Books - Steam - Public Domain

Below is a list of Public Domain Books about steam engines and design (most downloadable from the Google Books website as a PDF file), and a list of Bob Jorgensen's book collection. Recent trends in internet technology including the online publishing of public domain high resolution

scans of steam engine design books by Google and others has opened a new dimension into the research and understanding of steam engines designed and constructed in the 1800's and late 1900's, as well as the entire history of steam engines, and their unprecedented impact on human civilization over the last 200 years.

Steam engine technology advanced very rapidly into the late 1800's, and authors struggled to keep their books up to date, as evidenced by frequent revisions to some of the steam engine design books of the late century.

Steam engine design seems to have reached its zeinth in the early 1900's, and then very rapidly declined due to advances in turbine and combustion engine technology. Influences from the steam engine days can be seen in some of the very large modern combustion engine designs, with some large ship engines still using the crosshead design to support the connecting rod, just as was done with many steam engines.

There is no doubt that steam engine design led directly into combustion engine design, and many of the similarities are striking. One of the more popular and reliable diesel engine designs was (is) the 2-stroke uniflow type used by Detroit Diesel, and also seen in the Doble steam engine designs. The Westinghouse 2-cylinder single-action steam engine looks in cross section to be almost identical

to a modern gasoline engine.

(NOTE: Due to the large number of steam related books that have been located, all links have not been listed below. All the books below are in the public domain, and have been downloaded in PDF

format. Should you not be able to find one of the books listed below via a search on the internet, a PDF can be emailed upon request.)

#### Excellent Downloadable Books:

(Select the "PDF" icon located in the upper right corner of the page to download the PDF file for the books below from the Google Books site)

(Note: Some books have not been scanned with the greatest of care, with a few pages smeared. Should a critical page not be clear, another copy scanned copy of the same book can often be found online.

Unfortunately, many of the impressive prints located on fold-out pages in these books were not scanned with the page folded out, so an incomplete glimpse of this valuable information is given in the scans.

You can usually search for books and book types using the search feature located at the top of the book scanner's page.)

Short List of Favorite Public Domain Books

Note: If your time is limited, the following (5) books about steam engines and steam engine

design are excellent, and are probably some of the best of all the public domain books listed below.

Books No.1,2 and 3 do not contain an excessive amount of math in them, but do contain a large amount of very useful information about steam engines:

#### Favorite Book No. 1:

(If you only have time for one book about steam engines, then read the following book. This book is extremely well illustrated with superb engravings which show a large variety of steam engine types and mechanisms, as well as many definitions of steam engine terms.) Croft, Terrell,

"Steam-Engine Principles and Practice",

McGraw Hill Book Company, Inc., 1922,

is also an excellent book.

http://books.google.com/books?

id=msMJAAAIAAJ&printsec=frontcover&dq=Steam+engine+principles+and+practice&lr=

Favorite Book No. 2:

Thurston, Robert H.:

"A History of the Growth of the Steam Engine",

D. Appleton and Company, 1897.

http://books.google.com/books?id=MrI3AAAAMAAJ&printsec=frontcover&dq=steam+engines

Favorite Book No. 3:

Graham. Frank D.:

"Audel's Engineers and Mechanic's Guide I",

Theo Audel & Co., 1921.

http://books.google.com/books?

id= IdIAAAAMAAJ&pg=PA47&dq=audels+steam+engine&lr=#v=onepage&q=&f=false

Favorite Book No. 4:

Dalby, W.E.:

"Valves and Valve Gear Mechanisms",

Edward Arnold Pub., 1906.

http://books.google.com/books?

id=wyBMAAAAMAJ&dq=valves+and+valve+gear+mechanisms&printsec=frontcover&source=bl&ots=6Eaq0oFvne&sig=CJN\_XOhCJKExlcj7ksegXKxs1EA&hl=en&ei=ymveSefzJqfrlQeHxOhQ&sa=X&oi=book result&ct=result&resnum=1

Favorite Book No. 5:

Klein, J.F.:

"Design of a High Speed Steam Engine",

D. Van Nostrand Company, 1903.

http://books.google.com/books?

id=XiJLAAAAMAAJ&printsec=frontcover&dq=design+of+a+high+speed+steam+engine&lr=

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# Complete Public Domain Steam Engine Book List (as of November, 2010)

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The following is a complete list of public domain steam engine books located to date, and are arranged alphabetically by the author's last name:

Ahrons, E. L.,

"Steam Engine Valves and Valve Gears", Sir Issacc Pitman & Sons, Ltd., 1921.

Alban, Ernst,

"The High Pressure Steam Engine",

London: John Weale, 1858.

