

# Vorschrift

Montageanleitung

# Romfell Panzerwagen

Maßstab 1:35



Budapest, 1915.

Aus der Druckerei des k. u. k. Kriegsministeriums.

k.u.k. Kraftfahr Ersatz Depot in Budapest  
Hptm. Branko Romanic & Oblt. Simon Fellner

# Romfell Panzerwagen

Budapest am 1. Dezember 1915

Even before World War One, there was a period of modernization, experimentation and hasty development in the field of all kinds of military machines and vehicles. Of course, these developments eventually saw their greatest expression during The Great War.

One of the curiosities of the Austro-Hungarian Empire was that there had been many useful and outstanding ideas, leading to future inventions. Unfortunately none of the ideas, or very few of them, were taken up and this led to a lack of any series production. Most of the decision-making bodies of that time consisted of backward-looking people trapped in traditional approaches.

For example, there was a very promising development on the field of armoured cars from Austro-Daimler. In its day, it was far ahead and technically highly-sophisticated. Built in 1905, it displayed its capabilities on many occasions and at military manoeuvres. Despite this, the promising project was rejected because the Emperor was not pleased with it. When it was proudly presented to the officers of the High Command and the Emperor himself, their horses shied away from the noisy vehicle. The old emperor Franz Joseph became very indignant, stating emphatically to his entourage that this thing was henceforth not to be used for military purposes. In many reports, this vehicle is mentioned as source of further armoured car development. Following this, there were other designs like the Burstyn tank (1911) and the less-sophisticated Junovicz armored car (1915). All of these faced the same fate of never being produced in series.

One of the most promising projects in this period was the „Romfell“ in 1915. Hauptmann Branko Romanic, Commander of the k.u.k. Kraftfahrersatzdepot (depot for vehicle replacement), together with Oberleutnant Simon Fellner, Commander of the Hauptwerkstätte (main workshop of the depot), had been developing this armoured car with its futuristic appearance, as a more or less private initiative. With no official designation, the name of this vehicle was derived from their family names, Rom+Fell



**Illustration 1.** The armoured car Romfell as it was presented new, with iron crosses and the name stenciled on the sides

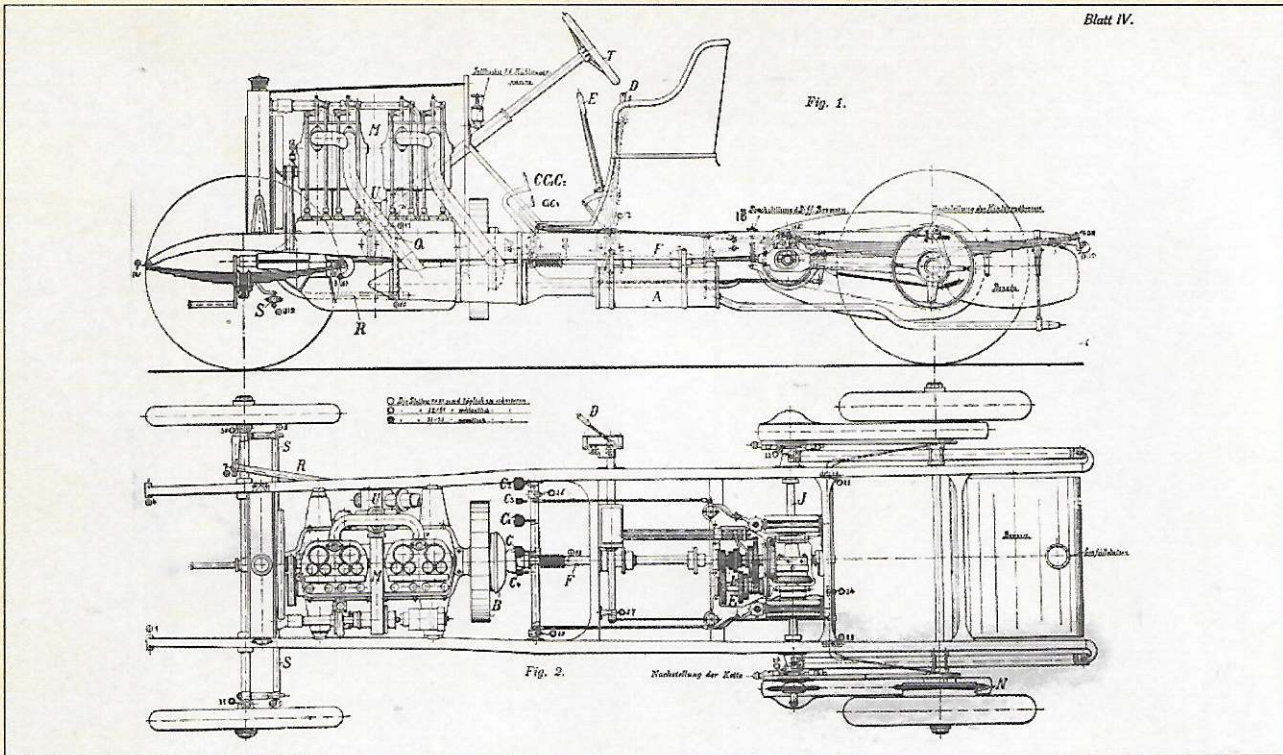


Illustration 2. Drawing of the Daimler 37-90 Chassis as it was probably used and modified for the Romfell

Based on the chassis of a civilian Mercedes passenger car (reg. no. A VI 865), the idea was to design a fast, highly manoeuvrable vehicle with good towing capacity, giving full protection to its crew and equipment against standard infantry bullets.

The frame, cross-connections, spring bolts, mounting suspension and other parts of the original chassis were reinforced to meet the requirements of the future weight of the the armoured bodywork. The engine itself, providing 88 hp, was left mainly unmodified with exception of the ignition system. The car was chain-driven, with a gate shift providing 4 forward gears and one reverse gear. There were 2 different sprocket wheels fitted to the car, enabling a top speed of 75 km/h on roads with the larger wheel and 55 km/h off roads with the smaller one.

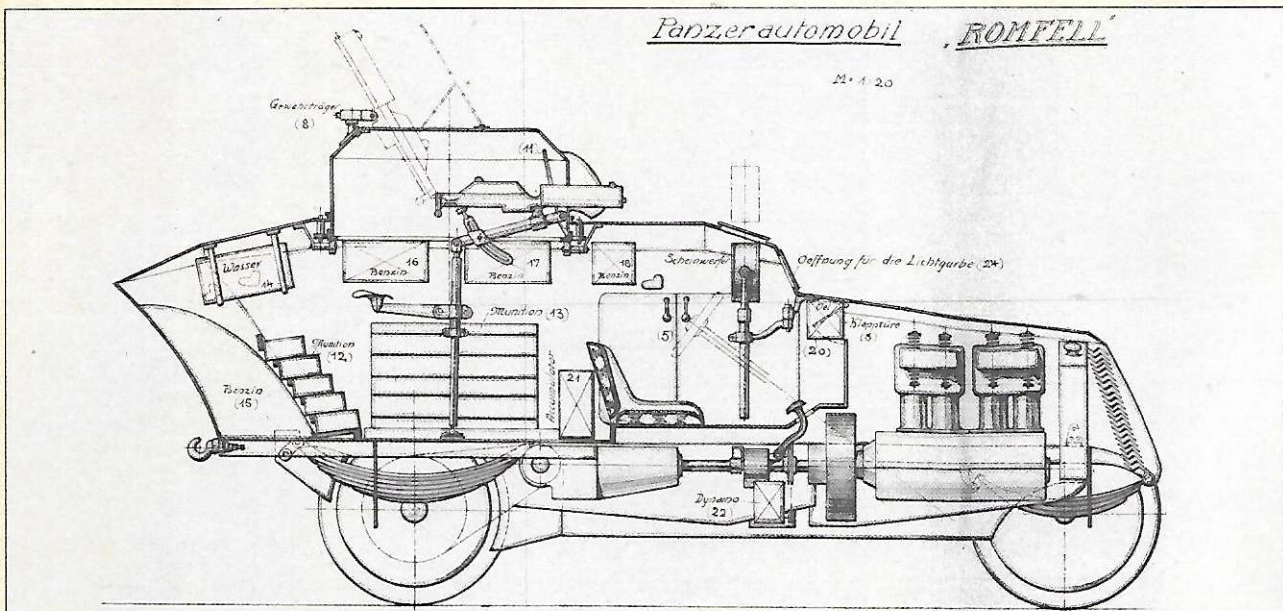
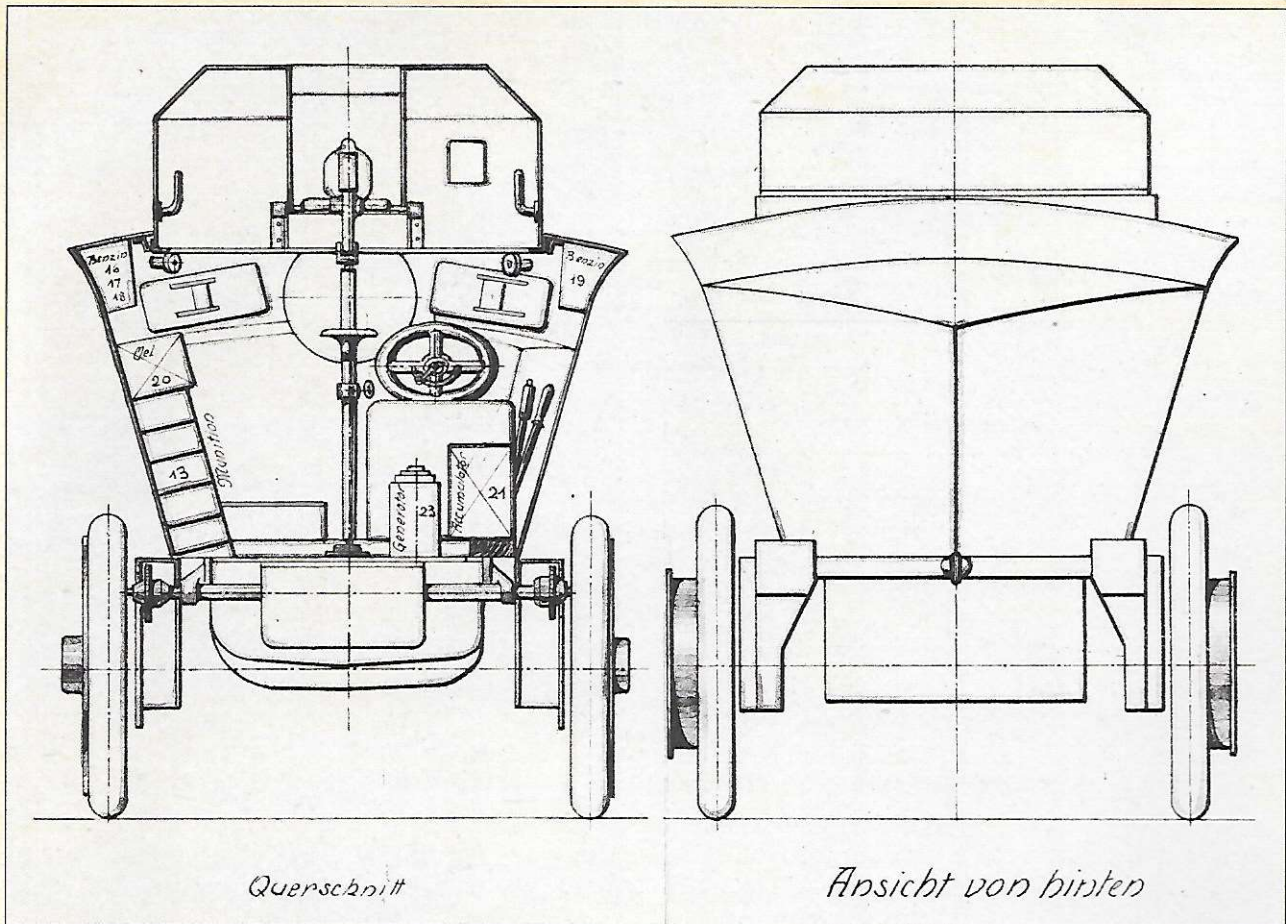


