

## Emd 567 Engine

Vintage & Modern Diesel Locomotives  
The Patapsco and Back Rivers Railroad  
Evolution of the American Diesel Locomotive  
EMD F-Unit Locomotives  
Performance of Leaded LP-gas in an Emd-567 Dual Fuel Engine by A.V. Cabal, A.E. Felt and H.A. Williams, Jr  
EMD Locomotives Diesel Engine Reference Book  
The Fleet Type Submarine Main Propulsion Diesels Manual  
Coal Use by the Nation's Railroads  
Electro-Motive E-Units and F-Units  
My Years With General Motors  
Alco Locomotives  
Santa Fe Railway User Guide for Conversion to Dual Fuel  
Operation of EMD 645 Engines on Navy Muse Generator Sets  
Charging the Internal Combustion Engine  
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The Internal-combustion Engine in Theory and Practice: Combustion, fuels, materials, design  
From Steam to Diesel  
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Locomotive Cyclopedia of American Practice  
Operation and Maintenance of Diesel-electric Locomotives  
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North American Locomotives  
The Dilworth Story  
The Australian Locomotive Guide  
Probability with Applications in Engineering, Science, and Technology  
The Contemporary Diesel Spotter's Guide  
Molecular Science for Drug Development and Biomedicine  
Emd 567 Locomotive Cyclopedia of American Practice, 1950-52  
The Model Railroader's Guide to Diesel Locomotives  
The

Great Western Eight Coupled Heavy Freight Locomotives  
Two-Stroke Diesel Engines  
North American Locomotives

### **Vintage & Modern Diesel Locomotives**

The Diesel Engine Reference Book, Second Edition, is a comprehensive work covering the design and application of diesel engines of all sizes. The first edition was published in 1984 and since that time the diesel engine has made significant advances in application areas from passenger cars and light trucks through to large marine vessels. The Diesel Engine Reference Book systematically covers all aspects of diesel engineering, from thermodynamics theory and modelling to condition monitoring of engines in service. It ranges through subjects of long-term use and application to engine designers, developers and users of the most ubiquitous mechanical power source in the world. The latest edition leaves few of the original chapters untouched. The technical changes of the past 20 years have been enormous and this is reflected in the book. The essentials however, remain the same and the clarity of the original remains. Contributors to this well-respected work include some of the most prominent and experienced engineers from the UK, Europe and the USA. Most types of diesel engines from most applications are represented, from the smallest air-cooled engines, through passenger car and trucks, to marine engines. The approach to the subject is essentially practical, and

even in the most complex technological language remains straightforward, with mathematics used only where necessary and then in a clear fashion. The approach to the topics varies to suit the needs of different readers. Some areas are covered in both an overview and also in some detail. Many drawings, graphs and photographs illustrate the 30 chapters and a large easy to use index provides convenient access to any information the readers requires.

### **The Patapsco and Back Rivers Railroad**

"A comprehensive history of North America's two major locomotive manufacturers, comprising previous 2003 and 2006 volumes with updated information and photos to take the story through 2013"--Provided by publisher.

### **Evolution of the American Diesel Locomotive**

The diesel locomotive sent shock waves through rigid corporate cultures and staid government regulators. For some, the new technology promised to be a source of enormous profits; for others, the railroad industry seemed a threat to their very livelihoods. Evolution of the American Diesel Locomotive introduces the reader to the important technological advances that gave rise to diesel engines, examining not only their impact on locomotive design, but also their impact on the economic

and social landscapes. J. Parker Lamb describes the development of these technologies, allowing the reader to fully understand how they were integrated and formed a commercially successful locomotive. Like its companion volume, *Perfecting the American Steam Locomotive* (IUP, 2003), this book emphasizes the role of the leading engineers whose innovations paved the way for critical breakthroughs. Rail fans will appreciate this authoritative work.

### **EMD F-Unit Locomotives**

### **Performance of Leaded LP-gas in an Emd-567 Dual Fuel Engine by A.V. Cabal, A.E. Felt and H.A. Williams, Jr**

Development of the modern world. Book jacket.

### **EMD Locomotives**

General Electric entered the railroad industry in the early twentieth century and this collection of history explores all types of electric locomotives with a stunning collection of archival black-and-white, period, and modern color photography. Depicting a broad cross-section of American railroads in a variety of regions both

urban and remote, Brian Solomon leads us through GE's entire locomotive history, from the first electric S motors to today's colossal, 6,000-horsepower diesel-electrics. Witness electrical legends such as the Pennsylvania Railroad's E44s, Amtrak's E60s, and Milwaukee Road's "Little Joes", just to name a few. All in all, Solomon gives us a brilliant explanation of the locomotives, the terrain they covered, pioneering GE efforts, and even the marketplace competition and the power race that fueled the development of these awesome machines.

