Chronographs as Tools

Timepieces are (*and pretty much always have been*) tools. They tell us the time. They can also help us to determine things such as longitude (*I have had quite a few requests for "re-sends" of our longitude email and will re-release that one in the near future*) speed and other calculations. As an Engineer (*my "real" job*) I have had many occasions to use the "stop-watch" features of a chronograph at work. On top of that, many people really like the "look."

It wasn't all that long ago that a watch was an important tool for people such as pilots. In the early days of cross-country flight, pilotage (*the identification of present position and direction by visual contact with the terrain*) was the mainstay of aerial navigation. Just seeing the ground and recognizing features wasn't always good enough, especially when flying over water. The principles of dead reckoning had to be used. The pilot uses a map or chart, a known position, and must predict a future position. To do this requires accurate measurement of bearings (*the plane's heading*), distance covered and elapsed time. A good watch was invaluable for these calculations.

As the above pictures illustrate, watches as calculators have been with us for a while, so how can they be used? The start, stop, and measure stop-watch functions are pretty straightforward. One begins tracking time at the start of an event, stops tracking when the event ends, and measures the time that has elapsed. I must confess that I sometimes do this on my drive home from the office. I guess it helps to validate my frustration with traffic to have a "hard" number to pin on my commute time.

The tachymetre scale is typically located on the edge of the face of a watch and is used to calculate the average speed of an object traveling a fixed distance. Suppose you want to measure the average speed of a racecar. At the beginning of a measured mile, start the chronograph. When the car passes the end of the measured mile, stop the chronograph. If the hand has moved 30 seconds and is pointing at the 6:00 position, the tachymetre scale should read 120, or 120 miles per hour. If you want to measure something slower, say a sailboat, the scale of distance measured must be reduced. If it took 36 seconds for the

boat to travel 1/10th of a mile, the tachymetre would indicate 100 miles per hour. Of course this number must be divided by 10 giving us the actual speed of 10 miles per hour (*much more realistic for most sailboats*).

Watches equipped with a “slide rule” bezel can also be used to calculate any number of things. The most common type found on a watch is the E6B flight computer bezel. It’s difficult in the limited space of these emails to go into slide rule use with any depth. Suffice to say that distance traveled, fuel consumed and even basic unit of measurement conversions can be performed on this type of watch.

We don’t currently offer a “slide rule” type of watch….. but maybe we should. What do you think? Maybe a Chase-Durer or Citizen model? If there’s enough demand, I will try and get a good deal on a choice or two. Let me know if you are interested.

That’s all for this time, thanks for your feedback on these emails. It is ***your input*** that drives the content of these messages as well as the content and offerings of our websites. Thanks again for your ongoing support.

David Harrington