Illustration 3. Longitudinal section of the Romfell

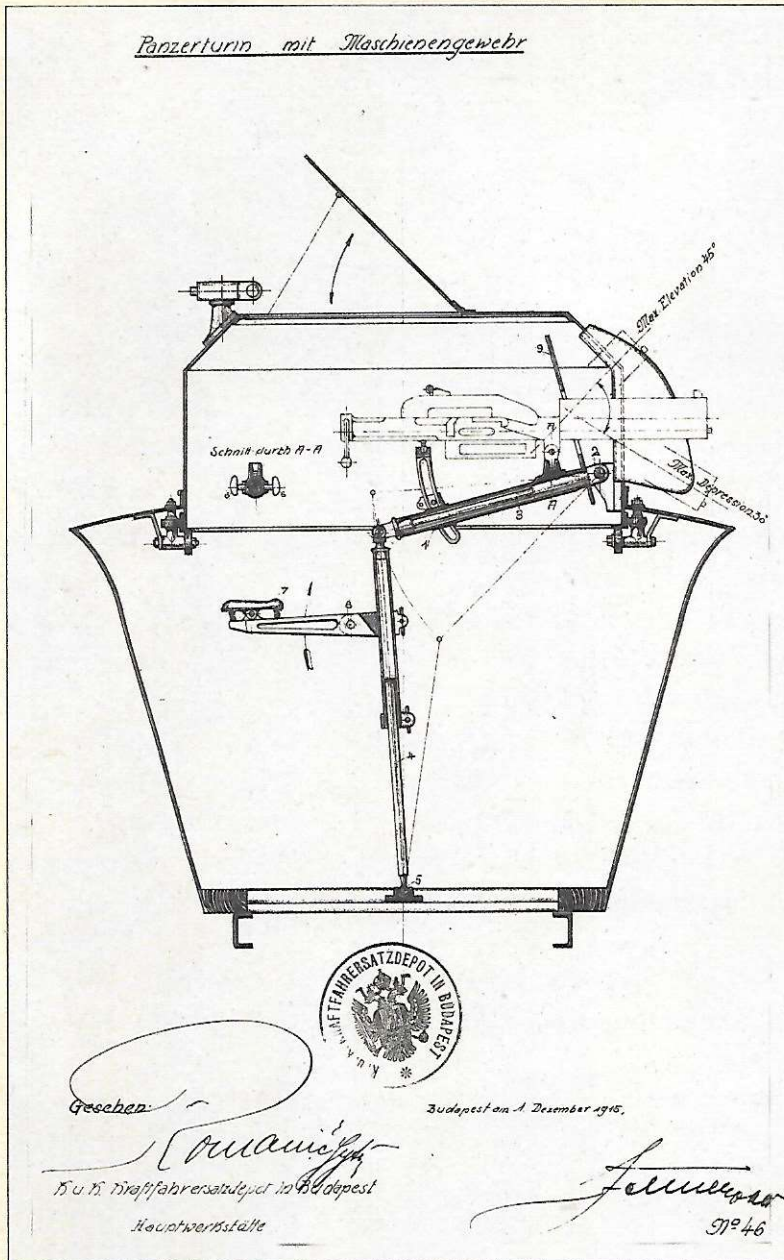


**Illustration 4. Cross-section and rear view of the Romfell**

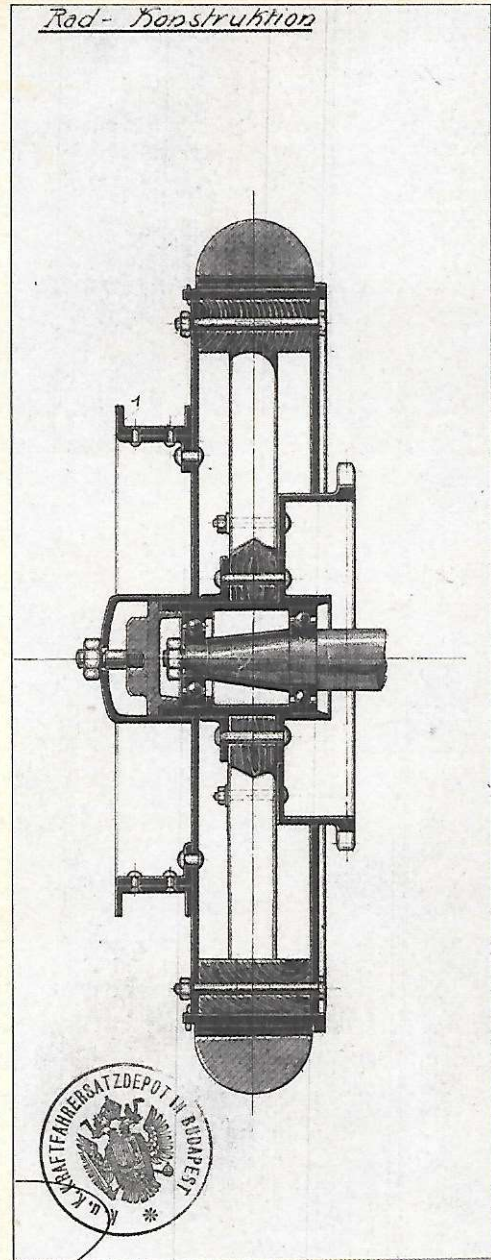
Chrome nickel steel plates with different thicknesses were used for the armour of the car body: 6.5 - 7 mm for the side plates and the vertical parts of the turret, 4.5 - 5 mm for minor important parts of the chassis and 2 - 2.5mm for the roof and other horizontal parts. The main idea of the design was that it should be almost impossible for bullets to hit the surface of the car at right angles. The thickness of the armour was calculated to be sufficient to defeat bullets from the 8mm Mannlicher rifle at a distance of over 110m and protection against the streamlined German S-bullet in a distance of above 300 m. Special attention was given to the car's radiator as a sensitive area, and it was protected with a complex armoured shutter. Using hinged hatches with vision ports, the driver and the co-driver had good visibility. On the sides of the car there are pistol / vision ports, three on the left side and two on the right.. There were three lamps for interior lighting, two headlights and one Zeiss Acetylene searchlight. The total fuel capacity of 170 litres was stored in 5 different tanks, giving enough spare fuel if one tank was penetrated or got damaged. The original wooden spoked wheels were protected by 5 mm steel plating. Average range was about 300 km, or 10 hours of operation, depending on the speed and terrain.

A Schwarzlose M.7 machine gun could be pivoted 30 degrees downwards and 45 degrees upwards in the fully revolvable turret. For anti-aircraft gunnery a special mounting needed to be fixed, and this was stowed inside the car.

Officially, the vehicle was equipped with 20,000 rounds of ammunition for the machine gun, but of this only 8,000 rounds were stored in the car itself. The remainder was to be carried in a separate trailer. There is a reference to the possible installation of radio equipment in the car, but there is no evidence that it was ever fitted. A crew of four operated the car, namely the commander, the driver and two gunners.



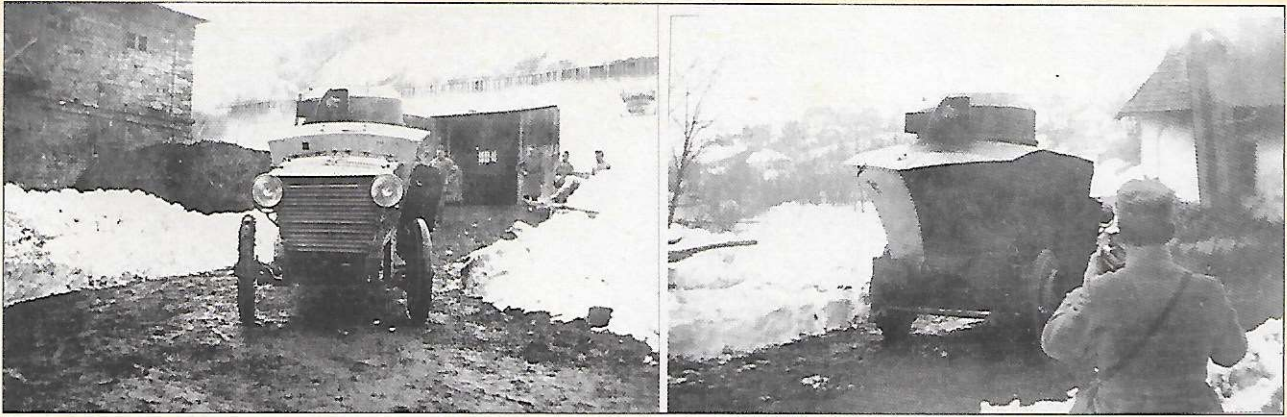
**Illustration 5.** Detail drawing of turret with machine gun



**Illustration 6.** Detail drawing of rear wheel construction

The car was first recorded in military files in summer 1915. Inspection was taken by Oberleutnant Erich Kurzel Edler von Runtscheiner, technical consultant of department 5/M of the Ministry of War. He was very pleased with the Romfell, recording high usability for military purposes, with state-of-the-art technical layout and workmanship. In this report, it was mentioned that a two wheeled trailer came with the car, carrying ammunition, spare parts and tools. The design of the trailer was such that the wheels and many other parts could be used as spares for the car if required.

Unfortunately, there is not too much information regarding the car on military missions or in action on battlefields. Equipped with its crew, two machine guns and the trailer, and under the command of Oblt.a.D. Ludwig von Rakosy, the car was committed to the 7th Army on 11th October 1915. The XIII. Corps of 7th Army reported later that the Romfell was not in action during fighting in late October 1915. It was mentioned that the trailer was too small for giving successful support for the car under fighting conditions and the trailer was replaced by a light truck.



**Illustration 7.** The Romfell armoured car in the area of the 7th Army, Winter 1915/1916 note that the highly visible iron crosses have been already removed

There was little action in the following 11 months. Finally, after the defence of the Brussilow-Offensive, on 11th August 1916, the Romfell was withdrawn in a worn-out condition, together with the supporting truck. Then committed to „Kraftwagenwerkstätte Nr. 36 des Etappengruppenkommandos 9 in Stryj“ (Carworkshop No.: 36 of the Supportcommand No.9), the Romfell was fitted with military registration No. KN 5965.

