



# Gran Turismo

The Official Publication of the  
Apollo Owners Registry

## Inside this issue:

Apollo Tach Drive Update	1
Editor's Message	2
New Dash Knobs	2
Tach Drive <i>continued</i>	3
Post Script	6

## Special Issue — Apollo Tach Drive Update

In the Summer 2006 issue, we ran a brief article on the two tachometer angle drives used on the Apollo. Both functioned the same, but were from different manufacturers.

A tach drive “kit” was supplied by Intermeccanica along with the Jaeger (made in France) mechanical tachometer. The kit included the angle drive, a brass insert that was heat-shrunk into the back of the Delco generator, a small clamp (reputed to be from a Fiat 600 — a tie rod clamp) that held the insert and the angle drive unit together, and a cable that ran to the tach. Both drives operated at a 4:1 ratio, meaning four rotations in for one out.

It is not known how many cars came with each drive.

With more Apollos being restored than ever, owners want to have the original tach drive functioning. Yet to date, we have been un-



**New angle drive is now available for the Apollo mechanical tachometer. Same as used on Ferrari 250**

successful in identifying the units and their respective manufacturers. Until now...

Over the last year, the editor has worked with Matt Jones at Re-Originals and Hartmut Mees of Palo Alto Speedometer to uncover the critical specifications of the tachometer and its drive as well as locate a supplier of the angle drive.

News of a supplier came in the form of a short e-mail from Matt Jones, proprietor of Re-Originals: “I located

11 new Apollo tach drives this morning. It is the same as the photo sent to me [of Ron Plescia’s tach drive].

“The supplier has (1) 4 to 1 ratio unit, (8) 2 to 1 units and (11) 1 to 1 units. The length of the brass part that is 16mm in diameter is 31 mm long. They are going to be \$462 each, new plus shipping from Italy. To ship one will cost about \$30. If we all get together and order a few, I suspect the shipping will be less for each.”

*Continued on page 3*

## Gran Turismo

### Editorial Board

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## From the Editor's Desk...



Part of the role I see myself playing for this group is that of “parts procurement” and “vendor relations.” This is because it has been all too common for an owner to strike out on his own, trying to solve problem by finding his own “supplier.” Sometimes, this has worked well. Other times, with less than satisfactory results.

However, when taking into account all Apollo owners, it sure seems that we’ve been “reinventing the wheel” all too often.

So, as I’ve been searching for suppliers of various components for my car, I also look at the potential vendor as the source for that particular part or service for all Apollo owners...sort of an “official” supplier to the Apollo Owners Registry (but without the advertising bragging rights!).

This issue is an example of the effort. The original tachometer drives are long gone, and in fact up to now have not been identifiable! If we have enough interest to get this project moving, then we’ll have a source for replacement drives and tachometer building services as more and more owners attempt to restore their cars.

We’ve already highlighted a number of vendors ready, willing and able to assist Apollo owners with their cars:

- Two engine suppliers
- Original Talbot 300 Jr. Mirrors
- Two suppliers of Italian-make parts & upholstery, etc.
- Coil springs
- Steering wheel restoration and recreation
- Borrani wire wheels
- Replica badges

In future, issues I’ll be discussing other suppliers, including:

- Generator restoration (up to 44 amps output!)
- Suspension rebuild parts
- T-10 transmission rebuilders
- Wiring harnesses (Y&Z)
- Body panels
- Exhaust

Feel free to add to the list by e-mailing me your request at [apolloreistry@yahoo.com](mailto:apolloreistry@yahoo.com).

I would also like your input on events. August is rapidly approaching, and the question remains: Should we continue to participate in the *Concorso Italiano*?

*Bob Northrup*  
No. 1003

## New Dash Knobs Available

Thanks to the ever vigilant Denny Paul, the author was turned on to a web site selling new dash knobs for early Ferraris, which were the same as those used on the Apollo and numerous other low-volume Italian cars.

It is only, however, for the “screw-on” type of switch shaft, such as the headlamp switch.



For more information, the owner Mike Dunn can be reached via e-mail at:

[mike@madeenterprise.com](mailto:mike@madeenterprise.com)  
or contact him by phone at:

510-742-6780.

To see/order, visit:

[www.madenterprise.com](http://www.madenterprise.com)

## Tach Drive Update *continued...*

These tach drives are the same that were used on Ferrari 250 and 330 GT models, and are now being reproduced.

