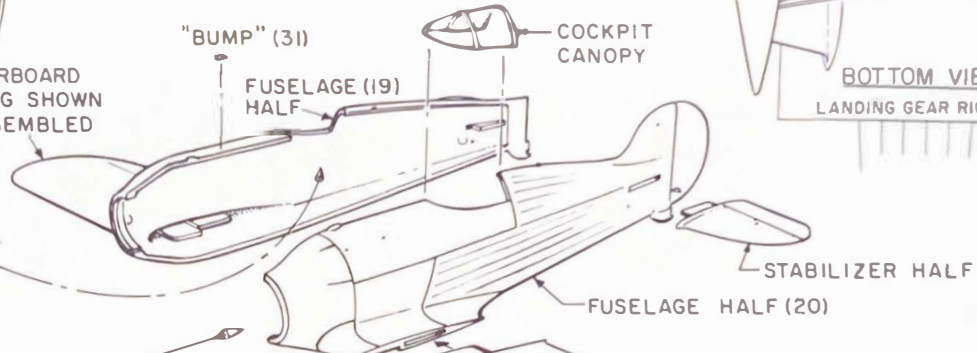
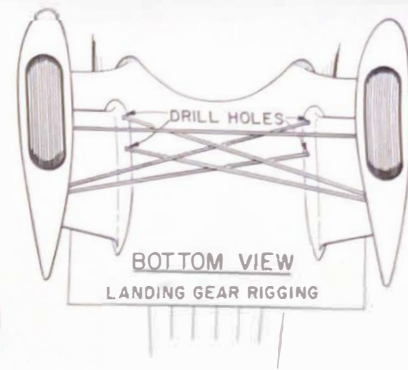
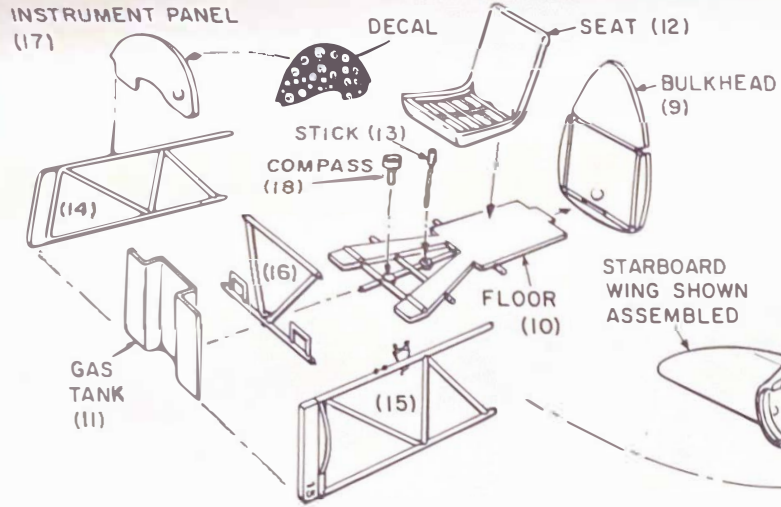
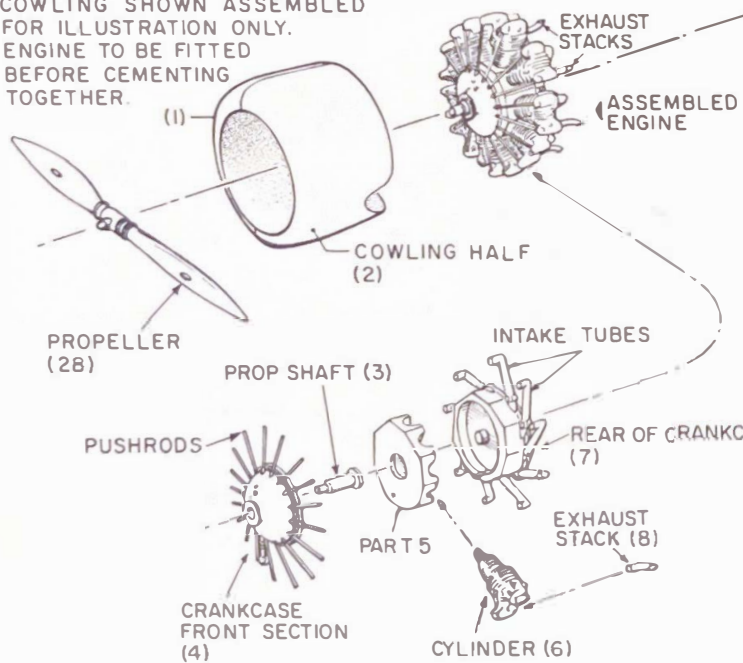


