

VIN FIZ

# Cal Rodgers' 1911 Wright Model EX The First Intercontinental Aeroplane

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# The Flight Of The Vin Fiz

1911 — America was in love with the Aeroplane. William Randolph Hearst offered \$50,000 to the first adventurous sole to fly from coast to coast in 30 days or less.

Calbraith Perry Rodgers became the first to do so in a Wright Model EX biplane. This wood and fabric aircraft, gaily decorated with the Vin Fiz trademark by its sponsor the Armour Company of Chicago as a flying billboard to promote its new grape drink, took off from Sheepshead Bay, NY on September 11, 1911.

Cal's Wright EX was modified with a 15-gallon fuel tank that gave a flying time of about 3-1/2 hours. Trailed by a supply train with mechanics and spare parts, Cal's flight traced a circuitous route across the U.S.

He landed at Middleton, NY the night of the 17th. With the next morning's takeoff, the first of many crashes to come occurred. A tree decided to step into the takeoff path severely damaging the Vin Fiz. After a 3-day wait for repairs, Cal was off again.

The flight followed the railroad track to the West, through New York, Pennsylvania and then to Chicago, Illinois. Leaving Chicago, the Vin Fiz tracked to the South to Texas. Then, Westward, finally ending up in Pasadena, California on November 5th — too late to win the Hearst prize. The total flying time for the 4,321-mile trip was 82 hours, 2 minutes at an average speed of 52 mph.

After another crash, and a broken ankle, Cal Rodgers took off from Long Beach, California and landed the Vin Fiz on the beach and rolled it into the surf, his own definition of finishing the coast-to-coast flight. Unfortunately, the following day the Vin Fiz ran into a flock of seagulls and Cal Rodgers plunged to his death in the Pacific Ocean.

The series of crashes along the flight path left little of the original Vin Fiz intact. By the time Cal reached the West Coast, there remained but two wing struts and the vertical rudder from the original craft that left New York. The Vin Fiz had been patched up with two engines, 20 skids, 18 wing panels and numerous other parts.

Later, the Vin Fiz was flown by Charles Wiggins. In 1914 he made extensive modifications to the plane. Later, it was acquired and restored by the Carnegie Museum in Pittsburgh, Pennsylvania. In 1934 the Vin Fiz was presented as a gift to the Smithsonian Institution. Where, today, it hangs in the National Air And Space Museum.



# The Vin Fiz Drawings

These drawings were based on a variety of information, including photographs and drawings from the Smithsonian Institution. The drawings are intended for model use and are as accurate as the information available at the time they were made.

Examination of photos show that some features of the Vin Fiz on display at the Smithsonian Institution probably are not accurate. Photos taken during Cal's cross-country trek show a flat-topped radiator, rather than the automotive type on the Vin Fiz displayed. As a number of Wright EX machines were built, some aviation historians question that the displayed Vin Fiz is the Wright EX of Cal Rodgers, or even an authentic Wright EX.

## **Color Information:**

The wood construction of the Vin Fiz was finished in a natural varnish. The fabric covering, variously quoted as cotton or rubberized duck fabric, was also in a natural varnish finish.

In some photographs of the Wright machines, parts that appear to be metal, including the propeller, were actually varnished wood with an aluminum-powder overcoating. These parts, like the wing inter-plane struts, were varnished, coated with aluminum powder and then burnished.