### Ratio is Critical

Hartmut Mees at Palo Alto Speedometer tested the editor's mechanical tachometer and found it has this specification: 2:1, which means one rotation of the tach drive cable going in makes two rotations of the tach needle



**Here's the original Italian-built unit the new piece replaces**

gear. As the who RPM process begins at the crankshaft, goes through the generator, and ultimately the result is the reading on the tachometer, the system relies on the principles of gear reduction to provide for one rotation of the crankshaft that makes two rotations of the tach.

Sound confusing? It can be, but designer Ron Plescia explains the process more logically:

"One rotation of the crank turns the generator two rotations. The generator rotates four times to get the tach cable to rotate once. Soooo, the tach sees two rotations for every rotation of the crank. The tach then does the 'math' and wiggles the



**Detail of brass fitting heat-shrunk into the back of the generator**

big hand to the right place on the dial . . . where it is usually ignored by the lead-foot driver . . . resulting in chaotic engine disassembly!"

While the original Apollo tach drive used a 4:1 ratio, Hartmut Mees at Palo Alto Speedometer can actually modify the tachometers to accommodate a different ratio.

### Modifying the Delco Generator

Up until 1962, Chevrolet Corvettes used a generator-driven tachometer, and had a drive system that attached to



**Here's the Fiat 600 tie rod clamp used to couple the angle drive to the brass fitting**

the back of the Delco Remy generator. These generators had a longer armature shaft that extended about an inch out the back, and included

splines on the end to accommodate a drive gear. These generators were also used on some GM cars in the late 1950s to drive power steering pumps, so the system was very robust.

But by the time the Apollo went into production in 1963, "Chevy had already



**Photo of completed installation; note cable exiting down from angle drive. That'll get hot!**

gone to a distributor tach drive, ending production of the special generator," remembers Milt Brown

"So, I had Reisner (Intermeccanica) make a brass insert that he shipped with the an angle drive unit that was similar to that used on some Jaguar XK120s (1st version). This accepted the Jaeger cable drive for the mechanical tachometer.

"In the States, we installed a standard Delco Remy 36 amp generator used on all GM products at the time. Our modification of the unit to accept the tach drive was very straightforward: we took the back end piece off, cut a slot in the genera-

tor shaft for the angle drive, and reassembled the generator! Jim Berens would head brass insert up in an oven and then press it into the back of the generator plate"

While this may sound like Rube Goldberg, our historian James Taylor has examined the system and concludes "it is really well engineered. And it works."

### The Next Step

With a supplier now identified, we have the ability to supply the tach drive "kit" again. The only questions is: How many are needed? It will take a real commitment to put

this kit together, but with firm orders, we can obtain the tach drive units from Italy, have a machinist make the brass inserts, and get cables built.

If you're interested, contact the editor at [apolloregristry@yahoo.com](mailto:apolloregristry@yahoo.com) or call him at 940-367-8483.

One thing you'll need to do is send your tach to Hartmut (650-323-0243) at Palo Alto Speedo. He'll give it tune up and, if necessary, change the gearing to accommodate your new tach drive!



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# Gran Turismo

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## Monterey Weekend Approaches...

The Concorso Italiano has been our traditional home for years. Because it is less of a concours d'elegance and more of a celebration of Italian motorcars, it has been a natural fit for our Italo-American GT.

However, our treatment by the organizers has remained consistent: almost a lack of recognition and a display location on the

19th hole of the Bayonet Blackhorse golf course.

So, do we continue to support it? Should we establish better relations with the organizers?

Or do we seek another venue. While the latter *sounds* good, we should remember that Pebble Beach is not our cup of tea. And while the Quail event might take one or two Apollos, it would not cater to a "club"



event. What do you think?

loreistry@yahoo.com to voice your opinion.

Contact the editor at apol-

## Parting Shot...

The shortened 1957 Chevy coupe shown in in the Winter edition of the newsletter prompted some to ask if it was real.

Well, it is! And now has a "For Sale" sign on it, asking \$4,000 or best offer.

It's a great example of an owner going too far with his personal vision for a car...taking it from a potential of \$50,000 (one just sold for that) to one worth \$500.

Let that be a lesson to Apollo owners.

