



Military Heritage

Sustainable Skills for
Life

Instructional Lesson
Plan 2:

Renault TSF 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.



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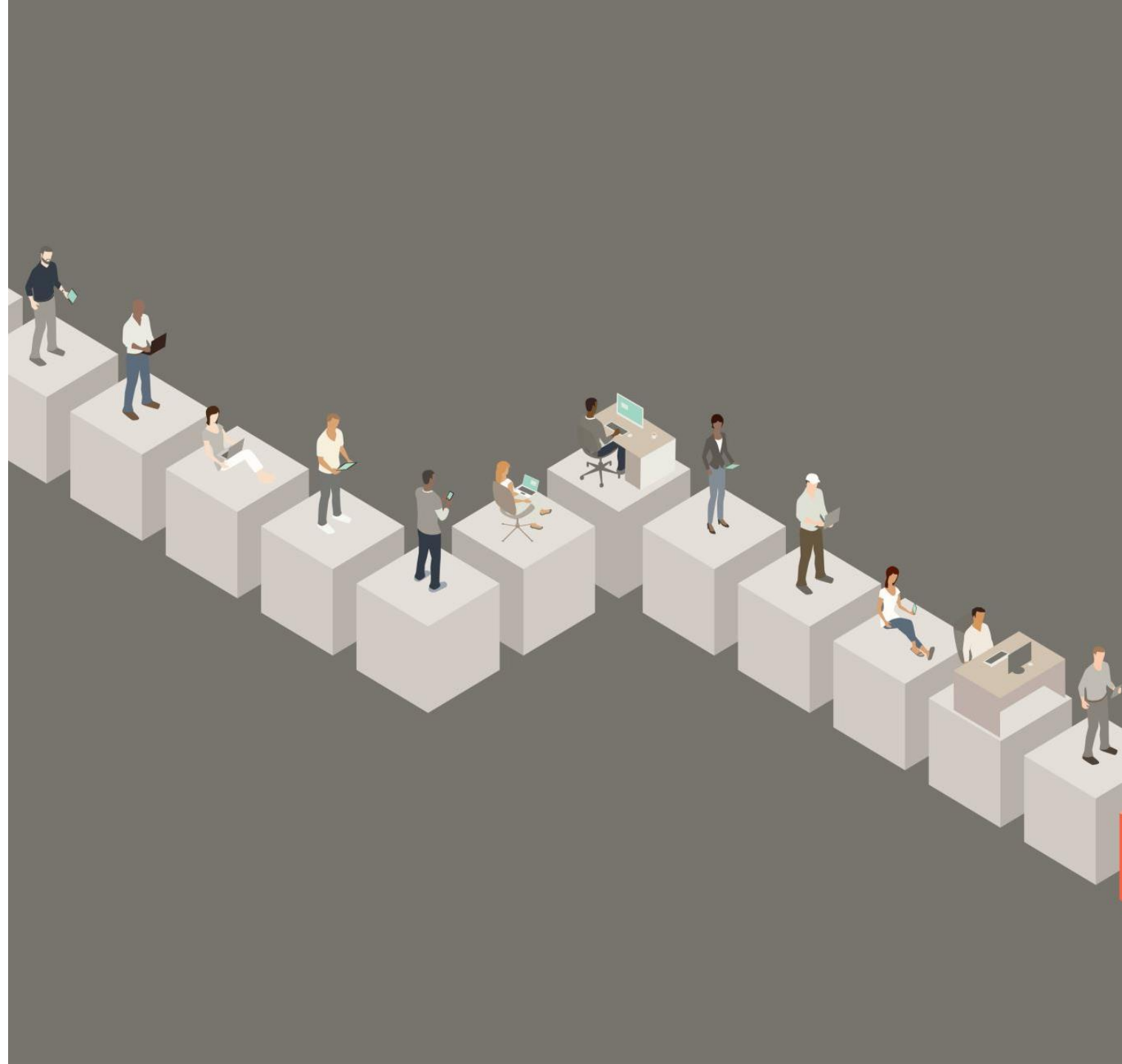


- Skills and Development through Military Heritage
- Providing Sustainable Skills for Life

- 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 TSF Tank

- ▶ This instructional lesson plan is focussed on The Renault TSF 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 FT 1918 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



TSF Tank on arrival
at our workshops



The hull and blockhaus turret was moderately intact, retaining much of its original paint.

