



THE HENRY FORD

COLLECTING INNOVATION TODAY

TRANSCRIPT OF A VIDEO ORAL HISTORY

INTERVIEW WITH

BOBBY UNSER

JANUARY 7, 2009

UNSER'S HOME AND THE ORIGINAL JERRY'S GARAGE,

ALBUQUERQUE, NEW MEXICO

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1BUNSER. Albuquerque, Home of the Unser

BARRY HURD:

08:00:36;22

Just tell us where we are, people know where we are here?
What is this? Is this the old Unser family compound?

BOBBY UNSER:

08:00:41;02

Well, it's my house and my office, which, as you can see, is a fairly good sized place. I have a lot of office space. We do a lot of business here. So, this is in Albuquerque, and it's in the same place that I was basically raised. Technically, I was born in Colorado [and lived there] for one year. I was up there, but the rest of the time [I was] in Albuquerque, and basically in the same place. My folks lived right next door. I built this house here. It wasn't quite as big as it is now. Many years ago, somewhere in the later '60s or mid '60s, I would just add on every now and then, but I'm not gonna add on anymore.

BARRY HURD:

08:01:27;20

What about the road? You've got your name on the road out there. Not many people have a road. I assume it's named after you. When did that happen?

BOBBY UNSER:

08:01:32;11

It better be named after us. They spelled it right, anyway. Well, that's kind of a weird story. The mayor at the time decided that. The Andrettis' had a street in Nazareth, Pennsylvania named after them. Well, the mayor, in those days, was a good race fan. This was all starting to grow on the west side of Albuquerque. They said he wanted an Unser Boulevard. Now, here's the caption to the whole thing: they forgot to tell us.

08:02:05;06

They didn't tell Al and they didn't tell myself. No Unsers. So they built a road, and they made the bridge over the freeway out there different than all the others in town, in those days. [They] made it a little bit classier, a little bit nicer, and they're gonna call it Unser Boulevard. The problem was they didn't tell Al and me. The next problem was they had a great big opening, and they had the Governor there, and dignitaries from all over the state of New Mexico. The mayor, obviously, and the Governor caused it to happen. They forgot to tell us.

08:02:45;09

So, there was no Unser present. All the TV stations were there and everything. That was the funniest thing. Of course, I called the mayor and said, "What happened?" "Well, I thought the Governor was supposed to call you," he said. I called the Governor, he said, "Well, I thought the mayor was gonna call you." So nobody called us. I asked Al, I said, "Did you know about this?" He said, "No." He said, "How come you didn't know about it?" Wow, but it actually happened that way.

2 BUnser. Driver Talent vs. Driver Innovation

BARRY HURD:

08:03:13;05

We were over in the garage, you were talking about how you weren't even sure you were a good race car driver until after you stopped racing, because you're really an innovator, and you thought it was the innovations. Take me through that whole thing of how you were a driver, a great driver, a championship driver, but also inventing ways for the car to go faster that nobody else knew about.

Tell us about how that all worked.

BOBBY UNSER:

08:03:32;02

Well, Barry, I've always been an innovator. I shouldn't say that I didn't think I was a good racecar driver, because I'd won an awful lot of races, midget races. I did things a little bit different than most in our family. I did the super modified Saturday night specials. Super modified cars and stuff like that: sprint cars and midgets. I used to go to California every weekend and run a race. I got my first little airplane, because I needed to go out there every weekend to run a race. It just became a natural thing for me to do. I did all the types of racing.

08:04:15;14

Now, what I discovered, when I was very young, is that my dad was a fantastic innovator. He was a plumber, an electrician, he could design a house, and he could build a house. He designed cars and built cars. Frank Lloyd Wright used to bring his car all the way from Phoenix up here for my dad to work on. We were just young kids, so we would do a lot of the work ourselves, but Daddy was an

innovator. Well, I took after Daddy that way. So when I say I wasn't a race car driver, a real good one, or didn't know it, the truth of the matter was I was a lot better, as the years went on, than I realized that I was.

08:05:00;10

Because I found out that I could make speed happen with race cars with innovations, with development work. So, I loved doing development work. The teams that I drove for, in most cases, as I grew older, teams became better, like Dan Gurney, and before that it was Leader Card Racers, Jud Phillips of Milwaukee, and then, of course, Roger Penske. These were years when I could really invent things, really look at new ways of doing things, because I had the opportunities to do it. Goodyear Tire and Rubber Company, gosh, they were my benefactors. I probably had the longest existing contract for racing that Goodyear ever had.

08:05:50;09

They liked what I did. I enjoyed it. After I retired from driving Indy cars, I realized I ran a race team out of my

shop over here for the [Josele] Garza boy out of Mexico City. Then is when I realized how good that I must have been and didn't realize it, because all of a sudden, I cannot win a race. It was virtually impossible to win a race, because the driver can't and won't go fast enough, for whatever reasons. I thought, well, "Wow, I wish I had a Bobby Unser driving for me. I'd have had a whole lot better, because we need some nice race cars over here."

3BUNSER. Tires For Pike's Peak

BARRY HURD:

08:06:33;25

What were some of the... Let's go Pike's Peaking. Just got out of the Army, I think, and then you started your big Pike's Peak landmark. Was it six years in a row you won? But you were also figuring out ways to make that car go a lot faster that nobody knew about. Tell us about how that happened.

BOBBY UNSER:

08:06:48;24

Well, we came out of the super-modifieds here in Albuquerque. Of course, in those days, Pike's Peak hill

climb looked at the legal age, which was 21 in those days, and then it was a serious thing. Whereas, locally, when we ran modified and stuff, I started at 15. I won the whole southwestern championship, with super-modifieds, when I was 16 years of age. Everybody overlooked it, because nobody sued anybody in those days. There really wasn't any insurance if you got hurt. They just put money into a pot, and that's what you had if you got hurt.

08:07:26;02

So, racing was totally different and loose, but now, when we went to Pike's Peak it was different, because that was a national championship race, same as Indianapolis and all the circuit. It was another one of the dirt races. Often the same cars and drivers would run Pike's Peak. So, that's the way that happened. You had to be that old.

Otherwise, Al and myself, we'd have been running Pike's Peak, when we were probably 18 years old, and probably would have done really good in those days.

08:07:59;21

Because what we did is we had a different way of looking

at speed, a different way of looking at innovations.

Whatever was standard for Pike's Peak, we just didn't see that. Our eyes saw different things, because my dad was a fantastic innovator. He would help us, or he owned the cars in the beginning. He would just do things different. Of course, we did the work, for the most part. So, we learned an awful lot that way. We learned, for example, it's been famous for putting walnut shells, for example, into the rubber, mixing it into the rubber, for the tires at Pike's Peak.

08:08:42;03

Now, we did many other things like that, trying to make the tires better. In those days all you had was Firestone. They made a mud and snow tire. They tried to force everybody to run the Firestones. Number one, we were on the poorer side of life, so we couldn't really afford the new tires very well, and so my dad made a deal with a guy that made recap tires. Recaps, for people who don't know what that is, are where you recap the rubber on the outside of the tire. We did it in a mud and snow tread.

4BUNSER. Walnut Shells Make Better Tires

08:09:18;29 Well, through doing this, we had a lot of opportunities to try different types of rubber. We tried crushed batteries, in other words, they would take batteries and crush them and grind them up, and mix it in the rubber. That worked better, but walnut shells were the answer. That really worked good. I was the one that discovered it. Daddy and I did. We just absolutely set the world on fire. In other words, I could win a whole lot easier. Of course, doing this, the Hill Climb, Pike's Peak Hill Climb tried to stop us, saying that recap tires were unsafe. They're not unsafe.

08:10:01;16 So, it was a big court deal. My dad got into fights with them. We did, ultimately, the same way. Ultimately, from the next year, I made a phone call, and got Goodyear Tire and Rubber Company involved. It starts my whole deal with Goodyear. I just got on the phone one day from my shop over here, which you guys were in, just picked up the phone. Showed you how dumb I was in those days. I called Goodyear, and asked for the guy that's in charge of

development. I didn't have any idea who it's gonna be.

08:10:39;14

They put me through and some guy gets on the phone. I told him who I was. I wasn't famous in those days. I told him I wanted to get some tires made for Pike's Peak. I asked him if they'd be interested. He said, "keep talking." So, I did. He said, "What do you need?" I said, "Well, we use walnut shells, crushed up walnut shells, and they have to be of a certain size. Could they do that?" He said, "Yep." So, then I asked him the next question. I said, "I need to make the tire a lot lighter, and tires at Pike's Peak need to be real flexible." I said, "Can you make a two-ply casing as strong as a four-ply casing?" That means the tire. He said, "Oh, for sure." I said, "Can you make it as strong as a six-ply?" He said, "Yep, we can do that." I said, "How about an eight-ply?" He thought a little bit, and he said, "I think we could."

08:11:45;22

I said, "Then I need to make two-ply casings." I said, "We need to make the tires." I said, "You need to send them

here to Albuquerque, and I'll do the testing here." Now, Goodyear wasn't into racing yet. They were just a brand new innocent company. So, to make a long story short, they made the tires. They'd make me selections. They sent me little blocks, somewhere I still have them, of sample rubber with different size walnut shells in it. I picked out the ones that looked like the sizes that I liked. They started making the tires.