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**Philip Koopman, Sr.**

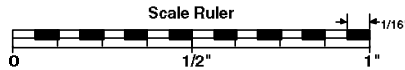
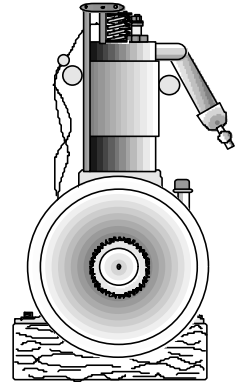
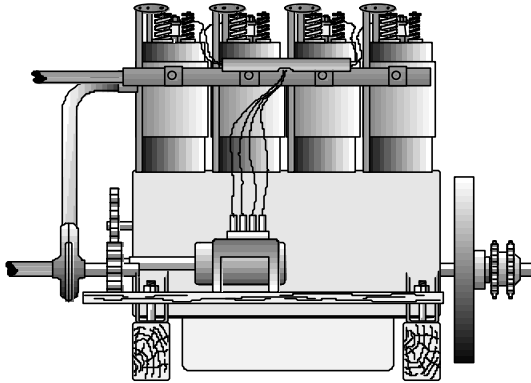
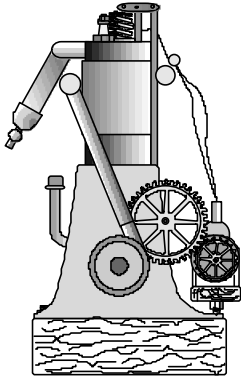
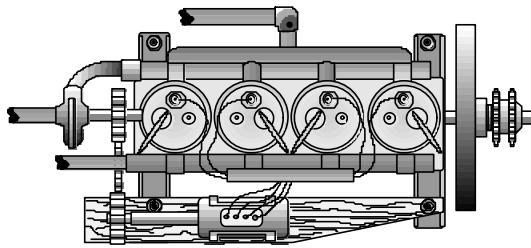
# How To View/Print Photographs & Model Sheets

To print these samples, setup your DEFAULT Windows Printer for LANDSCAPE mode, 8-1/2" x 11" paper, and high-quality printing. The samples are viewed/printed with the Adobe Acrobat Reader for DOS, Windows, Macintosh and Unix. To Avoid enlarged, multiple-page printouts, make sure you use the highest resolution for your printer. And, set up to print PAGES 1 THROUGH 1. Please CHECK the printer-resolution setting in Adobe Reader's Print Dialog box before printing!

**Please Note:** The **QUALITY** of the printed image depends on the resolution of your printer. Any photographs are scanned at 150 dpi, without screening. All drawings are line art (vector) unless otherwise noted. These drawings have been sized with extra margins so they should print on most types of printers. If a drawing will not print, try checking the "Shrink To Fit" box in the Adobe Acrobat Reader's Print Dialog Box.

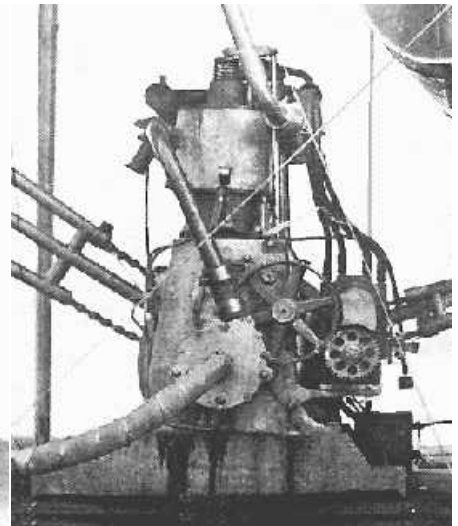
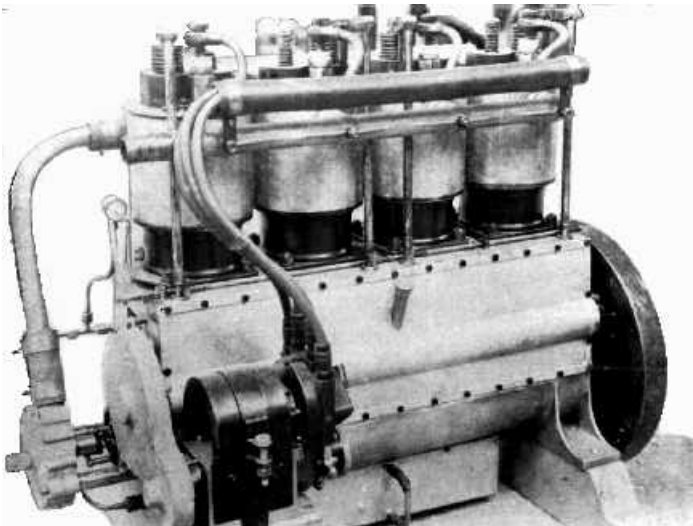
These drawing shave been test printed with Canon BJC-800 and BJ-103e inkjets, and HP LaserJet III and HP LaserJet III/Adobe Postscript Cartridge laser printers running under Windows 3.1, 3.11 and MS-DOS 6.x. The fine-line quality will depend on the resolution of your particular printer. And, some versions of the Adobe Acrobat Reader, like Version 1.0 for DOS, may not support all printers. Or, support some, like color inkjets, for monochrome-only printing.