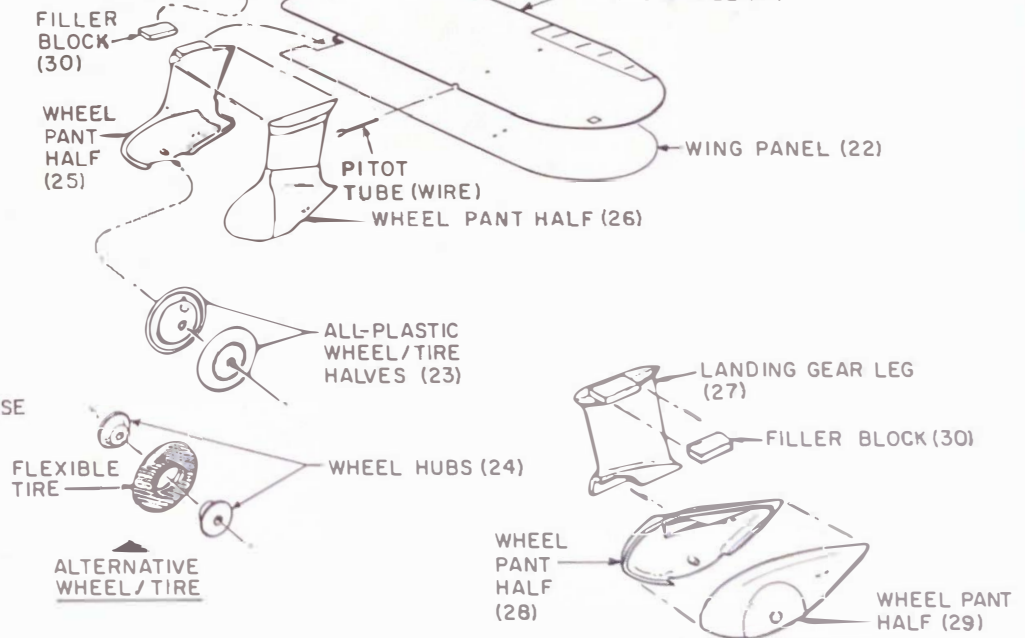
WEDELL-WILLIAMS RACER



COWLING SHOWN ASSEMBLED FOR ILLUSTRATION ONLY. ENGINE TO BE FITTED BEFORE CEMENTING TOGETHER.



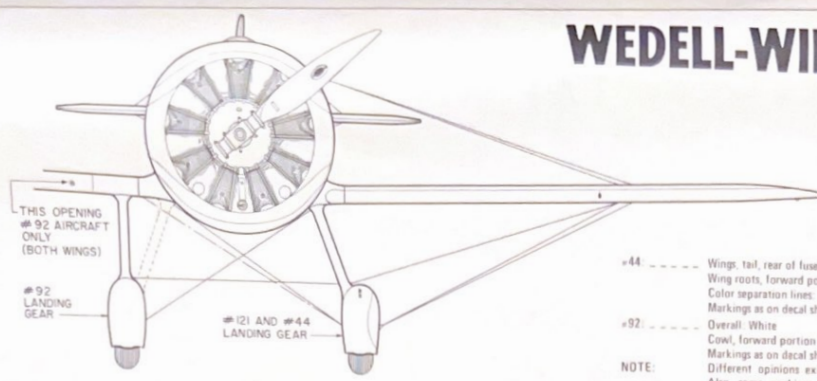
ENGINE DETAILS



ALTERNATIVE LANDING GEAR FOR NUMBER 44 OR 121 RACER

FOR LONG EXHAUST PIPES ON NUMBER 121 RACER, CUT VINYL TUBING TO PROPER LENGTHS. SEE BOX PAINTING FOR STARBOARD STACK CONFIGURATION.

WEDELL-WILLIAMS RACER



COMPOSITE FRONT VIEW

BACKGROUND: Wedell-Williams Incorporated was organized during 1928 by pilot/designer James Robert Wedell and millionaire Harry Palmerston Williams. The Louisiana firm offered charter services, passenger flights, and flying lessons. They also branched into manufacturing, starting with sport types, then ventured into producing racing aircraft.

