

## BD10 GENERAL INFORMATION

As general information on the engineering, build and the testing of the BD10. Since the beginning of the release of the BD10 prototype information and all the following articles released by "EVERY SOURCE" on the record by everyone that had anything to do with the BD10. To set the record straight on aviation engineer Jim Bede, Mr. Jim Bede was and is a genius in aviation, single-handed he engineered a dozen or so BD models that are still in production and all of the models are still being sold by BEDE Southeast Aero(bedeaero.com). Burt Rutan started out working for Jim Bede, gaining experience and knowledge before opening his company. Tim Becker is the GM of the companies operation that sells, modifies, tests and researches the models that are sold and serviced by them. To get back to the BD10, this model has been thoroughly tested, flown and the FAA has given their airworthiness certificate for the BD10! · I want everyone to understand : "I am in no way changing any of the proven and tested AERODINAMICS of the BD10," that was tested and well documented. These pilot flight procedures are part of the "OWNERS MANUAL". The flight procedures, takoff and landing checklist is part of the · "OWNERS MANUAL" they were tested and painstakingly devised by the 3 military naval test pilots (the best in the world) for the BD10." The only changes that will be done on the BD10 is the mechanical, electrical and material updating to the new 2022 specifications. The aerodynamics are a proven fact absolutely no changes. From my research there were only 4 BD10's produced, not knowing what happened to the 5 th which was the prototype. The following numbers are the tail NUMBERS on the BD10. As far as I know I have only found 2 in existence unless the prototype is still intact.

1.)1994 BD10 Tail Number: N700JP Serial Nr.: 59 owned by Jim Bede (Son)

2.)1997 BD10 TN N7FF Serial Nr.: 002

3.)1992 BD10 TN N98MJ Serial Nr.: 001

4.) BD10 TN N9WZ Serial Nr.: ???

5.) BD10 TN N2BD This is the ORIGINAL prototype owned by MarkSherman

If anyone has any more information on my research please feel free to contact me to update my writings.

There have been questions on the manufacture of the wings on the BD10. Since the wings are light and ingeniously designed, the first BD10 Redesign will be the same as the original wings. The upper and lower wings will be out of .065 Aluminum but the connection of the wing to the fuselage center section has a steel shim .23 in thickness, this will be changed to a stainless steel shim. The fasteners will all be changed to 2022 specifications.

I will update the GE CJ610 customization of the Low pressure nr. 1 turbine wheel. Once the bigger 4.250" longer carbon fiber blades are tested on our test cell, according to our calculations the CJ610 will spin at maximum of 83% of the of original rpm. On paper the customized CJ610 will become a low pressure bypass turbofan with a thrust of 3450 lbs of thrust with a 23% fuel savings. This all has to be backed up by facts once it is tested on the test cell.

The BD10 that we copied had a fuel tank capacity of 261 gallons written below the fill cap. This is still to be measured by us. Mr Jim Bede listed his fuel data at 1762 lbs at 263 gallons. Mr. Jim Bede's projection was 1350 nm at 45000 feet with a 1/2 hr reserve at 10000 feet.

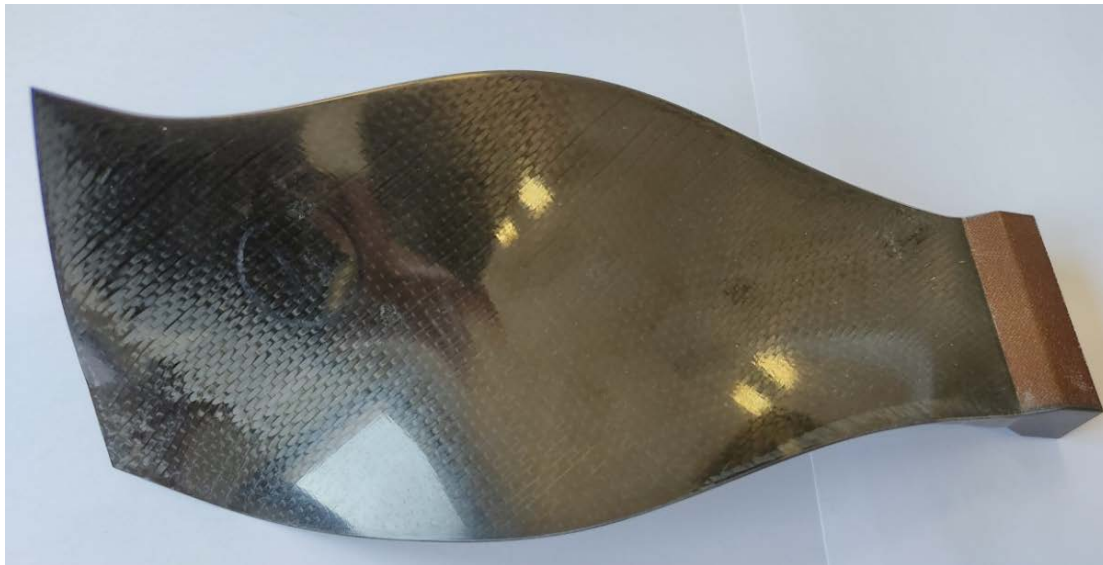
I am taking the fuel burn of the Learjet 24B as a real figure. The Learjet weighs 13500 lbs with full fuel at takeoff.

1.)The BD10 fueled on the first 125 miles of flight is getting to 41000 feet of altitude using 279 lbs of jet A.(41 gl.)

2.)the next 1250 nm. at FL410 uses 1467 lbs (217 gl.) of jetA. Adding the numbers the BD10 uses 258 gallons to fly 1375 nm.

Navy test pilot Mr. Holmes, I think around 10000hrs of jet time, over 135 hrs time shaking down the BD10 made a statement,:"as a proficient GA pilot you should be able to save fuel by going to idle and gliding to runway from FL410 at 60 nm out and land safely."

That would be a very extreme of 1435 nm with fumes at touchdown. The above statements are not my statements but the statements of a Naval test pilot.



The low pressure nr. 1 disc will have 4.25 inch longer blades out of carbon fiber to pull the air into the turbine and around the turbine. The carbon fiber blades above are from a safran update. My CJ610 updated blades will have a different root and will be a little more curvature to it. I put these pictures up to give you a simulated virtual picture on the to tooling that is being designed on our CNC milling machine.



The 3 pictures above is the 1st low pressure disc with the original blades showing. The is being redesigned.