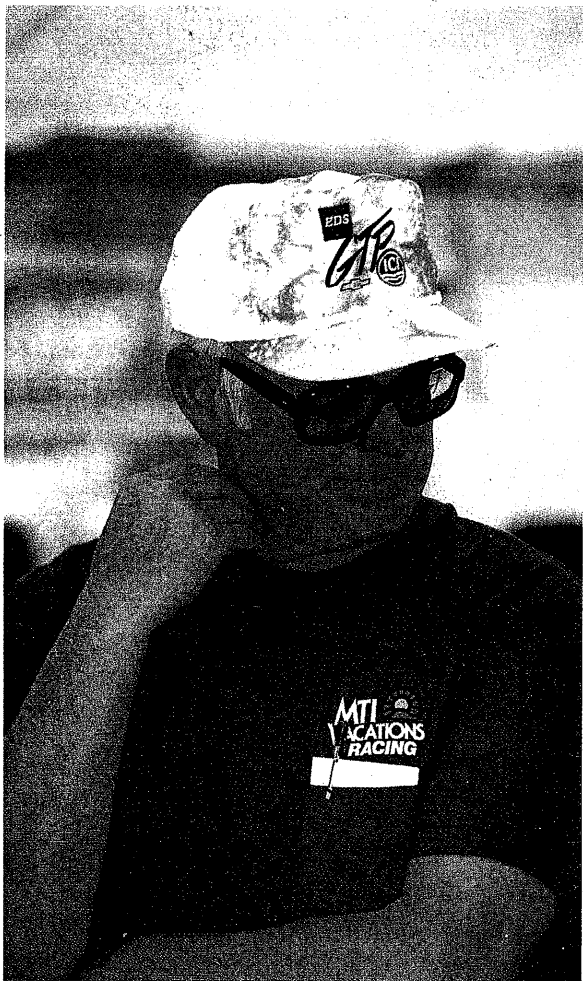


**FEW ENGINEERS
HAVE ACHIEVED AS
MUCH SUCCESS IN AS
WIDE A VARIETY OF
DISCIPLINES AS HAS
SOFT-SPOKEN TEXAN
BOB RILEY. FROM
INDY-WINNING COY-
OTES FOR A.J. FOYT
TO TRANS-AM TUBE-
FRAME SPECIALS AND
INTREPID PROTO-
TYPES, RILEY'S
SUCCESS IN U.S.**

HQ ROD



MOTOR RACING HAS COVERED THE FIELD. THERE'S ALSO AN AEROSPACE SUCCESS STORY AND AUTO-MOBILE PATENTS LURKING ON ONE OF MOTOR RACING'S FINEST RESUMES. BY JEREMY SHAW. PHOTOGRAPHY BY SIDELL TILGHMAN, BOB TRONOLONE, AND ART FLORES.

COMPETITION

that's not Riley's style. Instead, he has stayed on top of his game. This season, Riley-designed cars have taken both the SCCA Liquid Tide Trans-Am Tour and the IMSA Camel GTP circuit by storm. His tube-frame Chevrolet Camaros have been dominant in Trans-Am circles, young Scott Sharp securing the series title with consummate ease. Meanwhile, Riley's Chevy-powered Intrepid RM1 prototype contender has taken on — and beaten — the combined factory might of Jaguar, Nissan, and Toyota. ¶ In terms of

Auto engineer Bob Riley celebrated his sixtieth birthday this past March. It is an age when most people are happy to sit back, perhaps to reflect upon their accomplishments in life. Especially someone who has achieved greatly in his chosen field. ¶ But

RILEY

innovation or flamboyancy, Riley might not match up against the likes of John Barnard, Colin Chapman, or Jim Hall. Yet his accomplishments are as impressive as any of the most successful engineers in the history of the sport. His cars have won everything from humble SCCA club events through Trans-Am and GTO championships to the Indianapolis 500.

