

48' 0" O.A. SPAN

8' 8"

8' 4"

5' 3"

GAP 7' 7"

0° DIH.

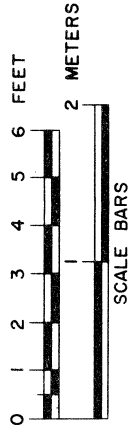
MAHOGANY TIP FLOATS
DIVIDED INTO 5 WATER-
TIGHT COMPARTMENTS

RIGGING
DIAGRAM

VENT
HOUSING

1' 3"

FUEL LINES GO THROUGH
GAP IN LOWER WING PANEL

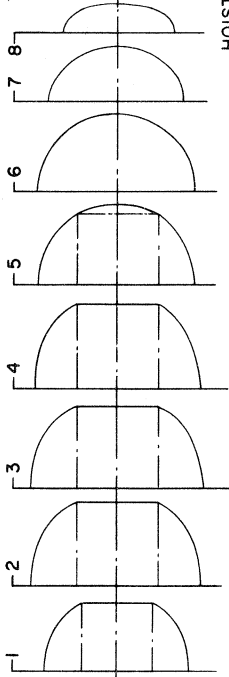


SCALE BARS

2 METERS

0 1 2 3 4 5 6 FEET

VERTICAL RADIATORS
INSTALLED JULY 1916
AFTER INITIAL TESTS



HOISTING "HANGER"
3 STOWED POSITION

29' 6" FUSELAGE LENGTH

16' 0"

AILERON CONTROL CABLE

PIVOT

WHITE BACKGROUND
4" INC.

NOTE:
SPANWISE
INTERPLANE
RIGGING
OMITTED FOR
CLARITY

FUSELAGE FWD.
AREA MAHOGANY
PLY COVERED
UP TO FIRST STRUT
LINE, ALUMINUM
AMIDSHIP TO
PROPELLER,
FABRIC AFT

AILERONS ACT NEGATIVELY, ONLY ONE PAIR AT A
TIME. THEY OPERATE THROUGH A COMPLICATED
BELL CRANK AND PLUNGER SYSTEM. NO UNDER-
SURFACE CONTROL HORN NECESSARY.

SIDE RADIATORS 80% IMBEDDED IN FUSELAGE

8

7

6

5

4

3

2

1

0

W.L.

E

D

C

B

A

12"

13' 6"

33' 0" O.A. LENGTH

3' 6"

5' 0"

5' 3" INC.

INTERNAL HEATED
AIR OUT-
LET, WIRE
MESH
SCREEN

REMOVABLE
ACCESS PANEL

12"

25' 0"

2' 6"

4" INC.

ENTRY STEPS,
RIGHT SIDE
ONLY

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

4" INC.

APPRECIATION IS
EXTENDED TO MR.
ROBERT GORDON,
HEAD, GALLAUDET
RESEARCH PROJECT,
CONNECTICUT
AERONAUTICAL
HISTORICAL
ASSOCIATION, INC.
FOR HIS VALUED PERSISTENCE
IN MAKING THESE DRAWINGS
AS ACCURATE AS POSSIBLE.

HISTORICAL
AVIATION
MUSEUM

GALLAUDET D-1

(1916)

U.S.N. SERIAL NUMBER A-59 (59-A)
DESIGNATED AH-61
SCALE: 1:48

DRAWN BY: PAUL R. MATT

© PAUL R. MATT 1966

PLATE 2

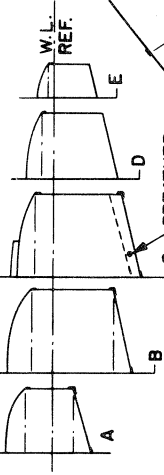
GENERAL SPECIFICATIONS

WEIGHT EMPTY 3600 lbs.
 USEFUL LOAD 1004 lbs.
 GROSS WEIGHT 4604 lbs.
 TOP SPEED, ESTIMATED 80-90 m.p.h.
 CRUISING SPEED 72 m.p.h.
 LANDING SPEED 45-65 m.p.h.
 CLIMB TO 5,000 ft. (est.) 5 min. 32 sec.
 FUEL CAPACITY 75 gals.
 RANGE AT CRUISE, duration 4 hours
 WING AREA (incl. ailerons) 658 sq. ft.
 WING AREA (less ailerons) 602 " "

