

Authority for:  A. Study  
 B. Design  
 C. Fabrication  
 D. Test

Expenditure Order No.

502-5-106

Account No. V-1570

E-57-118

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

All work in connection with the disassembly, inspection and possible reconditioning and modification of modified V-1570-E engine, Air Corps No. 32-756. This will include time necessary in preparing report on the engine inspection. (Fifth priority).

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

c. None  
 a. None  
 b. None

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. C. E. Mines  
 b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 1140.00	\$ 150.00	\$ 210.00		\$ 1500.00	CLARENCE CLAWSON

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

a. 502-  
 b. Development of liquid-cooled engines of 1000-1000 cu.in. displacement. Project 71-5 Item 502-5

Initiated by CLARENCE CLAWSON Branch POWER PLANT Date AUG. 31, 1933 Coordinated by  
 Signed CLARENCE CLAWSON, Capt. A.C. Approved C. W. HOWARD, Maj. A.C. Approved A. W. ROBINS, Lt. Col. A.C.  
 Branch Chief, Power Plant Section Chief, Engineering Sec. Executive Executive.

Close out requested (Date) 1-18-33 Reason completed  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

CC:RA

503 8-106  
Expenditure Order No.

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

502-2  
Account No. 7-02

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

To cover all time spent in the preparation of procurement data, procurement, and administration of procurement authority for Continental, 12-cylinder, geared, liquid-cooled, opposed engines, Type O-1430-1.

EXP-11-57-503-36  
-21

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

This order is primarily to cover procurement and administration of procurement authority for this engine, and the information ordinarily supplied in this space is, therefore, not applicable.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F.L. Prescott  
b. Power Plant Br.

1 major project  
6 minor projects

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by*
\$ 40,000.00	\$ 1000.00			\$ 41,000.00	C. Clawson

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

502 - Development of liquid-cooled engines of 1000-1600 cu.in. displacement.

Initiated by G. Clawson Branch Power Plant Date 10/6/35 Coordinated by

Signed E.M. POWERS, 1st Lt., A.C., Approved C.W. HOWARD, Maj., A.C., Approved ROBERT GOOLNICK, Lt. Col., A.C., Branch Chief, Act. Chief, P.P. Br. Section Chief, Chief, Engr. Sec. Executive, Agt. Executive.

Close out requested (Date) 2-24-40 Reason completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

A. Study **FLP:ma** Expenditure Order No. **503-1-106**  
 B. Design **502-2-117**  
 C. Fabrication  
 D. Test Account No. **7-02**

Authority for:

**E-57-285**

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

Amend this order to cover test of Sykes gears to determine maximum load capacity in order that the necessarily high stresses of the O-1430-1 reduction gears may be duplicated and life of gears under these conditions tested.

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

**A. STUDY.**

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

**B. DESIGN.**

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

**C. FABRICATION.**

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

**D. TEST.**

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**D. Two GIV-1570 crankcases reworked and coupled together at the propeller shafts and at the crankshafts, with provision for setting up the necessary torque between them, will be driven by a small dynamometer. In this manner, the gear losses only will be supplied by the dynamometer. 25-hour tests will be run at successively higher loads until evidence of pitting occurs. The gears will be frequently examined and all necessary steps taken to insure proper lubrication.**

- a. E.S.M.R.
- b. None contemplated.

**III. PERSONNEL.**

a. Name of Project Engineer.  
b. List of Branches which will be required to do work.

- a. F. L. Prescott
- b. Repair and Power Plant Branches.

**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 50.00	200.00	450.00	800.00	1500.00	F. L. Prescott

**V. ENGINEERING PROGRAM.**

a. State Project and Item Number on Engineering Program.  
b. If not on Program state modification proposed.

**502 - Development of liquid cooled engines of 1000-1600 cu. in. displacement.**

Initiated by **F. L. Prescott** Branch **Power Plant** Date **2-21-34** Coordinated by **ROBERT GOOLBIE**  
 Signed **E. M. POWERS, Capt., A. C.** Approved **A. J. LYON, Capt., A. C.** Approved **LT. Col., A. C.**  
 Branch Chief **Chf., Pow. Pl. Br.** Section Chief **Act. Chf., Eng. Sec.** Executive **Acting**

Close out requested (Date) **2-24-40** Reason **Completed**  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:  A. Study  
 B. Design  
 C. Fabrication  
 D. Test

Expenditure Order No.

