

CARNET D'INSTRUCTIONS

**CONSTRUCTION,
ENTRETIEN
ET
CONDUITE
DES
AUTO MITRAILLEUSE MINERVA**

**MINERVA
SANS
SOUPAPES**

**4 CYL. - TYPE KNIGHT
ECHELLE 1/35**

MINERVA MOTORS, Soc. Anon. - ANVERS

Important Notes

- Read the instructions carefully before starting the assembly.
- Use glue intended for plastic models.
- Choking hazard. Keep small parts and plastic bags away from children.
- Always wear protective eyewear when cutting and a protective mask when painting, glueing and sanding.
- Use paints designed and suitable for plastic model kits.

Symbols Reference

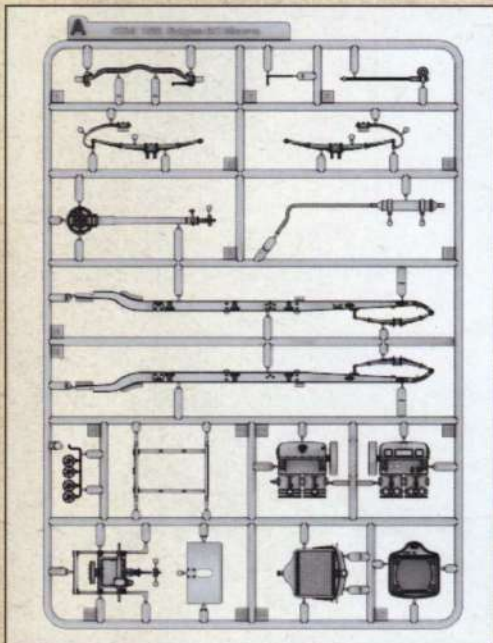
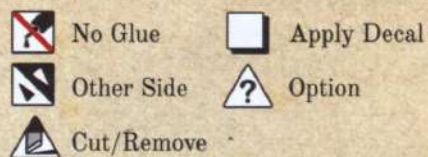


Fig. 1. Runner A

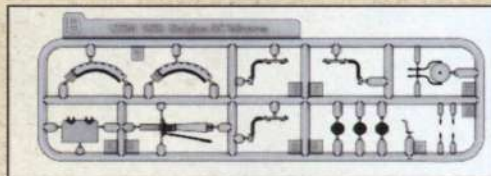


Fig. 2. Runner B, 2 pieces

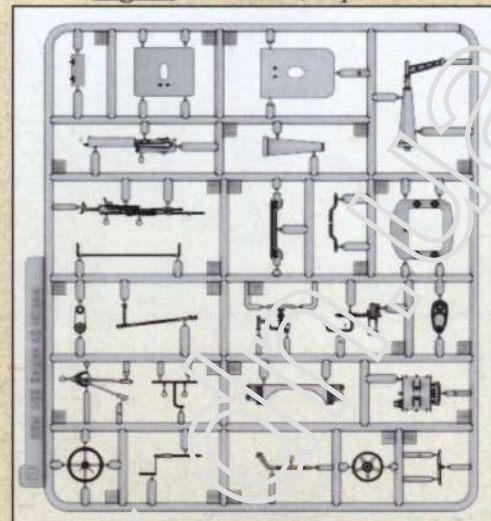


Fig. 4. Runner D

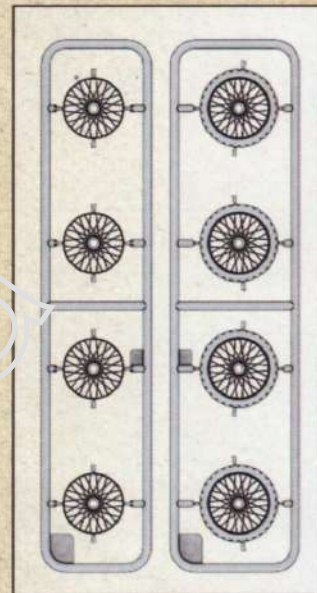


Fig. 3. Runner C, 2 pieces each

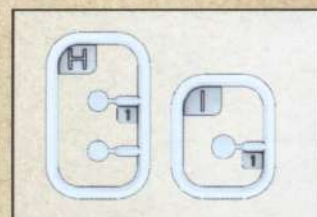


Fig. 5. Runner H and I

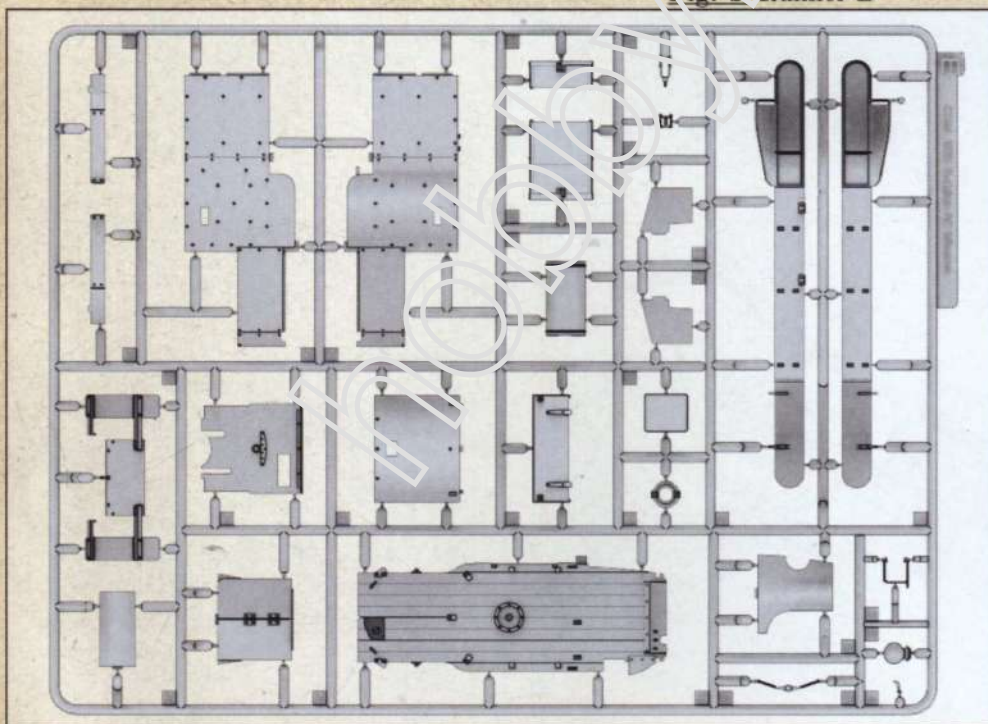


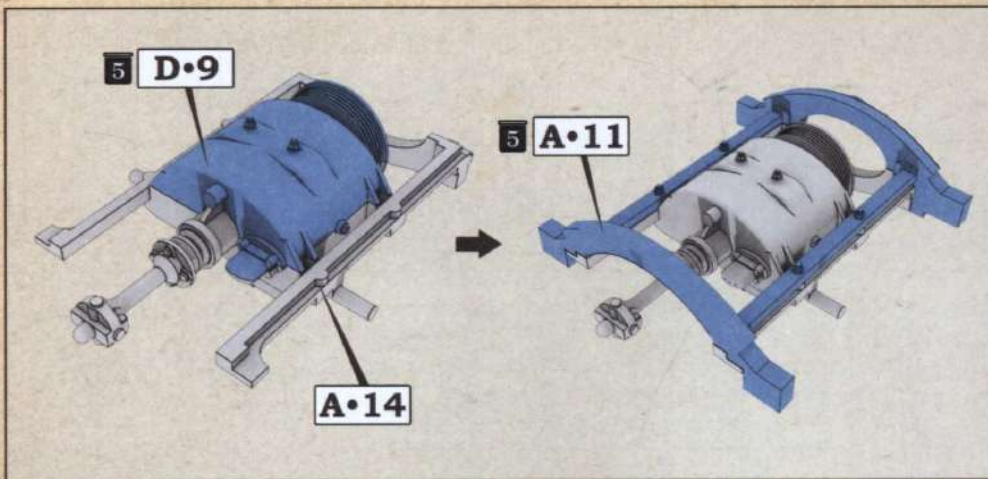
Fig. 7. Runner E



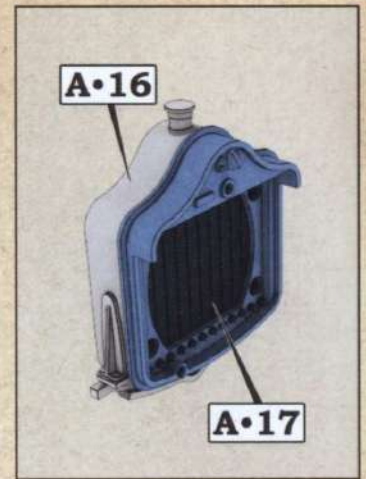
Fig. 6. Decals

Colour numbers

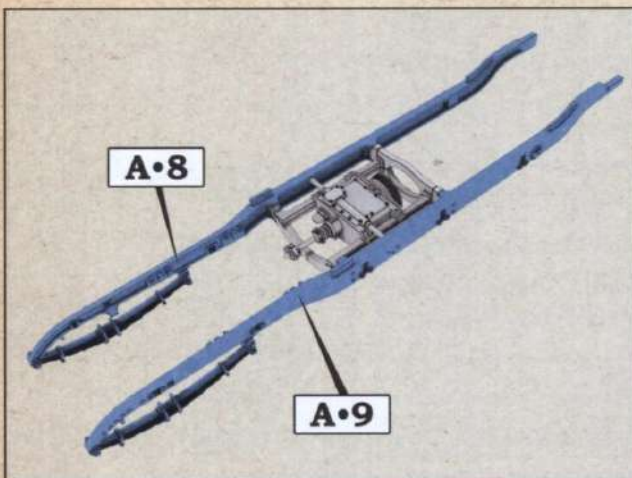
1 Pale grey/elephant grey	4 Steel	7 Wood	10 Gun metal	13 Ocher clear	16 Dark blue
2 Aluminum	5 Black	8 Leather	11 Rubber (light)	14 Dark red ocher	17 Grey
3 Copper	6 White	9 Brass	12 Grass green	15 Grey blue	18 Bakelit



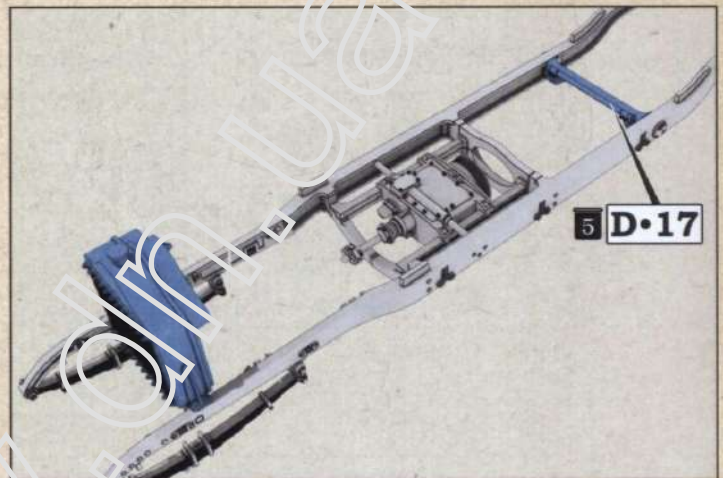
Step 1. Installing gearbox into the gearbox frame. Check Fig.11 for colour reference



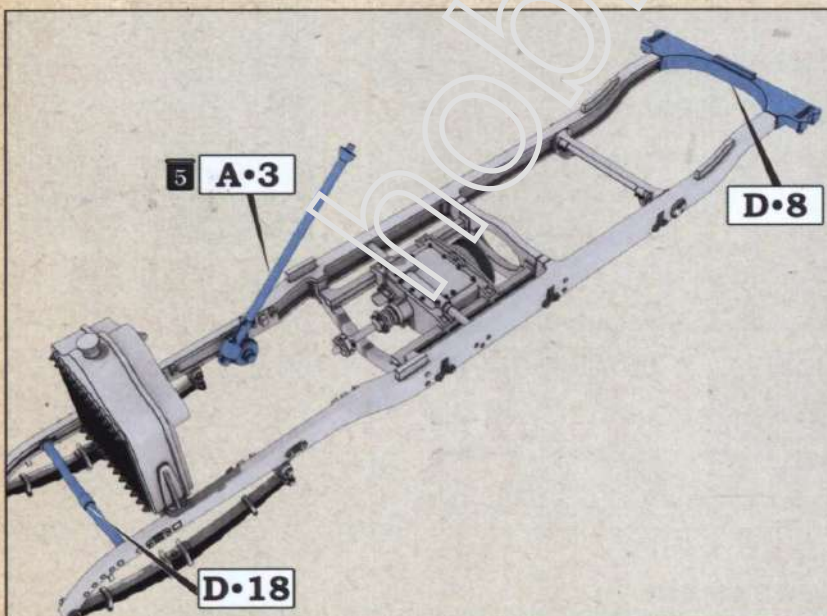
Step 2. Assembling the radiator. Check Fig.12 for colour reference