After repairs, the Romfell was committed to the 5th Army in the area of Trieste as a light mobile reserve for coastal defence. The armoured car arrived in Ljubljana (Laibach) by train on 18th June, 1917. From there, it was driven by Zgf. Johann Amann to Trieste, and in turn it was transferred with crew to Feldautopark Nr.1 (military car supply unit) in Udine. It was reported that the original totally worn out Mercedes chassis was replaced by the chassis from a captured Fiat truck with the No. KN 8428.

In some literature it is suggested that there have been two Romfell armoured cars. Official reports do not mention anything about a second car and the author's conclusion is that there was only ever one car body, but with two different chassis.

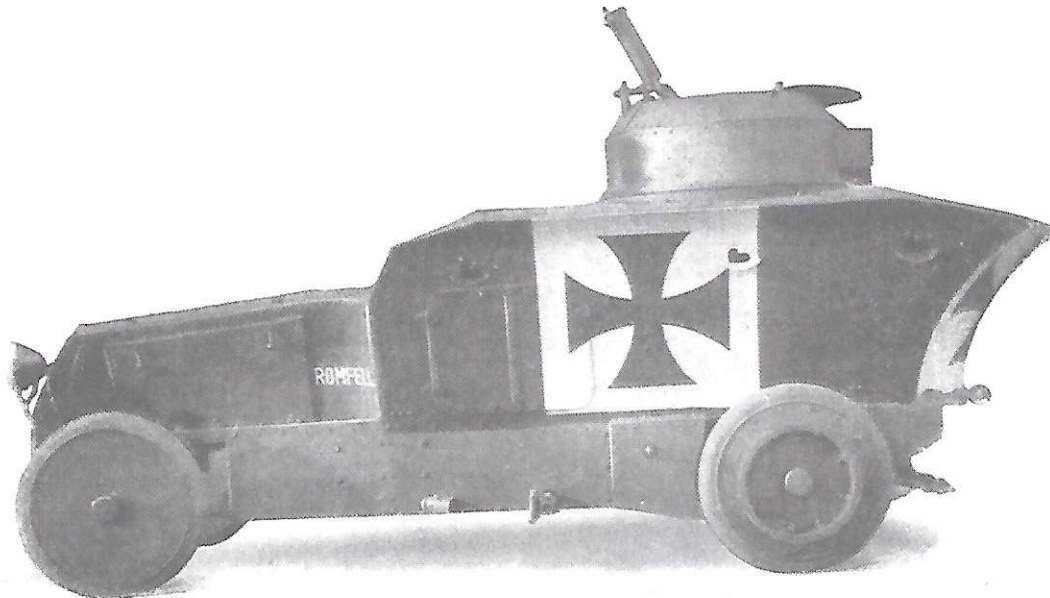


**Illustration 8.** The Romfell armoured car in a war-weary condition with removed headlights, probably on its transport to Trieste June 1917

### Österreichisch-ungarisches Panzer-Automobil.

Das Automobil im allgemeinen und das Panzerautomobil im besonderen ist in diesem Kriege zu hohen Ehren gelangt und so sehen wir allerseits die rege Tätigkeit, die die Ingenieure und Techniker entfalten, um gefechtsstüchtige, automobiler Fahrzeuge herauszubringen. Es liegt in der Natur der Sache, daß die Summe der Erfahrungen, die der Krieg mit sich brachte, die Erfahrungen eines halben Jahrhunderts Friedensjahre aufwiegt. Die letzten Panzerautos unterscheiden sich von jenen, die noch vor wenigen Jahren gebaut wurden,

Nachblatt „A Motor“ das Bild eines der jüngsten Panzerautomobile unserer Armee, das in der Budapester k. u. k. Kraftfahr-Reparatur-Werkstätte gebaut worden ist. Das mit Scheibenrädern, Vollgummireifen und Seilwinde versehene Auto ist offensichtlich für ansehnliche Geschwindigkeiten berechnet. Aus der Stupel des Panzerturmes ragt ein Maschinengewehr. In die Seitenwände sind Schießscharten eingeschnitten. Ganz ähnlich wie die deutschen Flugzeuge ist das Panzerauto mit dem Zeichen des



Ein Panzerauto unserer Armee.

Das Panzerautomobil wurde in der Budapester k. u. k. Kraftfahr-Reparatur-Werkstätte gebaut.

(A Motor.)

ganz beträchtlich. Aus den plumpen, beräuberischen Festungen sind schneidige, rasche Fahrzeuge geworden, die trotz ihrer offenbar größeren Beweglichkeit ebenso wirksam gepanzert sind, wie ihre Vorläufer. — Wir veröffentlichen heute nach dem bekannten ungarischen

Eisernen Kreuzes gekennzeichnet. Das Fahrzeug ist nicht nur an und für sich beachtenswert, sondern auch als Befähigungsprobe unserer Kraftfahr-Reparatur-Werkstätte, deren musterhafte Einrichtung und Leitung durch den Bau solcher Panzerautos klar dargetan wird.

**Illustration 9.** A strange point was that this top secret military project was published in the „Allgemeine Automobil Zeitung“ issue 47 from November 21, 1915

#### BIBLIOGRAPHY, REFERENCES and SOURCES:

SCHIMON Wilfried, Österreich-Ungarns Kraftfahrformationen im Weltkrieg 1914-1918

Hermagoras Verlag, Klagenfurt, ISBN 978-3-7086-0243-1

ARTL Gerhard, unveröffentlichte Studie über die gepanzerten Fahrzeuge Österreich-Ungarns

Österreichisches Staatsarchiv Kriegsarchiv, military reports and documents, drawings and photos

Chloe Plattner, private archive, photos, drawings and documents

*It is a real honour for me to assist to Copper State Models in achieving the highest possible accuracy for developing this kit.*

*Chloé Fanny Plattner, August 2019*



## Important Notes

- Read the instructions carefully before starting 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, gluing and sanding.
- Use paints designed and suitable for plastic model kits.