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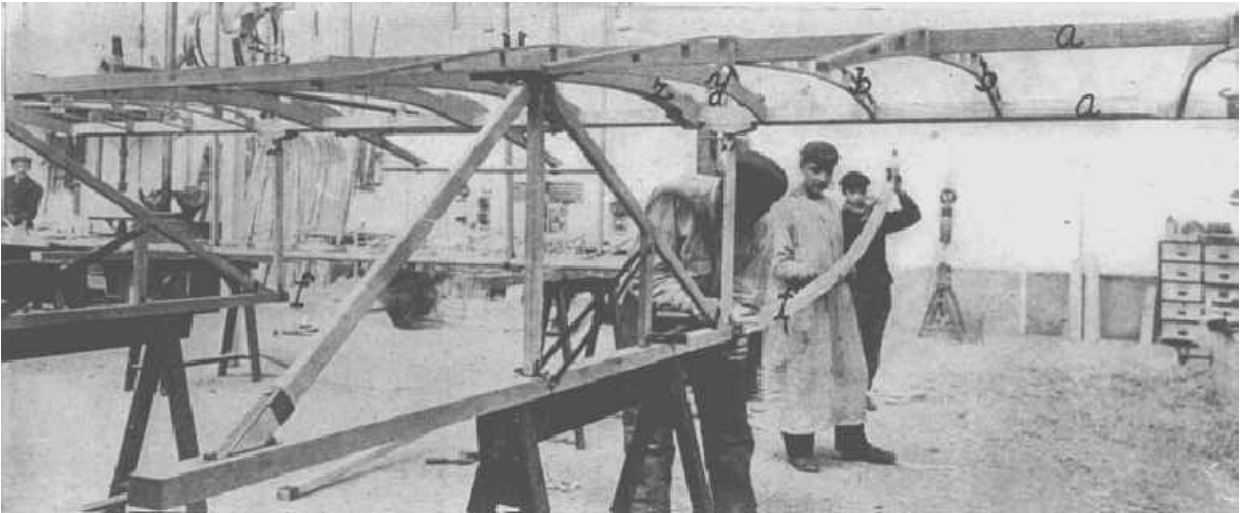
**Wright 30-hp Aero Engine  
(Simplified Drawing)**



