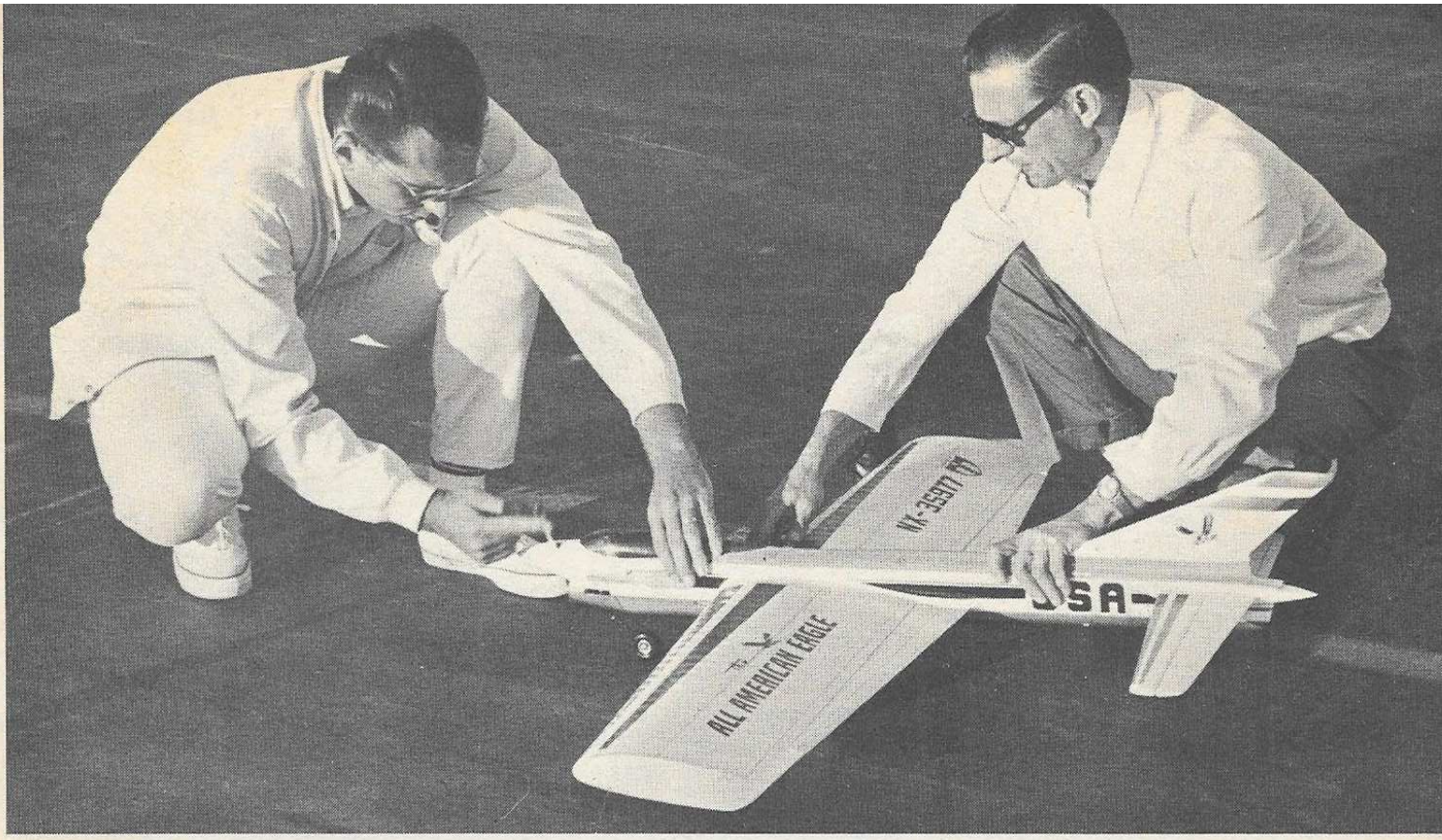
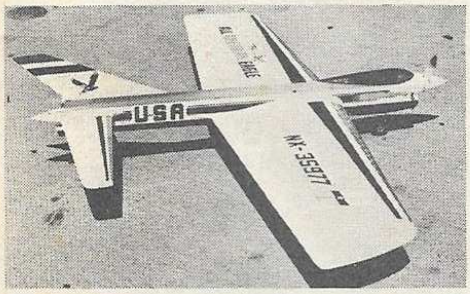



Author fires up his engine preparatory to still another win in stunt. Good-looking machine, superbly finished, is an eye catcher on flight line.