### **Diesel Engine Reference Book**

This book covers all aspects of supercharging internal combustion engines. It details charging systems and components, the theoretical basic relations between engines and charging systems, as well as layout and evaluation criteria for best interaction. Coverage also describes recent experiences in design and development of supercharging systems, improved graphical presentations, and most advanced calculation and simulation tools.

### **The Fleet Type Submarine Main Propulsion Diesels Manual**

### **Coal Use by the Nation's Railroads**

EMD, General Electric, Alco, Baldwin, and Fairbanks Morse have built diesel locomotives. Their most popular vintage and modern models are covered in painstaking detail by author and photographer Stanley W. Trzoniec.

### **Electro-Motive E-Units and F-Units**

The seductive new novel in Vina Jackson's red-hot Eighty Days series, featuring new protagonist Lily in a tantalizing tale of love, longing, and self-discovery Lily always knew there was something missing from her life--a path yet to be taken and deep desires waiting to be explored. Though she finds release in her love of music, Lily longs to rebel against the staid direction of her life and discover what it is she truly wants. Following her days as a student in Brighton, Lily moves to London with her best friend, the seductive, audacious Liana, who introduces her to an exciting new world of passion and adventure. Soon, Lily meets Leonard, a man with whom she feels an instant connection; Dagur, the gorgeous drummer of a world-renowned rock band; celebrated photographer Grayson; and Grayson's enigmatic partner, She. All of these characters contribute to Lily's sexual self-discovery as a *domme*. Despite living life to the fullest and embracing each new experience, Lily knows she has yet to find what she's been missing. Will Lily finally be able to accept the woman she really is? And has the thing she's been searching for been right in front of her all along?

## **My Years With General Motors**

Spanning more than one and a half centuries, this treasure trove examines the steam, diesel, and electric locomotives that have kept North American commerce on the rails since the middle of the nineteenth century. Prolific rail author Brian Solomon takes an encyclopedic approach and describes every major type. And because locomotive-building has long been a made-to-order business, the book is arranged alphabetically by railroads from across the United States and Canada to show the variant technologies that railroads ordered to best suit their specific needs, whether for freight or passenger operations. The 75-plus railroads covered range from the best known historical lines such as Canadian Pacific, Santa Fe, Union Pacific, and Baltimore & Ohio, to today's giant Class I roads, commuter lines, and selected short lines. The result is a profusely illustrated and beautifully presented reference guide that features more than 400 locomotive gems from throughout the ages, including historic machines such as New York Central's J3a Hudsons, Pennsylvania Railroad's GG1 electrics, and EMD's classic E- and F-Units, to today's most powerful modern diesels. All the major builders' past and present are represented, including such heavyweights as Baldwin, Alco, Lima, EMD, GE, and more.

## **Alco Locomotives**

This book covers all aspects of supercharging internal combustion engines. It details charging systems and components, the theoretical basic relations between engines and charging systems, as well as layout and evaluation criteria for best interaction. Coverage also describes recent experiences in design and development of supercharging systems, improved graphical presentations, and most advanced calculation and simulation tools.

### **Santa Fe Railway**

As a tribute to America's favorite railroad-the Santa Fe, this book discusses everything from its origins, to locomotives, freight operations, passenger operations, and more. The Santa Fe Railway's charisma and mystique has long made it one of America's compelling railways. From Chicago to LA it blends a nation's westward vision with all the best elements of railroading: colorful passenger trains, attractive stations, fascinating historical personalities, a diverse and eclectic collection of locomotives, and of course - lots of long freight trains. All of these aspects of the Santa Fe and more are featured in this compact but colorful history packed with great archival color photography.

