

summer date Δ  
begin Miller then

p. 6.

## MAGNIFICENT OBSESSION: RESTORING THE SAUTER ROADSTER

Vintage automobile restoration is a tricky business. The time, and therefore the money, required to replace, refurbish, refinish and, in many cases, recreate long since discontinued parts is overwhelming. Even with a car like a late model 356C, relatively easy to find in reasonably good shape, the process is difficult and the expense such that often a number of years must pass before a car's worth begins to exceed the price of its restoration.

Now imagine a one-of-a-kind competition roadster: totally unique in this world, a Porsche but not built by Porsche, the missing link in an evolutionary chain that begins with the first Porsche, also a roadster, and reaches through the series of rare America Roadsters to the well known and loved Porsche Speedster. Built over the winter of 1950-1951, this unusual car saw its last race at Pebble Beach in 1954 and by 1982 its steel body and chassis were in the final stages of dissolution. As it stood, a rolling chassis with the bottom rusted out from under it, barely but nevertheless still able to hold its own weight, it presented the classical dilemma. Impossibly rare, historically significant but perhaps too far gone, if not too expensive, to save. *completely*

Sometimes a car gets lucky. In 1982 Ray Knight, a PCA *4356 Registry* member and physician from Jeffersonville, Indiana, saw a *mustang car Hobbyist* classified ad in *Road & Track* containing a pristine photo of the

roadster that has been variously called the odd-door Porsche (it has rear-hinged "suicide" doors), the Sauter car (Heinrich Sauter was the wealthy young German who <sup>had heard</sup> built the car in Stuttgart in 1950) or Le Petit Tank (its nickname in 1952 when it was campaigned by French racer Jean Picard). The Road & Track photo, however, presented the car as it had once been, not as it was in 1982 and the reality Knight discovered was a once proud car in dishearteningly rough shape.

The bottom of the chassis, everything horizontal and everything inside the car, which had been sitting outside for ~~a~~ <sup>since the late 50's</sup> number of years, was rusted, almost gone. The unique parts of the skin were intact. The nose was shot, the tail was shot, but the unique fenders and doors were still there. A storage building fire had destroyed the engine and seats, but the car still had its original crashbox transmission, the original brakes, three of the original wheels and a dashboard empty of instruments.

Had the car been anything other than ~~the~~ Sauter roadster, Knight, a knowledgeable vintage VW and early Porsche enthusiast, would not have considered trying to restore it. He had never actually completed a total restoration, although he has an early VW restoration in progress and owns a 1954 Porsche coupe. But the Sauter car, its tantalizing history and unique shape, captured his imagination and with some uncertainty about whether it could really be saved, he brought the car home to Jeffersonville.

Because the car was unusual in so many aspects, Knight forced himself to wait several months before starting to disassemble it. Details were studied and photographed and



finally it was taken apart. When he took the body to Ready

Redi-Strip, a commercial derust facility, most of his friends thought they'd dip the body and nothing would come back. Then the cutting and fitting began. The floorpan and longitudinals were fairly standard 356 type restoration, but the car was so rusty that the entire central tunnel and all the tubes that went

through it had to be remade. *The front bulk head, battery box front nose, tail & door bottoms & valen panels, had to be fabricated. They were made to replicate unavailable pieces.*

Knight discovered that if he allowed himself to think about the enormity of the task ahead of him, he wasn't really convinced he could fix the car. Good friend Ken Daugherty, PCA's Enthusiast of the Year in 1986, helped him tackle one task at a time. By defining a goal for a week and concentrating on getting that done, they just kept chugging. A local aircraft repair facility and a veteran dragster body fabricator helped with the shrinking and stretching tools and those things needed to refabricate the bottom of the nose and the back bumper.

When Knight wasn't in the garage with the car, he was writing letters and making phone calls trying to piece together the details that are crucial to a correct restoration and a decision was made to restore the car to its 1953 configuration. After several seasons of European racing, Sauter's roadster had been refurbished at Porsche in 1953 before it was sold to Jack Armstrong and crossed the Atlantic to begin its California racing career. Because the best existing photos of the car are from that time and because it's unusual cooling vents had been added by then (and it didn't make sense to take those out), the car is fixed in time the way it was when it was first brought to America.