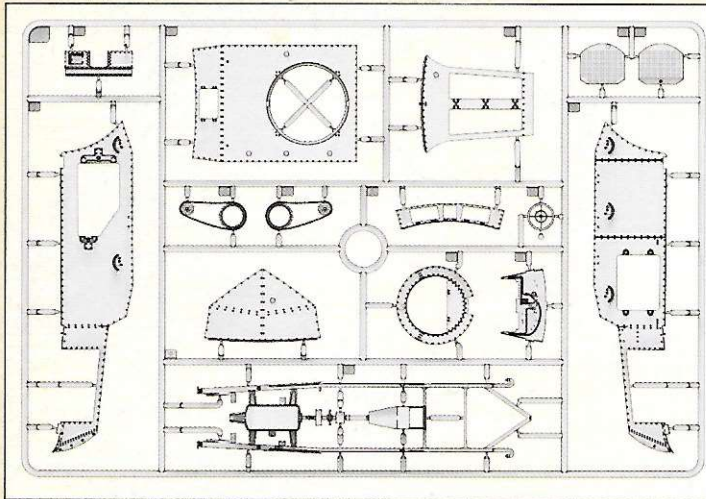


Fig. 1. Fret A

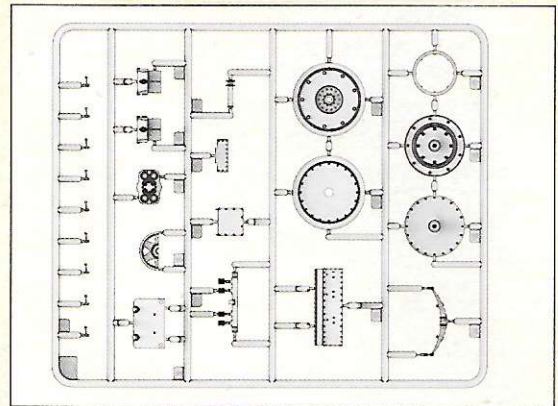


Fig. 2. Fret D x2

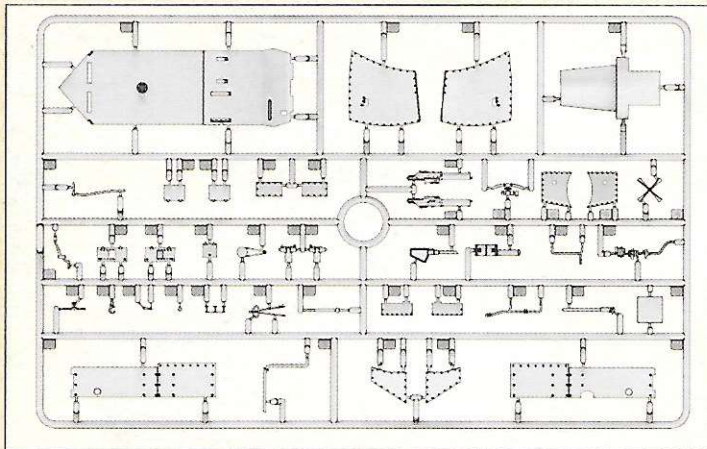


Fig. 3. Fret B

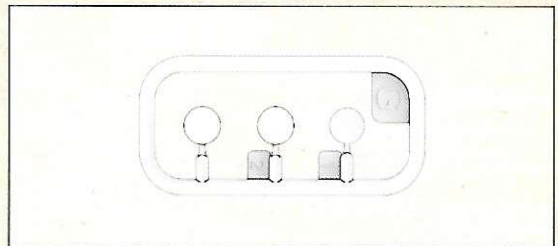


Fig. 4. Fret G

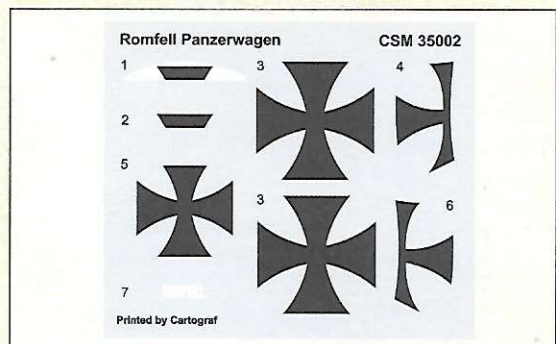


Fig. 6. Decals

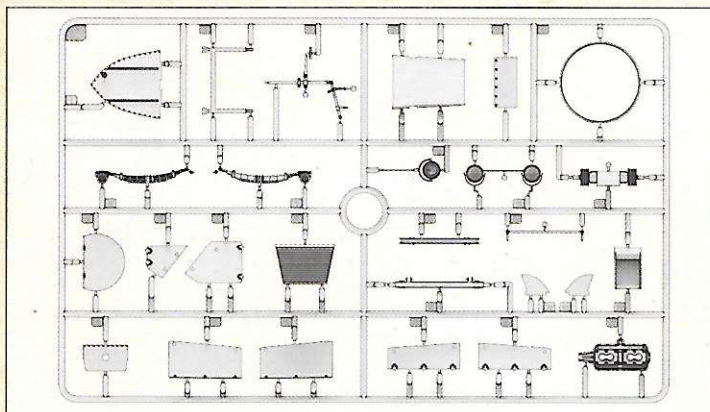


Fig. 5. Fret C

1 Aluminum	7 Gun metal
2 Copper	8 Rubber (light)
3 Steel	9 Brass
4 Black	10 Gloss black
5 White	11 Grey green
6 Leather	

Colour numbers

## Symbols Reference



No Glue



Apply Decal



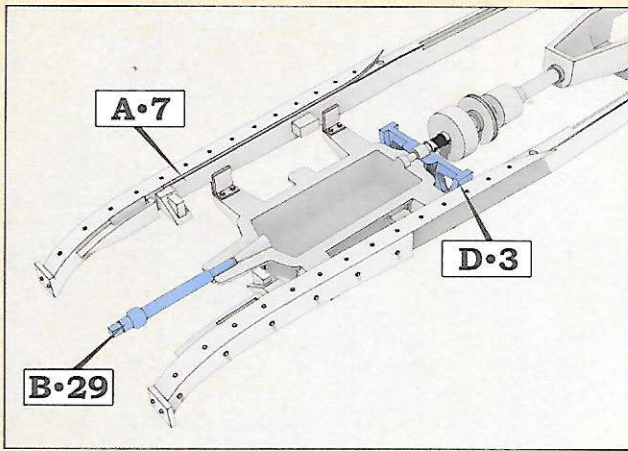
Other Side



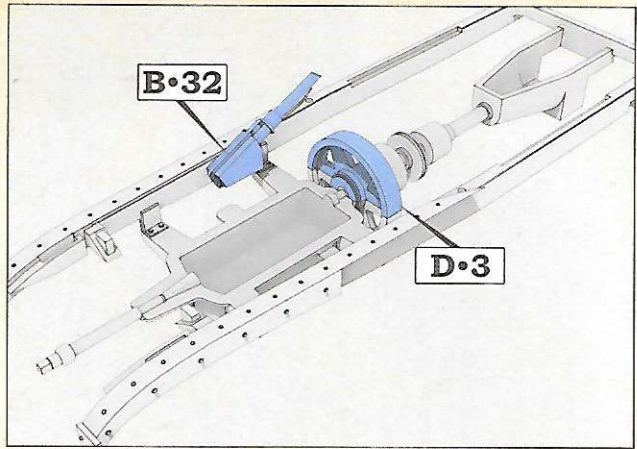
Option



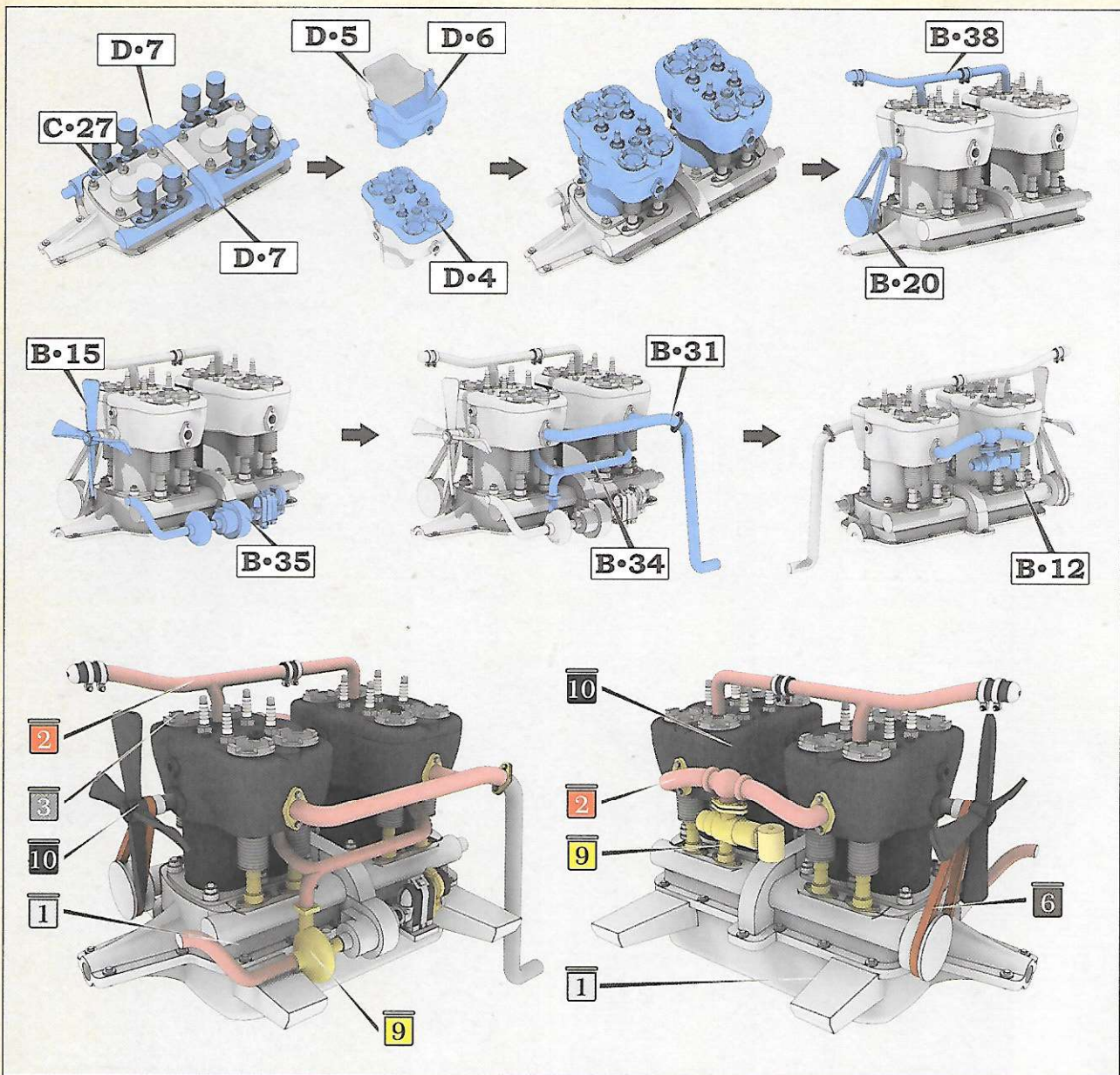
Cut/Remove



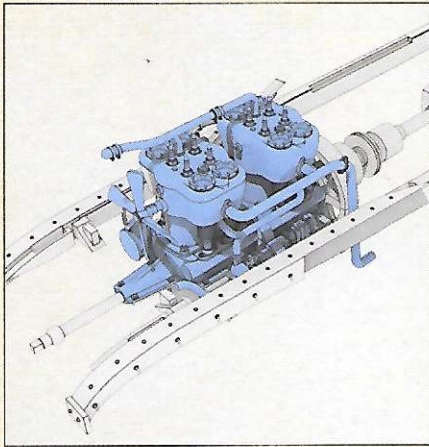
Step 1. Installing engine parts on to the car frame.  
Skip D3 installation if building fully closed Romfell



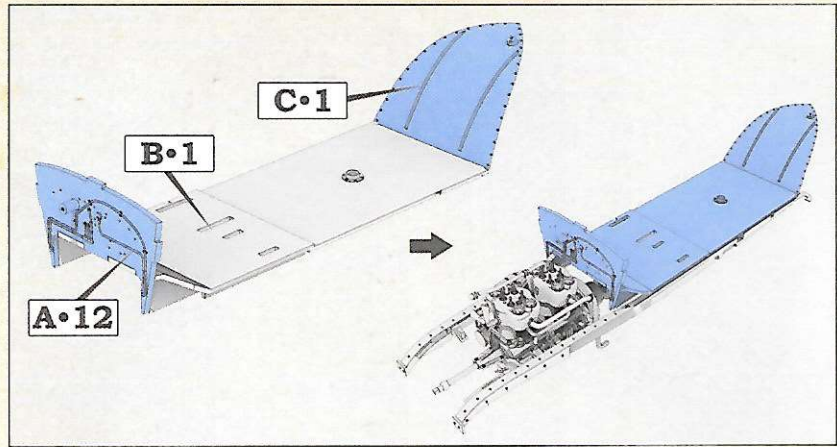
Step 2. Installing flywheel half and steering gear box.  
Skip this step if building fully closed Romfell



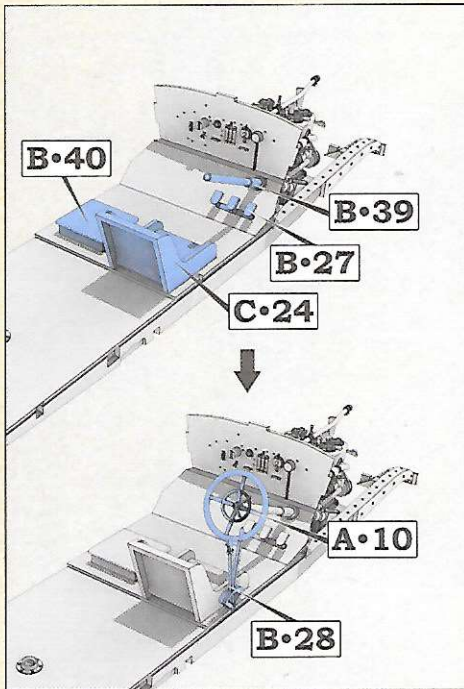
Step 3. Engine assembly. Skip this step if building fully closed Romfell.



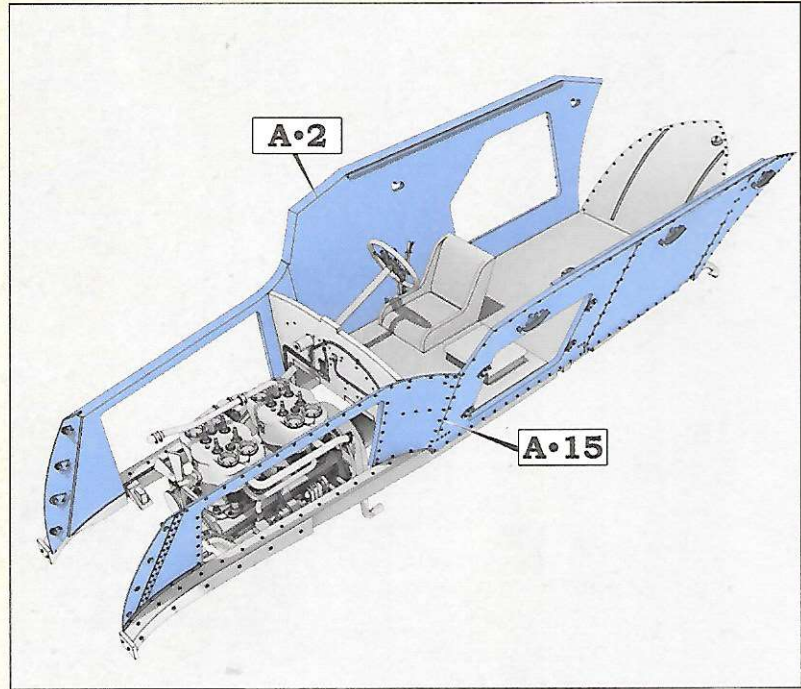
Step 4. Installing the engine. For fully closed Romfell install part C27