AVIATION BACKGROUND

IN AN AGE WHEN AIRCRAFT AERODYNAMICS are as important as chassis geometry in getting cars around race tracks with lower lap times, Riley's lifelong consuming interest in both cars and aviation helps explain his achievements.

For as long as he can remember, all things mechanical have held Riley spellbound. He built his own hot rods during his high school days, and at the same time pursued another passion: aviation. After two years in college he enlisted as a draftsman in the Air Force. He was posted to Germany, where the opportunity to further his interest in auto racing proved too great to resist.

"I went to the Grand Prix races at the Nurburgring just as soon as I could," says Riley, on fire with enthusiasm at the memory. "That's where Fangio and Moss and Hawthorn and Collins and all those guys were fightin' it out. I just couldn't believe how fast the cars went around the turns compared to my old hot rod, so that got me real interested in finding out what made the cars handle so well."

Upon leaving the Air Force in 1955, and equipped with a Triumph TR2 acquired during his final year in Europe, Riley enrolled at Louisiana State University. He graduated with a degree in mechanical engineering and a minor in aeronautical engineering. Soon his interest in aviation was translated into gainful employment with Convair Aircraft and subsequently with Chrysler Space Division in New Orleans, where he worked on the Saturn rocket booster as part of the United States' historic moonshot program of the late fifties and sixties.

The project was both absorbing and rewarding for the gifted young engineer. Soon, though, the automobile industry — and ultimately motor racing — would take over his life.

"It was while I was in the aerospace industry that I sent resumes to Ford, Chrysler, and General Motors," he says. "I always liked aircraft, but I was very interested in cars, so I sent the three a resume. I remember General Motors said if I was ever up there [in Detroit], they'd like to talk to me; and then Chrysler, they said the same thing. But Ford sent me a plane ticket to come right on up."

That was in August, 1962. It was the start of an association that would last more than 20 years. Riley was assigned to Ford's Special Projects Division, which involved detail design work on a variety of futuristic projects.

As an indication of the esteem with which Riley was held within the Ford Motor Company, he was given a leave of absence to design Foyt's 1971 Indy car.

"They gave me time off to do it," confirms Riley.

Then he adds with a laugh: "I must admit I kind of put it to them that if they didn't give me the time off, I was gonna leave anyway."

Opening pages: Bob Riley; Riley's Beretta carried Tom Kendall to 1990 Trans-Am title. These pages, top to bottom: Riley Camaro carried Scott Sharp to Trans-Am title; Riley-designed Coyote, modified by Foyt, won 1977 Indy 500; Intrepid GTP, Riley's 1991 success story.

initially from a small garage in Detroit. All the work was conducted after serving a full day at Dearborn. The hours were long, but so was Riley's patience. His passion for the sport never waned. Despite all that, he and long-suffering wife Bea celebrated 30 years of marriage this past April.

"I was racin' when we got married," smiles Riley, "so she knew what she was in for, you might say!"

A newspaper advertisement spelled the next change for Riley. After answering the ad, he was hired to work for the Ford-owned Kar Kraft concern in developing the Mk. IV version of the glorious GT 40. The innovative race cars were among the first to feature monocoque tubs constructed from aluminum honeycomb instead of the more traditional tube-frames of the fifties and earlier.

"It wasn't my idea," he adds hastily. "It kind of came from the aircraft industry because when I worked at Convair, the airplanes were built from aluminum honeycomb and carbon fiber/honeycomb at that time. So it gradually trickled on down [into auto racing]."

WORKING FOR A.J.

BEFORE LONG, RILEY WAS ENTICED BACK within the Ford fold, this time in the styling department. He worked on a variety of projects, including concept cars, and much of his time was spent in the wind tunnel. He also maintained his interest in Lynx

"You were supposed to come up with patents and special ideas for items," he says. "It was very interesting. We'd build things and put them on the cars, and top management would say, 'Yeah, that's very neat. We can't use it, but you keep up the good work!' That's about what happened usually!"

When pushed, Riley admits: "I think I had some seat belt patents. And various other little trinkets like that."