During 1931, Jimmy Wedell achieved a credible second place in the Thompson Trophy event, bettered only by Lowell Bayles in the Gee Bee "Z". Among those impressed by the performance was Roscoe Turner, who contracted for a brand new Wedell-Williams racer. Actually, since members of the WW group were occupied with their own efforts, a major portion of the fabrication was conducted by Don Young, Turner's ace mechanic. Since formal drawings for previous racers did not exist, most dimensions were obtained by direct measurement of a nearby aircraft.

The finished machine was test flown by Jimmy Wedell and accepted by Roscoe Turner. However, at the insistence of Harry Williams, a second test was performed with ballast added to the seat, simulating the extra weight of Turner. During a high-speed pass, one wing failed and Wedell just managed to escape by parachute before the aircraft was totally destroyed.

The second, strengthened machine passed all tests and became the famous "+121 'GILMORE RED LION'". Meanwhile, Wedell-Williams updated two earlier racers, "+44 'MISS PATTERSON'", and "+92 'MISS NEW ORLEANS'", in preparation for the 1932 racing season. Thus, three similar-appearing aircraft participated in the Cleveland National Air Races with remarkable success, as shown by this table.

1932 AIR RACE PLACINGS

PLACE	EVENT	PLANE	PILOT
1st	Bendix Trophy Race	+92	James H. Haislip
2nd		+44	James R. Wedell
3rd		+121	Roscoe Turner
1st	1000 cubic inch free-for-all	+92	James H. Haislip
2nd		+44	James R. Wedell
3rd		+121	Roscoe Turner
2nd	Thompson Trophy Race	+44	James R. Wedell
3rd		+121	Roscoe Turner
4th		+92	James H. Haislip
4th		+92	James H. Haislip
2nd	Aerial Trophy Race (women only)	+92	Mary Haislip
2nd	Shell Petroleum Corporation Speed Dash (men only)	+44	James R. Wedell
3rd		+121	Roscoe Turner
4th		+92	James H. Haislip
1st	Shell Petroleum Corporation Speed Dash (women only)	+92	Mary Haislip
2nd		+92	Mary Haislip
2nd	Aers Club of Poland Altitude Competition	+44	James R. Wedell

THE MODEL: This model kit is intended to represent a Wedell-Williams racer as it appeared in 1932. The machines differed in many respects and +121 is the primary subject. Alternatively, a reasonable simulation of either +44 or +92 may be constructed. Purists may wish to conduct additional research and rework the kit moldings to more accurately reflect the variations. However, considerable time and effort may be involved for relatively minimal appearance gains. It is also well to be aware that misinformation and misleading drawings have appeared. Photographs are the most trustworthy source of information, but beware of erroneous captions! All three aircraft were modified in configuration, markings and paint schemes after 1932.

GENERAL INFORMATION: This kit should be approached with patience and care. It is not intended for the rank beginner or "instant gratification" model assembler.

IMPORTANT - BEFORE STARTING: It should be determined at the outset which racer you prefer to model, in order that differences may be incorporated.

Clean all parts in lukewarm water and liquid detergent, so that paints can adhere properly. Remove any "flash" that may be present and use a sanding block to dress all mating surfaces. A suitable block can be made by gluing No. 400 sandpaper to a flat scrap of wood.

Use only cement suitable for styrene plastic, and avoid excess amounts, which may cause surface damage. For safety and efficiency, follow the cement manufacturer's instructions exactly. Check the fit of each part BEFORE applying cement. A certain amount of fitting may be required in some instances.

Small parts may be painted while still attached to their "trees". Separate only as needed to reduce the risk of loss. When cementing components to already painted surfaces, first scrape away paint in joining areas to permit proper adhesion.

PAINTING: Some modelers prefer to assemble the aircraft in advance of painting, but in view of the fairly complex color schemes, it may be preferable to paint the individual sub-assemblies and assemble them afterward.

Follow paint manufacturer's instructions for safety and efficiency. Spray painting is suggested, but good results can be achieved using high-quality brushes. Flat white paint may be used as a primer, and when thoroughly dry, sanded with No. 600 wet paper. A soft pencil may be used to draw on the color demarcation lines, using thin card-stock templates as guides. Narrow strips of masking tape may be applied along the color division lines. Tight curves may call for cutting sections of tape to proper shape. Burnish the tape edges down securely to reduce risk of paint "bleeding" underneath. Some builders apply a thin coat of clear enamel along the tape edges to seal the junctures before applying colored paint.