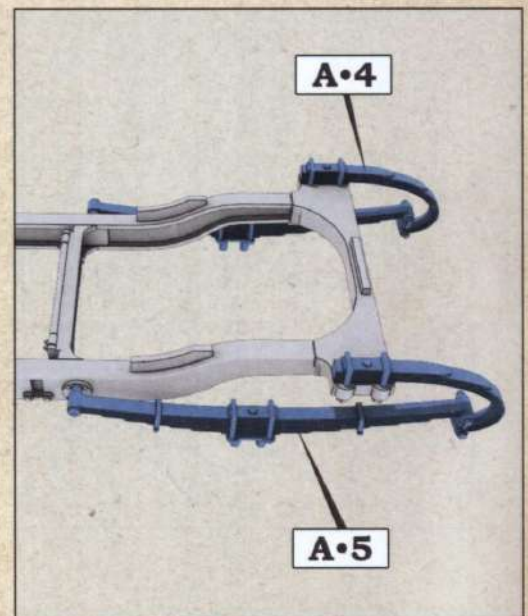
Step 3. Installing both side rails



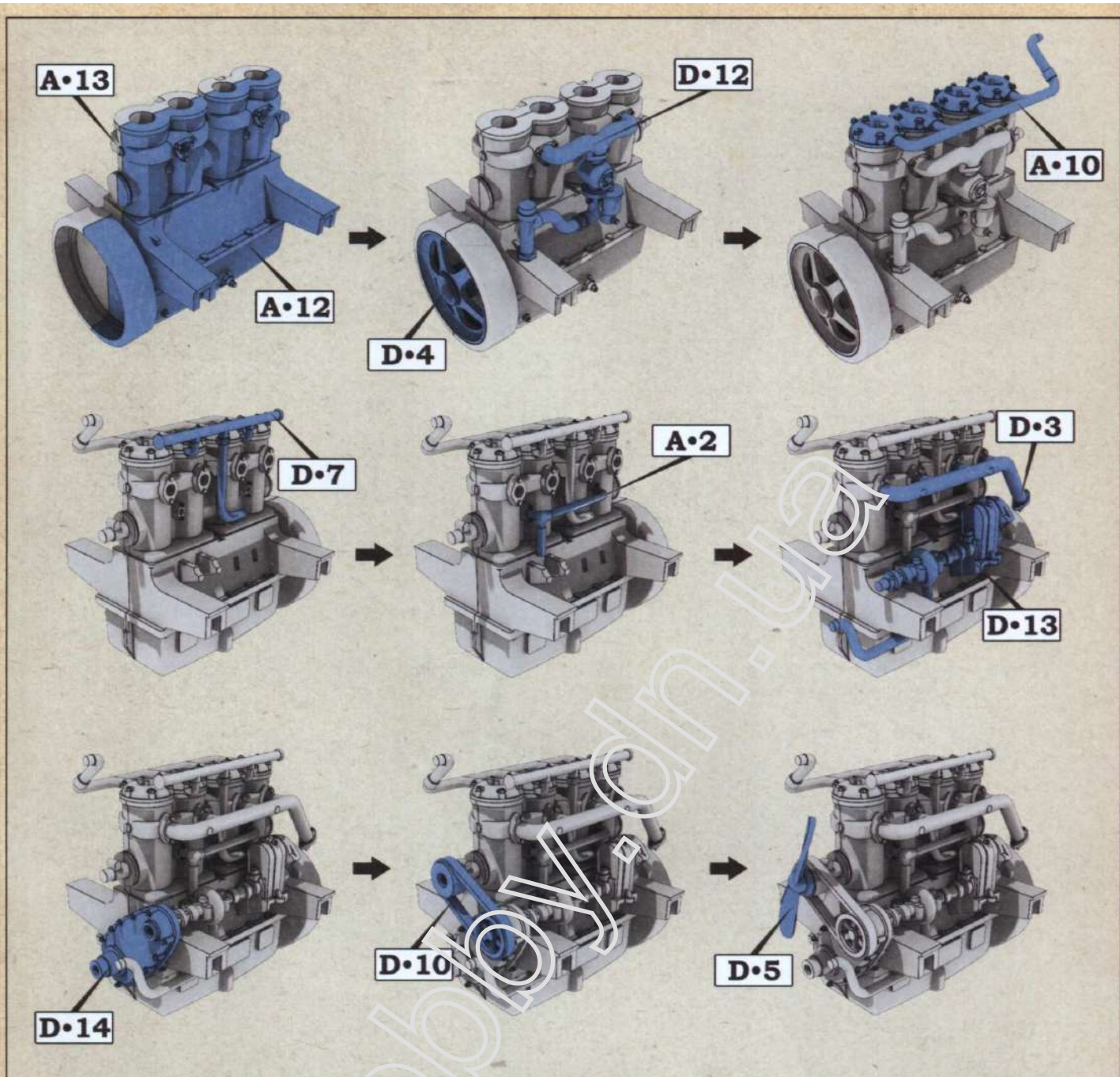
Step 4. Installing the radiator and a cross member



Step 5. Installation of the front cross tube, rear cross member and steering gear box with column. Check Fig.11 for colour reference



Step 6. Installation of the rear cantilever springs



Step 7. Engine assembly

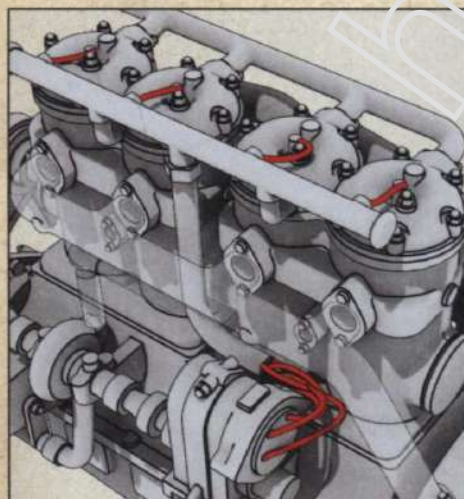


Fig 8. Engine wiring (from the spark plugs to the magneto, through a wire housing)

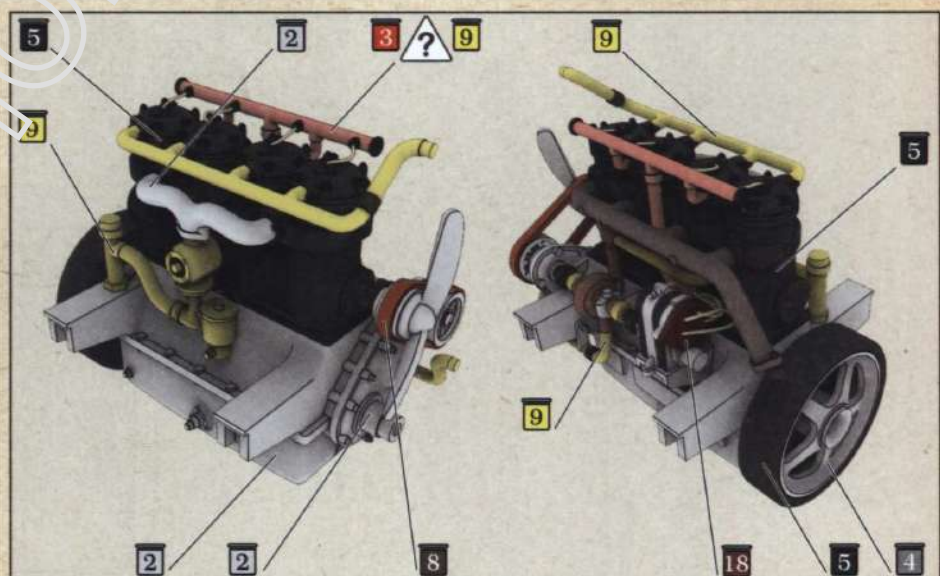
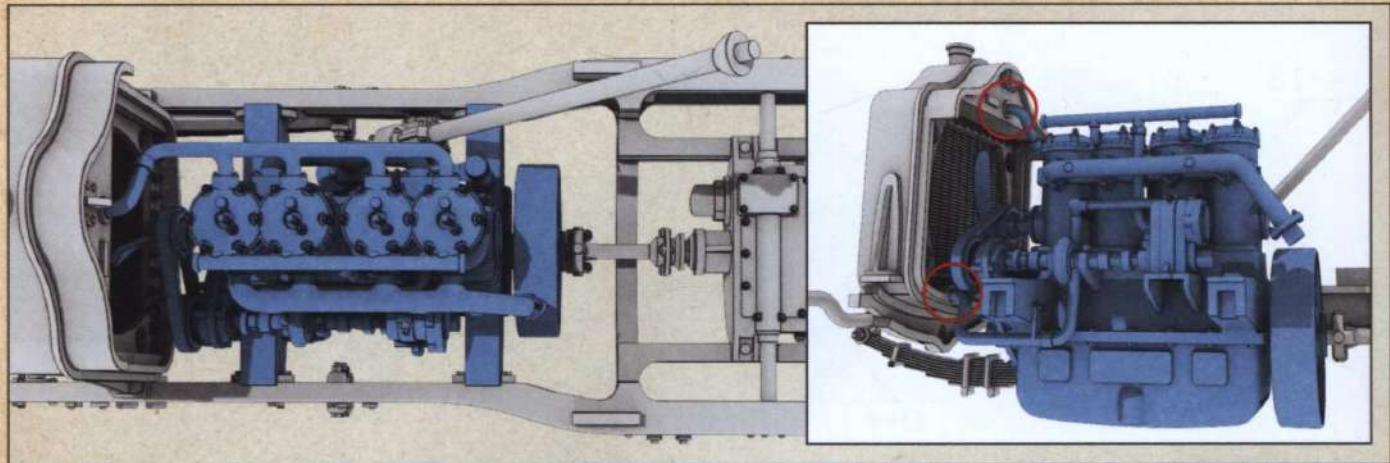
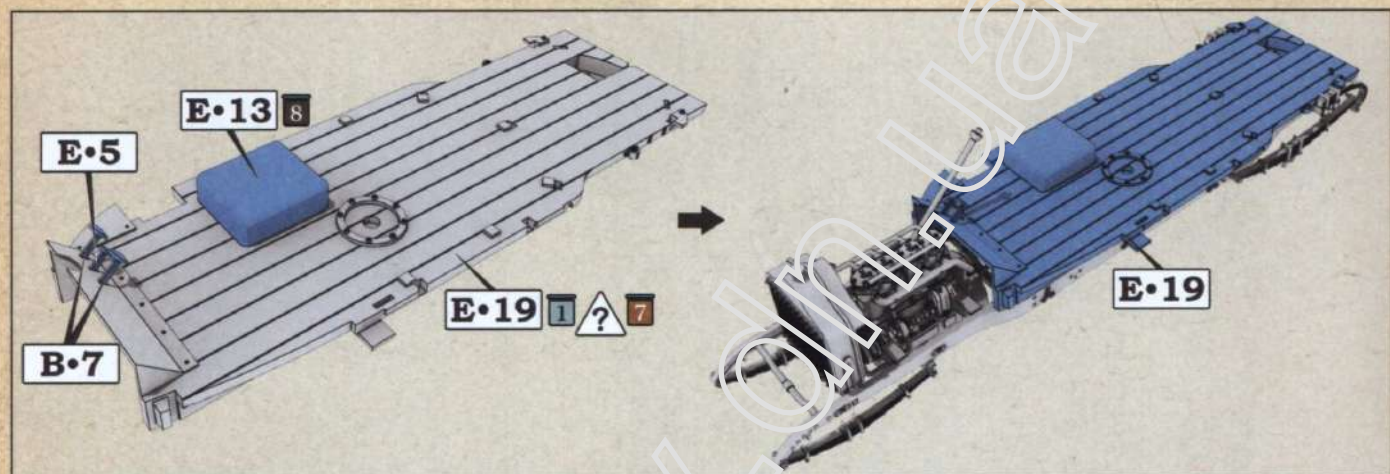


Fig 9. Engine colours



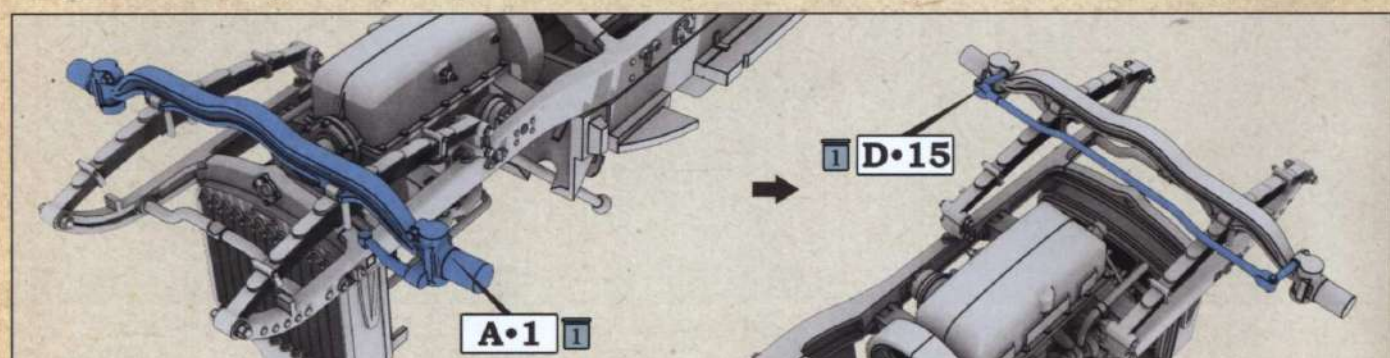
Step 8. Installing the engine



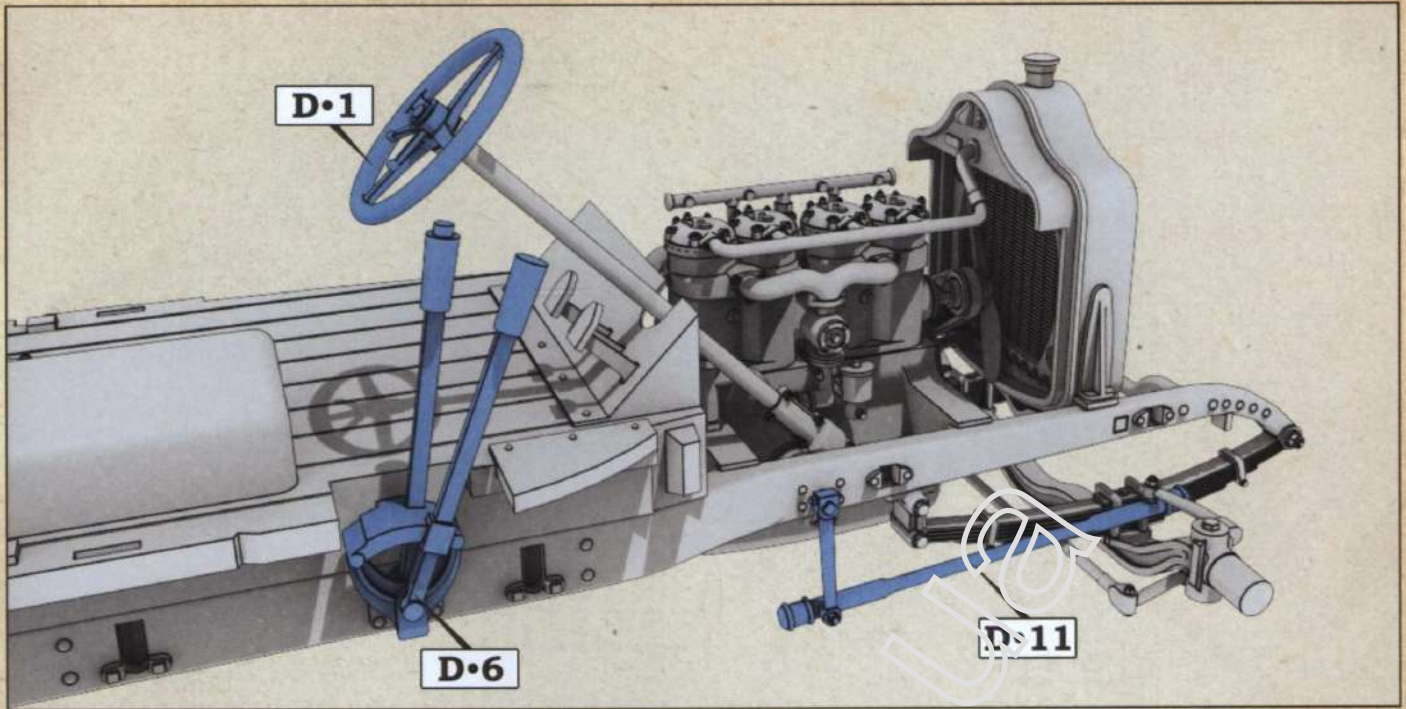
Step 9. Assembling and installing the wooden floor with pedals and a driver's seat. Check Fig.11 and 14 for colour reference



