



(Photo by O. F. Oldendorph)

The two-place Evans VP-2 "Volksplane," N-5631, in flight exhibits the coziness of the side-by-side seating and somewhat widened fuselage adapted to the basic VP-1 lines.

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SINCE THE "VOLKSPLANE" was first introduced in the pages of *SPORT AVIATION* for May, 1969, there has been both a very gratifying response to the design throughout the world, and an unrelenting request for the same ultra-simple approach in a two-seater. People seem to enjoy company even while flying. In response to these requests, the two-place VP-2 "Volksplane" has been designed, stressed, and flight-tested.

Almost identical to the single-place, except for size, the VP-2 retains all of the simplified design features of the VP-1 and further simplifies certain areas. Because of this, the two-place, though larger, involves very little more building time than the smaller version. For example, all nose ribs

have been eliminated from the wing, and wing drag bays have been reduced from three to two. The box spar formerly used in the horizontal tail has been replaced by a plain solid spar, and the welded stabilator horn is now a simple angle. Material costs are not much different, about ten to 15 percent higher, and the engine, being larger, will cost a little more. In other words, for about the same amount of work and a little more money you get a two-place Volkswagen-powered airplane, and enjoy a flight economy not matched by any other two-place aircraft in the world.

Flight stability of the two-place is guaranteed equal to, or better than, the VP-1 which is about as stable and simple to fly as anything in the air today. This was well documented this past summer at the Southeastern EAA Fly-In when Vascoe Whatley set a homebuilt record of sorts by checking out 34 different pilots in his VP-1 in

one and one-half days with no problems. It is all in the N-12VW log book.

It is expected that the two-place version will have an even wider appeal than the single-place, which has had a rather phenomenal acceptance both here and abroad. European plan sales are handled by the Popular Flying Association of England, and Air Sport Service of Brussels, Belgium, both having selected the "Volksplane" to sponsor because of its simplicity and low cost. The Ultra-Light Aircraft Association of Australia also sponsored the "Volksplane" through their Department of Civil Aviation and reports that it has the distinction of receiving the fastest approval of any homebuilt design in their registry. In the United States, of course, they are beginning to show up at more and more of the local airports.

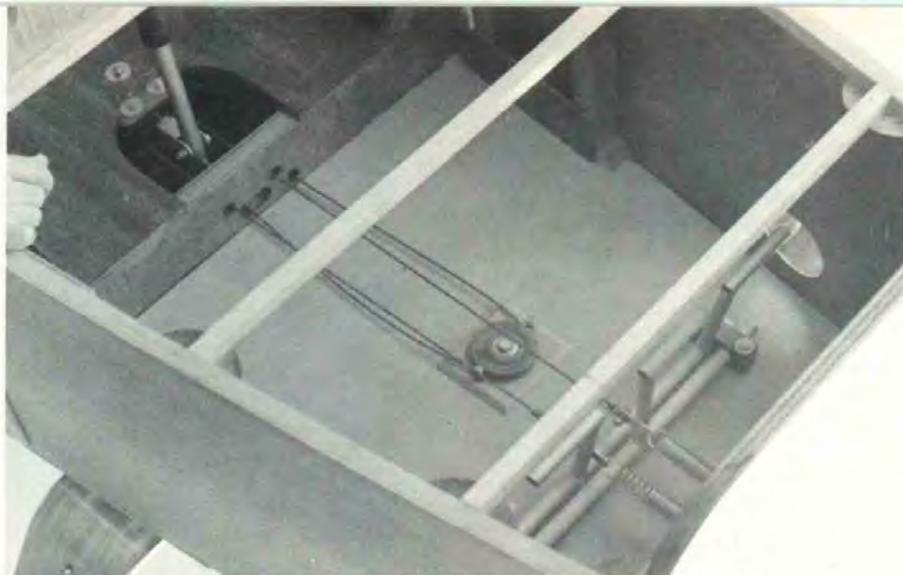
It isn't difficult to pin-point the reasons for this acceptance. First, take

the Volkswagen engine which is available everywhere and actually operates for under \$1.00 an hour. H. Schulz of Lazo, British Columbia writes: "One of the big kicks is pulling up to the pumps after an hour's flight and filling up for 83 cents. The reaction from rental pilots is great!" Next, take an ultra-simple design of wood which is a material most people can work easily, and finally put it all together on a soundly engineered basis. The designer and his three associates are all engineering-design specialists. The result should be, and is, a real flying machine for a great many people who would otherwise never have one. The Volkswagen engine is, of course, the thing that makes this all possible.

