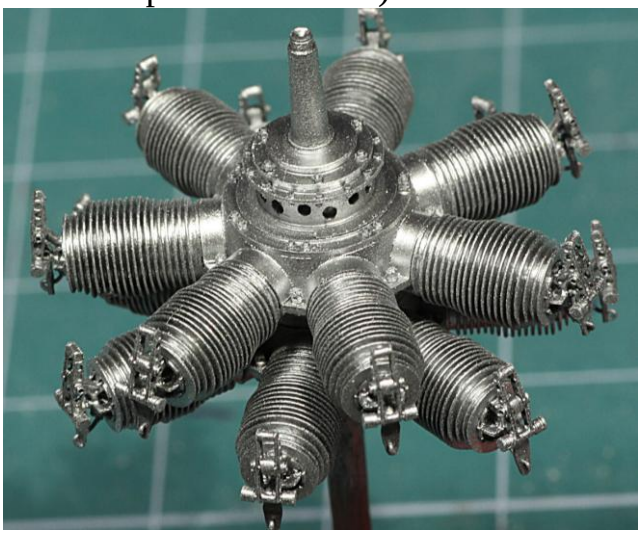


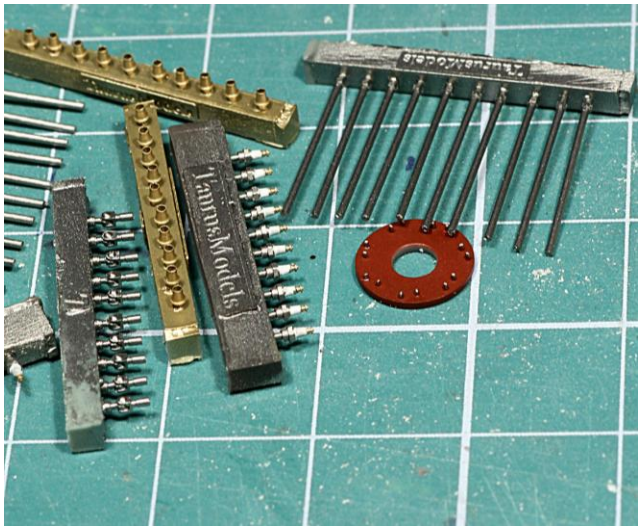
Now it's good time for painting. The spark plugs (4) should be paint according to the following scheme:



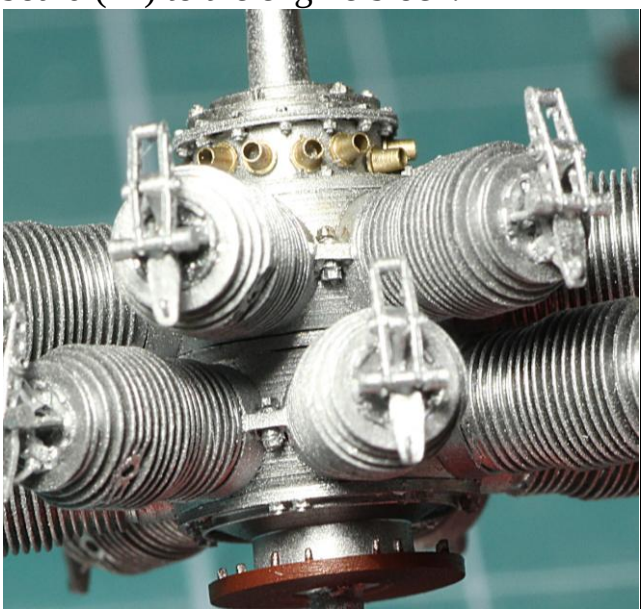


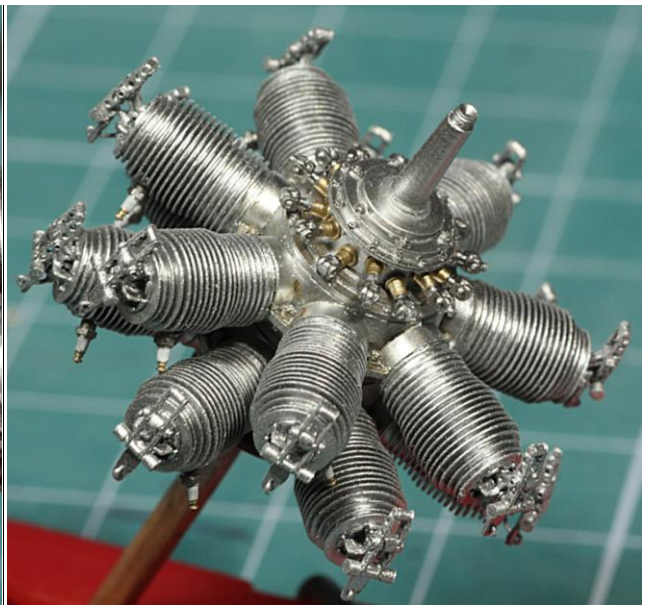
Paint each elements on steel color (I used Gunze Super Iron SM02) instead of back plate of the engine (backelite color) and tappets bushes (part 8) - brass color (I used Gunze Super Gold SM03).

