

Military Heritage Sustainable Skills for Life

Instructional Lesson Plan 1

Renault FT 1918 Tank

THE **WEALD**
FOUNDATION




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Who are we? What do we do?



The [Weald Foundation](#) is a charitable organisation established to preserve, restore and maintain historic military vehicles from both World Wars, and to educate the public about their history.



Our unique line up of rare and important military vehicles that we have rescued is considered to be one of the finest working collections in the world.

At the Weald Foundation, schools, engineers, historians, modellers, enthusiasts, and collectors come together to discover and learn.

We have carried out extensive work on many types of armoured fighting vehicles, including tank restoration. Our team sources original components and, where necessary, create new parts from the original blueprints or examples.



Our research into the history of every vehicle in our collection provides unique authenticity to our work.

We strive to understand each vehicle's story, where and when it was assembled, its role in combat, and the story of the people who operated them or fought against them.

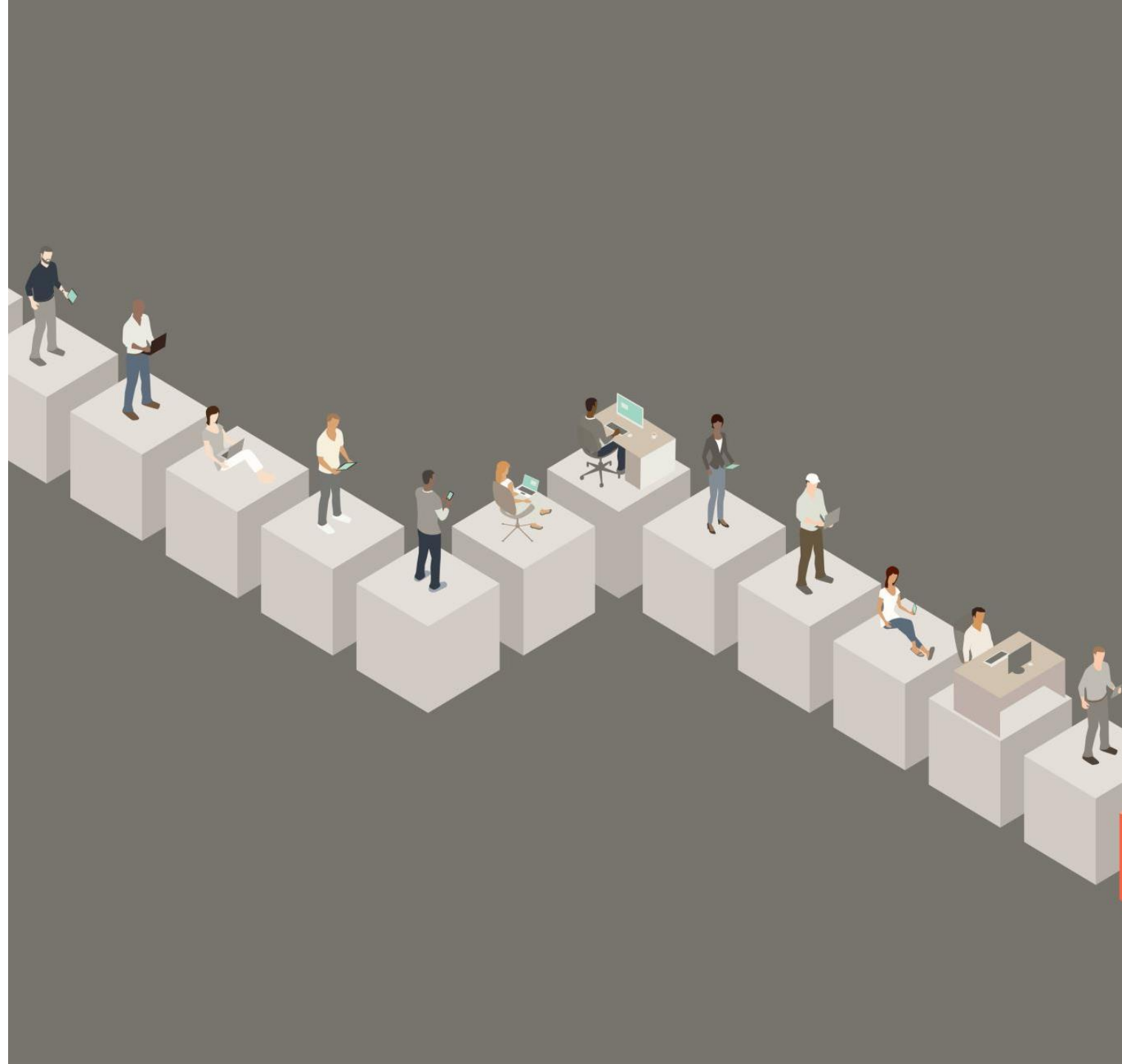


THE **WEALD** FOUNDATION



- Skills and Development through Military Heritage
- Providing Sustainable Skills for Life

- At The Weald Foundation people are given an opportunity to experience first-hand our working environment, meet staff and see the restoration process in action. Our aims:
- To bring people from different geographical and ethnic backgrounds together in a structured, supportive environment and to help break down barriers and create change.
- Re-engage people with education, employment or training and help them to gain skills.





