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Champion Billy Schumacher talks about his career, Part 2.

In part one of the interview with Billy Schumacher, he talked about his early racing in outboard and inboard classes and how his experience in smaller boats set the stage for his advancement into the unlimited class. In part two, he recalls his first ride in an unlimited and how he focused on stepping into faster, more competitive boats. The interview was conducted by Craig Fjarlie on May 29, 2019.

UNJ: In 1961, you had your first opportunity to drive an unlimited hydroplane. You drove *Cutie Radio* at Coeur d'Alene. You were still involved with inboards at that time, is that right?

Schumacher: I still had a 280. In fact, I made the statement to my father, and one of the press guys overheard me, that my 280 was faster than that *Cutie Radio*. And that wasn't accurate. It might've been able to beat it all the way around the course. The *Cutie Radio* would go about, I think I finally got it up to about 135. The 280 went 104. So, it was faster, but it didn't corner well, and it didn't have any horsepower to speak of for an unlimited.

Yeah.

So, it was a pretty big dog in the turns. I have photographs of that race over there…

That was at Coeur d'Alene.

At Coeur d'Alene that show me in front in the first turn. And in the back you could see Muncey catching me, but I was ahead at the time. How I would up beating him to the first turn in that boat I have no idea, but I did. That was the end of it.

What was it like? You had to get qualified as an unlimited driver.

$ Bill Racing Team publicity photo

ALSO IN THIS MONTH'S ISSUE:

Bob Carver

Billy Schumacher during his first ride in an unlimited, the *Cutie Radio*, which he drove at the 1961 Diamond Cup in Coeur d'Alene, Idaho.

Yeah, that meant a physical and meant also, I think, a few laps around the course where they decided whether you could or couldn't do it. You know, I had a lot of experience not only in outboards. How old would I be? In 1961, I was 19.

One of the youngest drivers ever.

Yeah, I think I was the youngest. And also the youngest guy to ever win a Gold Cup. That record still stands. But at 19, nobody really had a lot of confidence in me. Bob Miller did because he knew of my—owned *Cutie Radio*—he knew of my outboard and limited experience and my accumulation of victories. And so, he wanted to give me a try.

"Bill Muncey, because he sold us our 280, he was right there to help me with anything I needed, and also give me advice on what to do and what not to do. One of his advice things was to stay out of the way, which I didn't listen to because no one competitive wants to stay out of the way."

I remember running a lot of laps over there in that boat, in Coeur d'Alene, just learning how to qualify. Bill Muncey, because he sold us our 280, he was right there to help me with anything I needed, and also give me advice on what to do and what not to do. One of his advice things was to stay out of the way, (laughter) which I didn't listen to because no one competitive wants to stay out of the way.

Right.

I knew the boat wasn't fast enough to win, but I thought they could safely go around me, which they did. In that particular race all the other boats either crashed or conked out and we wound up with a third place out of it.

Coeur d'Alene tended to be kind of rough water.

It was. And it was Slovak and the *Exide* that crashed there.

Yeah, a couple years later.

Was it a couple years later?

Yeah. He took a pretty good hit.

Yeah.

You drove *Cutie Radio* in qualifying at Seattle and then resigned.

I think I resigned before then because I knew I wasn't gonna win any races. I didn't see it as being beneficial in helping my career, getting into unlimiteds, and Dave Johnson asked me to drive his *Tool Crib* boat at Seattle. And so, I believe that's when I resigned from the *Cutie Radio*.

Yeah.

It was a faster boat and a little bit more fun to drive. It wasn't fast enough to win much of anything either, but it was faster than the *Cutie Radio*.

In 1961 they had the three races in one at Seafair. You were in the Queen's Trophy race, or whatever they called it. Bob Gilliam was in it in one of his *Fascination* boats. You finished second, if I remember right.

Yeah, I think I got second out of it. I might've won a heat in that, I don't remember exactly. I know that the gear box kept coming loose. That was a concern of mine because it was sitting right in front of me. They'd have to tighten it up after every heat I ran it.

Watch your feet, or something.

There was some vibration going on in there

and, you know, when you have a gear box that comes loose every time you get in the boat, you worry about something happening.

Yeah.

I probably didn't drive it as hard as I could have, either, because of that. But I think between the *Cutie Radio* and the *Tool Crib* and my previous experience racing in outboards and inboards, between all of it, it contributed to [Bill] Schuyler asking me to drive the *$ Bill*, which was a step up.

Did you have a long-range goal when you started getting to drive an unlimited, at some point?

Yeah. At that point I wanted to do it. I wasn't sure. When I started winning a lot in limited inboards then I started thinking I want to do the unlimited class. I thought my real shot at it came with the *$ Bill* because that was a fast boat when it ran.

Before we talk more about the unlimiteds, in the 1962 Slough race you drove an unlimited-class outboard.

Yeah, that was a celebrity race, I believe. It was a runabout that a guy named Jack Leek put together.

OK.

He was in charge of OMC's racing division [Outboard Marine Corporation – Ed.] and he heard that I was gonna go up the Slough with a disc jockey in a runabout that Jacobsen built. He was good friends with Jacobsen so the two of them got together and Jack brought out, I think it was a V-4 from the factory for that race. He had a lower unit on it that was really good.

He actually came down to the lake house that my father had, with a bunch of lower units and asked if I would put them on a boat to see if they were better than what they had been racing with. So, I spent a full day with Jack and my father at the lake down there exchanging lower units. He found out what he needed to find out and that was really fun 'cause I was testing parts for OMC with Jack Leek, who was one of the fastest outboard guys you ever saw.

Yeah.

I think he ran an A Racing Hydro and whenever he got going, he would beat everybody hands down. That's how he wound up, with his engineering background and everything, being the head guy for OMC. Anyway, he came out with that engine for that Slough race. We didn't get it started as quick as some of the other guys so I had to pass them in the Slough.

That's not easy to do.

No. We passed most of 'em before we even got up to the first turn, but there were a couple that were ahead of us by the time we got to Bothell, and I just blew by 'em. I turned around to look at the disc jockey 'cause he was sitting in the back and I was up in the front of that boat. His eyes looked like tennis balls. He was frightened to death. But we didn't hit anything, and I had to go close to shore a few times to get around people.

You know, back in the day in the early '50s Don Benson and I used to go up the Slough all the time in outboards. So, I knew where the shallow parts were and where they weren't. I knew where the sharp corners were and where they weren't. I knew that Slough really well. So, I would cut corners people normally wouldn't, because I knew it was safe to do it. But we won that race, too. I had an advantage with Jack Leek's motor. It wasn't fair, but it was an unlimited class, so there you have it.

Before we talk about *$ Bill*, in '63 at Seafair you drove a 266 and 7-litre called *Challenger*. It was owned by Jack Colcock and Al Lyford.

Yeah, that was a boat Chuck Lyford won the Nationals with.

Yeah, and you won both classes that day, at Seattle.

I had some really good boats. Really good boats, and I would be ashamed of myself if I didn't win with those boats.

Well, Norm Evans was driving *$ Bill* and after Seafair he was out and you drove it at Tahoe, '63.

Yeah.

The race was stopped because of weather. You didn't get much time in it.

No, the water was really rough. I remember the race really well, even though I was young. I have photographs of that. Bill Harrah had given the owners and drivers cards so you could

Hydroplane and Raceboat Museum

Billy Schumacher drove the *Miss Tool Crib* in the 1961 Seafair Queen's Trophy race in Seattle.

drink and eat whatever you wanted. Of course, Schuyler put me up in a hotel room there at Tahoe, and it was a pretty big deal for me to be able to enjoy all of that at a young age. I was only 22. The race, I don't know if you have ever experienced Lake Tahoe, but back in the '60s the water was crystal clear. It was beautiful. You could see the bottom 100 feet out.

I remember hearing about that.

But it would get rough. It was such a big lake that you'd get swells that you couldn't see. I got the best start with the *$ Bill* and came down toward the first turn; hit one of those swells. The boat flew out of the water. I don't know how far I was in the air, but it felt like a long time. I was probably going 160 or better because Schuyler had a two-stage Allison in it.

OK.

It was fast enough when it stayed together to beat everybody, all the hotshots, Muncey and the *Bardahl* with Musson and all of 'em. It was fast enough to beat all of them, but it wouldn't stay together. It would blow up within a lap, and that's what happened as soon as I hit that wake. I would've been first to the first turn by probably six boat lengths, but it flew out of the water and the engine … I had to duck, parts flyin' through the air. But it was fast.

When it over-wound while the propeller was in the air, it just blew that thing sky high. That happened to me a couple of times with the *$ Bill*, when it just blew up, because it had so much blower, manifold pressure, that it would just break it. So, Schuyler wound up going back to the single-stage that was more reliable. But it wasn't nearly as fast. Rolls Merlins would drive around me.

