

- SP 242 **BONDING OF BRAKE LININGS** - Developed by members of the SAE Brake Committee. Covers Laboratory Tests on the Adhesive, original equipment bonding and testing, chisel tests their place in the replacement field, sample preparation and dynamometer tests, vehicle abuse test of a bonded brake shoe, and a copy of the SAE Recommended Practice, Test Procedures for Brake Shoe and Lining Adhesives and Bonds-SAE J840.  
4.50 Mem. 6.00 List

- SP 185 **AIR CONDITIONING FORUM** - Includes discussions of general automotive design considerations, engine and assembly cooling, passenger compartment noise and vibration considerations, drive components, compressors, developments in thermoelectric design, electrical and control systems, and design for compact and foreign cars. (1961)  
3.00 Mem. 6.00 List

- SP 174 **AUTOMOBILE SIDE - IMPACT COLLISIONS** by D.M. Severy, J.H. Mathewson and A.W. Siegel covers Air Force steps on three precision controlled collision experiments. Reported are the first fully instrumented side impacts in which both cars are in motion. Drawings give three dimensional sequential portrayal of vehicles as they spin and roll over following impact. Force system analysis, deformation analysis and cabin-occupant relations during impact are presented. (1960).  
3.00 Mem. 6.00 List

- SP 142A **HUMAN BODY SIZE AND PASSENGER VEHICLE DESIGN** - The "general driving population" is described for the first time in terms of 5th, 50th, and 95th percentiles for 18 body mechanisms, as specially relating to passenger car design. Utilizing this information, it has been possible to determine new design recommendations for 14 different dimensions of the driver's seat and work space of passenger vehicles. Both static and dynamic body size are considered. (1961)  
1.50 Mem. 3.00 List

## PRODUCTION AND MANAGEMENT

- SP 273 **QUALITY CONTROL** - The function of quality control as related to the broad subject of product assurance, customer demand for high quality and reliability as related to product and production process complexity, value achievement and quality control, and integrated test planning and analysis.  
3.00 4.00
- SP 250 **STATISTICS FOR THE ENGINEER** - Describes summary of data, significant differences, linear regression analysis, and analysis of variance. Intended as an introduction to statistics for the engineer with no background in the subject. (1964)  
SP 250 was written by experts from General Motors.  
3.00 Mem. 4.00 List

- SP 277 **VALUE ENGINEERING AND ANALYSIS** - Includes three papers. One takes you from selection of items for study, through functional analysis, to implementation of proposals. Another describes an approach to better value through recognition of the interfaces that exist between design parameters, item capabilities, item design and an item's unit cost. A third paper goes into how to put the creative phase of value engineering to the best possible use.  
2.25 Mem. 3.00 List

- SP 269 **ENGINEERING MANAGEMENT FOR YOUNG ENGINEERS** - Should you be an engineering manager, and if so, what are the first principles of engineering supervision, basic approaches toward management, and scientific management methods. These are angles found in four papers presented before the Detroit Section Junior Activity.  
3.00 Mem. 4.00 List

## TRANSPORTATION AND MAINTENANCE

- SP 299 **SERVICE BRAKE SYSTEM PERFORMANCE REQUIREMENTS FOR AUTOMOTIVE VEHICLES** - Brake system performance requirements for cars, trucks and busses are given along with a status report on applications and supplemental requirements. Also included in this publications are copies of SAE J786, Brake System Road Test Code - Truck and Bus; J992, Service Brake System Performance Requirements - Truck and Bus; J843a, Passenger Car Rear Vision; and J937 - Service Brake Performance Requirements - Passenger Car.  
3.00 Mem. 4.00 List

- SP 298 **UTILITY VEHICLE WORKSHOP - POWER TAKE OFF** - Front engine power takeoff and hydraulic pump drives as well as recent trends in the application and design of side mounted power take-offs are covered in this publication.  
.75 Mem. 1.00 List

- SP 295 **ELECTRONIC DATA PROCESSING IN LARGE OR SMALL FLEETS** - A practical account of EDP as related to municipal and private fleet records, maintenance cost control, scheduling, vehicle replacement, and/machine accounting in utility transportation.  
4.00 Mem. 6.00 List

- SP 249 **WHEEL ALIGNMENT - MODERN SETTING FOR MODERN VEHICLES** Six representatives of the trucking industry from tire and truck manufacturers to truck operators discuss the subject of irregular front tire wear due to crowned roads, underloading

of front axle, and high speeds. The solution of different front wheel settings is examined. Various front wheel settings are given, together with some results of successful tests. (1964)  
2.25 Mem. 3.00 List

- SP 235 **ENGINE FAILURE ANALYSIS AT SHOP LEVEL** - A catalogue of engine failures showing how to predict, prevent, and analyse them. Included is data on pistons, rings, cylinders, valves, bearings, lubrication system, governors, flywheels, and clutches.  
2.50 Mem. 5.00 List

## TRUCKS AND BUSES

- SP 286 **MATCHING UTILITY EQUIPMENT TO THE CHASSIS** - Medium and heavy-duty vehicles and equipment are appraised, problems of selecting chassis for utility vehicles up to 16,000 G.V.S. and of mounting equipment on truck chassis are also discussed.  
3.00 Mem. 4.00 List

- SP 276 **HIGHWAY TRUCK FRAME DESIGN** - Twelfth L. Ray Buckendale Lecture by W. J. Sidelko. A complete, theoretical approach and evaluation, using actual physical tests for validation of theory in highway truck frame design. This treatise establishes the ability of a frame designer, using all or any part of a valid theory, in designing a truck frame.  
1.00 Mem. 2.00 List

- SP 262 **TRUCK DRIVE LINE SYSTEMS** - Eleventh L. Ray Buckendale Lecture by P. J. Mazzioti Functions, construction, and operating characteristics of truck drive-line systems are covered. Universal joint-propeller shaft constructions used in a wide range of applications are discussed along with constant velocity joints, wheel drive installations and dynamic characteristics.  
1.00 Mem. 2.00 List

- SP 260 **TANDEM TRUCK RIDE** - Covers basic approaches to improving ride performance of heavy-duty, tandem, rear axle types of on-highway vehicles both with single-unit bodies and tractor semi-trailers. Twelve technical papers are categorized under two section headings titled: Effects of Chassis Components and Effect of Wheels, Tires, Hubs, and Drums. Also Included is a glossary of ride, vibration, and suspension terminology (SAE J670).  
7.50 Mem. 10.00 List

- SP 259 **TRAILER TOWING** - Engineering principles of weight equalizing and sway resistant hitches as well as how design and construction relates to towability are discussed in three technical papers.  
2.25 Mem. 3.00 List