

ATC # 503  
(4-29-33)  
FAIRCHILD, MODEL 22-C7D



*Fig. 8. Fairchild 22-C7D with 4 cyl. Wright "Gipsy" engine. The "Gipsy" and the "Model 22" were a charming combination.*

The development of the new model 22-C7D by Fairchild (Kreider-Reisner) was perhaps dictated by circumstance, and as a consequence it became the cheapest model of the popular series. First-quality construction of Fairchild airplanes surely prevented any invasion of the lowest-price field, but this new "Model 22" for the 1933 season was reasonably low-priced and a very big bargain for the money. By 1933 a continuing production flow of the A. C. E. "Cirrus" engines was becoming doubtful, the Menasco "Pirate" engines were quite expensive and still plagued with overheating problems, as fitted in the "Twenty two", so choice of the popular Wright-Gipsy engine was almost essential in the "air-cooled inline" category. The 4 cyl. Wright-Gipsy developing 90 h.p. at 1950 r.p.m. was certainly a fine little engine, already proven in many interesting installations. Being an upright engine, with cylinders placed above the thrust-line, it changed the face of the new "22" and forced a somewhat higher cowl line at the front cockpit. Although basically similar to previous models of the "Fairchild 22" monoplane, the model 22-C7D somehow showed and enjoyed a subtle difference. Even on the ground it seemed to radiate a feeling of friendliness, and in the air its manner was completely charming. The Rover-

powered, Cirrus-powered, and Menasco-powered "Twenty Two" all shared this attribute to varying extent of course, but these airplanes seemed to put on the air of a "sport plane": the jolly Gipsy-powered 22-C7D seemed neither a sport-plane nor a trainer either, it was just a pleasant, rather ordinary ship that was adaptable to and quite happy in most any capacity without perceptible change in temperament. It is historical fact that owner-pilots were very happy with the 22-C7D, quickly becoming staunch friends with their ship, and always anxious to share their delight either with joy-rider friends or other pilots. Word of the comparative good nature of the 22-C7D, even in the hands of an embryo-pilot, soon got around so it was inevitable that several of them were forced into pilot-training; "dual" time was usually \$10.00 per hour and "solo" time went for about \$8.00 an hour. It stands to reason, had the 22-C7D not been introduced at the very bottom of this country's "depression", it would have been seen just about everywhere in far greater number.

The Fairchild model 22-C7D was a light open cockpit parasol-type monoplane with seating arranged in tandem for two. Aimed more or less at the private-pilot, its prime feature was to be its lower cost, but it was not a "cheap" airplane



*Fig. 9. The 22-C7D was an excellent trainer.*

by any means; the airframe still incorporated all the expensive features of "Fairchild" quality construction. Although delivered price was still rather high for these lean times, the bonus of less frequent maintenance and a longer service life in general tended to make it a better and better bargain as time went by. As powered with the upright 4 cyl. Wright-Gipsy engine of 90 h.p. the model 22-C7D had more than ample performance for the average owner-pilot, and its happy-go-lucky nature was endeared by one and all. Rather spritely in spite of its nominal power, it had absolutely no objectionable handling characteristics and flying it was a pleasant experience. Its rugged structure, fortified against high stresses, also allowed basic acrobatics

without restriction, so this offered peace of mind to pilots who enjoyed doing the various shenanigans called "stunting". Pilots were very enthusiastic about the Gipsy-powered 22-C7D and this was often hard to comprehend by others, that is, until they too had the chance to be properly convinced. The Fairchild model 22-C7D could boast of many friends, and they were not likely to forget an association with this airplane even as the years went by. The type certificate number for the 22-C7D was issued 4-29-33 for ser. # 902 and up; approval was amended 11-9-33. Some 21 examples of this model were manufactured by the Kreider-Reisner Aircraft Co., Inc. at Hagerstown, Md.

