

Northwest Corner Woodworkers Association

April, 200

**Next Meeting: Vern Leibrant's Shop
3807 Cabrant Rd. Everson, WA
April 2, 2002 7:00 pm 360-966-5183**

HITCH A RIDE ON THE SILVER BULLET

Every now and then a great story develops out of the strangest places. It's incongruous, of course, but deep in a wooded, rural area of Skagit County, Washington, miles from any community of size, there's a modestly equipped fabrication shop where one man toils virtually unassisted to create a monstrous speedster that will soon challenge the world's piston-power, four-wheel speed record. Could this be the dawning of a new *Motorwerks* in the shadow of the Cascades?

Jim Hume is a modest and versatile visionary. Both artist and craftsman, he has won regional and national recognition for his California racing car designs as well as honors and awards for his carvings and woodturnings. Hume's creativity is boundless whether he's hard at work shaping and welding the aluminum shrouds for his racers or skillfully carving a nude wood figure at an *Arts Alive* demonstration in LaConner. He's the genuine article and we're proud to have Jim Hume as a member of our woodworkers' organization.

With such passion for creating, time is an ingredient Jim cherishes. He juggles a lot of projects at once. Hume has devoted, by his own estimation, 1,300 hours of his mind and body to the challenge over the past three years. In the same period, he estimates that a million dollars has been spent on the effort to build a 4-wheeled, 43-foot silver bullet expected to reach a speed of 550 miles per hour over a measured mile of the Lake Bonneville Salt Flats. Current record is 409 MPH.

The fruits of his labor can be seen all over the shop floor. The racer is intact; all 43 feet of its welded, steel-tube carcass is exposed like a skeleton with "innards" of stainless steel bulkheads, twin engine mounts and structural reinforcements. Transmission and steering shafts and gearboxes are there, and the wheels are mounted fore and aft. The cockpit structure is defined and some of the car's pneumatic systems installed.

One of the aluminum skin body panels has been formed, drilled, and riveted in place. (Hundreds of holes, all hand-drilled.) Against the walls are wood forms that spell out the undulations and configurations of other metal panels soon to be fabricated. Each 2,500 horsepower, 500 cubic inch, all-aluminum hemi-engine, of a modified 1960's design, will be furnished by the Portland car owner who is a racing enthusiast, engine builder, and businessman. The engines burn alcohol and the car will have four forward speeds.

Model Tests

At this mid-developmental stage, Jim has built a model of what he believes is close to the final shape. It's a piece of art itself, a gleaming silver, bullet-like fuselage with a small, elevated windscreen at the tail. No wheels are visible; there are no protrusions of any kind. Two pairs of louvered air intake and exhaust vents are inset on each side to mark the only discernable features on the otherwise unbroken body-line. The 30-inch model is being used for the wind tunnel tests to verify its streamlined design and reduce drag. Body curvature is everywhere; there are no flat spots to distort the airflow. Aerodynamic testing revealed flaws in the nose design that might cause the front end to lift. By reshaping the model's front end several times in a series of tunnel tests, Jim was able to keep the nose wheels in contact with the ground at high speeds and make other desirable streamlining changes. He anticipates that higher speed wind tunnel testing may be done at the Air Force Academy.

Significant reworking of the nose section and the body area several feet behind it has resulted in better aerodynamic airflow and will keep the front end on solid ground. Frontal air dams will also help. Salt and air have no place under the car. The low skirts of the side panels are only **one inch** above the ground; Jim is seriously considering increasing the clearance to **1-1/4 inches** for safety reasons. These dimensions are vi-

tal to keep salt and air from entering under the car. Compressing the atmosphere at a rocketing speed of 550 mph does stir things up a bit.

SSS

Jim described safety, simplicity, and serviceability as major design factors. For brakes, he uses Lincoln's on the big rear wheels, but he admits that they may only be good enough to stop the rig from rolling across the shop floor. The Big Stoppers are the four parachutes launched simultaneously by compressed air from bottles in the cockpit. The chutes eject from four tubes that extend out the rear like some multi-rocket launcher

The rear wheels are shod with thin, non-treaded rubber tires, each pressurized to a rock-like hardness of 100 pounds. Heavier tires, he explained, could disintegrate under such high centrifugal force. "We don't want any blown tires, fires, or engine explosions," he said. A blown tire would be major trouble. For that reason stainless steel plates are welded to the bottom of the tubular structure to protect the engines, fuel cells, transmission systems, and other critical parts from ground contact.

For serviceability, Jim has designed his aluminum skin panels with only one or two quick, lever latches that allow all panels over the serviceable areas to be stripped away within one minute.

KISS

Keep it Simple techniques dominate Jim's design, particularly in the cockpit where the operator, euphemistically termed "the driver," must guide this 43-foot, 8,000 to 10,000 pound "bomb" down a black line drawn in the sand over a 6-mile course. At that speed the trip lasts maybe 45 seconds. No blinking and no time for sand in your eyes. "The driver" sits behind a "steering wheel," which is also a misnomer. The front wheels move only an inch to each side. Asked about the steering radius, Jim quipped: "about 7 miles." The driver who volunteered for this assignment was not named. He sits near ground level and with 30-some feet of hood can see track only 60 to 70 yards ahead. Under the KISS design he has zilch instrumentation. However, he does have two indicator lights to tell him when his engines are running.