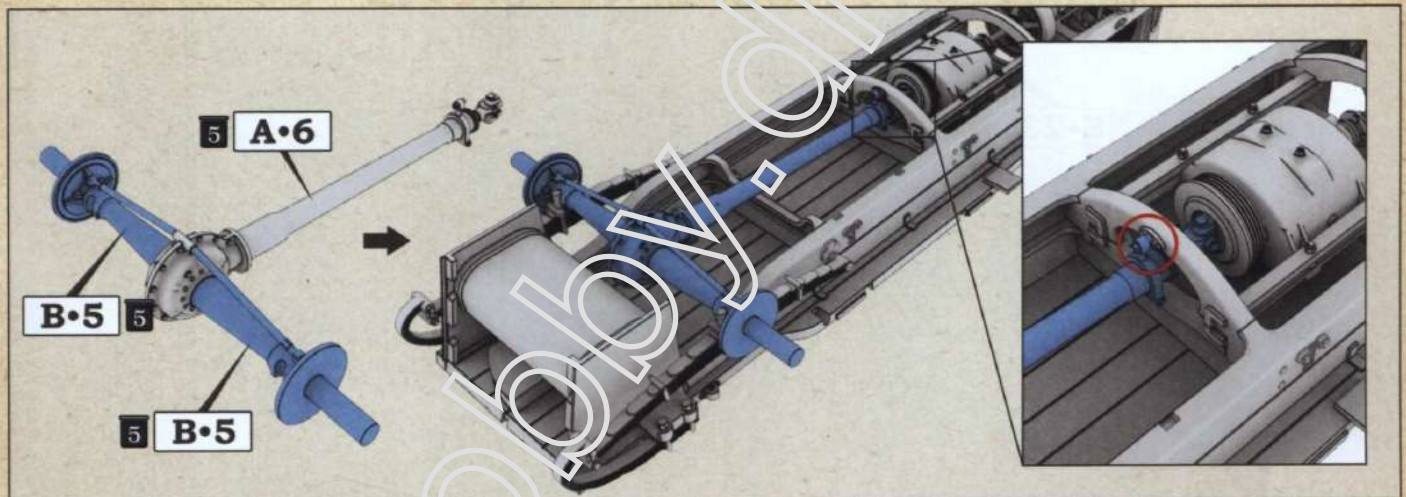
Step 10. Assembling and installing the fuel tank with the side armour protection



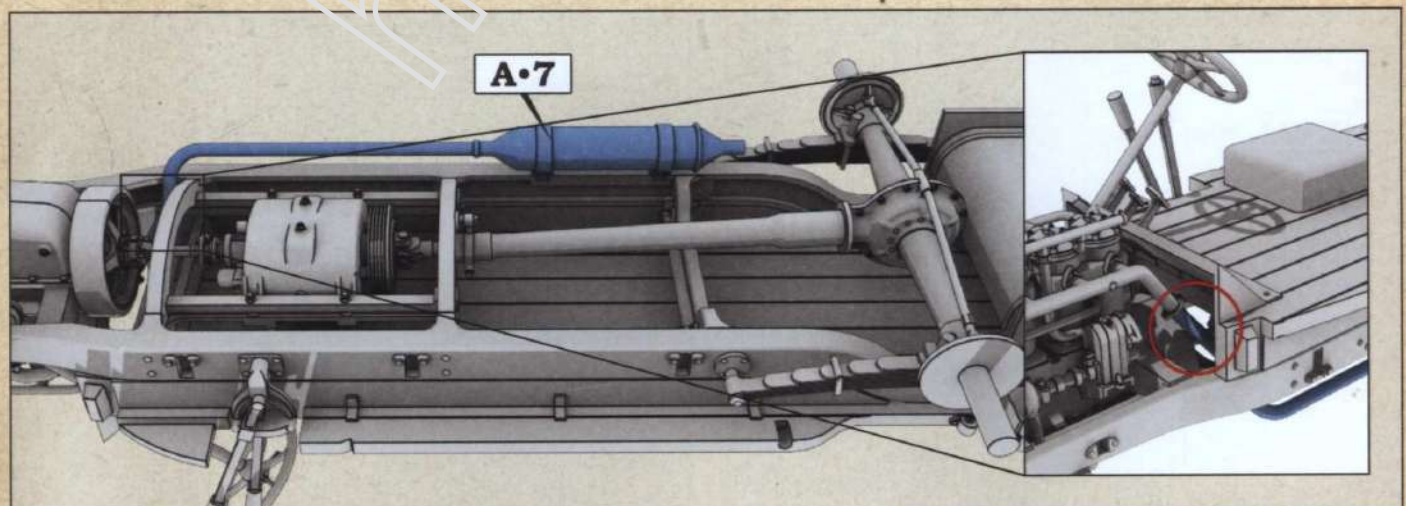
Step 11. Installation of the front axle with the track-rod



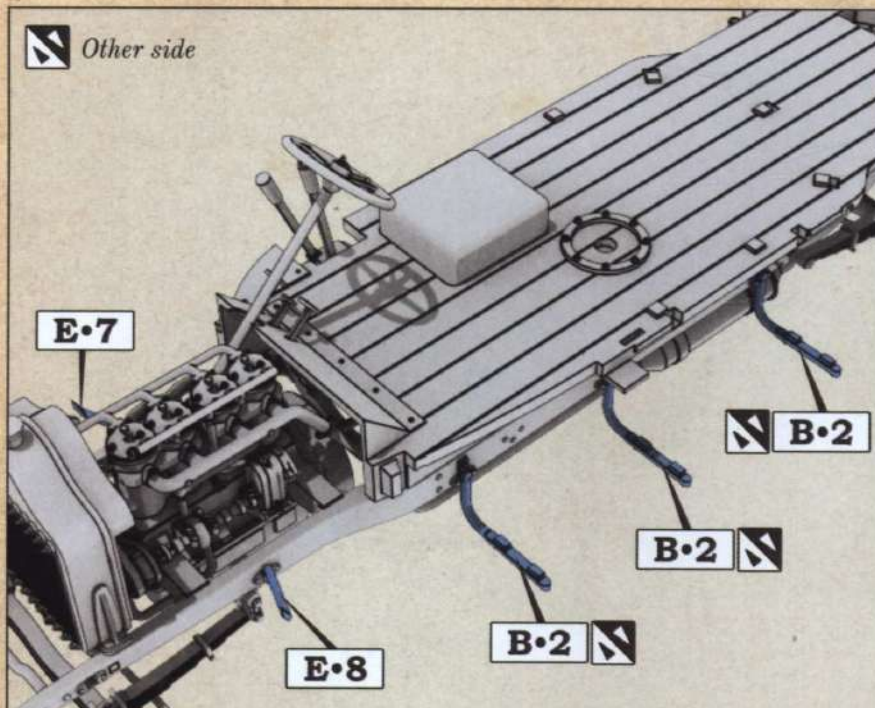
Step 12. Installation of the gear and handbrake levers, steering wheel and the steering arm. Check Fig.13 for colour reference



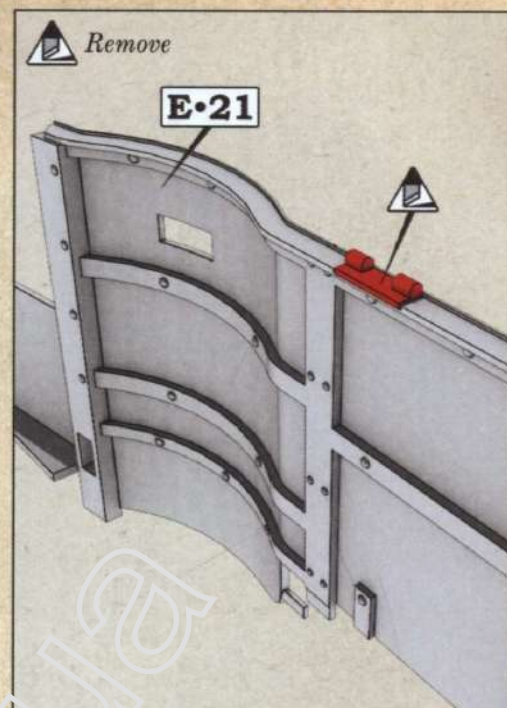
Step 13. Assembling and installation of the rear axle



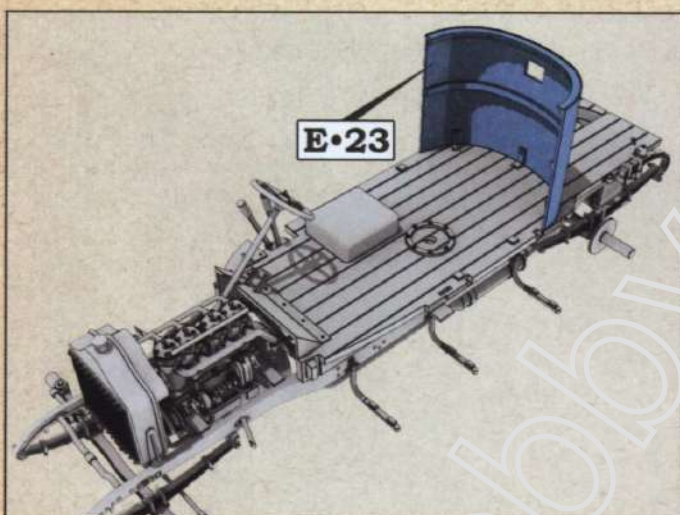
Step 14. Installation of the exhaust pipe with muffer



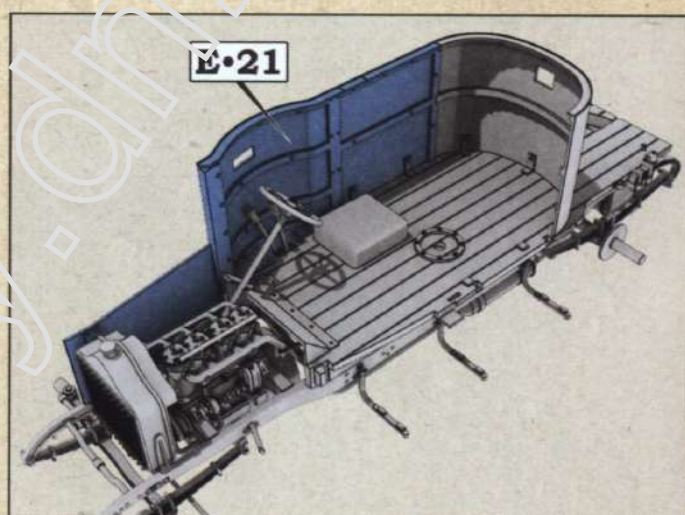
Step 15. Installing the fender and running board brackets



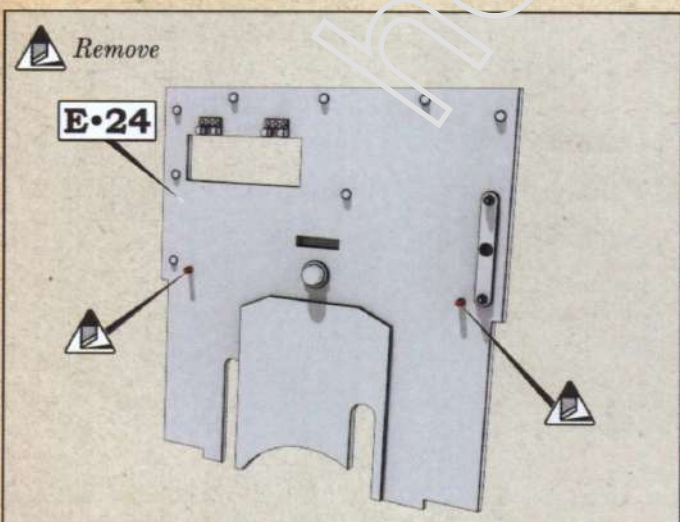
Step 16. Remove the hatch hinge for markings page 29 and 30



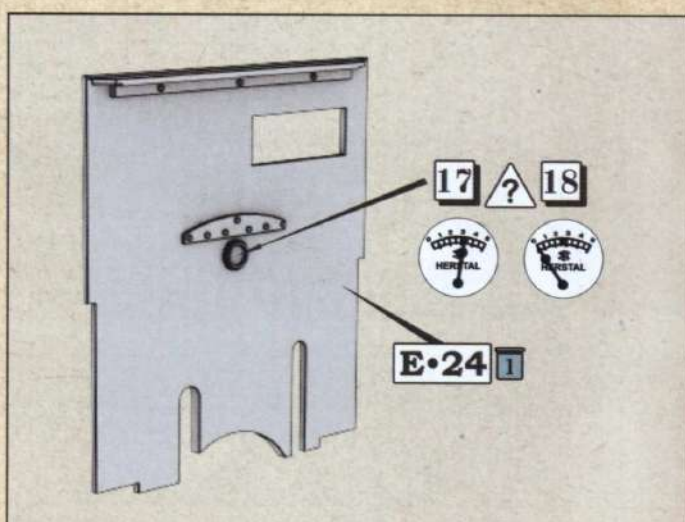
Step 17. Installation of the armored superstructure rear walls



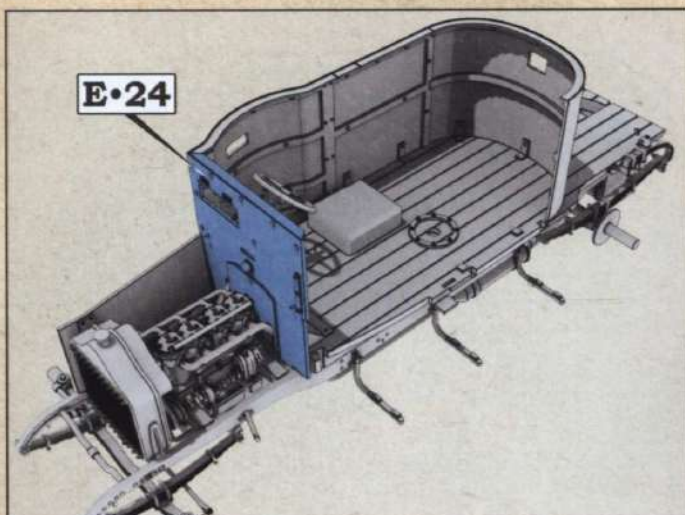
Step 18. Installation of the starboard armored superstructure wall