~~502-2-117~~  
 Account No. 502

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover procurement of all parts for the O-1430-1 engine, except those parts fabricated on Contract W-535-AC-6322, and all labor involved in assembling the engine. This will also cover engineering labor involved in the administration of this contract.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not applicable.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer.  
 b. List of Branches which will be required to do work.

a. F. L. Prescott,  
 b. Power Plant Branch.

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 54,000.00	\$ 400.00	\$	\$	\$ 54,400.00	C. Clawson

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program.  
 b. If not on Program state modification proposed.

502 - Development of liquid cooled engines of 1000-1600 cu. in. displacement.

Initiated by C. Clawson Branch Power Plant Date 5-15-34 Coordinated by \_\_\_\_\_  
 Signed E. H. POWERS, Capt., A. C. Approved A. J. LYON, Capt., A. C. Approved ROBERT GOOLRICK, Lt. Col., A. C.  
 Branch Chief \_\_\_\_\_ Section Chief \_\_\_\_\_ Executive \_\_\_\_\_ Acting \_\_\_\_\_

Close out requested (Date) 2-24-40 Reason completed  
 \_\_\_\_\_ Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:

- A. Study  
 B. Design  
 C. Fabrication  
 D. Test

FLP:CE Expenditure Order No.

503-4-106

Account No. 7-02

E-57-285

## I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement, necessary to secure additional test data on parts directly applicable to the X0-1430-1 engine on Contracts W-535-AC-6322 and W-535-AC-6334.

## II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

## A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Outside procurement - \$8500.00

## B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

## C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

## D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

## III. PERSONNEL.

a. Name of Project Engineer.  
b. List of Branches which will be required to do work.

a. F. L. Prescott - 1 1/2 projects.

b. Power Plant Branch

## IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 8500.00	\$ 300.00			\$ 8800.00	G. Clawson

## V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program.  
b. If not on Program state modification proposed.

503 - Engines of 1000 h.p. and over.

Initiated by F.L. PRESCOTT Branch Power Plant Date 7-22-35 Coordinated by \_\_\_\_\_  
 Signed E.M. POWERS, Major, A.C. Approved O.P. SCHOLS, Lt. Col., A.C. Approved F.L. MARTIN, Col., A.C.  
 Branch Chief Chf., Power Pl. Br. Section Chief Chf., Engrg. Sec. Executive \_\_\_\_\_

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief \_\_\_\_\_ Section Chief \_\_\_\_\_

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

503-4-106

Account No. 0-1130

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

To cover all work in connection with procurement, including procurement, of services required in conducting development tests on XO-1130-1 engine, as specified in detail in memorandum from Engineering Section to Procurement Section dated 8/23/35.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not applicable

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

Outside purchases required .....\$22,315.00

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott

b. Power Plant Br.

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 22,315.00	\$ 500.00	\$ ---	\$ ---	\$ 22,815.00	F.L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 h.p. and over.

Initiated by F. L. Prescott Branch Power Plant Date 8-23-35 Coordinated by .....

Signed J.M. GILLESPIE, Capt., A.C. Approved O.P. ECHOLS, Lt. Col., A.C. Approved F. L. MARTIN,  
Branch Chief Act. Chief, P.P. Br. Section Chief Chief, Engr. Sec. Executive Colonel, Air Corps.

Close out requested (Date) 2-24-40 Reason Completed

..... Signed ..... Approved .....  
Branch Chief Section Chief

- A. Study
- B. Design
- C. Fabrication
- D. Test

FLP:AB

Expenditure Order No.

Authority for:

~~503-2-106~~

Account No. 7-02

*E-57-285*

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend Expenditure Order 503-2-106 to cover procurement, including procurement, of two engine mount plates, in accordance with Continental Aircraft Engine Company's drawing No. 500355, for dynamometer tests, XO-1430-1 engine.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not applicable.

