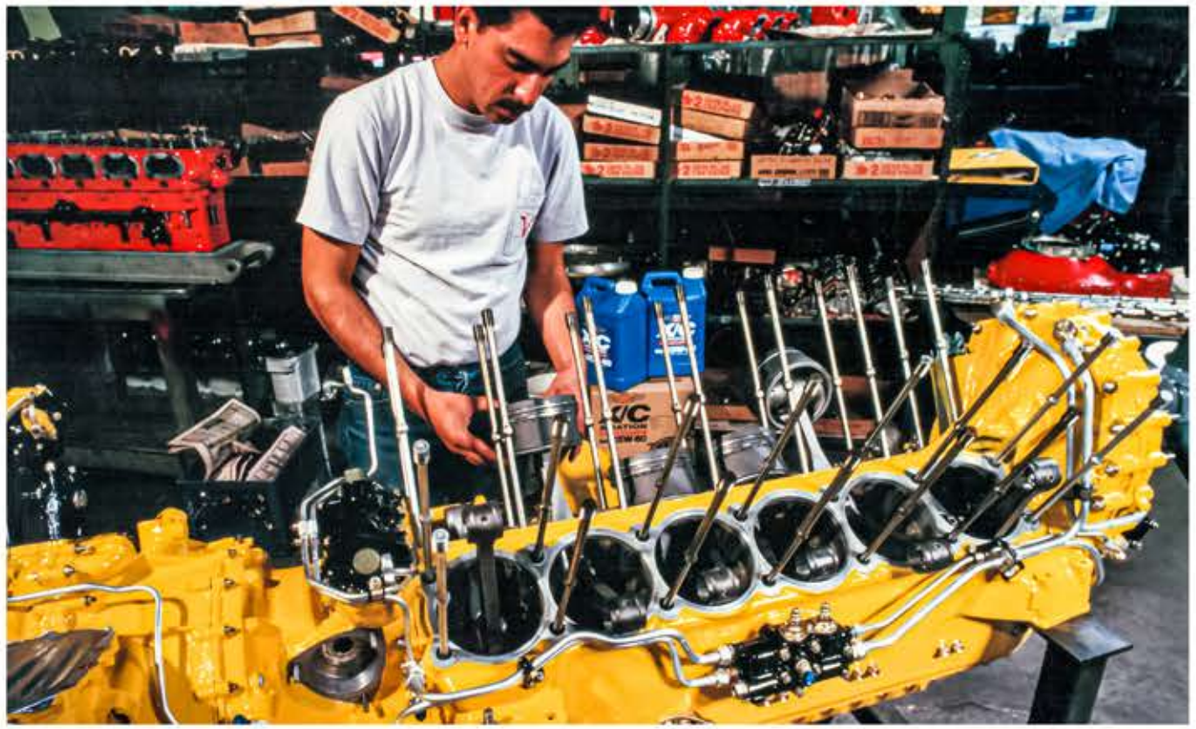

PERFORMANCE FOR THE FUTURE

AT VINTAGE V-12s, EXCITING WORK IS BEING CARRIED OUT THAT WILL KEEP THE WARBIRDS FLYING FOR DECADES TO COME

BY MICHAEL O'LEARY

"The engines. It was always the engines."

That was the answer given by a thoughtful Jose Flores while sitting in his office at Vintage V-12s. I had given Jose sort of a "chicken or egg" question when I asked him if he originally became interested in aircraft or in aircraft engines.

Jose does not look like a man obsessed, but obsessed he is. His focal point in life can well be seen in his large and well laid-out shop located near the airfield in the community of Tehachapi, California. Looking out of Jose's office, one can see row upon row of gleaming, magnificent V-12 motors being overhauled. It almost looks like a wartime photograph from Rolls-Royce, Allison, or Packard.

These V-12s are things of wonderous beauty. Hundreds of glistening parts sit in each case as the skilled group of craftsmen minutely inspects and assembles each motor. They appear to be pieces of modern art sculpture.

"You know," chuckled Jose, "every now and then we will get a customer that wants one of these engines — not to put in an aircraft but just to have, just to look at and admire. We are happy to oblige such requests and we even make functioning cut-away engines for people that would just like to sit and examine how such a wonderful mechanical object functions."

Of course, making pieces of modern mechanical art is not really what Vintage V-12s is all about. The company is about rebuilding the greatest piston engines of all time so they can be put on the front of restored World War Two aircraft.

"The rapid increase in the Warbird Movement has seen a rising demand for our product," states Jose. "We have viewed an unprecedented growth in people finding and restoring WWII aircraft. For example, who would have ever thought we would see four flying de Havilland Mosquitos? Remember, those are aircraft built mainly out of wood so to bring one of these twin-engine machines back to flying condition is incredibly complex and expensive. I am very proud to state that the world's flying Mosquitos are all powered by Vintage V-12s motors."

ABOVE: **Jose Flores inspecting a Vintage V-12s engine nearing the end of the overhaul process.**

Merlins moving down the assembly line.

A busy Jose handling customer orders during a typical day.

To say that Jose is steeped in the lore and knowledge of the V-12 aircraft engine is an understatement. He started working in the shop at age 16 — a time when most teenagers are dreaming of fast cars and young women. Jose became fascinated by the inner workings of these pinnacles of piston-engine design.

Time went by and opportunities came up. Jose was eventually to become the owner of Vintage V-12s and it was definitely the combination of the right man at the right moment. During the 1970s, surplus V-12 engines could still be purchased at very reasonable prices, cleaned-up a bit, and then hung on the front of an airplane. Unfortunately, these motors quite often had very short lives. "I passionately loved these engines and I wanted to see them last as long as possible," recounted Jose. "That led me to study and research on how the V-12s could last longer while also being more safely operated." This led the young man to disassemble dozens of engines — studying their parts, trying to find reasons for failures, looking to see which parts could be improved. He would pour through original documents, tech orders, and manuals to discover how and why the original builders did what they did.

"Our business was right in line with air racing," said Jose. "I watched engines not even last one race and I thought there has to be a better way to do this." After taking over the business, Jose assembled a strong and talented work force — people that also had a similar drive for performance and excellence.

"At first it was hard, I was worried about not only making the business profitable but about taking care of my employees while also searching out any and all engines and parts," recalled Jose. When you build engines, parts are obviously absolutely essential. During WWII, America's "Arsenal of Democracy" overbuilt and when it came to vital combat engines, the companies built huge reserves of parts for use in war. With the end of WWII, much of this inventory was sold for scrap but a lot wasn't. The Mustang kept operating with foreign air forces into the 1980s and their engines needed to be rebuilt.

"I did a lot of looking around the country and the world. I would find supplies of V-12 parts — sometimes in the most unlikely locations — pur-

Disassembly of a Merlin begins the overhaul process.

Fitting and checking tolerances on a crankshaft.