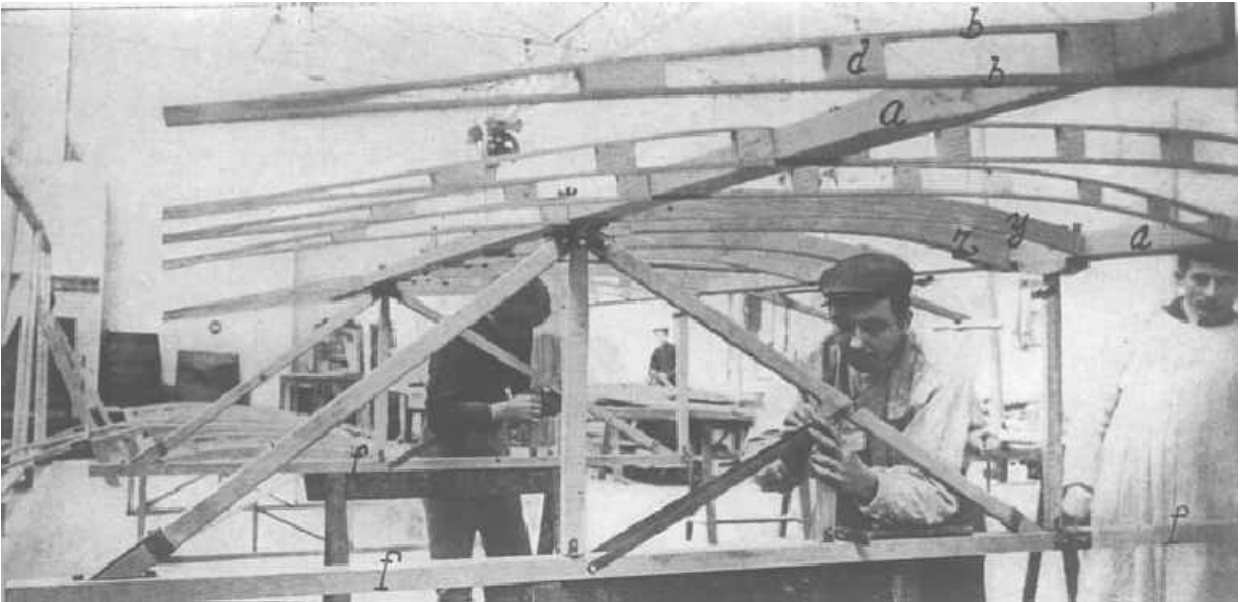
**1909 Wright Aero Engine**



## Construction Details Of Wright Aeroplanes



**The Wright Runner Construction.** The solid ribs  $yz$  serve to support the motor, operator, etc. The other ribs  $bb$  are built up as to enclose the wing bars  $aa$  between the double surfacing of fabric. The attachment of the forward curved members of the runners at  $f$  is clearly apparent upon close examination.



**Side View of Wright Runner Construction.** The reference lettering is the same as the photograph above.

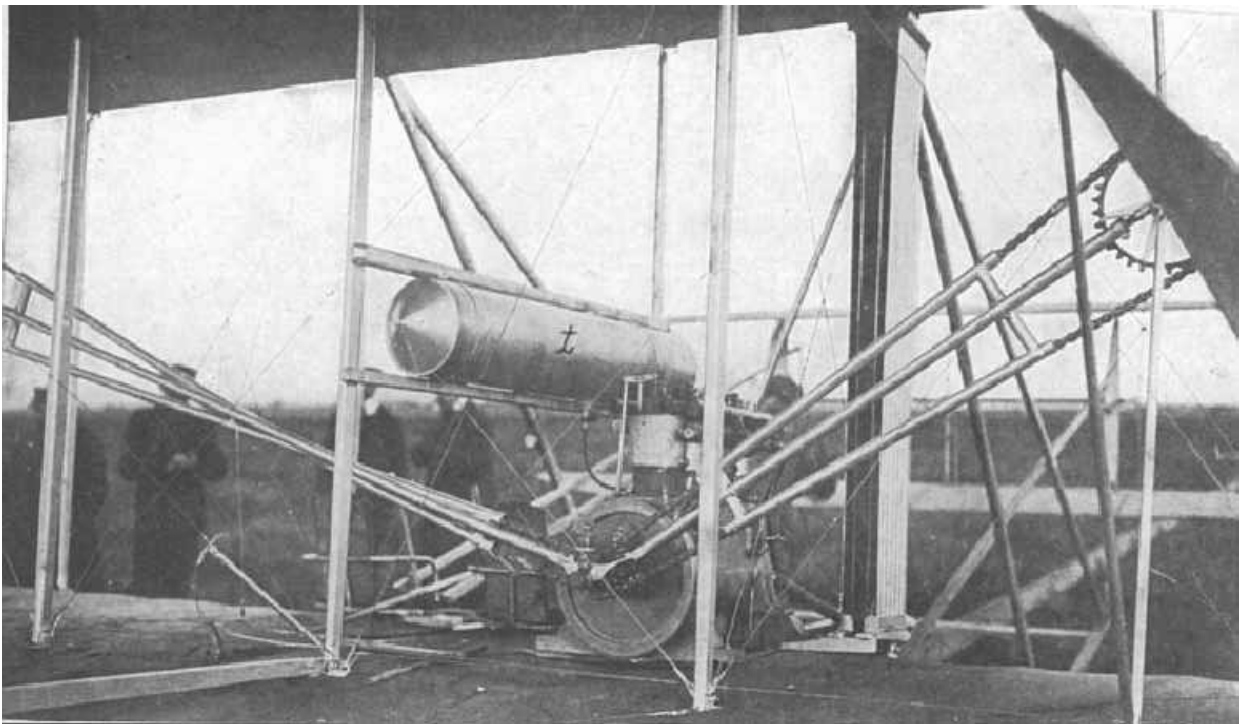
**Factory construction of the Wright Biplanes.** All photographs, including the engine, have been restored from the 1910, Second Edition, of *Vehicles Of The Air* by Victor Lougheed published by The Reilly And Britton Co., Chicago, Illinois. Note the extensive use of metal-plate and bolt attachment of the individual parts. The bottom right-hand photograph clearly shows the hook-and-eye connection of the interplane struts. Note, too, that the wing-strut attachments are not always at a wing rib; the struts attach only to the wing spars. Clearly shown is the uneven rib spacing of the center section.

