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MTH
ELECTRIC TRAINS



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EVER BUILT

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The history of locomotives is the story of an ever-increasing need for speed and power, as trains became heavier and schedules more demanding. On the Paris-Orleans (PO) Railway in the mid-1920s, management saw electrification as the answer, and development of new steam locomotives came to a halt. But André Chapelon, a young French development engineer, had different ideas. He persuaded his superiors to let him drastically rebuild one of the PO's aging Pacifics, and the result cemented his reputation as one of the greatest locomotive designers ever. Chapelon analyzed the design of the steam engine from end to end, from the cold water in the tender to the steam exiting the stack. He modified the boiler and firebox to produce more steam with the same amount of fuel, and opened up nearly every steam passage to improve the flow of steam in and out of the cylinders. Testing proved his rebuilt engine delivered 85% more horsepower and was more efficient to operate — music to the ears of the very managers who had resisted his ideas for years.

The success of the original engine, No. 3566, led the PO to rebuild 31 additional Pacifics. When the Nord Railway tested a Chapelon Pacific against its own best power in 1931 and found the Chapelon superior, it too ordered 20 of the "miracle" rebuilds from the PO's

shops. And when the PO ran out of engines to rebuild and sell to other railroads, the Nord ordered an additional 28 Chapelon-design Pacifics from other locomotive builders. To this day, the Chapelon Pacific is considered a high point of French locomotive design, for its combination of speed, power, and economy.

New for 2008, M.T.H. Electric Trains introduces the most magnificent model ever made of one of France's greatest locomotives. Our Chapelon Pacific is based on preserved engine 3.1192, built for the Nord in 1936 and preserved today at the Cité du Train in Mulhouse, France. Our model is offered in three late-1930s liveries: pre-nationalization Nord chocolate brown, as well as SNCF green and SNCF black, as these engines looked when heading up the Orient Express, Fleche D'Or, and other express passenger trains. (The PO, the Nord, and most other French railways were

nationalized into the SNCF (Société Nationale des Chemins de Fer Français) on January 1, 1938.) Superbly detailed Wagons-Lit passenger cars to accompany these engines will be available soon.

Driving a Chapelon Pacific

Like most French express engines, the Chapelon Pacifics were de Glehn compounds, a design that would seem frighteningly complex to engineers or shop crews anywhere outside of France. To make more efficient use of steam, a compound engine uses steam twice. Boiler steam is fed to high-pressure cylinders and then exhausted into one or two larger, low-pressure cylinders to work again before going up the stack. Following in the footsteps of their countryman Anatole Mallet, one of the earliest advocates of compounding, Alfred de Glehn and Gaston du Bousquet at the end of the nineteenth century designed a four-cylinder compound system, with high-pressure cylinders outside the frames and low-pressure cylinders inside the frames. The *chauffeur* of a de Glehn compound had five working possibilities: normal compounding; four-cylinder simple operation for starting (high-pressure boiler steam to all cylinders); compounding with some additional high-pressure steam to the low-pressure cylinders, for extra power on hills; and high-pressure steam to only the low-pressure or only the high-pressure cylinders, to limp home in case of mechanical failure. All of this was controlled by two throttles (one for each pair of cylinders), two reverse levers, and an intercepting valve to manage the flow of steam from high-pressure to low-pressure cylinders. In most countries, shop crews would have declared this system a maintenance nightmare and engineers would have found it horribly complex. But French shop crews appeared to thrive on the complexity of the de Glehn system. And French *chauffeurs*, trained as *mécaniciens* rather than firemen as in other countries, prided themselves on the throttle artistry needed to achieve the wonderful performance that a de Glehn compound could deliver.

The Fleche D'Or (Golden Arrow)

In the period between the World Wars, when the Chunnel was merely a dream, the Golden Arrow was the classiest way to travel between London and Paris. In 1926, the Compagnie Internationale des Wagons-Lits introduced the Fleche D'Or as an all-first-class luxury train from the Gare du Nord in Paris to Calais Maritime Station. At Calais, passengers boarded a ferry to cross the English Channel, transferring on the other side to a Southern Railway train from Dover to London's Victoria Station. In May of 1929, the Southern inaugurated an all-Pullman English section of the Golden Arrow and a new luxury ferry, the Canterbury. The complete trip between London and Paris could now be accomplished in first-class comfort, departing from either capital at mid-day and arriving at the other in time for dinner.

