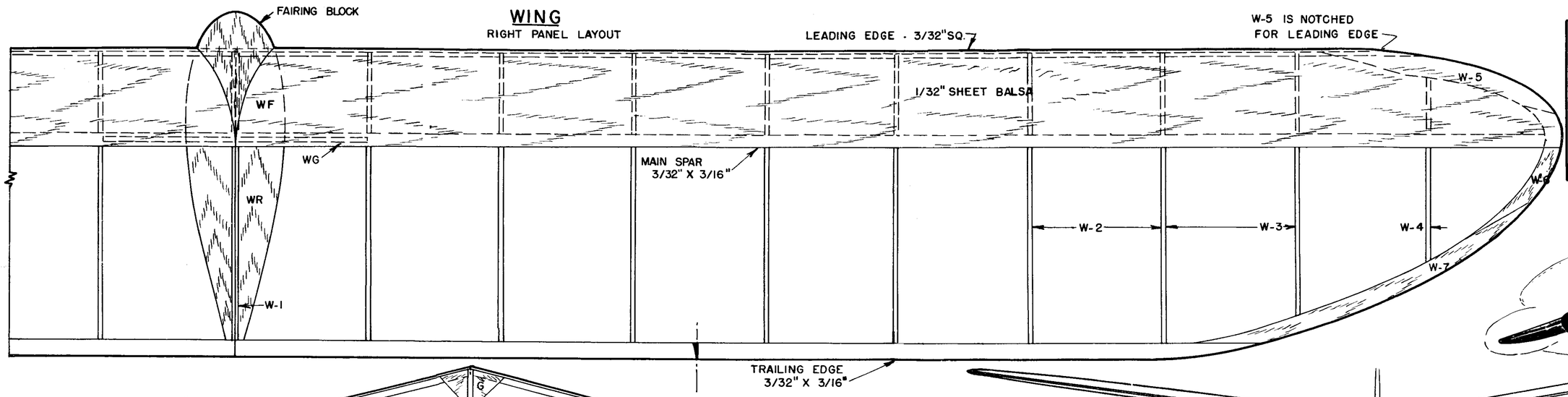
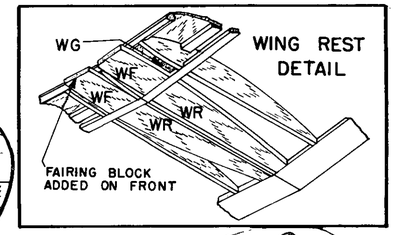
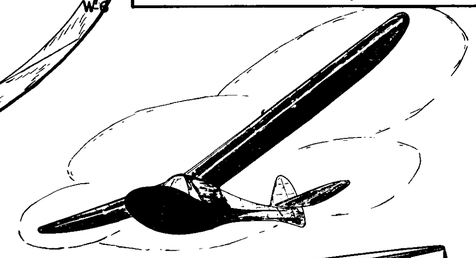
WING

