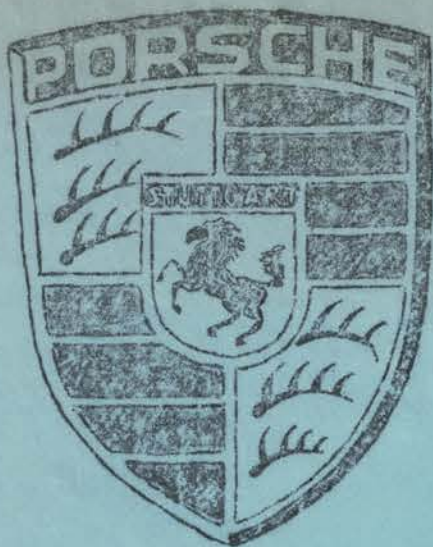
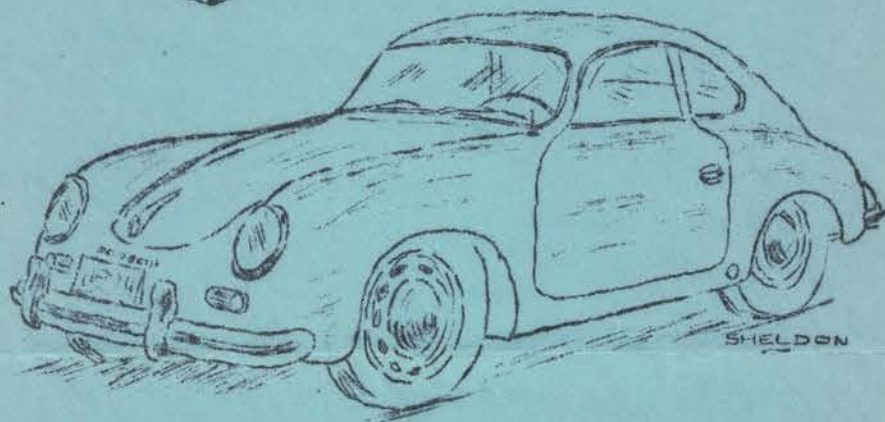


PORSCHE
OWNERS
CLUB

NEWS -
LETTER



EDITED BY
GORDON
SHELDON



FEBRUARY 1956

VOL. II NO. II

NEXT EVENT: February 12, 1956 9:00AM, February Mountain Tour
Starts Pomona Fair Grounds Parking Lot Entrance
Finishes Foothill Blvd. in Montrose (about 4:30PM)
No chains required but bring your map of San Bernardino
Mountains. Brunch stop at Big Bear Lake - Snow Summit

NEXT MEETING: February 20, 1956 8:00PM at Campo de Cahuenga
3919 Lankershim Blvd.; North Hollywood, Calif.

SPECIAL NOTICE: La Carrera de Amistad; Ensenada, Mexico March 3 & 4
Flash : Call Mary Thielmann V6 8-2810 or or Dot
Fierce Ex 7-1645 to get a last minute reservation
for this terrific event.

MANY THANKS TO: Gene Klein Motors 5511 Van Nuys Blvd.; Van Nuys
for donating the trophies for the Palm Springs
Rally last December.

W.R.Turner of Continental Motors Ltd. 901 No. La
Brea; Inglewood, Calif. for donating the trophies
for the January Autoslalom.

Miriam Larson for her able and willing assistance
in mailing and cutting stencils for the last two
issues of the News-Letter.

SEND CONTRIBUTIONS TO: Gordon Sheldon 5913 Van Alden Ave Tarzana, Calif.

