Appendix C  Bibliography

This appendix provides a summary of the material used in doing the work. Not all of the citations included here were explicitly cited in the report, but contain material of interest to people studying the landing gear problem.

C.1. Textbooks


C.2. AGARD Reports

AGARD CP 484: *Landing Gear Design Loads*, October 1990. (N91-28150), see in particular:

C.3. Government/Industry Standards


143


The following aerospace recommended practices have been developed by the Society of Automotive Engineers (SAE) A-5 Aerospace Landing Gear System Committee:

- ARP 597 Wheels and Brakes, Supplementary Criteria for Design Endurance, Civil Transport Aircraft, April 1991.
- ARP 1494 Verification of Landing Gear Design Strength, February 1978.
- ARP 4243 Landing Area/Landing Gear Compatibility, April 1993.

C.4. Technical Papers/Reports

C.4.1 Landing Gear Design


Veaux, J., “New Design Procedures Applied to Landing Gear Development,” Journal of Aircraft, Vol. 25, No. 10, October 1988, pp. 904-910 (This paper describes the use of CAD tools in the landing gear design process, and is not directly germane to the current project.)

C.4.2 Weight Estimation


C.4.3 Center of Gravity and Load Balancing


Packing Problem References


This paper has several algorithms for aircraft cargo loading and attainment of a certain balance range.


C.4.4 Pavement Flotation


C.4.5 Cost


C.4.6 Vehicle Integration


C.5. Related Articles (arranged in chronological order)


C.6. Aircraft Data


C.7 Simple Landing Gear Dynamics Models for Insight.

Flügge, W., “Landing-Gear Impact,” NACA TN 2743, October 1952. This is a classic for insight. It provides a simple dynamic model of the landing gear as a spring-mass-damper. I actually think the equations are a tad oversimplified since today they would be solved using computational methods. An example analysis of the metering pin is included. The report also includes the analysis of the landing gear hitting a step in the pavement. Curiously, the design community does not use this first principals analysis to do the design. Probably the analysis is not complete enough for actual design.

Abramson, H. Norman, An Introduction to the Dynamics of Airplanes, Dover Publications, New York, 1971. pp. 134-139. This is the book that led me to the Flügge reference. Some other references are also cited.


C.8 Historical (pre 1970) and Miscellaneous


