



Newest homebuilt from Jim Bede is the BD-6, a single-place version of the popular four-place BD-4.

A BD-6 FOR \$2000

JIM BEDE ADDS TWO HOMEBUILTS TO HIS LINE - THE BD-5J AND THE ALL NEW BD-6

By WALTER SHELBOURNE
Plane & Pilot September, 1973

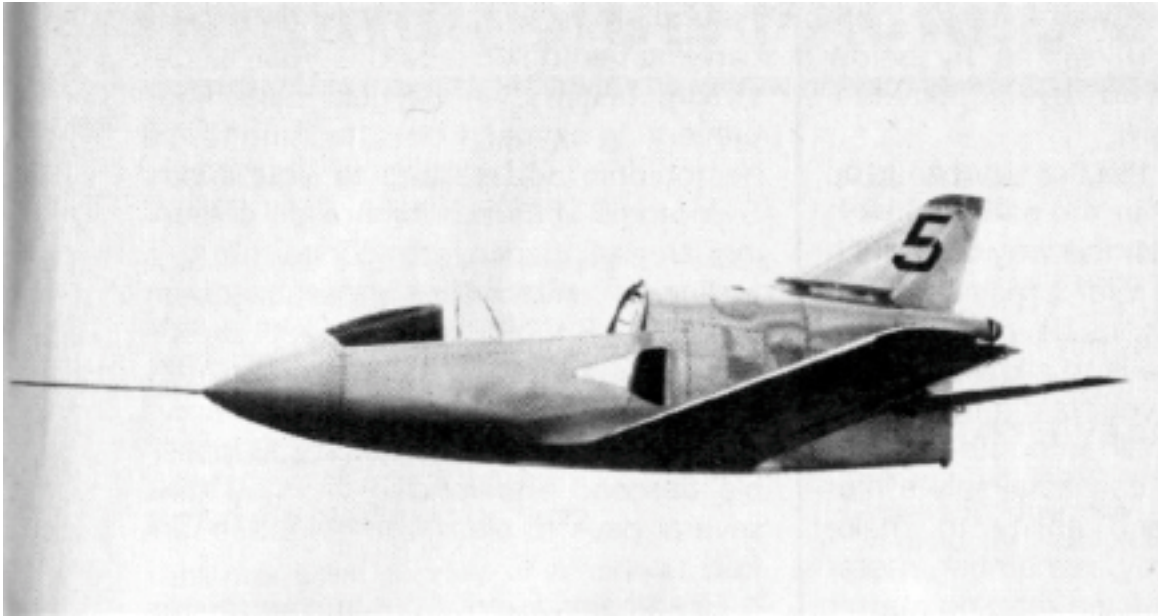
Some aircraft designers are satisfied to stay with one successful model, sit back and add up their royalties, and let progress take care of itself, but not prolific Jim Bede. No sooner has he convinced the flying public that he's introduced the ultimate personal plane than he's off and running with a whole new ball game.

The folks at the Reading Air Show had hardly gotten used to seeing Bede's test pilot Les Berven zap around the pattern in the bullet-like BD-5 pusher, when he took off the wraps of two brand new designs at the Oshkosh Experimental Aircraft Association Fly-In - the jet-powered BD-5J, and the super economy BD-6.

It was only natural that Bede would show off the designs to the EAA crowd of do-it-yourself homebuilders, for these two exciting new jobs have the unconventional appeal and originality needed to capture the attention of this super-critical audience.

With hundreds of the 4,000 BD-5 Micro's nearing completion and approaching flight-test shakedowns this fall, Bede has shot down the skeptics who claimed the darned things would never fly. For a pocket-pursuit job with a two-cylinder German Hirth engine of 55-hp, a tiny pusher prop, and retractable gear to true out at better than 200 mph seemed like black magic, but Berven has proved it out,

in timed speed runs of 190 mph TAS at 65 per cent power.



BD-5J may well be the world's smallest sport jet, at 350 mph a homebuilt with T-33 performance.

So now other flight tests have established that the BD-5's successor, the jet-powered BD-5J, actually can perform close to the six-miles-a-minute speed mark. The powerplant in this speedster is the French-designed and United States-built TRS turbine, which weighs 66 pounds and delivers 200 pounds thrust.

Preliminary flight testing indicates it will climb at 3000 fpm (sea level), cruise at 325 mph at 25,000 feet and have a 30,000-foot service ceiling, about that of the T-33 jet trainer. Wingspan is 17 feet, and its wing loading light enough for "excellent soaring capability and a 600 mile range with 30 minutes reserve," Bede promises.