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The main objective of The Weald Foundation charity is 'Education'.

We have offered Apprenticeships and successfully assisted individuals into secure employment.

We are an ASDAN accredited provider offering accredited qualifications.

Military Heritage is our focus

The Renault FT 1918 Tank

- This instructional lesson plan is focussed on The Renault FT 1918 Tank – this vehicle was recovered over many years from various places across Europe and elsewhere.
- This was part of a ten year project alongside the Renault TSF Tank restoration
- The fact that the project was over a period of ten years puts into clear context the complexity, precision and work required to fully restore these vehicles to a very high standard
- The Weald Foundation has an international reputation for the quality of its restoration work





- The Renault FT 1918 Tank when it first arrived at our workshops in Kent

- The Renault FT Tank owned by The Weald Foundation was originally assembled in June 1918 by Renault at their Billancourt plant just outside Paris, France.
- The registration number and the assembly number 994 provide a key marker for the chronological point in time by which we established the date of assembly.
- For each vehicle that is restored there is a lot of initial detailed research which needs to take place by the team at The Weald Foundation.



- On arrival at The Weald Foundation workshops in Kent, the hull of the FT tank was moderately intact, retaining much of its original paint thereby enabling us to extract the original registration number 66357 which you can see on the vehicle today.
- The *Numero d' assemblage* or assembly number 994 which is also on the vehicle today.
- This sleuth work was achieved by our chief identification analyst who is an astrophysicist.
- The techniques used to identify the missing numbers harked from his astrophysics days – e.g. flicker proved instrumental in identifying the registration number for both vehicles.



Renault FT 1918
Paint / Colours





- The paint treatment follows the mid-1918 Renault pattern which was applied by experts (artists) in the plant at Billancourt.
- The paint which had survived on the hull was analysed by our paint conservation experts at Lincoln Conservation using SEM and X-Ray.
- This investigative work and analysis produced the matching colours originally applied on the Renault FT 1918 Tank.
- The following slides show you the Paint Analysis for both the Exterior and the Interior of the vehicle.
- This led us to have a comprehensive understanding in relation to the original paint and original colours.

Tasks and Processes – Renovation

- We have just reviewed the process in relation to the identification of the interior and exterior paint originally used in the production of the FT 1918 Tank, but what are the other Tasks and Processes that take place during a renovation?
- Our experts and engineers need to comprehensively look at every aspect of the Tank, we use archived plans, blueprints, drawings and documents as well as photos and film images to understand the vehicle to ensure restoration is as accurate as possible
- The following slides show you images of some of the processes and techniques
- You can undertake further research by using The Weald Foundation website and the materials available to you there, you may also want to undertake some independent research.



Examining
the Plates –
before
treatment....



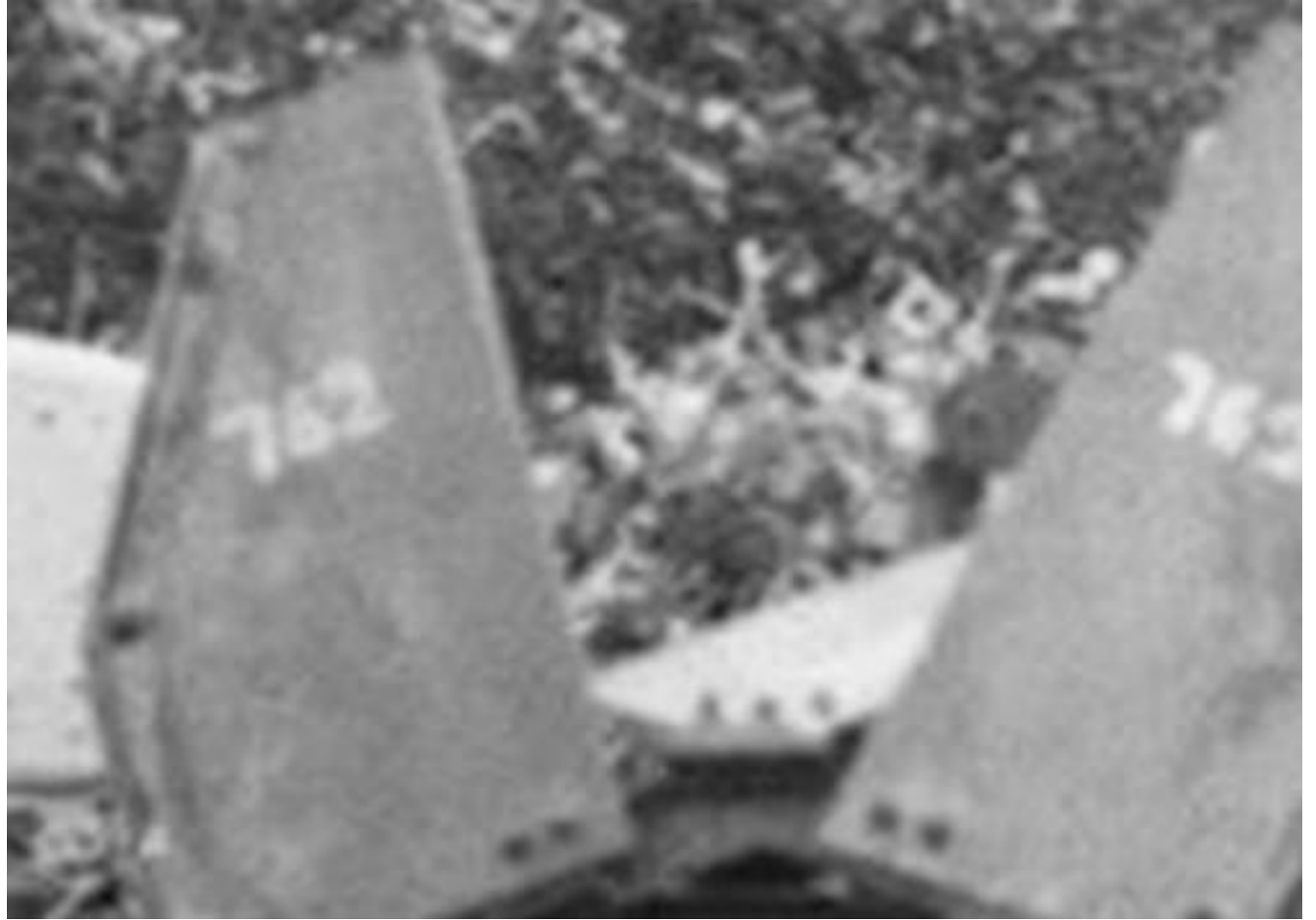
Examining the
Plates – after
treatment –
The FT Tank