This enabled us to extract the original registration number 66803 which you can see on the vehicle today

The 'Numero d' assemblage' or assembly number 5013 is also on the vehicle today.

This sleuth work was achieved by our inhouse scientist who is an astrophysicist.

Interior TSF Blockhaus



TSF Blockhaus Restoration



The techniques used to identify the missing numbers harked from the scientists astrophysics days

Flicker proved instrumental in identifying the registration number for both vehicles.

Our TSF numbered 5013 is the 13th Renault TSF to leave the Renault assembly line at Billancourt.



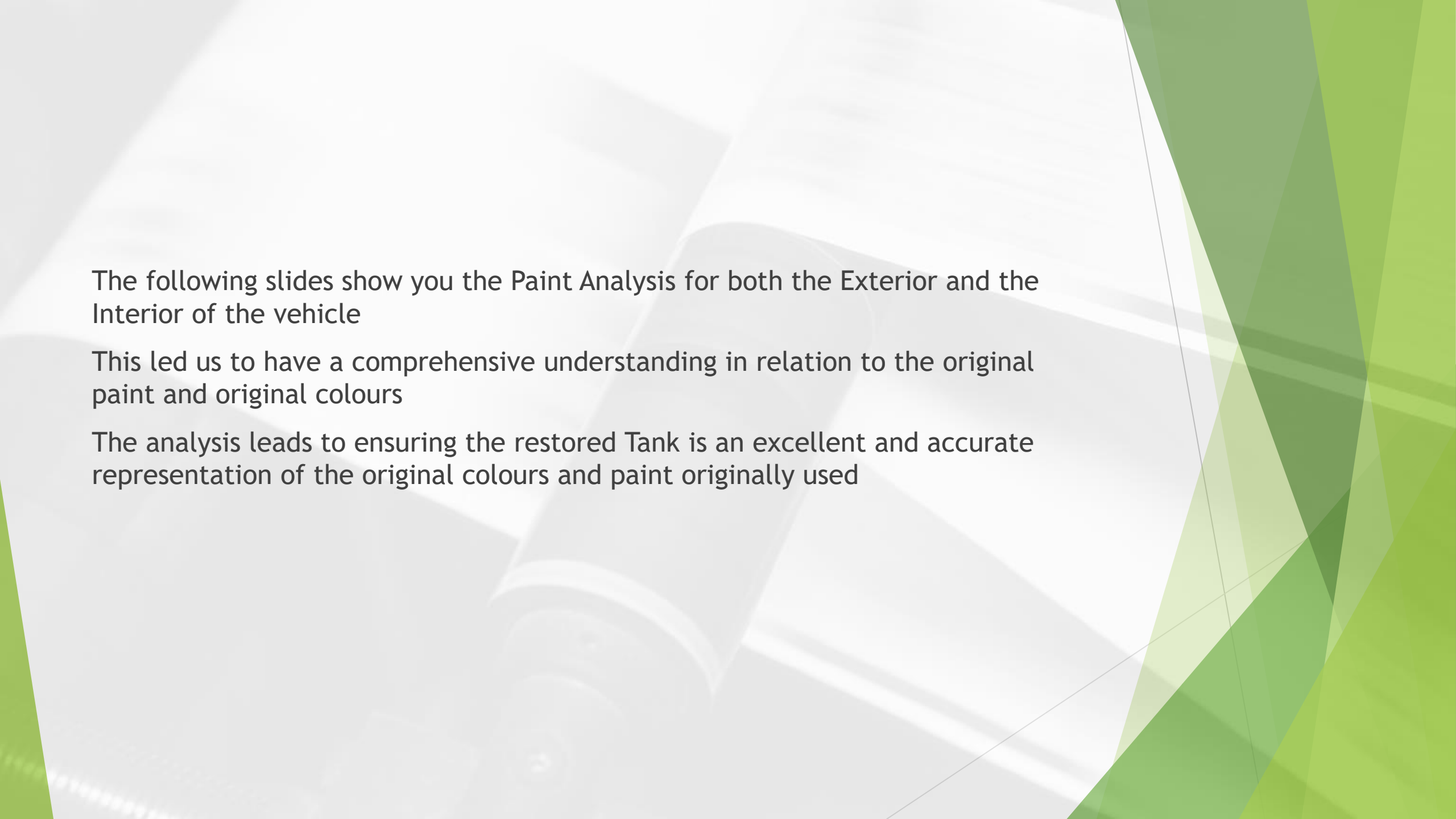




Paint Analysis and Treatment

A full analysis took place to find out what type of paint and colour was used both for the exterior and interior of the TSF Tank

The paint treatment follows the mid-1918 Renault pattern which was applied by experts (artists) in the plant at Billancourt.



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

The analysis leads to ensuring the restored Tank is an excellent and accurate representation of the original colours and paint originally used

Paint Analysis - Final Results