08:12:25;25

Right where we're sitting in this house was the turn of a little dinky racetrack that I built here on the property. Meaning nothing but it just took a drag, and dragged off the weeds and the grass, and made me a little racetrack. I'd come out of the race shop over there with Goodyear tires, and I'd water it down a little bit, to cut down the dust a little bit. I'd test tires. That's where I started with Goodyear. Then after we started getting some results, and saw that my testing was working, then we would take it to Pike's Peak.

08:13:00;05

Of course, getting the road in those days was very easy. Not any money involved, just pay for a little bit of safety stuff, like an ambulance, and stuff like that. That's all we had to do. So, I became a tire tester, and a developer. I designed the tread for them, along with their engineers at Goodyear. That's still being used today. It's a lot wider, looks different, but the two-ply casing is still in existence. That two-ply tire that I basically innovated on the telephone that day, Goodyear ended up making millions of them and selling them all over the world. Two-ply tires were really in for a long time. So, that shows you what racing does and what innovations do sometimes.

5BUNSER. Mental Attitude is the Key to Success

BARRY HURD:

08:13:48;02

Okay. For those who don't know, who've never been to Pike's Peak, or for young people, tell us, what was it like to drive that race? It's a steep climb, you could fall off, and it's dangerous. Tell us about that and then things you did to win six years in a row. You had to keep coming up with

new innovations.

BOBBY UNSER:

08:14:03;00

Well, I won 13 times. That's as important as the six in a row. By the same token, in my life, the biggest fear that I've always had, since I was really young, is height. I can't stand on the edge of even a one-story building. It took me forever to get my license for flying airplanes, simply because I was afraid of heights. So, Pike's Peak fits this scenario pretty good, because it's not very much up there to have a 500 foot drop off, or a thousand foot drop off in places. That would scare the heck out of me.

08:14:40;16

So, what I did to overcome this, is I would take a passenger car, and drive right along the edge. Say like started maybe 15 miles an hour. I'm talking about really getting near the edge of the road, talking about really close. There's always a little tinky berm there that the graders make. I'd try to run on top of that berm. Then I would increase the speed to maybe 20 mph and then 30 mph. I would do this every year, trying to become

immune to the drop offs. Now, that only cured some of it, because then I trained my eyes to never look down, always look at the road, look at the mountain.

08:15:23;02

Because if you see the mountain going away, and know the roads gonna go that way. It can't go out into blue sky. You learn the road that way. Of course, since I was young and driving here in Albuquerque, if I was doing races. For example, I was in the military, stationed in Cheyenne, Wyoming. I was racing four nights a week up there. Well, at least one of those times, I would go down to Pike's Peak. I knew where they hid the key to the gate. I would take the key, go in the gate, lock the gate behind me, and I'd have the road all to myself, usually at night. That's how I practiced and stuff, and got used to the road, learning the road.

08:16:07;08

Well, I probably knew the road better than anybody in the whole world. I did this and I studied and studied and studied. Then [I would] think about it, and think about it.

For example, I discovered that the subconscious mind is the strongest thing that we have working for us. Most people don't realize that they have it, and don't utilize it. So, every night I'd be in bed, but before I'd go to sleep, I would think about Pike's Peak. I would think about how to make my race car better, faster, little things that I could do. It's called innovation. It's called development.

08:16:47;23

Sure enough, sooner or later, it just started working. I'd win Pike's Peak time and time again, to where it was a total of 13 times. Very few people would ever argue that Bobby Unser wasn't the best ever up there. That's because I was a fanatic about it. My subconscious mind worked and it's free. I just had to think about it.

6BUNSER. Being the Best Starts with Wanting to Be the Best

BARRY HURD:

08:17:10;02

What drove you? Not talking about the car, no pun intended. What made you so intensely passionate about wanting to do this?

BOBBY UNSER:

08:17:19;21

My uncle, or our uncle, Al's and mine, and we had two other brothers. We all ran Pike's Peak. Uncle Louie was our hero when we were really young. My dad had raced there for many years. My Uncle Joe got killed in one of the cars that he was running up there. He was preparing to go to Indianapolis with it. Pike's Peak, since I can remember, like when I was eight years old, I mean, we wanted to race Pike's Peak. It was in our thoughts. Our first Model-A Ford was a little pickup truck without a bed in the back, but some wood back there. We had a number three on the door. We'd put it on there with tape.

08:18:07;13

Isn't that ironic? I won Indianapolis with number three, two times. I'm not superstitious. So, don't mistake that, but nonetheless, we'd have this Model-A when I was eight years old. Jerry and Louie were nine and we're driving it. We can't go on the pavement. We'd use the dirt roads out behind our place here. There were no houses out here then. That's where all of our driving was in that Model-A.

One gallon of gas per day, is what Daddy gave us. That was Pike's Peak. Every time that we're driving out here, we'd slide through the turns on the dirt. Everything was Pike's Peak. So, I became obsessed with Pike's Peak and about winning.

08:18:54;19

I can remember when I was really young. There's a picture in my office in here of me standing at 16 mile at Pike's Peak. My Uncle Louie is going by and, of course, I want him to win. I'm proud of him. I remember telling him very shortly after that. They called him the King of the Mountain. It would always be in the newspapers. I told him, I said, "Someday, there's gonna be a new king." I said, "It's gonna be me."

7BUNSER. The Unserers are a Racing Family

BARRY HURD:

08:19:26;26

Obviously, you come from a very famous racing family. I think yesterday we counted there were 14 people who were actually drivers. Does that make it easier or harder?

Tell me a little bit about what it's like to be from a family that was so famous in racing and so accomplished.

BOBBY UNSER:

08:19:41;13

Well, you must back up a little bit and realize that before Al and I, and Jerry and Louie. There wasn't much fame, except for Uncle Louie, because my dad didn't become famous. He became respected, and he was a big innovator. Uncle Joe got killed way too early. So, Uncle Louie became the King of the Mountain and won Pike's Peak nine times. That was fabulous. It was big time, and being a national championship race, he got a lot of attention for it. So, there was the first fame that we really had, and, of course, when the four of us boys from Albuquerque showed up. Of course, it didn't end just at Pike's Peak, because we were running other races.

08:20:26;13

Jerry and Louie were twins. Jerry became national stockcar champion in 1957, driving mostly for Ford Motor Company, which, unfortunately, it seems like every time one of us got involved with the factories, the factories

would quit racing. We'd be out on our own again. But Jerry was a national champion. He was really the leader as far as us four kids getting started. Then Jerry up and got himself killed in Indianapolis in 1959, and that was a big setback. Nonetheless, he loved racing, and he did good. He was very good at it.

BARRY HURD:

08:21:09;06

Okay, but did you guys like help each other? I mean, you raced against each other. In that family, is their rivalry? How does that...

BOBBY UNSER:

08:21:17;00

There wasn't any rivalry in those days, in the early days, because you have to just visualize that the Unser Family was not real poor, but we dang sure weren't very rich. At the best we were never more than middle class, maybe in the lower end of that at times. We didn't have anything just laid out. We had to build our own cars in most cases. Of course, later on, we drove for other people. We had to do all that. So, helping each other was important. I could remember Jerry, my oldest brother, was in the Navy at the

same time I was in the Air Force.

08:21:57;28

Now, why that way, I don't know why, but he joined the Navy and I joined the Air Force. He's running in Hawaii. He became Hawaii's biggest sports hero they ever had in the history of the island. The Navy used to support him on it. They'd go out, take an airplane out to the ship, get him, and bring him in for the weekend, so he could race, and then take him back to the ship. It became a big thing for the Navy, a good publicity thing.

08:22:24;27

Well, I was in the Air Force. I ended up in Cheyenne, Wyoming, going to schools. I did do a couple of schools, even though I dropped out of high school, and did good in the schools up there. I raced four nights a week while I did that. We would always write each other. We didn't have enough money to make phone calls, but we'd write each other. He's winning a lot of races over there. I'm racing four nights a week up in Colorado, doing school, and a half a day in the Air Force and just having a ball

doing it.

08:22:57;28

So, our whole family. Then I got Louie. I was racing so much, and with my schools that I was doing, I was too busy. I needed somebody to help me drive to and from the races, because it wasn't just right down the road. I also needed somebody to help me manage things, meaning go sign me up to drive different cars, because you run four nights a week, you're not gonna drive the same car each time. So, that's what Louie came out and did.

08:23:30;01

We'd put a uniform on him. He'd eat in the barracks, or eat in the mess hall and live in the barracks with me. Nobody caught us for a long time. It was really good. We had a good little business going. That's the family working together. There was no jealousies, no animosity going on, nothing like that. It was just help each other. Now, as time went on, now you can bring this down to Al and me. We became the last two of the big names. Jerry got

himself killed. Louie got multiple sclerosis. That was really sad. So, Louie could no longer do driving, but he became a very famous engine builder. He did it even having M.S.

8 BUNSER. Balancing Family Ties and Business Ties

08:24:16;16

So, we would do that. Now, Al and I figured out right away that, because we really kind of started at the bottom, and as you go up this ladder called success you start making better money, better cars to drive, more sponsors. Things like that. We found that it was better, because the tire companies were coming in. They were coming in with big money. They were the big spenders in automobile racing during that era. Al went with Firestone. As I told you, I went with Goodyear, but I innovated [so that] Goodyear [ended up] coming in.

08:24:56;09

A.J. Foyt was the one that took them to Indianapolis, but before that, I had taken them to Pike's Peak. So, that's how Goodyear basically got into racing, me for Pike's Peak and a lot of other races, and Foyt for Indianapolis in the

championship circuit. So, now, Al and I are becoming not enemies, but we can't live in the same house, so to speak. In other words, he drove for, hypothetically, George Bignotti, whoever it might be, Parnelli Jones.