More specifically, the Volkswagen engine has tremendous appeal for the average man, and rightly so. It is light, simple, very reliable, and its parts are available cheaply everywhere. The task of conversion to aircraft is almost nil. The engine powering the single-place prototype is stock "Beetle", just as it comes from the car, and the conversion amounted to removal of the flywheel, replacement of the fan pulley with a propeller hub (no taper), and replacement of the distributor with a Vertex magneto which slips into the same hole the distributor came out of. The engine, new, was never opened and has over 250 hours of flying to date without a murmur of complaint. The engine in the two-seater is basically the 1600-cc. job powering the "Beetles" today, but modified to 1834 or 2100 cc. with larger cylinders and other refinements. Dick Hodgkins, flying up to Oshkosh from Austin, Texas, suspected carbon under a valve and, after arrival one afternoon, removed one head, took it into town and had all valves resealed and was back in the air by evening. Total cost — \$9.24! Try that on an aircraft engine. It is our opinion that the Volkswagen engine may well do more for the homebuilt movement in the next few years than any other single item.

The fuselage design of the VP-2, as in the VP-1, is simplicity itself. Almost following model-airplane practice, the body has three bulkheads, four longerons, and the plywood skin. The front bulkhead or firewall is cut from 3/4-in. ply. The other two are of fir and plywood, and the skin stiffeners are of plain white pine. In fact, the only spruce in the fuselage is in the longerons. No fabric goes on over the wood; epoxy paint applied directly does the covering job easily, weighs less, and costs less.

The wing still utilizes the 44-series section but 15 percent thicker in order to provide deeper spars for the heavier loads. Because the spars are wider spaced, it was possible to increase the



This control stick and rudder-pedal arrangement in the VP-2. Note the access hole to get to the rudder pedals.



The designer, W. S. Evans, attaches a drag wire in the simplified VP-2 wing.

size of the drag bays and remove one of them from each panel. Also, in the interest of simplicity, ribs were moved a little closer together allowing for the elimination of all nose ribs.

The rudder, which has worked out so well on the VP-1, has been retained exactly except increased in size for the larger ship. The horizontal stabilator has also been retained except for size and further simplification. The box spar as used on the VP-1 has been replaced with a simple solid spar, and the welded control horn replaced by a simple angle. The landing gear, etc., is typically "Volksplane".

For those who wonder if a tandem-seating arrangement was considered, it was. However, it lost out in early evaluation by proving more complicated and heavier; two cockpits, seats, windshields, control sticks, engine-control systems, instrument panels, and a CG trim problem non-existent

with side-by-side seating over the CG. The VP-2 has dual rudder pedals, but a single stick on centerline. When flying solo, the stick can be straddled and the outer rudder pedals used. Of course any number of things could have been done here, but this was considered simplest and lightest, and that spells "Volksplane". It should be pointed out that the two-place, though practically identical in structural approach to the one-place, is completely resized, redrawn, and restressed throughout to carry the increased payload and added structural weight. The VP-2 has been stress-analyzed to ultimate loads of 5.7 G's two-place, and 6.6 G's one-place. Therefore, with passenger aboard, aerobatics are not permitted, but limited aerobatics are allowed one-place as they are in the VP-1.