The paint surviving on the hull was analysed by our paint conservation experts at Lincoln Conservation

SEM and X-Ray were used and produced the matching colours originally applied on the Renault TSF

The Renault TSF Tank at The Weald Foundation now is seen with the original colours due to the research and works undertaken.



TSF Tank 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 TSF Tank, but what are the other Tasks and Processes that take place during a renovation? The first learning plan with reference to the FT Tank covered this in detail (please refer) as much of the process is the same.
- ▶ 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
- ▶ 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.

Radio Equipment and Communications

The radio equipment fitted within the Renault TSF includes an E10 ter transmitter-receiver, morse code manipulator, microphone, wave controller, headphones, various batteries (6,20 and 40 volts), dynamo and antenna reel.

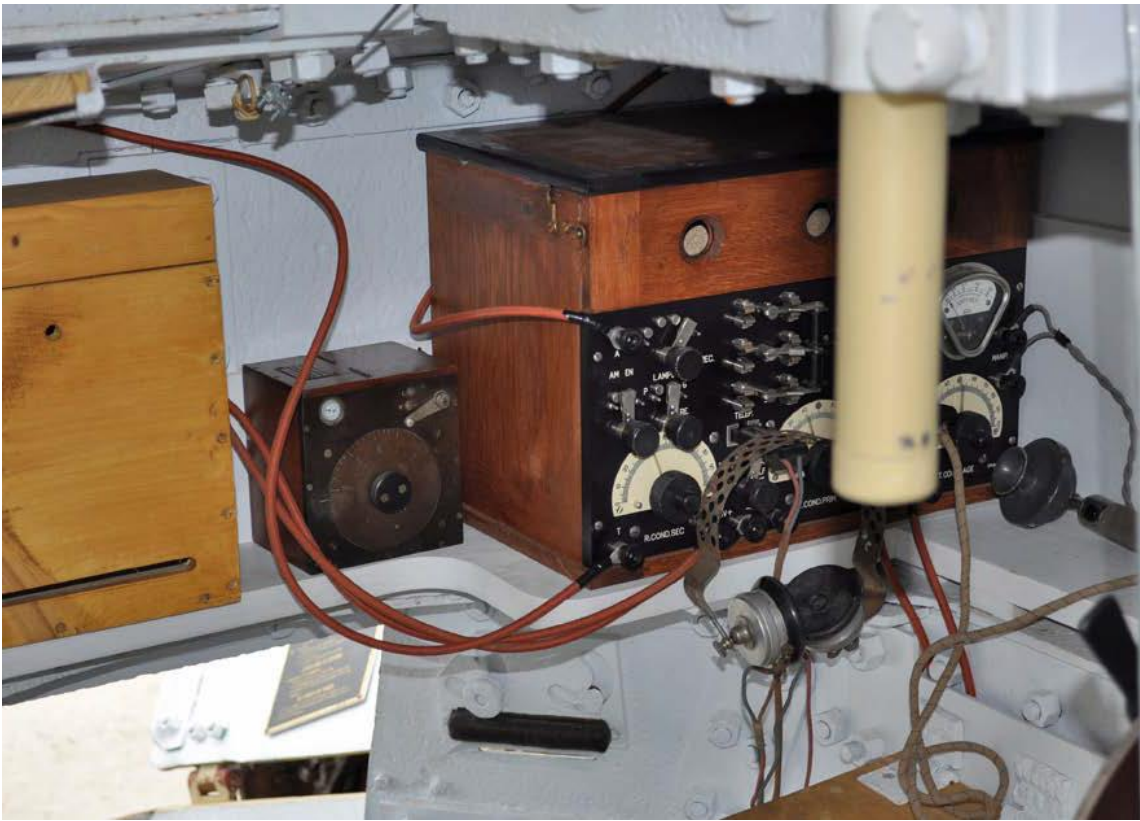
The TSF has a crew of 3 – a commander, a driver and a radio operator. Designed to be the mobile command post ‘eyes and ears’ of the commander of the group allowing him to receive first-hand information on the progress of the battle.

