OMEGA Productive Services, Inc.
2925 Waterview Drive
Rochester Hills, MI 48309
Tel: (248) 299-8950 Fax: (248) 299-5742

SPRING 2005

Editor: Max Carthew Associate Editor: Julie Wallis

Quote of the Month:

"The reward of a thing well done is to have done it."

-Ralph Waldo Emerson

INSIDE THIS ISSUE:	
Dr. Brush	1
Equipment Accuracy & Calibration	2
CURRENT PROJECTS	2
BRAGGING CORNER	3
Mich-Again	3

? Ask Dr. Brush

Contributed by:
Max Carthew
C.E.O.

"Fill 'er Up! The Story of Fifty Years of Motoring"

The Golden Years of Motoring

We have spoken at length here about the early inventors of the Automobile. We have seen the amazing ingenuity and spirit of competition which drove these pioneers to succeed.

Looking back with hindsight, the twenty years which followed the Great Chicago Race of 1895, was to mark The Golden Age of Motoring. This was a time when men and women went off motoring for pleasure. If they returned under their own power this was the occasion for much celebration. Few of those who toiled to make a "horseless carriage" had any ambition to make cars for the public. Their goal was to build a single vehicle for sport or pleasure. Only the relatively wealthy could contemplate such a venture.

In the early days the horse drawn carriage was considerably more economical than the motor vehicle. Frank and Charles Duryea, who were the first to sell practical gasoline powered automobiles in the USA, had planned to build a 250-pound machine for $400. This was at a time when the best horse and buggy in the world could be bought for $200, with hay for a year costing less than $15.

In an interview in 1943, long after the two brothers had parted company, Frank Duryea remarked "My brother and I were just a couple of bicycle mechanics like the Wright Brothers, who hit on something at a time when the world was ready for it."

A final note on the achievements of the Duryea brothers. To spread their fame Frank was sent with his sturdy vehicle to England, the site of the famous 50-mile London to Brighton race (still run to this day). Frank found himself up against the best of the European racers. He had no fear of the German machines since his victory over the Benz in Chicago. However he was apprehensive over the Panhard-Levassor, which had easily won the last two major events in France. He need have had no fear for he won the race with a comfortable margin at a whopping average speed of 12.5 miles per hour!

Editor Max Carthew

Credits: Fill 'er Up by Bellamy Partridge.

Equipment Accuracy and Calibration

As a follow up to a previous article contrasting the terms Accuracy and Precision, we at Omega feel it is important to discuss calibration and repeatability in obtaining field data to be able to achieve accurate and precise measurements.

Calibration is a very important factor in being able to achieve accurate readings. Typically for the average piece of equipment, it is necessary to recalibrate once a year, though some manufacturers recommend more or less frequency. Equipment can become less accurate when it is not serviced regularly, leading to inaccurate field readings due to a machine that is not functioning properly. Unfortunately, equipment calibration can become fairly expensive when large amounts of equipment require yearly calibration. This is not to mention the fact that the equipment can be gone for weeks while it is away being calibrated, leaving the company without reliable field equipment. Omega, as part of our ISO procedure, devised a way to lower the cost and downtime of calibration without compromising accuracy. We use a database and a system of colored tabs to insure the equipment being used is within its specifications and is providing accurate measurements. To do this, each piece of equipment has a copy of its calibration information within its casing; at least one of every type of instrument is calibrated at all times. The database alerts us months in advance of an expiring calibration so we can plan and schedule around it accordingly. Regularly, a miniature spray booth in the office is used to check the calibration of the equipment against each other to insure that each piece is within specification of the most recently calibrated unit. If it is not, it is tagged accordingly and not used until it can be recalibrated. If a unit is within the spec but has an expired calibration, it is tagged and used only as a supplement on jobs requiring more then one piece of that type of equipment.

The second factor in achieving accuracy and precision is repeatability. To be able to achieve precision, it is necessary to be able to repeat the same measurement multiple times. Readings vary greatly depending on the environment surrounding them. Sometimes it is necessary to leave and come back and know you are taking measurements at precisely the same location. As an example, many spray booths use overhead bell style paint applicators that spray downward onto the top of the product. When air travels around these overheads it speeds up as it is pushed around the sides and cascades downward. In this case, the measured value is dependant on whether the reading was taken up above the overhead, down below it, or to the sides. By not repeating the exact measurement, you cannot compare the collected data. A measurement taken at a slightly different location might not take the air that is being deflected around the overhead into account, making the readings inaccurate and misleading.

Having accurate and precise measurements is vital to the service Omega provides. Without this, it would be impossible to accurately calculate energy usage, provide knowledgeable consultation, and adjust booth balance to better improve our customers' process. With the system Omega has in place, we can assure our customers precise and accurate data every time.