RESULTS OF AUTOSLALOM
January 8, 1956

OVERALL PLACE	NAME	TIME	POINTS	AWARD
1	Lew Bracker	1:48.37	11	1st Memb.
2	David McGrath	1:50.97	8	2nd Memb.
3	Ben Bok (Porsche)	1:53.87	(guest)	1st Guest
4	Bill Newman	1:54.77	6	3rd Memb.
5	George Baldwin	1:54.80	4	
6	Walt Garlic	1:55.33	2	
7	Tom Cooper	1:55.77	1	
8	Herm Stein	1:57.20	1	
9	Charles Stockham	1:57.97	1	
10	Don Roberts	1:58.40 *	1	
11	Karl Boutell	1:58.90	1	
12	Charles Moreaux	1:58.97	1	
13	Ronald Marx (TD)	1:59.07	(guest)	
14	Morris Carwford	2:01.30	1	
15	W.R. Turner	2:01.30 *	1	
16	Ed Larson	2:01.40	1	
17	Bob Pierce	2:02.67	1	
18	John Patterson (TD)	2:03.17	(guest)	
19	Joe Boening	2:03.20	1	
20	R. L. Foutz	2:03.43	1	
21 tie	Guy Van Alstyn	2:04.13	1	
22	Glad Ellis	2:04.13	1	
23	Ralph Tracy	2:04.53	1	
24	Bruno Hahn	2:05.93	1	
25	J. W. Nicholas	2:08.00	1	
26	Harold Mailander	2:08.60 *	1	
27	Fred Bogler	2:08.70 **	1	
28	Dottie Bogler	2:08.75	11	1st lady
29	Jeff Cooper	2:10.17 **	1	
30	Niel H. Aikin (Porsche)	2:10.50 * (guest)		
31	Tod Dockstader	2:11.10	1	
32	Florence Ellis	2:12.40	8	2nd lady
33	Dean Fredericks (190SL)	2:16.73	memb. as guest	
34	Harriet Nicholas	2:17.33	6	
35	Sam Mathews	2:17.57 **	1	
36	Joe Theilman	2:20.40 *	1	
37	L. Luraschi	2:21.87 *	1	
38	Ron Peterka (Porsche)	2:21.90 * (guest)		
39	G.L. Huntling (VW)	2:28.60 * (guest)		
40	Betty Boutell	2:33.10 *	4	
41	Nona McGrath	2:35.57 **	2	
42	Connie Garlic	2:41.20 *	1	
43	Gordon Martin (A.H.)	2:56.80 ***** (guest)		

* denotes 10 sec. foul (pylon or finish rule)

The morning of January 8, 1956 marked the first P.O.C. event of the new year. It was also the first event put on by our new Activities Chairman, Larry Williams. With typical engineering efficiency Larry had laid out a twisty course on the May Co. Crenshaw parking lot. Each turn was designed to be right at the 33 ft. turning radius and as a result a good deal of time was spent swinging the wheel from lock to lock. The first sharp turn at the end of the start proved to be a fooler for many contestants. Larry made this a straight away just long enough so that you should have shifted from 1st to 2nd before entering the corner. More than once we heard the clatter of bouncing valves from over revving. Essentially, the Autoslalom was a continuous gymkhana type of course more closely following the European pattern. Each entrant got a practice lap and two laps for time.

Forty-three contestants seemed to enjoy the challenge of this tortuous course. In fact, Joe Thielmann got so carried away he forgot to stop on the second lap. Fred Bogler has offered to rig a periscope so that Joe can take off his shoes next time and avoid the 10 second penalty. Incidentally, this is the largest turnout to date for the P.O.C. Lets get some of our non-participants to the next events.

Big laugh of the day proved to be the guest in an Austin-Healy who was giving free advice to all who would bend an ear. He then went out and knocked over 5 pylons to win the booby prize for the day.

by Gordon Sheldon

PORSCHE IN THE 6HR. RACE AT TORREY PINES
Jan. 14, 1956

This race meeting, as predicted, drew some of the hottest competition in the small bore class. The 550's of Miles, McAfee, Kunstle, and Thomas lined against the Osca of Yedor and the Maserati 1500 driven by Lovely-Crawford. The Porsche contingent was ably supported by Friedauer, Barker, Conroe, Cooper and Roberts in production models. We were extremely unhappy to find that Miles flipped Von Neuman's Spyder in practice earlier that morning. He apparently went into turn #4 a little too fast, hit the sagebrush and a culvert which did the trick. Luckily, Ken was unhurt but the car was damaged so badly that it could not be run.

The drop of the flag found McAfee(550) fired up and away at the head of the pack. Thomas had difficulty in getting his Spyder started. In the first lap the D Jags were out in front but McAfee was still up in 4th spot and at the head of the Porsche parade. Don Roberts was up in class too.

At the end of the first half hour Austin and Woods in D Jags were ahead. Sherwood Johnston (DJag) had just been disqualified for making a pit stop before the 45 minute limit. Hill-Ginther were 3rd in the Ferrari Mondial. McAfee was 4th with Kunstle about 17 seconds behind. Yedor(Osca) went into the pits with a broken cam follower.

After about an hour the order was still Austin, Hill, and Woods with a real hassle brewing between the latter two for second place. Woods passed Hill and Kunstle was now gaining about 5 seconds / lap on McAfee. Lovely (Maserati 1500) was doing well and moved up through the field.

At the end of about 80 minutes, the positions were Woods (D Jag), Hill (Mondial), Austin (DJag), McAfee (Porsche 550) with Kunstle (550) right on McAfee's tail. At this point the maser #85 of Lovely went out on turn #5 with bottom end difficulties.

At the expiration of 1½ hours Kunstle passed McAfee and led Jack by about 15 seconds. Other Porsches still in the race were Barker, Roberts, Conroe, Cooper and Friedauer. Kunstle was now lapping at about 2:22 which was reported as being 4 or 5 seconds faster than the leaders. The top order was still Woods, Hill and Austin.

