

LENAPE PAPOOSE



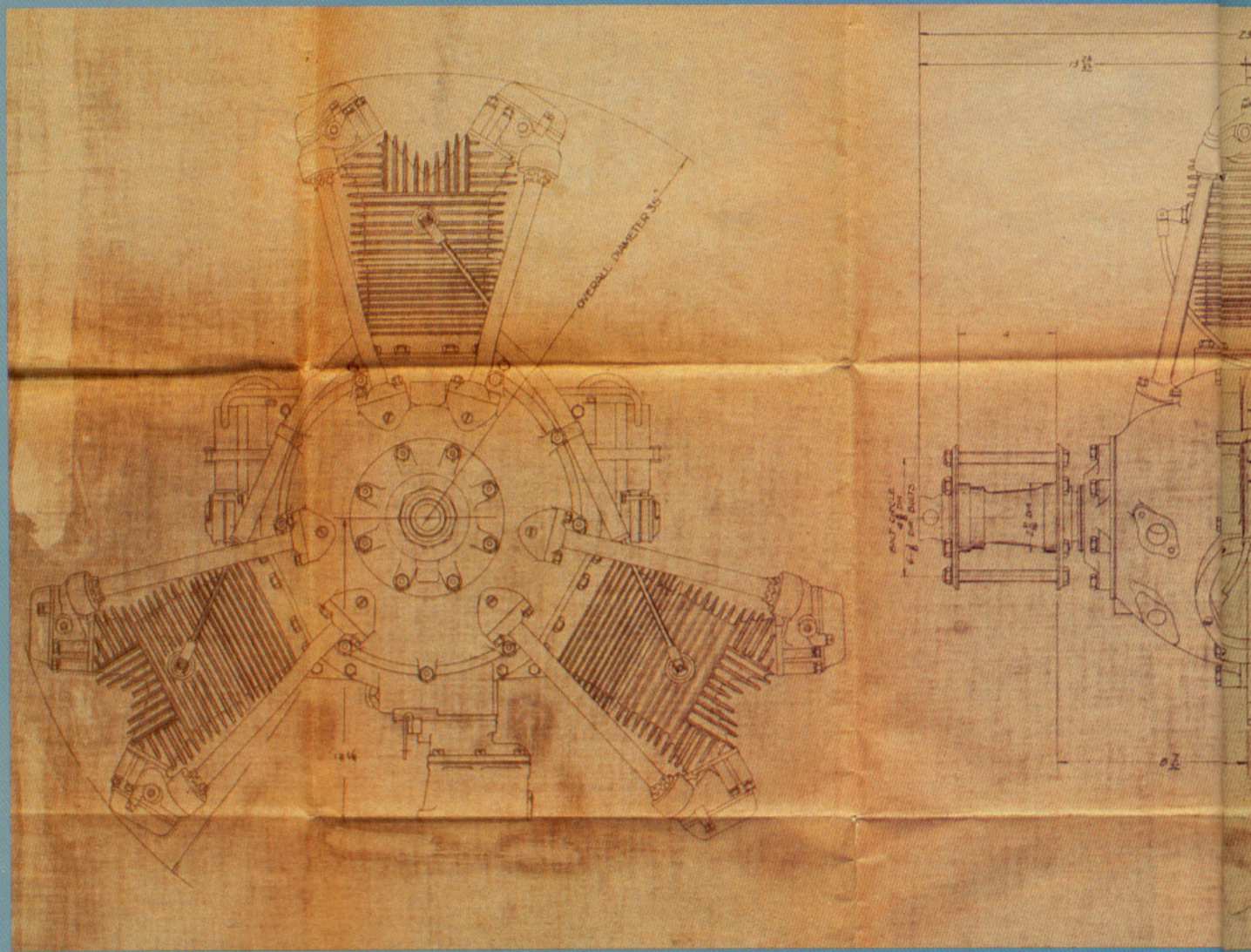
*The rare radial
that never made it*

BY THOMAS A. HORNE

ONE of the problems that plagued the early J-3 Cubs was a dearth of power. Although Continental rated its A-40 engines at 40 horsepower, they really produced just 37, according to dynamometer tests. So Piper began casting about for more powerful engines. One of them, the Lenape LM3-50 "Papoose," was a three-cylinder radial engine rated at 50 hp.

The Lenape Aircraft and Motors Company, Incorporated, of Matawan, New Jersey, was reportedly heavily financed by the Helms Company, a Dutch manufacturer of tobacco snuff.