Contributed by: Tim Moyer
Kettering Co-op Student

CURRENT PROJECTS

- OMEGA's key focus continues to be assisting our customers to reduce waste in their operations. We have several studies and construction projects ongoing at General Motors manufacturing sites to support their efforts to reduce energy operating costs.
- We have a new project to upgrade the spray booth AIRSPECS® computer system for Ford Motor Company at their Wayne Assembly plant. This computer provides automatic booth air balance control and monitors energy use.
- We are installing several WINDSONIC® low air speed air flow monitoring systems to improve building air balance between Assembly, Paint and Body operations.
- We have a spray booth air flow improvement project for Chrysler at their Warren Truck plant.

BRAGGING CORNER

OMEGA is proud of Kettering co-op student, Derek Decker, when he was placed on the Dean's List last semester. Congratulations Derek on your outstanding scholastic performance!

Bill Ringrose's son Bill recently completed the high school bowling season. He and his team had a successful season. The team won the Oakland county invitational tournament and Bill had the high game (290) and high series (736) of the tournament. Bill finished the season with a 205 average and his team was ranked 1 in the state for class B schools. The team is anticipating another strong season next year when Bill will be a senior.

Annick recently obtained the post of "author-in-residence" at the Rochester/Avon Museum and will begin to give workshops April 13, 2005. A couple of her essays will be published in "Strut," a magazine for women. She has also gathered an all-women team of writers and actresses to help her build a wooden canoe at the museum in July. It should be very interesting since none of them have used tools before, but she is looking forward to the challenge.

Jeff & Julie Wallis' daughter Susan was married to Seth Hefner on December 4th. Susan recently received a promotion at the hospital where she works and Seth works as an electrician while attending school.

Mich-Again

The Soo Locks

In the middle of March, the Soo locks were officially reopened to navigation; not before a thick layer of ice was broken to let the first ship go through.

The world-famous locks in Sault Ste. Mary have tamed the rapids of the Marys River, the only body of water linking Lake Superior to the other Great Lakes. Before their construction, and way before the present town was established, Ojibway Indians used to portage their canoes around the rapids between Lake Superior and the Marys River. As more and more settlers, fur traders and voyageurs came to what was then called the Northwest Territory, it became necessary to think of a better way to travel to and fro without unloading cargoes and carrying vessels and goods over bent backs.

In 1797 (Detroit was founded in 1701), the Northwest Fur Company built a navigation lock 38 feet long on the Canadian side of the river. It was put out of commission during the war of 1812 and everyone had to portage around the falls again until Congress passed an act in 1852 granting over 700, 000 miles of public land to the State of Michigan to allow the Fairbanks Scale Company to undertake the construction of better and larger locks.

The project was completed after many challenges and the new locks officially opened in 1855 with pomp and ceremony. It comprised a system of two locks in tandem, each 350 feet long. Boats passing through paid a four cent per ton toll. In spite of heavy traffic, the locks did not cover their running cost and were transferred to the United States government and placed under the jurisdiction of the U.S. Army Corps of Engineers. The Corps has operated them ever since – toll free.

The present day complex consists of four locks large and deep enough to allow ships with 72,000 tons of freight to pass through, and an average of 10,000 vessels of all sizes use the facilities.

Contributed By: Annick Hivert-Carthew

OMEGA Productive Services, Inc.
MISSION STATEMENT

TO PROVIDE PAINT SYSTEM – PROCESS IMPROVEMENT SERVICES THROUGH CONTINUAL IMPROVEMENTS OF OUR QUALITY MANAGEMENT SYSTEM, TO ENHANCE OUR CUSTOMERS' SATISFACTION OF SERVICES PROVIDED; ON TIME, ON BUDGET, EVERY TIME.

OMEGA Productive Services, Inc.
2925 Waterview Drive
Rochester Hills, Michigan 48309

You may choose to be placed on our email list to receive our newsletter in PDF format, or wish to have your address updated or removed from this mailing list. If you have any changes, please notify us by e-mail to: jwallis@omegapro.com

Four Little Foxes

Speak gently, Spring, and make no sudden sound;
For in my windy valley, yesterday I found
New-born foxes squirming on the ground – Speak gently.

Walk softly, March, forbear the bitter blow;
Her feet within a trap, her blood upon the snow,
The four little foxes saw their mother go – Walk softly.

Go lightly, Spring, oh, give them no alarm;
When I covered them with boughs to shelter them from harm,
The think blue foxes suckled at my arm – Go lightly.

Step softly, March, with your rampant hurricane;
Nuzzling one another, and whimpering with pain,
The new little foxes are shivering in the rain – Step softly.

-Lew Sarett