



# Smithsonian

## *National Air and Space Museum*

### Eric Preece Engine Collection

Jordan Ferraro and Jelena Fay-Lukic

2010



National Air and Space Museum Archives  
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Chantilly, VA 20151  
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## Collection Overview

<b>Repository:</b>	National Air and Space Museum Archives
<b>Title:</b>	Eric Preece Engine Collection
<b>Date:</b>	1933-1944
<b>Identifier:</b>	NASM.XXXX.0502
<b>Creator:</b>	Preece, Eric
<b>Extent:</b>	4.4 Cubic feet (8 records center boxes; 1 flatbox)
<b>Language:</b>	English .
<b>Summary:</b>	This collection traces Preece's engineering work with WAC, and includes the following types of materials: correspondence, memos, technical drawings, minutes of meetings from both the WAC Gear Committee and the American Society of Tool Engineers, descriptions of various projects and equipment, photographs, reports, catalogues, brochures, manuals, notebooks, and personnel information.

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## Administrative Information

### Acquisition Information

Unknown (Eric Preece?)

### Processing Information

Arranged and described by Jordan Ferraro and Jelena Fay-Lukic, 2010.

Encoded by Amanda Buel, 2014.

### Preferred Citation

Eric Preece Engine Collection, Acc. XXXX-0502, National Air and Space Museum, Smithsonian Institution.

### Restrictions

No restrictions on access.

### Conditions Governing Use

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## Biographical Note

Eric Preece was an engineer with the Wright Aeronautical Corporation (WAC) of Paterson, New Jersey, a company involved in the engineering development of the mass production of cylinder heads for WAC air-cooled engines for Boeing B-29 bombers during World War II. Mr. Preece served as the manager of

Experimental Manufacturing prior to his promotion to Production Manager of WAC's Plant 7 in 1943. He was also an active member of the American Society of Tool Engineers, serving as the Public Relations Chairman and later as chapter president.

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## Scope and Contents

This collection traces Preece's engineering work with Wright Aeronautical Corporation (WAC), and includes the following types of materials: correspondence, memos, technical drawings, minutes of meetings from both the WAC Gear Committee and the American Society of Tool Engineers, descriptions of various projects and equipment, photographs, reports, catalogues, brochures, manuals, notebooks, and personnel information.

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## Arrangement

The original arrangement of this collection was maintained.

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## Arrangement

This collection is arranged into six series:

Series I: Professional Materials

Series II: Material Related to Notebooks

Series III: Material Related to Business Practices

Series IV: Drawings

Series V: Miscellaneous Material

Series VI: Oversized Material

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## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Aeronautics
- Aeronautics, Military
- Airplanes
- Airplanes -- Design and construction
- Airplanes -- Motors
- World War, 1939-1945
- Wright Cyclone 18 (R-3350) 18-cyl radial engine family

Types of Materials:

- Brochures
- Catalogs
- Correspondence
- Drawings
- Manuals
- Memoranda

Notebooks  
Photographs  
Reports

Names:

American Society of Tool and Manufacturing Engineers  
Wright Aeronautical Corp

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## Container Listing

### Series 1: Professional Materials

Box 1, Folder 1	Data of Short Talks: Conference/Ceremony Proceedings, Speeches, Anecdotes, Articles, undated
Box 1, Folder 2	Report of Physical Examination Cylinder Head Machine: Photo Newspaper Article, Photo, Medical Information, undated
Box 1, Folder 3	Herbert D. Hall Foundation, undated
Box 1, Folder 4	Magazines/Catalogues, undated
Box 1, Folder 5	American Society of Tool Engineers: Minutes, 1942
Box 1, Folder 6	American Society of Tool Engineers: Correspondence, 1942
Box 1, Folder 7	American Society of Tool Engineers: Correspondence to be Answered, 1942
Box 1, Folder 8	Miscellaneous Information , undated

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## Series 2: Material Related to Notebooks