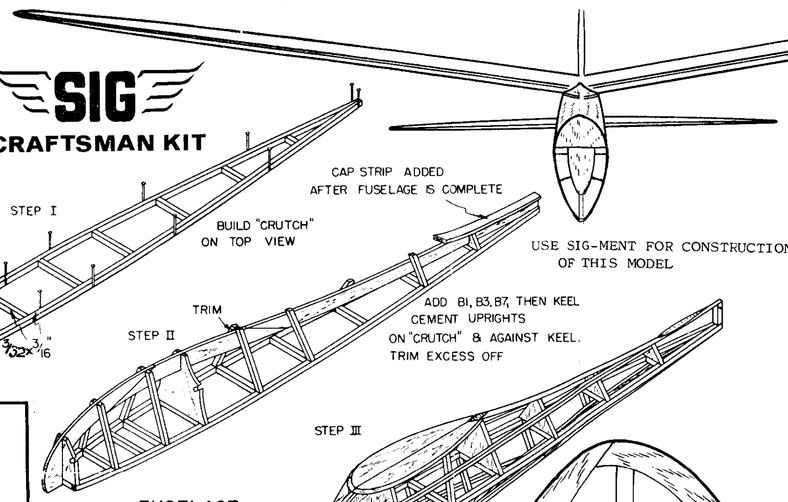
RIGHT PANEL LAYOUT



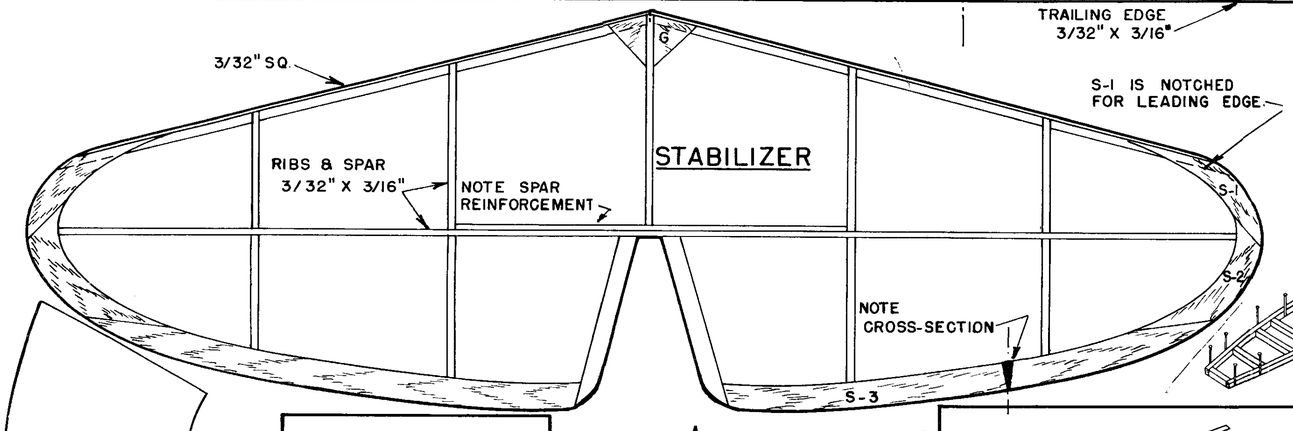


WING REST DETAIL





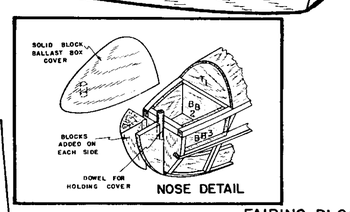
FRONT VIEW

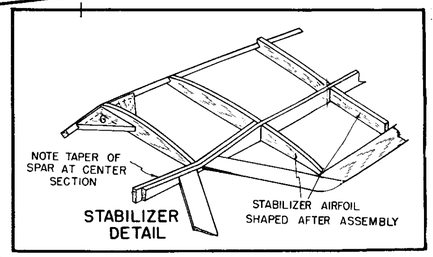


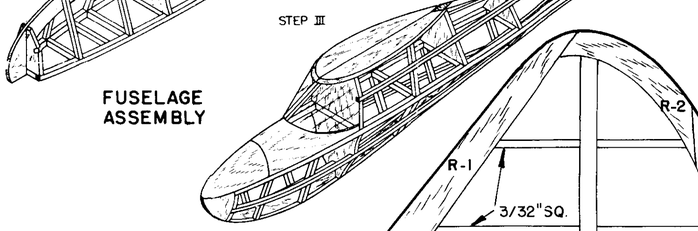
SIG

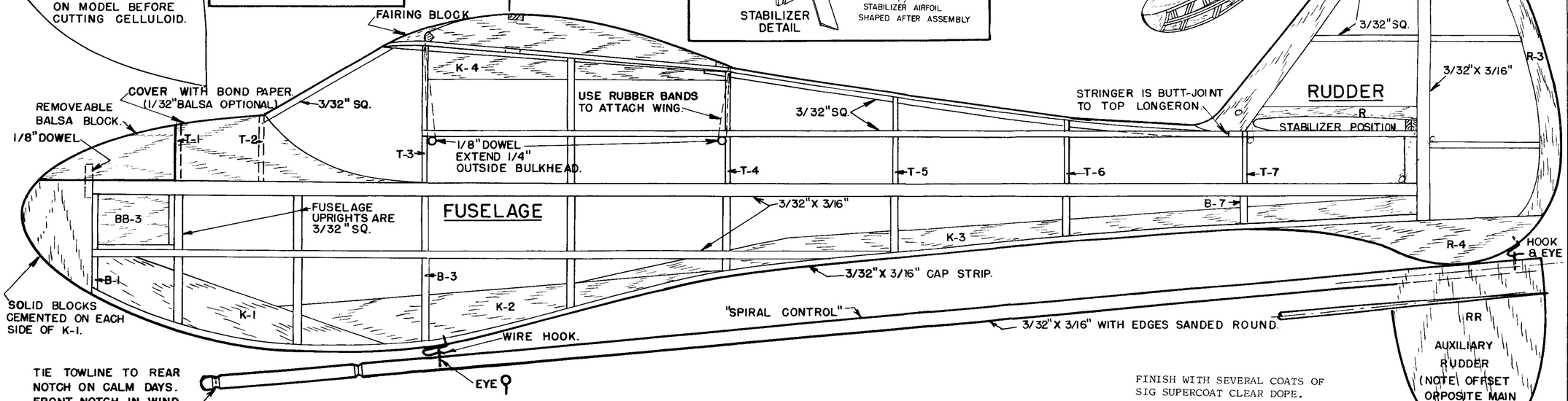
CRAFTSMAN KIT

USE SIG-MENT FOR CONSTRUCTION OF THIS MODEL

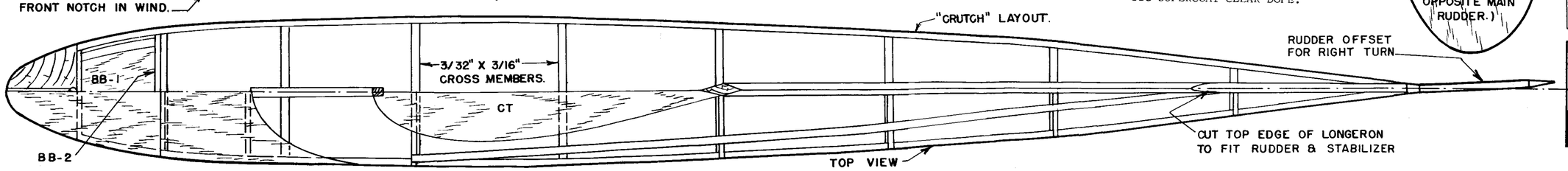








FINISH WITH SEVERAL COATS OF SIG SUPERCOAT CLEAR DOPE.



DIRECTIONS FOR BUILDING AND FLYING

The Sinbad "40" has all the characteristics that are desirable in a towline glider. By using the "Spiral Control" maximum altitude can be safely and easily attained without sacrificing the soaring abilities of the glider. The spiral control offsets the turn of the glider during the launch and results in a straight tow without the danger of the glider turning off to the left or right and into the ground. When the glider has been towed up as high as the line will permit, the spiral control and the towline fall off, leaving the glider free to circle and take advantage of the thermal currents.

FUSELAGE—The basic frame or "crutch" of the fuselage is built up of 3/32" x 3/16" balsa. Pin the longerons to the top view of the plans and insert the crosspieces, (Step 1). The keel pieces are then cut from the printed sheet and cemented together using the side view plan as a guide.

It is not necessary to remove the crutch to proceed with the fuselage construction. Add formers B1, B3, and B7 to the crutch. Now remove the keel from the side view and cement it in place on the crutch. The 3/32" sq. uprights are cut to approximate lengths and are cemented to the crutch and against the keel. When the cement has dried, the 3/32" squares are trimmed to the correct size. A cap strip is added to the keel after the rest of the fuselage has been completed. (Step 2).

After removing the crutch from the plan add the remaining fuselage formers. The cabin top (CT) and then the 3/32" sq. top stringer are cemented in place. Cement the remaining stringers in place and cover the nose with sheet balsa. The cap strip on the keel will be easier to put on after it has been soaked in water. The ballast box pieces are cemented in place in the order that they are numbered. The cover block is cemented lightly to the frame so that after it has been shaped it can be removed. The other blocks are cemented permanently to the fuselage, shaped roughly with a knife, and sanded. Cement dowels across T3 and T4 on which rubber bands for holding on the wing can be attached.