When the 2 hour mark was passed there were about 46 cars running. Hill spun out on turn #9 and discovered he had thrown a rod. Conroe spun out on turn #10 but returned to battle the pack. Woods was still in front but Johnston, driving #36 for Austin was now in 2nd spot. Kunstle and McAfee were in 3rd and 4th positions. Woods was averaging about 73 MPH while the Spyderys of Kunstle and McAfee were averaging about 69-70 MPH. Barker in #24 appeared to be ahead of the production Porsches at this point. Thomas (550) had dropped out earlier with a broken camshaft and Friedauer had swallowed a valve in his Super Speedster. The Porsches of Conroe, Roberts, Cooper and Barker were still going strong. The 2 original MG-A's were still the main competition for the Porsches and appeared to be running smoothly.

Around the 3 hour mark McAfee passed Kunstle to go into 3rd spot. The leader was still Woods (D Jag), Johnston (D Jag) was 2nd and Kunstle (Porsche 550) was in 4th spot. Kunstle had been slowing down due to gear box trouble. Shortly, Woods retired with con rod difficulties which put #36 (D Jag) Johnston - Austin out in front with McAfee and Kunstle following.

Shortly before the 4 hour mark the order was Johnston-Austin 1st, McAfee, Kunstle, Morgenson (Buick Special), Ak Miller (300SL), Pringle-Jackson Moore (A-H 100S), Oker (Morgan), Jones (300 SL). The leader had covered 96 laps at an average of 69 MPH for a distance of 258 miles. Oker shortly retired with a broken V-Joint. He certainly should be complimented on the terrific job he has been doing with the turquoise Morgan in the last couple of races.

Nearing the 4½ hour mark the A-H 100S of Pringle-Jackson Moore passed the 300 SL of Ak Miller. Cooper in a Continental Coupe had

PORSCHE IN THE 6HR. RACE AT TORREY PINES. CONT.)

been going for a consistent ride - not spectacular but steady. Kunstle was about 5 seconds behind McAfee but Jack could not accelerate Kunstle coming out of the turns. The Spyders were 3 laps behind the leaders with McAfee stepping up the pace and lapping about 2:20. Six Porsches were still going strong. Kunstle shortly passed McAfee only to lose that position when he came in for a pit stop. The production Porsches of Barker, Cooper, Conroe and Roberts were hasseling with the MG-A's. Parkinson is reported to have spun out and sat out a couple of laps. Don Roberts seemed to be the front man of the Porsche production parade.

With nearly an hour left, there were still 28 cars running. 1 D Jag, 6 Porsches, 2 Mg-A's, 2 Mg-TD's, MG-TC, 1 Lotus, 2 Austin Healyes, 2 TR-2's, 1 Bristol, etc. Barker (Porsche Speedster) dropped out with about 25 minutes remaining in the race. At 5 hours 50 minutes, McAfee 2nd lapped Kunstle who was in 3rd place. No apparent changes came about in the closing minutes and about 28 cars finished the race. This was one third of the starters. It was a rousing victory for Porsche.

I realize the difficulty in scoring such a long race, but I nevertheless feel that the announcing staff might at least give an unofficial rundown every hour or half hour. Very seldom was mention given to those behind the first 2nd or 3rd places.

It is interesting to note that Don Roberts completed a total of 132 laps in a 1500 Speedster which was in excess of the number completed by Pollack in a Super at the first 6 hour race. Don's lap card showed that he should be placed ahead of the MG-A and should be declared the Production car winner. However his figures did not jibe with the official scorer's and I understand the MG was declared winner. Don Horst joined Roberts in registering a protest and produced some evidence that indicated the MG would have to turn lap times equal to that of the D Jag. to make up for the time lost on pit stops and spin outs. As yet I have not heard the result of the protest.

by Gordie Sheldon

RESULTS

OVERALL

1st	Jerry Austin - Sherwood Johnston - D Jag. - 151 laps, 407 miles	69 MPH
2nd	Jack McAfee - solo	Porsche 550 Spyder
3rd	Jean Pierre Kunstle-WR Turner	Porsche 550 Spyder
4th	Bill Pringle-Roy Jackson-Moore	Austin Healy 100 S
5th	Ak Miller -T.A. Wilcox	Mercedes - Benz 300SL

INDEX OF PERFORMANCE

1st	Francois Crouzet - D- B Panhard
2nd	Jack McAfee Porsche 550 Spyder
3rd	Jean Pierre Kunstle " " "

YOUR EDITOR COMMENTS

On a recent rally Joe Boening did quite well until he tried to log in at the last couple of check points. It seems as though the checkers had taken off before the last car had relieved them of their responsibilities. This is not only discouraging to the contestant involved but it is also bad publicity for our events. It is hoped that future rally chairmen will see that checkers are thoroughly informed of their duties and closing procedures for rallies. I might even suggest that workers leaving before being properly relieved should be deprived of their worker points for that event.