Aldrich & Donaldson (a monthly publication),

"Marine Engineering, A Monthly Publication Devoted to Vessel Construction and Propulsion and Allied Interests",

Aldrich & Donaldson, 1899.

Atherton, Charles,

"On Marine Engine Construction and Classification",

London: John Weale, 1851.

Barnes, David Leonard,

"Electric Locomotives - Baldwin Locomotive Works",

Burnham, Williams & Co., 1896.

Barr, John H.,

"Elements of Machine Design",

John Wiley & Sons, 1911.

Benjamin, Charles H.,

"The Steam Engine, A Concise Treatise for Students and Engineers",

The Technical Press, 1909.

Bennett, Frank M.,

"The Monitor and The Navy Under Steam",

Houghton, Mifflin and Company, 1900.

Bird, Geo Fredk,

"The Locomotives of the Great Northern Railroad",

The Locomotive Publishing Co., Ltd., 1903.

Borne, John,

"Handbook of the Steam-Engine",

D. Appleton and Company, 1865.

Burgh, N. P.,

"Modern Marine Engineering Illustrated",

E & F. N. Spon, 1867.

Burnham, George, Jr.

"Baldwin Locomotive Works, Illustrated Catalogue of Narrow-Gauge Locomotives. Adapted Especially to Gauges of 3 feet and 6 inches or one meter", Burnham, Williams & Co., 1900.

Burn, Robert Scott,

"The Steam-Engine: Its History and Mechanism",

Ward and Lock, 1857.

Busley, Carl,

"The Marine Steam Engine, its Construction, Action, and Management", Kiel and Leipzig, 1902.

Carnegie, Andrew,

"James Watt",

Doubleday, Page & Company, 1905.

Clark, Daniel K.:

"The Exhibited Machinery of 1862: A Cyclopedia of the Machinery

Represented at the International Exhibition",

Day & Sons, 1862.

Clark, Daniel K.:

"An Elementary Treatise on Steam and the Steam-Engine, Stationary and Portable",

Crosby Lockwood and Co., 1885.

Clark, Daniel K.:

"The Steam Engine: A Treatise on Steam Engines and Boilers",

Blackie & Son, 1890.

http://books.google.com/books?

<u>id=vy8KAAAAIAAJ&printsec=frontcover&dq=daniel+kinnear+clark&lr=&source=gbs\_book\_other\_versions\_r&cad=6</u>

Clark, Daniel K.:

"Tramways, Their Construction and Working (locomotives, rolling stock,

traction, electric traction, steam)",

Crosby Lockwood and Son, 1894.

Collins, Hubert E.:

"Shaft Governors, Centrifugal and Inertia",

Hill Publishing Company, 1908.

Colyer, Frederick:

"A Treatise on Modern Steam Engines and Boilers, Including Land,

Locomotive, and Marine Engines and Boilers",

E. & F.N. Spon, 1886.

Colyer, Frederick:

"Treatise on the Working Management of Steam Boilers and Engines,

Shafting, Gear, and Machinery",

E. & F.N. Spon, 1892.

Cotterill, James, H.:

"The Steam Engine Considered as a Thermodynamic Machine",

E. & F. N. Spon, 1896.

Croft, Terrell:

"Steam-Engine Principles and Practice",

McGraw Hill Book Company, Inc., 1922.

http://books.google.com/books?

id=msMJAAAAIAAJ&printsec=frontcover&dq=Steam+engine+principles+and+practice&lr=

Dalby, W.E.:

"Valves and Valve Gear Mechanisms",

Edward Arnold Pub., 1906.

http://books.google.com/books?

id=wyBMAAAAMAJ&dq=valves+and+valve+gear+mechanisms&printsec=frontcover&source=bl&ots=6Eaq0oFvne&sig=CJN\_XOhCJKExlcj7ksegXKxs1EA&hl=en&ei=ymveSefzJqfrlQeHxOhQ&sa=X&oi=book result&ct=result&resnum=1

The first paragraph of the preface describes the goal of the book:

"Valve gear mechanisms have facinated successive generations of engineers, and, if the truth were known,

there are few mechanical engineers who have not at some time or other tried to invent a new gear. In consequence, the number of valve gears described in the Patent Office Specifications, and indeed the

number of different types which have been actually made, is exceedingly great. My object is not to enumerate these, nor even to enumerate all the types which are in actual work at the present time, but

rather to to select a few typical gears, well tried, and to some extent representing the survival of the fittest types, and to examine them thoroughly and by methods which may generally be applied to all kinds

of gear similar to those chosen". W.E. Dalby, M.A.