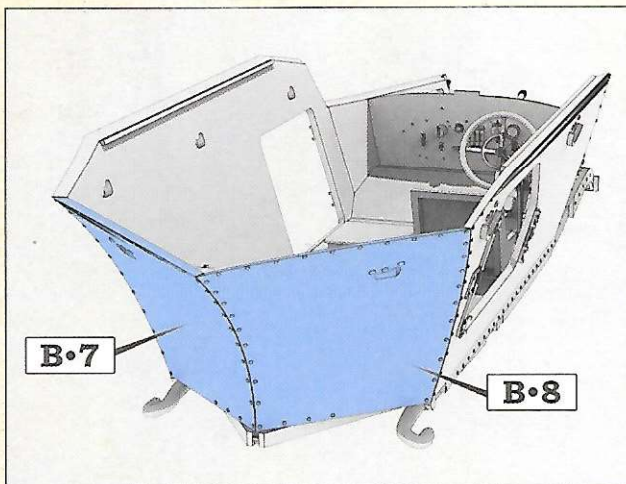
Step 5. Assembling firewall, floor and the fuel tank (rear part)



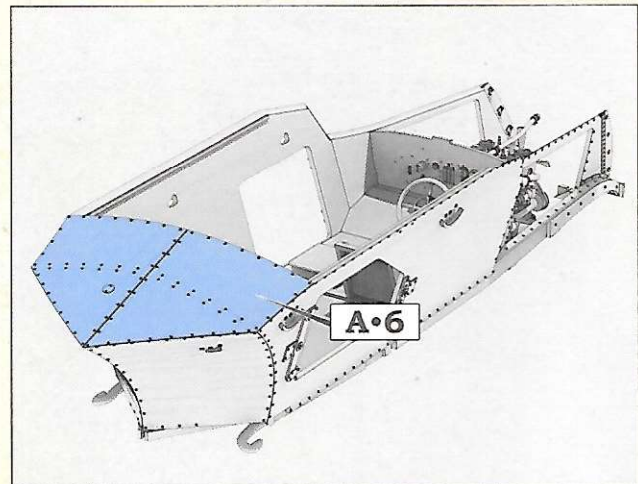
Step 6. Installing interior parts. Skip this step for fully closed Romfell



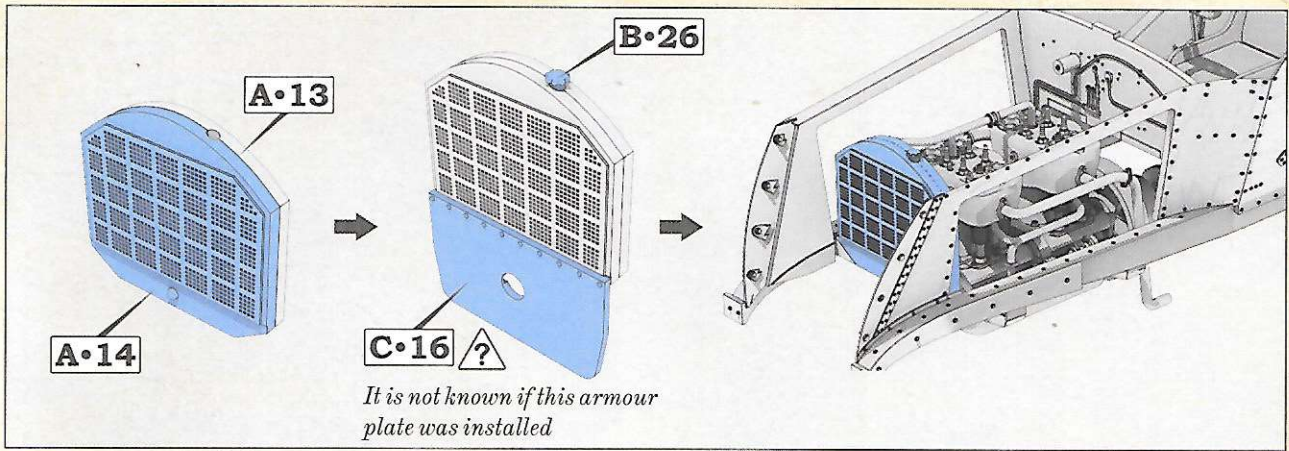
Step 7. Installation of the armoured superstructure walls



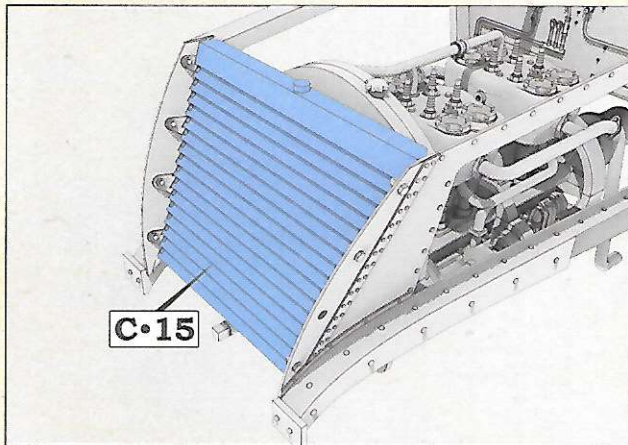
Step 8. Installation of the armoured superstructure rear walls



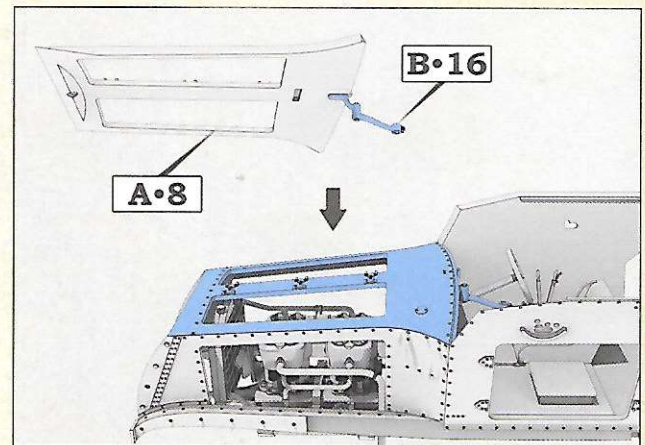
Step 9. Installing the rear part of the roof



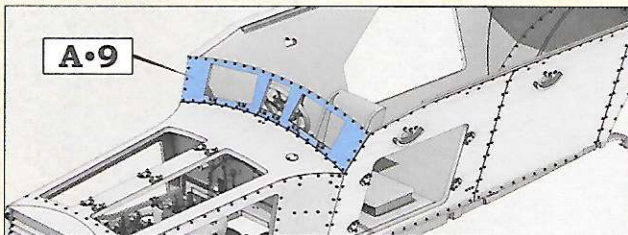
Step 10. Assembling and installation of the radiator.



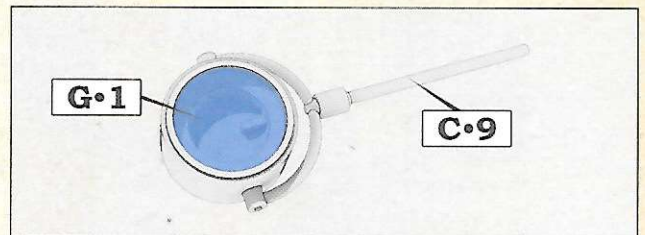
Step 11. Installation of the radiator armoured protection



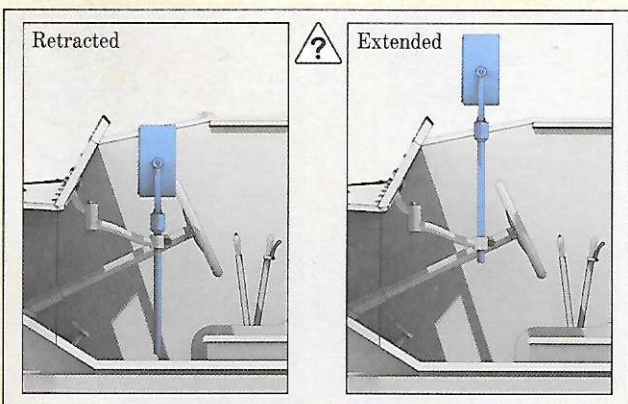
Step 12. Installation of the armoured hood. Skip B16 installation if building fully closed Romfell



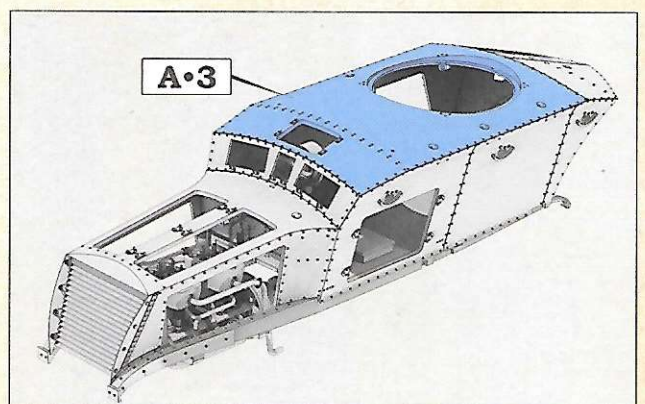
Step 13. Installation of the armoured windscreen



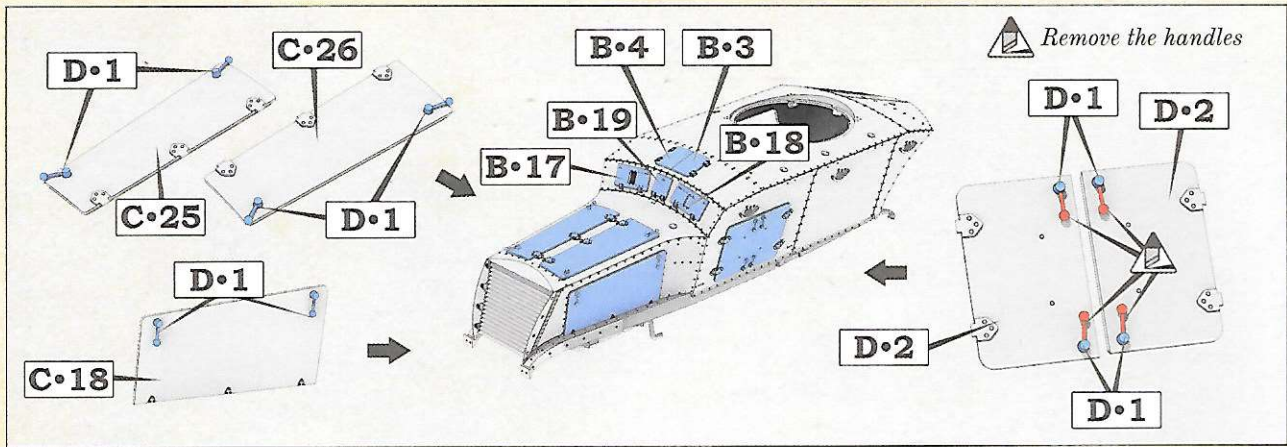
Step 14. Assembling the searchlight. Skip this step if building fully closed Romfell



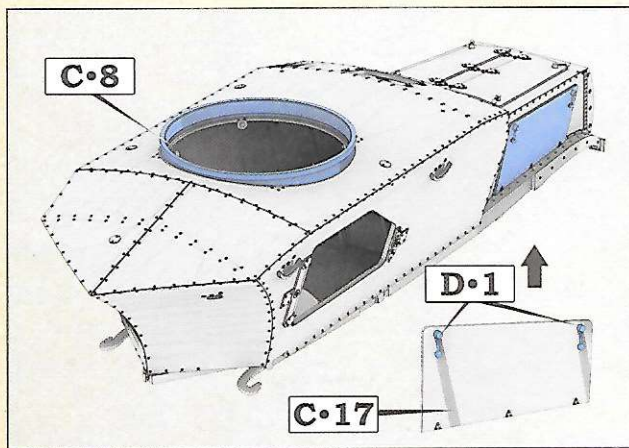
Step 15. Installation of the searchlight. Skip this step for fully closed Romfell.