(Outside purchases \$856.00.)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott

b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 856.00	19.00			875.00	F. L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503- Development of Engines of 1000 h.p. and over.

Initiated by F. L. PRESCOTT Branch Power Plant Date 8/29/35 Coordinated by F. L. MARTIN, Col., A.C.  
 Signed J. H. GILLESPIE, Captain, A.C. Approved G. P. FCHOLS, Lt. Col., A.C. Approved F. L. MARTIN, Col., A.C.  
 Branch Chief Acting Power Plant Section Chief Engineering Executive Executive

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

A. Study **FLP:AB** Expenditure Order No.  
 B. Design **503-7-106**  
 C. Fabrication  
 D. Test Account No. **7-92**

Authority for:

**E-57-285**

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

all work in connection with  
**Amend this order to cover procurement, including procurement, of one (1) engine model - wood - O-1130-1 Type engine equipped with metal-faced mounting pads and studs for mounting actual accessories.**

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

**A. STUDY.**

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not applicable.

(Outside procurement - \$3509.50)

**B. DESIGN.**

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

**C. FABRICATION.**

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

**D. TEST.**

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**III. PERSONNEL.**

a. Name of Project Engineer.  
b. List of Branches which will be required to do work.

a. **F. L. Prescott**  
b. **Power Plant Branch**

**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ <b>3509.50</b>	\$	\$	\$	\$ <b>3509.50</b>	<b>F. L. Prescott</b>

**V. ENGINEERING PROGRAM.**

a. State Project and Item Number on Engineering Program.  
b. If not on Program state modification proposed.

**503- Engines of 1000 h.p. and over.**

Initiated by **F. L. PRESCOTT** Branch **Power Plant** Date **10/17/55** Coordinated by  
Signed **J. B. GILLESPIE, CAPT., A. C.** Acting **Power Plant Br.** Approved **G. P. SCHOLS, Lt. Col., A. C.** Engineering Approved **F. L. MARTIN, Col., A. C.** Executive

Close out requested (Date) **2-24-40** Reason **completed**

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

Authority for:  A. Study  
 B. Design  
 C. Fabrication  
 D. Test

Expenditure Order No. 503-7-106  
 Account No. 7-02

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

*Amended*  
1

To cover all work in connection with procurement, including procurement of Vandynes and parts required for completion of single cylinder tests, preparatory to fabrication of XG-1130-1 engine. Parts will be assembled into Government-loaned single cylinder test engine at contractor's plant.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

- A. STUDY.  
 a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.
- B. DESIGN.  
 (Copy of Report on Study to be attached.)  
 a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?
- C. FABRICATION.  
 (Attach assembly drawing of item or fabrication instructions.)  
 a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.
- D. TEST.  
 (Attach test requirements.)  
 a. What kind of report is required? b. What new test equipment will be needed?

NOT APPLICABLE.

Outside purchases - \$1110.45.

III. PERSONNEL.

- a. Name of Project Engineer.
- b. List of Branches which will be required to do work.

a. F. L. Prescott - No. of projects, 7.  
 b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 1200.00				1200.00	F.L.Prescott
\$	\$	\$	\$	\$	

V. ENGINEERING PROGRAM.

- a. State Project and Item Number on Engineering Program.
- b. If not on Program state modification proposed.

a. 503 - Development of Engines of 1000 H.P. and over.

Initiated by F.L.PRESCOTT Branch Power Plant Date 12-9-35 Coordinated by \_\_\_\_\_  
 Signed J.M.GILLESPIE, Capt., A.C. Approved O.P.SCHOLS, Lt.Col., A.C. Approved A.W.BROCK, Jr., Capt., AO  
 Branch Chief Chf., Power Pl.Br. Section Chief Chf., ENGRG. Sec. Executive Assistant Executive.  
 Close out requested (Date) 2-24-40 Reason completed  
 \_\_\_\_\_ Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

~~503-7-106~~

Account No. 0-11-30

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement, of one single cylinder test engine connecting rod.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE.