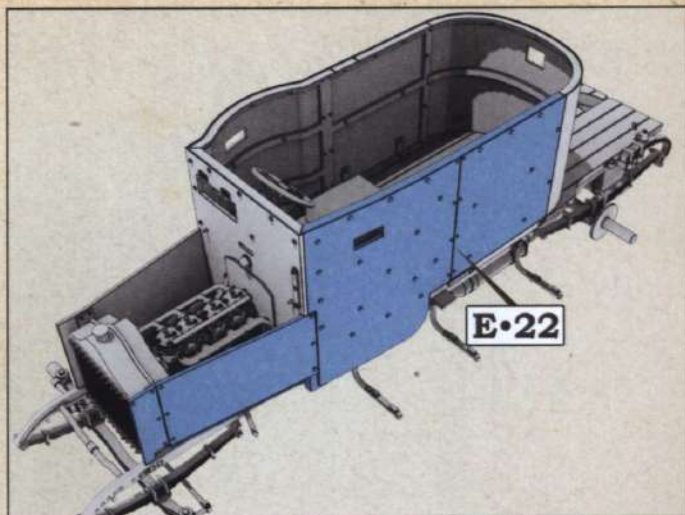
Step 19. Remove the pins (Later version hood supporting pins) for early version markings page 29-31



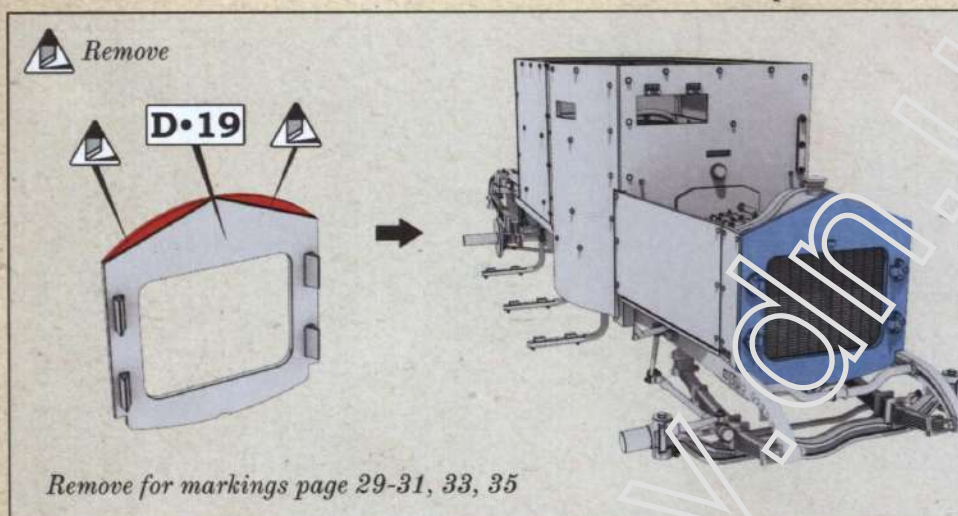
Step 20. Applying the decals for oil pressure gauge



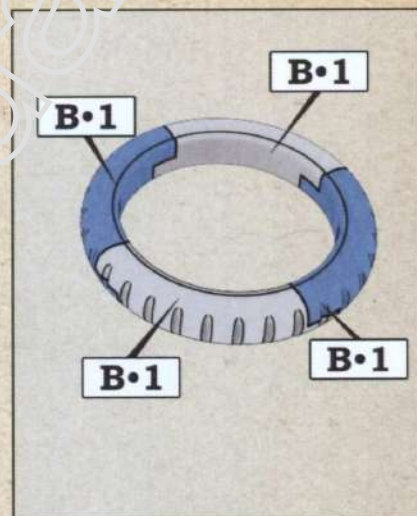
Step 21. Installing the front armoured superstructure wall.



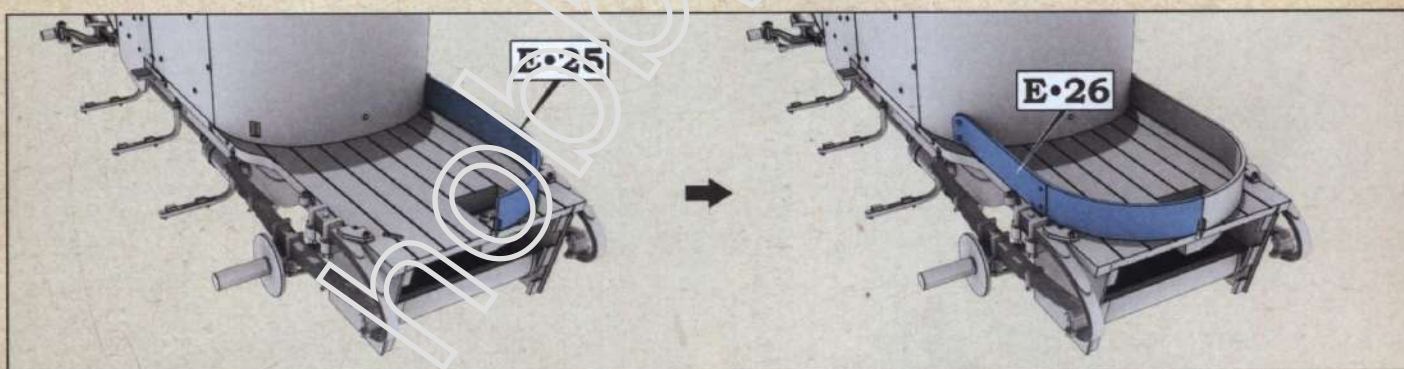
Step 22. Installation of the port armoured superstructure wall.



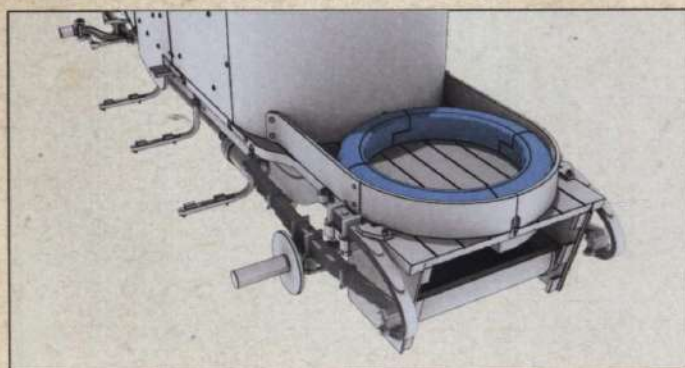
Step 23. Installing the radiator armoured protective plate.



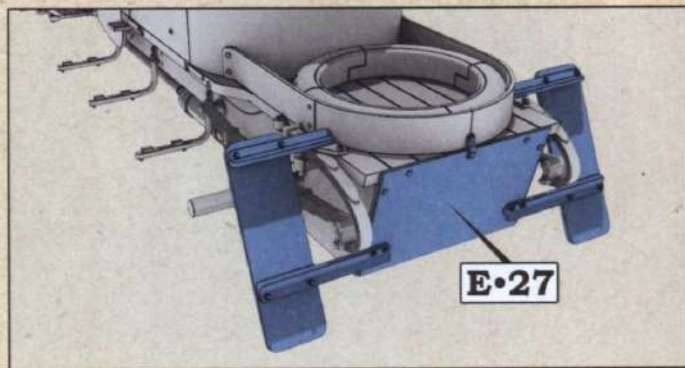
Step 24. Spare wheel assembly



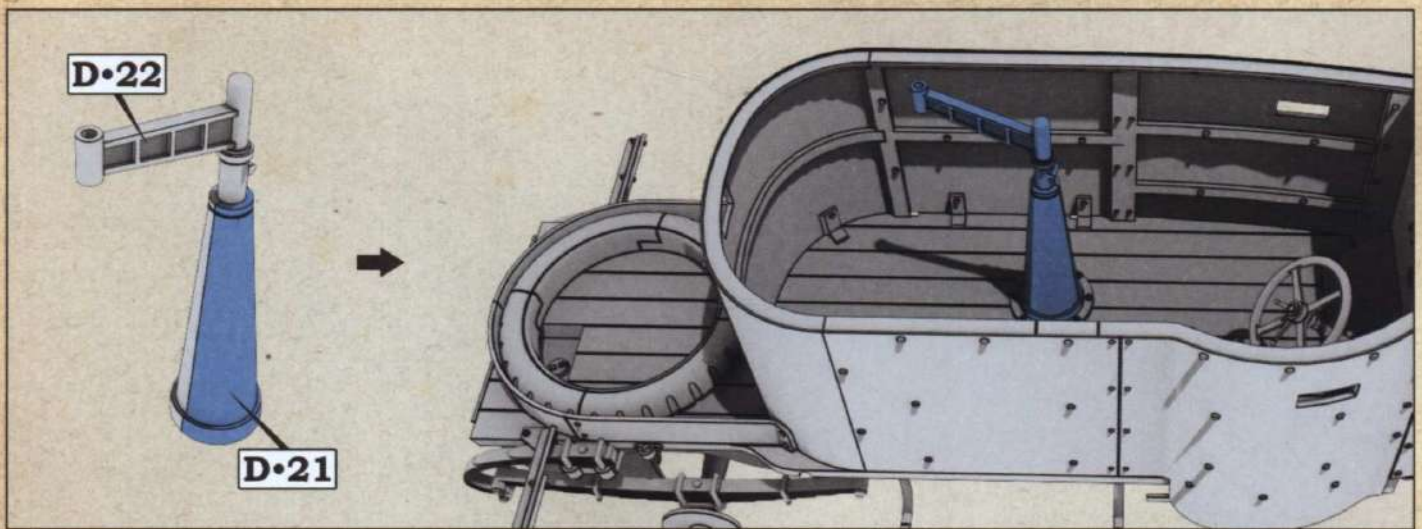
Step 25. Installing the spare wheel protection



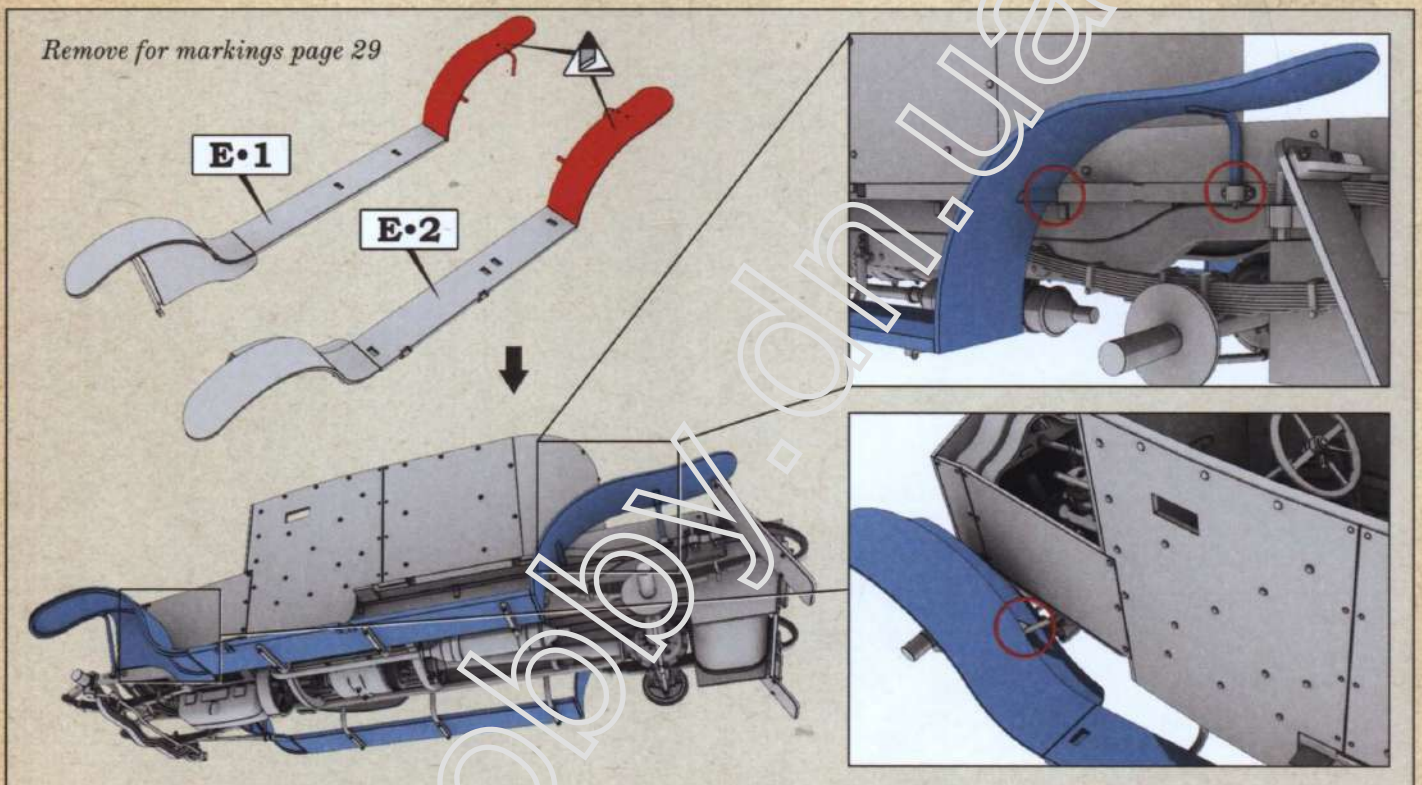
Step 26. Installing the spare wheel



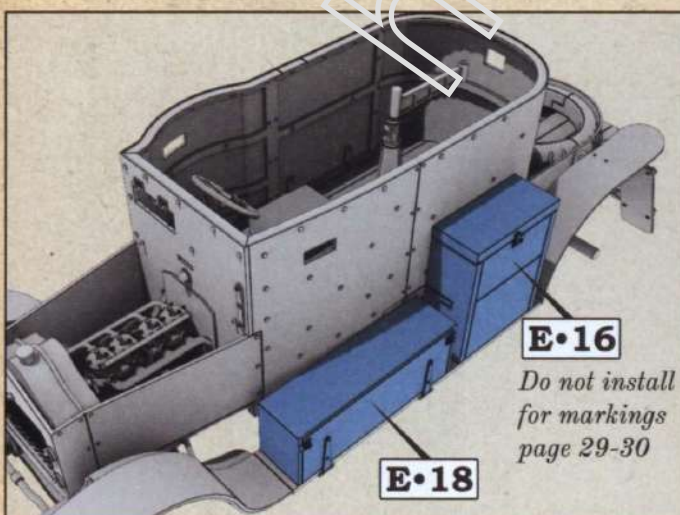
Step 27. Installing the rear fuel tank armoured plate with the rear wheels mudguards