Yeah.

I was in Detroit and I beat Ronnie Musson to the first turn with the *Bardahl*, and he went around me in the turn. He waved at me, bye-bye. I looked at him and waved bye-bye back. And then he blew by me down the straightaway and I think one or two other guys did. I just couldn't keep up with it, and Schuyler had thought that I wasn't driving the boat well enough, so '64 was the last year I drove it. But it wasn't, in my opinion, wasn't driving it well enough, it wasn't fast enough. Then he had a fuel problem with it as well where it would cut out occasionally and then people'd go around me. But, nothin' I could do about it. I still got out in front and couldn't stay there.

Do you know why Norm Evans was out after Seafair in '63? Did he have a disagreement?

I don't know. Schuyler was the kind of guy where if you didn't win with his boat he wanted somebody else to drive it. It wasn't so much the driver, I don't think, as it was the boat.

Yeah.

So I can't really say what happened with Norm, because I don't know. But I know that's what happened to me.

So, at the end of '64 did he tell you he didn't need you anymore, or…?

Basically, yeah. And, uh, I went back to limited racing.

You still had some of your limited boats?

Yeah, I had the 280 and I think I was still driving the 136, the *JJ & MM*. And I drove the *Challenger*, Lyford's boat, the *Challenger* in a few races. And I'd listen to the unlimited races on the radio. And that's how we did it. Then, one glorious day, Jerry Zuvich, with the *Bardahl*, came to find me because Ron Musson wanted me to test drive the *Bardahl*. Musson was intrigued with me because I beat him to the first turn quite often, with boats that weren't fast enough to stay in front of him. So, he wanted me to drive that boat.

Now, which *Bardahl*, the cabover or…?

Hydroplane and Raceboat Museum

In 1963, Schumacher was hired to take the controls of the U-21 *$ Bill*.

Josef Scaylea The Seattle Times

Billy Schumacher brings the *$ Bill* back to the pits during the 1964 Seafair Trophy Race in Seattle.

This was the cabover *Bardahl*.

Yeah, I understand you tested it.

Yes. And it did have a problem. I later found out what that problem was when I was driving the *Pay 'n Pak*.

Oh.

But we didn't know what the problem was and what he told the crew what was happening. It would get up to 155 to 160 and it would all of a sudden turn left. The boat would cock left. It wouldn't necessarily turn left, it would cock left. It would start going that way, but it was kind of a scary experience. But it would drive wonderfully well before that happened.

Mmm.

It would take the speed of 155 to 160 before it would do it.

OK.

But the experience I had with the *$ Bill* beating Musson to the first turn quite often is what got me the driving job with the *Bardahl* as it turned out.

So, after Musson's accident at the President's Cup, did you know that Ole might be talking to you for the next season, or…?

Well, I had a good indication, because Musson wanted me to test drive the boat that he was eventually killed in. He made it quite clear that he was planning to retire that year and have me drive the boat.

Oh, wow.

And he didn't like it. He simply didn't like that boat. And I did. I knew it had a problem but…

Was that problem fixed?

No.

No?

I don't think it had been, but that isn't what caused the accident.

But could it have been fixed if the boat had stayed together longer?

Don't know. The same thing happened to me. I'll jump frog a little bit to the *Pay 'n Pak*. The same thing was happening to me with that boat. It was about 160, about the same thing. When I got thrown out of the boat in Miami, we discovered what the problem was. I got thrown out because the keyway in the rudder system broke.

Oh.

And it would turn left. We put wings on the boat and did all this other stuff and some of the crew thought I was just afraid of the boat and all that, but it would turn left at that 155, 160 speed without turning the wheel.

What was happening was that the rudder would move when it got up to that speed, even though they would tighten the bolts on the top of the rudder as tight as they could get it and put the wing nuts and all that so it wouldn't come loose. There was a little slot in the keyway. So, when you got up to that speed the rudder would move that little bit. That's what made the *Bardahl* and that's what made the *Pay 'n Pak* turn.

Mmm.

"It [the $ Bill] was fast enough when it stayed together to beat everybody, all the hot-shots, Muncey and the Bardahl with Musson and all of 'em. It was fast enough to beat all of them, but it wouldn't stay together."

Hydroplane and Raceboat Museum

Schumacher takes the U-21 *$ Bill* onto the Lake Washington racecourse.

RIGHT: Schumacher tested the new cabover *Miss Bardahl* before the 1966 season. Ron Mussion was killed driving the boat in the season's second event.
BELOW: Schumacher in the cockpit of the new *Miss Bardahl* in 1967.

Bob Carver

"So Karelsen would be putting a nail or a staple into something and Ole'd say, 'No, no, no, no. I want a screw.' So that's the way it was built. It was built well. And it worked out right from the get-go."

They told me in Miami, with the *Pay 'n Pak*, just drive through it. Well, sure, from the beach it's easy to say that.

Yeah.

But in the heat of the day I wound up doing it because Chenoweth was challenging me in the *Budweiser*, or whatever boat he was driving. I think it was the *Budweiser*, I don't know for sure. But I didn't want him to do that so I put my foot all the way into it, even past the point where it turned left, and it started to, it went through it OK until I got to the turn, or close to the turn when you decelerate.

As soon as I decelerated it took the pressure off the rudder and it started to vibrate violently, and I experienced what the 225 did. The steering wheel got really fat. The next thing I know I was in the air. I saw the stadium in Miami in my eyes and I thought, "Oh, it's been a short life." That's what I remember thinking. That's the last thing I remember until I woke up in the water, face down. But what happened was that I drove through that point and then it vibrated enough on deceleration to sheer the keyway.

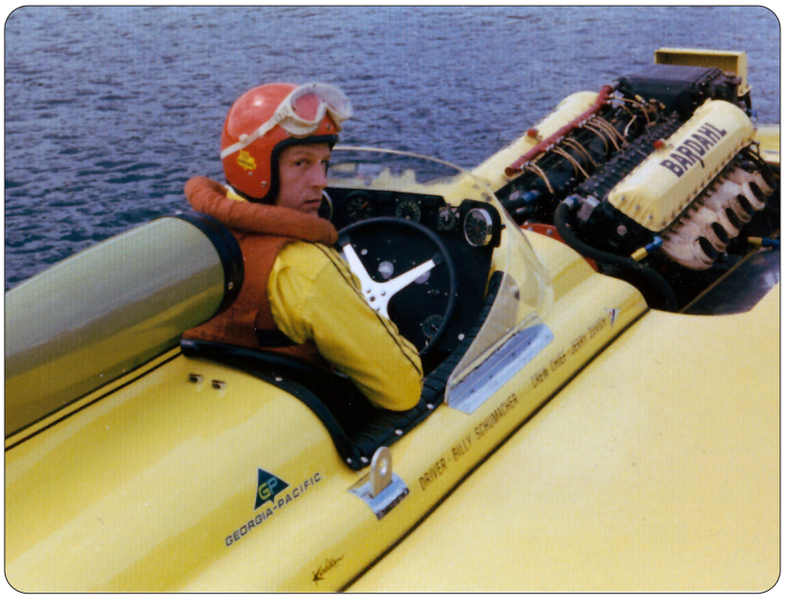
And so, when you decelerate and the keyway is no longer holding the rudder, it moves and the boat stuck on its side, threw me out, and did a complete loop in the air. Tore a big notch in the back of my helmet, which basically knocked me out. My gloves, or at least one glove, was still in the boat. That's how quick I left.

Wow.

When it stuck sideways like that at that speed and spit me out. Steve Montgomery, I believe, still has that helmet. I gave it to him way back when. I think he still has that helmet with the notch in the back of it. But, anyway, the *Pay 'n Pak* taught me what was wrong with the *Bardahl*. Of course, you can't prove that at this point but the same, the exact same thing happened so I'm sure that's what the problem was.

Yeah.

It's not what caused the accident with Ron Musson. No one is really sure if he hit a piece of wood in the water or what, but one of the blades came off the propeller and that's what caused what happened to him. It ripped the strut out of the bottom of the boat. The shaft turned into, it looked like a pretzel. When the strut came out of the boat it went upside down and the water hit that and blew the back of the boat up, which made it nosedive. They don't know if it happened



Hydroplane and Raceboat Museum

from the blade coming off or whether he hit something. They don't know, never will.

Well, in '67 you got the offer to drive *Bardahl*.

Your initial question was whether my driving the *Bardahl* is what led Ole Bardahl to ask me. I believe it did. I believe Ron Musson telling him he wanted me to be his replacement is why he picked me. We went over to watch the race in Tri-Cities. He asked me what kind of boat he should buy.

Oh.