WINGS AND TAIL—Cut the ribs and wing tips from the printed sheet. Cement the tip sections together and to the trailing edges. The trailing edges are shaped with a knife to a triangular cross section and then pinned in place. Insert the tip and center ribs and pin the leading edge against them. Then add the remaining ribs and spars. When the half of the wing has been completed and removed from the plan, the other half is built by turning the plan over.

The two completed halves are then cemented together with the proper amount of dihedral. The gussets, sheet balsa covering on the wing and the wing rest (WR) are added in that order. Check the alignment of the surfaces carefully to avoid warps. Finish the frames with successively finer grades of sandpaper.

The elevator construction is similar to the wing except that the ribs are shaped with a knife and sandpaper after the stabilizer has been assembled.

RUDDER—The rudder outline is cut from the printed sheet and cemented together on the plan. The large balsa section of the rudder is sanded to a thin section and warped to adjust the turn of the glider.

COVERING AND ASSEMBLY—Sandpaper the framework carefully to remove any bumps that might spoil the finished appearance. Don't permit the silkspan to stick to any of the uprights on the fuselage if a sleek appearance is desired. When covering, allow a little margin for overlapping. Spray the silkspan lightly with water and give it several coats of dope when dry. The stabilizer is cemented on to the fuselage before the rudder. Cut away the top longeron to fit the elevator rib.

SPIRAL CONTROL—Taper the stick so that the "Spiral Control" rudder is offset about 3/32" towards a left turn. The hooks may be bound with thread and should work freely. When the glider is held in a horizontal position, the spiral control should fall off by its own weight. The position of the towline on the stick can be altered for best results in windy and calm weather. In windy weather move the towline forward on the stick and in calm weather back.

The spiral control rudder being offset to the left neutralizes the glider's rudder which is offset to the right. Therefore, when the glider is being towed it will not zig-zag but will climb straight up. When the glider has reached the highest altitude the towline will permit, you gradually stop towing and spiral control falls off and the glider is released. The spiral control is now no longer neutralizing the "right rudder" so the glider will circle to the right giving a greater possibility of soaring.

FLYING—Fill the ballast box with clay or any other suitable weight until the model balances and is horizontal when supported on each side by fingers forward of the lower wing spar. The best way to launch the glider is with the aid of a helper. The spiral control is hooked on and the helper gently holds both the glider's and the spiral control's rudder with his thumb and forefingers while he holds the fuselage with the other hand. Meanwhile the person to do the towing moves out as far as the line he is using will permit. At the same time you signal the helper to release the glider, start running into the wind. It will shoot up and go as high as possible. When you stop towing the spiral control will fall off by itself. By varying the adjustments, you can make the glider circle and climb to best advantage.

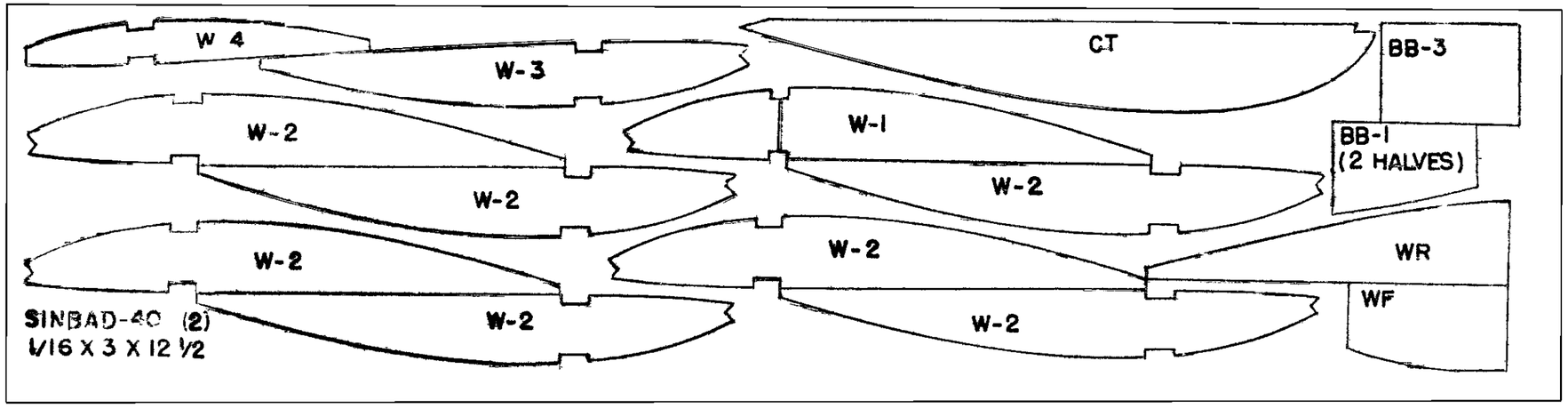
After gaining experience, the line may be snapped when the model is at the top of the tow. It will add extra feet to its altitude. Be sure that the wings are built sufficiently strong before attempting this.