Other orders of the commander of the division and requests for the advance of infantry units if their own means of communication with the rear was deprived.

TSF Tank - Radio Equipment



TSF - Radio Equipment





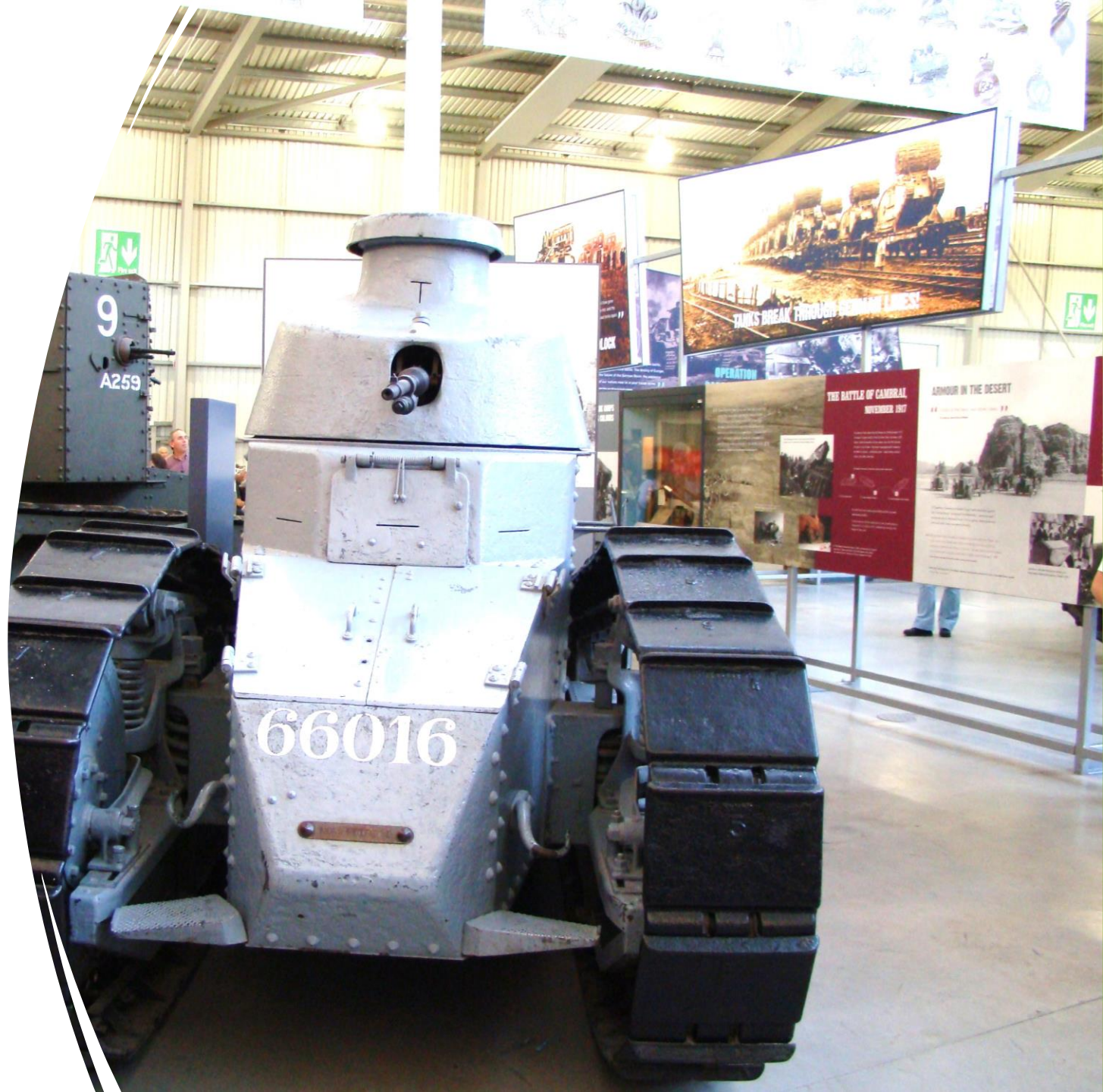
International Help and Support for our Military Heritage Restoration Work