**MORE** 

## Construction Details Of Wright Aeroplanes

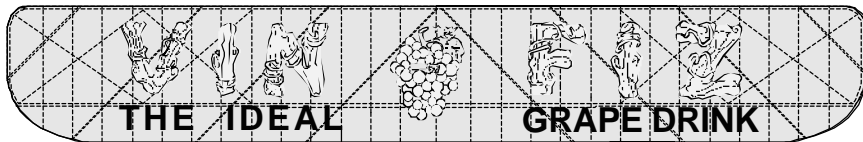


**Details of the Wright Biplane Strut Connections.** Note the manner in which the struts *c* are fastened in U-Shaped metal sockets at the center of the machine and hooked to the wing bars *a* in the flexible wing ends. The plate *d* indicates the point at which the wings unship for convenience in shipping and storing, while *b* are the double rib members.

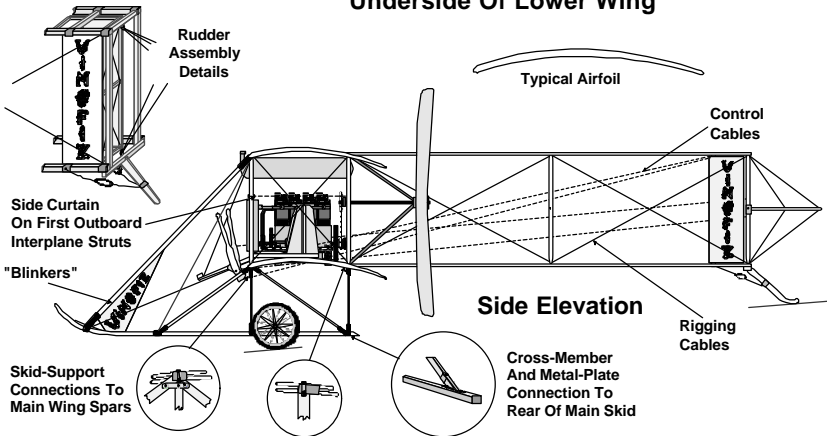


**Chain Transmission of Wright Biplane.** Note the crossing of the tubular chain guards at the left - also the placing of the fuel tank *t* at the center of gravity.