It is hoped that members inviting guests on the La Carrera de Amistad to Ensenada will minimize the number of Detroit "behemoths" that may be a part of our entourage. The "paisanos" are expecting sports cars and let's not spoil the effect by cluttering up the highway with "tanks". In fact, it will be difficult for the Mexican officials to identify them as part of our group.

Gordon Sheldon

The sprints on the second day were very gratifying to us Porsche types. We had clean sweeps in 1500 cc production and modified, and a big hairy third place in the big car race.

Of course some of this score was obtained by default, but it all counts on the record!

The production race was not a thriller, except back in the pack where there were some private dices. We expected the largest club turnout to date, with J. P. Kunstle, Don Roberts, Dick Boone, and Lew Bracker all running together, but when Boone and Roberts withdrew we were left with only two members on the grid.

Kunstle and Dale Johnson staged a drag down to turn #1 with J.P. on the outside. The outside man should get the corner in a situation like this, since his line is better, but sometimes the inside man can bluff through in spite of his necessarily lower speed. J.P. got this one, however, and very gradually drew away for the rest of the race to win with a couple of hundred yards to spare. Dale was second, and Ron Hudson, of Sierra Madre, was third. Parkinson, the MS cowboy, got up to fourth spot, ahead of Jerry Conroy's blue SS, which is little short of fantastic on the fairly fast Torrey circuit. This Parkinson is always a threat, especially if he has had a car long enough to work it over a bit. His submission to the Porsche pack was sudden and decisive at Glendale, but the car was brand-new then.

Lew Bracker's car was never sound, and he had the saddening experience of losing a drawn-out hassle with Ed Barker's TF for 9th spot. Lew is going to get some luck one of these days and win one.

The 1500 modified race promised an epic battle between Pete Lovely in Paravano's sinister 1½ liter Maserati, and our ex-foe and current champion Ken Miles in a 550. This didn't come off as Pete exploded the Mas. in practice on Saturday. The crankcase literally burst! Pete then mounted his formidable Porsche-Cooper so the race was still very close, but now "among friends" as to marque.

The contest was fierce, but only apparent to the enthusiasts, as the lead was never swapped around. Ken grabbed first spot into turn one while Pete waited a ways back for the smoke to clear. When it did he moved up to second, about 100 yards behind Ken, and began to apply pressure. This was pretty fascinating to watch, for with every notch Pete raised his velocity setting, Ken matched him. Lap after lap the times decreased. 2'20", 2'19", 2'17", and still both pilots had reserves. Both began to get ragged in the corners as they passed the prudent "nine-tenths" mark of the amateur and arrived at the absolute limit of control. 2'16" was achieved -- and then an unbelievable 2'14"! No change. That's the way they finished, after an enormous display of technique rarely seen even in G.P. racing. A great show, for those who could appreciate it! Johnnie Porter nosed out McLaughlin in a very close race for third. Both were in Porsches, of course. (Walt Turner's 550 lost its gear box on Saturday, so J.P. didn't run in this one.)

And the main event gave us a ball, too. After considerable confusion with a flipped C-Jag and an ambulance, which gave the race to Gregory in Paravano's 3-quart Maserati, the parade settled down to Gregory, Ernie McAfee in the 6 barreled Ferrari, Murphy (going like insane in his block-shaped Buick), and Sherwood Johnson in the D-Jag with Ken Miles riding his taillight in the indomitable Porsche.

This was a rouser! Johnson is no novice. His record is long and includes Le Mans. He has several unlimited-type victories and he was driving a great car -- but he couldn't shake the little 1500. For perhaps 10 laps Ken could have reached out and touched the red Jaguar. When he wasn't 18 inches astern he was up alongside. And he single handedly the Jaguar off the course. The "D" has supposedly the greatest brakes on the road -- Girling multiple discs -- but the Porsche has pretty good brakes too, and less weight to haul down. The "race-proof" discs finally gave up the battle and Ken went on around to third place overall. (Murphy, completely safe in third in the next to last lap, spun clear out of the race on turn #9. What kind of driving is that!)

Kunstle, driving Porter's 550, placed sixth overall and second in class.