I told him that I didn't think he should buy one, I thought he should build one. The question was, who should build it? I suggested Ed Karelsen because what I wanted him to build, and he agreed to, was a copy of the *Bardahl* that Ron Musson won everything with. That was such a fast boat that I thought we should build something like that. But the *Challenger*, the 7-litre that I drove for Lyford, had a full non-trip on the side. The unlimiteds back in those days had a flat side with the non-trip in the back.

That's where they painted the name, on the flat side.

I think there were a couple of boats built like that before the *Bardahl*, I don't recall, but I think I've seen photographs of them. We did it like the *Challenger* was, the 7-litre, because I liked the way that boat cornered, and you had zero chance of the side of the boat catching a wave and flipping you over.

So that's what we did. Ole had Ed Karelsen build it 'cause I had a lot of confidence in Karelsen. And Karelsen was, among his other talents of being a great boat designer and builder, he also was a great copycat. He could copy about any boat out there. And I knew that and I wanted him to copy the *Challenger* side and put it on the *Miss Bardahl* exactly with the lift that it had, the sponson depth that it had, the sponsons themselves, all of it.

And he did it successfully with

Eileen Crimmin

Sandy Ross Collection

Byron Lang

TOP: Schumacher fires up the engine on the brand-mew Miss Bardahl to start a test run.
MIDDLE: From the left, Schumacher, race promoter Phil Cole, and team owner Ole Bardahl.
ABOVE: The Miss Bardahl was given a black and yellow checkerboard paint job in 1968.

Ole Bardahl watching every move that he made. And Ole did do that, 'cause Karelsen would use screws and staples and all that kind of stuff, and nails. Ole Bardahl wanted screws almost every time.

Ahh, OK.

So Karelsen would be putting a nail or a staple into something and Ole'd say, "No, no, no, no. I want a screw." So that's the way it was built. It was built well. And it worked out right from the get-go.

It did rock over on its nose right at the beginning and I wasn't sure what was causing that, but I could tell it was doin' it. Jerry Zuvich and Ed Karelsen figured out what it was. Then, you know, I always kinda wondered if it was built exactly like the *Bardahl*, why it did that. What they did to fix it was lengthen the flat area of the sponson runner. It was only four or five feet long and they made it longer. Jerry could tell you, but I think it was over six inches longer being flat. That cured the problem. It didn't go over on its nose anymore.

We knew the boat was gonna be good when we went to Florida for the first race. I was pretty nervous, and I can tell you all about that race, but the water was so rough that I didn't really push the boat as hard. I wasn't going to kill myself in the first race in the *Miss Bardahl*.

That was in Tampa.

It was in Tampa, yeah. But as the season went along the boat turned out to be the boat that we expected it to be.

So, they made those little changes during the season to get the handling…?

No, that sponson change was…we tested the boat when it was brand new off of Sand Point.

OK.

We christened the boat in Seattle. Then we didn't run it very much there. When we ran it at Sand Point, we pushed it to see what it would really do. That's when we found that it rocked over on its nose. So, after that was fixed, we didn't do anything else to the boat.

Hydroplane and Raceboat Museum

After taking the 1969 season off, Schumacher drove the brand-new *Parco's O-Ring Miss* in 1970.

OK.

We made a lot of engine modifications and changes because that's the way they did it with the *Bardahl* back then. They had high-dome pistons, and they had several. You could pick from two different-sized, high-dome pistons. Depending on the racecourse and competition and a few other things we would decide which engine we would use.

So, they built engines specifically for a certain racecourse, then.

Yeah, because the high-dome would give you more acceleration. It also gave you more manifold pressure, which, you know, was a danger point for blowin' rods out of the side of a Rolls Merlin.

Yeah.

So, you had to be careful what you did then. At small racecourses I'd pick the high domes. The medium-sized course, or a long-straightaway course, I'd pick the middle of the road high-dome. And then for the racecourses like Seattle where you ran a big ol' course, we ran the stock pistons, 'cause you didn't need that acceleration.

You needed the higher speed.

Yeah. So, we had tricks up our sleeve that we used, as well as different propellers, but the boat stayed the same. We didn't change it at all.

Everyone was starting to use nitrous oxide by that point, too.

Yeah. They had used that.

Three or four years before.

Yeah, and we were fortunate to have Dixon Smith who came up with that whole trick. Brilliant man. To have him on our crew; if anything went wrong with the nitrous system, you know, we got it fixed immediately. And I think we probably had the best system of anybody as well. We enjoyed a lot of that. You know, later in my career I wished I had three or four bottles of nitrous rather than just two, because I'd use it all up.

At first, they were saying just coming out of the turns you use it for a quick blast, but later they were on it almost through the whole race.

Well, they'd use it a lot down the straightaway and stuff, too. But I was the one that really learned how to use it in the turns.

Mmm.

Kinda by accident. I got on the button in the corner. It really made the boat react. And I thought, wow, that's good. You know, if you drive it right, that could be a good thing.

That was in the *Bardahl*?

No, that was in the *Weisfield's*.

Oh, OK.

No, I only used it coming out of the turns in the *Bardahl*. And sometimes down the straightaway if I needed to. But I never thought of using it in the turns. I mean, people would think that you'd spin the boat out or flip the boat or something. Then when we found out that it worked really well in the corners, I was blowin' everybody away until they figured out what I was doing.

Well, you won the Gold Cup both years, '67 and '68, and you were national champion both years.

Yeah, you know, in '67 the boat cornered so well with that full non-trip that I could beat most of 'em because of that.

Yeah.

I just knew I didn't have to go as fast as the rest of 'em down the straightaway. I wasn't a guy that was totally thrilled with going fast. I wanted to go fast enough to win the race, that's all.

Right, yeah.

In fact, that full-length non-trip saved me in Madison, Indiana, in '67, 'cause I got a terrible start in one of the heats and went across the starting line probably in last place. But I had the inside. I was close enough to where they couldn't really legally cut me off. So, I went into the turn in last place and came out in first place. The reason that happened was in the middle of the turn I hit a swell, which was what you normally hit in Madison, Indiana.

Yeah.

And the boat, instead of makin' the normal arc around the corner, hit that swell and dug in and went immediately to the left. Well, those turns are sharp in Madison.

Oh, yeah.

So, it didn't flip over, but it went immediately to the left and I'm looking at the exit buoy where normally I'd be way out of line with it because of the tight turns. I'm looking right at the exit buoy and had to actually turn to the right a little bit to get around it. I just hit the nitrous and blew out of that corner. So, I went in in last and came out in first. I think it was Evelyn (Bardahl) was telling my father once again, "Look at how he made that corner." What they didn't know was it was a total accident and I almost killed myself in that corner.

But it worked out really well in my favor and needless to say we won that heat and won the race, too. The boat cornered really well. In fact, I had a lot of confidence in that ability in the corners after that. And that was, I think, only the second race of the year. It could have been the third 'cause Detroit might've been in between, I'm not sure, but we burned up the wiring in Detroit, so we didn't get to race.

That was one of the races we lost that year. The only other one was in Kelowna, B.C., where I wasn't tough enough on my competitors. I was ahead and the *Budweiser* with Mike Thomas driving it, was a friend and I could've cut him off and I didn't because of it. I figured I'd win the race anyway 'cause I was in front, but in the last lap the engine broke.

I wound up finishing second to him, because the engine still ran. Ole would tell you it's because of the Bardahl oil. It still finished. I was able to finish that half-a-lap with rods stickin' through the side of the motor, but I wasn't able to beat the *Budweiser*. He did get around me. He might not have been able to if I had the inside and cut him off like the crew wanted me to.

Yeah.

Those were the only races that year we lost, and in 1968 I was pretty confident in the boat winning again like it did in '67, but I didn't expect the competition that I had, and they caught me with my pants down, so to speak. They were beating me at the starting line. In order to get the inside lane, they had it figured out. I had to get there early. They're taking a second or third lane at a faster speed, would beat me.

They weren't as critical on cutting people off back then. I got cut off a lot in the first turn. So, it was really a tough year for me that year and it was one of those years, too, where I wasn't as sharp on the starting line as I normally was.

And, you know, that happens to drivers. You go through times when, I don't know if it's cockiness or laziness or what it is, but you're just not as good as you normally were. And that, '68, they caught me when I wasn't prepared for them, and I didn't do as well as I did in '67. We still won enough races to win everything. And Colonel Gardner getting killed in Detroit wasn't good.

Yeah.

I was figuring I could beat him and

Randolf Routt

Schumacher and *Parco's O-Ring Miss* in action during the 1970 season.

Budweiser even if I didn't start better than they did and that was kinda the wrong mindset to go in. They were fast enough to where I needed to get a better start than I was getting. It turned out that I was able to beat *Budweiser* even though he had a better start than I did in the final heat, but it was a tough year. We still had enough points to get the national title that year.

