

NATIONAL NAVAL AVIATION MUSEUM

Pensacola Naval Air Station

Open Daily • Free Admission

Free Parking • Free Tours

IMAX Theater • Cafe • Gift Shop

















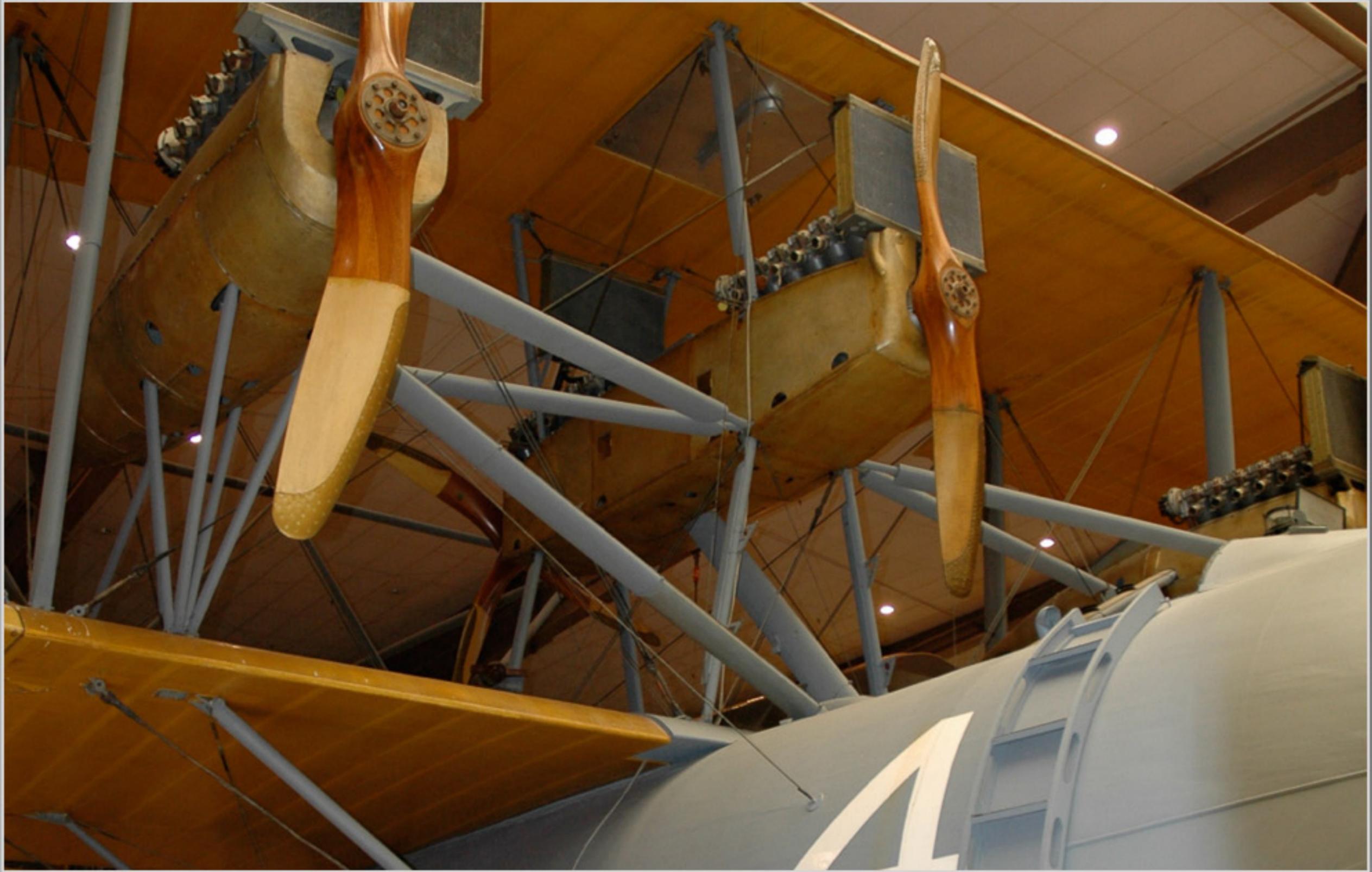












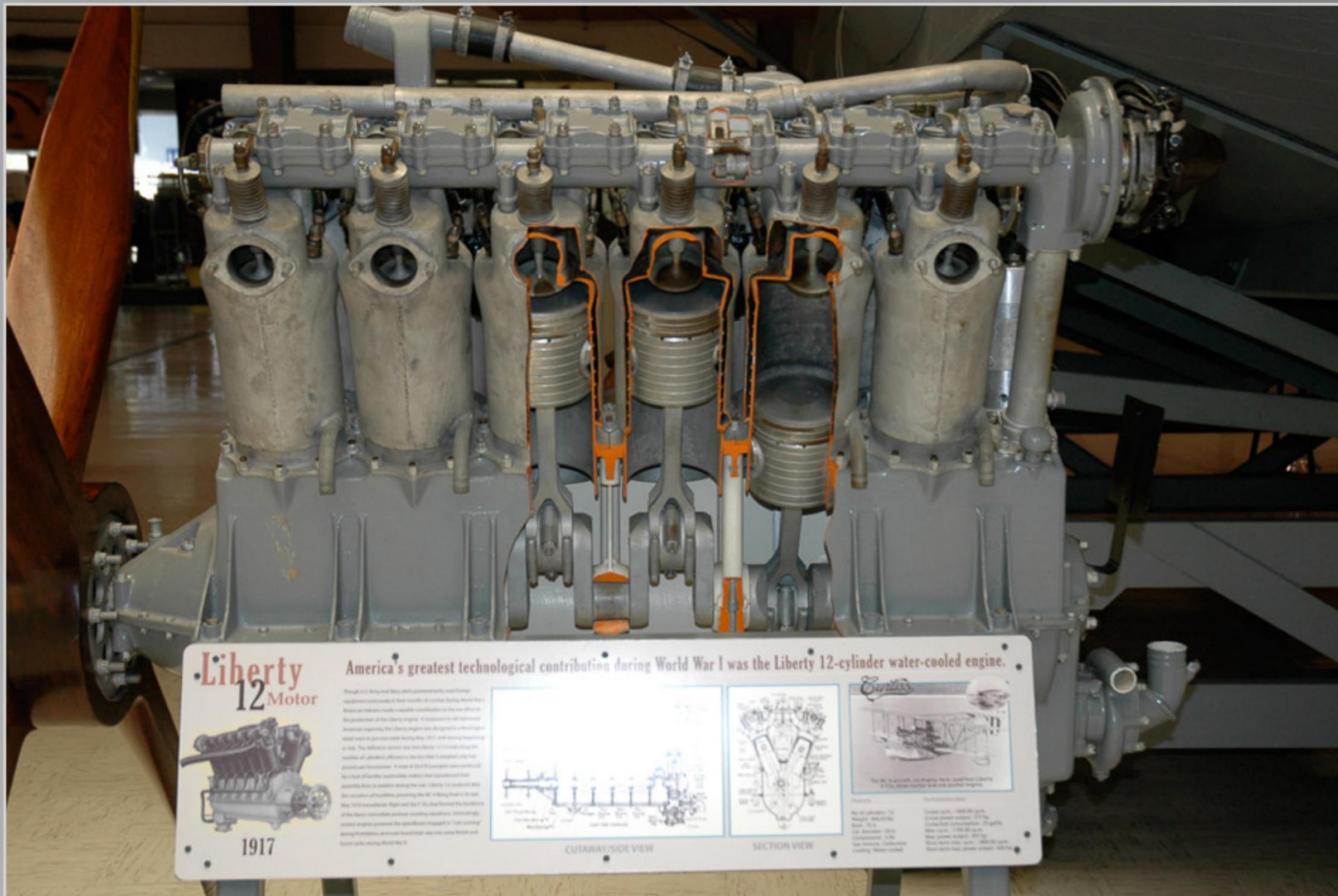












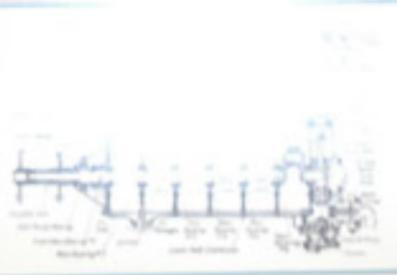
Liberty 12 Motor



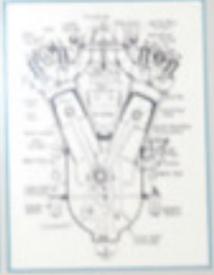
1917

America's greatest technological contribution during World War I was the Liberty 12-cylinder water-cooled engine.

Though it is being used here to drive a propeller, the Liberty 12-cylinder engine was designed as a power plant for aircraft. It was the first engine to be mass-produced in the United States. The Liberty 12-cylinder engine was designed by Whittaker Chambers and was built by the Ford Motor Company. It was the first engine to be mass-produced in the United States. The Liberty 12-cylinder engine was designed by Whittaker Chambers and was built by the Ford Motor Company. It was the first engine to be mass-produced in the United States.