("Rectangular Valve Diagram" on p. 57 is almost identical to graph shown on this website under DESIGN II,

DIAGRAMS/SPREADSHEETS, indicating valve displacement curves. A machine is shown on p.169 for drawing

valve displacent curves for a steam engine).

Dalby, W.E.:

"Steam Power".

Longmans, Green & Co., 1915.

http://books.google.com/books?id=-Zl-AAAAIAAJ&printsec=frontcover&dq=steam+power+dalby

Dalby, W.E.:

"The Balancing of Engines",

Edward Arnold, 1906.

http://books.google.com/books?

id=WrtBAAAAIAAJ&printsec=frontcover&dq=balancing+of+engines+dalby&lr=

Derr Louis:

"Cyclopedia of Engineering",

Chicago Amererican Technical Society, 1915.

Dunlap, John:

"The Engineering Magazine, an Industrial Review, Vol. XXVIII, October, 1904 to March 1905", New York The Engineering Magazine, 1904.

# Edwards, Emory:

"Modern American Locomotive Engines; Design, Construction and Management", Henry Carey Baird & Co., 1895.

# Edwards, Emory:

"The Practical Steam Engineer's Guide in the Design, Construction and Management of American Stationary, Portable and Steam Fire-Engines, Steam Pumps, Boilers, Injectors, Governors, Indicators, Pistons and Rings, Safety Valves, and Steam Gauges", Henry Carey Baird & Co., 1890.

#### Edwards, Emory:

"A Catechism of the Marine Steam Engine", Henry Carey Baird & Co., 1898.

# Evers, Henry,

"Steam and the Steam Engine: Land, Marine and Locomotive", Williams Collins, Sons & Company, 1878.

#### Fehrenbatch, John:

"A Library of Steam Engineering", The Ohio Valley Company, 1900.

## Finlay, Water Stevenson:

"The Effect of Superheated Steam on Cylinder Condensation in a Corliss Steam Engine", Sibley College - Cornell University, 1904.

# Frick Company:

"The Story of Frick Refrigerating, Air Conditioning, Farm and Sawmill Machinery", Frick Company, 1952.

#### Gebhardt, G. F.,

"Steam Power Plant Engineering", John Wiley & Sons, Inc., 1913.

#### Graham, Frank D.,

"Audel's Power Plant Engineer's Guide", Theo Audel & Co., 1945.

Graham, Frank D.,
"Audel's New Marine Engineers Guide",

Theo Audel & Co.

#### Greenly, Henry,

"The Model Locomotive, Its Design and Construction", Percival Marshall & Co., 1904.

## Greenly, Henry,

"Model Engineering - A Guide to Model Workshop Practice", Cassell and Company, Ltd., 1915.

# Graham, Frank D.:

"Audel's Engineers and Mechanic's Guide 1, 2, 3, 4, 5 & 6",

Theo Audel & Co., 1921.

http://books.google.com/books?

<u>id=\_IdIAAAAMAAJ&pg=PA47&dq=audels+steam+engine&lr=#v=onepage&q=&f=false</u>

(Guide No.2 contains an engraving of a Dake steam engine)

Grimshaw, Robert:

"Supplement to the Steam Engine Catechism",

John Wiley & Sons, 1888.

Grimshaw, Robert:

"The Steam Engine Catechism",

Norman W. Henley & Co., 1896.

Grimshaw, Robert:

"The Engine Runner's Catechism",

John Wiley & Sons, 1895.

Hall, W. B.:

"Measuring Steam Engine Performance",

(Computer tests and plots of steam engine performance).

Hamkens, H.,

"Steam Engine Troubles",

The Norman W. Henley Publishing Co., 1919.

Hawkins, N.:

"New Catechism of the Steam Engine, with Chapters on Gas, Oil and Hot Air Engines",

Theo Audel & Co., 1904.

Header, Herman, Powles, H.H.P.,

"A Handbook on the Steam Engine with Special References to Small and Medium-Sized Engines",

D. Van Nostrand Company, 1902.

Heck, Robert,

"The Steam-Engine and Other Steam-Motors",

D. Van Nostrand Company, 1905.

Henthorn, John T., Thurber, Charles D.:

"The Corliss Engine and Its Management",

Spon & Chamberlain, 1902.

Hirshfeld, C.F., Ulbricht, T.C.:

"Steam Power",

John Wiley & Sons, Inc., 1916.

Page 92 has a good Classification of the various types of steam

engines that have been produced.

http://books.google.com/books?

<u>id=1pUZAAAAYAAJ&printsec=frontcover&dq=Steam+power&lr=</u>

Hiscox, Gardner D.,

"Mechanical Movements, Power Devices and Appliances",

Norman W. Henley & Company, 1903.

Hiscox, Gardner D.,

"Modern Steam Engineering in Theory and Practice",

The Norman W. Henley Publishing Company, 1907.

