

## **The Flamingo**

Produced by the Metal Aircraft Corporation

Cincinnati, Ohio

Lunken Airfield

by Peter Bruemmer

The prototype “Flamingo” was a Thomas E Halpin development that was designed and engineered by Ralph R Graichen, and was introduced in the early part of 1928.



**Designer Ralph R. Graichen, 1928.**

Photo: Bruemmer Photo Archives

The Metal Aircraft Company was formed in 1928 to take over the assets of the Halpin Development Company and to continue the development of the Halpin “Flamingo”, an all metal high wing monoplane powered with a 410hp Pratt & Whitney Wasp engine.

In 1929 the company moved into a new plant adjoining the Lunken Airfield and produced the Model G-2W "Flamingo" under the authority of the Department of Commerce Approved Type Certificate No. 192.

The Flamingo, #11, NC9487, received Memo Approval 2-62 on July 31, 1929 for eight seats and 5800 pounds.



**Flamingo #11, NC9487 in her Mason & Dixon Air Line colors. The airplane was purchased In 1936 by Jimmie Angel.**

Photo: Bruemmer Photo Archives

The Metal Aircraft Corporation produced a brochure in which they discussed the advantages of an all metal construction airplane. The brochure was directed toward the commercial operator's interest. The commercial operator's chief interest is to achieve the maximum earnings on their investment and to keep expenses at a minimum. The Flamingo aircraft served that purpose for several airlines for a light transport on a daily schedule and hauling mail. Carriers including Embry-Riddle, (which served Cincinnati-Indianapolis-Chicago); The Mason & Dixon Air Lines, (which served Cincinnati to Detroit); and US Airways (which served Kansas City to Denver) were showing a reasonable profit on their investments.



**A line of Flamingos.**

Photo: Bruemmer Photo Archives

Also, the brochure provided the advantages, specifications and performance data on the aircraft. The pilot of the flamingo had the power of the Pratt & Whitney 450 hp air-cooled radial engine Wasp at his controls. The Wasp Engine cruised at 115 miles an hour and a top speed of 135 miles an hour. The pilot had an awesome engine to meet any of the extraordinary emergencies of flying. The engine mount was of the conventional type with a ring bolted to the crank case. The starter was Eclipse Electric Inertia operated from the pilot's compartment. The oil tank was constructed of aluminum, 14 gallons capacity and carried 11 gallons of oil. It was mounted forward of the firewall. The gasoline was fed from the wing tanks by gravity.

The control column of the Flamingo had a unique design; a throw-over arrangement was used, enabling one to fly the airplane from either side of the pilot's compartment. Also, the Flamingo had two sets of rudder pedals and separate pedals for the wheel brakes.

The wings were constructed entirely of duraluminum, the spars beings of I section, the flanges built of extruded dural angles with a dural web set between them. There were 36 ribs in the whole wing, made of flat dural sheet, all exactly alike, with holes punched and flanged to give lightness and rigidity. Two gas tanks of 75 gallons capacity each were placed in the wings. The tanks were constructed of Terne Plate having a 3 1/2 "diameter filler neck, which permitted filling without the use of a funnel. The wings were pin-jointed to the side of the fuselage, utilizing the entire depth of the wing for cabin space. The entire wing was covered with .014 inch dural skin, corrugated on three inch centers with a semi circular corrugation. The ailerons were of the conventional type, differentially controlled and set in one foot from the wing tips.

The fuselage was of welded seamless steel tube construction throughout. The metal skin was fastened to light dural channels riveted to clips placed on the tubes. The main cabin was 50"

wide, 60" high, and 14' long; fitted with upholstered reed chairs secured to the floor. The passengers entered into a main door on the right side at the rear of the cabin while the crew had a separate door forward on the left of the cabin. A lavatory was behind the cabin, as well as a mail and baggage compartment of 40 cubic feet capacity.

The under-carriage was of the split-axle type, constructed of heat treated chrome molybdenum tubing and used Aerol shock absorber struts. The wheel tread was 120 inches and the heavy duty wheels were 32x6.

The standard equipment consisted of the following: Eclipse Inertia Starter, booster magneto, engine primer mounted on instrument board, engine controls, altimeter, magnetic compass, air speed indicator, clock, turn and bank indicator, tachometer, oil pressure gauge, oil thermometer, ignition switch, pressure fire extinguisher, cabin heater, navigation lights, wings wired for landing lights and a metal propeller.



**Metal Aircraft Corporation Factory**

Photo: Hans Dam Collection

Specification & Performance:

Designation:	G-2-W
Type:	Metal Cabin Monoplane
Power Plant:	P&W Wasp 410 hp
Seating Cap:	6-8
Length:	32'6"
Height:	9'6"
Weight empty:	2960 lbs
Gross Wt loaded:	5600 lbs
Pay load:	1455 lbs
High Speed:	135 mph
Cruising speed:	115 mph
Landing speed:	50 mph
Climb:	800 feet per minute
Cruising Radius:	1000 miles

Board Members of The Metal Aircraft Corporation consisted of:

Henry C Yeiser, Jr.	President
Julius Fleischman	1 <sup>st</sup> VP
Powell Crosley, Jr.	2 <sup>nd</sup> VP
Thomas Halpin	3 <sup>rd</sup> VP and General Manager
Ralph Graichen	4 <sup>th</sup> VP and the Chief Engineer
John Hollister	Secretary

The depression that followed the stock market crash of October 1929 caused a tail spin for many small and large aircraft manufactures. However, only 21 Flamingos were built by the Metal Aircraft Company.

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