Alternatively, a liquid masking film may be employed. When the model has been suitably masked, apply the paint. Some builders strip off the masking agent immediately, before the paint has dried, which allows the edges to self-level. Others prefer to wait until the paint has hardened, reducing risk of fingerprints, smears, etc., but often resulting in slightly uneven paint edge junctures. When removing masking tape, pull the tape back upon itself at a low angle, close to the model, rather than pulling straight out at a right angle, which might detach the paint underneath.

Narrow stripe lines separating the colors are featured on racers +121 and +44. Applying such lines using a brush is difficult, even for skilled artists. Somewhat easier is employing a draftsman's technical fountain pen and suitable guides. Working around compound curves can be exasperating, but if colored ink rather than paint is used, mistakes can be easily removed with water, at no risk to the surrounding paint. When dry, the ink may be sealed and waterproofed with a clear coating.

A simpler approach involves the use of thin striping tape. Also known as chart tape, the material is available from larger art supply stores and some hobby shops. Its chief disadvantage is its thickness, which can be both seen and felt to extend above the paint's surface. However, it offers ease of application and may be sealed in place with an application of clear enamel, as may the decals.

COLOR INFORMATION (see also box lid)

+121 ----- Overall: Cream
Trim: Bright red
Color separation lines: Black
Markings as on decal sheet. NOTE: Cowling trim must be painted on except for the "diamonds" which are furnished in decal form.

- +44 ----- Wings: tail, rear of fuselage, front of cowling. Red
Wing roots, forward portion of fuselage, rear of cowling. Black
Color separation lines: Bronze
Markings as on decal sheet.
 - +92 ----- Overall: White
Cowling, forward portion of fuselage, wing roots and landing gear: Black
Markings as on decal sheet.
- NOTE:** Different opinions exist regarding the color of certain Wedell-Williams emblems. Also, some markings were changed in size, location and color during repaintings.
- INTERIOR COLORS:** Tubing framework and inner cockpit walls: Silver
Stick: Silver with varnished wood hand grip
Gas tank, seat and floor members: Aluminum
Bulkheads: Varnished plywood Compass: Black
Crankcase: Gray Cylinders: Black Intake tubes: Black
Pushrods: Black Exhaust stacks: Natural metal
- PROPELLER:** Polished Metal
TIRES: Dark Grey
RIGGING WIRES: Natural polished metal

- INDIVIDUAL RACER CHANGES AND DIFFERENCES:**
- +121 Rework aileron trailing edges as illustrated in top view drawing. Aileron rear edges will need to be trimmed and sanded to proper thickness. Use landing gear part Nos. 27, 28 and 29. Assemble stabilizer parts in FORWARD location of fuselage slots. Make exhaust pipe extensions from furnished vinyl tubing. Make outside air temperature sensor from wire (not furnished) and attach to top of vertical tail.
 - +44 Rework aileron trailing edges as for +121. Incise louvers in port side of fuselage nose, and fill those on starboard side. Use landing gear part Nos. 27, 28 and 29. Assemble stabilizer parts in FORWARD location of fuselage slots.
 - +92 Fill in vertical panel lines of fuselage sides, and rescribe them to angle, as illustrated. Add extra "bump" (No. 31) to upper fuselage. Use wings without reworking ailerons. Use landing gear part Nos. 25 and 26. Assemble stabilizer parts in AFT location of fuselage slots.

GENERAL CONSTRUCTION:

ENGINE AND COWLING: Paint inside of cowling halves (Nos. 1 and 2). Paint engine parts before assembly for nearest results. Install propeller shaft (No. 3) into crankcase front section (No. 4). Add crankcase part (No. 5), being careful that propeller is free to turn. Cement on crankcase rear part (No. 7). Add engine cylinders (No. 8, none required), being certain they are correctly aligned. NOTE: Trim pushrods, as required, for best fit. Finally, cement an exhaust stack to the back of each cylinder and adjust its location before the cement dries. Note that length and location varied on these racers over the years. Furnished vinyl tubing may be adapted as desired. File outside diameter of engine as required to ensure a snug fit inside cowling halves. Assemble halves with engine enclosed, but movable, to permit alignment during model assembly. After cooling joints have dried, smooth seams and prime. Mask engine for protection if spray painting is employed.