08:25:31;08

Those are big teams and big money. That's all Firestone. I'm driving for Dan Gurney and Bob Wilke out of Milwaukee, big teams, but Goodyear money. So we were separated. But most of all, we retained being brothers all the time and being close as brothers. For example, if I drop out of a race, which Lord only knows I dropped out of many of them, then I'd always want Al to win. We retained that as a family. That was always good with our family. I can remember one time there was a newspaper reporter by the name of Dick Holgate. That really isn't important.

08:26:14;06

But he worked for, I think it was, the *L.A. Times*. One of the big L.A. papers, at any rate, and he wrote a bad article, saying that the Unsers were feuding and fighting

and that I had spun Al out at Milwaukee. We're out at the California 500. Al and I collectively, both of us, got our attorney from Albuquerque and they either had to print a retraction and they had to put it in a good front page of the paper, not in the back corner, that this Dick Holgate was wrong, or we're gonna have to sue them, because it wasn't true. Al and I didn't fight. We were the closest of friends. But we couldn't professionally go down the same road. We had to separate then and it was hard to do. It was hard to be family, and yet do what we were doing, because we both kind of rose to stardom together, see.

9 BUNSER. Innovations at Pike's Peak

BARRY HURD:

08:27:11;29

Tell me about some of the other innovations. You talk about the walnut shells. You said you were an innovator all your life. So, tell me about some of the other things that you innovated in racing to make the car go faster.

BOBBY UNSER:

08:27:23;00

Well, there was just so many things. A lot of them become

hard to explain. But, for example, at Pike's Peak, we figured out ways to not use, you know, if you're in a midget, or a sprint car, or an Indianapolis car, or a champ dirt car, you ran what they call an open tube rear end. Meaning it was a spool. Meaning if one wheel made a revolution, the other one had to make the revolution. In our way of thinking cars were difficult to drive like that, because you get into a turn on a loose gravel road, turn the front wheels and the rear wants to keep the car going straight, not make a turn.

08:28:02;01

Excuse me. So, what we did is we figured out ways to make our rear ends be what we call open. That's a good way to term it. One wheel could turn more than the other one, see? So that meant that you would free the car up in the turns, but you had to make it to where it would go down the straight-aways fast and come off the turns fast, because most people think the inside tire would spin the most. Well, just figure out ways to have that not work. Different types of lubricants.

08:28:30;20

Like, for example, as I showed you through the warehouse little while ago, I told you that Amsoil, one of the big innovators in lubricants, first really big truly synthetic oils, lubricants that are made. Al **Amatuzio** and I became very good friends. He was a new company, and he knew synthetic products. He knew how to make them. It's all chemicals. We'd start playing on the Pike's Peak stuff. So I could tune my rear end to do the things that was good for the open tube and yet, good for the turning, and do it easy, and have the things last longer.

08:29:17;05

Then, of course, we did that with the transmissions. Then we learned how to set the chassis up, up there, like having them really loose, and where they'd lean over, because Pike's Peak is not like Indianapolis, or like running a midget or a sprint car race. But instead, you have to make the car where it's really controllable all the time. You'll drift good, slide good, brake good, and things like that, see.

10 UNSER. Innovations in Go-Karts

BARRY HURD:

08:29:40;27

So, by doing this, you were having sort of a winning edge over the competition. They didn't know how to do this, right? You were ahead of them?

BOBBY UNSER:

08:29:48;20

They didn't know how to do that. In fact, it was our innovations, such as I've done hundreds of them, but it's the innovations like that, that sets our cars out. That means, that theoretically if we don't drive any harder or any faster than old Joe Blow down the street there, we're gonna go faster, because our cars should be better. I took that concept up many years ago, and it worked for me. In every form of racing that there was, it worked for me. I did the same thing in snowmobiles and go-carts. Gosh, I even took go-carts at one time, and made a ground effects.

08:30:28;03

Meaning the ground effects is where air passes underneath whatever it is, and it sucks the car to the ground. 'Kay,

we have them on Indy cars still today. Formula One has a mini-- well, every form of racing where it's legal has it. But in those days, it was all new. So, my youngest son, Robby, was driving go-carts, and my race shop over here, believe it or not, at one time, just ran go-carts. We had to win races and we won something like around 85 percent of all the go-cart races that we ever entered with my young son Robby.

08:31:07;05

That's where Little Al came from, too. That's Big Al, my brother's son, Little Al. That's where he came from is that go-cart racing. We innovated into that. We innovated tires. We innovated engines. I figured out ways to make the engines turn. They were special engines. So, I figured out ways to make the engine turn more RPM, or more RPMs, plural, than the other guys could do. Because the engines, being a special series, would quit, let's just say at 13,000 RPM, on a go-cart. Well, I'd make that engine pull power up to 13 and a half thousand: 13,500 RPM. If you figure out the rim wheel torque, that means the tires, the

actual power going to the tires. "Wow, that's a big..."

BOBBY UNSER:

09:01:01;11

Well, actually we raised the go-cart RPM in the go-carts, because they're a spec series engine, a little Yamaha engine. We'd raise it, or I raised it, from 13,000 up to 13 and a half thousand RPM, which, in the real world, it goes to rim wheel torque. That's the amount of power put to the rear wheels that drive the car. That's horsepower. That's what really makes you go fast.

09:01:26;12

So I increased that by a whole bunch. I caused all the national people with the go-carts to change their rule books so many times you would not believe it, because I abided by the rules. I just used new innovations to get around [them]. Well, not to get around the rules, but to work within them and accomplish what we needed, and that was to win races.

BARRY HURD:

09:01:47;24

Do the organizations sometimes work against innovation? Like you could invent something and they would like make

a rule though where you can't do it? Is that what you're saying?

BOBBY UNSER:

09:01:54;00

That's the contest, because the rules makers are to limit the speed of the cars, keep everything within a safe period, whatever you want to call that. Some don't let them go too fast. It is innovators, people like myself, the engineers, whose job is to go faster. So you have to innovate.

09:02:15;15

And it's not arguing or fighting against each other. It's just simply, "You tell me what the rules are; I'll work around those rules and we'll exist in it, but I need to go fast. So I'm gonna innovate to go fast."

11 UNSER. Teaching Parnelli Jones to Drive at Pikes's Peak

BARRY HURD:

09:02:28;14

Let's talk about some other people that you worked with, that you innovated with, and went faster. I'll just give you some names and give us a little impression, maybe a short story about when you worked with them. Let's start with

Parnelli Jones.

BOBBY UNSER:

09:02:40;26

Well, Parnelli Jones, good story there, because Parnelli used to watch me run sprint cars and stuff when I'd go to California. He got to know me. He was just a hero to me. I didn't know him, but he came to Pike's Peak with Ford Motor Company in the stock car division up there.

09:03:01;02

So remember, that's not competitive with me, because I'm running the race cars. See? And so, Parnelli and I hit it off really good. As soon as I met him, I liked him. So I started teaching him Pike's Peak. Now, I didn't do this with anybody. I mean, this didn't happen.

09:03:20;13

Al and I used to work it. Louis and Jerry and I, we used to work it up to a point, but then we wouldn't help each other after that, because that is competition. But with Parnelli, he's running the stock cars; I'm running the race cars. I help him all I can. I taught him everything I knew about how to run the road, how to learn the road, how to set up

his cars, why he should do things certain ways or why I do it, and my whole system.

12 BUNSER. Parnelli Jones, Andy Granatelli, and Bobby Unser's First Indy 500

09:03:49;24

We became really good friends. In turn, this is where my career changed an awful lot. If Parnelli says I should go to Indianapolis, [I should]. I didn't have any dreams of going to drive Indianapolis. It wasn't even in my thought process. He not only told me I should go to Indianapolis and do it, but he found a car for me to take my driver's test in.

09:04:16;19

Which was a big deal in those days, to find a car to get your driver's test. That was with John Chalik, the American Rubber and Plastics special, and not a good car. But nonetheless, it was a safe car. I went back to drive that and he even got me \$1,000 expenses.

09:04:34;10

Everybody laughs at that now, but believe me, that was a maker or breaker. I didn't have any money. So I went back to Indianapolis. That car wasn't going to make it.

My dad was back there supporting me. I got a big going away thing here, in Albuquerque. That was embarrassing. I didn't think I should even be at Indianapolis, see?

09:04:55;25

So I go back there. My dad was there. There was a yellow Novi that used to set out on the pit apron every day. Jim Hurtubise was running a red one for Andy Granatelli. Well, the yellow one is sitting out there every day and occasionally somebody would drive it, but usually not very many. People were a little bit afraid. Or the drivers were a little bit afraid of the Novi. It's very powerful, big and a little bit heavy.

09:05:21;06

My dad kept pestering Parnelli, "Get Bobby a ride in that yellow Novi." My car isn't going to make the show, that's for sure. Finally, in order to keep Daddy happy, Parnelli took me down, we'd already quit the other car, and Granatelli was sitting on the pit, well, and his arms were crossed like this. He's staring straight ahead.

09:05:45;28

Parnelli says, "Andy," he says, "Meet Bobby Unser." Ah, Andy is Andy, a little bit different, right? He didn't even want to talk to me. Parnelli says, "Let him go try your car out. Give him a ride for a little bit." Andy looked up at me and he says, "What makes you think you could drive my car?" "I don't know." I didn't have an answer for that one. I just wanted to drive a race car.