BAJA CALIFORNIA RUN ITINERARY



- 0..TIJUANA: Direccion General de Turismo State of Baja California Travel Bureau. Av. Revolucion 720 (opposite Jai Alai stadium)
Insurance?
- 15..Rosarito Beach Hotel: Good accommodations - Swimming pool - Radio station
- 40..La Mision: Ruins of Mission San Miguel Archangel, built 1787, said to be actually an asistencia.
- 49..Guadalupe turn-off: Sixteen miles of bad road to GUADALUPE, White Russian Colony founded 1904 by 500 immigrants to "find peace". Intermarriage and restless youth leave few Russinas today. Now Mexicans cooperative farm, particularly grapes.
- 58..El Sausal: Rodriguez fish canneries. To left of road is fine home of General Rodriguez, ex-President of Mexico.
- 65..Ensenada: Villa Marina and FUN!
- 71..Estero Beach: Right to coast. Modern new reasonable bungalows. Good fishing
- ..Punta Banda: Highest point on B.Cal. coast.
- 75..Manadero: Government immigration station checking southbound tourist cards.
- 97..Santo Tomas: Original home of grapes for Bodegas de Sta. Tomas, winery, Ens. Ruins of Sta. Tomas Mission built 1791 by Dominican Order.
- 182..Rancho Hamilton: Built in 1800's by Randolph Young, member of Huller Co., English grant in San Quintin. Later owned by Hattie Hamilton, now by Margot Ceseña. - Ruins of St. Domingo Mission, 1854 by Dominicans.
- 197..San Quintin Bay; Site of prosperous English colony, Now lone piece of machinery stamped "Ipswich, England" is left of large brick mill. Fine bay. Excellent clamming.

Road signs in Mexico are in kilometers. 100 miles equals 63 miles

CHARLA

Things are streaming down Mexico way. Margot was up from Rancho Hamilton and phoned about further barbecue arrangements and said they are all talking about the "run" below the border. A letter from Senor Ezroj assures us choice accommodations for our entire group. Our guest list is swelling and we are holding extra rooms at the

CHARLA (CONT.)

Villa, so send your reservations in as soon as possible. We suggest you take Joe's map (preceding page) with you on the trip. More and latest news at the next club meeting.

by Mary Thielmann

Low Bracker has ordered a 1600 S Speedster which is due to arrive next week. He plans to race it at Palm Springs and Von Nueeman states that this will be the 1st 1600 in competition.

You know these chauvinistic blurbs you sometimes see on Ford products --- "Made in Texas by Texans"? --- and "Hecho in Mexico por Mexicanos"? Well, some wits have been sharpening the old needles. In order, we have seen on a T-Bird, "Made in Albuquerque by Navajos"; on an Alfa-Romeo, "Made in Milan by opera singers"; on a Porsche, "Made in the Black Forest by Elves".

Check Glad Ellis' steering wheel at the next event. An excellent solution to the friction situation.

We asked Pete Lovely, who has just a little experience in both a 550 and a 1½ Maserati, which he thought was the most car. All we could get was, "Pretty close, pretty close."

Any member who has not yet received his membership card should contact Glad Ellis before the next meeting so that he might be given the card at that time.

Members should remind potential members that dues are not paid on a calendar basis but are paid on a yearly basis starting from the time the member joins. Consequently, no dues are pro-rated and are a flat \$12.00 a year.

Bob Pierce states that there is a source of Bosch and Solex parts in the Culver City area. Marty's Foreign Motors at 4228 Sepulveda Blvd., Culver City, is reported to have a supply of plugs, ignition parts and jets on hand.

Belated thanks to Gene Klein, Porsche, VW of Van Nuys for the donation of the trophies for the December Palm Springs Rally. This information reached your editor after the January issue had gone to press.

"CLASSIFIED COLUMN"

Used tires, suitable for recapping or as spares:

- 2 Pirelli Corsa -- Smooth
- 1 Engelbert -- some tread
- 1 Metzler -- pretty good

Individually, or the lot.

Jeff Cooper, DU. 3-0235

P.O.C. members may now purchase a sharp looking club jacket patch from Glad Ellis. The design is similar to last months News-Letter cover. The colors are red, green and brown printed on white satin. Meet Glad at the next meeting with \$1.00 and you can have one.

TECHNICAL NOTES

ARM RESTS

If you have made any long trips in your Porsche, you probably have missed the comfort of an arm rest on the door. It's surprising how just a little support under the elbow can relieve that tired shoulder feeling. For about seven or eight bucks and a half days work this can be rectified.

Your first visit should be to an auto wrecking yard to collect a pair of combination door pull and arm rests which are shaped something like a shallow U. These were prevalent on G.M. cars of the '39 to '48 vintage and should not cost more than a dollar or two for the pair, and try and get the long screws with which they were attached. Take these to your favorite top or upholstery shop and have them recovered with naugahyde or a suitable material to match your upholstery, for not more than three bucks for the pair.