Outside procurement - \$450.00.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott.

b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication	d. Test Labor	e. Total Cost	f. Estimated by
\$ 450.00	\$ -	\$ 305.00	\$ -	\$ 750.00	F.L.Prescott

V. ENGINEERING PROGRAM.

a. 503 - Engines of 1000 H.P. and over.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

F. L. PRESCOTT

Power Plant

1-23-36

Initiated by F. L. PRESCOTT Branch Power Plant Date 1-23-36 Coordinated by A. W. BRIDGE, Jr., Capt., AG  
 Signed H. A. PAGE, Captain, A.C. Approved O. F. SCHOLS, Lt. Col., A.C. Approved Ass't. Executive  
 Branch Chief Chf., Power Pl. Br. Section Chief Chf., Engrg. Sec. Executive

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

503-2-106

Account No. 0-1430

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover design of an engine mount plate for the KO-1430-1 engine.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

B. Design.

- a. None.
- b. X drawings.
- c. None.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

- a. F. L. Prescott.
- b. Aircraft and Power Plant Branches.

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$	\$ 500.00	\$	\$	\$ 500.00	C. Clawson

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 H.P. and over.

Initiated by F. L. Prescott Branch Power Plant Date 3-1-36 Coordinated by W. H. Brock, Jr., Capt., AG,  
Power Plant Branch Signed F. O. Carroll, Act. Chf., Eng. Sec. Approved W. H. Brock, Jr., Capt., AG,  
 Branch Chief Section Chief Executive Asst. Executive

Close out requested (Date) 2-24-40 Reason Completed  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

~~503-4-106~~

Account No. 0-1430

Authority for:

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

**Amend this order to cover all work in connection with procurement, including procurement, of parts to enable prosecution of the 50-hour development test on the O-1430-1 engine, and those parts which have been replaced in the testing already completed on the O-1430-1 engine on Contract W-535-AC-8131.**

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

- A. STUDY.
  - a. If development of equipment is proposed, is it new, modified, or for substitution?
  - b. Why necessary?
  - c. State complete program proposed with probable total cost as estimated before study is made.
  - d. Give in detail work to be covered by this study.
  - e. Indicate character of report of this study which is to be prepared.
- B. DESIGN. (Copy of Report on Study to be attached.)
  - a. Type designation recommended.
  - b. Kind of drawings to be prepared.
  - c. What test items will be constructed and tested during design work?
- C. FABRICATION. (Attach assembly drawing of item or fabrication instructions.)
  - a. What new or modification of present manufacturing equipment at the Division is necessary?
  - b. List outside purchases required and estimated cost.
- D. TEST. (Attach test requirements.)
  - a. What kind of report is required?
  - b. What new test equipment will be needed?

Not applicable.

(Outside procurement - \$27,693.76)

III. PERSONNEL.

- a. F. L. Prescott.
- b. Power Plant Branch.

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ <u>27,693.76</u>	\$ .....	\$ .....	\$ .....	\$ <u>27,693.76</u>	<u>F. L. Prescott</u>

V. ENGINEERING PROGRAM.

- a. State Project and Item Number on Engineering Program. 503 - Engines of 1000 H.P. and over.
- b. If not on Program state modification proposed.

Initiated by G. Clawson Branch Power Plant Date 7-3-36 Coordinated by A. W. Brock, Jr., Maj., AC, Asst.  
 Signed Power Plant Branch Approved Eng. Sec. Approved Executive

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

~~503-1-106~~

Account No. 702-6

Authority for:

ALJ:rlm

6-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend to cover all work and material necessary to change existing dummy XO-1230-1 engine to make it adaptable for static testing XO-1430-1 engine mounting plates.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

C. FABRICATION.

- a. None.
- b. None.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

- a. A. L. Johnson
- b. Repair Branch

IV. ESTIMATES. (For items checked above). Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 50.00		\$ 200.00		\$ 250.00	A.L. JOHNSON

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 H.P. and over.

Initiated by A. L. JOHNSON Branch Power Plant Date 8/29/36 Coordinated by A.W. BROCK, JR.,

Signed H.R. PAGE, Major, Air Corps Approved F.O. CARROLL, Maj., A.C. Approved A.W. BROCK, JR.,

Branch Chief Power Plant Section Chief Engineering Executive Assistant

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_

Branch Chief Section Chief

- A. Study
- B. Design
- C. Fabrication
- D. Test

FLP:LC

Expenditure Order No.