09:06:12;02

Parnelli says, "Andy, he's okay. He can do it." Andy looked at me and he says, "You're not gonna wreck it, are you?" Well, I don't have an answer for that either, never been in his car. Novi doesn't have that good a reputation. So I said, "I don't think I'll wreck it, but I'd sure like to drive your car."

09:06:33;04

He says, "Go get your uniform on." Well, I ran back there and got my uniform on. I come back out. He said, "Sit in the car." He adjusted the seat belts. He says, "Any other changes?" I said, "No." I mean, I don't care how bad it was; I just wanted to drive that car. So I took it out on

the track, and in those days Parnelli had just cracked 150 miles an hour, first time ever in history, just a few days before that.

09:06:59;29

Parnelli didn't want me to drive the Novi because he wanted me to get into a Watson Roadster. Okay? Which he'd already found one for me. I kinda liked the Novi. It's kinda like my dad's car. At any rate, I took it around. My first lap around the track was faster than I'd driven that other car in all the time I'd been driving it.

09:07:21;09

I came back in and made an adjustment to the windshield. It had too much air hitting my face and went back out in it and ran 149 miles an hour, which was right next to Parnelli's times, in a car that just hadn't been going fast. I came back in. Of course, Granatelli wanted to marry me. He thought that was the greatest thing since popcorn. We got along really good. That's how I became [friends with] Parnelli and then Andy Granatelli.

13 BUNSER. Failure Can Lead to Success

09:07:54;02

Now, Andy and I truly became not good friends then, because Andy didn't always tell you exactly how things were. He ran a one-man show with a lot of people around him. And so, I drove the car. Of course the car was fast. I liked the car. It was smooth and had lots of power. It really handled pretty good.

09:08:19;23

Unfortunately, the second lap of the race, I wrecked it. Granatelli had pushed me a little too hard. "You gotta pass five cars in each straightaway." Well, the Novi would do that, but I should have cooled it, because 500 miles is a long ways. I didn't know that then. I was eager.

09:08:43;23

I just started passing too many cars right away, and I wrecked the car, but the difference was is that made my reputation. Yes, I wrecked, but the most important thing was "Bobby Unser went fast."

09:08:59;08

I made the newspapers all over the world. I qualified that

car the fifth fastest in the entire field. That's as a rookie. So I became internationally famous. The Novi was famous, so therefore, I became famous. So now I had race cars to drive. Other owners wanted me. So Parnelli Jones was probably one of the biggest turnarounds in my career that ever existed.

09:09:26;25

Andy Granatelli was a big one, because his cars weren't gonna win a race, that's for sure. But were they famous? Yes. So that made me desirable because I went fast. If you go fast, you become famous. Everybody wants you. So that started things going.

09:09:43;27

Then I hooked up with Gordon Van Liew and the Vita Fresh Orange Juice car later. I drove for Granatelli for three years. Now, we **innovated** the all-wheel drive like the Audi cars have today that you see going down the roads. They're all-wheel drives. All are basically copied on the Indianapolis, which is made by Ferguson, of England.

09:10:08;12

They made the all-wheel drive. I did all the development work with it. I learned a lot. I became the most knowledgeable person in the world on all-wheel drive. So that didn't work so much good then. But boy, later on in life, it changed lots of things for me. So that's how I got started. All of these people had a big say, had a big effect on what Bobby Unser did and how my career went.

14 BUNSER. Driving for Dan Gurney

BARRY HURD:

09:10:40;12

What about Roger Penske?

BOBBY UNSER:

09:10:42;18

Roger Penske, of course, came later. Before Roger Penske, was Dan Gurney. I really need to just go there first.

BOBBY UNSER:

09:10:52;18

If it's all right, because what happened is that I'm driving for Bob Wilke, of Milwaukee. That would have been in say, like 1966, '67, '68, that would have been the equivalent of a Roger Penske team today. That was a big team. Roger Ward, Don Branson, guys like that, who were great race

drivers.

09:11:15;19

I was lucky because Branson was going to retire, and he and I were just like brothers. He wanted me to have his car, which I did. I ultimately won in that car, in 1968, my first win. So that takes care of Wilke. I had Jud Phillips and Little Red up in Denver, Tom Herrmann, as my mechanics.

09:11:38;06

Only three guys in those days. That was nice. That was my first big kickoff there. Again, all caused because of Parnelli Jones. Then I get a chance to go with Dan Gurney. Dan decides to retire, way too early and way too young, but he's going to retire, and he needs somebody, but he needs a Goodyear driver, okay?

09:12:05;03

He looks at my situation with Wilke. Wilke is not going to remain a super big team, because when the Goodyear money started coming in, and the Firestone money, Wilke didn't grow as fast as like Penske, Gurney, people like

that, see? So, I got a chance to drive for Dan. He called up and said would I try out the car.

09:12:29;16

He had no choice on how many drivers that he could pick from because they had to be a Goodyear driver, because we're all under contract to either Goodyear or Firestone in those days. So he brought a car back for me to try during one of the tests. I liked it of course, I already knew he had a good team.

09:12:47;27

I drove for Dan Gurney for I don't remember how many years, but did quite a few cars for him. I raised the speed up 18 miles an hour one year at Indianapolis. That was the biggest record that's ever happened back there. So, I did that. Those were good days, all innovations again.

09:13:09;08

Now, I went away. Dan and I didn't always get along super good. I went away from there and came back. When I went back one time, his cars weren't good that year. They couldn't be made to go good and he was also out of

money. He was always out of money. If Dan had a billion, he'd have spent two billion.

15 BUNSER. Leaving Dan Gurney, Joining Roger Penske

09:13:33;15

He spent it on racing, though, which was good, but we decided to split sheets again. In other words, I was going to quit him again for the next year, which would have been 1971, along in there someplace. Penske came up to me. Now we're to Roger Penske, okay?

09:13:54;29

He comes up to me out at the Ontario Speedway one day, and remember, we were big competitors. Now, Mark Donahue, Mark and I were very close friends, but Penske? "Ah, he's the enemy." Not that I don't like the man; he's just the enemy. He's a real hard competitor. So, he asked me what I was going to do for the next year. I said, "I don't know." I said, "I'm not going to drive for Dan Gurney because the car's no good and we're just not getting along that good right now", see?

09:14:26;16

So I go to work, and he says, "Do you want to talk to me?"

I said, "Sure." He says, "Well, meet me up in the grandstand." Well, that's kind of foolish. I have nothing to hide. So I meet him up in the grandstand where nobody can see us.

09:14:37;27

He said, "I have a new car, a new invention coming along." He said, "I need somebody that can do development work." He said, "Are you interested?" I said, "Well, what's it gonna be?" He said, "Secret. I can't tell you." I said, "Well, I'm interested." But I said, "You're gonna have to show me and tell me."

09:14:57;20

So, he said, "You're gonna go to England?" I said "Yes." So we went to the England races. Over in England, he said, "You're still interested?" I said, "For sure, I'm interested." So he said, "Here's the name." He gave me a piece of paper and here's a name of a hotel and here's a room number.

09:15:15;21

He said, "The room is in your name." He said, "After the

race is over," the last race that we ran in England, he said, "I'll meet you there and we'll decide what we're going to do." I said, "Fine." So we go to a hotel room, sat on the bed, talk things over, and decide on how much money is gonna come from him to buy me. In other words, [we talked about] the contract issues. I told him, I said, "I'll just send you Dan Gurney's contract and you copy that, put in the fees, and that's all we have to do."

09:15:57;09

I said, "I won't go for less or change that." It means I'll only do a deal for one year. I won't do multi-year deals like everybody else, because if I don't like the car owner and he doesn't like me, we might as well split the sheet, see? So, we did that. Next day, he picks me up in a helicopter and we fly down to his factory in England, in Poole, England.

09:16:19;05

I meet all of his people down there and see what he's thinking of. And would you believe? It's ground effects. This is the big secret, see, because Colin Chapman, at

Formula One, had invented this concept, he and his engineers.

09:16:35;04

So, Penske's going to get into it and Geoff Ferris, who was the engineer in England for Penske, we call him Pencil, because he drew all the pencil stuff. They were gonna do ground effects and I'm gonna do the development work. So that's how I started with Roger Penske. We made a deal and we both got along really good.

16 UNSER. Working with Roger Penske

09:17:00;12

The newspapers, the reporters, and people like that often, in the racing, they said that Bobby Unser and Roger Penske will never get along. Well, it was just the opposite. Out of the four cars that I developed for Roger Penske, which, ultimately, from those four cars, he won 35 national championship races and we only had two minor arguments out of all of that time. In other words, instead of not getting along, he became like my partner, like a good friend.

09:17:36;13

I used to call him at 1:00 in the morning, at 3:00 in the morning. Remember what I told you about the subconscious mind? Well, mine wakes me up sometimes in the middle of the night and talks to me. Well, I'd pick up the phone and call Roger. I'd say, "I got another idea. Here's what we ought to try." He loved that. So that became the most successful venture that lasted a considerable length of time in my life.

09:18:04;00

Roger gave me everything I wanted, like I can test whatever I want to test, any place that I want to test, assuming that it's feasible now. I can try anything that I want to try. I can have parts made. I can do anything that I want to do. The net result has got to be more speed. I always had more speed. I always got more speed.

