

(10-4-29)  
MONO "MONOSPORT", MODEL 1



Fig. 159. Monosport model 1 with 110 H.P. Warner engine, had performance enough to delight anyone.

Participation in the annual National Air Races, National Air Derbies, and the many other airplane race events held locally about the country, had a tendency to accelerate normal development and bring out new breeds of airplanes. Standard production models, though also raced in stock configuration were often modified by reducing wing area, fitted with extra streamlining to gain a bit more speed, and quite often were packed with a little more horsepower to gain the advantage over other racing craft in a certain category, or to allow entry with a fair chance to win in a higher power category. These modifications to reduce drag and the boost in horsepower changed the shape of things and quite often led to the development of a new line of sport-type craft that were direct descendants from the lower powered standard models. A case in point is the "Monocoupe 113 Special" which was but a modified model "113" that was faired very carefully for more speed and the power was nearly doubled by the installation of a 110 h.p. Warner "Scarab" engine; from this craft came the direct development of the "Monosport" series. In mid-1929, Henry A. "Tony" Little bought one of the first Warner-powered "Monosport" for sport-flying and air-racing. In approximately 3 years time, the little "Monosport" and its deft pilot had competed in 87 closed-course

races, finishing first in 51 events and second in 27 events. This "fast-flying duo" were also contenders in 7 cross-country derbies, taking a first in 3 of them and a second in two of them. Such performance and unflinching stamina was not unusual in Mono-built aircraft.

The flashy "Monosport" was a high performance craft especially leveled at the sportsman-pilot with a low budget and a slight bent to participate in air-racing occasionally, or one who would have need to go on short cross-country trips in the minimum of time. Short-field performance of the "Monosport" series was just short of terrific, so one would not be limited to operate in and out of the larger air-fields; a small pasture-airport was entirely sufficient. By way of description, the "Monosport" model 1 was a stubby two place high-wing cabin monoplane seating two side by side in fairly chummy comfort, with ample visibility in most all directions. Though basically similar to the "Monocoupe", the wing for the "Monosport" was redesigned with less area and graceful elliptical wing tips; the split-axle landing gear was of the short-legged type with oleo ("Mono-oil") shock absorbers as also used on the "Monoprep" trainer. A large cabin door and a convenient step was provided for ease of entry and a large

sky-light in the cabin roof afforded vision upwards. Well appointed with many extras, the "Monosport" was a true sports-type craft and its behavior and performance under most any conditions or circumstances left very little to be desired. The "Monosport" model 1 as powered with the 7 cyl. Warner "Scarab" engine was first approved on a Group 2 certificate numbered 2-134 (issued 10-4-29) and its type certificate number was received on the same day; some 8 or more examples of this model were manufactured by Mono Aircraft, Inc. at Moline, Ill.

Listed below are specifications and performance data for the "Monosport" model 1 as powered with the 110 h.p. Warner engine; length overall 21'5"; hite overall 7'1"; wing span 32'3"; wing chord 60"; total wing area 133.2 sq.ft.; airfoil "Clark Y"; wt. empty 1056; useful load 594; payload with 32 gal. fuel was 205 lbs.; gross wt. 1650 lbs.; max. speed 129; cruising speed 110; landing speed 45; climb 1000 ft. first min. at sea level; ceiling 18,000 ft.; gas cap. 32 gal.; oil cap. 4 gal.; cruising range at 6.5 gal. per hour was 520 miles; price at the factory field was \$6350., lowered to \$4500. in May of 1930.

Construction details and general arrangement of the "Monosport" were similar to

the "Monocoupe" as described in the chapter for ATC # 113. A metal propeller, wiring for navigation lights, and wheel brakes were standard equipment; a Heywood air-operated engine starter was available as optional equipment. The "Monosport" model 1 was denied its promised career but it did lay the ground-work for the development of the "Monocoupe 110". A companion development in the "Monosport" series was the Kinner-powered model 2 as described in the chapter for ATC # 250 in this volume.

Listed below are "Monosport" model 1 entries as gleaned from registration records:

NC-8957;	Monosport 1	(# 2000)	Warner 110.
NC-8968;	"	(# 2001)	"
NC-8974;	"	(# 2002)	"
NC-105K;	"	(# 2005)	"
	"	(# 2007)	"
NC-145K;	"	(# 2011)	"
NC-152K;	"	(# 2012)	"
NC-161K;	"	(# 2014)	"
NC-167K;	"	(# 2015)	"

Serial # 2000 - 2001 - 2002 - 2005 were on Group 2 approval numbered 2-134; type certificate number # 249 was for serial # 2007 and up; registration number for serial # 2007 unknown.



Fig. 160. Monosport popular with sportsman-pilots; often used for racing.



Fig. 161. Monosport also used in business promotion.

A.T.C. #250  
(10-4-29)  
MONO, "MONOSPORT" MODEL 2



Fig. 162. Monosport model 2 with 100 H.P. Kinner K5 engine.