~~503-4-106~~

Account No. ~~0-1430~~

Authority for:

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

E-57-285

Amend this order to cover all work in connection with procurement, including procurement of parts for C-1430-1 engine.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution. b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE

(OUTSIDE PROCUREMENT - \$257.13)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

- a. F. L. Prescott
- b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 257.13	=	=	=	\$ 257.13	F. L. PRESCOTT

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 H.P. and over.

Initiated by F. L. PRESCOTT Branch Power Plant Date 12-17-36 Coordinated by \_\_\_\_\_  
 Signed H. H. PAGE, Maj., Air Corps, Approved O. F. BROWN, Lt. Col., AG Approved A. W. BROCK, Jr., Maj., AG  
 Branch Chief Power Plant Section Chief Engineering Executive Assistant \_\_\_\_\_  
 Close out requested (Date) 2-24-40 Reason Completed  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

CC:AB

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

503-4-106

Account No. 7-02-0

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement, of one crankcase assembly, Drawing No. 503686, with latest revisions to strengthen bearing bosses.

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

**A. STUDY.**

- a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Outside Procurement - \$3998.00

**B. DESIGN.**

- (Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

**C. FABRICATION.**

- (Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

**D. TEST.**

- (Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**III. PERSONNEL.**

- a. Name of Project Engineer.
- b. List of Branches which will be required to do work.

a. F. L. Prescott

b. Power Plant Branch

**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 3998.00				\$ 3998.00	F. L. Prescott

**V. ENGINEERING PROGRAM.**

- a. State Project and Item Number on Engineering Program.
- b. If not on Program state modification proposed.

503 - Development of aircraft engines of 1000 h.p. and over.

Initiated by F. L. PRESCOTT Branch Power Plant Date 12-31-36 Coordinated by A. W. SHOOK, Jr., Major, A.C.,  
 Signed E. B. PAGE, Major, A.C., Approved O. P. SCHOLS, Lt. Col., A.C., Approved Asst. Executive  
 Branch Chief Power Plant Section Chief Engineering Executive

Close out requested (Date) 2-24-40 Reason completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:  A. Study **PLP:nh** Expenditure Order No. **507-1-106**  
 B. Design **0-1130**  
 C. Fabrication  
 D. Test Account No. **0-1130**

**E-57-285**

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

**Amend this order to cover procurement of replacement and reworked parts for use in O-1130-1 engine during 50-hour development test required by Contract W-535-AC-6131, Item 3 of Article 15, under conditions specified in Item 3(3), during testing up to February 16, 1937.**

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

**A. STUDY.**

a. If development of equipment is proposed, is it new, modified, or for substitution b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

**Not applicable  
(Outside purchases - \$2,555.07)**

**B. DESIGN.**

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

**C. FABRICATION.**

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

**D. TEST.**

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**III. PERSONNEL.**

a. Name of Project Engineer.  
b. List of Branches which will be required to do work.

**a. F. L. Prescott  
b. Power Plant Branch**

**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ <b>2,555.07</b>	\$ <b>100.00</b>			\$ <b>2,655.07</b>	<b>F.L.Prescott</b>

**V. ENGINEERING PROGRAM.**

a. State Project and Item Number on Engineering Program.  
b. If not on Program state modification proposed.

**503 - Development of engines of 1000 H.P. and over.**

ACCOUNTING BRANCH  
BUDGET OFFICE

Initiated by **F.L.Prescott** Branch **Power Plant** Date **2-27-37** Coordinated by **A.W.BROOK, JR., MAJ., A.C.**  
 Signed **Chf., Power Plant Br.** Approved **Act. Chf., Eng. Sec.** Approved **Asst. Exec.**  
 Branch Chief Section Chief Executive

Close out requested (Date) **2-24-40** Reason **Completed**

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:  A. Study  
 B. Design  
 C. Fabrication  
 D. Test

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement, of three (3) pistons, 8.75:1 compression ratio, for X0-1130-1 cylinder, and one (1) pattern for same. Contractual Part No. 500602