### **User Guide for Conversion to Dual Fuel Operation of EMD 645 Engines on Navy Muse Generator Sets**



In February 2005, General Motors announced its decision to sell its Electro-Motive Division (EMD), thus ending its 75-year association with one of the most renowned brands in railroading. Looking at the heritage of the venerable EMD in light of this momentous development, this monumental volume offers an overview of the great locomotive maker unprecedented in its scope and unparalleled in the spectacular quality of its photographs. Leading railroad author and photographer Brian Solomon provides an authoritative, comprehensive account of EMD's history, from its genesis in 1922 as the independent Electro-Motive Corporation, to GM's acquisition of the company in 1930, and on through the age of today's ""superpower"" locomotives. From the earliest 1920s railcars to the iconic mid-century F units, workhorse GP and SD locomotives, and Dash series; to the company's race with its chief competitor, General Electric, to reach 6,000 horsepower, EMD's complete story unfolds here in depth and detail, illustrated with a wealth of archival photos from across the country, as well as a remarkable collection of color photography from top railway photographers of the last half century.

## **Charging the Internal Combustion Engine**

## **Field Guide to Trains**

Great Western Eight-Coupled Heavy Freight Locomotives' is the first of a series of 'Locomotive Profiles' to be published by Pen & Sword. It will describe the conception, design, building and operation of the fleet of powerful locomotives built in the first half of the twentieth century to meet the demands of the growing South Wales coal and steel industries and the West Midlands area served by the Great Western Railway. Whilst concentrating mainly on the standard designs of the great locomotive engineer, George Jackson Churchward, the 28XX and 47XX 2-8-0 locomotives, it will also cover the 2-8-0 and 2-8-2 tank engines designed for the South Wales Valleys mining areas and coal exports through Newport, Cardiff, Barry and Swansea Docks, and other 2-8-0 locomotives acquired by the Great Western to cope with the increased industrial needs during both world wars - the RODs, Swindon built 8Fs, WDs and American S160s. It will also cover the earliest designs of the Barry and Port Talbot Railways intended to cope with the valley coal traffic. The book will be copiously illustrated with 150 black and white and 50 coloured photographs and is a comprehensive record of some outstanding freight locomotives, many of the oldest engines still operating to the end of steam on British Railways in the mid 1960s, sixty years after they were designed."

## **The Internal-combustion Engine in Theory and Practice: Combustion, fuels, materials, design**

This updated and revised first-course textbook in applied probability provides a contemporary and lively post-calculus introduction to the subject of probability. The exposition reflects a desirable balance between fundamental theory and many applications involving a broad range of real problem scenarios. It is intended to appeal to a wide audience, including mathematics and statistics majors, prospective engineers and scientists, and those business and social science majors interested in the quantitative aspects of their disciplines. The textbook contains enough material for a year-long course, though many instructors will use it for a single term (one semester or one quarter). As such, three course syllabi with expanded course outlines are now available for download on the book's page on the Springer website. A one-term course would cover material in the core chapters (1-4), supplemented by selections from one or more of the remaining chapters on statistical inference (Ch. 5), Markov chains (Ch. 6), stochastic processes (Ch. 7), and signal processing (Ch. 8—available exclusively online and specifically designed for electrical and computer engineers, making the book suitable for a one-term class on random signals and noise). For a year-long course, core chapters (1-4) are accessible to those who have taken a year of univariate differential and integral calculus; matrix algebra, multivariate calculus, and engineering mathematics are needed for the latter, more advanced chapters. At the heart of the textbook's pedagogy are 1,100 applied exercises, ranging from straightforward to reasonably challenging, roughly 700 exercises in the first four "core" chapters alone—a self-contained textbook of problems introducing basic theoretical knowledge necessary

for solving problems and illustrating how to solve the problems at hand – in R and MATLAB, including code so that students can create simulations. New to this edition • Updated and re-worked Recommended Coverage for instructors, detailing which courses should use the textbook and how to utilize different sections for various objectives and time constraints • Extended and revised instructions and solutions to problem sets • Overhaul of Section 7.7 on continuous-time Markov chains • Supplementary materials include three sample syllabi and updated solutions manuals for both instructors and students

### **From Steam to Diesel**

We are very pleased to introduce the Book Version of our Special Issue in Molecules dedicated to the memory of the late Professor Dr. Charles D. Hufford. The issue has been a huge success, with 22 full-length peer-reviewed papers and a tribute by Professor Alice M. Clark. Authors, reviewers, and collaborators from many countries across the world have contributed to this endeavour, and we are truly grateful to all. This Special Issue is representative of the broad impact that “Charlie” had on the field of bioactive natural products. This Special Issue comprises papers from Professor Hufford’s former students, colleagues, and collaborators throughout the world who have utilized a wide array of state-of-the-art techniques to examine diverse natural sources to isolate and identify a variety of natural products with a wide spectrum of biological activities, including