# Hodge, P. R.:

"The Steam Engine, Its Origin and Gradual Improvement,

from the Time of Hero to the Present Day",

D. Appleton & Co., 1840.

Holmes, George C. V.:

"The Steam Engine",

Longmans, Green, and Co., 1895.

Hopkinson J., & Co.,

"Engineer's Practical Guide, and the Workings of the Steam Engine, Explained

by the Use of the Indicator, 7th Ed.",

1875.

Howell, Foster G.,

"Steam Vessels and Marine Engines",

The American Shipbuilders, 1896.

Hutton, Frederic R.:

"The Mechanical Engineering of Power Plants",

John Wiley & Sons, 1897.

(Contains an engraving for a Dake Engine with a written discription)

Industrial Press,

"Steam Engineering - Index to Vol. 10, September 1899 to August 1990",

The Industrial Press, New York, 1990.

I.C.S. Staff,

"Steam Engines, Engine Governors",

International Textbook Company.

James, Walter H., Dole, Myron W.:

"Mechanisms of Steam Engines",

John Wiley & Sons, Inc, 1914.

http://books.google.com/books?

id=eK0PAAAAYAAJ&printsec=frontcover&dq=mechanisms+of+steam+engines+james

Jamieson, Andrew:

"A Textbook on Steam and Steam-Engines",

Charles Griffin and Company, 1889.

http://books.google.com/books?id=-YFMAAAAMAAJ&pg=RA1-

PA170&dq=a+textbook+on+steam+engines+jamieson&lr=

John Williams and Co., London,

"The Student's Guide to the Locomotive Engine",

1849.

Jones, Franklin D.,

"Mechanisms and Mechanical Movements",

The Industrial Press, New York, 1919.

Kent, William,

"The Mechanical Engineer's Pocket-Book",

John Wiley & Sons, 1903.

#### Klein, J.F.:

"Design of a High Speed Steam Engine",

D. Van Nostrand Company, 1903.

http://books.google.com/books?

id=XiJLAAAAMAAJ&printsec=frontcover&dq=design+of+a+high+speed+steam+engine&lr=

Knight, Edward H.,

"Knight's American Mechanical Dictionary",

Houghton, Mifflin and Company.

Kunhardt, C. P.,

"Steam Yachts and Launches; Their Machinery and Management. A Review",

Forest and Stream Publishing Co., 1887.

Langmaid, J., Gaisford, H.:

"Elementary Lessons in Steam Machinery and the Marine Steam Engine,

with a Short Description of the Construction of a Battleship",

Macmillan and Co., 1901.

Lardner, Dionysius:

"Poplar Lectures on the Steam Engine",

John Taylor publisher, 1828.

Lardner, Dionysius:

"The Steam Engine Explained and Illustrated",

Taylor and Walton, 1840.

Lisk, J. P.:

"ABC of The Steam Engine, with a Description of the Automatic Governor",

Spon & Chamberlain, 1902.

Locomotive Engineering,

"Locomotive Engineering, A Practical Journal of Railway and Rolling Stock -

Technical Index, Vol. 9",

1896.

Ludy, Llewellyn V.:

"Steam Engines",

American Technical Society, 1917.

Main Thomas J., Brown, Thomas,

"The Marine Steam Engine. Designed chiefly for the use of Officers of Her

Majesty's Navy:,

Woodward, Common, Hard., 1852.

Marine Engineering,

"Index to Marine Engineering, Volumn VIII, January to December, 1903", Marine Engineering, Incorporated, New York, 1903.

Milne, John,

"A Practical View of the Steam Engine; Illustrated by Engravings of the Largest Machine in Scotland",

A. Balfour and Co., 1830.

Meyer, J.G.A.,

"Modern Locomotive Construction",

John Wiley and Sons, 1892.

Neal, George William:

"The Marine Engineer, A Monthly Journal of Marine Engineering, Shipbuilding, Steam Navigation & Electrical Engineering", 1893.

Pambour, Comte De:

"The Theory of the Steam Engine",

London: John Weale, 1889.

Peabody, Cecil H.:

"Valve-Gears for Steam-Engines",

John Wiley & Sons, 1901.

Peabody, Cecil H.:

"The Steam-Engine Indicator",

John Wiley & Sons, 1900.

http://books.google.com/books?id=WIVMAAAAMAAJ&pg=PA1&dq=steam+engine+indicator

Perry, John:

"The Steam Engine and Gas and Oil Engines",

Macmillan and Co., 1902.