Your next visit is to a surplus or air plant public sales store where you acquire some aluminum or dural $\frac{1}{2}$ inch tubing—preferably the half hard variety. You need four pieces of this, not less than 17 inches to the piece. And while you are there, grab some of those flat head aircraft nuts and bolts - 10--32 and about $\frac{3}{4}$ inches long. This completes the necessary materials.

With the rests recovered, the next thing is to figure out where to place them. My suggestion is to place yourself in the seat with the window open and have another person lean in and hold the rest in the position where it feels the most comfortable, remembering, that space must be left around the door latch handle for the hand to operate it. When the proper position has been found, have the other person hold it there securely while you mark the spots where the mounting screws go through, remembering that they slant upward toward the points.

Now—carefully measure these two points using as reference the bottom and edge of the metal door. Not the edges of the door liner.

Remove the liner by removing all the screws and the handles. A WARNING. A screw near the door latch is partially cut off so remember where it goes. Also, the pins which must be removed to release the handles are in holes which are drilled on the chord of the shaft and not across the diameter.

If you will sight across the inside of the door from the edge, you will see that it is not flat but is slightly S shaped. Gently bend the tubing until it corresponds to this curve at the points where the rest will be attached. The purpose of the tubing is to furnish a place for the attaching screws to bite into after they have passed through the lining.

With the tubing bent, cut it about $1\frac{1}{2}$ inches longer than the measured distance between the inner edges of the door framing. Then flatten both ends of the tubing for about $\frac{3}{4}$ inch in a vise, keeping the flats in the same plane and so that the curve is in the proper direction.

Now measure in from the door edge the distance you measured for the points. Place the tubing on these centers and punch and drill holes in the top and bottom of the door framing and at the same time through the flattened ends of the tubing. These holes should clear the bolts from surplus. Countersink the holes in the door framing to take the flat heads and bolt the tubing in place inside the frame. Place the door latch handle on temporarily and make sure that the tubing does not interfere with the latch operating rod. If they come too close together and might rattle against each other, cover the operating rod with plastic tape. Also, try cranking the window up and down to make sure all is clear. Incidentally, it's wise to have the window cranked up when drilling and countersinking the door frame. If any of the bolts are too long, cut them off.

Next measure up from the bottom of the door the other reference distance and make a mark on the tubing. About $\frac{1}{8}$ inch above this mark drill a small pilot hole in the wall of the tubing which is nearest to the rest. Estimate how much the holes in the rest slant by shoving a straight piece of wire through the hole. Then continue drilling the pilot hole through the other wall of the tubing on this

TECHNICAL NOTES (CONT.)

same angle. Next, enlarge the original pilot holes so the the screw can be turned into the hole far enough for the tip to start out the second pilot hole. Carefully, by twisting the screw in and out, make it cut its own threads in the tubing on an angle that will approximate the holes in the arm rest.

Replace the liner temporarily and hold in place with two or three of the screws. Try the original marks on the liner and see if they position over the holes drilled in the tubing. If they are out of position horizontally, it is possible to bend the tubing enough to line them up. But if they are out vertically, it will be necessary to make new marks which will line up with the holes. When this is done, remove the liner and using the marks as centers, punch or drill a 1/4 inch hole through the liner, -punching is preferred in this material.

Now replace the liner completely, including the handles. Put the rest in position and twist in the screws snugly. Do not overtighten as you may pull the metal through, which would only force the use of an over size screw. Incidentally, if the screws which came with the rest are too short or you couldn't get any, it is possible to use large wood screws of about the same diameter.

These arm rests can be used as door pulls, if you are not too vigorous. After all, you are pulling on two 1/2 inch dural tubes which have been weakened by being bent and having holes drilled in them. Also, I don't recommend chinning yourself or pushing your frame out of the seat with them. But on several long trips during the past year, they have contributed considerably to our comfort.

by Bob Pierce

DOOR LINER DIRTY

Is the lower front part of your door liner continually dirty and smeared where your feet rub when getting in and particularly out of your Porsche? This can be remedied by covering that portion with clear plastic, such as is used in convertible rear windows. Just cut to size and remove the front 3 or 4 screws along the bottom of the door liner and the first up from the bottom and use them to mount the plastic.

by Bob Pierce

THE CASE OF THE DISINTEGRATING CLUTCH -- GENUS: PORSCHE

At the risk of being accused of heresy, I nevertheless wish to pass along some information gained by practical experience with Porsche clutch troubles. Many owners of earlier model Porsche automobiles have experienced the horrendous ordeal of having their clutch pressure plate "give up the ghost" -- usually at a most inopportune moment!

