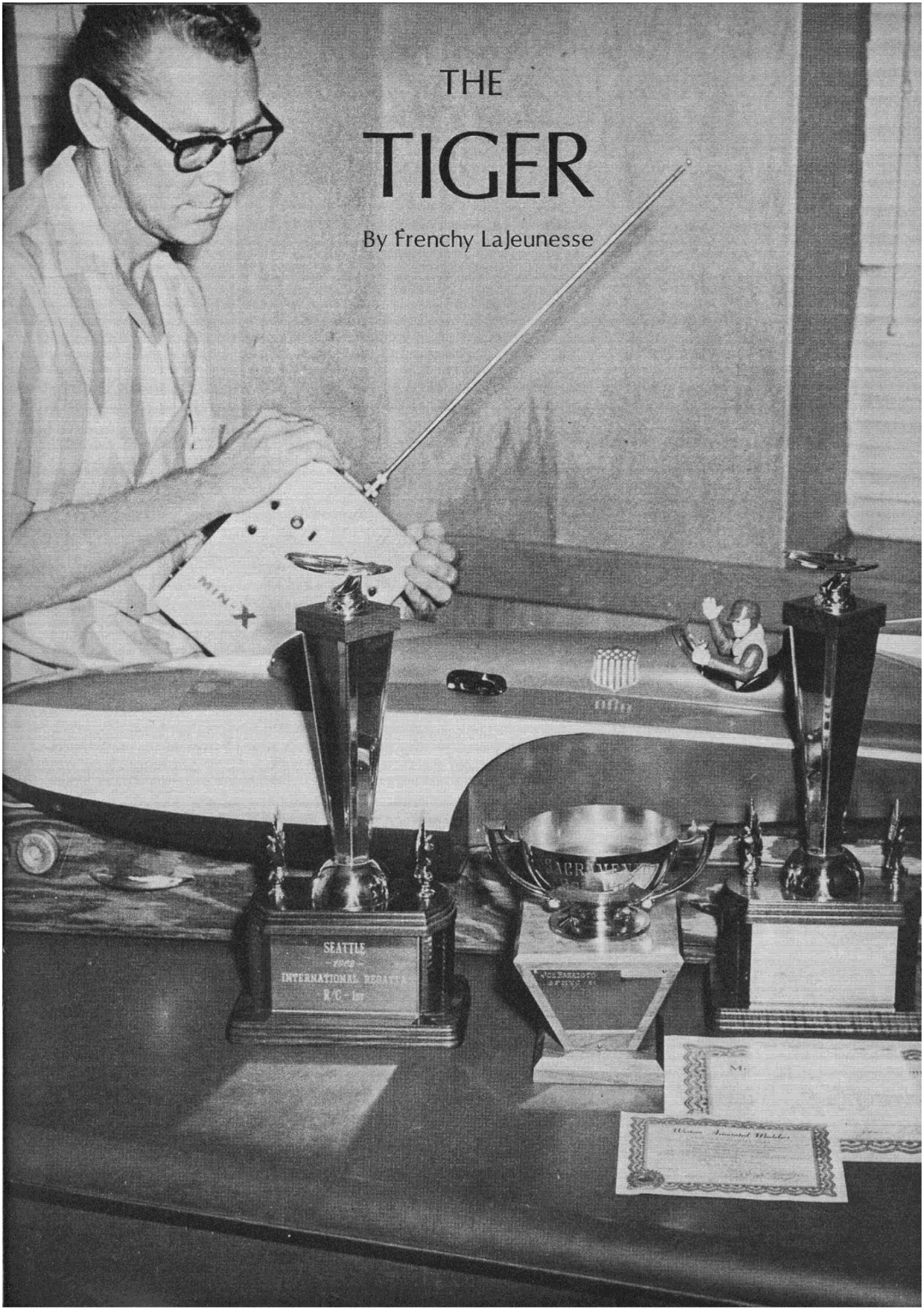
THE
TIGER
By Frenchy LaJeunesse
SEATTLE
INTERNATIONAL REBATE
R/C - Inr

". . . Designed for Both Oval and Straightaway Competition, the Tiger Will Give You the Same Action As the Big Unlimited Hydros — Planing, Prop-riding, Roostertail Walking."