somenew microbial transformations and insights into bioactive molecules. Many new bioactive compounds are described and reported here for the first time. Bioactivities reportedinclude cytotoxicity, antimicrobial activity, anti-inflammatory activity, antileishmanialactivity, antitrypanosomal activity, antimalarial activity, analgesic activity, and beneficialliver activities, just to name a few. This Special Issue will undoubtedly have a lasting impact on the field of bioactive natural products, as exemplified by the career of Dr. Hufford. Lastly, without the timely and outstanding contributions from all of you, this Special Issue would not have been possible. We thank you all very much for your contributions and your time devoted to this Special Issue in memory of a special person. Finally, we express ourgratitude and thanks to the journal Molecules and their excellent team of expert reviewers for giving us the support and opportunity to make this Special Issue a huge success!

## **The Encyclopedia of Trains & Locomotives**

8-1/2 x 11, 201 b/w photos, 100 color photos

## **GE and EMD Locomotives**

How to identify diesel locomotives quickly and easily. Lists specifications, spotting

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features, photographs, and descriptions of North American locomotives manufactured since 1972. 8 1/4 x 5 1/2; 352 pgs.; 500 bandw photos; 5 illus.; softcover.

### **Charging the Internal Combustion Engine**

Please note that the content of this book primarily consists of articles available from Wikipedia or other free sources online. Pages: 34. Chapters: Brons, Commer TS3, Detroit Diesel 110, Detroit Diesel Series 149, Detroit Diesel Series 51, Detroit Diesel Series 71, Detroit Diesel Series 92, EMD 567, EMD 645, EMD 710, Exhaust pulse pressure charging, Fairbanks-Morse, Junkers Jumo 204, Junkers Jumo 205, Junkers Jumo 223, MAN B&W K108ME-C, Napier Culverin, Napier Deltic, Opposed-piston engine, Roots-type supercharger, Sulzer ZG9, Two-stroke diesel engine, Wartsila-Sulzer RTA96-C.

### **Clean Rail Transportation Options**

Blending automotive manufacturing and styling techniques with state-of-the-art diesel-electric technologies, General Motors' Electro-Motive Division conceived and marketed America's first commercially successful road diesels: the fabulous E-Units and F-Units. This illustrated companion to Voyageur Press' Alco Locomotives

(2009) and Baldwin Locomotives (2010) is the most comprehensive history of the most recognizable locomotives ever built. Beginning with 1937 debut of the fast and powerful E-Units designed for long-haul passenger service, author Brian Solomon treats readers to a wonderful array of archival imagery while explaining the impact the locomotives made on the locomotive market and the railroad industry.

### **EMD Locomotives**

Once the second-largest steam locomotive builder in the U.S., American Locomotive Company (Alco) produced 75,000 locomotives, among them such famous examples as the 4-6-4 Hudsons and 4-8-4 Niagaras built for the New York Central, and the 4-6-6-4 Challengers and 4-8-8-4 Big Boys built for the Union Pacific. Alco Locomotives is the first book to tell the full story of this company central to American railroad history—and beloved by railfans for its rich heritage and its underdog appeal. Noted rail historian Brian Solomon looks back at the founding of Schenectady Locomotive Works in 1848 and proceeds to cover that company's merger with several smaller locomotive builders in 1901 to form Alco. Solomon describes the locomotives that made Alco's name around the world, from the standard designs like Mikados, Atlantics, and Mallets to the more powerful and flashy post-World War I models. His detailed, richly illustrated narrative re-creates the drama of a tough, ambitious company in the American tradition—rising again

and again to the demands of an ever-changing industry and economy. Solomon also covers Alco electrics (built in partnership with GE), as well as the company's successful and quirky diesel offerings, including the RS-2 and RS-3 road switchers, FA/FB road freight units, PA road passenger diesel, and the wares of Canadian affiliate Montreal Locomotive Works. Enlivened by numerous historical photographs, modern images, curious details, and firsthand accounts, this history is a complete, fascinating, and fitting tribute to a true icon of American railroading.

### **GE Locomotives**

Ride the rails through the development and history of America's diesel-electric locomotives. Diesel-electric played a critical role in the industrialization of America. After WWII, diesels rapidly displaced the steam locomotive as the dominant source of motive power on the rails. This lavishly illustrated volume delivers detailed coverage of the development of the diesel including AC traction and the 800-horsepower beasts introduced in the mid 1990s. Solomon describes how diesels are operated and maintained today. Appendix lists where restored early diesels can be seen today.