Within a few years, the onset of the Depression forced the railways to add cheaper first- and second-class coach service to the Golden Arrow, but the train itself proved to be a survivor. Although suspended during the war years, Golden Arrow service was soon restored and lasted until 1972. A companion London-to-Paris sleeper train, the Night Ferry, served until 1980. Passengers on the Night Ferry remained in their berths for the entire journey, while their sleeping cars were transported across the English Channel on Southern Railway train ferries. The train carried the distinction of having perhaps the only sleeping cars in the world with a life jacket in each berth.

Add a touch of luxury and romance to your model railroad with a Fleche D'Or pulled by our Chapelon Pacific, sporting the Fleche D'Or arrow logo on the front of its boiler. Both SNCF models are supplied with an optional user-installable Fleche D'Or smokebox sign.

The Orient Express

In the late 1800s, train travel across Europe was a messy affair. At each national border, passengers got off one train, walked across the border, and climbed aboard another. Like George Pullman in the United States, Belgian George Nagelmackers dreamed of something better: a rolling hotel in which travelers could sleep, eat, and relax from one end of their journey to the other. In 1883, the Orient Express made the dream a reality: a single train from Paris to Romania (and within a few years, from Paris to Istanbul), with rolling stock supplied by Nagelmackers' Compagnie Internationale des Wagons-Lits et Grandes Express Européens ("wagon-lit" being French for sleeping car). Only the locomotives were changed as the Orient Express rolled across no less than seven national borders on its three-day journey.



From 1889 to 1977, with interruptions for two world wars, the Orient Express ran from Gare de l'Est station in Paris to Sirkeci Terminal on the Golden Horn, the gateway to Asia. After the 12-mile-long Simplon Tunnel was opened under the Alps, a second, more southerly route was added in 1919: the Simplon Orient Express via Milan, Venice, and Trieste. The train, of course, got caught up in the politics of the regions through which it ran and became a setting for international intrigue, mystery, and romance — more so in fiction than in fact. The Orient Express' screen credits include the James Bond film *From Russia With Love* and, most famously, movie and print versions of Agatha Christie's 1934 novel *Murder on the Orient Express*. The long, dark passage through the Simplon Tunnel, of course, has been a favorite setting for nefarious events.

Add a touch of color, mystery, and intrigue (but hopefully not murder) to your own railroad with an Orient Express headed by our Chapelon Pacific. Companion Wagons-Lit international passenger cars with interior details, passengers, and lighting will be available soon.



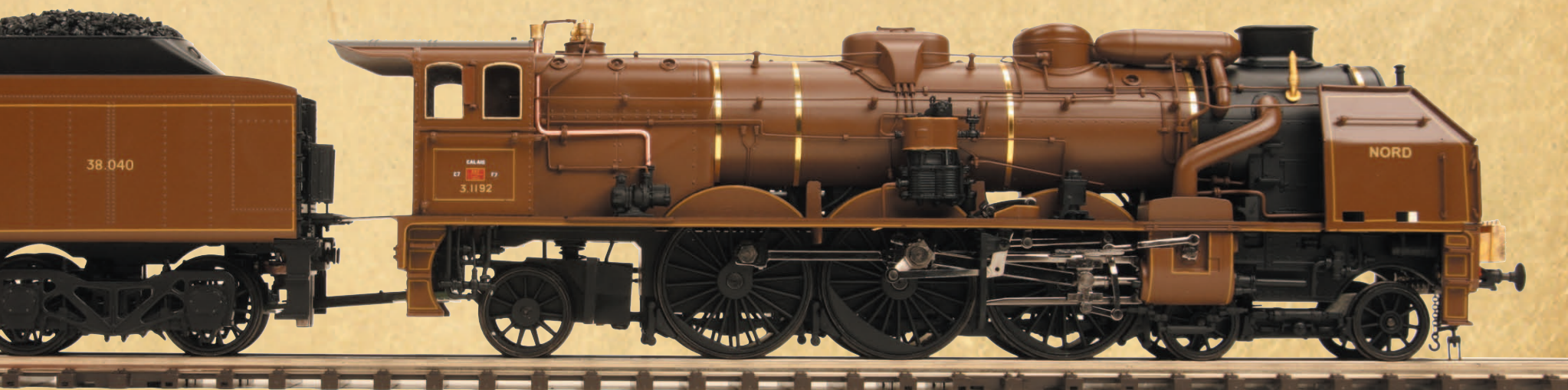
O Gauge Chapelon Pacific SNCF Green
20-3344-1 Hi-Rail Wheels
20-3344-3 Scale Wheels

Production models will feature chauffeur and fireman figures.