..Inside
the Engine
hatch



Inside the
Engine
Hatch in
1918



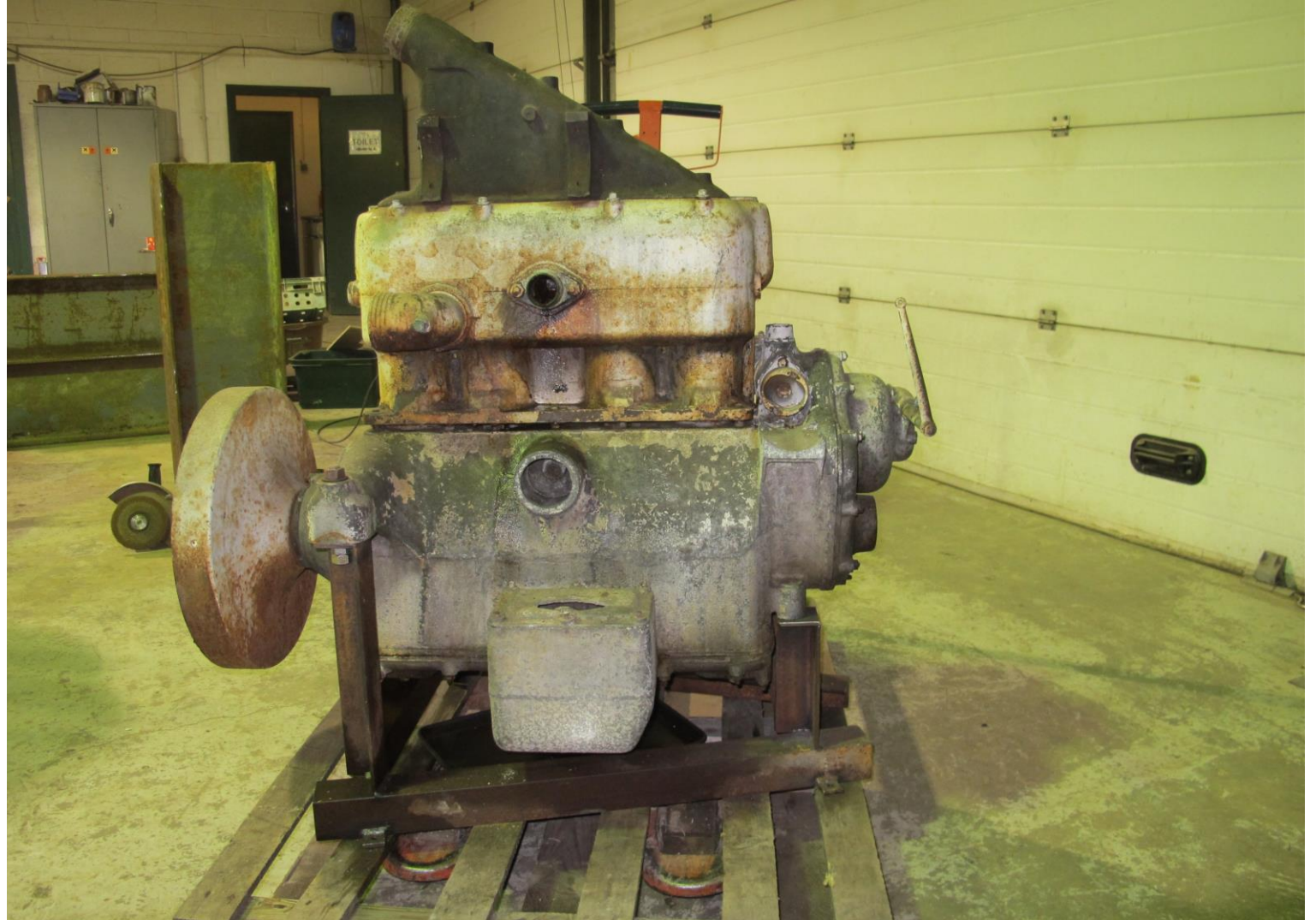
Repairing is time consuming.
Precision care and attention to detail and use of materials is of great importance