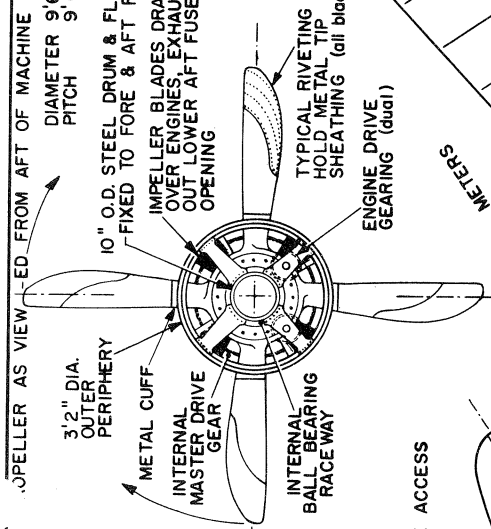
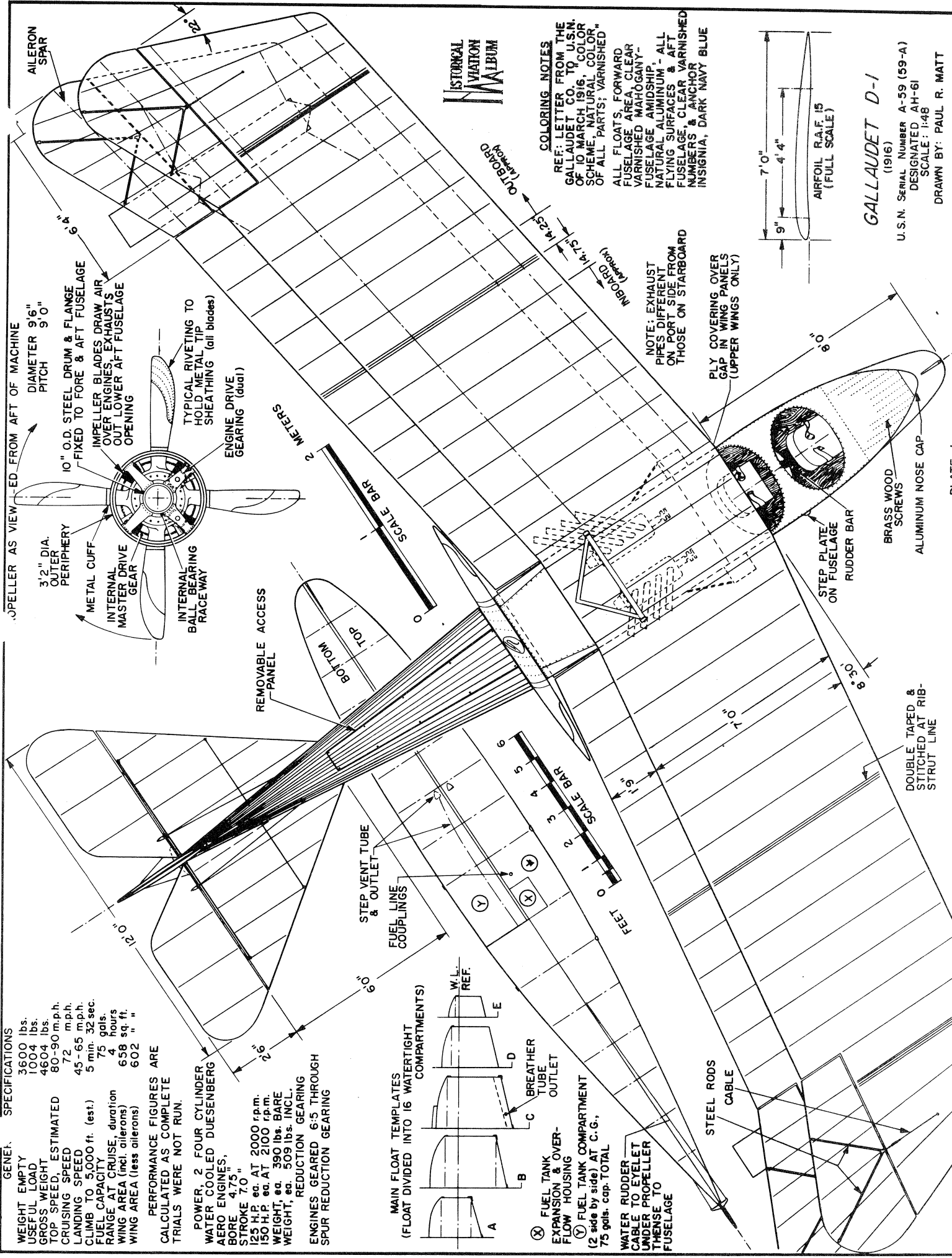
PERFORMANCE FIGURES ARE CALCULATED AS COMPLETE TRIALS WERE NOT RUN.