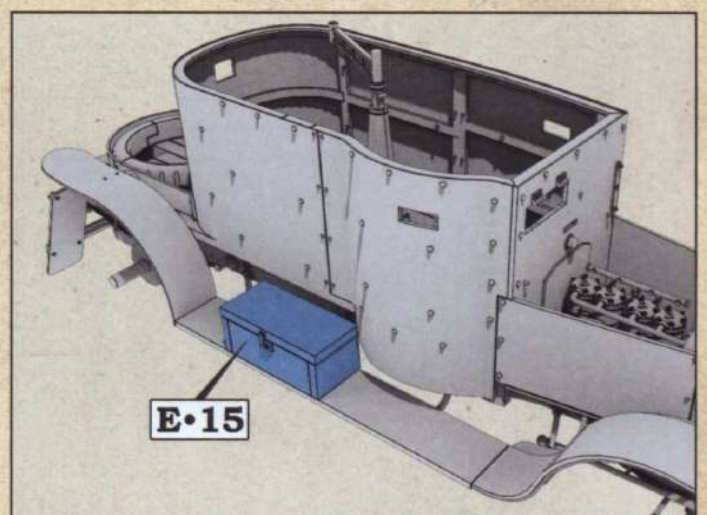
Step 28. Assembling and installing the cone-shaped mount for MG. Check Fig.15 for colour reference



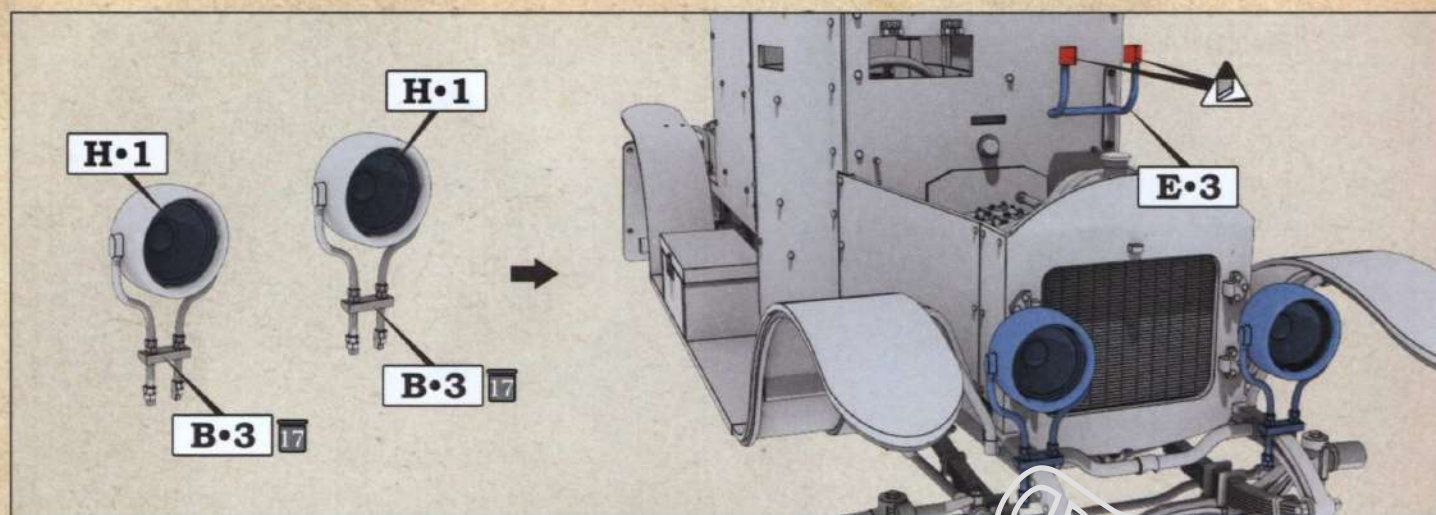
Step 29. Installing fenders with running boards on the brackets



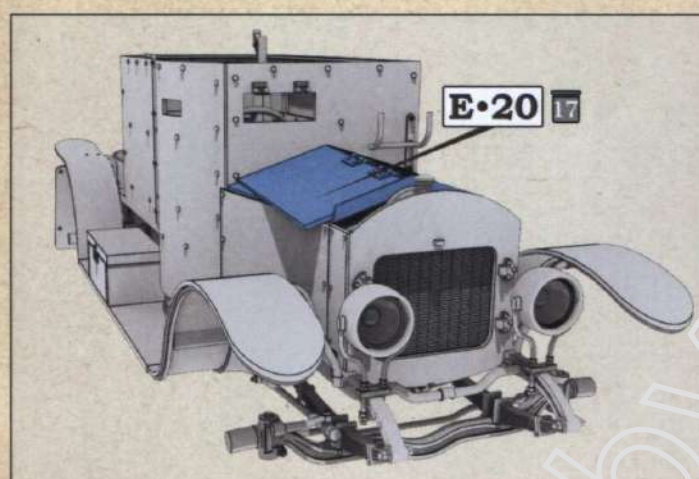
Step 30. Installing the port stowage boxes. Check Fig.16 for colour reference



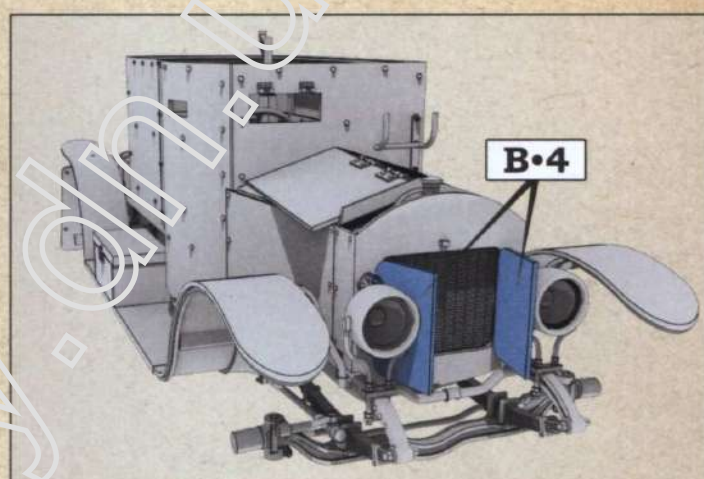
Step 31. Installing the starboard stowage box



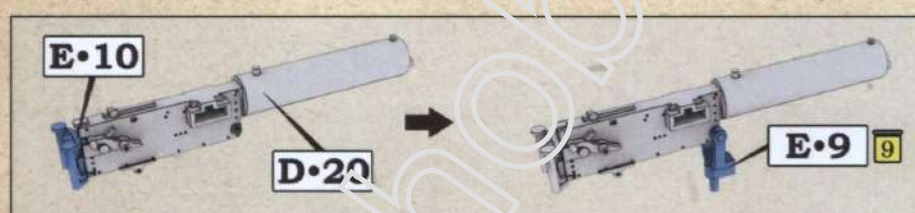
Step 32-1. Assembling and installing the headlights



Step 32-2. Installing the German improvised engine hood



Step 32-3. Installing the protective radiator shutters



Step 32-4. Assembling the Maxim MG

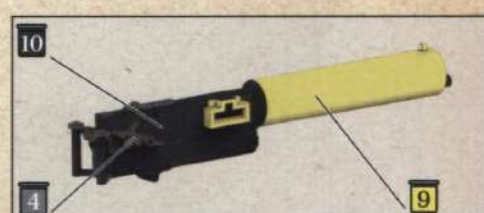
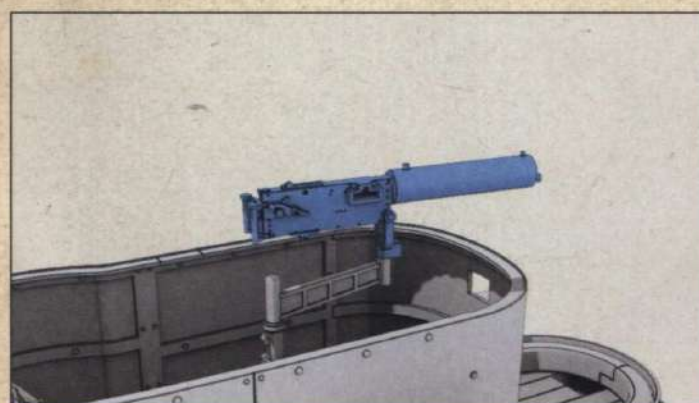
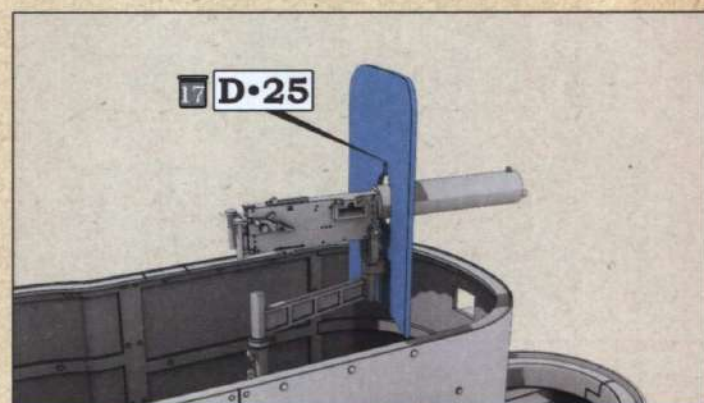


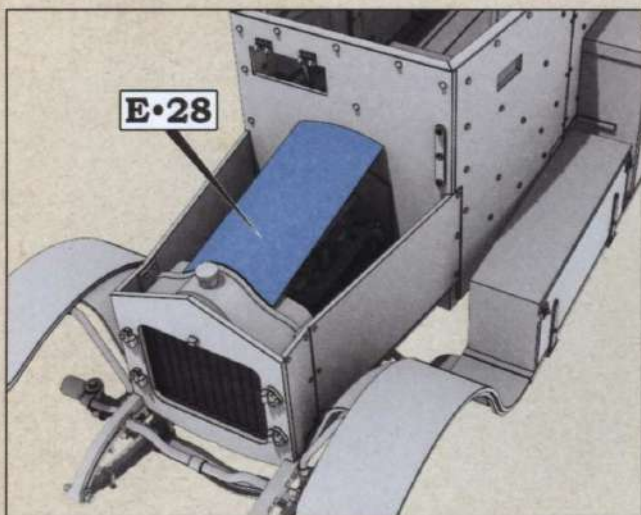
Fig 10. Maxim MG colours



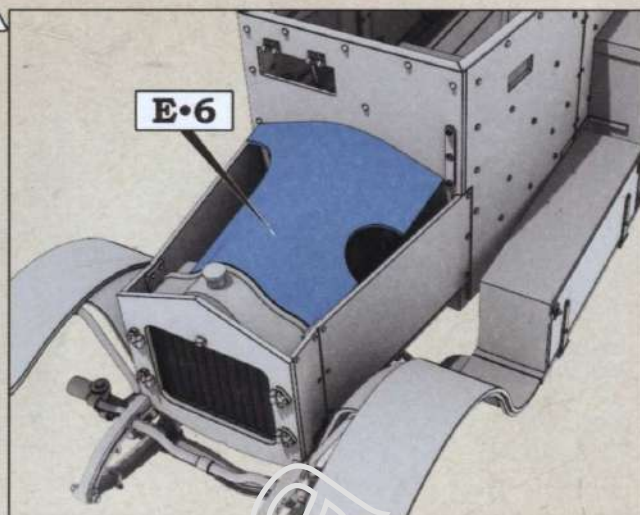
Step 32-5. Installing the Maxim MG on the cone shaped mount



