P14 1967 ELECTRONIC PACKAGING - Appraises microelectronics, advanced techniques and applications, and engineering support. Laser welding, modular packaging for fuel in line integrated circuits, resent developments in parallel-gap joining, precision bonding, packaging for electromagnetic compatibility, embedment and other metallurgical and mechanical characteristics of cross-wire resistance welds, and thermal stress analysis of epoxy encapsulants are among the subjects covered. Sponsored by SAE.
6.00 Mem. 10.00 List

P12 TENTH STAPP CAR CRASH CONFERENCE - Provides an exchange of scientific information on crash protection problems. Among the topics covered are energy, absorbing steering columns, impact dynamics, computer simulation of crash victim, safety seating, ejection, and biodynamics of collision injury. Conducted by SAE. Sponsored by Univ. of Calif. Extension (Los Angeles), Univ. of Minnesota and Wayne State Univ.
8.00 Mem. and List

P11 1966 ANNALS OF RELIABILITY AND MAINTAINABILITY—Emphasis is on achieving system effectiveness. Topics include current research trends in reliability and maintainability, reliability education, testing, safety, system evaluation, design, human factors, and materials properties. Sponsored by AIAA, SAE, and ASME.
8.00 Mem. 16.00 List

P9 1966 CLEAR AIR TURBULENCE - Advance detection of clear air turbulence and warning techniques are stressed. CAT incidents are reviewed along with avoidance procedures now in use. Discussed are definitions and degrees of turbulence, meteorological theories, the SST in CAT, electromagnetic methods for CAT detection, and operational solutions. Sponsored by SAE and Institute of Navigation with participation of American Meteorological Society, FAA, Flight Safety Foundation, U.S.A.F., U.S. Army Materiel Command, U.S. Navy, and U.S. Weather Bureau.
8.00 Mem. 12.00 List

P8 1965 ELECTRONIC PACKAGING - Covers energy and thermal considerations in weld-system development, microcircuit interconnection and packaging, automated flat-pack welding system, connector evaluation, reliability parallel gap welding, design of high reliability welded electrical connections, stress evaluation, correlating microstructure, microhardness and microchemistry in resistance welded electronic leads, and evaluation of resistance microwelding press by infrared energy measurements.
4.00 Mem. 6.00 List

P6 1965 AEROSPACE VEHICLE FLIGHT CONTROL - Technical information is provided on vehicle flight controls relating to piloted and pilotless aircraft, actuation, sensing and information systems, space vehicles, and computation systems. You will find papers on a fail-operative stability augmentation system with self-test capability, control system synthesis for launch vehicles exhibiting severe mode interaction, and a technique for lunar landing site selection by earth-based control. Cosponsored by SAE and NASA.
8.00 Mem. 13.00 List

P5 1965 AEROSPACE FLUID POWER SYSTEMS AND EQUIPMENT - Fifty-one papers cover aerospace fluid power as related to dynamic seals, flange design, supersonic and subsonic transports, the Saturn-Apollo program, servovalves, clean rooms and contamination control, space missions, amplifers, support systems, pneumatics, and circuitry.
15.00 Mem. 20.00 List

P2 1964 AEROSPACE RELIABILITY AND MAINTAINABILITY - Methods of achieving aerospace reliability and maintainability today and in the future are revealed by experts in this 658-page publication. Subjects include program management, system analysis, reliability control in design and manufacture of aerospace equipment, safety practices, ground and flight testing, human factors.
12.00 Mem. 15.50 List
(16.50 outside U.S.)

P1 1964 AIR CARGO - Automation in air cargo distribution systems that are intermodal in concept and international in scope is the focal point of this publication. Covered are the nature of air cargo, surface and airborne equipment, intransit control, and administration. Discussion of panel sessions on these subjects is also included.
9.00 Mem. 12.00 List
(12.50 outside U.S.)

ADVANCES IN ENGINEERING AND PROGRESS IN TECHNOLOGY BOOKS

Are basic reference books on specific subjects. They are developed through group effort under the direction of operation committees of the Society.

PT 12 VEHICLE EMISSIONS—PART 2 - Thirty-six technical presentations dating from 1963 to the present form the second volume of a comprehensive, evaluated technical work in the emissions field. This, plus the first volume (TPG-Vehicle Emissions) are designed to give a fundamental reference to significant developments. Major sections include: Fundamentals, Control, Measurement, Diesel, Evaporation Loss, and Crankcase Blowby.
12.00 Mem. 17.00 List

PT 11 BURNING A WIDE RANGE OF FUELS IN DIESEL ENGINES - Research studies and practical engine designs are presented by authorities in this reference book on the multifuel engine problem. The major efforts to date in engine innovations that accommodate a wide range of fuels are detailed, along with test data on performance limits with different fuels. Studies are also included on vaporation, injection, and ignition delay theory. 368 pg.
9.00 Mem. 13.00 List

PT 10 THE ROLE OF ENGINE OIL VISCOSITY IN LOW TEMPERATURE CRANKING AND STARTING - A collection of SAW papers and Journal articles. Encompasses the nature of the problem, background on the SAE classification system, engine cranking techniques, the relationship between engine cranking and oil viscosity, and laboratory viscometric techniques. A bibliography also appears.
8.00 Mem. 11.00 List

TP 9 GAS TURBINE FUEL CONTROLS ANALYSIS AND DESIGN. Presents some of the varied approaches in analysis and design of such systems. Reflecting current industrial experience, this book will serve as an introduction for young engineers as well as a good reference for the experienced engineer who may be interested in a specific control. Its content is channeled toward industrial application, and consequently, does not cover controls used only in aircraft.
5.00 Mem. 6.00 List

TP 8 CAPACITOR DISCHARGE, PIEZO ELECTRIC, AND TRANSISTORIZED SPARK IGNITION SYSTEMS. Theoretical and practical considerations are featured along with a description of various types of ignition systems. Chapters relate to fast break induction, voltage risetime, solid-state ignition, transistorized contactless low voltage ignition, and similar subjects.
5.00 Mem. 6.00 List

TP7 DIGITAL CALCULATIONS OF ENGINE CYCLES - Covers a spectrum of engine cycle events ranging from an examination of composition and properties of the working fluid to simulation of the pressure-time events in the combustion chamber. Of special interest are the full-size "Mollier" diagrams (or Hottel charts) of combustion products. These charts extend to temperatures beyond those for which data were previously available.
6.50 Mem. 9.00 List

TP 6 VEHICLE EMISSIONS - A selection of SAE technical papers on the definition, measurement, and