The paint on the boat was changed from yellow to checkerboard in '68.

Yeah. There was a fellow named Dan Bolls that worked with John von Neumann in California, and von Neumann owned Volkswagen in Southern California. Well, Dan Bolls talked him into using Bardahl in his program with Volkswagen and that was worth a lot to Ole Bardahl.

So, Ole paid him a handsome commission and also hired him because of his sales ability. Dan was a pretty bright fellow and one of his things to Ole was to bring the airplane racing and Indy car racing and the boat racing together. His way of doing that was to paint all three vehicles in the same way, with checkerboard.

OK.

I personally didn't like it, because the *Bardahl* in '67 was so successful with yellow. There's a little superstition that goes along with driving boats and I think it does with cars, too. And I wasn't totally free from that. I had some things that I did on a regular basis and I felt it wasn't good luck if I didn't do that.

There were a few things that I did do. And the one thing that I also liked was the yellow boat that *Bardahl* had in '67. So, when that was changed, the yellow and black checkerboard, it was a change I didn't particularly like. As it turns out, it was a really popular color scheme with everyone. It did show up on the water extremely well.

Yeah.

It probably was the most popular *Bardahl* boat ever. And that was a pleasure for me to be able to drive it. In my racing career from beginning to end the most success I ever had racing, I think, was with the *Bardahl*. This *Bardahl*. It was a fun boat for me to drive. I had a lot of fun boats to drive but that was one of the most fun because I felt like I could drive it better than anybody else could drive their boat. I had a hand in designing it and I had a hand in winning the first race with it, and it just grew from there.

Well, after '68 Ole pretty much got out of it. He came back for two races at the end of '69. You didn't drive that time.

No, I was a little bit insulted because after winning that for him with *Bardahl* when I drove it, Musson won a lot of races with him as well, but in the short two years that I drove the *Bardahl* I think I won more than anyone else ever did for Ole Bardahl. To ask me to drive it for free the following year was an insult to me. I just wouldn't do it. Refused to do it. I stayed out of racing in '69 and then I talked to Laird Pierce about *Parco*. That's what got me into the *Parco* racing. But that's why I didn't drive the *Bardahl* in 1969.

Fred Alter drove *Bardahl* in '69.

Yeah, they selected Fred Alter for one reason or another.

Did you go back to inboards at all, or did you stay on the beach?

I didn't race. I was living in Los Angeles. That was close to Laird Pierce and the *Parco*. So, I had many conversations with him. But I didn't race. It was tough for me. I listened to all the races on the radio. I went to the race in San Diego because I was there, in Los Angeles. I think I even came to the race in Seattle. I didn't see the *Bardahl* do very much that I'd be proud of. And I knew that Ole was planning to retire anyway. So that had an influence on my decision as well.

Yeah.

I didn't want to just race two races, especially not for free.

Bardahl didn't have any intention of going east with the boat in '69?

No, I don't think so. He had sold the sales rights to a fellow named Jules Berman who at that time had Kahlua, had brought Kahlua to the United States. So, he made a lot of money in his own field and he made a deal with Ole Bardahl to buy the sales rights for the United States. He didn't have any interest in racing, not boats, not cars, not airplanes.

And Ole was the kind of person that said, "Well, the heck with you, then," to put it kindly. "And I'm not gonna pay for the racing if you're not going to participate in it." So, he didn't. He got talked into it by family, I think, and crew, and others, to race the boat in those two races.

That's when I was asked to drive it, but no. Had I driven it for nothing it wouldn't have helped my career later, and I wasn't gonna do it. So that's what happened there. It was hard for me to stay out of it, but even more difficult than that was what happened to me in the *Parco*.

Yeah, Karelsen boat, you would have thought it was going to be a real good boat.

Right.

Like *Bardahl*, but it wasn't there.

No, and I can tell you why.

OK.

We had Jack Cochran building the engines, who built the one for Dave Heerensperger when he raced with Colonel Gardner.

Yeah.

Having been beat by Colonel Gardner a couple of times when I was driving the boat of my dreams, um, I thought he had some really good engines then. So, I was really happy to be racing with Jack Cochran. And Laird probably had a dozen Rolls Merlins sitting on the floor, as many I think as anybody had at that time. Jack had rebuilt most of them. Those that weren't rebuilt were fresh.

Wow.

Rich Ormbrek

With Schumacher in the cockpit, *Parco* crew members are perched on the deck of their boat as several spectators watch.

So, I had a stable that I thought was really prepared, and real proud of the crew. We had Gary Crawford who was on the *Bardahl* crew. I was pretty confident. Then Laird said, "What boat do you want?" just like Ole Bardahl did. And I said, "I want a copy of the *Bardahl*. If we get a copy of the *Bardahl* we're gonna win some races." So, we ordered a copy of the *Miss Bardahl* from Ed Karelsen. And unbeknownst to both Laird and myself, Ed had a new shop that wasn't wide enough…

That's the one on Roosevelt Way?

…on Roosevelt Way…

Yeah.

…to build a copy of the *Miss Bardahl*. So, we didn't know, but he built it narrower. I think it was as much as 12 inches narrower.

That's a lot.

You know, where that was cut back was in the center section. In other words, it wouldn't get enough air under the boat. He made other changes, too, that I wasn't really happy with. It was a Karelsen boat, it was built like the *Bardahl*, except it was narrower and it wasn't built out of wood like we asked. A lot of it was aluminum. He convinced us later that that was the way to go. It still had some wood in it, but he bought aluminum. That wasn't the real problem, the real problem was it wouldn't get enough air in it. There was nothing, absolutely nothing you could do to that boat to make it go fast.

Yeah.

I nearly got killed in it in Washington, D.C., because I was pushing the boat as hard as it would possibly go. Down the straightaway it would just jump up and down. It wouldn't hold the air. I got to the first turn first with Muncey on the right side, as they used to say on my hip. Fortunately, it was him there, because when I got to the turn it went up on its side. The water came off the deck and slapped me in the face and I don't remember much of anything until it came back down. I didn't do it. It came down on its own.

I'm sure it was that full non-trip that did it again. But the boat made a right-hand turn when it did that in the corner because the rudder was out of the water. And Muncey had to turn immediately to the right in order to avoid hitting me. It would have been an accident like happened in Washington, D.C. between *Notre Dame* and *Budweiser*. He'd have run right over me. Fortunately, it was Muncey there that made that turn.

We wound up in second place behind Muncey. I think we got another second in Detroit with the boat. But it was a handful to drive. It wouldn't go down the straightaway. It hopped. It did all kinds of weird things. And I didn't know what to do. We brought Jerry Zuvich in to help 'cause he basically was the one that fixed the problem with the *Bardahl*. I thought maybe he can fix this until we discovered that it was the narrow tunnel. And you can't fix a narrow tunnel.

No, it is what it is.

And other people bought that boat afterwards, they couldn't do anything with it. Nothing could be done with that boat.

Yeah.

It was a shame, because we had a really good opportunity. We had a lot of boat races that year and had that boat run like the *Bardahl* boat did, we would have done it. The craftsmanship and everything was wonderful in it, like Ed's boats, but there was a mistake in that boat. Unfortunately, it didn't work out for Laird or myself.

Yeah.

It took me a while to get another driving job. I was trying while I was driving that boat. I didn't like it, didn't want anything to do with it after a while.

Yeah.

Dave Heerensperger and I finally got together with the *Pay 'n Pak*. ❖

Next month, in part three of our interview with Billy Schumacher, he talks about driving Pride of Pay 'n Pak, his time on the international tunnel boat circuit, and his return to the unlimiteds. Be sure to catch part three in next month's Unlimited NewsJournal.

