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Large bolted joints. Final project summary

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LARGE BOLTED JOINTS
FINAL PROJECT SUMMARY

1. Records

1.1 Data Books - The raw data from all tests conducted to date is filed in loose leaf folders (8-1/2 x 11") which are stored in the book shelves in room 403. The first set of books, numbered one to 33 inclusive, are designated Project 271 and labeled with their respective contents. These books contain the results of all tests on A-7 steel and the associated control tests.

The second set of books, numbered 1 to 4 inclusive, are designated Project 288 since they contain only results of work on A440 steel.

The data books containing calculations and rough drafts pertaining to J. L. Rumpf's doctoral dissertation are retained by him for his personal use.

1.2 Record File - In addition to test data various other records were necessary during the course of the project. Such things as costs, time sheets, mill reports, etc. are stored in the third drawer of the filing cabinet of room 403.

Also to be found in this drawer is a complete set of prints of the Bethlehem Steel Company Shop Drawings of all test specimens.

1.3 Sketch Book - In the filing drawer of the desk in room 403 is an accopress binder containing all the working sketches of test specimens, fixtures and equipment which have been made by members of Project 271.

1.4 Reference File - A considerable volume of printed matter on bolted and riveted connections has been assembled for various literature searches. Much of this has been retained in project files and is stored in the second drawer of the filing cabinet in room 403. Part of this file is a complete set of Large Bolted Joints Progress Reports. The entire file is indexed and numbered. The index and a sign out sheet are placed at the front of the file.

2. Inventory of Specimens and Equipment

2.1 Steel Inventory - The steel inventory is stored in the record file. This inventory contains a summary of steel and bolts owned by the project.

2.2 Special Test Fixtures - The project has acquired

various equipment since its inception and a summary of all equipment is presented as Table 1. This equipment is stored in various locations as listed in the table. The storage cabinet on the main floor is located on the south wall of the south bay. There are two keys to its padlock and these are kept in room 403. Also kept in room 403 is a key to the sixth floor balcony where several specimens are stored.

2.3 Scrap List - Table 2 is a summary of all specimens and plate stock stored on the sixth floor balcony. Several of these specimens may be scraped when the reports of their testing have been published.

3. Reports

3.1 Status - A status report covering all Fritz Lab Reports under Project 271 is included in Dr. Beedle's special project summary book.

3.2 Extra Copies of Reports - There are 23 copies of F.L. Report 271.8 stored in room 403. Report 271.17 has been printed but will be distributed along with a condensation of J. L. Rumpf's dissertation (271.20) so the 100 copies are stored in room 403. Eight copies of J. L. Rumpf's dissertation

(271.14) require photographs but are otherwise complete and stored in room 403. All other reports are out of print though extra copies of figures are left from a few.

3.3 Tracings of Figures - The original ink tracings of all report figures are stored in the flat file in room 602. An index to these tracings is stored in the record file.

3.4 Multilith Masters - Since all the project reports were reproduced by the multilith process, the masters were preserved for future use. These are stored in the fourth and fifth drawers of the filing cabinet in room 403.

4. Photography

4.1 Photo Books - Prints of all photographs made for Project 271 are mounted in data books (numbers 2, 2.1 and 2.2). An index to the photographs is filed in book number 2 and lists the subject, 271 photo number, and photographer. Additional photographic material is stored in the desk in room 403.

4.2 Negatives - In 1960 the instruments group at Fritz Laboratory revised their policy on photography. Since that time they have retained all negatives and assigned numbers

which are used for ordering additional prints. Negatives produced for Project 271 prior to that time are stored in room 403 with the other photographic material.

4.3 Slides - Colored and black and white slides of many of the photographs are also available. These slides are stored in a slide file in the bookshelves in room 403. An index of the slides and mounted prints (for easy reference) are stored in the record file.

5. Project Status

An additional series of tests specimens, the E Series, have been authorized by the guiding committee. These specimens have been ordered from the Bethlehem Steel Company and are in the process of fabrication. Sufficient A440 plate material has been ordered to fabricate these specimens plus duplicates. The specimens are described in the "Minutes of Meeting" for January 19, 1961 - committee 10, RCRBSJ.

TABLE 1

SPECIAL TEST FIXTURES(Property of Project 271)

	Storage Location
I. MEASURING INSTRUMENTS	
1. Slide Bar Extensometer	403
2. Dial Gage Calipers	403
3. Bolt Extensometer	
a. Adjustable (with 3 sizes)	Cabinet
b. Fixed (old)	Cabinet
II. DRAWING EQUIPMENT	
1. 54" Parallel Rule	403
2. Light Board	403
3. 2 Clip Boards	403
III. TEST FIXTURES	
1. Tension Calibration of Bolts	
a. Old Jigs	Pit of 300 ^k Mach.
b. New Jigs	Pit of 300 ^k Mach.
c. Inserts	Cabinet
2. Torque Calibration of Bolts	
a. Skidmore Wilhelm (Prop. of B.S.Co.)	Cabinet
b. S.W. Packing Washers	Cabinet
c. S.W. Calibration Anvil	Cabinet
3. Lap Joint Bracing Yokes	6th Floor
4. Shear Jig Test Fixtures	Cabinet

TABLE 2

SCRAP LIST

6th Floor Balcony

I. TESTED JOINTS

1. Riveted Joints - DR101, DR131
2. Long Joints - D10, D13, D13A, D16
3. Lap Joints - L5, L10

II. NEW SPECIMENS

1. Long Joints - D42, D82
2. Lap Joints - 1/2D32, 1/2D62
3. Compact Joint - A1

III. ODD ITEMS

1. Various Shear Jigs
2. Various Small 1" Plates
3. Various Plates (D-Series - Part b)