### **Isolation and Structure Elucidation of Bioactive Compounds (Dedicated to the memory of the late Professor Charles D.**



## **Hufford)**

This book is a printed edition of the Special Issue "Molecular Science for Drug Development and Biomedicine" that was published in IJMS

## **Locomotive Cyclopedia of American Practice**

Originally printed in 1946, The Fleet Type Submarine series of technical manuals remains unparalleled. Contained in its pages are descriptions of every operating component aboard a fleet boat. Main Propulsion Diesels examines the submarine's power plant in detail, from starting and control systems to fuel and exhaust, and cooling and lubrication systems. Originally classified 'Restricted', this book was recently declassified and is here reprinted in book form. Some illustrations have been slightly reformatted, and color plates are reproduced in black and white. Care has been taken to preserve the integrity of the text.

## **Operation and Maintenance of Diesel-electric Locomotives**

Alfred P. Sloan, Jr. led the General Motors Corporation to international business success by virtue of his brilliant managerial practices and his insights into the new consumer economy he and General Motors helped to produce. Sloan's business

biography, *My Years With General Motors*, was an instant best seller when it was first published in 1964 and is still considered indispensable reading by modern business giants.

### **American Diesel Locomotives**

Spanning more than one and a half centuries, this treasure trove examines the steam, diesel, and electric locomotives that have kept North American commerce on the rails since the middle of the nineteenth century. Prolific rail author Brian Solomon takes an encyclopedic approach and describes every major type. And because locomotive-building has long been a made-to-order business, the book is arranged alphabetically by railroads from across the United States and Canada to show the variant technologies that railroads ordered to best suit their specific needs, whether for freight or passenger operations. The 75-plus railroads covered range from the best known historical lines such as Canadian Pacific, Santa Fe, Union Pacific, and Baltimore & Ohio, to today's giant Class I roads, commuter lines, and selected short lines. The result is a profusely illustrated and beautifully presented reference guide that features more than 400 locomotive gems from throughout the ages, including historic machines such as New York Central's J3a Hudsons, Pennsylvania Railroad's GG1 electrics, and EMD's classic E- and F-Units, to today's most powerful modern diesels. All the major builders' past and present are represented, including such

heavyweights as Baldwin, Alco, Lima, EMD, GE, and more.

### **North American Locomotives**

"This book is an indispensable illustrated resource for railfans and families on road trips, filled with easy-to-find information on locomotives and rolling stock, such as railroad cars, coaches, and wagons"--Provided by publisher.

### **The Dilworth Story**

This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

## **The Australian Locomotive Guide**

This book will assess and compare several options for ammonia co-fueling of diesel locomotives with integrated heat recovery, multigeneration (including on-board hydrogen fuel production from ammonia), and emission reduction subsystems from energy, exergy, and environmental perspectives. Economic considerations will be presented to compare the cost of the proposed systems for different scenarios such as carbon-tax rates, diesel fuel cost and ammonia cost. Fossil fuel consumption and the associated negative environmental impact of their combustion is a significant global concern that requires effective, practical, and sustainable solutions. From a Canadian perspective, the Transportation Sector contributes more than 25% of national greenhouse gas emissions due to fossil fuel combustion, largely due to road vehicles (cars, light and heavy duty trucks). This is a complex and critical challenge to address, particularly in urban areas with high population density. There is a need to develop alternative energy solutions for mass passenger and freight transportation systems that will reduce both the traffic-volume of road vehicles as well as the emissions from the mass transportation systems. The book will be helpful to students in senior-level undergraduate and graduate level courses related to energy, thermodynamics, thermal sciences, combustion, HVAC&R, etc. The quantitative comparative assessment of such alternative energy systems provided by this book will be useful for researchers and professionals interested sustainable development.

## **Probability with Applications in Engineering, Science, and Technology**

Describes the Diesel and Electric locomotives used on the main line and export mineral railways in Australia and the operating preserved steam locomotives used both on preserved lines and on main lines. Diesel locomotives are listed according to the type of Diesel engine and arranged to show the development of a particular type of locomotive. Entries progressing from lower power to higher power units. This layout shows the similarity of types used on different systems, particularly in the area of State government railways. The Electric locomotives are grouped by system in chronological order Steam locomotives are organised by wheel arrangement since this brings together similar locomotives from different systems. Covers all the diesel and electric locomotives used by the Australian main line railways whether still in service or not. Many diesel locomotives are now being used for secondary duties by smaller operators or leased by larger operators as required.