Repairing Original Turret



Recovering Original Renault Engine



Corroded Engine Bore



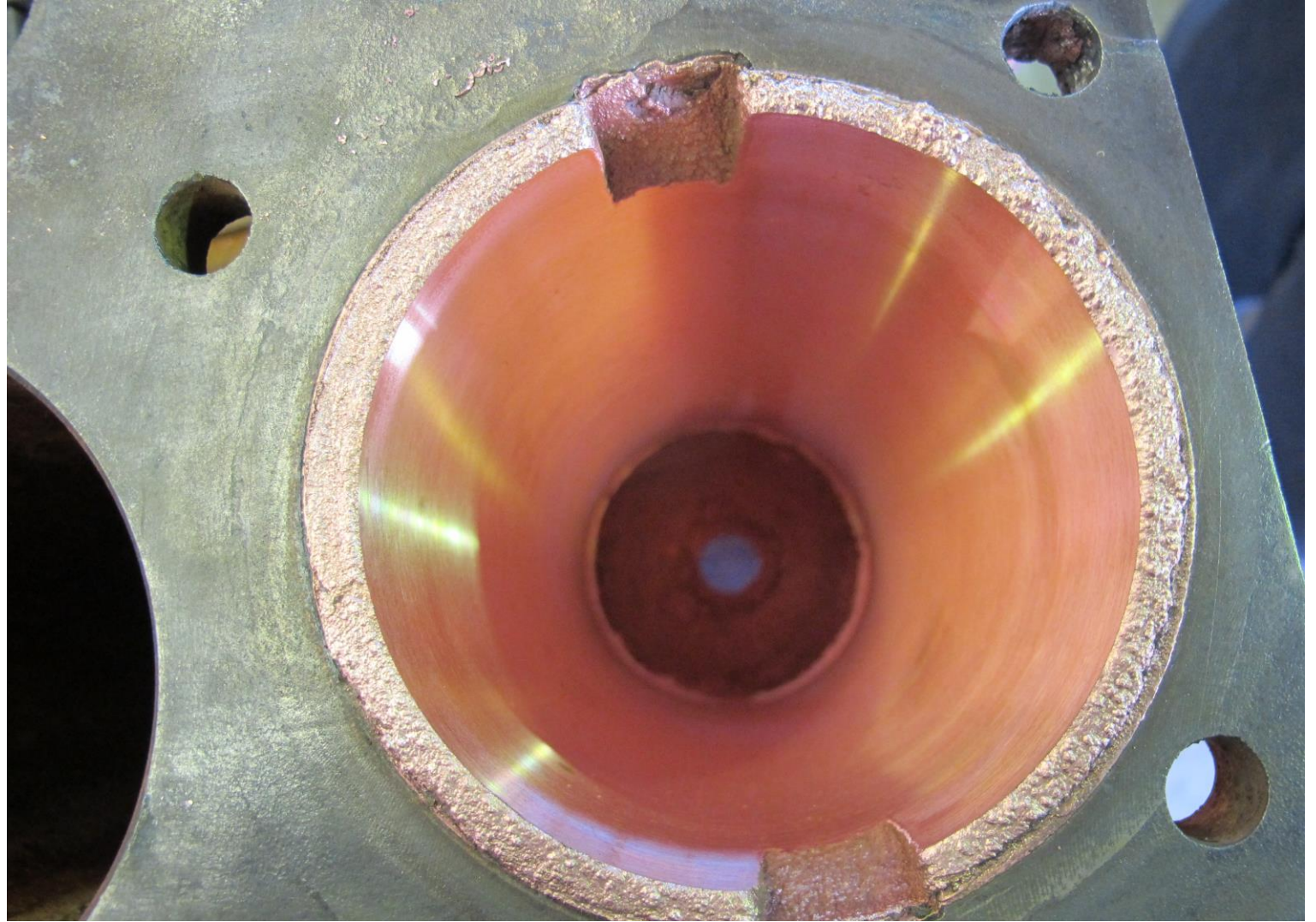
Electroplating Process



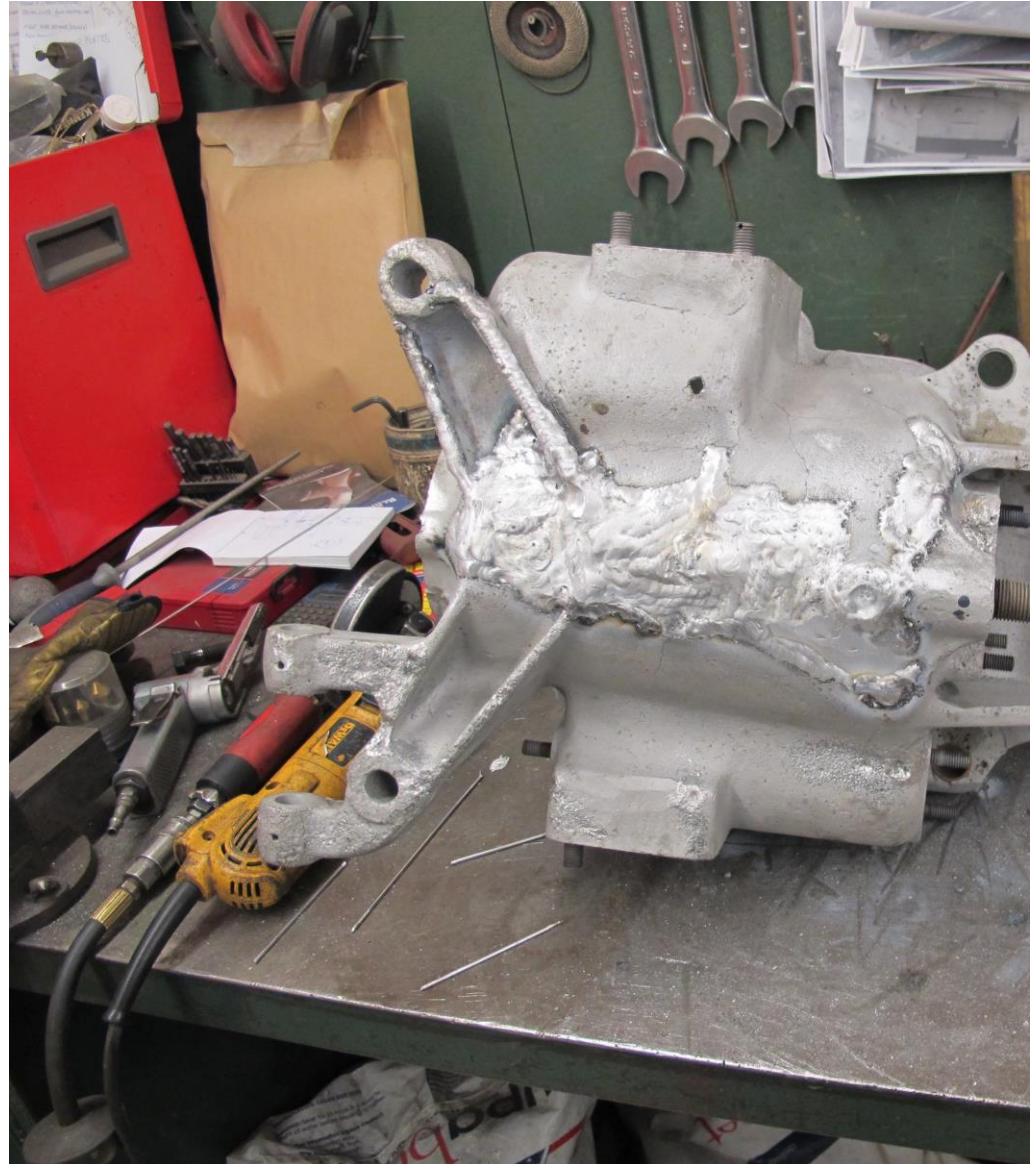
Reboring Process



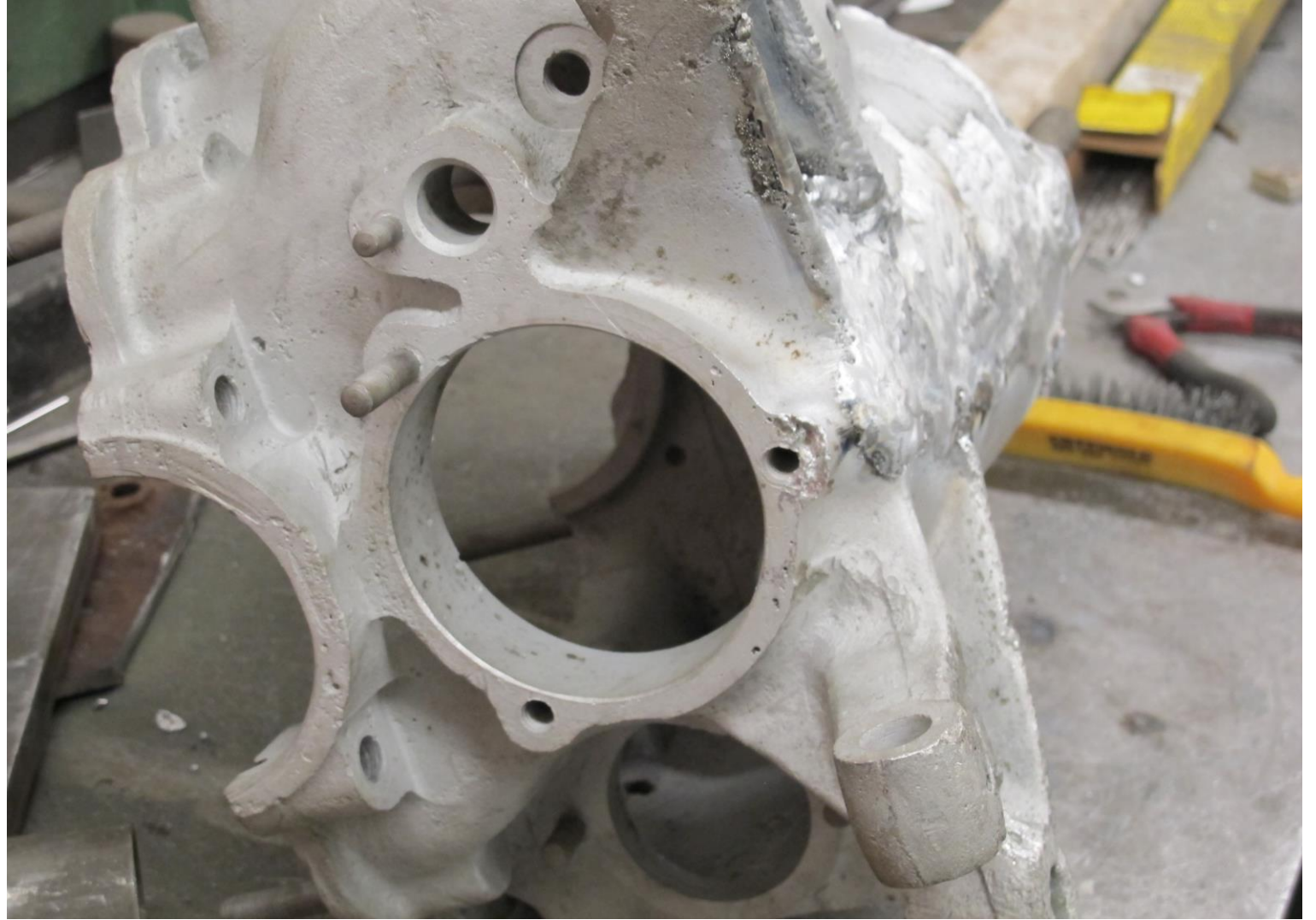
Bore
Plating
Completed



Gearbox Recovery



Rewelding





International Help and Support for our Military Heritage Restoration Work

The Weald Foundation is committed to excellence, and we want to ensure that all of our restoration work and activities are undertaken using best practice methods. We work with partners and specialist organisations internationally who provide information, access to archives, assistance and support which is greatly appreciated. We thank all of our partners. The following slides provide examples of organisations who have assisted us in one or more ways in relation to the Renault FT 1918 Tank restoration process.