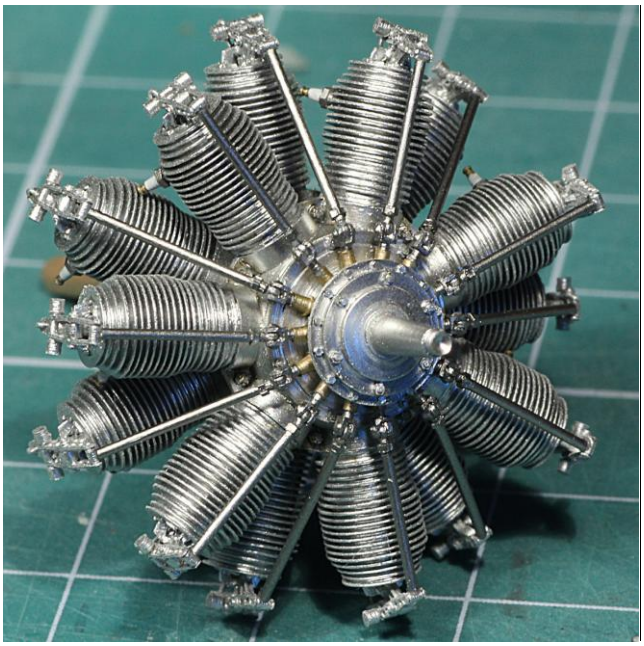
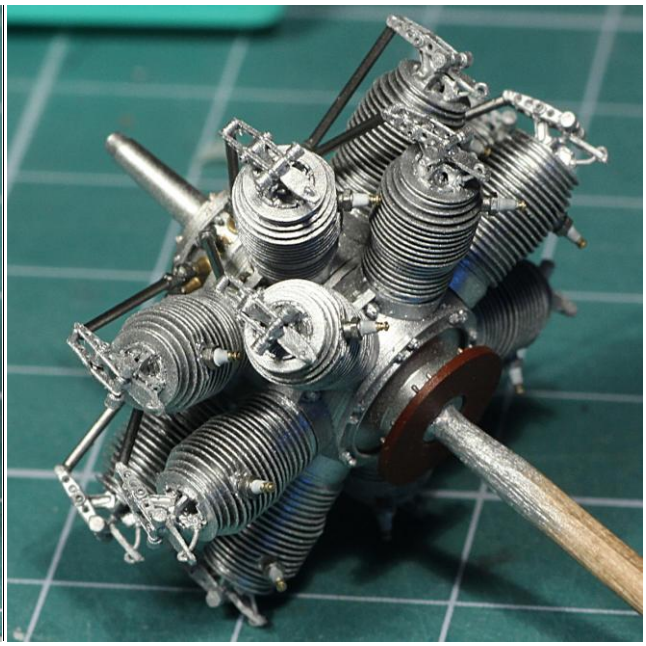