09:18:30;08

So, like Roger used to tell me, he'd say, "You're 60 to 70 percent right all of the time," on the stuff that I do. So he said, "I'm never gonna gripe about what you do." I used

to design all the ground effects. As I showed you guys, right here in my shop over here.

09:18:48;03

My wings, I most often designed a lot of my own wings and stuff like that. I did it right here, in the shop. I just enjoyed it. Out of the four cars that I did for Roger, he only showed up over here one time. That was 1:30 in the morning, flying on his jet airplane from back East going to one of his dealerships out in California.

09:19:12;25

He stopped to see what I was doing. He just was amazed about how we think and how we do things. Simple. Of course, he was my biggest supporter. I can remember one time I got into trouble at Phoenix, meaning that I lost some speed. When you test in the winter, the air's cold.

09:19:33;09

When it gets to be springtime in Phoenix, it starts getting a lot warmer and I had lost some speed. I had a bunch of it in the winter. So, we're just in a little bit of trouble, speed-wise. So Roger gets on his airplane. You gotta call

him every day and talk to him after the test, too. That's a rule. So he'd just get in his little jet airplane, his Lear jet, and fly to Phoenix.

09:19:56;13

He takes off his tie and his jacket and still, his dress clothes, and he's helping me work on the car and the mechanics. That's the type of guy that Roger is. We figured out the problem, whopped it, and got our speed back. That's just Roger Penske. Nicest job I ever had in my life.

17 BUNSER. The Limits of Teamwork

09:20:17;25

Dan Gurney was probably a big, big, big innovator, making speed, fast race cars, and just really good that way. But, as I told you, Dan retired too young. When he retired, he was a really good race car driver and probably a better driver than even he was as a builder.

09:20:43;15

But whenever he and I hooked up, we made magic speed and did really good. At one time, he probably had nearly every car in the Indianapolis 500, probably had close to all

33 of them, and those were all cars that I helped innovate. That I developed. We had a very successful venture.

09:21:05;08

But unfortunately, we didn't always agree on things, like I didn't like teammates. I never have liked teammates. But my agreement with Gurney and with Penske was always, "I'll be honest during the testing. Whenever I do my development work or the team's development work in the testing, I'll always be honest. I'll tell you the truth and I won't hide little things for me."

09:21:31;10

But I said, and it was in our contracts, that, "Whenever we go to the racetrack and you're gonna start your practice and you're gonna do your qualifying in the race, I'm a separate team. I don't have teammates any longer. I will not help them and I won't ask them for help. I don't care what they do; I just don't even want to see them."

09:21:51;22

We had an understanding with that. I had it with Gurney and I had it with Penske. I never lied to either one of

them. I dang sure never lied to the team, to the mechanics and stuff. Of course, they always looked for it and maybe thought I was holding back some stuff for myself, but I didn't. It's just that their drivers that they had didn't know anything about mechanics. They couldn't help as much as I did.

09:22:20;02

Often it looked like I was holding stuff back; but I didn't. It's just that race. When it comes around to the race, it's Bobby Unser. I don't care who the team driver is. I don't even want to see him, see? It doesn't mean I don't like them. It just means that it's competition. I'm for Bobby Unser; I'm not for some other driver. He can make his own fame; do what he needs to do.

18 BUNSER. Learning to Innovate

BARRY HURD:

09:22:45;26

Let me ask you...

BARRY HURD:

09:22:51;06

How, you haven't explained yet, did you learn to do all this stuff? These innovations, I mean, where'd you learn to do

it?

BOBBY UNSER:

09:22:58;26

I learned innovation work from my dad. I mean, Daddy looked at life differently. He looked at items differently. He didn't have any money. So therefore, when you don't have money, you have to innovate. If you don't have money, you have to innovate because you can't ask somebody else what the answers are.

09:23:19;18

Or you don't hire somebody to do the job that you could or should be doing. So that's where innovation comes from. I do it in everything. I mean, I've changed snowmobiling so much, during the early '70s, that people just can't believe it. *Snow Goer* Magazine ran a study one time about, "Where did all this stuff in snowmobiles come from?"

09:23:46;00

It all came from Bobby Unser. That's what they discovered. That's the big innovation, like the shock absorbers. Snowmobiles at one time had no shock

absorbers on them and the suspensions would travel like maybe two, two and a half inches. I went from that to six inches, eight inches, in shock absorbers.

09:24:08;14

In the beginning, Monroe was our big shock manufacturer in those days, with racing. They laughed at me when I said I wanted some shocks made for my snowmobiles. So no problem. I just had a friend in Milwaukee make them out of friction shocks. You know? Shocks that work with friction, with pads, and sold those things sold by the tons. I remember I got 15 cents for every one that was sold.

09:24:36;26

And that's innovations. You see a necessity; you figure out how to get there. That's where innovations happen and come from. It isn't that you're any smarter. It's that your mind is working. That's where it all comes from. You think, "I need to get there. How am I going to get there?" Main thing is you're not gonna hire somebody to do it. You do it yourself.

19 BUNSER. Setting Records with Audi at Talladega

09:24:59;21

Like I always set up my own chassis. In the Indianapolis cars, at Pike's Peak, whatever cars that they were, I did it myself. I found out that that works the best because I knew what I did, I knew what I wanted, and I knew if it was wrong because every change you make doesn't always work.

09:25:20;27

What? Over more than half of them are wrong. Like one time, this is a short story, but I got a call from Joe Hoppen one day, from Audi cars. Audi races really hard. Whenever Audi races, the world watches because they're an extremely successful engineering company.

09:25:43;27

So I get a call one day. I had retired from Indy cars. I'm sitting here, in this house, so lonesome you wouldn't believe. I had nothing to do. I should have not quit so early but I had a young son that I wanted to help. The reason I quit.

09:26:00;18

So, at any rate, Audi calls; Joe Hoppen calls and he says

he's down in Talladega, Alabama and he wants to talk to me and would I get on an airplane and come down to talk to him? I said, "Sure," I said, "But you're at Talladega." Common sense is I know what Talladega is. And the fastest oval track probably in the United States in those days and maybe still today.

09:26:26;17

I said, "You're trying to run an Audi sedan down there and you're trying to probably crack 200 mile an hour." Racing is my business. I understood it. So I just guessed that on the phone. Hoppen won't talk. I got on the airplane. Went down there and got down there the next evening. I met Joe in the bar. That's where we always did our business, is in the bars. I find out that they've got two cars they'd been working three years.

09:26:55;19

The second set of cars that they'd made and they had not been over 184 miles an hour. It's the second set of cars. This is millions of dollars that they've spent. They had already hired Neil Bonnet to do some testing for them

because their German drivers just weren't going fast enough.

09:27:18;04

So to make a long story short. I went out to look at the cars the next morning, remember, traveling one day and meeting in the bar that night. The next morning, I go out there about 7:00 in the morning. Look at the cars and they were real sanitary, nice cars. The engine guy is there.

09:27:38;15

Everybody that's there is an engineer and they all have to speak English. Now, there's none of them speak Albuquerque English or that can understand me, except for the Shell Oil Company guy because Shell Oil was furnishing the fuel, the special racing fuel. He could really speak good Albuquerque English. So we could converse really good.

09:28:00;23

So I told him, I said, "I took the car out and tried it out." I had the same report as Neil Bonnet had. I got it up to

about 180 miles an hour and got into the turns. It would shake so violently that your eyes can't focus on the road. Your eyes go blurry. I came back in and I told the engineers, I said, "We're just gonna have to stop and I'm gonna have to do a setup on the car."

09:28:30;02

They said, "Well, you can't do that. We have mechanics here and we have the engineers. What you have to do is you have to tell an engineer what you want, and they'll tell the mechanics what to do, and they'll do whatever you want." I said, "No, I don't work that way." I said, "I do my own, and this is just what I have to do."

09:28:50;23

"But I'll use your mechanics, because I don't even know what this car looks like underneath." At first, they said no. Pretty soon, they got in a little tight meeting over there and they came back and said, "Whatever you want. Do it." Well, I took that car and made me out my regular setup pad like I always do and level it out. Totally different than the way everybody else does it.

09:29:13;28

I worked on it for about an hour and a half and before noon that day, I ran 206 miles an hour; I did 14 world records. In two more days, I tested 350 tires and worked myself out of a job. There was nothing left to do. I come back home and I'm lonesome again.

20 BUNSER. Winning Pike's Peak with Audi

09:29:43;26

I think, "Wow. We didn't even do a contract. No agreements for money. Nothing." I was just so happy to work again and to go fast again and to do my thing that I always do. I felt like a real live human being again. So then I got to thinking, I knew that Audi has a real, real high tech car, which they won't talk to me about, to run Pike's Peak.

09:30:14;00

They have technology that we don't understand. Period. I called up Hoppen and I thought, "Wow. I'm going to go back to Pike's Peak." Remember, I'd been gone for 12 years. I told Hoppen, "I need to run Pike's Peak for you this year." He said, "No, you can't do that because Piech,

who's the chairman of the board of Audi, has his favorite German driver, Walter Röhrl, who's very good. He's going to run Pike's Peak."

09:30:44;28

I said, "No, you don't understand. Bobby Unser's gotta do it and it's gotta be this year." I said, "If necessary, build two cars. Let him run one; I'll run the other one." But I said, "I have to have equal treatment." So finally they gave in because I told them there were no contracts over these 14 world records that I set for them.

