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Autore	Soares Claire
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Nota di contenuto	Front Cover; Gas Turbines: A Handbook of Air, Land, and Sea Applications; Copyright Page; Dedication Page; Contents; Preface; Introduction; List of Acronyms; Notes to the Reader; About the Author; Chapter 1: Gas Turbines: An Introduction and Applications; Gas Turbines on Land; Direct Drive and Mechanical Drive; Applications Versatility with Land Based Gas Turbines; Aeroengine Gas Turbines; The Relations between Pressure, Volume, and Temperature; Changes in Velocity and Pressure; Airflow; Gas Turbines at Sea; Gas Turbines: Details of Individual Applications Major Classes of Power Generation Application Automotive Applications; Marine Applications; Aircraft Applications-Propulsion Requirements; Chapter 2: Historical Development of the Gas Turbine; Early History of the Gas Turbines; Land Based Gas Turbine Development Perspective; Switzerland (& Swiss abroad); Germany (& Germans abroad); England (& English abroad); Aircraft Engine Development: A U. S. Perspective; Principles of Jet Propulsion; Methods of Jet Propulsion; Appendices: The Gas Turbine Global Fleet; 2A: Gas Turbine Engines Powering Aircraft 2B: Gas Turbines for Elec Gen, Mech Drive, & Marine Power2C: Gas

Turbines for APU/GPU Units; 2D: Gas Turbines Powering  
 Missiles/Drones/RPV/UAV; 2E: Gas Turbines Powering On-land/Surface  
 Vehicles; 2F: Gas Turbines Powering Microturbines for Elec Gen;  
 Chapter 3: Gas Turbine Configurations and Heat Cycles; Gas Turbine  
 Configurations; Turbojet with Afterburner and Convergent- Divergent  
 Nozzle; Separate Jets Turbofan; Mixed Turbofan with Afterburner;  
 Ramjet; Simple-Cycle Single-Spool Shaft-Power Engine; Combined Heat  
 and Power; Aeroderivative and Heavyweight Gas Turbines  
 Gas Turbine Cycles: Summarized Theory and Economics Power  
 Generation Gas Turbine, Simple and Combined Cycles; Steam Power  
 Plant Theory Applicable to Combined Cycles and Operating ""Solo"" as  
 Competition to GTs; Steam Turbine Basic Components and Main  
 Systems; Super-critical Systems: Targeting 700+ degC Steam  
 Temperature; Case 1. Advanced Design of Mitsubishi Large Steam  
 Turbines; Combined Cycles and Other GT Cycle Modifications;  
 Combined Cycle Economics; Case 2. An End User/EPC Contractor's  
 Experience with Some of the OEM's Latest Models; Chapter 4: Gas  
 Turbine Major Components and Modules  
 Economics Dictates Design Primary Module Basics; Main Modules in a  
 Gas Turbine; Compressors; Combustors; Low NOx Combustors;  
 Flameless (Catalytic) Combustors; Turbines; Chapter 5: Cooling and  
 Load Bearing Systems; Internal Air System; Cooling; Sealing; Control of  
 Bearing Loads; Aircraft Services; Lubrication; Lubricating Systems; Oil  
 System Components; Lubricating Oils; An Operator's Perspective;  
 Chapter 6: Inlets, Exhausts, and Noise Suppression; Gas Turbine Inlet  
 Air Filtration; Inlet Air Filters for the Tropical Environment; Problems  
 Experienced; Offshore Environment Original Design Data  
 The Initial Filter Designs

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#### Sommario/riassunto

This major reference book offers the professional engineer - and  
 technician - a wealth of useful guidance on nearly every aspect of gas  
 turbine design, installation, operation, maintenance and repair. The  
 author is a noted industry expert, with experience in both civilian and  
 military gas turbines, including close work as a technical consultant for  
 GE and Rolls Royce. Guidance on installation, control,  
 instrumentation/calibration, and maintenance, including lubrication, air  
 seals, bearings, and filters Unique compendium of manufacturer's  
 specifications and performance criteria, inc

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