Hoping to cash in on the American Air Age, it bought Lenape and set the company's salesmen to beating the bushes. They harped away at the Piper Aircraft Corporation, touting the engine's power and its induction system. One of the Lenape's exhaust stacks feeds a heat exchanger that surrounds the carburetor air intake. This provides constant carburetor heat. (Pilots of the early 1930s were mystified by unexplained engine stoppages. After performing forced landings, obtaining successful restarts, then flying again, the engine would continue to stop periodically. It was not until 1935 that the phenome-

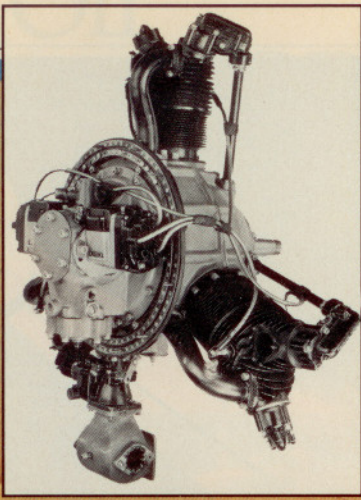
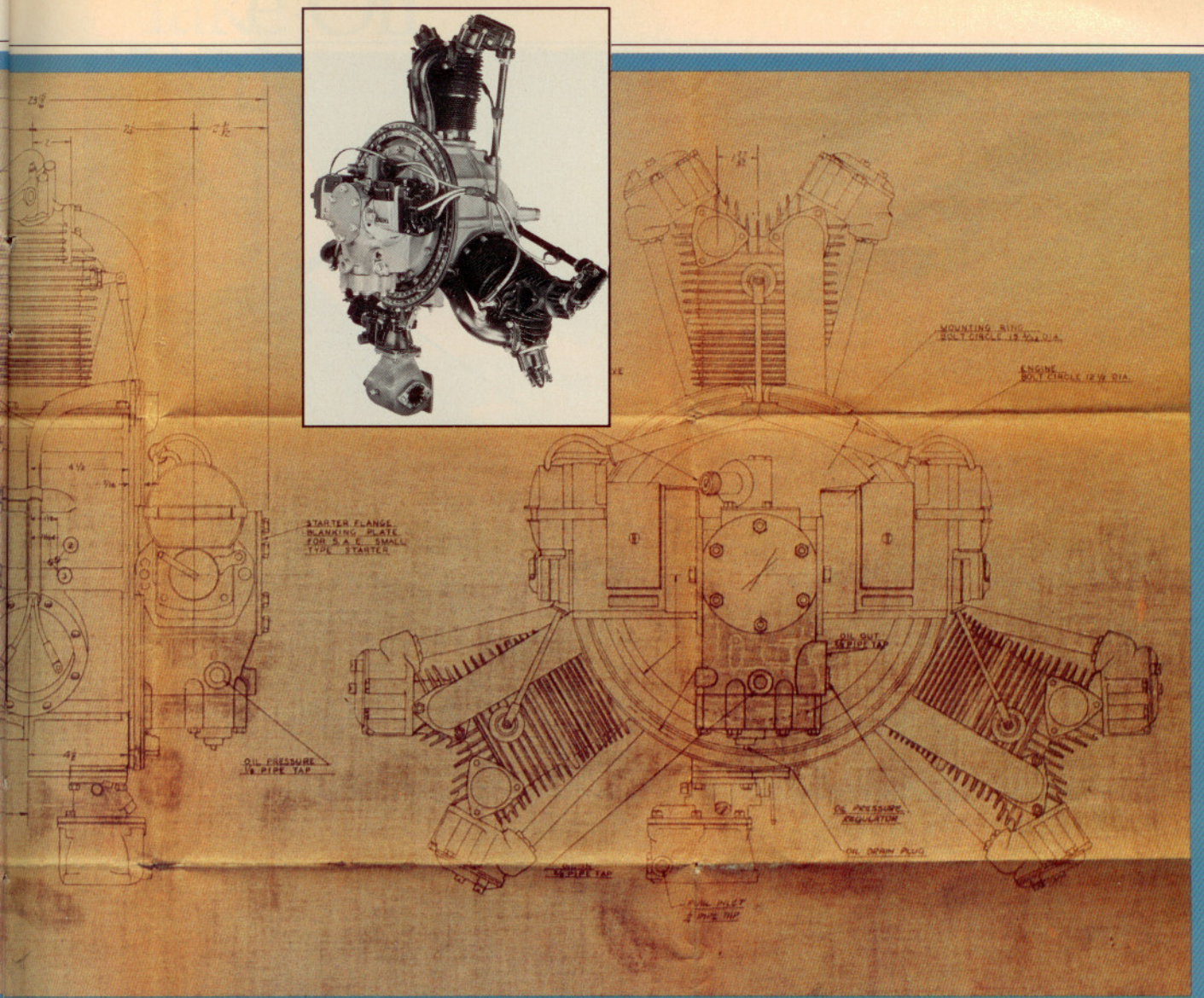


non of carburetor icing was discovered. Late-model J-2s were equipped with optional carburetor heat.)