# ALL-AMERICAN EAGLE

**Designed specifically for FAI, the EAGLE will carry your colors to victory in any competition. It will also win the accolades due it for beauty of design and appearance. In all ways, it is a real advance in the state-of-the-art in ukie stunt.**

**By DAVID GIERKE**



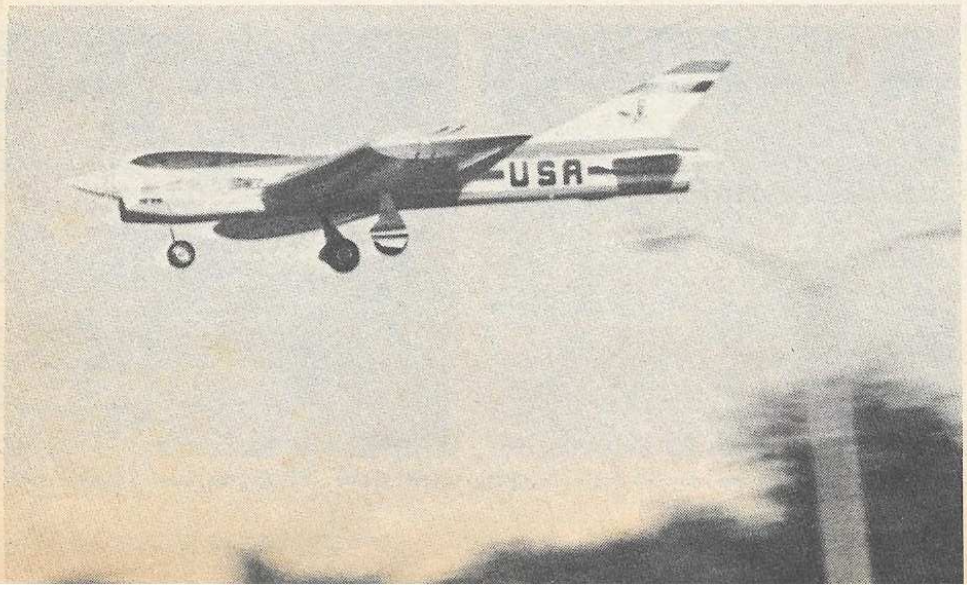

Another view of the Eagle showing finish detail

► The "ALL AMERICAN EAGLE" is my first attempt to design and build a truly F.A.I. competition stunt ship with qualities enhancing the nature of the event. International competition, with all its patriotism, symbolizes the mood and sets the stage for extraordinary competitive efforts at the control-line world championships.

After extensive thinking concerning the patriotic nature of the event, the following qualities were deemed desirable:

(a) Colorful and symbolic name. (b) Appropriate national colors. (c) Extensive detailing and finish. (d) The ability to display more complete control of the situation by being able to throttle the engine and brake for landings. (F.A.I. limits the flight time to seven minutes as compared to our eight minute maximum.

Steady as a rock out on the end of the flight lines. Third line used for R/C friction brakes.




The name, "ALL-AMERICAN EAGLE", was by no means original. It was borrowed from Dan Gurney, America's leading designer/driver of world competition Formula I cars. It seems to be quite adequate for a symbolic and colorful splash across the wing.

The second condition, of course, was solved by the red, white and blue color scheme. White was chosen as the base color because of its excellent visual qualities in the air. Notice in the photographs the red and blue trim of the fuselage. The wide top red stripe is running parallel to the thrust line into the red tinted canopy. The same is true concerning the bottom stripe of blue.