FROM THE UNJ VAULT:

Half Lion, Half Eagle

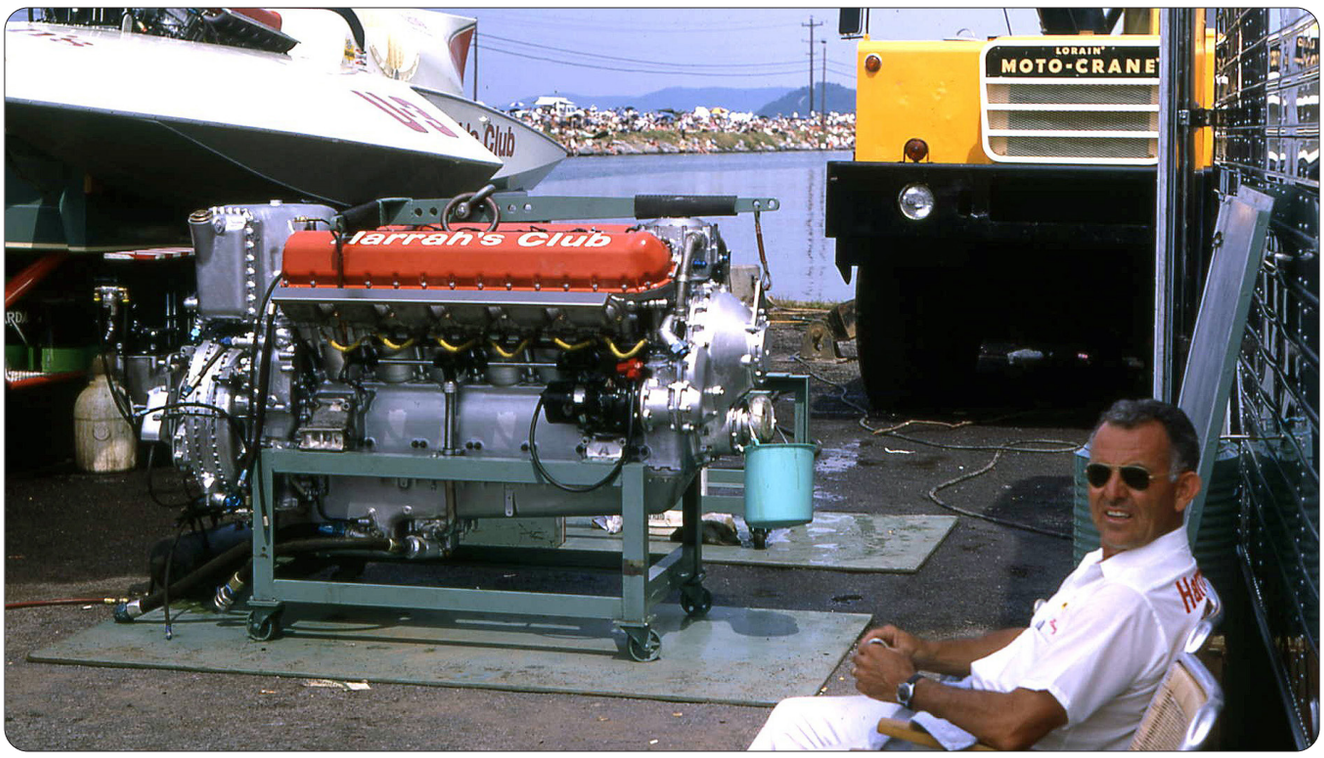
A BRIEF HISTORY OF THE ROLLS-ROYCE GRIFFON AERO ENGINE

There's always been a mystique about the Rolls-Royce Griffon engine, an enlarged version of its sibling, the more common Rolls-Royce Merlin of World War II fame and a mainstay of hydroplane racing in the 1950s through the early '80s. The following article was written at a time when the Griffon had yet to make its biggest mark on the sport, but when it was clear that day was coming. The article was published in the February 1977 issue of the Unlimited NewsJournal, two years before the Budweiser team would use the engine to great success.

BY E.K. MULLER

The Griffon, like its cousin the Merlin, is a liquid-cooled, in-line engine with 12 cylinders arranged in a 60-degree vee. It displaces 2,239 cubic inches (36.7 liters), a third more than the Merlin. Both trace their ancestry to the Rolls-Royce Kestrel of the 1920s.

A scaled-up version, the Type "H" or Buzzard, proved unsuccessful but formed the design basis for the legendary "R," which was handmade for defense of the Schneider Trophy in 1929 and 1931. Great Britain won both races and took permanent possession of the cup, which was then



Harry Volpi, team manager for the *Harrah's Club*, relaxes near the Rolls-Royce Griffon that his boat used during the 1968 season.

Tony Bugeja Collection

synonymous with the world's air speed championship. Two weeks after its final victory, the same graceful Supermarine S.6B float plane raised the straightaway record to 407.5 mph.

Contemporary military engines produced 500 or 600 horsepower; the 1929 "R" was good for 1,900, brake! By adding revs and boost, Rolls increased the output to 2,350 horsepower for 1931. The last "R" weighed 1,640 pounds, turned 3,200 rpm, and lived one hour.

More modest projects occupied the Rolls-Royce staff during the early '30s. Following several failures, another Kestrel derivative, the Merlin, appeared. It was serving the Royal Air Force when World War II began. Designers then looked again at the 2,239-cubic-inch dimensions of the "R" for their next venture. They set an important conceptual goal: that the new engine should fit airframes originally intended for the smaller Merlin.

First production Griffons, Mk. 11, arrived in 1941. The Fleet Air Arm (Royal Navy) used them in Fairey Firefly reconnaissance fighters. Soon, however, the RAF had a few Griffons put into some test Spitfires. The combination worked very well.

Over 2,000 Spitfires and navy Seafires, including all marks numbered above XVI, flew with the big engine. Many people thought them a kind of super Spitfire, deserving a different name. Indeed, the ultimate Griffon-spits, which became available in limited numbers at war's end, were called Spiteful by the RAF and Seafang by the Royal Navy.

Fairey meanwhile continued building Fireflies, 1,700 of them, right up to 1956. The other peacetime Griffon user was the four-engined Shackleton patrol bomber. Avro delivered 180 between 1949 and 1954; Mk.2 Shacklestons remained operational in squadron strength well into the '70s.

Summing up: the Griffon progressed from 1,720 takeoff horsepower in early models until it yielded more

Hydroplane and Raceboat Museum

The Griffon engine made its first appearance in an unlimited in powering the *Miss Canada IV*.

than 2,000. Weight grew, correspondingly, from 1,800 pounds to 2,200 pounds, plus. Two-stage supercharging (introduced late in 1942) added part of that weight. The second stage, and charge cooling, improved altitude performance. Mk.101, among the last Griffons, had a three-speed, two-stage blower and made 2,420 horsepower at 5,000 feet, pulling 80 inches and 2,750 rpm. With this engine, a Supermarine Spiteful F.16 topped 494 mph, the fastest level-flight speed ever achieved by a piston-engined British aircraft.

To the enthusiast, the appeal of the Griffon is manifold. Size, of course, though it resembles a Merlin more than not. The noise, the "growl" … ah, that is prodigious. And the idea that the Griffon may be the highest expression of liquid-cooled piston engine design catches the mind. One facet of the Griffon mystique can be deceptive, however. Merlins and Allisons, built in large quantities, are well known even today, but you cannot call the Griffon rare.

Not in aircraft. In boats, it's another story.

Griffons have powered four unlimited-class hulls. Foreshadowing them, the *Miss Englands* and Malcom Campbell's *Bluebirds* used "R" engines in the 1930s. Campbell acquired several for his car racing endeavors, which brought glory to the Empire and, to Sir Malcolm, the land speed record. An "R," installed in the second *Bluebird* hydroplane, set another world record, 141.74 mph on water, the mile straightaway mark that stood from 1939 until 1950. (Incidentally, Donald Campbell considered a MK.65 Griffon when he planned the later jet-propelled *Bluebird*.)

E. A. Wilson became the first man to launch a Griffon-powered unlimited in 1949. Van Patten designed and Greavette constructed *Miss Canada IV* as a Harmsworth challenger.

Because Great Britain still had frontline duties for the Griffons, the only way Wilson could get any was by borrowing them. The Air Ministry let Rolls-Royce provide two Mk.57s with a recapture clause. And no tinkering, please! Rolls sent along two mechanics who maintained the engines and saw to it that they stayed stock.

Miss Canada IV, piloted by Wilson's son Harold, failed at two Harmsworth attempts in 1949 and '50. The step boat did set a short-lived North American mile record of 138.645 mph, and according to Van Patten, demonstrated a potential for much higher speeds.

Part of Canada's trouble, at least in her maiden year, could be laid to the Griffon, or to the English guardians. The two-speed clutch on the quill shaft worked erratically because it was controlled by the original aircraft-sensing device, which responded to throttle and barometric pressure. Rolls would not permit fixing it in one position. Later on, the factory escorts became more com-

Hydropolane and Raceboat Museum

The CA-1 *Miss Supertest II* during its appearance at the Gold Cup in Seattle in 1958.

fortable with the situation and looked the other way while some changes were made.

Back to England went the Griffons when Wilson retired. Col. J. Gordon Thompson bought the *Canada* hull and campaigned it in 1952 as *Miss Supertest*, powered by a Merlin. Next year, Thompson got a couple surplus Mk.VI Griffons. The boat raced one last time with the big engine, Bill Braden guiding her to seventh place at the 1953 Silver Cup.

Miss Supertest II, a 1954 Staudacher three-pointer, ran with a Griffon until it was destroyed in Bob Hayward's fatal 1961 Silver Cup accident. The boat was the Harmsworth challenger in 1956, but lost to a smaller Allison-powered U.S. defender, *Shanty I*.