And auto racing? Well, Riley's next step in that direction came in a partnership with John Mills, a Ford colleague who also harbored a desire to go racing. The pair joined forces to design and build the very successful Lynx Formula Vee cars. Over time, as many as 150 replicas were produced, initially from a small garage in Detroit. All the work was conducted after serving a full day at Dearborn. The hours were long, but so was Riley's patience. His passion for the sport never waned. Despite all that, he and long-suffering wife Bea celebrated 30 years of marriage this past April.





until, in 1970, he was offered what he considered to be the opportunity of a lifetime.

"That's when I got a call from A.J. Foyt," he says. "I had been recommended by one of the fabricators on the team, and also by an engineer from Ford by the name of Klaus Arning."

As an indication of the esteem with which Riley was held within the Ford Motor Company, he was given a leave of absence to design Foyt's 1971 Indy car. "They gave me time off to do it," confirms Riley. Then he adds with a laugh: "I must admit I kind of put it to them that if they didn't give me the time off, I was gonna leave anyway."

The partnership gelled nicely. Foyt finished third at Indianapolis with Riley's Coyote chassis, and ended the season with a victory at Phoenix. Foyt placed third in overall points behind Joe Leonard.

"A.J. was just fine to work with," remembers Riley, talking in his characteristically quiet Texan drawl. "He used to tell me to listen to what everyone had to say, but just do it my own way.

"There's one amazing story. The first year I worked with him, in '71, they used to carry 75 gallons of fuel on board. You had to put it in back of the driver, under his knees, and on both sides. They had all the tub put together for his first try-out and A.J. was real cramped in the car. He couldn't pull his arm back to get to the shift lever. He looked up at me and obviously it wasn't gonna work. I guess I must have looked pretty bad, but he said, 'Wait a minute, Bob,' and he tried to shift with his left hand and he said, 'Don't worry about it; I'll just shift with my left hand.' And do you know, he did! Isn't that something?"

In 1973, still working on a strictly freelance basis, Riley decided it was time to move on. After a spell with Lindsey Hopkins, he joined Pat Patrick's team for the 1975 season. That year he gained the supreme satisfaction of seeing his latest car, the Wildcat, qualify second fastest at Indianapolis in the hands of Gordon Johncock...right alongside Foyt's Coyote, a development of the low-line car Riley had designed the previous year.

Foyt, indeed, won two Indy 500 poles with the car. He also gained his record-setting fourth victory at the Speedway in 1977 in a Riley chassis. "A.J. did change the car," acknowledges Riley. "He moved the radiator up front and so on, but that car probably won more races and more money, and got more publicity than any other car I've ever done."

Looking back, Riley clearly gains as much satisfaction from his '73 Coyote as any other car he has designed. But even he flinches at the memory of the car's safety aspects.

"Yeah, that low tub...that was not such a good idea. 'Course, nobody knew it," he reflects, "but it did leave the driver sticking up too much. I sometimes think back to those days. I go to vintage races and look at those cars and think, gee, they're just as dangerous now as they were then. Gol-lee! We were tryin' to make 'em safe back then and didn't know how."

TRANS-AM CAPRI

AFTER ANOTHER SPELL WITH FOYT IN THE early eighties, Riley began to devote more time to Ford. He was involved in development of the Taurus road car as well as a variety of motorsports projects.

One such project was the Mercury Capri for Trans-Am competition. The car was developed largely as a result of some disparaging comments made in jest by 1983 Trans-Am champ and Chevy racer David Hobbs at the 1983 end-of-season banquet.

Riley laughs as he recalls the scene: "Oddly enough, I don't recall what he actually said. I remember it was very funny, but it was also very insulting. I mean, he really made fun of us." Soon afterward, Riley was given instructions to design an all-new Trans-Am contender. The project was overseen by the new Roush-Prototfab team and resulted in a dominant season for Ford.

The car itself represented a quantum leap forward as far as Trans-Am chassis were concerned, with much-improved torsional rigidity and a different suspension package incorporating a Watt linkage on the rear to induce a lower rear roll-center. "It was just a little bit of everything," says Riley modestly. "And Jack Roush, he built very good motors."