FUSELAGE: Drill rigging holes as indicated on drawings. Note that some locations vary with choice of subject aircraft. Paint cockpit interior walls, bulkhead (No. 9), floor members (No. 10), gas tank (No. 11), seat (No. 12), stick (No. 13), structural members (Nos. 14, 15 and 16), instrument panel (No. 17) and compass (No. 18).

Add decal to instrument panel. Assemble interior components as illustrated and cement completed unit into starboard fuselage half (No. 19). Check fit of port fuselage half (No. 20) and adjust if necessary. When satisfactory, apply cement to mating edges and place halves together. Rubber bands and masking tape are useful for holding parts in firm contact while drying. Smooth seams and paint.

WINGS: Open rigging holes in panels. Apply cement to halves and clamp while drying. Modify ailerons if your subject choice requires. Prime and paint.

LANDING GEAR: Select appropriate parts for your subject choice. Choose between the all-plastic wheels/tires (No. 23) and the flexible tire type (hub numbers 24). Either wheel type may be cemented together and clamped while drying. If flexible tires are chosen, their gloss may be removed with steel wool for greater realism. Tires may be carefully stretched over the wheel hubs into position. Place wheels onto axles inside wheel-pant halves. Cement opposite pant halves on, securing with rubber bands or tape while drying. Smooth seams, prime and paint.

TAILPLANES: Open rigging holes, prime and paint.

FINAL ASSEMBLY: Check fit of each sub-assembly and adjust if necessary. Note position of key on back of engine which should be at the bottom. When satisfactory, cement components together, checking for correct alignment at each stage. Install landing gear filler blocks (No. 30). Smooth seams and retouch paint as required. Note that these filler blocks are inboard of the struts on a +92 model, and outboard for a +121 or 44 racer.

Paint cockpit canopy framing or apply painted tape strips. Fit canopy to fuselage. Slight scraping or sanding may be required for optimum fit. Install canopy using a minimum of adhesive to avoid stress.

FINAL DETAILING: Add the monofilament rigging, which may be undertaken as follows: Measure the distance between any pair of holes to be spanned and cut a piece of monofilament slightly longer. Insert one end of the monofilament into hole and carefully apply cement, suitable for nylon, using a pin or fine wire. Allow to dry and insert opposite rigging end into the appropriate opening. Apply cement and hold monofilament in position using tweezers until the cement will retain the rigging. Repeat at each pair of rigging points. In some cases, one length of rigging can span two or more areas by passing through parts, such as the stabilizer and wing. Be certain the rigging is unheated. If "wires" are slightly slack, they may be tightened with judicious application of heat from a tiny soldering iron held near the monofilament.

CAUTION: Excessive heat may damage the rigging, paint or plastic. The soldering tip need only be placed within close proximity of the rigging to do the job.

Add any remaining details, such as the pitot tube. This item may be made from wire (not furnished). Note slight difference in shape of the +121 pitot tube. Paint and add propeller (No. 28).