IF it's a tiger you want, just build this hydro and it will give you all the action you can handle! The Tiger will more than justify your efforts in the construction of this high performance competition machine. It is designed for both oval and straightaway competition racing, and to accommodate .60-.65 engines, the keynote being rugged construction with no sacrifice in performance. The Tiger will give you the same action as the big Unlimited hydros — planing, prop-riding, roostertail walking, etc. — yet the stability of the model allows it to be run full-bore in waves up to 6" high. As to scale, these 6" waves would be equal to approximately 4½ foot waves to the big hydros — a condition that would prove impossible for them.

The Tiger has become one of the most exciting of all model boats to date. Proven unsurpassed in construction and all-around performance in one year of racing, this hydro was the former straightaway speed holder of an IMPBA record 34.5 MPH and WAM 36.5. It won both IMPBA and WAM oval races. Also to its credit is the miniature Gold Cup Trophy which it captured by winning all three heats with three first places. During its year of competition it was also the winner of the overall high point perpetual trophy for that year.

Until a few months ago, the Tiger was shelved due to a lack of an adequate proportional system which would allow it to be run safely in confined areas. The speeds attainable with this hydro far exceeded the amount of control available with conventional RC reed equipment. In fact, its potential speed limit has never been reached. Now, with the advent of all the new proportional systems commercially available, and especially since there is a very fine digital system in kit form, namely the RCM Digitrio, this tiger can be released from its cage and tamed for the ring of racing.

Another advantage of the design is that you don't have to be a master machinist with a fully equipped shop in order to build this hydro. All of the hardware is commercially available. Octura Models can supply all of the hardware, plus a wide selection of props in plastic, aluminum, brass and stainless steel. By using one of the new proportional systems coupled with one of the new .60 to .65 mills developing 1.3 to 2.0 H.P. at 16,000 to 20,000 RPMS, you can be literally off and running!

So there you are — there's no excuse now, with all this going for you. Get with it, and you, too, can have a real tiger by the tail — one of the most complete high performance hydros in existence today!

Construction

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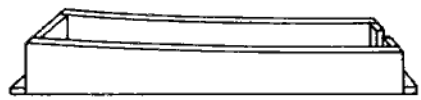