(Continued on Next Page)

How does it fly? Simply, safely, and economically as a "Volkspplane" should. When 34 pilots check out in a single-place airplane in a day and a half, you know it must be forgiving. Well, the VP-2 with its thicker wing has proven to be even more docile. Performance data is given in the following specifications:

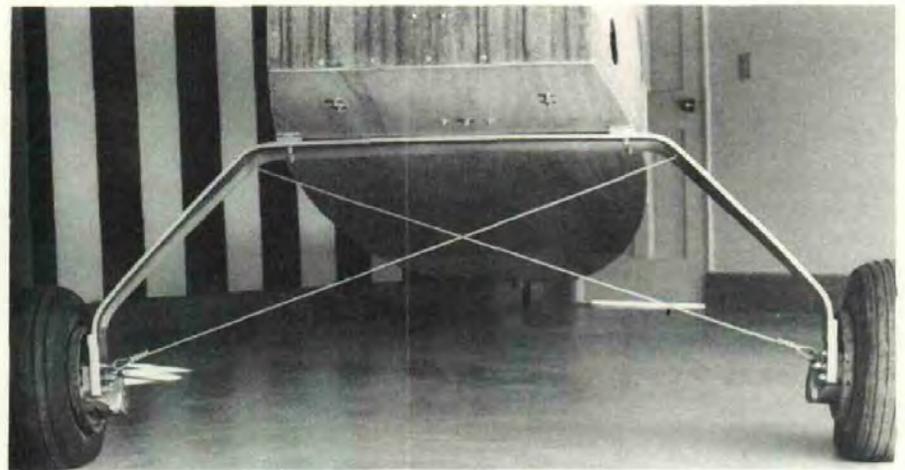
Volkspplane Performance Data

Wing span	27 ft.
Length	19 ft.
Wing area	130 sq. ft.
Empty weight	640 lbs.
Gross weight one-place ...	870 lbs.
Gross weight two-place ...	1040 lbs.
Fuel capacity	10 gals.
Top speed	100 mph
Cruise speed	75 mph
Stall speed	40 mph
Rate of climb at sea level — 800 fpm	one-place (2100-cc Revmaster)
Rate of climb at sea level — 500 fpm	two-place (2100-cc. Revmaster)
Rate of climb at sea level — 700 fpm	one-place (1834-cc. Barker)
Rate of climb at sea level — 400 fpm	two-place (1834-cc. Barker)

34 Volkspplane Pilots Checked Out In 1½ Days

The Volkspplane set an incredibly "easy to fly" record for single-place homebuilts recently when Vascoe Whatley, Jr. (EAA 55115) of Box 474 in Allendale, South Carolina checked out 34 pilots in a day and a half in his Volkspplane, N-12VP. This all-out effort to introduce others to his airplane occurred during the Southeastern Regional Fly-In, held last June, at Santee, South Carolina.

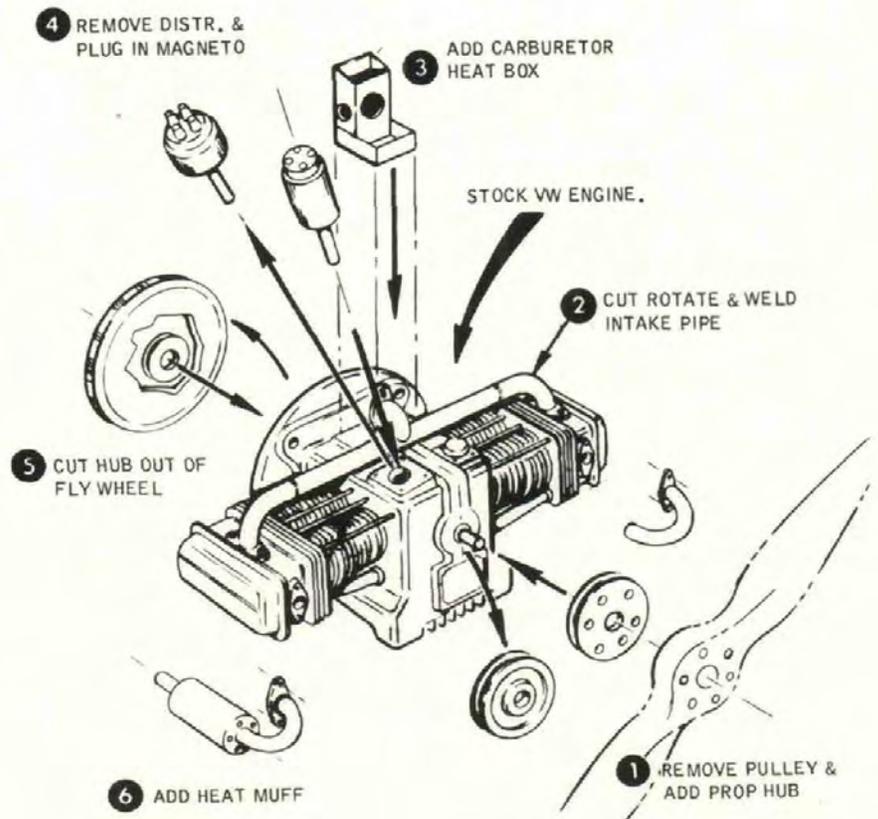
Minimum conversion necessary for the Volkswagen engine as used in the "Volkspplane."