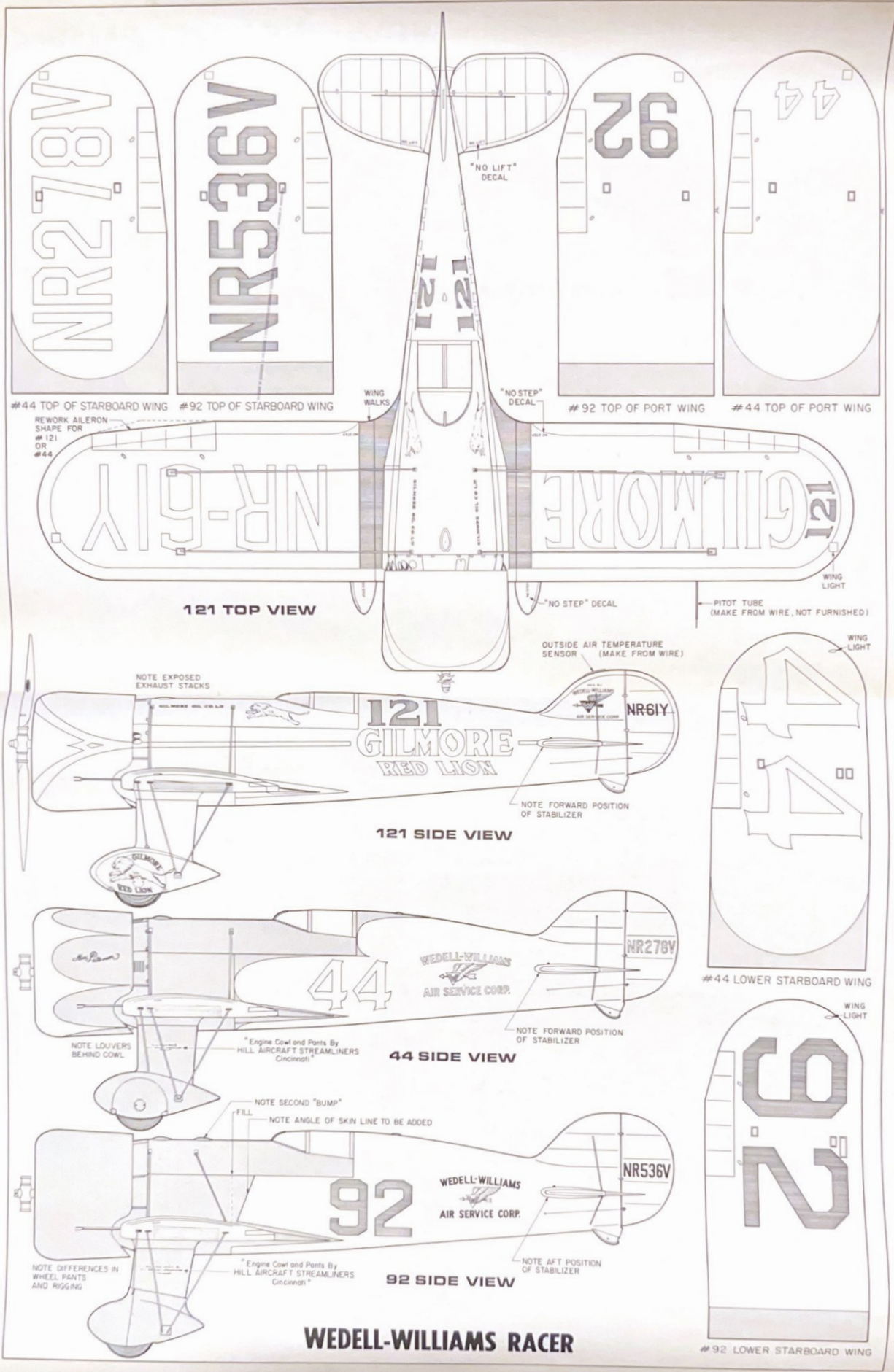
Apply decals carefully, as they are extra thin for conformity to contours. Seal with a suitable clear coating.

CONVERSIONS: A skilled modeler could convert this kit to a later modified aircraft. For example, +44 could be updated to its 1934 configuration with "bumped" cowling, revised fuselage side panels and other changes. Later versions of the Wedell racers featured other elaborate modifications which might require considerable effort to incorporate but are within the bounds of possibilities. Photographs of variations may be found in published references.

- REFERENCES:** NATIONAL AIR RACES, 1932, by Charles G. Mandrake, 1976
THE GOLDEN AGE OF AIR RACING pre-1940, by S. H. "Wes" Schmid and Major Truman C. Weaver, 1963
COL. ROSCOE TURNER'S 1932 WEDELL-WILLIAMS, drawings by John Evers, July 3, 1964
RACING PLANES AND AIR RACES, Volume III, by Reed Kinnert, 1957

The Roscoe Turner aircraft exists today in much modified form and may be viewed at the Frederick C. Crawford Museum, 10825 East Blvd., Cleveland, Ohio.

ACKNOWLEDGMENT: Grateful thanks to the following individuals and organizations for research assistance: Don Young, Russ Barrera, Russ Craft Model Museum, Warren D. Shipp, Charles Mandrake, Joe Albanese, Arthur I. Hall, Rudy Prohant, Cedric E. Galloway, Robert S. Hirsch, Harry Gann, Douglas Aircraft Company, Robert C. Mikesh, National Air and Space Museum, Palmer B. Peterson, Wedell-Williams Memorial Foundation, James G. Haislip, John Alcorn, Paul R. Matt, Kenneth B. Gooding, Crawford Auto Aviation Museum, Harvey H. Lippincott, United Technologies, Walt Grigg, Tom Laurie, and Dusty Carter, A.A.H.S.