For 28 days in November 1957, *Supertest II* held the world's straightaway record for propeller-driven watercraft: 184.5 mph. Art Asbury, Danny Foster, Braden, and Hayward steered her on various occasions. A heavy boat and always a mean one to handle, *Supertest II* cracked up several times and was often rebuilt or modified. Her successor, *Miss Supertest III*, made it all worthwhile, all the effort Thompson and his son Jim put into the Griffon power plant.

Miss Supertest III, equally with the fabled "R," is at the heart of the romance of the Griffon engine. She entered only four races in a too-short career. She won all four. And, for Canada, *Miss Supertest III* claimed, and kept, the renowned, elusive British International Trophy—the Harmsworth.

Created by the racing team, driven by Hayward, the boat performed superbly from the start. First, she took the 1959 Detroit Memorial, then beat *Maverick* for the Harmsworth later that summer. The *Supertest III* retained the prize in 1960, against three challengers, and in 1961, won so convincingly that U.S. owners abandoned their attempts.

One particular *Supertest* record shows how formidable the boat was: a five-mile competition lap at 126.22 mph. Hayward told reporters he'd needed no more than 2,900 rpm. "He can go a hundred miles an hour on the starter," Americans joked, ruefully.

We know that the Thompsons used Mk.VI and Mk.57 Griffons in 1956. Mk.VI, an old Seafire engine with a two-speed, single-stage blower, produced 1,815 horsepower for takeoff, and weighed 1,980 pounds. Mk.57 came from the Shackleton. Although it had one-stage supercharging, the Mk.57 was essentially a post-war engine and profited from the combat experience gained on earlier Griffons. Rolls-Royce gave the 57 a "dry" takeoff rating of 1,960 horsepower; or, with antidetonant injection (water and methanol), 2,450! One doubts if even the *Supertests* could contain such power.

Later on, both boats had Mk.65 Griffons (Spitfires XIV and XVIII, phased out of the RAF in 1955). The 65 employed a two-stage supercharger and weighed 2,090 pounds. An "altitude" engine, its takeoff horsepower was a conservative 1,540. *Miss Supertest III*, with a Mk.65 and all her records and glory, retired to the Ontario Science Center, a Toronto museum. Seven years passed before a Griffon roared again on the water.

Early 1968 found *Harrah's Club* testing Griffons. The Tahoe people changed from auxiliary-stage Allisons only after some wondrous excursions, such as Buick V-6 or exhaust turbine power for the blower. Imaginative minds in this camp.

Driver Mira Slovak, the story went, had secured Australia's entire military Griffon supply, 15 or so. Besides a new engine, the hull (the *Tahoe Miss* of 1964) looked different now, having been altered to a pickle fork.

Days before the first race, Slovak

Hydroplane and Raceboat Museum

The CA-3 *Miss Supertest III won each of the four races that it entered during its short career.*

Jim Dunn

ABOVE: The *Harrah's Club*, the 1966 national champion while named *Tahoe Miss*, used a Griffon engine in 1968. **BELOW:** Another view of the monster engine in *Harrah's Club* colors.

nearly lost his life in an airplane crash. Substitute driver Burnett Bartley, Jr., got mediocre results from the U-3; rpms were down, and the boat was sluggish. At mid-season, the crew filled in the bow to restore lift and moved the skid fin to correct yawing. With the Griffon running better, too, performance improved dramatically.

Jim McCormick had the seat. He and the *Harrah's Club* blossomed as a competitive threat, best remembered for two stirring deck-length victories over national champion *Miss Bardahl*. On the homestretch of Heat 2B at Seafair, Schumacher drew alongside, and Jim pushed the intake pressure to an unearthly 150 inches. McCormick says, "I can't think of anything that didn't break in that last dash." *Harrah's* crossed the line 12 feet ahead of *Bardahl*.

The Nevadans had just started a new Karelsen-designed hull when Bill Harrah abruptly left boat racing in January 1969. After two and a half years on the beach, the U-3 and the Griffons were sold to Bernie Little. As *Budweiser Malt Liquor*, the equipment enjoyed a one-race reprise at Dallas with Terry Sterett driving. Three ex-Tahoe crewmen, Goeschl, Fontana, and Borland, gave their old charge the usual meticulous care.

Bill Harrah's team ran two Griffon models: Mk.57 and Mk.74. The single-stage Mk.57 (or nearly identical 57A and 58) was a Shackleton engine, but the only exports had gone to South Africa, so the certain source of Slovak's treasure remains unknown. The 74s—two-speed, two-stage blower and charge cooling—came from Fairey Fireflies.

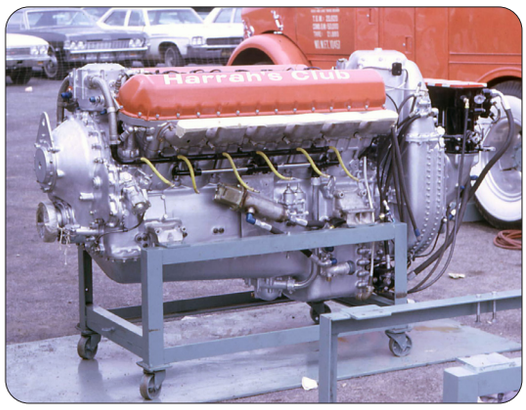
In the '60s, the Royal Australian Navy flew some Firefly 4s and 5s as target tugs. Griffon Mk.74, a navy development of the Mk.65, had an odd injection-pump carburetion called speed density. On 150-octane fuel, a 74 could generate 2,045 horsepower for takeoff.

All the big engines shared these basic specs: 6.0-inch bore x 6.6-inch stroke (direct legacy of the "R") and 6:1 compression ratio. Most structural practices are like the Merlin's, except for opposite crankshaft rotation.

Early single-stage engines took accessory power at the gearbox end and drove the supercharger, mags, and cams by a long shaft through the crankcase. The two-stage models had the takeoff at the blower end, Merlin-style.

On those two-stage Griffons, the cube-shaped aftercooler sits at a distinctive angle between the cylinder heads. This reduces friction in the intake. The husky overall appearance of the Griffon testifies to excellent design, which packed 2,239 cubic inches into almost the same envelope as the Merlin.

A few modifications must be made to adapt either engine to boat racing. The output from the 57's reduction gear housing was intended for contrarotating propellers. There's no particular problem in changing that. The speed density on



Sandy Ross Collection

To the enthusiast, the appeal of the Griffon is manifold. Size, of course, though it resembles a Merlin more than not. The noise, the "growl" . . . ah, that is prodigious. And the idea that the Griffon may be the highest expression of liquid-cooled piston engine design catches the mind.

Hydroplane and Raceboat Museum

The Griffon-powered U-3 *Budweiser Malt Liquor* appeared in Dallas in 1971

the Mk.74, though, can be a headache. (Speed density defies simple explanation. (It's a sort of fuel injection into the supercharger, not individual cylinders.) Harrah, with fine engineering resources, switched to ordinary carburetors.

For some reason, perhaps the lack of ADI, the 57s didn't seem as strong as the 74s, which "could do 165 to 170 mph at will," according to McCormick, "and had a lot more on the low end." Both suffered engine failures: rod bolts, quill shafts, blower drive gears, and connecting rods, in about that order.

Everyone who used Griffons fretted over carburetion, superchargers, and gearboxes. The monsters had horsepower alright and allowed good boat speed at cruising rpms. Turning only 2,800, U-3 made 130 mph; as for *Supertest*, it could run all day like a tractor. Finding enough acceleration to move the added weight was the key. *Supertest III* beat *Maverick* in their deciding Harmsworth heat by choosing a smaller prop. (They had a whole long bench in the shop for nothing but props, an awed rival recalled.)

The *Harrah's* crew consulted with Charley Volker, who'd done the Canadian's gear work, and ran high ratios like 3.2:1 and 3.52:1 in the off-engine box. "It goes quick like a slingshot when you ask," said Slovak. McCormick agreed, testifying that the U-3 accelerated faster than any boat he'd driven up until then.

The *Harrah's* Griffons—a dozen 57s and enough good parts for six or seven 74s, Mike Fontana estimates—belong to Bernie Little now. He's put a price on them, a high one. Allegedly, the *Red Baron* air racing team, which flies a Griffon-powered P-51 conversion, offered $10,000 apiece. Rebuffed, they went to England for some 57s and 74s. Yes, you can buy Griffons, if you have the money.

Still rumors circulate about a new *Budweiser* hull, or at least a test bed for the Griffon. When the *Bud* crew set up the present boat a year ago, they tried a Griffon for size. Verdict: too big, too much weight forward. One suspects they'd enjoy a change ("I'm tired of hearing, 'That's the way we did it on the *Slomo*.'")