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Unlike the other books in listed on this page, the following book by Charles Porter is unique in that it is a personal story of a lawyer turned engineer, Charles Porter, who championed the use of the high speed steam engine. Porter seemed to be one of the few steam engine designers who first correctly predicted that the high speed steam engine would be the a critical and dominant engine type of the future. Porter was correct in his forsight, and high speed engines continue to dominate most engine designs to this day.

Porter's book documents the rapid advances being made in steam engine design during the mid-1800's.

Porter also played an important role in the development and use of his high-speed steam engine governors, and high-speed engine indicators.

An interesting part of Porter's story is his personal dealings with the wide variety of individuals during the 1800's, and his detailed description of the machining methods and tools available during the period. Porter describes engines with each screw thread being custom made, and

every threaded connection being different and unique on the same engine. A nut removed from a bolt on an engine had to be re-connected to the exact same bolt in order to fit. This period was prior to the standardization of screw threads and interchangable parts that we take for granted these days.

Porter lived in the age of great invention, and it is apparent that very rapid advances were being made in all technological fields. There was apparently huge amounts of money to be made by persons investing in the emerging technologies of the future, and Porter's story of his engine, governor and indicator designs is a facinating one which gives much insite into the way many of the fundamental and classic steam engine designs emerged.

Porter also gives us insite into the power of the patent and patent attorney. Numerous stories are included which detail the inner workings of many of the iron works and the workers who produced steam engines.

Porter's personal narrative gives a facinating glimpse into the past history of steam engines, and the people who designed and built them. The book could also be used as a study of personality types, and a study in what it takes to make not only a good design, but a commercially viable and widely used product. Porter's effective use of deductive reasoning and his attention to quality and detail placed him far in advance of most of the engineers and designers of the time.

Some of the more interesting ideas presented by Porter in his book are as follows:

- 1. Porter seems to have conceived the idea for a high speed steam engine after designing a rock surfacing machine that operated at the same speed as a high speed engine.
- 2. Porter's governor appears to be one of the first designs that could quickly and accurately regulate the speed of most steam engines. Porter notes that his governor could not regulate the speed of a compound marine engine. Those involved in the current design of control systems can appreciate the success of Porter's governor, since designing a stable control system can be difficult, even in modern times.
- 3. Porter mentions the problems associated with using a condenser on a steam engine, and the foaming in the boiler that can be caused by oil not being separated from the water in the condenser.
- 4. Porter correctly realized the importance of using an precision indicator to accurately predicting steam engine performance and efficiency.
- 5. Porter mentions problems with using brass bearing surfaces running on steel (the steel wears before the brass), and he preferred using cast iron running on cast iron when possible. Porter also analyzed the problems associated with engine wear, and the critical aspect of an effective oiling system for a steam engine.
- 6. Porter's connecting rod design utilized a closed end rod, and bearing adjustments on either end of the rod which automatically kept the length of the rod constant.
- 7. Porter was one of the first engine designers to realize that the frame of the engine, as well as the frame of many machine tools, had to be extremely rigid and free from flexing and deflection.

8. Porter mentions the novelty of discovering a maching shop that was using custom made twist drills. Twist drills were not in common use in the mid-1800's.

#### Porter, Charles T.:

"Engineering Reminiscences contributed to 'Power' and 'American Machinist' ", John Wiley & Sons, 1908.

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# Reid, Hugo:

"The Steam-Engine", Edinburg, 1838.

### Reynolds, Michael:

"Stationary Engine Driving, A Practical Manual for Engineers in Charge of Stationary Engines", Crosby Lockwood and Co., 1881.

# Reynolds, Michael:

"Locomotive-Engine Driving, A Practical Manual for Engineers in Charge Locomotive Engines", Crosby Lockwood and Co., 1877.

# Roper, Stephen,

"A Catechism of High Pressure or Non-Condensing Steam Engines", Claxton, Remsen & Haffelfinger, 1874.

### Rose, Joshua:

"The Complete Practical Machinist: Embracing Lathe Work, Vise Work, Drills and Drilling, Taps and Dies, Hardening and Tempering, Tool Grinding, Marking Out Work, Etc.", Henry Carey Baird & Co., 1887.

#### Rose, Joshua:

"Key to Engines and Engine-Running. A Practical Treatise Upon the Management of Steam Engines and Boilers for the Use of Those Who Desire to Pass an Examination to Take Charge of an Engine or Boiler",

D. Van Nostrand Company, 1899.

# Rose, Joshua,

"Modern Steam Engines",

Henry Carey Baird & Co., 1893.

# Rose, Joshua,

"Steam Boilers: A Practical Treatise on Boiler Construction and Examination", Henry Carey Baird & Co., 1888.

## Saxby, S. M.:

"The Study of Steam and the Marine Engine", Longman, Green, Longman, and Roberts, 1862.