This was a (*Continued on next page*)

continued attempt to prove that fuselage trim, when kept parallel to the thrust line, greatly enhances the appearance of square corners in the stunt pattern. A specific attempt was also made to keep the top and bottom fuselage blocks parallel to the thrust line for the same reason. The depth of the fuselage was cut down from previous designs in order to give the appearance of length. This illusion of length, plus parallel top and bottom blocks, along with the above-mentioned trim, produces a pleasingly directional profile.

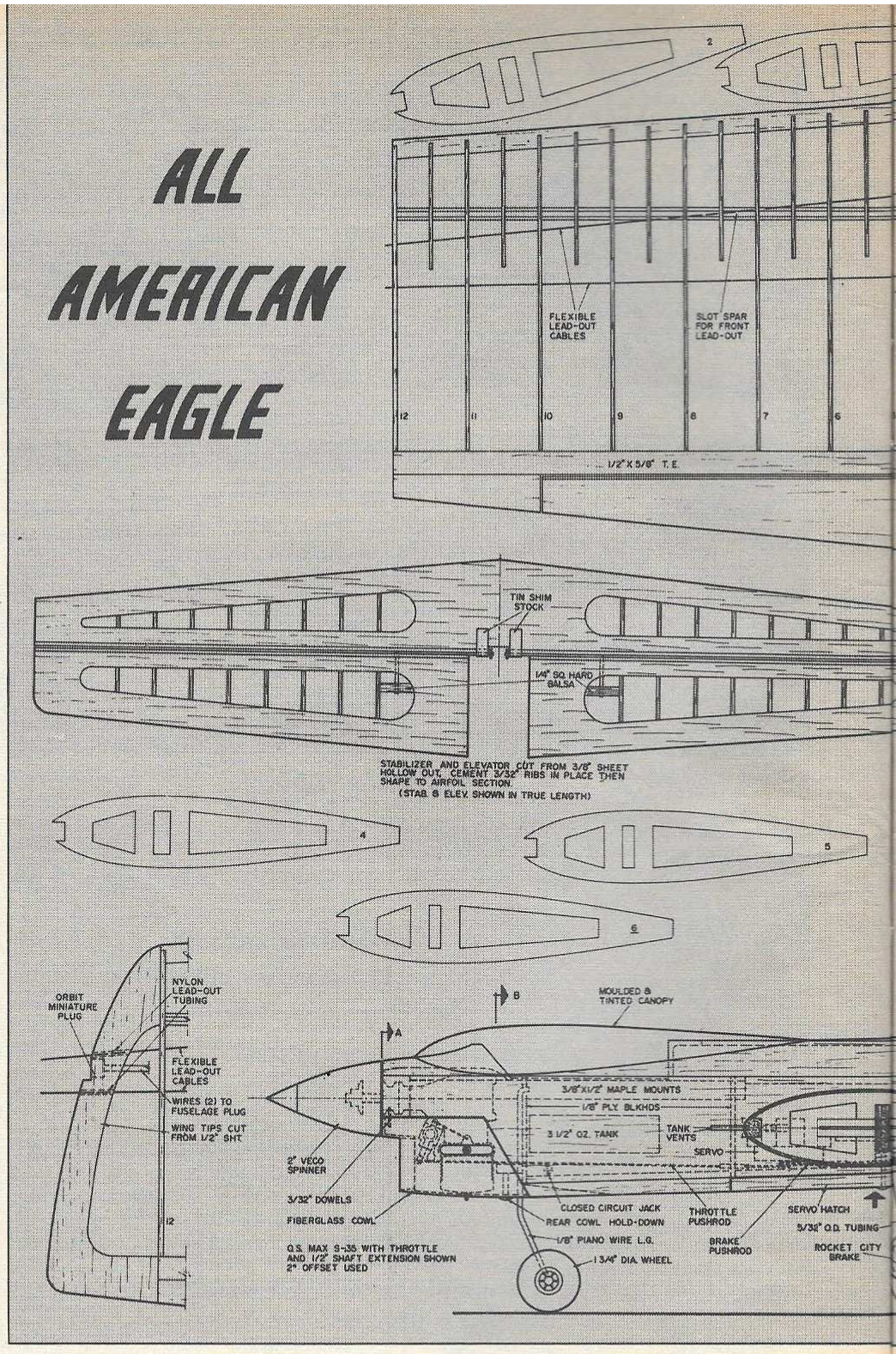
The actual aerodynamic configuration is very similar to my "NOVI" stunt series. As I mentioned before, the emphasis has been shifted to total effect. In order to accomplish this, the reliable, contest-proven design was adhered to throughout.