There would be developmental work. It took time and tears to perfect the Merlin, which probably excels the Griffon, pound for pound, just now. The smaller engines are turning 150 percent of their designed revolutions. Over speeding is the direct route to horsepower, but Griffons haven't gone much past 120 percent. Among other things, the Griffon needs a solid quill, stronger blower gears (the *Red Baron* P-51 also sheds those), and reliable injection.

Will the Griffon run again? In recent years, money has been well spent on hulls, less well spent on power plants. The only camps that can afford engine experimentation today are winning with Merlins. They don't have to change until the last few Merlins break. By then, the entire unlimited picture may be different.

If, finally, no one can or will use the Griffon, perhaps unlimiteds won't mean what they have since 1946. The biggest. The fastest. The loudest. The most powerful. The most expensive.

For that's the Griffon, too. ❖

POSTSCRIPT

Chris Denslow

Bernie Little and the *Miss Budweiser* team finally used their Griffon engines in a hydroplane that was introduced in 1979 and piloted by Dean Chenoweth. That boat was destroyed during an attempt to set a world straightaway speed record late that year. It was replaced by a near-duplicate that would become one of the most successful boats in history. Racing as the *Miss Budweiser* from 1980 to 1985, it collected 22 race victories, including two Gold Cups, and won the national title three times. The boat was retired after the 1991 season and has been restored to its original glory by the Hydroplane and Raceboat Museum in Kent, Washington. It is seen here making an exhibition run on Lake Washington last summer.

H1 Unlimited adopts new method for monitoring boat performance.

Flashing strobe lights will no longer be used to monitor whether a boat goes too slow before the start of an unlimited hydroplane race, according to new procedures adopted by H1 Unlimited. Instead, the speed and other operating factors will be monitored by a new GPS recording system that will be reviewed by officials after each heat has finished to see if any rules were violated.

The procedure change was adopted in response to difficulties in enforcing the rule that says the boats must maintain a minimum speed of at least 80 mph during the five-minute warm-up period before the start of a race. The minimum speed rule was put in place eight years ago to reduce equipment damage and assure a fair starting procedure by eliminating the strategy where boats slowed to a crawl before the start.

In recent years, a unit was attached to each boat that monitored the boat's speed and that would start flashing if the boat dropped below 80 mph. There were not enough of the units for all of the contestants in some heats, however, and there were times when the strobes weren't seen by officials or didn't function properly, which led to controversies once a race had ended.

Last fall, the sport's Rules and Competition Committee set out to craft a solution to the starting issues, collected input from various stakeholders, interviewed several potential technology partners, and came to an agreement before the end of last year to recommend a change to Rule 4D (Procedures for Starting a Race). That change and the authorization to purchase the necessary equipment was then approved by the H1 Board of Directors.

Under the new procedures, H1 Unlimited will commission Racepak Data Systems (a Holley brand) to design and build units that will record each boat's GPS speed, fuel flow, and the rpm of the N2 stage in the boat's turbine engine. That data will then be analyzed by officials after each race to determine whether any infractions had occurred. The official announcement of the winning boat would then be made within the time limit established in the H1 rule book.

"These improvements should allow H1 officials to concentrate on enforcement of the racing rules," explained Kelly Stocklin, chairman of the Rules and Competition Committee. That committee will continue to look for ways to improve racing and the H1 rule book with the board's direction to be ever mindful of enhancing the fan's experience.

In other H1 news, Mike Jones has been re-elected to a one-year term on the H1 Board and Shannon Raney was elected to a two-year term. Michael McMorrow, the director of creative and programing for Seafair and the executive producer of the Seafair weekend TV broadcast, has also joined the board for a two-year term.

Tim Austin was re-elected as chairman of the H1 Board, Doug Southern was re-elected as treasurer, and Kelly Stocklin will return as chair of the Rules and Competition Committee. All three are beginning the second year of their two-year terms as directors. ❖

Grand Prix tour to appear in Owensboro and Seattle.

Officials for the Grand Prix America (GPA) Hydroplane Racing Series have announced that hydroplane races will return to Owensboro. Kentucky, this summer after a 40-year absence. The GPA series also has signed a deal with Seattle's Seafair Festival for the Grand Prix boats to race there through 2022.

GPA bills itself as having North America's premier supercharged, piston-powered hydroplanes. The boats average 26 feet in length, have engines that produce about 1,600 horsepower, and can reach speeds of 160 mph.

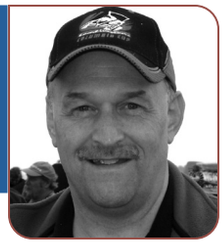
The Owensboro HydroFair event will take place August 14 to 16 on a stretch of the Ohio River almost 150 miles downstream from Madison, Indiana, the site of this season's Gold Cup race. The city, the fourth largest in Kentucky, hosted unlimited hydroplanes races from 1969 through 1978 that would attract crowds of up to 100,000, but the events ended because of poor weather, the energy crisis, and a recession that created a tough environment for racing.

Dean Rojas, the president GPA, said his organization is thrilled to help reestablish powerboat racing in the area. The event will not only include the Grand Prix boats, but six other smaller classes of powerboats.

The agreement with Seafair calls for the GPA boats to compete as part of the annual show that features the unlimited hydroplanes.

"It has been two years since automotive-powered hydroplanes raced on Lake Washington and we can't wait to bring piston-powered hydroplane racing back to our fans in the Seattle area," said Rojas. He said that he expects eight to 10 GPA hydroplanes to compete in this year's Seafair event. ❖

HYDROFILE
Race Team News by Lon Erickson



U-1 HomeStreet Racing/Miss Madison

Off-season work continues as U-1 *Miss HomeStreet* crew chief Mike Hanson and crew member Trey Holt (below) check out one of the engines that has been rebuilt for the 2020 H1 Unlimited racing season.

Cindy Shirley

Henderson Hydroplanes

Spirit of Detroit Racing

Dave Bartush's U-7 *Spirit of Detroit* (Hull #9712, T-5) is currently at the Henderson Hydroplanes shop in Brockville, Ontario. Over the winter they have taken on a major maintenance rebuild (replacing the frames and decks), which has resulted in a diet for the hull. Work on the U-7's left side decks is complete. Prep on the right side is underway. At bottom right, the U-10 (Hull #9501, T-3) is at the Bartush shop in Detroit being prepped for 2020.

Henderson Hydroplanes

Henderson Hydroplanes

Haworth Racing

U-11 Unlimited Racing Group

Off-season work continues in the engine shop at the team's Edmonds, Wash., shop. Scott Raney recently tweeted with the photo below, "A look inside the Unlimited Racing Group shop. Just getting ready for the next racing season! Eager for it to begin."

Scott Raney

U-99.9 Go Fast Turn Left Racing

Off-season maintenance continues at the Go Fast Turn Left shop in Maple Valley, Wash. Dave Bell is finishing repairs and upgrades to the rear hull and applying final paint.

Go Fast Turn Left Racing

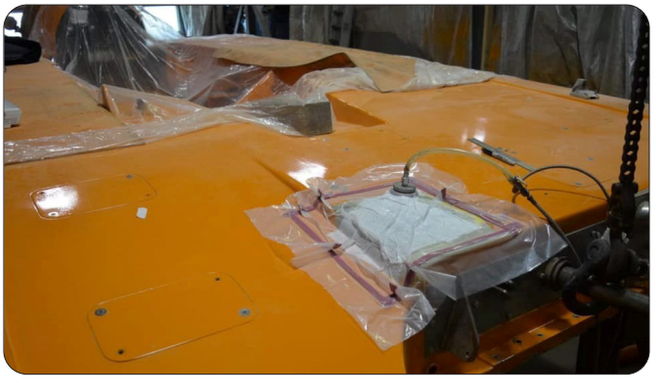
Go Fast Turn Left Racing

440 Bucket List Racing

From the team: "Lots of off-season progress happening on the 440! We're working some small repairs, and a lot of improvements as we head into 2020."

Bucket List Racing

Bucket List Racing



Bucket List Racing

Centurion Unlimited Racing in 2020?

Could we see a new, old team on the H1 Unlimited tour in 2020? A post from December 29 hints that Jay Leckrone and Denise Garl are working their way back with the Centurion Racing Team. "We are working on proposals and sponsorship. It is our 2020 goal to buy a new hull (there are several available) and run a competitive turbine engine program. I wish the money was there to go piston, but the money just isn't there, yet."

We love to hear from our readers

Andy's $0.02 worth in January was excellent. If you haven't read it, I recommend you do so. My thoughts here are based on 25 years of stage work as a host/emcee/co-producer, in addition to my 45 years of sportscasting and hydroplane announcing. This is about the "show" and in my opinion that is first and foremost what must be addressed. Yes, starting procedures and other rules and regulations are important. However, without a "show" it's "no go."