"The driver doesn't have time to look at gauges," Jim stated.

What a great ride for Wally World!

Jay Geisel, NCWA Secretary

Club Needs Your Help at *Woodfest*, April 6 and 7

The Woodworkers and Woodturners Clubs have been challenged by Mike Stewart, industrial arts teacher at Sedro Woolly High, to man the booths and demonstrate their skills for the public at *Woodfest 2002*, which runs on the weekend of April 6 and 7.

Mike has donated the booths without fee for both Clubs to demonstrate techniques, display their projects and sell their products over the two-day fair. Our new brochures will be available to the public for the first time. Club members should make their plans now for the upcoming event. Time is short. Our meeting, on April 2nd, predates the event only a few days.

The NCWA booth on the gymnasium floor should be manned at all time. Set-up starts at 7 a.m. Saturday. Show times run from 9 a.m. to 7 p.m. Saturday and 10 a.m. to 4 p.m. Sunday. A live auction is set for Sunday afternoon.

Our display will feature our new collaborative workbench, Flag boxes and joinery examples. Laura Mathews suggests that now is the time to get our sharpening display working. Volunteers are needed to man the booth, demonstrate wood-working, and contribute display items. How can you help? Call Tom Chartier (734-9473), Larry Tomovick (293-4580), Laura Mathews (757-7730), or Jay Geisel (466-3908).

In other news, the officers elected to purchase a branding iron that spells out the NCWA name for use on the 30 triangular Flag boxes. This professional identification method will burn our ID into the workbench, brochure display racks, and future Club projects. Fast action was necessary to expedite delivery of the iron.

Saturday, March 9, marked the first full working day on the Flag box production line. Five members helped Gary mill the alder and complete the building of the brochure display racks. The latter will be ready for a lacquer finish at the next session, which is slated for Gary's shop on Saturday, March 16, at 10 a.m. Join the fun!

Don't forget our "Bring and Brag". We all do something unique or have something that others would enjoy seeing.

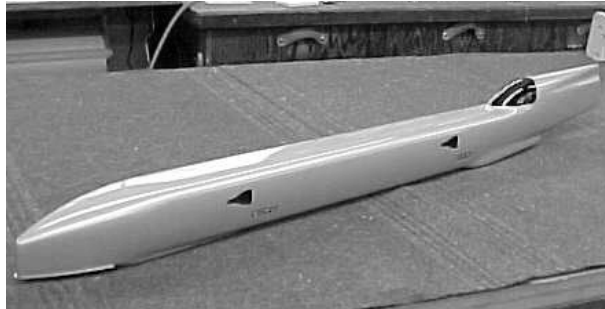
Jake Strauss
Kiln dried NW Washington hardwood
lumber. (Sales by appointment only)
6389 North Star Rd.
Ferndale, WA 98248
(360)384-3948



**Meeting in Progress
A Big Turnout!**



Jim Murphy Speaking on Willow Wood



A Model of "The Car"



Jim Hume
Designer and car builder discussing the cars design.



Various Views of "The Car"



**A View of the Braking System
Four parachutes**

Directions to Vernon Leibrant's Shop

From Bellingham take the Mt. Baker exit toward Mt. Baker - 10 miles - turn left on hiway 9 for 1 1/2 miles, turn right on Siper Rd. - 2 miles turn right on Hopewell Rd.- 1/4 mile go to stop sign, turn left on Goodwin Rd. - 3/4 mile turn right on Cabrant Rd. 1/4 mile, first right on Cabrant Rd. First house on the right. House has vertical cedar siding.

360-966-5183

Vern says come early! He will speak on using wood when green.

Honduras Mahogany For Sale

Approx. 130 bdf. All rough. 6-10" wide, 9' and longer About 4/4 thick.

\$300 Tom Hartley 293-4588 (work) 293-4794 (home)

FREE CEDAR REMNANTS

Misc. sizes and shapes of clear cedar. Most is 7/8" thick. I will bring a supply to our next meeting. Bring your own boxes. Rick Anderson 398-1587 or rick@gardenarches.com

Thanks!
Rick Anderson

The NCWA was formed to promote high standards in woodworking, woodworking education, and showcasing local woodworking. The NCWA is open to all interested woodworkers.. Dues are \$24 per year, payable to NCWA, 7550 Ershig Rd. Bow, WA. 98232. Newsletter submissions are welcomed and are due by the 18th of the month to NCWA Newsletter, 925 South Hills Dr. Bellingham, WA., 98226. Or call (360) 734-9473. Meetings are held on the first Tuesday of each month at 7:00 P.M. Location announced in the newsletter

2000-20001 Officers:

President	Gary Holloman	(360) 855-3376
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