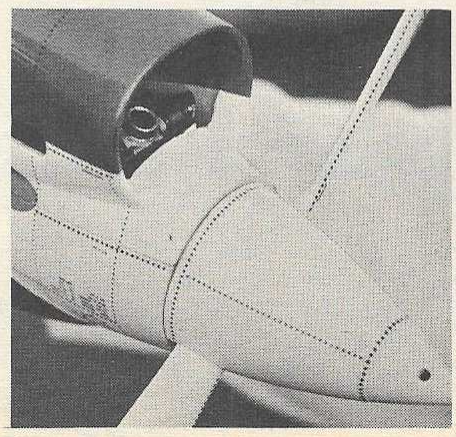
Detailing was performed as closely to full size aircraft as possible. Most sheet metal lines and control surface outlines were applied with a ruling pen using water-proof black India ink. All lettering and rivet work was accomplished via "Lettro-Set" Instant Lettering. I discovered the dots used for the rivet detail while leafing through the "Instant Lettering" catalog. They came in six different sizes with sell for approximately $2.00 per sheet. The tiny detail lettering was obtained from "Letra-Sets" model railroad area.

Many stunt modelers today are searching for reasons why new people are not joining our ranks while other control-line events are flourishing. A great many modelers feel that it takes an excessive effort to compete with the "super specialists" with their exotically-finished and detailed machines. As a result, in an effort to alleviate the apparent intolerable situation, the whipping boy has been our appearance point system. The critics of our event see a "cure-all" in doing away with said forty points. The feeling persists that if all fliers start on an equal basis at the beginning of each flight, the aircraft with its many variations ceases to be a problem.

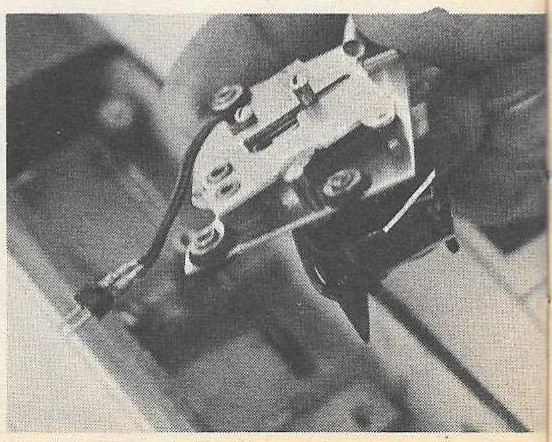
Uniquely, stunt is a combination of the pilot's ability, the fly-ability of the ship, and the general appearance of each individual aircraft. With or without appearance points, judges, being human, will tend to be more magnanimous in point allotment toward the aircraft he admires.

It has been said that if appearance points were eliminated, the stunt men would not spend many long months trying to achieve the ultimate in design, finish, realism, and workmanship. Again, speaking for myself, it wouldn't matter if appearance points were eliminated. I would (*Continued on page* 60)