09:31:09;11

So it's either all or nothing. In other words, they can't advertise that unless they give me the Pike's Peak car. This is hardball. This is racing, see? Ultimately, they gave in. I went over to Europe. I got acclimated to the crew and the cars and their system.

BARRY HURD:

00:00:34;24

Alright. So, you're duking it out with the Audi guys, right?

BOBBY UNSER:

00:00:37;04

Well, what happened with the Audi thing is I said I wanna run Pike's Peak. They said no. The Walter Röhrl is gonna run it because he's Piech's personal driver and he is quite good. He's a really good driver. He was also the rally world champion for them and basically the Pike Peak's car is a rally car. At any rate, I just kept saying, "No, we're gonna do it or you can't advertise the Talladega runs that I did."

00:01:08;08

Well, they finally give in. So, I went to Germany. I went over there and did a very, very, very successful testing and development over there. I won't get into all of that, but we come back over now. I am their only Pike's Peak driver, and, again, I have been gone for 12 years. You can read some articles I have on the walls around here about it.

00:01:32;19

A lot of people said I was gone for too many years. You can't be gone 12 years and go back and have my timing back again and have everything back like it used to be.

Well, I did it again, set a new qualifying record and set a new race record and just blew everybody's doors off. I did it in a very big way. More importantly, I showed Audi that Americans are okay.

00:01:58;07

That we can go fast. Even though I'm an American-German, you can go fast. I became very good friends with them. In fact, so much that even the next year, they brought Walter Röhrl over, and darned if Audi didn't hire me and demanded that I go up there and help with that operation. They paid me the same amount of money to go up there and make sure everything went right and help Walter Röhrl to do the mountain.

00:02:30;21

Which he did win, but it was like me winning again because it was my car all over again, just some more technology. But they had technology that was just way above what anybody in the world had. We just really got to working together good.

00:02:47;26

With innovations, I had a Roger Penske type of a deal with Audi is what I had. Once they had me, they supported me one hundred percent. I got the best of everything. Whatever I asked for, I got. If I had idea, as long as my ideas were working, boy, they would follow me right off the end of the world. I mean, they were really good that way.

21 UNSER. The Importance of Desire

BARRY HURD:

00:03:14;19

One quick question and then I wanna run to the garage. You said desires were the thing that's sort of behind all this. You're ability to accomplish these things. Tell me a little bit about [this]. You've actually studied desire?

BOBBY UNSER:

00:03:26;28

Yes. A lot of people hear the word desire, but how many people really have much desire. It is kind of like concentration. I'm gonna give you a real quick example on concentration. I used to talk before people many times, give speeches to large groups of people, small groups of people. One thing I always put to them was,

"What is the longest that you can concentrate on one thing?"

00:03:54;08

I'll tell you guys the same thing. What would you think it is? Most people, they'll say, "Ah, maybe 30 minutes." I'd say, now, think about the prettiest girl for the guys. The woman's got the diamonds, furs, and some handsome man.

00:04:15;07

What is the longest you can concentrate on any one thing? They'd all just look at me. I'd say, "How would you like one to three minutes?" One to three minutes. A racing driver has to learn how to concentrate one hundred percent for at least three and a half hours best in those days.

00:04:41;06

Then you get down to the other thing that you desire. What really makes people excel over other people? We're all equal when we're born. If you're born with two hands and two legs and you got a head on your shoulder you're

normal. We're all born equally, assuming we don't have malfunctions at our birth.

00:05:02;04

If we're all born equally, what's gonna separate us? And it's only one word: desire. The guy that has the most desire will always win, always. He may not win that day, but he'll ultimately win because the desire drives everything we have. If you have enough desire, you'll do without everything or whatever it takes in this world to have what you want.

00:05:29;18

Remember when I used to tell you about the subconscious mind. If I have enough desire or if you do to dream, think, and work your subconscious mind about winning one race, that's called desire. I have the desire to win. You have the desire to win. The guy that has the most desire will be the hardest competitor that there is.

00:05:56;29

This is in every walk of life. Whether it's raising your kids, whether it's in the job that you do, whatever that job

might be. Most people hate their jobs. If a guy does a job that he has a lot of desire in doing that job good, he'll always be the best. He'll take a little company and make a big one out of it.

00:06:17;24

I started very poor in this world and I'm just not a poor man anymore. That's desire that got me there. It's not somebody throwing money at me, throwing success at me. It's desire and that's where everything comes from. If you have that, rest of it just falls like the dominoes falling over.

22 UNSER. Aerodynamic Testing without a Wind Tunnel

BARRY HURD:

00:06:42;28

I'm just gonna ask you to tell us what you did here, some of the innovations, what the part is, and speak a little about engineering, but enough that the average person might understand you. Try to simplify a little bit.

BARRY HURD:

00:06:55;16

So, some of the greatest innovations took place right here. And it's a flow bench? What do you call this?

BOBBY UNSER:

00:06:59;16

Well, it's an airflow bench. Through this thing, I can either suck air in through here or out and Superflow made it. Ironically, they're the best in the world, and they make them up in Colorado, but mainly they use this for doing cylinder heads, stuff like that for people in stockcars, things like that.

00:07:22;02

Well, I use it for that too, but I used it to make [other things]. [For example], this would be the under wing of a car or the tunnel on a racecar, an Indy car, and what we did is just put it right here, and we blow the air instead of sucking it. Blow it out through here and all these little holes that are in here, I take up readings on how much suction.

00:07:48;03

This has the bottom to it, the plate, which would be the ground or the racetrack. The air goes in the front of a racecar. This actually sucks down into the ground and by changing the shapes of this, sometimes the height of it, often the exit of the air, the air comes out the back.

00:08:12;09

It becomes a real, live venturi just like they have in a carburetor. So, if you understand the basics then we make a plastic deal. We mount that on here with the bottom on it. We blow the air through there. We take the readings. We change the design. We change the curve of it. We change different things.

00:08:30;26

When we find one, we take the readings right off of these two instruments there. The flow tells you how much air is flowing per unit of flow right there. From this thing, we can do monumental work, high, high, high tech stuff.

00:08:50;06

I learned what Colin Chapman was doing. Well, he didn't have something this simple to work with. For them, they had to try to find the full size wind tunnel. It wasn't that far advanced into racing in those days. We just took something simple like this and did really big jobs with it.

00:09:13;03

I was telling Bob a little while ago, we even had a moving

ground plane that we designed and built. I don't know where that is right now, but we used a sanding belt. A little motor and that thing would turn. Well, that's the racecar going over the ground or the racetrack. We did it really simple and we found out that that wasn't as necessary as some of the aerodynamics told us it was going to be. So, I did this. Did cars for Roger Penske, all of it right here on this little airflow bench, which technically, is the wind tunnel, you'll see.

23 UNSER. Experimental Results Become a Competitive Advantage

BARRY HURD:

00:09:50;17

Was this giving a real competitive advantage? People didn't know that this was a way to exactly know what's going on with the air?

BOBBY UNSER:

00:09:56;09

Oh, absolutely. It was big advantage because unfortunately, even Penske's smartest people in England didn't have this type of knowledge. Even though it's very simple to have done, I had Ronny Dawes, a kid that I basically raised. He was a born good fabricator.

00:10:19;07

He could bend this metal and do it however I would say. I don't have that talent, never have had it. I'm a good designer, but not such a good metal worker. So, Ronny would fab them up. We'd work in here usually till about 1:00 in the morning after we would finish with a good model, and you see a whole box of them there.

00:10:40;17

That's just some of what we did because we did hundreds of tests. I would do that into a drawing. You saw the bench out there that I used to draw on. Yeah, there's a drawing right here of it.

BOBBY UNSER:

00:10:53;10

Well, this particular one is the PC 9B. That happens to be my 1981 Indy winning car. Here's a drawing. I would take this drawing and send it to Jerry Breon back at Penske's shop in Reading, Pennsylvania, overnight. Within one to two weeks, I would be testing these tunnels for the racecars at some racetrack, that I would select. Usually off in Michigan because that was close to Reading,

Pennsylvania.

BARRY HURD:

00:11:29;17

Normally, it would take how long for the competition to test?

BOBBY UNSER:

00:11:33;08

For competition to do this, it'd take a good year. They'd be that far behind, be that slow getting something made. They wouldn't know how to test it except by going to the racetrack, whereas I tested here. Then we'd go to the racetrack and see if it works. If it works good there, then my testing device is good. So then the dog chases its tail. We just keep going on around and making it better, better, and better. We got very good at it.

00:12:01;12

And like, for example, this is a wing. This happens to be, this is my '81 car again. Not that I'm just picking on that. But this is the front wing for the 1981 Penske. It's one that I designed, again, right here. This would be made up like this, again, by Ronny Dawes, my fabricator, the kid that I raised.

00:12:26;28

We'd send this back to Penske in Reading, Pennsylvania. That's where his American shop was then. They'd make it up and I'd be racing it, trying it, and seeing if it works on the track. Most of the time we would innovate it here, send it back there, and then test it at the racetrack before we'd go to a race with it; because my ideas weren't always a hundred percent right. Sometimes I failed at them.

BOBBY UNSER:

00:13:17;29

A gauge. You can lay that in your lap, but an airspeed vehicle out on the road that goes to the airport, even if nobody is out there and run the go-cart hypothetically at 30, 35 miles an hour, nice and steady, and snap this with a lock in electric deal, little solenoid. You'd lock in the number, stop, and write it down. Do it again and get all my readings over all of these different vehicles.

