# THE DESIGN AND CONSTRUCTION OF OIL ENGINES; WITH FULL DIRECTIONS FOR ERECTING, TESTING, INSTALLING, RUNNING AND REPAIRING; INCLUDING DESCRIPTIONS OF AMERICAN AND ENGLISH KEROSENE OIL ENGINES

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# A. H. GOLDINGHAM

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# By A. H. GOLDINGHAM, M.E.

Fully Illustrated



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# PREFACE

THIS work has been written with the intention of supplying practical information regarding the kerosene or oil engine, and in response to frequent requests received by the writer to recommend such a book.

Whilst many works have been published on the subject of gas engines, some of which refer to or describe the working of the oil engine, no other book, it is believed, is devoted entirely to the oil engine in detail.

The work, it is hoped, will be found useful to the draughtsman, the engine attendant, as well as to those who own of are about to install Oil Engines.

The classification of vaporizers has been adhered to as made some few years ago, and a representative engine with each type is described.

The matter on design and construction is founded on practical experience, the formulæ, it is believed, being in accordance with the best modern practice.

Chapter III. on Testing is based on the writer's personal experience in the testing-room.

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## PREFACE.

The writer is particularly indebted to Mr. George Richmond for many valuable suggestions, and also for reading the proof-sheets, and he wishes to acknowledge assistance from many firms, amongst which may be mentioned Ingersoll Sargeant Drill Company for Table III., Mr. Frank Richards for Table II., The De La Vergne Company for Table IV., London Engineer, Tables V. and VI. 'Table I. is partly taken from Mr. William Norris's book on the Gas Engine, and Tables VII., VIII., IX., and X., at the end of the book, relating to different oils, are taken (with permission) from Mr. Boverton Redwood's valuable work on Petroleum. And to the Engineering News for permission to use Figs. 44b and 44c. The Crosby Steam Gauge Company have also supplied information relating to the indicator and planimeter.

# A. H. GOLDINGHAM.

NEW YORK, November 1, 1900.

iv

# CONTENTS.

# CONTENTS.

# CHAPTER I.

#### INTRODUCTORY.

Historical-Classification of Oil Engines-Various Vaporizers-Different Igniting and Spraying Devices-The Different Cycles of Valve Movements

CHAPTER II.

### ON DESIGNING OIL ENGINES.

Simplicity in Construction and Arrangement of Parts -Comparison of Oil and Gas Engines-Cylinders, Different Types-Cylinder Clearance-Crank-shaft, Dimensions and Formulæ-Balancing of Crank-shafts Described-Connecting-rods, etc.-Piston, Piston-rings-Piston Strengths, speed-Fly-wheels, Formula for-Air and Exhaust Cams-Cylinder Lubricators-Valves and Valve-boxes-Velocity of Air through Valves-Crank-shaft Bearings-Proportions of Engine Frame-Crank-pin Dimensions-Valve Mechanisms, Gearing and Levers-Governing Devices-Exhaust Bends-Oil-supply Pump-Oil-tank and Filter-Comparison of Horizontal and Vertical Type Engines, with Advantages of Each-Twocylinder Engines Discussed-Assembling of Oilengines-Scraping in Bearings-Fitting of Piston and Piston-rings-Fitting Connecting-rod Bearings-Fitting Air and Exhaust Valves-Testing Water-jackets-Fly-wheel Keys-Oil-supply Pipes-Cylinder Made in Two or More Parts, ...

20-58

1-19

PAGE

## CONTENTS.

### CHAPTER III.

#### TESTING ENGINES.

PAGE

Object of Testing-Comparison with Steam-engines-Different Records to be Taken-Diagram for setting Valves-Preparing for Test-Heating of Vaporizer-Starting-Difficulties of Starting-Compression. How to Test-Leakage of Valves and Cylinder-Lubrication of Piston and Bearings-Easing Piston-Synonymous Terms for Power Developed-Indicated Horse-power-Brake, Horsepower-Indicator Fully Described-Reducing Motions-Planimeters-Indicator-cards described in Detail and Analyzed-Defects as Shown by Indicator-How to Remedy Same-Early and Late Ignition, How to Alter-The Compression and Expansion Lines-Choked Exhaust-Mean Effective Pressure, How to Increase-Back Pressure of Exhaust-Tachometers-Fuel-consumption Test Fully Described-Mechanical Efficiency -Thermal Efficiency-Table of Disposition of Heat-Valve Diagram-Exhaust Gases-Complete and Incomplete Combustion-Testing the Flashpoint of Kerosene-Viscosometer, ... . .

59-95

#### CHAPTER IV.

#### COOLING WATER-TANKS AND OTHER DETAILS.

Water Connections—Capacity of Tanks Required— Gravitation System of Circulation—Water-pumps —Connection to City Water Main—Temperature of Outlet Water—Emptying Pipes in Frosty Weather—Salt Water—Exhaust Silencers—Brick Pit, How to Construct—Exhaust-Gas Deodorizer,

### CONTENTS,

VII PAGE

## CHAPTER V.

#### OIL ENGINES DRIVING DYNAMOS.

Isolated Plants-Advantages of Oil Engines as Compared with Gas and Steam Engines-Installation of Plant-Foundation, How to Build, Ingredients --Correct Location of Engine and Dynamo---Belts-Balance-wheel on Armature Shaft-Power Required for Incandescent and Arc Lamps---Losses of Power by Belt and Otherwise-Regulation of Engine Required for Electric Lighting---Direct-connected Plants, Advantages of Same---Variations in Incandescent Lights, Causes, How to Remedy-Silencing Air-suction, ... ... 111-122

## CHAPTER VI.

OIL ENGINES CONNECTED TO AIR-COMPRESSORS, WATER-PUMPS, ETC.