Getting the dashboard right was a challenge. One vintage

1953 oil pressure gauge was left, but Knight didn't know whether the other gauges were replaced in the 1953 refitting or whether they were the original 1951 style and he had no choice but to begin trying to acquire both. He sent photos of both styles to Stan Mullen who had raced the car in California; while Mullen couldn't remember the details of the gauges, he provided a critical photograph that showed the gauges to be from 1953 as well as a clear view of which knob went where and what each looked like.

The Mullen<sup>up</sup> photograph thus became a blessing and a curse. While it provided the basis on which it was possible to authentically reconstruct the dash, it also revealed what turned out to be the most difficult part to obtain in the entire restoration process. Knight's research indicates that the strange ivory headlight toggle-type switch was used on Gmund cars and some very early 356s. He is aware of only three or four of those switches in this country and they are all on cars. After a fruitless search for a spare he learned that the switch was also used on early VW transporter ambulances to control either the red lights or the siren. Some rewiring to make an ambulance switch function as a headlight switch and the Sauter roadster dash was complete and correct.

He had even less to go on when trying to recreate the racing seats that were burned in the storage fire. Stan Mullen<sup>l</sup> drew a line sketch of the seats as he remembered them. He recalled that they were red leather, low, thinner than standard seats and that they were bolted in place and not on a track. One early photograph reveals the top three inches of the seats and provided basic information on the seatback arch, size and



number of bolsters. Given that, Knight himself fabricated the seats and, as he says, "They are right until someone has a better picture or somebody proves me wrong." <sup>If</sup> They are just basically generic early-fifties racing shells."

*come out  
do it then he'll  
remake them.*

The engine, also lost in the fire, was not as arcane an artifact as the pair of seats, although it took some effort to come up with the right pieces. Knight found a new two-piece engine case on which to build the right 1500 cc powerplant. Pistons and cylinders for old engines have been unavailable for some time, but Ray Litz at Competition Engineering resleeved a set. Knight had most of the other parts. <sup>The motor was salvaged the early source to make</sup> The engine and transmission were done in Ken Daugherty's garage, partly because his garage was dustfree while Knight's was full of metal finishing and primer dust, but also because Knight regards Daugherty as the better engine man. They were able to use everything from the original transmission when they rebuilt it. New bearings and seals were all the 36-year-old crashbox required.

*many to thank for help finding parts*

For obscure early parts, Californian Richard Miller was an important source for Knight. Knight remembers calling him to try to locate a wiper motor. Miller had one and wanted to know whether Knight needed this type or that type.

"Well, wait a minute," said Knight, "I thought there were these four types."

"No," responded Miller, "there are these four types."

It turned out that there are five types, Miller had the right one and agreed to send it for \$25 which Knight considered a very generous price. When it didn't arrive, Knight began to get nervous; after all, he didn't really know Richard Miller.

*awkward?*

When it finally came, it was accompanied by three pages of technical data that showed Miller had bench-tested the wiper motor, found that it overheated and that the current draw was too much, so he took it apart, rewound the armatures and field coil, repeated the test, showed that he had fixed the problem that he had identified and sent it to Knight for the original \$25.

In the meantime, the body was in progress. Knight did all the metal fabrication himself. When the basic shape was complete, all the pieces welded in and solid, Bill Burke, a friend and body man, helped with the <sup>final</sup> metal finishing. By April

1985 1986 the car was in primer and from April to October it was primed and block sanded once or twice a week. Then Paul Pyles, a neighbor, <sup>a pro technical painter</sup> painted it in his garage across the alley from Knight's home. The color is an unusual hue somewhere between pale metallic blue and silver. Knight matched it from a fragment he peeled off the car and carried taped to a card in his wallet for two years while he searched for just the right color.