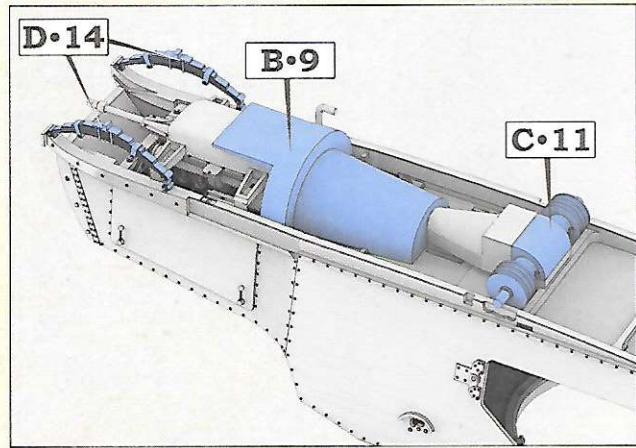
Step 16. Installation of the main roof



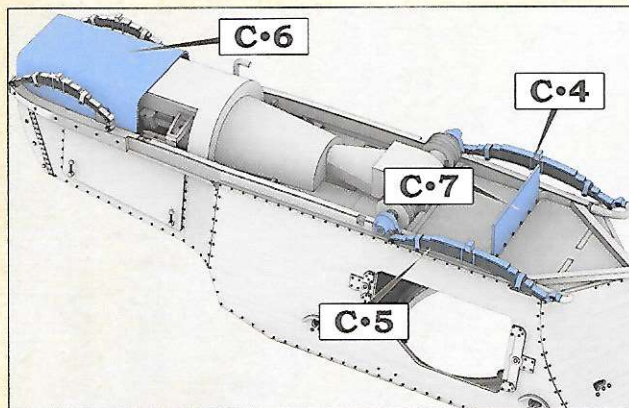
Step 17. Installation of doors, different panels and hatches



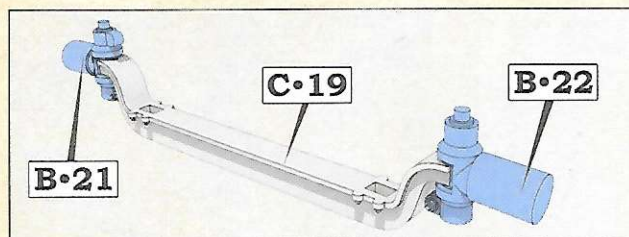
Step 18. Installation of the turret base ring and engine side panel



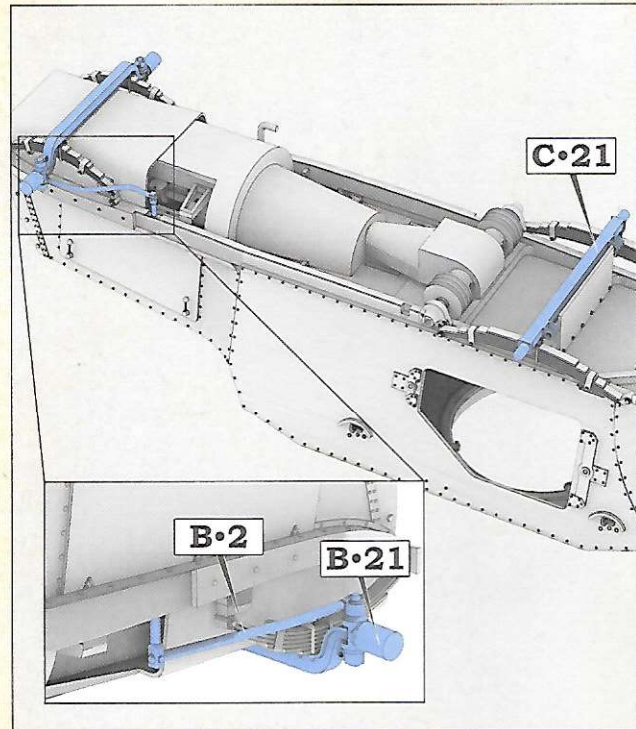
Step 19. Installation of the front cantilever springs, chain drive unit and the drive shaft housing



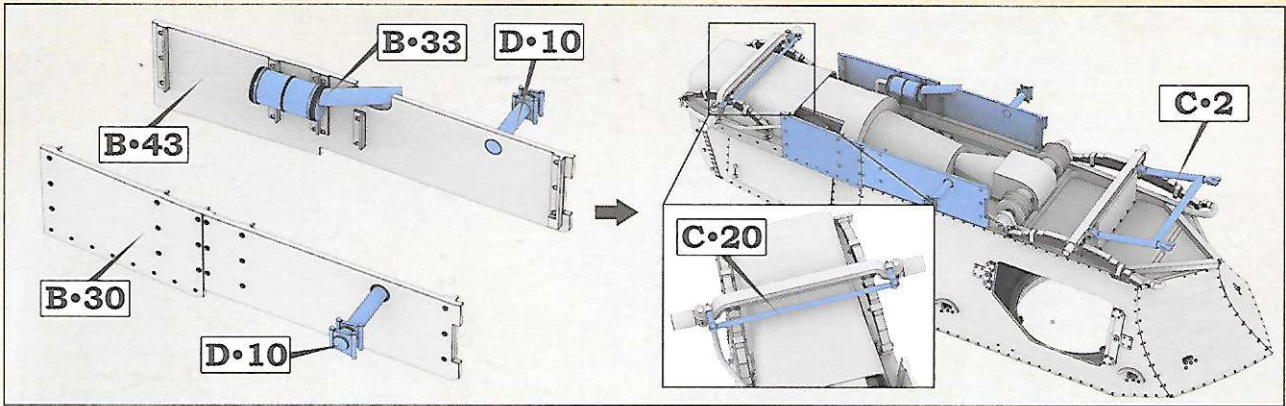
Step 20. Installation of the rear cantilever springs, rear axle armour plate and front engine housing



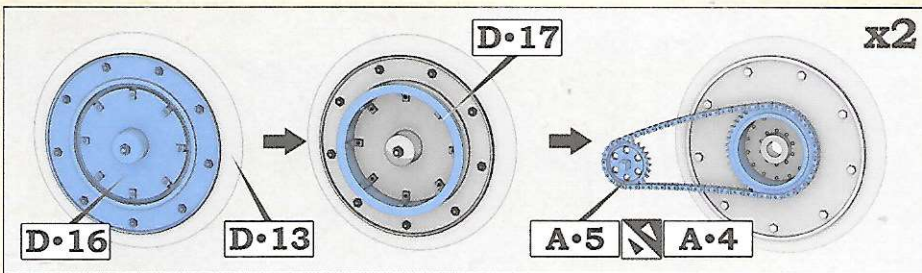
Step 21. Front axle assembly.



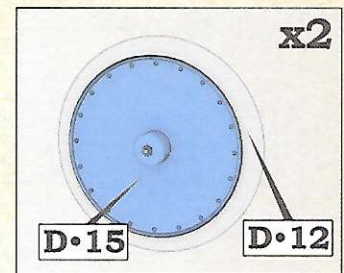
Step 22. Installation of the rear axle and front axle with steering arm



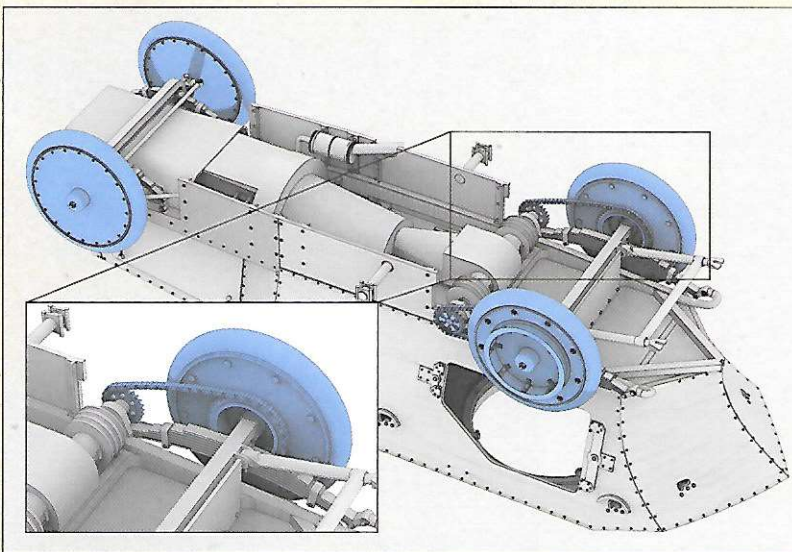
Step 23. Assembling of the side armour with exhaust and other parts



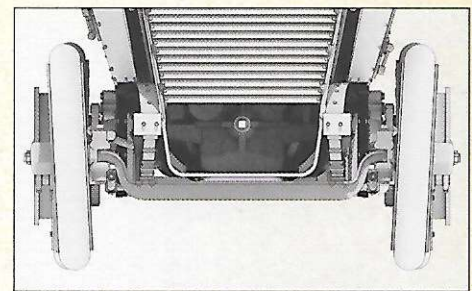
Step 24. Assembling of the rear wheel with chain drive. Make two



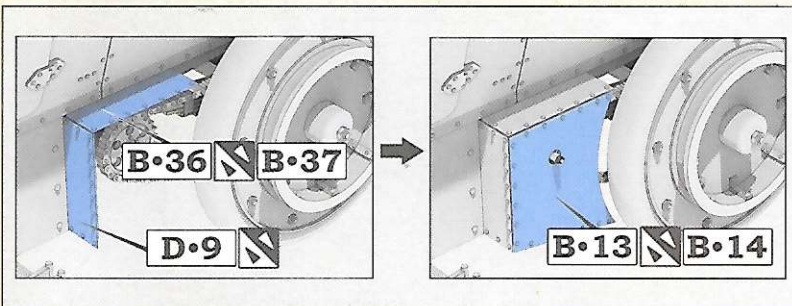
Step 25. Assembling of the front wheel. Make two



