BRITISH RAILWAYS STANDARD 9F 2-10-0 92020-9, FRANCO-CROSTI

Contents

Class Details

The Standard Class 9F locomotives Nos 92020-9 were experimentally built with Franco-Crosti boilers, forming a unique subclass. All ten were built in 1955 at Crewe Works.

The Franco-Crosti boiler was designed as a single cylindrical water drum positioned underneath the main boiler barrel. During normal operation, the gases would pass through firetubes inside the preheater drum, located below the boiler, and then exit through a chimney on the right-hand side. However, when more power was required, steam would be directed to the Blast Pipe to draw additional air through the firebox.

Due to the limitations of the British loading gauge, the original BR9 boiler had to be reduced in diameter to accommodate the preheater drum below it. The resulting BR9A, later known as BR12, boiler had a smaller heating surface compared to the original, even with the added preheater. Without the preheater, there was a significant reduction in heating surface area.

Unfortunately, the experiment did not yield the expected benefits, and the efficiency did not justify the cost and complexity. The Crosti preheaters also posed maintenance challenges, as the acidic flue gases would condense in the feedwater heater, leading to corrosion. Additionally, working conditions on the footplate were unpleasant in cross-winds, despite the later addition of a deflector plate. These issues resulted in the sealing off of the preheater drum on all 10 locomotives between 1959 and 1961, and they then operated in a conventional manner thereafter. Consequently, their ability to generate steam was reduced, and their power classification unofficially changed from 9F to 8F.

All locomotives were equipped with the standard BR1B-type tenders.

Features

- Simple, standard and advanced driving modes
- Xbox controller support *SIMPLE AND STANDARD MODES ONLY*

- BR Standard 9F Franco-Crosti 2-10-0 Locomotive
  - British Railways 1955-56 Livery
    - Franco-Crosti (no deflectors)
      - Clean
    - Franco-Crosti
      - Clean and Worn
  - British Railways 1956-68 Livery
    - Franco-Crosti
      - Clean and Worn
    - Ex Franco-Crosti (1959-67)
      - Clean and Worn
- Numerous optional parts and fittings for each livery
- Compatibility with the [Victory Works Number Generator](#) software for easy set up
- Unique sound set created from a number of relevant sources
- Realistic cab with multiple views, including dual "head out" and fully modelled firebox and coal
- Realistic wheel slip physics and effects *ADVANCED MODE ONLY*
- Simulated steam chest *ADVANCED MODE ONLY*
- Realistic types of braking including steam, air and vacuum *ADVANCED MODE ONLY*
- Cylinder cock management *ADVANCED MODE ONLY*
- Boiler management with priming possible *ADVANCED MODE ONLY*
- Realistic injector control *ADVANCED MODE ONLY*
- Realistic "by the shovel" stoking with synchronised sound *ADVANCED MODE ONLY*
- Dynamic steam and smoke colour and quantity
- Realistic boiler water gauges effected by gradient, acceleration and speed
- Opening windows (with rain effects) and roof hatch
- Dynamic lamp setting
- Cab light effects including flickering firebox glow
- Atmospheric AI effects

Control Modes, Performance Options, Driving Controls, Driving in Advanced Mode

Despite their strange appearance, the Franco-Crosti locomotives share the same controls as the Standard 9F and all of the above sections from the 9F manual are relevant.

Locomotive Numbering

When a 9F is added to a scenario the number will be randomly chosen from a list of all available members of the class for the specific era.

These are pre-set with the correct configurations for each number as they were historically outfitted. However if you wish to change any of the components then the setups are listed below.

We have also created a simple app which allows you to build a loco number using a system of simple drop down menus and text boxes. Please see this page on our blog for details and a download link

https://victoryworksts.blogspot.com/2019/01/victory-works-locomotive-number.html

9F Franco-Crosti

e.g. 920208H#21NYONNL

1 to 5. 5 digit locomotive number
6 to 8. 3 digit shed code (add a # if using 2 digits, e.g. 8G#)
9. Logo
       0. None
       1. Pre-1956
       2. Post-1956
10. Power Class Display
       0. None
       1. 9F
       2. 9
11. GWR Power Disc **Y**/**N**
12. Overhead Warning Labels **Y**/**N**
13. Ashpan Doors **O**pen/**C**losed
14. Speedometer **Y**/**N**
15. AWS/ATC
       N None
       Y BR style
16. Cab Shelf **S**hort/**L**ong
17. Head code – letter of the head code class, Optional (see Appendix)

9F Ex Franco-Crosti

e.g. 920208H#21NY3ONNL

1 to 5. 5 digit locomotive number
6 to 8. 3 digit shed code (add a # if using 2 digits, e.g. 8G#)
9. Logo
>   **0**. None
>   **1**. Pre-1956
>   **2**. Post-1956
10. Power Class Display
>   **0**. None
>   **1**. 9F
>   **2**. 9
11. GWR Power Disc **Y**/**N**
12. Overhead Warning Labels **Y**/**N**
13. Smokebox Front Steps
>   **0**. None
>   **3**. Single with support
14. Ashpan Doors **O**pen/**C**losed
15. Speedometer **Y**/**N**
16. AWS/ATC
>   **N** None
>   **Y** BR style
17. Cab Shelf **S**hort/**L**ong
18. Head code – letter of the head code class, Optional (see Appendix)

Modification Policy

You are free to create modifications for this pack (including but not limited to re-skins, sound updates, "enhancement" packs, etc.) but they must not include any 3D model files, audio samples or scripts – original or modified. If you choose to make your mods public then they **must be provided free of charge**. They can be hosted on a site that asks a nominal membership fee for quicker downloads (e.g. UK Train Sim) but **cannot be sold in any way** without the express permission of Victory Works and Steam Sounds Supreme.

If you wish to discuss terms for selling modifications please contact us via email at victoryworks@live.co.uk

To summarise – free mods are fine but must not include model, audio or script files. If you wish to sell mods then you **MUST** get permission first.

Appendix: Head codes

Fig. 97. British Standard Headlamp Code.