POWER, 2 FOUR CYLINDER WATER COOLED DUESENBERG AERO ENGINES,
 BORE 4.75 " STROKE 7.0 " 125 H.P. ea. AT 2000 r.p.m. 150 H.P. ea. AT 2100 r.p.m.
 WEIGHT, ea. 390 lbs. BARE WEIGHT, ea. 509 lbs. INCL. REDUCTION GEARING
 ENGINES GEARED 6:5 THROUGH SPUR REDUCTION GEARING

MAIN FLOAT TEMPLATES (FLOAT DIVIDED INTO 16 WATERTIGHT COMPARTMENTS)

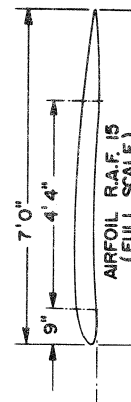


⊗ FUEL TANK OVER-EXPANSION & OVER-FLOW HOUSING
 ⊙ FUEL TANK COMPARTMENT (2 side by side) AT C.G., 75 gals. cap. TOTAL
 WATER RUDDER CABLE TO PROPELLER UNDER PROPELLER THENCE TO FUSELAGE



PROPELLER AS VIEWED FROM AFT OF MACHINE
 DIAMETER 9'6" PITCH 9'0"
 10" O.D. STEEL DRUM & FLANGE FIXED TO FORE & AFT FUSELAGE
 IMPELLER BLADES DRAW AIR OVER ENGINES EXHAUSTS OUT LOWER AFT FUSELAGE OPENING
 3'2" DIA. OUTER PERIPHERY
 METAL CUFF
 INTERNAL MASTER DRIVE GEAR
 INTERNAL BALL BEARING RACEWAY
 TYPICAL RIVETING TO HOLD METAL TIP SHEATHING (all blades)
 ENGINE DRIVE GEARING (dual)

COLORING NOTES
 REF: LETTER FROM THE GALLAUDET CO. TO U.S.N. OF 10 MARCH 1916. COLOR SCHEME, NATURAL COLOR OF ALL PARTS; VARNISHED
 ALL FLOATS, FORWARD FUSELAGE AREA, CLEAR VARNISHED MAHOGANY- FUSELAGE AMIDSHIP - NATURAL ALUMINUM - ALL FLYING SURFACES & AFT FUSELAGE, CLEAR VARNISHED NUMBERS & ANCHOR INSIGNIA, DARK NAVY BLUE



GALLAUDET D-1
 (1916)

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