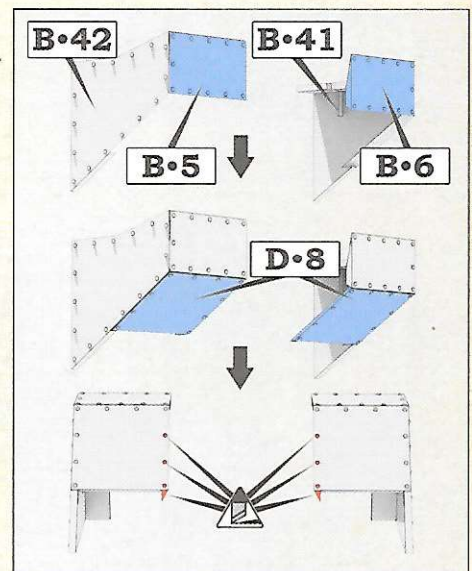
Step 26. Installing wheels



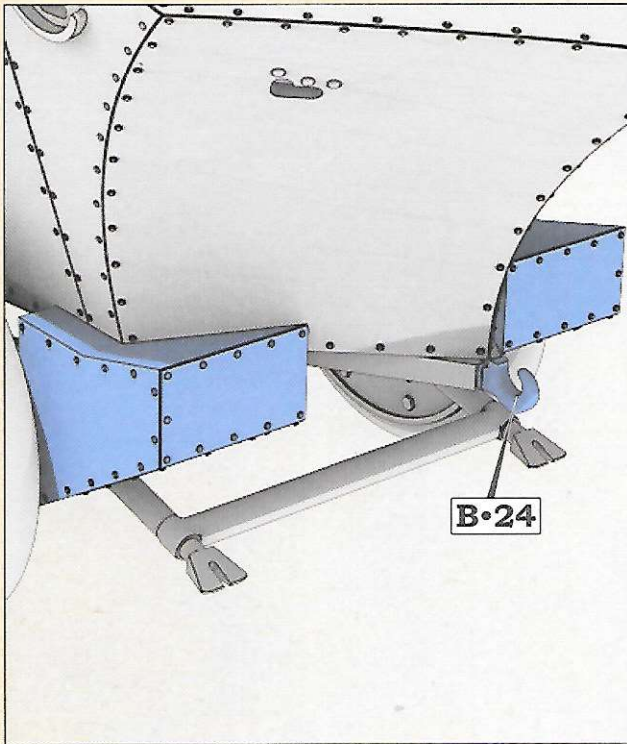
Check the front wheels for positive camber



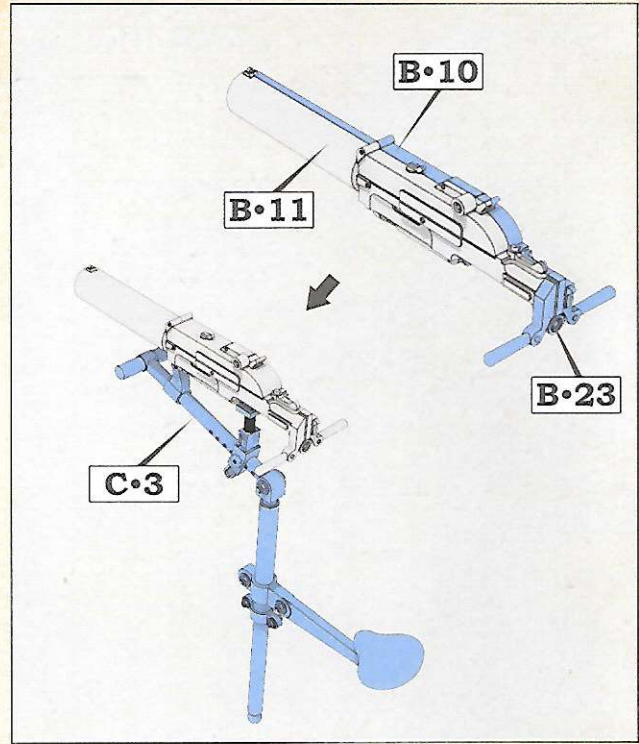
Step 27. Installing chain drive protection



Step 28. Assembling the rear cantilever springs protection



Step 29. Installing the rear cantilever springs protection and the tow hook



Step 30. Assembling Schwarzlose MG with MG mount

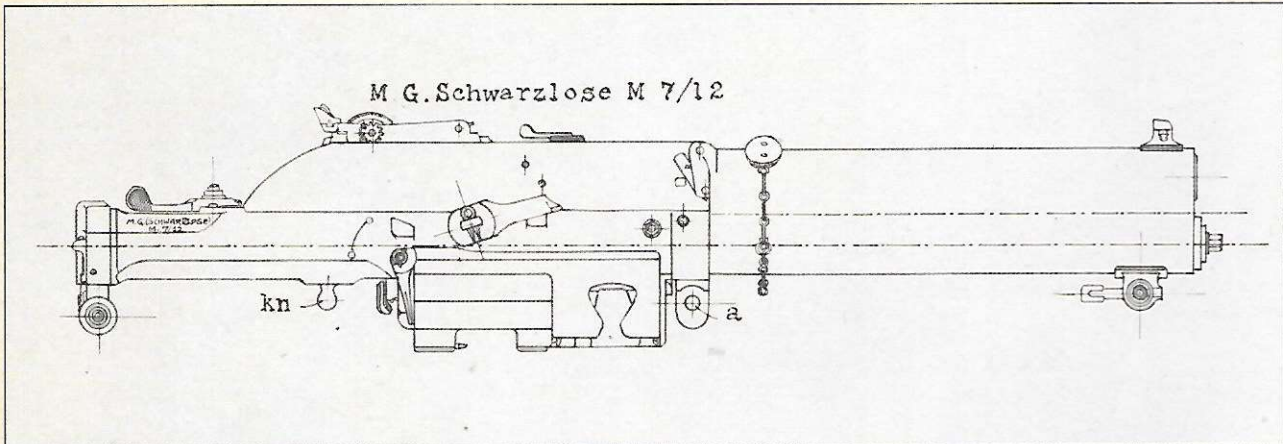
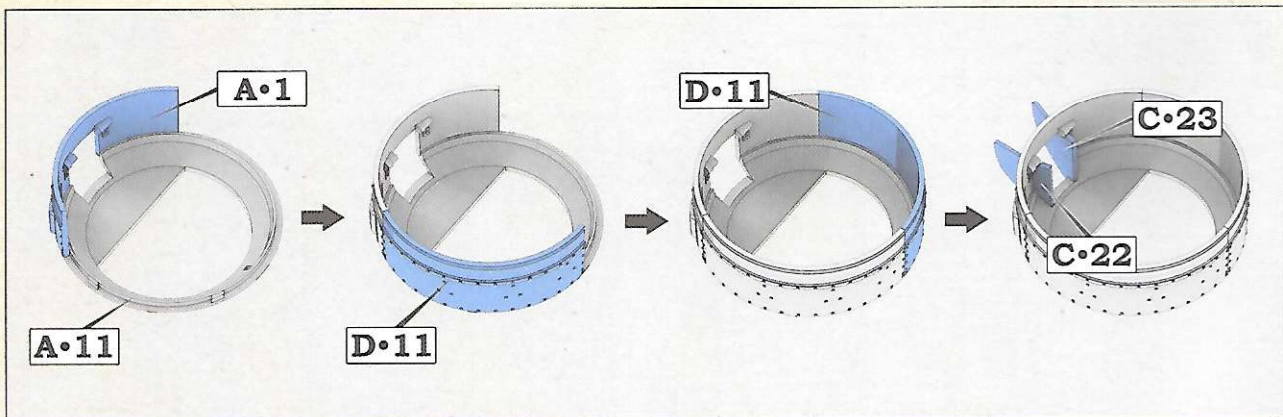
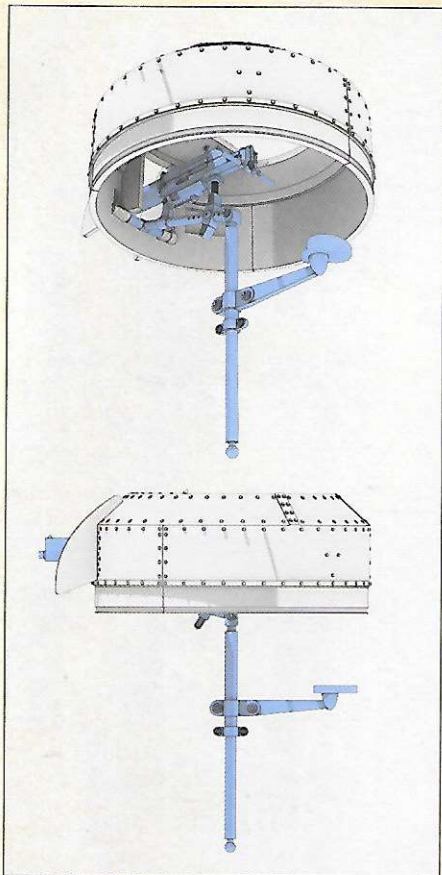


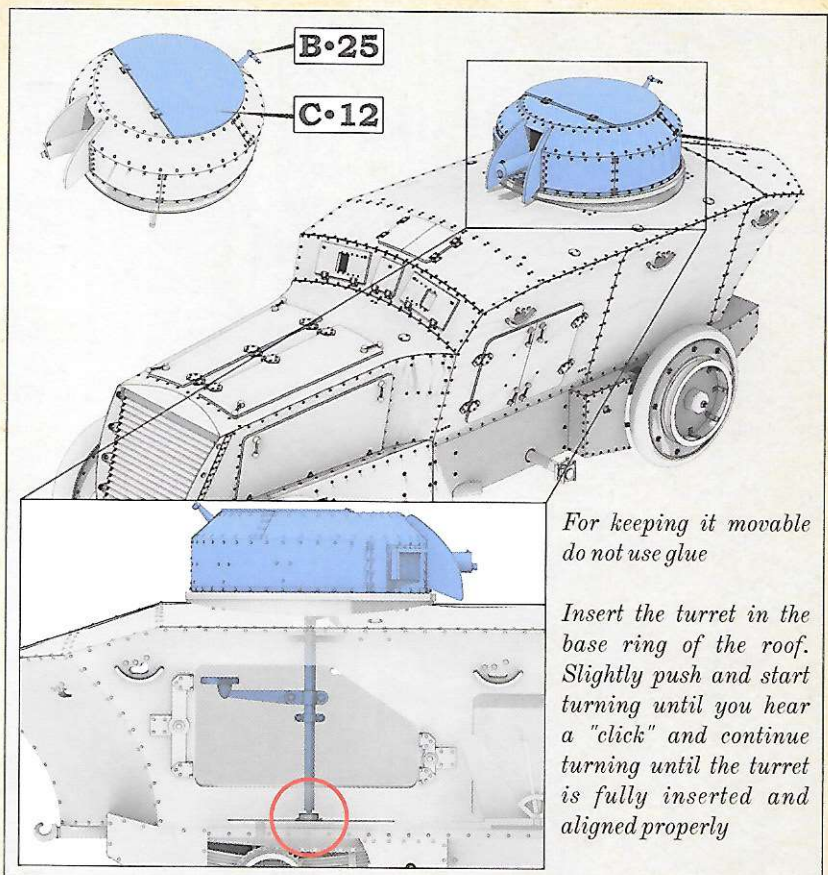
Illustration 10. The drawing of Maschinengewehr Schwarzlose M.07/12