CUTAWAY/SIDE VIEW



SECTION VIEW



The Liberty 12-cylinder engine was used to power the Liberty 12-cylinder engine.

| Specifications | Performance Data |
|------------------------------|--------------------------------|
| No. of cylinders: 12 | Rated output: 400-500 hp |
| Weight: 1,000-1,200 lb | Rated power output: 275 hp |
| Stroke: 14 in. | Rated fuel consumption: 20 gph |
| Cylinder diameter: 5 1/2 in. | Max. rpm: 1,700-1,800 |
| Compression: 1:10 | Max. power output: 500 hp |
| Valve timing: 100-110 deg | Rated fuel consumption: 20 gph |
| Valve clearance: 0.010 in. | Rated fuel consumption: 20 gph |
| Timing: 100-110 deg | Rated fuel consumption: 20 gph |
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| Timing: 100-110 deg | Rated fuel consumption: 20 gph |























































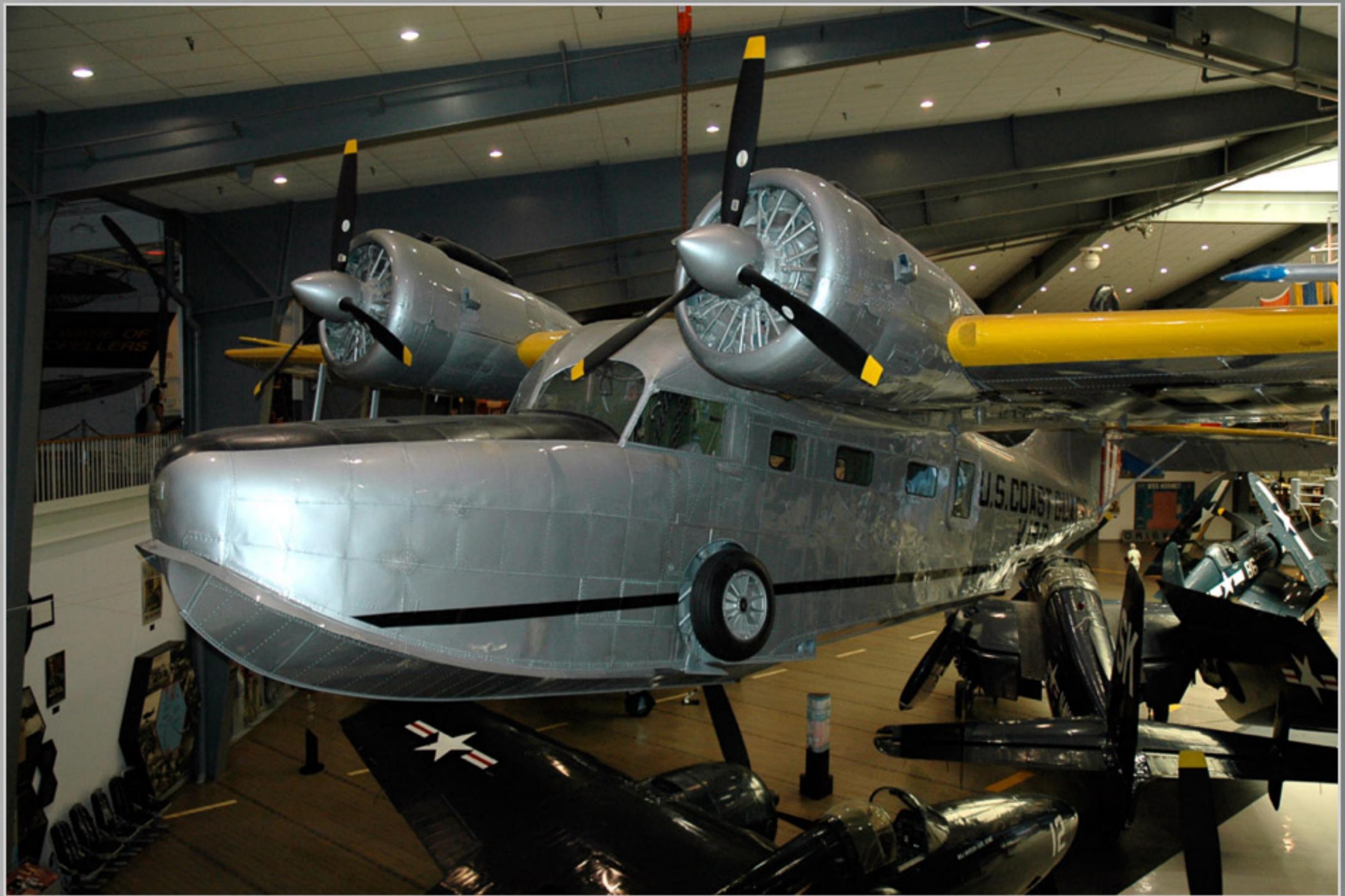
















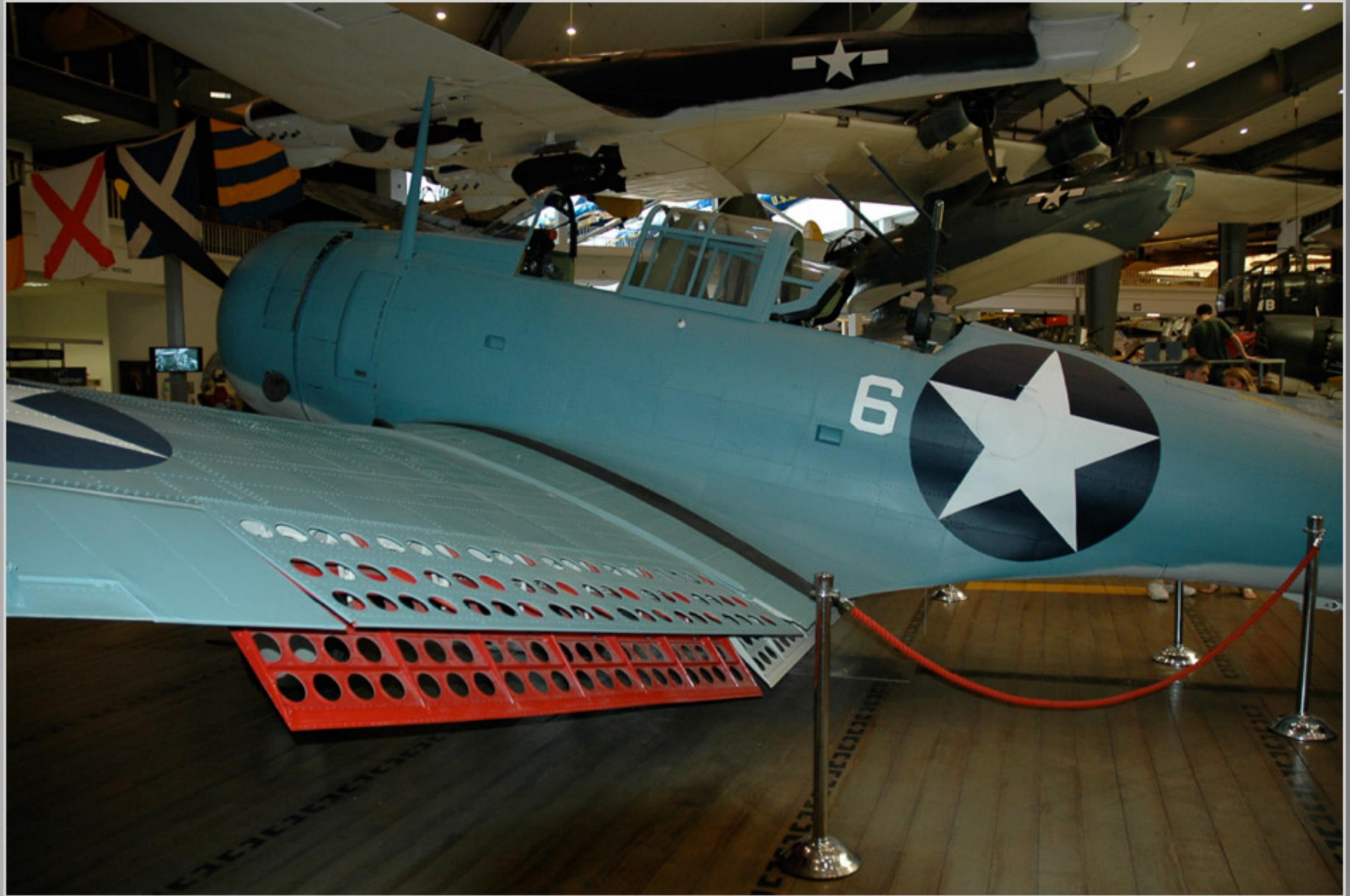
























PBV CATALINA - Flying Boat



Of the over sixty examples of the World War II-era PBV Catalina flying boat, the one on display here is the most unique in appearance. An aircraft earmarked for transfer to Great Britain under the wartime "Lend-Lease" program, PBV-38 never made it overseas, instead serving as a trainer, pounding the waters of Pensacola Bay and flying out over the Gulf of Mexico with fledgling pilots and aircrewmen aboard. It was on one such flight that Ensign M.C. Fennell was killed during a landing. The accident was not serious enough to push the aircraft out of service, and with its leathers rotted, this PBV was parked on the tarmac at the air station. Given the fast pace of training activities at the station during the war, the aircraft was damaged on the ground when another aircraft collided with it, effecting its restoration. At the same time the Navy was in the process of establishing a Training Unit at Pensacola for the purpose of teaching cadets and aircrew that could mean the difference between life and death in the event they were shot down. The strikes PBV assumed an ideal prop to support the unit's mission. The aircraft's Department relocated the aircraft. The hull was built...