sponsons, allowing for thickness of hull sides.
2) Trace out the half rib frames on paper (templates-patterns). Fold on center line and cut. This will give you an equal rib template both left and right of CL.
3) Lay out all patterns; bottom, side, and rib frames, transom, fin, trip chime, etc. Arrange patterns so that all parts can be cut from the three pieces of 3/32" birch plywood. **Note:** Do not cut away heavily marked lines. Leave these lines so that each part may be shaped and mated precisely.
4) With care, cut out hatch frames #4, 5, 6, and 7 from the top of rib frames #4, 5, 6, and 7 by using a razor saw.
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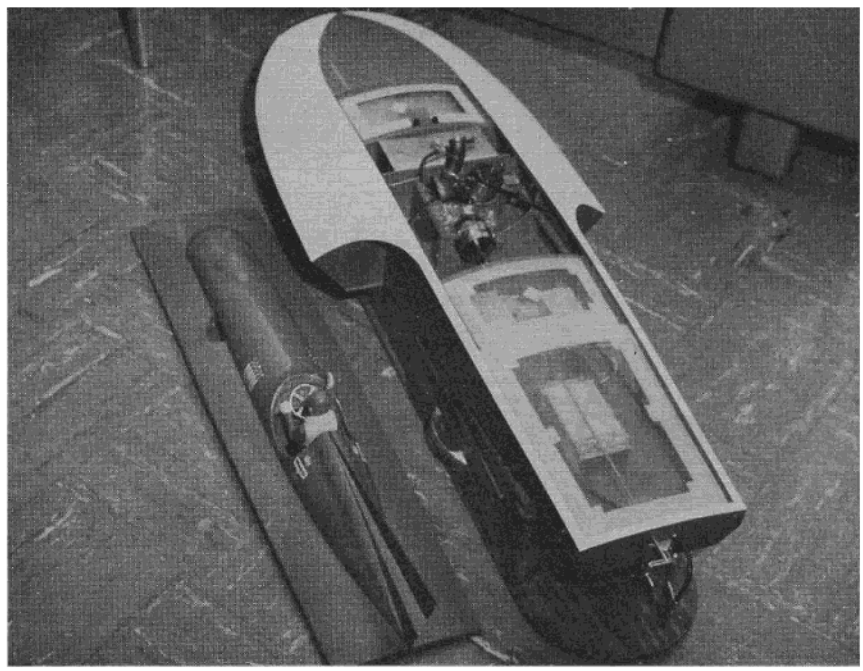
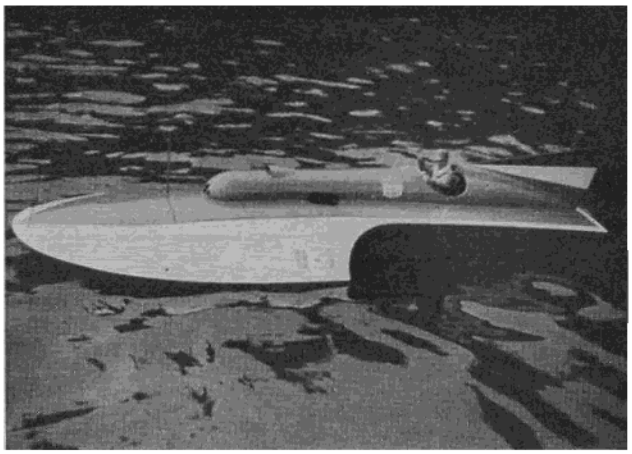
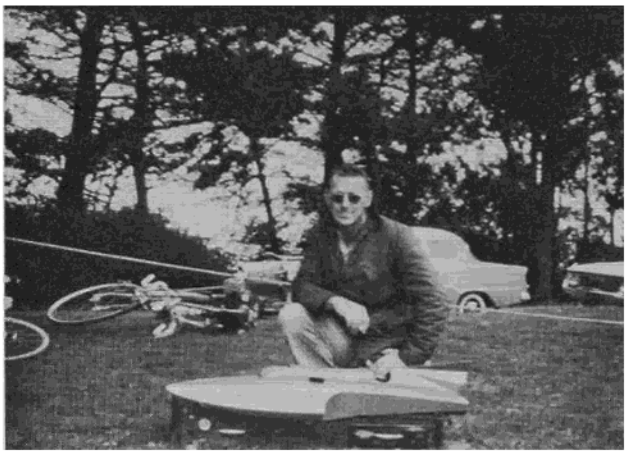






#3 and #8 rib frames as the dotted lines on rib frames are used as a location where the #9 and #10 hatch frames are located when hatch is in place.

6) Trace and cut outside hull frames, leaving heavily marked lines intact.
7) Pre-assemble all parts in their respective positions. Rib frames and hull side.
8) Tap or tack 3/32" bottom to jig. (Note: Titebond glue is recommended.)

Step #9 Glue ¼" x 1" maple Keelson into position, using #4 to #8 rib frames to center Keelson.

Step #10 Glue ¼" x ¼" spruce running spares to edge, top of, bottom.

Step #11 Slide preassembled hull frame down around the bottom and check fit. If all line up, glue and tack hull side frame to the side of jig in position.

Step #12 Glue rib frames to bottom and hull sides.

Step #13 Glue ¼" x ¼" spruce running spares to top of side frames and rib frames.

Step #14 Cut balsa blocks to fit into bow and sponson tip as indicated in plans, and glue. Shape balsa blocks to contour of hull and sponson tips. These blocks are very important, they give added glueing area for the planking.

Step #15 Shape and sand stringers to frames.