Listed below are specifications and perfor-



*Fig. 10. Happy-go-lucky nature of the 22-C7D made it ideal for the week-end sportsman.*



*Fig. 11. Gipsy-powered "Twenty Two" was at home anywhere.*

mance data for the Fairchild model 22-C7D as powered with the 90 h.p. Wright-Gipsy engine; length overall 21'8"; height overall 7'10"; wing span 32'10"; wing chord 66"; total wing area 170 sq. ft.; airfoil (NACA) N-22; wt. empty 992 lbs.; useful load 558 lbs.; payload with 21 gal. fuel 244 lbs. (1 pass. at 170 lbs., 34 lb. baggage & 2 parachutes at 20 lb. each); gross wt. 1550 lbs.; max. speed 112; cruising speed 95; landing (stall) speed 45; climb 568 ft. first min. at sea level; ser. ceiling 12,000 ft.; gas cap. 21 gal.; oil cap. 2.4 gal.; cruising range at 6 gal. per hour 320 miles; price \$2475. at factory field with standard equip-

ment.

The construction details and general arrangement of the 22-C7D were typical to that of previous models in the "Twenty Two" series. One significant change, in appearance at least, was installation of the 4 cyl. "upright" Wright-Gipsy engine. The aircooled inline engine was mounted on rubber-bushed bearers to lessen vibration in the airframe; a hand-crank starter was provided and the engine swung a "Gardner" wooden propeller. The standard landing gear of 7 ft. 7 in. tread was fitted with 6.50x10 semi-airwheels with brakes; "Fairchild" spring-oil



*Fig. 12. Head-on view of 22-C7D shows its slim-waisted figure.*

shock absorbing struts had up to 8 in. travel for softer landings. A streamlined sport-type landing gear, with 6.50x10 Warner wheels fitted with streamlined metal wheel pants, was optional at extra cost, or either landing gear (standard or sport-type) could be fitted with 19x9-3 Goodyear low-pressure "airwheels". Normally a tail skid was provided, but an 8x4 tail wheel was optional. Dual stick-type controls were provided, with brake pedals normally in the rear cockpit only; brake pedals in the front cockpit were optional. The 21 gal. fuel tank was mounted high in the fuselage ahead of the front cockpit; baggage allowance was 34 lbs. and 2 seat-pack parachutes at 20 lbs. each were part of the payload allowance. All engine and plane controls operated on ball bearings; full-length narrow chord ailerons and aerodynamically balanced rudder provided sharp control. For trimming, the horizontal stabilizer was adjustable in flight. A compass, air-speed indicator, hand-crank engine starter, and the usual set of engine and flight instruments were standard equipment. Owners of the "Twenty Two", powered with either the "Cirrus" or "Wright-Gipsy" engines, had assurance of replacement parts through Menasco Motors which had bought up all stocks of these 2 engines in 1935. The next development in the "Twenty Two" series was the Warner-powered model 22-C7E as described in the chapter for ATC # 515 of this

volume.

Listed below are 22-C7D entries as gleaned from registration records:

NC-13193; 22-C7D	(# 902)	Wright-Gipsy
-2575;	" (# 903)	"
-2579;	" (# 904)	"
-2691;	" (# 905)	"
	" (# 906)	"
-2722;	" (# 907)	"
-9478;	" (# 908)	"
-9479;	" ( 909)	"
-9480;	" (# 910)	"
-9481;	" (# 911)	"
-9482;	" (# 912)	"
-14336;	" (# 913)	"
-14337;	" (# 914)	"
-14338;	" (# 915)	"
-14339;	" (# 916)	"
-14340;	" (# 917)	"
-14764;	" (# 918)	"
-14765;	" (# 919)	"
-14766;	" (# 920)	"
-14767;	" (# 921)	"
-14768;	" (# 922)	"

This approval for ser. # 902 and up; first-flight of ser. # 902-903-904-905-906-907 in 1933; first-flight of ser # 908-909-910-911-912-913-914-915-916-917-918 in 1934; first-flight of ser. # 919-920-921-922 in 1935; this approval expired 9-30-39.