BOBBY UNSER:

00:13:42;27

Before you know it...

BOBBY UNSER:

00:13:56;19

This is the 1981 PC 9B Penske car. This is some of the

drawings that we did probably off of this one right here. But this is what I would send to Jerry Breon back in Reading, Pennsylvania. You notice here it says ground level. That's what I was telling you had the ground plane. So, this is what we'd do to design these under wings.

00:14:21;18

I had the same thing, drawings. This is the front wing of a Penske PC 9B. Penske car 9B was the model of it. There's the front wing. Here we have where you put the holes for mountings and things like that.

24 UNSER. Inside a Winning Pike's Peak Race Car

BARRY HURD:

00:15:29;05

Alright. Bobby, just tell us about this car. This was the winner and you're the only one to have driven it. Take us through it.

BOBBY UNSER:

00:15:34;18

Well, this is not my first Pike's Peak car. The first one that I drove at Pike's Peak, Al has in the museum, but this is the first one that I ever owned myself. Of course, it's gone through many modifications. I never ran it a year that I

didn't do more modifications to it. It started out with a Pontiac engine in it.

00:15:57;14

In fact, Semon "Bunkie" Knudson was the President of Pontiac Motor Division in those days or general manager, whatever it is. He sent me some Pontiac engines so I'd have parts. We built it from that. It started that way and now it's got a Chevrolet engine in it, which was because they were small and light. It's got a four-speed transmission in it, which was really a Corvette box.

00:16:22;18

It was the first of the aluminum boxes that were extremely hard to get in those days. It's been cut off, modified, changed, and redesigned. It's got special gears in it just to suit Pike's Peak. On the left down here, it's got one pedal and that's the clutch. The brake is a handbrake, the original footbrake.

00:16:46;11

Then, of course, the throttle is on the right hand side. The transmission really has four speeds, but we only use two

at Pike's Peak if you're working right. It has a very small fuel tank back here, just enough to go from the starting line to the top. You better coast most of the way back down because it doesn't have much fuel in it.

00:17:06;14

The frame is very light. The total car only weighs 1,350 pounds. That's wet and ready to race. That was just barely within the rules of what they allowed in those days. The rear end, of course, is special as I described to you earlier. It's got special gears in it. Basically, it's 1948 Ford parts in there. The reason for that is because it's very small and very light again.

00:17:37;18

This is where I told you I became associated with Amsoil, Al Amatuzio, the synthetic oil, because the rear end, engine got so powerful it was tearing up the rear ends. We had to get a special lubricant, either that or design another rear end. Then it would've been heavier and we'd gone slower.

00:17:57;12

Even the radiator is an aluminum radiator in it. Everything on the car is made to be as light as the technology would allow in those days. The engine was built by, the last time it ran, my brother, Louis, who became a very famous engine builder. He's the one that had MS that I told you about and he couldn't drive anymore.

00:18:22;05

He became a super engine builder. The last year that I ran this car was in 1968. Louis built me a real barnstormer, a really good engine that year. He came along with it. In other words, he'd babysit. He sat with this engine every day of practice, qualifying in the race for me.

00:18:40;27

We set a record that lasted for many years that year, and it was 335 inches. That was smaller than the 350, 355 that was allowed. They even protested it and wanted to see inside. They couldn't believe it was only 335 inches because I really beat them bad that year, but it was mostly because of Louis.

25 BUNSER. Goodyear's Pike's Peak Tires

BARRY HURD:

00:19:05;17

Tell me about the tires.

BOBBY UNSER:

00:19:06;12

Well, if you look at these tires now, these were the first of the radials that Goodyear made. This was a test deal that year. What we'd do is we'd groove this out because all the front tires do basically is turn the car. In other words, they don't brake very much and don't do anything else. We put grooves in it because it's, basically, a gravel road, loose gravel. It's really ground up granite rock.

00:19:37;06

We call it gravel just for short. We used the ribs designed for that. The rear is part of that two-ply. This is the two-ply casing that I described to you that I designed with Goodyear.

00:19:53;28

With the two-ply tire and that's a tread design that we did. This is one of the earlier tires. I bet these are the actual tires that I ran in '68 and won with.

BARRY HURD:

00:20:06;23

The walnut...

BOBBY UNSER:

00:20:08;00

This is not the walnut shells. We later on got away from the walnut shells by using Goodyear special racing rubber, mainly the rain rubber. Tires that were [made from a] compound that was used for rain. That's what we did there. The headers were all Dyno tuned, everything, the injectors. This has got the long stacks like you see in the other engine I showed you up there.

00:20:35;06

Everything on this car is made to be just very light and to do Pike's Peak. The car would've not been good at any other race at any other time. It was really a good car for Pike's Peak.

26 UNSER. A "Must Win" Situation—Pike's Peak 1959

BARRY HURD:

00:20:46;13

Take me back to the day that this car did it. What do you remember about that?

BOBBY UNSER:

00:20:52;21

Again?

BARRY HURD:

00:20:53;01

The day that you won with this car. You remember that day?

BOBBY UNSER:

00:20:57;26

Well, this car one seven times.

BARRY HURD:

00:20:59;19

Well, but the first time.

BOBBY UNSER:

00:21:00;16

Well, the first time was in 1959 and it had a Pontiac engine in it then. Now, the problem with that year was that I had this car that I owned myself personally, but I didn't have any money. Like the magneto and part of the rear end and parts like this of which I didn't have enough money to buy, but my credit was always good. So, I had a 30 day charge account.

00:21:29;05

The wheels and the magneto and the rear end and stuff like that, I ordered 30 days prior to the Pike's Peak race. That meant I didn't have to pay for them until after the race. Now, that's a big gamble. I've never paid a bill

knowingly late in my life. I had to win it, but I was driving for my dad also in the Jaguar powered car that's up at the museum.

00:21:52;20

I got Al, my brother, he was gonna drive this car. Unfortunately, Al was some weeks shy of being 21. Well, somebody squealed on him and basically really hurt both of us, me too because now I have two cars. They wouldn't let Al run the race.

00:22:15;15

So, now I have two cars to drive, but I can only drive one. I thought this car was faster than the Jaguar. So, I parked the Jaguar and drove this car. I had to win the race. There was no choice. I was so broke you wouldn't believe it.

00:22:32;00

My wife and I, for example, in those days, we emptied our pockets and between the two of us we had less than one dollar. Of course, we had no checking or savings account. That was it in total, but I had a lot of money because I just

won the race. So, I bought me an airplane because I needed to get to and from the races every weekend in California with the extra money.

BARRY HURD:

00:22:55;15 Okay.

BOBBY UNSER:

00:22:57;04 I had to give my dad 40 percent of the winnings because his car had to get parked.

27 UNSER. Mario Andretti and the Controversial 1981 Indy 500

BARRY HURD:

11:00:48;08 Tell us a little bit about your relationship and your opinion about Mario Andretti.

BOBBY UNSER:

11:00:54;00 Well, number one, Mario and I, if you go back, like our sprint car days, which would have been back in the 60s, they're all doing that area, Mario was probably one of the closest friends I ever had. That held good. We traveled together. We were on the road lots of times. We just basically kind of lived together. I just looked at him as being a really good friend.

11:01:24;02

We were always on opposite teams, opposite tires, which, again, the tires were the big thing, but that being said, we always had a really good friendship until 1981. That's when there was a controversy over the win on who passed the cars at 3/4 of the way through the race.

11:01:46;15

I did pass some cars. There's no question about it, but so did he. So, bottom line was it got to be a political thing because of Roger Penske and Pat Patrick, Mario was driving for Pat Patrick, who's also a good friend of mine. They just decided, not Pat Patrick, but Mario, that they had a chance of winning the race if I got protested.

11:02:10;25

So, they protested me. Not thinking that maybe they'd been caught doing the same thing too, if, in fact, it was wrong, which, ultimately, the cars that we passed came out of the pits. It's a long story to tell, so I won't tell all of it, but we ultimately won in the court.

11:02:34;13

It was kind of sad it didn't go to federal court because then we would've collected all the attorney fees for it, but, nonetheless, we ended up meeting both ways. The unfortunate part about it is that Mario and I lost our friendship over that. He wasn't the winner. I beat him all day long.

11:02:52;14

Unfortunately, we had to beat him in court too and that's kind of sad because the way I feel about it is it wasn't like Mario to ever ask for something that he didn't earn. He's one of the best race drivers I ever saw in my life, always good. It just wasn't like him to try to get something that wasn't his.

11:03:17;23

But I guess he had a desire to win Indianapolis so bad. He did win it one time. He was always fast there and as well as his son. All the Andrettis have been very fast at the speedway, but they haven't had a lot of luck, whereas the Unsers have always been fast, but we've had a lot of good luck back there too. Unfortunately, the friendship went

away because of that.

28 BUNSER. Bobby Unser's Process of Innovation

BARRY HURD:

11:03:47;02

I'm gonna ask you to talk to us about that process of innovation and the steps you go through. How you get to the point where you know what to do, how you innovate, and try to take us through that? Maybe using the walnuts as an example?

BARRY HURD:

11:04:01;11

Tell us a little bit about this. Innovation is really sort of a process. There are steps you take and decisions you make. Using your walnuts and your tire example from before, tell us how that works.

BOBBY UNSER:

11:04:10;02

Well, a good way to think about innovation, how do you find it, where does it happen, and this and that and the other, which a lot of people ask that same question and it's really pretty simple to start with. If you just take anything that you wanna accomplish, whatever it might be, think

about doing it one way and then try a little bit different direction on trying to get there. Go another direction.