NR278V

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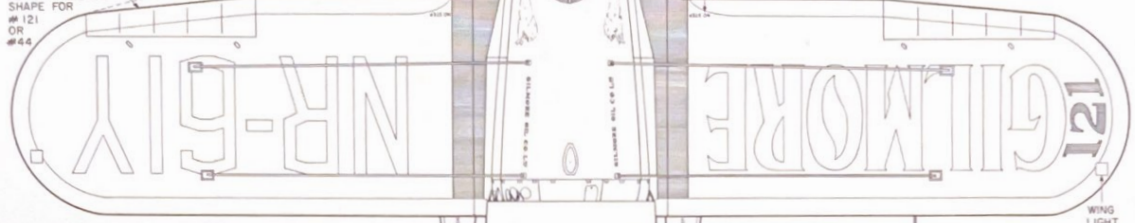
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44

#44 TOP OF STARBOARD WING #92 TOP OF STARBOARD WING

#92 TOP OF PORT WING #44 TOP OF PORT WING

REWORK ALERON
SHAPE FOR
#121
OR
#44



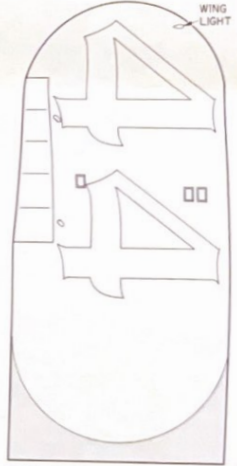
121 TOP VIEW

NO STEP DECAL

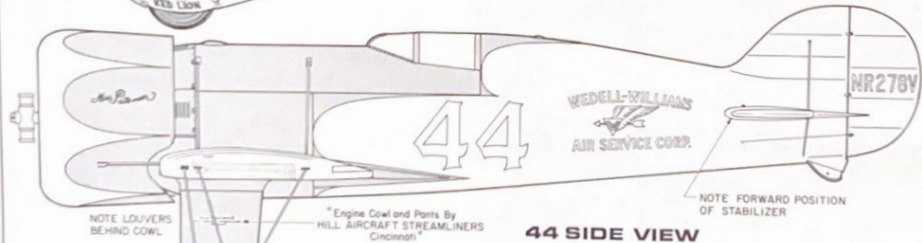
PITOT TUBE
(MAKE FROM WIRE, NOT FURNISHED)



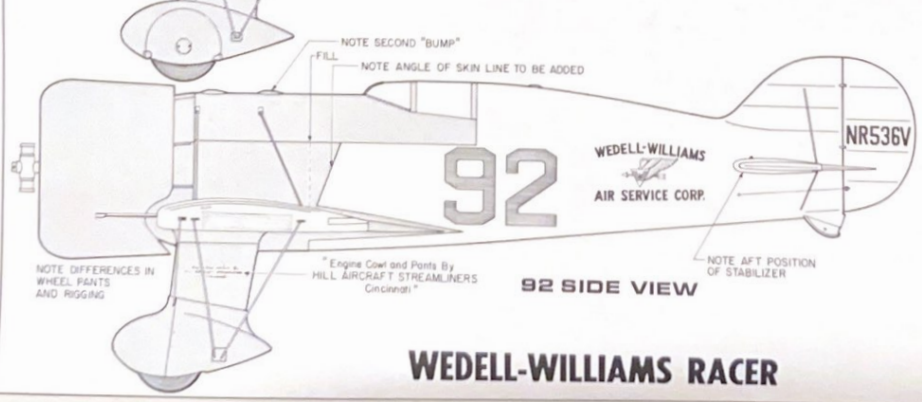
121 SIDE VIEW



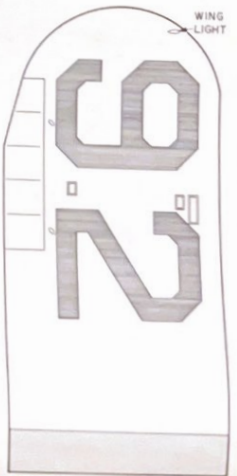
#44 LOWER STARBOARD WING



44 SIDE VIEW



92 SIDE VIEW



#92 LOWER STARBOARD WING

WEDELL-WILLIAMS RACER