# Scranton International Texbook Company:

"Valve Gears, Mechanics of the Steam Engine, Steam-Engine Governors, Steam-Engine Design, Types of Steam Boilers, Boiler Fittings and Accessories, Boiler Settings and Chimneys, Boiler Piping and Auxiliaries, Fuels and Boiler Trials, Steam-Boiler Design",

Scranton, International Textbook Company, 1907.

http://books.google.com/books?

<u>id=Nh9WAAAAMAAJ&pg=PP9&dq=international+library+of+technology+scranton+valve+gears+mechanics+of+the+steam+engine&lr=</u>

Scranton International Texbook Company:

"Hydrostatics, Pneumatics, Hydraulics, Elementary Chemistry, Heat, Entropy and Steam, Steam-Engine Mechanism, Steam-Engine Indicators and Diagrams, Simple Non-Condensing Steam Engines, Compound and Condensing Engines, Steam Turbines", Scranton, International Textbook Company, 1908.

Scranton International Textbook Company,

"International Library of Technology, Steam Engines, Elevators".

Seaton, A. E.:

"A Manual of Marine Engineering: Comprising the Designing, Construction, and Working of Marine Machinery", Charles Griffin & Company, 1890.

Sennett, Richard, Oram, Henry: "The Marine Steam Engine",

Longmans, Green, and Co., 1913.

Shealy, E. M.:

"Steam Engines",

McGraw-Hill Book Company, Inc., 1919.

Shillitto, F. W.:

"Handbook of Corliss Steam Engines",

The American Industrial Publishing Co., 1899.

Smith, Chas A.,

"Steam Using; or Steam Engine Practice",

The American Engineer, 1885.

Seaton, A.E.:

"A Manual of Marine Engineering",

Charles Griffin & Company, 1890.

http://books.google.com/books?id=-

BVLAAAAMAAJ&printsec=frontcover&dq=manual+of+marine+engineering+seaton&lr=

Snow, Water B., Leland, Walter S.:

"The Steam Engine",

Chicago American School of Correspondence, 1908.

http://books.google.com/books?

id=R9d9AAAAIAAJ&printsec=frontcover&dq=the+steam+engine+snow&lr=

Sothern, J.W.M.,

"Verbal Notes and Sketches for Marine Engineer Officers, A Manual of Steam Engineering Practice - Vol. 1 & 2", revised by J.K. Bowden, 18th Ed., James Munro & Company, Ltd., Date ?.

Spangler, H.W., Greene, Authur M., Marshall, S.M.,

"Elements of Steam Engineering",

John Wiley & Sons, 1910.

Stuart, Robert:

"A Descriptive History of the Steam Engine",

John Knight and Henry Lacey, 1824.

# Stuart, Robert:

"Historical and Descriptive Anecdotes of Steam Engines and of Their Inventors and Improvers", Wightman and Cramp, Paternoster, Row, 1829.

# Stumf, J.:

"The Una-Flow Steam-Engine",

Constable & Company Ltd., 1912.

http://books.google.com/books?

id= mtMAAAAMAAJ&pg=PA48&dq=unaflow+steam+engine&lr=

#### Thurston, Robert H.:

"Stationary Steam Engines especially adapted to Electric Lighting Purposes",

John Wiley and Sons, 1888.

http://books.google.com/books?

id=SCsKAAAAIAAJ&printsec=frontcover&dq=stationary+steam+engines+thurston&lr=

# Thurston, Robert H.:

"The Developement of the Philosophy of the Steam-Engine, A Historical Sketch", John Wiley & Sons, 1889.

## Thurston, Robert H.:

"A History of the Growth of the Steam Engine",

D. Appleton and Company, 1897.

http://books.google.com/books?id=MrI3AAAAMAAJ&printsec=frontcover&dq=steam+engines

#### Tredgold, Thomas:

"The Steam Engine",

J. Taylor, 1827.

#### Tribe, James:

"Compound Corliss Engines",

James Tribe, 1903.

# Tulley, Henry C.,

"Handbook on Engineering, The Practical Care and Management of Dynamos, Motors, Boilers, Engines, Pumps, Inspirators and Injectors, Refrigerating Machinery, Hydraulic Elevators, Electric Elevators, Air Compressors, Rope Transmission and All Branches of Steam Engineering", Henry C. Tulley & Co., 1902.

#### Unwin, Cawthorne, W.:

"The Elements of Machine Design, Part II, Chiefly on Engine Details", Longmans, Green and Co., 1891.