11:04:32;07

So, maybe you took off kind of like that and when you finish those two, you find that this is how simple it is. That one worked better than the other. One of them seemed to be good. This one seemed to be really bad. Maybe this one wasn't super good, but it's better than normal.

11:04:51;19

That's the start of innovation. So, now I throw the bad one away and do away with that totally. Take the good one, split it again. Go two different directions again. This is how innovation happens. Now, I gotta plus and a minus or a good one and a bad one.

11:05:05;08

Again, throw the bad one away, keep the good one. This is innovation. It's very similar to like what you brought up with the walnut shells in the racing tires. We had regular rubber, okay, these were rubber tires, remember. I got one set of rubber has ground up batteries in it.

11:05:29;13

We tried other stuff too, but the one had walnut shells in it, okay. What we do is we have three. I go up on a practice morning and I try the one with the walnut shells, one with the battery shells ground up in the rubber, and the one without anything, just standard rubber. Well, that one was no good. The battery shells were fairly good, but the walnut shells were great.

11:05:52;27

So, what I do next? Throw away two of them, take the walnut shells and look for different size walnut shells and another way to mix it with some other different rubber compounds. Now I find out which shells work the best, big to small, okay. Then I find out that I decide. Now, I figure out of that which rubber compound works the best. So, now by the time I married those tests together, I've got super good tires and I win with them. That's innovation. That's how it happens. That's how it's supposed to happen.

29 UNSER. First Indy 500 Win in 1968

BARRY HURD:

11:06:33;22

Final thing is I'm just gonna ask you to take us through the three Indy victories. Just tell us about it, your memories, how you felt, and what it feels like to have won such a prestigious race so many times. Brag a little here. This is for the future and you if wanna say something to the racecar drivers of the future that challenges them to beat you, go ahead. Whatever you wanna say is fine.

BARRY HURD:

11:06:46;28

Take us through those three Indy victories. Obviously, it was an amazing accomplishment.

BOBBY UNSER:

11:06:51;12

Well, the first one, of course, nothing will ever be like a first win at Indianapolis or any race as far as that goes. Pike's Peak would've been my first victory, will always be my best, that's for sure. But Indianapolis, it for sure was number one. When I went back to Indianapolis as I told you, I didn't even think I was good enough be there. I didn't think the good Lord was expecting me to be there,

but it worked.

11:07:18;10

So, now in '68 the opportunity to win was obviously there. I was the fastest of all the piston cars. The turbines were there. Some people will remember the turbines. So, they had us outclassed by a bunch, out-powered. They were all wheel drive. They were really good cars by Colin Chapman again, the Lotus cars, and good drivers.

11:07:44;16

They also tried to get me to drive. Granatelli and I, we had big fights over that. He wanted me to quit Goodyear and drive one of the turbines because they'd already killed one of their drivers in an accident. They wanted me to drive one of their cars. I wouldn't do it because I had my deal made with Goodyear.

11:08:03;18

I also had a deal with Bob Wilke of Milwaukee, Leader Card Racers. The bottom line was the chance of me beating the turbines was not that good. They probably had 70 to 30. So, Granatelli had really decided to go for gasoline in his

engine instead of turbine fuel or diesel fuel as we know it.

11:08:30;27

What that did is it causes more heat. So, he had to cut the power back to not overheat the turbine engine. Well, this brought him right down into my neighborhood. Now he's down there with the rest of us. Then I could out do him in traffic and in the turns. So, I outran him all day long and the car lasted, but I did lose three gears in my transmission.

11:08:53;04

My gearshift lever or mechanism broke. So, I only had fourth gear, because, otherwise, I'd have beat him by probably a lap and a half at the end. The bottom line to that whole thing was I didn't think I was gonna be capable of winning the race. I knew I was going to be fast, but my chance of finishing it, not that good, but I did. The turbines dropped out, but I had them beat anyway.

11:09:20;26

I was gonna win anyway, but the good Lord took care of the turbines and I needed a little bit of help. I won that

race. So, that was my biggest win, the most important win. From that you learn how to win. Once you can win something, you learn how you got there. You think it out. Remember the desire.

30 UNSER. Second Indy 500 Win in 1975

11:09:37;26

Remember the innovations. If it all comes together, you say, wow, it worked. Then I came around to my second win. It was with Dan Gurney in 1975. Now, with Dan Gurney, I'd started way back in '71 with him. We made speed beyond belief.

11:10:00;04

In 1972, we raised the speed at Indianapolis by approximately 18 miles an hour, 17 point something. That's the biggest gain they've ever had in the history of the Indianapolis Motor Speedway. I really, really controlled '72.

11:10:19;14

In other words, we really made speed, but the press wrote a lot of stories that Bobby Unser was too hard on his cars, that he was killing his cars, and driving them too hard.

Well, that is just what I'm expected to do. They pay me a lot of money to drive cars hard. So, I don't go along with that.

11:10:40;20

You just gotta make them last. So in '75, basically the same car, the same team and Dan Gurney did cut my power way down on me through most of the race. At the end of the race, it rained that day, but I didn't know it's gonna rain. That's for sure.

11:11:01;24

The last pit stop that I just made, they put more power in it. I was leading the race anyway. I was gonna beat them pretty bad then, but the rain came. For me to say that I wasn't glad to see that rain, it'd be crazy, because I love to see the rain because the win is a win. No matter how you get it.

11:11:23;28

Obviously, you can tell what I said about Mario Andretti, shouldn't try to get a win that he didn't earn. Well, that one I enjoyed getting because it rained on everybody. So,

I won the race and that was nice.

31 BUNSER. Third Indy 500 Win in 1981

11:11:37;07

In 1981, my third win, that was extra nice again because I innovated an awful lot of that car, developed all that car. It was like my personal little car and it was a good car that year. The car was fast. I had a super good team.

11:11:56;08

Roger Penske was my pit boss. He called the pits. Roger and I were totally together all the time that I was with Roger Penske. I really had the best team that was going, the best team that could exist. By golly, I put it altogether. The car lasted. I had to fight Andretti over him trying to think that he won the race because of a rules infraction that didn't happen.

11:12:24;16

What's the difference. I still won. They still say Bobby Unser won the race. This is what is important. I outran them all day long. In fact, I outran them all month with that car. That was extra special. That was my second best win.

32 UNSER. Message to the Future

BARRY HURD:

11:12:54;27

One of the things we're asking people, this is an interview that's gonna last, we'll preserve it forever, a hundred years, two hundred years. People are gonna be able to...

BOBBY UNSER:

11:13:02;05

I hope I'm around that long.

BARRY HURD:

11:13:04;06

Well, yeah. Do you have a message you'd like to leave for the racers or the people of the future just to think about you? What would you say to them? Because they'll be able to hear it.

BOBBY UNSER:

11:13:16;11

About me? People are gonna know that Bobby Unser represents desire. I tell you about desire. I have a lot of desire. I still have it today. If I could make my body catch up with my head, I'd still be racing today. I have lots of desire and everybody should have that. Everybody. If they don't have it, they should study it like I did and try to figure out how to do it.

11:13:42;18

Concentrate on what you're going to do, how to be the best at it, because no matter what you do in life, you should have pride in it. I know my dad instilled that in us kids. Don't lie, don't steal and don't cheat. You don't have to do those things to still be a winner and to be successful in life.

11:14:03;10

Life success is accomplishing what you want to accomplish. What your desires tell you that you really want. It can be anything. It doesn't make any difference. I know, and I'm not gonna say that it's a good job to have because I wouldn't have it, but if I wanted to be the President of the United States, even without finishing school, I know I could've done it.

11:14:28;09

It just have been a simple matter did I want to, that's all. I've accomplished so far everything that I've had the desire to want to do. I just don't wanna get old. I wanna keep doing racing if I could.

33 BUNSER. How Do You Want to be Remembered?

BARRY HURD:

11:14:43;05

Okay. Finally, a slightly different variation [on the previous question]. How would you like people to actually remember you? You've told us your message for them, but how would you like them to look back and think of Bobby Unser?

BOBBY UNSER:

11:14:51;01

I want them to think that I was a great race driver, that I was a good person, that I was just good in every way. I'm a very honest person. I don't lie, I don't steal, and I don't cheat. People should remember me when they see automobile racing, they're gonna say, "Man, that cat went fast. He's one of the world's best qualifiers in history."

11:15:14;29

I learned that from Don Branson. I ran with the race drivers that I think were the best that ever existed, during the 70s era, along in that era is when I think they had the best. I was proud to be a part of it. I just think that people should, I hope they will and I think that they will,

remember me as being a really great race driver, but also had a lot of successes because of my desires.

BARRY HURD:

11:15:47;05 Thank so much, Bobby. It was a real pleasure.

BOBBY UNSER:

11:15:48;03 You're welcome.

BARRY HURD:

11:15:48;09 Good job.

BOBBY UNSER:

11:16:19;25 Well, think about this, Pike's Peak is the second oldest continuously run race in the United States.

BOBBY UNSER:

11:16:30;19 Even though it's getting paid and it's gonna end up being a nothing, but it wasn't that way through most of the years.

BOBBY UNSER:

11:16:40;23 Second oldest in the United States.

BOBBY UNSER:

11:16:45;12 Yeah, so therefore, it makes it a really good race, okay.