Knight didn't keep an actual time clock, but from the beginning tried to write down each week how many hours he thought he'd worked and at the end figured somewhere near 3500-3800 hours of his personal time. Burke had 140 hours and the painter had another 40 hours in it. A good restoration shop today will charge about \$36 per hour and a little quick arithmetic demonstrates that except for a serious enthusiast's obsession to see it restored, the Sauter roadster was almost certain to fulfill what seemed to be its destiny in 1982: impossibly rare, historically significant, but too far gone, and too expensive, to save.

With Ray Knight at the wheel, the Sauter roadster made a proud debut at the Monterey Historic Races last August, a particularly appropriate rendezvous with history since its last competition lap was turned at Pebble Beach in 1954. It is an exciting car to behold. There are strong echoes of Porsche's earliest history in its lines and seeds of the competitive future in its shape. How it came to be, why it was built outside the factory, and its relationship to the ill-fated series of America Roadsters are fascinating questions whose answers are finally within reach. Knight found and interviewed most of the principal characters in the Sauter roadster story, including Sauter himself, and you can read his history of this unique car in this issue.

- BJT

*Mullin*



Allen: This is a revision - changes to cutline #4 & #6 with a change of photographs for #6.

#### CUTLINES FOR MAGNIFICENT OBSESSION

Color spread needs no cutline.

Page 8:

Dashboard color shot (w/inset or whatever of b/w 1953 dash shot):

Dashboard was reconstructed from a 1953 photo (inset) in every detail including instruments, clock, banjo steering wheel, and grooved door handles.

Open-door color shot:

Rear-hinged suicide doors were chosen by Heinrich Sauter himself; he felt they would allow quicker entry and exit at rally checkpoints.

#### BLACK & WHITE PHOTOS

1. Raised shifter box and shaft, fine-ribbed rubber matting, and folding racing screen were carefully reconstructed. Toggle headlight switch was the hardest part to find.
2. Type 527 engine #30244 uses Solex 40 PIBC carbs, unique air cleaners sectioned lower for clearance, side exit distributor, early gas filter, seamed fan shroud, and star coil.
3. Large gas tank was hand fabricated; note hand-hammered clearance for the tubular steel hood brace which Klenk substituted for regular stiffening bracing.
4. Seats were fabricated from sketches and early photos; British mirror was added by Mullin. Engine cooling scoop at center of rear deck appeared during Picard's successful 1952 season.
5. Rear view reveals early style rectangular taillights, central brake light in license plate housing, and early twin-exit muffler. Note rear oval air vents.
6. Knight drove the restored roadster in the Monterrey Historic Races last August. With 1500-cc engine and crashbox, the car is capable of about 115 miles per hour.
7. Having seen its last race in 1954, the Sauter Roadster sat outdoors from 1958 until bought by Knight in 1982. By then, its body and chassis were nearly terminally rusted.

(Allen, the #7 photo could be used as an inset with some other restored photo if you like. If it needs a shorter cutline to do that, I can rewrite)

PHOTO CREDITS: All Leonard Turner except '53 dash, rusty #7 & #6 Bob Dunsmore



## CUTLINES FOR THE SAUTER ROADSTER: UNDERSTOOD AT LAST

(Allen, use either #1 or #2 as the lead photo for this story - one is vertical, the other horizontal - I guess I kind of favor #1, but the Monte Carlo shot is also good)