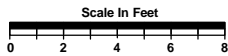
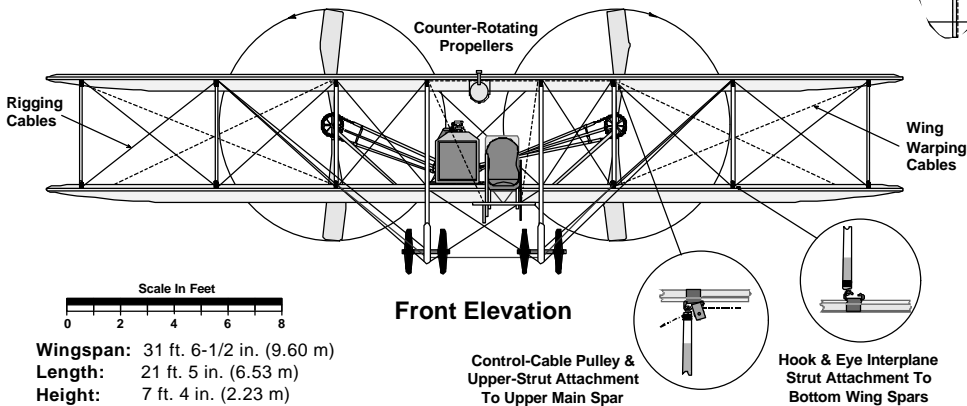
**MORE** 



**Underside Of Lower Wing**



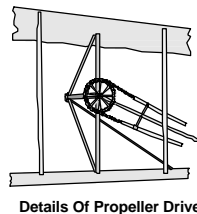
**Front Elevation**



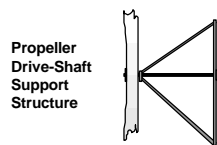
**Wingspan:** 31 ft. 6-1/2 in. (9.60 m)  
**Length:** 21 ft. 5 in. (6.53 m)  
**Height:** 7 ft. 4 in. (2.23 m)  
**Weight:** Gross, 903 lb. (410 kg)  
**Engine:** Wright, 35 hp

Control-Cable Pulley & Upper-Strut Attachment To Upper Main Spar

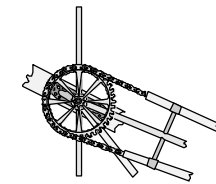
Hook & Eye Interplane Strut Attachment To Bottom Wing Spars



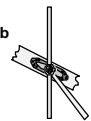
Details Of Propeller Drive



Propeller Drive-Shaft Support Structure

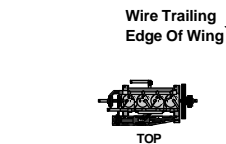
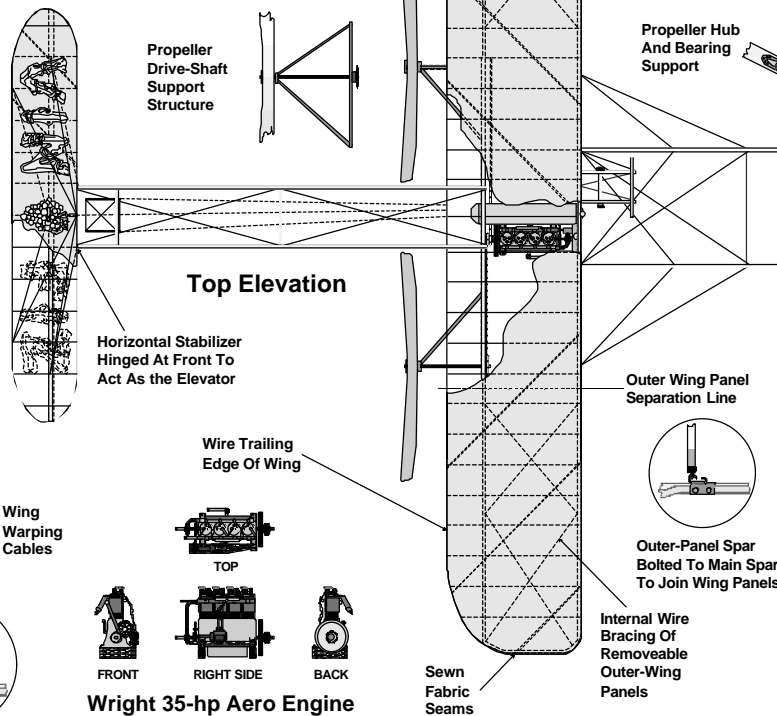