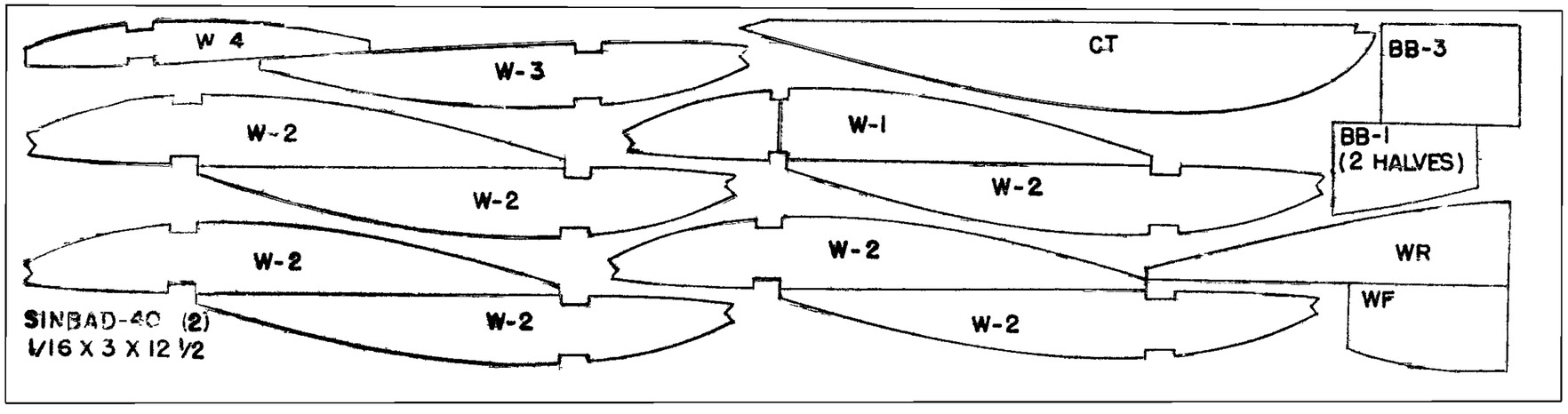
Use only a 25-foot tow line on your first attempts. After a few flights you can increase the length of the towline to whatever you want. A 100-foot towline is the maximum allowed in A.M.A. competition. A No. 8 white silk thread is strong enough to use for towing.

