

Small Gas Engines Textbook

Excerpt from Marine Gas Engines: Their Construction and Management The rapid development of the gas engine during the past few years has made possible a great increase in the use of small units of power for various purposes. This is shown by the increasing use of the gas engine in automobiles, power-boats, and many other places where compact powers are necessary. The gas engine, for small powers particularly, has many advantages over the steam engine. It is self-contained, with no cumbersome boiler, feed pumps, and piping. It is comparatively light and easily installed. As there is no fuel to be handled it is easily kept clean, and as the supply of fuel is nearly automatic, it may be run with the minimum amount of care, and little labor is required beyond the regulation of the lubrication and the fuel supply. Properly installed and in good hands, the gas engine may be nearly as reliable as the steam engine. The underlying principle of the operation of any engine, whether gas or steam, is the fact that a gas tends to expand when heat is applied to it, and if allowed to do so has the power of doing work. Any gas or vapor will absorb heat; during the process its tendency to expand is increased, or in other words, the pressure is increased. If the gas or vapor can then be confined, as in the cylinder of an engine, and allowed to expand, it can be made to do work upon the piston. In the steam engine the heat is applied to the boiler, vaporizing the water and raising the pressure of the vapor in the boiler. The vapor is then carried to the boiler under pressure, and allowed to expand in the cylinder, thus doing work on the piston. The action of the steam engine is thus complicated by the boiler, piping, and pumps, and the operation by the care necessary to feed the fuel, and maintain the proper quantity of water in the boiler. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

Small Gas Engines Goodheart-Wilcox Publisher

Your hands-on manual for repairing small engines Small engines are a common staple among in most home garrages. Proper care and maintenance is critical to ensure an engine's lifetime and performance are maximized. Small Engine Repair For Dummies provides you with a do-it-yourself manual for small engine repair, complete with step by step instructions and money-saving tips. You'll get all the information you need to fix your own, portable pumps; motorcycles; gas powered tools, chain saws, lawn care equipment and other outdoor gadgets without ever leaving your garage. The operation of basic two-stroke and four-stroke engines Diagnosing mechanical, fuel, and electrical problems Replacing parts, oil changes, engine tune-ups, belt replacements, and more Small Engine Repair For Dummies is a plain-English instruction manual for anyone with the tools to perform small engine repair at home.

This popular guide is just the thing for people who seem to spend more time arguing with their lawn mowers than they do using them. With Small Gas Engine Repair, do-it-yourselfers can fix any small gas-powered machine on the spot and save hundreds of dollars in technical fees. The book's also a great source of troubleshooting and preventive maintenance techniques. Enhanced illustrations and lots of new material make up this second edition, including coverage of new American engines, emissions testing procedures, carburetor rebuilding techniques, and new starter and ignition systems. Japanese engines are also highlighted for the first time.

Provides numerous instructional resources that support each chapter of the textbook including teaching strategies, test masters, answer keys, introductory activities, reproducible masters, and additional resources. All of the resources for teaching each chapter are conveniently grouped together.

Excerpt from Gas-Engine Principles: With Explanations of the Operation, Parts, Installation, Handling, Care, and Maintenance of the Small Stationary and Marine Engine, and Chapters on the Effect, Location, Remedy, and Prevention of Engine Troubles

During the last few years the production of low-power stationary engines has shown a remarkable increase, and the appearance of this book is due to the fact that these engines have gone into the hands of users who have little or no knowledge of their operation, care and handling. It is not the purpose of the book to instruct in engine design, or to compare the merits of different constructions, but to explain in a simple and practical manner the use of engines as they exist. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

Contains instructions, with color photographs, for care and repair of small engines.

The "Small Gas Engines textbook" covers all areas of engine theory and service. The book includes extensive information on L-head, overhead valve, and overhead cam engine designs. The troubleshooting and engine service information in the book is generalized rather than manufacturer-specific so that it can be applied to a wide range of engine designs from different manufacturers. The book contains all of the service procedures needed to completely rebuild a small, single-cylinder gas engine. The theory sections of the book give the reader a sound understanding of the science involved in four-stroke and two-stroke internal combustion cycles in easy-to-understand language. They also provide the reader with clear explanations of the role of basic engine components, the benefits and operation of various engine designs, and up-to-date emission control information. Review questions at the end of each chapter reinforce the important information presented in that chapter. The suggested activities at the end of each chapter are hands on and research activities that help the students apply what they have learned in the text and expand their knowledge.

