

Charles E. Lund

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Professional Experience

- 37 years experience in Aerospace Engineering.
- 36 years experience in Computer Programming.
- 9 years experience in World Wide Web Authoring.

Key Accomplishments

- Editor and co-author of the Parker NWL Stress Manual
- Patents:
 - 4,717,035; "End Closure for Composite Pressure Vessels;" January 5, 1988.
 - 4,773,282; "Piston Rod Assembly Including an Injection Bonded Piston Head and Fabrication Method;" September 27, 1988.
- Articles:
 - "Maximum Stress Between Nearly Intersecting Pressurized Holes;" Developments in Theoretical and Applied Mechanics, Volume XV; Georgia Tech; 1990.
 - "The Supermesh: Run-Time Meshing from Coarse CAD Models Using MSGMESH;" 1991 MSC/NASTRAN World Users' Conference, March 11-15, 1991.
 - "Parametric Studies of the Stresses Between Nearly Intersecting Pressurized Holes in an Infinite Solid;" AIAA/ASME/IEEE Mini-Symposium; Oakland University; May 11, 1991.
- Author of computer program for statistical analysis of Space Shuttle Thermal Protection System tiles

Technical Expertise

Specialty

Finite Element Analysis
Thermal analysis
Vibration analysis
Dynamic Simulation

Web Authoring

HTML
Perl

Operating Systems

Unix/Linux
Windows

Graphics

PaintShop Pro

PC Applications

MS Word
MS Access

Programming

FORTRAN
C++

Summarized Job History

Parker Abex NWL Aerospace

Structural Methods Specialist (1977-2000, 2002-present)
Structural, thermal, and dynamic analysis of
aircraft and missile flight controls and pumps

Lockheed Missiles and Space Co

Structures Engineer (1970-77)
Structural analysis of space vehicles

Education

B.S.E.

University of Michigan (1968);
Aerospace Engineering;
Minor equivalent: Psychology

M.S.E.

University of Michigan (1970);
Aerospace Engineering

Post-grad.

Stanford University (1971-77);
Aeronautical and
Astronautical Engineering

Affiliations

Senior Member, American Institute of Aeronautics and Astronautics
Lecturer and research advisor, Western Michigan University College of Engineering
Director of the Otsego Jazz Ensemble (17-piece band)

Lund & Lund

Owner (1995-present)
Desktop Publishing and
World Wide Web Authoring

McDonnell-Douglas Astronautics Co

Associate Engineer (1968-69)
Structural and loads analysis of missiles