The "Monosport" Model 2 which seemed to present a more saucy appearance than the Model 1 discussed just previous, was a companion model in this series, that was more or less typical except for its powerplant installation; the power mounted in this case was the popular 5 cyl. Kinner K5 engine of 100 h.p. The "Monosport 2" as shown, was also a high-winged cabin monoplane of diminutive proportions that seated two side by side and performance was more or less identical, so interest in either of these two models would be but a matter of engine preference. Characteristics differed between the two ships only to the extent that the Kinner engine was a bit rougher in operation and tended to set up vibrations that were a bit annoying at times. Several of the "Monosport 2" were owned by sportsmen who were pilots that raced their craft in contest on occasion, and one example was operated by the Kinner Airplane & Engine Co. as a test-bed and sales promotion demonstrator. Flown by Leslie H. Bowman, Kinner Engine's test pilot, this craft placed 2nd in Class D category of the Miami to Cleveland Air Derby held in 1929.

Veteran pilot Vernon L. Roberts, who did most of the test-flying and a lot of the development work at Mono Aircraft, was largely instrumental in the developing of the "Monosport" series; other famous "Mono" pilots at this particular time were "Ike" Stewart, R. T. "Stub" Quimby, H. A. "Tony" Little, and of course Phoebe Omlie, the hard-flying Tennessee belle. The "Monosport" series made themselves rather conspicuous in contest and helped lay a firm foundation for other famous "Monocoupe" models that were to follow in the years to come. The "Monosport" Model 2 as powered with the 100 h.p. Kinner K5 engine was first certificated on a Group 2 approval numbered 2-135 for serial # 2003 and # 2004; an approved type certificate number for the series was issued 10-4-29 and in all some 7 or more examples of the "Monosport 2" were manufactured by the Mono Aircraft Corp. at Moline, Illinois. Don A. Luscombe wielded a guiding hand as the president; Clayton Folkerts rustled up a constant flow of genius as the chief engineer; and veteran Vern Roberts passed judgement on all as the chief pilot.

Listed below are specifications and performance data for the "Monosport" Model 2 as powered with the 100 h.p. Kinner K5 engine; length overall 21'5"; hite overall 7'1"; wing span 32'3"; wing chord 60"; total wing area 133.2 sq.ft.; airfoil "Clark Y"; wt. empty 1053; useful load 597; payload with 32 gal. fuel was 208 lbs.; gross wt. 1650 lbs.; max. speed 129; cruising speed 110; landing speed 45; climb 990 ft. first min. at sea level; ceiling 17,500 ft.; gas cap. 32 gal.; oil cap. 4 gal.; cruising range at 6 gal. per hour was 550 miles; price at the factory field was \$5750., lowered to \$4250. in May of 1930.

The fuselage framework was built up of welded 1025 and chrome-moly steel tubing, faired to shape with steel tube and wooden fairing strips and fabric covered. The cabin interior was tastefully upholstered in leather and fine fabric, and a good-sized baggage shelf was behind the seat back; because of the short-coupled and fairly high engine mounting, visibility from the "Monosport" was restricted directly forward to some extent. There was good visibility to the sides and a large skylight in the cabin roof provided good vision upward, a boon to pilots in a steep turn around a pylon. The robust wing framework was built up of heavy-dimensioned spruce spar beams that were routed out to an I-beam section, and truss-type wing ribs were built up of basswood webs and spruce cap-strips; the leading edge was covered to preserve the airfoil form and the completed framework was covered in fabric. Gravity-feed fuel tanks of 16 gal. capacity were mounted in the root end of each wing half, which were actually spliced together in the center to form a one-piece wing. The short-legged split axle landing gear was built up of chrome-moly steel tubing and used oil-draulic shock absorbing struts; wheels were 28x4 and brakes were standard equipment.



Fig. 163 Monosport 2 also popular with sportsman-pilots; shown here at factory.

The fabric covered tail-group was built up of welded steel tubing; the fin was ground adjustable and the horizontal stabilizer was adjustable in flight. A metal propeller, wiring for navigation lights, and dual stick controls, were also standard equipment; an engine starter of either the inertia-type or air-operated type such as the Heywood, were optional equipment. Construction details as listed above were typical for both models of the "Monosport". The promising career of the "Monosport 2" was cut painfully short because of economic circumstances, but it later evolved into the "Monocoupe 125" which will be discussed in the chapter for ATC # 359. The next "Mono" development to be discussed in this volume, is the "Monocoach 275" as approved on ATC # 275.

Listed below are "Monosport 2" entries that were gleaned from registration records:

NC-8980;	Monosport 2	(# 2003)	Kinner K5.
NC-8989;	"	(# 2004)	"
NC-113K;	"	(# 2006)	"
NC-136K;	"	(# 2008)	"
NC-142K;	"	(# 2009)	"
NC-144K;	"	(# 2010)	"
-153K;	"	(# 2013)	"

Serial # 2003 - 2004 on Group 2 approval numbered 2-135; serial # 2006 Kinner Motors test-bed; serial # 2013 also had 7 cyl. LeBlond 90 h.p.