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look for

- British Bid for World Aviation
Market 21**
- Accidents! . . . Are Optical
Illusions The Cause? 34**
- Riley Twin Navion Enters
Executive Market 109**
- How The Reds Won Air
Power 27**
- Mass-Producing
Helicopters 24**

cover story

Riley Twin Navion—a de luxe four-place executive plane based on the rugged and familiar Navion design. Power is supplied by two 140-hp. Lycoming engines turning controllable propellers. Comfort, quietness and performance are outstanding.





1 The Riley Twin Navion is a handsome four-place executive plane with complete equipment and plush interior.

Riley Twin Navion Enters Executive Market

By Robert J. Reed

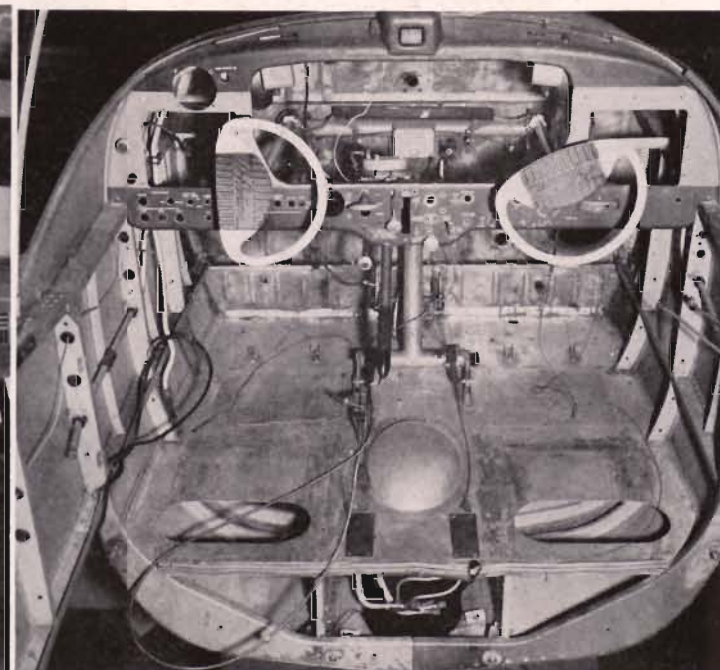
AN excellent four-place executive conversion of the rugged Ryan Navion is in production now in Fort Lauderdale, Florida, because one of the industry's top executive aircraft salesman is also a man of action.

While he was based at Shreveport, La., Jack Riley was the top Navion dealer under Les Bowman in the lush Texas-Louisiana oil country until Ryan folded production. Shortly before this, however, Jack had seen the potential of the De Havilland Doves and had already begun to sell them like hot cakes. At the present time nearly all of the Doves flying in the United States were originally sold by Riley.

Production Rights Obtained—With his background and appreciation of the rugged qualities of the Ryan Navion, it is little wonder that when Jack heard about a twin-engined conversion of this popular plane that had been made in California, he immediately flew out to see it. Only a couple of days later he was back in Fort Lauderdale with the production rights to the conversion.

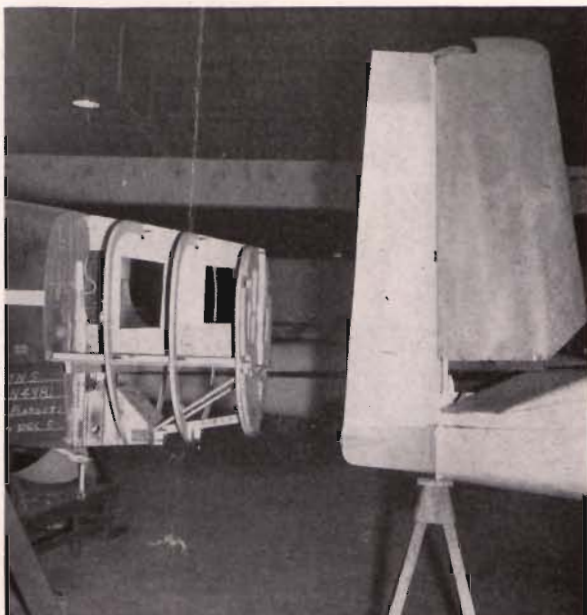


2 First step in conversion is removal of canopy, interior, wings, center section, and tail group.



3 Instruments, upholstery, and all accessory equipment is removed from the interior of the fuselage during conversion.

AvAge's editor, in a visit to Riley Aircraft last December, picked up details of the Twin Navion now being manufactured at the Ft. Lauderdale plant.



4 New nose is built on to the fuselage providing nose baggage compartment. Plane on the right has just received modified horizontal stabilizer and elevator which become new larger vertical fin and rudder.



5 After reinforcement, wings are reinstalled and nacelles are added. Engineering and workmanship are equivalent to original.

It has been beautifully designed by top engineers of Douglas and North American, and Jack fully appreciated the need for a good four-place executive transport with twin-engined dependability.