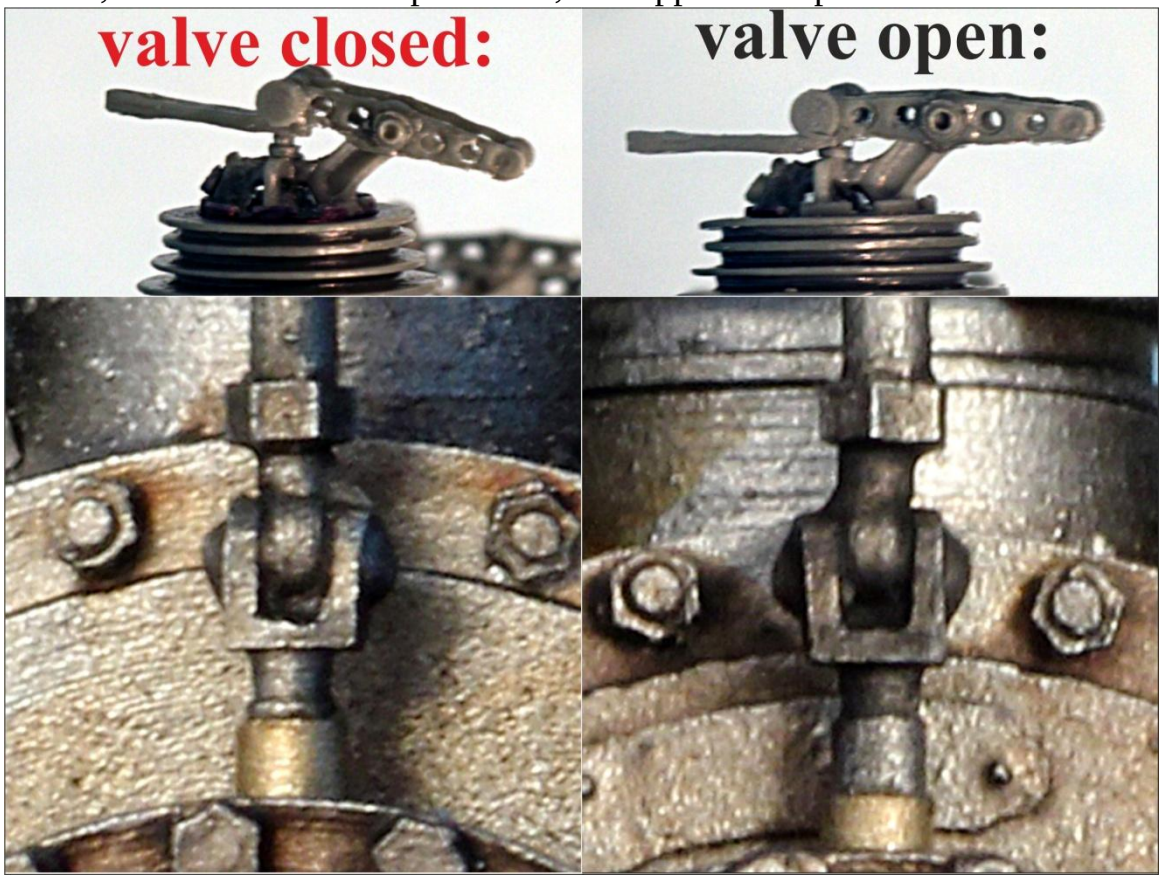
Now You can mount tappets bushes (part 8), tappets (part 7), and push rods (part 6). Locate the painted spark plugs (4) in the holes in the cylinders. Attach the electric board (11) to the engine block.



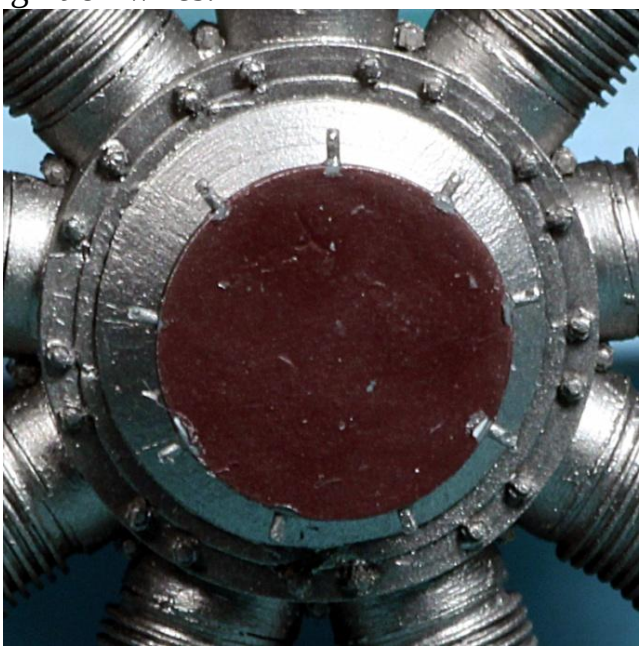


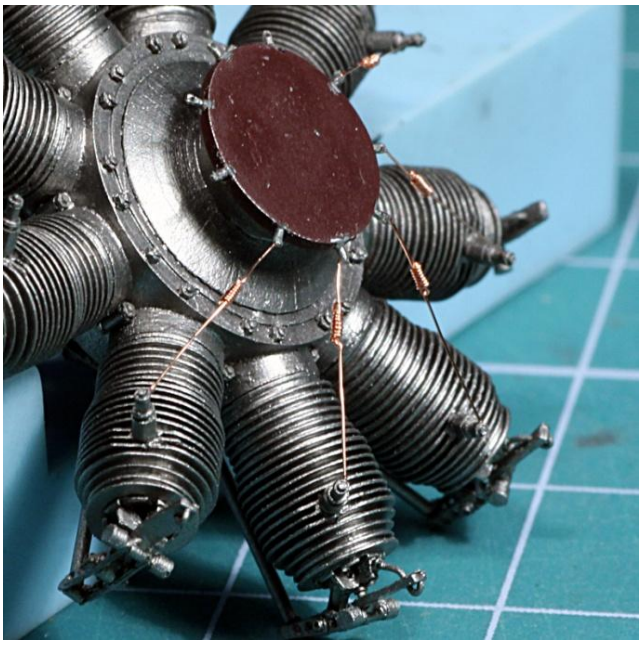



Remember, that in the case of open valve, the tappet is deeper in bush.



Now You can mount of clamps of ignition wires (part 10) in back plate of engine, and ignition wires.





OK, almost ready! Just a little wash (or no) and ready to run :)