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 some organisations who have assisted us in one or more ways in relation to the Renault TSF Tank restoration process.

Musee de Blindes Saumur



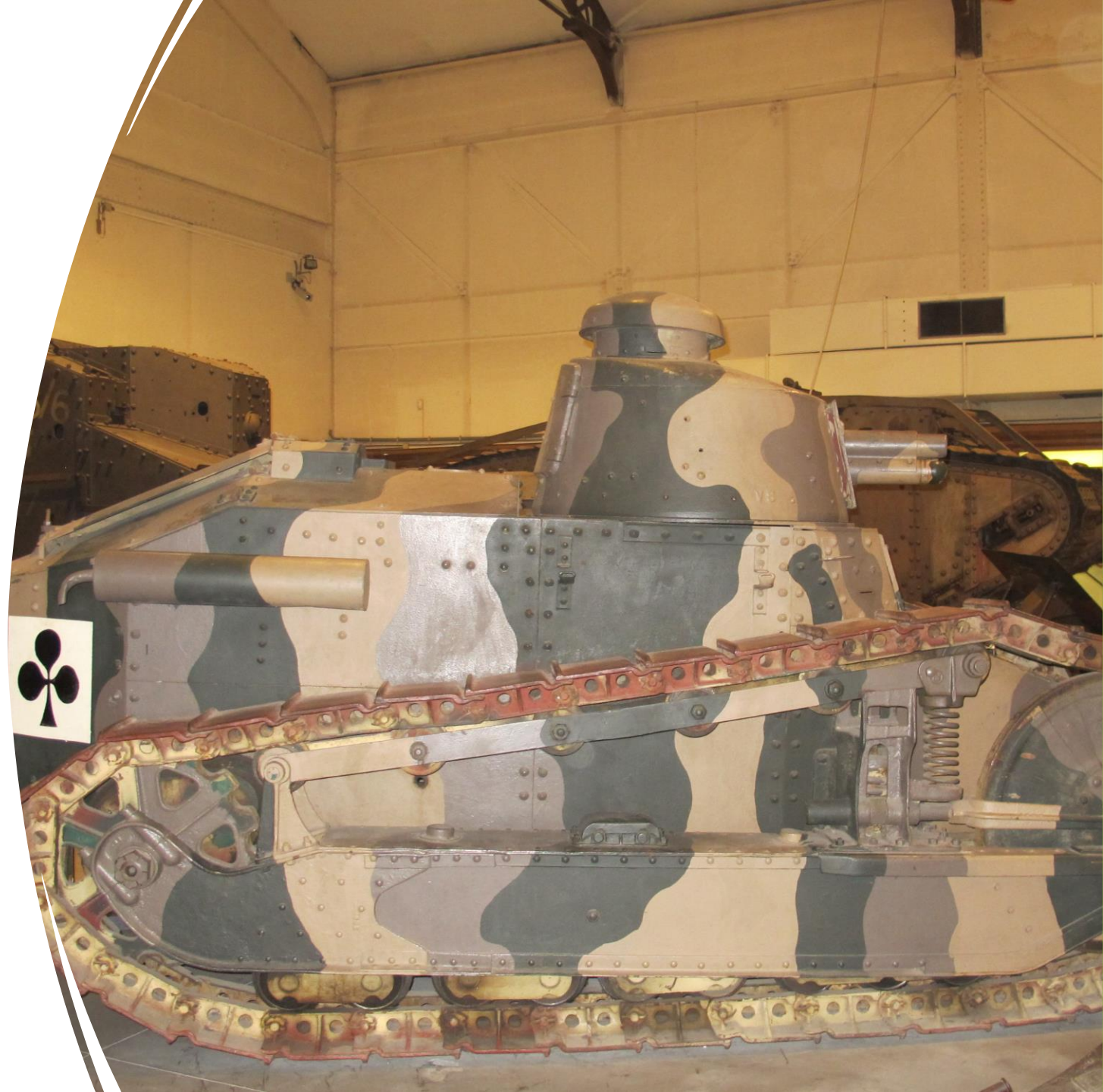
The Tank Museum



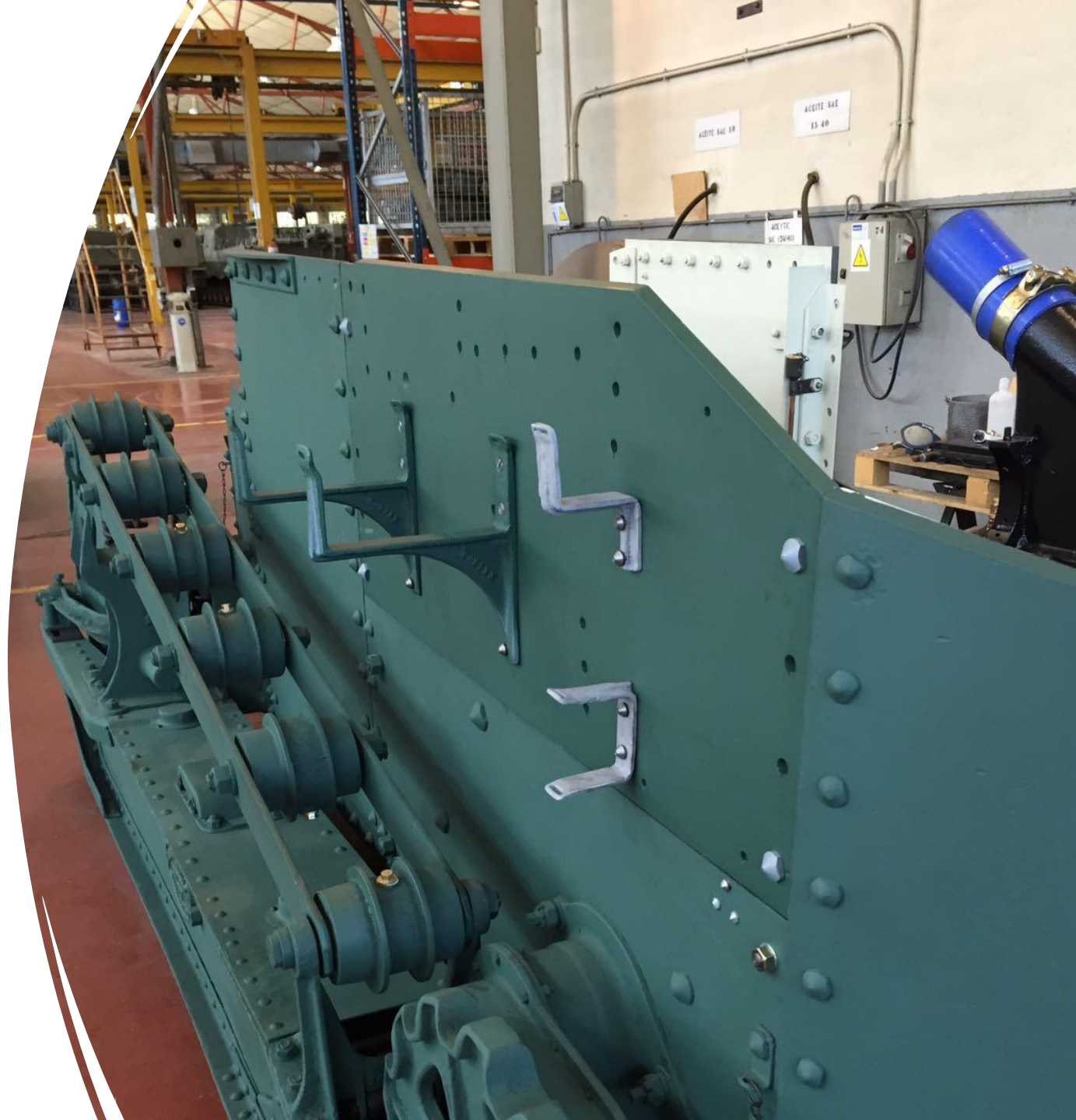
Fort Benning



Military Museum Brussels



El Goloso Spanish Army



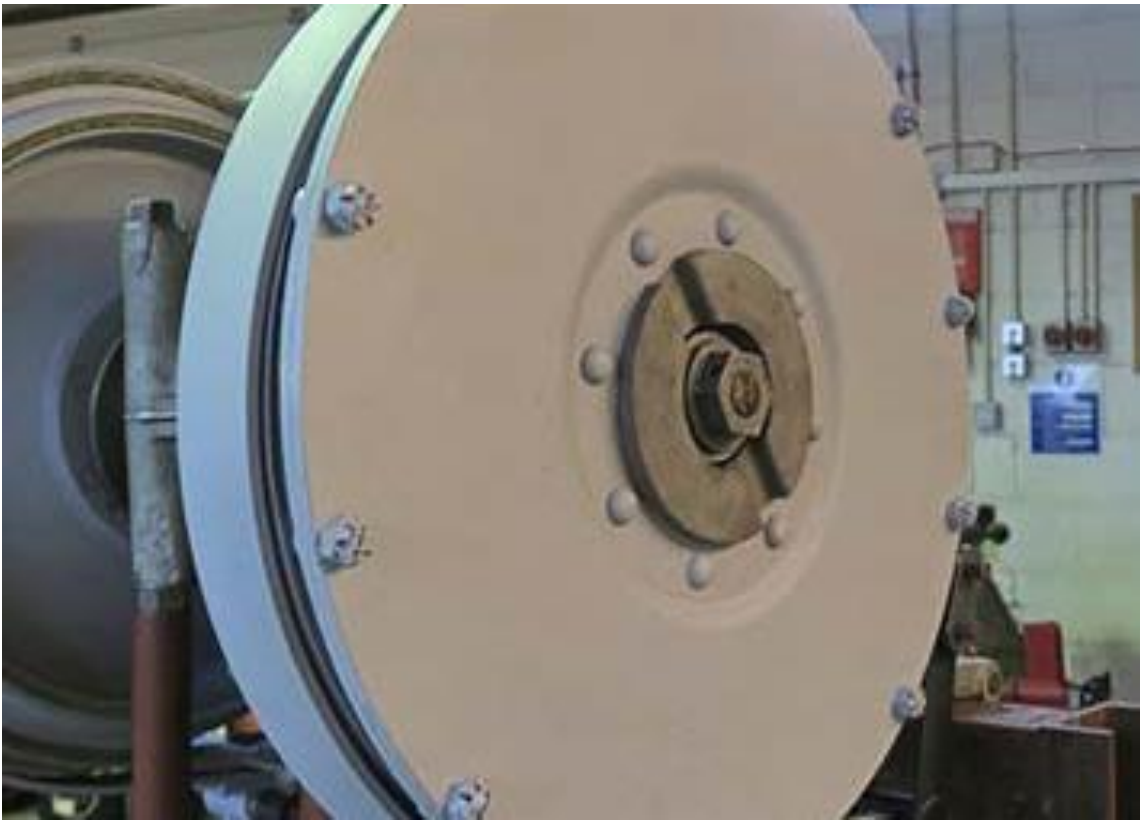
