

SP 258 RETARDERS - THEIR EFFECT ON VEHICLE COMPONENTS - The effect of retarders on engines, transmissions, drivelines, axles, and tires is discussed.

2.25 Mem. 3.00 List

SP 251 ART AND SCIENCE OF BRAKING HEAVY DUTY VEHICLES - Describes the functional relationship of the components making up shoe-drum type brake systems for heavy-duty on-highway commercial vehicles. Theory versus practice is emphasized by discussing vehicle and laboratory testing, the usage of commercial vehicles, and the empiric nature of friction. The author of this L. Ray Buckendale Lecture is G. P. Mathews. (1964)

1.00 Mem. 2.00 List

SP 244 TRUCK TIRE TRENDS - Covers effects of design and construction on truck tire wear and noise; trends in truck tire traction, noise and fuel consumption; truck tire constructions - duplex and tubeless; new synthetic rubbers; and repair.

3.75 Mem. 5.00 List

SP 240 COMPUTER EXPLOSION IN TRUCK ENGINEERING - Design Procedures Adapted to Computer Techniques - Covered are design reliability of components; driveline - Optimum Design; vehicle dynamics; computer simulated vehicle performance, use of computers in steering geometry analysis; independent front suspension, and computer application in drafting.

5.25 Mem. 7.00 List

SP 229 NEW BRAKE SYSTEM ROAD TEST CODE - BACKGROUND AND EVALUATION - Background on the development of this new SAE test code are given by the experts who prepare it. (The code is intended for "flat road" brake evaluation of trucks and buses.) SP 229 contains an introduction and sections on; Industry's Need for Code and History of Its Development; Scope and Interpretation of Standardized Code for "Flat Road" Brake Test for Trucks and Buses; and Status Report on Proposed Code for "Flat Road" Brake Evaluation for Passenger Cars.

2.00 Mem. 4.00 List

(Note: The test code, "Brake System Road Test Code - Truck and Bus-SAE J786", is available as a Handbook Supplement (HS 70).

SP 226 UTILITY VEHICLE WORKSHOP: ENGINE SPEED CONTROLS POWER TAKE-OFF DRIVES - Contains seven papers. The Need for Load Sensing Governors on Truck Engines Operating Hydraulic Utility Equipment; Installation of Engine Speed Governors on Public Utility Trucks; Development of a Speed Regulating, Load Sensing Auxiliary Governor for Power Take-Off Driven Equipment; Eight Bolt Power Take-Off Drives for Transmitting Higher Torques for Auxiliary Equipment; A Look at Geared Split-Shaft Power Take-Offs for the Public Utility Industry; Continuous Running Flywheel Power Take-Offs; Chassis Design for Full Torque PTO Installations. (1962)

3.00 Mem. 6.00 List

SP 194 COOLANT TEMPERATURE EFFECTS ON ENGINE LIFE AND PERFORMANCE - Discussions covering coolant temperature effects on engine life and performance, temperature control of truck cooling system, engine cooling system design for optimum temperature control, temperature control as it affects engine life, efficiency and economy, and 20 years of fleet experience with engine temperature control. (1961)

2.25 Mem. 4.50 List

SP 154 A BETTER TRUCK RIDE FOR DRIVER AND CARGO - Ride of commercial vehicles as affected by suspension system and configuration of vehicle. Includes cooperative recommendations made by SAE Committee on Ride, plus recent developments reported by R. N. Janeway. Mechanical and air springs are covered for truck-tractors and trailers. (1958)

5.00 Mem. 10.00 List

MISCELLANEOUS

*SP 341 PLANNING A PRODUCT - 14th L. Ray Buckendale Lecture by V. G. Raviolo. A need exists for the designer of a product to understand the planning process so that he may relate his work to the whole. The process involves functions which are outside the engineer's responsibility. This paper describes the process broadly in order to encourage the designer to extend the range of his thinking beyond purely technical requirements.

1.00 Mem. 2.00 List

SP 281 PLEASURE BOAT SAFETY - Provides a ready reference for manufacturers of pleasure boat to factors directly influencing the manner in which marine products should be produced. It indicates who's who in the industry and where to go for answers relating to State, Federal and Coast Guard regulations affecting safety.

5.00 Mem. 7.00 List

SP 272 KINEMATIC ANALYSIS METHOD - Titles encompass a computer-aided design analysis system, programmed systems, position calculation, determining velocity and acceleration, force and torque, and application of a vector approach to mechanisms. (1965)

4.50 Mem. 6.00 List

SP 247 DIMENSIONING AND TOLERANCING STANDARDS - A reprint of Dimensioning (A6), Form Tolerancing (A7), and Positional Tolerancing (A8) sections of the SAE Aerospace-Automotive Drawing Standards Manual. These standards are similar to and in general conform to MIL-STD-8.

3.00 Mem. 4.50 List

SP 222 INSTINCTS IN ACTION, a new book by Norman Shidle, contains 140 "For Sake of Argument" pieces selected from those printed in SAE Journal between 1948 and 1961. Shidle, editor of SAE Journal, says of this collection of his work: "Most of these essays are commentaries on how people act; and why they act the way they do."

4.00 Mem. and List

SP 189 HOW TO WRITE REPORTS THAT GET READ - A report by Tyler G. Hicks, McGraw-Hill Book Co. (1960)

.75 Mem. 1.00 List

SP 162 MAKE SLIDES WORTH WHILE - Description of preparing slides to supplement oral presentations. Different graphic techniques available and date on layout of slide for clarity (including use of color). (1959)

1.00 Mem. 2.00 List

SAE HANDBOOK SUPPLEMENTS

Contain Society-approved surface vehicle standards, recommended practices, and information reports. They have the same standing as reports appearing in the SAE Handbook.

CONSTRUCTION AND

AGRICULTURAL EQUIPMENT

HS 61 AGRICULTURAL EQUIPMENT - A special edition of 34 subject reports reprinted from the 1968 SAE Handbook. Included are standards and recommended practices on lighting, disc wheels, three-point free-link hitch attachments, hydraulic remote control devices, power take-off, break-away connectors, minimum access dimensions, power driveline shielding, test codes and other areas.

3.00 Mem. 4.00 List

HS 39 CONSTRUCTION AND INDUSTRIAL MACHINERY - Reprint of related reports appearing in the 1968 SAE Handbook. Test codes for commercial and industrial vehicles, power outlets, engine cooling systems, loading ability, crane hoist line speed and power, crane load stability, hydraulic power pumps, motors, and equipment appear in HS 39. There are reports on nomenclature for tractors, scrapers, bulldozers, cable control units, shovel and loaders, rippers, rotozers

24

VPD-81-0001663

and scarifiers. Vehicle lubrication intervals are also covered.

3.00 Mem. 4.00 List

J939 OFF-ROAD VEHICLE MOBILITY EVALUATION - SAE Recommended Practice. Provides a uniform procedure for evaluating off-road mobility of self-propelled vehicles, and criteria for defining design requirements. Emphasizes those qualitative and quantitative evaluations essential in determining a vehicle's ability to meet demands placed on it by off-road environments. Major factors directly influencing mobility performance are considered.

2.00 Mem. 4.00 List