

Useful notebook guidelines from Dieter¹

In general a design notebook should:

- Be bound and numbered
- Be a Repository for all planning (including plans that were not carried out)
- Include ALL analytical calculations
- Include ALL records of experimental data
- Include ALL references to sources of information
- Include ALL significant thinking about your project

“If the recording task is treated with care and thoroughness, communicating the results of a design project will be made easier.” (i.e. If the journal is done properly, technical reports will be easier to write)

“It should be the repository for all of your planning (including plans that were not carried out), all analytical calculations, all records of experimental data, all references to sources of information, and all significant thinking about your project.

“You should not use your notebook as a diary; but at the same time, you and your notebook should become an intimate communication system. Information should be entered directly into the notebook, not recopied from rough drafts. However, you should organize the information you enter in the notebook. Use main headings and subheadings; label key facts and ideas; liberally cross-reference your material; and keep and index at the front of the book to aid in your organization. About once a week, review what you have done and write a summary of your progress that emphasizes the high points. Whenever you do anything that may seem the least bit patentable, have your notebook read and witnessed by a knowledgeable colleague.” (The PREP process provides automatic witnessing.)

“The following are good rules for keeping a design notebook.

1. Keep and index at the front of the book
2. Make your entries at the time you do the work. Include favorable and unfavorable results and things not fully understood at the time. If you make errors, just cross them out. Do not erase, and never tear a page out of the notebook.
3. All data must be in their original primary form.
4. Rough graphs should be drawn directly in the notebook, but more carefully [or computer] prepared plots...also should be made and entered [pasted] in the book.
5. Give complete references to books, journals, reports, patents, and any other sources of information.
6. Entries should be made in ink and, of course, must be legible. Do not be obsessed with neatness at the expense of faithfully recording everything as it happens. Do not crowd your material on the pages. Paper is much less expensive than engineering time.

A good engineering design notebook is one from which, several years after the project is completed, the project can be reconstructed. Critical decisions will be apparent, and the reasons for the actions taken will be backed up by facts. It should be possible to show where every figure, statement and conclusion of the published report of the project can be substantiated by original entries in the design note book.”

¹ Dieter, George Ellwood. *Engineering design*. McGraw-Hill Publishing Company, 1991.