Box 1, Folder 9	Notebook Contents: Bearings: Letters, Project Descriptions, Drawings, Patent Information (Folder 1 of 7), undated
Box 1, Folder 10	Notebook Contents: Machines: Letters, Memoranda (Folder 2 of 7), undated
Box 1, Folder 11	Notebook Contents: Personnel: Handbook, Department Program, Project Description, Occupation Listings, Procedures, Minutes, Job Description Forms (Folder 3 of 7), undated
Box 1, Folder 12	Notebook Contents: Air Coiling, Heat Treating, Etc.: Notes, Parts Listings, Procedures (Folder 4 of 7), undated
Box 1, Folder 13	Notebook Contents: Cotter Data: Drawings, Charts (Folder 5 of 7), undated
Box 1, Folder 14	Notebook Contents: Gear Data (Wire Sizes): Drawings, Charts, Instructions (Folder 6 of 7), undated
Box 1, Folder 15	Notebook Contents: Time Study: Notes, Charts (Folder 7 of 7), undated
Box 1, Folder 16	Notebook Contents: Cylinders: Lists, Descriptions of Cylinders, Notes, Project Descriptions, Memoranda, Graphs, Research Findings, Charts Drawings (Folder 1 of 4), undated
Box 1, Folder 17	Notebook Contents: Casting: Memoranda, Casting Specifications (Folder 2 of 4), undated
Box 1, Folder 18	Notebook Contents: Thread Data: Memoranda, Reports, Charts, Bulletins, Brochures, Articles, Minutes, Summaries (Folder 3 of 4), undated
Box 1, Folder 19	Notebook Contents: Miscellaneous: Charts, Memoranda, Reports, Letters, Articles, Drawings, Cost Estimates, Instructions, Bulletins (Folder 4 of 4) , undated

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## Series 3: Material Related to Business Practices

Box 2, Folder 1	Material Control and Procedures: Inventory Control, Procedures, Charts, Drawings, Memoranda, undated
Box 2, Folder 2	General Assembly Instructions, Preparation for Packing Manual, undated
Box 2, Folder 3	Inventory Control, undated
Box 2, Folder 4	Production Engineering Specifications Procedure: Blank Forms, Copies of Engine Contracts, undated
Box 2, Folder 5	Production Engineering Specifications Procedure, undated
Box 2, Folder 6	Organization File: Organization of Experimental Procurement at Wright Aeronautical Corporation, undated
Box 2, Folder 7	Organization Charts , undated
Box 3, Folder 1	Wadell Diary: Notebooks, Miscellaneous Docs. (Folder 1 of 2), undated
Box 3, Folder 2	Wadell Diary Notebooks, Miscellaneous Docs. (Folder 2 of 2), undated
Box 3, Folder 3	Personnel Safety/Benefits Manuals, Booklets, Letters, Employee Guidelines, undated
Box 3, Folder 4	Personnel: Employee Guidelines, Job Descriptions, Personnel Procedure, Memoranda, Reports, Instructions , undated

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## Series 4: Drawings

Box 3, Folder 5	Drawings: Parts, Layouts, Sequences of Operations, undated
Box 3, Folder 6	Drawing: End Mill, undated
Box 3, Folder 7	Drawing: Fabrica Nacional de Motores: Layout for Forge Plant, undated
Box 3, Folder 8	Drawing, undated
Box 3, Folder 9	Drawing: Port Cutting Fixture, undated
Box 3, Folder 10	Drawings: Found in Personnel File, undated
Box 3, Folder 11	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 3, Folder 12	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press , undated
Box 4, Folder 1	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 4, Folder 2	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 4, Folder 3	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 4, Folder 4	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 4, Folder 5	Drawings: Rings, Spacers, Collars, Sleeves, Etc. for Quenching Press, undated
Box 4, Folder 6	Forged Head Fixture: Italian Designs, undated
Box 4, Folder 7	Estimate Sketch: Cylinder Head, Special 3 Cylinder Hydrotel, undated
Box 4, Folder 8	Forged Cylinder Head: Memo, Brochure, Article, Notes, Parts Descriptions, undated
Box 4, Folder 9	Forged Cylinder Head: Speech, Project Description, Reports, Memoranda, Article Excerpt, undated
Box 4, Folder 10	Forged Cylinder Heads: Notes on Operations, undated