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

- A. STUDY.**  
a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.
- B. DESIGN.**  
(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?
- C. FABRICATION.**  
(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary? b. List outside purchases required and estimated cost.
- D. TEST.**  
(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**NOT APPLICABLE**  
**(Outside Procurement - \$284.50)**

**III. PERSONNEL.**

- a. Name of Project Engineer.
- b. List of Branches which will be required to do work.

a. **F. L. Prescott**  
b. **Power Plant Br.**

**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ <b>284.50</b>	\$	\$	\$	\$ <b>284.50</b>	<b>F. L. Prescott</b>

**V. ENGINEERING PROGRAM.**

- a. State Project Number on Engineering Program.
- b. If not on Program state modification proposed.

**503 - Engines of 1000 h.p. and over.**

ACCOUNTING BRANCH  
BUDGET OFFICE

Initiated by F. L. PRESCOTT Branch P.P.Br. Date 4-10-37 Coordinated by \_\_\_\_\_

Signed E. R. PAGE, Major, Air Corps Approved O. PLECHOLS, Lt. Col., AC Approved A. W. BROCK, JR., Major, A.C.  
 Branch Chief Power Plant Section Chief Engineering Executive \_\_\_\_\_ Asst. Executive \_\_\_\_\_

Close out requested (Date) 2-24-40 Reason completed

\_\_\_\_\_  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:  A. Study  B. Design  C. Fabrication  D. Test

Expenditure Order No. 503-1-106 Account No. 7-02-3

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement of parts used in conducting 50-hour development test. to Aug. 31, 1937

E-57-285

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE

(Outside Procurement \$6496.98)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott  
b. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 6496.98	=	=	=	6496.98	F.L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Development of Engines of 1200 H. P. and over.

Initiated by F. L. PRESCOTT Branch Power Plant Date 9/27/37 Coordinated by  
Signed E. R. PAGE, Major, A.G., Branch Chief Approved O.P. ENCHOLS, Lt. Col., A.G., Section Chief Approved A.W. BROCK JR., Major, A.G., Executive Assistant

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

Authority for:

- A. Study **CC:MIM** Expenditure Order No.
- B. Design **503-1-106**
- C. Fabrication
- D. Test Account No. **7-02-0**

**E-57-285**

**I. DETAILS OF WORK AUTHORIZED** (Make definite and concise):

Amend this order to cover procurement, including procurement of spare parts required for the replacement of parts which failed in the 50-hour development test on Contract W-535-AC-8131. This list covers replacement parts up to November 30, 1937.

**II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.**

**A. STUDY.**

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE

(Outside Procurement \$2242.12)

**B. DESIGN.**

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

**C. FABRICATION.**

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

**D. TEST.**

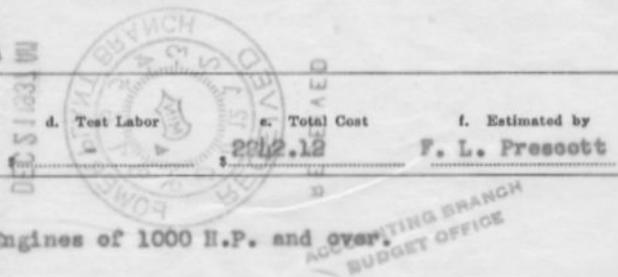
(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

**III. PERSONNEL.**

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. **F. L. Prescott**

b. **Power Plant Branch**



**IV. ESTIMATES.** (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ <b>2242.12</b>	\$ -	\$ -	\$ -	\$ <b>2242.12</b>	<b>F. L. Prescott</b>

**V. ENGINEERING PROGRAM.**

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

**503 - Development of Engines of 1000 H.P. and over.**

Initiated by **F. L. PRESCOTT** Branch **Power Plant** Date **12/18/37** Coordinated by \_\_\_\_\_  
 Signed **E. R. PAGE, Major, A.C.**, Branch Chief **Power Plant** Approved **J. P. RICHTER, Major, A.C.** Section Chief **Engineering** Approved **A. W. BROCK, Jr., Major, A.C.** Executive Assistant  
 Close out requested (Date) **2-24-40** Reason **Completed**  
 Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

CG:AW

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

503-2-106

Account No. 7-02-0

E-57-285

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend E.O. 503-2-106 to cover all work in connection with procurement, including procurement, of spare parts covered by Authority for Purchase 136379.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not Applicable.