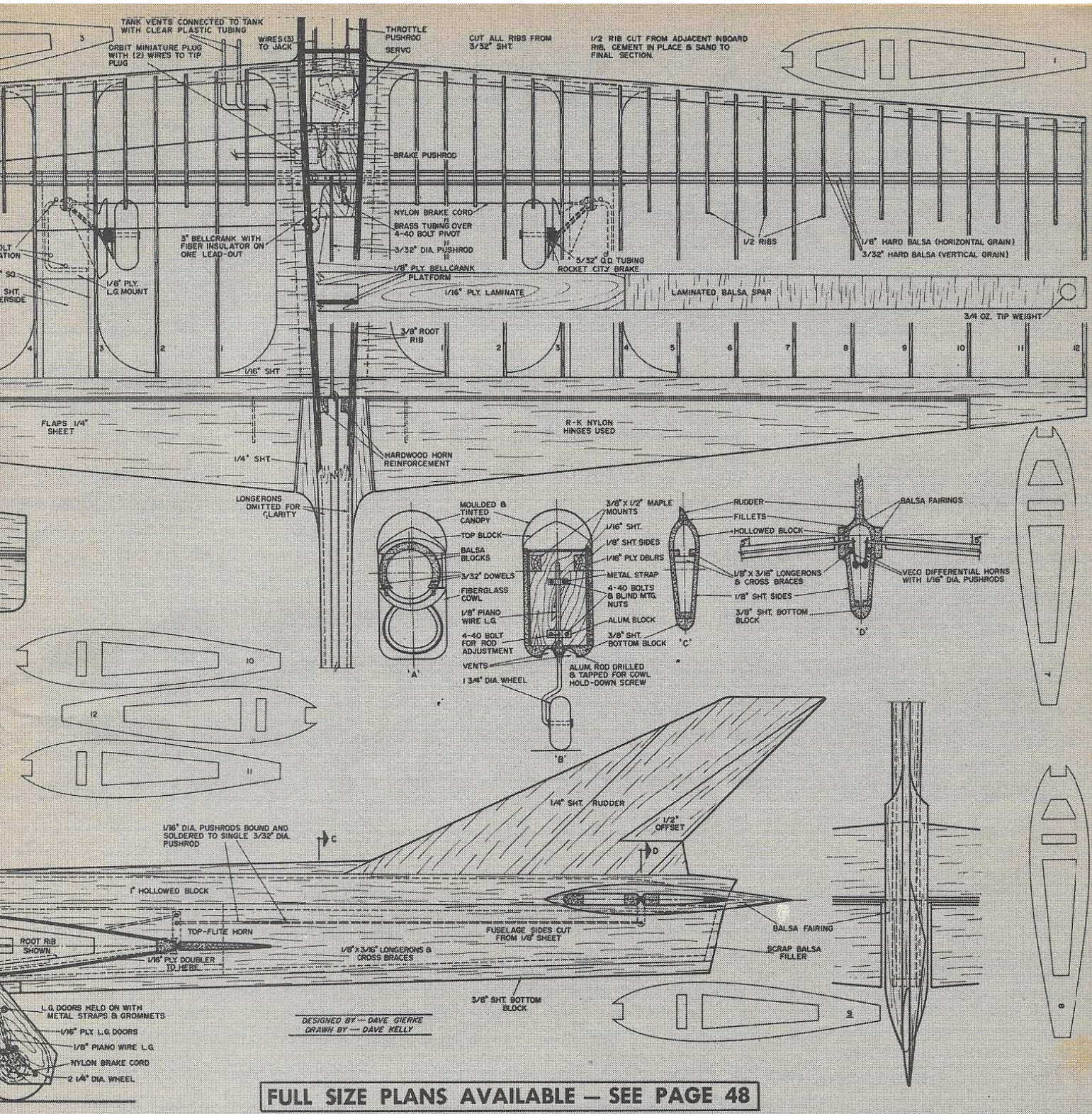


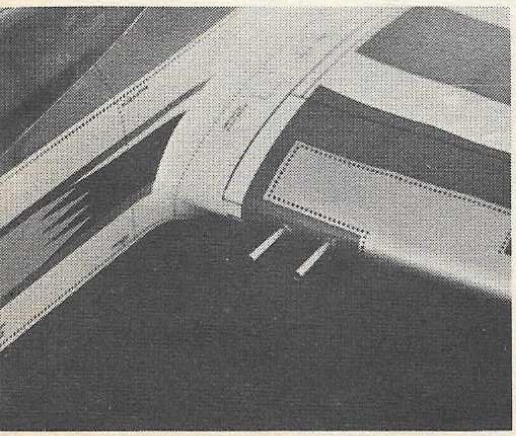
Close-up view air intake and rivet details.