Among Riley's other projects were the ill-fated but very interesting front-engined GTP Mustang which Klaus Ludwig and Tim CoConis took to a sensational debut victory at Road America in 1983. He was also responsible for extensive wind tunnel work on the Ford Thunderbird which was destined for NASCAR competition.

By the end of the 1985 season, Riley had begun to seek other avenues. And having reached the age of 55, he decided to take advantage of an attractive retirement package.

But sit back? Not a bit of it. Instead, Riley joined forces with Gary Pratt and Charlie Selix — the Prototfab side of the former Roush-Prototfab partnership. And soon he was aligned with...General Motors. Ironically, Riley's first task was to develop a new Trans-Am challenger.

"I always kind of looked at these cars as technical challenges," says Riley, "but I must admit, I really didn't want to run against the [Ford] drivers and engineers that I had been helping for a long time. I really felt kinda bad. I hated to do it, although I guess everyone understands that's the kind of business we're in."

Despite some personal misgivings, Riley's Prototfab Camaro swept to victory in the hands of Wally Dallenbach, Jr., who himself had jumped ship from Ford. "There were some very good drivers in the Trans-Am in those years," expounds Riley. "I used to tell people how excellent the drivers were, especially when they would refer back to the 'Glory Days' of Trans-Am. I would say, 'These *are* the glory days.'"

Even now he looks to new challenges with as much relish as he did his first.

These pages, top to bottom: Riley consults with Jim Crawford in Kenny Bernstein's Lola-Buick Indy car, which qualified fourth in 1989; Mercury Capri was first of successful Riley Trans-Am designs; Mustang GTP, the only front-engined prototype in IMSA series.

car program with Jim Crawford, and have moved recently to a new shop in Indianapolis.

The bulk of Riley & Scott's work is in constructing Trans-Am chassis. The dominance this year of Scott Sharp has resulted in eight more orders for the 1992 season. In addition, Riley has designed the all-new Intrepid, which displayed sensational form on its IMSA Camel GTP debut at West Palm Beach, Florida, in March. The car finished a strong second in Wayne Taylor's hands, setting fastest lap along the way.

In reality, Riley admits he has been surprised by the car's instant competitiveness: "I believe we caught the other teams napping a little bit," he says. "I think they have kind of gone off and worked on their engines instead of working on their chassis."

The Jim Miller-owned Intrepid promised much through the early part of the season, only to be thwarted by a variety of niggling problems. In the inaugural Grand Prix du Mardi Gras in New Orleans, Taylor finally broke the string of bad luck with a victory in the rain.

Sadly, though, just a couple of weeks later, the downside of auto racing struck home when the second Intrepid chassis, driven by up-and-coming star Tom Kendall, was involved in a frightening crash at Watkins Glen. The car hit the barriers head-on as the result of a wheel hub failure. Kendall sustained extensive injuries to his lower legs.

Happily, Kendall seems to be making excellent progress toward a full recovery. And Riley is working hard on further development of the car. True to form, he also has various other projects on the go, including another Indy car design.

"We've got something on paper," he admits, "and we do have a wind-tunnel model, so we're dabbling in it. We haven't tried really to sell it yet, but I guess you could say we're working at it."

Incredibly, Riley's enthusiasm remains undimmed. It is a virtue which has endeared the soft-spoken Texan to virtually all who have met him. Even now he looks to new challenges with as much relish as he did his first. Well, almost.

"I can tell I'm slowing down a bit," he says, self-mockingly. "I don't work at night any more! Unless I have to. Yeah, I definitely am slowing down — I guess age is getting to me — but yeah, it is still quite a challenge." ■

INTREPID GTP

THE ASSOCIATION with Chevrolet has continued to flourish, in only slightly different circumstances. Riley now has teamed up with experienced chief mechanic Mark Scott. The pair met while working on Kenny Bernstein's Buick Indy