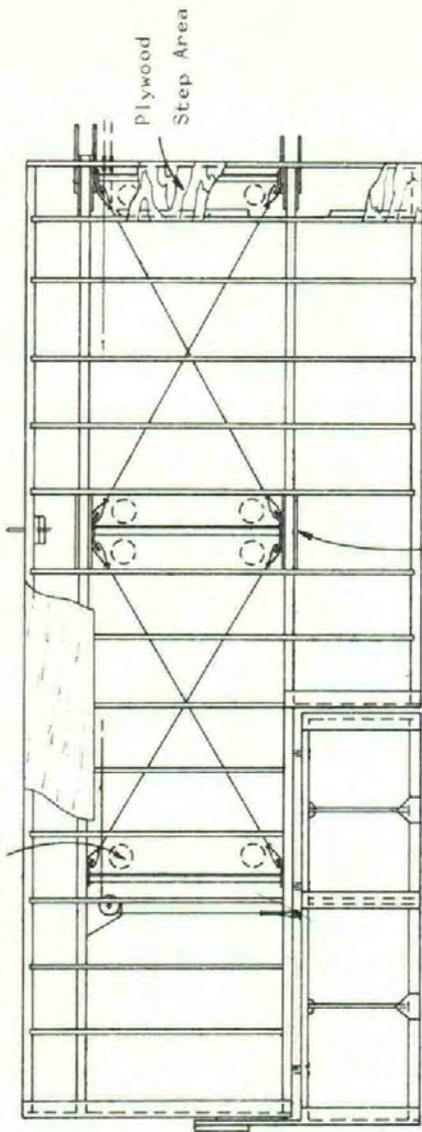
The landing gear installation, except for added width, is the same as the VP-1. Hydraulic disc brakes are used.



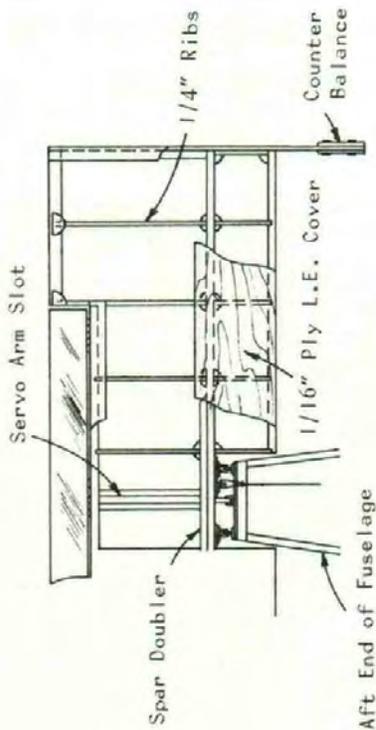
W. S. Evans surveys the finished work on the VP-2 fuselage.



