

# National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA25LA198

## WRECKAGE EXAMINATION

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## **A. ACCIDENT**

Location: Sanford, North Carolina  
Date: 5/7/2025  
Time: 1600  
Airplane: Diamond DA40 NG

## **B. WRECKAGE EXAMINATION**

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## **C. SUMMARY**

On May 7, 2025, about 1600 eastern daylight time, a Diamond Aircraft DA 40 NG, N499BW, was substantially damaged when it was involved in an accident near Sanford, North Carolina. The pilot and passenger were seriously injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

### **1.0 Engine Examination**

The engine was examined at the aircraft recovery facility located in Giffin GA. The glow plugs were removed and the propeller was rotated by hand. Thumb compression was obtained on all cylinders. Engine continuity was established through the engine. The fuel injectors revealed normal wear. The timing chain cover was removed and the engine timing was verified by visual examination. The turbo charger did not rotated due to sitting in the rain for months and rusted all the components. The camshafts were removed and showed normal wear. The head was removed and the pistons, and valves showed normal wear. The rocker arms were removed and showed normal wear.

One worm clamp was found under the intake ductwork. The clamp safety wire was dislodged from the screw head. The screw was loose and the drive thread was worn in the clamp housing. (see Figure 8) Three of the four required clamps were still on the hose connecting to the intake. Two clamps were positioned correctly and securely holding the hose to the intake. One clamp was in the middle of the hose and secured with safety wire. It did not appear to be on the correct side of the bead the helps hold the plenum. (see figure 7)



Fig 1. Engine as recieved

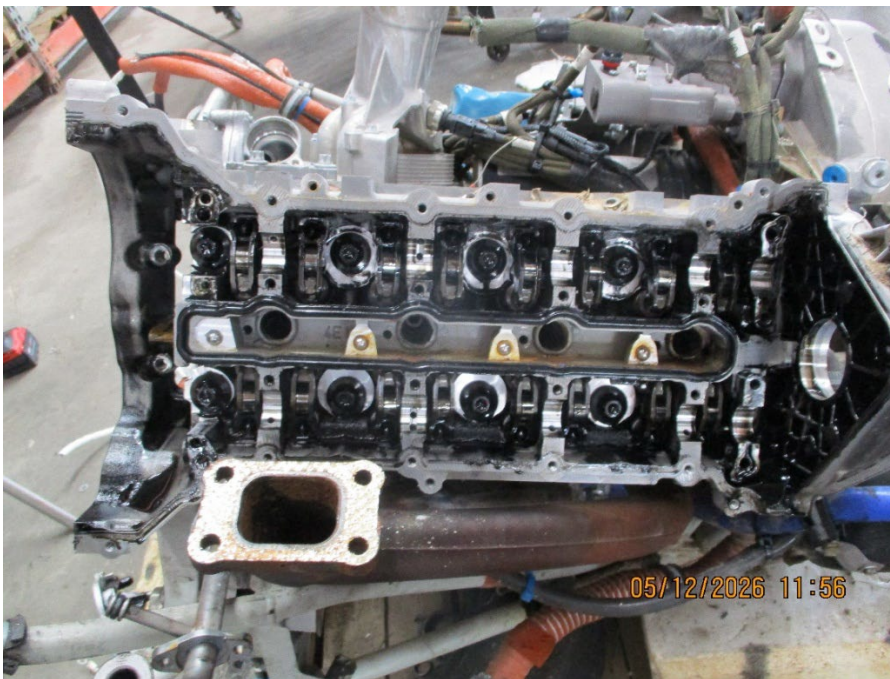


Fig 2. Rocket arms



Fig. 3. Cam shafts



Fig. 4 pistons and head.



Fig. 5. Rocket arms and lifters



Fig. 6. Intake from turbo

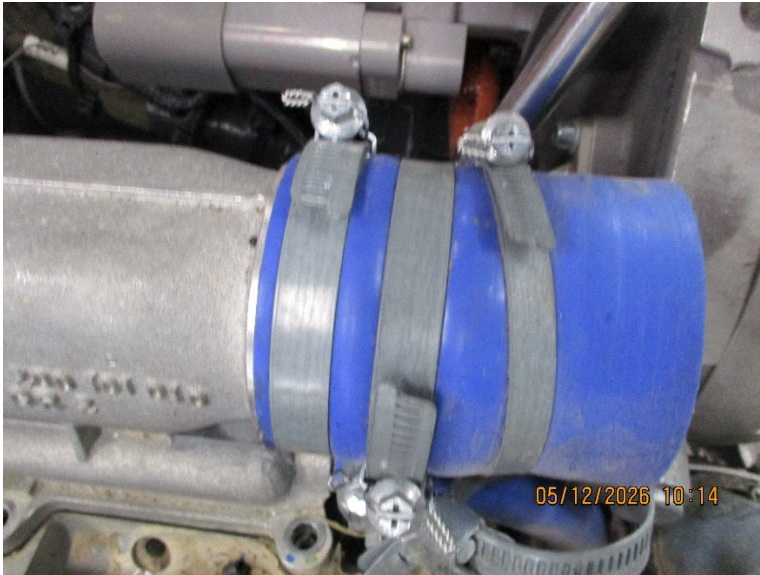


Fig. 7. Induction clamps, NOTE: right clamp in middle of the hose secured and safety wired.



Fig. 8. Disconnected clamp found under intake ductwork. NOTE: screw is worn and loose in clamp housing.

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