Step 32-6. Installing the MG shield

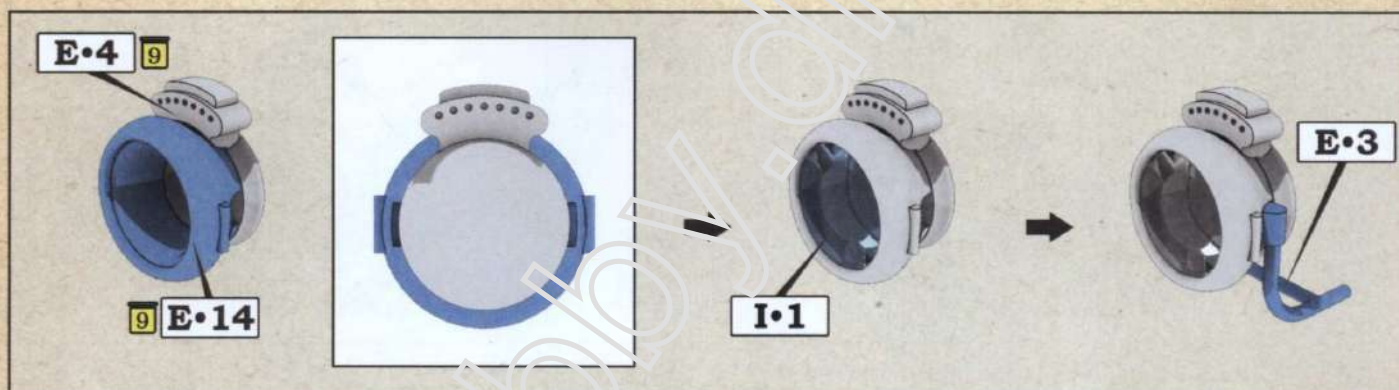


Part E28 for early version, markings page 29-31

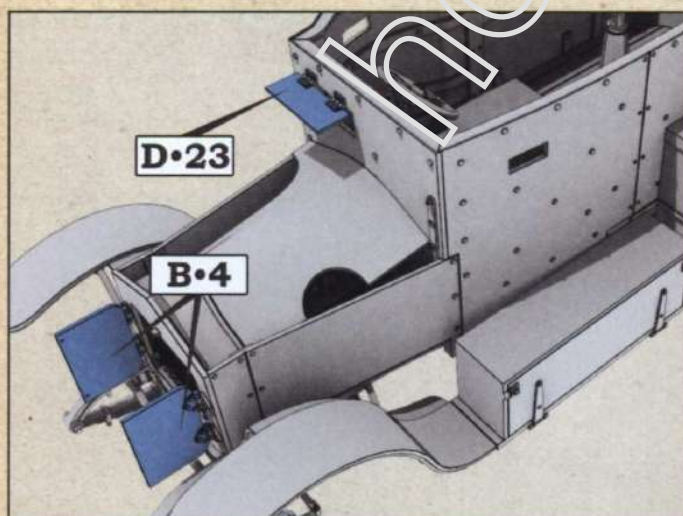


Part E6 for late, camouflaged and Gendarmerie versions. Markings page 32, 33, 35

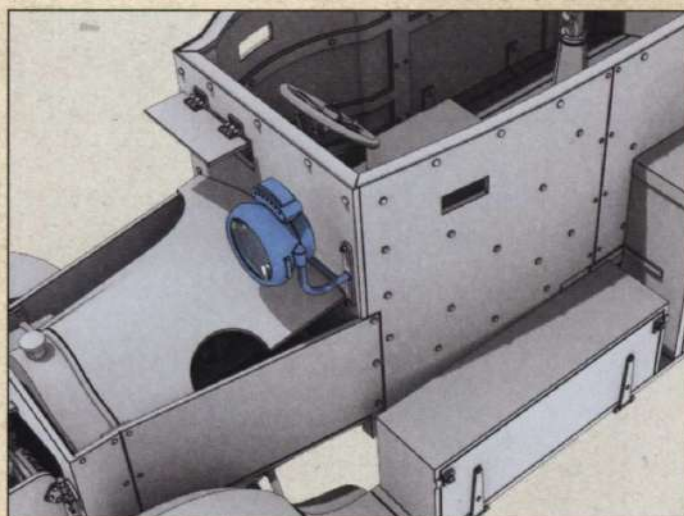
Step 33. Installing the engine hood



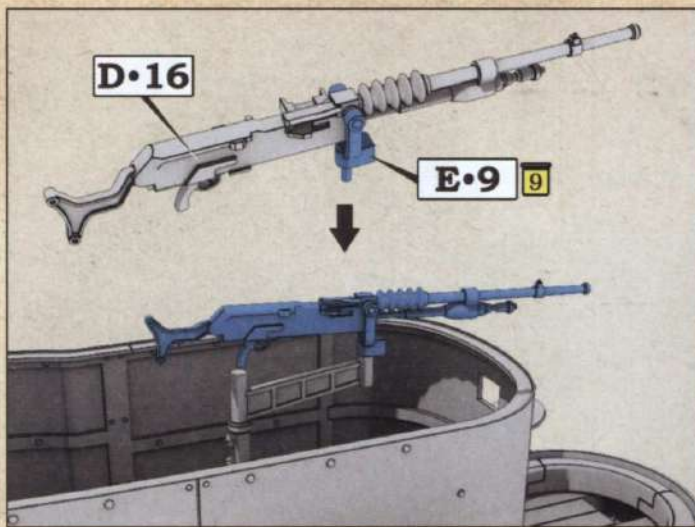
Step 34. Assembling the acetylene gas lamp



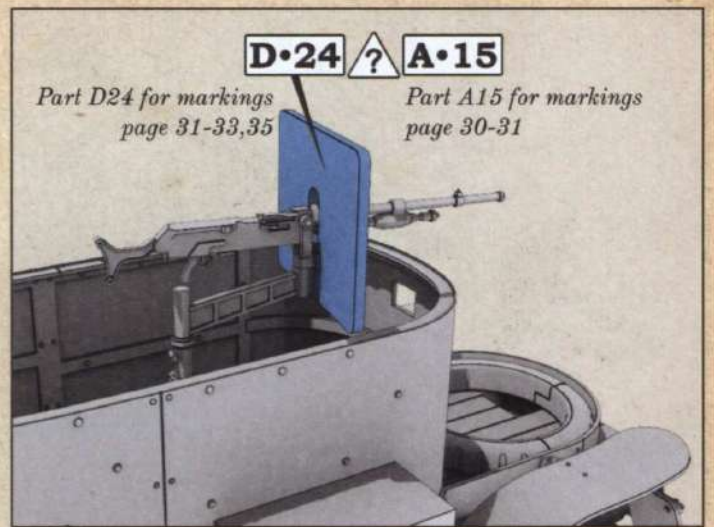
Step 35. Installing the protective radiator shutters and driver's hatch



Step 36. Installing the acetylene gas lamp



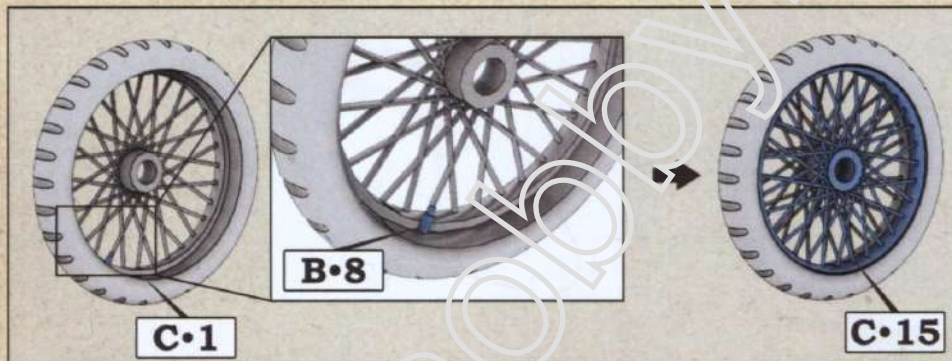
Step 37. Installing the Mle 1914 Hotchkiss MG.
Check Fig.15 for colour reference



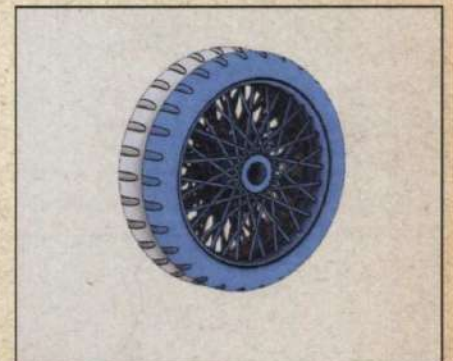
Step 38. Installing the MG Shield (not for early version).
Check Fig.15 for colour reference



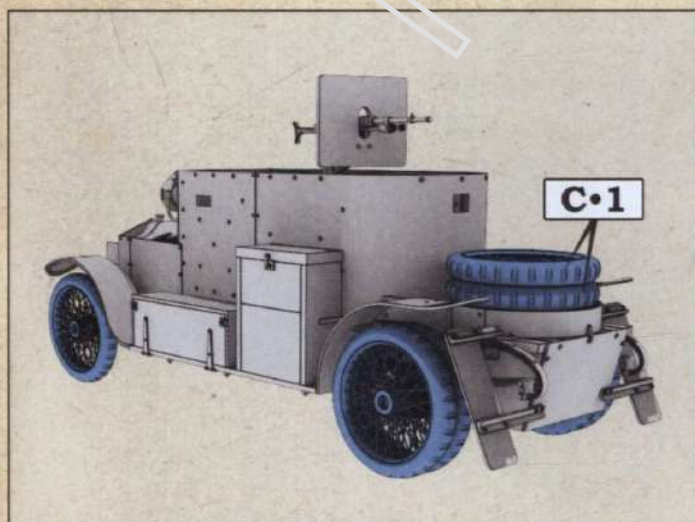
Step 39. Installing the hand crank



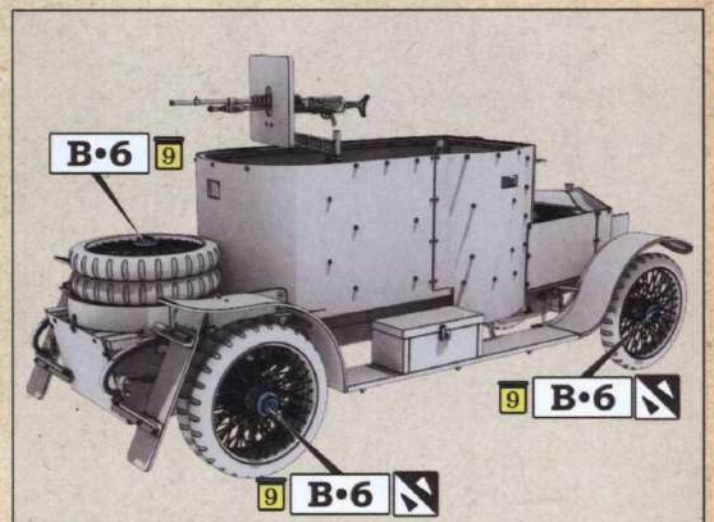
Step 40. Wheels assembly, make eight pieces