Chain Drive And Chain-Guard Supports



Propeller Hub And Bearing Support

**Top Elevation**



**Wright 35-hp Aero Engine**  
 (Simplified Outline Drawing)



**Cal Rodgers' 1911 Wright EX**  
**FIRST INTERCONTINENTAL AEROPLANE**

# VIN

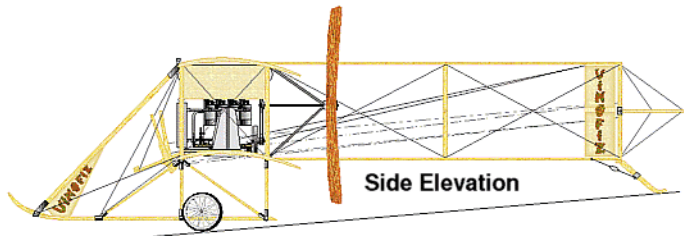
THE IDEAL



# FIZ

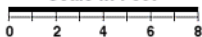
GRAPE DRINK

## Underside Of Bottom Wing



Side Elevation

### Scale In Feet



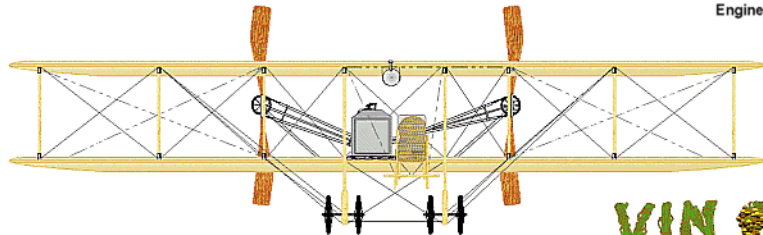
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Weight: Gross, 903 lb. (410 kg)

Engine: Wright 35 hp

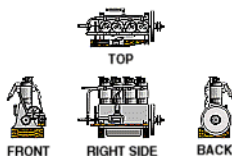
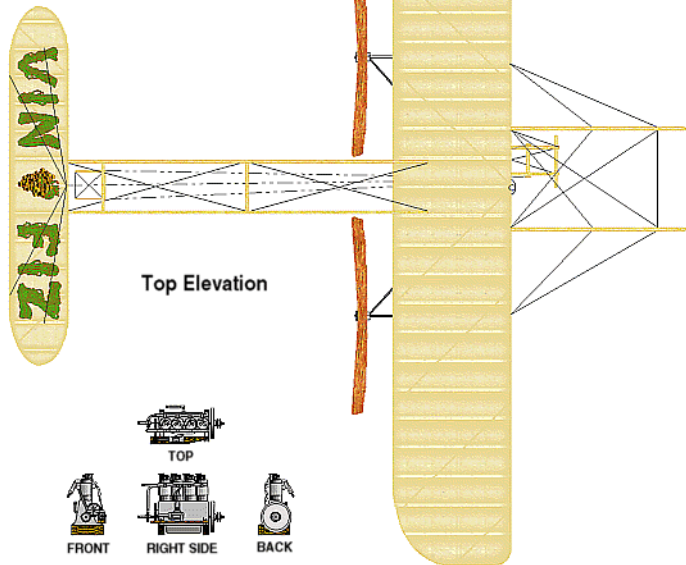


Front Elevation

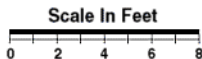
# VIN FIZ

Cal Rodgers' 1911 Wright EX

FIRST INTERCONTINENTAL AEROPLANE



**Wright 35-hp Aero Engine**  
(Simplified Outline Drawing)



**VIN & FIZ**

**Cal Rodgers' 1911 Wright EX**  
**FIRST INTERCONTINENTAL AEROPLANE**