O Gauge Chapelon Pacific SNCF Black
20-3343-1 Hi-Rail Wheels
20-3343-3 Scale Wheels

With over 200 added-on parts on its die-cast boiler and nearly 60 more detail parts on its tender, our Chapelon Pacific is distinguished by its excellent detailing. But its realistic operating characteristics and fully featured sound system are what truly set this model apart. See the next page for details.



Photos show Nord version with scale wheels and SNCF versions with hi-rail wheels

O Gauge Chapelon Pacific Nord Brown
20-3345-1 Hi-Rail Wheels
20-3345-3 Scale Wheels

Features

As noted earlier, while our Chapelon Pacific is distinguished by its excellent detailing, we think its realistic operating characteristics and fully featured sound system are what truly set this model apart. Features include:

- Die-cast metal locomotive and tender
- Numerous added-on metal details and piping
- Authentic paint schemes
- 1:43.5 scale O gauge proportions
- Proto-Sound® 2.0 sound and control system, with sounds including whistle, chuff, crew talk, passenger station announcements in French, squealing brakes, and additional locomotive sounds including steam letoff
- Optional English version of station announcements available via free Internet download
- Proto-Scale 3-2™ 3-rail/2-rail conversion capable: convertible between 3-rail and 2-rail operation in minutes, and compatible with AC or DC current, 50 or 60hz
- Available with scale wheels or deeper-flanged hi-rail wheels that allow operation on tubular tinplate track; hi-rail wheels have rubber traction tires on one pair of drivers for extra pulling power
- Minimum radius: 1.02m (40") for scale wheels and O-54 (686mm, or 27", radius) for hi-rail wheels
- Command control equipped (requires optional M.T.H. Digital Command System (DCS))
- Puffing ProtoSmoke™ synchronized with driver revolutions
- Locomotive speed control in one scale-mile-per-hour (SMPH) increments
- Proto-Speed Control™ for steady speeds with full loads, from a 3 SMPH crawl to full throttle
- Lighting includes headlights, firebox glow, and cab interior light
- *Chauffeur* and fireman figures
- Real coal load
- Sprung buffers
- Tender supplied with remote-controlled Proto-Coupler™, scale European-style coupler, and Ace Trains-compatible coupler
- Approximate size of engine and tender: 587.4mm x 97.3mm x 72.8mm (23 1/8" x 3 13/16" x 2 3/4")



Who Is M.T.H.?

While our name may be new to European model railroaders, M.T.H. Electric Trains is a seasoned American model train manufacturer with a long history of innovation. In little more than a quarter century, M.T.H. has grown from a tiny business operated out of a spare bedroom to an 80+ employee company headquartered in its own sprawling building in a suburb of Washington, D.C.

Over the past 28 years, we have cataloged over 14,000 different items in four scales: O gauge, One Gauge, HO gauge, and tinplate Standard Gauge. We are co-owners of two overseas facilities that make nothing but M.T.H. trains, and we use three other factories that are dedicated solely to our product line. This gives us more control of our manufacturing process and quality than many other train companies, whose products are often made in the same factories used by their competitors.

Our research and development team has received more than 10 patents on innovations in model railroading. We believe the Proto-Sound sound and control system found in every M.T.H. locomotive, in combination with our optional Digital Command System (DCS), makes our trains more realistic and more fun to operate than any other trains in model railroading.

About Our Technology

Thanks to our Proto-Sound® sound and control system and our Proto-Scale 3-2™ conversion capability, the M.T.H. Chapelon Pacific can run in virtually any O gauge environment: 3-rail or 2-rail, AC or DC, 50 or 60 hz. With a conventional AC or DC transformer, Proto-Sound offers chuff sounds synchronized with the driver revolutions and squealing brakes when the engine slows down or stops. In addition, the engine's Proto-Speed Control acts like the cruise control on an automobile, helping your engine maintain a constant speed regardless of hills, curves, or heavy loads, at any throttle setting from a crawl to full throttle.

Add an M.T.H. AC transformer equipped with whistle and bell buttons, and you can experience a much larger range of locomotive sounds, including whistle, passenger station announcements, crew conversations, coupler opening sounds, and typical steam engine sounds such as steam letoff.

To experience the full capabilities of the Chapelon Pacific, add the M.T.H. Digital Command System (DCS) for full command control and an even larger range of sound and control features. Like our Z-4000 AC transformer, our DCS system is fully compatible with European household current, when used with a standard 120 volt AC adapter.



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For more information on this model, our company and our technology, and a listing of M.T.H. dealers in Europe, please visit us on the Web at
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