Right now, H1 and the local race sites are in need of a "show." Understand this is about the importance of having a strong "headliner." There are "support acts." A decade ago, when I was announcing for ULHRA, the Unlimited Lights series was an outstanding support act, often times bringing more teams to the races than did the Unlimiteds. At the same time there were ULHRA events where the Lights were the headliner. At Guntersville, Madison, Tri-Cities, Seattle, and San Diego, H1 Unlimited is the headliner and must perform as a headliner. It can be done: Not for a "buck 95" and certainly not solely funded by the local race sites, but it can be done. Six H1 boats for a weekend is not a headliner-caliber show. For that matter, 10 H1 boats for a weekend is not a headliner-caliber show.

Andy's column pointed out something I didn't pay close attention to on the first read, but after further review it starkly demonstrated what I'm addressing here.

Andy wrote: "Yet, the numbers tell a different story. In the 37 heats that were held last season, only 14, or about 38 percent, were won by the boat that had the inside lane at the start. That percentage wasn't a whole lot better, 44 percent, two years ago." Andy was referencing starting procedures and how important, or not, was securing Lane 1. Inadvertently, he touched on exactly my point, the absence of a show, or as we've heard from fans and experienced for decades, too much downtime.

Now remember that number Andy referenced, 37 heats that were held last season. That's an average of 7.4 heats of racing per event. Only 7.4 heats of racing over a three-day weekend! THAT'S the problem.

This is what I contend should be H1's and their race site partner's primary goal. Find ways to implement the following concept and that will lead to further improvements. It won't be cheap, but a headliner-caliber show should be the primary goal. Without a "show," fans don't buy tickets, race sites don't sign-on, media doesn't pay attention, and sponsors leave and won't return your phone calls.

Instead of the "same ol, same ol," find ways to get SIXTEEN (16) H1 boats to a given event, and then later to all events. With 16 teams, put them into four-boat preliminary heats and, as Tri-Cities did in 2019, run four preliminary heat sections. Heats 1A, 1B, 1C, and 1D constitute one heat section. It will take about 90 minutes to conduct a heat section, with five-minute guns, etc. The idea is, when the fourth place boat from Heat 1A gets to the pits, the P.A. announcer proclaims "in one minute it will be five to the five for Heat 1B." The heat section may take a bit less time, but let's forecast 90 minutes for now. That way, racing starts at 10:30 a.m., halts for lunch at noon, and racing resumes at 2 p.m. and concludes around 3:30 p.m. So goes Saturday. With this format they'll run more H1 heats on Saturday than they averaged per event in 2019! Then do it again on Sunday. Two more preliminary heat sections. At the conclusion of Heat 4D the top four teams by points advance to the final while the next six teams by points advance to the B-Main (or Last Chance Qualifier) heat on Sunday afternoon. First and second place in the B-Main also go into the final heat, which will be a six-wide start with no trailer boats.

Under this format, 18 heats of H1 Unlimited racing are conducted at one race. Compare these 18 heats at one race, to last year's total of 37 heats for the entire season. Plus, look what this does for the local race site? Seventeen of the 18 heats of racing, including the B-Main, are available to be sold to local sponsors by the local race site. That kind of inventory is quite valuable and generates additional needed revenues for the local race committee.

While there are, by my count, 23 hulls that could be racing in 2020, about half of those would take some serious effort to be race-ready. Still, I submit this should be the primary goal.

If this format could be conducted just once in 2020, I'd recommend the event be Guntersville. Now understand that I have no connection to that race. Guntersville is the season opener. With 16 teams at Guntersville, most if not all of those teams would likely move on to Madison the following weekend for the Gold Cup, and most likely a lot of them, since so many are from the Pacific Northwest, would also compete at Tri-Cities and Seattle for the two races that are on local television. If a second race could be conducted with this format, that second race should be the stand-alone event in mid-September, providing an outstanding season-ending event in San Diego.

John Lynch

Thanks for your usual insightful and thought-provoking articles and editorials in the latest issue of UNJ.

Re the race starts, I've observed a lot of starts over the years, and since the old big visible count-down clock is gone, it seems like the simplest, easiest-to-understand procedure was the period of assigning lanes and making them all group together. This seems more like an Indy 500 flag wave start, and comprehendible to the average fan. I remember at least a couple of times during this era when the boats weren't together and had to make another go-round, and that seemed just fine to me, allowing more of an even fair start, then they all accelerate at maximum speed close together, making for a very exciting first turn and first lap.

I think there is too much emphasis on getting the inside lane position today just to appease the drivers (and your statistics prove this isn't necessarily the most advantageous in overall results). Fans don't necessarily thrill to the best start. If they are like me, they don't want to see the best start be the outcome of the race, but rather see three competitive laps with a little more side-by-side racing, and even a pass now and then for heaven's sake! It should also go back to five laps for all heats. They start and end way too quickly. Fans want to see the fastest and most skilled driver with the best equipment win the race, not just because the driver got the inside position at the start.

You nailed many of the other reasons that fans are no longer as interested—i.e., lack of noise, too far away from the shore, too few race sites, too few boats, confusing names on boats (that frequently change between race sites), and too many petty rules. While we are in this period of too few race sites, then each individual location should go all out be a spectacular event with the unlimiteds the main show. I'm not sure the race sponsors have as much enthusiasm these days because the sport has become too complicated for the average fan, so sponsors are basically selling air shows, rock-band performances, and other entertainment, all of which I'm OK with, but they are just side-shows without the hydros. For goodness sake, the Hydroplane and Raceboat Museum's annual event at Lake Chelan creates more buzz than Seafair with hard-core hydro fans in recent years (with a mix of old and antique piston boats, antique cars, parades, and other historic tradition), and is growing in popularity each year to the point that the Chelan community is really championing the event now because of the tourism influx.

Keep up the good work, and all the best wishes for 2020!

Ron Suttell

MY $0.02 WORTH

Editorial Comment by Andy Muntz

Elsewhere in this issue is a story from our archives about the use of the Rolls-Royce Griffon engine in hydroplanes. The story was originally published in 1977, at a time when the big engine had been used sporadically in the sport and before it would become the powerplant for one of the most successful boats in the sport's history.

The story of that engine also brings up a characteristic about the unlimited racing of years ago that many long-term fans remember fondly.

From the mid-1940s to the mid-'80s, the vast majority of unlimited hydros used either the Rolls-Royce Merlin or the Allison engine. But, there also were efforts in those days to find alternatives. The boats were "unlimited," many competitors observed, which meant that anything was fair game when it came to engines.

Henry Kaiser, for example, introduced a boat in 1955 that used an enormous 24-cylinder engine called the Allison V-3420. Among the most intriguing efforts was an engine developed in 1966 called a Dubinhauser, which combined the best parts of an Allison and a Rolls Merlin into one powerplant.

One of my favorite experiments came in 1962 when Austin Snell, the owner of *Coral Reef*, installed in his boat a V-12 Daimler-Benz 601E, which was used in the famous Me-109 fighter planes flown by the German Luftwaffe during World War II. As kids, we knew the airplane as a Messerschmidt.

Snell managed to acquire two of the engines through a military auction, paying only $25 apiece, and had them shipped to his shop in Tacoma. But, as soon as they arrived, his team quickly faced a challenge.

The German engineers designed their in-line aircraft engines to operate in a position that we would call upside down; the crankcase was at the top and the cylinder heads at the bottom. That orientation was beneficial in an airplane because it lowered the center of gravity and improved visibility for the pilot, but an upside-down engine wasn't going to work in a boat.

To solve the puzzle, the *Coral Reef* mechanics reconfigured the engine's entire oil system and beefed up the oil scavenge pump so the lubricant would flow in the opposite direction for which it was designed.

Then, once they got the engine running and their boat on the water, the crew discovered another problem: it was great at accelerating, but not so good at slowing down quickly enough to be safe in the turns. By the time that issue was finally solved, Snell decided not to race the boat anymore and the whole effort came to an end. The boat would eventually reappear three years later as the *Miss San Diego*, and with a Rolls Merlin engine.

With the rules now written to limit the powerplant to a Lycoming T-55, L-7 gas turbine, we no longer see this kind of experimentation with engines. I fully understand why those restrictions are needed, but I also can't help but long for the old days when that aspect of racing helped keep us entertained. ❖

EDITOR: Andy Muntz
ASSOCIATE EDITORS: Craig Fjarlie, Chris Tracy, Dick Sanders
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EDITOR: Unlimited NewsJournal, 14313 Beverly Edmonds Road, Edmonds, WA 98026.
Email: ajmuntz@icloud.com
Letters may be edited for clarity and space.

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