(Outside Procurement - \$11,609.64)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?



III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. Ford L. Prescott

b. Power Plant Branch

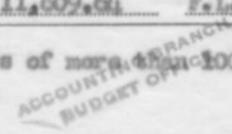
IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 11,609.64				\$ 11,609.64	F.L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503- Development of aircraft engines of more than 1000 h.p.



Initiated by C. CLAWSON Branch Power Plant Date 12-23-37 Coordinated by A. W. BROOK, Jr., Major, A.C.  
 Signed M. R. PAGE, Major, A.C. Approved J. P. RICHTER, Major, A.C. Approved A. W. BROOK, Jr., Major, A.C.  
 Branch Chief Power Plant Section Chief Eng. Section Executive Assistant

Close out requested (Date) 2-24-40 Reason completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test *FLP-rhm*

Expenditure Order No.

*503-1-106*

Account No. *0-1130*

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

*E-57-285*

Amend this order to cover all work in connection with procurement, including procurement, of parts required to cover replacements used in the development test of the X0-1430-1 engine on Contract W-535-AC-8131, up to January 15, 1938.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not Applicable.  
Outside Procurement = \$1861.75

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott  
b. Power Plant Br.



IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 1861.75				\$ 1861.75	F. L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 h.p. and over.

ACCOUNTING UNIT BUDGET OFFICE

Initiated by F. L. Prescott Branch Power Plant Date 2-5-38 Coordinated by \_\_\_\_\_  
Signed E. R. PAGE, Major, A.C. Approved G. F. ECHOLS, Lt. Col., AC Approved A. W. BROCK, Jr., Major, AC  
Branch Chief Power Plant Section Chief Engineering Executive Assistant

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

Authority for:  A. Study  B. Design  C. Fabrication  D. Test

Expenditure Order No. 503-7-106  
Account No. 0-1430

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Send this order to cover all work in connection with procurement, including procurement, of replacement parts used in the development test of the XO-1430-1 engine on Contract W-535-AG-8131, up to August 15, 1938.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not applicable.

(Outside purchases - \$6103.35)

IV. a. Revised from \$190,129.45 to \$196,232.80.  
e. Revised from \$196,398.45 to \$202,501.80.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott  
b. Power Plant Branch



IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting	c. Fabrication	d. Test Labor	e. Total Cost	f. Estimated by
\$ 196,232.80	\$ 4,515.00	\$ 950.00	\$ 800.00	\$ 202,501.80	F. L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Engines of 1000 H.P. and over.

ACCOUNTING UNIT, BUDGET OFFICE.

Initiated by F. L. Prescott Branch Power Plant Date 9-13-38 Coordinated by J. F. Richter, Maj., A.C., A.S. Brock, Jr., Maj., A.S.  
Signed Power Plant Br. Approved Eng. Sec. Approved Asst. Exec. Executive

Close out requested (Date) 2-24-40 Reason completed

Signed Branch Chief Approved Section Chief

Authority for:  A. Study  B. Design  C. Fabrication  D. Test

Expenditure Order No. 503-1-106  
Account No. 7-02-8

E-57-285

DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover all work in connection with procurement including procurement of replacement parts used in the development test of the XO-1430-1 engine.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE

(Outside Procurement \$2225.29)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

IV. (a) Revised from \$196,232.80 to \$198,458.09  
(a) Revised from \$202,501.80 to \$204,727.09

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

A. F. L. Prescott

B. Power Plant Branch

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 198,458.09	\$ 4519.00	\$ 950.00	\$ 800.00	\$ 201,727.09	F. L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Development of Engines of 1000 H.P. and over.

