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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

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
