

# **Aeronautical Engineering Handbook**



# Luftfahrttechnisches Handbuch

## **Disciplines / Volumes:**



AD	Aerodynamics
AT	Propulsion Technology
ВМ	Loads
FL	Composite Design Criteria
FV	Flight Test Engineering
MA	Mass Analysis
HSB	Structure Analysis
SE	Systems Engineering





# Luftfahrttechnisches Handbuch

## LTH is a Tool for Engineers and Students

in:

- Industry
- Institutions
- Authorities
- Universities

to:

- Specify
- Design
- Develop
- Verify
- Qualify
- Certify
- Analyse

of:

- Aeronautical Vehicles
- Systems
- Engines
- Equipment





# Aims and Benefits of LTH

#### **Aims**

- Standardisation of Procedures and Methods
- Summarize
   Knowledge centrally and searchable
- Rationalise by Generic Acceptance of Verification Process
- Expert Tools

#### **Benefits**

- Optimized and accelerated Development
- Standardised Basis for Authorities and Suppliers
- Reduced Effort during Type Certification
- Papers Approved by Working Committee
- Efficient Networking between Members and Partners

#### Outlook

- Continuous
   Enhancement of
   Knowledge, also by
   new Members
- Internationalisation using English Language
- Focus on Standardisation Papers and Calculation Software according to current Needs of Industry
- Update of existing Papers as applicable





# Background of LTH

#### **Foundation**

- First Working Groups founded in 1969
- Cooperation between Industry, Authorities and Research Organisations
- Funded by Industry and Authorities
- Non-Profit Organisation

## Organisation

- Executive Secretary, Management and Publication, Funding and Promotion
- Coordination
   Committee as
   Advisory Board
- Eight Working Groups:

Aerodynamics
Propulsion Technology
Loads
Composite Design Criteria
Flight Test Engineering
Mass Analysis
Structure Analysis
Systems Engineering

#### **Publication**

- Until 2002 Printed Publication with regular Updates
- Since 2002 issued electronically
- Published on DVD with PDF-Files and comfortable Search Functionalities
- Calculation Software on DVD
- Membership Domain on Homepage





# LTH Stakeholders

### Cooperation

- Active Cooperation of Aerospace Companies, Institutions, Universities and Authorities
- Cooperation focused on the Disciplines of the respective Working Groups
- Edition of Technical Reports and Presentations
- Establishing and maintaining of Networking between the Partners

## Major Industry Contributors

- Airbus Defence & Space
- IABG

Premium Aerotec

- Airbus Helicopters
- Liebherr Aerospace
- Rolls-Royce D

- Airbus Operations
- Lufthansa Technik
- RUAG Aerospace

Diehl

- MT Aerospace
- SAAB Aeronautics

- Elbe Flugzeugwerke
- MTU Aero Engines
- Stork Fokker AESP

Grob Aircraft

Pilatus

Zeppelin LT

#### Institutions

- DLR
- NLR
- Universities, e.g. of B, BS, DA, HH, M, S, Delft, Linz...

#### **Authorities**

- EASA/LBA
- LufABw
- WTD 61 (=GE OTC)
- DIN NL





# Application of LTH

### **Major Civil Applications**

- Airbus A300, A310, A300-600, Beluga
- Airbus A318, A319, A320, A321
- Airbus A330, A340, A340-500/-600
- Airbus A380
- Airbus A350
- Dornier Do 228, Do 328
- Dornier Do 728 (Development)
- Pilatus PC-6, PC-12 NG, PC-24
- MBB Bo105
- Airbus Helicopters EC135
- Airbus Helicopters EC145
- IAE V2500
- Rolls Royce BR700, Tay, Spey, Dart
- Saab 340, Saab 2000
- P&W PW1000G, PW2000, PW6000, PW7000, PW8000

### Major Military Applications

- Airbus A400M
- Eurofighter
- Panavia Tornado
- Saab Gripen
- Dassault Dornier Alpha-Jet
- NHI NH90
- Airbus Helicopters Tiger
- Grob Strato 2C
- Pilatus PC-7, PC-7 MkII, PC-9, PC-21
- Airbus DS UAS
- Eurojet EJ200
- Turbo-Union RB199
- EPI TP400-D6
- MTR MTR390





# LTH Contact

## LTH Executive Secretary

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