For those who haven't had this sad experience, I offer some notes so that all may enjoy this dark moment vicariously. I also might add that later model cars (late '55) have remedied to some degree one possible source for the above mentioned difficulty.

After a good many miles the average Porsche owner will find it necessary to have the clutch adjusted to reduce the pedal play. Normal wear of the clutch disc and stretching of the clutch cable make this a normal and necessary adjustment. In fact if the clutch is adjusted more than once this should not be considered excessive.

The clutch pedal play is the movement required to depress the clutch pedal to a point where there is a noticeable increase in pedal pressure and the clutch begins to release. Normally this free movement of the pedal should be "from 25/32 to 1." Excessive pedal play will prevent the clutch from properly releasing and will be indicated by the inability to shift gears without clashing. On the other hand insufficient pedal play will allow the clutch to slip which may ultimately damage the clutch disc, pressure plate and flywheel.

The subtle warning sign of "greater things to come" may appear before or after such a clutch adjustment and largely depends on the

TECHNICAL NOTES: (CONT.)

mileage on the car. (My first clutch went out at 26,000 miles.) You should heed any abnormal increase in pedal pressure or roughness that may be felt as the pedal is depressed. This is rather difficult to observe unless you are specifically looking for same. To my knowledge there is no other outward manifestation of the internal troubles that ultimately lead to the destruction of the pressure plate, etc.

If this subtle warning is not heeded one day you will depress the clutch pedal and will be greeted by a grinding crash as if all of the Wagnerian basses have dropped their iron "skivvies." A cursory examination shows that your little jewel hasn't dropped any entrails in the street, but you have lost your clutch pedal and the engine is locked tight. You have just become a charter member of the "Kaput Clutch Club"!

Upon autopsying the corpus delicti you probably will find that one or more clutch fingers have been wrapped around the throwout arm and the containers* have been neatly "wiped off" the face of the pressure plate. At this point you are probably so shocked you won't notice the condition of the clutch release plate that is normally attached to the clutch fingers.

Earlier model Porsche cars used a cast iron clutch release plate (V-W part no. 141.125). The added load imposed upon the clutch fingers by greater spring pressure within the pressure plate of the Porsche type clutch will cause the clutch fingers to wear a groove almost 3/16 deep in the back side of this clutch release plate. When this condition occurs it apparently allows the release plate to contact the finger over a much larger area and closer to the fulcrum. This is the cause for the abrupt increase in pedal pressure and roughness previously mentioned. Apparently the fingers and finger adjusting bolts are overstressed at this point and something lets go! The clutch finger now being loose and rotating with the flywheel is destined to meet with great force the clutch throwout arm and bearing which are attached to the transmission case.

I am happy to say that the new cars are coming through with a hardened steel clutch release plate. This will undoubtedly reduce the probability of the aforesaid calamity. This part (no. 546.16.202) is now available as a replacement part for about \$2.80. If you have any clutch repairs be sure that you have this type of release plate installed.

Should you happen to note any of the aforementioned symptoms, I suggest you see a competent Porsche mechanic promptly. Remember if you catch this soon enough it will only cost you about \$14.00 labor plus the price of the steel release plate. If you neglect to correct this condition, it will probably cost you about the same labor charge, but approximately \$45.00 more to cover the cost of a new pressure plate, disc and release plate.

Now, if you are ever unfortunate enough to have a clutch blow up, I have some personal observations and opinions which may be of some value.

- I. Before the flywheel is removed from the crankshaft INSIST that a dial indicator reading be taken at the following two points.
 - A. On the surface where the clutch pressure plate attaches to the flywheel. (Factory specs. allow a maximum wobble of .012" full indicator reading)
 - B. In the middle of the area where the lined clutch disc contacts the flywheel. (Max. wobble .012" F.I.R.)
 - C. Reason: The flywheel is not cast iron but more like a wrought iron which is very soft and ductile. The attaching hub which slips over the crankshaft is fairly small and light. The flywheel CAN be bent by the clutch fingers hitting the throwout arm. The tests above will confirm or disprove this condition. If the flywheel is bent and is not corrected, you can only expect further unhappy experiences and a clutch that will permanently chatter.