# http://books.google.com/books?

<u>id=mWA1AAAMAAJ&printsec=frontcover&dq=elements+of+machine+design+unwin&lr=</u>

Wakeman, W. H.:

"Modern Examinations of Steam Engines, or Practical Theory Explained and Illustrated, Written for Engineers by an Engineer", American Industrial Publishing Co., 1895.

Walker, Sidney F., "Steam Boilers, Engines and Turbines", Harper & Brothers, 1908.

Washington Government Printing Office, "Reports of the United States Commisioners to the Paris Universal Exposition, 1878, Volume IV", 1880.

Whitman, Jay M.:

"Steam-Engine Design for the use of Mechanical Engineers,

Students, and Draughtsmen, Third Edition",

John Wiley and Sons, 1891.

http://books.google.com/books?id=A8xIAAAAMAAJ&printsec=frontcover&dq=steam-engine+design+whitham&lr=

Wood, W.W.:

"The Walschaert Locomotive Valve Gear",

The Norman W. Henley Publishing Co., 1906.

http://books.google.com/books?

id=XAEpAAAAYAAJ&pg=PA151&dq=the+walschaert+locomotive+valve+gear&lr=

Yeo, John:

"Steam and the Marine Steam-Engine", Macmillan and Co., 1894.

Yoder, Jacob H., Wharen, George B.:

"Locomotive Valves and Valve Gears",

D. Van Nostrand Company, 1917.

http://books.google.com/books?id=TKV-

AAAAMAAJ&pg=PA1&dq=locomotive+valves+and+valve+gears&lr=

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Bob Jorgensen's Steam Engine Books:

A List of all of Bob Jorgensen's Books about Steam Engines is as follows:

- 1. "Motorcycles of 1899, American Machinist Memories, Select articles from early issues of American Machinist Magazine", 1899, reprinted by Lindsay Publications, Inc. (Contains article about Roper Steam Bicycle)
- 2. "Motor Bicycle Building", Paul N. Hasluck, Cassell and Company, Limited, 1906, reprinted by Lindsay Publications, Inc.

- 3. "Horseless Vehicles, Automobiles, Motor Cycles", Garner D. Hiscox, M.E., Munn & Company, 1900, reprinted by Lindsay Publications, Inc.
- 4. "The Modern Steam Car and its Background", Thomas S. Derr, 1934, Floyd Clymer, reprinted by Lindsay Publications, Inc.
- 5. "Modern Steam Engines", Joshua Rose, M.E., Henry Carey Baird & Co., 1887, reprinted by Lindsay Publications, Inc.
- 6. "Simple Non-Condensing Steam Engines, Compound and Condensing Engines", International Textbook Company, 1906, reprinted by Lindsay Publications, Inc. 7. "New Catechism of the Steam Engine", N. Hawkins, M.E., 1904, reprinted by Lindsay Publications, Inc.
- 8. "Non-Condensing High Pressure Steam Engines", Stephen Roper, reprinted by Lindsay Publications, Inc.
- 9. "Steam-Engine Design", International Correspondence Schools, 1896, reprinted by Lindsay Publications, Inc.
- 10. "Collecting and Restoring Old Steam Engines", Richard J. Evans, Tab Books, Inc., 1980.
- 11. "Model Steam Engines", Bob Gordon, Shire Publications, Ltd.
- 12. "Model Engine Construction", J. Alexander, Whittaker and Co., 1894, reprinted by Lindsay Publications, Inc.
- 13. "The Model Engineer's Handybook", Paul N. Hasluck, Crosby Lockwood and Son, 1918, reprinted by Lindsay Publications, Inc.
- 14. "Model Engineering A Guide to Model Workshop Practice", Henry Greenly, Cassell and Company, Ltd.,
- 1915, reprinted by Lindsay Publications, Inc.
- 15. "Model Engines and Small Boats", Nevil Monroe Hopkins, D. Van Nostrand Company, 1898, reprinted by Lindsay Publications, Inc.
- 16. "Model Making", Raymond Francis Yates, 1925, reprinted by Lindsay Publications, Inc.
- 17. "Ames Iron Works Engines and Boilers", Oswego, N.Y., 1910.
- 18. "Bates-Corliss, Bates Machine Company", Joliet, Illinois, 1893.
- 19. "Steam-Engine Governors", International Correspondence Schools, International Texbook Company.
- 1906, reprinted by Lindsay Publications, Inc.
- 20. "CASE Steam Engine Manual", J.I. Case Company, Racine Wisconsin.
- 21. "Modern Locomotive Construction", J.G.A. Meyer, John Wiley and Sons, 1892, reprinted by

Lindsay Publications, Inc.