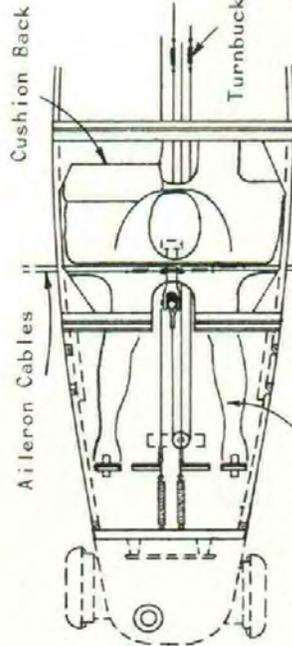
Inspection Covers



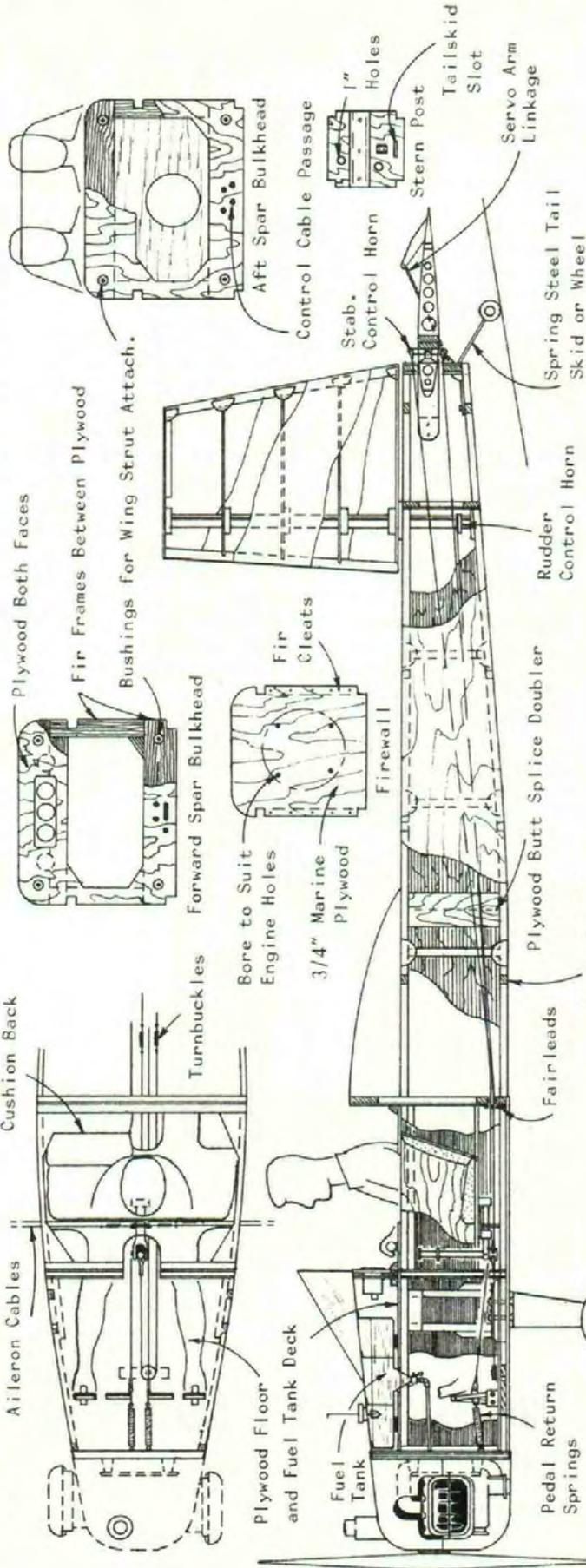
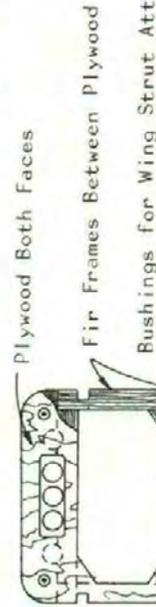
Stabilator Assembly



Aft End of Fuselage



Left Wing Plan R. H. Opposite Spar Doubler



Ron Wojnar