*(containers for pressure plate coil springs)

- II. After the flywheel is removed carefully inspect the area where the clutch disc contacts the flywheel.
- A. If it is pretty smooth and not scored LEAVE IT ALONE!
 - B. If it is badly scored or burned you may have to have it reground.
 1. Remember that the factory recommends that only .008" is the maximum that may be removed in this area.
 2. Be sure a reputable machine shop will be doing the work because:
 - a. A new flywheel costs about \$32.50 (when available).
 - b. A sloppy job may throw your whole engine out of balance. (Remember the flywheel and crankshaft were balanced as a unit.)
 - c. The flywheel must be carefully set up so that the area being ground will be within the .012" max. wobble AFTER the flywheel is re-installed on the crankshaft.
 - d. The flywheel can be distorted out of round if excessive chucking pressure is applied in the set up.
 - e. Be sure that the amount removed from the clutch contact area (.008" max.) is also removed from the pressure plate attaching area so that the spring pressure remains the same.
 - f. If the flywheel has been straightened have it magnafluxed before re-installing to locate any possible cracks.
 3. COMMENT: The Porsche flywheel (part no. 502.02.116) appears to be nothing more than a V-W part with 4 additional dowel holes in the crankshaft attaching hub. Comparing the relative prices of the parts it seems that an exorbitant price is being charged for those 4 small dowel holes.

- III. Inspect the lined clutch disc before assembly.
- A. Better results will probably be attained if the clutch disc is replaced with a new one. (part no. 546.16.013)
 1. Some dealers are offering replacement discs for around \$12 to \$15 rather than the \$20 plus for the factory part.
 2. COMMENT: In my humble opinion all these prices seem quite out of line. Assuming that the spring loaded hub was in good shape there ins't any logical reason why new linings couldn't be riveted to your old disc at a much more sensible price.
 - B. If you must use your old disc again be sure it is within the following factory tolerances.
 1. Wobble .02" maximum F.I.R.
 2. Total thickness .360" plus or minus .01"

- IV. Replacing the damaged pressure plate
- A. The standard Porsche pressure plate (part no.502.16.014) will run you about \$21.00 and appears to be a V-W Transporter part (no. 211.141.025) that has been balanced and is furnished with the steel clutch release plate.
 - B. If you have had to do extensive machine work on the flywheel you probably should have it re-balanced and might as well buy the Transporter pressure plate (211.141.025) and a steel clutch release plate, then have that unit balanced with your flywheel. (The Transporter pressure plate sells for about \$14.80 and the release plate about \$2.80)

- V. After the pressure plate, disc and flywheel have been assembled onto the engine:
- A. INSIST that a dial indicator reading be taken on the surface of the clutch release plate with the engine being turned over at least one complete revolution.
 1. Max. wobble to be .012" F.I.R.
 - B. INSIST that a check be made to see that the distance from the release plate to the face of the pressure plate at the flywheel is 1-1/32".

- VI. Check the transmission side of the clutch mechanism before in-

stalling the engine.

- A. Inspect throwout bearing for damage or wear.
- B. CAREFULLY inspect clutch throwout arm to be sure it has not been bent by the collision with the clutch fingers.
 1. All your efforts up to this point will be in vain if you don't correct a bent throwout arm and shaft.
 2. To replace a bent or damaged shaft and arm you will have to remove and split the transmission case. However if the damage is slight it may be possible to correct that difficulty right in the car.
 3. NOTE: If the latter procedure is attempted LET A SKILLED MECHANIC do the job as any violent bending on the shaft will break the aluminum transmission case.
- C. Check the outboard clutch cable lever for free movement throughout the entire range of travel.
- D. Check the lock nut on the aft end of the clutch cable to be sure it is tight and that the spherical nut seats properly in the clutch lever.
 1. NOTE: Skip this operation if you prefer to adjust the pedal play at the aft end of the cable.
- E. Make sure that cable sleeve has no play between conduit piece, and angle bracket.
 1. Adjust conduit piece, if necessary.

VII. After the engine has been installed:

- A. Adjust pedal play (25/32 - 1") at either the forward or aft end of the clutch cable and be sure lock nuts are TIGHT.
- B. Check clutch lever on transmission case to see that adjusting nut with spherical radius touches lower edge of funnel shaped hole when clutch pedal is retracted. (driving position)
- C. When pedal is depressed to a point where the throwout bearing contacts the release plate (end of pedal play) the clutch lever does not lean forward more than 2°
- D. When pedal is completely depressed and clutch is fully disengaged the top edge of the funnel shaped hole of lever will not press on threaded end piece of clutch cable.

By now your little jewel should be in shape for many more happy miles of motoring. I hope I haven't left you with any qualms concerning the marque. The difficulties I have experienced are probably the exception rather than the rule. A great many difficulties may be avoided if care is taken to follow the suggestions outlined above. It is my personal opinion that habitual Porsche clutch troubles are caused by failure to observe the procedures and tolerance particularly mentioned in sections I, II, V and VI rather than something that is inherent to the design of the mechanism.

by Gordie Sheldon

Dale Johnson has taken delivery on a Carrera Speedster and is reported as an entrant at the S.C.C.A. Palm Springs race this month. It looks as if this will be the first Carrera in competition in the Pacific Coast area. G.S.

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