## **The Contemporary Diesel Spotter's Guide**

## **Molecular Science for Drug Development and Biomedicine**

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In February 2005, General Motors announced its decision to sell its Electro-Motive Division (EMD), thus ending its 75-year association with one of the most renowned brands in railroading. Looking at the heritage of the venerable EMD in light of this momentous development, this monumental volume offers an overview of the great locomotive maker unprecedented in its scope and unparalleled in the spectacular quality of its photographs. Leading railroad author and photographer Brian Solomon provides an authoritative, comprehensive account of EMD's history, from its genesis in 1922 as the independent Electro-Motive Corporation, to GM's acquisition of the company in 1930, and on through the age of today's ""superpower"" locomotives. From the earliest 1920s railcars to the iconic mid-century F units, workhorse GP and SD locomotives, and Dash series; to the company's race with its chief competitor, General Electric, to reach 6,000 horsepower, EMD's complete story unfolds here in depth and detail, illustrated with a wealth of archival photos from across the country, as well as a remarkable collection of color photography from top railway photographers of the last half century.

### **Emd 567**

This overview of the leading locomotive producers in the United States during the twentieth century shows how they responded to a radical technological change:

the replacement of steam locomotives by diesels. The locomotive industry provides a valuable case study of business practices and dramatic shifts in innovation patterns, since two companies--General Motors and General Electric--that had no traditional ties to locomotive production demolished established steam locomotive manufacturers. Albert Churella uses many previously untapped sources to illustrate how producers responded to technological change, particularly between the 1920s and the 1960s. Companies discussed include the American Locomotive Company (ALCo), the Baldwin Locomotive Works, the Lima Locomotive Works, Fairbanks-Morse, the Electro-Motive Division of General Motors, and General Electric. A comparative work of business history and the history of technology, the book is not a complete history of any locomotive builder, nor does it explore the origins of the diesel engine in great detail. What it does, and does superbly, is to demonstrate how managers addressed radical shifts in technology and production methods. Churella reveals that managerial culture and corporate organizational routines, more than technological competency per se, allowed some companies to succeed, yet constrained the actions of others. He details the shift from small-batch custom manufacturing techniques in the steam locomotive industry to mass-production methods in the diesel locomotive industry. He also explains that chance events and fortuitous technological linkages helped to shape competitive patterns in the locomotive industry.

### **Locomotive Cyclopedia of American Practice, 1950-52**

Conversion of the Navy's Mobile Utilities System Equipment (MUSE) diesel generators to dual fuel (natural gas plus diesel fuel) operation to reduce their NOx (nitrogen oxide) emissions is described. The Navy maintains a fleet of 60 such units, powered by EMD 645 engines, that range in size from 1,500kW to 2,500 kW. A means for providing low-NOx MUSE generators that will not compromise the operational capability of the fleet is required. This guide is based upon the experience gained from converting a 1,500 kW MUSE unit to dual fuel operation (the unit is currently installed and operating at King's Bay Naval Station in Georgia). Information on the conversion process, operation, maintenance, and the cost of the dual fuel conversion are provided.

### **The Model Railroader's Guide to Diesel Locomotives**

Learn the history, spotting features, characteristics, and operation of diesel locomotives, plus how to determine appropriate eras, and details and features.

### **The Great Western Eight Coupled Heavy Freight Locomotives**

### **Two-Stroke Diesel Engines**



### **North American Locomotives**

The EMD 567 is a line of diesel engines built by General Motors' Electro-Motive Division. This engine, which succeeded Winton's 201-A, was used in EMD's locomotives from 1938 until its replacement in 1966 by the EMD 645. It had a bore of eight and one-half inches (216 mm), a stroke of ten inches (254 mm) and a displacement of 567 cubic inches (9.29 liters) per cylinder. Like the 201-A and the EMD 645, the EMD 567 was a two-stroke cycle engine. It is a V engine with an angle of 45 degrees between cylinder banks. 567AC engines (an "A" block which was upgraded to "C" block specifications) and 567BC engines (a "B" block which was upgraded to "C" block specifications) may be upgraded to use 645 power assemblies, theoretically achieving an increase in horsepower, however this upgrade is usually performed to convert a turbocharged engine into a normally-aspirated engine, thereby achieving a reduction in operating cost with no reduction in horsepower. As 645 power assemblies are more readily available than 567 power assemblies, this upgrade may also be employed in so-called "life extension" programs.

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