Step 41. Rear wheels assembly



Step 42. Installing the wheels and spare wheels



Step 43. Installing the wheel hubcaps

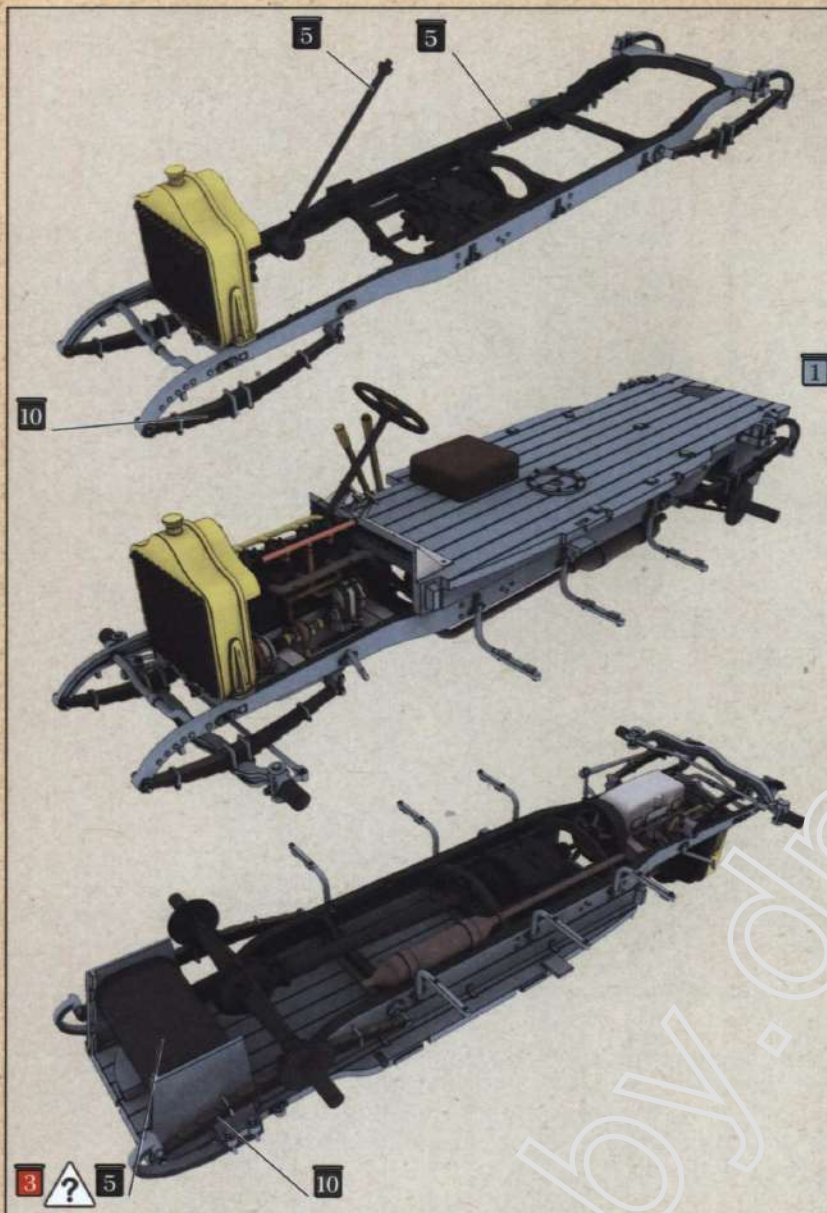


Fig. 11. Colours for the chassis

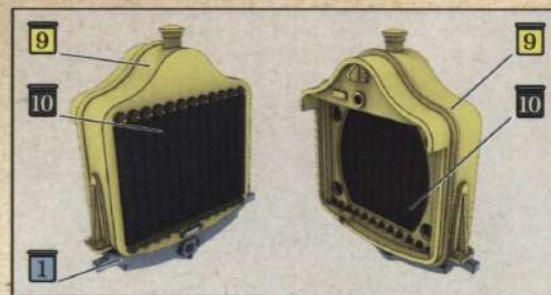


Fig. 12. Radiator colours

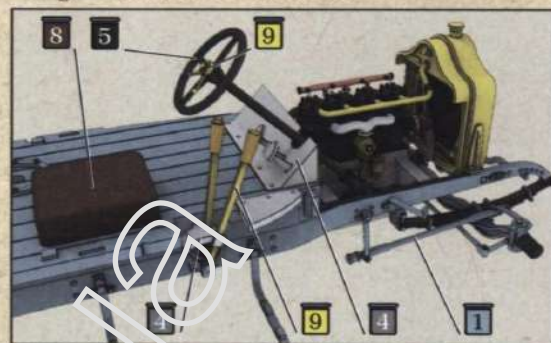


Fig. 13. Driver's place colours



Fig. 14. Fuel tank colours

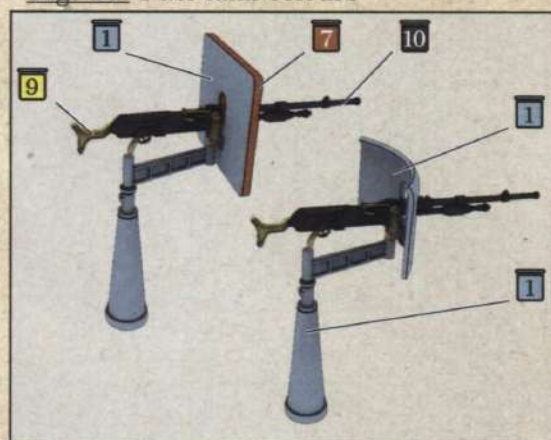


Fig. 15. Shield and MG mount colours

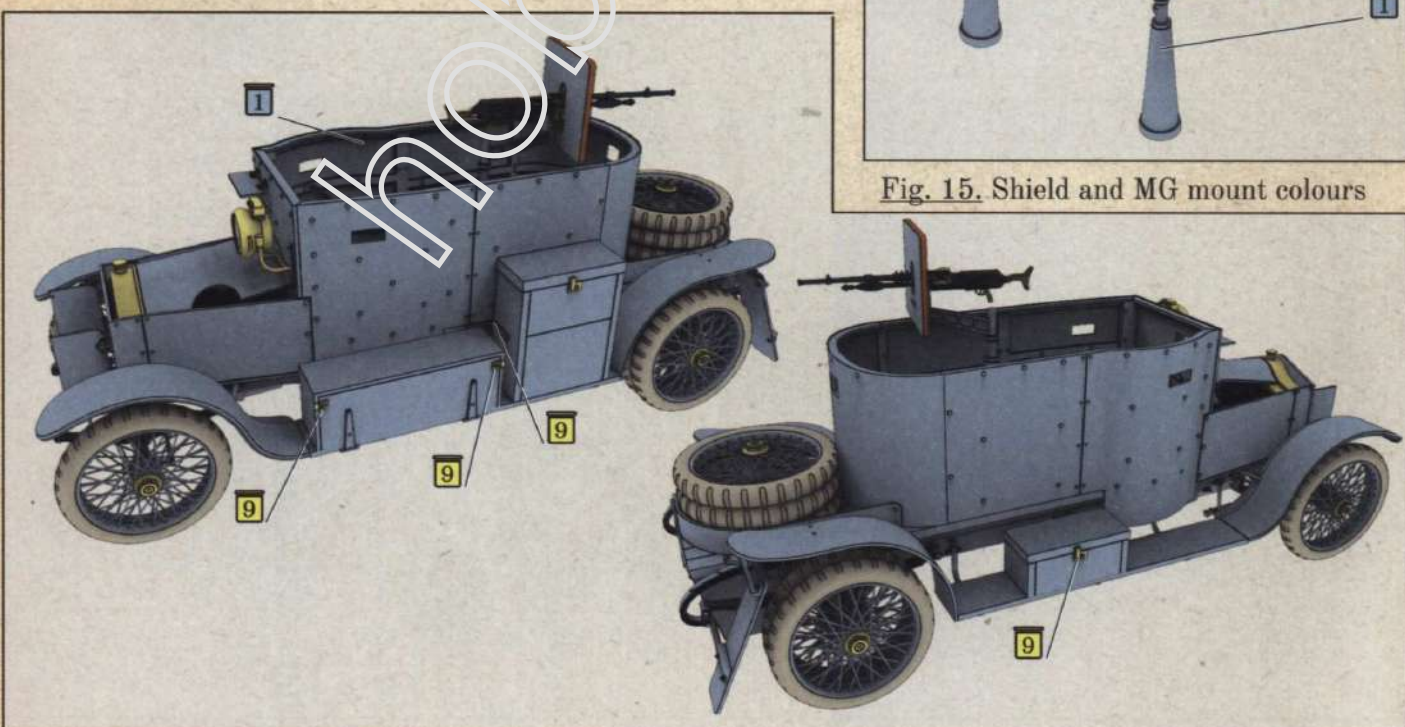


Fig. 16. Armoured body colours

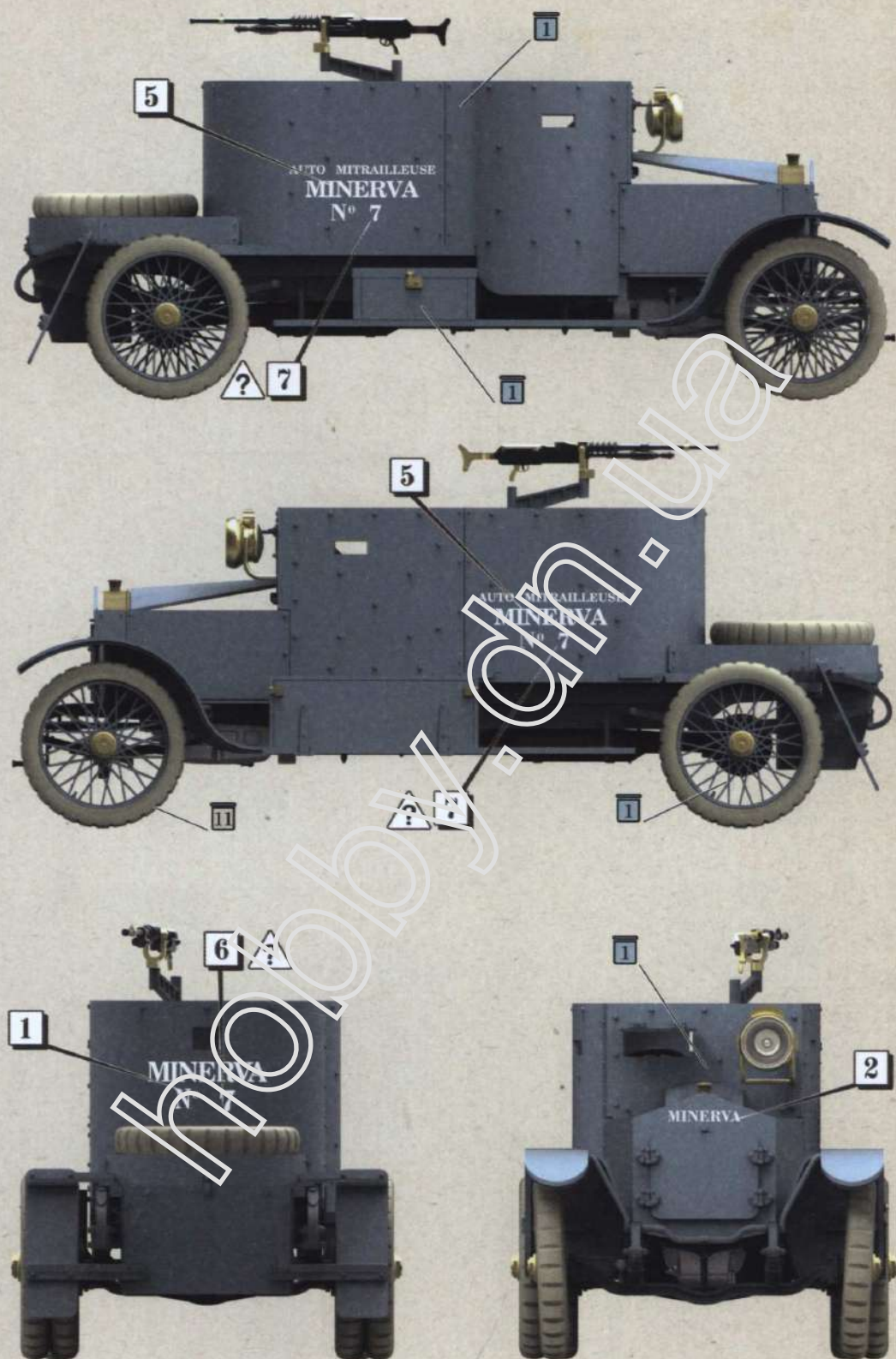


Fig. 17. Minervas N° 4,6,7,8. September 1914. (Illustration 4, page 7)

These were early equipped versions, for some reason they weren't equipped with an MG shield or rear mudguards. They had a narrow engine hood and one or two spare wheels. These Minervas did not yet have the port stowage box

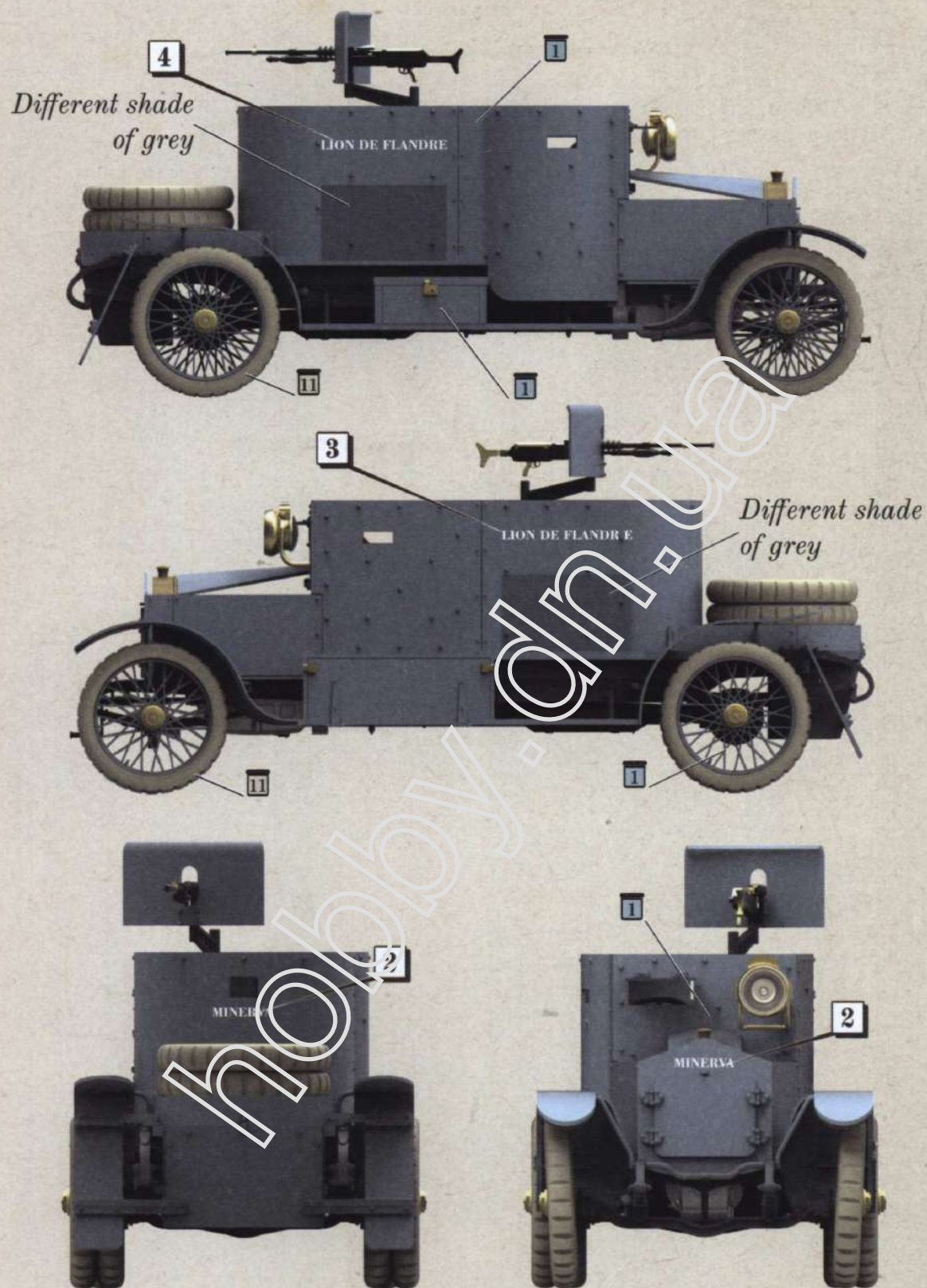


Fig. 18. Minerva "Lion of Flanders" (Illustration 10, page 15)

In early 1915, all the armoured cars were ordered to paint over their numbers, this is visible on the photo as darker patches where the name "Auto Mitrailleur Minerva N° ..." was previously stencilled. In that period all the Minervas had an MG shield, in this case the rounded version, still no stowage box, and the early engine hood

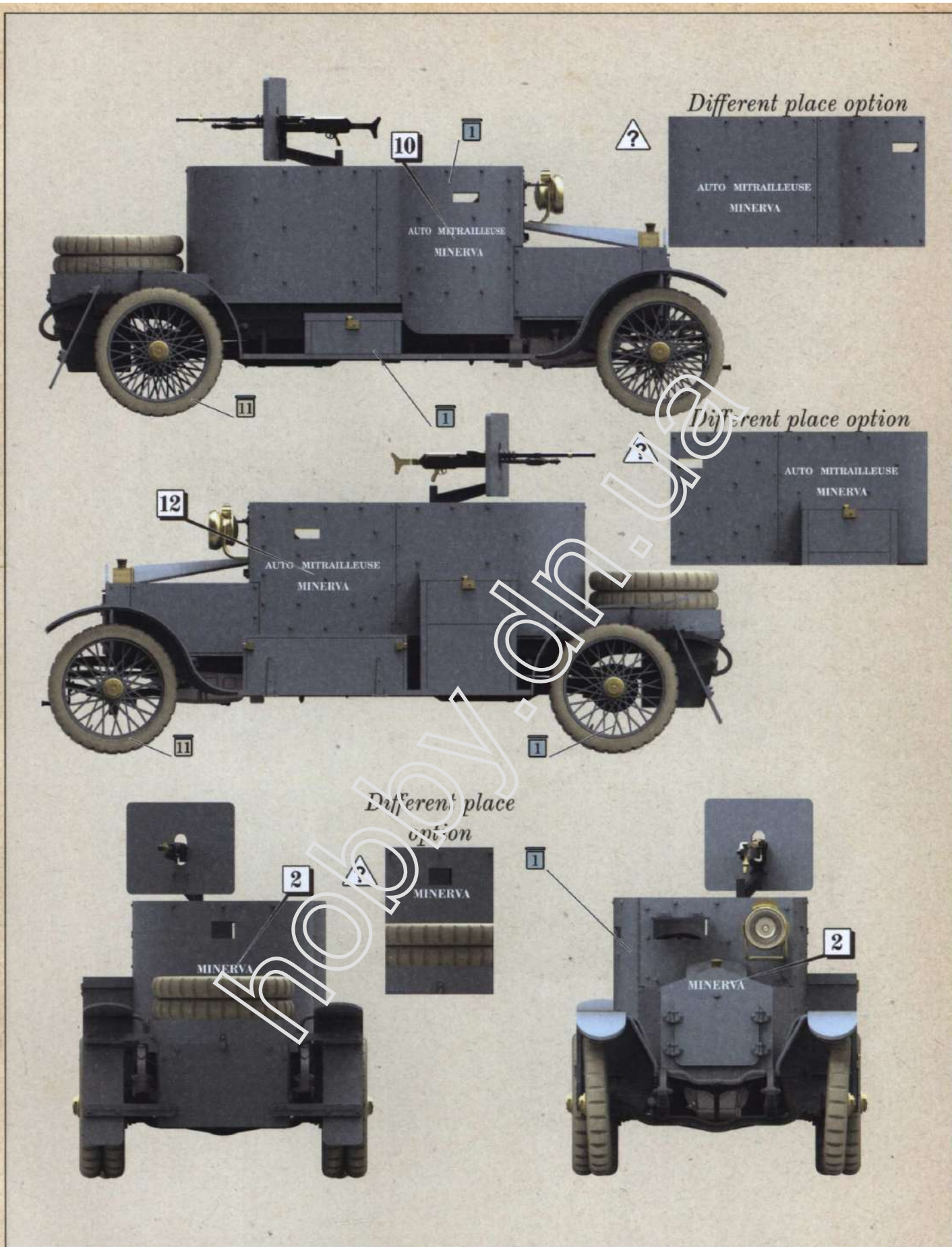


Fig. 19. Classical markings for Minerva armoured cars

This is the most standard look of Minervas. "Auto Mitrailleur Minerva" was painted on both sides of the body but there were two spots for this sign, on the front part of the body or on the rear part. Same goes for the MG shield, both were commonly used in the early years of the war. The port stowage box is present, and the engine hood is still the early type