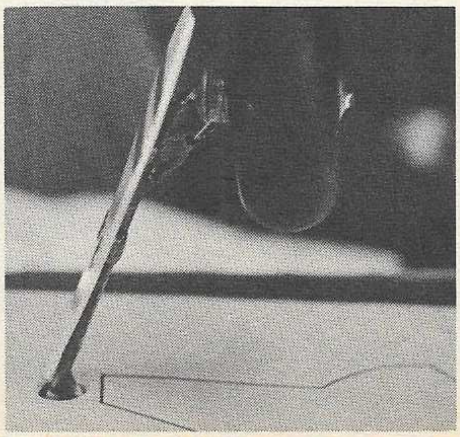
Wheel brake and throttle control servo mech.



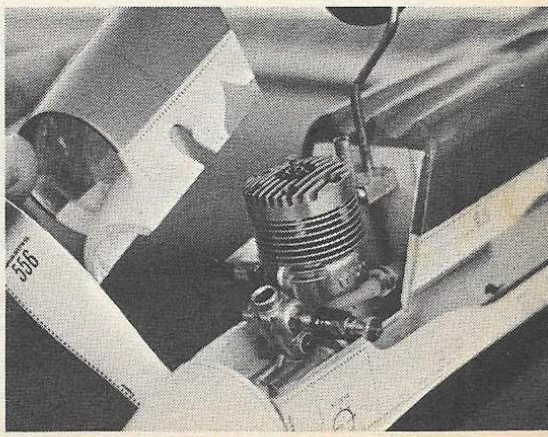

FULL SIZE PLANS AVAILABLE — SEE PAGE 48



Note wing mounted fuel tank filler tubes.



Rand Mfg. wheel brakes on Banner wheels



Fibreglas cowl removed showing OS Max .35 R/C.

The wing could also cause major distress if performed inadequately or incorrectly. Briefly:

The wing construction is similar to that of a conventional I-Beam. The fuselage and wing are built as an integral unit with the wing being jigged.

The wing is built upside down using wooden blocks under the leading and trailing edges. The difference between the top of the leading edge and the fuselage sides top is the dimension used for the above-mentioned blocks.

Leading edges, trailing edges, and wing spar are slid through the fuselage sides and not cemented in place.

All wing ribs are now positioned by pinning the leading and trailing edges in place. Tack glue ribs to the leading and trailing edges but not to the spar. The spar should remain to "float" until later. Check all alignments of fuselage, wing and spar. Epoxy leading edges, trailing edges, and main wing spar into fuselage center section. Glue ribs to main wing spar. Add half ribs. Allow the epoxy to cure before removing from jig.

Other construction particulars used on the "All American Eagle" are:

1. Fiberglas molded cowl.
2. Acetate Butyrate formed and tinted canopy.
3. Firewall mounted nose gear (removable).
4. Silkspan (light) covered.
5. Aero-glass finish.
6. Machine-polished.

● When finishing, try this for a super bright red pigmented dope:

3 Parts Aero Gloss Stearman Red
1 Part Aero Gloss Cub Orange

● Metalic blue (A.G.) as used on this version.

● Whenever spraying Red, Orange, Yellow pigmented dopes, first spray a light coat of white. This prevents dark grain marks, from bleeding through to the surface.

● Try not to add more than 25% thinner to the dope being sprayed. Excessive thinning causes unwanted penetration into the filler coat which may cause cracking of the finish.

● Allow the completed job at least two weeks for aging before rubbing. The finish must be allowed to complete its shrinkage or flaws will appear at a later date.

The "All-American Eagle" is a challenging and rewarding project for the avid control line flier who uses the systems outlined here and who wants a sleek, stable, easy-handling competition model.