Box 4, Folder 11	Forged Cylinder Heads: Procedures, Duties Descriptions, Minutes, Memoranda, Letters, Reports, Conference Proceedings , undated
Box 5, Folder 1	Forged Cylinder Heads: Memoranda, Letters, Charts, Reports, undated
Box 5, Folder 2	Cylinder Honing and Grinding: Drawings, Charts, undated
Box 5, Folder 3	Forged Cylinder Heads: Letters, Drawings, Memoranda, Journal, Charts, Lists (Folder 1 of 4), undated
Box 5, Folder 4	Forged Cylinder Heads: Memoranda, Letters, Drawings, Charts, Reports, Lists, Operation Sheets (Folder 2 of 4), undated
Box 5, Folder 5	Forged Cylinder Heads: Letters, Memoranda, Lists, Price Estimates, Reports (Folder 3 of 4), undated
Box 5, Folder 6	Forged Cylinder Heads: Lists, Reports, Charts, Letters, Parts Descriptions, Public Statements, Drawings, Photographs (Folder 4 of 4), undated
Box 5, Folder 7	Cylinder Choke Bore Progress, undated
Box 5, Folder 8	Gear Practices , undated
Box 6, Folder 1	Gears Memoranda, Graphs, Data Sheets, Photographs, Committee Reports, undated
Box 6, Folder 2	Gears Memoranda, Reports, Telegram, Data Sheets, Photographs, undated
Box 6, Folder 3-4	Gears Minutes of Gear Committee Meetings, 1944
Box 6, Folder 5	Bevel, Spiral and Worm Gearing Reports, undated
Box 6, Folder 6	Studs: Product Specifications, Drawings, Notes, Letters, Graphs, Memoranda, Charts, Brochures, undated
Box 6, Folder 7	Studs: Memoranda, Diagrams, Summaries, undated
Box 6, Folder 8	Torque Data - Studs and Nuts, undated
Box 6, Folder 9	Copper Lead Bearing Progress #1, Brownback Method: Lab Reports, Memoranda, Drawings, Photographs, undated
Box 6, Folder 10	Copper Lead Bearing Progress #1: Test Reports, Memoranda, Letters, Reports, Drawings, Photographs, Receipts, Charts , undated
Box 7, Folder 1	Bearing Progress #2, undated

Box 7, Folder 2

Grinding Lead Screws , undated

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## Series 5: Miscellaneous Material

Box 7, Folder 3	XJ-63 Engine Information: Presentation Notes, Summaries, Graphs, Lists, Price Charts, Sales Orders, Letters, Engine Development Schedules, undated
Box 7, Folder 4	Grinding and Honing Grades and Gaits, undated
Box 7, Folder 5	Nitriding Records Drawings, Graphs, Chats, Memoranda, Notes, undated
Box 7, Folder 6	Drafting Room Manual - U.S.S.R Division, Wright Aeronautical Corporation, undated
Box 7, Folder 7	Pratt and Whitney (P&W) Rotary Table Includes Drawings, undated
Box 7, Folder 8	Expendable Turbojet Development, undated
Box 7, Folder 9	Mid and Forward Frame Project, undated
Box 7, Folder 10	Cutters and Cutting Tools, undated
Box 7, Folder 11	Bar Stock Color Code, undated
Box 7, Folder 12	Turbo Superchargers Memoranda, Reports, Drawing, undated
Box 7, Folder 13	Technical Papers -- Material Etc.: Reports, Manuals, Photos, Drawings, Articles , undated
Box 8, Folder 1	Universal Carriers Drawings, Letters, Charts (Folder 1 of 2), undated
Box 8, Folder 2	Universal Carriers: Drawings, Charts (Folder 2 of 2), undated
Box 8, Folder 3	Impeller Temp. Layout: Charts, Drawings, undated
Box 8, Folder 4	Tolerance Charts, undated
Box 8, Folder 5	Heat Treating, undated
Box 8, Folder 6	Parts Operations Descriptions, undated
Box 8, Folder 7	Parts Operations Descriptions, undated
Box 8, Folder 8	Army Specifications: Aeronautical Standards, Drawing: Varsol Tank, undated
Box 8, Folder 9	Welded Crankcase Data: Letters, Telegrams, Memoranda, Drawings, undated
Box 8, Folder 10	Lubrication Reports Prepared for Wadell Engineering Co., Orange New Jersey, undated

Box 8, Folder 11

Machine Tool Lubrication , undated

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## Series 6: Oversized Material

Box 9, Item 1

Scrapbook, Typical Examples of High Production Equipment, undated

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