Step #16 Plank sides of sponson.

Step #17 Plank bottom of sponson.

Step #18 Plank trip chimes. **Note:** Reglue all joints.

Step #19 Using liquid styrofoam, fill all sponson and bow compartments between #1 and #2 rib frames, and #2 and #3 frames. Liquid styrofoam gives added gluing area for planking, strength, and water tight compartments also. **Note:** Important, follow the styrofoam temperature instruction closely so that you will get the proper density (expansion).

Step #20 Cut maple engine mounts beavies ¾" x 2¼" x 3¾" and drill holes for mounting Octura's aluminum engine mount.

Step #21 Drill and tape Octura engine mount for your engine.

Step #22 Assemble mount bearers to Octura engine mount using Octura's "T" large blind nuts, glue and screw to engine mount frame 4-A.

Step #23 Glue in engine mount. Assemble to hull also using screws through bottom and rib frames. Make glue fillets around. Mount bearers.

Step #24 Glue hatch cover together.

Step #25 Plank top of hull and hatch cover with ⅛" x 6" x 48". Soak planking in hot water for the double contour bending. Soak till pliable, then pin, clamp down with tape or rubber bands till dry and curve is set in the balsa.

Step #26 Re-glue all joints again in hull and hatch.

Step #27 Glue all pre-formed planking to its formed position. Leave excess planking extend ½" overlay; pin, tape or rubber band down.

Step #28 Trim and sand off all excess edges, ends of planking, using sanding block; leaving all **sharp edges** . . . sharp! Bottom hull, sponsons and transom, especially surface that is in contact with the water.

Step #29 Re-plank (laminating) transom with 3/32 plywood, covering all exposed ends of planking.

Step #30 Carve engine cowl and cockpit cowl sections as one piece. Slot groove for fin 3/32 plywood. Shape bottom of cowl to top of hatch cover. Drill air scoop hole.

Step #31 Sand and fill hull, hatch and cowl for preparation for fiberglassing.

Step #32 Fiberglass hull, hatch and cowl separately, using 2 oz. fiberglass cloth.

Step #33 Sand hatch cover and cowl.

Step #34 Glue cowl to hatch cover and make fillet between cowl and hatch.

Step #35 Prepare all surfaces for painting, filling and sanding.

Step #36 Wipe all surfaces down with a lint free rag, using acetone.

Step #37 Paint with 'Copon.' A resin paint is highly recommended as it does not require a prime coat. And is fuel proof and extremely thorough. Hobby poxy may also be used. **Note:** Pad top of boat stand with felt.

Step #38 Locate and drill hole for drive shaft and stuffing box.

Step #39 Install engine into mount.

Step #40 Assemble complete drive unit from engine to prop, through hull bottom.

Step #41 Check alignment and strut location. At this point make certain that stuffing box is free and clear of hole through bottom (not touching). You will also notice at this point that the strut does not fit flush with bottom of hull. This is natural, as this strut is at 10° and the drive shaft angle for this model is 8°. Naturally it is desirable if you could make a custom strut to the correct angle.

Step #42 Now, with hydro hull upside down, bottom up and full complete drive unit assembled to engine, apply excessive amount of resin or epoxy glue to bottom of strut plate. Position strut in its location letting strut plate settle naturally — seeking its correct alignment corresponding to engine.

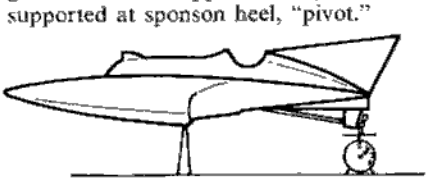
Step #43 After epoxy has set, drill strut plate holes, bolt and nut securely, and glue.

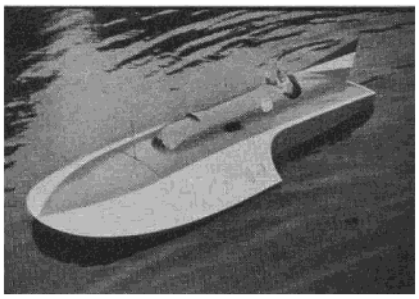
Step #44 Now epoxy in stuffing box.