Brazilian Ministry of Defence



Weald Foundation Friends & Members



Images of TSF Tank Restoration Process







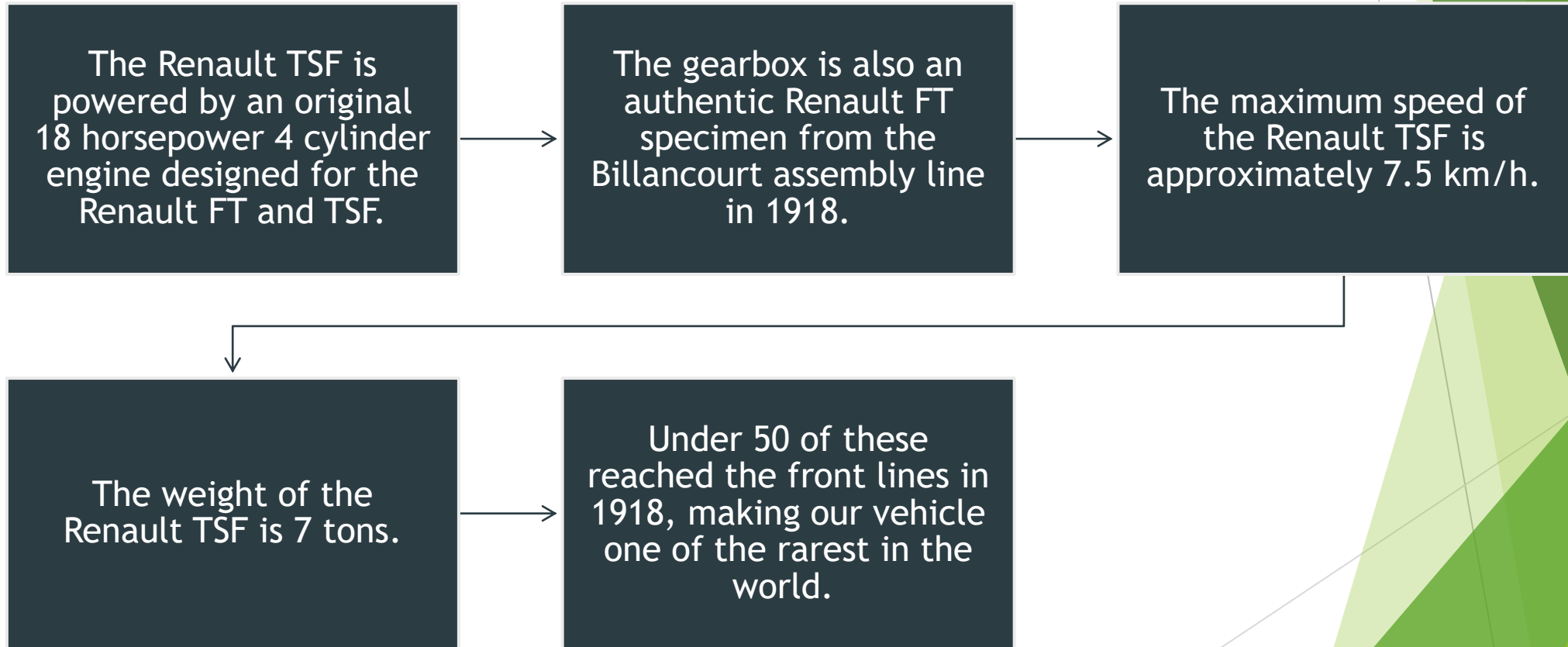








TSF Tank facts and figures.



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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.

Please Contact: Dr Patrick Tierney,
Chief Military Heritage Officer

Email:
patrick@wealdfoundation.org

Mobile: 07595 893899