- 22. "Early American Locomotives", John H. White, Jr., Chairman, Dept. of Industries, Smithsonian Institution, Dover Publications, Inc., 1972.
- 23. "Home Made Steam Engines, Volume 1 The Wobblers", Edward G. Warren, Camelback Books, 1998.
- 24. "Audel's Power Plant Engineer's Guide", Frank D. Graham, Theo Audel & Co., 1945.
- 25. "Templeton's Engineer, Millwright and Mechanic's Pocket Companion", Julius W. Adams, Engineer,

3rd Ed., D. Appleton & Co., 1851.

- 26. "The Steam Engineer's Handbook", International Correspondence Schools, 1st Ed., 1913.
- 27. "Audel's Engineers and Mechanic's Guide 1, 2, 3, 4, 5 & 6", Frank D. Graham, B.S., M.S., M.E.,

Graduate of Princton University, Theo Audel & Co., 1921.

28. "A Catechism of the Marine Steam Engine", Emory Edwards, Mechanical Engineer, Henry Carey

Baird & Co., 1898.

- 29. "River Draft", The Waterways Journal, Inc., 1969.
- 30. "The Procedure Handbook of Arc Welding", 12th Ed., The Lincoln Electric Company, 1973.
- 31. "Machining Fundamentals", John R. Walker, The Goodheart-Willcox Company, Inc., 1973.
- 32. "Machine Tool Technology", Willard J. McCarthy, Robert E. Smith, McKnight & McKnight Publishing Co., 1968.
- 33. "Technical Drawing", 7th Ed., Frederick E. Giesecke, Alva Mitchell, Henry Cecil Spencer, Ivan Leroy Hill,

John Thomas Dygdon, Macmillan Publishing Co, Inc., 1980.

- 34. "Machinery's Handbook", Twentieth Edition, 1976, Industrial Press, Inc.
- 35. "The Steam Engine", Water B. Snow, S.B., M.E. & Walter S. Leland, S.B., Assistant Professor of

Naval Architectur, Massachusetts Institute of Technology, Boston, Mass., Chicago Technical World Magazine, 1908.


The following is general information concerning U.S. Copyrights, Patents, and Trademarks, and

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initial copyright was renewed. The initial copyright term was 28 years and the renewal was 67 more

years (formerly only 47 years).

To search for copyright renewals of books originally copyrighted 1923-1963, search the Standford Copyright Renewal Database.

To search for copyright renewals of books originally copyrighted 1951 to date, consult the Library of

Congress Copyright Database. This copyright database records every US work copyrighted from 1978

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were due for renewal in 1978. So if a work was initially copyrighted 1951-1963, but a renewal is not

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ends 70 years after death of author.

United States Patent and Trademark Office:

Much information is available about Patents that have been registered in the United States from the Unites States Patent and Trademark Office.

Online searches for old patents related to steam engines can be made from the following link: <a href="http://patft.uspto.gov/">http://patft.uspto.gov/</a>

Unless you know exactly which patent you are looking for, or have plenty of time on your hands, a better source for steam engine patents can perhaps be located online at one of the sites that reprints old technical books.

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## Magazines:

1. One of the favorite steam engine model magazines (which also has miniature steam locomotive articles), is

"Live Steam & Outdoor Railroading":

http://www.livesteam.net/

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#### Books (re-prints):

1. Lindsay's Technical Books (many are re-prints of old technical books, with some good steam titles):

http://www.lindsaybks.com/

It is obvious that the books published by Lindsay's Technical Books had a large influence on Bob's steam engine hobby. Lindsay Books is responsible for researching and publishing a number of excellent books and articles related to steam engine design, and has played an important part in keeping the history of old steam engine technology alive.

The Lindsay Books site is a good source of printed material if a hard copy is desired. Most prices for books on this site are very reasonable, especially given the expense of ink, paper and printing.

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#### Books (Internet):

1. A number of technical books about steam engines are available for download from Google Books.

http://books.google.com/books?hl=en&sourceid=books-midterms&q=steam+engines

(See the DESIGN II section for additional information concerning Public Domain Steam Engine Design Books)

#### Books - Purchase:

1. Some original technical steam engine books are available on ebay and other sites, for sale. These books can sometimes be expensive, but occasionally an old book about steam engines appears that is reasonably priced.

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1. "The Steam Engine and the Computer", Herbert A. Simon: <a href="http://net.educause.edu/ir/library/pdf/ERM0132.pdf">http://net.educause.edu/ir/library/pdf/ERM0132.pdf</a>

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Another that can be had on Google Books and is a classic is: Halsey, Frederick Arthur, "Hand Book For Machine Designers and Draftsmen"

The internet versions appear to be dated about 1913, and the engineering information contained within is pretty much state of the art for that time period. There are sections on steam boilers and steam engines, and just about every other mechanical device.

Jim Mackessy