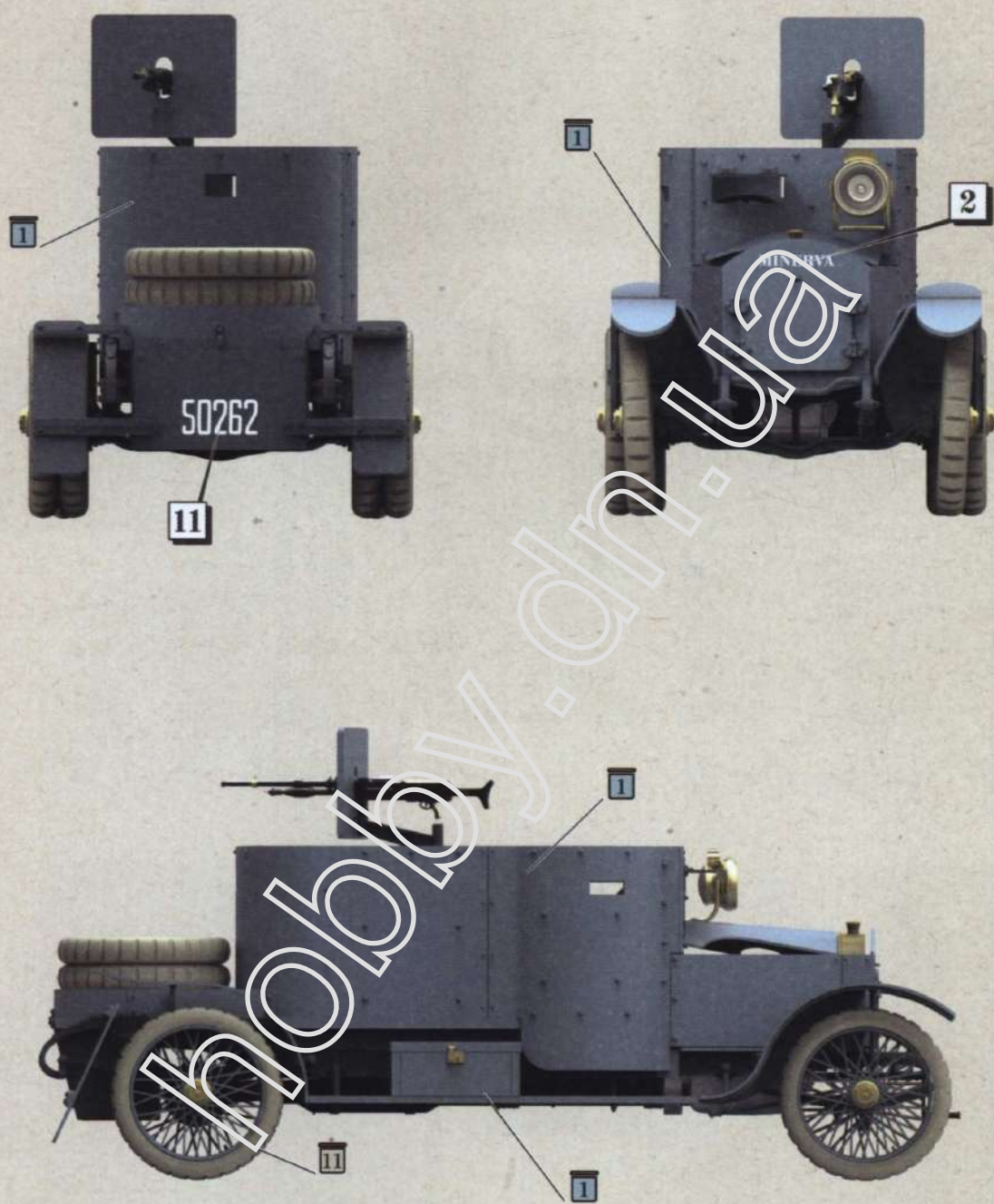


Fig. 20. Minerva armoured cars with a registration number, late 1915 - early 1916
Several Minervas were given painted registration numbers during the war



Fig. 21. Camouflaged Minerva armoured car. 1916 (Illustration 11, page 15)

In 1916, some Minervas, probably those from Cavalry Division (which probably also had all four Belgian Lanchesters) received their three-colour camouflage. No additional stencils are visible. Note the late engine hood. Interior is probably grey

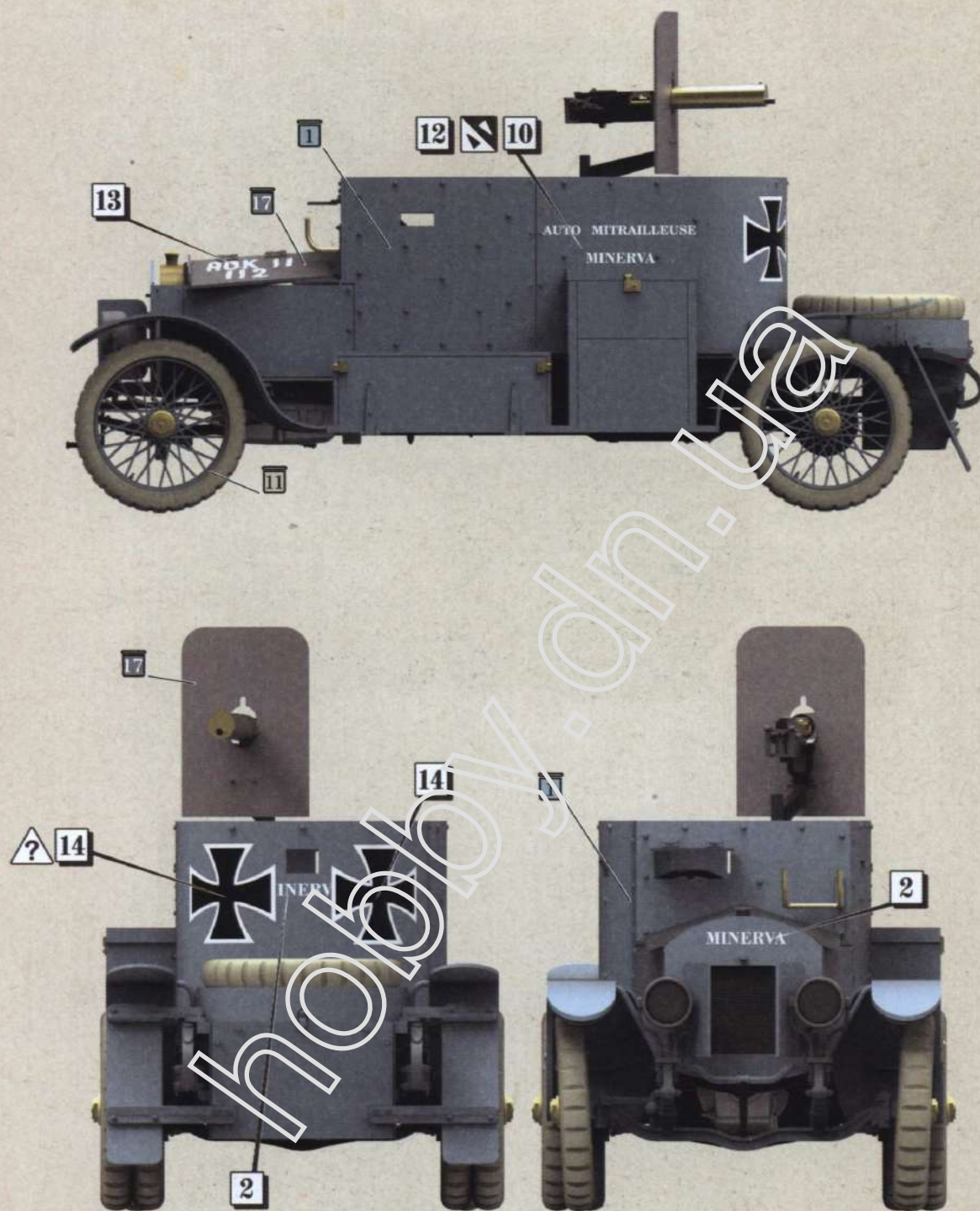


Fig. 21. German captured Minerva armoured car (Illustration 7, page 11)

One of at least two Minervas captured in 1914 by the Germans. It had additional headlights installed and a Maxim MG with a custom made MG shield. "Minerva" names are still painted, as are the "Auto Mitrailleur Minerva" markings. The Iron Cross is painted over the "Minerva" sign, but only one side of the Minerva is visible, so it is not clear if the second Iron Cross was painted as well. This car had a custom made engine hood, it is not clear if that was a German modification, or Belgian

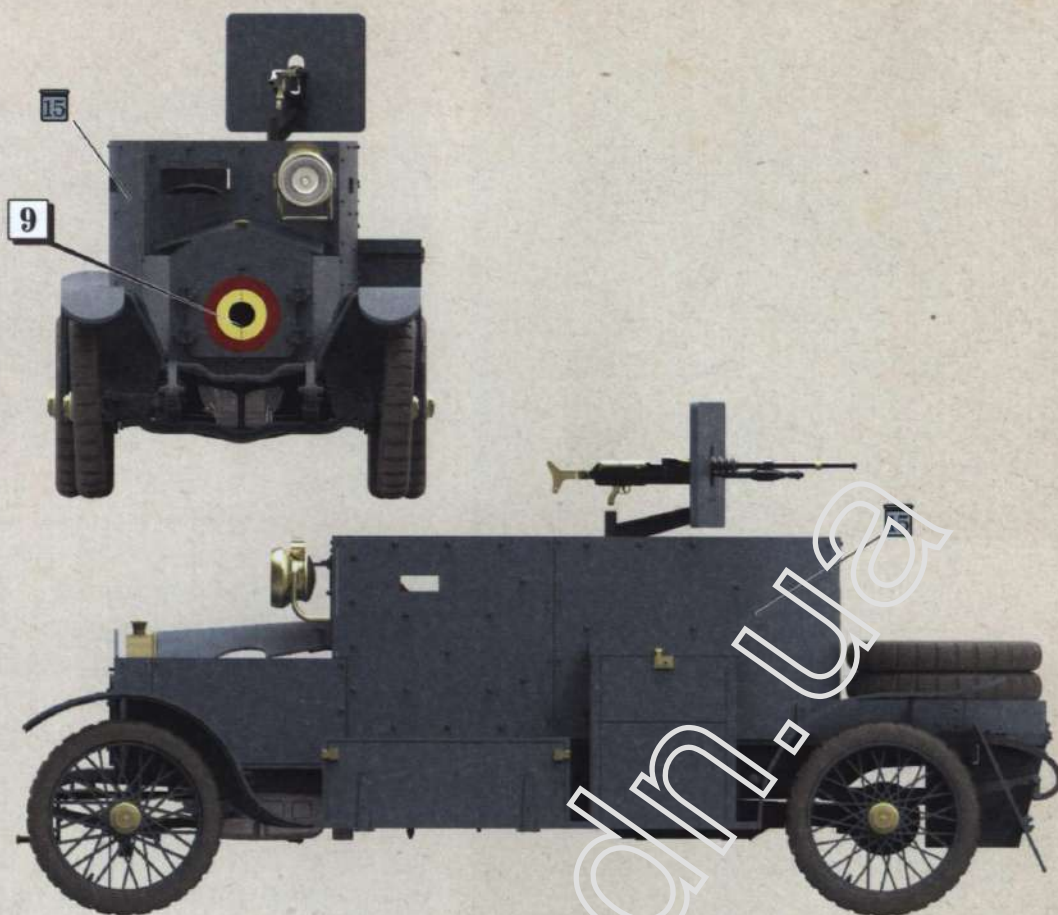
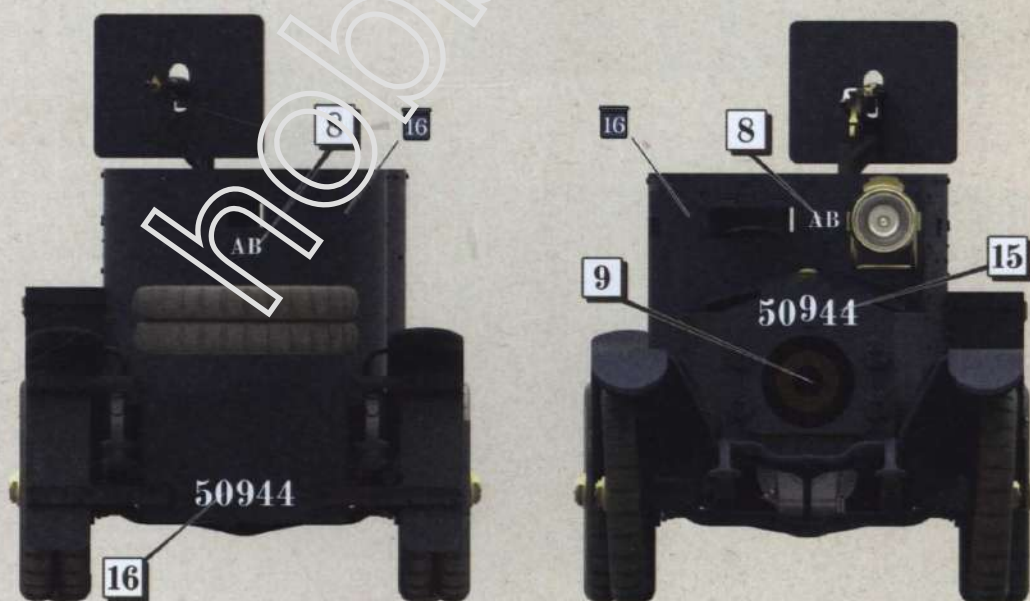


Fig. 22. A Minerva armoured car from Gendarmerie Unit 1918 (Illustration 9, page 14)
Minerva armoured car in Occupied Germany. The colour of this Minerva could have been light blue, with the Belgian roundel on the radiator shutters. Note the late version engine hood, and dark grey tires



AB stands for "Auto Blindé"

Fig. 23. A Minerva armoured car from Gendarmerie Unit 1919 (Illustration 8, page 13)
Minerva armoured car in Occupied Germany. This time the Belgian roundel is painted over with a dark paint, it may be a dark blue colour. Note the late version engine hood, and dark grey tires