Line Growing Larger—Jack Riley returned from California in August and when AvAge's editor visited Riley Aircraft Manufacturing early in December, several airplanes had already rolled out the back door, 34 already had been sold, and the backlog was increasing by one a day.

Engines currently being used are four-cylinder Lycomings rated at 140 hp. for takeoff and 135 hp. for maximum continuous operation. Propellers first used were controllable Sensenich Skyblades which were later replaced by a pair of Aeromatics shown in the accompanying pictures.

The conversion price of \$24,850 now being quoted includes 150-hp. Lycoming engines equipped with constant-speed, full-feathering metal Hartzell props, the first of which were expected to arrive any day.

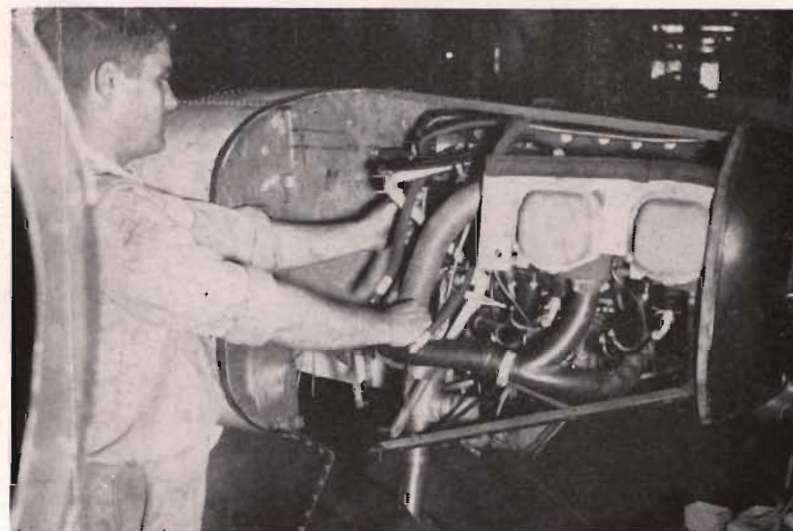


6

Next step is paint shop where entire plane receives primer and enamel finish with design to customer's specification.

7

By disconnecting fuel, oil, and electrical connections as well as two engine mounting bolts, the engine can be swung as shown to provide more room, making maintenance easier. Removal of the muffler permits the engine to be swung even farther. All connections have firewall fittings so that the complete power package can be quickly removed for replacement with a new or overhauled unit.



8

Finished plane has smooth lines, excellent finish and beautiful interior. Note entrance step and larger fairing at trailing edge of the wing. These are installed as a part of the modification program.

Most Features Standardized—Riley feels that most of those who are interested in a twin-engined executive airplane want a really fine piece of equipment. As a result, most of the features of the plane have been standardized with the exception of the interior and exterior color schemes which are determined by the individual buyer.

Upholstery is done in genuine calf skin

and the finest fabrics giving a rich and comfortable appearance.

An entirely new instrument panel is furnished to replace the standard panel originally installed. The new one includes a black cradle-finished shroud of red lucite which conducts the light to the instruments from a number of small "pea" lights spotted about the rear of the panel.



9 New full panel and floor-mounted control pedestal containing throttle, propeller, and mixture controls are fabricated and installed by Riley.



10 Beautiful upholstery job of genuine calf skin and harmonizing upholstery fabrics is accomplished in the company's upholstery department where these two seats had just been completed.



11 New plastic nose piece held here by Frank Peterson, production manager, will replace metal nose section seen in the raised position in the background providing access to the nose compartment. Radio compass loop can then be mounted inside the nose eliminating the drag resulting from external mounting.

Electric circuits are protected by a complete panel of circuit breakers and are controlled by switches mounted on small sub-panels beneath each control wheel.

Throttle Quadrant—A throttle, propeller pitch, and mixture control column is installed on the floor between the front seats so that it does not interfere with efficient instrument arrangement or a clear view of the panel.

The engine nacelles show a very high order of workmanship and flare back smoothly over the wing surface in such a way that it is claimed they actually contribute lift to the wing.

The twin-engine configuration required a larger vertical fin area that was ingeniously manufactured from a standard horizontal stabilizer.

Rudder Uses Available Parts—The rudder is a modified elevator, thereby employing parts already available and minimizing the manufacturing required during conversion. A neatly curved dorsal fin rounds out the very attractive empennage. Old wing fillets are removed and replaced by larger ones to ensure smooth airflow past the juncture of the wing and fuselage.

Performance of the plane, with over 1000 ft.-a-minute rate of climb and a cruising speed of better than 150 mph. indicated at sea level, is excellent. Landing characteristics are almost unchanged from the standard Navion. Fuel capacity is increased to a total of 60 gallons with the addition of a 20-gallon underseat fuel tank. Nose contains an accessible baggage compartment.—End