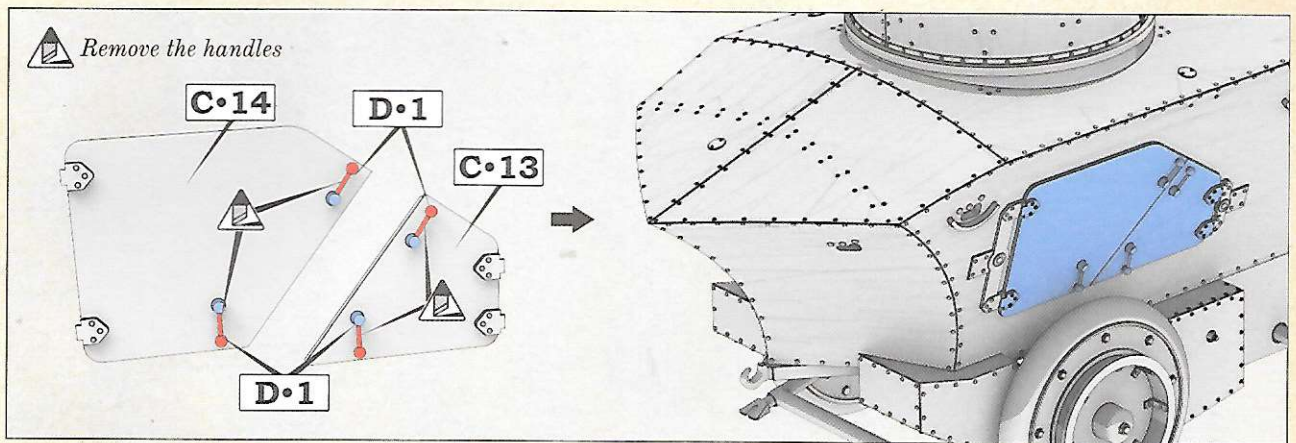
Step 31. Assembling the turret



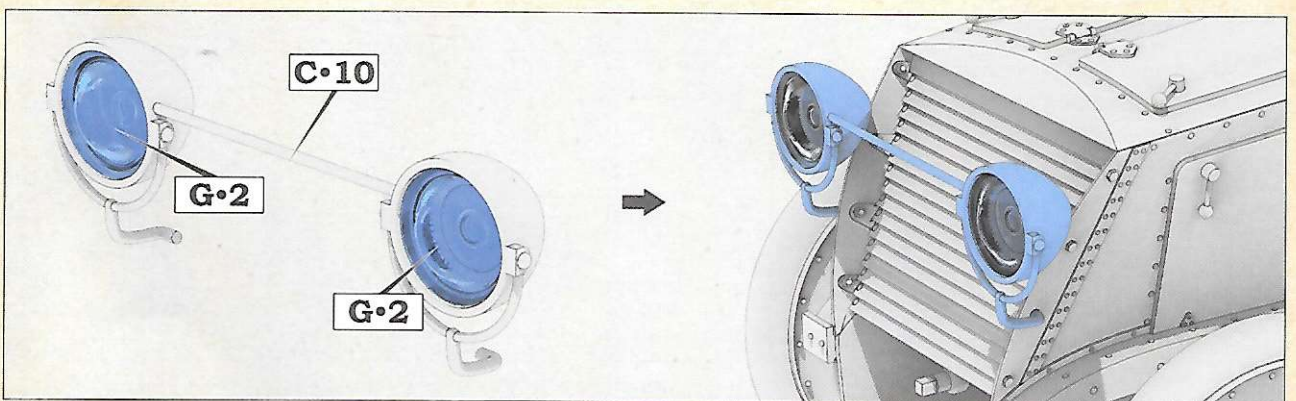
Step 32. Installing Schwarzloze MG into the turret



Step 33. Joining turret with the armoured superstructure



Step 34. Installing the right side rear doors



Step 35. Assembling and installing the headlights



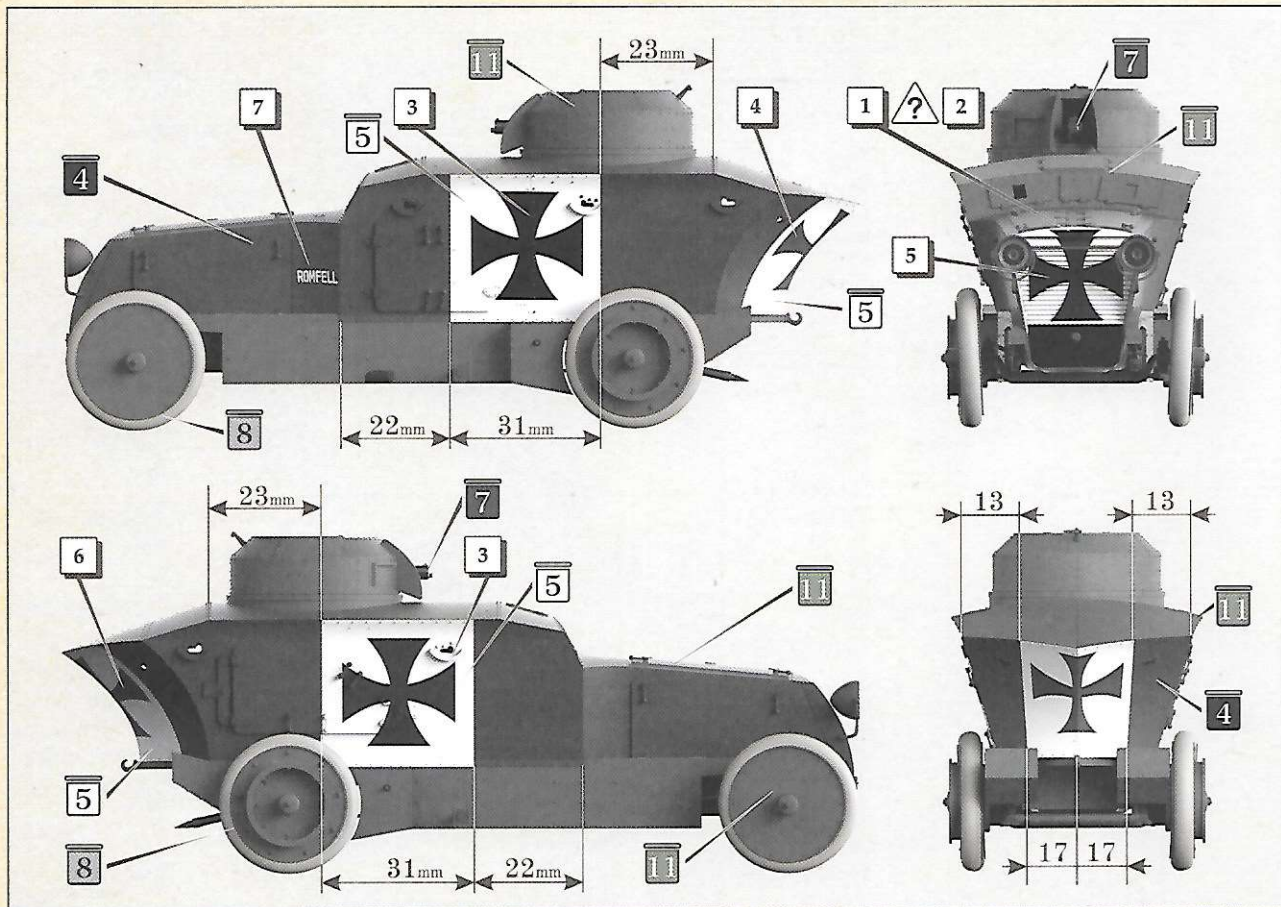


Illustration 11. Romfell in Vienna, November 1915, before leaving to the Army

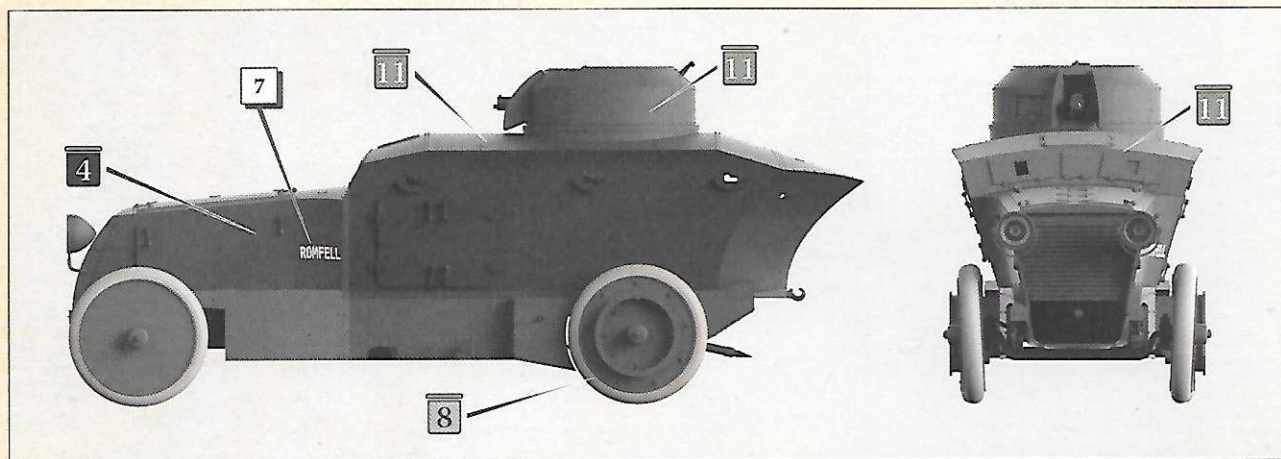


Illustration 12. Romfell in the area of the 7th Army, Winter 1915/1916

All colour information are speculative as there is no documentation known. On the pictures the vehicle appears in different shades of gray. This could have been a very dark grey or a kind of olive green. On Austro-Hungarian vehicles and armour have been used many different colours. The sides of the car could have been painted black. Wheels are light or dark grey.

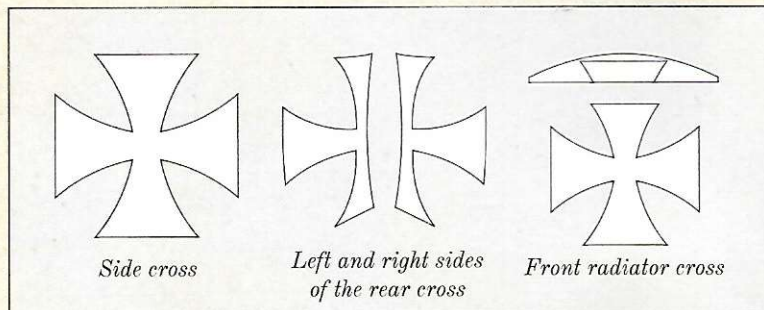


Illustration 13. Romfell crosses for masking templates to make your own masks

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