

**DANIEL PACHECO, P.E.****PROFESSIONAL BACKGROUND AND EXPERIENCE**

*Address:*           **Business**

Polytechnic, Inc.  
3178 Doolittle Drive  
Northbrook, Illinois 60062  
(847) 564-0520

*Technical Areas:*   Design & Test Engineering: Automotive, Construction & Industrial  
Equipment; Hydraulics; Machine Design; Product Safety.

*Registrations/  
Certificates:*   Professional Engineer in Illinois (by examination) Certificate 62-28499, 1970  
Certified Fluid Power Specialist, 710 1063, Fluid Power Society, 12/87

*Education:*       M. S. Management, 1974, Lake Forest (Il.) Graduate School of  
Management  
B.S. Mechanical Engineering, Summa Cum Laude, 1964,  
University of Massachusetts Dartmouth, MA.

*Continuing  
Education:*       Mobile Hydraulic Design Symposium, Fluid Power Society, 8/78  
Strain Gages, Theory & Application; Wayne State, 9/64  
Experimental Stress Analysis, Illinois Institute of Technology, 9/65  
Traffic Accident Investigation, University of Wisconsin, 5/83  
Human Factors Concepts & Methods, A.S.A.E., Chicago, 12/85  
Certified Fluid Power Specialist, 710 1063, Fluid Power Society, 12/87  
Motor Fleet Accident Investigation, National Safety Council, 6/90  
Coaching the Lift Truck Operator, National Safety Council, 2/97

*Professional  
Societies:*       American Society of Agricultural Engineers  
American Society of Mechanical Engineers  
American Society of Safety Engineers  
Human Factors & Ergonomics Society  
National Society for Professional Engineers  
Society of Automotive Engineers

*Patent:*           Rollover Protection Apparatus, No. 3,866,942

*Paper:*           "Risk Analysis of Forklift Drivers", McLay, Wilder, Malloy, Pacheco,  
ASME, 93- WA/SERA-2, December, 1993.

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*Professional  
Experience:*

**Polytechnic, Inc., Northbrook, Illinois**

**8-89 to present: President Polytechnic Inc.** - Manage day-to-day operations of consulting engineering firm engaged primarily in safety and forensic engineering. Direct the activities of Vehicle Laboratory group. Provide consulting engineering services in safety and accident investigation for various mobile and mechanical products.

**2-83 to 8-89: Director - Vehicle Laboratory** - Consulting in safety and accident investigation of vehicular equipment including trucks, automobiles, mobile construction, industrial and agricultural machinery. Design and failure analysis, mechanical engineering studies related to vehicle and mechanical systems design and forensic engineering consultation. Supervise and administer Vehicle Laboratory department.

**9-82 to 2-83: Senior Engineer** - Consulting engineering work on projects including autos, trucks, motorcycles and various construction, industrial, agricultural and consumer equipment.

**Pettibone Corporation, Chicago, Illinois**

**2-82 to 7-82: Manager of Engineering and Quality Control** - Direct departments responsible for product design and quality control of heavy industrial mobile equipment, forklift trucks, tow tractors, military vehicles, mobile cranes, rail maintenance vehicles and power train components.

**9-81 to 1-82: Chief Engineer** - Assume responsibility for development of improved line of electric forklift trucks. Develop methods for increasing performance and efficiency and improve manufacturability.

**Fiat-Allis Construction Machinery, Inc., Deerfield, Illinois**

**5-78 to 6-81: Chief Engineer - Wheel Loader Systems** - Responsible for design of all operating systems for product line. Computer analysis of stability and vehicle performance, power train stress and durability. Technical support of licensees and affiliates in Europe, Canada, Australia, Japan and Korea. Head up engineering efforts to assure product line compliance with national and international regulations in braking, steering, noise, guarding, ergonomics and other areas.

**6-69 to 5-78: Senior Project Engineer - Design** - Head design staff for loader product line. Supervise introduction of major product line improvements. Design hydraulic systems, hydraulic cylinders, braking and steering systems, engine and power train, electrical systems and operator compartments. Provide support to field service and marketing worldwide.

**7-66 to 6-69: Senior Engineer - Test** - Direct all prototype assembly and test of earth moving vehicles and components. Plan and conduct total product test programs. Develop testing methods for stability, hydraulic steering and implement, braking systems and endurance of major vehicle components.

**6-64 to 7-66: Associate Engineer** - Plan, conduct and report on tests of experimental vehicles and their component systems. Liaison with Design Engineering to evaluate and implement changes.