Step #45 Install rudder assembly to transom and water pick-up. Note location on plans. Rudder position optional, can be offset 2" from left of C/L.

Step #46 Cut skid fin from 10" brass shim stock and attach to left inside sponson only with contact glue, "Goo."

Step #47 Install R/C System. Note it is very desirable to make a water tight compartment in hull or a water proof box to house complete system. Always put your receiver in a heavy plastic bag. Surround the receiver with sponge rubber and another plastic bag. **Note:** Weight on prop while installing R/C gear should be approximately 1¼ lbs. supported at sponson heel, "pivot."





TIGER

Step #48 Now complete all loose ends, install tank, push rods, hatch locks, (keys), exhaust stack, etc. A large serving spoon makes an air-scoop. **Note:** A whip antenna is highly recommended.
Step #49 When your hydro is completed, lubricate stuffing box, strut, etc. **Note:** always balance your props. For an out of balance prop can cause havoc with your R/C system. Vibration effect-in Rec. components, reed, relays, servo's plug, switches, battery connections, wiring, etc. Check all battery under load, trans, rec. Servo's. As to R/C manufacturer instructions, follow to the letter. Range check, etc. Now it's time for a shake-down run. Start engine with leather thong. At low & medium throttle. While engine is running, check to see if water is circulating through. Turn on receiver, open up throttle to Hi, to Lo **noting** that **NO** vibration is affecting R/C system. Check rudder control.
Step #50 A brass prop, approximately 2" dia. x 2" pitch with large blade area is recommended to start with. A brass prop allows you to trim down the diameter and to re-pitch easily. Match your prop to your engine to allow full torque H.P. and R.P.M.'s. **Note:** Always make it a habit to check rudder control before releasing boat. At low throttle release this Tiger. Get fully acquainted with your hydro before letting it out at "full bore." Always keep in mind to use low throttle if you get confused, or if unexpected trouble arises.
Step #51 GO!

MATERIAL LIST

Sig-Birch Plywood

3 pieces 3/32" x 12" x 48"; Hull-sides, Rib-frames, Fin, Trip-chime, Tramson

Sig-Balsa

4 pieces 1/8" x 5" x 48"; Planking, Hull-top, Hatch cover
2 pieces 2" x 3" x 36"; Cowling
1 piece 2" x 3" x 12"; Bow-block

Sig-Spruce

5 pieces 1/4" x 1/4" x 48"; Hull & Hatch Stringers

Maple

1 piece 1/4" x 1" x 36"; Keelson
1 piece 3/4" x 4" x 5"; Engine Mount Bearers
1 pint White glue, Weldwood or Prestoset
1 quart Liquid styrofoam
1 quart fiberglass resin
1 yard 2 oz. 48" w. fiberglass cloth

HARDWARE

1 3/16" dia. piano wire — drive shaft
1 7/32" inside dia. brass tubing — stuffing box
3 Stuffing box bushings 1/2" x 3/16" I.D.
1 Water jacket; Octura; Kool Klamp
1 Flywheel; Octura; .60
1 Engine mount; Octura; .60
1 Universal set; Octura; 10F - 610 M
1 Streamlined shaft collar; Octura; 6SSC.
1 Drive dog; Octura; 6D
1 Tail nut; Octura; 6DN
1 Thrust washer set; Octura; 6TB
1 Rudder assembly; Octura; 2002
1 Strut; "B" 10° angle
1 Set (4) large; Octura; "T" nuts

From RCModeler Mar. 1967

(Reprinted from the March 1967 issue of R/C Modeler Magazine)

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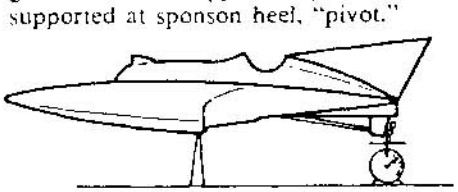

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HARDWARE

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