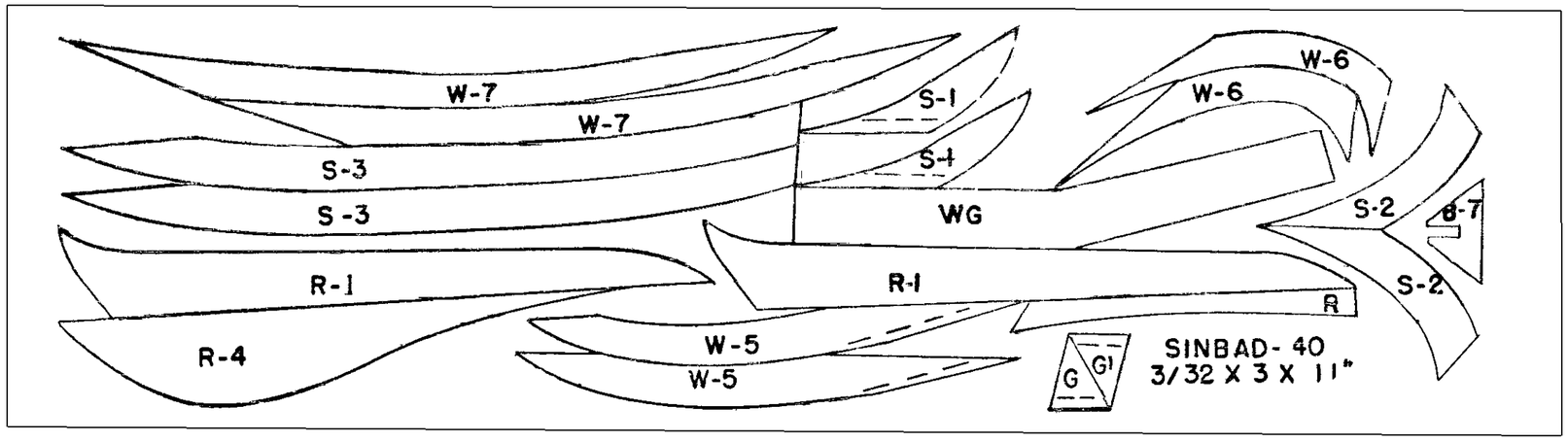
SINBAD "40"

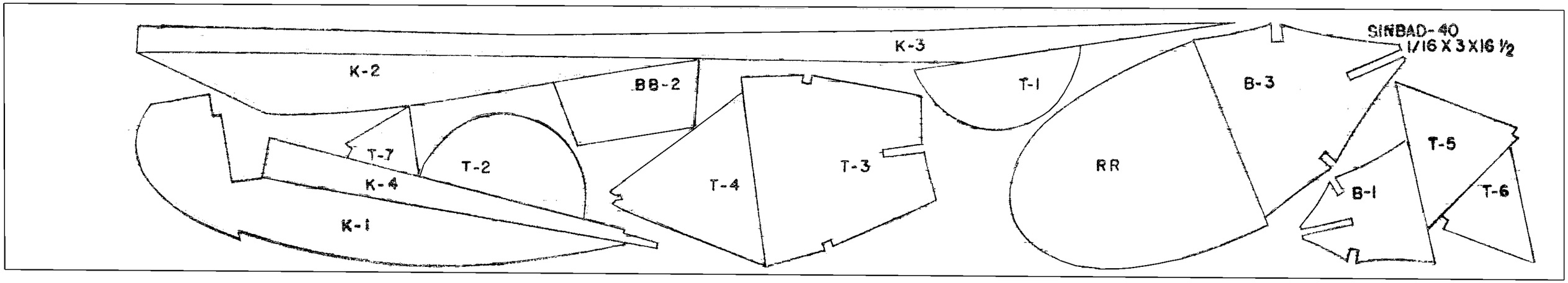
TOWLINE LAUNCHED GLIDER WITH "SPIRAL CONTROL"

SIG MANUFACTURING CO., INC.
Montezuma, Iowa


W 4
W-3
CT
BB-3
W-2
W-1
BB-1
(2 HALVES)
W-2
W-2
W-2
WR
W-2
WF
W-2
W-2
SINBAD-40 (2)
1/16 X 3 X 12 1/2


W 4
W-3
CT
BB-3
W-2
W-1
BB-1
(2 HALVES)
W-2
W-2
W-2
WR
W-2
WF
W-2
W-2
SINBAD-40 (2)
1/16 X 3 X 12 1/2


W-7
W-7
S-1
S-1
W-6
W-6
S-3
S-3
WG
S-2
B-7
R-1
R-1
S-2
R
R-4
W-5
W-5
G
G1
SINBAD-40
3/32 X 3 X 11"


K-3
SINBAD-40
1/16 X 3 X 16 1/2
K-2
BB-2
T-1
B-3
T-7
T-2
T-4
T-3
RR
T-5
K-4
B-1
T-6
K-1