Initiated by F. L. PRESCOTT Branch POWER PLANT Date 12/22/38 Coordinated by

Signed E. R. PAGE, Major, A.C. Approved J. P. RICHTER, Major, A.C. Approved A. W. BROCK, JR., Major, A.C.  
Branch Chief Power Plant Section Chief Engineering Executive Assistant

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
Branch Chief Section Chief

FLP:AW

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test

Expenditure Order No.

501-1-106

Account No. 0-1430

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

E-57-285

Amend this order to cover all work in connection with procurement, including procurement, of replacement parts for the development test of the XO-1430-1 engine.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

NOT APPLICABLE.

(Outside Procurement - \$11,496.06)

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

IV.

(a) Revised from \$198,458.09 to \$209,954.15  
 (b) " " 204,727.09 to 216,223.15

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer.  
 b. List of Branches which will be required to do work.

a. F. L. Prescott  
 b. Power Plant Laboratory

IV. ESTIMATES. (For items checked above), Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$209,954.15	4,519.00	950.00	800.00	216,223.15	F. L. Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program.  
 b. If not on Program state modification proposed.

503 - Four-stroke cycle engines.

Initiated by F. L. PRESCOTT Branch Power Plant Lab. Date 2-9-40 Coordinated by \_\_\_\_\_  
 Signed E. R. PAGE, Major, A. C. Approved F. C. CARROLL, Major, A. C. Approved R. E. MEYERS, Major, A. C.  
 Branch Chief Power Plant Lab. Section Chief WPA. MCA. SCA. Executive Budget Officer

Close out requested (Date) 2-24-40 Reason Completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief

Authority for:

- A. Study
- B. Design
- C. Fabrication
- D. Test *FLP:tr*

Expenditure Order No.

503-1-106

Account No. XO-1130

I. DETAILS OF WORK AUTHORIZED (Make definite and concise):

Amend this order to cover all work in connection with procurement, including procurement, of parts required to cover replacements used in the development test of the XO-1130-1 engine on Contract W-535-AC-6131.

II. FILL OUT ONLY PARAGRAPHS ON ITEMS CHECKED ABOVE.

A. STUDY.

a. If development of equipment is proposed, is it new, modified, or for substitution? b. Why necessary? c. State complete program proposed with probable total cost as estimated before study is made. d. Give in detail work to be covered by this study. e. Indicate character of report of this study which is to be prepared.

Not Applicable

Outside Procurement - \$22,657.14.

B. DESIGN.

(Copy of Report on Study to be attached.) a. Type designation recommended. b. Kind of drawings to be prepared. c. What test items will be constructed and tested during design work?

- IV. (a) Revised from \$196,458.09 to \$221,115.23.
- (b) Revised from \$4519.00 to \$4519.00.
- (d) Revised from \$204,727.09 to \$227,684.23.

C. FABRICATION.

(Attach assembly drawing of item or fabrication instructions.) a. What new or modification of present manufacturing equipment at the Division is necessary. b. List outside purchases required and estimated cost.

D. TEST.

(Attach test requirements.) a. What kind of report is required? b. What new test equipment will be needed?

III. PERSONNEL.

a. Name of Project Engineer. b. List of Branches which will be required to do work.

a. F. L. Prescott

b. Power Plant Laboratory

No. of Projects - 13

IV. ESTIMATES. (For items checked above). Overhead omitted.

a. Material	b. Eng. & Drafting Labor	c. Fabrication Labor	d. Test Labor	e. Total Cost	f. Estimated by
\$ 221,115.23	\$ 300.00			\$ 227,684.23	F.L.Prescott

V. ENGINEERING PROGRAM.

a. State Project and Item Number on Engineering Program. b. If not on Program state modification proposed.

503 - Four-stroke Cycle Engines.

Initiated by F. L. PRESCOTT Branch Power Plant Lab. Date 8-21-39 Coordinated by \_\_\_\_\_  
 Signed E. R. PAGE, Major, A.C., Approved F. O. CARROLL, Major, A.C., Approved B. E. MEYERS, Major, A.C.,  
 Branch Chief Power Plant Lab. Section Chief Exp. Engr. Sec. Executive Budget Officer.

Close out requested (Date) 2-24-40 Reason completed

Signed \_\_\_\_\_ Approved \_\_\_\_\_  
 Branch Chief Section Chief