Trim cockpit of BD-5D jet features sidearm control grip like a fighter, miniaturized avionics for IFR flight.

Other BD-5J performance data are reported as: takeoff run, 1,100 feet; landing roll, 800 feet; gross weight, 850 pounds, fuel, 15 gallons in wing tanks. The jet engine has an automatic electric fuel control system, and miniaturized avionics, including the Bendix 241/131 nav-coms, make it an all-weather ship. Stressed for 6 g's plus or minus, she's also fully aerobatic. Only one thing may prevent the BD-5J from becoming the universal sports homebuilt - the price is in the \$20,000 to \$25,000 range.

Not so Bede's BD-6, which is designed to fill the need for a hot little fun homebuilt at the other end of the price spectrum, in the \$1,000 to \$2,100 ballpark. It, too, is a single place homebuilt, and it looks at first glance like a miniature of the four-place BD-4. Some 600 of the metal and fiberglass BD-4's already are flying or building.



BD-6 is a spinoff of the high-wing BD-4, a four-place homebuilt that already is flying in quantity.

The concept of the BD-6 is a sort of amalgam of the best features of the BD-4 and the BD-5, and Bede insists that the BD-6 is "more than just a budget plane."

A single-place, high-wing, tricycle gear job, the BD-6 was designed to cruise around 140 mph and climb at 900 fpm to a service ceiling of 14,000 feet. It, too, is powered with the Hirth engine, of either 55- or 70-hp.

Perhaps of biggest interest to the Oshkosh gang was the BD-6's reported ease of construction and

smooth handling in flight, two requirements for the novice homebuilder who wants action at a price he can afford, in a ship not too difficult to construct out in a single-car garage.

Built entirely of aluminum, like the other Bede products, the BD-6 utilizes a stabilator rather than the conventional fixed horizontal fin. Novel are the rugged fiberglass struts on the main gear, which reportedly have excellent dampening qualities for rough field operation. The nose gear is free swiveling, and differential hydraulic brakes make it easy to handle on the ground.

Bede went to a tubular main spar in the 21.5-foot wing, which is rectangular and so is easy to build. It offers best climb performance, because the trailing edge runs clear to the wingtips. A spacious baggage compartment is located directly behind the pilot seat.

Flight testing of the BD-6 was nearing completion as this issue of Plane & Pilot went to press, and once more it appears that Bede's design genius is paying off with a specialized aircraft, this one a doll for the homebuilt set.

A fully-illustrated information kit with three-view drawings, a profile drawing, performance specs, material specs, materials list, and a dealer roster is available for \$4.50 from Bede Aircraft Inc., Newton Municipal Airport, Newton, Kan. 67114.



BD-6 The BD-6 has a simple, clean design, easy construction and extreme economy. A real fun plane for the beginner or budget-minded builder.

[Advertisement]

BD-6 DIMENSIONAL SPECIFICATIONS

	55 HP	70 HP
Wing Span (ft.)	21.5	21.5
Length (ft.)	16.75	16.75
Height (ft.)	6.5	6.5
Empty Weight (lbs.)	375	375
Gross Weight (lbs.)	650	650
Useful Load (lbs.)	275	275
Limit "G" + -	4.4	4.4
Ultimate "G" + -	6.0	6.0
Maximum Fuel Capacity (gal.)	21.0	21.0
Fuel Capacity with 170 lb. pilot (gal.)	17.5	17.5
Wing Area (sq. ft.)	55.5	55.5
Aspect Ratio	8.32	8.32
Wing Loading (lb./sq. ft.)	11.7	11.7
Power Loading (lb./hp)	11.8	9.3
Cabin Length (inches)	70.0	70.0
Cabin Width (inches)	24.0	24.0
Cabin Height (inches)	42.0	42.0
Maximum speed at Sea Level (mph)	140+	140+ +
Cruise Speed at 7500 Ft. (mph)	140+	140+ +
Sea Level Rate of Climb (fpm)	900	900+
Estimated Service Ceiling (ft.)	14,000	14,000+
Fuel Flow at 75% Power Cruise (gal./hr.)	5.5	7.0
Range at 75% Power w/30 Mins. Reserve (mi.)	450+	400+
Stall Speed - Flaps Full (mph)	50	53
Take-Off Ground Run (ft.)	600	500
Landing Ground Run (ft.)	400	450