1. Linked mysteriously to the evolution of early Porsche roadsters, the Sauter car's history has now been pieced together. Here it sits in Porsche's courtyard in late 1952.
2. By 1952 the Sauter Roadster had earned the nickname le petit tank and was campaigned by French racer Francois Picard, here at Monte Carlo in June.
3. Earliest photo of the Roadster is from Auto Sport Review (Jan. 1952). For a test of Mantzell wheels, Sauter is in the car; others include Miss France, Von Frankenberg (with glasses) and Mantzell (leaning).
4. Francois Picard took the car to Africa for the Moroccan Rally in 1952. Painted a medium metallic blue, the little Porsche roadster won the 1500-cc class.
5. The last European race for the roadster was at Monaco in June 1952. Showing the wear and tear of a veteran race car, it did not win in a field of two-liter sports racers. (Allen, this is a filler photo since we already have one from Monte Carlo - it's so nice I hope we have room to use it)
6. Porsche's new assembly hall was in full use by 1953; an America Roadster appears on the line at far left while Sauter's car is tucked behind the line of 356s at right.
7. Stan Mullin campaigned the Sauter car in West Coast SCCA races in 1953 and 1954. Here Stan (right) and his son Mike are at Muffet Field in 1954. Note Allard in background.
8. Jack Armstrong was a Douglas test pilot who visited Porsche and obtained the Sauter Roadster for Mullin. Armstrong is at the wheel here at Reno, Nevada, in 1953.
9. Today a resident of the Bahamas, Heinrich Sauter's desire for a faster, lighter racing Porsche in 1950 resulted in the construction of a unique vehicle in Porsche's history.
10. Hans Klenk built the Sauter Roadster in his Boblingen shop over the winter of 1950-1951. Klenk distinguished himself co-driving the victorious Mercedes in the 1952 Carrera Panamericana.
11. Los Angeles attorney Stan Mullin was reunited with the Sauter Roadster last fall. Prominent in early California sports car racing, Mullin last drove the car at Pebble Beach in 1954.

12-13 (drawing and photo - this is a critical comparison and deserves enough space to do it right)

Porsche's earliest America Roadster drawings (356.00.320) reveal an open two-seater with widened rear end and dropped belt line. Overhead view of the Sauter car is strikingly similar.

14-15 (drawing and photo - this is a repeat from the 81 America Roadster story so it can be treated in smaller fashion than 12-13 above)

Drawing 540.00.202 (July 1952) shows an America variation with fixed windshield and lowered rear wheel wells. Steel-bodied roadster photographed at Heuer in 1952 was perhaps the only car built to this design.

16 (drawing)

Drawing 540.00.062 (February 1952) shows the major rear body changes (longer cockpit and lower rear body) of the evolving America Roadster. Drawings were done by Komenda.

Allen: Drawings & photos #12-16 are not necessarily in order in the series of photos for this story. You may want to locate them close to Knight's discussion of the issues they illustrate.

#### PHOTO CREDITS:

1. Tom Countryman
2. Rodolfo Mailander (Karl Ludvigsen Collection)
3. none
4. Archive Klauser
5. Rodolfo Mailander (Karl Ludvigsen Collection)
6. Porsche Werkfoto
7. Stan Mullin Collection
8. Stan Mullin Collection
9. Ray Knight
10. none
11. Ray Knight
12. drawing - no credit needed
13. Leonard Turner
14. drawing - no credit needed
15. Ernst Benner Archive
16. drawing - no credit needed



PHOTO  
ENCLOSURE LIST

1. 3 slides - current front side top Turner
2. Auto-Sport-Review page
3. early photo at Solitude with Mantzell and Mz France
4. Rallye Maroc Picard
5. Bordeaux Picard
6. Monaco coming up hill
7. Monaco aerial chicane
8. Monaco pits
9. Sauter car in corner New Hall at factory
10. color photo beside Autobahn
11. Klang photo in Reutter foreyard
12. small color Mullin service VW van
13. Mullin and son with roadster, Allard in back
14. Mullin cornering #121, haybales in foreground
15. Car at Reno, #49
16. Mullin at Santa Barbara, chasing Jag
17. drawings 356.00.320 earliest drawings
18. drawings 540.00.202 desperation car drawing
19. desperation car photo
- 20a. current b/w interior
- b. current b/w overhead
- c. current b/w action driving
- 21a. color Monterey Historic races
- b.   "       "       "       "
- c.   "       "       "       "
22. America Roadster #12317
23. Color transparency front side Best photo of car
24. xerox Speedster lic #83-5408
25. xerox photo Sauter, Hermann, Linge, RVF
26. xerox Racing History
27. xerox Posters p.25 Lewandowski
28. color snapshot Sauter 1986
29. current b/w concours Porsche Parade