Piper bought 13 Papoose engines in 1938 and 1939 and installed them on Cubs, designating them as J-3P models. They were a sales flop, in spite of an elaborate publicity stunt. Piper test pilot Kenneth T. Kress was chosen to fly a Lenape Cub, NC20280, nonstop from Newark, New Jersey, to Miami, Florida, in May 1938. Ostensibly, the idea was to commemorate the twentieth anniversary of air mail service. Kress and his copilot, Glen Englert, perfected an automobile-to-airplane refueling technique for the flight. At refueling sites in Raleigh, North Carolina, Jacksonville, Florida, and the 36th Street Airport (a gravel strip that was to become Miami International Airport), Englert lowered a rope to assistants driving pickup trucks, who tied on five-gallon cans of fuel. After 63.5 hours and 2,390 miles the Lenape

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landed back at Newark, where newspapermen and photographers waited.

With this kind of endorsement, why was the Lenape Cub a flop? Some claimed the engine caused terrible vibrations. Others disliked the carburetor-heat feature when taking off in hot and humid conditions. There was also some guilt by association. The Lenape resembled another three-cylinder radial of the day, the 35-hp Szekely. The Szekely (correctly pronounced "zee-kee," but frequently translated as "sickly") did have a vibration problem: its tendency to blow off its cylinder heads necessitated an elaborate cable-and-turnbuckle arrangement around the cylinder heads to hold them on.

NC20280 was demolished in a crash some years later. Another Lenape Cub owner picked up the historic old N-number and transferred it to his airplane. Several owners later, the airplane was bought by Richard W. Kanode,

Piper blueprint and a photograph from a collector's attic (above) give a detailed look at the Lenape engine. An advertisement from the July 1938 Aero Digest (below) touts the Newark-to-Miami non-stop flight.

LENAPE OR A.P. "PAPOOSE" ESTABLISHES DISTANCE AND TIME RECORDS IN LIGHT PLANE ON NON-STOP FLIGHT - NEWARK TO MIAMI AND RETURN... 63 HOURS-54 MINUTES

LENAPE "PAPOOSE" SETS NEW LIGHT ENGINE ENDURANCE RECORD

From the flight - Bill Kessel, Ken and Lenape Engine Club men of their flight call with Kessel. (Miami State of Florida Photos.)

WANT an engine... with Kessel on the Island at Newark! "You see we had the will do it all over again," added England.

"The 'Papoose' seemed to improve with every hour," they stated. "We took off with 11 1/2 gallons in 15 seconds. At 10,000 feet the fuel was at least 4 1/2 gallons, and we pulled up and over from the refueling run at 5 miles per hour. That's a real performance."

Over 22 1/2 gallons of gas and 23 quarts of oil to move three tons and a half over 1000 miles - 63 hours.

Full sized gears in base and bronze small bolts - all high character - no waste lubricants - but flying beam - the "Papoose" shows the way.

Write for descriptive literature
LENAPE AIRCRAFT & MOTORS, INC.

AOPA 299812, who hangs it near AOPA headquarters at the Frederick, Maryland, municipal airport.

The day I first flew NC20280, airframe and powerplant mechanic David C. Dodds, AOPA 797751, was having difficulty starting the Lenape. With no primer and no accelerator pump, the Lenape is a reluctant starter on the best of days. "If the outside temperature is below 50 degrees, you can just forget it," Dodds mumbled as he secured the airplane by roping the tailwheel to his Saab's bumper. (That day it was 55 degrees.) Then began the starting routine. With each hand-propped revolution of the propeller, Dodds sprayed an ether-based automobile starting fluid into the Lenape's heat exchanger/carburetor. After four or five shots, it was time to turn on the magnetos, spin the prop and pray. Eventually, the Papoose came to life, enveloping Dodds in a thick cloud of blue smoke.



I am afraid that there is nothing spectacular to report about the Lenape Cub's performance. In its takeoff, cruise and landing behavior, it is virtually indistinguishable from a plain J-3, except for the excessive engine vibration. You do have to become accustomed to having a cylinder head in your field of view, but this can be an advantage. Cruise power, I am told, is 2,100 rpm. The tachometer is a blur, so standard advice is to adjust power until the top cylinder stops shaking...that is about 2,100 rpm.

The special thing about flying the Lenape is knowing that you are flying an aviation rarity. According to Cub fanatics, there are no more than four left. NC20280, if it starts and the weather is not too hot or humid to climb high enough to clear the hills, will fly to the "Sentimental Journey to Cub Haven" fly-in at Lock Haven, Pennsylvania, scheduled for July 13 to 19. It will be worth the trip to see an airplane such as this. There is a good chance that record-pilot Kress (now the chief of the Baltimore, Maryland, General Aviation District Office) will be on hand, as well as members of the Piper family and other key players in the Cub's glory days—sales manager Jacob W. Miller and sales promotion manager William D. Strohmeier, for example. See you there. □

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