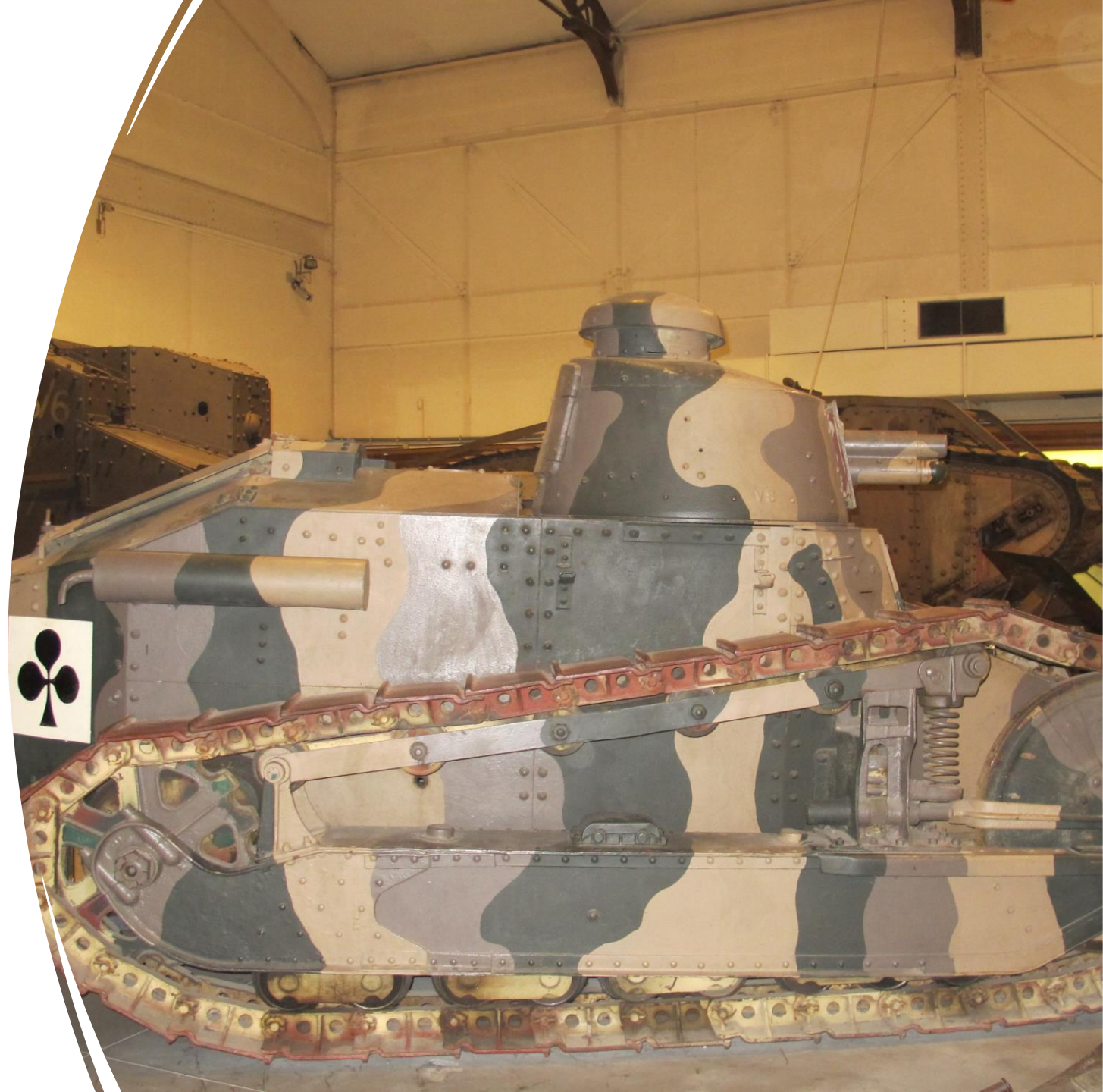
Musee de Blindes Saumur



Fort Benning



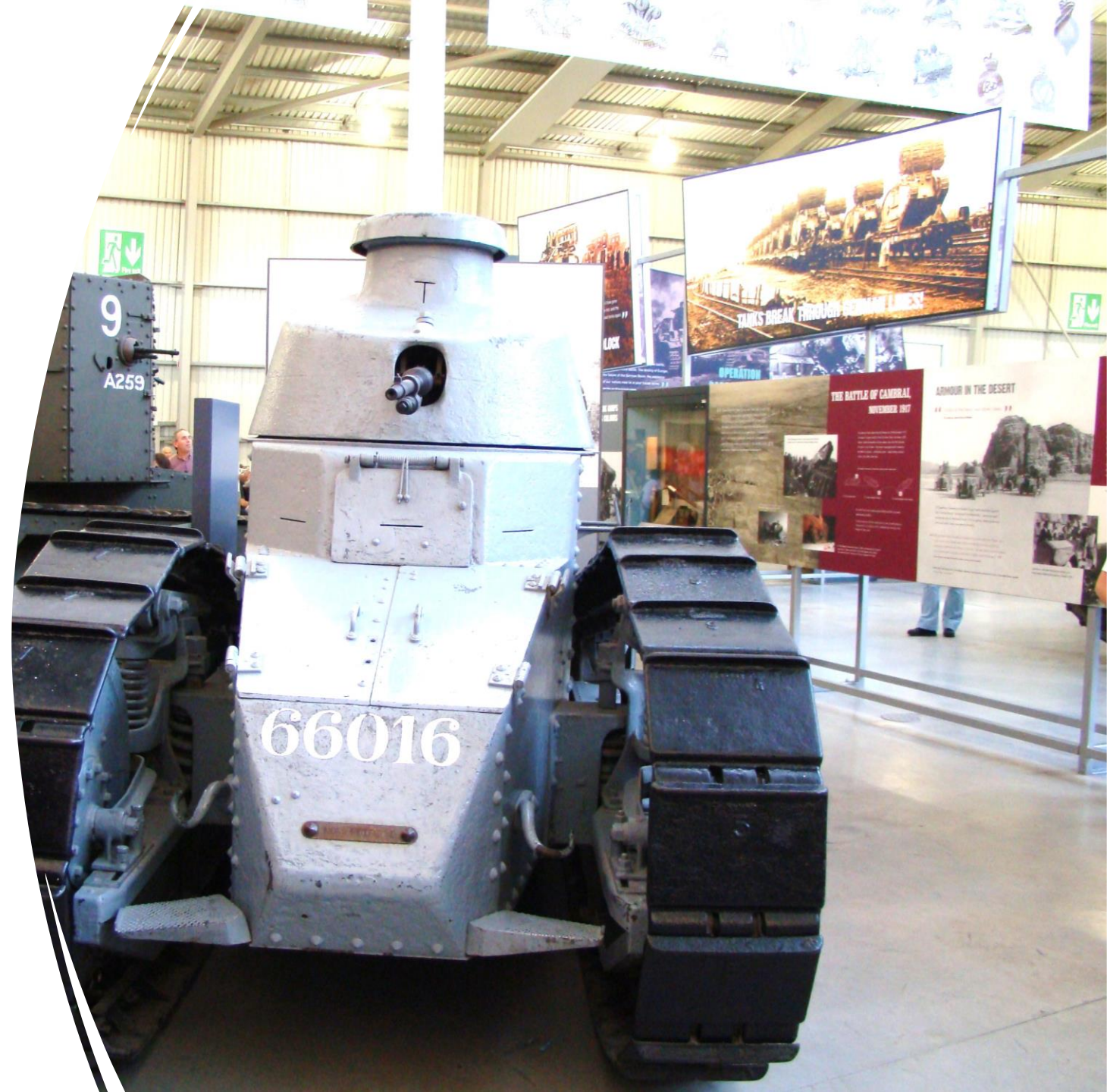
Military Museum Brussels



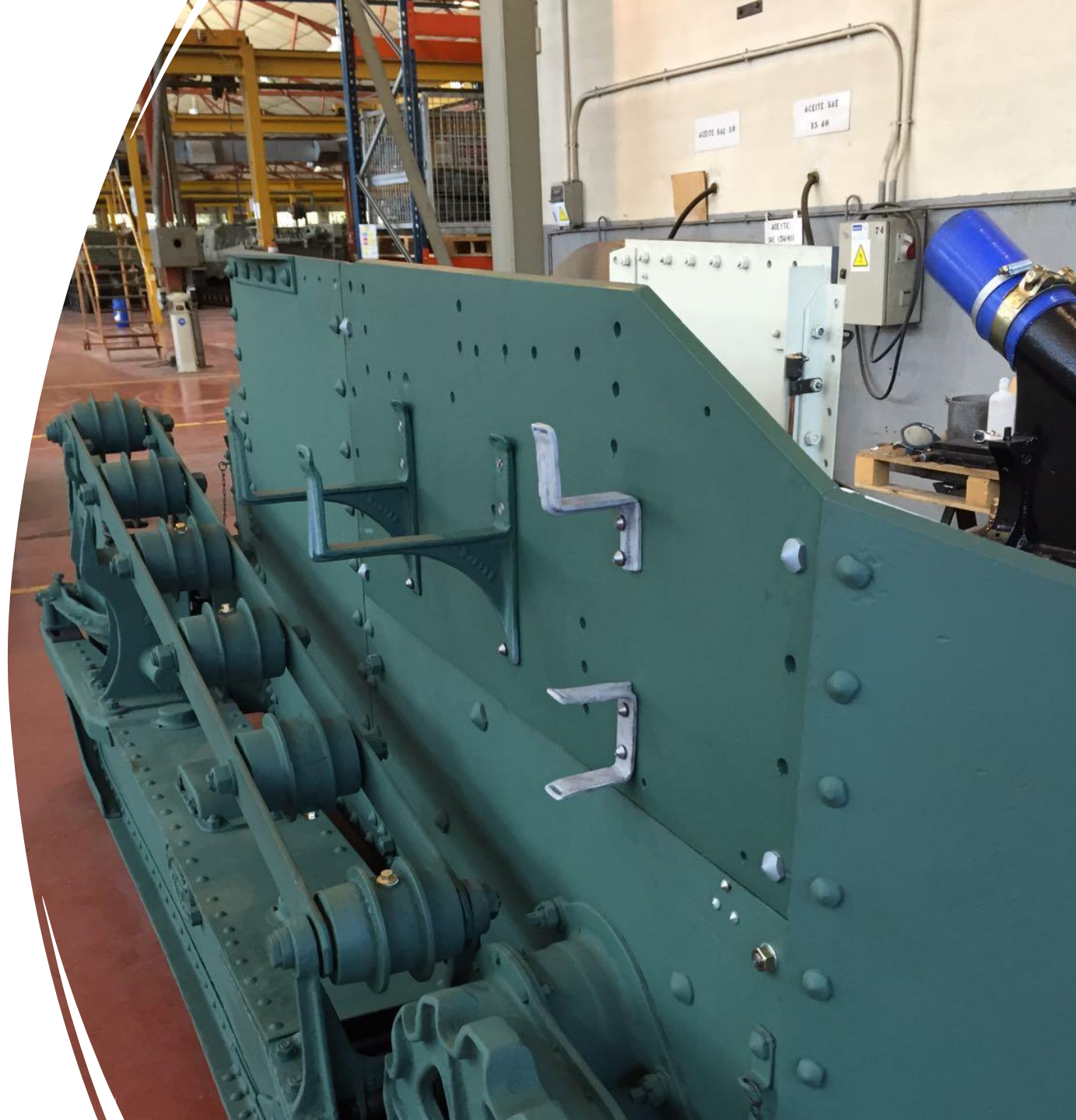
Brazilian Ministry of Defence



The Tank Museum



El Goloso Spanish Army



Weald Foundation Members



Example of Skilled
Craftsmanship:
Reproducing Idler
Wheels



Reproducing Authentic Idler Wheel



Shrinking the Band



Finished Wheel





Renault FT 1918 Tank Restoration
From this to...

Renault FT 1918 Tank Restoration.

... to this.



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Contact Information

If you require more information about this Military Heritage project, or about skills and learning opportunities at The Weald Foundation.

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